

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



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

Characteristics

- All single elements are already wired
- 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

Other versions on request

- Unwired versions
- 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](#), [Distributor-Stock-Check](#), [Accessories](#), [Detailed request for product](#), [Microsite](#)

Technical Data

| | |
|---------------------------------|---|
| Ratings IEC | 1 - 10A @ T _a 40 °C / 250 VAC; 50Hz |
| Ratings UL/CSA | 1 - 15A @ T _a 40 °C / 250 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 / 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 I _{cn} : at I _n < 3A/240VAC : 10 x I _n at I _n ≥ 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: DF12

| Approval Logo | Certificates | Certification Body | Description |
|--|---------------|--------------------|------------------------------|
|  | VDE Approvals | VDE | Certificate Number: 40012935 |
|  | 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

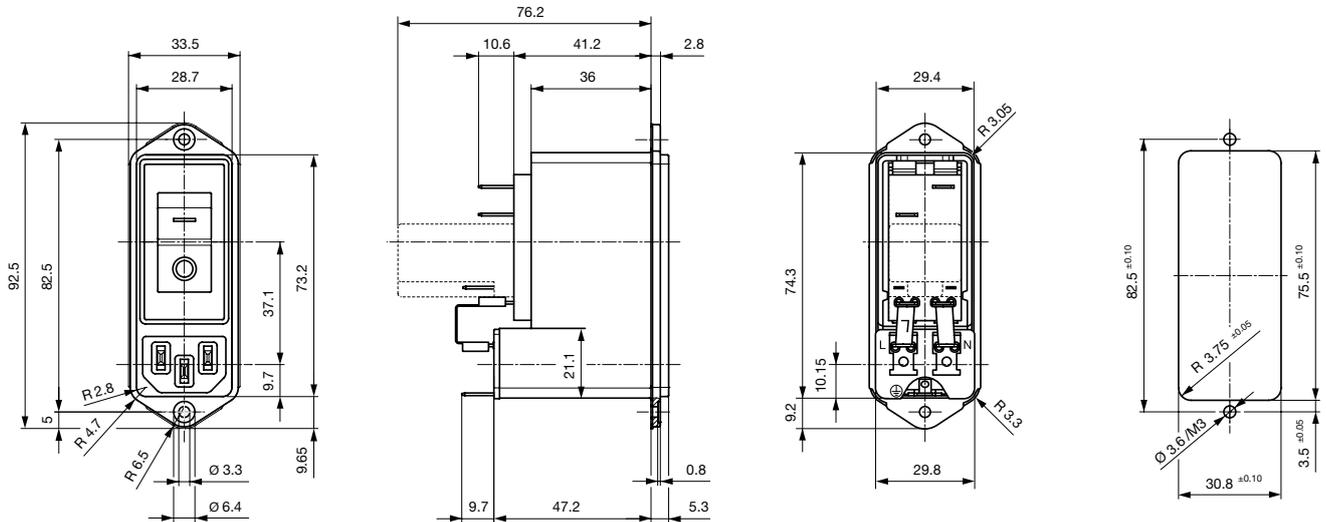
| Organization | Design | Standard | Description |
|--|--------------------------------|--------------|--|
|  | Designed for applications acc. | IEC/UL 60950 | IEC 60950-1 includes the basic requirements for the safety of information technology equipment. |
|  | Designed for applications acc. | IEC 60601-1 | 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. |
|  | MicrositeV-Lock | SCHURTER AG | V-Lock system are based on a matching plug-dose combination. 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. |
|  | Medical Equipment | SCHURTER AG | Suitable for use in medical equipment according to IEC/UL 60601-1 |

Dimension [mm]
 Screw-on Version



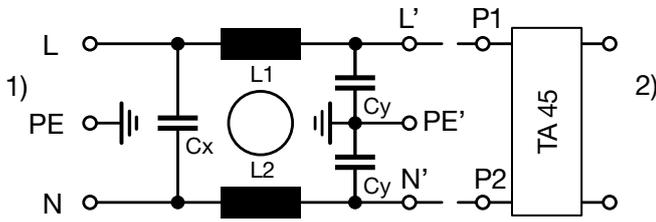
* --- Version TA45 with undervoltage release

Technical Data of Filter-Components

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

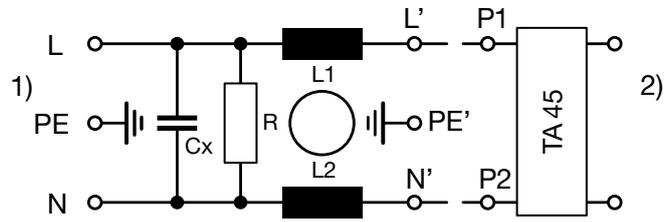
Diagrams

Standard version



1) Line
2) Load

Medical version (M5)

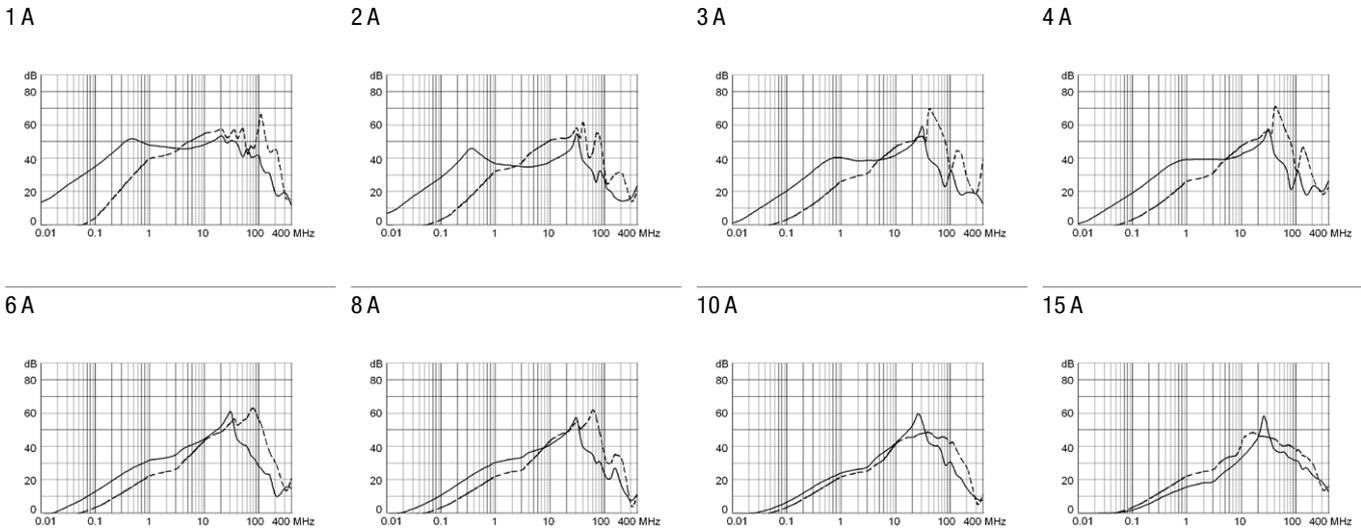


1) Line
2) Load

Attenuation Loss

--- 50Ω differential mode ____ 50Ω common mode

Standard version



Medical version (M5)

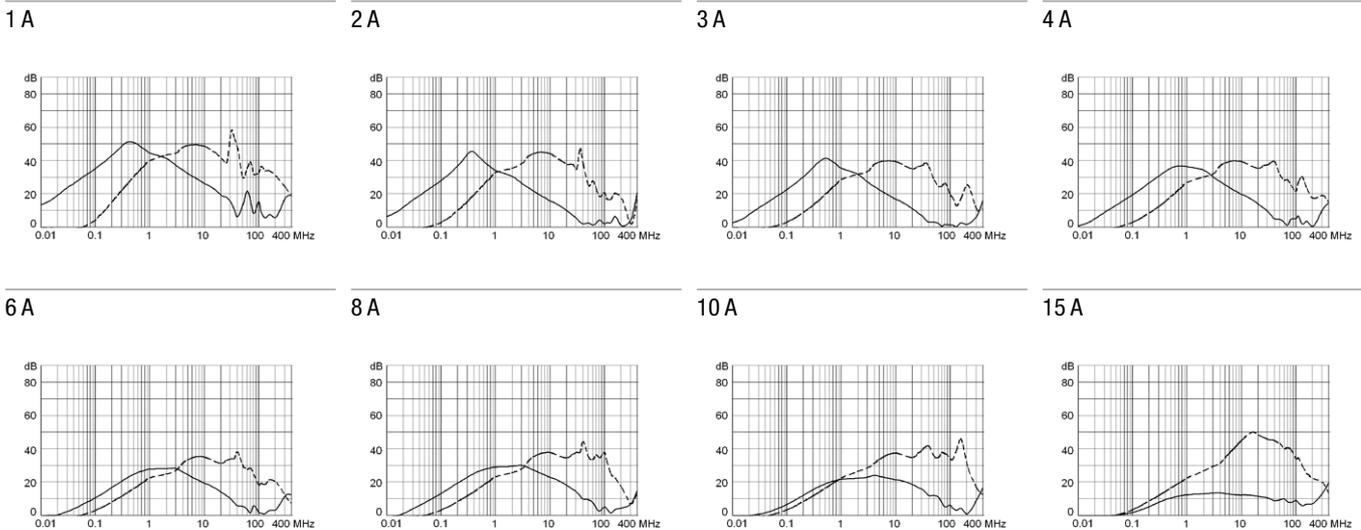


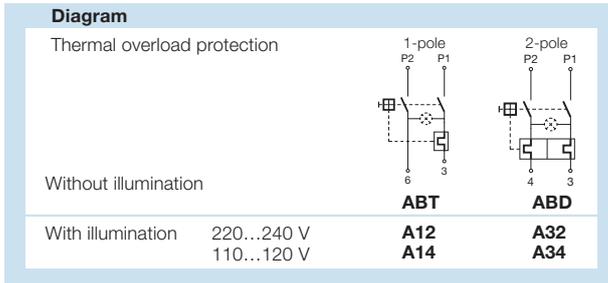
Table 1 Selection for type TA45

Order example



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

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



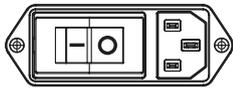
Colours

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

Rocker legend

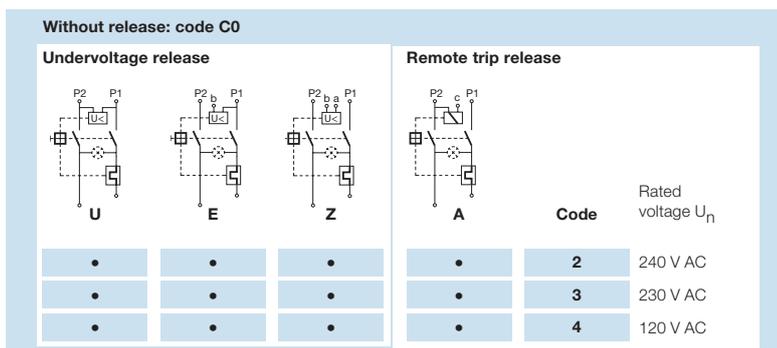
| Surface | Illustration | Colour of print | Surface | Illustration | Colour of print |
|----------|--------------------|------------------------|----------|--------------|-----------------|
| F | embossed / Relief | — ○ | M | printed | — ○ black |
| H | printed / bedruckt | ON OFF white / weiss | P | printed | I ○ white |
| K | printed / bedruckt | ON OFF black / schwarz | R | printed | I ○ black |
| L | printed / bedruckt | — ○ white / weiss | | | |

Position of the rocker legend
 e.g F



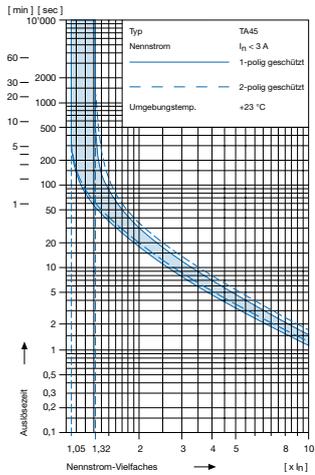
Rated current circuit breaker of equipment

| 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 | | |

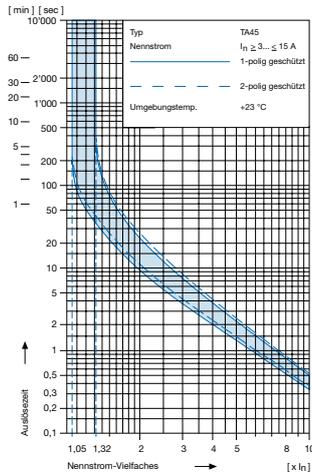


Technical data (continued)
Circuit breaker

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.

* Temperature must be measured at the rear of the breaker next to the terminals after equipment operating temperature has been reached.

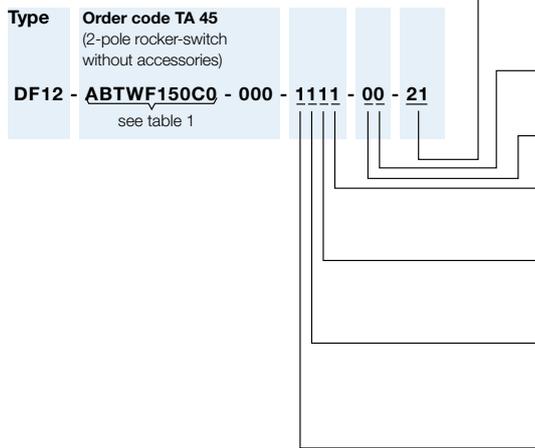
*** Ambient temperature [°C] Correction factor**

| | |
|-----|------|
| -10 | 0,89 |
| -5 | 0,91 |
| 0 | 0,92 |
| +23 | 1,00 |
| +30 | 1,03 |
| +40 | 1,08 |
| +55 | 1,16 |

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

Colour

- 0 black

Mounting

- 0 Screw mounting

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

Type of mains filter / capacitor / bleed resistor

- 1 standard X2, Y2 with bleed resistor
- 3 medical M5 X2 with bleed resistor

Rated current 1)

- 1 1A
- 2 2A
- 3 3A
- 4 4A
- 5 6A
- 6 8A
- 7 10A
- 9 15A

1) 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

0859.0109

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](#)



| | |
|--|---------|
| 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 DF12](#)

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Mating Outlets/Connectors shuttered

[Power Cord Overview complete](#)



| | |
|---|---------|
| VAC13KS, Overview, diverse Connector IEC C13, cord end: | VAC13KS |
|---|---------|

[Power Cord further types to DF12](#)