

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



Technical specifications

Maximum continuous operating voltage	250 VAC (120V for US plug version), 50/60 Hz
Rated currents	10 A
High potential test voltage	P+N -> PE 2100 VDC (1 min) IF13-SE: P+N -> PE 2100 VAC (1 min 50Hz) P -> N 2100 VDC (1 min) IF13-SE: P -> N 1200 VDC (1 min)
Protection category	IP 20 according IEC 60529
Temperature range (operation and storage)	-25°C to +70°C
Connector (load side)	IEC C13 according to IEC/EN 60320-2-2 stripped ends
Connector (line side)	Schuko Plug CEE7/VI US NEMA5-15 plug standard stripped ends
Flammability corresponding to	Cable: UL VW-1

Approvals



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 incorporate 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.

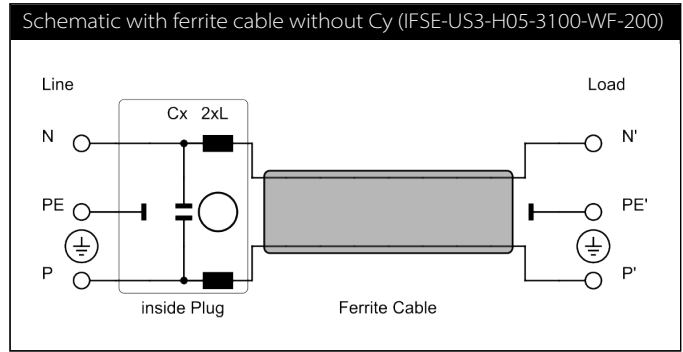
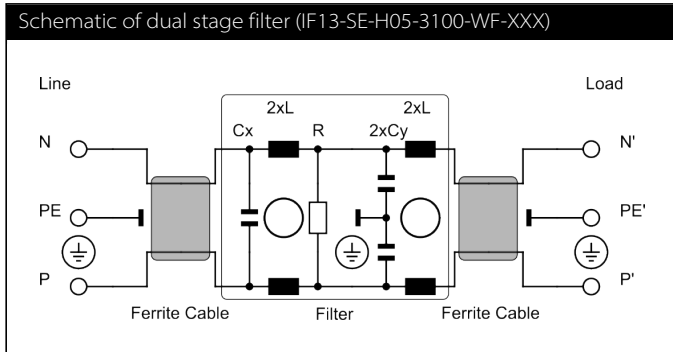
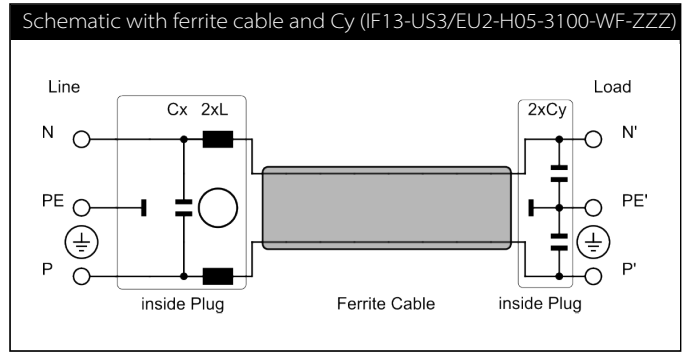
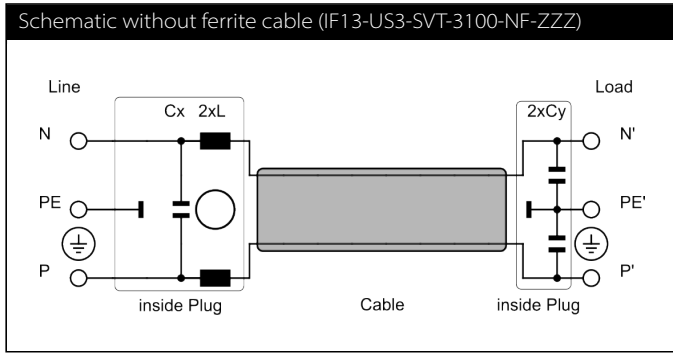
Features and benefits

- 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



Filter selection table

Filter*	Rated current @ 40°C (25°C) [A]	Leakage current** @ 250V AC/50 Hz @ 120V AC/60 Hz [mA]	Inductance L [mH]	Capacitance		Resistance R [kΩ]	Ferrite Cable***	Input connection	Output connection	Weight (200 cm) [g]
				Cx [μF]	Cy [nF]					
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 mm² (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

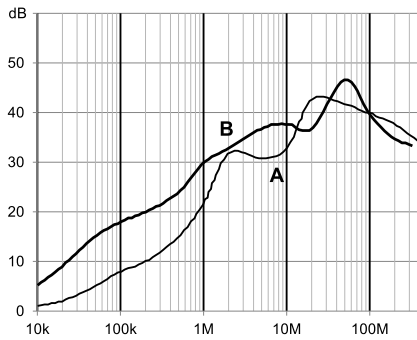
IF 13-US3-SVT-3100-NF-...	IEC cable assembly with input EMC Filter, IEC C13 connector, without ferrite coated cable, US version
IF 13-US3-H05-3100-WF-...	IEC cable assembly with input EMC Filter, IEC C13 connector, with ferrite coated cable, US version
IF 13-EU2-H05-3100-WF-...	IEC cable assembly with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

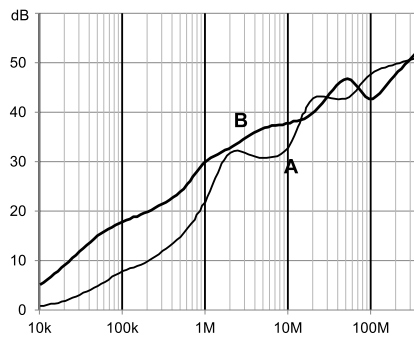
Typical filter attenuation

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

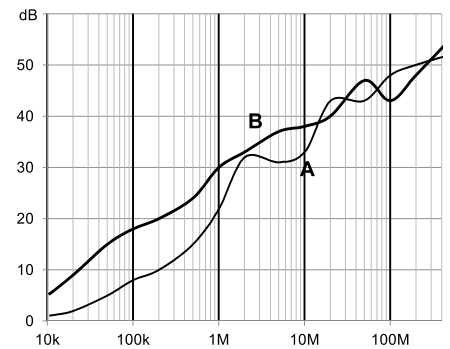
IF13-US3-SVT-3100-NF-200



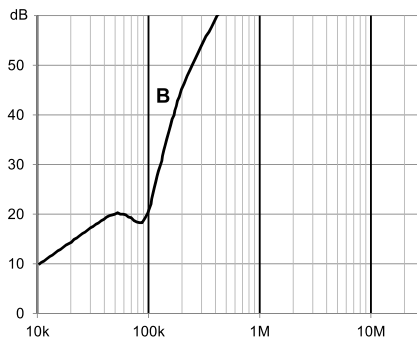
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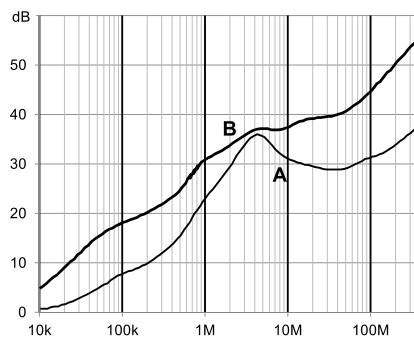
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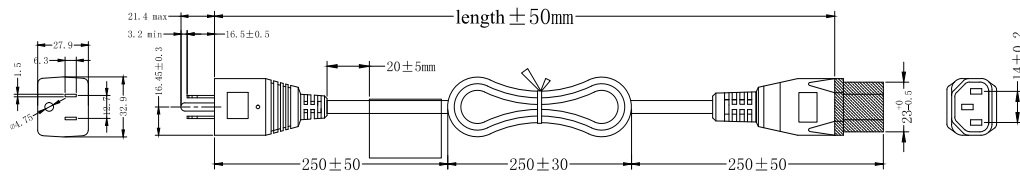


IFSE-US3-H05-3100-WF-200

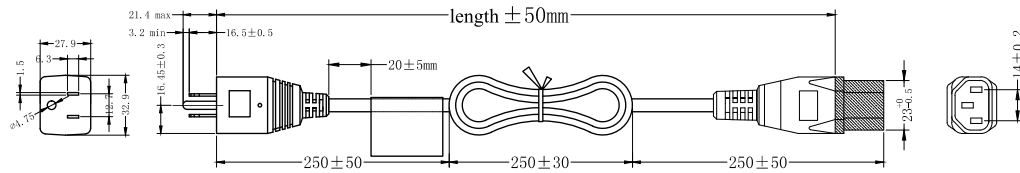


Mechanical data

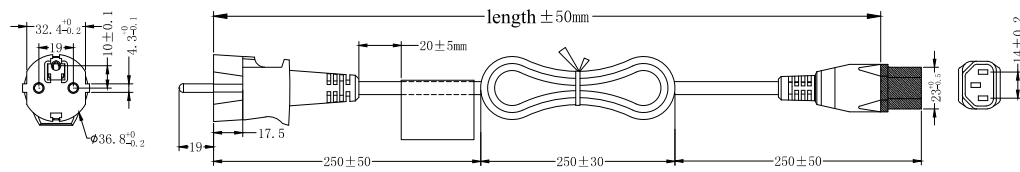
IF13-US3-SVT-3100-NF



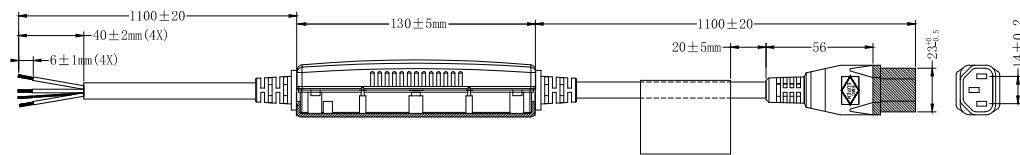
IF13-US3-H05-3100-WF



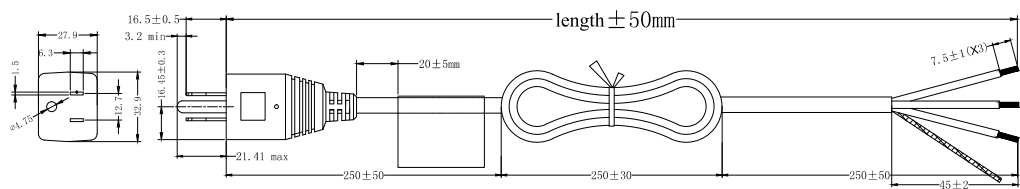
IF13-EU2-H05-3100-WF



IF13-SE-H05-3100-WF-200



IFSE-US3-H05-3100-WF



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



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