

# AUXILIARY CONTACTORS series HX

## USE

For circuits in which a large number of NO or NC contacts are required to satisfy the requirements of complex wiring diagrams.

## OPERATION AND INSTALLATION

Screw mounting to EN 50003 or on 35 mm metal rail EN50022-3 DIN 46277-3

Mounting tilt not exceeding  $\pm 30^\circ$  in relation to the vertical

Ambient temperature from  $-5^\circ\text{C}$  to  $40^\circ\text{C}$

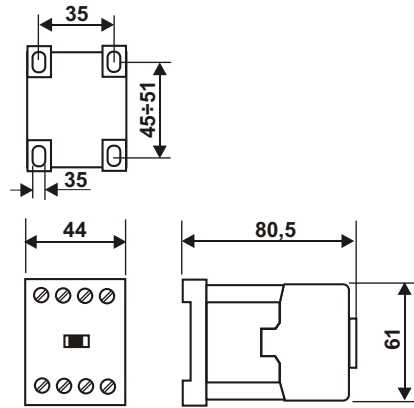
Altitude up to 2,000 metres

Relative humidity not exceeding 50% at  $40^\circ\text{C}$

## STANDARDS AND APPROVALS

Compliance with recommendations and standards:

IEC 947-1, CEI EN 60947-1, CEI EN 60947-5-1, VDE 0660, BS 60947-5-1, UTE - NCF 63-110, NEMA NBN C63158, AS1029



Control coil codes

Code	F	G	D	U	X	C	W	B	Z
50 Hz -V	24	48	110 to 115	220 to 230	220 to 240	366	380 to 400	440	480 to 500
60 Hz -V		58				440		528	



TYPE	Contac diagram	No. of contacts		Rated thermal current I <sub>th</sub>	Control in alternating current AC-15			Control in direct current DC-13			Unit weight Kg.	Packs of No
		NO	NC		220V 240V	380V 415V	500V	220V 240V	380V 415V	500V		
HX1040E		4	0									
HX1031E		3	1	10 A	3 A	1.5 A	1 A	0.5 A	0.35 A	0.25 A		
HX1022E		2	2									

## TECHNICAL SPECIFICATIONS AUXILIARY CONTACTS series Hx10

Make time	ms.		10 to 20				
Break time	ms.		10 to 20				
Coil absorption in alternating current	inrush VA		70				
	sealed VA		8				
Coil absorption in alternating current	inrush W		80				
	sealed W		6				
Electric life	1200 man/h		5				
	Millions of switching cycles						
Mechanical life	1200 man/h		20				
	Millions of switching cycles						
Rated thermal current	I <sub>th</sub>	A	10				
Current type			maximum operation intensity				
			6to48V	110to127V	220to240V	380to450V	440to500V
Parallel connection	A		8	8	5	2.5	1.5
	A		6	5	3	1.5	1
Parallel connection	A		4	1.5	0.7	0.5	0.35
	A		3	1	0.5	0.35	0.25
Make power	A		130				
Break power			6to48V	110to127V	220to240V	380to450V	440to500V
	Parallel connection	A	200	200	155	130	100
		A	60	60	50	36	25
		A	15	15	0.6	0.4	0.3
		A	0.8	0.8	0.3	0.1	0.08

H



## ACCESSORIES FOR AUXILIARY CONTACTORS series HX

### Instantaneous auxiliary contact blocks

TYPE	Contact diagram	No. Of contacts		Rated thermal current I <sub>th</sub>	Rated current I <sub>e</sub>		
		NA	NC		220V 240V	AC-15 380V 415V	500V
IX02		0	2	10 A	3 A	1.5 A	1 A
IX11		1	1				
IX20		2	0				
IX04		0	4				
IX13		1	3				
IX22		2	2				
IX31		3	1				
IX40		4	0				

## USER CATEGORIES

Nature of the current	User categories	Typical applications
Alternating current	AC-1	Non-inductive or low inductive loads, heating element ovens
	AC-2	Slip-ring motors: start up, stop
	AC-3	Cage motors: start up, stop of the motor during running (1)
	AC-4	Cage motors: start-up, reverse-current braking, pulsed switching
	AC-5a	Control of discharge lamps
	AC-5b	Control of incandescent lamps
	AC-6a	Control of transformers
	AC-6b	Control of capacitor batteries
	AC-7a	Light inductive loads in domestic and similar applications
	AC-7b	Motor loads in domestic applications
Direct current	DC-1	Non-inductive or low inductive loads, heating element ovens
	DC-3	Shunt motors: start-up, reverse current braking, pulsed switching. Dynamic braking of direct current motors
	DC-5	Motors in series: start-up, reverse current braking, pulsed switching. Dynamic braking of direct current motors
	DC-6	Control of incandescent lamps

1)Equipment classified in category AC-3 may be used for occasional pulsed switching or reverse current braking, for limited periods such as those relative to positioning the machine. During these limited periods, the number of these operations must not exceed 5 per minute and exceed 10 in a period of 10 minutes.

2)Motors for refrigerator hermetic compressors are a combination composed of motor and compressor enclosed in the same casing without external shaft, as the motor operates immersed in the coolant.

## USER CATEGORIES FOR SWITCHING ELEMENTS

Current type	Category	Typical applications
Alternating current	AC-12	Control of resistive loads and solid state loads with isolation obtained with opto-isolators
	AC-13	Control of solid state loads with isolating transformer
	AC-14	Control of small electromagnetic loads (= 72 VA)
	AC-15	Control of electromagnetic loads (> 72 VA)
Direct current	DC-12	Control of resistive loads and solid state loads with isolation obtained with opto-isolators
	DC-13	Control of electromagnets
	DC-14	Control of electromagnetic loads with economizing resistors in the circuit