



## JD-5E Integrated Motor Protector

### 1. General

JD-5E Integrated Motor Protector is applicable to overload and phase failure protection of AC motor working for a long time or discontinuously with AC 50Hz, rated insulation voltage AC690V and rated working current 1A-400A. The protector is usually matched with the AC contactor for use. It conforms to IEC 60947-4-1 standards.



### 4. Technical data

4.1 Main circuit: rated insulation voltage AC690V, rated frequency 50Hz (shown in Table 1)

Table 1

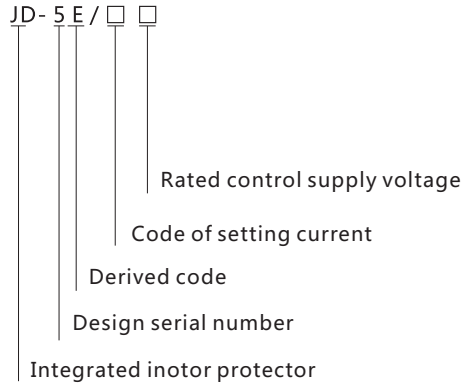
Model	Range of setting current (A)	Controlled supply voltage (V)	Power suitable for motor (kW)
JD-5E	1~5	220V OR 380V	0.5~2.5
JD-5E	5~25	220V OR 380V	2.5~12.5
JD-5E	20~80	220V OR 380V	10~40
JD-5E	80~200	220V OR 380V	40~100
JD-5E	160~400	220V OR 380V	80~200

4.2 Auxiliary circuit: rated insulation voltage AC380V, rated frequency 50Hz (shown in Table 2)

Table 2

Utility Category	AC-15	
Rated operating voltage (V)	240	380
Rated operating current (A)	1.5	0.95
Conventional thermal current (A)	5	

### 2. Type designation



### 3. Operating conditions

- 3.1 Altitude ≤2000m.
- 3.2 The ambient air temperature is -5°C~ +40°C and the average temperature within 24h shall not exceed +35°C.
- 3.3 Atmospheric condition: Relative humidity of atmosphere shall not exceed 50% at the temperature of +40°C, and higher relative humidity is allowed at lower temperature. For example, the air humidity can reach 90% at the temperature of +20°C. Regarding the condensation casually caused by humidity change, special measures shall be taken.
- 3.4 Class of pollution: Class III.
- 3.5 Installation category: category III.
- 3.6 The angle between the installation surface and the vertical surface shall not exceed ±5 degrees.
- 3.7 The place without obvious shake, impact and vibration shall be selected as the installation site.
- 3.8 The installation site shall conform to the following standards: explosive and dangerous medium, no gas capable of corroding and damaging insulation in the medium and less conductive dust in the medium.
- 3.9 The place with rain-proof and snow-proof equipment and a little water vapor shall be used as the installation site.

## 5. Others

### 5.1 Structure characteristics

5.1.1 Three-phase electronic type

5.1.2 Function of phase failure and overload protection

5.1.3 Device capable of continuously adjusting setting current

5.1.4 Three indicating lights respectively indicate the working states of phase failure, operation and overload.

5.1.5 The main circuit adopts pass-through-core type wiring method.

5.1.6 Installation method: installation via screws

### 5.2 Protective characteristics

5.2.1 The operating characteristics of the protector during load unbalance of each phase are shown in Table 3.

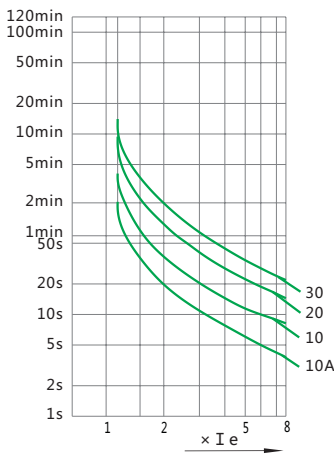
Serial number	Multiple of setting current	Tripping level	Actuation time	Starting condition	Ambient air temperature (°C)
1	1.05	10A	No actuation within 2h	Start from cold state	20±2
		10			
		20			
		30			
2	1.2	10A	Actuation within 2h	Operation following sequence 1	
		10			
		20			
		30			
3	1.5	10A	< 2min	Operation following sequence 1	
		10	< 4min		
		20	< 8min		
		30	< 12min		
4	7.2	10A	2s < tp ≤ 10s	Start from cold state	
		10	4s < tp ≤ 10s		
		20	6s < tp ≤ 20s		
		30	9s < tp ≤ 30s		

### 5.2.2 Tripping characteristics

The tripping level of the protector with rated working current from 1A to 80A is level 10A.

The tripping level of the protector with rated working current from 80A to 400A can be set as 10A, 10, 20 or 30.

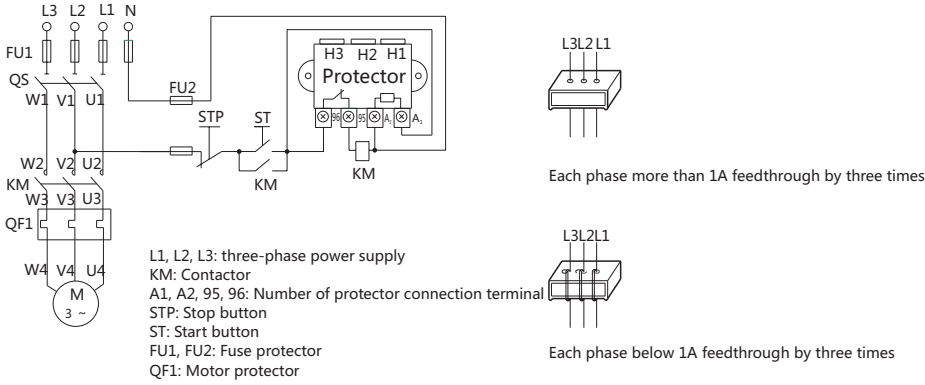
Figure 1



5.3 Wiring diagram

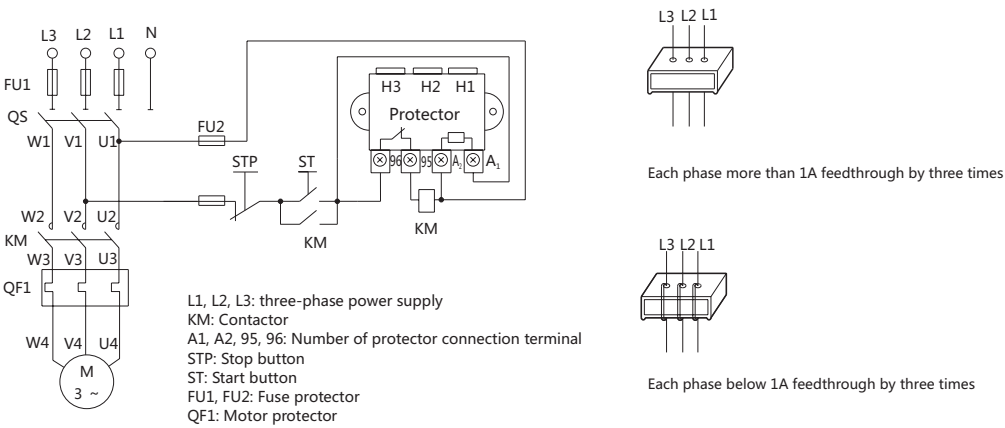
5.3.1 Wiring diagram for control power supply @ AC220V voltage

Figure 2



5.3.2 Wiring diagram for control power supply @ AC380V voltage

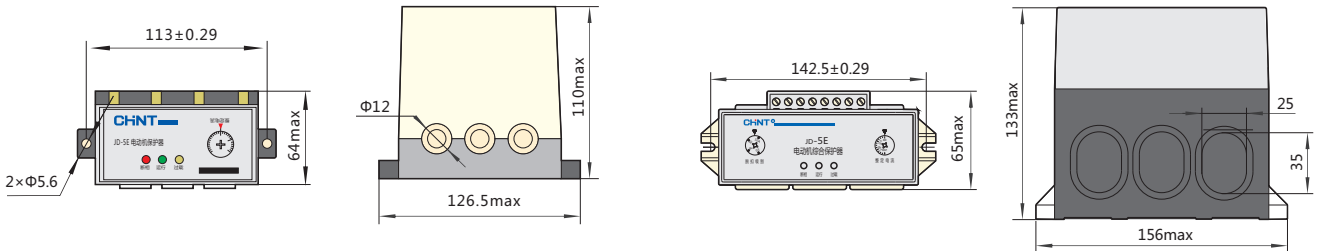
Figure 3



6. Overall and mounting dimensions (mm)

JD-5E/80

JD-5E/400



7. Ordering information

- 7.1 Designation and type-specification of protector, select controlling current and voltage (AC220V, AC380V), setting current range (1A~5A, 5A~25A, 20A~80A, 80A~200A, 160A~400A), according to operating requirements.
- 7.2 Order Quantity.