



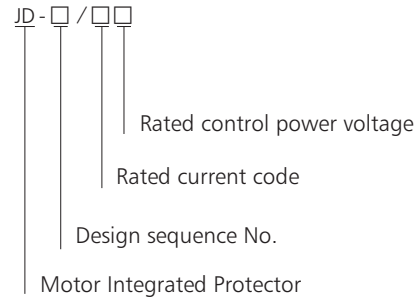
## JD-5 Motor Integrated Protector

### 1. General

JD-5 Motor Integrated Protector (hereinafter referred to as protector) is applicable for overload and phase-failure protection of AC motor @ A.C.50Hz, less than AC690V rated insulation voltage and 0.5A~400A rated operating current for its continuous working or discontinuous working. Protector and AC contactor are generally used cooperatively.

This product meets the requirements of IEC 60947- 4-1.

### 2. Type designation



### 3. Operating conditions

3.1 Altitude  $\leq 2000\text{m}$ .

3.2 Ambient temperature Range:  $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ , with daily average  $\leq +35^{\circ}\text{C}$ .

3.3 Atmospheric condition: when the highest temperature is  $+40^{\circ}\text{C}$ , the relative humidity of air shall be no more than 50%, higher relative humidity shall be allowable at lower temperature, for instance air humidity may reach 90% at  $+20^{\circ}\text{C}$ . As for dews, which contingently appear due to change of temperature, special steps should be taken.

3.4 Pollution Level: Level 3.

3.5 Inclination between installation plane and vertical plane shall  $\leq \pm 5^{\circ}$ .

3.6 In the media without explosive risk, and no gases that may be corrosive to metal and damage insulation in the media together with at places where much conducting dust being in existence.

3.7 At places where rain & snow proof facilities are equipped with and not being full of steam.

3.8 At places without prominence rock, impact and vibration.

3.9 Installation Category: III.

### 4. Technical data

4.1 Rated insulation voltage AC690V, rated frequency 50Hz, rated operating current 0.5A ~ 400A.

Table 1

Type	Setting current range (A)	Voltage of control power supply (Supply Voltage) (V)	Suitable motor power (kW)
JD-5/80	0.5~5	220V, 380V,	0.25~2.5
JD-5/80	2~20	220V, 380V,	1~10
JD-5/80	20~80	220V, 380V,	10~40
JD-5/400	80~200	220V, 380V,	40~100
JD-5/400	160~400	220V, 380V,	80~200
JD-5(with buzzer)	1~80	220V, 380V,	0.5~40

4.2 Control circuit: rated insulation voltage AC380V, rated frequency 50Hz, contact parameters refer to Table 2.

Table 2

Use type	AC-15	
Rated operating voltage (V)	220	380
Rated operating current (A)	1.5	0.95
Conventional thermal current (A)	5	

### 5. Design features

5.1 Three-phase electronic type, tripping grade (trip class): 10A.

5.2 Equipped with function of phase-failure and overload protection.

5.3 Equipped with continuously adjustable device for setting current.

5.4 Three indicators indicate normal, overload and phase-failure status respectively.

5.5 Main circuit adopts feed through wiring.

5.6 Installation mode: use bolts for installation.

**6. Protection features**

6.1 Operation characteristics under three-phase balanced-load status (see Table 3)

Table 3

S.N.	I/In	operating time	Test Condition	Ambient temperature
1	1.05	<2h non-tripping	Cold Status	+20°C
2	1.20	<2h tripping	Hot Status	
3	1.50	<2 min tripping		
4	7.20	2s<Tp≤10s	Cold Status	

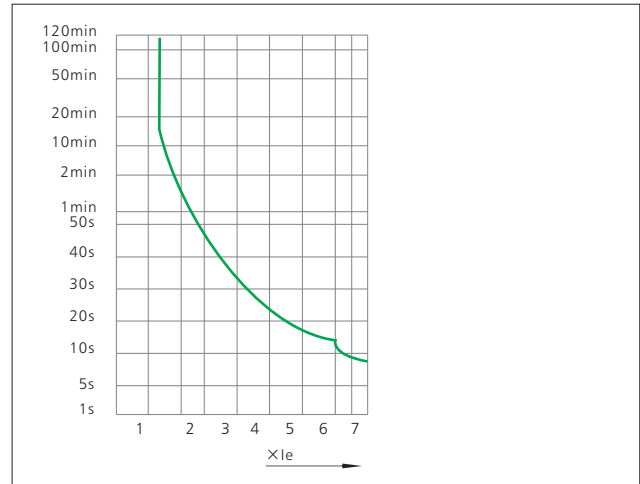
6.2 Operation characteristic under phase-failure status (see Table 4)

Table 4

S.N.	Multiple of setting current		operating time	Test Condition	Ambient temperature
	Any two phases	The Third phases			
1	1.0	0.9	<2h non-tripping	Cold Status	+20°C
2	1.15	0	≤5s	Hot Status	

6.3 Tripping feature

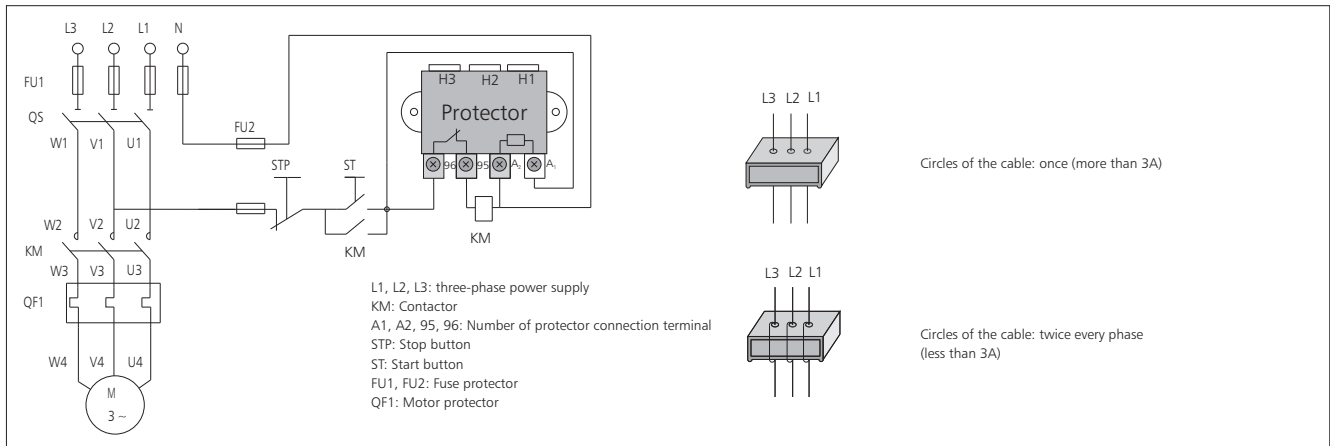
Figure 1



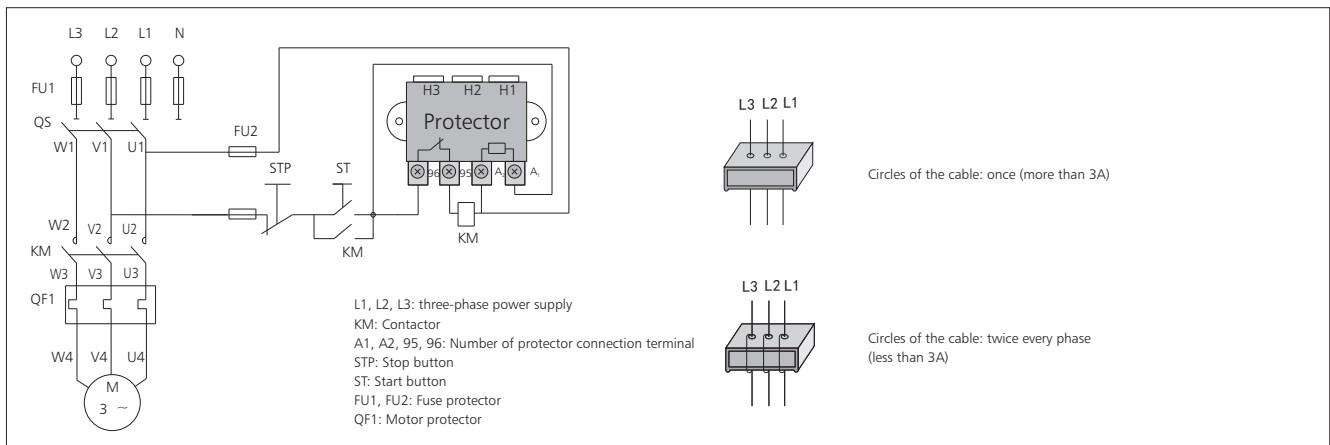
6.4 Reset mode: de-energizing reset

**7. Wiring diagram**

7.1 Wiring diagram for control power supply @ AC220V voltage

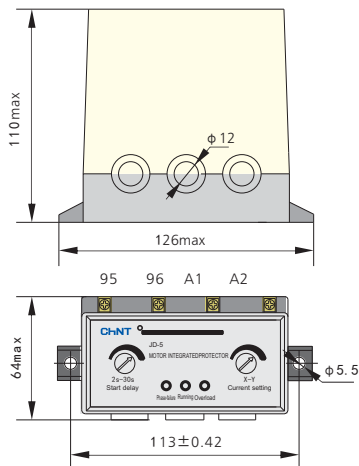


7.2 Wiring diagram for control power supply @ AC380V voltage

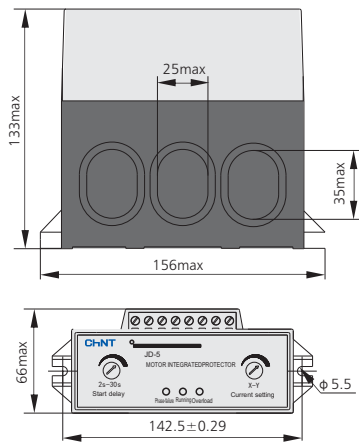


8. Overall and mounting dimensions (mm)

JD-5/80



JD-5/400



9. Ordering information

9.1 Designation, type and specification of protector, select controlling current and voltage (AC220V, AC380V, ), setting current range (0.5A~5A, 2A~20A, 20A~80A, 80A~200A 160A~400A, etc) according to operating requirements.

9.2 Order Quantity.