# **DD12**

IEC Appliance Inlet C14 with Filter, Fuseholder 1- or 2-pole, Line Switch 2-pole



Screw-on mounting horizontal (version B) Order required accessories separately



Screw-on mounting vertical (version A)



Snap-in mounting



# Description

- Panel mount : Screw-on from front side
- 4 Functions :
- Appliance Inlet Protection class I , Line Switch 2-pole , Fuseholder for fuse-links 5 x 20 mm 1- or 2-pole , Line filter in standard and medical version
- V-Lock notch standard
- Quick connect terminals 6.3 x 0.8 mm

### **Unique Selling Proposition**

- Various mounting options
- Attractive flat design
- Switch for highest inrush current
- V-Lock cord retaining

### See below: Approvals and Compliances

#### **Characteristics**

- Ultra-compact design. Ideal for low profile designs
- Aluminum case provides good shielding - All single elements are already wired
- Fuse drawer meets requirements of medical standard IEC/EN 60601-1
- Fuse drawer meets requirements of medical standard IEC/EN 60601 Ideal for application with high transient loads
- 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

- Solder terminals
- Fuse drawer 1-pole, plus spare fuse case
- Fuse drawer 2-pole, with shorting bar
- Other rocker marking
- Line switch, illuminated
- Line switch 1-pole
- Medical version M80
- Class X1- and Y1-capacitors for enhanced withstand voltage

# References

Alternative: version without line filter DD11 Alternative: version for snap-in mounting KMF Alternative: version with 2-stage filter DD14

#### Weblinks

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

### **Technical Data**

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Ratings IEC	1 - 10A @ Ta 40 °C / 250 VAC; 50 Hz
Ratings UL/CSA	1 - 8A @ 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	<ul> <li>&gt; 1.7 kVDC between L-N</li> <li>&gt; 2.7 kVDC between L/N-PE</li> <li>Test voltage (2 sec)</li> </ul>
Allowable Operation Tempe- rature	-25 °C to 85 °C
Climatic Category	25/085/21 acc. to IEC 60068-1
IP-Protection	from front side IP40 acc. to IEC 60529
Protection Class	Suitable for appliances with protection class I acc. to IEC 61140
Terminal	Quick connect terminals 6.3 x 0.8 mm
Panel Thickness S	Screw-on mounting: max 8mm Mounting screw torque max 0.5Nm Snap-in: 1 mm to 3mm
Material: Housing	Thermoplastic, black, UL 94V-0

appliance inlet/-outlet	C14 acc. to IEC 60320-1 UL 498, CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 °C, 10A Protection Class I
Fuseholder	1 or 2 pole, Shocksafe category PC2 acc. to IEC 60127-6, for fuse-links 5 x 20mm
Rated Power Acceptance @ Ta 23 °C	5 x 20: 2 W (1 pole)/ 1.6 W (2-pole) per pole
Power Acceptance @ Ta > 23°C	Admissible power acceptance at higher ambient temperature see derating cur- ves
Line Switch	Rocker switch 2-pole, non-illuminated, acc. to IEC 61058-1 Technical Details
Line Filter	Standard and Medical Version, IEC 60939, UL 1283, CSA C22.2 no. 8 Technical Details
MTBF	> 2'000'000 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: DD12

Approval Logo	Certificates	Certification Body	Description
10	VDE Approvals	VDE	Certificate Number: 40001522
c <b>AL</b> us	UL Approvals	UL	UL File Number: E72928
	CQC Approvals	CQC	CQC Certificate Number: CQC19001211536

#### **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 60127-6	Miniature fuses. Part 6. Fuse-holders for miniature fuse-links
IEC.	Designed according to	IEC 61058-1	Switches for appliances. Part 1. General requirements
(H)	Designed according to	UL 498	Standard for Attachment Plugs and Receptacles
(H)	Designed according to	UL 1283	Electromagnetic interference filters
GROUP CSA Group	Designed according to	CSA C22.2 no. 42	General Use Receptacles, Attachment Plugs, and Similar Wiring Devices
GE 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 technology equipment.
IEC	Designed for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance
IEC.	Designed for applications acc.	IEC 60335-1	Safety of electrical appliances for household and similar purposes. Meets the requirements for appliances in unattended use. This includes the enhanced requirements of glow wire tests acc. to IEC 60695-2-11 or -12 & -13.

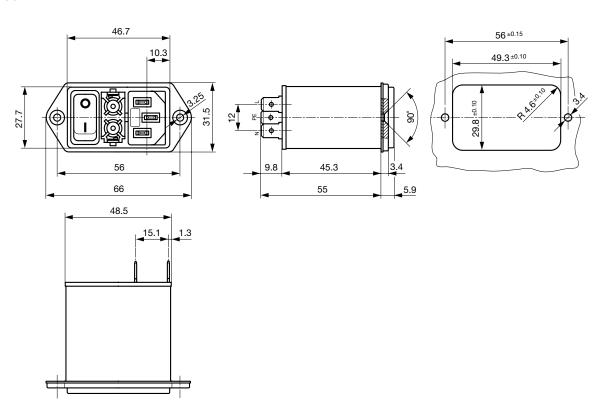
# Compliances

The product complies with following Guide Lines

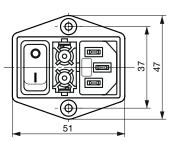
Identification	Details	Initiator	Description
CE	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
RoHS	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
<b>(</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>√</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.
00	White paper Glow wire test	SCHURTER AG	Meets the requirements of IEC 60335-1 for appliances in unattended use. This includes the enhanced requirements of glow wire tests acc. to IEC 60695-2-11 or -12 &-13.
T	Medical Equipment	SCHURTER AG	Suitable for use in medical equipment according to IEC/UL 60601-1

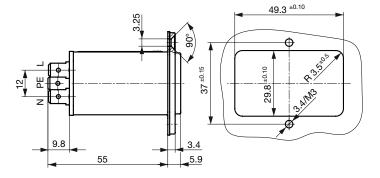
# Dimension [mm]

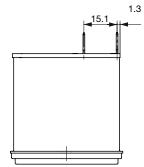
Screw version A



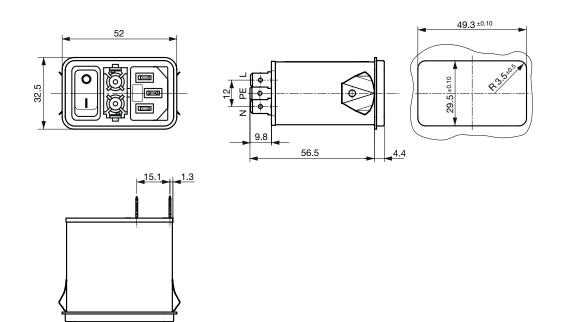
Screw version B







# Snap-in mounting from front side



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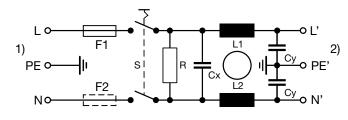
2)

# Technical Data of Filter-Components

Rated Current [A]	Filter-Type	Inductance L1/ L2 [mH]	Inductance L3 [mH]	Capacitance CX [nF]	Capacitance CY [nF]	<b>R [Μ</b> Ω]
1	Standard Version	2 x 10	-	100	2.2	1
2	Standard Version	2 x 4	-	100	2.2	1
4	Standard Version	2 x 1.5	-	100	2.2	1
6	Standard Version	2 x 0.8	-	100	2.2	1
8	Standard Version	2 x 0.6	-	100	2.2	1
10	Standard Version	2 x 0.3	-	100	2.2	1
6	Standard Version with Ground Line Choke	2 x 0.8	-	100	2.2	1
10	Standard Version with Ground Line Choke	2 x 0.3	-	100	2.2	1
1	Medical Version (M5)	2 x 10	-	100	-	1
2	Medical Version (M5)	2 x 4	-	100	-	1
4	Medical Version (M5)	2 x 1.5	-	100	-	1
6	Medical Version (M5)	2 x 0.8	-	100	-	1
8	Medical Version (M5)	2 x 0.6	-	100	-	1
10	Medical Version (M5)	2 x 0.3	-	100	-	1
1	Medical Version (M80)	2 x 10	-	100	0.47	1

# Diagrams

Standard Version, medical Version M80 non-illuminated



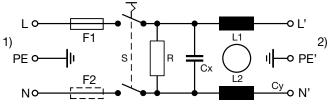


1) Line 2) Load

NC

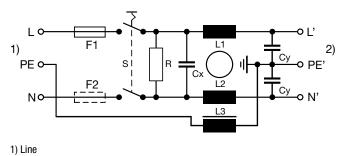
1) Line

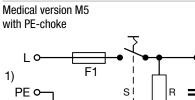
2) Load



1) Line 2) Load

Standard Version, medical Version M80 with PE-choke

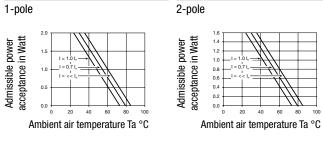




F2

2) Load

# Derating Curves



Cx

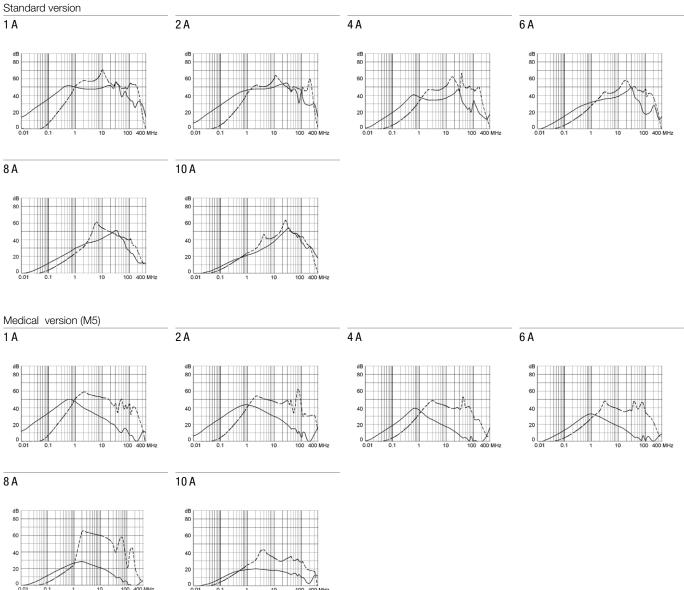
L3

# DD12

# Power Entry Modules with Line Filter https://www.schurter.com /PG06

# Attenuation Loss

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



# **All Variants**

Rated Current [A]	Filter-Type	Mounting	Fuseholder	Line Switch	Illumination	Color	Order Number
1	Standard Version	Screw-on A	1-pole	2-pole	non-illuminated	black	DD12.1111.111
1	Standard Version	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-465
1	Standard Version	Screw B	2-pole	2-pole	non-illuminated	black	3-109-955
1	Standard Version	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.1121.111
2	Standard Version	Screw-on A	1-pole	2-pole	non-illuminated	black	DD12.2111.111
2	Standard Version	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-466
2	Standard Version	Screw B	2-pole	2-pole	non-illuminated	black	3-109-956
2	Standard Version	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.2121.111
2	Standard Version	Screw-on A	2-pole	2-pole	illuminated, red	black	DD12.2123.111
2	Standard Version	Screw-on A	2-pole	2-pole	illuminated, green	black	DD12.2124.111
4	Standard Version	Screw B	1-pole	2-pole	non-illuminated	black	3-110-001
4	Standard Version	Snap-in	1-pole	2-pole	non-illuminated	black	3-110-032
4	Standard Version	Screw-on A	1-pole	2-pole	non-illuminated	black	DD12.4111.111
4	Standard Version	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-467

# Power Entry Modules with Line Filter https://www.schurter.com /PG06

# DD12

Rated Current [A]	Filter-Type	Mounting	Fuseholder	Line Switch	Illumination	Color	Order Number
4	Standard Version	Screw B	2-pole	2-pole	non-illuminated	black	3-109-957
4	Standard Version	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.4121.111
6	Standard Version	Snap-in	1-pole	2-pole	non-illuminated	black	3-110-010
6	Standard Version	Screw B	1-pole	2-pole	non-illuminated	black	3-110-031
6	Standard Version	Screw-on A	1-pole	2-pole	non-illuminated	black	DD12.6111.111
6	Standard Version	Screw B	2-pole	2-pole	non-illuminated	black	3-102-857
6	Standard Version	Snap-in	2-pole	2-pole	non-illuminated	black	3-102-861
6	Standard Version	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.6121.111
6	Standard Version	Screw-on A	2-pole	2-pole	illuminated red	black	DD12.6123.111
8	Standard Version	Screw-on A	1-pole	2-pole	non-illuminated	black	DD12.8111.111
8	Standard Version	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-468
8	Standard Version	Screw B	2-pole	2-pole	non-illuminated	black	3-109-958
8	Standard Version	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.8121.111
10	Standard Version	Screw-on A	1-pole	2-pole	non-illuminated	black	DD12.9111.111
10	Standard Version	Screw B	2-pole	2-pole	non-illuminated	black	3-105-315
10	Standard Version	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-469
10	Standard Version	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.9121.111
6	Standard Version with Ground Line Choke	Screw B	2-pole	2-pole	non-illuminated	black	3-109-943
10	Standard Version with Ground Line Choke	Screw-on A	2-pole	2-pole	non-illuminated	black	3-102-855
1	Medical Version (M5)	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-472
1	Medical Version (M5)	Screw B	2-pole	2-pole	non-illuminated	black	3-109-994
1	Medical Version (M5)	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.1321.111
2	Medical Version (M5)	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-473
2	Medical Version (M5)	Screw B	2-pole	2-pole	non-illuminated	black	3-109-995
2	Medical Version (M5)	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.2321.111
4	Medical Version (M5)	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-474
4	Medical Version (M5)	Screw B	2-pole	2-pole	non-illuminated	black	3-109-997
4	Medical Version (M5)	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.4321.111
6	Medical Version (M5)	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-475
6	Medical Version (M5)	Screw B	2-pole	2-pole	non-illuminated	black	3-109-998
6	Medical Version (M5)	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.6321.111
8	Medical Version (M5)	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-476
8	Medical Version (M5)	Screw B	2-pole	2-pole	non-illuminated	black	3-109-999
8	Medical Version (M5)	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.8321.111
10	Medical Version (M5)	Snap-in	2-pole	2-pole	non-illuminated	black	3-107-477
10	Medical Version (M5)	Screw B	2-pole	2-pole	non-illuminated	black	3-110-000
10	Medical Version (M5)	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.9321.111
1	Medical Version (M80)	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.3521.111

# Most Popular.

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

10 A version only IEC approval.

Packaging unit 10 Pcs

4301.1407

# **Required Accessory**

Description

Fusedrawer 2

Extra-Safe, 1-pole



Fusedrawer für Fuse Links 5x20 mm, with or without Voltage Selector Insert	
Fingergrip, 2-pole	4301.1401
Extra-Safe, 2-pole	4301.1403
Fingergrip, 1-pole	4301.1405

Accessories



Wire Harness Wire harness for SCHURTER products



Assorted Covers Rear Cover

0859.0076



Cord retaining kits Cord retaining strain relief

Flat head, A

4700.0001

# 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 pro- tection 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 DD12	

# Connector Overview complete



4782 Mounting: Power Cord, 3 x 1 mm <sup>2</sup> / 3 x 18 AWG, Cable, Connector: IEC C13	4782
4785 Mounting: Power Cord, 3 x 1 mm <sup>2</sup> / 3 x 18 AWG, Cable, Connector: IEC C13	4785
4300-06 Mounting: Power Cord, 3 x 1 mm <sup>2</sup> / 3 x 18 AWG, Cable, Connector: IEC C13	4300-06
4781 Mounting: Power Cord, 3 x 1 mm <sup>2</sup> / 3 x 18 AWG, 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
Connector further types to DD12	

# Mating Outlets/Connectors shuttered



Power Cord Overview complete

VAC13KS, Overview, V-Lock cord retaining, diverse Connector IEC C13, diverse, black Power Cord further types to DD12 VAC13KS

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.