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

Protection class I with shield

Protection class II without shield

C14 C18

70° C

70° C

See below:
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
- For applications according IEC/UL 62368-1 we recommend variants with bleed resistor
  Suitable for use in medical equipment according to IEC/UL 60601-1

References

Alternative: version without line filter 6145
We recommend for new applications DF12

Weblinks

pdf data sheet, html datasheet, General Product Information, Approvals, Distributor-Stock-Check, Accessories, Detailed request for product, Microsite, Landing Page

Technical Data

Ratings IEC	1 - 10 A @ Ta 40 °C / 250 VAC; 50 Hz
Ratings UL/CSA	1 - 15 A @ Ta 40 °C / 250 VAC; 60 Hz
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 IP40 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, 10 A, 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	> 100'000 h 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

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

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

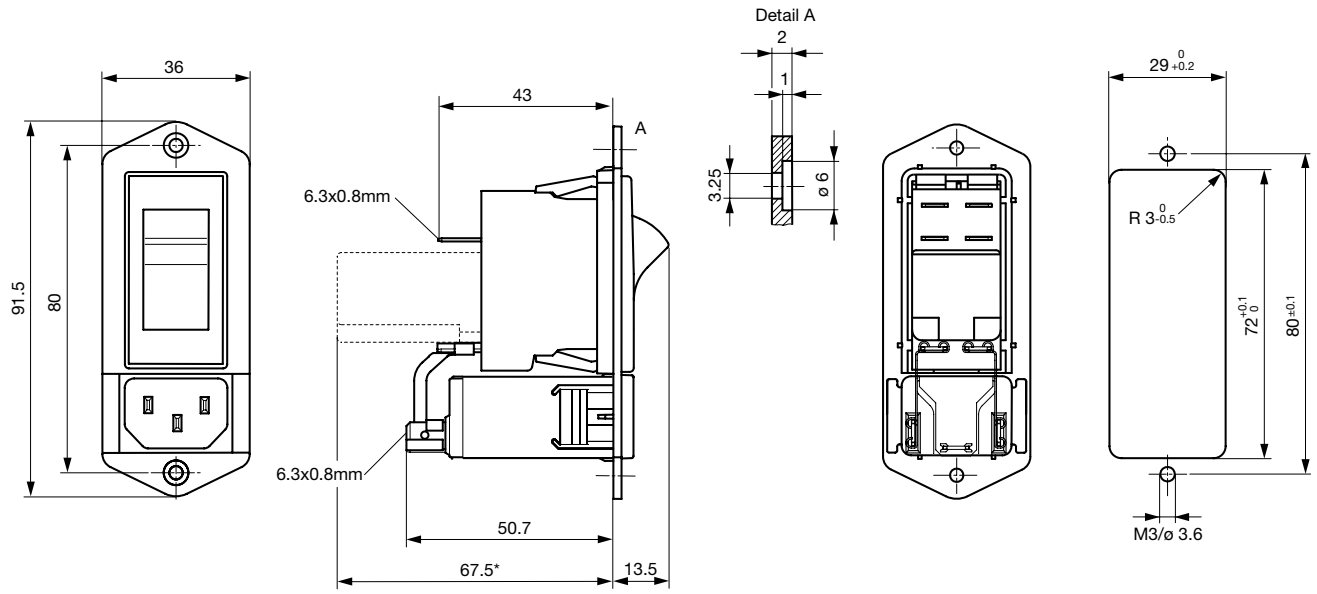
Organization	Design	Standard	Description
	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.
	Designed for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements 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	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
	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 Technology	SCHURTER AG	Suitable for use in medical equipment according to IEC/UL 60601-1

Dimension [mm]



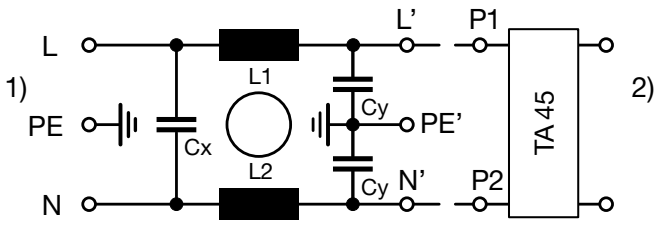
* --- Version TA45 with undervoltage release

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

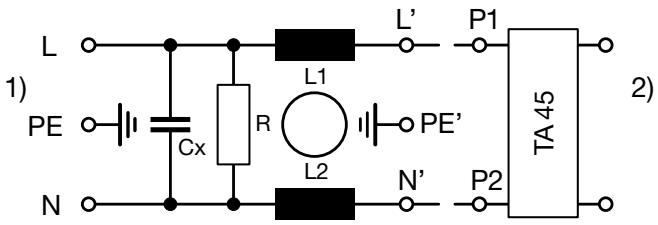
Diagrams

Standard version



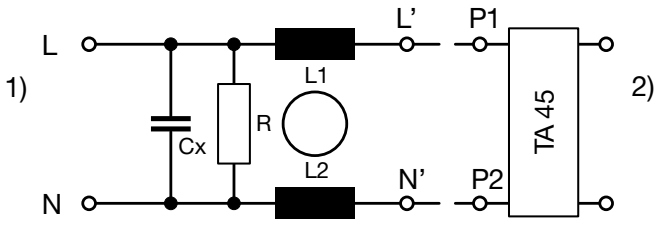
1) Line
2) Load

Medical Version (M5)



1) Line
2) Load

Medical filter (M5) protection class II



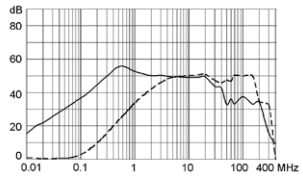
1) Line
2) Load

Attenuation Loss

- - - - 50Ω differential mode _____ 50Ω common mode

Standard version

1 A



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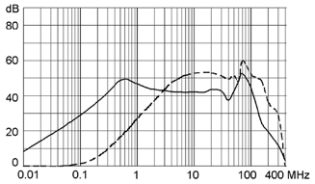

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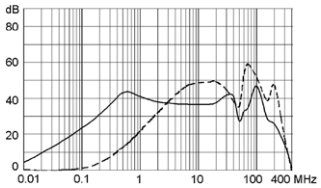

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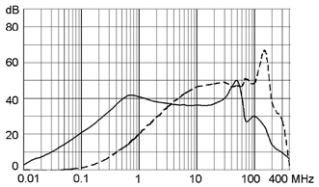

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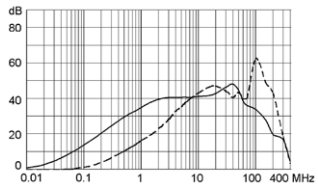

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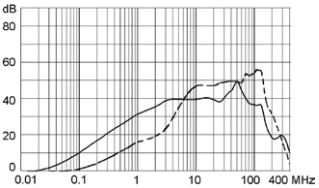

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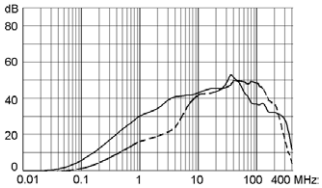
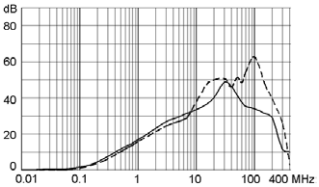
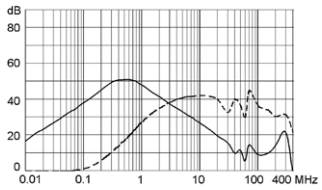


15A

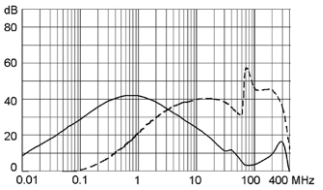


Medical version (M5)

1 A



2 A



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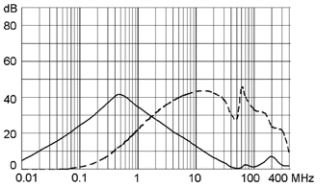
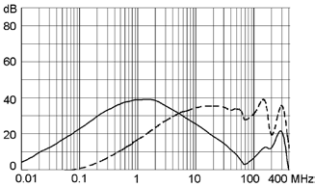


4 A



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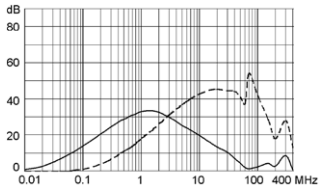

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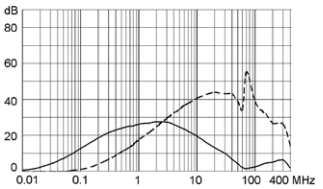

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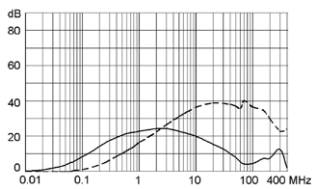

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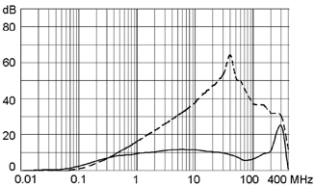


Effect of ambient temperature

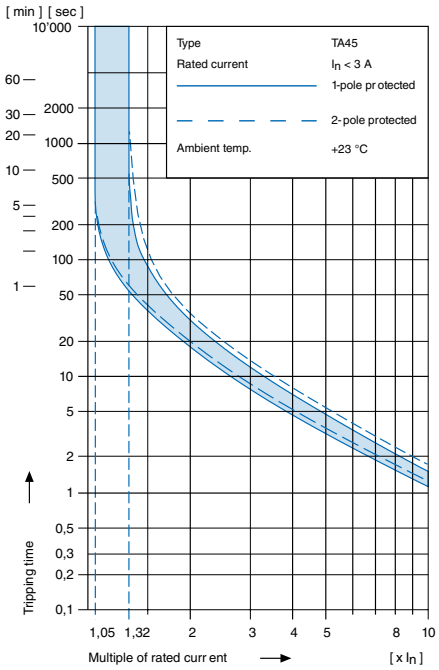
The units are calibrated for an ambient temperature of +23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor (typical value) from the table below:

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

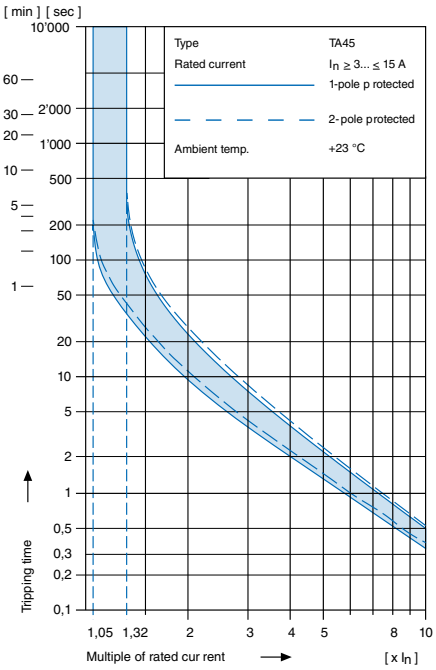
Example: Rated current = 5 A, Environmental temperature = 40 °C, --> Correction factor = 1.08, Resulting current = 5.5 A --> Fount to next higher rated current: 6 A

Time-Current-Curves

Tripping Characteristics I_n < 3 A

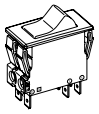


Tripping Characteristics In ≥ 3 ... ≤ 15 A



Configuration code TA45

Type	Configuration code TA45				
5145-	ABTWF150C0	- 000	- 111	- 10	- 00

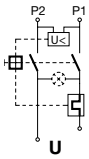


- Circuit Breaker of Equipment
- 2-pole, rocker actuated
- Quick connect terminal

Other types on request

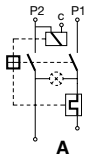
Without release: code C0

Undervoltage release



U	E	Z	A	Code	Rated voltage U_n
•	•	•	•	**2**	240 V AC
•	•	•	•	**3**	230 V AC
•	•	•	•	**4**	120 V AC

Remote trip release



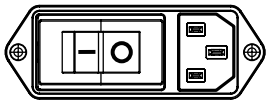
Rated current circuit breaker of equipment

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**		

Rocker legend

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

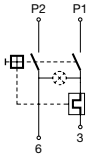
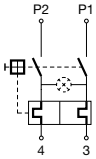
Position of the rocker legend e.g F



Colours

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

Diagram

Thermal overload protection		1-pole	2-pole
			
Without illumination		**ABT**	**ABD**
With illumination	220…240 V	**A12**	**A32**
	110…120 V	**A14**	**A34**

Configuration code (Order example)

Type	Configuration code TA45				
5145-	ABTWF150C0	- 000	- 111	- 10	- 00

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 fi lter / capacitor / bleed resistor

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

Rated current 2)
1 1A
2 2A
3 3A
4 4A
5 6A
6 8A
7 10A

1) Not in conjunction with PC II
2) The rated current of the line-filter must not be exceeded in the end application.

Packaging unit 20 Pcs

Accessories

Description	
Assorted Covers	
Rear Cover	
	0859.0074

Mating Outlets/Connectors

Category / Description	
Appliance Outlet Overview complete	
4787, Mounting: Screw-on mounting, Appliance Outlet: IEC Solder terminals, 10 A, Suitable for appliances with protection class I	4787
4788, Mounting: Snap-in version, Appliance Outlet: IEC Solder terminals or quick connect terminals, 10 A, Suitable for appliances with protection class I	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 mm² / 3 x 18 AWG, Cable, Connector: IEC C13	4782
4785 Mounting: Power Cord, 3 x 1 mm² / 3 x 18 AWG, Cable, Connector: IEC C13	4785
4012 Mounting: Power Supply Cord, 3 x 1 mm², Screw clamps, Connector: IEC C13	4012
4300-06 Mounting: Power Cord, 3 x 1 mm² / 3 x 18 AWG, Cable, Connector: IEC C13	4300-06
4781 Mounting: Power Cord, 3 x 1 mm² / 3 x 18 AWG, Cable, Connector: IEC C15	4781
Connector further types to 5145	...

Mating Outlets/Connectors shuttered

Power Cord Overview complete	
VAC17KS, V-Lock cord retaining, diverse m, Connector IEC C17, diverse, black / grey / white	VAC17KS
Power Cord further types to 5145	

22.05.2020

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 5145.0880.110 5145.0881.111 5145.0882.211 5145.0885.810 5145.0885.831.01 5145.0890.831 5145.0893.711 5145.0990.531 5145.0991.511 5145.0991.531 5145.0991.611 5145.1034.811 5145.1184.631 5145.1271.311 5145.1356.411 5145.1593.731 5145.1698.811 5145.2091.411 5145.2166.111 5145.2451.211 5145.2754.811 5145.2755.811 5145.2770.811 5145.2772.731 5145.2773.811 5145.2773.831 5145.2774.131 5145.2775.231 5145.2810.511 5145.2841.111 5145.2844.411 5145.2851.811 5145.2857.511 5145.2858.230 5145.2882.811 5145.2956.111 5145.3000.811 5145.3303.831 5145.3417.811 5145.3583.510 5145.0031.811 5145.0031.831 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 5145.0429.611 5145.2090.211 5145.3768.711 5145.0646.631 5145.0470.811 5145.0991.611.01 5145.0885.835.21 5145.0022.611 5145.0646.610 5145.2858.231