

IEC Appliance Inlet C14 or C18 with Filter, Circuit Breaker TA45



Protection class I with shield



Protection class II without shield



Approvals and Compliances

Description

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

Unique Selling Proposition

- Compact power entry module with circuit breaker
- High configurability
- Easy assembly with prewired modules
- Protection class I or II

Characteristics

- All single elements are already wired
- Unwired versions available on request
- Circuit Breaker non-illuminated or illuminated
- Suitable for use in equipment according to IEC/UL 60950
- Suitable for use in medical equipment according to IEC/UL 60601-1

References

Alternative: version without line filter [6145](#)
 We recommend for new applications the new type [DF12](#)

Weblinks

[pdf datasheet](#), [html-datasheet](#), [General Product Information](#), [Distributor-Stock-Check](#), [Accessories](#), [Detailed request for product](#), [Microsite](#)

Technical Data

Ratings IEC	1 - 10A @ Ta 40 °C / 250 VAC; 50Hz
Ratings UL/CSA	1 - 15A @ Ta 40 °C / 125 VAC; 60Hz
Leakage Current	standard < 0.5 mA (250 V / 60Hz) 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 or II 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	C14 or C18 acc. to IEC 60320-1, UL 498, CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 °C, 10A, Protection Class I or II
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

Approvals and Compliances

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

Approvals








The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products.

Approval Reference Type: 5145

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	Certificate Number: 40035745
	UL Approvals	UL	UL File Number: E72928



Product standards

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	IEC 60320-1	Appliance couplers for household and similar general purposes
	Designed according to	IEC 60939	Passive filters for suppressing electromagnetic interference
	Designed according to	IEC 61058-1	Switches for appliances. Part 1. General requirements
	Designed according to	UL 498	Standard for Attachment Plugs and Receptacles
	Designed according to	UL 1283	Electromagnetic interference filters
	Designed according to	CSA C22.2 no. 42	General Use Receptacles, Attachment Plugs, and Similar Wiring Devices
	Designed according to	CSA C22.2 no. 8	Electromagnetic interference (EMI) filters






Application standards

Application standards where the product can be used

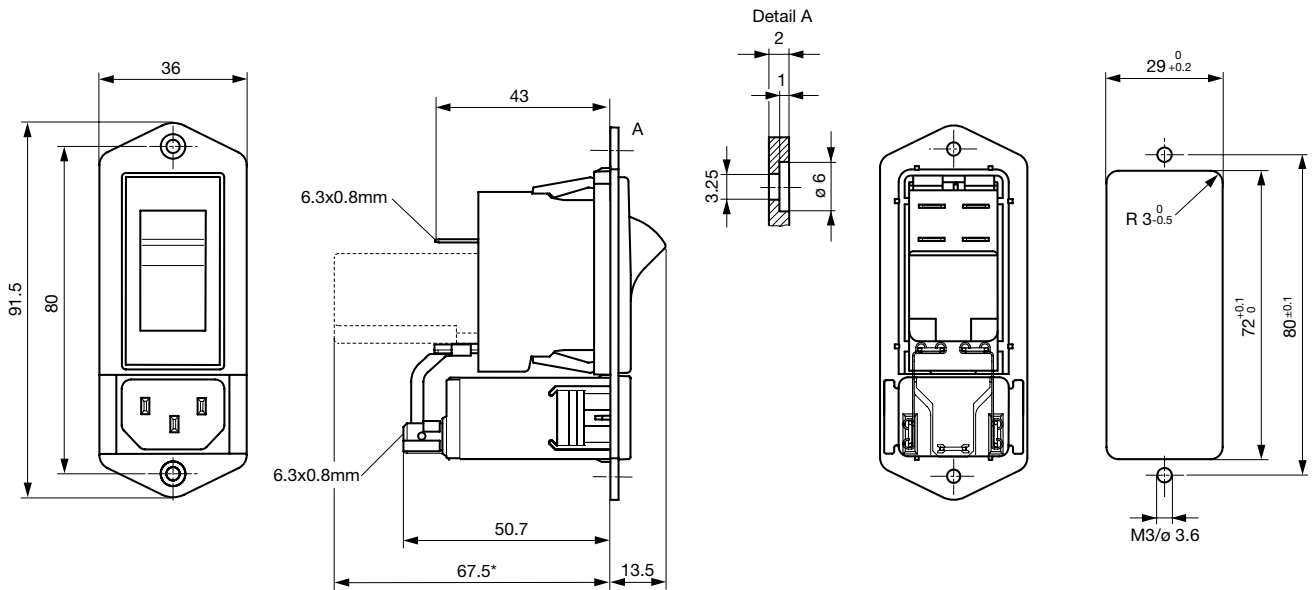
Organization	Design	Standard	Description
	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technology equipment.
	Designed for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
	China RoHS	SCHURTER AG	The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.
	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.
	Medical Equipment	SCHURTER AG	Suitable for use in medical equipment according to IEC/UL 60601-1

Dimension [mm]



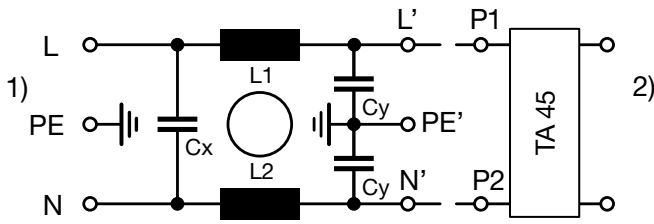
* --- Version TA45 with undervoltage release

Technical Data of Filter-Components

Rated Current [A]	Filter-Type	Inductances L [mH]	Capacitance CX [nF]	Capacitance CY [nF]	R [MΩ]
1	Standard Version	2 x 11	47	2.2	-
2	Standard Version	2 x 4	47	2.2	-
3	Standard Version	2 x 2.5	47	2.2	-
4	Standard Version	2 x 1.6	47	2.2	-
6	Standard Version	2 x 0.7	47	2.2	-
8	Standard Version	2 x 0.6	47	2.2	-
10	Standard Version	2 x 0.4	47	2.2	-
15	Standard Version	2 x 0.1	47	2.2	-
1	Medical Version (M5)	2 x 11	47	-	1
2	Medical Version (M5)	2 x 4	47	-	1
6	Medical Version (M5)	2 x 0.7	47	-	1
8	Medical Version (M5)	2 x 0.6	47	-	1
10	Medical Version (M5)	2 x 0.4	47	-	1
15	Medical Version (M5)	2 x 0.1	47	-	1

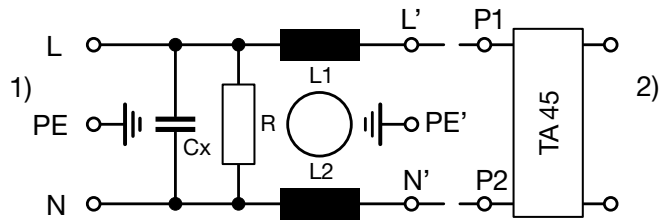
Diagrams

Standard version



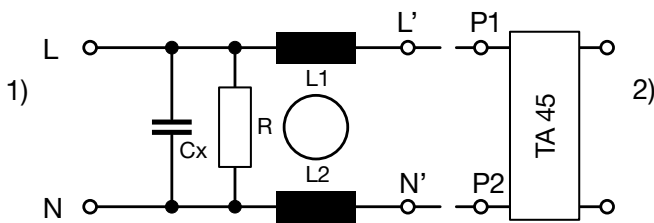
1) Line
 2) Load

Medical version (M5)



1) Line
 2) Load

Medical filter (M5) protection class II

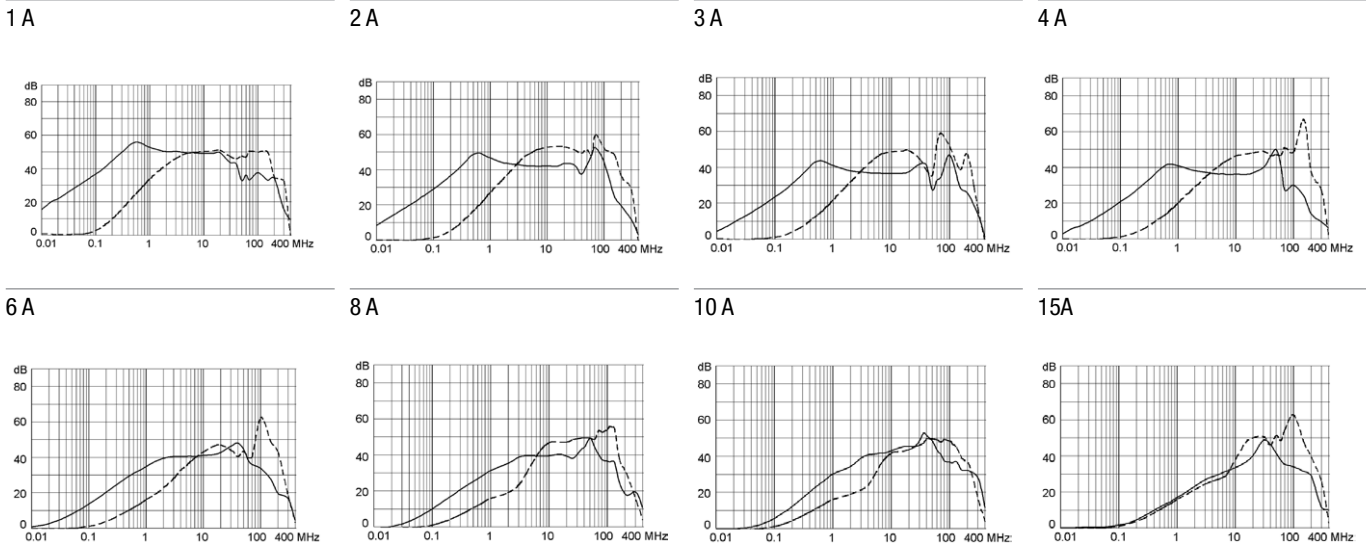


1) Line
 2) Load

Attenuation Loss

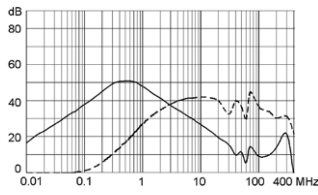
--- 50Ω differential mode ___ 50Ω common mode

Standard version

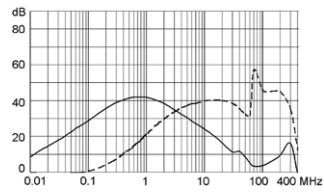


Medical version (M5)

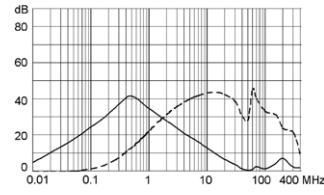
1 A



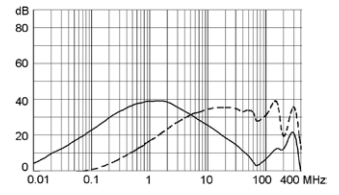
2 A



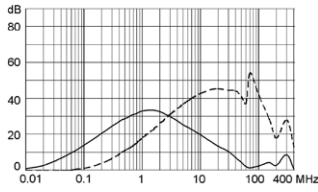
3 A



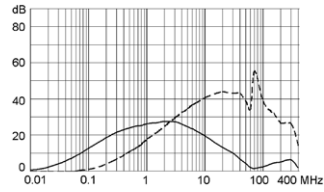
4 A



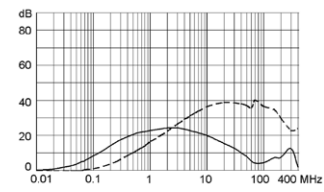
6 A



8 A



10 A



15 A

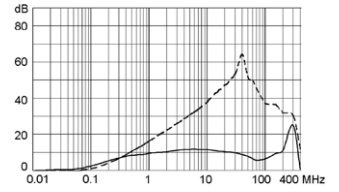


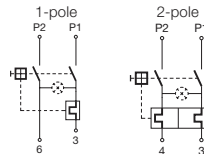
Table 1 Selection for type TA45
 Order example



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

Diagram

Thermal overload protection



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.

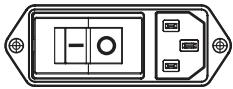
ABT **W** **F** **150** **C0**

Rocker legend

Surface	Illustration	Colour of print
F embossed / Relief	— ○	
H printed / bedruckt	ON OFF	white / weiss
K printed / bedruckt	ON OFF	black / schwarz
L printed / bedruckt	— ○	white / weiss

Surface	Illustration	Colour of print
M printed	— ○	black
P printed	I ○	white
R printed	I ○	black

Position of the rocker legend
 e.g F

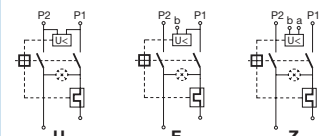


Rated current circuit breaker of equipment

I_n	Code	I_n	Code	I_n	Code	I_n	Code
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	20,0	200
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		

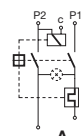
Without release: code C0

Undervoltage release



•	•	•
•	•	•
•	•	•

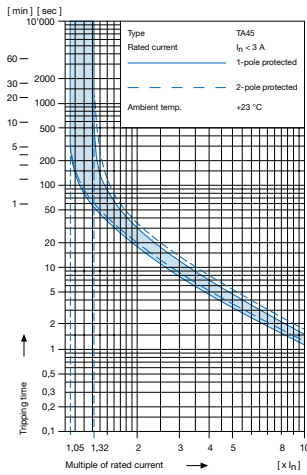
Remote trip release



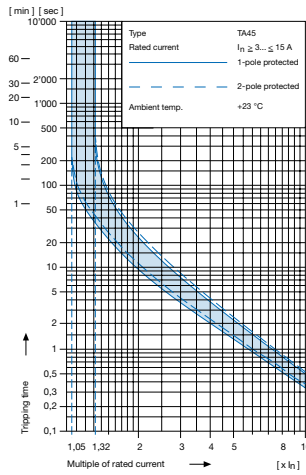
Code	Rated voltage U_n
•	2 240 V AC
•	3 230 V AC
•	4 120 V AC

Technical data (continued)
Circuit breaker

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



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



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.

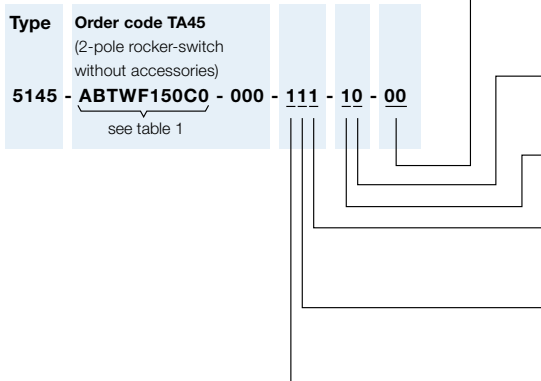
* Ambient temperature [°C]	Correction factor
-10	0,89
- 5	0,91
0	0,92
+23	1,00
+30	1,03
+40	1,08
+55	1,16

* 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

Configuration code (example)



Optional Variants

- 00** standard
- 21** V-Lock notch

Terminal PE

- 0** without (PCII)
- 1** QC 6.3x0.8

Terminal L and N

- 1** QC 6.3x0.8, without connection to TA45
- 3** Connection to TA45 non insulated

Metal Shield Filter

- 0** with metal shield (PCI)
- 1** without metal shield (PCI and PCII)

Type of mains filter / capacitor / bleed resistor

- 1** standard X2,Y2 without ¹⁾
- 3** medical M5 X2 with

Rated current

- 1** 1A
- 2** 2A
- 3** 3A
- 4** 4A
- 5** 6A
- 6** 8A
- 7** 10A
- 8** 15A

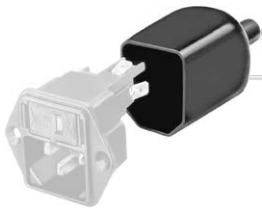
1) Not in conjunction with PC II

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

Packaging unit 20 Pcs

Accessories

Description



Assorted Covers
 Rear Cover

0859.0074

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 5145

Connector Overview complete



4782 Mounting: Power Cord, 3 x 1 mm ² / 3 x 18 AWG, Cable, Connector: IEC C13	4782
4022 Mounting: Power Supply Cord, 3 x 1.5 mm ² , Screw clamps, Connector: IEC C13	4022
4785 Mounting: Power Cord, 3 x 1 mm ² / 3 x 18 AWG, Cable, Connector: IEC C13	4785
4300-06 Mounting: Power Cord, 3 x 1 mm ² / 3 x 18 AWG, Cable, Connector: IEC C13	4300-06
4012 Mounting: Power Supply Cord, 3 x 1.5 mm ² , Screw clamps, Connector: IEC C13	4012

Connector further types to 5145

Mating Outlets/Connectors shuttered



Power Cord Overview complete

Power cord with IEC connector C17, V-Lock, straight	VAC17KS
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Power Cord further types to 5145

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Schurter:

[5-ABTWF150C0-811](#) [5-ABTWF150C0-831](#) [5-ABTWF050C0-531](#) [5-ABTWF050C0-511](#) [5-ABDWF150C0-811](#) [5-ABDWF150C0-831](#) [5-ABDWF050C0-511](#) [5-ABDWF050C0-531](#) [5-ABDWF100C0-711](#) [5145.3000.830](#) [5145.0012.511](#)
[5145.0012.711](#) [5145.0022.711](#) [5145.0031.830](#) [5145.0040.211](#) [5145.0423.611](#) [5145.0470.730](#) [5145.0470.731](#)
[5145.0470.831.01](#) [5145.0551.511](#) [5145.0562.411](#) [5145.0646.611](#) [5145.0764.831](#) [5145.0861.830](#) [5145.0879.310](#)
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[5145.0470.711](#) [5145.0586.511](#) [5145.0586.531](#) [5145.0847.511](#) [5145.0847.531](#) [5145.0885.811](#) [5145.0885.831](#)
[5145.0991.510](#) [5145.1477.711](#) [5145.2217.711](#) [5145.ABDWF100C0.811](#) [5145.0470.831](#) [5145.0022.731](#)
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