

XMC2 Series

AC Contactors

Description

HONGFA XMC2 series contactors are developed by **HONGFA**, based on customer's requirements for pursuing a high performance and reliability. It has wider range of coil voltage, better contact operating ability, higher thermal-resistance class and better performance in anti-shock and vibration than same level product. It applies to electric motor load control of compressor in air conditioner under 50Hz/60Hz, rated insulation voltage $\leq 690V$, rated current $\leq 30A$. (IEC standard AC-8a, AC-8b). It also can be used in power supply system for long distance making and breaking circuit, controlling electric motor load (IEC category: AC-3, AC-4). It is able to work with thermal relays to be a magnet starter assembled to protect circuit from over-load current.

XMC2 series contactors not only can meet high requirements for Air conditioning compressor and freezing container but also can be used for all kinds of power systems. It's flexible to attach auxiliary contact to meet all customers' requirements and provide various contact arrangements: 3P, 3P+1NC, 3P+1NO, 2NO+2NC, 4P.

XMC2 series conform to IEC60947, GB14048 and UL 508 standards.



Features

1. Unique structure of amortization system eliminates contact bounce.
2. Heavy duty Silver Metal Oxide composition contacts with longer electrical endurance.
3. Various contact arrangements meet requirements of different customer.
4. Interface available for auxiliary contact and protection module. Easy to assemble.
5. The maximum ambient temperature can approach $+80^{\circ}C$.
6. Excellent performance on anti- shock and vibration (acceleration can be $0\sim 20G\&40Hz$ without failure).
7. Coils are Class H ($180^{\circ}C$)insulated with wide ranges of voltages and 50/60Hz ratings.
8. Two types of coil terminals: double coil terminal and triple coil terminal. Easy to change.
9. Easy coil change.
10. Universal mounting plate allows an easy replacement to other brands.
11. Double "E" shaped Magnet Assembly provides optimal performance with lower power consumption.
12. Effective dustproof structure.

Type model nomenclature - Ordering Information

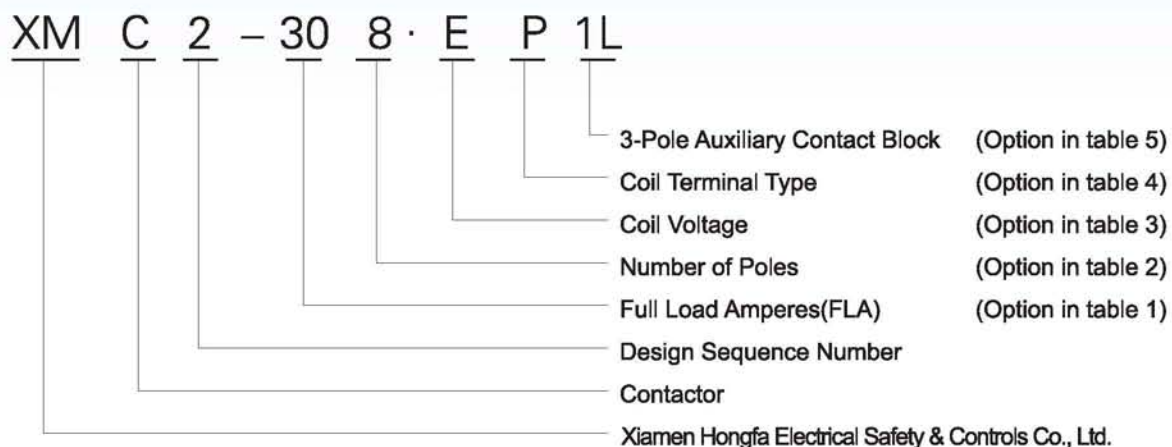


Table 1 Full Load Amperes (FLA)

Code	12	18	30
Full Load Amperes (FLA) (A)	12	18	30

Table 2 Number of Poles

Code	3	4	8	9	2R
Number of Poles	3 poles	4 poles	3 poles+1NC	3 poles+1NO	4 poles(2a2b)

Table 3 Coil Voltage

Code		E	F	I	M	L	N
Coil Voltage (V)	60Hz	24	110-120	208-240	220	277	440-480
	50Hz	24	110-120	208-220	220	230	380-415

Table 4 Coil Terminal Type

Code	P	S
Coil Terminal Type	Double coil terminal(Standard type, can be omitted)	Triple coil terminal

Table 5 Auxiliary Contact Block (ACB)

Code	00	1L	1R	2L	2R	L1	R1	L2	R2	10	01
ACB	None	1NC	1NC	2NC	2NC	1NO	1NO	2NO	2NO	1NC+1NO	1NC+1NO
Remark	1)	at left	at right	at left	at right	at left	at right	at left	at right	at left	at right

1) Standard type, can be omitted

Characteristics

Rated insulation voltage		V	690
Conform to standard			IEC60947-4-1, GB14048.4, EN60947-4-1, UL 508
Approvals			CE、CCC
Protective treatment			TH
Operating position			Vertical
Ambient temperature	operation	℃	-25℃ ~ +70℃
	storage	℃	-40℃ ~ +70℃
Relative humidity			90-95%RH at 40℃
Pollution degree			3
Shock resistance 1/2 sine wave=11 ms	contactor open	g	30
	contactor closed	g	30
Vibration resistance 5 to 60 Hz	contactor open	g	10
	contactor closed	g	15

Performance

XMC2-			
Rated insulation voltage	V	690	
Rated operating voltage	V	480/277(60Hz) or 400/230(50Hz)	
Full load ampere(FLA)	A	12	18 30
Resistive load ampere(RLA)	A	25	30 35
Making capacity(400V cos ϕ 0.45)	A	12 × FLA	
Breaking capacity(400V cos ϕ 0.45)	A	10 × FLA	
Switching frequency	op/h	360	
Electrical endurance(ARI 780/790)	cycle	200,000	
Mechanical endurance	cycle	10,000,000	

Pole Characteristics (UL/CSA Parameters)

Full Load Amps	Resistive Amps Per Pole	Locked Rotor amps			Power			Poles
		230/277V	480V	600V	230V 1 Phase	480V 3 Phase	600V 3 Phase	
12	25	72	60	48	2	7.5	7.5	3:3P 4:4P 8:3P+1NC 9:3P+1NO 2R:2a2b
18	30	108	90	72	3	10	10	
30	35	150	125	100	3	15	15	

Pole Characteristics (IEC Parameters)

I _e (A)		AC-3 Use category Control power (kW)		
AC-3(400V)	AC-1 (60°C)	230V	400V/415V/440V	660V
12	25	4	5.5	5.5
18	30	5.5	7.5	7.5
30	35	7.5	11	10

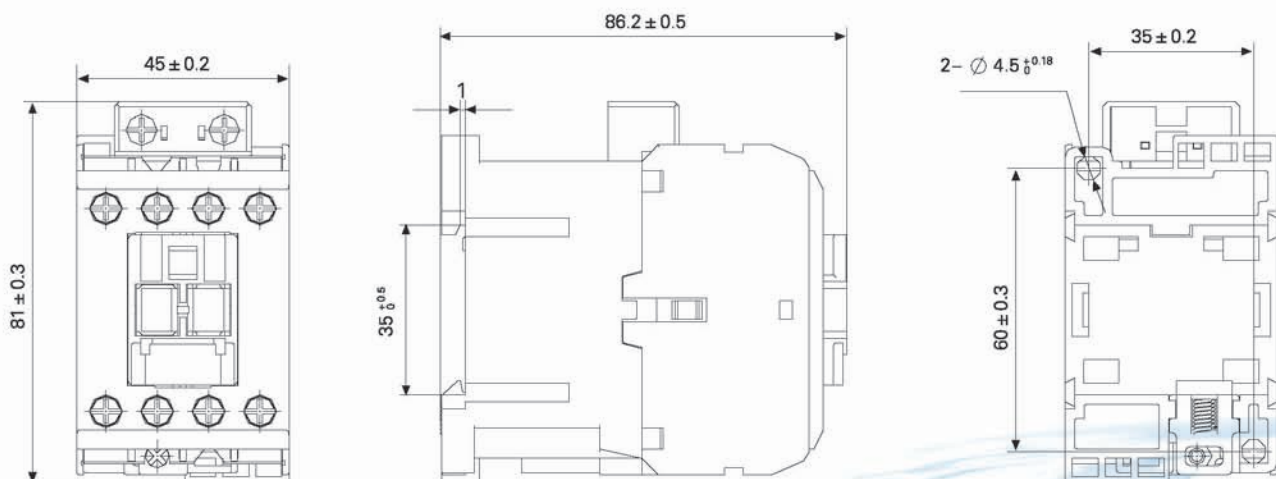
Auxiliary contact blocks characteristics

Conventional thermal current (A)		10	
Rated insulation voltage (V)		690	
Rated operational current	A600(AC-15)	230V/3A	380V/1.9A
	P600(DC-13)	110V/1.1A	230V/0.55A

Coil characteristics

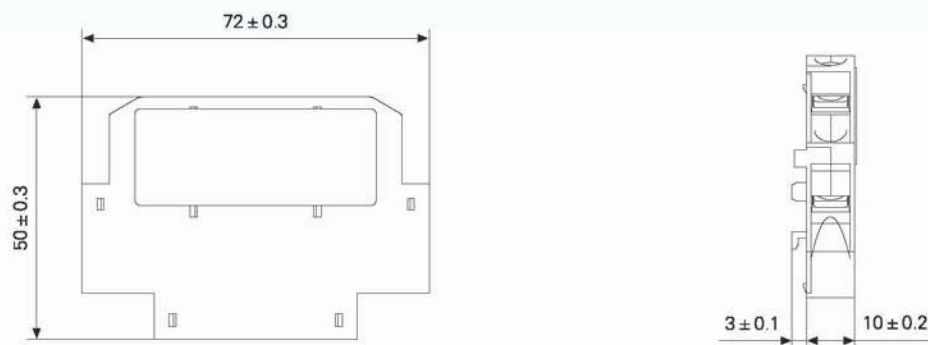
Part number	Inrushed VA	Sealed VA	Sealed Watts	Voltage	
				Pick-up	Drop-out
XMC2-12~30	95	13.5	1.0	≤0.8Us	≥0.3Us

Dimensions

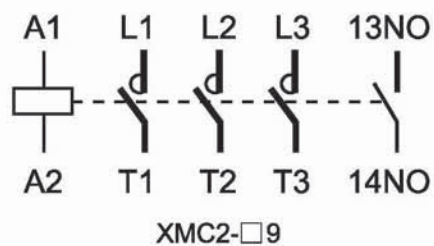
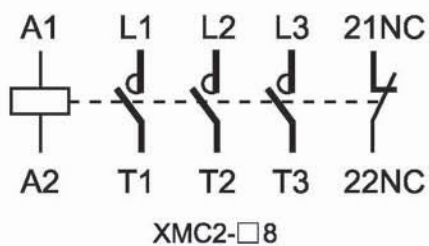


XMC2-12~30A(3P / 3P+1NC / 3P+1NO / 4P / 2R)

Dimensions



XMC2 Auxiliary Contact Block



Wiring diagram

The tightening torque

XMC2 contactor's wiring can bear exceeding torque value beyond GB and IEC criterion:

The maximum torque for main circuit screw reaches 1.8N.m, and for coil terminal reaches 1.2N.m.