

CDR17

Standard: IEC 60947-4-1 60947-5-1

Function

CDR17 series thermal overload relays provide:

- Protection of circuits and motors against overload
- Protection of circuits and motors against phase loss
- Motor starters installation in association with contactors

Description

Technical data

- Main circuit:
 - Frequency limits: 50/60 Hz
 - Rated insulation voltage: 690 V
 - Rated operational voltage: up to 690 V
 - Frame size rated current: 18, 32, 95, 185A
 - Rated operational current and range of current setting are shown in the table below

■ Table 1

Type	Rated insulation voltage U_i V	Frame size rated current	Rated current I_e A	Thermal protection			Reference
				No	Rated current setting A	Range of current setting A	
CDR17-18	690	18	18	1801	0.15	0.1~0.13~0.15	CDR1718P15
				1802	0.18	0.12~0.16~0.18	CDR1718P18
				1803	0.25	0.18~0.2~0.25	CDR1718P25
				1804	0.36	0.25~0.32~0.36	CDR1718P36
				1805	0.5	0.35~0.4~0.5	CDR1718P5
				1806	0.7	0.5~0.6~0.7	CDR1718P7
				1807	0.9	0.63~0.72~0.9	CDR1718P9
				1808	1.2	0.9~1~1.2	CDR17181P2
				1809	1.8	1.2~1.6~1.8	CDR17181P8
				1810	2.5	1.8~2~2.5	CDR17182P5
				1811	3.6	2.5~3.2~3.6	CDR17183P6
				1812	4.8	3.5~4~4.8	CDR17184P8
				1813	6.3	4.5~5~6.3	CDR17186P3
				1814	7	5~6~7	CDR17187
				1815	9	6.3~7.2~9	CDR17189
				1816	12	9~10~12	CDR171812
				1817	15	11~13~15	CDR171815
				1818	18	14~16~18	CDR171818
CDR17-32	690	32	32	3201	6.3	4.5~5~6.3	CDR17326P3
				3202	7	5~6~7	CDR17327
				3203	9	6.3~7.2~9	CDR17329
				3204	12	9~10~12	CDR173212
				3205	18	12~16~18	CDR173218
				3206	25	18~20~25	CDR173225
				3207	32	23~25~32	CDR173232



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Type	Frame size rated current	Rated current I_e A	Thermal protection			Reference	
			No	Rated current setting A	Range of current setting A		
CDR17-95	690	95	95	9501	12	9~10~12	CDR179512
				9502	18	12~16~18	CDR179518
				9503	25	18~20~25	CDR179525
				9504	32	23~25~32	CDR179532
				9505	40	30~36~40	CDR179540
				9506	50	37~45~50	CDR179550
				9507	65	48~55~65	CDR179565
				9508	70	55~63~70	CDR179570
				9508	80	63~70~80	CDR179580
				9510	95	75~90~95	CDR179595
CDR17-185	690	185	185	8501	50	37~45~50	CDR1718550
				8502	65	48~55~65	CDR1718565
				8503	70	55~63~70	CDR1718570
				8504	80	63~70~80	CDR1718580
				8505	95	75~90~95	CDR1718595
				8506	115	90~100~115	CDR17185115
				8507	135	105~115~135	CDR17185135
				8508	150	120~135~150	CDR17185150
				8509	160	130~150~160	CDR17185160
				8510	185	150~160~185	CDR17185185

Table 2 Basic data for control circuit and auxiliary circuit

Rated insulation voltage V	Conventional free air thermal current A	Circuit type	Utilization category	Rated frequency Hz	Rated operational voltage V	Rated current A	Rated control capacity
690	6	Control circuit	AC-15	50	220(230)	1.64(1.57)	360 VA
					380(400)	0.95(0.90)	
					660(690)	0.55(0.52)	
				DC-13	220(230)	0.23(0.22)	50 W
		Auxiliary circuit	AC-15	50	220(230)	6	
					380(400)		
660(690)							
		DC-13	220(230)				

Table 3 Limits of operation of relays when energized on all poles

Sequence	Multiples of current setting	Tripping time	Initial condition	Ambient air temperature
1	1.05	Non-trip within 2 hours	From cold	+20°C
2	1.2	<2h	From hot(immediately	
3	1.5	Trip 10A <2min class 10 <4min	following sequence 1 test)	
4	7.2	10A $2S < T_p \leq 10s$ 10 $4S < T_p \leq 10s$	From cold	

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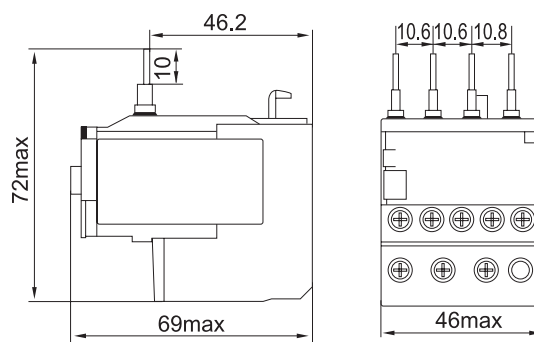
Table 4 Limits of operation when energized on two poles

Sequence	Multiples of current setting		Tripping time	Initial condition	Ambient air temperature
	Any two poles	The third-pole			
1	1.0	0.9	Non-trip within 2 hours	From cold state	+20°C
2	1.15	0	<2h	From hot state (immediately following sequence 1 test)	

Table 5 Temperature compensation characteristic

Sequence	Multiples of current setting	Tripping time	Initial condition	Ambient air temperature
1	1.0	>2h	From cold state	+40°C
2	1.2	<2h	From hot state(immediately following sequence 1 test)	
3	1.05	>2h	From cold state	-5°C
4	1.30	<2h	From hot state(immediately following sequence 3 test)	
5	0.95	>2h	From cold state	+60°C
6	1.2	<2h	From hot state(immediately following sequence 5 test)	
7	1.05	>2h	From cold state	-20°C
8	1.35	<2h	From hot state(immediately following sequence 7 test)	

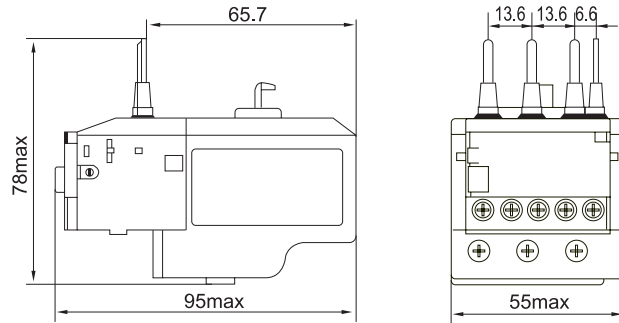
Overall dimensions



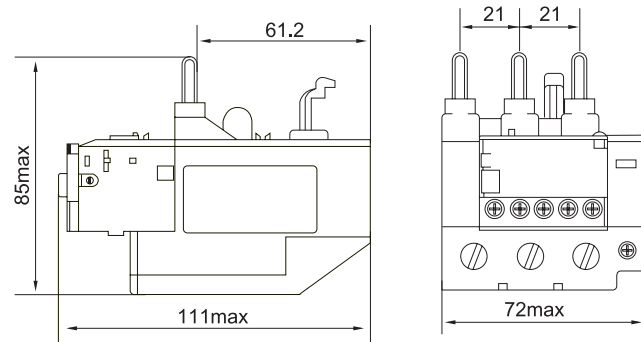
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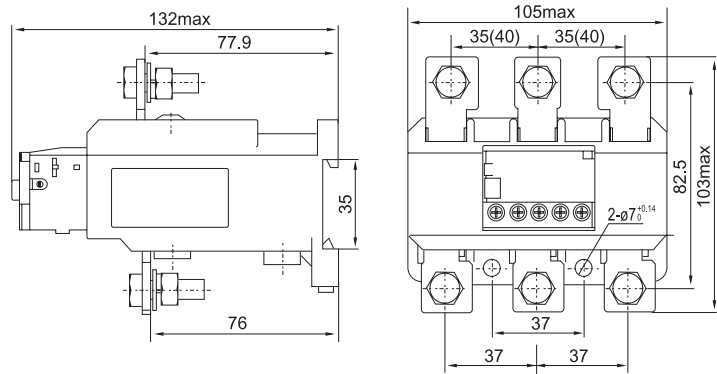
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