



AC CONTACTORS CITATION (NHD)



BCH ELECTRIC LIMITED
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AC Contactors

BCH AC Contactors are built to international standards, with many distinctive features. They have four normally open contacts. In addition there is a provision for taking on an auxiliary contact block with configuration 1NO+1NC or 2NO or 2NC, depending on the requirement.

Reliable

High grade mouldings reduce tracking and prolong operational life. Precision ground magnet frame and armature surfaces ensure consistent, quiet operation. Exposed metal parts are treated for corrosion resistance. Magnet coils run cooler, last longer even in high ambient temperatures.

Inter Changeability

The compact 16-25-40 ampere rated contactors feature common physical and mounting dimensions to eliminate space problems when electrically up-grading installations.

Weld Resistant Contacts

Silver-cadmium, low-bounce designed contacts provide super weld resistance characteristics. Two-screw, arc chamber housing removal makes stationary and movable contacts easily visible and accessible. They can be inspected and maintained without disturbing adjacent wiring or altering contactor mounting position. Visual indication for On-Off functioning and provision for manual operation are other features.

Coil Reliability

The coil is totally encapsulated in resin, resisting moisture corrosive atmosphere and damage while handling. It has high thermal capacity ensuring long life under adverse conditions. The coil can with-stand wide fluctuations in voltage and is easy to install and remove. The power requirements of the coil are very low resulting in reduced load on the pilot circuits.

Electrical and Mechanical Ratings

Auxiliary contacts -Thermal rating	:	6A
AC 15 rating	:	3A at 415V 50Hz
Electrical endurance (AC3)	:	1 Million Operations
Standard coil voltages	:	24, 48, 110, 220-240, 380-415V 50 Hz
Coil operating voltage range	:	+ 10% - 30% of rated voltage for size '00' + 10% - 15% of rated voltage for size '0' & size '1'
Insulation class of coil	:	E
Coil consumption (max)	:	Inrush 80VA, Sealed 13.2VA
Maximum frequency of operation	:	600 ops/hour
Operating time of contactor	:	20 milli seconds (average)
Contact bounce time	:	5 milli seconds (average)
Terminal Capacity Main contacts	:	1 x 16 mm ² or 2 x 10 mm ² cable
Auxiliary contacts	:	2.5mm ² cable
Mechanical endurance	:	5 million operations.

All values shown are based on the requirements of IS 13947-4-1 and IEC 60947-4-1 ambient temperature 55°C and altitude not exceeding 2000 m. etc. All power rating are 3 phase load. Power ratings for single phase loads, available on request.

CONTACTOR TYPE		NHD SIZE 00 (RATING 16A)			NHD SIZE 0 (RATING 25A)			NHD SIZE 1 (RATING 40A)		
Contact options		Main 4 NO Aux 1 NO + 1 NO or 2 NO or 2 NC			Main 4 NO Aux 1 NO + 1 NO or 2 NO or 2 NC			Main 4 NO Aux 1 NO + 1 NO or 2 NO or 2 NC		
Thermal current 1th A		25			40			50		
Insulation voltage UIV		660			660			660		
Motor Starting duty	V (50 Hz)	kW	hp	FLC le A	kW	hp	FLC le A	kW	hp	FLC le A
AC 1 Resistive or Slightly inductive loads	220/240 380/415	7.5 15.0		20 20	12 23		40 40	17 37		50 50
AC 2 Slipring motors Starting & plugging	220/240 380/415	4 7.5	5.5 10	20 20	7.5 11	10 15	32 32	11 22	15 30	40 40
AC 3 Squirrel cage Motors Starting & FLC Breaking	220/240 380/415	4 7.5	5.5 10	16 16	7.5 11	10 15	26 25	11 22	15 30	40 40

Accessories

CATALOGUE CODE	AUXILIARY CONTACT BLOCK	CODE
Size '00' - C00N	1 NO + 1NO	001CB11
Size '0' - N0N	2 NO	001CB20
Size '1' - N1N	2 NO	001CB02

VOLTAGE CODE	SPARES	
24 V - U	Contact Kit for NHD '00' (16A rating)	SP90A1
48 V - W		
110 V - A	Contact Kit for NHD '0' (25A rating)	SP90B1
220-240 V - H	Contact Kit for NHD '1' (40A rating)	SP90C1
380-415 V - N	Magnet Coil	SP90MC*
A 25 amps open contactor operating at 380-415 V 50 V 50Hz without auxiliary contact block is termed as NONN.	Contact Carriers	SP90CC

