CDR8 Series Motor Protector

Applicable Range

CDR8 series Motor Protector (hereinafter called protector) is designed for three phase AC motor with AC50Hz, voltage 380V,current 0. 0.25A~160A, which provides overload and loss of phase protection. It is Intelligence type and replacement of JR16B all kinds of thermal overload relay and can be formed the motor with corresponding AC contactor. Installation dimension is the same as JR16B and also can adopt guide rail installation method.

Applicable Standards

National Standard: GB 14048.4 GB14048.5

Normal Usage and Installation Conditions

1. Altitude no more than 2000m.
2. Ambient temperature within -5℃~+40℃ .Relative humidity no more than 50% at max +40℃, and doesn't exceed 90% at lower temperature, Variation of temperature leading to dew on the surface of product should be considered .
3. Class of pollution: Class 3.
4. Installation condition:Class III.
5. The inclined angle between the mounting surface and vertical surface no more than 5° , and in the place of non-prominence compacting and vibration .

Technical parameters

1. Rated isolating voltage (Ui) in main circuit is 690V.
2. Control power: AC380, AC 220V, allowed range of voltage (75~110%)Ue .
3. Operating characteristic under balance load in each phase is accordance with Table 1.
4. Operating characteristic under balance load (loss of phase) in each phase is accordance with Table 2.
5. Technical data of auxiliary contact is according to Table 3.
6. Protection for loss of phase: where there any phase is in breaking, the operating time of protector is < 10 min.
7. Protection for three phases unbalance: when the degree of unbalance K1 or K2> 30%, operation time of protector is < 10 min.
8. Blocked protection : when the motor is blocked, protector delays for (5±1)s
9. Protection for overvoltage: when the motor voltage Ue >110%, operating time of protector is <1s.
10. Protection for undervoltage: when the power supply is (65%~75%) Ue, operating time of protector is <60s.
11. Reset: manual instantaneous reset ,automatic delay (120±5)s and reset .



Table 1 Performance characteristics underload balance on each phase

No.	Time of setting current	Operating time	Ambient temperature
1	1.05	Non-operation	+55℃、+20℃、-5℃
2	1.2	8min ~ 10min	
3	1.5	< 4min	
4	7.2	4s ~ 10s	

Table 2 Performance characteristics underload balance (loss of phase)on each phase

No.	Time of setting current		Operating time	Ambient temperature
	Two optional phases	The third phase		
1	1.0	0.9	Non operation	+20℃
2	1.15	0	< 10min	

table3 Technical data of auxiliary contact

Usage type	Rated insulated voltage(Ui) V	Rated operating voltage(Ue) V	Conventional heating current (Ith) A	Rated operating current(Ie) A	Control capacity
AC-15	690	380	10	0.47	180VA
DC-13		220		0.15	33W

Construction features

1. Adopt updated SCM technique, Microchip Company of American introduced PIC series CMOS 8 SCM and RISC structure, separate data bus and Harvard bus structure of command bus.
2. It is reliably operation, accurate time for operating ,small volume ,light weight and low loss.
3. Protection for overload, block, loss of phase and unbalance.
4. Protection for overvoltage and undervoltage .
5. Adjustable to operating current linearity.
6. Show operating position and manual and automatic reset
7. Readily accumulate thermal and intelligence protection.

Outline and Installation Dimensions

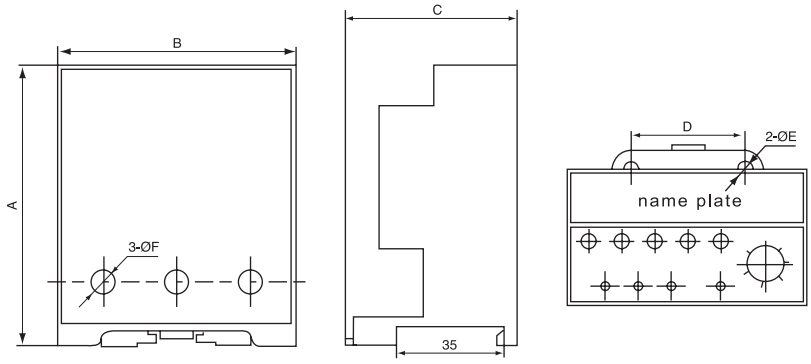

Table 4 Installation Dimensions

Unit:mm

Type	A	B	C	D	E	F	Installation rail
CDR8-32	94 ± 0.19	80 ± 0.19	54.5 ± 0.2	38 ± 0.16	$4.5^{+0.16}_{0}$	$7.6^{+0.16}_{0}$	TH35
CDR8-63	96 ± 0.19	88 ± 0.19		66 ± 0.32	$5.0^{+0.16}_{0}$	$9.5^{+0.16}_{0}$	
CDR8-160		118 ± 0.21		96 ± 0.26	$6.5^{+0.16}_{0}$	$19.5^{+0.12}_{0}$	