



## Industrial Core Products

# PRICE LIST

Effective : 17th July 2023



[www.bchindia.com](http://www.bchindia.com)



**BCH**

**BCH  
ELECTRIC  
LIMITED**



BHARTIA

BCH

## Modern facilities at Faridabad & Rudrapur

### 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 as a member of BCH Electric Limited manufacturer of Low Voltage Switchgear & Controlgear products, are fully committed to provide Quality products and service in compliance with applicable Statutory and Regulatory requirements, to meet or exceed the customer need and expectations through -

- ◆ Continual improvement
- ◆ Involvement of employees
- ◆ Setting Quality objectives
- ◆ Training and development of employees

### Health & Safety Policy

We as a member of BCH Electric Limited manufacturer of Low Voltage Switchgear & Controlgear products, are fully committed to conduct Business in compliance to applicable Health & Safety legislation and regulation.

We shall continually improve through -

- ◆ Provide Safe & Healthy working conditions for the prevention of work related injury and ill health.
- ◆ Develop & maintain the Health & Safety objectives & targets and conduct health & safety programs for achieving the objectives and target.
- ◆ The prevention of accidents through the identification, assessment and elimination of workplace hazards and the promotion of health & safety awareness among its employees and contractors.
- ◆ Encourage employee's participation and consultation in matters affecting the health, safety and well being of our people and seek suggestions from our employees of ways in which health, safety & well being can be furthered.

The Health & safety policy is publicly available on request.

### Environmental Policy

We as a member of BCH Electric Limited manufacturer of Low Voltage Switchgear & Controlgear products, are fully committed to conduct Business in compliance to applicable Environmental legislation and regulation.

We shall continually improve through -

- ◆ Provide a framework for setting and reviewing environmental objectives and targets.
- ◆ Regularly review the impact of our activities on environment and strive to reduce the pollution/waste.
- ◆ Involve employees in our environmental program and provide necessary training to enable them to discharge their responsibilities towards environment management.
- ◆ Sustain the program of continual improvement in environment in environmental performance incorporating suitable metrics and monitoring.

The Environment policy is publicly available on request.

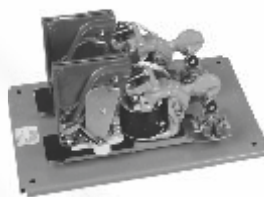
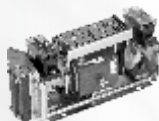
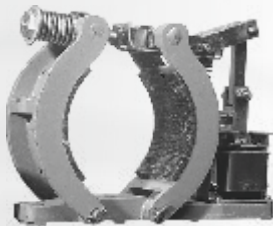
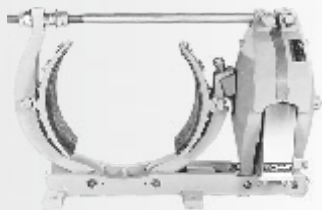


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# Industrial Core Products

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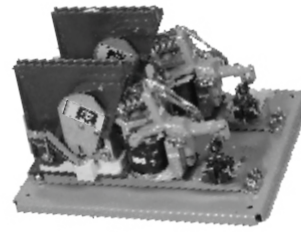


# DC Contactors

BCH

## DC Mill Duty Contactor HSN Code : 8536

No. of poles	(A)	Auxilliary Contacts	Cat. No.	MRP [₹]
<b>50 Amperes</b>				
Single pole Normally Open	15A	2NO+2NC	912x1522	On request
	25A	2NO+2NC	912x2522	On request
	50A	2NO+2NC	912x5022	40095
Double pole Normally Open	15A	2NO+2NC	D912x1522	On request
	25A	2NO+2NC	D912x2522	On request
	50A	2NO+2NC	D912x5022	86180
Mechanically Interlocked 2 Nos. SP NO	15A	2NO+2NC	M912x1522	On request
	25A	2NO+2NC	M912x2522	On request
	50A	2NO+2NC	M912x5022	95575
<b>150 Amperes</b>				
Single pole Normally Open	150A	2NO+2NC	914x22	68455
Double pole Normally Open	150A	2NO+2NC	D914x22	146760
Mechanically Interlocked 2 Nos. SP NO	150A	2NO+2NC	M914x22	154875
Single pole Normally Closed	150A	1NO+1NC	924x11	70515
Double Pole Normally Closed	150A	2NO+2NC	D924x22	149590
Single pole Normally Open with Holdout Coil #	150A	1NO+1NC	934x11/#	74210
Single pole Normally Open with AC Blow out Coil	150A	2NO+2NC	974x22	86785
<b>300 Amperes</b>				
Single pole Normally Open	300A	2NO+2NC	915x22	99405
Double pole Normally Open	300A	2NO+2NC	D915x22	211685
Mechanically Interlocked 2 Nos. SP NO	300A	2NO+2NC	M915x22	220080
Single pole Normally Closed	300A	1NO+1NC	925x11	99905
Double Pole Normally Closed	300A	2NO+2NC	D925x22	215795
Single pole Normally Open with Holdout Coil #	300A	1NO+1NC	935x11/#	107865
Single pole Normally Open with AC Blow out Coil	300A	2NO+2NC	975x22	125685



- 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)	Auxilliary Contacts	Cat. No	MRP [₹]
<b>600 Amperes</b>				
Single pole Normally Open	600A	2NO+2NC	916x22	221520
Double pole Normally Open	600A	2NO+2NC	D916x22	459960
Mechanically Interlocked 2 Nos. SP NO	600A	2NO+2NC	M916x22	467410
Single pole Normally Closed	600A	1NO+1NC	926x11	227700
Single pole Normally Open with Holdout Coil#	600A	1NO+1NC	936x11/#	281425
Single pole Normally Open with AC Blow out Coil	600A	2NO+2NC	976x22	289655

# For 934 / 935 / 936 with holdout coil use hold out suffix code from table on page no.44

For coil voltage refer table on page no.44

\* 150, 300 & 600 Amps replace 'x' by 'y' for surface mounting rear connection, 'z' for elevated mounting rear connection

\* Add Rs. 4550/- for AC Control

## Double Pole DC Mill Duty Contactor HSN Code : 8536

A	Auxilliary Contacts	Cat. No.	Unit Price [₹]
150A	2NO+2NC	954x22	209480
300A	2NO+2NC	955x22	244410



# DC Contactors ..... BCH

## DC Mill Duty Contactors - Spares

HSN Code : 8538

Description	Qty. Reqd.	50A		150A		300A		600A	
		Cat. No.	MRP [₹]	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
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*	19425	9C9P101	33265	9C9T101	48220	9C9V101	104950
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	4410	9C9P105	6070	9C9T105	9850	9C9V105	26775
Contact Lever with Braid (for Single Pole)	1 No.	9C9J106	5365	9C9P106	8745	9C9T106	11580	9C9V106	20080
Contact Lever with Braid (for Double Pole) <sup>+</sup>	1 No.	9C9J106	5365	9C9P106	8745	9C9T106	11580	9C9V103	20080
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	1830	9C9P107	2535	9C9T107	3360	9C9V107	5310
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	3095	9C9T108	5455	9C9V108	6580
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	3695	9C9T109	5455	9C9V109	6985
Terminal Block	1	9C9J110	2470	9C9P110	3235	9C9T110	4525	9C9V110	5650
No Volt Coil for 912, 914, 915, 916, 934, 935 & 936 **Suffix voltage code	1	9C9J111■	9910	9C9P111■	15155	9C9T111 ■	19940	9C9V111 ■	34350
No Volt Coil for 924, 925, 926 **Suffix voltage code	1	-	-	9C9P112 ■	19940	9C9T112 ■	30970	9C9V112 ■	50025
Coil clamp for 914 & 934	1	-	-	9C9P118	345	-	-	-	-
Coil clamp for 924, 915, 935, 916 & 936	1	-	-	9C9P118	345	9C9T118	345	9C9V118	On request

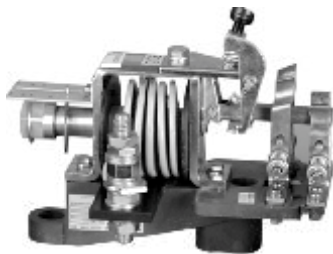
■ Suffix coil voltage code from table on page 44  
■ Please add Rs. 4550 for AC control

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

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

Description	Cat. No.	MRP [₹]
1NO+1NC Auxilliary Contact Block	AC10E11	7735
2NO Auxilliary Contact Block	AC10E20	7735
2NC Auxilliary Contact Block	AC10E02	7735
Single unit driver with mounting plate (50A)	9C9J115	On request
Double unit driver with mounting plate (50A)	9C9J116	On request
Single unit driver with mounting plate (150-600A)	9C9P116	On request
Double unit driver with mounting plate (150-600A)	9C9P117	On request
Hold out coil for 934, 935 & 936	9C9P113-#	24065
Condenser 50 + 50uF for 934, 935 & 936	9C9P114	1330
Mechanical interlock for 150/300/600A	AC10M4/M8/M12	8620
Rectifier 110/240 V	SP30R	4550

# Suffix hold out coil code from table



- 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

## Hold Out Coil Suffix table - 934/935/936

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

## 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	22455
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	
B3K23	179-39	69.0	40 to 120	26310
B3L23	179-38	109.0	70 to 190	
B3M23	179-37	179.0	100 to 300	
B3N23	179-36	299.0	200 to 600	28685
B3Y23	179-36.2	199.0	200 to 600	
B3P23		549.0	300 to 900	34895
B3R23		500.0	500 to 1500	

\* With 1NO + 1NC Contacts

## Coil Voltage table - DC Mill Duty Contactor

		24V	48V	55V	110V		220V	240V	250V
	PRODUCT	DC	DC	DC	AC	DC	DC	AC	F1
DC CONTACTOR	912X	U1	-	Q1	A1R	A1	B1	K1R	F1
	914;934X	U1	W1	Q1	A1R	A1	B1	K1R	F1
	935X;924;915	U1	W1	Q1	A1R	A1	B1	K1R	F1
	925	-	-	-	-	A1	B1	K1R	F1
	916&936	U1	W1	Q1	A1R	A1	B1	K1R	F1
	D912-D916	-	W1	-	A1R	A1	B1	K1R	F1

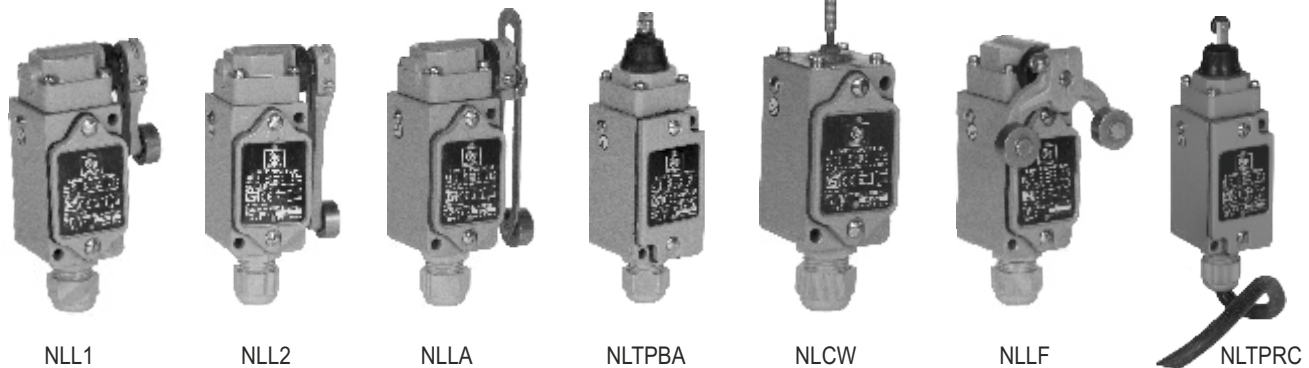
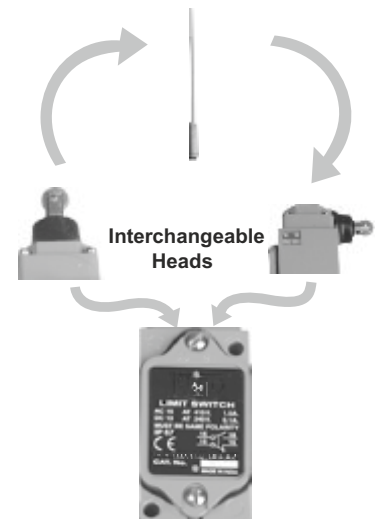
1. For other coil voltages, please contact nearest sales office
2. AC control is not available for 934, 935, 936 versions.
3. For ordering spare coils for D912, D914, D915 and D916 Contactors, please order coils with 50% voltage rating as that of control voltage.  
Example to order coils for D914 X 22B1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

## 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	2195	NLL1C NLL2C NLLAC	2395	NLL1-22 NLL2-22 NLLA-22	3350	NLL1-22C NLL2-22C NLLA-22C	3470
	Maintained Type Maintained Type Maintained Type	NLL1M NLL2M NLLAM	2465	NLL1MC NLL2MC NLLAMC	2590	NLL1M-22 NLL2M-22 NLLAM-22	3705	NLL1M-22C NLL2M-22C NLLAM-22C	3775
Push Roller	Top Side	NLTPR	2195	NLTPRC	2395	NLTPR-22	3350	NLTPR-22C	3470
		NLSPR	2410	NLSPRC	2590	NLSPR-22	3615	NLSPR-22C	3775
Push Button	Top Adjustable Side Adjustable	NLTPBA	2195	NLTPBAC	2395	NLTPBA-22	3260	NLTPBA-22C	3470
		NLSPBA	2410	NLSPBAC	2590	NLSPBA-22	3615	NLSPBA-22C	3775
Cat Whisker	Nylon Rod Steel Rod	NLCW	1925	NLCWC	2075	NLCW-22	3190	NLCW-22C	3350
		NLJW	2195	NLJWC	2345	NLJW-22	3350	NLJW-22C	3470
Fork Type	Roller in same line Offset Rollers	NLLF NLLFO	2465	NLLFC NLLFOC	2590	NLLF-22 NLLFO-22	3710	NLLF-22C NLLFO-22C	3775
	Roller in same line Maintained Offset Rollers Maintained	NLLFM NLLFOM	2885	NLLFMC NLLFOMC	2995	NLLFM-22 NLLFOM-22	4015	NLLFM-22C NLLFOM-22C	4095

- 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



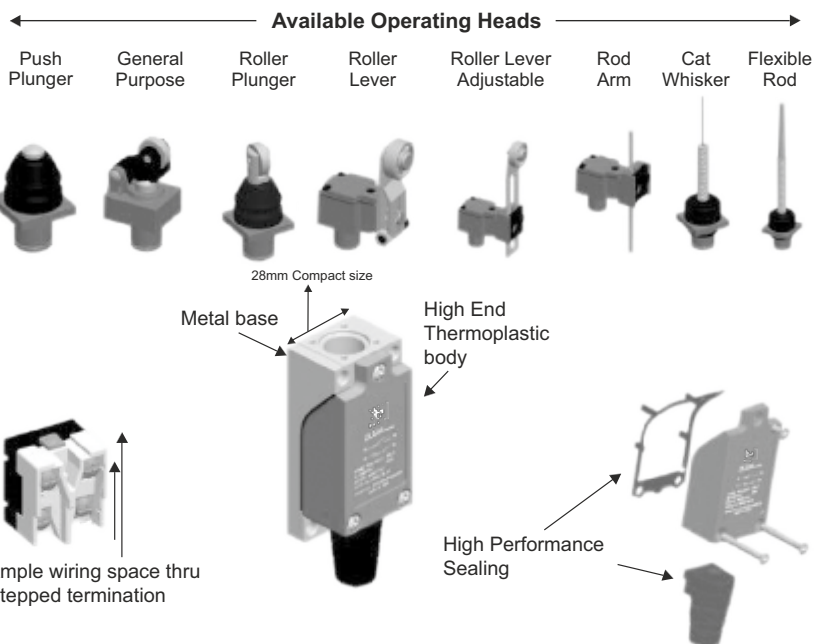
## Mini Limit Switch NEW

HSN Code : 8536

Type		Cat. No.	MRP [₹]
General Purpose Type		DLSMAR	1445
Top Plunger	Standard	DLSMPP	
Push Roller	Standard	DLSMRP	
	Cross	DLSMRPX	
Roller Lever	39mm	DLSMRL	1495
	Adjustable	DLSMRLA	
Rod Arm	Adjustable	DLSMJWA	1585
Cat's Whisker	Steel Spring	DLSMSW	
Flexible Rod	Nylon	DLSMSR	

### Applications

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



## Precision Limit Switch

HSN Code : 8536

Type of Operator	1NO+1NC		2NO+2NC		Lot Size
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]	
Roller Lever	PSRL-L or R	930	PSRL-L-2 or R-2	1145	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	MRP [₹]	Cat. No	MRP [₹]	Lot Size
Spare Contact Block	SP20S1	875	SP20S2	1100	

- 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 2500 Operations / hr

\* A - Top push roller in line with contact block  
 B - Top push roller perpendicular to contact block





# 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	1470
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## Oil Tight Limit Switch - Snap Action Type L IP 65

HSN Code : 8536

Type	Description	Cat. No.	MRP [₹]
Roller Lever	Standard-38MM	LL1	3145
	Standard-76.2mm	LL2	
	Adjustable	LLA	
Push Roller	Maintained Type LL1	LL1M	3290
	Maintained Type LL2	LL2M	
	Maintained Type LLA	LLAM	
Push Button	Top	LTPR	3075
	Side	LSPR	3460
Cat Whisker	Top Adjustable	LTPBA	3335
	Side Adjustable	LSPBA	
Fork Type	Nylon Rod	LCW	2520
	Steel Rod	LJW	3130
Fork Type	Roller in same line	LLF	2835
	Offset Rollers	LLFO	2835
	Roller in same line	LLFM	3310
	Maintained	LLFOM	3310
	Offset Rollers		
Maintained			

## Oil Tight Limit Switch - Spares

HSN Code : 8538

Description	Suitable for	Cat. No.	MRP [₹]
38 mm lever	NLL1, LL1	SP40L1	525
76.2 mm lever	NLL2, LL2	SP40L2	665
Adjustable lever	NLLA, LLA	SP40LA	665
Fork lever in Line	LLF	SP40LF	805
Fork lever Offset	LLFO	SP40LFO	805
Operating Head	LLGS, LPGS	SP40HLG	955
Operating Head	Lever Type	SP40HL	1035
Operating Head Maintained	Lever Type	SP40HLM	1195
Operating Head	Top Push	SP 40HTP*	1035
	Side Push	SP 40HSP*	1145
Operating Head	Cat Whisker Nylon Rod	SP40CW	705
	Cat Whisker Steel Rod	SP40JW	955
Limit Switch Unit Assembly 1NO+1NC	Type 'L' & 'NL' (Except LLGS / LPGS)	SP40S1	1470
Limit Switch Unit Assembly 2NO+2NC		SP40S2	2430
Limit Switch Unit Assembly 1NO+1NC	LLGS / LPGS	SP40S1WOM	955
Oil tight Conduit	Type 'NL'	SP40CE	565

\* 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	5010	1
One	1NO+1NC	2	With Latch	FSGX1L	5275	
One	2NO+2NC	2	With Guard	FSGX2	5435	
One	2NO+2NC	2	With Latch	FSGX2L	5675	
Two	2NO+2NC	2	With Guard	FSGY1	6140	
Two	2NO+2NC	2	With Latch	FSGY1L	6535	
Two	4NO+4NC	2	With Guard	FSGY2	7165	
Two	4NO+4NC	2	With Latch	FSGY2L	7300	
Two	2NO+2NC	3	With Guard	FSGZ1M	6240	
Two	4NO+4NC	3	With Guard	FSGZ2M	7145	

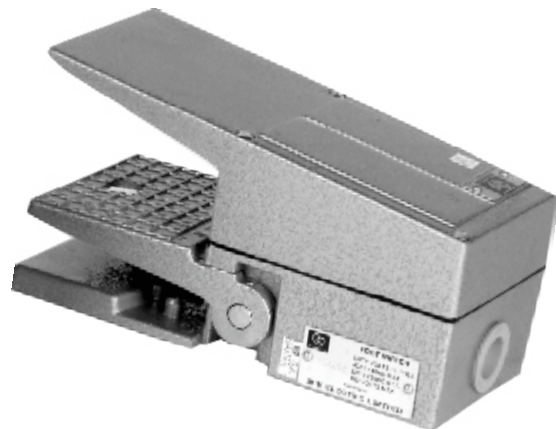
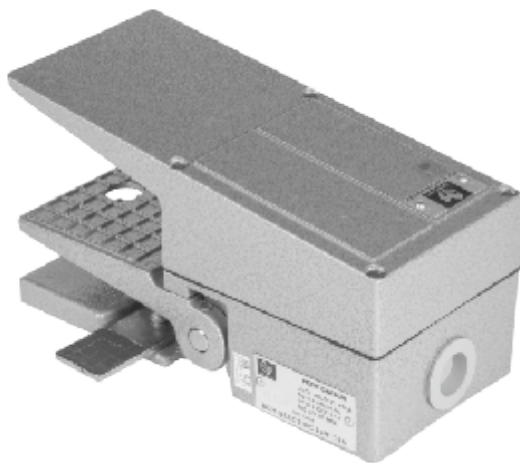
Note : Latching unit (with suffix L) is provided with X & Y versions only.

## Spares for Foot Switch

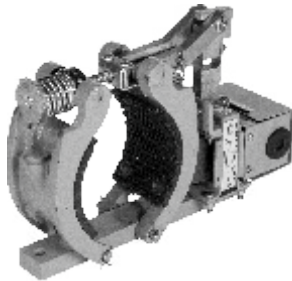
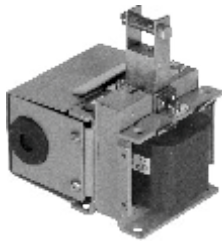
HSN Code : 8538

Description	Suitable For	Cat No.	MRP [₹]
Spare Contact Block 1NO+1NC	FSG	SP20S1	875
Spare Contact Block 2NO+2NC	FSG	SP20S2	1100
Spare Cover with Guard	FSG	SP20CG	2010

- 2 Position and 3 Position
- 1NO+1NC/2NO+2NC/4NO+4NC contact blocks
- With Guard
- 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



# 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

**GST to be charged extra**

## AC Solenoid - Pull Type

**HSN Code : 8505**

Type	Suitable for	Stroke Length mm	Max. Pull at rated voltage Kg.	Cat. No.	List Price [₹]
B	S-42	25.0	1.25	SLB■	5470
D	S-51, S-71 S-52, S-72	31.4	6.75	SLD■ SLD2■	8065
E	S-250	40	10	SPSLEM	17550

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

**GST to be charged extra**

## AC Solenoid Brake - Type S

**HSN Code : 8505**

Type of Brake	Wheel dia.		Max. Torque		Duty	Brake		Drum	
	Inch	mm	Lb. ft.	Nm		Cat No.	List Price [₹]	Cat No.	List Price [₹]
S-4	4	101.6	10	13.6	Continuous	S-42■	12880	AC50D4	2140
S-5	5.5	139.7	25 35	34.0 48.0	Continuous Intermittent	S-51■ S-52■	18425	AC50D5	2960
S-7	7	177.8	50 75	68.0 102.0	Continuous Intermittent	S-71■ S-72■	21070	AC50D7	3555
S-250	9.84	250	109	147.0	Continuous	S-2501M	45335	AC50D25	7190

- 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

**GST to be charged extra**

## Spares For AC Solenoid Brake

**HSN Code : 8505**

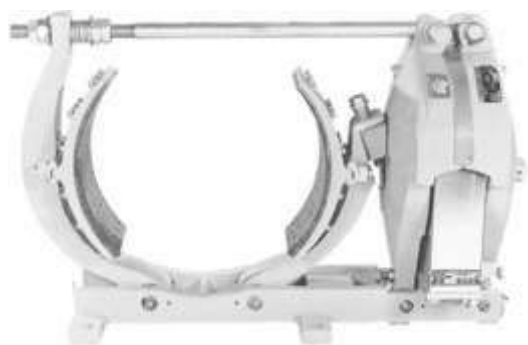
Description	Brake Size : 4"		Brake Size : 5.5"		Brake Size : 7.0"		Brake Size : 10"	
	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
Brake lining	SP50L1	1535	SP50L2	2275	SP50L3	3045	SP50L4	5965
Brake shoe Assembly*	SP50SA1	4470	SP50SA2	5760	SP50SA3	9500	SP50SA4	19130
Brake Coil -Continuous -Intermittent	SP50MC01	2635	SP50MC21■ SP50MC22■	5245	SP50MC21■ SP50MC22■	5245	SP50MC31■	13850

\* 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
- Proven and time tested
- Conforms to NEMA and AISE Standards
- Fail safe operation
- Unique design for maximum torque and minimum shoe wear
- Brakes equivalent to Russian 'TKT' design also available
- Resistance & rectifier Panel available with option of 'Fuse' or 'MCB' protection

**New**

**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 (with fuse protection) <sup>+</sup>			
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	61565	CACS1*MAE	64445	CACS2*MAE	89515
160mm	SMH160						
8"/200mm	SMH8	13.8	72470	CACA1*MAE	71840	CACJ2*MAE	93090
	SMH200	13.8					
10"/250mm	SMH10	27.7	88965	CACB1*MAE	76225	CACK2*MAE	104790
	SMH250	27.7					
13"/300mm	SMH13	76.0	145645	CACC1*MAE	82195	CACL2*MAE	122020
	SMH300	76.0					
16"/400mm	SMH16	138.8	234435	CACD1*MAE	94640	CACM2*MAE	132600
	SMH400	138.8					
19"/500mm	SMH19	277.0	377940	CACE1*MAE	114435	CACN2*MAE	167530
	SMH500	277.0					
23"/600mm	SMH23	555.0	598150	CACF1*MAE	147545	CACP2*MAE	211950
	SMH600	555.0					
30"/700mm	SMH30	1242.0	1332020	CACG1*MAE	582485	-	-
	SMH700	1242.0					
800mm	SMH800	1242.0	1443175	CACG1*MAE	582485	-	-

\* 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

+ For Panel with MCB protection use the suffix '- MCB'  
eg. For 200mm single operation brake panel with MCB protection,  
Cat code will be CACA1\*MAE-MCB

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

- 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. 8025/- 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.

**\*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**

Suitable for Shunt Type		Permanent Series Resistance Box for 230 V DC Supply For Single Brake		Permanent Series Resistance Box for 230 V AC 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	
Cat No.	Torque KGM	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]
SMH150 / SMH160	8	CDCS101D	8350	CARS10KE	7635	CARS10ME	15415	CARS20ME	On request
SMH8 / SMH200	13.8	CDCA101D CDIA101D*	8675	CARA10KE	7895	CARA10ME	15415	CARA20ME	On request
SMH10 / SMH250	27.7	CDCB101D CDIB101D*	10290	CARB10KE	9090	CARB10ME	15415	CARB20ME	On request
SMH13 / SMH300	76.0	CDCC101D CDIC101D*	11870	CARC10KE	10780	CARC10ME	17645	CARC20ME	24110
SMH16 / SMH400	138.8	CDCD101D CDID101D*	12710	CARD10KE	11590	CARD10ME	20510	CARD20ME	25330
SMH19 / SMH500	277.0	CDCE101D CDIE101D*	13605	CARE10KE	12415	CARE10ME	22760	CARE20ME	On request
SMH23 / SMH600	555.0	CDCF101D CDIF101D*	15495	CARF10KE	13945	CARF10ME	24465	CARF20ME	On request
SMH30 / SMH700	1242.0	CDCG101D CDIG101D*	37525	-	-	CARG10ME	42210	-	-
SMH800	1242.0	CDIG101D*	37525	-	-	CARG10ME	42210	-	-

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	13.8	29	SME8H1 SME200H1	8.97	21	SME801 SME20001	149305
	403, 602, 802B		44	SME8H2 SME200H2		31	SME802 SME20002	On request
10"/250mm	404,603,802C,	27.7	57	SME10H1 SME250H1	18.0	40	SME1001 SME25001	213015
	406,604,803		77	SME10H2 SME250H2		57	SME1002 SME25002	On request
13"/300mm	408,606,804	76.0	126	SME13H1 SME300H1	49.4	95	SME1301 SME30001	288600
	410,608,806		176	SME13H2 SME300H2		132	SME1302 SME30002	On request
16"/400mm	412,610,808	138.8	245	SME16H1 SME400H1	90.2	185	SME1601 SME40001	451655
19"/500mm	414,612,810	277.0	368	SME19H1 SME500H1	180.0	272	SME1901 SME50001	693860
	416,614,812		500	SME19H2 SME500H2		360	SME1902 SME50002	On request
23"/600mm	418,616,814	555.0	740	SME23H1 SME600H1	361.0	540	SME2301 SME60001	1122580
	618,816		960	SME23H2 SME600H2		730	SME2302 SME60002	On request

- 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	43815	9GDA01	51885	9GDB01	62715	9GDC01	99560
 Coil Series for inch for mm	-	-	9GDA02/ 9GDA03	110540	9GDB02/ 9GDB03	173265	9GDC02/ 9GDC03	224070
 Torque Adj. Screw Assembly	9GDS04	3995	9GDA04	4175	9GDB04	4175	9GDC04	7260
 Torque Spring	9GDS05	10880	9GDA05	11360	9GDB05	13420	9GDC05	21730
 Wedge Assembly with Bolt, Spring and Washers for inch/mm	9GDS20/ 9GDS22	1550	9GDA20/ 9GDA22	1775	9GDB20/ 9GDB22	2065	9GDC20/ 9GDC22	3150
 Pin set for Lever & Armature Consisting of a) Pin Lever 2 Nos. b) Pin armature 2 Nos.	9GDS06	5485	9GDA06	5755	9GDB06	5755	9GDC06 9GDC06-2#	7260
 Coller Set of Lever & Armature Consisting of a) Coller Lever 4 Nos. a) Coller Armature 4 Nos.	9GDS07	5485	9GDA07	5755	9GDB07	5755	9GDC07	6900
 Bush Set for Lever & Armature Consisting of a) Bush Lever 4 Nos. a) Bush Armature 4 Nos.	9GDS08	10880	9GDA08	11405	9GDB08	11405	9GDC08	12430
 Pull Rod Assembly with nuts, spring & washer	9GDS29	4450	9GDA29	4655	9GDB29	5755	9GDC29	8850
 Grease Nipple (1 set consist 8 Nos.)	9GDS09	1550	9GDA09	1645	9GDB09	1645	9GDC09	1665
 Shoe Assembly with Clamp & Bolts (1 set consist 2 Nos.) for inch/mm	9GDS10/ 9GDS11	11330	9GDA10/ 9GDA11	11280	9GDB10/ 9GDB11	13995	9GDC10/ 9GDC11	22030
 Shoe Lining without Bolts for inch for mm (1 set consist 2 Nos.)	9GDS12/ 9GDS13	3840	9GDA12/ 9GDA13	3995	9GDB12/ 9GDB13	5025	9GDC12/ 9GDC13	7260
 Shoe Lining with Bolts for inch for mm (1 set consist 2 Nos.)	9GDS23/ 9GDS26	5190	9GDA23/ 9GDA26	5755	9GDB23/ 9GDB26	7260	9GDC23/ 9GDC26	10370
 Dust Cover (made of jeans cloth & painted with fire retardant al. paint).	-	-	9GDA30	6405	9GDB30	6405	9GDC30	7620
 mm Size Cast Steel Drum (150mm) without Hard Chrome Plaiting (160mm)	9GDS15/ 9GDS14	12380	9GDA14	13625	9GDB14	20975	9GDC14	35345
 mm Size Cast Steel Drum (150mm) with Hard Chrome Plaiting (160mm)	9GDS15P/ 9GDS14P	16720	9GDA14P	19500	9GDB14P	30450	9GDC14P	51220
 Cast Steel Drum without Hard Chrome Plaiting* for inch	-	-	9GDA15	14130	9GDB15	21740	9GDC15	36755
 Cast Steel Drum with Hard Chrome Plaiting* for inch	-	-	9GDA15P	20275	9GDB15P	31200	9GDC15P	53305

\* 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.**

# 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/800mm	
	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]
 Coil Shunt	9GDD01	151345	9GDE01	212490	9GDF01	333940	9GDG01	756580
 Coil Series for inch for mm	9GDD02 9GDD03	329680	9GDE02 9GDE03	430030	9GDF02 9GDF03	664745	-	-
 Torque Adj. Screw Assembly	9GDD04	10845	9GDE04	15465	9GDF04	24720	9GDG04	51780
 Torque Spring	9GDD05	33390	9GDE05	46195	9GDF05	76495	9GDG05	164170
 Wedge Assembly with Bolt, for inch for mm	9GDD20/ 9GDD22	4175	9GDE20/ 9GDE22	6265	9GDF20/ 9GDF22	9820	9GDG20/ 9GDG22	21755
 Pin set for Lever & Armature Consisting of a) Pin Lever 2 Nos. for inch for mm b) Pin Armature 2 Nos.	9GDD06* 9GDD06-2#	8850	9GDE06* 9GDE06-2#	8850	9GDF06* 9GDF06-2#	12430	9GDG06 <sup>++</sup>	37625
 Coller Set of Lever & Armature Consisting of a) Coller Lever 4 Nos. b) Coller Armature 4 Nos.	9GDD07	6900	9GDE07	6765	9GDF07	8460	9GDG07 <sup>+</sup>	13885
 Bush Set for Lever & Armature Consisting of a) Bush Lever 4 Nos. b) Bush Armature 4 Nos.	9GDD08	12720	9GDE08	13325	9GDF08	17055	9GDG08 <sup>++</sup>	30335
 Pull Rod Assembly with nuts, spring & washer	9GDD29	13420	9GDE29	18560	9GDF29	24940	9GDG29	65255
 Grease Nipple ( 1 set consist 8 Nos.)	9GDD09	1690	9GDE09	2915	9GDF09	2915	9GDG09	3220
 Shoe Assembly with Clamp & Bolts for inch ( 1 set consist 2 Nos.) for mm	9GDD10/ 9GDD11	33440	9GDE10/ 9GDE11	46260	9GDF10/ 9GDF11	73955	9GDG10/ 9GDG11 <sup>+++</sup> 9GDG11A <sup>+++</sup>	166440 171620
 Shoe Lining without Bolts for inch ( 1 set consist 2 Nos.) for mm	9GDD12/ 9GDD13	11380	9GDE12/ 9GDE13	18560	9GDF12/ 9GDF13	27465	9GDG12/ 9GDG13 <sup>+++</sup> 9GDG13A <sup>+++</sup>	51895 52925
 Shoe Lining with Bolts for inch ( 1 set consist 2 Nos.) for mm	9GDD23/ 9GDD26	13995	9GDE23/ 9GDE26	23150	9GDF23/ 9GDF26	35970	9GDG23/ 9GDG26 <sup>+++</sup> 9GDG26A <sup>+++</sup>	64180 69720
 Dust Cover (made of jeans cloth & painted with fire reterdent al. paint).	9GDD30	8245	9GDE30	10195	9GDF30	10695	-	-
 mm Size Cast Steel Drum without Hard Chrome Plaiting	9GDD14	44195	9GDE14	71940	9GDF14	100055	-	-
 mm Size Cast Steel Drum with Hard Chrome Plaiting	9GDD14P	65795	9GDE14P	105090	9GDF14P	153065	-	-
 Cast Steel Drum without Hard Chrome Plaiting* for inch	9GDD15	46090	9GDE15	75315	9GDF15	102800	-	-
 Cast Steel Drum with Hard Chrome Plaiting* for inch	9GDD15P	68765	9GDE15P	110180	9GDF15P	160405	9GDG15P	271770

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

+ Consist of strap, Brass Shim & spring Plate ++ Only for Armature +++ Suitable for 800mm

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



# Spares - DC Brakes ..... BCH



**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	13475
9GDX02	1x10"/250mm	2x8"/200mm	2	20115
9GDX03	1x13"/300mm 1x16"/400mm	2x10"/250mm	2	27240
9GDX04	1x19"/500mm	2x13"/300mm 2x16"/400mm	2	35970
9GDX05	1x23"/600mm	2x19"/500mm	2	51300
9GDX06	-	2x23"/600mm	2	102650
9GDX07	1x30"/700 & 800mm	-	2	142335



**GST to be charged extra**

## Spare Resistances

**HSN Code : 8505**

Used in resistance and rectifier panels	Cat. No.	Ohms	Watts	List Price [₹]
CACA1*, CACB1*, CACC1*, CACD1*, CACJ2*	9GDX32	32	200	2390
CACA1*, CACB1*, CACC1*, CACF1*, CACG1*, CACL2*, CACP2*, CACJ2*	9GDX42	42	200	
CACS2*	9GDX47	47	200	
CACB1*, CACE1*, CACF1*, CACG1*, CACJ2*, CACK2*, CACM2*, CACN2*	9GDX52	52	200	
CACS1*	9GDX64	64	100	
CACA1*, CACB1*, CACD1*, CACE1*, CACF1*, CACG1*, CACJ2*, CACK2*, CACM2*, CACN2*, CACP2*	9GDX80	80	200	
CACA1*, CACD1*, CACK2*, CACL2*	9GDX112	112	200	
CACS1*, CACS2*	9GDX112A	112	125	

**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	5330	10290	10840	
10	250	5330			
13	300	7305			
16	400	7835			
19	500	12165			
23	600	17050			

Note : Suffix 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

**To order Spare Limit Switch assembly, cat codes are:**

- 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	275
		Socket	Ms20	305
30A, 440V	3P + E	Plug	MP30	640
		Socket	Ms30	675



## Plastic Plugs & Socket Type 'PS'

HSN Code : 8536

Rating	Pins	Type	Cat No.	MRP [₹]
20A, 250V	3	Plug	PS16AA7	310
		Flush Mounting Socket	PS16BA7	440
		Socket with Wall Mounting Box	PS16DA7	545
20A, 415V	4	Plug	PS16AA1	380
		Flush Mounting Socket	PS16BA1	575
		Socket with Wall Mounting Box	PS16DA1	670
32A, 415V	3	Plug	PS32AA7	660
		Socket	PS32BA7	660
	4	Plug	PS32AA1	695
		Socket	PS32BA1	695
	5	Plug	PS32AA5	735
		Socket	PS32BA5	735

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

## 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	2185
		Plug with inclined Handle	299/12B	1715

## 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	950
		Plug with inclined Handle	215B	930
30A, 415V	4	Panel Mounting Socket	2413B	995
		Plug with inclined Handle	213B	970
30A, 415V	5	Panel Mounting Socket	2417B	1035
		Plug with inclined Handle	217B	1010

Note : \*Loose Conduit Box Straight (Cat. No. 9J101) MRP - Rs. 360/- each } HSN Code : 8538  
 \*Spare Handle Inclined (Cat. No. 9J108) MRP -Rs. 180/- each.

# Plugs & Sockets ..... BCH

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

HSN Code : 8536

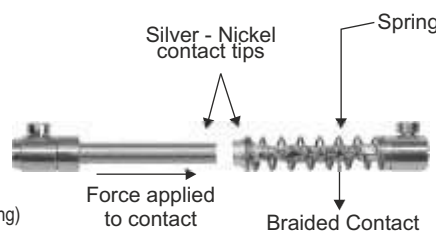
Rating	Pins	Type	Cat No.	MRP [₹]
16A, 415V	5	Plug	DS1A7A1	1540
		Socket	DS1B7A1	1910
		Handle Assembly	SP91PH	300
32A, 415V	5	Plug	DS3A7A1	2520
		Socket	DS3B7A1	3065
		Handle Assembly	SP93PH	310
63A, 415V	5	Plug	DS6A7A1	3925
		Socket	DS6B7A1	5415
		Handle Assembly	SP96PH	435
125A, 415V	5	Plug	DS9A7A1	11585
		Socket	DS9B7A1	16185
		Conduit Box	SP99WB	8640
		Handle Assembly	SP99PH	1075

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



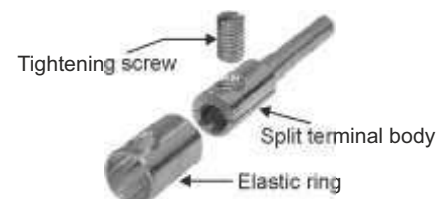
- Self aligning self wiping
- Spring loaded for consistent pressure
- Silver nickle material for extremely low temperature rise

### Safety Disk



No access to live parts

### Vibration proof termination



# Plug & Socket Box ..... BCH

## Metal Clad - Plug & Socket Box Type 'MPSEU'

HSN Code : 8536

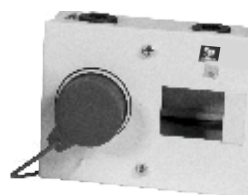
Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V	2P + E	Universal	Plug & Socket Box - SP-MCB Cutout	MPSEU201	1300
20A, 250V	2P + E	Universal	Plug & Socket Box - DP-MCB Cutout	MPSEU202	1300
30A, 440V	3P + E	Universal	Plug & Socket Box - TPN-MCB Cutout	MPSEU301	3260



20A



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	1525
			Plug & Socket Box with DP-MCB Cutout	PSEU202	1565
		Flush	Plug & Socket Box with SP MCB Cutout	PSEF201	1525
			Plug & Socket Box with DP-MCB Cutout	PSEF202	1565
32A, 415V	4	Universal	Plug & Socket Box with 4P MCB Cutout	PSEU324	3385
			5	PSEU325	3450
	4	Flush	Plug & Socket Box with 4P MCB Cutout	PSEF324	3385
			5	PSEF325	3450

## 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	SSEU303-MCB1P	3820
			Plug & Socket Box with DP MCB Cutout	SSEU303	3820
	4	Universal	Plug & Socket Box with 4P MCB Cutout	SSEU304	3920
			5	SSEU305	4005

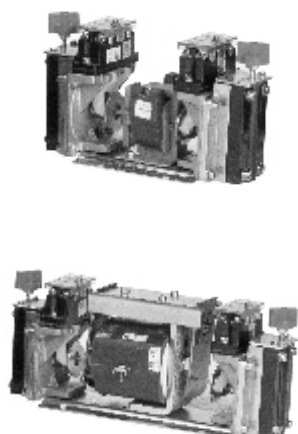
## Stainless Steel Cover Plug & Socket Box Type 'PSEU-SSC'/SSEU-SSC'

HSN Code : 8536



Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V	3	Universal	P&S Box with 'PS' P&S and SP MCB Cutout	PSEU201-SSC	1955
			P&S Box with 'PS' P&S and 4P MCB Cutout	PSEU325-SSC	3950
30A, 415V	3	Universal	Plug & Socket Box with SP MCB Cutout	SSEU303-SSC-MCB1P	4390
			Plug & Socket Box with DP MCB Cutout	SSEU303-SSC	4390
	4	Universal	Plug & Socket Box with 4P MCB Cutout	SSEU304-SSC	4495
			Plug & Socket Box with 3P MCB Cutout	SSEU305-SSC-MCB3P	4685
	5	Universal	Plug & Socket Box with 4P MCB Cutout	SSEU305-SSC	4580

## Pneumatic Timer



- 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



## Pneumatic Timers Time Delay Relay-Electro Pneumatic

HSN Code : 9107

Type	Time Range (Secs.)	Contact Configuration		Cat No.	MRP [₹]	
		Time Block	Instantaneous Block		AC	DC
PN	0.05 - 30 Sec	1NO + 1NC	-	KRTPN10-0	5140	7705
	0.05 - 60 Sec	1NO + 1NC	-	KRTPN10-1	5320	8135
	0.05 - 180 Sec	1NO + 1NC	-	KRTPN10-3	6005	8870
	0.05 - 30 Sec	2NO + 2NC	-	KRTPN20-0	5775	8250
	0.05 - 60 Sec	2NO + 2NC	-	KRTPN20-1	5900	8345
	0.05 - 180 Sec	2NO + 2NC	-	KRTPN20-3	6340	8965
PNI	0.05 - 30 Sec	1NO + 1NC	1NO + 1NC	KRTPN11-0	6265	8970
	0.05 - 60 Sec	1NO + 1NC	1NO + 1NC	KRTPN11-1	7110	9795
	0.05 - 180 Sec	1NO + 1NC	1NO + 1NC	KRTPN11-3	7780	9915
	0.05 - 30 Sec	2NO + 2NC	2NO + 2NC	KRTPN22-0	7855	10235
	0.05 - 60 Sec	2NO + 2NC	2NO + 2NC	KRTPN22-1	7940	10765
	0.05 - 180 Sec	2NO + 2NC	2NO + 2NC	KRTPN22-3	8510	11390
Type	Time Range (Secs.)	On-Delay Block	Of-Delay Block	Cat No.	AC	DC
PCN	0.05 - 30 Sec	1NO + 1NC	1NO + 1NC	KRTPCN11-0	8490	11365
	0.05 - 60 Sec	1NO + 1NC	1NO + 1NC	KRTPCN11-1	8915	11460
	0.05 - 180 Sec	1NO + 1NC	1NO + 1NC	KRTPCN11-3	10125	12665
	0.05 - 30 Sec	2NO + 2NC	2NO + 2NC	KRTPCN22-0	9540	12475
	0.05 - 60 Sec	2NO + 2NC	2NO + 2NC	KRTPCN22-1	10000	12620
	0.05 - 180 Sec	2NO + 2NC	2NO + 2NC	KRTPCN22-3	11275	13760

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 [₹]	
		Time Block	Instantaneous Block		AC	DC
PN	120	2NO + 2NC	-	KRTPN20A-2R	6180	-
	150	2NO + 2NC	-	KRTPN20A-3R	6180	-

## Accessories for Time Delay Relay HSN Code : 9107

Description	Cat. No.	MRP [₹]	Lot Size
Contact Block 1NO+1NC Timed 2NO+2NC Timed	SP20S3+ SP20S4+	1130 1475	1
1NO+1NC Inst. 2NO+2NC Inst.	SP20S5+ SP20S6+	1130 1475	
Magnet Coil AC-PN Relays	SP20MC ■	1585	
AC-PNI & PCN Relays DC Relays	SP20MC1 ■ SP20MC2 ■	1585 5145	
Return Spring* (PNI & PCN) Coil Clip*	SP20RS SP20CC	265 425	1
Magnet frame assembly without coil	SP20 MA/MA1	2315	1
Knob assembly	SP20KA	80	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<sup>0</sup> to +65<sup>0</sup>
- Mechanical and Electrical Life - 10 million operations

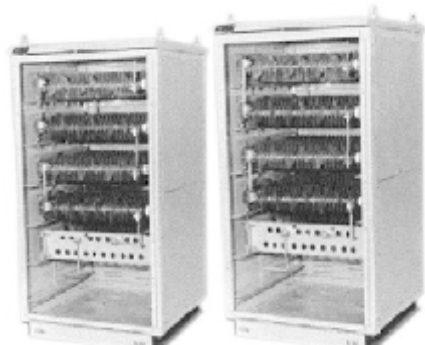
## Voltage Suffix Code

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

\* KRTPN timers with 24V AC, 110V DC & 550V AC coil voltage, Prices available on request

# Resistors..... BCH

## Punched Grid Resistors



### Applications:

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

### Features

- Special Chromium 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 range resistance grid for improved 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

**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**

Type	Resistance Per Bank	Continuous Rating	LP
	Ohms	Amps	[₹]
WL10	0.1	225	22085
WL12	0.125	200	19535
WL16	0.16	180	22570
WL20	0.2	150	22085
WL25	0.25	134	20350
WL32	0.32	118	18010
WL40	0.4	113	20835
WL50	0.5	100	17600
WL62	0.62	84	22715
WL80	0.8	75	20585
WL100	1	67	19135
WL125	1.25	64	21300
WL160	1.6	57	18380
WL200	2	54	20455
WL250	2.5	48	18060
WL320	3.2	43	15820
WL400	4	40	22035
WL500	5	35	15990
WL625	6.25	33	18260
WL800	8	29	17040
WL1200	12	21	18260
WL1600	16	19	17715

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

Type	Resistance Per Bank	Continuous Rating	LP
	Ohms	Amps	[₹]
WLL20(M)-1	0.325	150	35830
WLL25(M)-1	0.54	134	34255
WLL32(M)-1	0.68	118	29050
WLL50(M)-1	0.864	100	24615

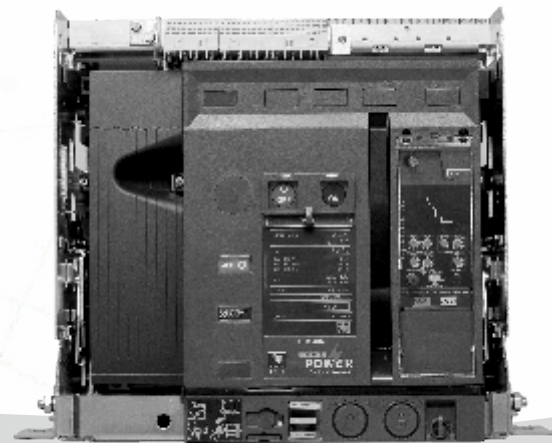
# ACB's, MCCB's & FDP Products



**ULTRA  
POWER**  
Air Circuit Breakers

## Ultra Power ACB's

- Range: 800A to 6300A in 3 frames
- Complete range conforms to IS/IEC 60947-2
- Manually & Electrically operated, Fixed/Draw-out versions
- Microprocessor based releases in basic & advance version
- Icu=Ics=Icw for 1 sec for total selectivity
- Modular & snap-fit accessories
- RoHS Compliant



## X-Range MCCB's



- 3P range: 10A-1250A
- 4P range: 20A-1250A
- Breaking Capacity : 10kA to 50kA
- Tested & Certified as per IS/IEC-60947-2
- Available in Thermal Magnetic & Microprocessor based (LSI & LSIg) releases



## FDP Products

MCB, RCCB, Isolator & Distribution Boxes

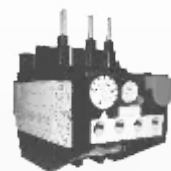
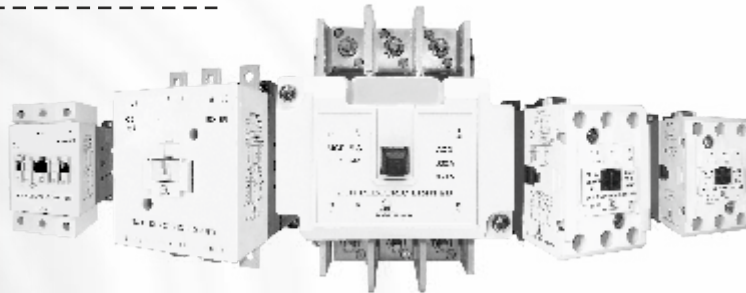
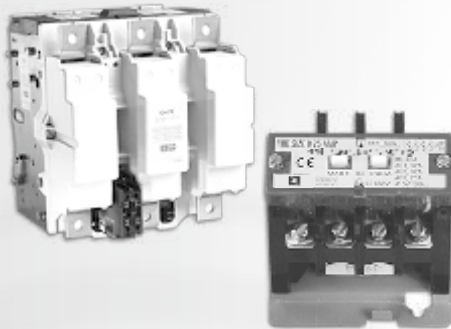
For above products, please refer "Control & Switchgear Products" price list

# Controlgear



- FREEDOM CONTACTORS
- CITATION SERIES
- AGRI CONTACTORS
- CAPACITY DUTY CONTACTORS
- DEFINITE PURPOSE CONTACTORS

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



For above products, please refer "Control & Switchgear Products" price list



# Motor Starters



**BCH**

## 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

- Automatically starts the Motor when the power comes back
- Upto 24 A relay rating (Shakti)
- 13.2 to 40A relay rating (Citation P)
- Time delay before restart to settle power supply fluctuations
- Monitors power supply condition before restarting
- Protection against single phasing, phase imbalance & phase reversal

## Auto Start Direct on line Starters



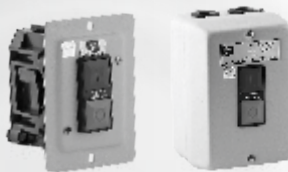
## Star Delta Starters



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

- 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

## Mini Manual Starters



## Manual Star Delta Starters



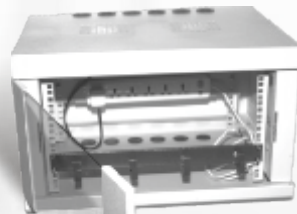
- Contactor based superior design with 25 A heavy duty switch
- Momentary Star position ensures perfect transition
- Ideal for Oil Mills, Flour Mills and agro industries

For above products, please refer "Control & Switchgear Products" price list

# 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
- TEOS Plus Enclosure
- TCE Series Enclosure
- Compartmentalized Enclosure (Fixed & Draw-out)
- IT Racks - 19" and ETSI Racks



For above products, please refer "Control & Switchgear Products" price list

# Motors



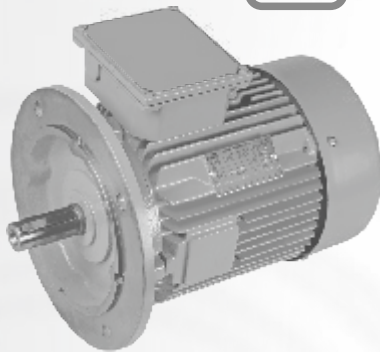
**BCH**

Low Voltage AC TEFC Squirrel  
Cage Induction Motors

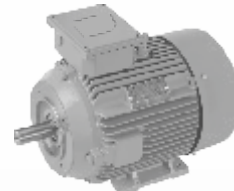
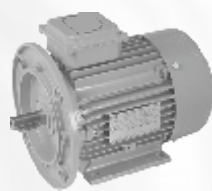
## IE2, IE3 & IE4

50°C  
ambient temperature

Class F



- 0.12 HP to 425 HP
- 2 to 8 Poles
- 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
- ISI marking



# 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
- Detuned Reactors
- Thyristor Switched Module
- Automatic Power Factor Controllers (APFC)  
& Intelligent Power Factor Controllers (IPFC)
- Network Analysers
- APFC Panels



For above products, please refer "Control & Switchgear Products" price list

# Automation Products



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

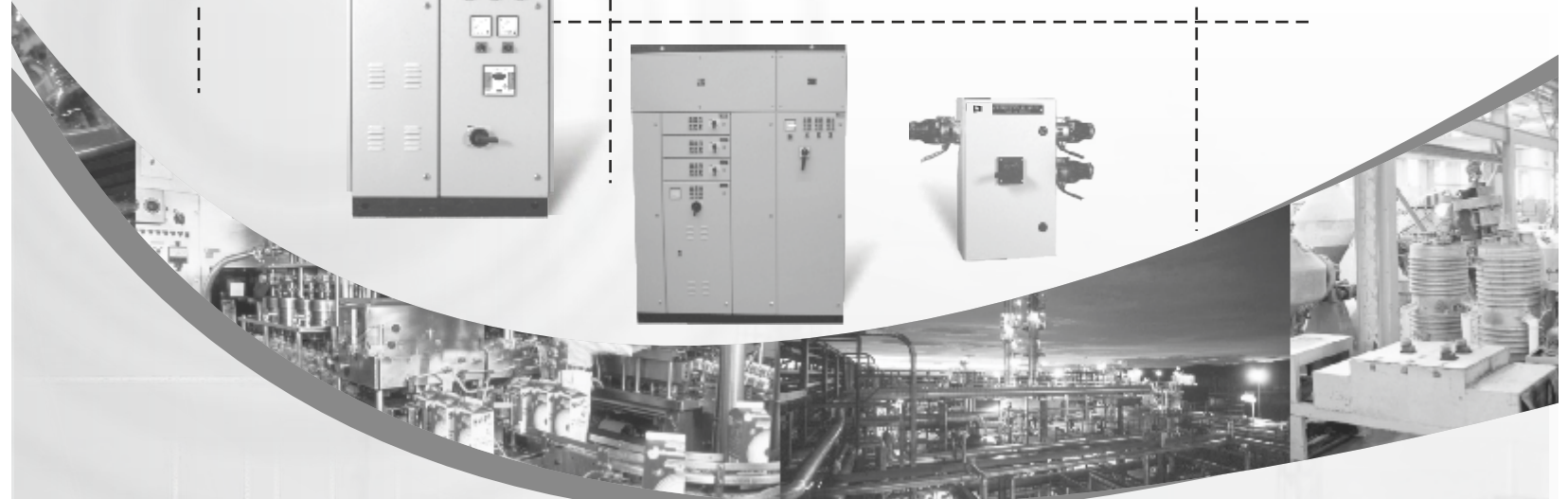


For above products, please refer "Control & Switchgear Products" price list

# Custom Built Products



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





# Price List

## General Terms & Conditions

Prices are subject to change without any prior notice and will be applicable as prevailing at the time of dispatch.

- The prices are ex-works basis..
- The prices given in this list are effective as on date and are subject to change without notice.
- The List Prices (LP) mentioned are exclusive of GST.
- 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
- All Prices are in Indian Rupees (₹).
- Alteration made after receipt of confirmation of order are subject to price & delivery revisions and any other expenses or levies
- The dispute, if any, will be resolved mutually by discussion. However, if no settlement is forthcoming then, the Courts at New Delhi shall only have territorial jurisdiction to hear and decide the dispute.

## Warranty

All products, unless specifically mentioned otherwise, shall have warranty, against manufacturing defects for a period of 18\* months from the date of invoicing & 24 months from date of manufacturing whichever is later subject to the provision of proper usage and does not cover defects arising out of fire, accident, inefficient maintenance, faulty operation and willful or accidental damage. The manufacturer shall not be liable for any consequential loss, injury or damages attributable to defect or failure of its products.

\* Proof of purchase to be retained to avail warranty.









a strong commitment  
to serve better  
always ...



Switchgear | Controlgear | Enclosures | Motor Starters & Submersible Pump Starters |  
Brakes and Crane Controls | MCC | PCC | Customised Solutions | Automation |  
Wires & Cables | Motors | Reactive Power Management



BCH  
ELECTRIC  
LIMITED

- Power Control Products
- Starters & Submersible Pump Starters
- Industrial Enclosures
- Industrial Products
- Wires & Cables
- Motor Control Products
- Power Bus Duct
- Customised Solution
- Automation



# BCH ELECTRIC LIMITED



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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 : 0129-2304016

**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

401, Shilp Zeveri,  
Beside Shyamal Iconic,  
Above Westside,  
Shyamal Cross Road,  
Ahmedabad - 380015  
E-mail: [ahmedabad@bchindia.com](mailto:ahmedabad@bchindia.com)

##### Bangalore

2nd Floor, 130/5,  
K.H. Road (Double road),  
Bangalore - 560 027  
Tel.: **080-41144879 / 22236759**  
E-mail: [bangalore@bchindia.com](mailto:bangalore@bchindia.com)

##### Bhubaneswar

Mallik Commercial  
Complex Plot No.: A/69, unit - 3  
Bhubaneswar - 751 001  
Tel.: **0674-2380988**  
E-mail: [bhubaneswar@bchindia.com](mailto:bhubaneswar@bchindia.com)

##### Chandigarh (Panchkula)

SCO -270, 2nd Floor,  
Sector-16, Panchkula  
Haryana-134 113  
Tel.: **0172-5078957 / 5049905**  
E-mail: [chandigarh@bchindia.com](mailto:chandigarh@bchindia.com)

##### Chennai

Flat No. 3A, 3rd Floor,  
Sree Apartments,  
No.508, TTK Road,  
Alwarpet, Chennai 600 018  
Tel.: **044-24337046, 24337047**  
E-mail: [chennai@bchindia.com](mailto:chennai@bchindia.com)

##### Coimbatore

87, Dr. Nanjappa Road,  
Coimbatore - 641 018  
Tel. : **0422-2305311 / 2302599**  
E-mail: [coimbatore@bchindia.com](mailto:coimbatore@bchindia.com)

##### Delhi 1

801, Akash Deep Building,  
26A, Barakhamba Road,  
New Delhi - 110 001  
Tel. : **011-23313878 / 43518200**  
E-mail: [delhi@bchindia.com](mailto:delhi@bchindia.com)

##### Delhi 2

710, Deepali Building, 92  
Nehru Place, New Delhi - 110 019  
Tel. : **011-45720334**  
E-mail: [delhi2@bchindia.com](mailto:delhi2@bchindia.com)

##### Dehradun

8, Co-operative Industrial Estate,  
Patel Nagar, Dehradun-248001  
E-mail: [dehradun@bchindia.com](mailto:dehradun@bchindia.com)

##### Faridabad

20/4, Mathura Road,  
Faridabad - 121 006 (Haryana)  
Tel/fax. : **0129-4293009**  
E-mail: [faridabad@bchindia.com](mailto:faridabad@bchindia.com)

##### Hyderabad

1-8-303/48/13/102, Arya One,  
2nd Floor, P. G. Road,  
Secunderabad - 500 003  
Tel. : **040-66206263/27890306**  
Fax : 040-66207273  
E-mail: [hyderabad@bchindia.com](mailto:hyderabad@bchindia.com)

##### Indore

330-331, Indraprastha Tower,  
3rd Floor, 6, M.G. Road,  
Indore - 452 001  
Tel. : **0731-2510011 / 2510012**  
E-mail: [indore@bchindia.com](mailto:indore@bchindia.com)

##### Jaipur

25, Hathroi, Gopalbari,  
Jaipur - 302 001  
Tel. : **0141-2363521**  
E-mail: [jaipur@bchindia.com](mailto:jaipur@bchindia.com)

##### Jamshedpur

3rd Floor, Aastha Trade Centre,  
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Jamshedpur - 831 001  
Tel. : **0657-2321097/2321481**  
E-mail: [jamshedpur@bchindia.com](mailto:jamshedpur@bchindia.com)

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E-mail: [kolkata@bchindia.com](mailto:kolkata@bchindia.com)

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Tel. : **0522-4025597/4025997**  
E-mail: [lucknow@bchindia.com](mailto:lucknow@bchindia.com)

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S.C.O. - 18, 2nd Floor,  
Feroze Gandhi Market,  
Ludhiana - 140 001  
Tel. : **0161-5021807/5022808**  
E-mail: [ludhiana@bchindia.com](mailto:ludhiana@bchindia.com)

##### Mumbai

A-151, Mittal Tower,  
Nariman Point,  
Mumbai - 400 021  
Tel. : **022-22822947/22850162**  
Fax : 022-22822858  
E-mail: [mumbai@bchindia.com](mailto:mumbai@bchindia.com)

##### Pune

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16-B/1, Dr. Ambedkar Road,  
Pune - 411 001  
Tel. : **020-41210002**  
E-mail: [pune@bchindia.com](mailto:pune@bchindia.com)

##### Raipur

6th Floor, Office No. 607,  
Babylon Capital, Near Oswal  
Petrol Pump, VIP Chowk,  
G.E. Road, Raipur - 492 006  
Tel. : **0771- 4045053**  
E-mail: [raipur@bchindia.com](mailto:raipur@bchindia.com)

##### Vadodara

301, Third Floor, "Florence Classic",  
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](mailto:vadodara@bchindia.com)

#### Other Branch Locations

**Cochin :** [cochin@bchindia.com](mailto:cochin@bchindia.com), **Guwahati :** [guwahati@bchindia.com](mailto:guwahati@bchindia.com), **Vishakapatnam :** [vizag@bchindia.com](mailto:vizag@bchindia.com), **Surat :** [surat@bchindia.com](mailto:surat@bchindia.com), **Trichy :** [Trichy@bchindia.com](mailto:Trichy@bchindia.com)

#### Resident Engineer Locations

Anantapur	Jodhpur	Madurai	Rajkot	Siliguri
Aurangabad	Jalandhar	Muzaffarnagar	Rajahmundry	Tirunelveli
Bhopal	Kanpur	Nagpur	Ranchi	Udaipur
Calicut	Katni	Nashik	Rourkela	Vapi
Gurgaon	Kharagpur	Nanded	Rudrapur	Vijayawada
Hosapate	Kota	Patna	Salem	Warangal
Hubli	Kolhapur	Puducherry	Satna	Yamuna Nagar

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