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



Screw-on from front side Rocker non-illuminated white



Screw-on from front side Rocker illuminated orange



### **Description**

- Panel mount :

Screw-on mounting front side

- 3 Functions:

Appliance Inlet Protection class I, circuit breaker type TA45 2-pole . Line filter in standard and medical version

- Quick connect terminals 6.3 x 0.8 mm

## See below:

### **Approvals and Compliances**

### **Characteristics**

- All single elements are already wired
- Circuit Breaker non-illuminated or illuminated
- Suitable for use in medical equipment according to IEC/UL 60601-1 (1

For applications according IEC/UL 62368-1 we recommend variants with bleed resistor

#### 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 data sheet, html datasheet, General Product Information, Approvals, Distributor-Stock-Check, Accessories, Detailed request for product

### **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 Tempe-	-10 °C to 55 °C
rature	
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 acc. to IEC 61140
Terminal	Quick connect terminals 6.3 x 0.8 mm
Panel Thickness S	Screw: max 8mm
	Mounting screw torque max 0.5 Nm
Material	Thermoplastic, black, UL 94V-0
	_

Appliance inlet/-outlet	C14 acc. to IEC 60320-1
	UL 60320-1, CSA C22.2 no. 60320-1
	(for cold conditions) pin-temperature 70
	°C, 10A, Protection Class I
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

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: DF12

Approval Logo	Certificates	Certification Body	Description
<b>1</b> 0	VDE Approvals	VDE	Certificate Number: 40012935
	UL Approvals	UL	UR 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 60320-1	Standard for Attachment Plugs and Receptacles
(UL)	Designed according to	UL 1283	Electromagnetic interference filters
GSA Group	Designed according to	CSA C22.2 no. 60320-1	General Use Receptacles, Attachment Plugs, and Similar Wiring Devices
GF 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>	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements
<u>IEC</u>	Suitable for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

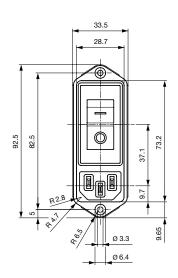
# Compliances

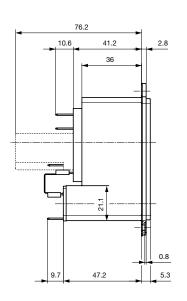
The product complies with following Guide Lines

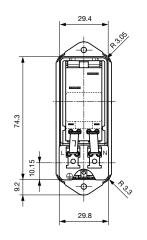
Identification	Details	Initiator	Description
C€	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
UK CA	UKCA declaration 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
<b>50</b>	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.
<b>V</b> -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.
T	Medical Equipment	SCHURTER AG	Suitable for use in medical equipment according to IEC/UL 60601-1 (1 MOOP, 1 MOPP)

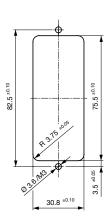
# Dimension [mm]

Screw-on mounting









\* --- Version TA45 with undervoltage release

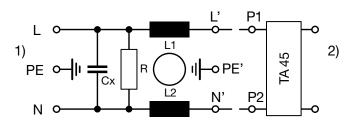
**Technical Data of Filter-Components** 

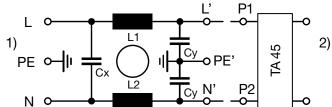
Rated Current [A]	Filter-Type	Inductances L [mH]	Capacitance CX [nF]	Capacitance CY [nF]	<b>R [M</b> Ω]
1	Standard	2 x 11	100	2.2	1
2	Standard	2 x 4	100	2.2	1
3	Standard	2 x 2.5	100	2.2	1
4	Standard	2 x 1.6	100	2.2	1
6	Standard	2 x 0.7	100	2.2	1
8	Standard	2 x 0.6	100	2.2	1
10	Standard	2 x 0.4	100	2.2	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**

Medical Version (M5)

Standard version



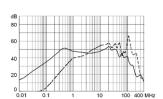


1) Line 2) Load 1) Line 2) Load

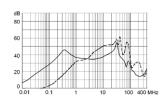
## **Attenuation Loss**

Standard version

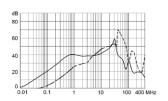
1 A



2 A

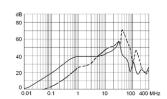


3 A

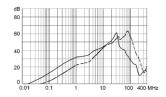


4 A

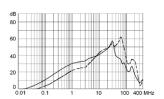
- - - -  $50\Omega$  differential mode \_\_\_\_\_  $50\Omega$  common mode



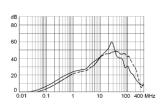
6 A



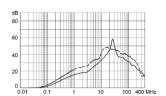
8 A



10 A

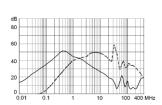


15 A

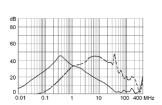


Medical version (M5)

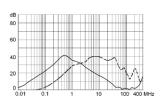
1 A



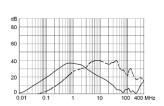
2 A



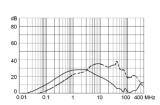
3 A



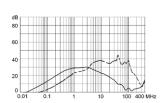
4 A



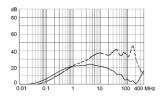
6 A



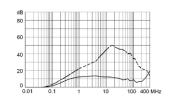
8 A



10 A



15 A



### Effect of ambient temperature

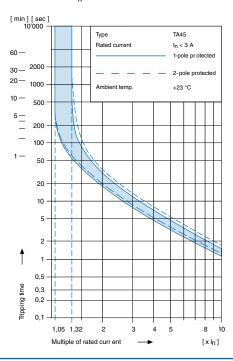
The units are calibrated for an ambient temperature of +23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor (typical value) from the table below:

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

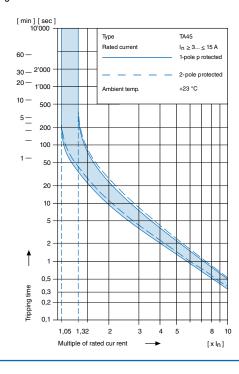
Example: With a nominal current of 5A and an ambient temperature of 40°C, a correction factor of 1.08 results. This results in a nominal current of 5.5 A, which is rounded up to the next higher nominal current 6 A.

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

# Tripping Characteristics $I_n < 3 A$

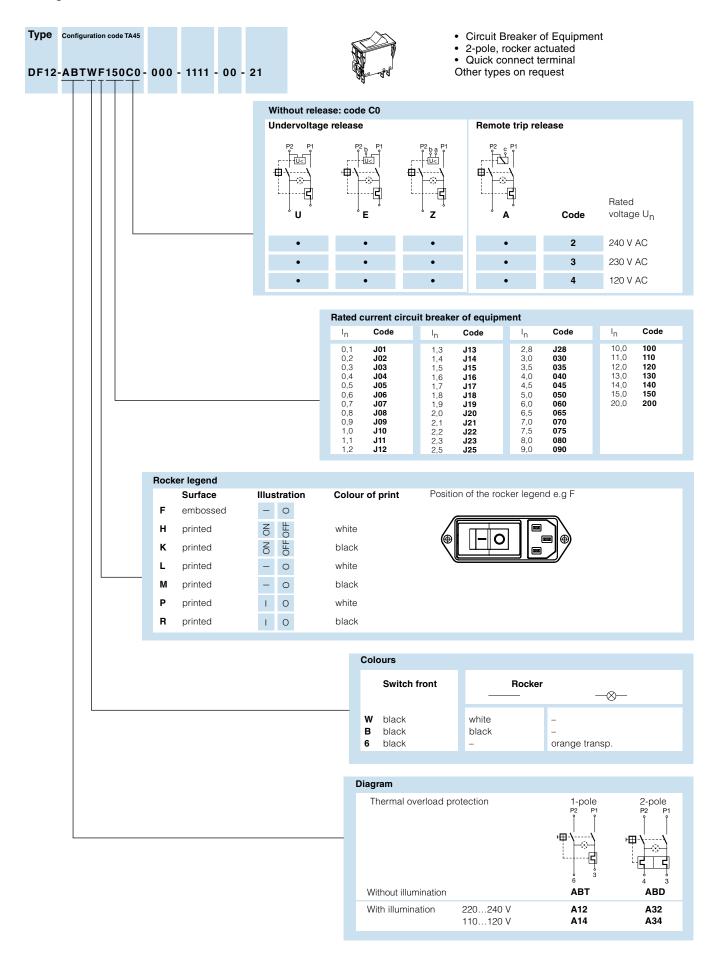


# Tripping Characteristics In $\geq 3 \dots \leq 15 \text{ A}$

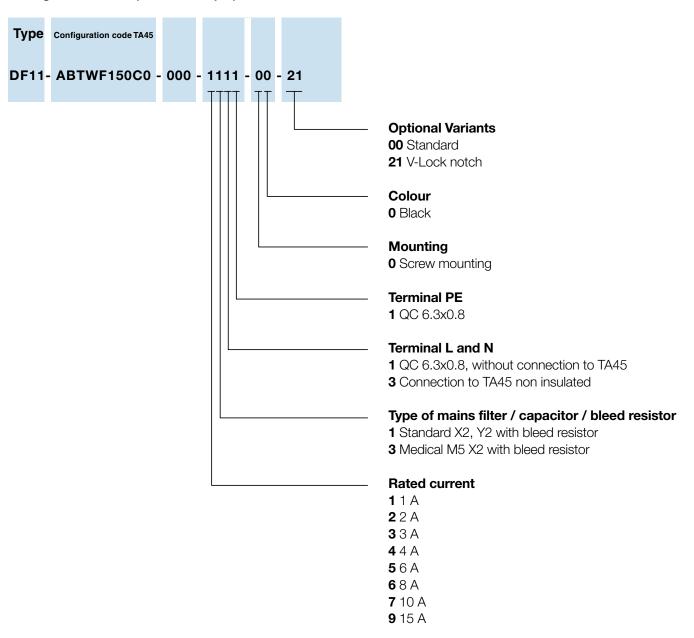


## Order number key

### **Configuration code TA45**

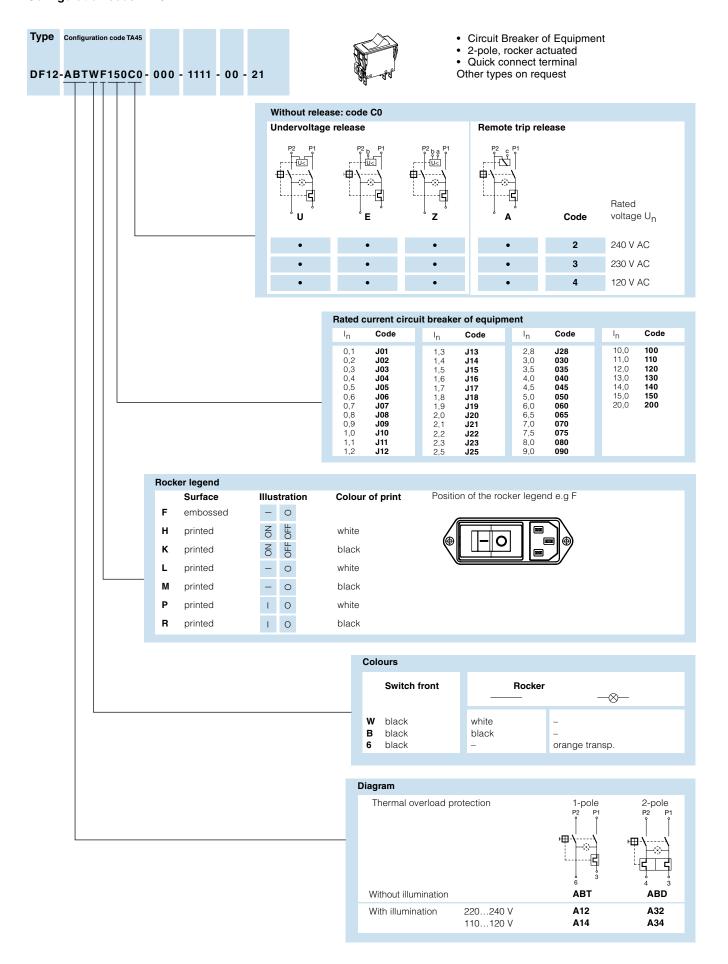


# **Configuration code (Order example)**

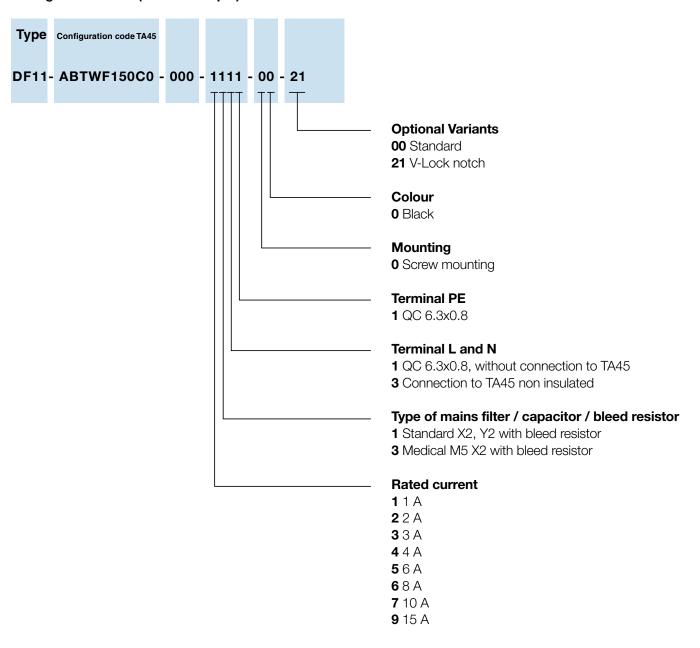


The rated current of the mains filter must not be less than the tripping current of the circuit breaker for equipment. Only the rated filter current is shown in the item description on the packaging.

## **Configuration code TA45**



## Configuration code (Order example)



The rated current of the mains filter must not be less than the tripping current of the circuit breaker for equipment. Only the rated filter current is shown in the item description on the packaging.

# **Variants**

Circuit Breakers		Filter Connectors								
Rated Cur- rent [A]	Rocker co- lour	Illumination	Add-on mo- dules	Rated Cur- rent [A]	Filter Type	Protection Class	V-Lock	Internally wired	Config. Code	Order Number
1	black	non-illumi- nated	without	1	Standard	I		prewired	DF12.ABDBLJ10C0.1110.1	DF12.1310.1110.1
10	white	non-illumi- nated	without	10	Standard	I		prewired	DF12.ABDWF100C0.7110.1	DF12.0470.7110.1
15	white	non-illumi- nated	without	15	Standard	I		prewired	DF12.ABDWF150C0.9110.1	DF12.0885.9110.1
15	black	non-illumi- nated	without	15	Standard	I		prewired	DF12.ABDBL150C0.9110.1	DF12.1089.9110.1
15	orange	illuminated	without	15	Standard	1		prewired	DF12.A326F150C0.9110.1	DF12.2851.9110.1

Circuit Break	kers			Filter		Connectors				
Rated Cur- rent [A]	Rocker co- lour	Illumination	Add-on mo- dules	Rated Cur- rent [A]	Filter Type	Protection Class	V-Lock	Internally wired	Config. Code	Order Number
2	orange	illuminated	without	2	Standard	1		prewired	DF12.A326KJ20C0.2110.1	DF12.3803.2110.1
3	orange	illuminated	without	3	Standard	I		prewired	DF12.A326K030C0.3110.1	DF12.3635.3110.1
4	orange	illuminated	without	4	Standard	I		prewired	DF12.A346K040C0.4110.1	DF12.3945.4110.1
5	black	non-illumi- nated	without	6	Standard	1		prewired	DF12.ABTWF050C0.5110.1	DF12.0586.5110.1
8	white	non-illumi- nated	without	8	Standard	I		prewired	DF12.ABTWF080C0.6110.1	DF12.0423.6110.1
10	white	non-illumi- nated	without	10	Medical (M5)	1		prewired	DF12 .ABDWF100C0.7310.1	DF12.0470.7310.1
10	black	non-illumi- nated	without	10	Medical (M5)	I		prewired	DF12 .ABDBL100C0.7310.1	DF12.2078.7310.1
12	black	non-illumi- nated	without	15	Medical (M5)	1		prewired	DF12.ABDBL120C0.9310.1	DF12.2420.9310.1
15	white	non-illumi- nated	without	15	Medical (M5)	I		prewired	DF12.ABTWF150C0.9310.1	DF12.0031.9310.1
15	black	non-illumi- nated	Remote trip release	15	Medical (M5)	1		prewired	DF12 .ABDBH150A3.9310.1	DF12.4051.9310.1
2	black	non-illumi- nated	without	2	Medical (M5)	I		prewired	DF12 .ABDWRJ20C0.2310.1	DF12.3171.2310.1
3	black	non-illumi- nated	without	3	Medical (M5)	I	•	prewired	DF12.ABDBL030C0.3310.121	DF12.2370.3310.121
4	orange	illuminated	without	4	Medical (M5)	I		prewired	DF12 .A326H040C0.4310.1	DF12.0723.4310.1
6	black	non-illumi- nated	without	6	Medical (M5)	1	•	prewired	DF12.ABDBP060C0.5310.121	DF12.1488.5310.121
7	orange	illuminated	without	8	Medical (M5)	I		prewired	DF12.A346R070C0.6310.1	DF12.3737.6310.1

Availability for all products can be searched real-time:https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER

Packaging unit

20 Pcs

## **Accessories**

### Description



Assorted\_Covers
Rear Cover

0859.0109



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 mm $^2$ / 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 mm <sup>2</sup> / 3 x 18 AWG, Cable, Connector: IEC C15	4784

# Mating Outlets/Connectors shuttered



### Connector Overview complete

4783 Mounting: Power Cord, 3 x 1 mm $^2$  / 3 x 18 AWG, Cable, Connector: IEC C13 4783



# Power Cord Overview complete

 $VAC13KS,\,Overview,\,V\text{-}Lock\,cord\,retaining,\,diverse\,\,Connector\,\,IEC\,\,C13,\,diverse,\,black$ VAC13KS