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PRICE LIST

Effective : 6th June 2018



BCH ELECTRIC LIMITED



Modern facilities at Faridabad & Rudrapur



BCH ELECTRIC LIMITED

Our Strengths:

- ◆ State-of-the-art product development and R&D
- ◆ Modern manufacturing facilities
- ◆ Tool room with latest facilities
- ◆ Serving customers for five decades
- ◆ Presence in ~50 locations
- ◆ 650 channel partners
- ◆ ISO 14001:2015 and ISO 9001:2015 certified company

Core Values:

- ◆ Integrity
- ◆ Nurturing People
- ◆ Commitment to Customers
- ◆ Striving for Excellence
- ◆ Long Term Thinking



Quality Policy

We are committed to provide products and services meeting or exceeding customers needs and expectations.

Continual improvement and learning aimed at customer satisfaction through involvement of people shall be the guiding principle.

Health & Safety Policy

It is our policy to comply with applicable statutory and regulatory requirements related to health and safety.

We shall endeavor to achieve this by providing safe working conditions and promoting awareness through training.

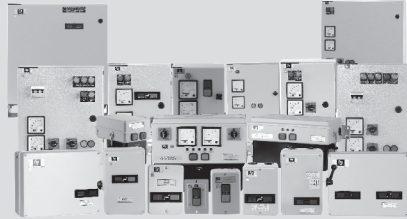


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Our Products



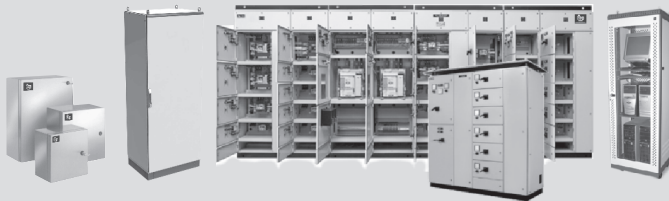
Switchgear & Controlgear



**Motor Starters &
Submersible Pump Starters**



MCB & MCB Distribution Boxes



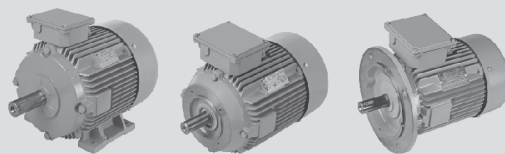
Enclosure Systems



Wires & Cables



Power Factor Control Product



Motors



Automation Product



**Motor Control Centres (MCCs),
Power Control Centres (PCCs) &
Custom Built Products**

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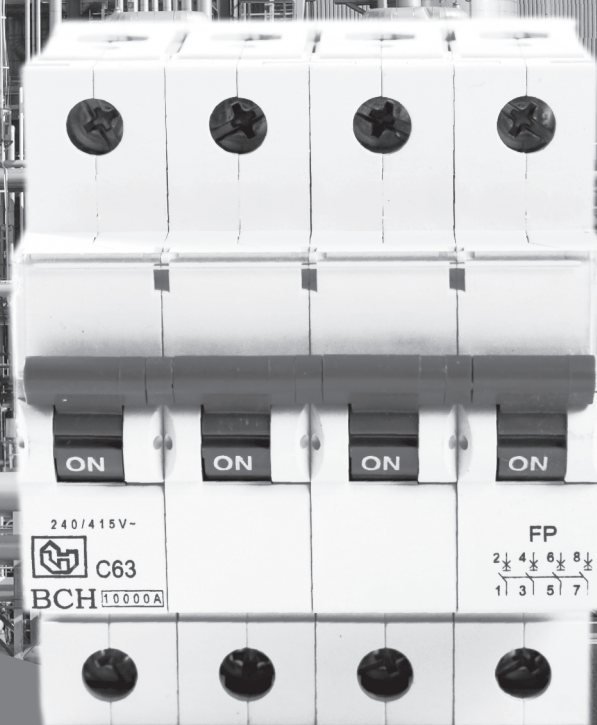
Tough Rugged & Reliable

Miniature Circuit Breaker

- Line load interchangeability
- Suitable for isolation
- Suitable for IT systems
- Current limiting design
- 45mm panel cutout, suitable for standard MCB distribution boards
- Possibility of bus bar termination at both ends



BCH ELECTRIC LIMITED



Corporate Office : 1105, New Delhi House, 27, Barakhamba Road, New Delhi - 110 001 Tel. : 91-11-23316029/3610/6539/43673100 Fax : 91-11-23715247

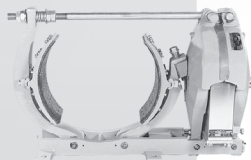
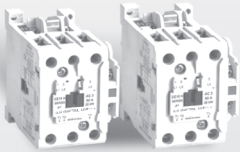
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Registered Office : Block 1E, 216, Acharya Jagadish Chandra Bose Road, Kolkata - 700 017

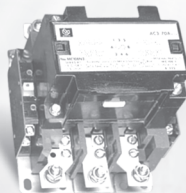
Works 1 : 20/4, Mathura Road, Faridabad - 121 006 (Haryana) Tel. : 0129-4063000/4293000 Fax : 0129-2304024

Works 2 : 64-68, Sector-7, IIE, Pant Nagar, Rudrapur, Udham Singh Nagar - 263 153 (Uttarakhand) Tel. : 05944-250214/16 Fax : 05944-250215

Low Voltage Switch Gear & Control Gear Products



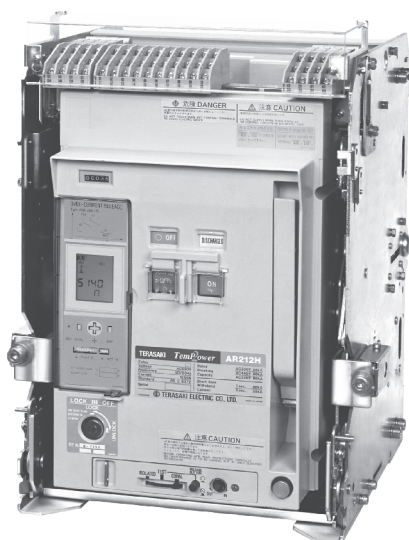
- Air Circuit Breakers
- MCCBs
 - Resilient, Tembreak 2
- MCB, Isolator, MCB Distribution Boxes **New**
- FSU, SDFU
- AC Contactors
- DC Contactors
- Solid State Relays
- Overload Relays
- Vacuum Contactors **New**
- Electronic Overcurrent Relays (BOCR)
- Motor Protection Circuit Breakers (MPCB)
- Limit Switches
- Push Buttons, Indicating Lights, LEDs
- Foot Switches
- AC Solenoids & Brakes
- DC Brakes
- Plugs & Sockets
- Plug & Socket Boxes
- Rewireable Fuse Switches
- Pneumatic Timers
- Motor Starters
 - DOL
 - Mini Manual
 - Star Delta
 - Spares-Motor Starters & Supmersible Pump Starters
- Submersible Pump Starters
 - Three Phase (DOL and Star Delta)
 - Single Phase
- Oil Immersed Starters



Air Circuit Breakers.....BCH

TemPower - 2 Range of Air Circuit Breakers

HSN Code : 8536



@ ACBs with higher breaking capacity and higher current ratings are also available On Request
MF: Manual Fixed Breaker, EF: Electrical Fixed Breaker
MDO : Manual Draw out, EDO : Electrical Draw out

Releases

TemPower2 provides positive protection for electric power systems.

The TemPower2 Series is equipped with an RMS sensing over-current release (OCR) having a wide range of protection function and capabilities.

Frame	Current rating (A)	Poles	Breaking capacity (Icu=Ics=Icw for 1 sec)	MRP [₹]			
				Fixed Breaker		Draw out breaker	
				MF	EF	MDO	EDO
AR208S	800A	3 4	65kA	On request			
AR212S	1250A	3 4	65kA				
AR216S	1600A	3 4	65kA				
AR220S	2000A	3 4	65kA				
AR325S	2500A	3 4	85kA				
AR332S	3200A	3 4	85kA				
AR440S	4000A	3 4	100kA				
AR650S	5000A	3 4	100kA				
AR663S	6300A	3 4	100kA				

*Standard MRP, means a standard breaker with

A) Auxiliary Switch (4 change over)

B) Closing coil (In case of Motorised ACBs)

C) 1 No Draw out handle (in case of draw out ACB)

D) Terminations are standard as per : Horizontal : Upto (AR216S)

Vertical : (AR220S, AR325S, AR332S, AR440S, AR650S and AR663S)

E) Calibration : 40° C

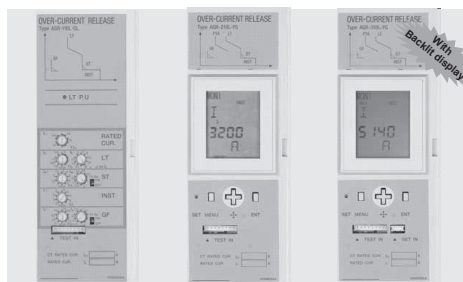
F) Neutral CT is required to be ordered when Ground Fault option is required in the release

(example AGR11BL-GL)

Note : Above price is with over current release (OCR) Type AGR-11BL-AL

with standard Functions LSI

Long Time (L), Short Time (S) and Instantaneous (I)



Standard OCR with adjustment dial Type AGR-11B.

Standard OCR with LCD-'Ammeter' Type AGR-21B, 22B.

Enhanced OCR with LCD-'Analyser' Type AGR-31B.

- For General Feeder circuits (L Characteristics)
- For General Feeder circuits (R Characteristics)
- For Generator protection (S Characteristics)

Protection features

Standard

- Long time delay
- Short time delay
- Instantaneous
- Optional
- Ground fault
- Reverse Power trip

- N-phase protection
- Earth leakage
- Two channel pre trip
- Advance LCD display
- Contact temperature monitoring
- Communication protocol
- Phase rotation protection

For prices contact our nearest sales office.

Please note that the price of the ACBs mentioned above is only indicative,

to get an actual quote please fill in the ACB Ordering form provided overleaf **HSN Code : 8538**

Over current releases (OCR)	Functions	MRP [₹]
AGR-11BL-GL	LSIG*	On Request
AGR-21BL-PS	LSI with LCD display	On Request
AGR-21BL-PG	LSIG with LCD & Communication	On Request
AGR-31BL-PS	LSI with LCD display with energy metering, earth leakage and PTA	On Request
AGR-31BL-PG	LSIG with LCD display with energy metering, earth leakage and PTA	On Request
AGR-21BR-PS	LSI with LCD display with current metering and PTA	On Request
AGR-21BR-PG	LSIG with LCD display with current metering and PTA	On Request

* When using a 3 Pole ACB in a 3 phase 4 wire system, additional Neutral CT is required for OCR type AGR-11BL-GL

All accessories and spares like SHUNT, CLOSING, UNDER VOLTAGE release, castle lock, safety shutter, door interlock, motor charging units, etc. are available on request

* For more details refer product catalogue



BCH ELECTRIC LIMITED

TEMPOWER -2 ACB ORDERING FORM

For general feeder circuits (L/R-characteristic)

Please check boxes and fill in underlined spaces appropriate.

Your company name :

Order Number :

Quantity :

PCS

Delivery required :

/ /

Specification Summary :

1 Type	P14, 15	☐ AR208S ☐ AR212S ☐ AR216S ☐ AR220S ☐ AR325S ☐ AR332S ☐ AR440S ☐ AR212H ☐ AR216H ☐ AR220H ☐ AR316H ☐ AR320H ☐ AR325H ☐ AR332H
2 Number of poles	☐ 3-pole ☐ 4-pole For the requestment of 2-pole type, specify 3-pole type and use 2 poles on both sides .	AC _____ V _____ Hz DC _____ V ☐ 3Ø3W ☐ 3Ø4W
3 Circuit voltage and frequency	Applicable standard _____ IEC for marine: rule, for industrial: IEC ☐ 40°C ☐ 45°C for marine: 45, for industrial: 40	☐ Fixed type
4 Applicable standard and ambient temperature	☐ Draw-out type ☐ Draw-out handle _____ pcs ☐ Mal-insertion prevention device P18 ☐ Draw-out storage handle _____ pcs⁻¹ Code _____ pcs, Code _____ pcs P18 ☐ Main circuit safety shutter ☐ Position switches type ALR- _____ P P19 P18 ☐ Padlocking unit (for shutter) ☐ Door interlock P19 P18 ☐ Control circuit safety shutter ☐ Lifting plates P43 P18 ☐ Test jumper (lead wire 5m) _____ sets ☐ Earthing device P44 P18 ☐ Breaker fixing bolts ☐ Inter-pole barrier P44	Line side (Top) : ☐ Horizontal terminals ☐ Vertical terminals ☐ Front connections P17 Load side (Bottom): ☐ Horizontal terminals ☐ Vertical terminals ☐ Front connections
6 Type of spring charged operation	☐ Manual charging P20 ☐ Motor charging Supply voltage AC _____ V DC _____ V P21 ☐ Step-down transformer _____ sets ☐ 450/220V ☐ 380/22V P21	Automatic closing spring release P22 Spring charge indicator P22
7 Over-current release (OCR)	P25 - 37	(1) OCR type _____ - _____ - _____ ☐ No-request OCR P30,31 N : N-phase protection (2) Rated primary current I_{CT} z _____ A P33 (3) Rated current I_N z _____ A P33 (4) ☐ TERASAKI STANDARD (5) ☐ I_{R} z _____ A (I_N X _____ %) t_R z _____ s at 600% I_R for L-char. P32 (6) ☐ I_{sd} z _____ A (I_N X _____ %) t_{sd} z _____ ms P32 (7) ☐ INST I_{ij} z _____ A (I_N X _____ %)⁻² P32 (8) ☐ I_{ij} z _____ A (I_{CT} X _____ %) t_{ij} z _____ ms ☐ CT for neutral line P32 (9) ☐ I_{N} z _____ A (I_{CT} X _____ %) (Factory set to a fixed value)
8 Electrical tripping devices	P23, 24	☐ Shunt trip device AC _____ V, DC _____ V P23 ☐ Capacitor trip device P23 ☐ Fixed type Undervoltage Trip AC _____ V, DC _____ V⁻² ☐ AUR-1CS ☐ AUR-1CD P24
9 Other accessories	P40 P40 P41 P41 P42	☐ ON-OFF cycle counter ☐ Control circuit terminal cover P43 ☐ Auxiliary switches type AXR- _____ ☐ IP55 cover P44 ☐ Key lock (☐ Lock-in OFF ☐ Lock-in ON) ☐ OFF padlock P44 ☐ Key interlock (☐ Cylinder lock ☐ Castell lock) (Castell lock not supplied) ☐ Mechanical interlock (Cotact TERASAKI for details) ☐ Door flange (☐ IP20 ☐ IP31) P43 ☐ Horizontal ☐ Vertical ☐ Trip indicator P28 P₁ : _____ mm P₂ : _____ mm ACB ① : Type _____ poles ACB ② : Type _____ poles ACB ③ : Type _____ poles
1 Special environment specification	P45	☐ Not required ☐ Tropicalization (fungus and moisture treatment) ☐ Cold climate treatment ☐ Anti-corrosion treatment P45
1 Spare parts	P45	☐ Not required ☐ Required (Contact TERASAKI for recommended spare parts)
1 Documents	P45	☐ Test Report English _____ copies ☐ Approval Drawing English _____ copies ☐ Instruction Manual English _____ copies ☐ Finish Drawing English _____ copies
1 Other	P18, 38	☐ Not required ☐ Lifetr P18 ☐ OCR checker with AC100-110V power supply P38 ☐ OCR checker with AC100-240V power supply + Type C plug P38

*1 : One handle come standard with every five ACB's. Specify the number of additional handles if needed.

*2 : Fixed type Undervoltage Trip can not be fitted with shunt trip device. However, Instantaneously rated shunt trip can be used together with fixed type undervoltage trip (except DC rating) with special specification. Contact terasaki for details.

Reilient MCCB..... BCH

HSN Code : 8536

Frame 1

- High Performance Compact Size
- Suitability for Isolation
- Tested and rated for 50° C ambient condition
- Line Load Interchangeability
- Double Insulation
- Thermal Magnetic Trip unit



Frame -1 :
 $I_{cu}/I_{cs} = 10 / 7.5 \text{ kA}$



Frame -1 :
 $I_{cu}/I_{cs} = 15/15, 25/25, 30 /15, 36/18 \text{ kA}$

I_{cu}	Frame	Rated Current	Overload Setting	Cat. No.	MRP [₹]
10kA @	F1*	100	Fixed	XFE100G#	1795
		80		XFE080G#	1795
		63		XFE063G	1650
		50		XFE050G	1650
		40		XFE040G	1650
		32		XFE032G	1650
		25		XFE025G	1650
		20		XFE020G	1650
		16		XFE016G	1650
15kA ~	F1**	100	Fixed	XFN100P#	3475
		80		XFN080P#	3475
		63		XFN063P	3475
		50		XFN050P	3475
		40		XFN040P	3475
		32		XFN032P	3475
		25		XFN025P	3475
		20		XFN020P	3475
		16		XFN016P	3475
25kA ~	F1**	100	Adjustable	XFS100PV#	5300
		80		XFS080PV#	5300
		63		XFS063PV	5300
		50		XFS050PV	5300
		40		XFS040PV	5300
		32		XFS032PV	5300
		25		XFS025PV	5300
		20		XFS020PV	5300
		16		XFS016PV	5300
30kA ^	F1**	100	Adjustable	XFH100NV#	4255
		80		XFH080NV#	4255
		63		XFH063NV	4255
		50		XFH050NV	4255
		40		XFH040NV	4255
		32		XFH032NV	4255
		25		XFH025NV	4255
		20		XFH020NV	4255
		16		XFH016NV	4255
36kA ^	F1**	100	Adjustable	XFL100NV#	4685
		80		XFL080NV#	4685
		63		XFL063NV	4685
		50		XFL050NV	4685
		40		XFL040NV	4685
		32		XFL032NV	4685
		25		XFL025NV	4685
		20		XFL020NV	4685
		16		XFL016NV	4685

* With RAL-7035 (Light Grey) front Facia
** With RAL-7016 (Dark Grey) front Facia

~ means $I_{cs} = 100\% I_{cu}$
@ means $I_{cs} = 75\% I_{cu}$
^ means $I_{cs} = 50\% I_{cu}$

Spreader Link available as standard (for MCCB without spreader, please contact our sales team)

All above MCCBs have fixed (non adjustable) Magnetic setting

MCCBs with different I_{cu}/I_{cs} combination can be made available On Request

All needed accessories are mentioned on page no 6
(Extended terminals for all ratings is also available as accessory)

* For more details refer product catalogue

Reilient MCCB..... BCH



Frame -1 :
 $I_{cu}/I_{cs} = 50/25, 50/50 \text{ kA}$

Frame 1

HSN Code : 8536

I_{cu}	Frame	Rated Current	Overload Setting	Cat No.	MRP [₹]
50kA ^	F1**	100	Adjustable	XFV100NV#	8290
		80		XFV080NV#	8290
		63		XFV063NV	8290
		50		XFV050NV	8290
		40		XFV040NV	8290
		32		XFV032NV	8290
		25		XFV025NV	8290
		20		XFV020NV	8290
		16		XFV016NV	8290
50kA ~	F1**	100	Adjustable	XFV100PV#	8550
		80		XFV080PV#	8550
		63		XFV063PV	8550
		50		XFV050PV	8550
		40		XFV040PV	8550
		32		XFV032PV	8550



** With RAL-7016 (Dark Grey) front Facia

Frame 2

- High Performance Compact Size
- Suitability for Isolation
- Rated at 50° C
- Line Load Interchangeability
- Double Insulation
- Thermal Magnetic Trip unit

HSN Code : 8536



Frame -2 :
 $I_{cu}/I_{cs} = 25/25, 36/18, 36/27, 36/36, 50/25, 50/50 \text{ kA}$

I_{cu}	Frame	Rated Current	Overload Setting	Cat No.	MRP [₹]
25kA ~	F2	250	Adjustable	XF2E250PV#	16560
		200		XF2E200PV#	11400
		160		XF2E160PV	9130
		125		XF2E125PV	7290
36kA ^	F2	250	Adjustable	XF2N250NV#	11785
		200		XF2N200NV#	10430
		160		XF2N160NV	7825
		125		XF2N125NV	6955
36kA @	F2	250	Adjustable	XF2N250GV#	17580
		200		XF2N200GV#	16230
		160		XF2N160GV	11590
		125		XF2N125GV	9085
36kA ~	F2	250	Adjustable	XF2N250PV#	17870
		200		XF2N200PV#	16420
		160		XF2N160PV	11785
		125		XF2N125PV	9615
50kA ^	F2	250	Adjustable	XF2H250NV#	18260
		200		XF2H200NV#	17100
		160		XF2H160NV	12465
		125		XF2H125NV	9855
50kA ~	F2	250	Adjustable	XF2H250PV#	20770
		200		XF2H200PV#	18885
		160		XF2H160PV	14730
		125		XF2H125PV	12170

Complete range RAL-7016 (Dark Grey) front Facia

Spreader Link available as standard (for MCCB without spreader, please contact our sales team)

All above MCCBs have fixed (non adjustable) Magnetic setting

MCCBs with different I_{cu} / I_{cs} combination can be made available On Request

For MCCBs with 'Magnetic only' protection, prices available On Request.

All needed accessories are mentioned on page no 6

(Extended terminals for all ratings is also available as accessory)

~ means $I_{cs} = 100\% I_{cu}$

@ means $I_{cs} = 75\% I_{cu}$

^ means $I_{cs} = 50\% I_{cu}$

* For more details refer product catalogue

Reilient MCCB.....BCH



Frame -3 :
 $I_{cu}/I_{cs} = 36/36, 50/50 \text{ kA}$
 (Spreader terminal available by default)

Spreader Link available as standard (for MCCB without spreader, please contact our sales team)
 MCCBs with different I_{cu} / I_{cs} combination can be made available On Request
 For MCCBs with 'Magnetic only' protection, prices available On Request.



Frame 3

- High Performance Compact Size
- Suitability for Isolation
- Rated at 50° C
- Line Load Interchangeability
- Double Insulation
- Thermal Magnetic Trip Unit (TMTU)
 - Overload Setting: 0.8-1.0 In
 - Short Circuit Setting: 6-10 In

HSN Code : 8536

I_{cu}	Frame	Rated Current	Overload Setting	Cat. No.	MRP [₹]
36kA ~	F3	630	Adjustable	XF3N630PV	27920
		500		XF3N500PV	26080
		400		XF3N400PV	24540
		320		XF3N320PV	23380
50kA ~	F3	630	Adjustable	XF3H630PV	30225
		500		XF3H500PV	29315
		400		XF3H400PV	25990
		320		XF3H320PV	24635

~ means $I_{cs} = 100\% I_{cu}$

• Electronic Trip Unit (ETU)-LSIG

- Overload Setting: 0.4-1.0 In
- Short Circuit Delay: 50-500 ms
- Short Circuit Setting: 1.5-10 In
- Earth Fault Delay: 50-500 ms
- Earth Fault Setting: 0.2-0.55 In
- Pre Trip Alarm Indication
- Instantaneous Setting: 12 In

HSN Code : 8536

I _{cu}	Frame	Rated Current	Overload Setting	Cat No.	MRP [₹]
36kA ~	F3	630	Adjustable	XF3N630PE-LSIG	40090
		400		XF3N400PE-LSIG	34775
630		XF3H630PE-LSIG		42505	
400		XF3H400PE-LSIG		37190	

~ means $I_{cs} = 100\% I_{cu}$

ACCESSORIES FOR Reilient RANGE OF MCCBs

HSN Code : 8538

Type	Product	Rating	Cat No.	List Price [₹]
Internal Accessories	Shunt Release	220V - 415V F1	XFST220V	1080
		220V - 415V F2	XF2SHT220V	1080
		220V - 415V F3	XF3SHT220V	1800
	Under Voltage Release	240V F1	XFUV240VA	1430
		240V F2	XF2UV240VA	1450
		240V F3	XF3UV240VA	2250
		415V F1	XFUV415VA	1650
		415V F2	XF2UV415VA	1650
		415V F3	XF3UV415VA	2250
	Auxiliary Contacts	1 C/O + 1 C/O	XFALAX11	1180
		2 C/O	XFAX2	1180

HSN Code : 8538

Type	Product	Rating	Cat No.	List Price [₹]
External Accessories	Din Rail	F1	F1DIN	160
		F2	F2ROHE	1455
		F3	F3ROHE	1505
	Extended Rotary Handle	F1	F1ROHE	1455
		F2	F2ROHE	1505
		F3	F3ROHE	3150
	Extended Terminals	F1	ACMF1TP100	295
		F2	ACMF2TP250	1080
	Phase Barriers	F1	F1PB	60
		F2	F2PB	155
		F3	F3PB	185

HSN Code : 8536

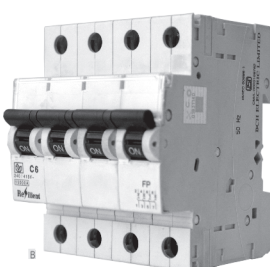
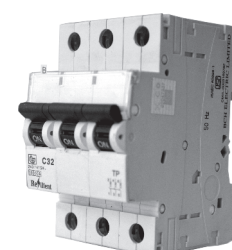
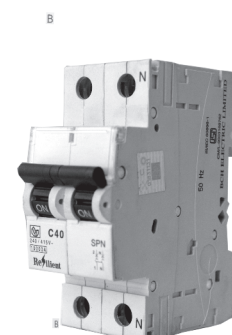
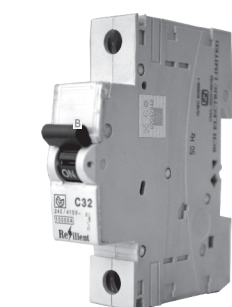
Type	Product	Rating	Cat No.	List Price [₹]
External Accessories	MCCB Enclosure	F1	F1EU3P	720
		F2	F2EU3P	1420

* For more details refer product catalogue

Effective from 06.06.2018

HSN Code : 8536

- Line load interchangeability
- Suitable for isolation
- Suitable for IT systems
- Current limiting design
- Possibility of bus bar termination at both ends
- 45mm panel cutout, suitable for standard MCB distribution boards



Pole	Standard pack of	Rating	B Curve Cat. No.	MRP (per unit) [₹]	C Curve Cat. No.	MRP (per unit) [₹]
1P	12 units	6A	BCHX10SPB06	196	BCHX10SPC06	204
		10A	BCHX10SPB10	196	BCHX10SPC10	204
		16A	BCHX10SPB16	196	BCHX10SPC16	204
		20A	BCHX10SPB20	196	BCHX10SPC20	204
		25A	BCHX10SPB25	196	BCHX10SPC25	204
		32A	BCHX10SPB32	196	BCHX10SPC32	204
		40A	BCHX10SPB40	435	BCHX10SPC40	460
		50A	BCHX10SPB50	450	BCHX10SPC50	475
		63A	BCHX10SPB63	450	BCHX10SPC63	475
1P + N	6 units	6A	BCHX10SNB06	575	BCHX10SNC06	635
		10A	BCHX10SNB10	575	BCHX10SNC10	635
		16A	BCHX10SNB16	575	BCHX10SNC16	635
		20A	BCHX10SNB20	575	BCHX10SNC20	635
		25A	BCHX10SNB25	575	BCHX10SNC25	635
		32A	BCHX10SNB32	575	BCHX10SNC32	635
		40A	BCHX10SNB40	780	BCHX10SNC40	825
		50A	BCHX10SNB50	800	BCHX10SNC50	850
		63A	BCHX10SNB63	800	BCHX10SNC63	850
2P	6 units	6A	BCHX10DPB06	630	BCHX10DPC06	655
		10A	BCHX10DPB10	630	BCHX10DPC10	655
		16A	BCHX10DPB16	630	BCHX10DPC16	655
		20A	BCHX10DPB20	630	BCHX10DPC20	655
		25A	BCHX10DPB25	630	BCHX10DPC25	655
		32A	BCHX10DPB32	630	BCHX10DPC32	655
		40A	BCHX10DPB40	965	BCHX10DPC40	990
		50A	BCHX10DPB50	985	BCHX10DPC50	1015
		63A	BCHX10DPB63	985	BCHX10DPC63	1015
3P	4 units	6A	BCHX10TPB06	990	BCHX10TPC06	1025
		10A	BCHX10TPB10	990	BCHX10TPC10	1025
		16A	BCHX10TPB16	990	BCHX10TPC16	1025
		20A	BCHX10TPB20	990	BCHX10TPC20	1025
		25A	BCHX10TPB25	990	BCHX10TPC25	1025
		32A	BCHX10TPB32	990	BCHX10TPC32	1025
		40A	BCHX10TPB40	1460	BCHX10TPC40	1485
		50A	BCHX10TPB50	1495	BCHX10TPC50	1530
		63A	BCHX10TPB63	1495	BCHX10TPC63	1530
3P + N	3 units	6A	BCHX10TNB06	1240	BCHX10TNC06	1275
		10A	BCHX10TNB10	1240	BCHX10TNC10	1275
		16A	BCHX10TNB16	1240	BCHX10TNC16	1275
		20A	BCHX10TNB20	1240	BCHX10TNC20	1275
		25A	BCHX10TNB25	1240	BCHX10TNC25	1275
		32A	BCHX10TNB32	1240	BCHX10TNC32	1275
		40A	BCHX10TNB40	1665	BCHX10TNC40	1725
		50A	BCHX10TNB50	1705	BCHX10TNC50	1775
		63A	BCHX10TNB63	1705	BCHX10TNC63	1775
4P	3 units	6A	BCHX10FPB06	1405	BCHX10FPC06	1435
		10A	BCHX10FPB10	1405	BCHX10FPC10	1435
		16A	BCHX10FPB16	1405	BCHX10FPC16	1435
		20A	BCHX10FPB20	1405	BCHX10FPC20	1435
		25A	BCHX10FPB25	1405	BCHX10FPC25	1435
		32A	BCHX10FPB32	1405	BCHX10FPC32	1435
		40A	BCHX10FPB40	1965	BCHX10FPC40	2010
		50A	BCHX10FPB50	2010	BCHX10FPC50	2065
		63A	BCHX10FPB63	2010	BCHX10FPC63	2065

ISOLATORS

BCH



HSN Code : 8536

Poles	Standard Pack of	Rating	Cat. No.	MRP (per unit) [₹]
2P	6 units	40A	BCHISODP40	415
	6 units	63A	BCHISODP63	515
3P	4 units	40A	BCHISOTP40	780
	4 units	63A	BCHISOTP63	870
4P	3 units	40A	BCHISOF40	900
	3 units	63A	BCHISOF63	990

MCB DISTRIBUTION BOXES



HSN Code : 8537

Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, SINGLE DOOR, SPN DB	BCHSPNSD04W	4	700
6 WAY, SINGLE DOOR, SPN DB	BCHSPNSD06W	6	720
8 WAY, SINGLE DOOR, SPN DB	BCHSPNSD08W	8	885
12 WAY, SINGLE DOOR, SPN DB	BCHSPNSD12W	12	1160
16 WAY, SINGLE DOOR, SPN DB	BCHSPNSD16W	16	1488

HSN Code : 8537

Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, DOUBLE DOOR, SPN DB	BCHSPNDD04W	4	1178
6 WAY, DOUBLE DOOR, SPN DB	BCHSPNDD06W	6	1250
8 WAY, DOUBLE DOOR, SPN DB	BCHSPNDD08W	8	1440
12 WAY, DOUBLE DOOR, SPN DB	BCHSPNDD12W	12	1908
16 WAY, DOUBLE DOOR, SPN DB	BCHSPNDD16W	16	2442

HSN Code : 8537

Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, SINGLE DOOR, HORIZONTAL TPN DB	BCHHTPNSD04W	8+12	2270
6 WAY, SINGLE DOOR, HORIZONTAL TPN DB	BCHHTPNSD06W	8+18	2725
8 WAY, SINGLE DOOR, HORIZONTAL TPN DB	BCHHTPNSD08W	8+24	2988
12 WAY, SINGLE DOOR, HORIZONTAL TPN DB	BCHHTPNSD12W	8+36	3983

HSN Code : 8537

Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, DOUBLE DOOR, HORIZONTAL TPN DB	BCHHTPNDD04W	8+12	3074
6 WAY, DOUBLE DOOR, HORIZONTAL TPN DB	BCHHTPNDD06W	8+18	3834
8 WAY, DOUBLE DOOR, HORIZONTAL TPN DB	BCHHTPNDD08W	8+24	4758
12 WAY, DOUBLE DOOR, HORIZONTAL TPN DB	BCHHTPNDD12W	8+36	6817



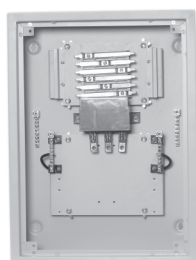
MCB DISTRIBUTION BOXES BCH

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, DD, MCB I/C, VERTICAL TPN DB	BCHVTPNDD04W-A	8+12	6370
6 WAY, DD, MCB I/C, VERTICAL TPN DB	BCHVTPNDD06W-A	8+18	7540
8 WAY, DD, MCB I/C, VERTICAL TPN DB	BCHVTPNDD08W-A	8+24	8770
12 WAY, DD, MCB I/C, VERTICAL TPN DB	BCHVTPNDD12W-A	8+36	11200

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, DD, 125A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD04W-B		9280
8 WAY, DD, 125A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD08W-B		11450
12 WAY, DD, 125A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD12W-B		13280
4 WAY, DD, 250A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD04W-C		10360
8 WAY, DD, 250A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD08W-C		12750
12 WAY, DD, 250A, MCCB I/C, VERTICAL TPN DB	BCHVTPNDD12W-C		14900

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, DD, 7 SEGMENT PHASE SEGREGATED DB	BCHPHSGDD04W	8+12+12	10390
6 WAY, DD, 7 SEGMENT PHASE SEGREGATED DB	BCHPHSGDD06W	8+12+18	11710
8 WAY, DD, 7 SEGMENT PHASE SEGREGATED DB	BCHPHSGDD08W	8+12+24	13075
12 WAY, DD, 7 SEGMENT PHASE SEGREGATED DB	BCHPHSGDD12W	8+12+36	16618

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
4 WAY, 40A, DD, PHASE SELECTOR DB	BCHPHSLDD04W-40		13280
6 WAY, 40A, DD, PHASE SELECTOR DB	BCHPHSLDD06W-40		13335
8 WAY, 40A, DD, PHASE SELECTOR DB	BCHPHSLDD08W-40		15165
12 WAY, 40A, DD, PHASE SELECTOR DB	BCHPHSLDD12W-40		16315
4 WAY, 63A, DD, PHASE SELECTOR DB	BCHPHSLDD04W-63		13266
6 WAY, 63A, DD, PHASE SELECTOR DB	BCHPHSLDD06W-63		13573
8 WAY, 63A, DD, PHASE SELECTOR DB	BCHPHSLDD08W-63		14973
12 WAY, 63A, DD, PHASE SELECTOR DB	BCHPHSLDD12W-63		16590

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
2 ROW, 13 MODULE, DD, ROW DB	BCHROWDB2R13	13	4815
3 ROW, 13 MODULE, DD, ROW DB	BCHROWDB3R13	13	5675
4 ROW, 13 MODULE, DD, ROW DB	BCHROWDB4R13	13	6276

HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
SPN-10A, P&S DB	BCHPSDBSPN10		962
SPN-20A, P&S DB	BCHPSDBSPN20		962
TPN-20A, P&S DB	BCHPSDBTPN20		2694
TPN-30A, P&S DB	BCHPSDBTPN30		2694

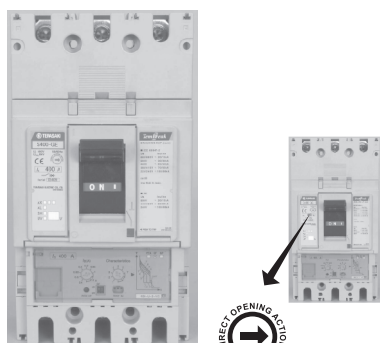
HSN Code : 8537



Description	Cat. No.	No. of Modules (Incoming + Outgoing)	MRP [₹]
SP, ONE WAY MCB DB	BCHOWMCBDBSP		364
DP, ONE WAY MCB DB	BCHOWMCBDBDP		364
TP, ONE WAY MCB DB	BCHOWMCBDBTP		420
FP, ONE WAY MCB DB	BCHOWMCBDBFP		420

TemBreak² MCCB BCH

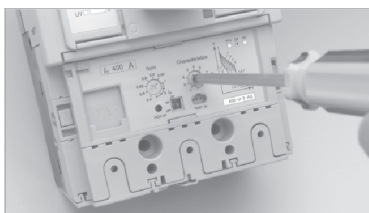
Total Protection Complete Control



TemBreak



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Tembreak 2 MCCB with 10kA* breaking capacity

HSN Code : 8536

Frame	Pole	Current (A)	Type	Code	Cat. No.	MRP [₹]
E100SF	3	10-40	Fix-Thermal	■	XT2E100SF3F■U0	4850
	3	50-75	Fix-Thermal	■	XT2E100SF3F■U0	4850
	3	100	Fix-Thermal	A0	XT2E100SF3FA0U0	5100

* Ics = 50%

Tembreak 2 MCCB with 25kA* breaking capacity

HSN Code : 8536

Frame	Pole	Current (A)	Type	Code	Cat. No.	MRP [₹]
S160SCF	3	15-40	Fix-Thermal	■	XT2S160SCF3F■U0	5545
	4		Fix-Thermal	■	XT2S160SCF4F■U0	7760
	3	50-75	Fix-Thermal	■	XT2S160SCF3F■U0	5545
	4		Fix-Thermal	■	XT2S160SCF4F■U0	7760
	3	100	Fix-Thermal	A0	XT2S160SCF3FA0U0	5820
	4		Fix-Thermal	A0	XT2S160SCF4FA0U0	8145
	3	125	Fix-Thermal	AB	XT2S160SCF3FABU0	6200
	4		Fix-Thermal	AB	XT2S160SCF4FABU0	8550
	3	160	Fix-Thermal	AF	XT2S160SCF3FAFU0	7385
	4		Fix-Thermal	AF	XT2S160SCF4FAFU0	8975
S160SCJ	3	25-40	Adj-Thermal	■	XT2S160SCJ3F■U0	7700
	4		Adj-Thermal	■	XT2S160SCJ4F■U0	10270
	3	63-80	Adj-Thermal	■	XT2S160SCJ3F■U0	7700
	4		Adj-Thermal	■	XT2S160SCJ4F■U0	10270
	3	100	Adj-Thermal	A0	XT2S160SCJ3FA0U0	8085
	4		Adj-Thermal	A0	XT2S160SCJ4FA0U0	10780
	3	125	Adj-Thermal	AB	XT2S160SCJ3FABU0	8490
	4		Adj-Thermal	AB	XT2S160SCJ4FABU0	11320
	3	160	Adj-Thermal	AF	XT2S160SCJ3FAFU0	8910
	4		Adj-Thermal	AF	XT2S160SCJ4FAFU0	11895

* Ics = 50%

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
■ Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

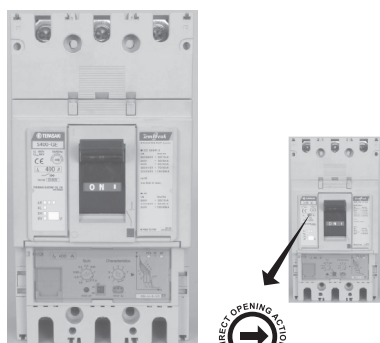
Plugin versions Available on request

Accessories are mentioned on page no 13

* For more details refer product catalogue

TemBreak² MCCB BCH

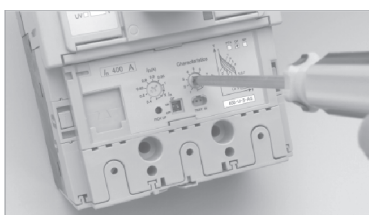
Total Protection Complete Control



TemBreak



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Tembreak 2 MCCB with 25kA* breaking capacity

HSN Code : 8536

Frame	Pole	Current (A)	Type	Code	Cat. No.	MRP [₹]
E400NJ	3	250	Adj-Thermal	BE	XT2E400NJ3FBEU0	30155
	4		Adj-Thermal	BE	XT2E400NJ4FBEU0	40185
	3	400	Adj-Thermal	D0	XT2E400NJ3FD0U0	31650
	4		Adj-Thermal	D0	XT2E400NJ4FD0U0	42165

*Ics = 100%

Tembreak 2 MCCB with 36kA* breaking capacity

HSN Code : 8536

Frame	Pole	Current(A)	Type	Code	Cat. No.	MRP [₹]
S250NJ	3	160	Adj-Thermal	AF	XT2S250NJ3FAFU0	17655
	4		Adj-Thermal	AF	XT2S250NJ4FAFU0	21540
	3	200	Adj-Thermal	B0	XT2S250NJ3FB0U0	17665
	4		Adj-Thermal	B0	XT2S250NJ4FB0U0	22455
	3	250	Adj-Thermal	BE	XT2S250NJ3FBEU0	19075
	4		Adj-Thermal	BE	XT2S250NJ4FBEU0	22640
S400CJ	3	400	Adj-Thermal	D0	XT2S400CJ3FD0U0	33175
	4		Adj-Thermal	D0	XT2S400CJ4FD0U0	44235
S800CJ	3	630	Adj-Thermal	630	XT2S800CJ3F630U0	49685
	4		Adj-Thermal	630	XT2S800CJ4F630U0	66250
	3	800	Adj-Thermal	800	XT2S800CJ3F800U0	52175
	4		Adj-Thermal	800	XT2S800CJ4F800U0	69560
S250NE	3	125	Electronic	AB	XT2S250NE3FABU0	44830
	4		Electronic	AB	XT2S250NE4FABU0	59770
	3	250	Electronic	BE	XT2S250NE3FBEU0	47075
	4		Electronic	BE	XT2S250NE4FBEU0	62765
E630NE	3	630	Electronic	630	XT2E630NE3F630U0	55280
	4		Electronic	630	XT2E630NE4F630U0	73710

*Ics = 100%

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request

Accessories are mentioned on page no 13

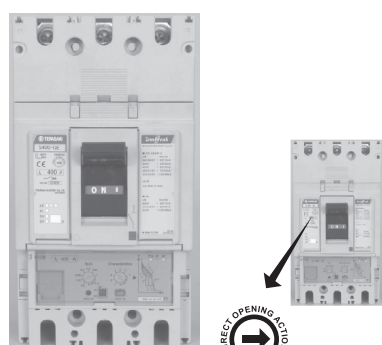
* For more details refer product catalogue

TemBreak² MCCB BCH

Total Protection Complete Control

Tembreak 2 MCCB with 50kA* breaking capacity

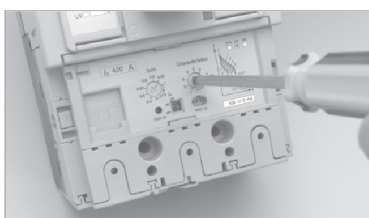
HSN Code : 8536



TemBreak



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Frame	Pole	Current (A)	Type	Code	Cat. No.	MRP [₹]
S400NF	3	125	Fix-Thermal	AB	XT2S400NF3FABU0	30725
	4		Fix-Thermal	AB	XT2S400NF4FABU0	40965
	3	160	Fix-Thermal	AF	XT2S400NF3FAFU0	31340
	4		Fix-Thermal	AF	XT2S400NF4FAFU0	41790
	3	200	Fix-Thermal	B0	XT2S400NF3FB0U0	31965
	4		Fix-Thermal	B0	XT2S400NF4FB0U0	42620
	3	225	Fix-Thermal	BB	XT2S400NF3FBBU0	31995
	4		Fix-Thermal	BB	XT2S400NF4FBBU0	42650
	3	250	Fix-Thermal	BE	XT2S400NF3FBEU0	32450
	4		Fix-Thermal	BE	XT2S400NF4FBEU0	43265
	3	320	Fix-Thermal	BF	XT2S400NF3FBFU0	32940
	4		Fix-Thermal	BF	XT2S400NF4FBFU0	43920
S800NF	3	630	Fix-Thermal	D0	XT2S400NF3FD0U0	33440
	4		Fix-Thermal	D0	XT2S400NF4FD0U0	44585
	3	800	Fix-Thermal	630	XT2S800NF3F630U0	54295
	4		Fix-Thermal	630	XT2S800NF4F630U0	72395
S400NJ	3	250	Adj-Thermal	800	XT2S800NF3F800U0	55950
	4		Adj-Thermal	800	XT2S800NF4F800U0	74595
	3	400	Adj-Thermal	BE	XT2S400NJ3FBEU0	32485
	4		Adj-Thermal	BE	XT2S400NJ4FBEU0	43315
S800NJ	3	630	Adj-Thermal	D0	XT2S400NJ3FD0U0	34840
	4		Adj-Thermal	D0	XT2S400NJ4FD0U0	46445
	3	800	Adj-Thermal	630	XT2S800NJ3F630U0	54695
	4		Adj-Thermal	630	XT2S800NJ4F630U0	72920
S400NE	3	250	Electronic	800	XT2S800NJ3F800U0	57400
	4		Electronic	800	XT2S800NJ4F800U0	76530
	3	400	Electronic	800	XT2S800NJ4F800U0	76530
	4		Electronic	800	XT2S800NJ4F800U0	76530
S630CE	3	630	Electronic	BE	XT2S400NE3FBEU0	50265
	4	630	Electronic	BE	XT2S400NE4FBEU0	67025
S800NE	3	800	Electronic	D0	XT2S400NE3FD0U0	52780
	4	800	Electronic	D0	XT2S400NE4FD0U0	70370
S1000SE	3	1000	Electronic	630	XT2S630CE3F630U0	56110
	4	1000	Electronic	630	XT2S630CE4F630U0	73830
S1250SE	3	1250	Electronic	800	XT2S800NE3F800U0	73140
	4	1250	Electronic	800	XT2S800NE4F800U0	97515
S1600SE	3	1600	Electronic	1000	XT2S1000SE3F1000U0	87775
	4	1600	Electronic	1000	XT2S1000SE4F1000U0	117145
	3	1250	Electronic	1250	XT2S1250SE3F1250U0	131710
	4	1250	Electronic	1250	XT2S1250SE4F1250U0	175620
	3	1600	Electronic	1600	XT2S1600SE3F1600U0	177820
	4	1600	Electronic	1600	XT2S1600SE4F1600U0	237090

*Ics = 100%

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

* For more details refer product catalogue

Note : MCCB's upto 2000A rating & 200KA breaking capacity available on request. Plug in versions available on request.

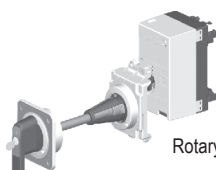
ACCESSORIES *TemBreak* MCCB..... BCH

ACCESSORIES FOR TEMBREAK-2 RANGE OF MCCB

HSN Code : 8538



Motor Operator



Rotary Handle

Type	Description	up to 125A	250A	400A & 630A	List Price [₹]
Aux Switch	1 Change over	T2AX00M3SWA			1540
Alarm Switch	1 Change over	T2AL00M3SWA			1540
Shunt Release	100-120VAC	T2SH00A10WA			3925
Shunt Release	200-240VAC	T2SH00A20WA			3565
Shunt Release	380-450VAC	T2SH00A40WA			4200
UV Release	200-240VAC	T2UV00A20NWA			5170
UV Release	380-450VAC	T2UV00A40NWA			5170
Motor Operator	110VAC	T2MC12A10NA	T2MC25A10NA		On Request
Motor Operator	220VAC	T2MC12A20NA	T2MC25A20NA		On Request
Motor Operator	240VAC	T2MC12A24NA	T2MC25A24NA		On Request
Motor Operator	100-240VAC			T2MC40A10NA	On Request
Rotary Handle	Panel Mounted (Ip54)	T2HP12R5BNA			7015
Rotary Handle	Panel Mounted (Ip54)		T2HP25R5BNA		9750
Rotary Handle	Panel Mounted (IP54)			T2HP40R5BNA	11575

Extended Terminals for All TEMBREAK-2 MCCBs

HSN Code : 8538

Frame	For	Cat. No.	List Price [₹]
100A FRAME	3 Pole	ACMTP100	690
125A FRAME	3 Pole	ACMTP1253	660
	4 Pole	ACMTP1254	935
160A/250A FRAME	3 Pole	ACMTP2503	985
	4 Pole	ACMTP2504	1615
400A FRAME	3 Pole	ACMTP4003	2600
	4 Pole	ACMTP4004	3000

One set = 6 Nos. Links for 3 Pole MCCBs

One set = 8 Nos. Links for 4 Pole MCCBs

* For more details refer product catalogue

SDFU.....BCH

Switch Disconnecter Fuse Units

Suitable for DIN / BOLTED fuses in open execution



Rating (A) AC-23A	Cat No.	Fuse Type	Type	MRP [₹]
32A	PSFS323ND00	DIN	TPN	1740
32A	PSFS323ND000	DIN	TPN	1740
32A	PSFS323NB	Bolted	TPN	1740
32A	PSFS323B	Bolted	TP	1695
63A	PSFS633ND00	DIN	TPN	2405
63A	PSFS633ND000	DIN	TPN	2405
63A	PSFS633NB	Bolted	TPN	2405
63A	PSFS633B	Bolted	TP	2330
100	PSFS1003*	DIN/Bolted	TP	4500
100	PSFS1003N*	DIN/Bolted	TPN	4710
125	PSFS1253*	DIN/Bolted	TP	5945
125	PSFS1253N*	DIN/Bolted	TPN	6380
160	PSFS160*	DIN/Bolted	TP	6535
160	PSFS1603N*	DIN/Bolted	TPN	7100
200	PSFS2003B	Bolted	TP	8155
200	PSFS2003NB	Bolted	TPN	8375

* Use suffix 'D' for DIN type, 'B' for bolted type

Switch Disconnecter

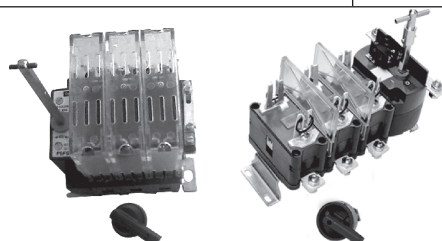
HSN Code : 8536

Rating (A) AC-23A	Cat No.	Fuse Type	Type	MRP [₹]
32A	PSSD323N	-	TPN	1580
63A	PSSD633N	-	TPN	2180
100A	PSSD1003N	-	TPN	4295
125A	PSSD1253N	-	TPN	5335
160A	PSSD1603N	-	TPN	6010
200A	PSSD2003N	-	TPN	6790

Fuse Switch Units Type FS

HSN Code : 8538

Rating (A) AC-23A	Cat No.	Fuse Type	Type	List Price [₹]
32A	FS0N	BOLTED	TP	1765
63A	FS1N	BOLTED	TP	2415
Shroud	AC21TS			150
1NO+1NC	AC21EB11	for FS0 / FS1N		450
Neutral	AC21L	for FS0 / FS1N-		200
Handle assembly-32A	SP21FS0H	for FS0		295
Handle assembly-63A	SP21FS1H	for FS1		295



Switch Disconnecter Fuse

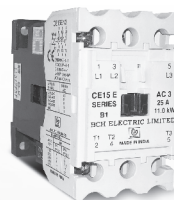
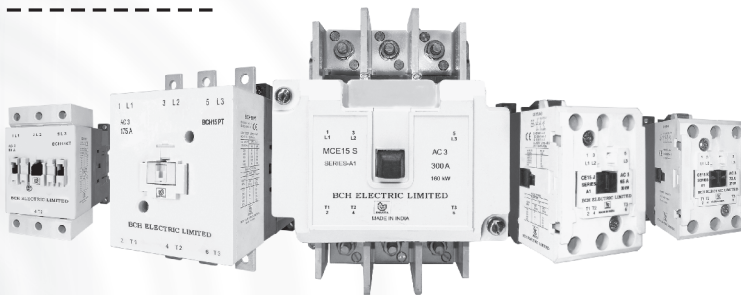
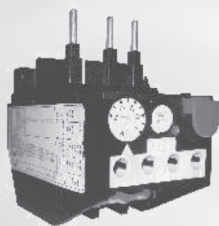
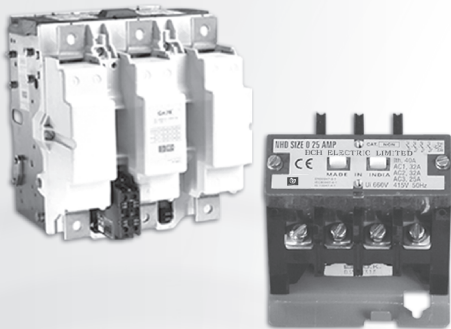
- Conforms to IS 13947-3
- TPN/TP version
- AC 23A duty
- Mechanism with 4 Breaks per pole
- Handle with door interlock and padlock



Controlgear

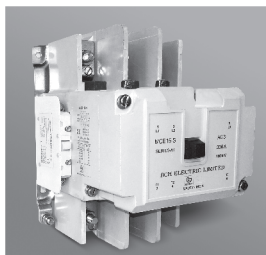
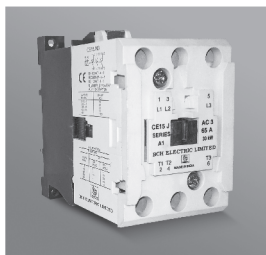
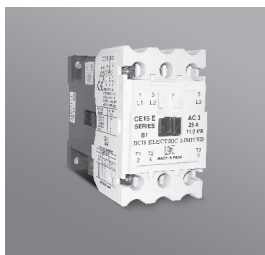
- DUROS FREEDOM CONTACTORS
- DEFINITE PURPOSE CONTACTORS
- CAP DUTY CONTACTORS
- AGRI CONTACTORS
- CITATION SERIES 3 POLE
- VACUUM CONTACTORS

- **Contactors**
- **Overload Relay**
- **Electronic Over Current Relay**
- **Motor Protection Circuit Breaker**
- **Solid State Relay**
- **Push Buttons & Indicating Lights**



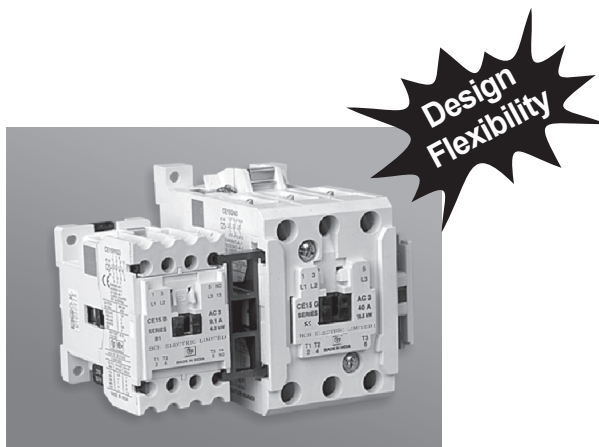
BCH
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DUROS FREEDOM RANGE



- Conforms to IEC 60947-4-1 / IS 13947
- No derating upto -20°C to 60°C
- 3 Pole and 4 Pole versions
- Widest Range from 6A to 1200A in 7 frame sizes
- Snap Open design for easy inspection
- Self Lifting Screws for quick termination
- Superior grade material with high temperature withstand
 - : Ideal for stringent duty applications
- Most compact design
- Low VA burden coils
- Successfully tested for Type - 2 coordination

- Interlocking 2 Different frames using a common Mechanical Interlock (Upto 75A)



BCH Series : From 400A to 1200A

- Conforms to IEC60947-4-1 / IS 13947
- Insulation voltage upto 1000V
- Universal Control : Same coil for AC and DC Supply
- Delayed Drop Off feature for networks with transient power problem ensuring continuity of power supply
- Special magnet design for reduced shock and vibration
- Front open design for ease of inspection

BCH

HSN Code : 8536



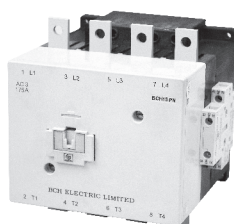
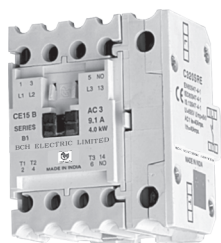
HSN Code : 8536

■ For Coil Voltage Codes refer Table on page 25
For DC control circuit of contactor size BCH76/BCH78 add Rs.2600

Duros Freedom series 4 Pole contactors (AC Control)

- Built in 4 Pole 20A and 200A onwards
- 100% rated add-on 4th pole for flexibility (32A to 80AAC1)
- Low energy consumption (seal VA up to 5 VA)

HSN Code : 8536

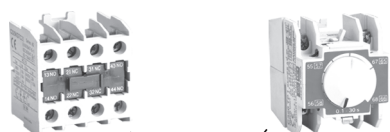


AC1 Rating (A)	Cat. No.	MRP [₹]
20	CE15CN4 ■ B-N	1245
32	CE15DN4 ■-N	1305
40	CE15EN4 ■-N	1965
60	CE15GN4 ■	4740
75	CE15HN4 ■	6300
80	CE15JN4 ■	7250
200	BCH15MN.4.11.■	18200
250	BCH15NN.4.11.■	20100
300	BCH15PN.4.11.■	36000

Contactor : 3 Pole DC Control Type CE15

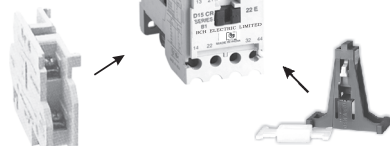
HSN Code : 8536

Common Accessories 'upto 73A'



Top aux. Block

Pneumatic Timer
Site convertible
On/Off delay



Side aux. Block

Mechanical Interlock

AC3 (A) at 415VAC	KW	Aux Contact	Cat No.	MRP [₹]
6	2.2	—	CE15ANC3■-N CE15ANS3■-N	1125
9	4.4	—	CE15BNC3■-N CE15BNS3■-N	1285
12	5.5	—	CE15CNC3■-N CE15SNS3■-N	1340
16	7.5	—	CE15DN3■-N	1625
25	11	—	CE15EN3■-N	2175
32	15	—	CE15FN3■-N	4665
40	22	—	CE15GN3 ■	5490
50	25	—	CE15HN3 ■	7015
65	37	—	CE15JN3 ■	8350
73	37	—	CE15KN3 ■	9875
75	37	—	CE15K1N3 ■	9875

■ For Coil Voltage Codes refer Table on page 25

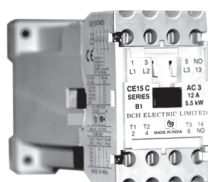
Pure DC

Duros Freedom Series 3 Pole DC Control Type CE16

HSN Code : 8536

*Coil Codes :
DC control

24V	U1
48V	W1
110V	A1
220V	B1
60V	X1
125V	E1



DC Control

- Standard voltages 24VDC, 110VDC, 220VDC

AC3 (A) at 415VAC	KW	Aux Contact	Cat No.	MRP [₹]
9.1	4	1NO 1NC	CE16BNS3*B CE16BNC3*B	1345 1345
12	5.5	1NO 1NC	CE16CNS3*B CE16CNC3*B	1405 1405
16	7.5	1NO+1NC	CE16DN3*B	1715
25	11	1NO+1NC	CE16EN3*B	2340
32	15	1NO+1NC	CE16FN3*B	4885

Pure DC

Control Relay HSN Code : 8536

Control Relays Freedom Series HSN Code : 8536



Aux Contact	Cat No.	MRP [₹]
2NO+2NC	D16CR22*	1450
3NO+1NC	D16CR31*	1450
4NO	D16CR40*	1450

*Coil Codes : DC control

24V	48V	110V	220V	60V
U1	W1	A1	B1	X1

Size	Contact Configuration	Cat No.	MRP [₹]		Lot Size
			AC	DC	
CR	2NO+2NC 3NO+1NC 4NO	D15CR22 ■-N D15CR31 ■-N D15CR40 ■-N	940	1450	1

■ For Coil Voltages Codes refer Table on page 25

BCH



HSN Code : 8536

kVAR rating at 415V 3Ph 50Hz	Cat No.	Aux Contacts	MRP [₹]
5	CCD.05.11.■	1NO+1NC	1860
10	CCD.10.11.■	1NO+1NC	1995
15	CCD.15.11.■	1NO+1NC	2950
20	CCD.20.11.■	1NO+1NC	3500
25	CCD.25.11.■	1NO+1NC	3850
30	CCD.30.11.■	1NO+1NC	6450
40	CCD.40.11.■	1NO+1NC	10200
50	CCD.50.11.■	2NO+1NC	10550
60	CCD.60.11.■	2NO+1NC	12050

HSN Code : 8536



- For Coil Voltage Codes refer Table on page 25

HSN Code : 8536

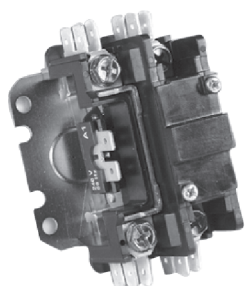


- HSN Code : 8538**

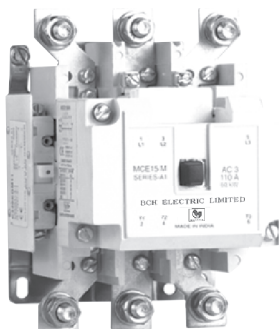
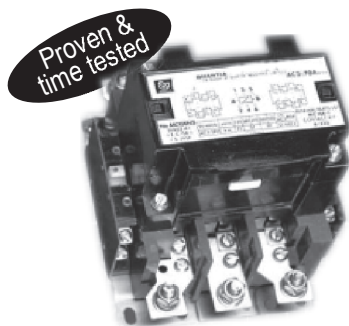
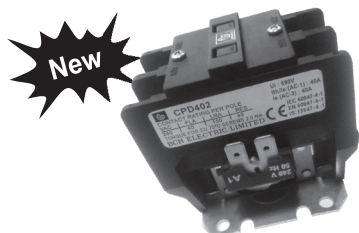
Description	Orientation	Cat. No.	List Price [₹]	Lot Size
Auxiliary Contact Blocks - NHD	1NO+1NC	001CB11	225	1
	2NO	001CB20		
	2NC	001CB02		

- ▶ 19

Contactors BCH



- Quick connect plugin terminals
- Specially designed low VA coil



Definite Purpose Contactors

HSN Code : 8536

1 Pole				2 Pole			
AC3 (A)	Type	Cat. No.	MRP [₹]	AC3 (A)	Type	Cat. No.	MRP [₹]
25	1 Pole	CPD251CK	670	20	2P, 140-200VAC	CPD202BL	740
25	1 Pole with Neutral	CPD251NCK	690	25	2P, 220-240VAC	CPD252H	780
40	1 Pole	CPD401CK	730	25	2P, 415VAC	CPD252M	
40	1 Pole with Neutral	CPD401NCK	790	40	2P, 220-240VAC	CPD402H	820
				40	2P, 415VAC	CPD402M	

*wide band AC coil voltages for Definite purpose Contactor

Contactor	Cat No.	Voltage		
		170-240VAC	290-415VAC	140V-200VAC
25A 1P	CPD251*	KL	ML	BL
20A 2P	CPD202*			

Citation Series 3 Pole AC Control

HSN Code : 8536

Size	AC3 Rating at 415 V			Cat. No.	MRP [₹]	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
	Amps	HP	KW	(with Aux. contact 2NO+2NC)		(with Aux. contact 1NO+1NC)		(without Aux. contact)	
C4	32	20	15	C4NE22 ■	4310	C4NE11 ■	4030	C4NE00 ■	3570
D	40	30	22	MC10DN22 ■	6815	MC10DN11 ■	6000	MC10DN00 ■	5955
E	70	50	37	MC10EN22 ■	12220	MC10EN11 ■	11970	MC10EN00 ■	11745

■ Standard coil voltages are 24, 110, 220, 240 & 415 V AC, 50 Hz. For voltage codes refer Table on page 25

HSN Code : 8536

Size	AC1 Rating	AC3 Rating 415 V			Aux. Contact	Cat. No.	MRP [₹]	Lot Size
		A	HP	KW				
L	140	80	53	40	1NO+1NC	MCE15LN3 ■ 5	10250	1
M	150	95	62	47	1NO+1NC	MCE15M0N3 ■ 5	12300	
M-5	150	110	80	60	1NO+1NC	MCE15MN3 ■ 5	15100	
N	300	140	100	75	1NO+1NC	MCE15NN3 ■ 7	20050	1
Q	300	185	120	90	1NO+1NC	MCE15QN3 ■ 7	25050	

■ For Coil Voltage Codes refer Table on page 25

Other Freedom Series Contactors

Duros Freedom Series 3 Pole AC Control

Size	Ac1 Rating	AC3 Rating 415 V			Aux. Contact	Cat. No.	MRP [₹]	Lot Size
		A	HP	KW				
D	32	16	10	7.5	1NO+1NC	CE15DN3 ■ B-N	1230	1
					-	CE15DN3 ■ -N	1030	
	32	18	10	7.5	1NO+1NC	CE15D1N3 ■ B-N	1260	
					-	CE15D1N3 ■ -N	1050	
E	40	25	15	11	1NO+1NC	CE15EN3 ■ B-N	1710	
					-	CE15EN3 ■ -N	1475	
F	40	32	20	15	1NO+1NC	CE15FN3 ■ B-N	3270	
					-	CE15FN3 ■ -N	3000	

Capacitor Switching



Capacitor Duty Contactor AC Control

HSN Code : 8536

Size	Capacitor KVAR at 415 V, 3 Ph, 50 Hz	Cat. No.	MRP [₹]
B	5	CCE 15BN3 ■ -N	On request
D	10	CCE 15DN3 ■ -N	
F	15	CCE 15FN3 ■ -N	
G	20	CCE 15GN3 ■	
H	25	CCE 15HN3 ■	

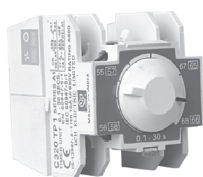
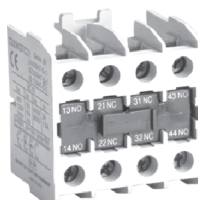
■ For Coil Voltage Codes refer Table on page 25

Effective from 06.06.2018

BCH

Duros-Freedom Series contactors Add-on accessories for sizes A to K, CR, BCH15KT to BCH15PT, R, S0 & S

HSN Code : 8538



Horizontal Mechanical Interlocks

Vertical Mechanical Interlocks

HSN Code : 8535				
Accessories	Configuration	Cat No.	Contactor Type	List Price [₹]
Aux. Contact Block (side Mounting)	1NO	C320KGSR10	CE15 & CR	145
	1NO+1NC	C320KGSR11		380
	1NC	C320KGSR01		145
	2NO	C320KGSR20		380
	1NO+1NC	BCH15S11	BCH15	460
	1NO+1NC	MC320KB11	MCE15R, MCE15S0 & MCE15S	535
	1NO+1NC (Late break type)	MC320KAS11		535
	2NO+2NC	EF22	BCH54 to BCH64	5110
	1NO+1NC	EB11	BCH76 to BCH78	7935
4th Neutral Switching Pole	800A	NP800/5	BCH54 to 57	22995
	1000A	NP1000/6	BCH62 to 64	27330
	1000A	NP1000/7	BCH76 to 78	31120
Aux. Contact Block (Front Mounting)	1NO	C320KGTC10	CE15, CR	145
	1NC	C320KGTC01		
	2NO	C320KGT*20		
	2NC	C320KGT*02		220
	1NO+1NC	C320KGT*11		
	2NO+2NC	C320KGT*22		
	3NO+1NC	C320KGT*31		400
	4NO	C320KGT*40		
	1NO+3NC	C320KGT*13		
	4NC	C320KGT*04	BCH15	850
	4NO	BCH15T40		
	3NO+1NC	BCH15T31		
	2NO+2NC	BCH15T22		
	1NO+1NC	BCH15T11		
	1NO	BCH15T10		
	1NC	BCH15T01		
2NO+2NC	MC320KE22	MD, DMD control relay	410	
Pneumatic Timer Block "ON/OFF" Delay site selectable	1NO+1NC (0.1 to 30 sec)	C320TP1	CE15 & CR	1120
	1NO+1NC (0.1 to 180 sec)	C320TP2		
Mechanical Interlocks	-	C321KM60	CE15 & CR	355
	-	MC321KM3	MCE15R to MCE15S	1105
	Horizontal	BM5H	BCH54 to 57	6435
		BM6H	BCH62 to 64	11260
		BM7H	BCH76 to 78	29855
	Vertical	BM5V	BCH54 to 57	6435
		BM6V	BCH62 to 64	11260
		BM7V	BCH76 to 78	26485
	Horizontal	BM0H	BCH15KT/LT/MT	350
BM3H		BCH15NT/PT	380	

*Add suffix C for power contactors, R for control relays. The suffix C/R denote terminal marking as per standard EN5001 on BS5583 on add on aux. contact blocks used with contactors / control relays

Contactors BCH

Add-on accessories for sizes A to K, CR, BCH15KT to BCH15PT, R, S0 & S

HSN Code : 8538

Accessories	Configuration	Cat No.	Contactor Type	List Price [₹]
 Coil Surge Suppressors	24-48V (50/60Hz)	MC320LR11	CE15, CR	350
	110-240V (50/60Hz)	MC320LR12		
 Mechanical latch #	§ to complete the cat no. suffix code given	AM5- §	BCH54 to BCH57	16390
		Am6 §	BCH62 to BCH64	23185
Terminal adapter kit	3 links with m10 nut & bolt	SP37TA	MCE15R, MCE15S0 &	835

Mechanical latch are supplied with AC coils only

§ Coil Voltage suffix code for Mechanical latch AM5 & AM6

Coil voltage	110-120	220-240	380-415	440-480
Suffix Code	AW4	BA4	LB4	CB4

Accessories for Citation contactors size - L, M, M-5, N, Q, C4, D & E type

HSN Code : 8538

Accessories	Configuration	Cat No.	Contactor Type	List Price [₹]
Aux. block side mounting	1NO+1NC	C320KGM11	L, M & M-5	510
	1NO+1NC	MC320KB11	N & Q	535
Aux. block add-on (Late break type)	1NO+1NC	MC320KAS11	L, M, M-5, N & Q	535
	1NO+1NC	AC34EA11	C4, D & E	425
Mechanical Interlock		MC321KM1	C4 & D	450
		MC321KM2	L, M, M-5 & E	495
		MC321KM3	N & Q	1105
Terminal adapter kit	3 links with m10 nut & bolt	SP37TA	N & Q	835
Base block	1NO+1NC	MC320KB2	C4 & D	380
	1NO+1NC	AC35EB11	E	455

Contactors BCH

Spare Contacts set for Duro Freedom Contactors HSN Code : 8538

Size	Consisting of	Cat. No.	List Price [₹]
A	Complete top housing Consisting of fixed & moving contacts	SBANS3 SBANC3 SBAN4	690
B		SBBNS3 SBBNC3 SBBN4	730
C		SBCNS3 SBCNC3 SBCN4	800
D		SBDN3	970
E		SBEN3	1140
F		SBFN3	2245
G	6 Fixed contacts	6-65-4	1965
H	3 Moving Contacts	6-65-6	2440
J	3 springs	6-65-15	3315
K	6 Arc Bonnets	6-65-17	3425
BCH15KT	Complete set of 6 fixed & 3 moving contacts with hardware, contact springs, spring retainers and arc runners	CP-BCH15KT-3	3390
BCH15LT		CP-BCH15LT-3	3900
BCH15MT		CP-BCH15MT-3	4200
BCH15NT		CP-BCH15NT-3	6935
BCH15PT		CP-BCH15PT-3	6935
R	6 Fixed contacts	6-288	12085
S0	3 Moving contacts	6-286-S0	16315
S	12 CSK screws & washers		
	3 Springs		
	Spring retainers		
	Self tapping screws & washers		
	6 Arc Chute assly & screws	6-286	16470
BCH54	Complete set of 6 fixed & 3 moving contacts with hardware, contact springs, spring retainers and arc runners	CP-BCH54-3	18850
BCH55		CP-BCH55-3	21720
BCH57		CP-BCH57-3	30620
BCH62		CP-BCH62-3	55945
BCH64		CP-BCH64-3	68780
BCH76		CP-BCH76-3	171810
BCH78		CP-BCH78-3	193065

Spare Contacts set for NHD & Citation Contactors HSN Code : 8538

Size	Consisting of	Cat.No.	List Price [₹]
C00N N0N N01N N1N	(4 - Pole contact kit) 8 Fixed main contacts 4 Moving main contacts 4 Spring & 4 retainers	SP90A1 SP90B1 SP90D1 SP90C1	900 1960 2235 2395
C00N N0N N01N N1N	(1 - Pole contact kit) 2 Fixed main contacts 1 Moving main contacts 1 Spring & 1 retainers	SP90A01 SP90B01 SP90D01 SP90C01	220 485 540 565
CPG216 CPG225 CPG240	4 Fixed contacts 2 Main contacts 2 Spring retainers	CPG162PSP CPG252PSP CPG402PSP	440 1120 1235
C4	6 Fixed main contacts 6 Pan head screws 6 Helical lock washers	SP34K	1885
MC10D	6 Fixed Main Contacts 3 Compression springs 3 Retainers	6-334	2610
MC10E	Same as above plus 6 Blow outs 6 M5/M4 self tapping screws	6-335	4925
L	6 Fixed Contacts 6 Pan Head Screws	6-385-L0	3785
M	6 Helical Lock Washers	6-385-M	4010
M-5	3 Moving contacts 3 Springs, 3 Retainers 6 Blowouts 6 self tapping screws	6-385	4230
N	6 Fixed contacts 12 CSK screws & washers	6-293	8340
Q	3 Moving contacts 3 Springs, Spring Retainers, Self tapping screws & Washers	6-288-Q	12015

Spare ARC chambers - BCH15KT to BHC15PT, BCH54 to BCH78 HSN Code : 8538

Contactor	Cat. No.	List Price [₹]
BCH15KT	PF-BCH15KT	490
BCH15LT	PF-BCH15LT	
BCH15MT	PF-BCH15MT	
BCH15NT	PF-BCH15NT	860
BCH15PT	PF-BCH15PT	
BCH54/BCH55/BCH57 (for all 3 poles)	PF-BCH5	6460
BCH62/BCH64 (for all 3 poles)	PF-BCH6	16585
BCH76/78 (for single pole)	3PF-BCH78	35740

BCH

Spare Coil - size CR, A to K, MCE15R, MCE15S0, MCE15S, BCH15KT to BCHPT, BCH54 to BCH78

HSN Code : 8538

Size	For Size	Cat. No.	List Price [₹]
Magnetic coil	CR, A,B, C	MC15CW ■	380
	D, E, F	MC15FW ■	435
	G, H, J, K	MC15KW ■	1135
	BCH15KT/LT	B02. ■	1155
	BCH15MT	B022. ■	1720
	BCH15NT/PT/MN/NN/PN	B031. ■	3445
	R, S0, S	9-2412- ■	3090
Magnetic coil (set of two)	BCH54/ BCH55/ BCH57	B51. ■	6420
Feeder group		FG51. ■	7805
Magnetic coil (set of two)	BCH62/ BCH64	B61. ■	19715
Feeder group		FG61. ■	25805
Magnetic coil (set of two)	BCH76/ BCH78	B8- ■	54625
Feeder group		FG78- ■	60390
■ To specify coil voltage please refer page no. 25			
Note : Coil set for BCH54 to BCH78 contactors consists of 2 half coils. Magnetic coil & Feeder group must have the same control voltage. For eg. If coil voltage is changed from 110V to 220V then Feeder group should also be changed to 220V			

Spare Coil - NHD & Citation Contactors

HSN Code : 8538

Description	Cat. No.	List Price [₹]	Lot size
Carrier for NHD	SP90CC	170	1
Carrier for CPG	CPG2PCC	105	1
Magnetic coil for NHD	SP90MC*	310	10
Magnetic coil for MCE15L, MCE15M0, MCE15M	9-2268- ■	1400	1
Magnetic coil for MCE15N & MCE15Q	9-2412- ■	3090	1
Magnetic coil for C4 & MC10D	9-2267- ■	875	1
Magnetic coil for MC10E type	9-2268- ■	1400	1
Magnetic coil for DC Citation Control Relay	9-2182-1- ■	505	1
Magnetic coil for AC Citation Control Relay	9-2182- ■	640	1

■ To specify coil voltage please refer page no. 25

Coil Voltage Table BCH

COIL VOLTAGE: MASTER TABLE

		24V		48V		55V	110V		160-220V	220V		220-240V	230-360V	240V	250V	275V	190-400V	260-400V	380V	380-415V	415V	440V	550V	
	PRODUCT	AC	DC	AC	DC	DC	AC	DC	-	AC	DC	AC	-	AC	DC	DC	AC	AC	AC	AC	AC	AC	AC	DC
CR RELAY	#CR Relay	U	U3	W	W3	-	A	A3	-	B	B3	-	-	K	-	-	-	-	L	-	M	C	D	-
	#CE15A-F	U	U3	W	W3	-	A	A3	-	B	B3	-	-	K	-	-	-	-	L	-	M	C	D	-
DUROS FREEDOM	#CE15G-K	U	U3	W	W3	-	A	A3	-	B	B3	-	-	K	-	-	-	-	L	-	M	C	D	-
	BCH15KT-LT	U	-	W	-	-	A	-	-	B	-	-	-	K	-	-	-	-	L	-	M	C	D	-
	BCH15MT-PT	24	-	48	-	-	110	-	-	-	-	220	-	-	-	-	-	-	-	380	-	440	550	-
	BCH15MN-PN	24	-	48	-	-	110	-	-	-	-	220	-	-	-	-	-	-	-	380	-	440	550	-
	MC15R-S	U	U3	-	-	-	A	A3	-	B	-	-	-	K	-	-	-	-	L	-	M	-	D	-
	BCH54-64	-	-	-	-	-	110	110	-	220	220	220	-	220	-	-	-	-	380	380	380	440	-	-
NHD	BCH76&78	-	-	-	-	-	A7	A17	-	B7	-	H	-	-	-	-	-	-	-	-	-	-	-	-
	CPG216	U	-	-	-	-	A	-	BW	-	-	H	-	-	-	-	-	-	-	-	-	-	-	-
	CPG225&240	U	-	-	-	-	A	-	BW	-	-	H	-	-	-	-	-	-	-	-	-	-	-	-
	SHAKTI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Z	G	-	N	-	-	-	-
	C00N & N0N	U	-	-	-	-	A	-	BW	-	-	H	-	-	-	-	-	G	-	N	-	C	D	-
CITATION	N01N & N1N	U	-	-	-	-	A	-	-	-	-	H	LV	-	-	-	-	-	-	N	-	C	-	-
	C4 & D	-	-	-	-	-	A	-	-	B	-	-	-	K	-	-	-	-	L	-	M	C	D	-
	MC10EN	U	-	-	-	-	A	-	-	B	-	-	-	K	-	-	-	-	L	-	M	C	D	-
	MCE15L-M5	U	-	W	-	-	A	-	-	B	-	-	-	K	-	-	-	-	L	-	M	C	D	-
	MCE15N-Q	U	U3	-	-	-	A	A3	-	B	-	-	-	K	-	-	-	-	L	-	M	C	D	-
DC CONTACTOR	912X	-	U1	-	-	Q1	A1R	A1	-	-	B1	-	-	K1R	F1	-	-	-	-	-	-	-	-	D1
	914;934X	-	U1	-	W1	Q1	A1R	A1	-	-	B1	-	-	K1R	F1	J1	-	-	-	-	-	-	-	D1
	935X;924;915	-	U1	-	W1	Q1	A1R	A1	-	-	B1	-	-	K1R	F1	J1	-	-	-	-	-	-	-	D1
	925	-	-	-	-	-	-	A1	-	-	B1	-	-	K1R	F1	-	-	-	-	-	-	-	-	D1
	916&936	-	U1	-	W1	Q1	A1R	A1	-	-	B1	-	-	K1R	F1	-	-	-	-	-	-	-	-	D1
	D912-D916	-	-	-	W1	-	A1R	A1	-	-	B1	-	-	K1R	F1	-	-	-	-	-	-	-	-	-

1. For other coil voltages & wide band coil option please contact nearest sales office
 2. AC control is not available for 934, 935, 936 versions.
 3. For ordering spare coils for D912, D914, D915 and D916 Contactors, please order coils with 50% voltage rating as that of control voltage.
 Example to order coils for D914 X 22B1 (which is a 220V DC DP Contactor), please order spare coils with 110V DC rating.

#The Interchangeability between AC & DC Coil of CE15 / D15 type contactors is not possible at site. Only Company fitted DC control is available for this range.

Overload Relay BCH

with BCH relays choose
the best protection for
your motors

Citation Overload Relay



- Wide range : From 0.195 A to 600 A
- Built in Single Phasing Protection
- Ambient temperature compensated
- Test button for checking tripping mechanism
- Field convertible auto/manual reset
- Snap on cover
- Special Mechanism ensuring closest protection to motor
- Contactor mounting & separate mounting
- Successfully tested for Type-2 Coordination
- Suitable for almost all makes of Contactors
- Proven and tested

Citation-M Overload Relays

(Direct Mounting) with built-in single phase protection

HSN Code : 8536

HSN Code : 8538

Relay Range	Cat. No.	MRP [₹]	Terminal Block for individual mounting	List Price [₹]
0.195 - 0.31	MC305ANA3A	1275	(Incoming) MC305TB1 (Outgoing) MC305TB3	105
0.30 - 0.48	MC305ANA3B			
0.47 - 0.75	MC305ANA3C			
0.72 - 1.14	MC305ANA3D			
1.07 - 1.70	MC305ANA3E			
1.58 - 2.50	MC305ANA3F			
2.40 - 3.80	MC305ANA3G			
3.80 - 6.00	MC305ANA3H			
6.00 - 9.30	MC305ANA3J			
8.90 - 13.50	MC305ANA3K			
13.20 - 20.00	MC305ANA3L	1420	(Incoming) MC305TB2 (Outgoing) MC305TB3	
17.40 - 24.00	MC305ANA3M	1420		
22.00 - 30.00	MC305ANA3N*	2010		
23.00 - 32.00	MC305ANA3P#	2040	(Incoming) MC305TB2 (Outgoing) MC305TB4	

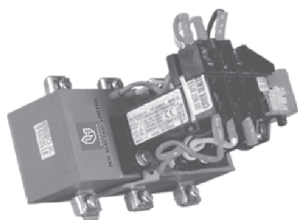
* Overload relay type 'N' must be used with terminal block MC305TB3, # Overload relay type 'P' must be used with terminal block MC305TB4

DIN rail mounting kit with incoming terminal block

HSN Code : 8538

Relay Range (A)	Cat. No.	List Price [₹]
A to K	MC305DM1	180
L to N	MC305DM2	180

CT Operated Overload Relay

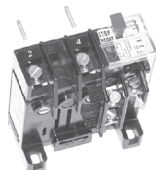


CT Operated Overload Relays-Individual Mounting

HSN Code : 8536

Relay Range (A)	Cat. No.	MRP [₹]
24.4-39.0	CT1MC305ANA3C	2250
37.6-60.0	CT2MC305ANA3C	2890
56.4-90.0	CT3MC305ANA3C	4050
84.6-135.0	CT4MC305ANA3C	
131.6-210.0	CT5MC305ANA3C	7050
188.0-300.0	CT6MC305ANA3C	8350
263.2-420.0	CT7MC305ANA3C	8650
376.0-600.0	CT8MC305ANA3C	9650

WP 2 Pole Overload Relay



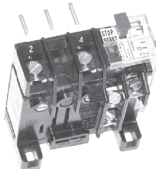
- Perfect protection to single phase Motors against overloads
- Ambient temperature compensated

2 Pole Overload Relays (Direct Mounting)

HSN Code : 8536

Relay Range (A)	Cat. No.	MRP [₹]
1.58-2.50	MC307ANA2F	580
2.40-3.80	MC307ANA2G	
3.80-6.00	MC307ANA2H	
6.00-9.30	MC307ANA2J	
8.90-13.50	MC307ANA2K	
13.20-20.00	MC307ANA2L	670
17.40-24.00	MC307ANA2M	
23.00-32.00	MC307ANA2P	850

WP Overload Relay



- Designed to withstand wide fluctuations in agricultural applications
- Appropriately sensitive relay for increased pump performance

WP Overload Relays for WP & Oil Starter

HSN Code : 8536

Relay Range (A)	Cat. No. (WP Starter / Oil Starter)	MRP [₹]
6.00 - 9.30	MC307ANA3J / MC307ANA3J-OS	1090
8.90 - 13.50	MC307ANA3K / MC307ANA3K-OS	
13.20 - 20.00	MC307ANA3L / MC307ANA3L-OS	1210
17.40 - 24.00	MC307ANA3M / MC307ANA3M-OS	
22.00 - 30.00	MC307ANA3N	1610
23.00 - 32.00	MC307ANA3P (Spare for Oil Starter)	1660

Overload Relay BCH

Duros Freedom Overload Relay



- Range : From 0.1A to 80A
- IEC:60947-4-1
- Relay class-10A
- Built in Single Phasing Protection
- Ambient temperature compensated
- Test button for checking tripping mechanism
- Field convertible auto manual reset
- Contactor mounting / Individual Mounting

Freedom Overload Relays

HSN Code : 8536

HSN Code : 8538

Relay Range (A)	Cat. No.	MRP [₹]	Accessories
0.1-0.16 0.16-0.25 0.25-0.40 0.40-0.63 0.63-1.00 1.0-1.40 1.3-1.80 1.7-2.4 2.2-3.1 2.8-4.0 3.5-5.0 4.5-6.5 6.0-8.5 7.5-11 10.0-14.0	MC318ANA3A MC318ANA3B MC318ANA3C MC318ANA3D MC318ANA3E MC318ANA3F MC318ANA3G MC318ANA3H MC318ANA3J MC318ANA3K MC318ANA3L MC318ANA3M MC318ANA3N MC318ANA3P MC318ANA3Q	1310	Adaptor for Individual mounting Cat. No. C318F1 List Price Rs. 280
13.0-19.0 18.0-25.0	MC318ANA3R MC318ANA3S	1450	
24.0-32.0	MC318ANA3T	2010	
22.0-32.0 29.0-42.0 36.0-52.0 45.0-63.0 60.0-80.0	MC318GNA3B MC318GNA3C MC318GNA3D MC318GNA3E MC318GNA3F	On request	

Vacuum Contactors.....BCH

Range: 225A to 600A 3P 1500V

Features

- Suitable for worldwide applications and for use with all types of motors including high efficiency IEC motors & NEMA design E motors.
- Front accessible
- Compact & rugged design
- Light weight
- Fully phase insulated
- Long Electrical & Mechanical life
- Mounts in any plane
- Quiet in operation



1140V 300A

- Designed to Standards IEC 60947 - 4, CSA22.2 & UL508
- Heavy Duty Mining Design
- Visual ON/OFF indicator
- Visual wear indicator
- Mounts in any plane
- 2NO+ 2NC aux. contacts as a standard
- Compact construction
- Front accessible



1500V 400A

- NEMA size 5, 270A, 600V AC
- UL508 listed CSA22.2 certified IEC947-4-1
- IEC HP/KW rated 400A, 660V/1000V/1500VAC
- Heavy Duty Mining Design
- Visual ON/OFF indicator
- Mounts in any plane
- 1NO+ 1NC aux. contacts as a standard
- Compact construction
- Front accessible



1500V 600A

- NEMA size 6, 540A, 600V AC - UL508 listed CSA22.2 certified IEC947-4-1
- IEC HP/KW rated 600A, 660V AC
- Heavy Duty Mining Design
- Visual ON/OFF indicator
- Mounts in any plane
- 1NO+ 1NC aux. contacts as a standard
- Compact construction
- Front accessible

HSN Code : 8536

Contactor Rating	Cat reference	Description	MRP [₹]
225A	CV77U033A12 -22 -B22	225A Vacu cont 1140V 3P 2NO+2NC 220VAC	91900
	CV77U033A12 -11 -B22	225A Vacu cont 1140V 3P 2NO+2NC 110VAC	91900
265A	CV77U033A12 -22 -B26	265A Vacu cont 1140V 3P 2NO+2NC 220VAC	102500
	CV77U033A12 -11 -B26	265A Vacu cont 1140V 3P 2NO+2NC 110VAC	102500
300A	CV77U033A12 -22 -B30	300A Vacu cont 1140V 3P 2NO+2NC 220VAC	112400
	CV77U033A12 -11 -B30	300A Vacu cont 1140V 3P 2NO+2NC 110VAC	
400A	CV77U034A06 -26	400A Vacu cont 1000V 3P 1NO+1NC 220VAC	142500
	CV77U034A06 -76	400A Vacu cont 1000V 3P 1NO+1NC 110VAC	
	CV77U034A06 -125	400A Vacu cont 1000V 3P 1NO+1NC 125VDC	
	CV77U034A06 -250	400A Vacu cont 1000V 3P 1NO+1NC 250VDC	
	CV77U034A15 -26	400A Vacu cont 1500V 3P 1NO+1NC 220VAC	
	CV77U034A15 -76	400A Vacu cont 1500V 3P 1NO+1NC 110VAC	
	CV77U034A15 -125	400A Vacu cont 1500V 3P 1NO+1NC 125VDC	
	CV77U034A15 -250	400A Vacu cont 1500V 3P 1NO+1NC 250VDC	
600A	CV77U036A06 -26	600A Vacu cont 1000V 3P 1NO+1NC 220VAC	186500
	CV77U036A06 -76	600A Vacu cont 1000V 3P 1NO+1NC 110VAC	
	CV77U036A06 -125	600A Vacu cont 1000V 3P 1NO+1NC 125VDC	
	CV77U036A06 -250	600A Vacu cont 1000V 3P 1NO+1NC 250VDC	
	CV77U036A15 -26	600A Vacu cont 1500V 3P 1NO+1NC 220VAC	
	CV77U036A15 -76	600A Vacu cont 1500V 3P 1NO+1NC 110VAC	
	CV77U036A15 -125	600A Vacu cont 1500V 3P 1NO+1NC 125VDC	
	CV77U036A15 -250	600A Vacu cont 1500V 3P 1NO+1NC 250VDC	

Electronic Overcurrent Relay BCH

BOCR SS



- Over Current
- Locked Rotor
- Phase Loss

BOCR SSD



- Over Current
- Locked Rotor
- Phase Loss

BOCR DS3



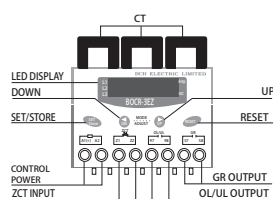
- Over Current
- Locked Rotor
- Phase Loss
- Phase Reversal

BOCR 3DE



- Over Current
- Phase Reversal
- Under Current
- Locked Rotor
- Phase Loss
- Phase imbalance

BOCR 3EZ



- Over Current
- Phase Reversal
- Under Current
- Locked Rotor
- Phase Loss
- Ground Fault
- Phase Unbalance

Bhartia Electronic Overcurrent Relay

HSN Code : 8536

Model	Cat. No.	Range	MRP [₹]
BOCR SS 05	MP21SS005S4	Electronic Over Current Relay 0.5-6A 24-240V AC /DC	3150
BOCR SS 05	MP21SS005W1	Electronic Over Current Relay 0.5-6A 380-440V AC	
BOCR SS 30	MP21SS030S4	Electronic Over Current Relay 3-30A 24-240V AC/DC	
BOCR SS 30	MP21SS030W1	Electronic Over Current Relay 3-30A 380-440V AC	
BOCR SS 60	MP21SS060S4	Electronic Over Current Relay 5-60A 24-240V AC/DC	
BOCR SS 60	MP21SS060W1	Electronic Over Current Relay 5-60A 380-440V AC	
BOCR SSD 05	MP22SSD005S4	Electronic Over Current Relay 0.5-6A 24-240V AC/DC	5950
BOCR SSD 30	MP22SSD030S4	Electronic Over Current Relay 3-30A 24-240V AC/DC	
BOCR SSD 60	MP22SSD060S4	Electronic Over Current Relay 10-60A 24-240V AC/DC	
BOCR DS3 05	MP34DS3005S4	Electronic Over Current Relay 0.5-6A 24-240V AC/DC	5010
BOCR DS3 30	MP34DS3030S4	Electronic Over Current Relay 3-30A 24-240V AC/DC	
BOCR DS3 60	MP34DS3060S4	Electronic Over Current Relay 5-60A 24-240V AC/DC	
BOCR-DS1 05	MP32DS1005S5	Electronic Over Current Relay 0.5-6A 24-240V AC/DC (inverse)	5010
BOCR-DS1 30	MP32DS1030S5	Electronic Over Current Relay 3-30A 24-240V AC/DC (inverse)	5010
BOCR 3DE	MP353DE800 Z4	Electronic Over Current Relay 0.5-60A 100-240V AC	16950
BOCR 3DE*	MP35FDE800Z4	Detachable Screen EOCR Model 3DE 0.5-60A 100-240 VAC	16950
BOCR 3EZ	MP363EZ800 Z4	Electronic Over Current Relay 0.5-60A 100-240V AC	18300
BOCR 3EZ*	MP36FEZ800Z4	Detachable Screen EOCR Model 3E2 0.5-60A 100-240V AC	18300
BOCR-IFDM	MP39-IFDM400HU4	EOCR 0.5-60A, Control volt 100-240VAC/DC RS-845 COMM	22400
BOCR-IFDZ	MP39-IFMZ400HU4	EOCR 0.5-60A, Control volt 100-240VAC/DC RS-845 Earth Fault	28400

CTs

HSN Code : 8536

Cat No.	Description	MRP [₹]
2CT-D1-100-C	2CT EP 100/5	2350
2CT-D2-200-C	2CT EP 200/5	
2CT-D3-300-C	2CT EP 300/5	
2CT-D4-400-C	2CT EP 400/5	2800
3CT-H1-100-C	3CT version 100/5	3320
3CT-HH-150-C	3CT version 150/5	3350
3CT-H2-200-C	3CT version 200/5	3500
3CT-H3-300-C	3CT version 300/5	3720
3CT-H4-400-C	3CT version 400/5	3800
Z-CTs (For ground Fault protection, to be used with 3 EZ)		
Cat No.	Description	MRP [₹]
ZCT-035	ZCT version 35mm hole	3200
ZCT-080	ZCT version 80mm hole	4250
ZCT-120	ZCT version 120mm hole	8850

Above 60A, external CT is required

*Cable for separate display Models

HSN Code : 8536

Cat No.	For model	Range	MRP [₹]
CABLE-RJ45-003	BOCR-IFDM/IFDZ	CABLE-RJ45 3m EOCR-IFD model	1300
CABLE-15-003Q	BOCR-FDE/FEZ	CABLE-15-EP 3M FEZ/FDE	1150

Note : Cable must be ordered separately along with the EOCR

MPCB BCH

HSN Code : 8536

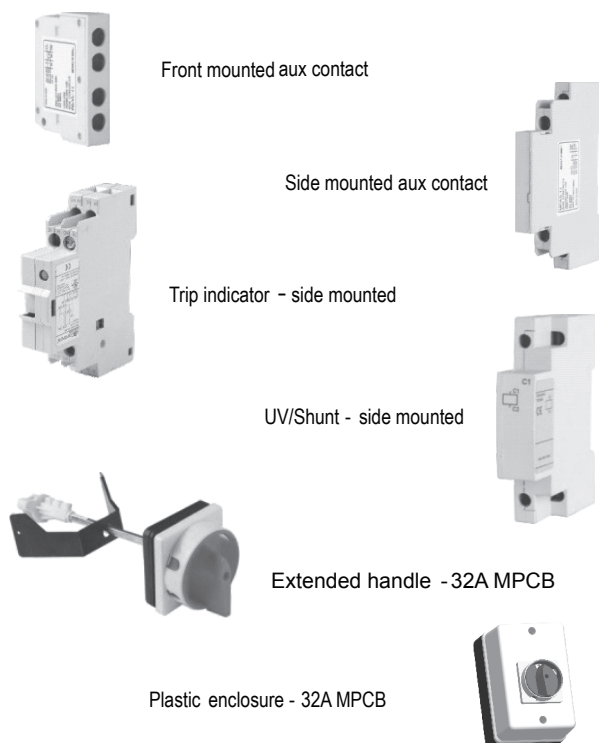
MPH range (0.1 to 32A)

NEW

- ON/OFF Rotary knob with manual operation
- Clear trip indication with rotary knob
- 1 NO + 1 NC - Front & side mounted
- Trip indicator for visual discrimination between short circuit & over load tripping
- Undervoltage / Shunt Release
- Mag only version also available



Accessories MPH range MPCB



Cat code	Description	MRP[₹]
(A) Thermal-Magnetic release		
MPH32-0.16	MPCB 3P TM 0.1- 0.16A	2600
MPH32-0.25	MPCB 3P TM 0.16-0.25A	2645
MPH32-0.4	MPCB 3P TM 0.25-0.4A	2645
MPH32-0.63	MPCB 3P TM 0.4-0.63A	2735
MPH32-1.0	MPCB 3P TM 0.63-1.0A	2900
MPH32-1.6	MPCB 3P TM 1.0-1.6A	2900
MPH32-2.5	MPCB 3P TM 1.6-2.5A	2900
MPH32-4.0	MPCB 3P TM 2.5-4.0A	2955
MPH32-6.3	MPCB 3P TM 4.0-6.3A	3020
MPH32-10	MPCB 3P TM 6.3-10.0A	3065
MPH32-16	MPCB 3P TM 10.0-16.0A	3395
MPH32-20	MPCB 3P TM 16.0-20.0A	4045
MPH32-25	MPCB 3P TM 20.0-25.0A	4350
MPH32-32	MPCB 3P TM 25.0-32.0A	6830
(B) With magnetic trip only (no Thermal release)		
MPH32M-0.16	MPCB 3P Mag only 0.16 A	2530
MPH32M-0.25	MPCB 3P Mag only 0.25 A	2570
MPH32M-0.4	MPCB 3P Mag only 0.4 A	2570
MPH32M-0.63	MPCB 3P Mag only 0.63 A	2665
MPH32M-1.0	MPCB 3P Mag only 1.0 A	2620
MPH32M-1.6	MPCB 3P Mag only 1.6 A	2620
MPH32M-2.5	MPCB 3P Mag only 2.5 A	2620
MPH32M-4.0	MPCB 3P Mag only 4.0 A	2780
MPH32M-6.3	MPCB 3P Mag only 6.3 A	2835
MPH32M-10	MPCB 3P Mag only 10 A	2810
MPH32M-16	MPCB 3P Mag only 16 A	3065
MPH32M-20	MPCB 3P Mag only 20 A	3285
MPH32M-25	MPCB 3P Mag only 25 A	3260
MPH32M-32	MPCB 3P Mag only 32 A	5715

HSN Code : 8538

Cat code	Description	List Price [₹]
MPHF11	Front aux contact 1NO+1 NC MPCB	475
MPHS11	Side aux contact 1NO+1 NC MPCB	630
MPHT11	MPCB Trip Indicator	755
MPH024UR	UV Rel. 24V 50HZ MPCB	1250
MPH020UR	UV Rel. 20V 50HZ MPCB	
MPH115UR	UV Rel. 110-115V 50HZ MPCB	
MPH180UR	UV Rel. 180V 50HZ MPCB	
MPH240UR	UV Rel. 230-240V 50HZ MPCB	
MPH380UR	UV Rel. 380V 50HZ MPCB	
MPH415UR	UV Rel. 400-415V 50HZ MPCB	
MPH500UR	UV Rel. 500V 50HZ MPCB	
MPH024SR	Shunt Rel. 20-24V 50/60HZ MPCB	
MPH048SR	Shunt Rel. 40-48V 50/60HZ MPCB	
MPH240SR	Shunt Rel. 200-240V 50/60HZ MPCB	1050
MPH440SR	Shunt Rel. 365-440V 50/60HZ MPCB	
MPH127SR	Shunt Rel. 100-127V 50/60HZ MPCB	
MPH34	Extnd rotary handle 32A	
B31SMA1	Plastic enclosure for MPH32 MPCB	1400

MPCB BCH

MPE Range (0.1 - 25A)



- Conforms to IEC 60947
- Perfect Coordinated system for Motor Control
- Electrical Life : 100000 Operations
- Excellent Current limiting characteristics
- Modular Snap fit Accessories
- 2 Pole version, Only Magnetic Trip Version available on request

MPCB (with thermal & magnetic release) HSN Code : 8536

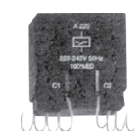
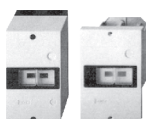
Cat ref	Setting Range (A)	Motor Rating in kW at 415 V	MRP [₹]
MPE-01	0.1...0.16	-	2280
MPE-02	0.16...0.25	0.06	
MPE-03	0.25...0.4	0.12	
MPE-04	0.4...0.63	0.18	2520
MPE-05	0.63...1	0.25, 0.37	
MPE-06	1...1.6	0.55	2575
MPE-07	1.6...2.5	0.75, 1.1	
MPE-08	2.5...4	1.5	2630
MPE-10	4...6.3	2.2, 3	
MPE-14	6.3...10	4, 5	2755
MPE-16	10...16	5.5, 9	3145
MPE-20	16...20	11	3390
MPE-22	20...25	12.5	3650



Accessories of MPE Range

HSN Code : 8538

Reference	Contacts	List price [₹]
Auxiliary	Switch	
MPA-0010	1NO	355
MPA-0001	1NC	
MPA-0011	1NO + 1NC	540
MPA-0020	2NO	
Enclosures (IP55)		
MPA-EF	Flush mounted	740
MPA-ES	Surface mounted	825
Voltage Releases		
MPA-U ■	Under Voltage Release	1175
MPA-S ■	Shunt Release	



■ A: 110 VAC, K: 240 VAC, M: 415 VAC, U: 24 VAC, R: 42 VAC

HSN Code : 8538

Reference	Tap-o *	List price [₹]
Bus Bar		
MPA-BB245	2 Tap-o (45mm)	510
MPA-BB345	3 Tap-o (45mm)	705
MPA-BB445	4 Tap-o (45mm)	845
MPA-BB545	5 Tap-o (45mm)	925
MPA-BB263	2 Tap-o (63mm)	555
MPA-BB463	4 Tap-o (63mm)	835
MPA-BB1	Incoming Block	510

*centre to centre distance.

MPCB BCH

MS32 range (0.1 to 32A)

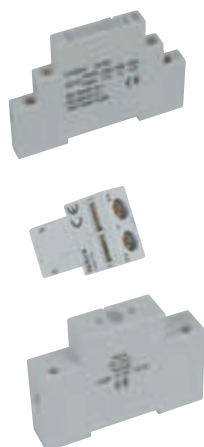


- Auxiliary switch for side mounting & flush mounting
- Indication of release with trip indicating auxiliary switch

HSN Code : 8536



Cat ref	Setting range (A)	Motor rating in KW at 415V	MRP[₹]
MS32-0.16	0.1-0.16	-	2350
MS32-0.25	0.16-0.25	0.06	
MS32-0.4	0.25-0.4	0.09	
MS32-0.63	0.4-0.63	0.12 to 0.18	2510
MS32-1.0	0.63-1.0	0.18 to 0.25	
MS32-1.6	1.0-1.6	0.37 to 0.55	
MS32-2.5	1.6-2.5	0.75	2690
MS32-4.0	2.5-4	1.1 to 1.5	
MS32-6.3	4-6.3	2.2	
MS32-10	6.3-10	3 to 4	2760
MS32-14.0	9-14	5.5	
MS32-18	13-18	7.5	
MS32-23	17-23	9 to 11	3135
MS32-27	20-27	11	
MS32-32	25-32	15	



Accessories - MS32 range

HSN Code : 8538

Cat ref	type	Contacts	List Price [₹]
HS11	Aux contact side mounting	1NO+1NC	540
HSV10	Aux contact top mounting	1NO	475
HSV01		1NC	475
HRS10	Trip indicating block top mounting	1NO	345
HRS01		1NC	345
MS32-UR	Under voltage release	-	1250
MS32-AR	Shunt release	-	1250

Note: For further details, please contact nearest sales office

Solid State Relay BCH

Solid State Relays (SSR)

Single Phase SSR's for Heating Applications

SC9 Series 1-Phase ZERO CROSS Without LED HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	I^2t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC941110L	5	12A	72	600V AC	12-280V AC	4-30V DC	1140
SC942110L	5	25A	288	600V AC	12-280V AC	4-30V DC	1335
SC944110L	5	40A	612	600V AC	12-280V AC	4-30V DC	1720

MOQ - Minimum Order Qty.



- Electronic Switching of loads - silent operation
- Life Over 100 million operations
- High Switching Frequency
- Ideal for dusty & corrosive atmosphere
- Impact & Vibration resistant
- Direct compatibility with PLC
- LED Indication as option

SC9 Series 1-Phase ZERO CROSS With LED

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	I^2t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC941160L	5	12A	72	600V AC	12-280V AC	4-30V DC	1150
SC942160L	5	25A	288	600V AC	12-280V AC	4-30V DC	1355
SC944160L	5	40A	612	600V AC	12-280V AC	4-30V DC	1750
SC945160L	5	50A	1500	600V AC	12-280V AC	4-30V DC	3575
SC947160L	5	75A	5000	600V AC	12-280V AC	4-30V DC	3980

MOQ - Minimum Order Qty.

SC9 Series 1-Phase ZERO CROSS With LED

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	I^2t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC962160L	5	25A	265	1200V AC	24-600V AC	5-30V DC	4820
SC965160L	5	50A	1500	1200V AC	24-600V AC	5-30V DC	6070
SC967100	2	75A	5000	1200V AC	24-600V AC	5-30V DC	9465

MOQ - Minimum Order Qty.

Solid State Relay BCH



Innovation - Performance-Design

- Removable IP20 flaps.
- Only 29 mm height.
- Designed for all types of loads.
- TMS² Technology with very long life expectancy.
- Control Status LED.
- Very low zero cross level.
- UL/cUL, VDE (EN60950), IEC/EN60947-4-3, CE marking

SO9 Series 1-Phase ZERO CROSS With LED in okpac® Housing IP20 Protection

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO942560*	2	25A	600	600V AC	12-280V AC	7-30V DC	3045
SO963460*	2	35A	1250	1200V AC	24-600V AC	3.5-32V DC	3645
SO945460*	2	50A	2500	600V AC	12-280V AC	3-32V DC	4060
SO965460*	2	50A	2800	1200V AC	24-600V AC	3.5-32V DC	4065
SO967460*	2	90A	7200	1200V AC	24-600V AC	3.5-32V DC	4685

*Non Sock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.



SU9 Series 1-Phase ZERO CROSS With LED in okpac® Housing IP20 Protection



HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SU942460*	44	25A	600V AC	12-280A AC	3-32V DC	On Request
SU963460*	44	35A	1200V AC	24-600V AC	3.5-32V DC	On Request
SU965460*	44	50A	1200V AC	24-600V AC	3.5-32V DC	2050
SU967460*	44	75A	1200V AC	24-600V AC	3.5-32V DC	2155

*Non Stock items, allow 4-6 weeks delivery time.

SU Range

- Designed for resistive load
- With pluggable connector on input
- IP20 protection with Removable
- For mounting on Heat sink or panel mount
- Over voltage protection on input
- Control Status LED
- Very low zero cross level
- Quick and easy connection
- UL/ cUL.

Single Phase SSR's for Capacitor Control Applications SO8 Series 1-Phase With LED in okpac® Housing IP20 Protection



HSN Code : 8536



Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO842074*	2	25A	600	600V AC	12-275V AC	3-32V DC	3715
SO863070*	2	35A	1250	1200V AC	24-510V AC	3.5-32V DC	4105
SO845070*	2	50A	2500	600V AC	12-275V AC	3-32V DC	4395
SO848070*	2	95A	14400	600V AC	12-275V AC	3-32V DC	6615
SO889060*	2	125A	24000	1600V AC	24-600V AC	3.5-32V DC	17580

*Non Sock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.

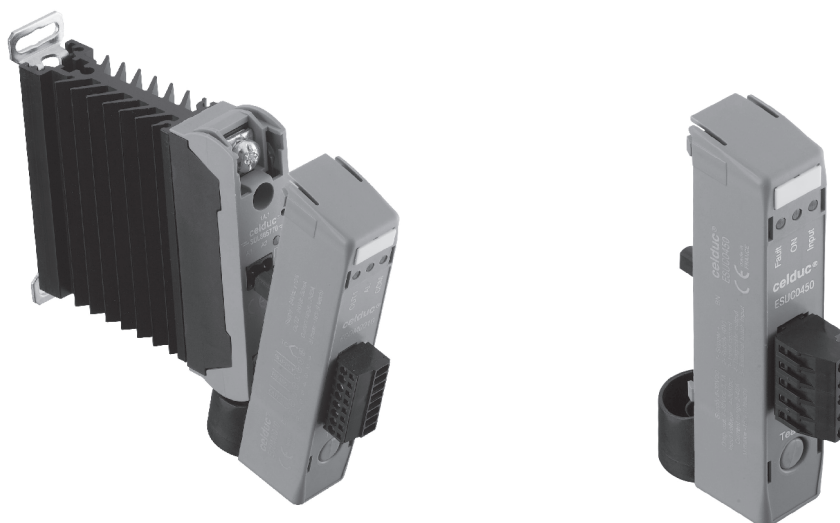
Solid State Relay BCH

Single phase SSR solutions with current monitoring & temp. controller PID



The 22.5mm pitch SSR solution

Two modules are available directly pluggable on SSR type SU and SUL



Save room / Save cost / Add more functions

SU/SUL combined with	SU/SUL combined with									
ESUC (Current monitoring module)	ECOM0010 (Temp. controller PID, current monitor and communication interface in one unit)									
Add to your SSR Diagnostic information for up to 5 heaters in parallel with : > Permanent load current monitoring, > Current teaching function, > 2 alarm thresholds (+/-16%) > Partial load break detection, > Open load detection, > Detection of short-circuited SSR. Product <table><tr><td>reference</td><td>Current range</td><td>Control</td></tr><tr><td>ESUC0450</td><td>2-40A 2-40A</td><td>8-30VDC</td></tr><tr><td>ESUC048</td><td>2-40A 0 2-40A</td><td>24-45VDC</td></tr></table>	reference	Current range	Control	ESUC0450	2-40A 2-40A	8-30VDC	ESUC048	2-40A 0 2-40A	24-45VDC	Add to your SSR > Temperature controller with : • PID with automatic or manual settings, • Insulated inputs for J, K, T, E thermocouples, PT100 to come • Auxiliary output for heating, cooling, alarm or to control a 3 phase Solid State Relay, • Loop and heater break alarms. > Current monitoring and alarms up to 50A. > RS485 communication interface / Modbus RTU (others on request) > Power supply : 24Vdc +/- 10%
reference	Current range	Control								
ESUC0450	2-40A 2-40A	8-30VDC								
ESUC048	2-40A 0 2-40A	24-45VDC								
Why choosing this function ? > Quick fault detections (instantaneous alarm). > Maintenance. > To detect when a heater is broken which brings problems and is difficult to locate. > To maintain good quality production for plastic/rubber machines (specially thermosetting machines). > 22.5mm wide with integrated heatsink and DIN rail adaptor.	Why choosing this function ? > The ECOM is the most compact solution available on the market that incorporates the latest measuring and control technology. > This solution can answer the needs of cost reduction of electrical cabinets (smaller), PLC (less analogue and digital I/O's) and wiring (bus communication).									

For price and technical specifications, please contact nearest BCH branch office.

Solid State Relay BCH

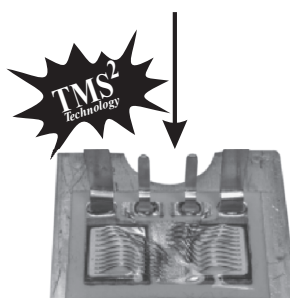
Single Phase SSR's for Motor Control Applications SC7 Series 1-Phase Without LED (Random Switching)

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	AC53 Rating	I^2t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC741110L	5	12A	2.5A	72	600V AC	12-280 AC	4-30V DC	1120
SC761110L	5	12A	2.5A	72	1200V AC	24-520V AC	5-30V DC	1670
SC742110L	5	25A	5A	312	600V AC	12-280 AC	4-30V DC	1325
SC762110L	5	25A	5A	265	1200V AC	24-520V AC	5-30V DC	2370
SC744110L	5	40A	9A	612	600V AC	12-280 AC	4-30V DC	2560
SC764110L	5	50A	12A	1500	1200V AC	24-520V AC	5-30V DC	5360
SC767110L	5	75A	16A	5000	1200V AC	24-520V AC	5-30V DC	9175
SC768110L	5	95A	20A	11000	1200V AC	24-520V AC	5-30V DC	9465
SC769110L	5	125A	30A	20000	1200V AC	24-520V AC	5-30V DC	15260

MOQ - Minimum Order Qty.

Direct Copper Bonding Technology



- Fewer joints, fewer layers results in better thermal characteristics
- Extremely low temperature rise ensures long life

SO7 Series 1-Phase With LED in okpac® Housing IP20 Protection (Random Switching)

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	AC53 Rating	I^2t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO745090	2	50A	12A	2500	600V AC	12-275V AC	3-32V DC	5165
SO767090	2	75A	16A	7200	1200V AC	24-510V AC	3.5-32V DC	7580
SO768090	2	95A	20A	14400	1200V AC	24-510V AC	3.5-32V DC	8890
SO769090	2	125A	30A	24000	1200V AC	24-510V AC	3.5-32V DC	13040

*Non Sock Items, allow 4-6 weeks delivery time

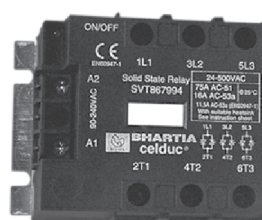
MOQ - Minimum Order Qty.

Three Phase SSR's SVT Series 3-Phase With LED (ZERO CROSS) IP20 Protection

HSN Code : 8536

Cat. No.	MOQ	AC51 Rating	AC53 Rating	I^2t (A ² S)	Peak Voltage	Operating	Control Voltage	MRP [₹]
DC CONTROL								
SVT861394	2	12A	2.5A	72	1200V AC	24-520V AC	8.5-30V DC	16230
SVT864374	2	50A	12A	1500	1200V AC	24-520V AC	10-32V DC	19805
SVT868394E	2	95A	24A	5000	1200V AC	24-520V AC	8.5-30V DC	20770
SVT869394	2	125A	32A	20000	1200V AC	24-520V AC	8.5-30V DC	24635
AC CONTROL								
SVT864994	2	50A	12A	1500	1200V AC	24-520V AC	90-240V AC	20770
SVT967960	2	75A	-	1500	1200V AC	24-520V AC	90-240V AC	23380
SVT869994	2	125A	32A	20000	1200V AC	24-520V AC	90-240V AC	25600

MOQ - Minimum Order Qty.



- IP20-RC and VDR Protection
- Designed for all types of load
- Thyristor technology

Solid State Relay BCH

Proportional Controllers

SG4 / SG5 Series 1-Phase Without LED

HSN Code : 8536



SG4 / SG5 Range Proportional Controllers

Dierent Control Possibilities

- Phase angle control
 - Full wave pulse control
 - Full cycle Fast burst control
 - Soft starter
- Applications : Light dimmer, Heating, Regulation single ph. Variable Speed Control (Vibrating feeders etc).

Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SG4 Series							Contact nearest sales office for Prices.
SG441020*	1	10A	72	600V AC	115-265V AC	0-10V DC	
SG444020*	1	40A	1500	600V AC	115-265V AC	0-10V DC	
SG444120*	1	40A	1500	600V AC	115-265V AC	0-5V / Pot [§]	
SG444420*	1	40A	1500	600V AC	115-265V AC	4-20mA	
SG464020*	1	40A	1500	1200V AC	200-460V AC	0-10V DC	
SG464120*	1	40A	1500	1200V AC	200-460V AC	0-5V / Pot [§]	
SG464420*	1	40A	1500	1200V AC	200-460V AC	4-20mA	
SG468020*	1	70A	5000	1200V AC	200-460V AC	0-10V DC	
SG468420*	1	70A	5000	1200V AC	200-460V AC	4-20mA	
SG469020*	1	110A	20000	1200V AC	200-460V AC	0-10V DC	
SG469120*	1	110A	20000	1200V AC	200-460V AC	0-5V / Pot [§]	
SG469420*	1	110A	20000	1200V AC	200-460V AC	4-20mA	
SG5 Series							Contact nearest sales office for Prices.
SG541020*	1	10A	72	600V AC	115-253V AC	0-10V DC	
SG541420*	1	10A	72	600V AC	115-253V AC	0-5V / Pot [§]	
SG541420*	1	10A	72	600V AC	115-253V AC	4-20mA	
SG544020*	1	40A	72	600V AC	115-253V AC	0-10V DC	
SG544120*	1	40A	72	600V AC	115-253V AC	0-5V / Pot [§]	
SG564020*	1	40A	612	1200V AC	200-440V AC	0-10V DC	
SG564120*	1	40A	612	1200V AC	200-440V AC	0-5V / Pot [§]	
SG564420*	1	40A	612	1200V AC	200-440V AC	4-20mA	

*Non Sock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.

Phase Angle Controllers

SO4 Series 1-Phase With LED in okpac® Housing IP20 Protection

HSN Code : 8536



SO4 new generation phase angle controllers allows numerous functions (Over Protection by Varistor)

- Phase angle control
- Full wave pulse control
- Fast burst control
- Soft starter
- Timers
- Flashing relay

Cat. No.	MOQ	AC51 Rating	I ² t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO445020*	2	50A	2500	600	90-280V AC	0-10V DC	Contact nearest sales office for Prices.
SO445120*	2	50A	2500	600	90-280V AC	0-5V DC	
SO445320*	2	50A	2500	600	90-280V AC	Pot [§]	
SO445420*	2	50A	2500	600	90-280V AC	4-20mA	
SO465020*	2	50A	2500	1200	200-480V AC	0-10V DC	
SO465320*	2	50A	2500	1200	200-480V AC	Pot [§]	
SO465420*	2	50A	2500	1200	200-480V AC	4-20mA	
SO467420*	2	95A	7200	1200	200-480V AC	4-20mA	
SO468020*	2	95A	7200	1200	200-480V AC	0-5V DC	
SO468120*	2	95A	7200	1200	200-480V AC	0-5V DC	
SO468420*	2	95A	7200	1200	200-480V AC	4-20mA	
SO469020*	2	125A	7200	1200	200-480V AC	0-10V DC	
SO469120*	2	125A	7200	1200	200-480V AC	0-5V DC	
SO469420*	2	125A	7200	1200	200-480V AC	4-20mA	

*Non Sock Items, please allow 4-6 weeks delivery time

Pot[§] = Potentiometer

MOQ - Minimum Order Qty.

Solid State Relay BCH

Reverser Relay

SG/SV/SW Series - 3-Phase Without LED

HSN Code : 8536

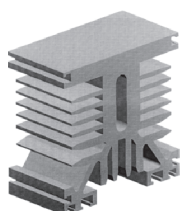
Cat. No.	MOQ	AC51 Rating	$I^2t(A^2S)$	Reversing Time	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SG969100*	1	6.6A	612	Adj.0.06s-4.0s	1200V AC	24-500V AC	12-30V DC	Contact nearest sales office for Prices.
SG969300*	1	8.5A	1500	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	
SV969300*	1	8.5A	1500	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	
SV969500*	1	16A	5000	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	
SW960330*	1	4.5A	1500	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	
SW961230*	1	8.5A	1500	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	

*Non Sock Items. please allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.



Common IP20 Protective Cover for SC series SSR.



Heat Sink - 65 mm

- Wide range of Heat sinks offers perfect coordination with all SSRs

Accessories for SSR

HSN Code : 8538

Cat. No.	MOQ	Description	List Price [₹]
SC1K4600	20	IP20 Cover SC*	30
SCHS6 DIN	20	Din Clip	125
SCHS2200	5	Heat Sink 2.2K/W	770
SCHS1100	5	Heat Sink 1.1 K/W	2505
SCHS0900	5	Heat Sink 0.9 K/W	2960
SCHS0300	5	Heat Sink 0.3K/W	4825

*IP20 Protective Cover for complete SC range
Refer to nearest branch office for heat sink selection

Suggested Heat Sink Rth values (K/W) for load rating at diff. Ambient Temperature

SSR Rating (A)	25°C	35°C	45°C	55°C
12A	2.2	2.2	2.2	1.1
25A	1.1	1.1	0.3	0.3
40A	0.3	0.3	0.3	0.3
50A	0.3	0.3	0.3	0.3
75A	0.3	0.3	0.3	0.3
95A	0.3	0.3	0.3	-
125A	0.3	0.3	-	-

* For Heat Sink Selection of S07 / S08 / S09 / SG4 / SG5 ranges refer to nearest sales office

Note: Apply heat sink compound between SSR base and external heat sink. In case of closely packed units the ambient temperature condition should be considered carefully. For proper protection, short-circuit protection device (SCPD) (having I^2t rating lower than that of SSR I^2t) must be used.

Contact nearest Branch Office for Price & technical details for following Special duty Solid State Relays

- SSR with AC Controls
- PCB Mounted SSR
- DC Relays
- Soft Starters
- SSR Integrated with heatsink-Softlife range
- SSR with spring terminals
- Celpac® range - 22.5 & 45 mm pitch with system diagnostics
- SSR for transformer starting
- Three Phase Universal digital Proportional Controllers - SVTA - SWTA range

Solid State Relay BCH

Other range of relays and sensors

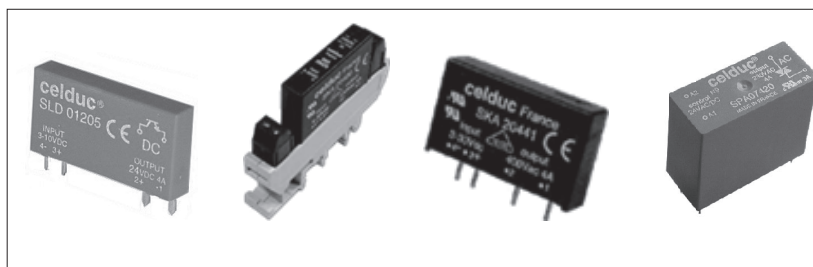
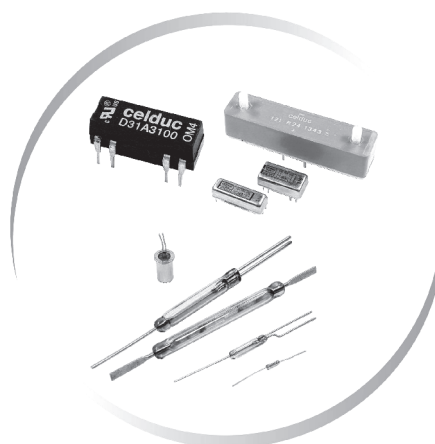
Magnetic sensors for Level, safety, speed, proximity & speed

Used for monitoring or controlling level, clearance, movement, position and rpm recording etc. These sensors can be used anywhere in consumer goods or industrial sectors like automotive, aircraft or telecommunications.



Reed Switches & Relays

Reed switches are used in magnetic proximity sensors & reed relays. The range meets the demands of the increasing number of new applications.



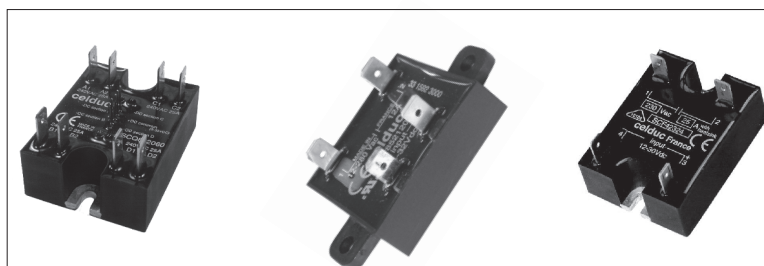
SLIM range (SP/ST/SL/XK) - AC/DC control

SP-ST: 1.0-5.0A

SKA/SKB: standard range/ 2.0- 5.0A

SKL: For mounting on heatsink / 16.0-75.0A

SKH: with an integrated heatsink/ 16.0-25.0A

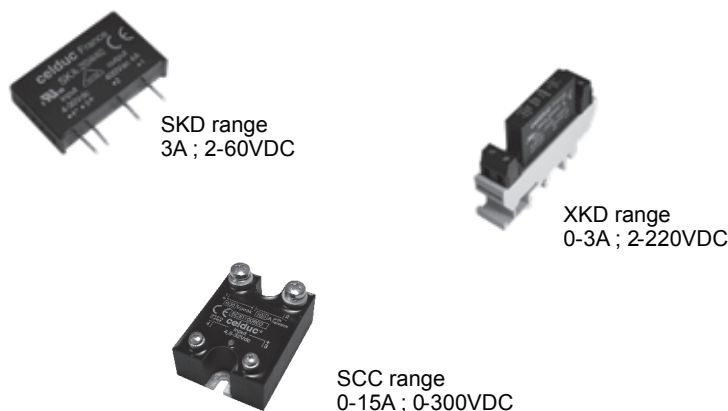


SSR with faston terminals (easy to connect) - AC/DC control

SF range : 10.0-20.0A

SCF range: to control resistive loads/ 25A

SCFL range – EMC optimised (low RFI)/ 25A



SKD range
3A ; 2-60VDC

XKD range
0-3A ; 2-220VDC

SCC range
0-15A ; 0-300VDC

DC Solid State Relays (up to 150A 1200VDC)

These relays are designed to switch DC loads i.e. solenoid valves, brakes, indicators & motors.

Applications

DC Motors (travelling cranes, cranes, vehicles, ...)

Batteries (ships, solar systems, ...)

Heaters (air conditioning in trains, tramways, ...)

Electro-magnet (induction motor braking, ...)

DC power supplies (converters like choppers, inverters, ...)

For price and technical specifications, please contact nearest BCH branch office.

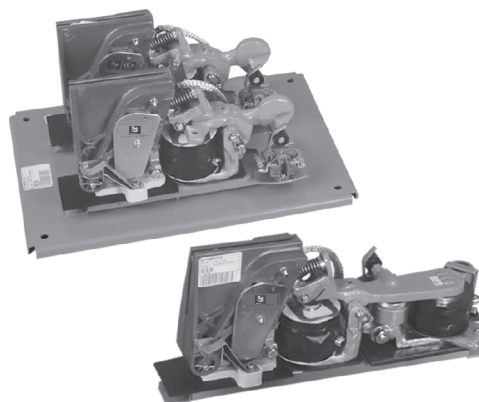
Effective from 06.06.2018

DC Contactors BCH

DC Mill Duty Contactor

HSN Code : 8536

No. of poles	(A)	Auxiliary Contacts	Cat. No.	MRP [₹]
50 Amperes				
Single pole Normally Open	15A 25A 50A	2NO+2NC 2NO+2NC 2NO+2NC	912x1522 ■ 912x2522 ■ 912x5022 ■	23470
Double pole Normally Open	15A 25A 50A	2NO+2NC 2NO+2NC 2NO+2NC	D912x1522 ■ D912x2522 ■ D912x5022 ■	51040
Mechanically Interlocked 2 Nos. SP NO	15A 25A 50A	2NO+2NC 2NO+2NC 2NO+2NC	M912x1522 ■ M912x2522 ■ M912x5022 ■	56610
150 Amperes				
Single pole Normally Open	150A	2NO+2NC	914x22 ■	40545
Double pole Normally Open	150A	2NO+2NC	D914x22 ■	86930
Mechanically Interlocked 2 Nos. SP NO	150A	2NO+2NC	M914x22 ■	91740
Single pole Normally Closed	150A	1NO+1NC	924x11 ■	41760
Double Pole Normally Closed	150A	2NO+2NC	924x22 ■	88615
Single pole Normally Open with Holdout Coil #	150A	1NO+1NC	934x11 ■	43955
Single pole Normally Open with AC Blow out Coil	150A	2NO+2NC	974x22 ■	51405
300 Amperes				
Single pole Normally Open	300A	2NO+2NC	915x22 ■	58875
Double pole Normally Open	300A	2NO+2NC	D915x22 ■	125390
Mechanically Interlocked 2 Nos. SP NO	300A	2NO+2NC	M915x22 ■	130370
Single pole Normally Closed	300A	1NO+1NC	925x11 ■	59175
Double Pole Normally Closed	300A	2NO+2NC	925x22 ■	127825
Single pole Normally Open with Holdout Coil #	300A	1NO+1NC	935x11 ■	63895
Single pole Normally Open with AC Blow out Coil	300A	2NO+2NC	975x22 ■	74450



- From 50 A to 600 A
- Conforms to NEMA Standards
- Ready to use mechanically interlocked version
- Normally closed version
- Hold on coil for time delay
- Mechanical life : 20 million operation
- Electrical life : 1 million operation

Unique Arc quenching system with blow out coils for switching heavy duty loads

DC Mill Duty Contactor

HSN Code : 8536

No. of poles	(A)	Auxiliary Contacts	Cat. No.	MRP [₹]
600 Amperes				
Single pole Normally Open	600A	2NO+2NC	916x22 ■	131220
Double pole Normally Open	600A	2NO+2NC	D916x22 ■	272475
Mechanically Interlocked 2 Nos. SP NO	600A	2NO+2NC	M916x22 ■	276890
Single pole Normally Closed	600A	1NO+1NC	926x11 ■	134885
Single pole Normally Open with Holdout Coil#	600A	1NO+1NC	936x11 ■	166715
Single pole Normally Open with AC Blow out Coil	600A	2NO+2NC	976x22 ■	171585

For 934 / 935 / 936 with holdout coil, suffix voltage code from table for 150, 300 & 600 Amps replace 'x' by 'y' for surface mounting rear connection, 'z' for elevated mounting rear connection

* Add Rs. 2690/- for AC Control

Double Pole DC Mill Duty Contactor

HSN Code : 8536

A	Auxiliary Contacts	Cat. No.	Unit Price [₹]
150A	2NO+2NC	954x22 ■	Contact Branch office for Price
300A	2NO+2NC	955x22 ■	

DC Contactors BCH

DC Mill Duty Contactors - Spares

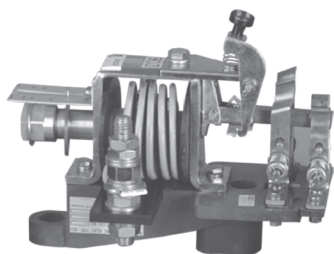
HSN Code : 8538

Description	Qty. Reqd.	50A		150A		300A		600A	
		Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
DC Arc Chute Assy. Consisting of a. LH Arc Shield b. RH Arc Shield c. DC Blow Out Arc Horn d. DC Blow Out Arc Piece e. DC Blow Out Spacer Assy. f. Polarity Wire g. Latch Strips (Top & Bottom) h. Hardware for Polarity Wire & Latch	1 Set	9C9J101*	12015	9C9P101	20590	9C9T101	29855	9C9V101	64995
AC Arc Chute Assy. Consisting of a. LH Arc Shield b. RH Arc Shield c. AC Blow Out Pole Piece d. AC Blow Out Spacer Assy. e. Polarity Wire f. Latch Strips (Top & Bottom) g. Hardware for Polarity Wire & Latch	1Set	-	-	9C9P102	On request	9C9T102	On request	9C9V102	On request
Fixed & Moving Contacts	1 Set	9C9J105	2605	9C9P105	3580	9C9T105	5820	9C9V105	15850
Contact Lever with Braid (for Single Pole)	1 No.	9C9J106	3170	9C9P106	5175	9C9T106	6850	9C9V106	11890
Contact Lever with Braid (for Double Pole) ⁺	1 No.	9C9J106	3170	9C9P106	5175	9C9T106	6850	9C9V103	11890
Set of Armature Spares Consisting of a. Adjusting Pin b. Contact lever spring c. Contact lever spring pin with circlip d. Armature hinge pin e. Armature Securing pin	1 Set	9C9J107	1120	9C9P107	1560	9C9T107	2255	9C9V107	3275
Set of Armature Spares for 924, 925, 926 Consisting of a. Adjusting Pin b. Contact lever spring c. Contact lever spring pin with circlip d. Armature hinge pin e. Armature Securing pin f. Armature spring g. Spring retaining washer	1 Set	-	-	9C9P108	1905	9C9T108	2830	9C9V108	4065
Set of Armature Spares for 934/935/936 Consisting of a. Adjusting pin b. Contact lever spring c. Contact lever hinge pin d. Armature hinge pin e. Armature securing pin f. Armature spring g. Spring retaining washer h. Adjusting screw	1 Set	-	-	9C9P109	2275	9C9T109	3365	9C9V109	4315
Terminal Block	1	9C9J110	1450	9C9P110	1905	9C9T110	2670	9C9V110	3335
No Volt Coil for 912, 914, 915, 916, 934, 935 & 936 **Suffix voltage code	1	9C9J111■	5390	9C9P111■	8250	9C9T111 ■	10855	9C9V111 ■	18715
No Volt Coil for 924, 925, 926 **Suffix voltage code	1	-	-	9C9P112■	10855	9C9T112 ■	16870	9C9V112 ■	27255
Coil clamp for 914 & 934	1	-	-	9C9P118	200	-	-	-	-
Coil clamp for 924, 915, 935, 916 & 936	1	-	-	9C9P118	200	9C9T118	200	9C9V118	On request

- Suffix coil voltage code from table on page 25
- Please add Rs. 2690 for AC control

- * Only item a to e is supplied in this set
- * For two Poles, need to order for 2 Nos.

DC Contactors BCH



- Magnetic Operated Overload relay for heavy duty applications
- From 1.5A to 600A
- Instantaneous and Time delay tripping
- Manual and automatic resetting
- 1NO + 1NC Contacts

DC Mill Duty Contactors - Spares & Accessories HSN Code : 8538

Description	Cat. No.	List Price [₹]
1NO+1NC Auxilliary Contact Block	AC10E11	4780
2NO Auxilliary Contact Block	AC10E20	4780
2NC Auxilliary Contact Block	AC10E02	4780
Single unit driver with mounting plate (50 A)	9C9J115	745
Double unit driver with mounting plate (50 A)	9C9J116	1085
Single unit driver with mounting plate (150-600A)	9C9P116	810
Double unit driver with mounting plate (150-600A)	9C9P117	1185
Hold out coil for 934, 935 & 936	9C9P113-■	13105
Condenser 50 + 50uF for 934, 935 & 936	9C9P114	810
Mechanical interlock for 150/300/600A	AC10M4/M8/M12	5330
Rectifier 110/240 V	SP30R	2690

■ Suffix voltage code from Table on page 25

DC Magnetic Overload Relays *

HSN Code : 8536

Cat. No.	Coil No.	Continuous Rating	Range Amps	MRP [₹]
B3A23	159-10	2.8	1.5 to 3.5	13900
B3B23	159-5	3.9	3 to 7	
B3C23	159-4	5.4	5 to 13	
B3E23	159-3	10.9	8 to 24	
B3F23	159-2	16.9	10 to 30	
B3G23	159-1	21.9	20 to 40	
B3H23	159-8	34.9	25 to 65	
B3J23	159-6	50.0	35 to 75	16280
B3K23	179-39	69.0	40 to 120	
B3L23	179-38	109.0	70 to 190	
B3M23	179-37	179.0	100 to 300	17755
B3N23	179-36	250.0	200 to 600	
B3Y23	179-36.2	199.0	200 to 600	21600
B3P23		549.0	300 to 900	
B3R23		500.0	500 to 1500	

* With 1NO + 1NC Contacts

Hold Out Coil details for 934/935/936

Hold out coil code	Voltage
494-1	400/500
494-2	100/125
494-5	200/250 & 400/550
494-7	400/450
492-12	100/125
494-43	200/250 & 400/550

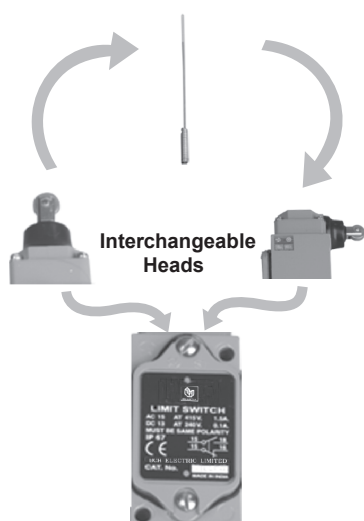
Limit Switches BCH

Heavy Duty Limit Switch - Snap Action Type NL IP 67

HSN Code : 8536

Type	Description	Cat. No. Screw Terminal (1NO+1NC)	MRP [₹]	Cat.No. Precabled (1NO+1NC)	MRP [₹]	Cat. No. Screw Terminal (2NO+2NC)	MRP [₹]	Cat. No. Precabled (2NO+2NC)	MRP [₹]
Roller Lever	Standard-38MM Standard-76.2mm Adjustable	NLL1 NLL2 NLLA	1470	NLL1C NLL2C NLLAC	1600	NLL1-22 NLL2-22 NLLA-22	2245	NLL1-22C NLL2-22C NLLA-22C	2335
	Maintained Type Maintained Type Maintained Type	NLL1M NLL2M NLLAM	1650	NLL1MC NLL2MC NLLAMC	1725	NLL1M-22 NLL2M-22 NLLAM-22	2485	NLL1M-22C NLL2M-22C NLLAM-22C	2530
Push Roller	Top Side	NLTPR NLSPR	1470 1610	NLTPRC NLSPRC	1600 1725	NLTPR-22 NLSPR-22	2245 2420	NLTPR-22C NLSPR-22C	2325 2530
Push Button	Top Adjustable Side Adjustable	NLTPBA NLSPBA	1470 1610	NLTPBAC NLSPBAC	1600 1725	NLTPBA-22 NLSPBA-22	2190 2420	NLTPBA-22C NLSPBA-22C	2325 2530
Cat Whisker	Nylon Rod Steel Rod	NLCW NLJW	1290 1470	NLCWC NLJWC	1385 1570	NLCW-22 NLJW-22	2135 2245	NLCW-22C NLJW-22C	2245 2325
Fork Type	Roller in same line Offset Rollers	NLLF NLLFO	1650	NLLFC NLLFOC	1725	NLLF-22 NLLFO-22	2490	NLLF-22C NLLFO-22C	2530
	Roller in same line Maintained Offset Rollers Maintained	NLLFM NLLFOM	1930	NLLFMC NLLFOMC	2005	NLLFM-22 NLLFOM-22	2695	NLLFM-22C NLLFOM-22C	2745

- IP 67 degree of Protection
- Choice of 16 Operating Heads
- Interchangeable heads ensures complete modularity and flexibility
- Zinc Die cast body for Heavy duty applications
- Easily replaceable contact blocks
- Precabled version with 2m cable length



Limit Switches BCH



Mini Limit Switch

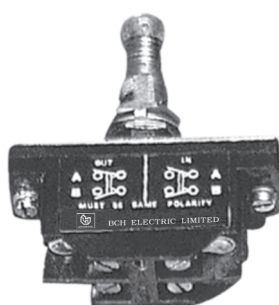
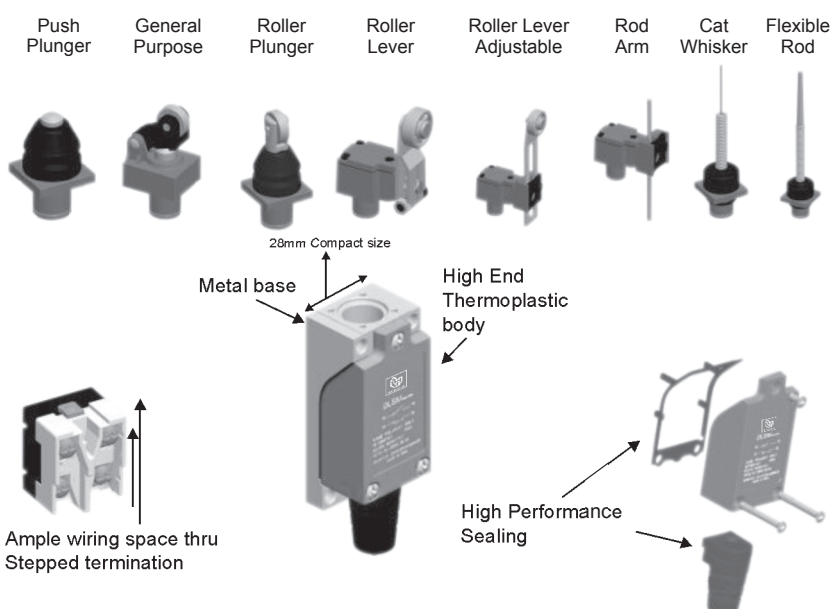
HSN Code : 8536

Type		Cat. No.	MRP [₹]
General Purpose Type		DLSMAR	960
Top Plunger	Standard	DLSMPP	
Push Roller	Standard	DLSMRP	
	Cross	DLSMRPX	
Roller Lever	39mm	DLSMRL	1000
	Adjustable	DLSMRLA	
Rod Arm	Adjustable	DLSMJWA	1055
Cat's Whisker	Steel Spring	DLSMSW	
Flexible Rod	Nylon	DLSMSR	

Applications

- Lifts and Escalators
- Machine Tools
- Food and Beverages
- Textile Machines
- Packaging & Printing Machines

Site Interchangeable Heads



Precision Limit Switch

HSN Code : 8536

1NO+1NC			2NO+2NC		Lot Size
Type of Operator	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]	
Roller Lever	PSRL-L or R	580	PSRL-L-2 or R-2	700	1
Six Inch Lever	PSSIL-L or R		PSSIL-L-2 or R-2		
Top Push Roller	PSTPR*		PSTPR*-2		
Top Push Button	PSTPB		PSTPB-2		
Type	Cat. No	List Price [₹]	Cat. No	List Price [₹]	Lot Size
Spare Contact Block	SP20S1	545	SP20S2	685	

* A or B

- Conforming to IEC 60947-5-1
- Compact Design requiring less mounting space
- Zinc Die cast base & high end polyamide cover ensuring robustness & excellent aesthetics
- Unique Cross bar contacts for enhanced reliability
- Dust proof, Water proof & Oil resistance construction
- Snap action contacts
- Frequency of operation 7200 Oprns / hr

Limit Switches BCH

Limit Switch for 125°C Application*

HSN Code : 8536

Type	Cat. No.	MRP [₹]
with 1NO + 1NC Roller Lever Top Push Roller	LL1-150S-M LTPR-150S-M	On Request

*Refer to our nearest sales office for specification & details

Heavy Duty General Purpose Limit Switch

HSN Code : 8536

Snap Action Type L	Angular Roller Top Plunger	LLGS LPGS	970
-----------------------	-------------------------------	--------------	-----

Oil Tight Limit Switch - Snap Action Type L IP 65

HSN Code : 8536

Type	Description	Cat. No.	MRP [₹]
Roller Lever	Standard-38MM	LL1	2040
	Standard-76.2mm	LL2	
	Adjustable	LLA	
	Maintained Type LL1	LL1M	2130
	Maintained Type LL2	LL2M	
	Maintained Type LLA	LLAM	
Push Roller	Top	LTPR	2040
	Side	LSPR	2295
Push Button	Top Adjustable	LTPBA	2335
	Side Adjustable	LSPBA	
Cat Whisker	Nylon Rod	LCW	1670
	Steel Rod	LJW	2080
Fork Type	Roller in same line	LLF	1880
	Offset Rollers	LLFO	1880
	Roller in same line	LLFM	2195
	Maintained		
	Offset Rollers	LLFOM	2195
	Maintained		

Oil Tight Limit Switch - Spares

HSN Code : 8538

Description	Suitable for	Cat. No.	List Price [₹]
38 mm lever	NLL1, LL1	SP40L1	320
76.2 mm lever	NLL2, LL2	SP40L2	405
Adjustable lever	NLLA, LLA	SP40LA	405
Operating Head	LLGS, LPGS	SP40HLG	600
Operating Head	Lever	SP40HL	645
Operating Head	Top	SP 40HTP*	645
	Plunger	SP 40HSP*	720
Operating Head	Cat Whisker	SP40CW	440
	Steel Rod	SP40JW	600
Limit Switch Unit Assembly 1NO+1NC	Type 'L' & 'NL' (Except LLGS / LPGS)	SP40S1	925
Limit Switch Unit Assembly 2NO+2NC		SP40S2	1530
Limit Switch Unit Assembly 1NO+1NC	LLGS / LPGS	SP40S1WOM	600
Fork lever in Line	LLF	SP40LF	500
Fork lever Offset	LLFO	SP40LFO	500
Operating Head Maintained	Lever	SP40HLM	750
Oil tight Conduit		SP40CE	350

* B = Button R = Roller

Foot Switch BCH

HSN Code : 8536

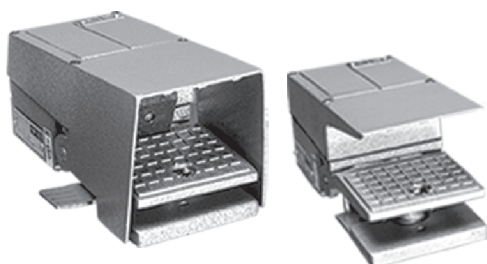
Number of Contact Blocks	Total contacts available	No. of position	Description	Cat. No.	MRP [₹]	Lot Size
One	1NO+1NC	2	With Guard	FSGX1	3225	1
One	1NO+1NC	2	With Shield	FSSX1	3230	
One	1NO+1NC	2	With Latch	FSGX1L	3400	
Two	4NO+4NC	2	With Shield & Latch	FSSY2L	4560	
One	2NO+2NC	2	With Guard	FSGX2	3505	
One	2NO+2NC	2	With Latch	FSGX2L	3655	
Two	2NO+2NC	2	With Guard	FSGY1	3955	
Two	2NO+2NC	2	With Latch	FSGY1L	4210	
Two	4NO+4NC	2	With Guard	FSGY2	4620	
Two	4NO+4NC	2	With Latch	FSGY2L	4705	
Two	1NO+1NC	3	With Guard	FSGZ1M	4025	
Two	4NO+4NC	3	With Latch	FSGZ2M	4605	

Note : Latching unit (with suffix L) is provided with X & Y versions only.

Spares for Foot Switch

HSN Code : 8538

Description	Suitable For	Cat No.	List Price [₹]
Spare Contact Block 1NO+1NC	FGS/FSS	SP20S1	545
Spare Contact Block 2NO+2NC	FSG/FSS	SP20S2	685
Spare Cover with Guard	FSG	SP20CG	1290



- 2 Position and 3 Position
- 1NO+1NC/2NO+2NC/4NO+4NC contact blocks
- Guard and Shielded versions
- Oil tight and water tight enclosure for contact block
- Mechanical and electrical life : 10 million operation
- Suited for heavy duty applications such as :
Machine Tools
Rubber and Tyre making machines
SPMs
Welding Machines
- Suffix X1 = One Block of 1NO+1NC
X2 = One Block of 2NO+2NC
Y1 = Two Blocks of 1NO+1NC
Y2 = Two Blocks of 2NO+2NC

Push Button BCH

Oil Tight Push Button & Indicating Lights - 'Type T' E 30.5 mm

HSN Code : 8536



Range

- Non illuminated and illuminated
- Flush
- Extended
- Mushroom head
- Lever and key type selector switch
- Indicators-Direct/Resistor/Transformer type
- Conforms to EN/IEC-60947-5/IS-13947-5

Features

- Protection degree - IP65
- Rugged construction
- Ideal for motor control centers and control panels
- Proven time tested design

Type	Description	Cat. No.	MRP [₹]	HSN Code	Lot Size
Actuator	Standard flush Button Red Green Black Yellow Blue Amber	TSFB-R TSFB-G TSFB-B TSFB-Y TSFB-BL TSFB-A	185	8536	20
	Long Button Red Green Black Yellow Blue Amber (Orange)	TLB-R TLB-G TLB-B TLB-Y TLB-BL TLB-A	185	8536	10
	Mushroom Head -Spring return Red -Spring return Green -Turn to release Red -Turn to release Green	TMH-R TMH-G TMHL-R TMHL-G	240 240 265 265	8536	10
	Selector Actuator -2 or 3 position	TSSA ***	485	8536	10
	Cylindrical Lock -2 or 3 positions	TCL***	705	8536	10
	Station	Start/Stop Pushbutton	E20EA	835	8536
Contact Block	1NO +1NC 2NO 2NC	050N1 050N2 050N3	235	8536	20
Aluminium Diecast Enclosure	One button Two buttons Three buttons Four buttons	TEN-1 TEN-2 TEN-3 TEN-4	695 925 1145 1330	8536	1
HSN Code : 8538					
Accessories	Wrench for retaining ring Plug for hole Legend plate	TWN TPL 050L^	235 100 40	8538	1

Note: * Position-2 or 3 • Function M-maintained, S-Springreturn
 ■ Cam code 1/2/3 ^ Suffix Legend Code

Oil Tight Indicating Light - E 30.5mm

HSN Code : 8536

Description	Application	Cat. No.	List Price [₹]	HSN Code	Lot Size
(Without lens) Direct type	AC & DC	TILD•10	345	8536	1
Transformer type	AC	TILT•10	435	8536	1
HSN Code : 8538					
Polycarbonate Lens	-	LENS*	45	8538	10
Spare Bulb	AC & DC	SP61L#	50		1

* Lens available in colours given below # Suffix voltage code lamp

Voltage Code (Direct type lamps)

Volts	6	12	24	48	110	220	240	415
Code	P	S	U	W	A	B	K	M

Voltage Code (Transformer type lamps)

Volts	110/6	110/24	220/6	240/24	415/6
Code	A	A/U	B	K/U	M

Illuminated Push Button - E 30.5mm

HSN Code : 8536

Description	Cat. No.	List Price [₹]	HSN Code	Lot Size
Actuator with bulb & terminals @	TIPB ■	300	8536	10
HSN Code : 8538				
Signal lamp transformer	TR ■	250	8538	10
Bulb-6V or 24V	SP61L#	50	8538	1
Legend plate	050L^	40	8538	1
Plastic lens	L2°	40	8538	1

@ Prices are exclusive of lens

^ Suffix Legend plate code

° Suffix colour code: Milky White 1, Clear 2, Yellow 3, Blue 4, Red 5 & Green 6.

- For Contact Block, please refer Push Button Type T.
- The illuminated buttons can be supplied for 6V or 24V direct operations.
- The Transformers are available in 110/6V, 220/6V, 110/24V & 240/24V

Push Button BCH

Suffix Colour Code - 30.5 mm

Colour	Suffix	Colour	Suffix
Red	1P	Yellow	5P
Green	2P	Clear	7P
Blue	3P		
Amber	4P		

Legend Plate - Suffix Code for E30 & 22.5

Inscription	Suffix code	
	Type T	E22
Start	1	34
Stop	2	35
Inch	3	14
Forward	4	07
Reverse	5	41
UP	6	40
Down	7	04
Slow	9	33
Fast	10	06
Raise	11	-
Left	-	18
Motor Run	-	22
Motor Stop	-	23
Overload Tripped	-	30
Overload Reset	-	31
Power On	-	32
Stop Reset	-	36
Test	-	37
Trip	-	38
Lower	12	-
Off	13	24
On	14	26
Jog	15	-
Emergency Stop	16	05
Reset	17	-
High	19	12
Run	20	-
Close	21	03
Open	22	27
Blank	23	01
On-Off	28	-

Push Button 22.5mm BCH

Push Button & Indicating Lights - 22.5 mm

FLEXI22

HSN Code : 8536



Description	Type	Cat. No.	MRP[₹]	Lot Size
Push Button Actuators with Mounting Adaptor	Opaque	Flush	HEA11*M	85
		Extended	HEA12*M	90
	Illuminated**	Flush	HEB11*M	120
		Extended	HEB12*M	125
	Mushroom Head 28mm Colour - Red/Black	Momentary	HEA21*M	105
		Twist to Release	HEA23*M	155
		Stayput Key Release	HEA25*M	305
	Mushroom Head 40mm Colour - Red/Black	Momentary	HEA22*M	135
		Twist to Release	HEA24*M	175
Light Source Units (LSU)	Basic Unit with Mounting Adaptor	Lamp Holder & Lens	HPL22*	75
	LSU with Bulb-Direct Type	6/12/24/48/60/110V ac/dc	HLSUD#	80
	LSU with Bulb-Resistance Type ■	110V ac/dc & 240V ac	HLSUR#	90
	LSU with Bulb-Transformer Type @	Primary : 110V/240V/415V ac Secondary : 6 & 12V ac	HLSUT#	290
LED Indicating Light	Standard 6/12/24/48/60/110/240/415V ac*** 6-60V ac/dc; 110 & 240V dc	Color - R/Y/G/A	HFB2X*#	170
		Blue	HFB2XL#	345
		Clear	HFB2XC#	480
	Universal 24-240V ac/dc	Color - R/Y/G/A	HFB2X*UH4	225
		Blue	HFB2XLUH4	430
	Surge Protected 12-60V ac/dc; 110/240/415V ac; 110/240V dc	Color - R/Y/G/A	HFB2S*#	220
		Blue	HFB2SL#	370
		Clear	HFB2SC#	515
	Low Voltage Glow Protected 110V/240/415V ac	Color - R/Y/G/A	HFB2P*□	255
		Blue	HFB2PLH	460
	Surge & Low Voltage Glow Protected 110V/240/415V ac	Color - R/Y/G/A	HFB2SP*□	260
		Blue	HFB2SPLH	465
Selector Operators with Mounting Adaptor	Selector Key Operator (Color - Black)	2pos Maintained	Pls refer Ordering Sequence & Circuit Combination Table for exact Cat. Ref.	285
		2pos Spr Ret R>L		285
		3pos Maintained		295
		3pos Spr Ret L>C		295
		3pos Spr Ret R>C		295
		3pos Spr Ret L>C<R		295
	Selector Knob or Lever Opaque	2pos Maintained		230
		2pos Spr Ret R>L		230
		3pos Maintained		230
		3pos Spr Ret L>C		230
		3pos Spr Ret R>C		230
		3pos Spr Ret L>C<R		230
	Selector Knob or Lever Illuminated •	2pos Maintained		245
		2pos Spr Ret R>L		245
		3pos Maintained		245
		3pos Spr Ret L>C		270
		3pos Spr Ret R>C		270
		3pos Spr Ret L>C<R		270

* Colour Code Table 1 # Voltage Code Table 2

@ For extended bulb version, use code HLSUTE#

■ Not suitable for illuminated push button types

**Light Source Unit (LSU) needs to be ordered separately.

***LED indicating light (standard) 550VAC, Prices are available on request.

BCH

FLEXI22

HSN Code : 8536



Description	Type	Cat. No.	List Price [₹]	Lot Size
Contact Block		1NO	75	10
		1NC		
	Early Make	1NO	80	
	Late Break	1NC		
		1NO+1NC	120	
		2NO		

H	E				M
		A - Opaque ; B - Illuminated	Table 3 - Position/Cam	Table 4 - Type	Table 1 Color

Applicable for	(*) Color	Code
Opaque, Illuminated	Red	R
Opaque, Illuminated	Yellow	Y
Opaque, Illuminated	Green	G
Opaque, Illuminated	Blue	L
Opaque	Black	B
Illuminated	Amber	A
Opaque	White	W
Illuminated	Clear	C

Selector Operator Version	Code
Sel. Lever 2 pos	8L
Sel. Key 2 pos	8Y
Sel. Knob 2 pos	8K
Sel. Lever 3 pos Cam1	6L
Sel. Key 3 pos Cam1	6Y
Sel. Knob 3 pos Cam1	6K
Sel. Lever 3 pos Cam2	7L
Sel. Key 3 pos Cam2	7Y
Sel. Knob 3 pos Cam2	7K

Table 4		
Applicable for	Type	Code
Selector Operator	Maintained in All Position	D
Selector Operator	Spring Return Right>Centre	R
Selector Operator	Spring Return Left>Centre	T
Selector Operator	Spr. Return Left>Centre<Right	S

Applicable for	(*) Voltage	Code
LSU, LED	6V AC/DC (DIRECT)	P4
LSU, LED	12V AC/DC (DIRECT)	S4
LSU, LED	24V AC/DC (DIRECT)	U4
LSU, LED	48V AC/DC (DIRECT)	W4
LSU, LED	60V AC/DC (DIRECT)	Y4
LSU	110V AC/DC (DIRECT)	A4
LSU	110V AC/DC (RESISTOR)	A4
LED	110/120V AC	E
LED	110/120V DC	E1
LED	220/240V AC	H
LED	220/240V DC	H1
LSU	110V/6V (TRANSFORMER)	AP
LSU	110V/24V (TRANSFORMER)	AU
LSU	240V/6V (TRANSFORMER)	KP
LSU	240V/24V (TRANSFORMER)	KU
LSU	415V/6V (TRANSFORMER)	MP
LSU	415V/24V (TRANSFORMER)	MU
LED	415V AC	M
LED	220/240V AC (DIODE+RESISTOR)	H

Note : Key type Sel Operator available in Opaque version & Black color only.

Push Button 22.5mm BCH

HSN Code : 8538

	Description	Type	Cat. No.	List Price [₹]	Lot Size
Spares & Accessories	Filament Bulb	Normal Bulb	9ED2#	35	10
	Filament Bulb	Extended Bulb	9ED3#	35	
	Mounting Adaptor		HMR	35	
	Lens for Indicating Lamp		H8ED1*	35	1
	Knob for Illum. Selector Actuator		H9ED1K*	35	
	Lever for Illum. Selector Actuator		H9ED1L*	35	
	Legend Plate with Std Inscription	Flush/Extended PB	8EA9 +	35	
	Rubber Boot for IP66 Protection		HRB*	45	
	Padlock to Prevent Operation		8EA1	65	

* Color Code Table 1 # Voltage Code Table 2 + See E 30 marking

SELECTION CRITERIA FOR 3 POSITION SELECTOR OPERATOR CAM:

Selector Operators with CAM1 :

- When the Selector operator lever / knob is moved to the left side, it operated the left side contact block.
- When the Selector operator lever / knob is moved to the right side, it operates the right side contact block.

Selector Operator with CAM2 :

- When the Selector operator lever / knob is moved to the left side, it operates the left side contact block.
- When the Selector operator lever / knob is moved to the right side, it operates **both the right side contact block and the left side contact blocks.**

Push Button & Indicating lights

FLEXI22



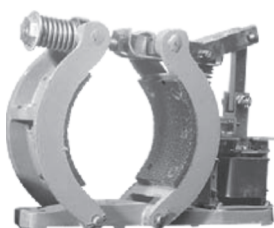
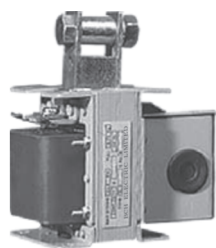
Range

- Flush and Extended Push buttons
- Selector Operators knob & lever
- Non Illuminated and illuminated type
- Mushroom head-28mm, 40mm, 60mm (coming soon)
- LED Indicating lights
- Filament type Indicating lights

Features

- Chrome plated metal bezel
- Modular Snapfit construction
- Oil Tight, Water tight and corrosion-resistant.
- IP65 Degree of Protection
- Anti Rotation Mounting
- Possibility to add 10 Contacts (Coming Soon)
- Operating temperature -20° C to 60° C

AC Solenoids & Brakes BCH



Range

- Solenoids:
 - Type : SLB - 25 mm stroke length
 - Type : SLD - 31.4 mm stroke length
- AC Brakes
 - 4" Dia
 - 5.5" Dia
 - 7" Dia
- Drums

Features

- Class F insulation of the coil
- Continuous & Intermittent duty
- Long life & ease of maintenance
- Ideally suited for applications such as :
 - Cranes
 - Hoists
 - Machines
 - Valves
 - Conveyers

AC Solenoid - Pull Type

GST to be charged extra

HSN Code : 8505

Type	Stroke Length mm	Max. Pull (Continuous Duty) Kg. mm	Cat. No.	List Price [₹]
B	25.0	1.25	SLB-	3255
D	31.4	6.75	SLD-	4810

* The standard coil voltages are 110, 220 & 415 V 50 Hz. AC

AC Solenoid Brake - Type S

GST to be charged extra

HSN Code : 8505

Type of Brake	Wheel dia.		Max. Torque		Duty	Brake		Drum	
	Inch	Inch	Lb. ft.	Nm		Cat No.	List Price [₹]	Cat No.	List Price [₹]
S-4	4	101.6	10	13.6	Continuous	S-42 ■	8585	AC50D4	1460
S-5	5.5	139.7	25	34.0	Continuous Intermittent	S-51 ■ S-52 ■	12120	AC50D5	2015
S-7	7	177.8	50	68.0	Continuous Intermittent	S-71 ■ S-72 ■	14060	AC50D7	2320

AC Solenoid Brake - Type S-10



GST to be charged extra

HSN Code : 8505

S-250	9.84	250	109	147.0	Continuous	S-2501*	29735	AC50D25	4695
-------	------	-----	-----	-------	------------	---------	-------	---------	------

- The standard coils are 110, 220 & 415 V 50 Hz. AC

■ To complete Cat. No. suffix voltage code given below

- Brake drums are of standard specification

- For Intermittent duty (S-250 brake), please contact branch office

AC Solenoid Brakes - Voltage Codes

Coil Voltage	110	220	415
AC	A	B	M

Spares For AC Solenoid Brake

GST to be charged extra

HSN Code : 8505

Description	Brake Size : 4"						Brake Size : 10"	
	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
Brake lining	SP50L1	1090	SP50L2	1620	SP50L3	2175	SP50L4	4275
Brake shoe Assembly*	SP50SA1	3055	SP50SA2	3940	SP50SA3	6505	SP50SA4	13110
Brake Coil -Continuous -Intermittent	SP50MC01	1575	SP50MC21 ■ SP50MC22 ■	3145	SP50MC21 ■ SP50MC22 ■	3145	SP50MC31 ■	8320
Brake Drum	AC50D4	1460	AC50D5	2015	AC50D7	2320	AC50D25	4695

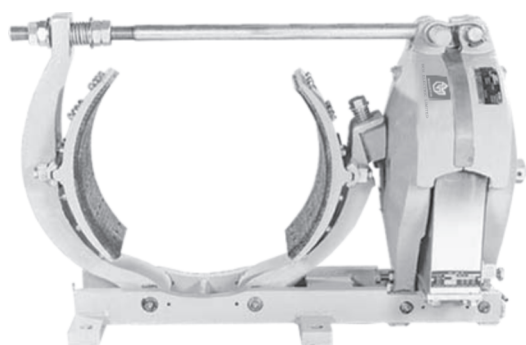
- Prices are per set of 2 nos.,

brake shoe assembly is with lining.

■ To Complete Cat. No. suffix voltage code is given in table, above.

***GST to be charged extra on all AC Brakes & Brake Spares**

DC Brakes BCH



- Shunt and Series type versions in sizes :
8 Inch to 30 Inch
160 mm to 800 mm
- Conforms to NEMA and AISE Standards
- Fail safe operation
- Unique design for maximum torque and minimum shoe wear
Brakes equivalent to Russian 'TK' design also available

Proven and time tested

Heavy duty encapsulated coil with class 'F' insulation

Optional Features

- Limit Switch Attachment
- Manual Release
- Residual magnetism adjustment

GST to be charged extra

HSN Code : 8505

DC Electromagnetic Brakes

Shunt Type Torque				Resistance & Rectifier Panel			
Drum Size	Cat No.	Torque	List Price [₹]	Single Brake		2 Brakes Simult. Operation	
		KG-M		Cat No.	List Price [₹]	Cat No.	List Price [₹]
150mm	SMH150	8	36145	CACS1*MAE	38320	CACS2*MAE	53240
160mm	SMH160						
8"/200mm	SMH8	13.8	42550	CACA1*MAE	42720	CACJ2*MAE	55365
	SMH200	13.8					
10"/250mm	SMH10	27.7	52240	CACB1*MAE	45330	CACK2*MAE	62610
	SMH250	27.7					
13"/300mm	SMH13	76.0	85525	CACC1*MAE	49110	CACL2*MAE	72115
	SMH300	76.0					
16"/400mm	SMH16	138.8	137665	CACD1*MAE	56545	CACM2*MAE	79235
	SMH400	138.8					
19"/500mm	SMH19	277.0	220025	CACE1*MAE	68375	CACN2*MAE	100105
	SMH500	277.0					
23"/600mm	SMH23	555.0	351260	CACF1*MAE	88165	CACP2*MAE	126555
	SMH600	555.0					
30"/700mm	SMH30	1242.0	782230	CACG1*MAE	348080	-	-
	SMH700	1242.0					
800mm	SMH800	1242.0	847505	CACG1*MAE	348080	-	-

* For control supply i.e. A=110 V, B=220 V, K=240V and M=415 V AC

1. DC Electromagnetic Brakes are suitable to operate on:

For AC Power - Resistance & Rectifier Panel

For DC Power - Series Resistance Box

- All Brakes are Supplied for Continuous Duty

- Resistance & Rectifier Panel is supplied without transformer.

- Control Transformer (Optional) can be supplied at extra cost.

Please add Rs. 4770 /- per unit with the LP of Resistance & Rectifier Panel. Please add 'TR' with respective panel cat. ref. to obtain final cat. Code of such panel with control transformer.

Prices of 'Brakes with Asbestos free liners' available on request.

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes**

DC Brakes BCH

Resistance Boxes for DC Electromagnetic Brakes

GST to be charged extra

HSN Code : 8505

Shunt Type			Permanent Series Resistance Box for 230 V DC Supply For Single Brake		Permanent Series Resistance Box for 230 V DC Supply For Single Brake		Permanent Economy Resistance Box for 415 V AC Supply For Single Brake		Permanent Economy Resistance Box for 415 V AC Supply For Double Brake	
Size	Cat No.	Torque KGM	Cat No.	List Price [₹]	Cat No.	List Price[₹]	Cat No.	List Price[₹]	Cat No.	List Price[₹]
150mm	SMH150	8	CDCS101D	5275	CARS10KE	4825	CARS10ME	9740	CARS20ME	On request
160mm	SMH160									
8"/200mm	SMH8	13.8	CDCA101D	5475	CARA10KE	4935	CARA10ME	9740	CARA20ME	On request
	SMH200	13.8	CDIA101D*							
10"/250mm	SMH10	27.7	CDCB101D	6500	CARB10KE	5740	CARB10ME	9740	CARB20ME	On request
	SMH250	27.7	CDIB101D*							
13"/300mm	SMH13	76.0	CDCC101D	7500	CARC10KE	6810	CARC10ME	11150	CARC20ME	On request
	SMH300	76.0	CDIC101D*							
16"/400mm	SMH16	138.8	CDCD101D	8030	CARD10KE	7315	CARD10ME	12960	CARD20ME	On request
	SMH400	138.8	CDID101D*							
19"/500mm	SMH19	277.0	CDCE101D	8595	CARE10KE	7845	CARE10ME	14930	CARE20ME	On request
	SMH500	277.0	CDIE101D*							
23"/600mm	SMH23	555.0	CDCF101D	9790	CARF10KE	8810	CARF10ME	15470	CARF20ME	On request
	SMH600	555.0	CDIF101D*							
30"/700mm	SMH30	1242.0	CDCG101D	23730	-	-	CARG10ME	26695	-	-
	SMH700	1242.0	CDIG101D*							
800mm	SMH800	1242.0	CDIG101D*	23730	-	-	CARG10ME	26695	-	-

1. DC Electromagnetic Brakes are suitable to operate on:
For AC Power - Resistance & Rectifier Panel
For DC Power - Series Resistance Box

- All Brakes are Supplied for Continuous Duty
* These cat. references are meant for intermittent duty

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

DC Brakes BCH

GST to be charged extra

Series Type - DC Electromagnetic Brakes

HSN Code : 8505

Brake Size	Motor Frame No. (Max.)	Half Hour Rating			One Hour Rating			List Price [₹]
		Torque KGM	Max. FLC (A)	Cat. No.	Torque KGM	Max. FLC (A)	Cat. No.	
8"/200mm	402,802A,403, 602, 802B	13.8	29	SME8H1 SME200H1	8.97	21	SME801 SME20001	87860
			44	SME8H2 SME200H2		31	SME802 SME20002	
10"/250mm	404,603,802C, 406,604,803	27.7	57	SME10H1 SME250H1	18.0	40	SME1001 SME25001	125080
			77	SME10H2 SME250H2		57	SME1002 SME25002	
13"/300mm	408,606,804, 410,608,806	76.0	126	SME13H1 SME300H1	49.4	95	SME1301 SME30001	169470
			176	SME13H2 SME300H2		132	SME1302 SME30002	
16"/400mm	412,610,808	138.8	245	SME16H1 SME400H1	90.2	185	SME1601 SME40001	265235
19"/500mm	414,612,810 416,614,812	277.0	368	SME19H1 SME500H1	180.0	272	SME1901 SME50001	407465
			500	SME19H2 SME500H2		360	SME1902 SME50002	
23"/600mm	418,616,814 618,816	555.0	740	SME23H1 SME600H1	361.0	540	SME2301 SME60001	659240
			960	SME23H2 SME600H2		730	SME2302 SME60002	

- During ordering, besides brake drum dia, please confirm duty rating, current rating & motor frame Nos.
- Above current ratings are for 230 V DC Series Motors.
- To convert KGM to LB.FT. multiply by 7.25

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

DC Brakes BCH

GST to be charged extra

Series & Accessories - DC Electromagnetic Brakes

HSN Code : 8505

Description	150/160mm		8"/200mm		10"/250mm		13"/300mm	
	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]
 Coil Shunt	9GDS01	24745	9GDA01	26965	9GDB01	32070	9GDC01	51735
Coil Series for inch for mm	9GDS02/ 9GDS03	-	9GDA02/ 9GDA03	65205	9GDB02/ 9GDB03	102210	9GDC02/ 9GDC03	132190
 Torque Adj. Screw Assembly	9GDS04	2350	9GDA04	2450	9GDB04	2450	9GDC04	4275
 Torque Spring	9GDS05	6405	9GDA05	6695	9GDB05	7905	9GDC05	12805
 Wedge Assembly with Bolt, Spring and Washers for inch/mm	9GDS20/ 9GDS22	905	9GDA20/ 9GDA22	1040	9GDB20/ 9GDB22	1210	9GDC20/ 9GDC22	1850
Pin set for Lever & Armature Consisting of a) Pin Lever 2 Nos. b) Pin armature 2 Nos.	9GDS06	3225	9GDA06	3385	9GDB06	3385	9GDC06 9GDC06-2#	4275
Collar Set of Lever & Armature Consisting of a) Collar Lever 4 Nos. a) Collar Armature 4 Nos.	9GDS07	3225	9GDA07	3385	9GDB07	3385	9GDC07	4275
Bush Set for Lever & Armature Consisting of a) Bush Lever 4 Nos. a) Bush Armature 4 Nos.	9GDS08	6405	9GDA08	6725	9GDB08	6725	9GDC08	7325
 Pull Rod Assembly with nuts, spring & washer	9GDS29	2615	9GDA29	2735	9GDB29	3385	9GDC29	5210
 Grease Nipple (1 set consist 8 Nos.)	9GDS09	905	9GDA09	960	9GDB09	960	9GDC09	965
* Shoe Assembly with Clamp & Bolts (1 set consist 2 Nos.) for inch/mm	9GDS10/ 9GDS11	6670	9GDA10/ 9GDA11	6645	9GDB10/ 9GDB11	8245	9GDC10/ 9GDC11	12805
* Shoe Lining without Bolts for inch for mm (1 set consist 2 Nos.)	9GDS12/ 9GDS13	2255	9GDA12/ 9GDA13	2350	9GDB12/ 9GDB13	2955	9GDC12/ 9GDC13	4275
* Shoe Lining with Bolts for inch for mm (1 set consist 2 Nos.)	9GDS23/ 9GDS26	3055	9GDA23/ 9GDA26	3385	9GDB23/ 9GDB26	4275	9GDC23/ 9GDC26	6110
Dust Cover (made of jeans cloth & painted with fire reterdent al. paint).	-	-	9GDA30	3765	9GDB30	3765	9GDC30	4485
mm Size Cast Steel Drum without Hard Chrome Plaiting	9GDS14	7295	9GDA14	8030	9GDB14	12365	9GDC14	20845
mm Size Cast Steel Drum with Hard Chrome Plaiting	9GDS14P	9860	9GDA14P	11495	9GDB14P	17955	9GDC14P	30205
Cast Steel Drum without Hard Chrome Plaiting* for inch	-	-	9GDA15	8325	9GDB15	12815	9GDC15	21675
Cast Steel Drum with Hard Chrome Plaiting* for inch	-	-	9GDA15P	11950	9GDB15P	18145	9GDC15P	31440

* For brakes manufactured upto September 07. # For brakes manufactured after September 07 (pins are different).

* Prices of 'Asbestos free' Shoe Assembly / Shoe Lining without Bolt / Shoe Lining with Bolt available on request.

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

DC Brakes..... BCH

GST to be charged extra

Spares & Accessories - DC Brakes

HSN Code : 8505

Description	16"/400 mm		19"/500 mm		23"/600 mm		30"/700 mm	
	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]
 Coil Shunt	9GDD01	78345	9GDE01	108615	9GDF01	173570	9GDG01	387060
Coil Series for inch for mm	9GDD02 9GDD03	194495	9GDE02 9GDE03	253705	9GDF02 9GDF03	392185	-	-
 Torque Adj. Screw Assembly	9GDD04	6390	9GDE04	9115	9GDF04	14575	9GDG04	30540
 Torque Spring	9GDD05	19685	9GDE05	27250	9GDF05	45120	9GDG05	96850
 Wedge Assembly with Bolt, for inch for mm	9GDD20/ 9GDD22	2450	9GDE20/ 9GDE22	3680	9GDF20/ 9GDF22	5785	9GDG20/ 9GDG22	12825
Pin set for Lever & Armature Consisting of for inch for mm a) Pin Lever 2 Nos. b) Pin Armature 2 Nos.	9GDD06* 9GDD06-2#	5210	9GDE06* 9GDE06-2#	5210	9GDF06* 9GDF06-2#	7325	9GDG06	22185
 Collar Set of Lever & Armature Consisting of a) Collar Lever 4 Nos. b) Collar Armature 4 Nos.	9GDD07	3680	9GDE07	3985	9GDF07	4980	9GDG07	8180
 Bush Set for Lever & Armature Consisting of a) Bush Lever 4 Nos. b) Bush Armature 4 Nos.	9GDD08	7325	9GDE08	7855	9GDF08	10050	9GDG08	17885
 Pull Rod Assembly with nuts, spring & washer	9GDD29	7905	9GDE29	10940	9GDF29	14705	9GDG29	38490
 Grease Nipple (1 set consist 8 Nos.)	9GDD09	990	9GDE09	1715	9GDF09	1715	9GDG09	1885
 Shoe Assembly with Clamp & Bolts for inch for mm (1 set consist 2 Nos.)	9GDD10/ 9GDD11	19720	9GDE10/ 9GDE11	27280	9GDF10/ 9GDF11	43620	9GDG10/ 9GDG11	96850
 Shoe Lining without Bolts for inch for mm (1 set consist 2 Nos.)	9GDD12/ 9GDD13	6705	9GDE12/ 9GDE13	10940	9GDF12/ 9GDF13	16190	9GDG12/ 9GDG13	30605
 Shoe Lining with Bolts for inch for mm (1 set consist 2 Nos.)	9GDD23/ 9GDD26	8245	9GDE23/ 9GDE26	13650	9GDF23/ 9GDF26	21210	9GDG23/ 9GDG26	37855
 Dust Cover (made of jeans cloth & painted with fire retardant al. paint).	9GDD30	4855	9GDE30	6005	9GDF30	6295	-	-
 mm Size Cast Steel Drum without Hard Chrome Plating	9GDD14	26060	9GDE14	41860	9GDF14	59025	-	-
mm Size Cast Steel Drum with Hard Chrome Plating	9GDD14P	38805	9GDE14P	61140	9GDF14P	90300	-	-
Cast Steel Drum without Hard Chrome Plating* for inch	9GDD15	27180	9GDE15	43815	9GDF15	60640	-	-
Cast Steel Drum with Hard Chrome Plating* for inch	9GDD15P	40560	9GDE15P	64110	9GDF15P	94625	9GDG15P	160330

* For brakes manufactured upto September 07.

For brakes manufactured after September 07 (pins are different).

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

Spares - DC BrakesBCH

GST to be charged extra

Spare Selenium Type Bridge Rectifiers

HSN Code : 8505

Rectifier Code / Part No.	Recommended to operate brake at 415V AC		Qty. per set	List Price [₹]
	Individual	Simultaneous		
9GDX01	1x8"/200mm	-	2	7600
9GDX02	1x10"/250mm	2x8"/200mm	2	11860
9GDX03	1x13"/300mm 1x16"/400mm	2x10"/250mm	2	16065
9GDX04	1x19"/500mm	2x13"/300mm 2x16"/400mm	2	21210
9GDX05	1x23"/600mm	2x19"/500mm	2	30260
9GDX06	-	2x23"/600mm	2	60550
9GDX07	1x30"/700 & 800mm	-	2	83960

GST to be charged extra

Spare Resistances

HSN Code : 8505

Cat. No.	Ohms	Watts	List Price [₹]
9GDX32	32	200	1400
9GDX42	42	200	
9GDX52	52	200	
9GDX80	80	200	
9GDX112	112	200	

GST to be charged extra

Optional Features - DC Brakes

HSN Code : 8505

Brakes Size		Manual Release List Price [₹]	Residual Magnetism Adjustment List Price [₹]	Limit Switch Attachment List Price [₹]	
Inch	mm			1NO+1NC (LSA)	2NO+2NC (LSA-2)
8	150/160/200	3125	2965	6025	6350
10	250	3125	3480		
13	300	4275	5180		
16	400	4590	7730		
19	500	7075	10630		
23	600	10000	12115		

Note : Add following codes to complete brakes code with optional features.

- MR = For Manual Release
- RM = For Residual Magnetism
- LS = For Limit Switch (1NO+1NC)
- LS-1 = For Limit Switch (2NO+2NC)

- RR = For Manual Release + Residual Magnetism
- RL = Residual Magnetism + Limit Switch
- ML = For Manual Release + Limit Switch
- RS = For Manual Release + Residual Magnetism + Limit Switch
- LSA = Limit Switch with fitting Arrangement (1NO + 1NC)
- LSA-2 = Limit Switch (2NO + 2NC) with fitting Arrangement

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

Plugs & Sockets BCH



Metal Clad - Plugs & Sockets Type 'MP' & 'MS'

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
20A, 250V	2P + E	Plug	MP20	175
		Socket	Ms20	195
30A, 440V	3P + E	Plug	MP30	385
		Socket	Ms30	385



- Self Locking design : Extremely safe
- Plug cannot be pulled out in fully engaged position
- Auto closing socket shutter
- Reliable Earthing
- Shrouded Terminals for safety

Plastic Plugs & Socket Type 'PS'

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
20A, 250V	3	Plug	PS16AA7	190
		Flush Mounting Socket	PS16BA7	240
		Socket with Wall Mounting Box	PS16DA7	295
20A, 415V	4	Plug	PS16AA1	240
		Flush Mounting Socket	PS16BA1	315
		Socket with Wall Mounting Box	PS16DA1	365
32A, 415V	3	Plug	PS32AA7	440
		Socket	PS32BA7	440
	4	Plug	PS32AA1	465
		Socket	PS32BA1	465
	5	Plug	PS32AA5	490
		Socket	PS32BA5	490

Heavy duty Metal-Control 'SS'



Heavy Duty Metal - Control Plugs & Sockets Type 'SS'

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
12A, 415V (Control)	12	Panel Mounting Socket	2499/12	1095
		Plug with inclined Handle	299/12B	1095

Heavy duty Metal-Power 'SS'



Heavy Duty Metal - Power Plugs & Sockets Type 'SS'

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
30A, 415V	3	Panel Mounting Socket	2415B	635
		Plug with inclined Handle	215B	635
30A, 415V	4	Panel Mounting Socket	2413B	660
		Plug with inclined Handle	213B	660
30A, 415V	5	Panel Mounting Socket	2417B	695
		Plug with inclined Handle	217B	695

Note : *Loose Conduit Box Straight (Cat. No. 9J101) List Price - Rs. 230/- each

: *Loose Conduit Box Inclined (Cat. No. 9J102) List Price - Rs. 240/- each

*Spare Handle Inclined (Cat. No. 9J108) List Price -Rs. 110/- each.

HSN Code : 8538

Plugs & Sockets BCH

Heavy Duty Metal Plug & Sockets Type 'DS' - 5 Pin (with Integral Switching Device)

HSN Code : 8536 | HSN Code : 8538

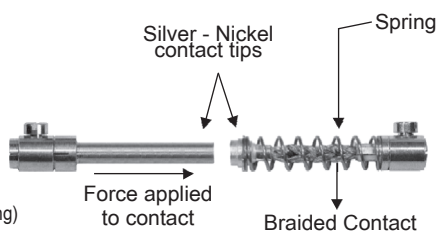
Rating	Pins	Type	Cat No.	MRP [₹]	List Price [₹]
16A, 415V	5	Plug	DS1A7A1	970	—
		Socket	DS1B7A1	1200	—
		Conduit Box	SP91WB	—	695
		Handle Assembly	SP91PH	—	145
32A, 415V	5	Plug	DS3A7A1	1700	—
		Socket	DS3B7A1	2130	—
		Conduit Box	SP93WB	—	795
		Handle Assembly	SP93PH	—	155
63A, 415V	5	Plug	DS6A7A1	2720	—
		Socket	DS6B7A1	3510	—
		Conduit Box	SP96WB	—	1170
		Handle Assembly	SP96PH	—	230
125A, 415V	5	Plug	DS9A7A1	7950	—
		Socket	DS9B7A1	11145	—
		Conduit Box	SP99WB	—	5635
		Handle Assembly	SP99PH	—	705

Note : Power Receptacles with or without SFU/SDFU/MCB/MCCB having loop-in / loop-out facility is available on request.

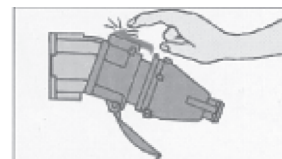


- Range from 16A to 125 A
- 5 Pin configuration (3P+N+E)
- Plug cannot come out in ON condition (Integral Interlocking)

- Spring loaded Butt type contacts
- Self aligning and self wiping



Quick Disconnect



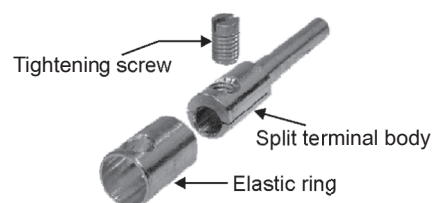
- Self aligning self wiping
- Spring loaded for consistent pressure
- Silver nickle material for extremely low temperature rise

Safety Disk



No access to live parts

Vibration proof termination



Plug & Socket Box BCH

Metal Clad - Plug & Socket Box Type 'MPSEU'



HSN Code : 8536

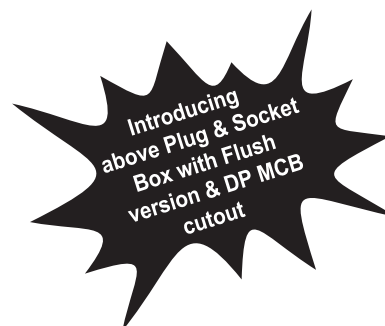
Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V	2P + E	Universal	Plug & Socket Box - SP-MCB Cutout	MPSEU201	880
20A, 250V	2P + E	Universal	Plug & Socket Box - DP-MCB Cutout	MPSEU202	880
30A, 440V	2P + E	Universal	Plug & Socket Box - TPN-MCB Cutout	MPSEU301	2185



20A



30A



Plastic - Plug & Socket Box Type 'PSEU / PSEF'

HSN Code : 8536



Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V	3	Universal	Plug & Socket Box with SP MCB Cutout	PSEU201	1010
			Plug & Socket Box with DP-MCB Cutout	PSEU202	1010
		Flush	Plug & Socket Box with SP MCB Cutout	PSEF201	1010
			Plug & Socket Box with DP-MCB Cutout	PSEF202	1010
32A, 415V	4 5	Universal	Plug & Socket Box with 4P MCB Cutout	PSEU324	2300
				PSEU325	2350
	4 5	Flush	Plug & Socket Box with 4P MCB Cutout	PSEF324	2300
				PSEF325	2350

Heavy Duty Metal - Plug & Socket Box Type 'SSEU'

HSN Code : 8536

Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
30A, 415V	3	Universal	Plug & Socket Box with SP MCB Cutout	SSEU305-MCB1P	2605
	3	Universal	Plug & Socket Box with DP MCB Cutout	SSEU303	2605
	4	Universal	Plug & Socket Box with 4P MCB Cutout	SSEU304	2665
	5			SSEU305	2730



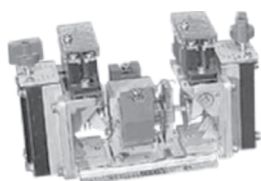
Stainless Steel Cover Plug & Socket Box Type 'PSEU-SSC'/SSEU-SSC'

HSN Code : 8536

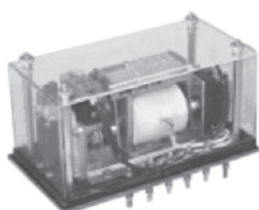
Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V 32A, 415V	3	Universal	P&S Box with 'PS' P&S and SP MCB Cutout	PSEU201-SSC	1300
	5		P&S Box with 'PS' P&S and 4P MCB Cutout	PSEU325-SSC	2690
30A, 415V	3	Universal	Plug & Socket Box with SP MCB Cutout	SSEU303-SSC-MCB1P	2995
	3	Universal	Plug & Socket Box with DP MCB Cutout	SSEU303-SSC	2995
	4	Universal	Plug & Socket Box with 4P MCB Cutout	SSEU304-SSC	3060
	5			SSEU305-SSC	3125

Pneumatic Timers..... BCH

Pneumatic Timer



Timer for Railway Application



- 30 sec / 60 sec/180 sec
- AC and DC Supply
- 1 NO+1NC / 2 NO+2NC Contact Blocks
- Completely enclosed timing head ensures excellent timings in adverse environmental conditions
- Encapsulated coil for better resistance against moisture and corrosion
- Completely maintainable i.e Coil , Contact blocks and Timing head can be replaced
- Special timer for Railway application

Site convertible
On/Off delay

Pneumatic Timers

Time Delay Relay-Electro Pneumatic

HSN Code : 9107

Type	Time (Secs.)	Contact Configuration		Cat No.	MRP [₹]	
		Timed Block	Instantaneous Block		AC	DC
PN	30	1NO + 1NC		KRTPN10--0	3195	4785
	60	1NO + 1NC	-	KRTPN10--1	3305	5060
	180	1NO + 1NC	-	KRTPN10--3	3735	5520
	30	2NO + 2NC	-	KRTPN20--0	3590	5130
	60	2NO + 2NC	-	KRTPN20--1	3670	5190
	180	2NO + 2NC	-	KRTPN20--3	3940	5575
PNI	30	1NO + 1NC	1NO + 1NC	KRTPN11--0	3895	5580
	60	1NO + 1NC	1NO + 1NC	KRTPN11--1	4425	6090
	180	1NO + 1NC	1NO + 1NC	KRTPN11--3	4840	6170
	30	2NO + 2NC	2NO + 2NC	KRTPN22--0	4885	6370
	60	2NO + 2NC	2NO + 2NC	KRTPN22--1	4935	6700
	180	2NO + 2NC	2NO + 2NC	KRTPN22--3	5295	7085
		On-Delay Block	Off-Delay Block			
PCN	30	1NO + 1NC	1NO + 1NC	KRTPCN11--0	5280	7075
	60	1NO + 1NC	1NO + 1NC	KRTPCN11--1	5545	7130
	180	1NO + 1NC	1NO + 1NC	KRTPCN11--3	6300	7880
	30	2NO + 2NC	2NO + 2NC	KRTPCN22--0	5940	7760
	60	2NO + 2NC	2NO + 2NC	KRTPCN22--1	6220	7855
	180	2NO + 2NC	2NO + 2NC	KRTPCN22--3	7015	8565

PN, PNI Time Delay Relay will be supplied only as on-delay

■ To complete Cat. No. Suffix voltage code from Table

Timer for Railway Application

HSN Code : 9107

Type	Time (Secs.)	Contact Configuration		Cat No.	MRP [₹]	
		Timed Block	Instantaneous Block		AC	DC
PN	120	2NO + 2NC	-	KRTPN20A-2R	3845	-
	150	2NO + 2NC	-	KRTPN20A-3R	3845	-

Accessories for Time Delay Relay HSN Code : 9107

△ 110V AC coil voltage, without knob

Description	Cat.No.	List Price [₹]	Lot Size
Contact Block			
1NO+1NC Timed	SP20S3+	720	1
2NO+2NC Timed	SP20S4+	945	
1NO+1NC Inst.	SP20S5+	720	
2NO+2NC Inst.	SP20S6+	945	
Magnet Coil			
AC-PN Relays	SP20MC ■	895	1
AC-PNI & PCN Relays	SP20MC1 ■	895	
DC Relays	SP20MC2 ■	2925	
Return Spring*	SP20RS	160	1
(PNI & PCN)	SP20CC	265	
Coil Clip*			
Magnet frame assembly without coil	SP20 MA/MA1	1485	1
Knob Assembly	SP20KA	40	10

+ These are supplied with plastic cover

* For DC Timers only

■ To complete suffix voltage code refer to the table

- High Repeat Accuracy
- Operating Temperature - 40° to +65°
- Mechanical and Electrical Life - 10 million operations

Voltage Sux Code

Coil Voltage	24	110	220	240	415
AC Suffix M Code*	U	A	B	K	M
DC Suffix - Code	U1	A1	B1	K1	-

* KRTPN timers with 550V AC coil voltage, Prices available on request

Motor StartersBCH

Direct On Line Starters



- DOL upto 40 HP
- Heavy duty 4 Pole Contactor
- Wide Band Coil Voltages (190-400V, 230-420V, 220-240V, 380-415V)
- Encapsulated & Hermetically sealed coil
- Easy inspection & maintenance

Auto Start Direct on line Starters

- Automatically starts the Motor when the power comes back
- Upto 24 A relay rating
- Time delay before restart to settle power supply fluctuations
- Monitors power supply condition before restarting
- Protection against single phasing, phase imbalance & phase reversal



Star Delta Starters



- Semi Automatic upto 40 HP
- Fully Automatic upto 375 HP
- Wide Band Coil Voltages (230-360V, 260-400V, 380-415V)
- Single Phase & Overload Protection

Mini Manual Starters

- Range : 3 - Ph : upto to 10 HP
 : 1 - Ph : upto 4 HP
- Proven time tested product
- Flush and base mounting



Mini Manual with UVT coil



- Automatic Version of Mini Manual Starter
- Prevents motor from restarting when power comes back
- Trips the starter automatically in low voltage conditions

Manual Star Delta Starters

- Contactor based superior design with 25 A heavy duty switch
- Momentary Star position ensures perfect transition
- Ideal for Oil Mills, Flour Mills and agro industries



Motor Starters-Shakti.....BCH

Shakti WP DOL Starter (190-400V AC Coil)

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]	Cat Code (Open Execution)	MRP [₹]
SAWPGZA	2 / 1.5	2.4 - 3.8	Shakti	12 A	2180	-	-
SAWPHZA	3 / 2.2	3.8 - 6.0			2180		
SAWPJZA	5 / 3.7	6.0 - 9.3			2180		
SAWPGZ	2 / 1.5	2.4 - 3.8		20 A	2210	SAWPGZI	2150
SAWPHZ	3 / 2.2	3.8 - 6.0			2210	SAWPHZI	2150
SAWPJZ	5 / 3.7	6.0 - 9.3			2210	SAWPJZI	2150
SAWPKZ	7.5 / 5.5	8.9 - 13.5			2210	SAWPKZI	2150
SAWPLZ	10 / 7.5	13.2 - 20.0			2350	SAWPLZI	2250
SAWPMZ	12.5 / 10	17.4 - 24.0			2465	SAWPMZI	2360

Shakti WP DOL Starter (Big Enclosure)

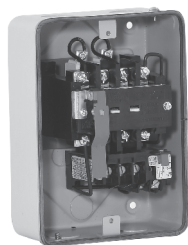
HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]
SAWPKZ-BT	7.5 / 5.5	8.9 - 13.5	Shakti	20 A	2845
SAWPLZ-BT	10 / 7.5	13.2 - 20.0			2990
SAWPMZ-BT	12.5 / 10	17.4 - 24.0			3145

Shakti DOL Starter (190-400V AC Coil)

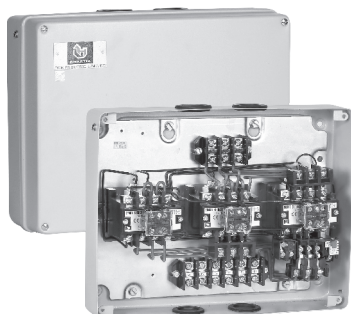
HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]	Cat Code (Open Execution)	MRP [₹]
SAGZ	2 / 1.5	2.4 - 3.8	Shakti	20 A	2355	SAGZI	2280
SAHZ	3 / 2.2	3.8 - 6.0			2355	SAHZI	2280
SAJZ	5 / 3.7	6.0 - 9.3			2355	SAJZI	2280
SAKZ	7.5 / 5.5	8.9 - 13.5			2355	SAKZI	2280
SALZ	10 / 7.5	13.2 - 20.0			2565	SALZI	2500
SAMZ	12.5 / 10	17.4 - 24.0			2675	SAMZI	2600

Shakti Semi Automatic Star Delta Starter with 260-400V AC Coil

HSN CODE : 8536



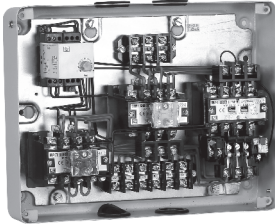
Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]
SASSGLEG	3 / 2.2	2.4 - 3.8	Shakti	16 A	7240
SASSHLEG	5 / 3.7	3.8 - 6.0			7240
SASSJLEG	10 / 7.5	6.0 - 9.3			7240
SASSKLEG	15 / 11	8.9 - 13.5			7240
SASSKLEG/LOR	15 / 11	13.2 - 20.0			7390
SASSKLEG-M	15 / 11	17.4 - 24.0			7580

For 380 - 415 V Coil Voltage replace Suffix 'G' by 'N'

Motor Starters-Shakti.....BCH

Shakti Fully Automatic Star Delta Starter with 260-400V AC Coil & Electronic Timer

HSN CODE : 8536

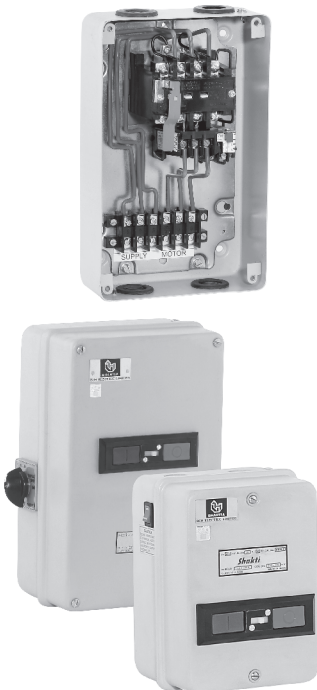


Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor rating	MRP [₹]
SASAGLEG	3 / 2.2	2.4 - 3.8	Shakti	16 A	8230
SASAHLEG	5 / 3.7	3.8 - 6.0			8230
SASAJLEG	10 / 7.5	6.0 - 9.3			8230
SASAKLEG	15 / 11	8.9 - 13.5			8230
SASAKLEG/LOR	15 / 11	13.2 - 20.0			8375
SASAKLEG/MOR	15 / 11	17.4 - 24.0			8550

For 380 - 415 V Coil Voltage replace Suffix 'G' by 'N'

Shakti Auto-Start DOL Starter (With 5-Sec delay Auto Switch)

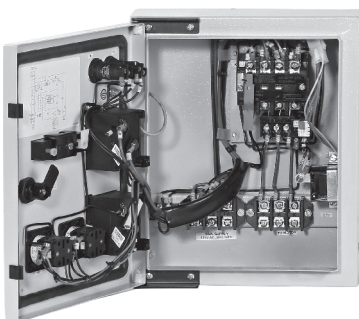
HSN CODE : 8536



Description				Standard Model		Premium Model	
HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor rating	Cat Code	MRP [₹] Standard Model	Cat Code	MRP [₹] Premium Model
2 / 1.5	2.4 - 3.8	Shakti	20 A	ASAGZ	3210	ASXGZ	3645
3 / 2.2	3.8 - 6.0			ASAHZ	3210	ASXHZ	3645
5 / 3.7	6.0 - 9.3			ASAJZ	3210	ASXJZ	3645
7.5 / 5.5	8.9 - 13.5			ASAKZ	3210	ASXKZ	3645
10 / 7.5	13.2 - 20.0			ASALZ	3385	ASXLZ	3820
12.5 / 10	17.4 - 24.0			ASAMZ	3605	ASXMZ	4045

Shakti DOL Submersible Pump Starter (with Auto Switch)

HSN CODE : 8536



Description			2 Position Selection (Auto - Manual)		3 Position Selection (Maunal - Manual SPP - Auto)	
Overload Relay Range (A)	Contactor Type	Contactor Rating	Cat Code	MRP [₹]	Cat Code	MRP [₹]
2.4 - 3.8	Shakti	20 A	CPEASAGZ	6220	CPEYSAGZ	6440
3.8 - 6.0			CPEASAHZ	6220	CPEYSAHZ	6440
6.0 - 9.3			CPEASAJZ	6220	CPEYSAJZ	6440
8.9 - 13.5			CPEASAKZ	6220	CPEYSAKZ	6440
13.2 - 20.0			CPEASALZ	6770	CPEYSALZ	7000
17.4 - 24.0			CPEASAMZ	7080	CPEYSAMZ	7330

For 380 - 415 V coil voltage replace suffix "Z" with "N" in the Cat. Code

For Auto switch with 5 min time delay option, kindly contact nearest sales office



Motor Starters BCH

Citation DOL Motor Starter

HSN CODE : 8536

Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]	Cat Code (Open Execution)	MRP [₹]
NADLEN	0.5 / 0.37	0.72 - 1.14	C00N	16 A	3115	NADLENI	3045
NAELEN	0.75 / 0.55	1.07 - 1.70			3115	NAELENI	3045
NAFLEN	1 / 0.75	1.58 - 2.50			3115	NAFLENI	3045
NAGLEN	2 / 1.5	2.4 - 3.8			3115	NAGLENI	3045
NAHLEN	3 / 2.2	3.8 - 6.0			3115	NAHLENI	3045
NAJLEN	5 / 3.7	6.0 - 9.3			3115	NAJLENI	3045
NAKLEN	7.5 / 5.5	8.9 - 13.5			3115	NAKLENI	3045
NALLEN	10 / 7.5	13.2 - 20.0	CP20	20 A	3300	NALLENI	3190
NALLEN/MOR	12.5 / 10	17.4 - 24.0			3960	NALLENI/MOR	3885



Citation DOL Motor Starter

(A) with NHD Contactor

HSN CODE : 8536

Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NAMLEN	15 / 11	17.4 - 24.0	N0N	25A	4905
NAPLEN/MOR	15 / 11	17.4 - 24.0	N01N	32A	6690
NAPLEN	20 / 15	23.0 - 32.0	N01N	32A	7220
NANLEN	20 / 15	22.0 - 30.0	N1N	40A	7990
NACT1LEN	25 / 18.5	24.4 - 39.0	N1N	40A	12260

(B) With Citation Contactor

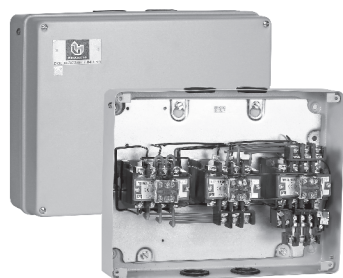
Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NACT2LEDM	30 / 22	37.6 - 60.0	Citation D	40A	13965
NACT2LEEM	40 / 30	37.6 - 60.0	Citation E	70A	18150

Citation Semi Automatic Star Delta Starter with NHD Contactor

HSN CODE : 8536

Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NASSGLEN	3 / 2.2	2.4 - 3.8	C00N	16A	7550
NASSHLEN	5 / 3.7	3.8 - 6.0			7550
NASSJLEN	10 / 7.5	6.0 - 9.3			7550
NASSKLEN	15 / 11	8.9 - 13.5			7550
NASSKLEN/LOR	15 / 11	13.2 - 20.0			7750
NASSLLEN	20 / 15	13.2 - 20.0	N0N	25A	11400
NASSMLEN	25 / 18.5	17.4 - 24.0			11400
NASSPLEN	35 / 26	23.0-32.0			11740
NASS01PLEN	36 / 26	23.0 - 32.0	N01N	32A	14270
NASSNLEN	35 / 26	22.0 - 30.0	N1N	40A	20505
NASS01CT1LEN	40/30	24.4-39.0	N01N	32A	21430

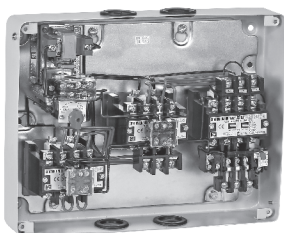
Note : For other Coil Voltages refer table on page 25



Motor Starters-Citation.....BCH

Citation Fully Automatic Star Delta Starter with NHD Contactor & Pneumatic Timers

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NASAGLEN	3 / 2.2	2.4 - 3.8	C00N	16A	11350
NASAHLEN	5 / 3.7	3.8 - 6.0			11350
NASAJLEN	10 / 7.5	6.0 - 9.3			11350
NASAKLEN	15 / 11	8.9 - 13.5			11350
NASAKLEN/LOR	15 / 11	13.2 - 20.0			11505
NASALLEN	20 / 15	13.2 - 20.0	N0N	25A	13120
NASAMLEN	25 / 18.5	17.4 - 24.0			13120
NASA01PLEN	35 / 26	23.0 - 32.0	N01N	32A	16440
NASANLEN	35 / 26	22.0 - 30.0	N1N	40A	23060
NASACT1LEN	40 / 30	24.4 - 39.0			28480

Note : For other Coil Voltages refer table on page 25

Citation Fully Automatic Star Delta Starter with Citation M Contactor & Pneumatic Timers

HSN CODE : 8536

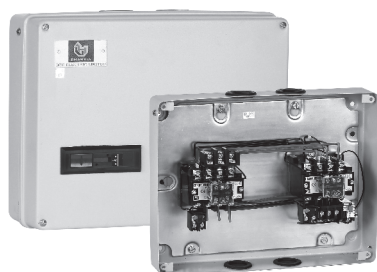


Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NASACT1LEDM	40 / 30	24.4 - 39.0	D	40A	33170
NASACT2LEDM	50 / 37	37.6 - 60.0			33700
NASACT2LEEM	75 / 55	37.6 - 60.0	E	70A	57615
NASACT3LEEM	85 / 65	56.4 - 90.0			61280
NASACT3LEC5M	100 / 75	56.4 - 90.0	M-5	110A	79010
NASACT4LEC5M	135 / 100	84.6 - 135.0			80780
NASACT4LENM	150 / 110	84.6 - 135.0	N	140A	88820
NASACT5LEC6M	250 / 185	131.6 - 210.0	S	300A	150695
NASACT6LEC6M	375 / 280	188.0 - 300.0			170470

Note : For other Coil Voltages refer table on page 25

DOL Reversing Starter

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NARFLEN	1/0.75	1.58 - 2.50	C00N	16 A	8245
NARGLEN	2/1.5	2.4 - 3.8			8245
NARHLEN	3/2.2	3.8 - 6.0			8245
NARJLEN	5/3.7	6.0 - 9.3			8245
NARKLEN	7.5/5.5	8.9 - 13.5			8245
NARLLEN	10/7.5	13.2 - 20.0	N0N	25 A	10070
NARMLLEN	15/11	17.4 - 24.0	N1N	40 A	11285
NARNLEN	20/15	22.0 - 30.0			16580

Motor Starters.....BCH

Fully Automatic Automatic Star Delta Starter with Citation M Contactor, Pneumatic Timer & Electronic Over Current Relay with Ammeter & Voltmeter

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	EOCR Range (A)	Contactor Type (Citation)	Contactor Rating (A)	MRP [₹]
NASASS60LEDMP	50 / 37	5-60 Amp	D	40A	36245
NASASS60LEEMP	75 / 55	5-60 Amp	E	70A	60335
NASA2CTD1CLEM5M-P	100/ 75	0.5-6 Amp	M-5	110A	86275

Industrial DOL Starters with Freedom Contactor & Overload Relay

HSN CODE : 8536



Cat Code	HP / KW at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
CEBFM	0.37/0.5	1.0-1.4	Freedom	9 A	Price On request
CEBGM	0.55/0.75	1.3-1.8	Freedom	9 A	
CEBHM	0.75/1.0	1.7-2.4	Freedom	9 A	
CEBJM	1.1/1.5	2.2-3.1	Freedom	9 A	
CEBKM	1.5/2.0	2.8-4.0	Freedom	9 A	
CEBMM	2.2/3.0	4.5-6.5	Freedom	9 A	
CEBPM	3.7/5.0	7.5-11	Freedom	9 A	
CECPM	3.7/5.0	7.5-11	Freedom	12 A	
CECQM	5.5/7.5	10-14	Freedom	12 A	
CEDQM	5.5/7.5	10-14	Freedom	18 A	
CEDRM	7.5/10	13-19	Freedom	18 A	

For other coil voltages, kindly refer coil master table on page 25

Wireless Modem (Compatible With The Complete BCH Starter Family)

HSN Code : 8517 62 30



Cat Code	Description	MRP [₹]
BCH-GSM	Wireless Modem	5460

Motor Starters-Mini..... BCH

1- Phase Mini Manual Motor Starter upto 4HP (Surface Mounting)

HSN CODE : 8536



Cat Code	Recommended HP 1Ø, 240V	Overload Relay Range (A)	MRP [₹]	Cat Code (with UV Coil)	MRP [₹]
AMLE-10-SP	-	0.23 - 0.47	960	AMLEH-10-SP	1290
AMLE-20-SP	-	0.46 - 0.80	960	AMLEH-20-SP	1290
AMLE-30-SP	1 / 8	0.85 - 1.55	960	AMLEH-30-SP	1290
AMLE-40-SP	1 / 6	1.60 - 3.20	960	AMLEH-40-SP	1290
AMLE-50-SP	0.5 / 0.75	3.50 - 6.50	960	AMLEH-50-SP	1290
AMLE-60-SP	1 to 2	6.80 - 11.7	960	AMLEH-60-SP	1290
AMLE-70-SP	2 to 3	11.0 - 20.0	960	AMLEH-70-SP	1290

For flush mounting replace 'E' by 'C' and reduce price by ₹ 50

3- Phase Mini Manual Motor Starter upto 10 HP (Surface Mounting)

HSN CODE : 8536



Cat Code	Recommended HP at 3Ø, 415V	Overload Relay Range (A)	MRP [₹]	Cat Code (with UV Coil)	MRP [₹]
AMLE-10	-	0.23 - 0.47	1290	AMLEN-10	1475
AMLE-20	-	0.46 - 0.80	1290	AMLEN-20	1475
AMLE-30	0.50 / 0.75	0.85 - 1.55	1290	AMLEN-30	1475
AMLE-40	1.00 / 1.50	1.60 - 3.20	1290	AMLEN-40	1475
AMLE-50	3	3.50 - 6.50	1290	AMLEN-50	1475
AMLE-60	5	6.80 - 11.7	1290	AMLEN-60	1475
AMLE-70	10	11.0 - 20.0	1290	AMLEN-70	1475

For flush mounting replace 'E' by 'C' and reduce price by ₹ 50

1-Phase DOL with 2P CPG Contactor & 2P Overload Relay

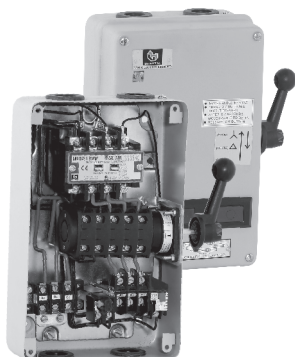
HSN CODE : 8536



Cat Code	HP / KW at 1Ø, 220V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
NAHBW-SP	0.75 / 0.55	3.8 - 6.0	2P CPG	16A	1875
NAJBW-SP	1 / 0.75	6.0 - 9.3	2P CPG	16A	1875
NAKBW-SP	1.5 / 1.10	8.9 - 13.5	2P CPG	16A	1875
NALBW-SP	2 / 1.5	13.2 - 20.0	2P CPG	25A	2015
NAMBW-SP	3 / 2.2	17.4 - 24.0	2P CPG	25A	2015

Manual Star Delta Starter (with 260-400V AC Coil)

HSN CODE : 8536



Cat Code	HP at 3Ø, 415V, 50Hz	Overload Relay Range (A)	Contactor Type	Contactor Rating	MRP [₹]
HASSGLEG	3 HP	2.4 - 3.8	C00N	16 A	4330
HASSHLEG	5 HP	3.8 - 6.0	C00N	16 A	4330
HASSJLEG	10 HP	6.0 - 9.3	C00N	16 A	4750
HASSKLEG	15 HP	8.9 - 13.5	N0N	25 A	4750

HSN CODE : 8538

HASSW15	SPARE SWITCH FOR 15 HP MSD STARTER	2115
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Motor Starters BCH

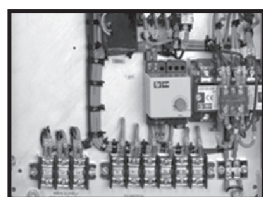
Submersible Pump Starters



On/Trip Indicators



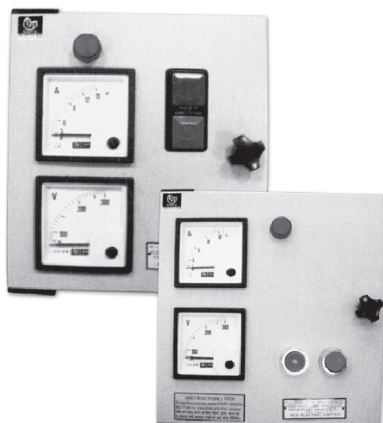
Isolated Terminal blocks for better termination



Properly laid down wires, bunched with cable ties Ferrules for ease of identification

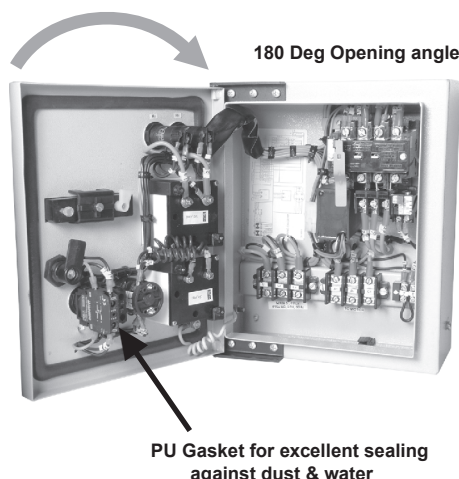


Phase indicators (For std & Premium models)



Three Phase

- Direct on line : upto 24 A relay rating
- Star Delta : upto 135 A (100 HP) relay rating
- Protections :
 - Phase failure
 - Phase imbalance
 - Phase reversal
- Short Circuit Protection Thru MCB : In case of Premium models
- Ammeter and Voltmeter
- On/Off and Trip indications
- Powder coated enclosure with PU gasket ensuring excellent finish and reliability
- Provision for connecting Dry run preventor



Single Phase

With Mini DOL (up to 11.0 - 20.0 A Relay)

- Economy Model (Without Ammeter)
- Standard Model (With Ammeter)
- Premium Model (With Ammeter & Voltmeter)

With 2 Pole Contactor + 2 Pole Relay (up to 23.0 - 32.0 A Relay)

- Economy Model (With Ammeter)
- Standard Model (With Ammeter & Voltmeter)
- Provision for connecting dry run preventor

Motor Starters-3Ph SPS.....BCH

Citation Submersible Pump Starter with 2-Position Selection (with Auto Switch)

DOL

HSN CODE : 8536



Overload Relay Range (A)	Contactor Type	Contactor Rating	DOL			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat Code	MRP [₹]	Cat Code	MRP [₹]
2.4 - 3.8	C00N	16 A	CPEANAGN*	6750	CPPANAGN*	9440
3.8 - 6.0	C00N	16 A	CPEANAHN*	6750	CPPANAHN*	9440
6.0 - 9.3	C00N	16 A	CPEANAJN*	6750	CPPANAJN*	9440
8.9 - 13.5	C00N	16 A	CPEANAKN*	6750	CPPANAKN*	9440
13.2 - 20.0	C00N	16 A	CPEANALN*	7015	CPPANALN*	9830
17.4 - 24.0	N0N	25 A	CPEANAMN	7300	CPPANAMN	10300
23.0 - 32.0	N01N	32 A	CPEANA01PN	9000	-	

STAR DELTA

HSN CODE : 8536



Overload Relay Range (A)	Contactor Type	Contactor Rating	Star Delta			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat Code	MRP [₹]	Cat Code	MRP [₹]
6.0 - 9.3	C00N	16 A	CPSDEAJN*	13230	CPSPDAJN*	16000
8.9 - 13.5	C00N	16 A	CPSDEAKN*	13230	CPSPDAKN*	16000
13.2 - 20.0	C00N	16 A	CPSDEALN-C00	13480	--	
13.2 - 20.0	N0N	25 A	CPSDEALN*	13650	CPSPDALN*	16600
17.4 - 24.0	N0N	25 A	CPSDEAMN*	14020	CPSPDAMN*	17060
23.0 - 32.0	N01N	32 A	CPSDEA01PN	25100	--	
22.0 - 30.0	N1N	40 A	CPSDEANN	20090		
24.4 - 39.0	N1N	40 A	CPSDEACT1N	26010		

For Auto switch with 5 min time delay option, kindly contact nearest sales office

Citation Submersible Pump Starter with 3-Position Selection (with Auto Switch)

DOL

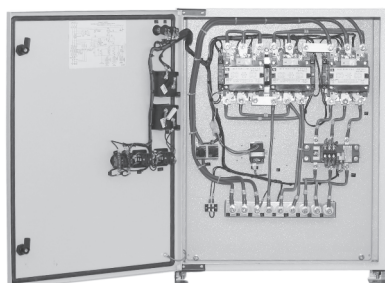
HSN CODE : 8536



Overload Relay Range (A)	Contactor Type	Contactor Rating	DOL			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat Code	MRP [₹]	Cat Code	MRP [₹]
1.58 - 2.50	C00N	16 A	CPEYNAFN*	7050	--	
2.4 - 3.8	C00N	16 A	CPEYNAGN*	7050		
3.8 - 6.0	C00N	16 A	CPEYNAHN*	7050		
6.0 - 9.3	C00N	16 A	CPEYNAJN*	7050	CPPYNAJN*	9840
8.9 - 13.5	C00N	16 A	CPEYNAKN*	7050	CPPYNAKN*	9840
13.2 - 20.0	C00N	16 A	CPEYNALN*	7350	CPPYNALN*	10240
17.4 - 24.0	N0N	25 A	CPEYNAMN*	7630	CPPYNAMN*	10720
23.0 - 32.0	N01N	32 A	CPEYNA01PN	9170	--	

STAR DELTA

HSN CODE : 8536

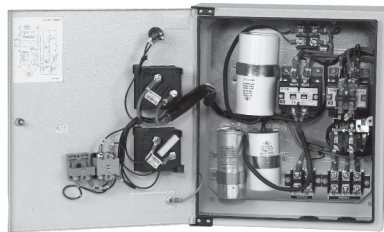


Overload Relay Range (A)	Contactor Type	Contactor Rating	Star Delta			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat Code	MRP [₹]	Cat Code	MRP [₹]
3.8 - 6.0	C00N	16 A	CPSDEYHN*	13340	--	
6.0 - 9.3	C00N	16 A	CPSDEYJN*	13340	CPSPDYJN*	16065
8.9 - 13.5	C00N	16 A	CPSDEYKN*	13340	CPSPDYKN*	16065
13.2 - 20.0	N0N	25 A	CPSDEYLN	13730	CPSPDYLN	16710
17.4 - 24.0	N0N	25 A	CPSDEYMN	14050	CPSPDPMN	17190
23.0 - 32.0	N01N	32 A	CPSDEY01PN	20830	--	
22.0 - 30.0	N1N	40 A	CPSDEYNN	25950	CPSPDYNN	28660
24.4 - 39.0	N1N	40 A	CPSDEYCT1N	27650	CPSPDYCT1N	32880
37.6 - 60.0	Citation E	70 A	CPSDEYCT2M	43900	CPSPDYCT2M	49420
56.4 - 90.0	Citation E	70 A	CPSDEYECT3M	47770	--	
56.4 - 90.0	Citation M-5	110 A	CPSDEYCT3M	61770	CPSPDYCT3M	65140
84.6 - 135.0	Citation M-5	110 A	CPSDEYCT4M	64900	CPSPDYCT4M	70570

Motor Starters 1-Phase SPS BCH

1-Phase SPS With 2P Contactor + Overload Relay (Ammeter + Voltmeter) with 160-220V AC Coil

HSN CODE : 8536



HP at 1Ø, 220V, 50Hz	Overload Relay Range (A)	Contactor Rating	Cat Code	Run Capacitor (mfd)	Start Capacitor (mfd)	MRP [₹]
0.5 / 0.75 HP	3.8 - 6.0	16 Amp	CPNSHBW-SP	25	80/100	3940
			CPNSHBW-SP(RC36)	36	80/100	3940
			CPNSHBW-RC25-SC120	25	100/120	4060
			CPNSHBW-RC30-SC200	30	150/200	4600
1 HP	6.0 - 9.3	16 Amp	CPNSJBW-SP	36	100/120	4040
			CPNSJBW-RC20SC100	20	80/100	4040
			CPNSJBW-RC25SC100	25	80/100	4070
			CPNSJBW-RC50SC100	50	80/100	4190
			CPNSJBW-RC60SC150	60	120/150	4380
			CPNSJBW-RC72SC150	72	120/150	4480
			CPNSJBW-SP(RC30)	30	100/120	4070
			CPNSJBW-SP(RC50)	50	100/120	4190
			CPNSJBW-SP(SC100)	36	80/100	4350
			CPNSJBW-RC36-SC200	36	150/200	4650
1.5 HP	8.9 - 13.5	16 Amp	CPNSKBW-SP	50	120/150	4420
			CPNSKBW-RC30SC120	30	100/120	4350
			CPNSKBW-RC36SC120	36	100/120	4370
			CPNSKBW-SP(RC36)	36	120/150	4490
			CPNSKBW-SP(RC72)	36+36	120/150	4540
2 HP	13.2 - 20.0	16 Amp	CPNSLBW-SP	72	150/200	4710
			CPNSLBW-SP (2RC36)	36+36	150/200	4780
			CPNSLBW-RC100SC150	100	120/150	4740
			CPNSLBW-RC90SC150	45+45	120/150	4740
			CPNSLBW-SP(SC150)	72	120/150	4840
3 HP	17.4 - 24.0	25 Amp	CPNSMBW-SP	100	200/250	5370
			CPNSMBW-SP(2RC50)	50+50	200/250	5440
			CPNSPBW-SP	100+50	200/250	7590
5 HP	23.0 - 32.0	40 A & 16 A	CPNSPBW-SP(3RC50)	50+50+50	200/250	7670

For Dry Run Protection (Extra Terminal shall be provided) Kindly add Rs. 160/- for up to 1.5 HP & add Rs. 250/- for 2 & 3 HP in above Prices & suffix "D" in the cat code (i.e. CPNSHBW-SPD)

1-Phase SPS With 2 Pole Contactor + Overload Relay (With Ammeter)

HSN CODE : 8536



Cat Code	HP at 1Ø, 220V, 50Hz	Relay Range (Amp.)	Contactor Rating	Run Capacitor (mfd)	Start Capacitor(mfd)	MRP [₹]
CPNEHBW-SP	0.5 / 0.75 HP	3.8 - 6.0	16 Amp	25	80/100	3630
CPNEJBW-SP	1 HP	6.0 - 9.3	16 Amp	36	100/120	3790
CPNEKBW-SP	1.5 HP	8.9 - 13.5	16 Amp	50	120/150	4160
CPNELBW-SP	2 HP	13.2 - 20.0	16 Amp	36+36	150/200	4400
CPNEMBW-SP	3 HP	17.4 - 24.0	25 Amp	50+50	200/250	5190
CPNEPBW-SP	5 HP	23.0 - 32.0	40 Amp	50+50+50	200/250	7570

For Dry Run Protection (Extra Terminal shall be provided) Kindly add Rs. 160/- for up to 1.5 HP & add Rs. 250/- for 2 & 3 HP in above Prices & suffix "D" in the cat code (i.e. CPNEHBW-SPD)

1-Phase SPS With Mini Manual DOL Starter (With Ammeter + Voltmeter)

HSN CODE : 8536



Cat Code	HP at 1Ø, 220V, 50Hz	Relay Range (A)	Run Capacitor (mfd)	MRP [₹]
CPPM50-25-SP	0.5 / 0.75 HP	3.5 - 6.5	25	2685
CPPM50-20-SP	0.5 / 0.75 HP	3.5 - 6.5	20	2685
CPPM50H-25-SP	0.5 / 0.75 HP	3.5 - 6.5	25	3055
CPPM60-36-SP	1 HP	6.8 - 11.7	36	2700
CPPM60-25-SP	1 HP	6.8 - 11.7	25	2700
CPPM60H-36-SP	1 HP	6.8 - 11.7	36	3075
CPPM60-50-SP	1.5 HP	6.8 - 11.7	50	2845
CPPM60H-50-SP	1.5 HP	6.8 - 11.7	50	3240
CPPM70-50-SP	2 HP	11.0 - 20.0	50	2890
CPPM70-36-SP	2 HP	11.0 - 20.0	36	2890
CPPM70H-50-SP	2 HP	11.0 - 20.0	50	3285

Motor Starters Oil Immersed. BCH

DOL Starter

HSN CODE : 8536

Cat. Code	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISWPGT	2.4 - 3.8	16A	2570
OISWPHT	3.8 - 6.0	20A	2570
OISWPJT	6.0 - 9.3	25A	2570
OISWPKT	8.9 - 13.5	36A	2570
OISWPLT	13.2 - 20.0	50A	2570
OISWPMT	17.4 - 24.0	63A	2830

Note : The last alphabet in the Cat No. indicates coil voltage : N-380-415VAC ; T-220-400VAC

Star Delta Starter - Fully Automatic

HSN CODE : 8536

Cat. Code	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISDAWPJ*	6.0 - 9.3	20A	7460
OISDAWPK*	8.9 - 13.5	32A	7460
OISDAWPL*	13.2 - 20.0	35A	7460
OISDAWPM*	17.4 - 24.0	50A	7970
OISDAWPP*	23.0 - 32.0	63A	8050



Star Delta Starter - Semi Automatic

HSN CODE : 8536

Cat. Code	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISDSWPJN	6.0 - 9.3	20A	6690
OISDSWPKN	8.9 - 13.5	32A	6690
OISDSWPLN	13.2 - 20.0	35A	6690
OISDSWPMN	17.4 - 24.0	50A	7190
OISDSWPPN	23.0 - 32.0	63A	7280

Star Delta Starter - Fully Automatic with Auto Unit SPP & 3 Position Auto Manual Switch

HSN CODE : 8536

Cat. Code	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISDYWPJY	6.0 - 9.3	20A	8730
OISDYWPKY	8.9 - 13.5	32A	8730
OISDYWPLY	13.2 - 20.0	35A	8730
OISDYWPMN	17.4 - 24.0	50A	9280
OISDYWPPY	23.0 - 32.0	63A	9360

Star Delta Starter - Fully Automatic with Ammeter & Voltmeter

HSN CODE : 8536

Cat. No.	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP[₹]
OISDPYWPLY	13.2 - 20.0	35 Amp.	10730
OISDPYWPLN	13.2 - 20.0	35 Amp.	10730
OISDPYWPMY	17.4 - 24.0	50 Amp.	11290
OISDPYWPMN	17.4 - 24.0	50 Amp.	11290
OISDPYWPPY	23.0 - 32.0	63 Amp.	11380
OISDPYWPPN	23.0 - 32.0	63 Amp.	11380

'N' for 380-415VAC coil & 'Y' for 240-400VAC coil

Spares for Oil Starter

HSN CODE : 8538

Description		Cat No.	MRP [₹]
Contact kit without coil for DOL - Power & Auxiliary contacts (set of fix contact, moving contact, hex screws, spring washer, spring clip, spring cap, contact spring)		OCK	365
Power kit without coil for all 3 contactor of star delta starter (fix contact, moving contact, hex screw, spring washer, spring clip, spring cap, contact spring)		Upto L Relay - OCKSD20	900
		M, P Relay OCKSD30	1040
Auxiliary Contact Kit set for Star Delta Starter		Upto L Relay - OCKSDAUX20	235
		M, P Relay OCKSDAUX30	235
Coil -Main & Delta Contactor	220-400V	OCT	385
	240-400V	OCY	385
	380-415V	OCN	385
Coil -Star Contactor	220-400V	OCT-STAR	265
	240-400V	OCY-STAR	265
	380-415V	OCN-STAR	265
ON-Push Button		OPB-ON	110
OFF-Push Button		OPB-OFF	110
Incoming Mounting KIT for 20A		OCTKSD20	120
Incoming Mounting KIT for 30A		OCTKSD30	165

Overload Relay for Oil Starter - Pls refer along with all other Overload Relay Page 26

Spares for Starter BCH

Spares for Shakti Starters

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
SHA	Contact Kit	870
SHZ	Coil 190- 400 V	310
SHCC	Contact carrier	155
SHPB	Extended Button Assembly	215
SHCO	Contact for DOL	1870
SHACO	Contact for Star Delta	1870
CPNYAU*-5S	Autounit (for ASX & OISDY)	1060
CPNYAU*-5M	Autounit (for ASX & OISDY)	1060
CPTB630	Terminal Block 30A 6 way (Auto DOL)	185
CPAMS-3P/ASX	Auto Manual Switch 3 position (Auto DOL)	370

Spares for Citation M Starters

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
SP100PB3	Start & Stop reset button unit assembly for DOL & SD (upto 150HP)	255
SP100CB	Start actuator Block for DOL	215
SP100CBS	Start actuator Block for SD	215
SP100TB	Terminal Block for Star/ Delta Starters	200
CPTB975	Terminal Block for Star/ Delta Starters (40-50 HP)	645
SPSATG	Electronic Timer (Star Delta)	870
For 250-375 HP SD Starter		
TSFB-R	Push Button (RED)	185
TSFB-G	Push Button (Green)	185
050N1	Aux Contact Block(1NO+1NC)	235

Spares for 3-Phase Submersible Pump Starter

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
CPAU* - 5S or 5M	Autounit (2 Position)	985
CPYAU* - 5S or 5M	Autounit (3 Position SPS)	985
CPAM25	Ammeter 25A	420
CPAM50	Ammeter 50A	420
CPAM100	Ammeter 100A	435
CPVM500	Voltmeter 500V	420
SPSATG	Electronic Timer (Star Delta)	870
CPTB215	Terminal Block 15A 2 way	50
CPTB360	Terminal Block 60A 3 way	145
CPTB660	Terminal Block 60A 6 way	265
CPTB3100	Terminal Block 100A 3 way	550
CPMB	Mounting Bracket Set	100
CPAMS-2P	Auto Manual Switch 2 position	280
CPAMS-3P	Auto Manual Switch 3 position	300
CPVSS	Voltmeter Selector Switch	305
HEA11GM-PB	Start PB (Green)	135
HEA11RM-PB	Stop PB (Red)	135
HCB10	Aux Block (1 NO)	75
HCB01	Aux Block (1 NC)	75
HFB2PAH	LED-Amber (R-Y-B)	255
HFB2XAM	LED-Amber (Motor Trip)	170
HFB2XRM	LED-RED (415 VAC)	170

Spares for 1-Phase Submersible Pump Starter

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
ILR-B	"ON" Indication Lamp	65
SPAM-10	Ammeter 10A	420
SPAM-15	Ammeter 15A	420
SPAM-25	Ammeter 25A	420
SPAM-50	Ammeter 50A	420
SPVM-300	Voltmeter 300V	420
CPTB530	Terminal Block 30A 5 way (Mini Version)	100
CPTB530H	Terminal Block 30A 5 way (Contr. Version)	175
CPTB330	Terminal Block 30A 3 way	70
CPTB240	Terminal Block 40A 2 way	105
SPGC	"ON" Push Button GREEN upto 24A relay range	210
SPGB	"ON" Push Button GREEN For 32A relay range	210
SPRC	"OFF" Push Button RED	170
MC305TB4	Add-on Terminal Block for 23-32A relay (outgoing side)	105

Spares for Freedom DOL

HSN CODE : 8538

Cat. No.	Description	MRP[₹]
C320SCB	Start Contact Block	140
CEPBI	Push Button - Green	70
CEPBO	Push Button - Red	70



Motor Starters BCH



Auto Switch with Single Phase Preventer

HSN CODE : 8536

Cat Code	Product Description	MRP [₹]
ACPAUN-5S	Auto Unit with 5-10 SECONDS DELAY 380-415V	810
ACPAUZ-5S	Auto Unit with 5-10 SECONDS SELAY 230-400V	810
ACPAUZ-5M	Auto Unit with 5 MINUTES DELAY 230-400V	810
ACPAUN-5M	Auto Unit with 5 MINUTES DELAY 380-415V	810



Dual Meter (Combination of Ammeter & Voltmeter)

HSN CODE : 9030

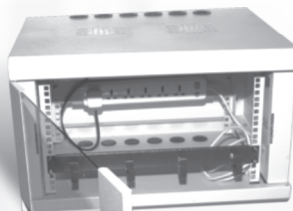
Cat. No.	Product Description	MRP [₹]
CPAM10VM300	COMBINED AM 0-10-60A & VM 0-300V,S-72	610
CPAM15VM300	COMBINED AM 0-15-90A & VM 0-300V,S-72	610
CPAM25VM300	COMBINED AM 0-25-150A & VM 0-300V,S-72	610
CPAM30VM300	COMBINED AM 0-30-180A & VM 0-300V,S-72	610
CPAM50VM300	COMBINED AM 0-50-300A & VM 0-300V,S-72	610
CPAM10VM500	COMBINED AM 0-10-60A & VM 0-500V,S-72 EN	650
CPAM15VM500	COMBINED AM 0-15-90A & VM 0-500V,S-72 EN	610
CPAM30VM500	COMBINED AM 0-30-180A & VM 0-500V,S-72 EN	635
CPAM60VM500	COMBINED AM 0-60-360A & VM 0-500V,S-72 EN	635
CPAM30-60VM500S72	COMBINED AM 0-30-60A & VM 0-500V,S-72	610
CPAM60-120VM500S72	COMBINED AM 0-60-120A & VM 0-500V,S-72	650
CPAM30-60VM500S96	COMBINED AM 0-30-60A & VM 0-500V,S-96	805
CPAM60-120VM500S96	COMBINED AM 0-60-120A & VM 0-500V,S-96	845

COIL VOLTAGE : MASTER TABLE

	PRODUCT	110V	160-220V	220-240V	230-360V	260-400V	310-400V	190-400V	230-420V	275-420V	380-415V	415V	440V	550V
	WORKING VOLTAGE BAND	94-121V	136-242V	187-264V	195.5-396V	221-440V	264-440V	161.5-440V	195.5-462V	234-462V	323-456V	353-456V	374-484V	468-605V
NHD 2P	CPG216	A	BW	H	-	-	-	-	-	-	N	-	-	-
	CPG225	A	BW	H	-	-	-	-	-	-	N	-	-	-
	CPG240	A	BW	H	-	-	-	-	-	-	N	-	-	-
SHAKTI	SHAKTI DOL	-	-	-	-	G	-	Z	ZB	-	N	-	-	-
	SHAKTI STAR DELTA	-	-	-	-	G	-	Z	-	MB	N	-	-	-
NHD 4P	C00N	A	-	H	-	G	-	-	-	-	N	-	C	D
	N0N	A	-	H	-	G	-	-	-	-	N	-	C	D
	N01N	A	-	H	LV	-	WB	-	-	-	N	-	-	-
	N1N	A	-	H	-	-	WB	-	-	-	N	-	C	D
JPG	JPG216/220/225	-	-	H	-	-	-	-	-	-	N	-	-	-
CITATION	C4 & MC10D	A	-	-	-	-	-	-	-	-	-	M	C	D
	MC10EN	A	-	-	-	-	-	-	-	-	-	M	C	D
FREEDOM SERIES	MCE15L TO M5	A	-	-	-	-	-	-	-	-	-	M	C	D
	MCE15N, Q & S	A	-	-	-	-	-	-	-	-	-	M	C	D

Enclosure Systems

- Bhartia Boxes IP: 55, IP: 66
- 'BCH-SS' (Stainless Steel) Boxes
- Terminal Boxes IP:55 & IP:66
- Techno - Modular Enclosures
- Smartline - Modular Enclosures
- Semi-Modular Enclosure
- TEOS Plus Enclosure
- Compartmentalized Enclosure (Fixed & Draw-out)
- IT Racks - 19" and ETSI Racks



Enclosure Systems

BCH

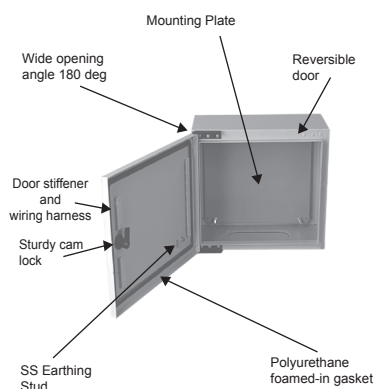
Bhartia Boxes

HSN Code : 8538



- 51 Different Versions
- Single/Double door versions
- Min. Size : 200 X 200 X 150
- Max Size : 1200 X 1400 X 400
- IP 55/IP66

Double door version



Technical Particulars (BHARTIA BOXES)

- Fabricated from 1.2mm / 1.6mm CRCA sheet steel (Sizes upto BIL-50180 made from 1.2mm CRCA, beyond this using 1.6mm CRCA)
- Foamed-in PU gasket
- Hinged door, interchangeable LHS / RHS, opening angle 180 deg for standard hinge & 120 deg for concealed hinge in bigger sizes.
- IP-55 & 66 Degree of protection
- Cable gland plate 2mm thick provided at bottom
- Cam locking arrangement
- Powder coated to RAL : 7035 structure finish
- Mounting Plate made up of 2.0mm Galvanised steel

Note : Cutout charges will be extra

: Wall mounting bracket set is an additional accessory (for Bhartia Box & Terminal box it is not a part of standard packing)

HSN Code : 8538

Type	Cat. No.	MOQ	List Price [₹]
Set of Wall Mounting bracket (small)	BIL-WM-S	1	100
Set of Wall Mounting bracket (big)	BIL-WM-B	1	120

Note :

* Set of wall mounting bracket (small) is suitable for all range of terminal boxes and Bhartia boxes upto size : 400x500x200mm.

* Set of wall mounting bracket (big) is suitable for Bhartia boxes beyond size : 400x500x200mm.

Type	Size (WxHxD) mm	IP-55 Range			IP-66 Range	
		MOQ Nos.	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
SINGLE DOOR BOX	200x200x150	1	BIL-50000	1760	BIL-60000	1790
SINGLE DOOR BOX	200x300x150	1	BIL-50010	2120	BIL-60010	2170
SINGLE DOOR BOX	250x300x150	1	BIL-50020	2210	BIL-60020	2280
SINGLE DOOR BOX	300x300x150	1	BIL-50030	2330	BIL-60030	2360
SINGLE DOOR BOX	300x300x200	1	BIL-50050	2540	BIL-60050	2690
SINGLE DOOR BOX	300x400x150	1	BIL-50060	2650	BIL-60060	2790
SINGLE DOOR BOX	300x400x200	1	BIL-50080	2970	BIL-60080	2990
SINGLE DOOR BOX	400x300x150	1	BIL-50090	2590	BIL-60090	2750
SINGLE DOOR BOX	400x300x200	1	BIL-50110	2910	BIL-60110	2950
SINGLE DOOR BOX	400x400x150	1	BIL-50120	2970	BIL-60120	3030
SINGLE DOOR BOX	400x400x200	1	BIL-50140	3150	BIL-60140	3250
SINGLE DOOR BOX	400x500x150	1	BIL-50150	3350	BIL-60150	3520
SINGLE DOOR BOX	400x500x200	1	BIL-50170	3550	BIL-60170	3650
SINGLE DOOR BOX	500x500x200	1	BIL-50180	4190		
SINGLE DOOR BOX	400x600x200	1	BIL-50190	4190	BIL-60190	4250
SINGLE DOOR BOX	500x600x200	1	BIL-50210	4810	BIL-60210	4950
SINGLE DOOR BOX	500x700x200	1	BIL-50220	5470		
SINGLE DOOR BOX	500x700x300	1	BIL-50230	6290		
SINGLE DOOR BOX	600x400x200	1	BIL-50240	4250	BIL-60240	4430
SINGLE DOOR BOX	600x400x300	1	BIL-50250	5490		
SINGLE DOOR BOX	600x500x200	1	BIL-50260	4950	BIL-60260	5350
SINGLE DOOR BOX	600x600x200	1	BIL-50270	5150		
SINGLE DOOR BOX	600x600x300	1	BIL-50280	6190		
SINGLE DOOR BOX	600x700x200	1	BIL-50290	6210		
SINGLE DOOR BOX	600x800x200	1	BIL-50300	6230		
SINGLE DOOR BOX	600x800x300	1	BIL-50320	7120		
SINGLE DOOR BOX	600x1000x200	1	BIL-50330	7850		
SINGLE DOOR BOX	600x1000x300	1	BIL-50340	8900		
SINGLE DOOR BOX	800x800x300	1	BIL-50310	8300		
SINGLE DOOR BOX	800x1000x200	1	BIL-50350	9250		
SINGLE DOOR BOX	800x1000x250	1	BIL-50360	9450		
SINGLE DOOR BOX	800x1000x300	1	BIL-50390	9550		
SINGLE DOOR BOX	800x1200x300	1	BIL-50395	11900		
DOUBLE DOOR BOX	1000x800x200	1	BIL-50500	9980		
DOUBLE DOOR BOX	1000x800x300	1	BIL-50520	11450		
DOUBLE DOOR BOX	1000x1000x300	1	BIL-50540	13310		
DOUBLE DOOR BOX	1000x1200x300	1	BIL-50550	15300		
DOUBLE DOOR BOX	1000x1400x300	1	BIL-50560	18300		
DOUBLE DOOR BOX	1200x1400x300	1	BIL-50570	20350		
DOUBLE DOOR BOX	1000x1400x400	1	BIL-50580	19300		
DOUBLE DOOR BOX	1200x1400x400	1	BIL-50590	21250		

MOQ. Minimum order quantity in nos.

Canopy for Bhartia Boxes

HSN Code : 8538

Size (WxHxD) mm	Cat. No.	MOQ Nos.	List Price [₹]	Size (WxHxD) mm	Cat. No.	MOQ Nos.	List Price [₹]
200WX150D	BIL-12-CAN-2015	1	480	600WX200D	BIL-16-CAN-6020	1	920
250WX150D	BIL-12-CAN-2515	1	540	600WX300D	BIL-16-CAN-6030	1	1120
300WX150D	BIL-12-CAN-3015	1	580	800WX300D	BIL-16-CAN-8030	1	1370
300WX200D	BIL-12-CAN-3020	1	640	800WX200D	BIL-16-CAN-8020	1	1110
400WX150D	BIL-12-CAN-4015	1	650	800WX250D	BIL-16-CAN-8025	1	1210
400WX200D	BIL-12-CAN-4020	1	730	1000WX200D	BIL-16-CAN-1020	1	1310
500WX200D	BIL-12-CAN-5020	1	820	1000WX300D	BIL-16-CAN-1030	1	1610
500WX300D	BIL-12-CAN-5030	1	1010				

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.122.

Enclosure Systems BCH



- Fabricated from 1.2/1.6 mm stainless steel sheet
- Mounting Plate made up of 2.0mm Galvanised steel
- SS grade 304
- Foamed - in PU gasket
- Box upto BIL - 90405020 is made up of 1.2 mm SS & above of 1.6 MM SS.
- 120 deg door open-able concealed hinge door with cam locking arrangement.

'BCH - SS' (Stainless Steel)

HSN Code : 8538

Type	Size (WxHxD) mm	MOQ Nos.	Cat No.	List Price [₹]
SINGLE DOOR BOX	200X300X150	3	BIL-90203015	4800
SINGLE DOOR BOX	300X300X200	3	BIL-90303020	6650
SINGLE DOOR BOX	400X400X200	3	BIL-90404020	8800
SINGLE DOOR BOX	400X500X200	3	BIL-90405020	9800
SINGLE DOOR BOX	400X600X200	3	BIL-90406020	11240
SINGLE DOOR BOX	500X600X200	3	BIL-90506020	14400
SINGLE DOOR BOX	600X600X200	3	BIL-90606020	15400
SINGLE DOOR BOX	600X800X200	3	BIL-90608020	18300
SINGLE DOOR BOX	500X700X300	3	BIL-90507030	18600
SINGLE DOOR BOX	800X800X300	3	BIL-90808030	25600

MOQ - Minimum order quantity in nos.

Note - SS grade 304

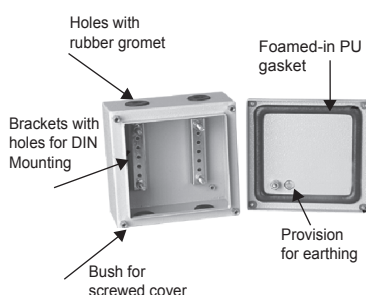


- 43 Different Versions
- Min. Size : 150 X 150 X 80
- Max Size : 800 X 400 X 120
- IP 55/IP66

Terminal Boxes

HSN Code : 8538

Box Size (W x H x D)	IP-55 Range			IP-66 Range	
	MOQ	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
150x150x80	5	BIL-70000	920	BIL-80000	950
200x150x80	-			BIL-80100	1050
300x150x80	5	BIL-70010	1090	BIL-80010	1210
200x200x80	5	BIL-70020	1040	BIL-80020	1100
300x200x80	5	BIL-70030	1130	BIL-80030	1180
400x200x80	-			BIL-80110	1260
600x200x80	-			BIL-80130	1720
150x150x120	5	BIL-70040	1020	BIL-80040	1090
200x150x120	-			BIL-80150	1120
300x150x120	5	BIL-70050	1210	BIL-80050	1240
200x200x120	5	BIL-70060	1180	BIL-80060	1210
300x200x120	5	BIL-70070	1310	BIL-80070	1340
400x200x120	5	BIL-70080	1480	BIL-80080	1520
300x300x120	5	BIL-70090	1570	BIL-80090	1630
400x150x120	-			BIL-80170	1460
400x300x120	5	BIL-70180	1730	BIL-80180	1950
400x400x120	5	BIL-70190	2050	BIL-80190	2210
500x200x120	5	BIL-70200	1790	BIL-80200	1910
500x300x120	5	BIL-70210	1990	BIL-80210	2100
600x200x120	5	BIL-70220	2000	BIL-80220	2110
600x300x120	5	BIL-70230	2450	BIL-80230	2550
600x400x120	5	BIL-70240	2690	BIL-80240	2780
800x200x120	5	BIL-70250	2830	BIL-80250	2920
800x400x120	5	BIL-70260	3450	BIL-80260	3510



Technical Particulars (TERMINAL BOXES)

- Fabricated from 1.2mm CRCA sheet steel
- Powder coated to shade RAL 7035
- Structure finish
- Foamed-in PU gasket
- Provided with screwed cover on top
- IP-55 & 66 Degree of protection
- Brackets provided inside to facilitate DIN rail mounting
- Holes with Gromet provided to facilitate cable entry in IP 55 terminal boxes

Note: Cutout charges will be extra

MOQ-Minimum order quantity in nos.

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.122.

Enclosure Systems BCH

Techno Modular Enclosures

HSN Code : 8538

Size of Enclosure (W x H x D in mm)	Cat. No.	Enclosure Version*				Plinth		Side Covers (Pair)	
		Ver 001 LP [₹]	Ver 002 LP [₹]	Ver 003 LP [₹]	Ver 004 LP [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
600 x 1800 x 400	TME 061804	18000	20050	14300	16500	TPL 061804	1750	TSC 061804	3490
800 x 1800 x 400	TME 081804	21500	23600	16350	18900	TPL 081804	1990	TSC 081804	3490
1000 x 1800 x 400	TME 101804	29600	31900	22950	25100	TPL 101804	2230	TSC 101804	3490
1200 x 1800 x 400	TME 121804	33250	37150	25800	28600	TPL 121804	2450	TSC 121804	3490
600 x 1800 x 500	TME 061805	18800	20700	15250	17150	TPL 061805	1870	TSC 061805	4050
800 x 1800 x 500	TME 081805	21900	24650	17500	19600	TPL 081805	2100	TSC 081805	4050
1000 x 1800 x 500	TME 101805	30400	32700	23950	26400	TPL 101805	2350	TSC 101805	4050
1200 x 1800 x 500	TME 121805	33900	38500	27150	30500	TPL 121805	2550	TSC 121805	4050
800 x 1800 x 600	TME 081806	23350	24500	19000	20800	TPL 081806	2200	TSC 081806	4500
600 x 2000 x 400	TME 062004	19400	21800	14900	17700	TPL 062004	1750	TSC 062004	3750
800 x 2000 x 400	TME 082004	22580	24800	17250	19590	TPL 082004	1990	TSC 082004	3750
1000 x 2000 x 400	TME 102004	32350	34150	25150	26900	TPL 102004	2230	TSC 102004	3750
1200 x 2000 x 400	TME 122004	34750	38400	27800	31500	TPL 122004	2450	TSC 122004	3750
600 x 2000 x 500	TME 062005	20600	22300	16900	19100	TPL 062005	1870	TSC 062005	4400
800 x 2000 x 500	TME 082005	23100	25500	17800	20300	TPL 082005	2100	TSC 082005	4400
1000 x 2000 x 500	TME 102005	32000	35800	25500	28300	TPL 102005	2350	TSC 102005	4400
1200 x 2000 x 500	TME 122005	34990	38500	27500	30500	TPL 122005	2550	TSC 122005	4400
600 x 2000 x 600	TME 062006	20900	22950	17900	19950	TPL 062006	1970	TSC 062006	4900
800 x 2000 x 600	TME 082006	23900	26050	19200	21350	TPL 082006	2200	TSC 082006	4900
1000 x 2000 x 600	TME 102006	32500	37300	25900	30200	TPL 102006	2430	TSC 102006	4900
1200 x 2000 x 600	TME 122006	35680	39550	28900	32600	TPL 122006	2650	TSC 122006	4900
600 x 2000 x 800	TME 062008	21500	23100	17950	20200	TPL 062008	2200	TSC 062008	6300
800 x 2000 x 800	TME 082008	24900	26750	20350	22280	TPL 082008	2430	TSC 082008	6300
1000 x 2000 x 800	TME 102008	35680	38050	27500	30500	TPL 102008	2630	TSC 102008	6300
1200 x 2000 x 800	TME 122008	37500	41600	30800	33900	TPL 122008	2890	TSC 122008	6300
600 x 2200 x 600	TME 062206	23550	25800	18700	22200	TPL 062206	1970	TSC 062206	5670
800 x 2200 x 600	TME 082206	26650	28400	21450	23650	TPL 082206	2200	TSC 082206	5670
1000 x 2200 x 600	TME 102206	36900	39750	30320	33170	TPL 102206	2430	TSC 102206	5670
1200 x 2200 x 600	TME 122206	38350	42800	29800	33300	TPL 122206	2650	TSC 122206	5670
600 x 2200 x 800	TME 062208	25680	27860	19700	22750	TPL 062208	2200	TSC 062208	7370
800 x 2200 x 800	TME 082208	31000	32800	23800	25900	TPL 082208	2430	TSC 082208	7370
1000 x 2200 x 800	TME 102208	39300	42350	31900	34300	TPL 102208	2630	TSC 102208	7370
1200 x 2200 x 800	TME 122208	42500	44900	34800	37150	TPL 122208	2890	TSC 122208	7370

*Baying kit (BIL-14280) Rs. 1180/- is also available for Enclosure Version. For extra accessories, please contact nearest branch office.

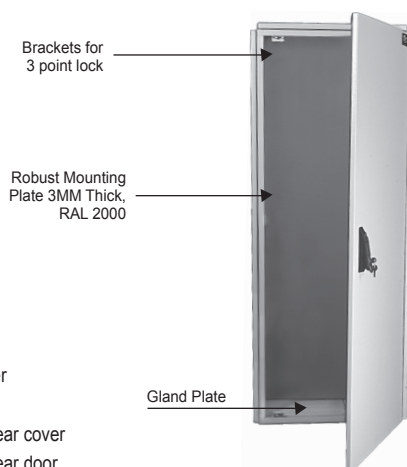
MOQ-Minimum order quantity in nos.

Note : Cutout charges will be extra

Freight charges will be extra at actuals

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.122.

Enclosure Systems BCH



Enclosure Versions

- 001 - with mounting plate and rear cover
- 002 - with mounting plate and rear door
- 003 - without mounting plate and with rear cover
- 004 - without mounting plate and with rear door

To Order And Calculate List Price

- (a) Choose Cat. No. and LP of Enclosure version from 001, 002, 003 or 004
- (b) Add Cat. No. and LP of Plinth
- (c) Add Cat. No. and LP of Side Covers pair

General Technical Particulars

- IP54/55 degree of protection
- Fabricated from 2/1.6 mm CRCA/GPSP (frame made up of 2.0mm GPSP, doors & covers made up of 1.6 mm CRCA).
- Fully bolted construction
- Mounting Plate with sliding arrangement - standard & Powder coated to RAL-2000
- Modular Plinth (optional) 100mm high fabricated from CRCA
- Cable entry provision is given from Bottom & made in 3-part construction with Galvanized steel [Unpainted]
- Foamed-in PU gasket
- Powder coated to RAL : 7035 structure finish
- Hinge design allows 120 deg. Door opening
- 3 point lock provided as standard
- Door stiffener with provision of drilling holes for wiring harness.
- Side Covers - Pair : consisting of 1no. LHS and 1no. RHS cover
- To calculate limiting dimension of the enclosure, add 44mm to the width to account for Side Covers,
- 22mm to the height for Top Cover & 44mm to the depth on account of Front and Rear door / cover.

Note : upto 800 mm width single door

1000 mm & 1200 mm width double leaf door

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.122.

Modular Enclosures

- Enclosures
- Minimum size in mm :
600 x 1800 x 400 (W x H x D)
- Maximum size in mm :
1200 x 2200 x 800 (W x H x D)
- IP 54 / IP 55 degree of protection
- Wide range of accessories

Features

- Completely modular in all the three axis
- Powder coated surface (RAL 7035) for excellent finish and durability
- PU Gasket ensuring higher degree of ingress protection
- 3mm mounting plate as a standard
- Manufactured on CNC Turret punch press for higher precision, finish and repeated accuracy
- Ideal for :
 - Special purpose machines
 - Control panels
 - Drives
 - Starter enclosures
 - Accessories for mounting 19" equipment

Smartline Modular Enclosure BCH

SmartLine TME

HSN Code : 8538

Size of Enclosure (W x H x D in mm)	Cat. No.	Enclosure Version*				Plinth		Side Covers (Pair)	
		Ver 001 LP [₹]	Ver 002 LP [₹]	Ver 003 LP [₹]	Ver 004 LP [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
600 x 1800 x 500	SLE 061805	17500	19800	14200	16350	TPL 061805	1870	SLSC 061805	3650
800 x 1800 x 600	SLE 081806	21800	23400	17900	19900	TPL 081806	2200	SLSC 081806	4050
600 x 2000 x 600	SLE 062006	19500	21800	16700	18700	TPL 062006	1970	SLSC 062006	4420
800 x 2000 x 600	SLE 082006	22350	24750	17950	20290	TPL 082006	2200	SLSC 082006	4420
1200 x 2000 x 600	SLE 122006	33950	37580	27500	30970	TPL122006	2650	SLSC 122006	4420
600 x 2000 x 800	SLE 062008	19950	21950	16800	18950	TPL 062008	2200	SLSC 062008	5680
800 x 2000 x 800	SLE 082008	23650	25400	18950	21150	TPL 082008	2430	SLSC 082008	5680
1200 x 2000 x 800	SLE 122008	34900	39600	29300	32230	TPL 122008	2890	SLSC 122008	5680

Note : Cutout / customization charges will be extra.

*Baying kit (BIL-14280) Rs. 1180/- is also available for Enclosure Version. For extra accessories, please contact nearest branch office.

Enclosure Versions

- 001 - With mounting plate and rear cover.
- 002 - With mounting plate and rear door
- 003 - Without mounting plate and with rear cover
- 004 - Without mounting plate and with rear door

To Order and Calculate List Price

(a) Choose Cat. No. and LP of Enclosure version from 001, 002, 003 or 004

(b) Add Cat. No. and LP of Plinth

(c) Add Cat. No. and LP of Side Covers pair

General Technical Particulars

- IP-54 degree of protection
- Fabricated from CRCA/GPSP (frame made up of GPSP, doors & covers made up of CRCA sheet).
- Modular construction
- Mounting plate and cable entry plate made up of Galvanized steel [Unpainted]
- Plinth (optional) 100mm high fabricated from CRCA sheet.
- Cable entry provision is given from Bottom as standard
- Foamed-in PU gasket
- Powder coated to RAL : 7035 structure finish
- Hinge design allows 120 deg. Door opening
- 3 point lock provided as standard
- Door stiffener with provision of drilling holes for wiring harness.
- Side Covers - Pair: consisting of 1no. LHS and 1no. RHS cover
- To calculate limiting dimension of the enclosure, add 44mm to the width to account for Side Covers, 22mm to the height for Top Cover & 44mm to the depth on account of Front and Rear door / cover.

Note : Upto 800 mm width single door. 1000 mm & 1200 mm width double leaf door

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.122.

Semi-Modular Floor Standing Enclosure..... BCH

HSN Code : 8538

Size of Enclosure (W x H x D in mm)	Cat. No.	List Price [₹]	Plinth		Side Covers (Pair)	
			Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
600X1800X400	FCS 061804	On Request	FCS-PL 061804	On Request	FCS-SC 061804	On Request
600X1800X500	FCS 061805		FCS-PL 061805		FCS-SC 061805	
800X1800X600	FCS 081806		FCS-PL 081806		FCS-SC 081806	
600X2000X600	FCS 062006		FCS-PL 062006		FCS-SC 062006	
800X2000X500	FCS 082005		FCS-PL 082005		FCS-SC 082005	
800X2000X600	FCS 082006		FCS-PL 082006		FCS-SC 082006	
800X2000X800	FCS 082008		FCS-PL 082008		FCS-SC 082008	
1000X2000X600	FCS 102006		FCS-PL 102006		FCS-SC 102006	
1000X2000X800	FCS 102008		FCS-PL 102008		FCS-SC 102008	
1200X2000X500	FCS 122005		FCS-PL 122005		FCS-SC 122005	
1200X2000X600	FCS122006		FCS-PL122006		FCS-SC122006	
1200X2000X800	FCS 122008		FCS-PL 122008		FCS-SC 122008	

Note : Sizes are available in all FOUR version like TME.

Enclosure Versions

Ver-001 - With mounting plate and rear cover.

Ver-002 - With mounting plate and rear door

Ver-003 - Without mounting plate and with rear cover

Ver-004 - Without mounting plate and with rear door

To Order and Calculate List Price

(a) Choose Cat. No. and LP of Enclosure version from 001, 002, 003 or 004

(b) Add Cat. No. and LP of Plinth

(c) Add Cat. No. and LP of Side Covers pair

Note:

- Cutout / customization charges will be extra.
- Baying Kit (BIL-FCS-14280) LP Rs. 1000/- is also available for Enclosure Versions.
- For extra accessories, Please contact nearest branch office.

Technical Particulars (Semi-Modular Enclosure)

- Unique symmetric front and rear welded frame with modular depth member which resultant fastest assembly and uniformity.
- IP-55 Degree of Protection
- Front and Rear Frame welded & depth members are modular
- Fabricated from 2.0mm/1.6mm CRCA
- Mounting plate made of 2mm thick Galvanized sheet
- Cable entry from bottom of panel as standard
- Powder coated to RAL-7035 Structure finish
- Limiting dimension of the enclosure are same as per sizes given
- Adjustable mounting plate depth wise
- Foamed-in PU gasket
- 3 point lock provided as standard
- Door stiffener with provision of drilling holes for wiring harness.
- Side Covers - Flush Type Side cover Pair consisting of 1no LHS and 1no RHS cover



* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no. 122.

TEOS Plus Enclosure BCH-TEKPAN

TEOS Plus Enclosure

HSN Code : 8538

Size of Enclosure (W x H x D in mm)	Cat. No.	List Price [₹]
600 x 1800 x 500	TEOS061805	On Request
800 x 1800 x 600	TEOS081806	
600 x 2000 x 600	TEOS062006	
800 x 2000 x 600	TEOS082006	
800 x 2000 x 800	TEOS082008	
1200 x 2000 x 600	TEOS122006	
1000 x 2000 x 800	TEOS102008	
1200 x 2000 x 800	TEOS122008	

Front Door, Rear Door, Rear Cover & Mounting plate shall be supplied as per requirement.

Plinth Corner

HSN Code : 8538

Description	Cat. No.	List Price [₹]
PLINTH CORNER PART H100mm	708.100	On Request

Supply included:- 4 pcs 100mm height corner & mounting accessories.

Plinth Front Cover

HSN Code : 8538

Description	Cat. No.	List Price [₹]	
PLINTH FRONT PROFILE :600	709.160	On Request	
PLINTH FRONT PROFILE :800	709.180		
PLINTH FRONT PROFILE :1000	709.100		
PLINTH FRONT PROFILE :1200	709.120		

Supply included:- 2 pcs 100mm height front cover & mounting accessories.

Plinth Side Cover

HSN Code : 8538

Description	Cat. No.	List Price [₹]	
PLINTH SIDE PROFILE :500	710.150	On Request	
PLINTH SIDE PROFILE :600	710.160		
PLINTH SIDE PROFILE :800	710.180		

Supply included:- 2 pcs 100mm height side cover & mounting accessories.

Side Cover

HSN Code : 8538

Description	Cat. No.	List Price [₹]	
Pair of side cover 500*1800	706.185	On Request	
Pair of side cover 600*1800	706.186		
Pair of side cover 600*2000	706.206		
Pair of side cover 800*1800	706.188		
Pair of side cover 800*2000	706.208		

Supply included:- 2 pcs side cover & mounting accessories

Technical Particulars (TEOS Plus Enclosure)

- Multifold (12-Fold) structure with 100% Modularity.
- IP-65 Degree of Protection.
- SEISMIC Tested for Zone-4 and UL Certified.
- Easy Assembly & Logistic advantages.
- 4-Point lock with Swing Handle.
- Powder coated to RAL: 7035 Structure Finish.
- Limiting dimension of the enclosure are same as per given dimension.

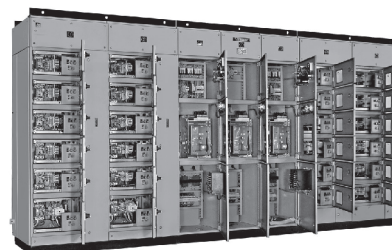
* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.122.



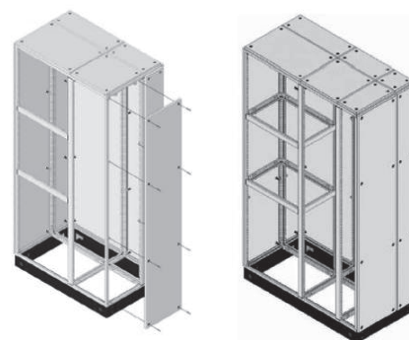
Note :

- Upto 800 mm width single door. 1000 mm & 1200 mm width double leaf door
- Cutout / customization charges will be extra
- For extra accessories, please contact nearest branch office.

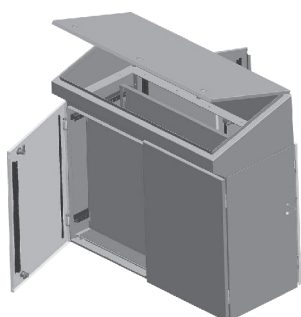
Highlights of **BCH** Compartmentalized **MCC / PCC / PMCC Solution (Fixed & Drawed Type)**



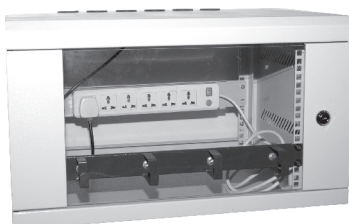
- 100% Modular Structure; can be dispatched in flat pack.
- Flexible compartmentalized -up to From 4.
- IP 54 degree of protection with polyurethane foam gasket.
- Compartment size available from 200mm height & multiplies of 100mm.
- Additional accessories like Cable support, Busbar support, Limit Switch and Lamp brackets are available.
- Adjustable mounting plates (Depth wise at the pitch of 25mm).
- Panel can be expended in all 3 dimensions and bayed together by using Baying Kit.
- All Structure members (Corner & Cross bar) having M6 extrude hole at 25mm intervals, No need of any Captive hardware.
- Standard Module dimension for Drawout Enclosures.
 - Single Front :- 900(W) x 2400(H) x 600(D)
 - Double Front :- 900(W) x 2400(H) x 1200(D)
- Draw-out feeder available from 200mm height (2SU) to 800mm height (8SU).
- Colours :- RAL-7035 (Structure finish) for structure, doors, covers & internal parts RAL-2000 (smooth finish) for Mounting plates, Ral-9000 (Smooth Finish) for Plinth.
- Sheet thickness 2.0mm GPSP for structure, 2.0mm CRCA for Mounting Plate & Mounting rail, 1.6mm CRCA for Doors & Covers, 1.2mm CRCA for Separation plates.



BCH Control Desk



Enclosure Systems **technoRACKS** BCH



Key Attributes:

- Aesthetic & robust construction
- Mounting Fan /s in top doesn't take usable "U" space.
- Special type of Wallmounting hardware.
- Provision for earthing available in the cabinets.
- Highly corrosion resistant in nature.
- Power coated to shade RAL : 7035 structure finish.

19" Wall Mount Racks

HSN Code : 8538

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
6UX550X400	1	BIL-W-6-5504	3660
9UX550X400	1	BIL-W-9-5504	4410
6UX550X500	1	BIL-W-6-5505	4040
9UX550X500	1	BIL-W-9-5505	4700
12UX550X500	1	BIL-W-12-5505	5230
15UX550X500	1	BIL-W-15-5505	6150

MOQ-Minimum order quantity in nos.

Standard Configuration: Wallmount cabinet, 2-Pairs of 19" rail.

Notes : Accessories viz. Shelves, Fans, power strips, cable managers captive H/W & wall mounting hardware etc. will be extra as per the accessories list furnished in the price list.
Wall mount racks price do not include freight & will be extra at actuals



Key Attributes:

- Floor mounting robust design.
- Lockable & removable side panels.
- 2-pairs of adjustable 19" rails.
- Front door with toughened glass & perforation.
- High load bearing capacity.
- Rear vented door.
- Provision for fan mounting in top which doesn't take usable "U" Space.
- Superior cable management facility in extra wide racks.
- 4-integrated vertical cable managers are default design of 800mm wide racks.
- Rear space saving split door with 3-point secure locking in extra wide (800mm) racks.
- Power coated to shade RAL : 7035 structure finish.

19" Networking Racks

HSN Code : 8538

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
24U X 600 X 600	1	BIL-N-062406	20470
24U X 600 X 800	1	BIL-N-062408	22630
24U X 800 X 600	1	BIL-N-082406	25650
24U X 800 X 800	1	BIL-N-082408	28030
30U X 600 X 600	1	BIL-N-063006	22630
30U X 600 X 800	1	BIL-N-063008	24790
30U X 800 X 600	1	BIL-N-083006	28030
30U X 800 X 800	1	BIL-N-083008	30720
36U X 600 X 600	1	BIL-N-063606	24790
36U X 600 X 800	1	BIL-N-063608	27490
36U X 800 X 600	1	BIL-N-083606	30730
36U X 800 X 800	1	BIL-N-083608	33370
42U X 600 X 600	1	BIL-N-064206	28570
42U X 600 X 800	1	BIL-N-064208	30620
42U X 800 X 600	1	BIL-N-084206	33630
42U X 800 X 800	1	BIL-N-084208	37180
45U X 600 X 600	1	BIL-N-064506	32880
45U X 600 X 800	1	BIL-N-064508	34500
45U X 800 X 600	1	BIL-N-084506	36100
45U X 800 X 800	1	BIL-N-084508	39340

MOQ-Minimum order quantity in nos.

Notes : 1) Networking racks price do not include freight & this will be extra at actuals.
For more details visit : www.bchindia.com/technorack

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.122.

Enclosure Systems **technoRACKS** BCH

Key Attributes:

- Floor mounting robust design.
- Lockable & removable side panels.
- 2-pairs of adjustable 19" rails.
- Front door with toughened glass & perforation.
- High load bearing capacity.
- Rear vented door.
- Provision for fan mounting in top which doesn't take usable "U" Space.
- Superior cable management facility in extra wide racks.
- 4-integrated vertical cable managers are default design of 800mm wide racks.
- Rear space saving split door with 3-point secure locking
- locking in extra wide (800mm) racks.
- Power coated to shade RAL : 7035 structure finish.



Key Attributes:

- Includes 1-Pair of 21" rails.
- Integrated side panels.
- Grouting arrangements along with grouting bolts as std. BOM
- Provision for power & detachable Cable entry/exit in top & bottom.
- Power coated to shade RAL : 7035 structure finish.



Key Attributes:

- 1-Pair of vertical cable manager is default design.
- Surface pretreated and advance powder coated
- Grouting bolts as std. BOM.
- Power coated to shade RAL : 7035 structure finish.

19" Server Racks

HSN Code : 8538

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
24U X 600 X 900	1	BIL-S-062409	23120
24U X 600 X 1000	1	BIL-S-062410	24570
30U X 600 X 900	1	BIL-S-063009	26140
30U X 600 X 1000	1	BIL-S-063010	27160
36U X 600 X 900	1	BIL-S-063609	28670
36U X 600 X 1000	1	BIL-S-063610	30190
42U X 600 X 900	1	BIL-S-064209	32230
42U X 600 X 1000	1	BIL-S-064210	34280
42U X 800 X 1000	1	BIL-S-084210	39450
45U X 600 X 900	1	BIL-S-064509	37250
45U X 600 X 1000	1	BIL-S-064510	39410

MOQ - Minimum order quantity in nos.

Notes : Server racks price do not include freight & this will be extra at actuals.

STANDARD CONFIGURATION: Basic frame, Top & bottom, Front Glass door with perforation, Rear vented door, Lockable & detachable side panels, 2-Pairs of 19" rails with depth members.

ETSI Racks

HSN Code : 8538

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
2200 X 600 x 300	1	ITE-062203	8300
2200 X 600 x 600	1	ITE-062206	13370

MOQ - Minimum order quantity in nos.

Notes : Above ETSI configuration do not include front & rear door and covers.

All other accessories will be extra & will be furnished on request.

The prices mentioned above do not include freight.

19" Open Racks

HSN Code : 8538

Dimensions (H x W) mm	MOQ Nos.	Cat. No.	List Price [₹]
36U X 600	1	ITE-OF-0636	5400
45U X 600	1	ITE-OF-0645	6360

MOQ - Minimum order quantity in nos.

Notes : 1) Above Open Rack configuration does not include Shelves, Doors and Covers. All other accessories prices will be extra and will be furnished on request.

2) The Prices above do not include Freight and this will be extra at actuals.

For more details, visit : www.bchindia.com/technorack

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.122.

Enclosure Systems *technoRACKS* BCH

Accessories for 19" Racks

Fixed Shelf/Stationary Shelf

- Compatible to keep monitor, servers, non 19" Networking & allied equipments.

Key-Board Tray

- Sliding & rotatory type.

Canteliver Shelf

- It can accomodate light weighted networking & allied equipments like modem, routers etc.

Equipment Support Angle

- "L" type angles. Useful to keep non 19" heavy duty equipment in rack mounting position.

Sliding Shelf

- Useful to keep servers, networking & allied equipment which are required to slide out for operational & other purpose.

Fans/Fan Tray

- 220V 90 CFM Capacity. Can be mounted at the top either directly or through Fan housing unit (Fan Tray)

6-Point 5A Hor. Power Strip

- All universal type socket along with on/off switch with fuse & indicator. Internal strips are made up of Berellium copper that has high rate of heat & mechanical tolerance.
- Other 5A or 5/15A Power strips have Indian style (Anchor) Sockets with on/off switch/MCB.

Castors

- 1-Set includes 4Nos. of castors, 2Nos. with foot operated brake & remaining 2 are free.

Levelling Feet

- 1-Set includes 4Nos. of Levelling Feet.

Stability Plate

- It Prevents the racks from toppling while taking out heavy duty servers.

Shelves

HSN Code : 8538

Description	Cat No.	List Price [₹]
Fixed Shelf (600mmD)	BIL-A-FS-L-06	930
Fixed Shelf (800mmD)	BIL-A-FS-L-08	1440
Fixed Shelf (900mmD)	BIL-A-FS-L-09	1600
Fixed Shelf (1000mmD)	BIL-A-FS-L-10	1720
Modem Tray	BIL-A-MD	890
Key board tray (Sliding & Rotatory)	BIL-A-KB-06	2750
Canteliver Shelf (1U)	BIL-A-CS-1	550
Canteliver Shelf (2U)	BIL-A-CS-2	830
Equipment Support Angle (600mmD)	BIL-A-ESA-06	340
Equipment Support Angle (800mmD)	BIL-A-ESA-08	390
Equipment Support Angle (900mmD)	BIL-A-ESA-09	490
Equipment Support Angle (1000mmD)	BIL-A-ESA-10	560
Sliding Shelf (900mmD)	BIL-A-SS-09	2750
Sliding Shelf (1000mmD)	BIL-A-SS-10	2860

Thermal Management

HSN Code : 8538

Description	Cat No.	List Price [₹]
1-Fan (Direct mounted)	BIL-A-SF	930
Fan-tray with 2-Fans (FHU)	BIL-A-FHU-2FANS	1990
Fan-tray with 4-Fans (FHU)	BIL-A-FHU-4FANS	3470

Cable Management

HSN Code : 8538

Description	Cat No.	List Price [₹]
Horizontal Cable Manager (1U)	BIL-A-HCM-1U	220
Horizontal Cable Manager (2U)	BIL-A-HCM-2U	280
Vertical Cable Manager (24U)	BIL-A-VCM-24U	340
Vertical Cable Manager (30U)	BIL-A-VCM-30U	440
Vertical Cable Manager (36U)	BIL-A-VCM-36U	500
Vertical Cable Manager (42U)	BIL-A-VCM-42U	550
Vertical Cable Manager (45U)	BIL-A-VCM-45U	610

Power Management

HSN Code : 8538

Description	Cat No.	List Price [₹]
6-Point 5Amp Horizontal Power Strip (19")	BIL-A-HPS-5AMP	900
5-Point 5/15Amp Horizontal Power Strip (19")	BIL-A-HPS-15AMP	1210
12-Point 5Amp Vertical Power Strip	BIL-A-12VPS-5AMP	1770
10-Point 5/15Amp Vertical Power Strip	BIL-A-10VPS-15AMP	2040
Earth continuity Kit (Earthing Kit)	BIL-A-ECT	690

Stability Management

HSN Code : 8538

Description	Cat No.	List Price [₹]
Castors (1-Set) Heavy Duty	BIL-A-CAS-HD	3320
Castors (1-Set) Light Duty	BIL-A-CAS	2650
Levelling Feet (1-Set)	BIL-A-LF	450
Stability Plate	BIL-A-SP	1670

Miscellaneous

HSN Code : 8538

Description	Cat No.	List Price [₹]
BAYING KIT	BIL-A-BK	320
BLANKING PANEL (1U)	BIL-A-BP-1U	150
BLANKING PANEL (2U)	BIL-A-BP-2U	200
BLANKING PANEL (3U)	BIL-A-BP-3U	260
BLANKING PANEL (4U)	BIL-A-BP-4U	310
BLANKING PANEL (5U)	BIL-A-BP-5U	350
Captive H/w (set of 10)	BIL-A-Captive-M6	150
Wallmounting H/w (set of 4)	BIL-A-wallmounting W	160

Notes : Packing & forwarding will be extra if accessories are ordered separately.

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no.122.

Wires & Cables

- **3-Core Flat Cables for Submersible Pump Applications**
- **Single & Multi Core PVC Flexible Cables**
- **FR & FRLS Cables**



Wires & Cables BCH

BCH Three Core Flat Cables with annealed bare & bunched copper conductor insulated & sheathed with PVC for submersible pump motors for voltage grade 1100 V as per I.S. 694 / 1990 upto 4.0 sqmm, conforming to & marked with I.S. 694 / 2010 upto 35 sqmm.

3 Core Flat Cable PVC Insulated Type CS- 500 Mtrs

HSN Code : 8544

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]
CS0010BM	1.0 Sqmm x 3 core Flat cable	On Request
CS0015BM	1.5 Sqmm x 3 core Flat cable	
CS0025BM	2.5 Sqmm x 3 core Flat cable	
CS0040BM	4.0 Sqmm x 3 core Flat cable	
CS0060BM	6.0 Sqmm x 3 core Flat cable	
CS0080BM	8.0 Sqmm x 3 core Flat cable	
CS0100BM	10 Sqmm x 3 core Flat cable	
CS0160BM	16 Sqmm x 3 core Flat cable	
CS0250BM	25 Sqmm x 3 core Flat cable	
CS0350BM	35 Sqmm x 3 core Flat cable	

BCH Three Core Flat Cables with annealed bare & bunched copper conductor insulated & thick sheathed with PVC for submersible pump motors for voltage grade 1100 V as per I.S. 694 / 1990 upto 4.0 sqmm, conforming to & marked with I.S. 694 / 2010 upto 16.0 sqmm.

3 Core Flat Cable PVC Insulated Thick Type CFT- 500 Mtrs

HSN Code : 8544

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]
CFT-03-0010BM	1.0 Sqmm x 3 core Flat cable Thick	On Request
CFT-03-0015BM	1.5 Sqmm x 3 core Flat cable Thick	
CFT-03-0025BM	2.5 Sqmm x 3 core Flat cable Thick	
CFT-03-0040BM	4.0 Sqmm x 3 core Flat cable Thick	
CFT-03-0060BM	6.0 Sqmm x 3 core Flat cable Thick	
CFT-03-0100BM	10 Sqmm x 3 core Flat cable Thick	
CFT-03-0160BM	16 Sqmm x 3 core Flat cable Thick	

BCH Three Core Flat Cables with annealed bare & bunched copper conductor XLPE insulated & PVC sheathed for submersible pump motors of voltage grade 1100 V. suitable for heavy duty usage and areas having frequent supply undervoltage / overvoltage conditions upto 16.0 sqmm.

3 Core Flat Cable XLPE Insulated Type CFTX- 500 Mtrs

HSN Code : 8544

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]
CFTX-03-0015BM	1.5 Sqmm x 3 core Flat cable XLPE insulated Thick	On Request
CFTX-03-0025BM	2.5 Sqmm x 3 core Flat cable XLPE insulated Thick	
CFTX-03-0040BM	4.0 Sqmm x 3 core Flat cable XLPE insulated Thick	
CFTX-03-0060BM	6.0 Sqmm x 3 core Flat cable XLPE insulated Thick	
CFTX-03-0100BM	10 Sqmm x 3 core Flat cable XLPE insulated Thick	
CFTX-03-0160BM	16 Sqmm x 3 core Flat cable XLPE insulated Thick	

Note : For price, please contact our nearest sales office.

Wires & Cables BCH

Single & Multi Core PVC Flexible Cables As Per IS 694: 2010 - With ISI Marking

HSN Code : 8544

- Individual conductors drawn from 99.98% bright electrolytic grade copper with more than 100% conductivity
- Special formulation of PVC compounds as per IS 5831:1984 ensures longer and trouble free service life.
- Use only RoHS insulation and sheathing compounds. Ensures cleaner environment and better health.
- Online measurement and monitoring of O.D., core dia and dielectric strength.
- Suitable for -15 to +70°C.

Cat. No.	Conductor Area (nominal)	Safe Current Carrying Capacity 2 wires, Single Phase		Price Per 100 mtrs
		In conduit / Trunking	Unenclosed clipped directly to a surface or on cable tray	
Single Core	(Sq. mm)	(Amp.)	(Amp.)	in [₹]
VCR01-0005A-AAA	0.5	4	4.5	On Request
VCR01-0008A-AAA	0.75	7	8	
VCR01-0010A-AAA	1	11	12	
VCR01-0015A-AAA	1.5	13	16	
VCR01-0025A-AAA	2.5	18	22	
VCR01-0040A-AAA	4	24	29	
VCR01-0060A-AAA	6	31	37	
VCR01-0100A-AAA	10	42	51	
VCR01-0160A-AAA	16	57	68	
VCR01-0250A-AAA	25	71	86	
VCR01-0350A-AAA	35	91	100	
VCR01-0500A-AAA	50	120	145	
HSN Code : 8544				
VCR01-0700A-AAA	70	-	214	On Request
VCR01-0950A-AAA	95	-	260	
VCR01-1200A-AAA	120	-	305	
VCR01-1500A-AAA	150	-	355	
VCR01-1850A-AAA	185	-	415	
VCR01-2400A-AAA	240	-	500	
VCR01-3000A-AAA	300	-	560	

Note : Standard packing of 100m, 500m & 1000m available. For price of 500m & 1000m , please contact nearest sales office.

Single Core FR Cables As Per IS 694: 2010 - With ISI Marking

HSN Code : 8544

Cat. No.	Conductor Area (nominal)	Safe Current Carrying Capacity 2 wires, Single Phase		Price Per 90 mtrs
		In conduit / Trunking	Unenclosed clipped directly to a surface or on cable tray	
Single Core	(Sq. mm)	(Amp.)	(Amp.)	in [₹]
CRFR01-0005D-AAA	0.5	4	4.5	
CRFR01-0008D-AAA	0.75	7	8	
CRFR01-0010D-AAA	1	11	12	
CRFR01-0015D-AAA	1.5	13	16	
CRFR01-0025D-AAA	2.5	18	22	
CRFR01-0040D-AAA	4	24	29	
CRFR01-0060D-AAA	6	31	37	
CRFR01-0100D-AAA	10	42	51	
CRFR01-0160A-AAA	16	57	68	
CRFR01-0250A-AAA	25	71	86	
CRFR01-0350A-AAA	35	91	100	
CRFR01-0500A-AAA	50	120	145	

Note: Standard packing of 100m, 90m & 180m available. For prices of 90m & 180m, please contact nearest sales office.

Single Core FRLS Cables As Per IS 694: 2010 - With ISI Marking

HSN Code : 8544

Cat. No.	Conductor Area (nominal)	Safe Current Carrying Capacity 2 wires		Price Per 100 mtrs
		In conduit / Trunking	Unenclosed clipped directly to a surface or on cable tray	
Single Core	(Sq. mm)	(Amp.)	(Amp.)	in [₹]
CRLS01-0005D-AAA	0.5	4	4.5	
CRLS01-0008D-AAA	0.75	7	8	
CRLS01-0010D-AAA	1	11	12	
CRLS01-0015D-AAA	1.5	13	16	
CRLS01-0025D-AAA	2.5	18	22	
CRLS01-0040D-AAA	4	24	29	
CRLS01-0060D-AAA	6	31	37	
CRLS01-0100A-AAA	10	42	51	
CRLS01-0160A-AAA	16	57	68	
CRLS01-0250A-AAA	25	71	86	
CRLS01-0350A-AAA	35	91	100	
CRLS01-0500A-AAA	50	120	145	

Note: Standard packing of 100m, 90m & 180m available. For prices of 90m & 180m, please contact nearest sales office.



Wires & Cables BCH

Multi Core PVC Flexible Cables

HSN Code : 8544

Cat. No. 2 Core	Cat. No. 3 Core	Cat. No. 4 Core	Conductor area (Normal)	Current Rating (Amps)
VCR02-0005A-AAA	VCR03-0005A-AAA	VCR04-0005A-AAA	0.5	4
VCR02-0008A-AAA	VCR03-0008A-AAA	VCR04-0008A-AAA	0.75	7
VCR02-0010A-AAA	VCR03-0010A-AAA	VCR04-0010A-AAA	1	12
VCR02-0015A-AAA	VCR03-0015A-AAA	VCR04-0015A-AAA	1.5	15
VCR02-0025A-AAA	VCR03-0025A-AAA	VCR04-0025A-AAA	2.5	20
VCR02-0040A-AAA	VCR03-0040A-AAA	VCR04-0040A-AAA	4	27
VCR02-0060A-AAA	VCR03-0060A-AAA	VCR04-0060A-AAA	6	35
VCR02-0100A-AAA	VCR03-0100A-AAA	VCR04-0100A-AAA	10	46
VCR02-0160A-AAA	VCR03-0160A-AAA	VCR04-0160A-AAA	16	62
VCR02-0250A-AAA	VCR03-0250A-AAA	VCR04-0250A-AAA	25	80
VCR02-0350A-AAA	VCR03-0350A-AAA	VCR04-0350A-AAA	35	102
VCR02-0500A-AAA	VCR03-0500A-AAA	VCR04-0500A-AAA	50	138

Cat. No. 5 Core	Cat. No. 6 Core	Cat. No. 7 Core	Conductor area (Normal)	Current Rating (Amps)
VCR05-0005A-AAA	VCR06-0005A-AAA	VCR07-0005A-AAA	0.5	4
VCR05-0008A-AAA	VCR06-0008A-AAA	VCR07-0008A-AAA	0.75	7
VCR05-0010A-AAA	VCR06-0010A-AAA	VCR07-0010A-AAA	1	12
VCR05-0015A-AAA	VCR06-0015A-AAA	VCR07-0015A-AAA	1.5	15
VCR05-0025A-AAA	VCR06-0025A-AAA	VCR07-0025A-AAA	2.5	20
VCR05-0040A-AAA	VCR06-0040A-AAA	VCR07-0040A-AAA	4	27
VCR05-0060A-AAA			6	35

Cat. No. 8 Core	Cat. No. 10 Core	Cat. No. 12 Core	Conductor area (Normal)	Current Rating (Amps)
VCR08-0005A-AAA	VCR10-0005A-AAA	VCR12-0005A-AAA	0.5	4
VCR08-0008A-AAA	VCR10-0008A-AAA	VCR12-0008A-AAA	0.75	7
VCR08-0010A-AAA	VCR10-0010A-AAA	VCR12-0010A-AAA	1	12
VCR08-0015A-AAA	VCR10-0015A-AAA	VCR12-0015A-AAA	1.5	15
VCR08-0025A-AAA	VCR10-0025A-AAA	VCR12-0025A-AAA	2.5	20
VCR08-0040A-AAA	VCR10-0040A-AAA	VCR12-0040A-AAA	4	27

Cat. No. 14 Core	Cat. No. 16 Core	Cat. No. 18 Core	Conductor area (Normal)	Current Rating (Amps)
VCR14-0005A-AAA	VCR16-0005A-AAA	VCR18-0005A-AAA	0.5	4
VCR14-0008A-AAA	VCR16-0008A-AAA	VCR18-0008A-AAA	0.75	7
VCR14-0010A-AAA	VCR16-0010A-AAA	VCR18-0010A-AAA	1	12
VCR14-0015A-AAA	VCR16-0015A-AAA	VCR18-0015A-AAA	1.5	15
VCR14-0025A-AAA	VCR16-0025A-AAA	VCR18-0025A-AAA	2.5	20
VCR14-0040A-AAA	VCR16-0040A-AAA	VCR18-0040A-AAA	4	27

Cat. No. 19 Core	Cat. No. 24 Core	Cat. No. 25 Core	Conductor area (Normal)	Current Rating (Amps)
VCR19-0005A-AAA	VCR24-0005A-AAA	VCR25-0005A-AAA	0.5	4
VCR19-0008A-AAA	VCR24-0008A-AAA	VCR25-0008A-AAA	0.75	7
VCR19-0010A-AAA	VCR24-0010A-AAA	VCR25-0010A-AAA	1	12
VCR19-0015A-AAA	VCR24-0015A-AAA	VCR25-0015A-AAA	1.5	15
VCR19-0025A-AAA	VCR24-0025A-AAA	VCR25-0025A-AAA	2.5	20
VCR19-0040A-AAA	VCR24-0040A-AAA	VCR25-0040A-AAA	4	27

Cat. No. 30 Core	Cat. No. 36 Core	Conductor area (Normal)	Current Rating (Amps)
VCR30-0005A-AAA	VCR36-0005A-AAA	0.5	4
VCR30-0008A-AAA	VCR36-0008A-AAA	0.75	7
VCR30-0010A-AAA	VCR36-0010A-AAA	1	12
VCR30-0015A-AAA	VCR36-0015A-AAA	1.5	15
VCR30-0025A-AAA	VCR36-0025A-AAA	2.5	20
VCR30-0040A-AAA	VCR36-0040A-AAA	4	27

The conductor construction given above is indicative only and will be such that all requirements of strand diameter and conductor resistance as per IS 694:1990 and IS 8130:1984 are met.

Sizes 0.5 to 4 Sq. mm from 2 to 5 cores with ISI mark, rest all generally conforming to the IS. Standard packing available in 100 meter coils, longer lengths on drums (500m to 1000m)

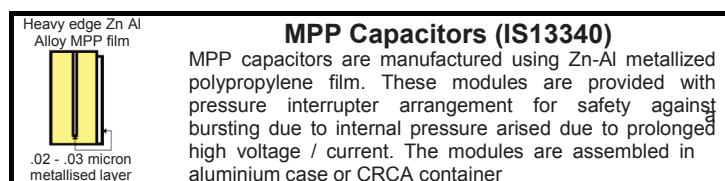
Power Factor Control Products

- LT Power Capacitors - Cylindrical Type
- LT Power Capacitors - Box Type
- Freedom Series Capacitor Duty Contactor
- Super Heavy Duty Box Type Capacitor **New**
- Detuned Reactors **New**
- Thyristor Switched Module **New**
- Automatic Power Factor Controllers (APFC)
& Intelligent Power Factor Controllers (IPFC)
- Network Analysers
- APFC Panels



LT Power Capacitors..... BCH

MPP Can type capacitors



MPP Can type Heavy Duty Capacitors (with ISI Mark) (440V) HSN Code : 8532

KVAR	Type	Rated Voltage (V)	Cat. No.	LP [₹]
1	MPP - CYL-HD	440	BCHMCH001B	360
2	MPP - CYL-HD	440	BCHMCH002B	720
3	MPP - CYL-HD	440	BCHMCH003B	1080
4	MPP - CYL-HD	440	BCHMCH004B	1440
5	MPP - CYL-HD	440	BCHMCH005B	1575
7.5	MPP - CYL-HD	440	BCHMCH007B	2363
10	MPP - CYL-HD	440	BCHMCH010B	2920
12.5	MPP - CYL-HD	440	BCHMCH012B	3650
15	MPP - CYL-HD	440	BCHMCH015B	4380
20	MPP - CYL-HD	440	BCHMCH020B	5840
25	MPP - CYL-HD	440	BCHMCH025B	7300

MPP Can type Normal Duty Capacitors (with ISI Mark) (440V) HSN Code : 8532

KVAR	Type	Rated Voltage (V)	Cat. No.	LP [₹]
1	MPP - CYL-ND	440	BCHMCN001B	260
2	MPP - CYL-ND	440	BCHMCN002B	520
3	MPP - CYL-ND	440	BCHMCN003B	780
4	MPP - CYL-ND	440	BCHMCN004B	1040
5	MPP - CYL-ND	440	BCHMCN005B	1210
7.5	MPP - CYL-ND	440	BCHMCN007B	1815
10	MPP - CYL-ND	440	BCHMCN010B	2180
12.5	MPP - CYL-ND	440	BCHMCN012B	2725
15	MPP - CYL-ND	440	BCHMCN015B	3270
20	MPP - CYL-ND	440	BCHMCN020B	4360
25	MPP - CYL-ND	440	BCHMCN025B	5450

MPP Can type Heavy Duty Capacitors (with ISI Mark) (480V) HSN Code : 8532

KVAR	Type	Rated Voltage (V)	Cat. No.	LP [₹]
11.2	MPP - CYL-HD	480	BCHMCH011C	3415
12.4	MPP - CYL-HD	480	BCHMCH012C	3782
14	MPP - CYL-HD	480	BCHMCH014C	4270
16.8	MPP - CYL-HD	480	BCHMCH016C	5124
18.6	MPP - CYL-HD	480	BCHMCH018C	5673
22.4	MPP - CYL-HD	480	BCHMCH022C	6832
24.8	MPP - CYL-HD	480	BCHMCH024C	7564
28.1	MPP - CYL-HD	480	BCHMCH028C	8571

MPP Can type Heavy Duty Capacitors (with ISI Mark) (525V) HSN Code : 8532

KVAR	Type	Rated Voltage (V)	Cat. No.	LP [₹]
6.6	MPP - CYL-HD	525	BCHMCH006D	2244
7.5	MPP - CYL-HD	525	BCHMCH007D	2550
11.2	MPP - CYL-HD	525	BCHMCH011D	3629
13.8	MPP - CYL-HD	525	BCHMCH013D	4471
19.8	MPP - CYL-HD	525	BCHMCH019D	6415
20	MPP - CYL-HD	525	BCHMCH020D	6480
25	MPP - CYL-HD	525	BCHMCH025D	8100
30	MPP - CYL-HD	525	BCHMCH030D	9720
33.1	MPP - CYL-HD	525	BCHMCH033D	10724

LT Power Capacitors..... BCH

MPP Box type capacitors



Heavy edge Zn Al Alloy MPP film

.02 - .03 micron metallised layer

MPP Capacitors (IS13340)

MPP capacitors are manufactured using Zn-Al metallized polypropylene film. These modules are provided with pressure interrupter arrangement for safety against bursting due to internal pressure arising due to prolonged high voltage / current. The modules are assembled in an aluminium case or CRCA container

MPP Box type Normal Duty Capacitors (with ISI Mark) (440V) HSN Code : 8532

KVAR	Type	Rated Voltage (V)	Cat. No.	LP [₹]
1	MPP-BOX-ND	440	BCHMBN001B	255
2	MPP-BOX-ND	440	BCHMBN002B	510
3	MPP-BOX-ND	440	BCHMBN003B	765
4	MPP-BOX-ND	440	BCHMBN004B	1020
5	MPP-BOX-ND	440	BCHMBN005B	1275
7.5	MPP-BOX-ND	440	BCHMBN007B	1913
10	MPP-BOX-ND	440	BCHMBN010B	2550
12.5	MPP-BOX-ND	440	BCHMBN012B	3188
15	MPP-BOX-ND	440	BCHMBN015B	3825
20	MPP-BOX-ND	440	BCHMBN020B	5100
25	MPP-BOX-ND	440	BCHMBN025B	6375

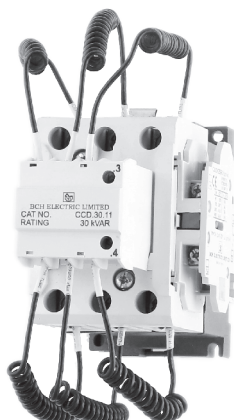
MPP Box type Heavy Duty Capacitors (with ISI Mark) (440V) HSN Code : 8532

KVAR	Type	Rated Voltage (V)	Cat. No.	LP [₹]
1	MPP-BOX-HD	440	BCHMBH001B	328
2	MPP-BOX-HD	440	BCHMBH002B	656
3	MPP-BOX-HD	440	BCHMBH003B	984
4	MPP-BOX-HD	440	BCHMBH004B	1312
5	MPP-BOX-HD	440	BCHMBH005B	1640
7.5	MPP-BOX-HD	440	BCHMBH007B	2460
10	MPP-BOX-HD	440	BCHMBH010B	3280
12.5	MPP-BOX-HD	440	BCHMBH012B	4100
15	MPP-BOX-HD	440	BCHMBH015B	4920
20	MPP-BOX-HD	440	BCHMBH020B	6560
25	MPP-BOX-HD	440	BCHMBH025B	8200



Freedom series Capacitor duty contactor (AC Control)

HSN Code : 8536



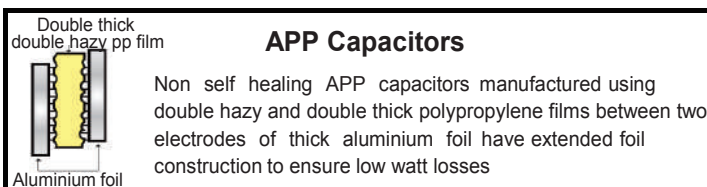
kVAR rating at 415V 3Ph 50Hz	Cat No.	Aux Contacts	MRP [₹]
5	CCD.05.11.■	1NO+1NC	1860
10	CCD.10.11.■	1NO+1NC	1995
15	CCD.15.11.■	1NO+1NC	2950
20	CCD.20.11.■	1NO+1NC	3500
25	CCD.25.11.■	1NO+1NC	3850
30	CCD.30.11.■	1NO+1NC	6450
40	CCD.40.11.■	1NO+1NC	10200
50	CCD.50.11.■	2NO+1NC	10550
60	CCD.60.11.■	2NO+1NC	12050

■ Standard coil voltages are 24, 110, 220/240 & 380/415 VAC, 50 Hz. For voltage codes refer Table on page 25
Effective from 06.06.2018

LT Power Capacitors.....BCH

APP Box type Single Layer Capacitors (with ISI Mark) (440V) HSN Code : 8532

KVAR	Type	Rated Voltage (V)	Cat. No.	LP[₹]
1	APP-BOX	440	BCHAPS001B	695
2	APP-BOX	440	BCHAPS002B	1390
3	APP-BOX	440	BCHAPS003B	2085
4	APP-BOX	440	BCHAPS004B	2780
5	APP-BOX	440	BCHAPS005B	3380
7.5	APP-BOX	440	BCHAPS007B	5070
10	APP-BOX	440	BCHAPS010B	6280
12.5	APP-BOX	440	BCHAPS012B	7850
15	APP-BOX	440	BCHAPS015B	9420
20	APP-BOX	440	BCHAPS020B	12560
25	APP-BOX	440	BCHAPS025B	15700



APP Box type Single Layer Capacitors (with ISI Mark) (480V) HSN Code : 8532

KVAR	Type	Rated Voltage (V)	Cat. No.	LP[₹]
5.6	APP-BOX	480	BCHAPS005C	4060
6.7	APP-BOX	480	BCHAPS006C	4858
11.3	APP-BOX	480	BCHAPS011C	7096
12.5	APP-BOX	480	BCHAPS012C	7850
14.4	APP-BOX	480	BCHAPS014C	9043
15.5	APP-BOX	480	BCHAPS015C	9734
17	APP-BOX	480	BCHAPS017C	10676
19	APP-BOX	480	BCHAPS019C	11932
22.4	APP-BOX	480	BCHAPS022C	14067
25	APP-BOX	480	BCHAPS025C	15700
28.1	APP-BOX	480	BCHAPS028C	17647

APP Box type Single Layer Capacitors (with ISI Mark) (525V) HSN Code : 8532

KVAR	Type	Rated Voltage (V)	Cat. No.	LP[₹]
6.9	APP-BOX	525	BCHAPS006D	5003
9.2	APP-BOX	525	BCHAPS009D	6670
12.5	APP-BOX	525	BCHAPS012D	8025
13.8	APP-BOX	525	BCHAPS013D	8860
15.4	APP-BOX	525	BCHAPS015D	9887
17.2	APP-BOX	525	BCHAPS017D	11042
18.5	APP-BOX	525	BCHAPS018D	11877
20.6	APP-BOX	525	BCHAPS020D	13225
22.6	APP-BOX	525	BCHAPS022D	14509
25	APP-BOX	525	BCHAPS025D	16050
27.5	APP-BOX	525	BCHAPS027D	17655
30.6	APP-BOX	525	BCHAPS030D	19645
33.1	APP-BOX	525	BCHAPS033D	21250

'Price of Medium Voltage Capacitors are available on request'

LT Power Capacitors.....BCH



SHD (Super Heavy Duty) Box type Capacitors (with ISI Mark) (440V)

HSN Code : 8532

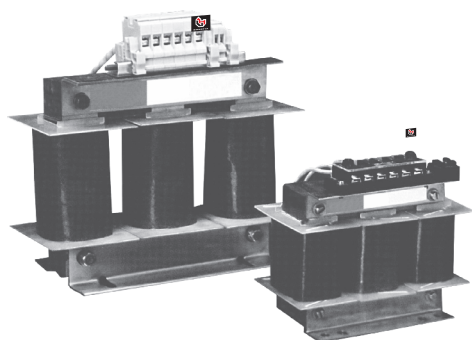
KVAR	Type	Rated Voltage (V)	Cat. No.	LP[₹]
1	SHD-BOX	440	BCHSHD001B	1470
2	SHD-BOX	440	BCHSHD002B	2940
3	SHD-BOX	440	BCHSHD003B	4410
5	SHD-BOX	440	BCHSHD005B	6300
7.5	SHD-BOX	440	BCHSHD007B	9450
10	SHD-BOX	440	BCHSHD010B	12600
12.5	SHD-BOX	440	BCHSHD012B	15750
15	SHD-BOX	440	BCHSHD015B	18900
20	SHD-BOX	440	BCHSHD020B	25200
25	SHD-BOX	440	BCHSHD025B	31500



7% Aluminium wound 440V Detuned Reactors

HSN Code : 8504

KVAR	Type	Rated Voltage (V)	Cat. No.	LP[₹]
5	7% Alu.-Reactor	440	BCHRAL005B	7825
10	7% Alu.-Reactor	440	BCHRAL010B	9430
15	7% Alu.-Reactor	440	BCHRAL015B	11670
20	7% Alu.-Reactor	440	BCHRAL020B	14730
25	7% Alu.-Reactor	440	BCHRAL025B	16235
50	7% Alu.-Reactor	440	BCHRAL050B	22700
75	7% Alu.-Reactor	440	BCHRAL075B	32235
100	7% Alu.-Reactor	440	BCHRAL100B	37005



7% Copper wound 440V Detuned Reactors

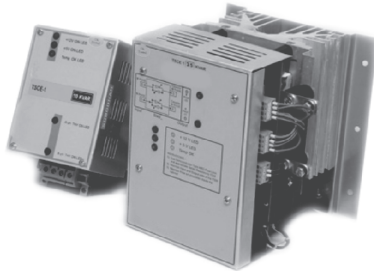
HSN Code : 8504

KVAR	Type	Rated Voltage (V)	Cat. No.	LP[₹]
5	7% Cu.-Reactor	440	BCHRCU005B	12130
10	7% Cu.-Reactor	440	BCHRCU010B	13965
15	7% Cu.-Reactor	440	BCHRCU015B	16225
20	7% Cu.-Reactor	440	BCHRCU020B	19005
25	7% Cu.-Reactor	440	BCHRCU025B	21735
50	7% Cu.-Reactor	440	BCHRCU050B	34005
75	7% Cu.-Reactor	440	BCHRCU075B	48690
100	7% Cu.-Reactor	440	BCHRCU100B	61280

LT Power Capacitors.....BCH



Thyristor Switched Module with Visual Circuit Indicator HSN Code : 8538



KVAR	Type	Rated Voltage (V)	Cat. No.	LP[₹]
5	TSM	440	BCHTSM005	31425
10	TSM	440	BCHTSM010	31425
15	TSM	440	BCHTSM015	31425
20	TSM	440	BCHTSM020	35850
25	TSM	440	BCHTSM025	35850
50	TSM	440	BCHTSM050	44710
75	TSM	440	BCHTSM075	74230
100	TSM	440	BCHTSM100	74230

APFC

Intelligent Power Factor Controllers (IPFC)

Steps	Cat. No.	Voltage	Brief description	MRP [₹]
12 STEP - 3 ϕ	RG3-12C	230V	12 Step intelligent PFC	31515
12 STEP - 3 ϕ	RG3-12CS	230V	12 Step intelligent PFC with RS 485 communication	34725
15 STEP - 3 ϕ	RG3-15C	230V	15 Step , Intelligent PFC relay	33035
15 STEP - 3 ϕ	RG3-15CL	230V	15 Step , Intelligent PFC relay with 3 steps for reactor	On request
15 STEP - 3 ϕ	RG3-15CS	230V	15 Step , Intelligent PFC relay with RS485 communication	39965
15 STEP - 3 ϕ	RG3-15CLS	230V	15 Step , Intelligent PFC relay with 3 steps for reactor and RS485 communication	On request

Note : **RG3-8/12/15 and RG3-12/15CS available in 230V only



- 3-Phase / 3CTs
- Connecting Single-Phase & 3-Phase Capacitors
- Compensation of Each Phase
- Measures : A, Cos- ϕ , Total W, Total VAR, Total VA, Total KWH, Total KVARh
- Harmonic Measurement (up to 19th)
- THD 1% THD V%
- Programmable THD Protection
- Programmable Discharge Time
- Programmable THD Alarm
- Password Protection for setup
- Overheat Protection (Optional)
- RS-485 Communication (Optional)
- RG-15C - Intelligent relay PFC with smart switching with all 15 steps relay connection
- RG-15C - Intelligent relay PFC with smart switching with all 15 steps relay connection with communication

Automatic Power Factor Controllers (APFC)

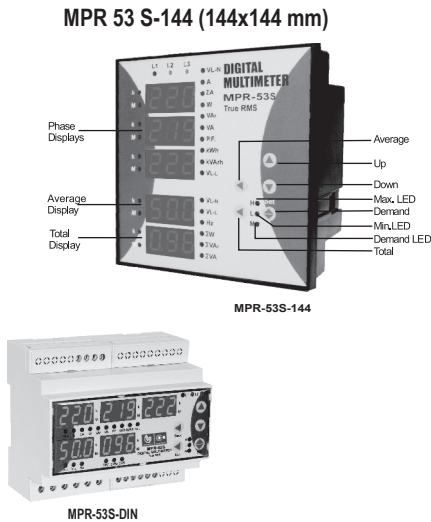
Steps	Cat. No.	Voltage	Brief description	MRP [₹]
6 STEP - 1 ϕ	RG-6T-230-96	230V	PFC (96X96) WITH 6 STEPS , 230 V	12010
6 STEP - 1 ϕ	RG-6T-415-96	415V	PFC (96X96) WITH 6 STEPS , 415 V	12010
6 STEP - 1 ϕ	RG-6T-230	230V	PFC (144X144) WITH 6 STEPS, 230 V	12635
6 STEP - 1 ϕ	RG-6T-415	415V	PFC (144X144) WITH 6 STEPS, 415 V	12635
8 STEP - 1 ϕ	RG-8T-230	230V	PFC (144X144) WITH 8 STEPS, 230 V	13230
8 STEP - 1 ϕ	RG-8T-415	415V	PFC (144X144) WITH 8 STEPS, 415 V	13230
8 STEP - 3 ϕ	RG3-8T-230	230V	PFC 144X144, 8 STEPS,230V UNABALANCELOAD	19275
12 STEP - 1 ϕ	RG-12T-230	230V	PFC (144X144) WITH 12 STEPS, 230 V	18155
12 STEP - 1 ϕ	RG-12T-415	415V	PFC (144X144) WITH 12 STEPS, 415 V	18155
12 STEP - 3 ϕ	RG3-12T-230	230V	PFC 144X144,12 STEPS,230V UNABALANCELOAD	21520

Note : **RG3-8/12/15 and RG3-12/15CS available in 230V only

Digital Network Analysers.....BCH

Sl. No.	Description	Cat. No	MRP [₹]
MPR-53 Series			
1	With Pulse Output, LED Display (96x96 mm)	MPR-53-96	13585
2	With Pulse Output, LED Display (144x144 mm)	MPR-53-144	On Request
3	With Pulse Output, LED Display (DIN)	MPR-53-DIN	14140
MPR-53S Series			
4	With RS-485 PC Communication (MODBUS-RTU Protocol) and Pulse Output, LED Display (96x96 mm)	MPR-53S-96	18460
5	With RS-485 PC Communication (MODBUS-RTU Protocol) and Pulse Output, LED Display (144x144 mm)	MPR-53S-96	On Request
6	With RS-485 PC Communication (MODBUS-RTU Protocol) and Pulse Output, LED Display (DIN)	MPR-53S-DIN	On Request
MPR-60S Series			
7	With Total Harmonic Measurement, LCD Display (THD V%, THD I%) (96x96 mm)	MPR-60S	25855
8	With Total Harmonic Measurement, LCD Display + Digital Input and Digital Output (THD V%, THD I%) (96x96mm)	MPR-60S-10	On Request
MPR-63 Series			
9	With Harmonic Measurement, LCD Display (THD V%, THD I%, up to 31th harmonic for Current & Voltage separately) (96x96mm)	MPR-63	32360
10	With Harmonic Measurement, LCD Display + Digital Input and Digital Output (THD V%, THD I%, up to 31th harmonic for Current & Voltage separately) (96x96mm)	MPR63-10	On Request
MPR-SW - SOFTWARE FOR MONITORING & SAVING PARAMETERS FOR MPR SERIES			
11	For 1 MPR Series	MPR-SW-1	On Request
12	For 5 MPR Series	MPR-SW-5	On Request
13	For 10 MPR Series	MPR-SW-10	On Request
14	For 15 MPR Series	MPR-SW-15	On Request
15	For 20 MPR Series	MPR-SW-20	On Request
ACCESSORIES FOR MPR SERIES			
16	RS232 TO RS485 Converter with Serial Cable & Power Adaptor	RS-C1	On Request
17	RS-485 / USB Converter for communicating PC with USB Cable	RS-USB2	On Request
18	Amplifies the Communication Data Signal* 1	RPT-1	On Request

Note : *RPT-1 must be used for each 20 devices.
For any other variants please contact sales office



Measured Parameters

Phase - Neutral Voltages (V_{LN})
Phase - Phase Voltages (V_{LL})
Average Phase - Neutral Voltage Average
Phase - Phase Voltage Phase Currents (I)
Total Current ($\hat{I}$)
Power Factor (P.F) Frequency (Hz)
Active Power (P)
Max. And Min. Demand Values
Reactive Power (Q)

Apparent Power (S)
Total Active Power ($\hat{a}P$)
Total Reactive Power ($\hat{a}Q$)
Total Apparent Power ($\hat{a}S$)
Active Energy - Import (kWh)
Reactive Energy - Capacitive (kVarh)
Reactive Energy - Inductive (kVarh)

MPR 63/MPR63-10



MPR-63 / MPR63- 10 :
THD V%, THD I%,
up to 31th harmonic for
current and voltage separately.
• Digital Output
• Digital Input (only for MPR63-10)

MPR-60S / MPR60S- 10 :
THD V%, THD I%
• Digital Output
• Digital Input (only for MPR60S-10)

CE

Measured Parameters

2nd, 3rd, 4th ... 31th Harmonic for I and V.
Phase - Neutral Voltages (V_{LN})
Phase - Phase Voltages (V_{LL})
Average Phase - Neutral Voltage
Average Phase - Phase Voltage
Phase Currents (I)
Neutral Current
Total Current ($\hat{I}$)
Power Factor (P.F)
Cos ϕ
Frequency (Hz)
Max., Min. and Demand Values

Active Power (P)
Reactive Power (Q)
Apparent Power (S)
Total Active Power ($\hat{a}P$)
Total Reactive Power ($\hat{a}Q$)
Total Apparent Power ($\hat{a}S$)
Active Energy - Import (kWh)
Active Energy - Export (kWh)
Reactive Energy - Capacitive (kVarh)
Reactive Energy - Inductive (kVarh)
Total Harmonic Distortion for Voltage (THD V %)
Total Harmonic Distortion for Current (THD I %)

APFC Panels BCH

3Phase Automatic Power Factor Correction (APFC) Panels

Key Features

- Advanced Micro Controller based Power Factor Controller with Self-diagnostic Sensing and Control of Capacitor Bank Stages.
- High performance 'BCH' Cylindrical & Box type Capacitors.
- Capacitor duty Contactors for reliable & trouble free operation.
- Choice of Bhartia-Celduc's world class Solid State Relay (SSR) with TMS² technology as an option.
- Choice of selection of Capacitors as per application & site conditions.
- Thoughtfully designed Panels with provision for louvres & cooling fan for proper ventilation to manage heat load.
- Enclosure with Epoxy based paint shade RAL 7032
- PU Foam Gasketing for sustained Ingress Protection of the Panel.

Five Standard Versions of APFC Panels are available depending upon Switching Sequence, Mode of Control (Automatic & Manual options) & Type of Capacitors (Cylindrical / Box type) used.

VERSION 1 - With BCH MPP Heavy Duty Cylindrical Capacitors & **WITHOUT** Manual option.

VERSION 2 - With BCH MPP Heavy Duty Reinforced Cylindrical Capacitors & **WITHOUT** Manual option.

VERSION 3 - With BCH MPP Heavy Duty Cylindrical Capacitors & **WITH** Manual option.

VERSION 4 - With BCH MPP Heavy Duty Reinforced Cylindrical Capacitors & **WITH** Manual option.

VERSION 5 - With BCH MPP-BH Heavy Duty Long Life, Box Type Capacitors & **WITH** Manual option.

(Other tailor made versions on request)

Common Features

CAPACITOR RATING - 40 to 200KVar in Standard Ratings of 40, 50, 60, 75, 100, 125, 150, 175 & 200 KVar with suitable banking arrangement.

MOUNTING - Wall Mounting up-to 75KVar & Floor Mounting above 75 KVAR ratings.

INCOMING - BCH-RESILIENT 3-P MCCB with Rotary handle.

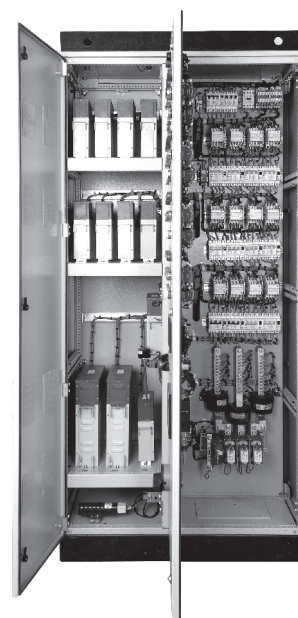
OUTGOING - TP MCB or HRC fuses with fuse base as standard
(BCH-RESILIENT 3-P MCCB or SDFU and Compartmentalized outgoing feeders can also be provided depending upon size of panel on request).

CONTACTORS - BCH Capacitor Duty Contactors as standard (BCH-Celduc SSR's on request).

R-Y-B INDICATIONS - BCH Flexi-22 LED's.

AMMETER/VOLTMERS - Provided for VERSIONS 3, 4 & 5 only.

For prices contact our nearest sales office.



APFC Panels BCH

Version 1 & Version 2 - Cylindrical Type Capacitors & WITHOUT Manual Option

Version 1 & 2	KVA _r	Output Steps	Cat No. Vesion1/2	Incomer MCCB	Switching Sequence												Aprox Dimension W x H x D (mm)
					1	2	3	4	5	6	7	8	9	10	11	12	
	40	16x2.5	APFC40-1/2	100A(10KA)	2.5	2.5	5	10	20								800x1000x300
	50	20x2.5	APFC50-1/2	100A(10KA)	2.5	5	7.5	10	25								800x1000x300
	60	12x5	APFC60-1/2	125A(15KA)	5	10	10	15	20								800x1000x300
	75	15x5	APFC75-1/2	150A(15KA)	5	10	15	20	25								800x1000x300
	100	20x5	APFC100-1/2	200A(15KA)	5	10	15	20	25	25							600x1800x500
	125	25x5	APFC125-1/2	225A(15KA)	5	10	10	25	25	25	25						600x1800x500
	150	30x5	APFC150-1/2	250A(25KA)	5	10	10	25	25	25	25	25					900x1600x500
	175	35x5	APFC175-1/2	400A(35KA)	5	10	10	25	25	25	25	25	25				900x1600x500
	200	40x5	APFC200-1/2	400A(35KA)	5	10	10	25	25	25	25	25	25	25			1000x1600x500

Version 3 & Version 4 - Cylindrical Type Capacitors & WITH Manual Option

Version 3 & 4	KVA _r	Output Steps	Cat No. Vesion3/4	Incomer MCCB	Switching Sequence												Aprox Dimension W x H x D (mm)
					1	2	3	4	5	6	7	8	9	10	11	12	
	40	16x2.5	APFC40-3/4	100A(10KA)	2.5	2.5	5	10	20								800x1000x300
	50	20x2.5	APFC50-3/4	100A(10KA)	2.5	5	7.5	10	25								800x1000x300
	60	12x5	APFC60-3/4	125A(15KA)	5	10	10	15	20								800x1000x300
	75	15x5	APFC75-3/4	150A(15KA)	5	10	15	20	25								800x1000x300
	100	20x5	APFC100-3/4	200A(15KA)	5	10	15	20	25	25							600x1800x500
	125	25x5	APFC125-3/4	225A(15KA)	5	10	10	25	25	25	25						600x1800x500
	150	30x5	APFC150-3/4	250A(25KA)	5	10	10	25	25	25	25	25					900x1600x500
	175	35x5	APFC175-3/4	400A(35KA)	5	10	10	25	25	25	25	25	25				900x1600x500
	200	40x5	APFC200-3/4	400A(35KA)	5	10	10	25	25	25	25	25	25	25			1000x1600x500

Version 5 - Box Type Capacitors & WITH Manual Option

Version 5	KVA _r	Output Steps	Cat No. Vesion 5	Incomer MCCB	Switching Sequence												Aprox Dimension WxHxD(mm)
					1	2	3	4	5	6	7	8	9	10	11	12	
	40	8x5	APFC40-5	100A(10KA)	5	10	10	15									900x1200x600
	50	10x5	APFC50-5	100A(10KA)	5	10	15	20									900x1200x600
	60	12x5	APFC60-5	125A(15KA)	5	10	20	25									900x1200x600
	75	15x5	APFC75-5	150A(15KA)	5	10	10	25	25								900x1200x600
	100	20x5	APFC100-5	200A(15KA)	5	10	10	25	25	25							900x1200x600
	125	25x5	APFC125-5	225A(15KA)	5	10	10	25	25	25	25						1000x1800x600
	150	30x5	APFC150-5	250A(25KA)	5	10	10	25	25	25	25	25					1000x1800x600
	175	35x5	APFC175-5	400A(35KA)	5	10	10	25	25	25	25	25	25				1000x1800x600
	200	40x5	APFC200-5	400A(35KA)	5	10	10	25	25	25	25	25	25	25			1200x1800x600

Note: The Dimensions indicated above are without foundation frame and lifting angle/lifting hooks

Motors

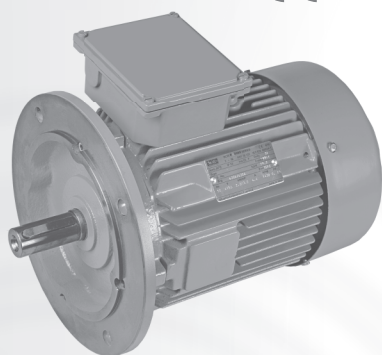
ENDURA

Low Voltage AC TEFC Squirrel
Cage Induction Motors

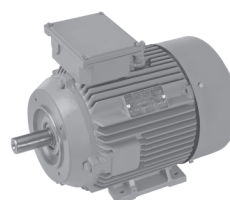
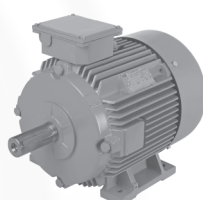
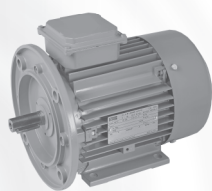
**EFF1
EFF2**

50°C
ambient temperature

Class F

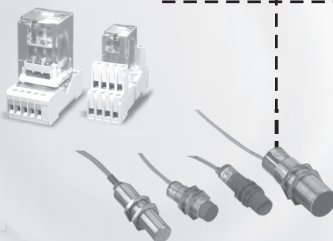
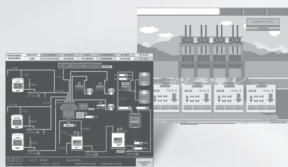


- **0.12 HP to 425 HP**
- **2 to 8 Poles**
- **Vector Plus with forced cooling**
- **Upto 40 intermediate standard ratings**
- **High efficiency, consistent - life long**
- **Low loss for entire life**
- **Inverter duty motor**
- **No deration upto 50° C**
- **Dual coat winding wire as standard feature**
- **6 terminals across the range**
- **Top, LHS, RHS termination flexibility**
- **CE marking**



Automation Products

- **AC Drives**
- **Digital DC Drives**
- **Programmable Logic Relays**
- **Soft Starters**
- **e-prox Sensors**
- **Plug-in Relays**
- **Electronic Timers**



AC Drives BCH

SINUS N Drive



HSN Code - 8504

Rating (Kw)	Drive Series	Product Code	Supply Details	Remark	Current (A)	MRP [₹]
0.37	SINUS N	SINUS N 2S0001XBK2	Input - 1 phase 200 - 240V AC, Output - 3 phase, 240V AC	With EMC	2.5	14200
0.37	SINUS N	SINUS N 2S0001XIK2		W/o EMC	2.5	13300
0.75 - 1.1	SINUS N	SINUS N 2S0002XBK2		With EMC	5	16100
0.75 - 1.1	SINUS N	SINUS N 2S0002XIK2		W/o EMC	5	15200
1.5 - 1.8	SINUS N	SINUS N 2S0003XBK2		With EMC	8	19800
1.5 - 1.8	SINUS N	SINUS N 2S0003XIK2		W/o EMC	8	18200
2.2 - 3	SINUS N	SINUS N 2S0005XBK2		With EMC	12	24000
2.2 - 3	SINUS N	SINUS N 2S0005XIK2		W/o EMC	12	22300

SINUS M Drive



- 0.4~22Kw 380-480Vac, 3 phase
- Sensorless vector and V/F control
- Integrated braking module
- Build in PID function

HSN Code - 8504

Rating (Kw)	Drive Series	Product Code	Supply Details	Remark	Current (A)	MRP [₹]
0.37 - 0.55	SINUS M	SINUS M 4T0001BA2K2	Input - 3 phase 415V AC, Output - 3 phase, 415V AC	With EMC	1.25	21750
0.75 - 0.9	SINUS M	SINUS M 4T0002BA2K2		With EMC	2.50	23700
1.5	SINUS M	SINUS M 4T0003BA2K2		With EMC	4.00	26600
2.2	SINUS M	SINUS M 4T0005BA2K2		With EMC	6.00	28600
3.4	SINUS M	SINUS M 4T0007BA2K2		With EMC	9.00	35200
5.5	SINUS M	SINUS M 4T0011BA2K2		With EMC	12.00	45500
7.5	SINUS M	SINUS M 4T0014BA2K2		With EMC	16.00	53500
11	SINUS M	SINUS M 4T0017BA2K2		With EMC	24.00	93850
15	SINUS M	SINUS M 4T0020BA2K2		With EMC	30.00	108000
18.5	SINUS M	SINUS M 4T0025BA2K2		With EMC	39.00	136950
22	SINUS M	SINUS M 4T0030BA2K2		With EMC	45.00	161100

*SINUS M available in 1 phase to 3 phase version also



AC/DC Drives/Programmable Logic Relay.....BCH

AC Drive



Sinus Penta Drive

- 4.5 - 3000 KW, 3 Phase 380 - 415 VAC
- One Drive - Five functions
 - Vector modulation IFD functionality for general-purpose applications
 - Sensorless vector VTC functionality for high torque-demanding applications
 - Vector FOC functionality with an encoder for accurate torque requirements and a wide speed range
 - Vector SYN functionality for applications with brushless, synchronous motors
 - RGN functionality for the inverter application as an AC/DC converter for the DC supply of multiple drives
- In built Braking chopper upto 132KW rating (S30)
- Serial communication port RS485 – MODBUS RTU Protocol
- Starting Torque upto 240% max
- PID function / second PID function
- Control keypad panel with 12 keys and large back-lit LCD
- Intelligent cooling system
- Encoder feedback
- Full compatibility with teleservice software, "REMOTE DRIVE" on internet
- Compatible with Easy Harmonics, tool for the calculation of Harmonic currents

Digital DC Drives



- From 10A to 4500A (2.4 KW to 2205 KW)
3 Phase 220-690VAC
- 2 & 4 Quadrant digital drive
- Local control from keypad
- 12/7 programmable I/Os
- Predictive control and field boost
- Feedback from dynamo/encoder/armature
- Auto switching in armature F/B against
encoder/tacho feed back failure

Digital DC Drives

HSN Code - 8504

Cat. No.	Armature Current (A)	Field Current (A)
DCREG*.10 POT440V	10	5
DCREG*.20 POT440V	20	5
DCREG*.40 POT440V	40	5
DCREG*.70 POT440V	70	5
DCREG*.100 POT440V	100	5
DCREG*.150 POT440V	150	15
DCREG*.180 POT440V	180	15
DCREG*.250 POT440V	250	15
DCREG*.350 POT440V	350	15
DCREG*.410 POT440V	410	35
DCREG*.500 POT440V	500	35
DCREG*.600 POT440V	600	35
DCREG*.900 POT440V	900	35
DCREG*.1200 POT440V	1200	35

* to complete cat code suffix : 2- for II Quadrant drive 4 - for IV Quadrant drive

Programmable Logic Relay



Programmable Logic Relay

Compact, Modular, Flexible, Economic and Capable
 Surface mounting & DIN rail mounting
 Controls 82 inputs/outputs including 8 analog inputs.
 Output rating 10Amp for relay and 2Amp for transistor.
 Programming through "SUPER CAD" FBD programming software or LCD programming panel.
 Removable and separately installable LCD display panel.
 Voice module offers auto telephone dialing and pre recorded alarms.
 Industrial wireless remote control module offer 6 wireless remote control input points.
 Three no. extension I/O can be used as distributed I/O up to max. 6 mtrs. in length

* For the prices of above mentioned products please contact our nearest sales office.

Soft Starters BCH



ASAC Series Soft-Starter

HSN Code - 8504

- Power supply voltage Range: 200-440VAC
- RS-485 Communication Port
- Compact size & Range 7.5KW - 110KW
- Internal By-pass contactor
- 400% Max allowed overload of nominal current.
- Full Compatibility with teleservice software "Remote Drive" on internet

Protection Functions

- Motor Overload
- Phase loss
- Excess start Time
- Phase Sequence
- Motor thermistor I/P
- Power circuit fault
- Supply Frequency
- Communication Failure

BIL Product Reference	Motor Rating Kw	MRP [₹]	Remark
200 - 440 VAC, IP:20			Without Motor Protection & with Inbuilt Bypass contactor.
ASAC-0/007/4/1	7.5	34000	
ASAC-0/015/4/1	15	34500	
ASAC-0/018/4/1	18.5	35000	
ASAC-0/022/4/1	22	36700	
ASAC-0/030/4/1	30	40500	
ASAC-0/037/4/1	37	48500	
ASAC-0/045/4/1	45	59500	
ASAC-0/055/4/1	55	61000	
ASAC-0/075/4/1	75	92500	
ASAC-0/090/4/1	90	101500	
ASAC-0/110/4/1	110	109500	
200 - 440 VAC, IP:20			With Motor Protections & Inbuilt Bypass contactor.
ASAC-1/007/4/1	7.5	47500	
ASAC-1/015/4/1	15	53000	
ASAC-1/018/4/1	18.5	54500	
ASAC-1/022/4/1	22	57600	
ASAC-1/030/4/1	30	64100	
ASAC-1/037/4/1	37	71500	
ASAC-1/045/4/1	45	87500	
ASAC-1/055/4/1	55	92000	
ASAC-1/075/4/1	75	109600	
ASAC-1/090/4/1	90	144000	
ASAC-1/110/4/1	110	156500	



ASAB Series Soft Starter

- 23A - 1600 A, 200V - 525V AC, 380V-690V AC
- 3 wire and 6 wire connection
- Allowed overload from 300%- 450% of nominal
- Various motor protections builtin
- 5/5 programmable I/Os
- Integrated Multimeter

Protection Functions

- Thermal motor protection
- Motor thermistor input (PTC)
- Phase imbalance
- Phase sequence
- Electronic shearpin
- Undercurrent
- Shorted SCR
- ...and many more

Starting Functions

- Constant current start mode
- Current ramp start mode
- Torque control
- Kick start
- Inbuilt bypass contractor upto 220AMP



Medium Voltage Soft-Starter

- Power supply 2300VAC to 15000VAC, Rated current 200A to 600A

* For the prices of above mentioned products please contact our nearest sales office.



- Sizes from 8mm to 30mm Dia
- Switching Distance from 1.5mm to 15mm
- IP 67, CE Marked
- Sensors with Linear output (4 - 20 mA/0-10VDC)

General Specifications

- High switching capacity
- 200mA upto 12mm Dia
- 400mA for 18mm and 30mm Dia
- Wide range of outputs
- Voltages AC/DC
- Status LED Indication
- Built in Short circuit protection

Special Versions

- Non Standard sizes from 4mm to 80mm dia
- High temperature sensors upto 125 Deg C
- Square / Slot / Rectangular sensors
- Sensor with shielded cable

Standard Version of Inductive Proximity Switches

HSN Code - 8536

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication Integrated cable 3C/2M						
DINE8SP10	8	1.5	PNP-NO	100	960	10
DINE8SN10	8	1.5	NPN-NO	100	960	
DINE12SP10	12	2	PNP-NO	200	760	
DINE12SN10	12	2	NPN-NO	200	760	
DINE18SP10	18	5	PNP-NO	200	810	
DINE18SN10	18	5	NPN-NO	200	810	
DINE30SP10	30	10	PNP-NO	400	990	
DINE30SN10	30	10	NPN-NO	400	990	
Non Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication Integrated cable 3C/2M						
DINE8NP10	8	2	PNP-NO	100	960	10
DINE8NN10	8	2	NPN-NO	100	960	
DINE12NP10	12	4	PNP-NO	200	760	
DINE12NN10	12	4	NPN-NO	200	760	
DINE18NP10	18	8	PNP-NO	200	810	
DINE18NN10	18	8	NPN-NO	200	810	
DINE30NP10	30	15	PNP-NO	400	990	
DINE30NN10	30	15	NPN-NO	400	990	
Flush Version Nominal Voltage 240V AC* 2 Wire Output LED Indication Integrated cable 3C/2M						
DINE12SA10	12	2	NO	200	950	10
DINE12SA01	12	2	NC	200	950	
DINE18SA10	18	5	NO	400	950	
DINE18SA01	18	5	NC	400	950	
DINE30SA10	30	10	NO	400	1120	
DINE30SA01	30	10	NC	400	1120	
Non Flush Version Nominal Voltage 240V AC* 2 Wire Output LED Indication Integrated cable 3C/2M						
DINE12NA10	12	4	NO	200	950	10
DINE12NA01	12	4	NC	200	950	
DINE18NA10	18	8	NO	400	950	
DINE18NA01	18	8	NC	400	950	
DINE30NA10	30	15	NO	400	1120	
DINE30NA01	30	15	NC	400	1120	

*110V AC input voltage is also available



Capacitive Proximity Switches

HSN Code - 8536



- Sizes: 18mm and 30mm dia
- Switching Distance: upto 15mm
- IP 67, CE Compliance

General Specifications

- Max. load current : 400mA
- Wide range of outputs
- Built in Short circuit & polarity reversal protection
- Sensitivity adjustment thru trimmer

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version 12-30V DC 3 Wire Output LED Indication Integrated 3C/2M						
DCAE18SN10	18	1 to 5	NPN-NO	400	1980	10
DCAE18SP10	18	1 to 5	PNP-NO	400	1980	
DCAE30SN10	30	1 to 10	NPN-NO	400	2270	
DCAE30SP10	30	1 to 10	PNP-NO	400	2270	
Non Flush Version 12-30V DC 3 Wire Output LED Indication Integrated 3C/2M						
DCAE18NN10	18	2 to 10	NPN-NO	400	1980	10
DCAE18NP10	18	2 to 10	PNP-NO	400	1980	
DCAE30NN10	30	3 to 15	NPN-NO	400	2270	
DCAE30NP10	30	3 to 15	PNP-NO	400	2270	

Photoelectric Sensors

HSN Code - 8536



- Size : M18 cylindrical
- Mode : diffuse, retro and thru beam
- LED indication
- Sensing distance 20cm to 5mtr.

Special Versions

- Sensors in Rectangular housing

NON CODE - 6551

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Nominal Voltage : 12-30V DC Diffuse Scan DC 4-W Output LED Indication Prewired with 2 m Cable						
DPHE18D2N11	18	200	NPN-NO+NC	200	3010	10
DPHE18D2P11	18	200	PNP-NO+NC	200	3010	
Nominal Voltage : 12-30V DC Retro Reflective DC 4-W Output LED Indication Prewired with 2 m Cable						
DPHE18RRN11	18	1000	NPN-NO+NC	200	3020	10
DPHE18RRP11	18	1000	PNP-NO+NC	200	3020	
Nominal Voltage : 12-30V DC Through Beam DC 4-W Output LED Indication Prewired with 2 m Cable						
DPHE18TBRP11	18	5000	PNP-NO+NC	200	3630	10
DPHE18TBRN11	18	5000	NPN-NO+NC	200	3630	

Note :

- Prices for Thru Beam, Photo Sensors are inclusive of emitters & receivers.
- Prices for Retro Reflective Sensors are inclusive of reflectors.

Electronic Sensors BCH



Standard Version of Inductive Proximity Switches

HSN Code - 8536

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Connector Size	MRP [₹]	Lot Size
Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication, 200 mA Load upto 12mm & 400 mA for 18 mm						
DINE8SP10K	8	1.5	PNP-NO	M8 Connector	990	10
DINE8SN10K	8	1.5	NPN-NO	M8 Connector	990	
DINE12SP10K	12	2	PNP-NO	M12 Connector	990	
DINE12SN10K	12	2	NPN-NO	M12 Connector	990	
DINE18SP10K	18	5	PNP-NO	M12 Connector	990	
DINE18SN10K	18	5	NPN-NO	M12 Connector	990	
DINE30SP10K	30	10	PNP-NO	M12 Connector	1120	
DINE30SN10K	30	10	NPN-NO	M12 Connector	1120	
Non Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication						
DINE8NP10K	8	2	PNP-NO	M8 Connector	990	10
DINE8NN10K	8	2	NPN-NO	M8 Connector	990	
DINE12NP10K	12	4	PNP-NO	M12 Connector	1015	
DINE12NN10K	12	4	NPN-NO	M12 Connector	1015	
DINE18NP10K	18	8	PNP-NO	M12 Connector	995	
DINE18NN10K	18	8	NPN-NO	M12 Connector	995	
DINE30NP10K	30	15	PNP-NO	M12 Connector	1120	
DINE30NN10K	30	15	NPN-NO	M12 Connector	1120	
Cat. No.	Description Female Connectors				MRP [₹]	
DM8K3	M8 3-Wire straight connector w/o LED & 2 m cable				765	10
DM8K390LE	M8 3-Wire "L" type connector with LED & 2 m cable				765	
DM12K4	M12 4-Wire straight connector w/o LED & 2 m cable				515	
DM12K490	M12 4-Wire "L" type connector w/o LED & 2 m cable				750	
DM12K490LE	M12 4-Wire "L" type connector with LED & 2 m cable				800	
Linear Output Inductive Proximity Sensor - Nominal Voltage 24V DC, 2m Integrated Cable						
DINE18LIN	18	5	0 - 10V	2 m long PVC Cable	1700	10
DINE18LINMA	18	5	4 - 20 mA		1700	

Standard Version DC 2 Wire Proximity Switches

HSN Code - 8536

Cat. No.	Dia (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version Nominal Voltage 24V DC 2 Wire Output LED Indication, Integrated 3C/2m long PVC Cable 65mm long tubular Metallic Housing						
DINE8SD10	8	1.5	NO	200	1180	10
DINE12SD10	12	2	NO	200	810	
DINE18SD10	18	5	NO	400	840	
DINE30SD10	30	10	NO	400	1090	
Non Flush Version, Nominal Voltage 12-30V DC 2 Wire Output LED Indication, Integrated 3C/2m long PVC Cable 65mm long tubular Metallic Housing						
DINE8ND10	8	2	NO	200	1180	10
DINE12ND10	12	4	NO	200	810	
DINE18ND10	18	8	NO	400	840	
DINE30ND10	30	15	NO	400	1090	

Note : for NC output, replace suffix 10 by 01

Electronic Sensors BCH



Short Housing Inductive Proximity Switch-45mm length

HSN Code - 8536

Non Code - 6550						
Cat. No.	Dia (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version Nominal Voltage 12-30V DC, 3 Wire Output, LED Indication, Integrated 3C/2m long PVC Cable						
45mm long tubular Metallic Housing						
DINE8SP10S	8	1.5	PNP-NO	200	1220	10
DINE8SN10S	8	1.5	NPN-NO	200	1220	
DINE12SP10S	12	2	PNP-NO	200	820	
DINE12SN10S	12	2	NPN-NO	200	820	
DINE18SP10S	18	5	PNP-NO	400	850	
DINE18SN10S	18	5	NPN-NO	400	850	
Non Flush Version, Nominal Voltage 12-30V DC, 3 Wire Output, LED Indication, Integrated 3C/2m long PVC Cable						
45mm long tubular Metallic Housing						
DINE8NP10S	8	2	PNP-NO	200	1220	10
DINE8NN10S	8	2	NPN-NO	200	1220	
DINE12NP10S	12	4	PNP-NO	200	820	
DINE12NN10S	12	4	NPN-NO	200	820	
DINE18NP10S	18	8	PNP-NO	400	850	
DINE18NN10S	18	8	NPN-NO	400	850	

Square / Rectangular Proximity Switch

HSN Code - 8536

Cat. No.*	Size (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version, Nominal Voltage 12-30V DC, 3 Wire Output, LED Indication, Integrated 3C/2m long PVC Cable, Plastic Housing						
DINE1717SP10P	17x17x30	5	PNP-NO	200	850	10
DINE2020SN10P	20x20x38	5	NPN-NO	200	860	
DINE5025SP10P	50x25x10	5	PNP-NO	200	890	
DINE1717SN10P	17x17x30	5	NPN-NO	200	850	
DINE2020SP10P	20x20x38	5	PNP-NO	200	860	
DINE5025SN10P	50x25x10	5	NPN-NO	200	890	

High Ambient Temperature (up to 125°C) Proximity Switch

HSN Code - 8536

Cat. No.*	Size (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush/Non Flush Version, Nominal Voltage 230V AC, 2 Wire Output, LED Indication, Integrated 3C/2m long Cable, SS Housing						
DINE30SA10HT **	30	4	NO	200	3280	10
DINE30NA10HT **	30	6	NO	200	3280	
DINE18SA10HT **	18	2	NO	200	3115	
DINE18NA10HT **	18	3	NO	200	3115	

* For NC Output, Replace Suffix 10 by 01

** For 110V AC input, Replace A by 2A

Plug in Relays-ASP Series BCH

Plug In Relays - Universal (ASPU)

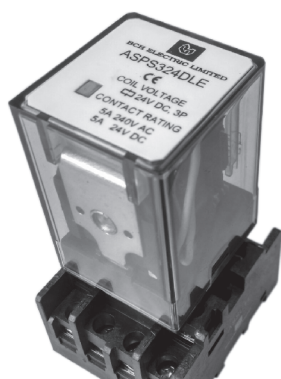
HSN Code - 8536



Coil Voltage	Without latch / Manual Testing		With latch / Manual Testing		Contacts	Lot Size
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]		
8 Pin - contact rating 10A (Res.) at 24V DC/240V AC, LED Indication						
6V DC	ASPU206DLE	310	-	-	2 C/O	10
12V DC	ASPU212DLE	310	ASPU212DLET	415		
24V DC	ASPU224DLE	310	ASPU224DLET	415		
48V DC	ASPU248DLE	340	-	-		
110V DC	ASPU2110DLE	340	ASPU2110DLET	445		
6V AC	ASPU206ALE	335	-	-		
12V AC	ASPU212ALE	335	ASPU212ALET	440		
24V AC	ASPU224ALE	360	ASPU224ALET	440		
110V AC	ASPU2110ALE	360	ASPU2110ALET	440		
240V AC	ASPU2240ALE	395	ASPU2240ALET	530		
11 Pin - contact rating 10A (Res.) at 24V DC/240V AC, LED Indication						
12V DC	ASPU312DLE	375	ASPU312DLET	460	3 C/O	10
24V DC	ASPU324DLE	375	ASPU324DLET	475		
48V DC	ASPU348DLE	385	-	-		
110V DC	ASPU3110DLE	395	ASPU3110DLET	530		
12V AC	ASPU312ALE	415	ASPU312ALET	495		
24V AC	ASPU324ALE	415	ASPU324ALET	500		
110V AC	ASPU3110ALE	415	ASPU3110ALET	530		
240V AC	ASPU3240ALE	445	ASPU3240ALET	575		

Plug In Relays - Universal (ASPS)

HSN Code - 8536



Non Code - 0000				
Cat. No.	Coil Voltage	Contacts	MRP [₹]	Lot Size
8 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
ASPS206DLE	6V DC	2 C/O	280	10
ASPS212DLE	12V DC		260	
ASPS224DLE	24V DC		260	
ASPS248DLE	48V DC		310	
ASPS2110DLE	110V DC		310	
ASPS206ALE	6V AC		300	
ASPS212ALE	12V AC		290	
ASPS224ALE	24V AC		290	
ASPS2110ALE	110V AC		290	
ASPS2240ALE	240V AC		340	
11 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
ASPS312DLE	12V DC	3 C/O	330	10
ASPS324DLE	24V DC		330	
ASPS348DLE	48V DC		385	
ASPS3110DLE	110V DC		385	
ASPS324ALE	24V AC		320	
ASPS3110ALE	110V AC		340	
ASPS3240ALE	240V AC		375	

Sockets for ASPU / ASPS Plug in Relay

HSN Code - 8538

Cat. No.	Coil Voltage	Contacts	MRP[₹]	Lot Size
10A, 240V AC, Screw Terminals, 35mm DIN Rail Mounting				
ASSU11	-	SOCKET 11 PIN FOR ASPS/ASPU Relay	155	10
ASSU8	-	SOCKET 8 PIN FOR ASPS/ASPU Relay	100	
ASPUCL	-	HOLDING CLAMP FOR ASPS/ASPU Relay	25	20

* For price of other coil voltage, please contact our nearest sales office.

Plug in Relays-ASP SeriesBCH



Plug In Relays - Miniature (ASPM)

HSN Code - 8536

Cat. No.	Coil Voltage	Contacts	MRP[₹]	Lot Size
14 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
ASPM412DLE	12V DC	4 C/O	235	20
ASPM424DLE	24V DC		235	
ASPM448DLE	48V DC		240	
ASPM4110DLE	110V DC		240	
ASPM424ALE	24V AC		260	
ASPM4110ALE	110V AC		270	
ASPM4240ALE	240V AC		270	
8 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
ASPM212DLE	12V DC	2 C/O	205	20
ASPM224DLE	24V DC		205	
ASPM248DLE	48V DC		235	
ASPM2110DLE	110V DC		235	
ASPM224ALE	24V AC		235	
ASPM2110ALE	110V AC		235	
ASPM2240ALE	240V AC		235	

Sockets - for ASPM Plug in Relay

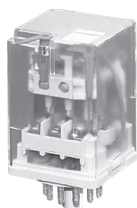
HSN Code - 8538

Cat. No.	Coil Voltage	Contacts	MRP[₹]	Lot Size
5A, 240V AC, Screw Terminals, 35mm DIN Rail Mounting				
ASSM14	-	SOCKET 14 PIN FOR ASPM Relay	140	20
ASSM8	-	SOCKET 8 PIN FOR ASPM Relay	110	

* For price of other coil voltage, please contact our nearest sales office.

Plug in Relays-ARP Series BCH

Universal Relays



- Type ARPU
- 10 Amp (Res) Contact rating
- 2 Change over / 3 Change over
- Silver Nickle Contacts
- Built in Mechanical Indicator/ Latching facility
- Wide Coil Voltages
- With and without LED
- 8 Pin / 11 Pin Socket

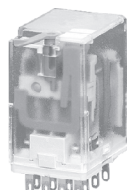


Socket & Clamp (ARPU)

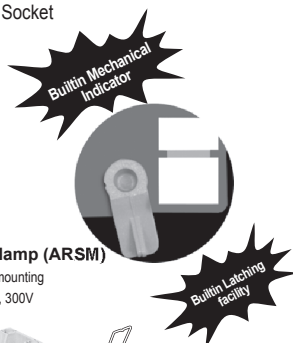
35 mm DIN rail mounting Rating : 10 A, 250V



Miniature Plug in Relays



- Type ARPM 2/4
- 12/6 Amp. (Res.) Contact rating
- 2 Change over / 4 Change over
- Silver Nickle Contacts
- Built in Mechanical Indicator/Latching facility
- Wide Coil Voltages
- 8 Pin / 14 Pin Socket



Socket & Clamp (ARSM)

35 mm DIN rail mounting
Rating : 6A, 12A, 300V



Plug In Relays - Universal (ARPU)

HSN Code - 8536

Coil Voltage	Without LED Indication		With LED Indication		Contacts	Lot Size
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]		
8 Pin, Contact rating = 10A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever						
12 V DC	ARPU212D	480	ARPU212DLE	515	2 C/O	10
24V DC	ARPU224D	475	ARPU224DLE	495		
48V DC	ARPU248D	480	ARPU248DLE	635		
110V DC	ARPU2110D	465	ARPU2110DLE	515		
24VAC	ARPU224A	495	ARPU224ALE	515		
48VAC	ARPU248A	570	ARPU248ALE	670		
110VAC	ARPU2110A	485	ARPU2110ALE	535		
230VAC	ARPU2230A	515	ARPU2230ALE	545		
11 Pin, Contact rating = 10A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever						
12 V DC	ARPU312D	515	ARPU312DLE	545	3 C/O	10
24V DC	ARPU324D	515	ARPU324DLE	665		
48V DC	ARPU348D	515	ARPU348DLE	545		
110V DC	ARPU3110D	515	ARPU3110DLE	545		
24VAC	ARPU324A	545	ARPU324ALE	580		
48VAC	ARPU348A	600	ARPU348ALE	600		
110VAC	ARPU3110A	530	ARPU3110ALE	565		
230VAC	ARPU3230A	545	ARPU3230ALE	610		

Sockets for ARPU Plug in Relay

Cat. No.	Type	MRP [₹]	Lot Size
10A, 250V AC, Screw Terminals, 35mm DIN Rail Mounting			
ARSU11	11 Pin Socket	270	10
ARSU8	8 Pin Socket	260	
ARPUCL	Holding Clamp	30	

Plug in Relays - Miniature (ARPM)

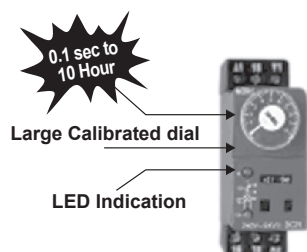
HSN Code - 8536

Coil Voltage	Without LED Indication		With LED Indication		Contacts	Lot Size
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]		
14 Pin, Contact rating = 6A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever						
12 V DC	ARPM412D	310	ARPM412DLE	335	4 C/O	10
24V DC	ARPM424D	285	ARPM424DLE	330		
48V DC	ARPM448D	330	ARPM448DLE	360		
110V DC	ARPM4110D	325	ARPM4110DLE	360		
24V AC	ARPM424A	325	ARPM424ALE	360		
48V AC	ARPM448A	330	ARPM448ALE	360		
110V AC	ARPM4110A	310	ARPM4110ALE	345		
230V AC	ARPM4230A	325	ARPM4230ALE	360		
8 Pin, Contact rating = 12A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever						
12 V DC	ARPM212D	300	ARPM212DLE	325	2 C/O	10
24V DC	ARPM224D	260	ARPM224DLE	305		
48V DC	ARPM248D	360	ARPM248DLE	360		
110V DC	ARPM2110D	350	ARPM2110DLE	350		
24V AC	ARPM224A	305	ARPM224ALE	350		
48V AC	ARPM248A	355	ARPM248ALE	370		
110V AC	ARPM2110A	275	ARPM2110ALE	325		
230V AC	ARPM2230A	305	ARPM2230ALE	350		

Sockets for ARPM Plug in Relay

Cat. No.	Type	MRP [₹]	Lot Size
Screw Terminals, 35mm DIN Rail Mounting			
ARSM14	14 Pin Socket	260	10
ARSM8	8 Pin Socket	200	
ARPMCL	Holding Clamp	30	

Electronic Timers BCH



- On Delay
- Off Delay
- Cyclic
- Multifunction
- Star Delta
- Special version for Compressor application
- AC / DC Supply
- Widest timing range from 0.1 sec to 10 Hours in Single Unit
- Calibrated time scale for easy time setting
- DIN rail mounting
- Excellent repeat accuracy

Electronic Timers

HSN Code - 9107

Description	Cat.No.	MRP [₹]
Timer Encapsulated on delay Timer Type SAS-P (Solid State output) Voltages : 240V AC, 110V AC, 48V AC/DC, 24V AC/DC Time Range : 1 sec. or 0.1-10 Sec. or 1-100 Sec., or 3-300 Sec.	SST00-0-	905
Encapsulated on delay timer type SAS-CB (Solid State output) (Compressor/Heat pump) Voltages : 240V AC, 110V AC, 48V AC/DC, 24V AC/DC Time Range : 180 Sec. fixed	SST02-00	905
Chronos Delay on make type BAR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC or 12V DC	SBT00-00	1630
Delay on break type BCR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC or 12V DC	SBT01-00	1780
Recycling type BDR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC	SBT02-00	2300
Multifunction type BLR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC	SBT03-00	1800
Star-Delta Timer Type DQR-0.2-20 Sec./1-100 Sec.; 415/240, 110V: AC	SDT00-0-	1650

- Voltage Code
- Timing Range for Star-Delta Timers & SAS Timer

Voltage Codes

Type	Voltage	Voltage Code
B	240V AC; 24 VAC/DC	1
	110 V AC; 24 VAC/DC	2
	12 V DC	5
D	240 V AC	1
	415 V/240 V AC	0
	110 V AC	2
SAS	240V AC	1
	110V AC	2
	48V AC/DC	3
	24V AC/DC	4

Timing Code

Type	Timing	Code
DQR (Star Delta Timer)	20 Sec.	0
	40 Sec.	1
	100 Sec.	2
SAS	1 Sec.	0
	10 Sec.	1
	100 Sec.	2
	300 Sec.	3

Electronic Timers BCH

On Delay



- Fixed Voltage, Fixed Time
- Wide range of input supply - 220VAC; 110VAC; 24V AC/DC
- Large calibrated dial for easy and accurate time setting
- LED indications for Input supply and Output status
- Surface mounting & DIN rail mounting
- 1 changeover relay output (SPDT)
- All Purpose On Delay timer

Multi Function



- 4 Functions - On delay, Interval, Off delay, Single Shot
- Multi Time Range - Sec / Min / Hr
- Universal Voltage - 24 V- 230VAC/DC
- Large calibrated dial for easy and accurate time setting
- Compact Design
- LED indications for Input supply and Output status
- Surface mounting & DIN rail mounting
- 1 changeover relay output (SPDT)
- All Purpose Timer

IBT Electronic Timer

Fixed Voltage; Fixed Time Range - IBTA

HSN Code - 9107

Cat No.	Time Range	Function	Voltage	MRP [₹]
IBT00101	0.6-6 Sec	On Delay	240V AC	880
IBT00201	0.6-6 Sec	On Delay	110V AC	880
IBT00301	0.6-6 Sec	On Delay	24V AC/DC	880
IBT00401	0.6-6 Sec	On Delay	12V DC	880
IBT00102	3-30 Sec	On Delay	240V AC	880
IBT00202	3-30 Sec	On Delay	110V AC	880
IBT00302	3-30 Sec	On Delay	24V AC/DC	880
IBT00402	3-30 Sec	On Delay	12V DC	880
IBT00103	6-60 Sec	On Delay	240V AC	880
IBT00203	6-60 Sec	On Delay	110V AC	880
IBT00303	6-60 Sec	On Delay	24 V AC/DC	880
IBT00403	6-60 Sec	On Delay	12V DC	880
IBT00104	18-180 Sec	On Delay	240V AC	880
IBT00204	18-180 Sec	On Delay	110V AC	880
IBT 00304	18-180 Sec.	On Delay	24 V AC/DC	880
IBT00404	18-180 Sec.	On Delay	12V DC	880

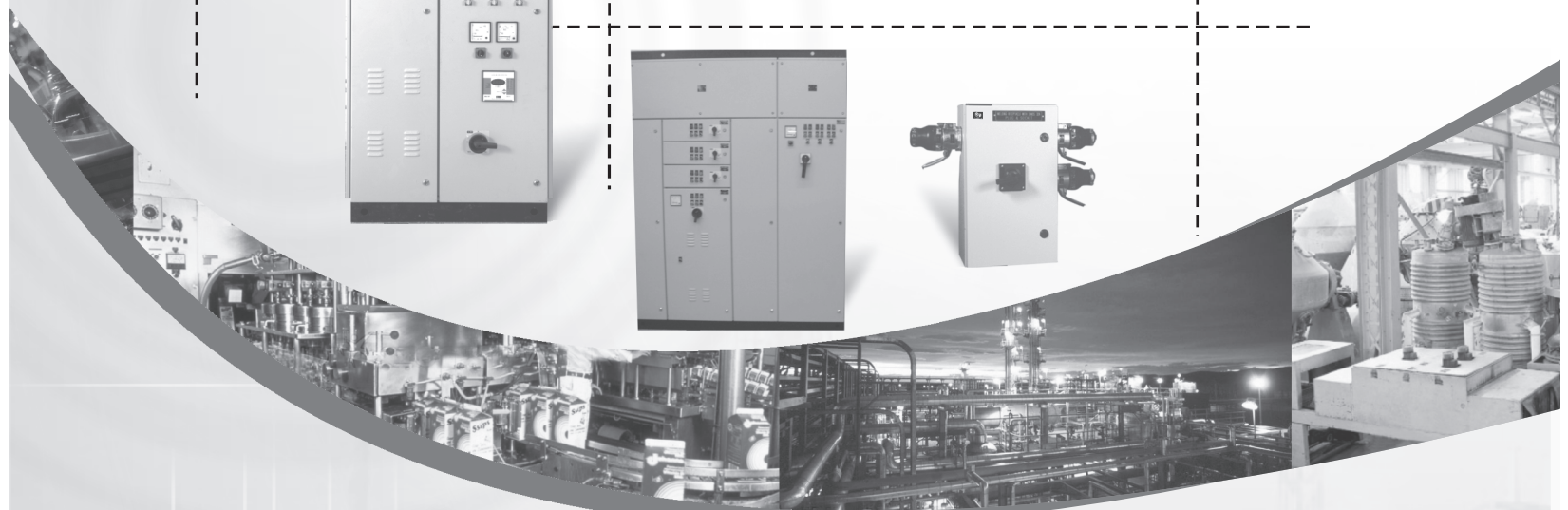
Universal Voltage, Multi Time, Multi Function - IBTMU

HSN Code - 9107

Cat No.	Time Range	Function	Voltage	MRP [₹]
IBT04500	0.1S - 10 Hr.	On Delay, Off Delay, Interval, Single Shot	24-240V AC/DC	1705

Custom Built Products

- **MCC & PCC**
- **Crane Control Panels**
- **Punch Grid Resistors & Panels, NGR & DBR**
- **Special Purpose Starters**
- **Power Receptacles**
- **Auto Transformer Starters**



Motor Control Centres (MCC) & Power Control Centres (PCC)



BCH MCC & PCC

- Latest Design Concepts & Manufacturing Process.
- Robust Construction and Durable Finish for Rugged Application.
- Techno Modular Design with flexibility in construction / fully bolted with concealed hinges for all doors.
- Suitable for Indoor and Outdoor installations with IP-54 / 55 as per IEC 60529 : 2001
- Fixed & Withdrawable type in Single front & Double Front Execution upto Form-4B.
- Bus Bar Rating upto 6300A with E91E grade Aluminium / Electrolytic grade Copper Bus Bars.
- Type tested for Short Circuit 800A to 4000A for 50 KA rms / 1sec and 105KA peak fault withstand as per IS: 8623 and IEC: 61439.
- Type tested for Temperature Rise 800A to 4000A from CPRI Bhopal as per IS: 8623 and IEC: 61439.
- 10 Tank spray based tricationic phosphating treatment and electrostatic coating with epoxy based powder.
- Standard Paint Shades : RAL-7035, RAL-7032 and 631 as per IS:5 Structure Finish Powder Coating.
- All doors & covers are provided with PU Foam gasket to ensure the Ingress Protection.
- PU Foam gasket temperature withstand capacity -40 Deg C to + 100 Deg C.
- Panel height upto 2500mm (including 100mm High Plinth/Base).
- Panel Width 900mm Withdrawable execution & for Fixed Execution depends on application.
- 600mm for Single Front Withdrawable , 1200mm for Double Front Withdrawable & For Fixed Execution depends on application.

All tailor made solutions on request and based on specific enquiries. Contact nearest branch location for detailed proposal as per exact requirement.

Crane Control PanelsBCH



AC Crane Control Bridge and Trolley Motion

This controller provides reversing and plugging operation of slip ring induction motors in heavy duty cranes on Trolley services. Upto 5 motor speeds are achieved in conjunction with a master controller.

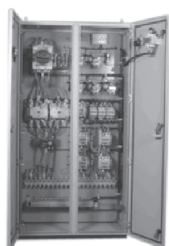


Design Features

- Simplified reliable circuitary
- Inverse Time delay Magnetic Overload protection
- Time Limit acceleration
- Speed Control by series resistors
- No Volt protection
- Special Unique plugging circuit with a voltage relay
- CRCA Sheet steel construction of the panel.
- 7 Tank pretreated panels for extremely long life
- Panels for indoor and outdoor protection

AC Crane Control Hoisting Motion

- Plain rotor resistance
- AC Single phase dynamic braking
- Counter torque lowering
- Opotor Control
- Creep Speed



DC Crane Control Hoisting Motion

This control is for use with series wound motors drive for crane hoists and is arranged for reversing and dynamic lowering service. control



Design Features

- Simplified reliable circuitary
- Inductive time limit acceleration on hoisting & lowering
- Better speed control on light or heavy loads when hoisting or lowering
- CRCA Sheet steel construction of the panel.
- 7 Tank pretreated panels for extremely long life

DC Crane Control (Bridge and Trolley motion)

This controller provides reversing and plugging operation of series wound motors in heavy duty cranes on Trolley services. Upto 5 motor speeds are achieved in conjunction with a master controller.

Design Features

- Simplified, reliable circuitary
- Rectifier controlled plugging
- Instantaneous and Inverse time delay magnetic overload protection
- No volt protection
- Heavy duty DC Contactors equipped with magnetic blowouts
- CRCA Sheet steel construction of the panel.
- 7 Tank pretreated panels for extremely long life

Resistors & Starters.....BCH

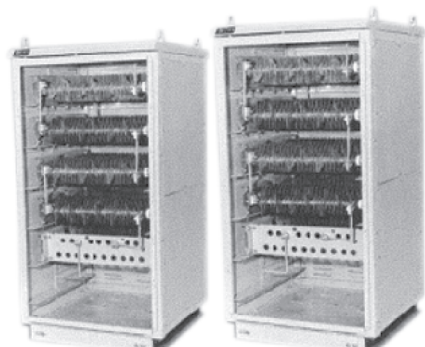
GST to be charged extra on PGR Prices

PGRs are 10 minutes rated.

Temp. rise : 375 deg over ambient

Dimensions in mm (WxHxD) : 673x152x250 HSN Code - 8533

Punched Grid Resistors



Applications:

- Speed Control Resistors
- Starting Resistors for AC and DC Motors
- Dynamic Braking Resistors
- Neutral Grounding Resistors (upto 11KV)

Features

- Special Chromiun Steel Alloy (AISI406) for :
 - a) Higher resistivity (approx 70% higher than others)
This results in overall light and compact unit
 - b) Low temperature coefficient (approx 72% lower than others)
This means negligible change in resistance values despite grid temperature variations (very important parameter in applications like crane controls)
 - c) Unbreakable and corrosion free Grids . Suitable for extreme vibration conditions
 - d) Drawout type of banks for ease of removal while replacements
 - e) Three rod construction for higher mechanical strength
 - f) Individual grids are T.I.G. welded for consistent current path
 - g) Unique design using staggered grid pattern ensuring maximum air circulation
 - h) Terminal designed for 2 types of conductors ensuring flexibility

We also manufacture NGRs & DBRs

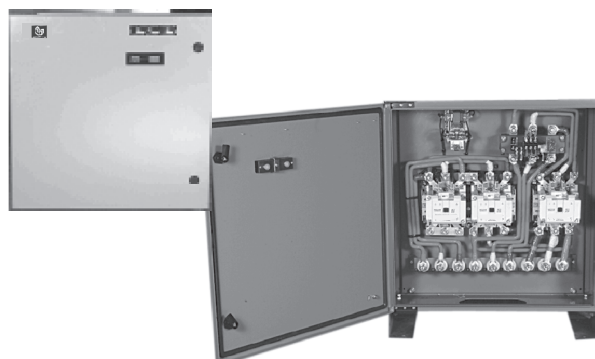
Special Purpose Starters

- Direct ON Line Starters upto 500 HP
- Star Delta Starters upto 650 HP
- Closed Transition Star Delta Starters upto 650 HP
- Automatic Stator Rotor Starting Panels upto 1000 HP
- DC starter upto 600A

Type	Resistance Per Bank	Continuous Rating	LP
	Ohms	Amps	[₹]
WL10	0.1	225	13155
W12	0.125	200	11635
WL16	0.16	185	13440
WL20	0.2	150	13725
WL25	0.25	134	12115
WL32	0.32	118	10725
WL40	0.4	113	12405
WL50	0.5	100	10475
WL62	0.62	84	13530
WL80	0.8	75	12255
WL100	1	67	11400
WL125	1.25	64	12685
WL160	1.6	57	10945
WL200	2	54	12185
WL250	2.5	48	10755
WL320	3.2	43	9415
WL400	4	40	13125
WL500	5	35	9525
WL625	6.25	33	10875
WL800	8	29	10145
WL1200	12	24	10875
WL1600	16	20	10545

Dimensions in mm (WxHxD) : 800x152x250 HSN Code - 8533

Type	Resistance Per Bank	Continuous Rating	LP
	Ohms	Amps	[₹]
WLL20(M)-1	0.325	150	21340
WLL25(M)-1	0.54	134	20405
WLL32(M)-1	0.68	118	17305
WLL50(M)-1	0.864	100	14655



Power Receptacles.....BCH

Power Receptacles

Range

- Single / Multiple outlet boxes
- 16/32/63/125A rating
- With or without protection
- Option of back up protection with :
 - MCBs
 - SDFUs
 - MCCBs
- Modular and compact construction
- Loop in / Loop out facility
- Higher degree of Ingress Protection
- 7 Tank processed powder coated enclosure
- PU Gasketing for excellent sealing against dust and water



Plugs and Socket outlets with / without protection, mounted in CRCA enclosure of suitable size

Single Outlet	Incomer (1 No.)			Standard Version Cat reference	Loop in loop out version Cat reference
	Switch Type	MCCB Type	MCB		
1 No DS1A7A1 and 1 No. DS1B7A1	PSFS323ND000/ PSFS323ND00	-	-	PR16SDF-1	PR16SDF-1-LILO
1 No DS1A7A1 and 1 No. DS1B7A1	-	-	16A,TPN	PR16MCB-1	PR16MCB-1-LILO
1 No DS1A7A1 and 1 No. DS1B7A1	-	-	-	PR16WP-1	PR16WP-1-LILO
1 No DS3A7A1 and 1 No. DS3B7A1	PSFS323ND000/ PSFS323ND00	-	-	PR32SDF-1	PR32SDF-1-LILO
1 No DS3A7A1 and 1 No. DS3B7A1	-	-	32A,TPN	PR32MCB-1	PR32MCB-1-LILO
1 No DS3A7A1 and 1 No. DS3B7A1	-	-	-	PR32WP-1	PR32WP-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	PSFS633ND000/ PSFS633ND00	-	-	PR63SDF-1	PR63SDF-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	-	XFE063N+ separate Neutral Link + Rotary Handle	-	PR63MCCB-1	PR63MCCB-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	-	-	63A,TPN	PR63MCB-1	PR63MCB-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	-	-	-	PR63WP-1	PR63WP-1-LILO
1 No DS9A7A1 and 1 No. DS9B7A1	PSFS1253ND	-	-	PR125SDF-1	PR125SDF-1-LILO
1 No DS9A7A1 and 1 No. DS9B7A1	-	XF2H125NV+ separate Neutral Link + Rotary Handle	-	PR125MCCB-1	PR125MCCB-1-LILO
1 No DS9A7A1 and 1 No. DS9B7A1	-	-	-	PR125WP-1	PR125WP-1-LILO

Double Outlet

2 No DS6A7A1 and 2 No. DS6B7A1	-	XF2H125NV+ separate Neutral Link + Rotary Handle	-	PR63MCCB-2	PR63MCCB-2-LILO
2 No DS6A7A1 and 2 No. DS6B7A1	PSFS1253ND	-	-	PR63SDF-2	PR63SDF-2-LILO

* Prices : Available on request

Auto TransformerBCH

Auto Transformer Starter Panels upto 800 HP

Advantages

Good Starting Torque and current performance
Possibility of adjusting starting parameters
No break in supply to the motor during starting
Best suited when maximum reduction of Inrush current is desired or motor requires longer acceleration time with Good starting torque

- Blowers
- Pumps
- Compressors
- Extruders
- Crushers

Range & Specifications

- Available upto 800HP
- Standard Tappings : 50% , 65% and 80%
- Air Cooled design
- 7 Tank pre treated bolted construction enclosure
- Superior gasket

Protections

- Short Circuit
- Overload and Single Phasing (Thru Overload relay)
- Under voltage
- Other protections available on request

Metering and indication

- Voltmeter with selector switch
- Ammeter with selector switch
- R, Y, B phase indication
- Motor ON, OFF and Trip indication



BCH advantage over conventional Oil Cooled design

CONVENTIONAL OIL COOLED	BCH AIR COOLED
AT is provided as a separate Unit	Panel Size is compact as AT is a part of the panel
Additional Wiring between AT and panel	Less wiring
Oil to be filled, which adds cost to the panel	No extra cost
Maintenance is costly as oil to be regularly monitored for its level , viscosity. When sludge is formed it needs to be replaced	Practically NO maintenance
Moisture in the oil can burn the Transformer so ATS cannot be installed in moisture prone areas	Suitable for all atmospheric conditions
Less initial cost but high running cost	Slightly high Initial cost but very less running cost

Auto Transformer BCH

HSN Code - 8537

BIL Auto Transformer Starter - STANDARD RATINGS	MODEL 1 - BASIC ATS : PU door-gasket Enclosure, 3nos. Power Contactor, Citation OLR, Start/Stop PB, Motor ON LED		MODEL 2 - PREMIUM Version : PU door- gasket Enclosure, MCCB Incomer, 3nos. Power Contactor, Citation OLR, Electronic SPP, Ammeter/voltmeter with selector switches, Start/Stop PB, Phase & Motor ON/Trip LEDs.	
HP	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
7.5	ATEA10/KOR	Contact Nearest Sales Office for Prices	ATPA10/KOR	Contact Nearest Sales Office for Prices
10	ATEA10		ATPA10	
15	ATEA15		ATPA15	
20	ATEA20		ATPA20	
25	ATEA25		ATPA25	
30	ATEA30		ATPA30	
35	ATEA40		ATPA40	
40	ATEA40		ATPA40	
50	ATEA50		ATPA50	
60	ATEA60		ATPA60	
75	ATEA75		ATPA75	
100	ATEA100		ATPA100	
125			ATPA125	
150			ATPA150	
175			ATPA175	
200			ATPA200	
225			ATPA225	
250			ATPA250	
300			ATPA300	
350			ATPA350	
400			ATPA400	

TERMS & CONDITIONS

Prices :

The prices given in this list are effective as on date and are subject to change without notice.

Jurisdiction :

The courts at Delhi only will have jurisdiction to settle all the disputes raised.

Order Changes :

Alterations made after receipt and confirmation of order are subject to price and delivery revisions and any other expenses or levies.

Duties and Taxes :

- Maximum Retail Price (MRP) is inclusive of GST as may be applicable.
- List Price (except for Enclosures, AC / DC Brakes, Brake Panels, AC / DC Brake Spares & PGR) is inclusive of GST as may be applicable.

In case where any GST exemption has been claimed, the purchaser is responsible for providing the necessary GST exemption form within the specified period, failing which the purchaser would be liable for the payment of full GST plus applicable interest and penalties.

For Enclosures, AC / DC Brakes, Brake Panels, AC / DC Brake Spares & PGR :

- The prices given in this list are effective as on date and are subject to change without notice.
- Prices are Ex-works Faridabad and inclusive of Packing & forwarding.
- List price does not include GST and the same will be charged extra as applicable.
- Freight is inclusive (Within India) for Bhartia Boxes, Stainless Steel Boxes and Terminal Boxes range, AC / DC Brakes, Brake Panels, AC / DC Brake Spares & PGR. For all other product ranges freight will be charged extra.
- The duties, taxes and other statutory levies are based on rates prevailing at the time of billing. Any subsequent revision of those rates having retrospective effective shall be to customer's account.
- In case where any GST exemption has been claimed, the purchaser is responsible for providing the necessary GST exemption form within the specified period, failing which the purchaser would be liable for the payment of full GST plus applicable interest and penalties
- **Alteration** made after receipt and confirmation of order are subject to price and delivery revision and any other expenses or levies
- **Jurisdiction** : The courts at Delhi only will have jurisdiction to settle all the dispute raised

a strong commitment
to serve better
always ...



**Switchgear | Controlgear | Enclosures | Motor Starters & Submersible Pump Starters |
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Works 2 : 64-68, Sector-7, IIE, Pant Nagar, Rudrapur, Udham Singh Nagar - 263 153 (Uttarakhand) Tel. : 05944-250214/16 Fax : 05944-250215

Sales Offices :

- Ahmedabad**
103, Aaron,
Nr. SBI Laghuudyug branch,
Behind Sakar-1
Gandhigram Railway station,
Ellis bridge, Ahmedabad - 380006
Tel. : 079-26589719
E-mail : ahmedabad@bchindia.com
- Bangalore**
2nd Floor, 130/5,
K.H. Road (Double road),
Bangalore - 560 027
Tel. : 080-22273478/41144878/
41144879
Fax : 080-22236759
E-mail : bangalore@bchindia.com
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Complex Plot No.: A/69, unit - 3
Bhubaneswar - 751 001
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E-mail : bhubaneswar@bchindia.com
- Chandigarh (Panchkula)**
Soo -129, lind Floor,
Mdc, Sector-5 Panchkula,
Haryana-134 109
Tel.: 0172-5078957 / 5049905
Fax: 0172-5049905
E-mail: chandigarh@bchindia.com
- Chennai**
Flat No. 3A, 3rd Floor,
Sree Apartments,
No.508, TTK Road,
Alwarpet, Chennai 600 018
Tel.: 044-24337046, 24337047
Fax : 044-24337047
E-mail : chennai@bchindia.com
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Coimbatore - 641 018
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Fax : 0422-2302599
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Faridabad - 121 006 (Haryana)
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E-mail : faridabad@bchindia.com
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Fax : 040-66207273
E-mail : hyderabad@bchindia.com
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Fax : 0731-2510012
E-mail : indore@bchindia.com
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Fax : 0141-2363521
E-mail : jaipur@bchindia.com
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E-mail : jamshedpur@bchindia.com
- Kolkata**
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Tel. : 033-22871728
E-mail : kolkata@bchindia.com
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Fax : 0522-4025697
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801, Akash Deep Building,
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10, Ashapuri Co-Op. Hsg. Soc. Ltd., Opp. VUDA Housing,
Near Cow Circle, Akota, Vadodara - 390 020
Tel. : 0265-2345068/2345069
Telefax : 0265-2345068,
E-mail : vadodara@bchindia.com

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Hubli : hubli@bchindia.com, **Madurai :** madurai@bchindia.com, **Vishakapatnam :** vizag@bchindia.com, **Surat :** surat@bchindia.com

Resident Engineer Locations

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Bhilai	Hubli	Nagpur	Surat
Bhubaneswar	Hospet	Nashik	Udaipur
Cochin	Jodhpur	Patna	Vapi
Dehradun	Kakinada	Puducherry	Vishakhapatnam
Durgapur	Kota	Rajkot	Warangal

Since product improvement is a continuous process, the data furnished in this brochure may undergo revision without prior notice.