

Datasheet

ETA 1180 Circuit Breakers and Bases



ETA 1180 Circuit Breakers

The Weidmuller 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
- New base design with built-in molded end plate
- Only 6mm wide
- 12 V and 24 V LED versions
- cRUus, CE, RoHS

Thermal Overcurrent Circuit Breaker



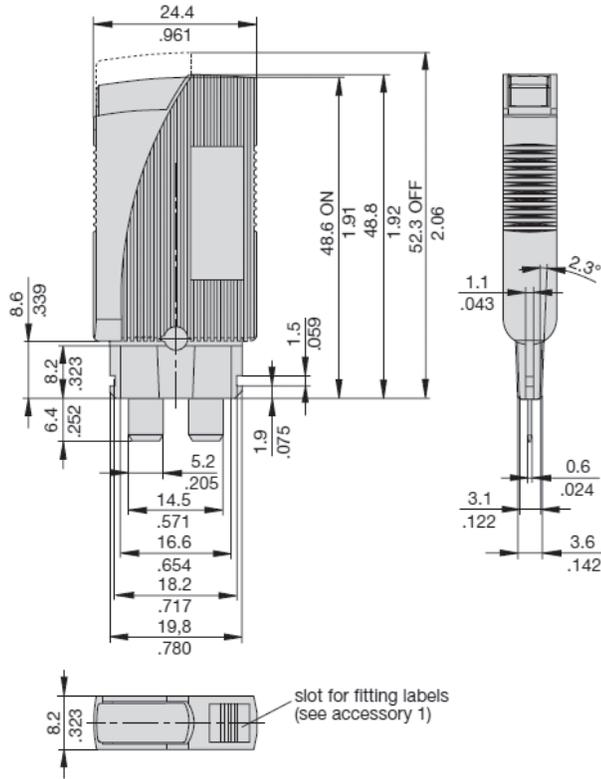
Technical data

General data	
Voltage rating	AC 250 V; DC 65 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)
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
Dielectric strength (IEC 60664 and 60664A)	test voltage operating area AC 3,000V
	Insulation resistance > 100 MΩ (DC 500V)
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
Degree of protection (IEC 60529 / DIN 40050)	operating area IP40
Vibration without terminal block	5 g (57-500 Hz) ± 0.38mm (10-57 Hz) to IEC
Shock without terminal block	25 g (11 ms)
Corrosion	96 hours at 5% salt mist
Humidity	240 hours at 95% RH
Mass	approx. 15 g
Approvals	
Authority	Standard Rated voltage
VDE	IEC/EN 60934 AC 250 V
	DC 65 V
UL file E67320	UL 1077 AC 250 V
	C22.2 No 235 DC 72 V
CSA file 165971	AC 250 V
	DC 72 V
UL, UL Canada: AC 250 V; DC 72 V	
3,000 operations at 1 x I _N (inductive)	
reinforced insulation in operating area	
installation area AC 1,500 V	
DC 72 V 2,000 A	
terminal area IP00	
60068-2-6, test Fc, 10 freq. cycles/axis & to EN 50155	
to IEC 60068-2-27, test Ea	
to IEC 60068-2-11, test Ka	
to IEC 60068-2-78, test Cab	

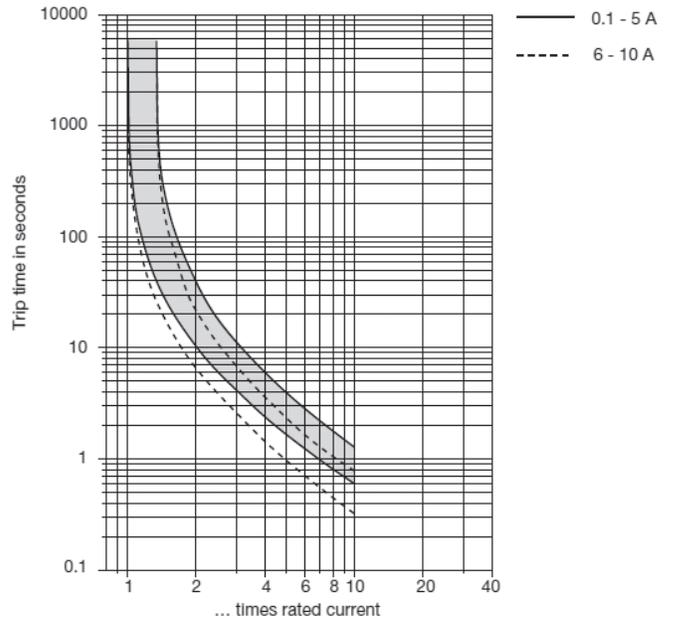
Ordering data

Type	Order number	Type	Order number	Type	Order number
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

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 - 57.8 - 39mm (0.24" - 2.21" - 1.34")
Weight / piece	11 g
Color	Black
Technical data	
Mounting type (EN 60715)	DIN 35mm
Maximum load current	10 A
Self-extinguishing degree acc. to UL94	UL94-V0
Pollution degree	2
Surge voltage category (IEC 60664)	2.5 kV
Insulating material group	>100 MΩ
Nominal voltage (UL)	250VAC / 72VDC
Nominal current	0.1 A to 10 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	8.2mm, max 9mm
Screw	M3
Tightening torque	0.8 N·m
Approvals	
	cRUus, CE, CSA, RoHS

Dimensions W-L-H mm (in.)	6 - 57.8 - 39mm (0.24" - 2.21" - 1.34")
Weight / piece	11 g
Color	Black
Mounting type (EN 60715)	DIN 35mm
Maximum load current	10 A
Self-extinguishing degree acc. to UL94	UL94-V0
Pollution degree	2
Surge voltage category (IEC 60664)	2.5 kV
Insulating material group	>100 MΩ
Nominal voltage (UL)	250VAC / 72VDC
Nominal current	0.1 A to 10 A
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	8.2mm, max 9mm
Screw	M3
Tightening torque	0.8 N·m
Approvals	cRUus, CE, CSA, RoHS

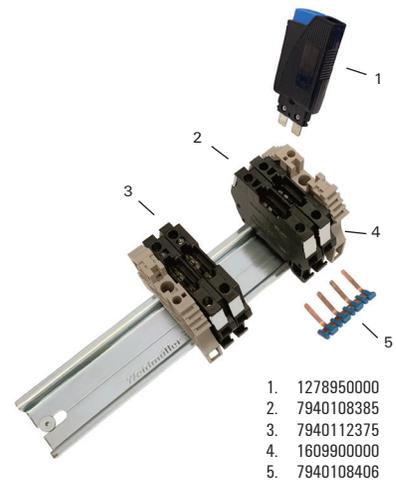
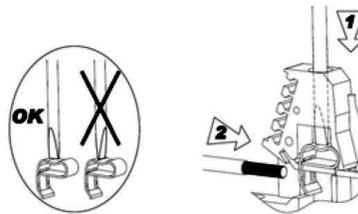
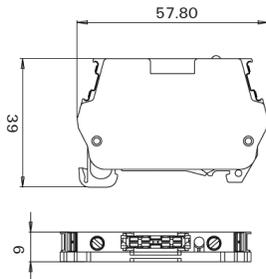
Dimensions W-L-H mm (in.)	6 - 57.8 - 39 (0.24 - 2.21 - 1.34)
Weight / piece	11 g
Color	Black
Mounting type (EN 60715)	DIN 35mm
Maximum load current	10 A
Self-extinguishing degree acc. to UL94	UL94-V0
Pollution degree	2
Surge voltage category (IEC 60664)	2.5 kV
Insulating material group	>100 MΩ
Nominal voltage (UL)	250VAC / 72VDC
Nominal current	0.1 A to 10 A
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 (STR) / 24-12AWG (SOL)
Max conductor cross-section stranded with ferrule with plastic sleeve DIN 46228/4	4mm ² / L=12mm
Stripping length	8.2mm, max 9mm
Screw	n/a
Tightening torque	
Approvals	cRUus, CE, CSA, RoHS

Ordering data

Description
Black terminal block with spacer 3mm
Black terminal block LED 24VDC with spacer 3mm
Black terminal block LED 12VDC with spacer 3mm
12 pole insulated jumper
Marking tags (white) 120 tags per card

Type	Connection	Order number
10plus-ST-201	Screw	7940108385
10plus-ST-202	Screw	7940112375
10plus-ST-203	Screw	7940109767
X22223202		7940108406
WS 12/6 MC		1609900000

Type	Connection	Order number
10plus-XT-201	Tension	7940112376
10plus-XT-202	Tension	7940112377
10plus-XT-203	Tension	7940112378
X22223202		7940108406
WS 12/6 MC		1609900000



1. 1278950000
2. 7940108385
3. 7940112375
4. 1609900000
5. 7940108406