



Miniature Circuit Breakers, Electronic Protection Modules, and Fuse Holders

Bulletins 188, 1489, 1492, 1694





Allen-Bradley

by ROCKWELL AUTOMATION


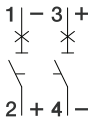
Selection Guide

Product Selection

1-Pole DC Circuit Breakers

Photo/Wiring Diagram	Continuous Current Rating (I_n)	Trip Curve C Inductive 5...10 I_n
	[A]	Cat. No.
 	0.5	1492-D1C005
	1	1492-D1C010
	1.6	1492-D1C016
	2	1492-D1C020
	3	1492-D1C030
	4	1492-D1C040
	6	1492-D1C060
	8	1492-D1C080
	10	1492-D1C100
	13	1492-D1C130
	16	1492-D1C160
	20	1492-D1C200
	25	1492-D1C250
	32	1492-D1C320
	40	1492-D1C400
	50	1492-D1C500
63	1492-D1C630	

2-Pole DC Circuit Breakers

Photo/Wiring Diagram	Continuous Current Rating (I_n)	Trip Curve C Inductive 5...10 I_n
	[A]	Cat. No.
 	0.5	1492-D2C005
	1	1492-D2C010
	1.6	1492-D2C016
	2	1492-D2C020
	3	1492-D2C030
	4	1492-D2C040
	6	1492-D2C060
	8	1492-D2C080
	10	1492-D2C100
	13	1492-D2C130
	16	1492-D2C160
	20	1492-D2C200
	25	1492-D2C250
	32	1492-D2C320
	40	1492-D2C400
	50	1492-D2C500
63	1492-D2C630	

Specifications

Electrical Ratings		
Poles	1, 2	
Tripping characteristics	C	
Rated current (I_n)	0.5...63 A	
Rated frequency (f)	0 Hz (DC only)	
Rated insulation voltage U_i per IEC/EN 60664-1	250V AC (phase to ground) 440V AC (phase to phase)	
Overvoltage category	III	
Pollution degree	3	
Data per UL/CSA		
Rated voltage	1-pole	250V DC
	2-pole	500V DC
Rated interrupting capacity per UL 1077	10 kA	
Application Codes Supplementary Protector for DC application;	1-pole	TC2, OLO, SC: U1, 250V DC, 10 kA
	2-pole	TC2, OLO, SC: U1, 500V DC, 10 kA
Reference temperature for tripping characteristics	25 °C (77 °F)	
Electrical endurance	6,000 operations	
Data per IEC/EN 60947-2		
Rated operational voltage (U_e)	1-pole	220V DC
	2-pole	440V DC
Highest supply or utilization voltage (U_{max})	1-pole	250V DC
	2-pole	500V DC
Min. operating voltage	12V DC	
Rated ultimate short-circuit breaking capacity (I_{cu})	10 kA	
Rated service short-circuit breaking capacity (I_{cs})	10 kA	
Rated impulse withstand voltage U_{imp} . (1.2/50µs)	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)	
Dielectric test voltage	2 kV (50/60 Hz, 1 min.)	
Reference temperature for tripping characteristics	55 °C (131 °F)	
Electrical endurance 1 cycle (2s - ON, 13s - OFF, $I_n \leq 32$ A), 1 cycle (2s - ON, 28s - OFF, $I_n > 32$ A)	1,500 operations	
Mechanical Data		
Housing	Insulation group II, RAL 7035	
Indicator window	red ON/green OFF	
Protection degree per EN 60529	IP20, IP40 in enclosure with cover	
Mechanical endurance	20,000 operations	
Shock resistance per IEC/EN 60068-2-27	25 g - 2 shocks - 13 ms	
Vibration resistance per IEC/EN 60068-2-6	5g - 20 cycles at 5...150...5 Hz with load $0.8 \times I_n$	

Environmental		
Environmental conditions (damp heat) per IEC/ EN 60068-2-30	28 cycles with 55 °C (131 °F)/90- 96% and 25 °C (-13 °F)/95-100%	
Ambient temperature ⁽¹⁾	-25...+55 °C (-13...+131 °F)	
Storage temperature	-40...+70 °C (-40...+158 °F)	
Installation		
Terminal	Dual terminal	
Cross-section of wire ⁽²⁾ - solid, stranded (front/ back terminal slot)	35/35 mm ²	
	18...4/18...10 AWG	
Cross-section of wire - flexible (front/back terminal slot)	25/10 mm ²	
Multi-wire rating per UL, CSA	1 wire, 18...4 AWG	
	2-4 wires ⁽³⁾ , 18...10 AWG	
Cross-section of bus bars (back terminal slot)	10 mm ²	
Tightening torque	IEC	2.8 N·m
	UL/CSA	AWG 18...16: 13.3 lb·in AWG 14...10: 17.7 lb·in AWG 8...4: 39.8 lb·in
Screwdriver	No. 2 Pozidriv	
Mounting	DIN Rail (EN 60715, 35 mm) with fast clip	
Mounting position	Any	
Supply	Note polarity of device	
Approximate Dimensions and Weight		
Pole dimension (H x D x W)	88 x 69 x 17.5 mm	
Pole weight	125 g (4.5 oz.)	
Combination with Auxiliary Elements		
Auxiliary contact	Yes	
Signal contact	Yes	
Shunt trip	Yes	

(1) 35 mm² self-declared, not included in IEC/EN approval.

(2) See [Table 7](#) and [Table 8](#) for ambient temperature derating information.

(3) Wires must be of like size and stranding. Up to two wires per terminal slot.

Power Loss Due to Current

Rated Current [A]	Power Loss Per Pole [W]	Rated Current [A]	Power Loss Per Pole [W]
0.5	1.4	13	2.3
1	1.4	15	2.4
2	1.8	16	2.5
3	1.6	20	2.5
4	1.8	25	3.2
5	1.9	30	3.5
6	2.0	32	3.7
7	1.1	40	4.5
8	1.5	50	4.5
10	2.1	63	5.4