

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](#), [RoHS](#), [CHINA-RoHS](#), [REACH](#), [Distributor-Stock-Check](#), [Accessories](#), [Detailed request for product](#)

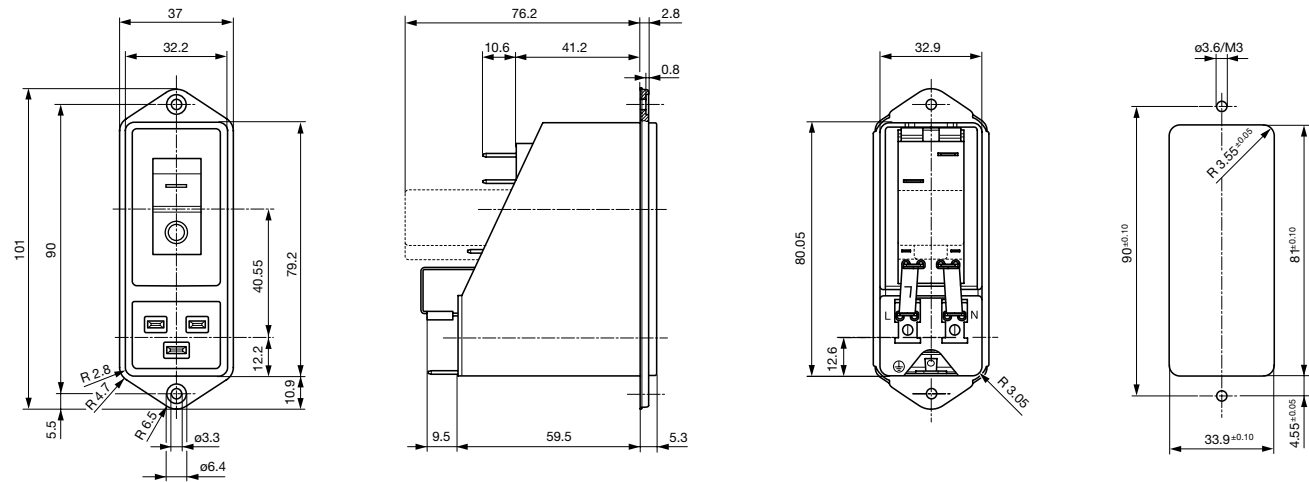
Technical Data

Ratings IEC	12 - 16 A @ Ta 40 °C / 250 VAC; 50Hz
Ratings UL/CSA	12 - 20 A @ Ta 40 °C / 250 VAC; 60Hz
Leakage Current	standard < 0.5 mA (250 V / 60 Hz) medical < 5 µA (250 V / 60 Hz)
Dielectric Strength	> 1.7 kVDC between L-N > 2.7 kVDC 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, 16 A, 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](#)

Dimension



* --- Version TA45 with undervoltage release

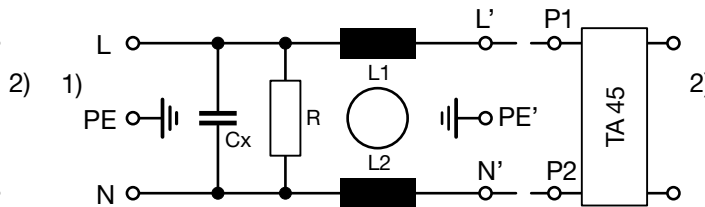
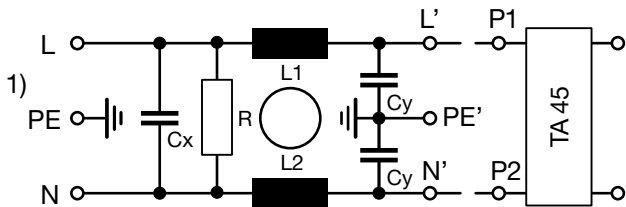
Technical Data of Filter-Components

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)



1) Line
2) Load

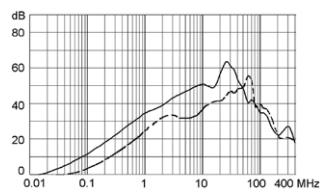
1) Line
2) Load

Attenuation Loss

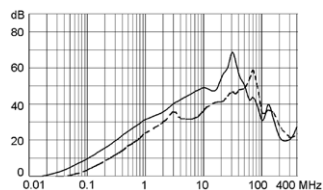
Standard version

--- 50Ω differential mode — 50Ω common mode

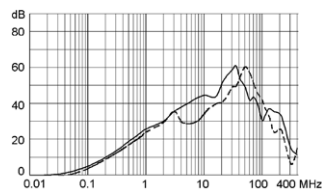
12 A



16 A

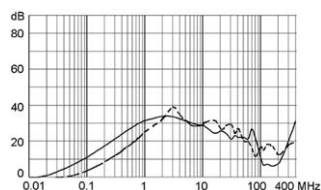


20 A

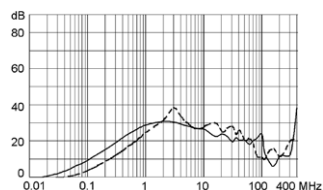


Medical version (M5)

12 A



16 A



20 A

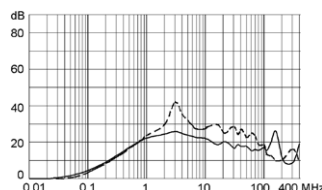
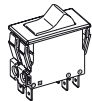


Table 1 Selection for type TA45
Order example



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

Diagram

Thermal overload protection

1-pole

2-pole

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

F embossed

—

○

H printed

ON

OFF

white

K printed

ON

OFF

black

L printed

—

○

white

Surface

Illustration

Colour of print

M printed

—

○

black

P printed

I

○

white

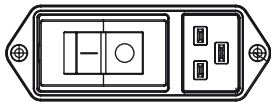
R printed

I

○

black

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

U

E

Z

A

Code

Rated voltage U_n

•

•

•

•

2

3

4

240 V AC

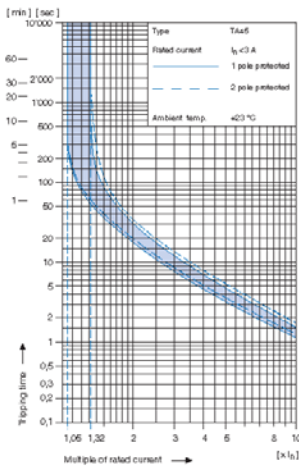
230 V AC

120 V AC

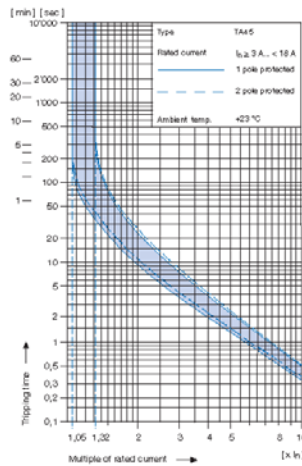
ABT W F 150 C0

Technical data (continued)
Circuit breaker

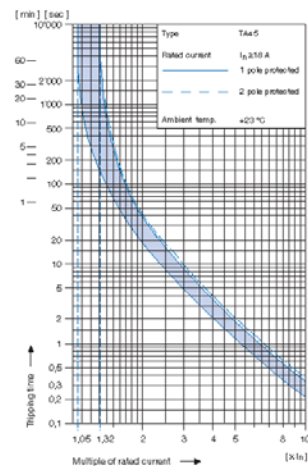
Tripping characteristics
 $I_n < 3 \text{ A}$



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:

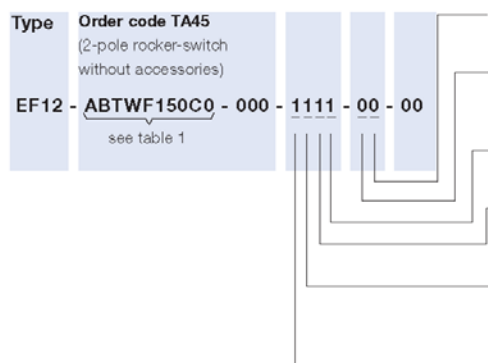
* Ambient temperature [°C]	Correction factor
-10	0,89
-5	0,91
0	0,92
+23	1,00
+30	1,03
+40	1,08
+55	1,16

* 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
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



Assorted Covers
Rear Cover

0859.0109



Cord retaining kits
Cord retaining strain relief

Flat head, Z
Flat head, H

0888.0021
4700.0008

Mating Outlets/Connectors

Category / Description



Connector Overview complete

IEC Connector C19, Rewireable, Straight
IEC Connector C19, Rewireable, Angled
IEC Connector C19, Rewireable, Straight

4795
4790
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