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





Protection class I with shield

Protection class II without shield





70° C

#### **Description**

- Panel mount : Screw-on mounting 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

#### See below:

#### **Approvals and Compliances**

#### **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 (1 MOOP, 1 MOPP)

#### References

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

pdf data sheet, html datasheet, General Product Information, Approvals, 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 / 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	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, 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

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
<b>I</b> I 10	VDE Approvals	VDE	Certificate Number: 40035745
	UL Approvals	UL	UL File Number: E72928

#### **Product standards**

Product standards that are referenced

Organization	Design	Standard	Description
<u>IEC</u>	Designed according to	IEC 60320-1	Appliance couplers for household and similar general purposes
<u>IEC</u>	Designed according to	IEC 60939	Passive filters for suppressing electromagnetic interference
<u>IEC</u>	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
GE Group	Designed according to	CSA C22.2 no. 8	Electromagnetic interference (EMI) filters

### **Application standards**

Application standards where the product can be used

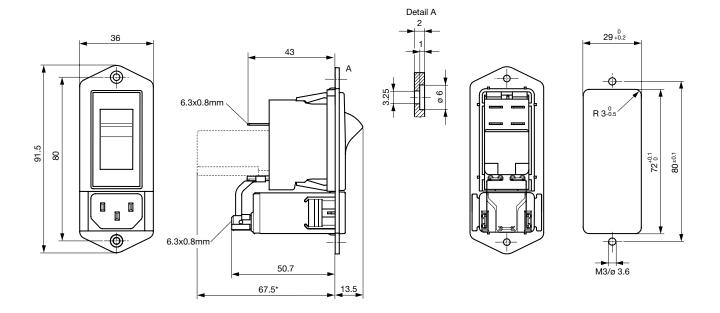
Organization	Design	Standard	Description
<u>IEC</u>	Designed for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements
<u>IEC</u> ,	Designed for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

### Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
C€	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.
UK CA	UKCA declaration of conformity	SCHURTER AG	The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008.
ROHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
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.
300	Medical Equipment	SCHURTER AG	Suitable for use in medical equipment according to IEC/UL 60601-1 (1 MOOP, 1 MOPP)

### Dimension [mm]



<sup>\* ---</sup> Version TA45 with undervoltage release

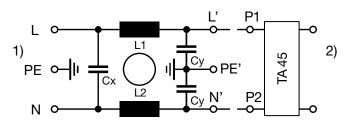
**Technical Data of Filter-Components** 

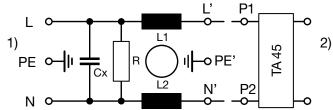
Rated Current [A]	Filter-Type	Inductances L [mH]	Capacitance CX [nF]	Capacitance CY [nF]	<b>R</b> [ <b>M</b> Ω]
1	Standard version	2 x 11	47	2.2	-
2	Standard version	2 x 4	47	2.2	-
3	Standard version	2 x 2.5	47	2.2	-
4	Standard version	2 x 1.6	47	2.2	-
6	Standard version	2 x 0.7	47	2.2	-
8	Standard version	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

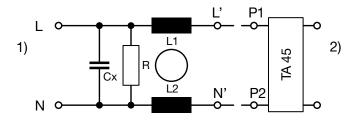
Medical Version (M5)





1) Line 2) Load 1) Line 2) Load

Medical filter (M5) protection class II

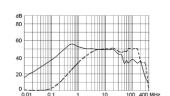


1) Line 2) Load

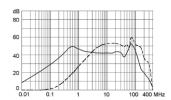
#### **Attenuation Loss**

Standard version

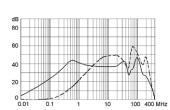
1 A



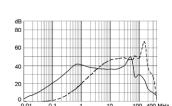
2 A



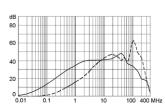
3 A



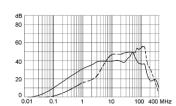
- - - -  $50\Omega$  differential mode \_\_\_\_\_  $50\Omega$  common mode



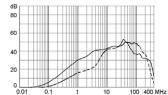
6 A



8 A

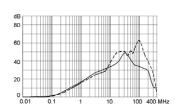


10 A



15A

4 A

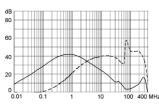


### Medical version (M5)

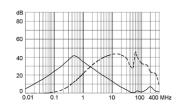




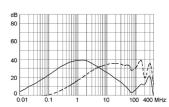
2 A



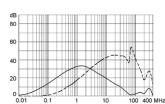
3 A



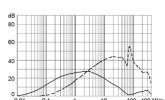
4 A



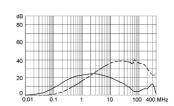
6 A



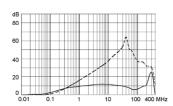
8 A



10 A



15A



### Effect of ambient temperature

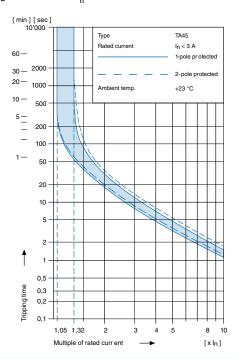
The units are calibrated for an ambient temperature of +23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor (typical value) from the table below:

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

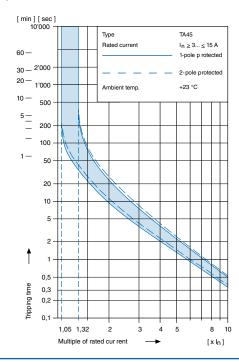
Example: Rated current = 5 A, Environmental temperature = 40 °C, --> Correction factor = 1.08, Resulting current = 5.5 A --> Fount to next higher rated current: 6 A

#### **Time-Current-Curves**

## Tripping Characteristics $I_{\rm n} < 3~{\rm A}$

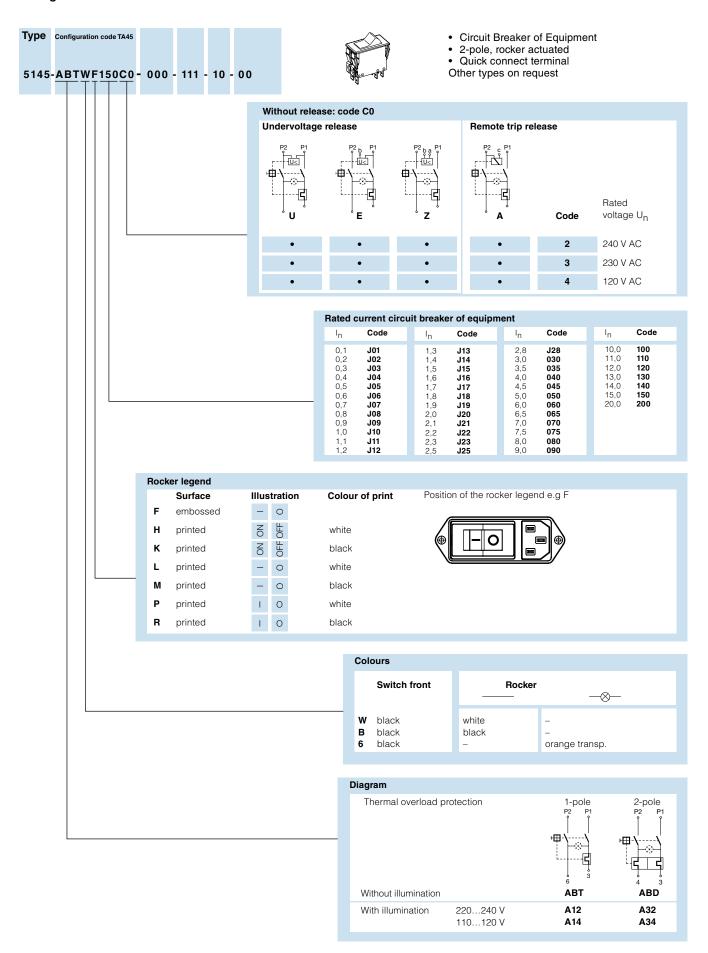


### Tripping Characteristics In $\geq 3 \dots \leq 15 \text{ A}$

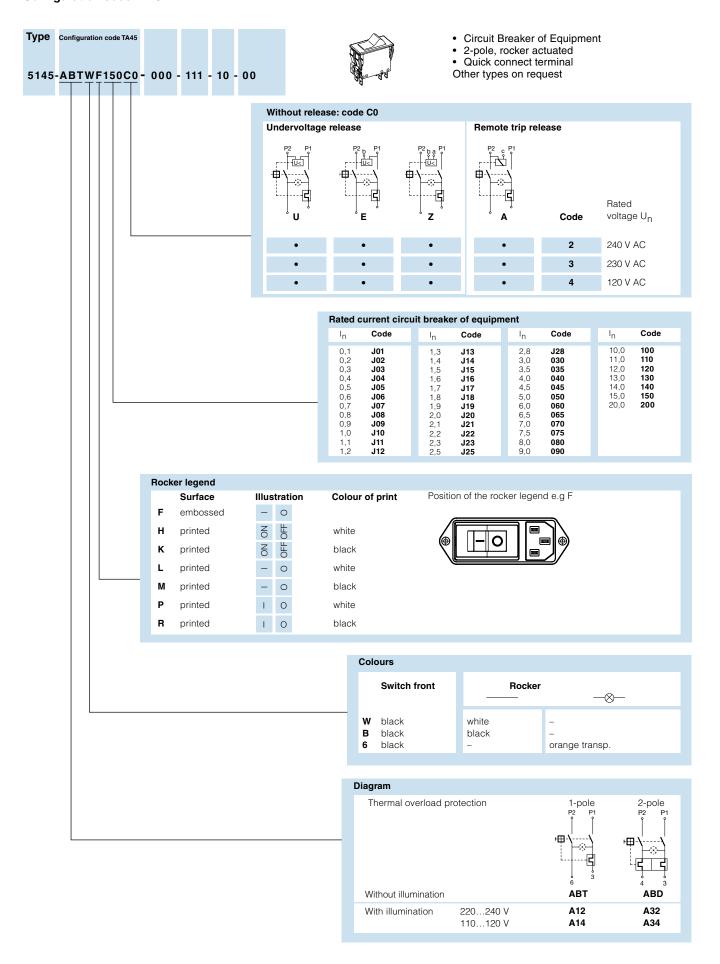


**EMC Products** 

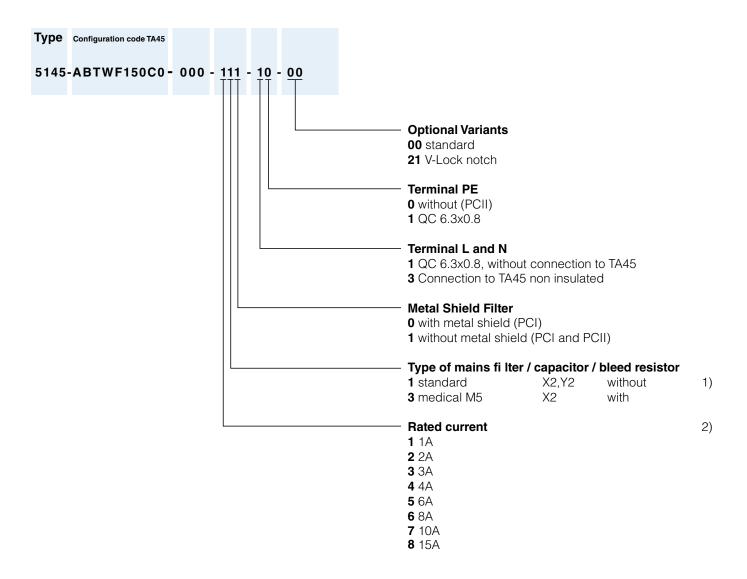
### **Configuration code TA45**



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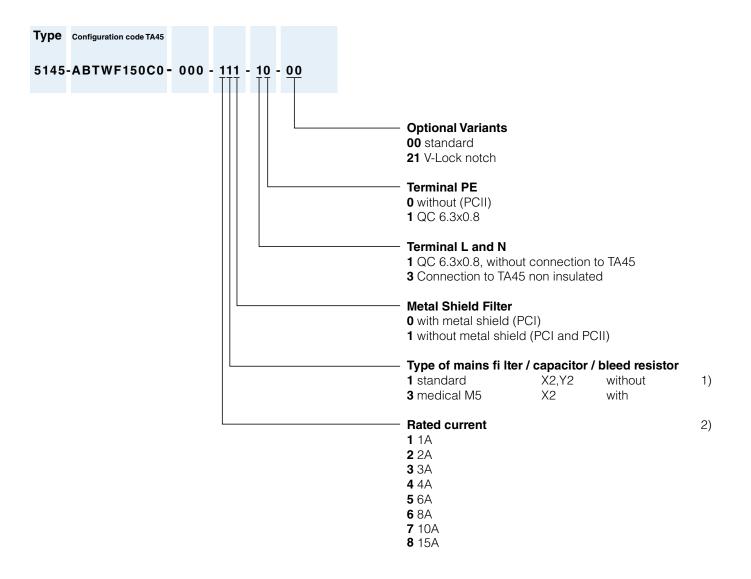


### Configuration code (Order example)



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

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- 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



RC320 Rear Cover for Power Entry Module

### **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 / Quick Connect, 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

### Connector Overview complete



4782 Mounting: Power Cord, 3 x 1 mm $^2$ / 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
$4300\text{-}06$ Mounting: Power Cord, 3 x 1 $mm^2$ / 3 x 18 AWG, Cable, Connector: IEC C13	4300-06
4781 Mounting: Power Cord, Cable, Connector: IEC C15	4781
4784 Mounting: Power Cord, 3 x 1 mm² / 3 x 18 AWG, Cable, Connector: IEC C15	4784

### **Mating Outlets/Connectors shuttered**



#### Power Cord Overview complete

VAC17KS, V-Lock cord retaining, diverse m, Connector IEC C17, diverse, black / grey / white	VAC17KS
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