Power Cord Input EMC Filter IF 13

- High frequency attenuation
- Shielding and ferrite cable
- Easy to integrate in any design
- Retrofit for any IEC C14 inlet
- Rated current up to 10A
- Various powerline plugs for international usage

Approvals & Compliances

The IF13 power cord with integrated filter is the easiest way to integrate an EMC filter into a given design (with a power cord). The approach to incorparate the filter in an external cable can help to pass compliance testing at the end of the design phase. The performance of the filter is enhanced through the ferrite cable and shielding. With different versions of input and output connections the cord can be easily implemented. Complying with RoHS and REACH the power cords fulfill worldwide environmental regulations.

Technical Specifications

Maximum continuous operating voltage	250 VAC (120V for US plug version), 50/60 Hz
Nominal operating voltage	230 VAC
High potential test voltage	IF13-SE: P -> N 1200 VDC (1 min) P+N -> PE 2100 VDC (1 min) IF13-SE: P+N -> PE 2100 VAC (1 min 50Hz) P -> N 2100 VDC (1 min)
Temperature range (operation and storage)	-25°C to +70°C
Protection category	IP 20 according IEC 60529
Flammability corresponding to	Cable: UL VW-1
Connector (load side)	IEC C13 according to IEC/EN 60320-2-2 stripped ends
Connector (line side) and cables	Schuko Plug CEE7/VII US NEMA5-15 plug standard stripped ends

Features and Benefits

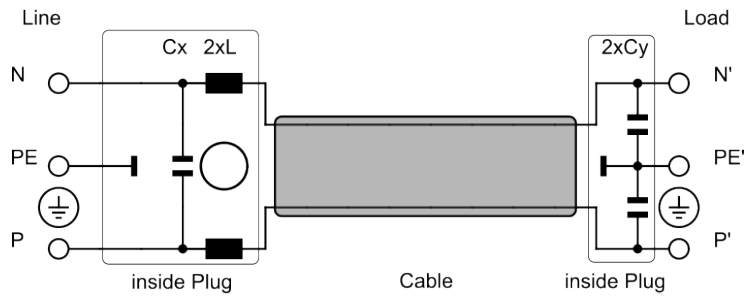
- Easy to implement, no redesign required
- EMC lifeline at last design stage
- High performance in high frequency range
- Retrofit for cord connected devices
- no space allocation required for filter

Typical Applications

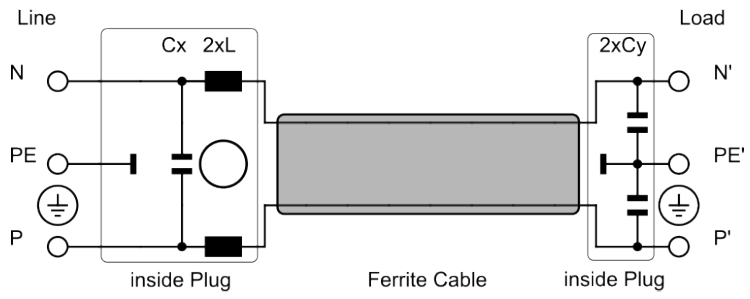
- All cord connected applications
- Datacenter
- Communication Technology
- Medical and Laboratory devices
- Security applications
- High frequency applications
- Applications with critical housing dimensions (cable is external)

Typical Electrical Schematics

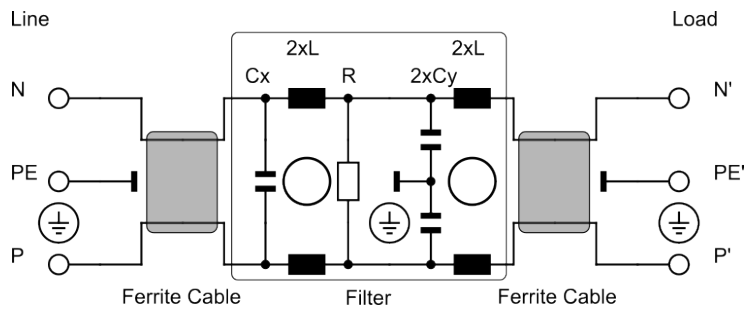
Schematic without ferrite cable (IF13-US3-SVT-3100-NF-ZZZ)



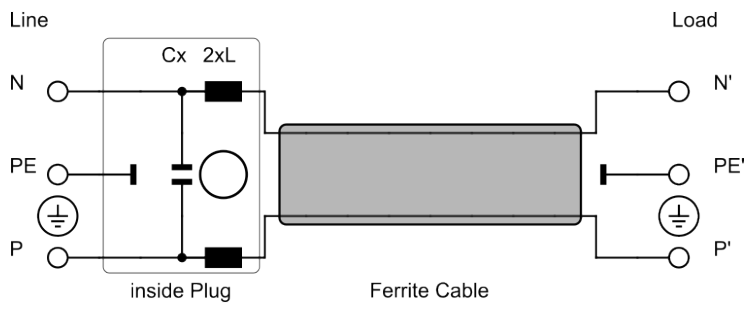
Schematic with ferrite cable and Cy (IF13-US3/EU2-H05-3100-WF-ZZZ)



Schematic of dual stage filter (IF13-SE-H05-3100-WF-XXX)



Schematic with ferrite cable without Cy (IFSE-US3-H05-3100-WF-200)



Filter Selection Table

Filter*	Rated current @ 40°C (25°C)	Leakage current** @ 250V AC/50 Hz (@ 120V AC/60 Hz)	Inductance L	Capacitance Cx	Capacitance Cy	Resistance R	Ferrite Cable***	Input connection	Output connection	Weight (200 cm)
	[A]	[mA]	[mH]	[µF]	[nF]	[kΩ]				[g]
IF13-US3-SVT-3100-NF-...	10	0.31 (0.18)	0.8	0.1	2.2		no	NEMA5-15	C13	240
IF13-US3-H05-3100-WF-...	10	0.31 (0.18)	0.8	0.1	2.2		yes	NEMA5-15	C13	340
IF13-EU2-H05-3100-WF-...	10	0.31 (0.18)	0.8	0.1	2.2		yes	CEE7/VII	C13	360
IF13-SE-H05-3100-WF-...	10	0.31 (0.18)	0.8 (2x)	0.1	2.2	1000	yes	Stripped Ends	C13	410
IFSE-US3-H05-3100-WF-...	10	0	0.8	0.1			yes	NEMA5-15	Stripped Ends	310

* To compile a complete part number, please replace the -.. with the required length.

** Maximum leakage under usual AC operating conditions (acc. IEC 60939-3). Note: if the neutral line is interrupted, worst case leakage could reach twice this level. .

*** All cable is shielded

Product selector IF 13

IFxx-yyy-zzz-aaaa-bb-ccc:

Cable length: 200 – 200cm

Cable version: WF – With ferrite cable
NF – without ferrite cable

Cable core: 3100 – 3 X 1.00 mm^2 (US: AWG 18)

Cable type: H05 - H05VV-F
SVT - SVT

Line side plug: EU2 – CEE7/VII straight, integrated filter
US3 – NEMA5-15, straight, integrated filter
SE – with stripped ends

Load side plug: 13 - IEC C13 female plug, straight, integrated filter
SE – with stripped ends

Cable* Selection Table IF 13

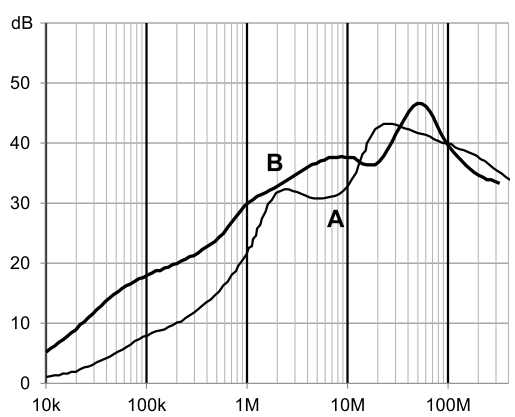
IF 13-US3-SVT-3100-NF-...	IEC cable assembly with input EMC Filter, IEC C13 connector, without ferrite coated cable, US version
IF 13-US3-H05-3100-WF-...	IEC cable assembly with input EMC Filter, IEC C13 connector, with ferrite coated cable, US version
IF 13-EU2-H05-3100-WF-...	IEC cable assembly with input EMC Filter, IEC C13 connector, with ferrite coated cable, EU version
IF 13-SE-H05-3100-WF-...	IEC cable assembly with EMC Filter, IEC C13 connector, with ferrite coated cable, stripped version
IF SE-US3-H05-3100-WF-...	IEC cable assembly with input EMC Filter, stripped output, with ferrite coated cable, US version

* All cables are shielded

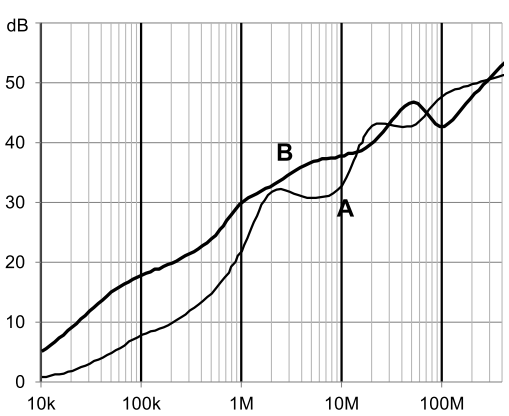
Typical Filter Attenuation

Per CISPR 17; A=50 Ω/50 Ω sym; B=50 Ω/50 Ω asym

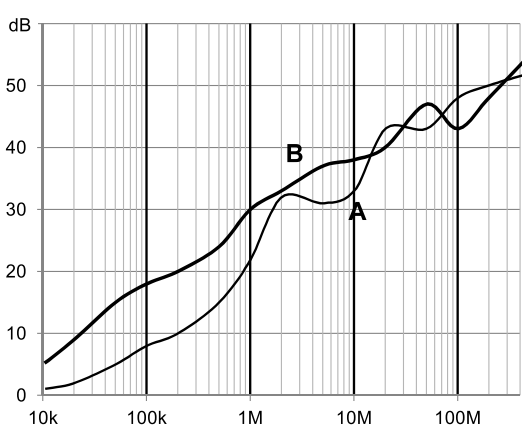
IF13-US3-SVT-3100-NF-200



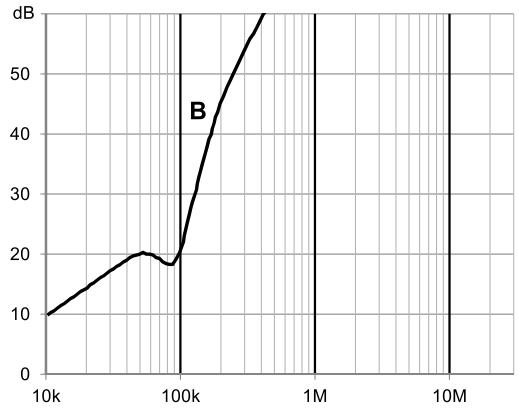
IF13-US3-H05-3100-WF-200



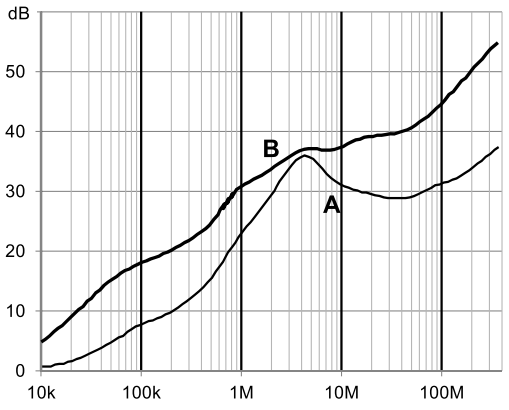
IF13-EU2-H05-3100-WF-200



IF13-SE-H05-3100-WF-200

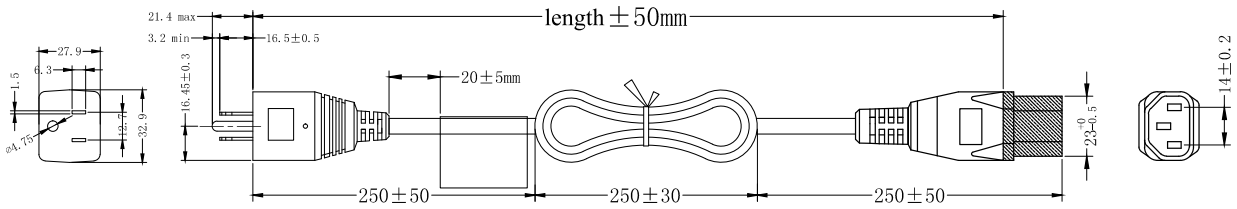


IFSE-US3-H05-3100-WF-200

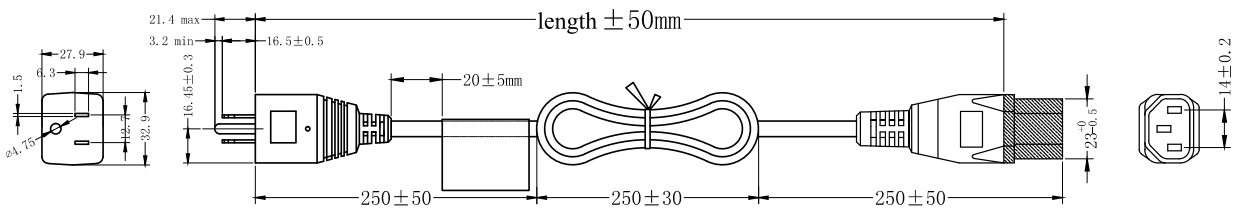


Mechanical Data

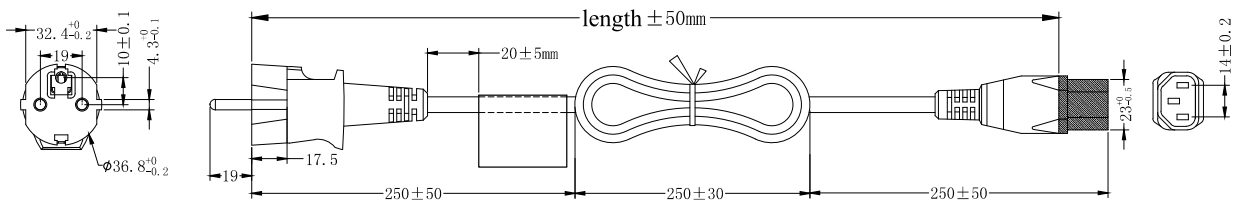
F13-US3-SVT-3100-NF



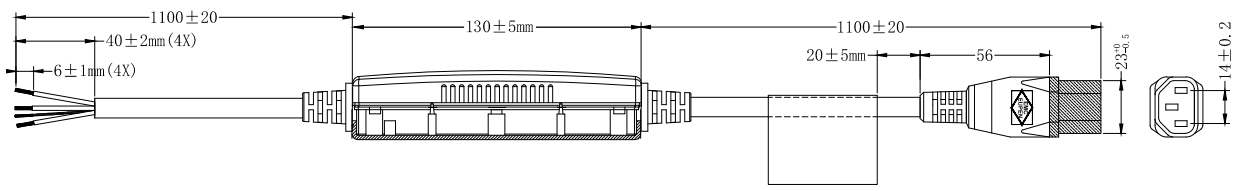
IF13-US3-H05-3100-WF



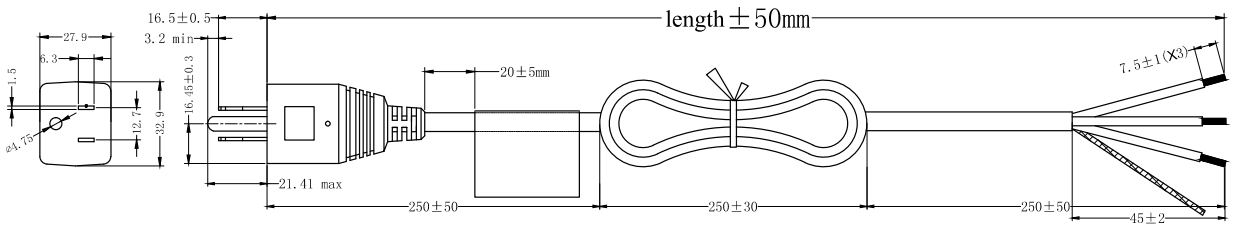
IF13-EU2-H05-3100-WF



IF13-SE-H05-3100-WF-200



IFSE-US3-H05-3100-WF



Please visit www.schaffner.com to find more details on filter connectors.

Headquarters, Global Innovation and Development

Switzerland
Schaffner Group
Industrie Nord
Nordstrasse 5
4542
Luterbach
+41 32 681 66 26
info@schaffner.com

To find your local partner within Schaffner's global network schaffner.com

Sales and Application Centers

Germany
Schaffner Deutschland GmbH
Ohiostr. 8
76149
Karlsruhe
+49 721 56910
germanysales@schaffner.com

Singapore
Schaffner EMC Pte Ltd.
Blk 3015A Ubi Road 1 #05-09 Kampong Ubi Industrial Estate
408705
Singapore
+65 63773283
singaporesales@schaffner.com

United Kingdom
Schaffner Ltd.
Suite 1 Oakmede Place
Terrace Road
RG42 4JF
Binfield
+44 118 9770070
schaffner.uksales@te.com

Thailand
Schaffner EMC Co. Ltd.
Sathorn Square Tower
Room 3780 37FL 98 North-Sathorn Rd Silom
Bangrak
10500
Bangkok
+66 621056397
thailandsales@schaffner.com

Switzerland
Schaffner EMV AG
Industrie Nord
Nordstrasse 5
4542
Luterbach
+41 32 681 66 26
switzerlandsales@schaffner.com

Sweden
Schaffner EMC AB
Östermalmstrorg 1
114 42
Stockholm
+46 8 5050 2425
swedensales@schaffner.com

China
Schaffner EMC Ltd. Shanghai
T20-3 C No 565 Chuangye Road Pudong district
201201
Shanghai
+86 2138139500
cschina@schaffner.com

Japan
Schaffner EMC K.K.
ISM Sangenjaya 7F
1-32-12 Kamiuma Setagaya-ku
154-0011
Tokyo
+81 3 5712 3650
japansales@schaffner.com

United States
Schaffner EMC Inc.
52 Mayfield Avenue
Edison, New Jersey
+1 732 225 9533
usasales@schaffner.com

Italy
Schaffner EMC S.r.l.
Via Ticino, 30
20900
Monza (MB)
+39 335 120 44 32
italysales@schaffner.com

India
Schaffner India Pvt. Ltd
Regus World Trade Centre
WTC 22nd Floor Unit No 2238 Brigade Gateway Campus 26/1 Dr. Rajkumar Road
Malleshwaram (W)
560055
Bangalore
+91 8067935355
indiasales@schaffner.com

France
Schaffner EMC S.A.S.
16-20 Rue Louis Rameau
95875
Bezons
+33 1 34 34 30 60
francesales@schaffner.com

Finland
Schaffner Oy
Lohjanharjuntie 1109
08500
Lohja
+ 358 50 468 72 84
finlandsales@schaffner.com