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

# DD12

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



Screw-on mounting horizontal (version B)



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
- 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

- Solder terminals
- 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 datasheet, General Product Information, Approvals, Distributor-Stock-Check, Accessories, Detailed request for product

#### **Technical Data**

1 - 10A @ Ta 40 °C / 250 VAC; 50 Hz
1 - 10A @ Ta 40 °C / 250 VAC; 60 Hz
standard < 0.5 mA (250 V / 60 Hz) medical < 5 μA (250 V / 60 Hz)
> 1.7 kVDC between L-N > 2.7 kVDC between L/N-PE Test voltage (2 sec)
-25 °C to 85 °C
25/085/21 acc. to IEC 60068-1
front side IP40 acc. to IEC 60529
Suitable for appliances with protection class I acc. to IEC 61140
Quick connect terminals 6.3 x 0.8 mm
Screw-on mounting: max 8mm Mounting screw torque max 0.5Nm Snap-in: 1mm to 3mm
Thermoplastic, black, UL 94V-0

Protection Class I         Fuseholder       1-/2-pole, Shocksafe category PC2 acc. to IEC 60127-6, for fuse-links 5 x 20mm         Rated Power Acceptance @       5 x 20: 2W (1 pole)/ 1.6W (2-pole) per Ta 23 °C	Appliance inlet/-outlet	C14 acc. to IEC 60320-1
Protection Class I         Fuseholder       1-/2-pole, Shocksafe category PC2 acc. to IEC 60127-6, for fuse-links 5 x 20mm         Rated Power Acceptance @       5 x 20: 2W (1 pole)/ 1.6W (2-pole) per pole         Power Acceptance @ Ta >       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 60939-3, CSA C22.2 no. 8 Technical Details		UL 498, CSA C22.2 no. 42 (for cold
Fuseholder       1-/2-pole, Shocksafe category PC2         acc. to IEC 60127-6,       for fuse-links 5 x 20mm         Rated Power Acceptance @       5 x 20: 2W (1 pole)/ 1.6W (2-pole) per         Ta 23 °C       pole         Power Acceptance @ Ta >       Admissible power acceptance at higher         23°C       acc. to IEC 61058-1         Technical Details       Standard and Medical Version, IEC         60939, UL 60939-3, CSA C22.2 no. 8       Technical Details		conditions) pin-temperature 70 °C, 10A,
acc. to IEC 60127-6, for fuse-links 5 x 20mm         Rated Power Acceptance @         Ta 23 °C         Power Acceptance @         Power Acceptance @         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 60939-3, CSA C22.2 no. 8 Technical Details		Protection Class I
for fuse-links 5 x 20mm         Rated Power Acceptance @         Ta 23 °C       5 x 20: 2W (1 pole)/ 1.6W (2-pole) per pole         Power Acceptance @ Ta >       Admissible power acceptance at higher ambient temperature see derating curves         Line Switch       Rocker switch 2-pole, non-illuminated, acc. to IEC 61058-1 Technical Details         Line Filter       Standard and Medical Version, IEC 60939, UL 60939-3, CSA C22.2 no. 8 Technical Details	Fuseholder	1-/2-pole, Shocksafe category PC2
Rated Power Acceptance @       5 x 20: 2W (1 pole)/ 1.6W (2-pole) per pole         Ta 23 °C       pole         Power Acceptance @ Ta >       Admissible power acceptance at higher ambient temperature see derating curves         Line Switch       Rocker switch 2-pole, non-illuminated, acc. to IEC 61058-1         Technical Details       Standard and Medical Version, IEC 60939, UL 60939-3, CSA C22.2 no. 8		acc. to IEC 60127-6,
Ta 23 °C       pole         Power Acceptance @ Ta >       Admissible power acceptance at higher ambient temperature see derating curves         Line Switch       Rocker switch 2-pole, non-illuminated, acc. to IEC 61058-1         Technical Details       Line Filter         Standard and Medical Version, IEC 60939, UL 60939-3, CSA C22.2 no. 8         Technical Details		for fuse-links 5 x 20mm
Power Acceptance @ Ta > 23°C Line Switch Line Filter 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 60939-3, CSA C22.2 no. 8 Technical Details	Rated Power Acceptance @	5 x 20: 2 W (1 pole)/ 1.6 W (2-pole) per
23°C       ambient temperature see derating curves         Line Switch       Rocker switch 2-pole, non-illuminated, acc. to IEC 61058-1         Technical Details       Technical Version, IEC 60939, UL 60939-3, CSA C22.2 no. 8         Technical Details       Technical Details	Ta 23 °C	pole
ves     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 60939-3, CSA C22.2 no. 8       Technical Details	Power Acceptance @ Ta >	Admissible power acceptance at higher
Line Switch Rocker switch 2-pole, non-illuminated, acc. to IEC 61058-1 Technical Details Line Filter Standard and Medical Version, IEC 60939, UL 60939-3, CSA C22.2 no. 8 Technical Details	23°C	ambient temperature see derating cur-
Line Filter Standard and Medical Version, IEC 60939, UL 60939-3, CSA C22.2 no. 8 Technical Details		Ves
Technical Details           Line Filter         Standard and Medical Version, IEC           60939, UL 60939-3, CSA C22.2 no. 8           Technical Details	Line Switch	Rocker switch 2-pole, non-illuminated,
Line Filter Standard and Medical Version, IEC 60939, UL 60939-3, CSA C22.2 no. 8 Technical Details		acc. to IEC 61058-1
60939, UL 60939-3, CSA C22.2 no. 8 Technical Details		Technical Details
Technical Details	Line Filter	Standard and Medical Version, IEC
		60939, UL 60939-3, CSA C22.2 no. 8
MTBF > 2'000'000 h acc. to MIL-HB-217 F		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>A</b> us	UL Approvals	UL	UR File Number: E495089
	CQC Approvals	CQC	CQC Certificate Number: 20001257136, 22001363465

#### **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
(ŲL)	Designed according to	UL 498	Standard for Attachment Plugs and Receptacles
(ŲL)	Designed according to	UL 60939-3	Passive filters for suppressing electromagnetic interference
CSA 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
IEC.	Suitable 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

Identification

CE

UK CA

REACH

00

Y

V-Lock

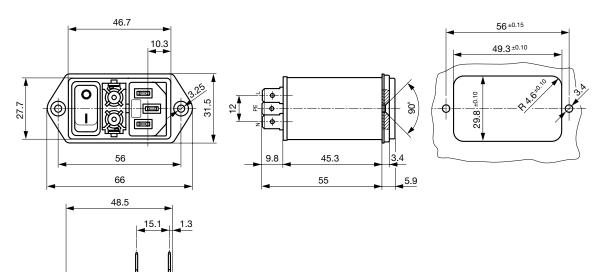
The product complies with following Guide Lines

Details	Initiator	Description
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.
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	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	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.
	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.
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.
Medical Equipment	SCHURTER AG	Suitable for use in medical equipment according to IEC/UL 60601-1 (1 MOOP, 1 MOPP)

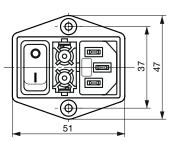
**Dimension** [mm]

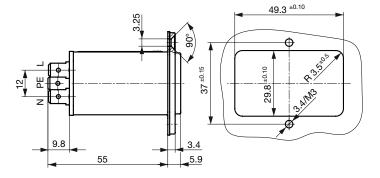
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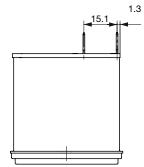
Screw version A



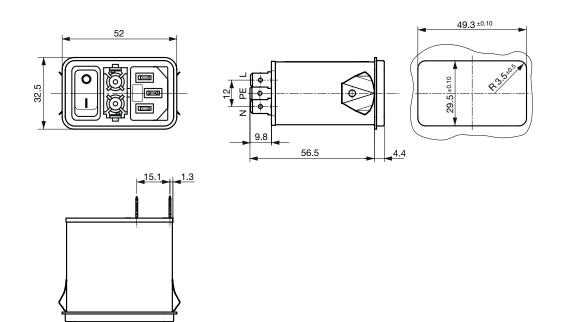
Screw version B







## Snap-in mounting from front side

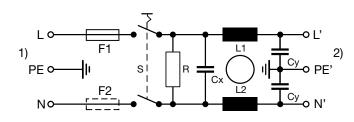


## **Technical Data of Filter-Components**

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	0.6	100	2.2	1
10	Standard Version with Ground Line Choke	2 x 0.3	0.15	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
2	Medical Version (M80)	2 x 4	-	100	0.47	1
8	Medical Version (M80)	2 x 0.6	-	100	0.47	1

## Diagrams

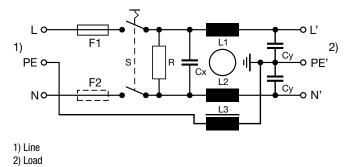
Standard Version, medical Version M80 Non-illuminated



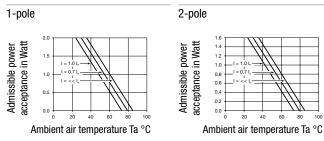
1) Line

2) Load

Standard Version, medical Version M80 with PE-choke

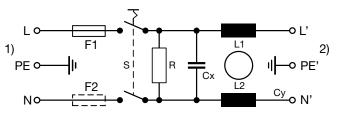


## **Derating Curves**



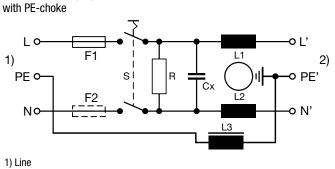
Medical Version (M5) Non-illuminated





1) Line 2) Load

Medical Version (M5)



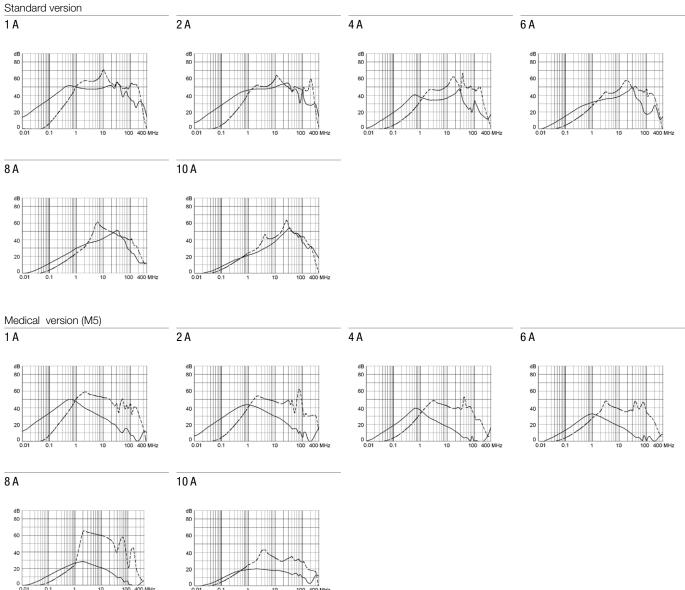
2) Load

# DD12

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

## Attenuation Loss

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



### 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-on 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-on 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-on 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

## 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-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
4	Standard version	Screw-on 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-on 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-on 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-on 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-on 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-on 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-on 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-on 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-on 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-on 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-on 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-on 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	DD12.1621.111
2	Medical Version (M80)	Screw-on A	2-pole	2-pole	non-illuminated	black	DD12.2621.111
8	Medical Version (M80)	Screw-on A	2-pole	2-pole	illuminated, green	black	3-119-831
8	Medical Version (M80)	Screw-on A	2-pole	2-pole	non-illuminated	black	3-129-037

Availability for all products can be searched real-time: https://www.schurter.com/en/info-center/support-tools/stock-check-distributors

Rated Current Filter-Type [A]	Mounting	Fuseholder	Line Switch	Illumination	Color	Order Number
he fuse drawer is not included a	and must be ordered separately (s	ee required accessory	).			
Packaging unit	10 Pcs					
Required Accessory						
	Description					
	Fusedrawer_2 Fusedrawer for Fuse Links 5x20 mr	n, with or without Voltage	e Selector Insert			
AL AND	Fingergrip, 2-pole				4301.140	)1
	Extra-Safe, 2-pole				4301.140	
	Fingergrip, 1-pole				4301.140	
	Extra-Safe, 1-pole				4301.140	)7
Accessories						
R. S. M. M. M. M.						
NO.						



RC320 Rear Cover for Power Entry Module



Cord\_retaining\_kits Cord retaining strain relief

Flat head, A

4700.0001

4787 5091

VAC13KS

## 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
IEC Appliance Outlet F or H, Screw-on Mounting, Front Side, Solder, PCB or Quick-connect Terminal

#### 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, 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 <sup>2</sup> / 3 x 18 AWG, Cable, Connector: IEC C13	4783
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#### Power Cord Overview complete

VAC13KS, Overview, V-Lock cord retaining, diverse Connector IEC C13, diverse, black

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.

## **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Schurter:

 DD12.1111.111
 DD12.1121.111
 DD12.1321.111
 DD12.2111.111
 DD12.2121.111
 DD12.2321.111
 DD12.4111.111

 DD12.4121.111
 DD12.4321.111
 DD12.6111.111
 DD12.6121.111
 DD12.6321.111
 DD12.9111.111
 DD12.9121.111

 DD12.9321.111
 DD12.6123.111
 DD12.8121.111
 DD12.8321.111
 DD12.6324.111
 DD12.2324.111

 DD12.4324.111
 DD12.2124.111
 DD12.8111.111
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 DD12.6324.111
 DD12.2324.111