IEC Appliance Inlet C20 with Filter, Front or Rear Side Mounting

Screw-on mounting
from front side

Snap-in mounting
from front side

C20

70° C

See below:
Approvals and Compliances

Description

- Panel mount :
  Screw-on version from front or rear side, snap-in version from front side
- 2 Functions :
  Appliance Inlet Protection class I , Line filter in standard and medical version
- Solder, quick connect or wires (stranded)

Unique Selling Proposition

- Attractive flat front design
- Highly resistant since fully potted
- Interrupts ground loops
- V-Lock cord retaining

Characteristics

- Compact design with optimal shielding
  Suitable for assembly in metal plated plastic housings
- Version with class X1 and X2 (standard version) capacitors
- Universal line filter for standard applications
- Suitable for use in medical equipment according to IEC/UL 60601-1
  For applications according IEC/UL 62368-1 we recommend variants with bleed resistor

Other versions on request

- 16A according to UL
- Capacity CX 330 nF

References

Alternative: version without line filter 4793; 4798

Weblinks

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

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

Ratings IEC	16 A @ Ta 40 °C / 250 VAC; 50 Hz
Ratings UL/CSA	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)
Impulse Withstand Voltage	> 2.5 kV between L-N (CX2) > 4 kV between L-N (CX1) > 5 kV between L/N-PE (Cy2) voltage (1.2/50 µs)
Allowable Operation Temperature	-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	Solder, quick connect or wires (stranded)
Panel Thickness S	Screw: max 8 mm Mounting screw torque max 0.5 Nm Snap-in: 1 mm to 3 mm
Material: Housing	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, 16 A, Protection Class I
Line Filter	Standard and Medical Version, IEC 60939, UL 1283, CSA C22.2 no. 8 Technical Details
MTBF	> 3'000'000 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: C20F

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 104884
	UL Approvals	UL	UL File Number: E72928
	CQC Approvals	CQC	CQC Certificate Number: CQC18001191999

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

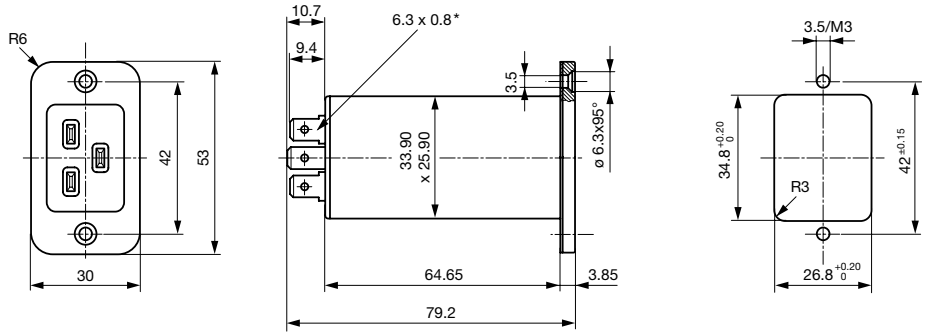
Organization	Design	Standard	Description
	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.
	Designed for applications acc.	IEC 60601-1	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

Compliances

The product complies with following Guide Lines

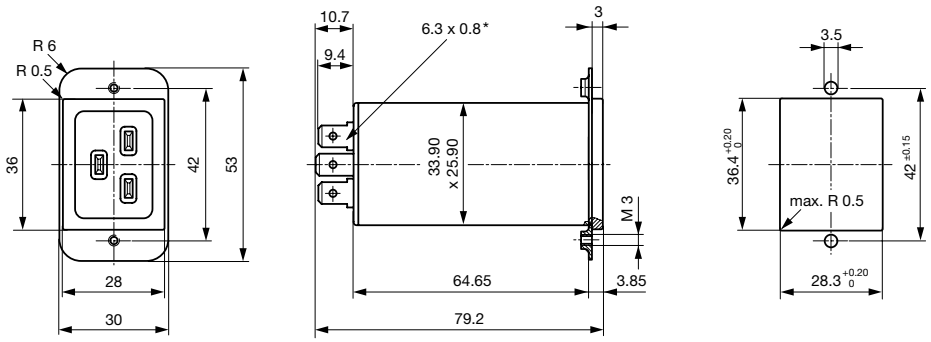
Identification	Details	Initiator	Description
CE	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
RoHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
	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	Landing Page 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 Technology	SCHURTER AG	Suitable for use in medical equipment according to IEC/UL 60601-1

Dimension [mm]
Screw-on from front side

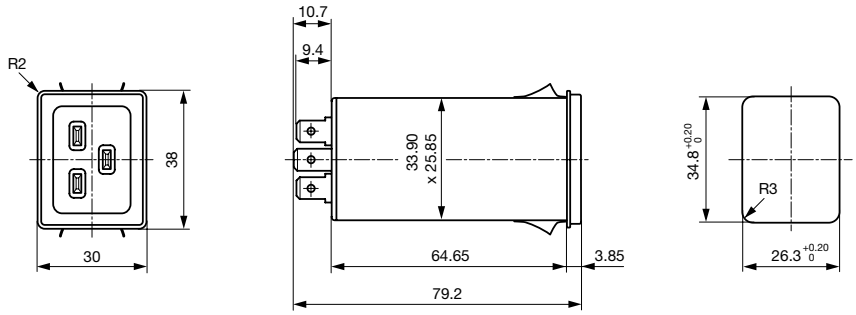


* Solder terminal: identical outer dimensions

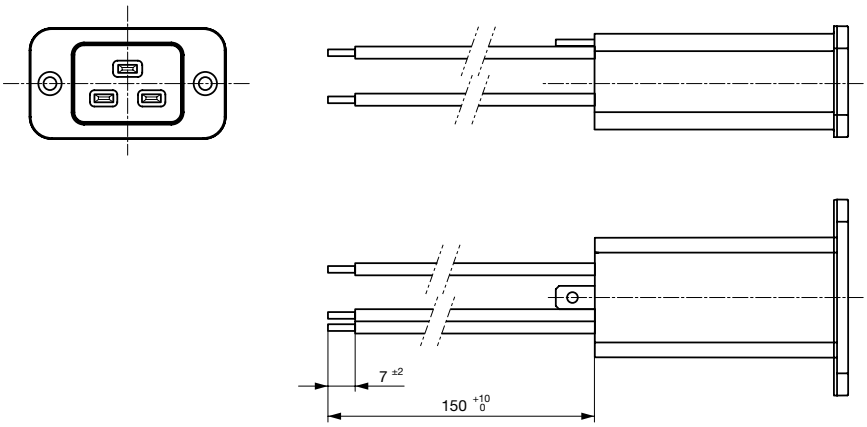
Screw-on mounting from rear side with metal flange



Snap-in mounting from front side



Screw-on mounting from front side with flexible wire

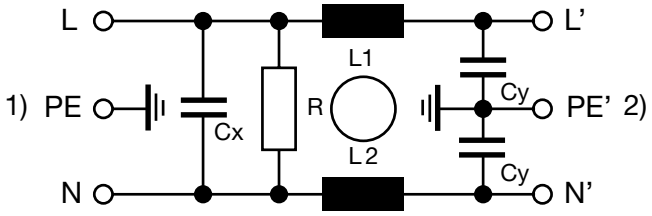


Technical Data of Filter-Components

Rated Current [A]	Filter-Type	Inductance L1/ L2 [mH]	Inductance L3 [mH]	Capacitance CX [nF]	Capacitance CY [nF]	R [MΩ]
16	Standard version	2 x 0.3	-	100	2.2	1
16	Standard Version with Ground Line Choke	2 x 0.3	0.15	330	2.2	1
16	Medical Version (M5)	2 x 0.3	-	100	-	1
16	Medical Version (M80)	2 x 0.3	-	100	0.47	1
16	Medical Version (M5) with Ground Line Choke	2 x 0.3	0.15	330	-	1

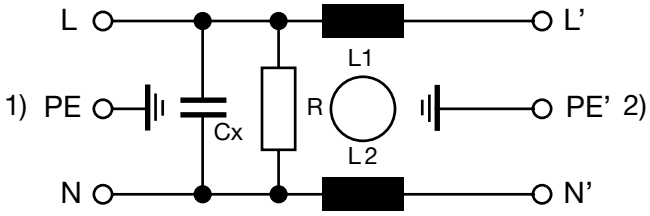
Diagrams

Standard version



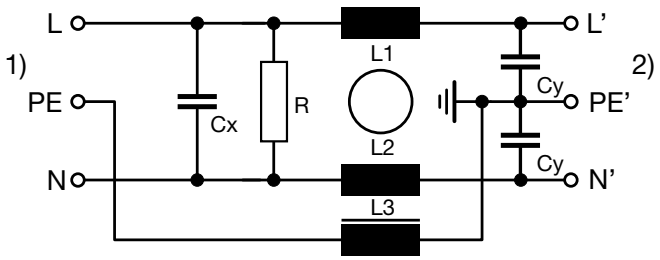
1) Line
2) Load

Medical Version (M5)



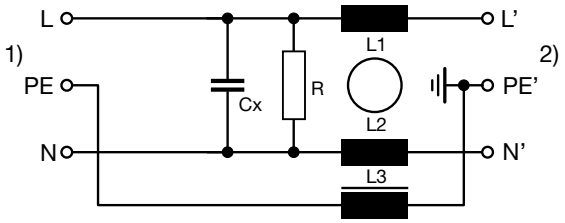
1) Line
2) Load

Standard version with ground line choke



1) Line
2) Load

Medical Version (M5) with ground line choke



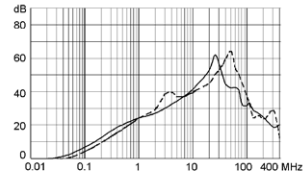
1) Line
2) Load

Attenuation Loss

- - - - 50Ω differential mode _____ 50Ω common mode

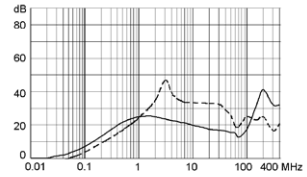
Standard version

20 A



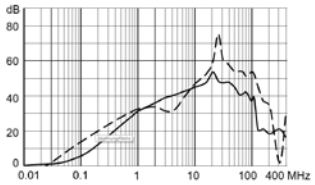
Medical version (M5)

20 A



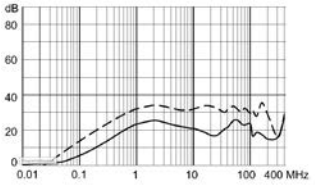
Standard with Earth Line Choke

20A



Medical (M5) with Earth Line Choke

20A



All Variants

Rated Current IEC	Rated Current UL	Filter-Type	Panel mounting	Mounting side	Terminal	Capacitor	V-Lock	Order Number
16	20	Standard version	Snap-in	Front Side	Quick connect terminals 6.3 x 0.8 mm	X2 100nF		C20F.0111
16	20	Standard version	Snap-in	Front Side	Quick connect terminals 6.3 x 0.8 mm	X1 100nF		C20F.0113
16	20	Standard version	Snap-in	Front Side	Solder terminals	X2 100nF		C20F.0011
16	20	Standard version	Snap-in	Front Side	Solder terminals	X1 100nF		C20F.0013
16	20	Standard version	Screw	Front Side	Quick connect terminals 6.3 x 0.8 mm	X2 100nF	●	C20F.0101
16	20	Standard version	Screw	Front Side	Quick connect terminals 6.3 x 0.8 mm	X1 100nF	●	C20F.0103
16	20	Standard version	Screw	Front Side	Solder terminals	X2 100nF	●	C20F.0001
16	20	Standard version	Screw	Front Side	Solder terminals	X1 100nF	●	C20F.0003
16	20	Standard version	Screw	Rear Side	Flexible wire AWG14	X2 100nF		C20F.0221

Rated Current IEC	Rated Current UL	Filter-Type	Panel mounting	Mounting side	Terminal	Capacitor	V-Lock	Order Number
16	20	Standard version	Screw	Rear Side	Flexible wire AWG14	X1 100nF		C20F.0023
16	20	Standard version	Screw	Rear Side	Flexible wire AWG14	X1 100nF		C20F.0223
16	20	Standard version	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	X2 100nF		C20F.0121
16	20	Standard version	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	X1 100nF		C20F.0123
16	20	Standard version	Screw	Rear Side	Solder terminals	X2 100nF		C20F.0021
16	20	Standard Version with Ground Line Choke	Snap-in	Front Side	Quick connect terminals 6.3 x 0.8 mm	X2 330nF	●	3-124-295
16	20	Standard Version with Ground Line Choke	Screw	Front Side	Quick connect terminals 6.3 x 0.8 mm	X2 330nF	●	3-124-273
16	20	Medical Version (M5)	Snap-in	Front Side	Quick connect terminals 6.3 x 0.8 mm	X2 100nF		C20F.0112
16	20	Medical Version (M5)	Snap-in	Front Side	Quick connect terminals 6.3 x 0.8 mm	X1 100nF		C20F.0114
16	20	Medical Version (M5)	Snap-in	Front Side	Solder terminals	X2 100nF		C20F.0012
16	20	Medical Version (M5)	Snap-in	Front Side	Solder terminals	X1 100nF		C20F.0014
16	20	Medical Version (M5)	Screw	Front Side	Quick connect terminals 6.3 x 0.8 mm	X2 100nF	●	C20F.0102
16	20	Medical Version (M5)	Screw	Front Side	Quick connect terminals 6.3 x 0.8 mm	X1 100nF	●	C20F.0104
16	20	Medical Version (M5)	Screw	Front Side	Solder terminals	X2 100nF	●	C20F.0002
16	20	Medical Version (M5)	Screw	Front Side	Solder terminals	X1 100nF	●	C20F.0004
16	20	Medical Version (M5)	Screw	Rear Side	Flexible wire AWG14	X2 100nF		C20F.0022
16	20	Medical Version (M5)	Screw	Rear Side	Flexible wire AWG14	X2 100nF		C20F.0222
16	20	Medical Version (M5)	Screw	Rear Side	Flexible wire AWG14	X1 100nF		C20F.0024
16	20	Medical Version (M5)	Screw	Rear Side	Flexible wire AWG14	X1 100nF		C20F.0224
16	20	Medical Version (M5)	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	X2 100nF		C20F.0122
16	20	Medical Version (M5)	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	X1 100nF		C20F.0124
16	20	Medical Version (M5) with Ground Line Choke	Screw	Front Side	Quick connect terminals 6.3 x 0.8 mm	X2 330nF	●	3-124-294

Most Popular.

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

Wire length: 150 mm

Packaging unit 20 Pcs

Accessories

Description

Wire Harness
Wire harness for SCHURTER products

Assorted Covers
Rear Cover

	0859.0047

Cord retaining kits
Cord retaining strain relief

Countersunk, K	4700.0010
Flat head, L	4700.0011

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

Connector further types to C20F

Mating Outlets/Connectors shuttered

Power Cord Overview complete

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

Power Cord further types to C20F

12.05.2020

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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