



# Description

- Panel mount :
- Snap-in or screw-on mounting front side 3 Functions :
- Appliance Inlet Protection class I , Line Switch 2-pole , Line filter in standard and medical version
- Quick connect terminals 6.3 x 0.8 mm

# **Unique Selling Proposition**

- Compact size
- Switch for highest inrush current
- Optional with enhanced surge withstand voltage
- V-Lock cord retaining

See below: Approvals and Compliances

#### **Characteristics**

- All single elements are already wired
- Line switch non-illuminated
- With EMC-shield
- Ideal for application with high transient loads
- 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)

## Other versions on request

- Line switch, illuminated
- Line switch with other rocker marking
- Variant with notch for V-Lock mating Cordsets

#### References

Alternative: version without line filter EC11 Alternative: Standard version

#### Weblinks

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

Newly available variants corresponding to V-Lock mating cordset. 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.

#### **Technical Data**

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Ratings IEC	12 - 16A @ Ta 40 °C / 250 VAC; 50 Hz
Ratings UL/CSA	12 - 20 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-	-25 °C to 85 °C
rature	
Climatic Category	25/085/21 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	C20 acc. to IEC 60320-1, UL 498, CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 °C, 16A, Protection Class I
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	> 1'700'000 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: EC12

Approval Logo	Certificates	Certification Body	Description
10	VDE Approvals	VDE	Certificate Number: 40001522
c <b>AL</b> us	UL Approvals	UL	UR File Number: E72928
	CQC Approvals	CQC	CQC Certificate Number: CQC21001327399

#### **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
GE 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	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements
IEC	Suitable for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

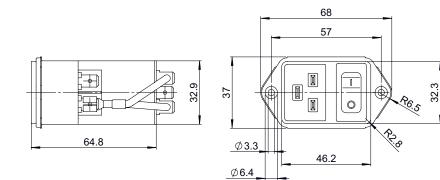
## Compliances

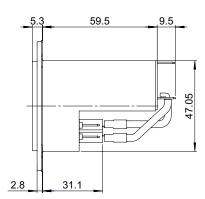
The product complies with following Guide Lines

Identification	Details	Initiator	Description
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.
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>©</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.
V-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 (1 MOOP, 1 MOPP)

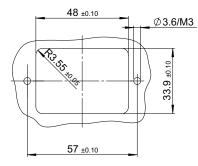
**Dimensions** [mm]

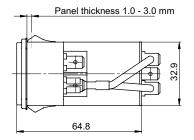
EC12

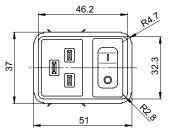


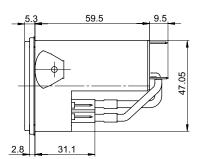


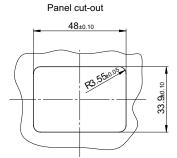
Panel cut-out









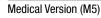


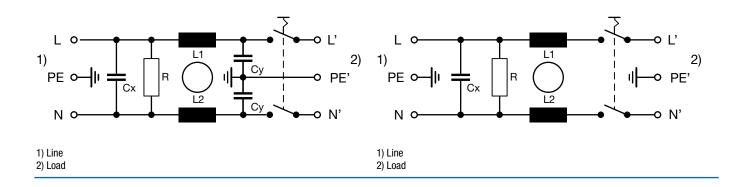
## **Technical Data of Filter-Components**

Rated Current [A]	Filter-Type	Inductances L [mH]	Capacitance CX [nF]	Capacitance CY [nF]	<b>R [Μ</b> Ω]
12	Standard version	2 x 0.8	100	2.2	1
16	Standard version	2 x 0.6	100	2.2	1
20	Standard version	2 x 0.3	100	2.2	1
12	Medical Version (M5)	2 x 0.8	100	-	1
16	Medical Version (M5)	2 x 0.6	100	-	1
20	Medical Version (M5)	2 x 0.3	100	-	1

# Diagrams

Standard version

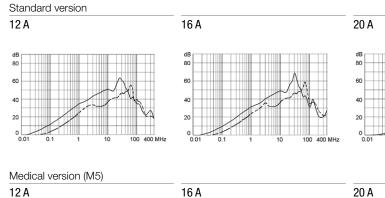


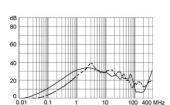


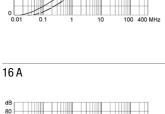
# **Attenuation Loss**

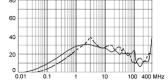
- - - - 50 $\Omega$  differential mode \_\_\_\_\_ 50 $\Omega$  common mode

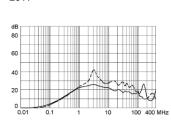
**EC12** 











### All Variants

Rated Current [A]	Filter-Type	Panel mounting	Internally wired	Line Switch	V-Lock	Order Number
16	Standard version	Snap-in	•	2-pole		3-136-814
20	Standard version	Snap-in	•	2-pole		3-136-812
12	Standard version	Screw	•	2-pole		EC12.3101.001
12	Standard version	Screw	•	2-pole	•	EC12.3101.001.21
16	Standard version	Screw	•	2-pole		EC12.2101.001
20	Standard version	Screw	•	2-pole		EC12.1101.001
12	Standard version	Screw		2-pole		EC12.3101.002
16	Standard version	Screw		2-pole		EC12.2101.002
20	Standard version	Screw		2-pole		EC12.1101.002
16	Medical Version (M5)	Snap-in	•	2-pole		3-136-815
20	Medical Version (M5)	Snap-in	•	2-pole		3-136-813
12	Medical Version (M5)	Screw	•	2-pole		EC12.3201.001
16	Medical Version (M5)	Screw	•	2-pole		EC12.2201.001
16	Medical Version (M5)	Screw	•	2-pole	٠	EC12.2201.001.21
20	Medical Version (M5)	Screw	•	2-pole		EC12.1201.001
12	Medical Version (M5)	Screw		2-pole		EC12.3201.002
16	Medical Version (M5)	Screw		2-pole		EC12.2201.002
20	Medical Version (M5)	Screw		2-pole		EC12.1201.002

## Most Popular.

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

Packaging unit

20 Pcs

# EC12



## Mating Outlets/Connectors

Category / Description



#### Connector Overview complete

4795, Mounting: Power Cord, Cable Connector: IEC C19	4795
4790, Mounting: Power Cord, Screw Connector: IEC C19	4790
0104U, Mounting: Power Supply Cord, Screw clamps Connector: IEC C19	0104U

### Mating Outlets/Connectors shuttered



Power Cord Overview complete

VAC19KS, Overview, V-Lock cord retaining, diverse Connector IEC C19, diverse, black

VAC19KS

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.

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