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

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 - 10 A @ Ta 40 °C / 250 VAC; 50 Hz
Ratings UL/CSA	1 - 15 A @ Ta 40 °C / 125 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 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, 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

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

Application standards

Application standards where the product can be used

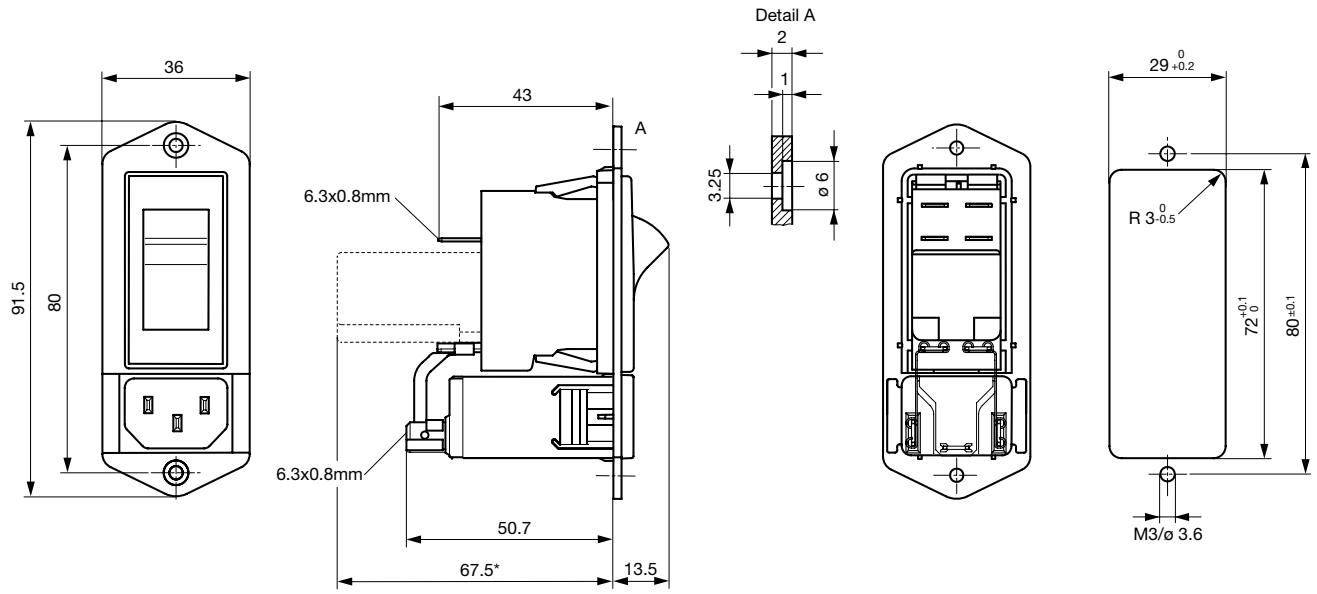
Organization	Design	Standard	Description
IEC	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technologyequipment.
IEC	Designed for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements for basic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

Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
CE	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 COMPLIANT	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
50	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	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]



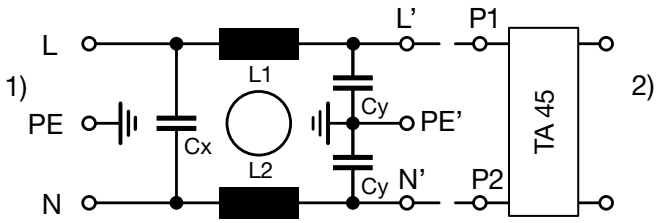
* --- Version TA45 with undervoltage release

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

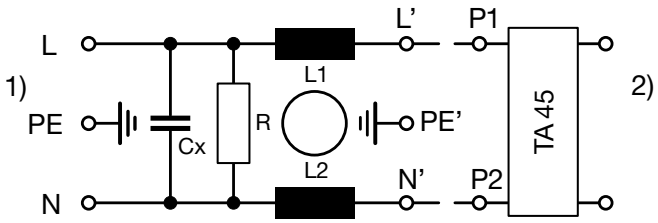
Diagrams

Standard version



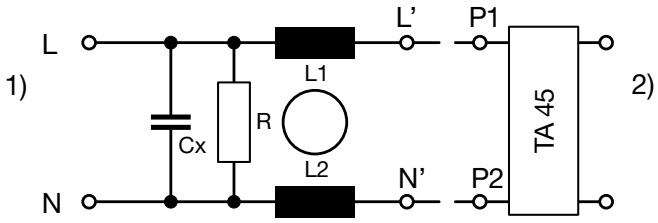
1) Line
2) Load

Medical version (M5)



1) Line
2) Load

Medical filter (M5) protection class II



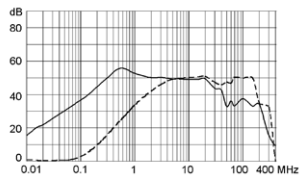
1) Line
2) Load

Attenuation Loss

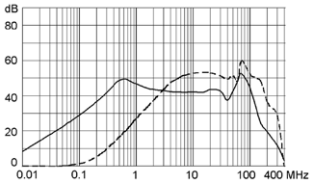
- - - - 50Ω differential mode _____ 50Ω common mode

Standard version

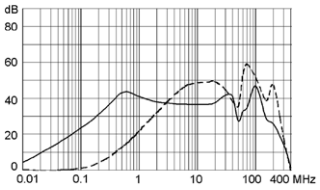
1 A



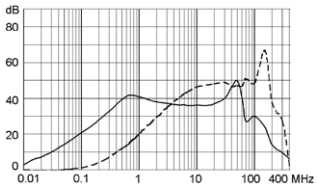
2 A



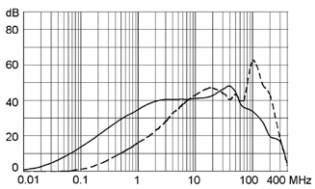
3 A



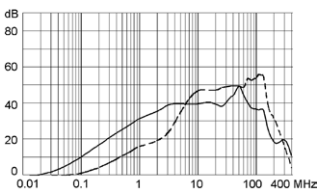
4 A



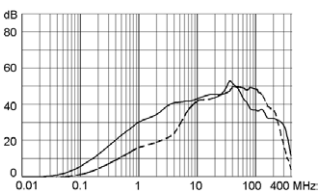
6 A



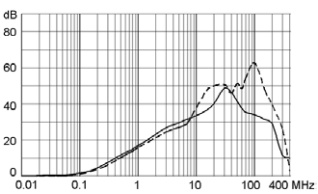
8 A



10 A

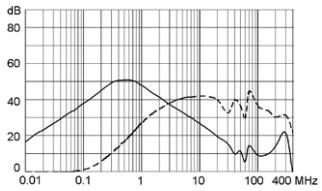


15A

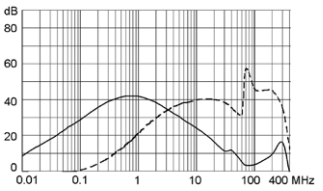


Medical version (M5)

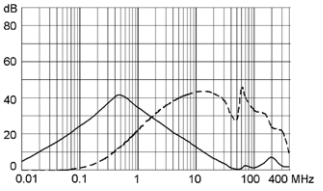
1 A



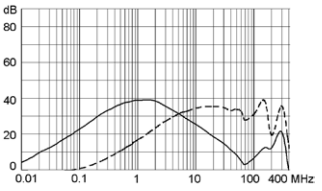
2 A



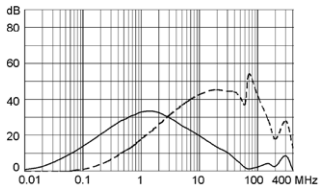
3 A



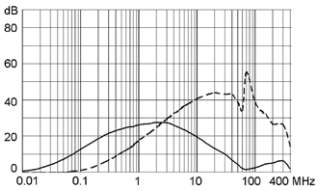
4 A



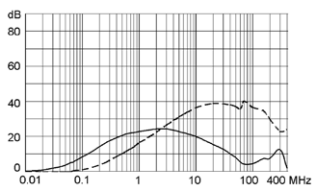
6 A



8 A



10 A



15A

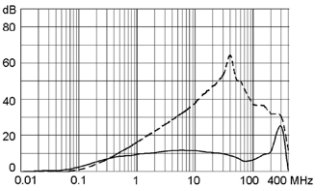


Table 1 Selection for type TA45
Order example

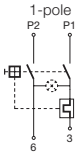
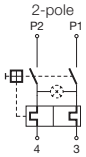
ABT	W	F	150	C0



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

Other types on request

Diagram

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

Colours

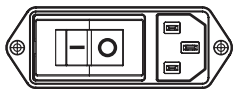
Switch front		Rocker	
W	black	white	–
B	black	black	–
6	black	–	orange transp.

Rocker legend

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

	Surface	Illustration	Colour of print
M	printed	– O	black
P	printed	I O	white
R	printed	I O	black

Position of the rocker legend
e.g F

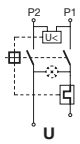
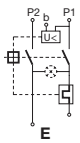
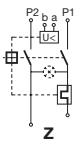


Rated current circuit breaker of equipment

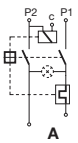
I_n	Code	I_n	Code	I_n	Code	I_n	Code
0,1	**J01**	1,3	**J13**	2,8	**J28**	10,0	**100**
0,2	**J02**	1,4	**J14**	3,0	**030**	11,0	**110**
0,3	**J03**	1,5	**J15**	3,5	**035**	12,0	**120**
0,4	**J04**	1,6	**J16**	4,0	**040**	13,0	**130**
0,5	**J05**	1,7	**J17**	4,5	**045**	14,0	**140**
0,6	**J06**	1,8	**J18**	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

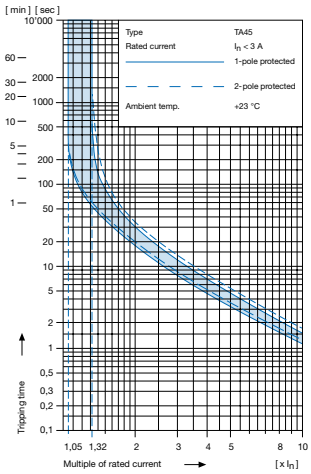
 U	 E	 Z
•	•	•
•	•	•
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Remote trip release

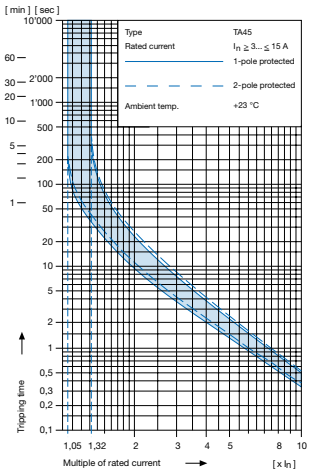
 A	Code	Rated voltage U_n
•	**2**	240 V AC
•	**3**	230 V AC
•	**4**	120 V AC

Technical data (continued)
Circuit breaker

Tripping characteristics
I_n < 3 A



Tripping characteristics
$I_n \geq 3... \leq 15$ 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)

Type	Order code TA45 (2-pole rocker-switch without accessories)				
5145 -	ABTWF150C0 (see table 1)	- 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 filter / 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
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 mm² / 3 x 18 AWG, Cable, Connector: IEC C13	4782
4022 Mounting: Power Supply Cord, 3 x 1.5 mm², Screw clamps, Connector: IEC C13	4022
4785 Mounting: Power Cord, 3 x 1 mm² / 3 x 18 AWG, Cable, Connector: IEC C13	4785
4300-06 Mounting: Power Cord, 3 x 1 mm² / 3 x 18 AWG, Cable, Connector: IEC C13	4300-06
4012 Mounting: Power Supply Cord, 3 x 1.5 mm², 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
Power Cord further types to 5145	

02.12.2017

The specifications, descriptions and illustrations indicated in this document are based on current information. All content is subject to modifications and amendments. Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability and test each product selected for their own applications.