

IEC Appliance Inlet C20 with Filter, Circuit Breaker TA45 (recessed)

Standard- or Medical-Filter



Description

- Panel Mount :
Screw-on mounting from front side
- 3 Functions :
Appliance Inlet Protection class I , circuit breaker type TA45 2-pole , Line filter in standard and medical version
- Quick connect terminals 6.3 x 0.8 mm

Approvals

- Approval Reference Type: EF12
- VDE Certificate Number: 40001520
- UL File Number: E72928

Characteristics

- All single elements are already wired
- Circuit Breaker non-illuminated or illuminated
- With EMC-shield
- Suitable for use in equipment according to IEC/UL 60950
- Suitable for use in medical equipment according to IEC/UL 60601-1

Other versions on request

- Variant with notch for V-Lock mating Cordsets

References

- Alternative: version without line filter [EF11](#)
- Alternative: Standard version

Weblinks

[pdf datasheet](#), [html-datasheet](#), [General Product Information](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [REACH](#), [Distributor-Stock-Check](#), [Accessories](#), [Detailed request for product](#), [Microsite](#)

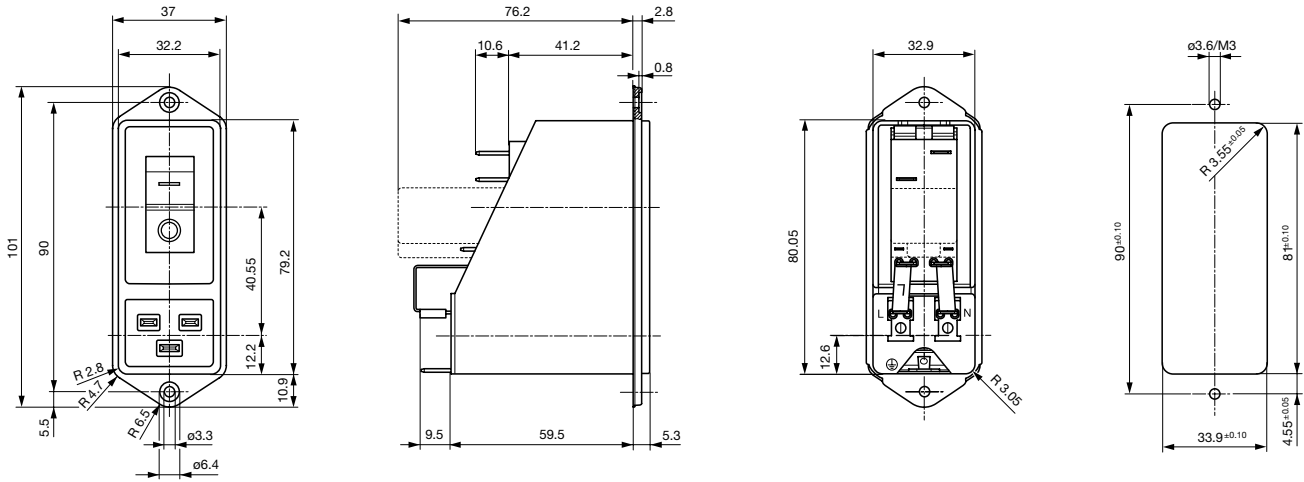
Technical Data

Ratings IEC	12 - 16A @ Ta 40 °C / 250VAC; 50Hz
Ratings UL/CSA	12 - 20A @ Ta 40 °C / 250VAC; 60Hz
Leakage Current	standard < 0.5 mA (250 V / 60Hz) medical < 5 µA (250 V / 60 Hz)
Dielectric Strength	> 1.7kVDC between L-N > 2.7kVDC between L/N-PE Test voltage (2 sec)
Allowable Operation Temperature	-10 °C to 55 °C
Climatic Category	10/055/21 acc. to IEC 60068-1
IP-Protection	from front side IP 40 acc. to IEC 60529
Protection Class	Suitable for appliances with protection class I acc. to IEC 61140
Terminal	Quick connect terminals 6.3 x 0.8 mm
Panel Thickness S	Screw: max 8 mm Mounting screw torque max 0.5 Nm
Material: Housing	Thermoplastic, black, UL 94V-0

appliance inlet/-outlet	C20 acc. to IEC 60320-1, UL 498, CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 °C, 16A, Protection Class I
Circuit Breakers	Acc. IEC/EN 60934, UL 1077, CSA 22.2 no. 235 2-pole rocker switch, illuminated or non-illuminated. Optional with undervoltage- or remote trip release Short circuit capacity Icn: at In < 3A/240VAC : 10 x In at In ≥ 3A/240VAC : 300A
Line Filter	Standard and Medical Version, IEC 60939, UL 1283, CSA C22.2 no. 8 Technical Details
MTBF	> 100'000h acc. to MIL-HB-217 F

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [General Product Information](#)

Dimensions [mm]



* --- Version TA45 with undervoltage release

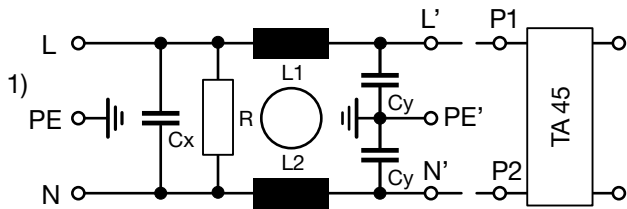
Technical Data of Filter-Components

Rated Current [A]	Filter-Type	Inductances L [mH]	Capacitance CX [nF]	Capacitance CY [nF]	R [MΩ]
12	Standard Version	2 x 0.8	100	2.2	1
16	Standard Version	2 x 0.6	100	2.2	1
20	Standard Version	2 x 0.3	100	2.2	1
12	Medical Version (M5)	2 x 0.8	100	-	1
16	Medical Version (M5)	2 x 0.6	100	-	1
20	Medical Version (M5)	2 x 0.3	100	-	1

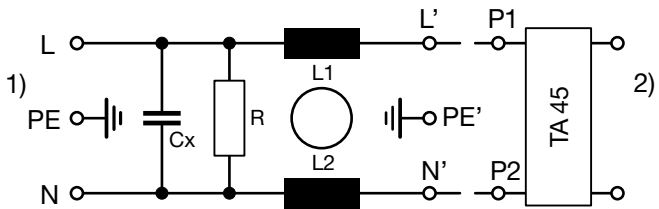
Diagrams

Standard version

Medical version (M5)



2)



2)

1) Line
2) Load

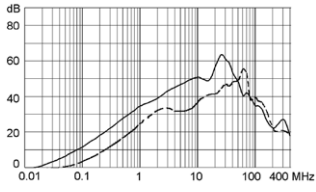
1) Line
2) Load

Attenuation Loss

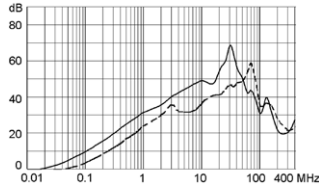
- - - - 50Ω differential mode ____ 50Ω common mode

Standard version

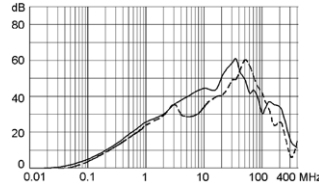
12 A



16 A

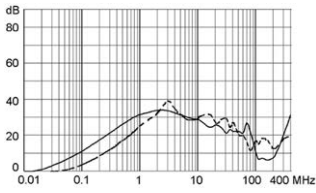


20 A

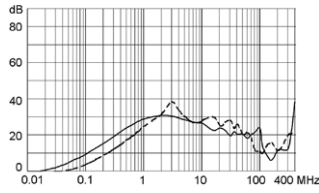


Medical version (M5)

12 A



16 A



20 A

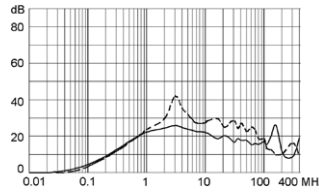
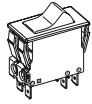


Table 1 Selection for type TA45

Order example

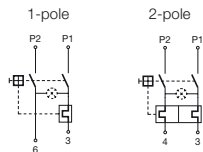


- Circuit Breaker of Equipment
 - 2-pole, rocker actuated
 - Quick connect terminal
- Other types on request

ABT W F 150 C0

Diagram

Thermal overload protection



Without illumination

ABT

ABD

With illumination

220...240 V
110...120 V

A12
A14

A32
A34

Colours

Switch front

- W** black
- B** black
- 6** black

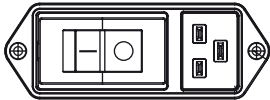
Rocker

- white
- black
-
- orange transp.

Rocker legend

Surface	Illustration	Colour of print	Surface	Illustration	Colour of print
F embossed	— ○		M printed	— ○	black
H printed	ON OFF	white	P printed	I ○	white
K printed	ON OFF	black	R printed	I ○	black
L printed	— ○	white			

Position of the rocker legend
e.g F



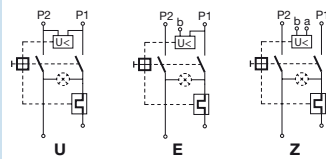
Rated current circuit breaker of equipment

I_n	Code	I_n	Code	I_n	Code	I_n	Code
10,0	100	13,0	130	16,0	160	19,0	190
11,0	110	14,0	140	17,0	170	20,0	200
12,0	120	15,0	150	18,0	180		

Other rated currents on request

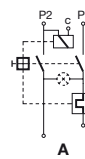
Without release: code C0

Undervoltage release



•	•	•
•	•	•
•	•	•

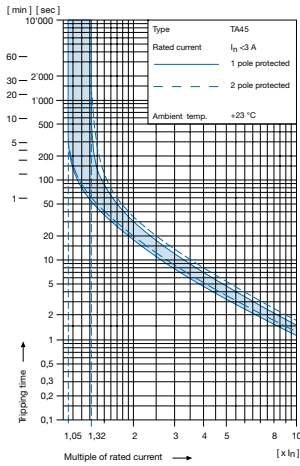
Remote trip release



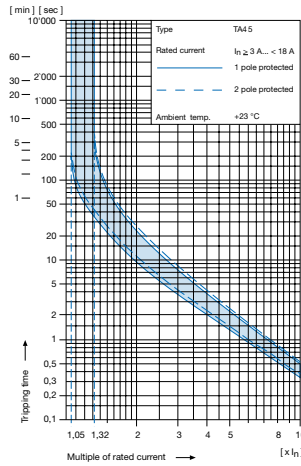
Code	Rated voltage U_n
• 2	240 V AC
• 3	230 V AC
• 4	120 V AC

Technical data (continued)
Circuit breaker

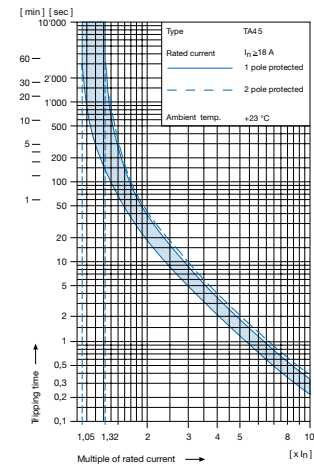
Tripping characteristics
 $I_n < 3 \text{ A}$



Tripping characteristics
 $I_n \geq 3 \dots < 18 \text{ A}$



Tripping characteristics
 $I_n \geq 18 \text{ A}$



1) Effect of ambient temperature

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 on the right side:

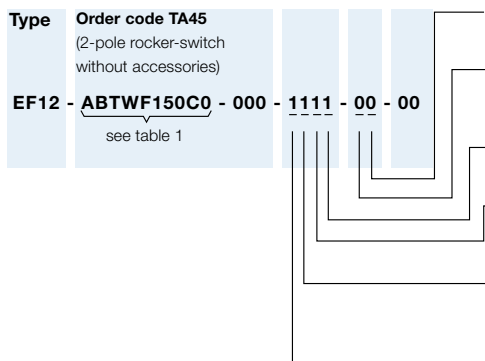
* Ambient temperature [°C]	Correction factor
-10	0,89
-5	0,91
0	0,92
+23	1,00
+30	1,03
+40	1,08
+55	1,16

* Temperature must be measured at the rear of the breaker next to the terminals after equipment operating temperature has been reached.

1) Example

Rated current at +23 °C	6,0 A
Ambient temperature	+40 °C
Correction factor	1,08
Chosen rated current at +40 °C ambient temperature	6 A x 1,08 = 6,5 A

Configuration code (example)



Color

0 black

Interlocking

0 without V-Lock

1 with V-Lock

Terminal PE

1 QC 6.3x0.8

Terminal L and N

1 QC 6.3x0.8, without connection to TA45

3 Connection to TA45 non insulated

Type of mains filter / capacitor / bleed resistor

1 standard X2,Y2 with bleed resistor
 2 medical M5 X2 with bleed resistor

Rated current 1)

1 20 A
 2 16 A
 3 12 A

1) The rated current of the line-filter must be equal or more than the rated current of TA45.

Packaging unit 16 Pcs

Accessories

Description



[Cord retaining kits](#)
 Cord retaining strain relief

Flat head, Z	0888.0021
Flat head, H	4700.0008

Mating Outlets/Connectors

Category / Description



[Connector Overview complete](#)

IEC Connector C19, Rewireable, Straight	4795
IEC Connector C19, Rewireable, Angled	4790
IEC Connector C19, Rewireable, Straight	0104U

[Connector further types to EF12](#)

Mating Outlets/Connectors shuttered



[Power Cord Overview complete](#)

Overview Power Cord with IEC Appliance Connector C19, V-Lock, straight	VAC19KS
--	---------

[Power Cord further types to EF12](#)