Data Sheet
6136 Power entry module

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1 General Description

General :
The power entry modules types **6136** series are suitable for use in information technology equipment acc. to standard IEC / EN / UL 60950-1.
The power entry module is internally completely wired or unwired.

Suitable for use in medical equipment acc. to standard IEC /EN /UL 60601-1

Appliance inlet :

For a pin temperature of max. 70° C.
The appliance inlet meets the following standards :
- IEC / EN 60320-1 / C20 with TA35 1pole
- UL 60320-1
- CSA C22.2 no. 60320-1
- GB/T 17465-1

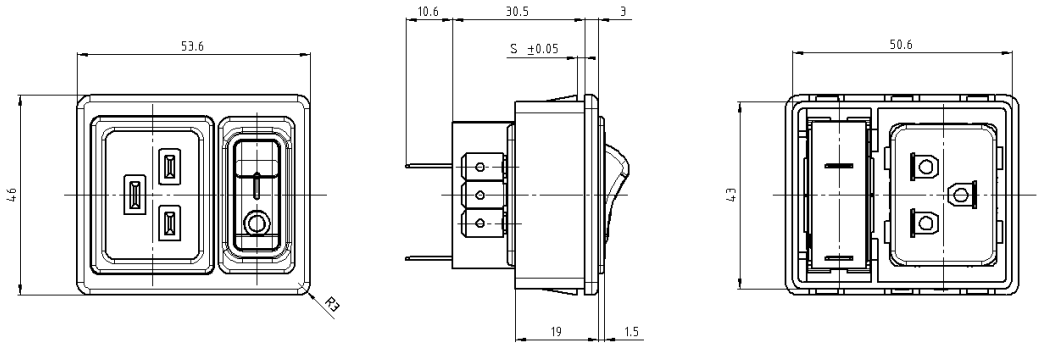
Protection class I (L / N / PE) according to IEC 61140.

Circuit breaker :

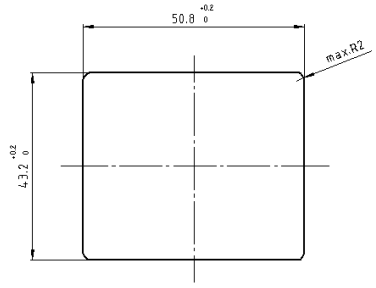
Circuit breaker for equipment TA35
(detail information see catalogue “Circuit Breakers for Equipment”)
options : 1-pole, without thermal overload protection
1-pole, with 1-pole thermal overload protection

The Circuit breaker meets the following standards :
- IEC 60934
- UL 1077
- CSA C22.2 no. 235
- GB/T 17701

2 Dimensions



Panel cut-out



3 Electrical Data

3.1 General :

Rated voltage Un	250 V AC 50 / 60 Hz	
Rated current In	16 A according to IEC / EN 20 A according to UL / CSA	
Insulation resistance	> 10^3 MΩ	between live parts of different potentials.
(500 V DC ; 1 min.	> 10^3 MΩ	between protective conductor PE and live parts.
Dielectric strength	> 2.5 kV	between live parts of different potentials.
(50 Hz ; 1 min.)	> 3 kV	between protective conductor PE and live parts.
Impulse withstand voltage	> 4 kV	between live parts of different potentials
Û 1,2/50	> 6 kV	between protective conductor PE and live parts.
Overvoltage category	I - III	according to IEC 60664-1
Clearence and creepage	> 3 mm	between live parts of different potentials.
distances	> 4 mm	between protective conductor PE and live parts.
Pollution degree	1 - 3	according to IEC 60664-1
Protection class (Protection against electric shock)	Suitable for appliances of protection class I , acc. to IEC 61140 respectively acc. to VDE 0106 / part 1	

3.2 Appliance inlet :

Dimensions acc. to IEC / EN 60320-1 — C 20 for protection class I (L / N / PE)

Pin temperature — max. 70° C

3.3 Circuit breaker for equipment :

3.3.1 Rated current, voltage and other electrical ratings :

Bimetal	Insulation resistance (main circuit)	Protection against electric shock	
Indirect heated: 0.05…2.8A Direct heated: 3…20A	DC 500 V > 100 MOhm	Class I, II (to operating means)	

Rated Insulation Voltage	Overvoltage category	Dielectric strength	
AC 250 V AC 440 V	II	50Hz: 1500V Impulse: 2000V [1.2/50us]	

No of poles	(max) Voltage rating	Current rating	Cond. SC-Rating (Inc) [with fuse]	Performance ("General Industrial")
TA35 – 1 pole	AC 240V [50/60Hz] DC 32V	AC/DC 0.05A – 20A	AC/DC 2000A (PC1 / Fuse *)	UG A (AC 240V; DC 32V), FW0, TC-1, OL0, SC(C1)

* Recommended Short Circuit-Fuse:	AC/DC 0.05A – 12A: 16A gG-Type / 15A J-Type (time delay) AC/DC >12A – 20A: 25A gG-Type / 25A J-Type (time delay)

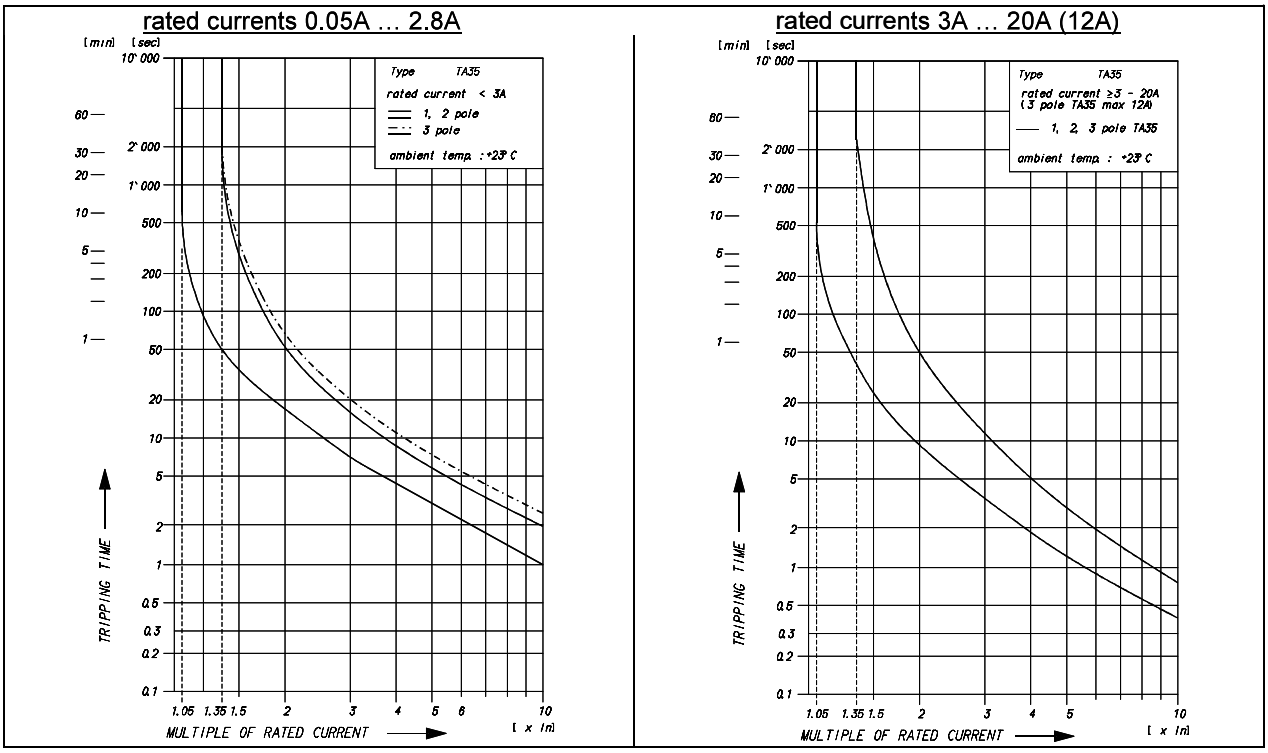
Minimum Operation cycles (AC)	Minimum Operation cycles (DC)
Endurance (mech.): 50'000 cycles	Endurance (mech.): 50'000 cycles
Endurance (on load): 30'000 cycles @ 1x In (cos phi = 0.6)	Endurance (on load): 30'000 cycles @ 1x In (L/R=2..3ms)
Overload: (IEC 60934): 40 cycles @ 6xIn (cos phi = 0.6)	Overload: (IEC 60934): 40 cycles @ 4xIn (L/R=2..3ms)
(UL1077): 50 cycles @ 1.5xIn (cos phi = 0.75) [OL0]	(UL1077): 50 cycles @ 1.5xIn (t.c.=non. ind.) [OL0]

3.3.2 Tripping characteristic

Method of operation:	Switch-Type (S) / Manual-Type (M)
Mode of tripping:	Thermal (TO)
Type of tripping:	Positively trip-free

Conventional non-tripping current (no trip within one hour)	1.05x In [TC1]
Conventional tripping current (tripping within one hour)	1.35x In [TC1]
Instantaneous tripping / non-tripping current	n / a

Tripping time of multiple rated current (reference temperature: 23°C)				
Rated current	**0.05…2.8A**			
Multiple of rated current (x In)		**2**	**4**	**6**
Tripping time	1-pole	17…50 s	4 … 8.5 s	2.4 … 4 s
Rated current	**3A … 20A (12A*)**			
Multiple of rated current (x In)		**2**	**4**	**6**
Tripping time	1-pole	9 …50 s	1.8 … 5.1 s	0.8 … 2.0 s



The above tripping characteristics apply to symmetrical overloads on all poles on the TA35 only.
At asymmetric overloads on multi-pole types, the tripping characteristic will change.
2-pole type TA35 is loaded at one pole only, the tripping current will be shifted by factor **1.05**.

3.3.3 Environmetal Condition

Operational temperature range:	- 10°C ... + 55°C
Storage temperature	- 20°C ... + 80°C
Reference temperature:	+ 23°C

Up- / derating factor

CBE tripping behaviour is dependent on temperature	
Ambient temperature (°C)	factor
- 30	0.77
- 20	0.81
- 10	0.86
- 5	0.88
0	0.90
+ 10	0.94
+ 23	***1.00***
+ 30	1.01
+ 40	1.03
+ 50	1.04
+ 60	1.06

Calculation example (only for approximate estimation)

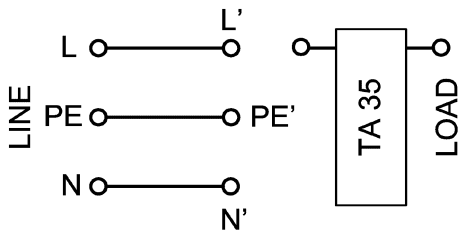
The unit is calibrated for an ambient temperature of + 23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor from the table at the left side.

Example for a 10 Amps, 1 pole type TA35 at 60°C:

Rated current @ +23°C: In (23°C) = 10A
Ambient Temperature: Ta = +60°C
Correction factor: f = 1.06
New rated current @ +40°C: In (60°C) = 10A * 1.06 = 10.6

At an ambient temperature @ +60°C, a CBE with In=10.6A @ 23°C is to choose.

3.4 Diagram



4 Mechanical Data

4.1 Mounting :

Snap-in mounting from the frontside.
This mounting-system has the advantage of a simple and sure mounting.

4.2 Terminals :

Appliance inlet	L / N and PE QC terminal 6.3x0.8 mm acc. to IEC 61210, nickel-plated (Ni) Connection Inlet to CBE with stranded wire insulated AWG14	
Circuit breaker TA35	QC terminal 6.3x0.8 mm acc. to IEC 61210, non-plated	

4.3 Packing and weight :

Original packing	15 pcs.	
Net weight per 1 pcs.	37 gr.	TA35 1-pole, without thermal overload protection
	38 gr.	TA35 1-pole, with 1-pole thermal overload protection

5 Materials

Thermoplastic	Inlet	Circuit breaker TA35		
	Socket	Case	Cover	Rocker
Type	PA 6	PA 66	PA 66	PC
Flame classe UL94	V-0	V-0	V-0	UL94 HB
Comparative tracking index CTI	600 V	600 V	600 V	275 V
Temp.-index RTI, electr.	125° C	150° C	150° C	135° C
UL File-no.	E86034	E53898	E53898	E41613

Live parts: Copper alloy, protected against corrosion.

6 Environmental Condition

6.1 Temperatures :

Operating temperature	- 25° C up to + 70° C for Appliance inlet - 30° C up to + 60° C for TA35
Ambiente temperature	- 25° C up to + 25° C, but occasionally reaching + 35° C for Appliance inlet
Storage temperature	- 40° C up to + 85° C for Appliance inlet - 40° C up to + 60° C for TA35
Climatic category according to IEC 60068-1	25 / 085 / 21 for Appliance inlet 40 / 060 / 21 for TA35

6.2 Vibration and shock resistance :

Resistance to vibration according to IEC 60068-2-6	Test Fc ; Frequency range 10 - 500 Hz, cross-over frequency 60 Hz < 60 Hz constant amplitude of 0.75 mm > 60 Hz constant acceleration of 10 g

6.3 Degree of protection :

Degree of protection	IP40 according to IEC 60529 Front face of Power entry module.

7 Approvals

Country	Certification Body	Type	Mark	File-no.
Europe	VDE	VDE Mark		40025196
U.S.A. / Canada	UL	Certification / Recognition		E 96454
China	CCC	Certificate		2019180204011399

8 Configuration Code

6136 - XXXXXXXXXX-XXX - X X X X - X X X 0

Colour (Frame, Connector and TA35 Flange)
0 = black
1 = white

Locking system
0 = Without
1 = V-Lock

Position Inlet and switch

1 = Position 1 
2 = Position 2  ..... 1)
3 = Position 3  ..... 1)
4 = Position 4  ..... 1)

Mounting
1 = Snap-in 1.0 mm ..... 1)
2 = Snap-in 1.5 mm
3 = Snap-in 2.0 mm
4 = Snap-in 2.5 mm

Terminal PE
1 = Quick connect terminals 6.3x0.8mm

Terminal N
1 = Quick connect 6.3x0.8mm

Terminal L
1 = Quick connect 6.3x0.8mm
4 = Connection

Configuration Code TA35 1-pole

1) Only on request