

Datasheet

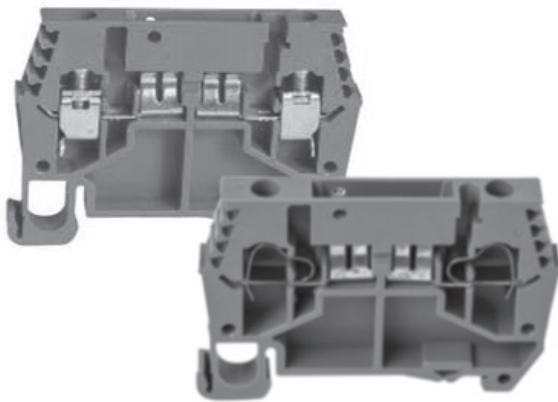
ETA 1180 Circuit Breakers and Bases



ETA 1180 Circuit Breakers

The Weidmüller thermal circuit breaker type 1180 reduces stoppages and downtime. In combination with a modular style terminal block the circuit breaker offers individual protection for every circuit.

- Push button resettable
- All standard amperages available from 0.1 A to 10.0 A
- cRUus (UL 1077) and CSA (C22.2 No. 235)



Terminal Block (Bases)

- Screw type or tension (spring) type terminal options
- Circuit breaker status indication available with LEDs
- Only 6mm wide
- 12 V and 24 V LED versions
- cRUus, CE, RoHS

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Thermal Overcurrent Circuit Breaker



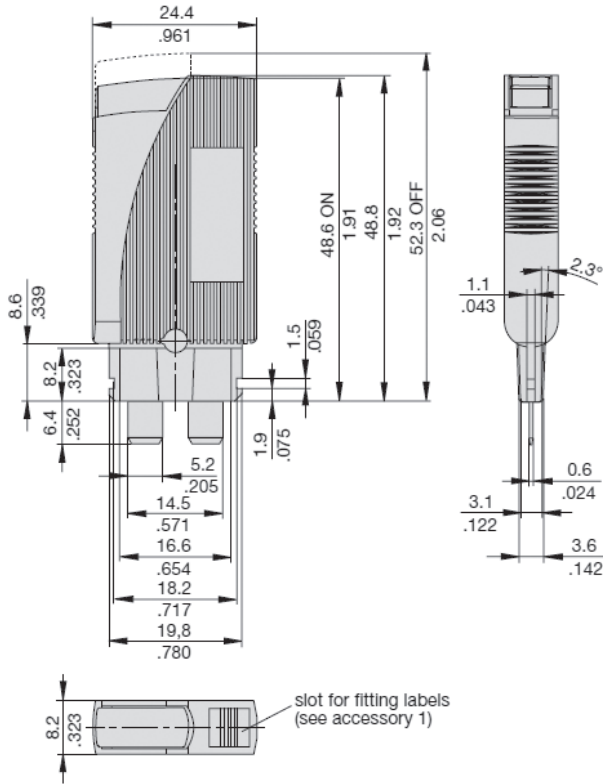
Technical Data

General Data					
Voltage rating	AC 250 V; DC 65 V			UL, UL Canada: AC 250 V; DC 72 V	
Current ratings	0.1... 10 A				
Typical life	6,000 operations at 1 x I _N (low-inductance) 500 operations at 2 x I _N (inductive)			3,000 operations at 1 x I _N (inductive)	
Ambient temperature	-20... +60°C (T 60) -4... +140°F				
Insulation co-ordination (IEC 60664 and 60664 A)	rated impulse withstand voltage 2.5 kV pollution degree 2			reinforced insulation in operating area	
Dielectric strength (IEC 60664 and 60664A)	test voltage operating area AC 3,000V Insulation resistance > 100 MΩ (DC 500V)			installation area AC 1,500 V	
Interrupting capacity I _{cn}	0.1... 5 A 6 x I _N AC 250 V DC 65 V 6... 10 A 8 x I _N AC 250 V DC 65 V 0.1... 0.7 A 25 x I _N DC 30 V 0.8... 6 A 10 x I _N DC 30 V 7... 10 A 20 x I _N DC 30 V				
Interrupting capacity (UL 1077)	AC 250 V 2,000 A			DC 72 V 2,000 A	
Degree of protection (IEC 60529 / DIN 40050)	operating area IP40			terminal area IP00	
Vibration without terminal block	5 g (57-500 Hz) ± 0.38mm (10-57 Hz) to IEC			60068-2-6, test Fc, 10 freq. cycles/axis & to EN 50155	
Shock without terminal block	25 g (11 ms)			to IEC 60068-2-27, test Ea	
Corrosion	96 hours at 5% salt mist			to IEC 60068-2-11, test Ka	
Humidity	240 hours at 95% RH			to IEC 60068-2-78, test Cab	
Mass	approx. 15 g				
Approvals					
Authority	Standard Rated voltage			Current ratings	
VDE	IEC/EN 60934 AC 250 V DC 65 V			0.1 A... 10 A 0.1 A... 10 A	
UL file E67320	UL 1077 AC 250 V C22.2 No 235 DC 72 V			0.1 A... 10 A 0.1 A... 10 A	
CSA file 165971	C22.2 No 235 AC 250 V DC 72 V			0.1 A... 10 A 0.1 A... 10 A	
Note					

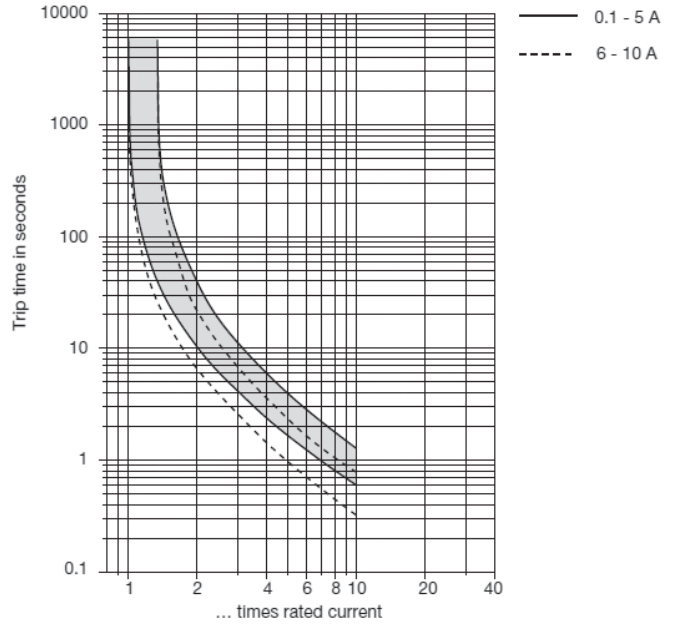
Ordering Data

Description	Part No.	Description	Part No.	Description	Part No.
ETA 1180 01 0.10A	1278840000	ETA 1180 01 0.70A	1278930000	ETA 1180 01 3.50A	1279010000
ETA 1180 01 0.20A	1278850000	ETA 1180 01 0.80A	1278940000	ETA 1180 01 4.00A	1279020000
ETA 1180 01 0.25A	1278860000	ETA 1180 01 1.00A	1278950000	ETA 1180 01 5.00A	1279030000
ETA 1180 01 0.30A	1278870000	ETA 1180 01 1.50A	1278960000	ETA 1180 01 6.00A	1279040000
ETA 1180 01 0.40A	1278880000	ETA 1180 01 2.00A	1278970000	ETA 1180 01 7.00A	1279050000
ETA 1180 01 0.50A	1278910000	ETA 1180 01 2.50A	1278980000	ETA 1180 01 8.00A	1279060000
ETA 1180 01 0.60A	1278920000	ETA 1180 01 3.00A	1278990000	ETA 1180 01 10.0A	1279070000
Note					

Dimensions



Typical time/current characteristics at +23°C/73.4°F



The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below.

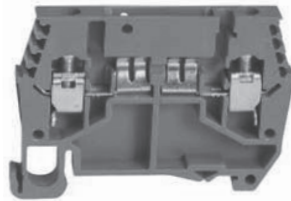
Ambient temperature	°F	-22	-4	+14	+32	+73.4	+104	+122	+140
	°C	-20	-10	0	+23	+40	+50	+60	+60
Derating factor		0.8	0.76	0.84	0.92	1	1.08	1.16	1.24

Standard current ratings and typical internal resistance values

Current rating (A)	Internal resistance (Ω)	Current rating (A)	Internal resistance (Ω)
0.1	81	2	0.25
0.2	22	2.5	0.18
0.25	14	3	0.11
0.3	8.7	3.5	0.08
0.4	5.5	4	0.07
0.5	3.4	5	≤ 0.05
0.6	2.5	6	≤ 0.05
0.7	1.7	7	≤ 0.05
0.8	1.5	8	≤ 0.05
1	0.9	10	≤ 0.05
1.5	0.4		

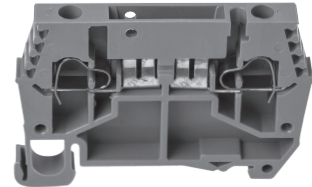
Screw clamp terminal block

Flat-type fuse holder terminal block



Tension clamp terminal block

Flat-type fuse holder terminal block



Technical Data

General Data	
Dimensions W-L-H mm (in.)	6 - 56 - 34 (0.24 - 2.21 - 1.34)
Weight/Piece	9 g
Color	Grey
Technical Data	
Mounting type (EN 60715)	DIN 35mm
Maximum load current	25 A
Insulating material	PA
Self-extinguishing degree acc. to UL94	V0
Pollution degree	3
Surge voltage category	III
Insulating material group	I
Nominal Voltage	300 V
Nominal Current	25 A
Connection Data	
Conductor cross-section solid min/max	0.50 / 4mm ²
Conductor cross-section stranded min/max	0.50 / 4mm ²
AWG min/max	24-10AWG
Max conductor cross-section stranded with ferrule with plastic sleeve DIN 46228/4	4mm ² / L=12mm
Stripping length	max 9mm
Screw	M3
Tightening torque	0.6Nm / 7 Lb-In
Approvals	
RoHS, cRUus, CE	
Note	

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AWG min/max	24-10AWG (STR) / 24-12AWG (SOL)
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Ordering Data

Type	Part No.
Terminal Block	
Accessories	
Marking tags (white) 120 tags per card	
Note	

Type	Part No.
Socket, screw terminal block	6720001186
Socket, screw terminal block with 12 V LED	6720001187
Socket, screw terminal block with 24 V LED	6720001188
end plate, terminal block socket	6720001192
WS 12/6 MC	1609900000

Type	Part No.
Socket, tension terminal block	6720001189
Socket, tension terminal block with 12 V LED	6720001190
Socket, tension terminal block with 24 V LED	6720001191
end plate, terminal block socket	6720001192
WS 12/6 MC	1609900000

