

IEC Appliance Inlet C14 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

- VDE Certificate Number: 40012935
- UL File Number: E72928

Characteristics

- All single elements are already wired
- Line switch non-illuminated or illuminated
Thermal overload protection
Optional with undervoltage- or remote trip release
- 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

- Unwired versions
- Line switch 1-pole
- Other rocker marking
- Medical version M80
- Capacitance CX1
- Variant with notch for V-Lock mating Cordsets

References

Alternative: version without line filter [DF11](#)
Substitute for type [5145](#)
Alternative: Standard version

Weblinks

[pdf-datasheet](#), [html-datasheet](#), [General Product Information](#), [RoHS](#), [CHINA-RoHS](#), [REACH](#), [Mating Connectors](#), [e-Shop](#), [SCHURTER-Stock-Check](#), [Distributor-Stock-Check](#), [Accessories](#)

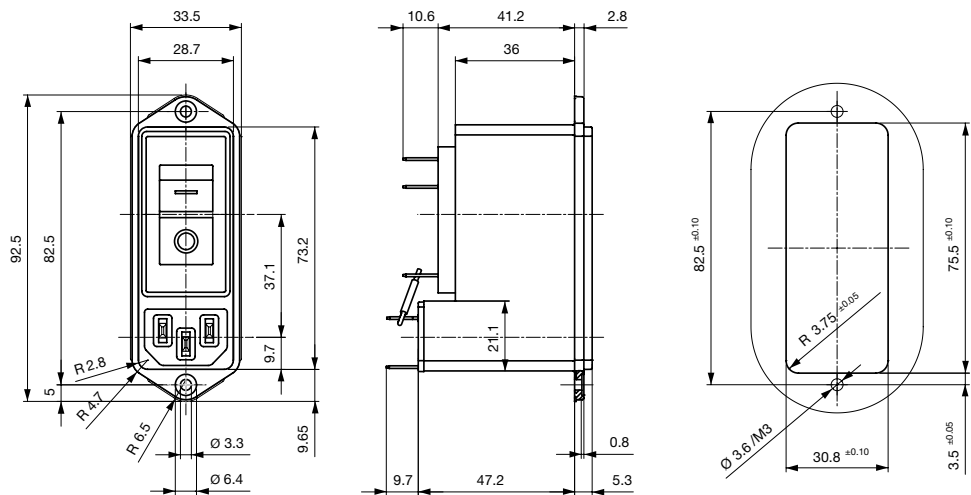
Newly available variants corresponding to V-Lock mating cordset. The connector is equipped with a notch intended for use with the latching cordset. The cord latching system prevents against accidental removal of the cordset.

Technical Data

Ratings IEC	1 - 10A @ Ta 40 °C / 250VAC; 50Hz
Ratings UL/CSA	1 - 15A @ Ta 40 °C / 250VAC; 60Hz
Leakage Current	standard < 0.5mA (250V / 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 Temp.	-10°C to 55 °C
Climatic Category	10/055/21 acc. to IEC 60068-1
Degree of 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 8mm Mounting screw torque max 0.5Nm
Material: Housing	Thermoplastic, black, UL 94V-0

Appliance-Inlet/-Outlet	C14 acc. to IEC 60320 UL 498, CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 °C, 10A, 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 Switch	2-pole non-illuminated or illuminated acc. to IEC 61058-1 Technical Details
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

Dimension



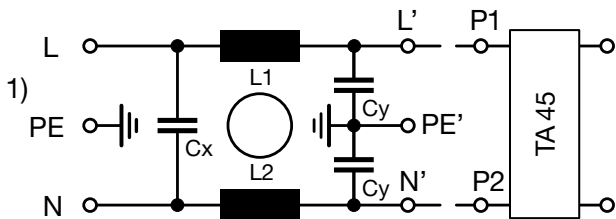
Screw-on version

Technical Data of Filter-Components

Rated Current [A]	Filter-Type	Inductances L [mH]	Capacitance CX [nF]	Capacitance CY [nF]	R [MΩ]
1	Standard Version	2 x 11	100	2.2	1
2	Standard Version	2 x 4	100	2.2	1
3	Standard Version	2 x 2.5	100	2.2	1
4	Standard Version	2 x 1.6	100	2.2	1
6	Standard Version	2 x 0.7	100	2.2	1
8	Standard Version	2 x 0.6	100	2.2	1
10	Standard Version	2 x 0.4	100	2.2	1
15	Standard Version	2 x 0.1	100	2.2	1
1	Medical Version (M5)	2 x 11	100	-	1
2	Medical Version (M5)	2 x 4	100	-	1
3	Medical Version (M5)	2 x 2.5	100	-	1
4	Medical Version (M5)	2 x 1.6	100	-	1
6	Medical Version (M5)	2 x 0.7	100	-	1
8	Medical Version (M5)	2 x 0.6	100	-	1
10	Medical Version (M5)	2 x 0.4	100	-	1
15	Medical Version (M5)	2 x 0.1	100	-	1

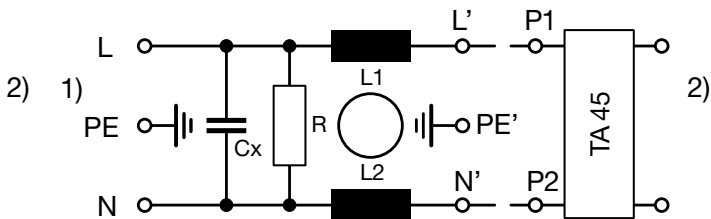
Diagrams

Standard version



1) Line
2) Load

Medical version



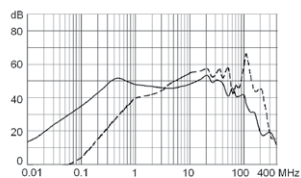
1) Line
2) Load

Attenuation Loss

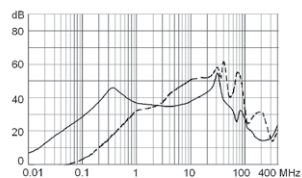
Standard version

- - - differential mode _____ common mode

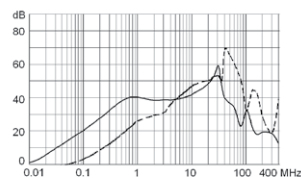
1 A



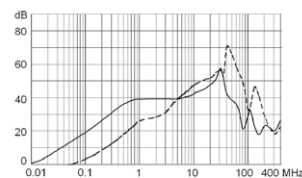
2A



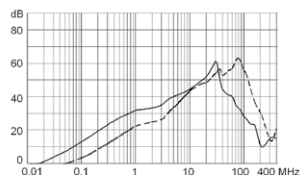
3 A



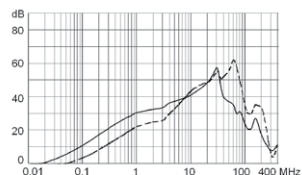
4 A



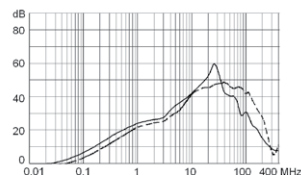
6 A



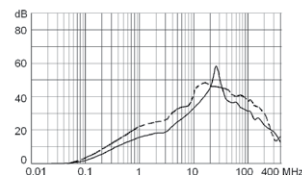
8 A



10 A

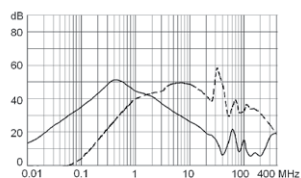


15 A

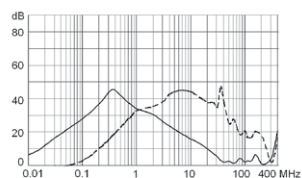


Medical version (M5)

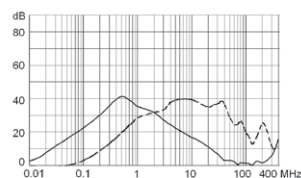
1 A



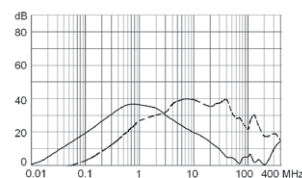
2A



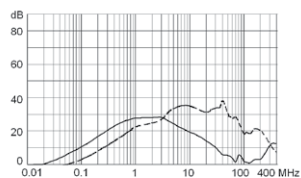
3 A



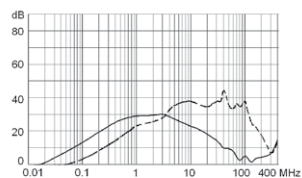
4 A



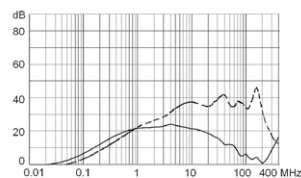
6 A



8 A



10 A



15 A

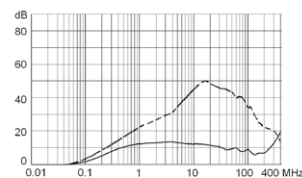


Table 1 Selection for type TA45
Order example



- Line switch
 - 2-pole, rocker actuated
 - Quick connect terminal
- Other types on request

Diagram

Thermal overload protection		without	with 1-pole	with 2-pole
Without illumination				
		ABC	ABT	ABD
With illumination	220...240 V	A02	A12	A32
	110...120 V	A04	A14	A34

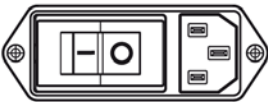
Colours

Switch front		Rocker	
W	black	white	—
B	black	black	—
6	black	—	orange transp.

Rocker legend

Surface	Illustration	Colour of print	Surface	Illustration	Colour of print
F	embossed / Relief	—	M	printed	—
H	printed / bedruckt	ON OFF	P	printed	I
K	printed / bedruckt	ON OFF	R	printed	I
L	printed / bedruckt	—			

Position of the rocker legend
e.g F



Rated current:

- Without thermal overload protection: code C00 } $I_n = 20\text{ A}$
- With thermal overload protection: rated current I_n (A)

I_n	Code	I_n	Code	I_n	Code	I_n	Code
0,1	J01	1,3	J13	2,8	J28	10,0	100
0,2	J02	1,4	J14	3,0	030	11,0	110
0,3	J03	1,5	J15	3,5	035	12,0	120
0,4	J04	1,6	J16	4,0	040	13,0	130
0,5	J05	1,7	J17	4,5	045	14,0	140
0,6	J06	1,8	J18	5,0	050	15,0	150
0,7	J07	1,9	J19	6,0	060		
0,8	J08	2,0	J20	6,5	065		
0,9	J09	2,1	J21	7,0	070		
1,0	J10	2,2	J22	7,5	075		
1,1	J11	2,3	J23	8,0	080		
1,2	J12	2,5	J25	9,0	090		

Without release: code C0

Undervoltage release

U	E	Z
•	•	•
•	•	•
•	•	•

Remote trip release

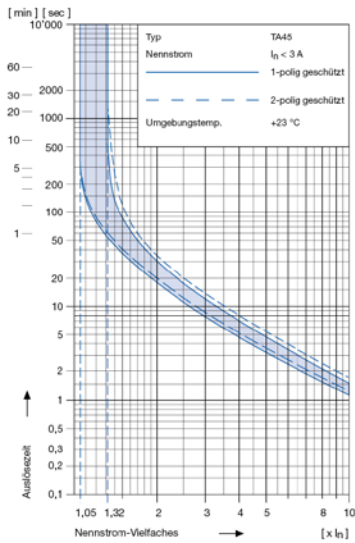
A	Code	Rated voltage U_n
	2	240 V AC
•	3	230 V AC
•	4	120 V AC

Technical data (continued)

Circuit breaker

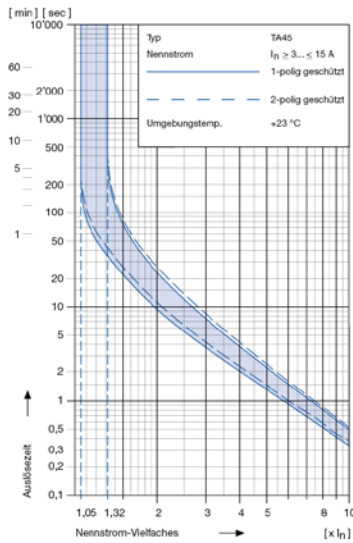
Tripping characteristics

$I_n < 3 \text{ A}$



Tripping characteristics

$I_n \geq 3 \dots \leq 15 \text{ A}$



Effect of ambient temperature ¹⁾

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 below.

* 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

Order code (Order example)

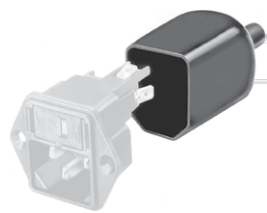
Type	Order code TA 45 (2-pole rocker-switch without accessories)	Specials
DF12	A B T W F 1 5 0 C 0	21 V-Lock notch
	see table 1	Wiring
		1 wired
		2 unwired
		Mounting
		0 Screw
		Terminals
		1 Quick connect 6.3 x 0.8
		Filter Version
		1 Standard
		3 Medical M5
		Rated Current Filter
		1 = 1A 5 = 6A
		2 = 2A 6 = 8A
		3 = 3A 7 = 10A
		4 = 4A 9 = 15A

Please note that Schurter will establish an internal part number for logistical use in addition to the order code. The format of this internal part number is, for example DF12.xxxxxx

Packaging unit 20 Pcs

Accessories

Description



Assorted Covers
Rear Cover

Mating Outlets/Connectors

Category / Description



Appliance Outlet Overview complete

IEC Appliance Outlet F, Screw-on Mounting, Front Side, Solder Terminal	4787
IEC Appliance Outlet F, Snap-in Mounting, Front Side, Solder or Quick-connect Terminal	4788
IEC Appliance Outlet F or H, Screw-on Mounting, Front Side, Solder, PCB or Quick-connect Terminal	5091

Appliance Outlet further types to DF12



Connector Overview complete

IEC Connector C15A, Rewireable, Straight	0102
IEC Connector C15A, Rewireable, Straight	0102-G
IEC Connector C15A, Rewireable, Angled	0112
IEC Connector C13, Rewireable, Angled	4012
IEC Connector C13, Rewireable, Straight	4022

Connector further types to DF12

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Mating Outlets/Connectors shuttered



Power Cord Overview complete

Overview Power Supply Cord with IEC Connector C13, V-Lock, straight	VAC13KS
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Power Cord further types to DF12