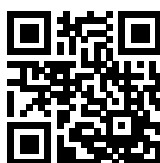


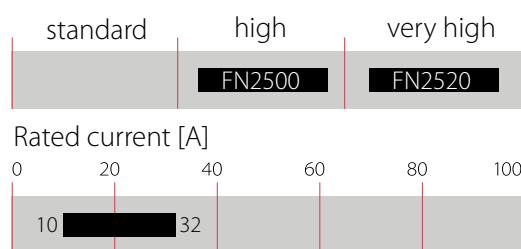
Low Profile - High performance, EMC/EMI filter



- Excellent EMC filter for robotics, datacenters and a variety of other applications
- Available terminals: Fast-on, wire leads, bolt and clamps
- Voltage rating up to 277 VAC / 400 VDC
- Fits within 1 height unit (HU) of a 19" rack application
- 50 °C operating temperature



Performance indicators



Approvals & Compliances



Certifications FN2520 pending

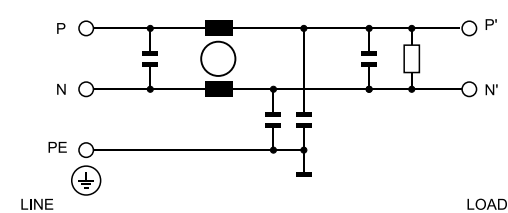
Features and Benefits

- FN2500 / FN2520 series fits perfectly within 1HU height for rack mount
- The filters are built to perform perfectly in datacenter and audio video equipment
- The shape allows convenient and space-saving installation
- Fulfills the requirements in IEC/EN 62040-1 - Uninterruptible power systems (UPS)
- Fulfills the requirements in IEC 62368-1 - Audio/Video, Information and Communication Technology Equipment
- Fulfills the requirements in IEC/EN 60335-1 - Household and similar appliances

Typical Applications

- Datacenter (at 400 VDC)
- Building technology with DC power distribution
- Robotics, collaborative robots, autonomous machines
- Audio and video equipment
- UPS - Uninterruptible power supplies

Typical electrical schematic



Technical Specifications

Rated operating voltage	277 VAC / 400 VDC (CQC: 250 VAC / 250 VDC)
Operating frequency	DC to 60 Hz
Flammability corresponding to	Plastic material: UL 94 V0 Laces for -07 version: UL 94 VW1
Rated currents	10 to 32 A @ 50°C
Surge withstand	2 kV Ph-Ph / 4 kV Ph-PE (Level 4)
High potential test voltage	P(DC+) -> N(DC-) 1500 VDC for 2 sec* P(DC+)/N(DC-) -> PE 2500 VDC for 2 sec*
Overload capability	1.5 x rated current for 1 minute once per hour
Altitude	Derating above 2000 m
Certified to	UL/IEC 60939-3, CSA 22.2 No. 8-13, GB/T 15287
MTBF	> 300,000 h
Protection category	IP00 / IP20 for -103 terminals
Pollution degree	2 acc. IEC 60664-1
Vibration and shock	3M12 acc. IEC 60721-3-3
Overvoltage category	II acc. IEC 60664-1
Temperature range (operation and storage)	FN2500: -40°C to +100°C (with derating >50°C) FN2520: -40°C to +85°C (with derating >50°C)
Cooling	Natural cooling AN
Climatic category	FN2500: 40/100/21 acc. IEC60068-1 FN2520: 40/085/21 acc. IEC60068-1 FN2520: 40/085/21 acc. IEC60068-1

* High potential test voltage: Repetition with max. 80% of specified values

Filter Selection Table

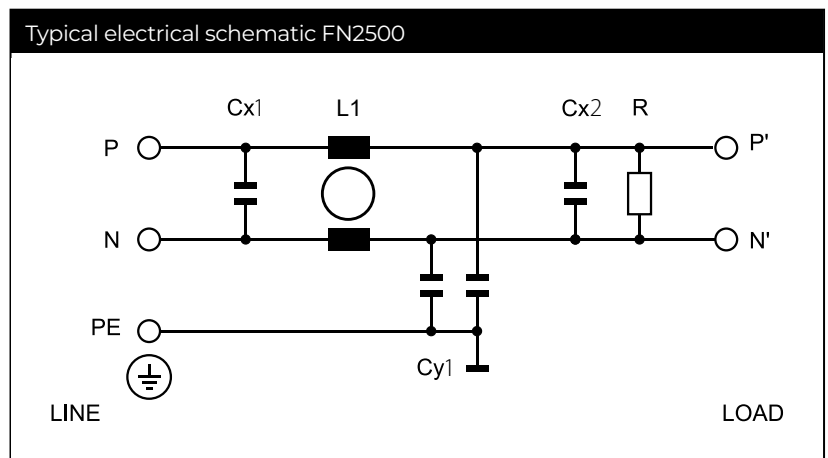
Filter	Rated current	Leakage current*	Power loss	Inductance**	Capacitance**			Resistance**	Connections***				Weight max****
	@ 50°C (@ 40°C)	@ 277 VAC/50 Hz (@ 120 VAC/60 Hz)	@ 25°C	L1	Cx1	Cx2	Cy1	R	line side/load side				[kg]
	[A]	[mA]	[W]	[mH]	[µF]	[µF]	[nF]	[kΩ]					[kg]
Single-stage													
FN2500-10-yy-C13	10 (11)	0.87 (0.45)	5.4	8.3	1	0.47	10	680	-05	-07	-08	-103	0.3
FN2500-15-yy-C13	15 (17)	0.87 (0.45)	6.4	4.0	1	0.47	10	680	-05	-07	-08	-103	0.3
FN2500-20-yy-C13	20 (22)	0.87 (0.45)	6.2	2.4	1	0.47	10	680	-05	-07	-08	-103	0.3
FN2500-25-yy-C13	25 (27)	0.87 (0.45)	8.0	1.5	1	0.47	10	680	n.a	-07	-08	-103	0.3
FN2500-32-yy-C13	32 (35)	0.87 (0.45)	11.6	1.5	1	0.47	10	680	n.a	-07	-08	-103	0.4

* Maximum leakage current under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage current could reach twice this level.
 ** Tolerances apply: Inductance: -30/+50%, Capacitance: ±20%, Resistance: ±10%.
 ***Standard parts have same input and output connections. For combinations, please contact your sales representative.
 ****Weight depending on choice of connectors.

Product selector

FN2500-xx-yy-C13

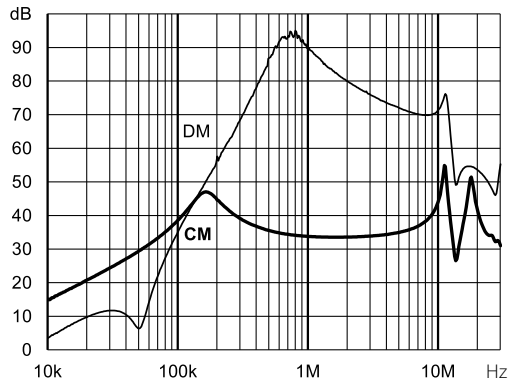
- yy – Line / load terminal types**
 - 05: fast-on 6.3 x 0.8 mm (up to 20 A only)
 - 07: wire leads
 - 08: M4 screw
 - 103: push-in terminal
- xx – Rated current**
 - 10-32: 10 A – 32 A



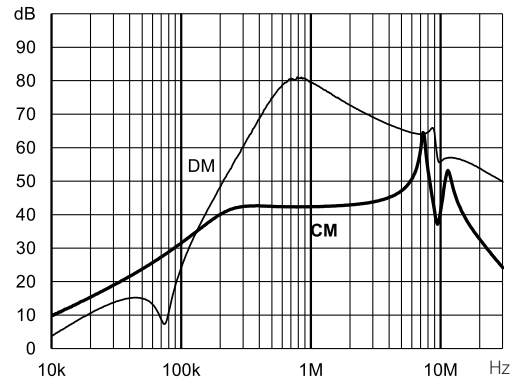
Typical Filter Attenuation

Per CISPR 17: symmetrical 50 Ω/50 Ω -> Differential Mode (DM); asymmetrical 50 Ω/50 Ω -> Common Mode (CM)

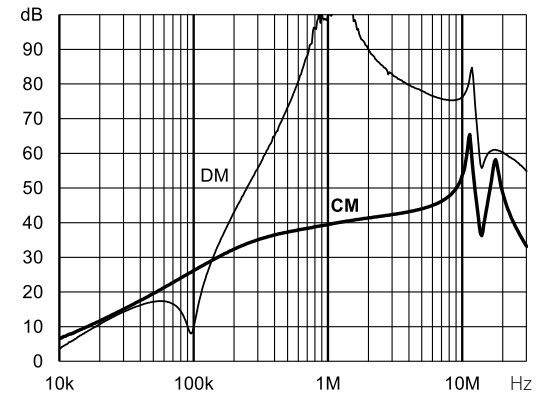
FN2500 - Single-stage filter



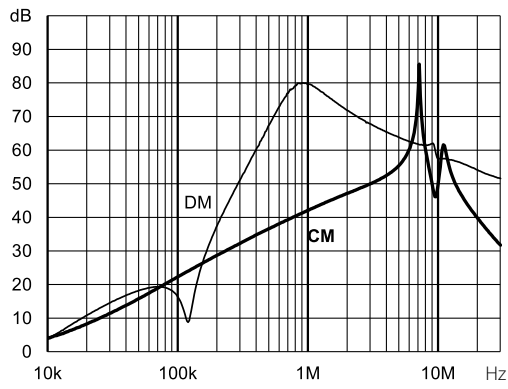
FN2500-10-yy-C13



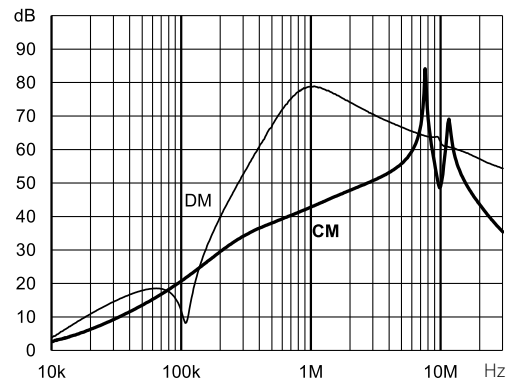
FN2500-15-yy-C13



FN2500-20-yy-C13



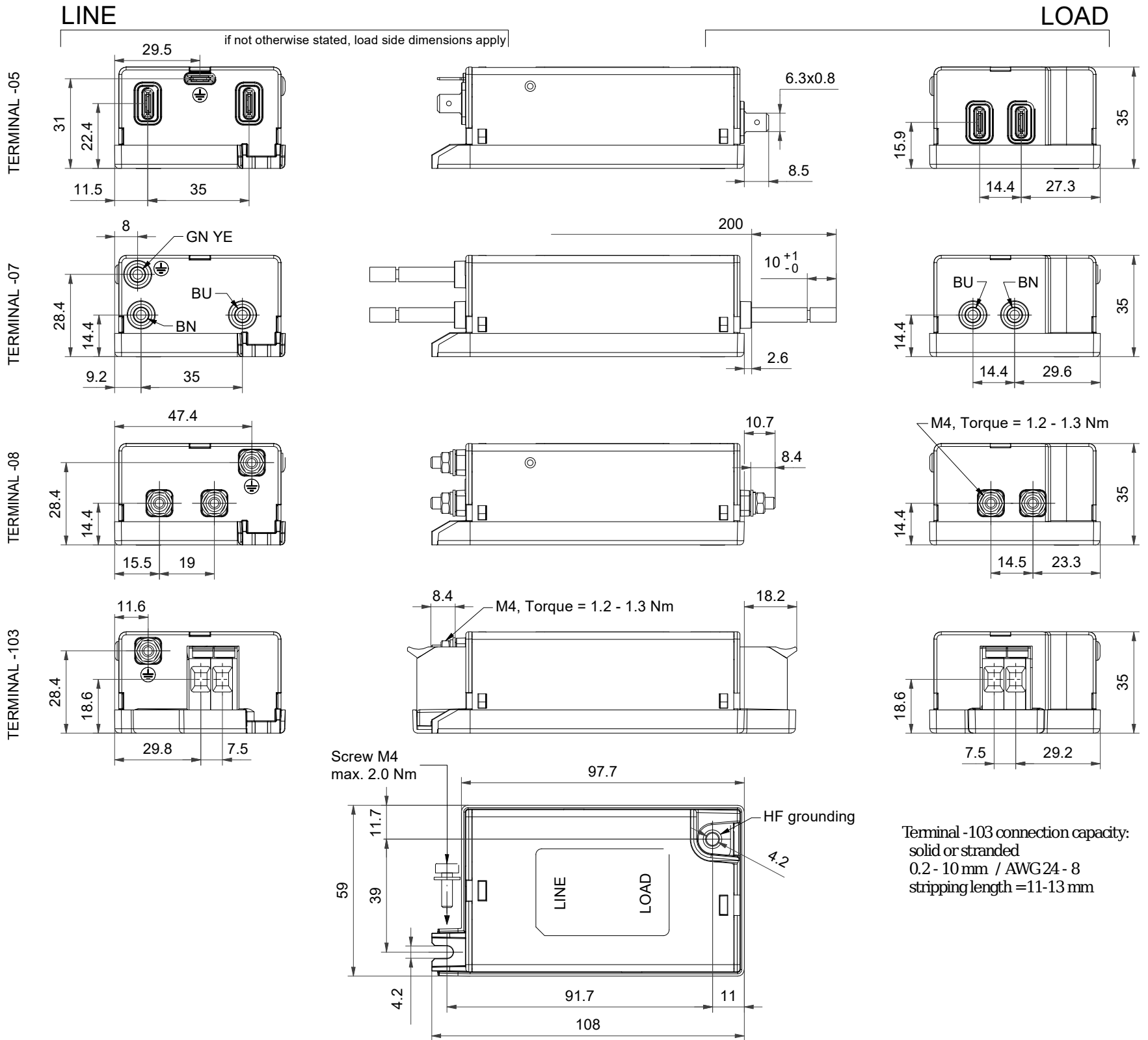
FN2500-25-yy-C13



FN2500-32-yy-C13

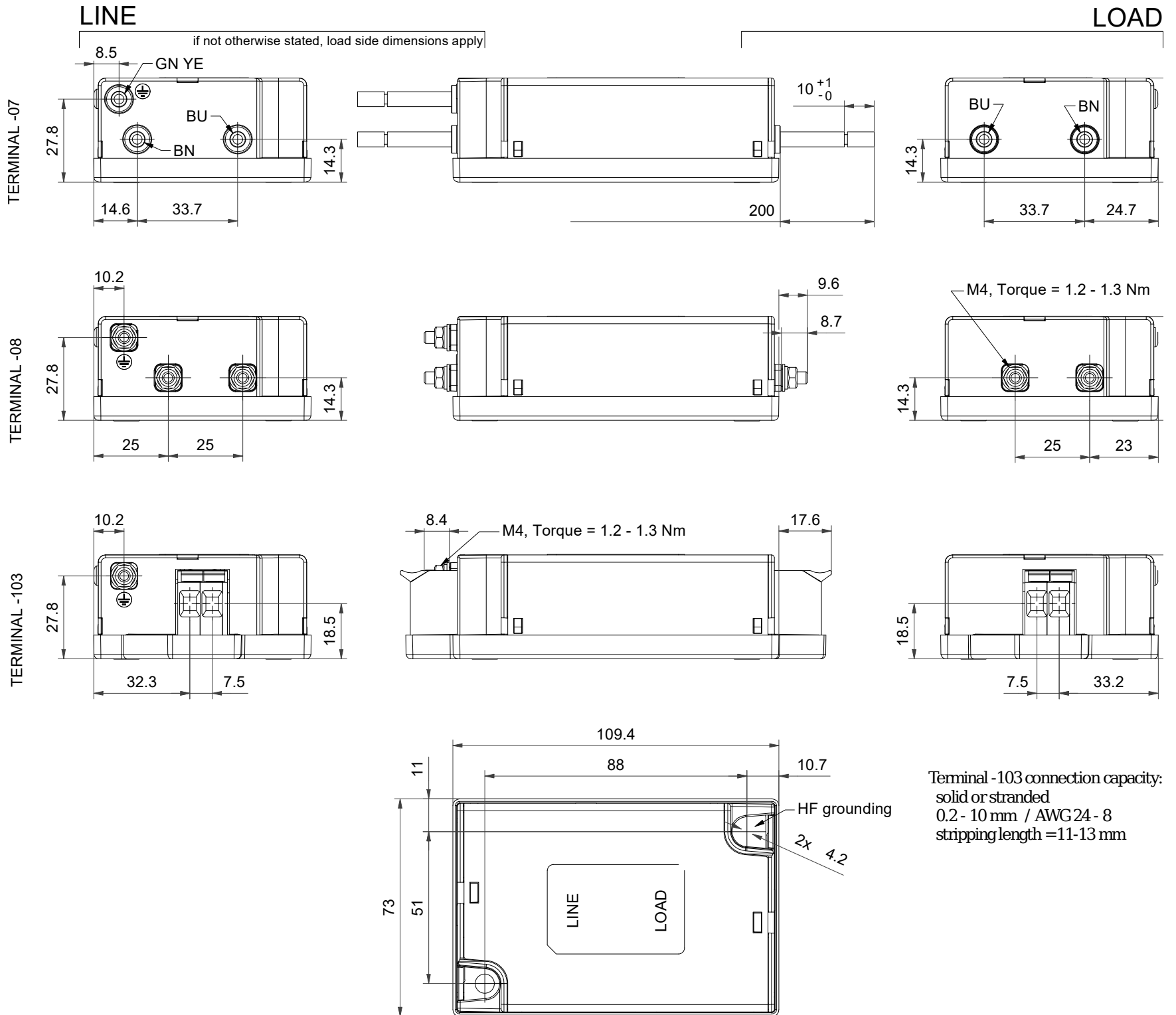
Dimensions FN2500 - 10 A To 25 A - Single-stage Filter

For dimensions [mm] without tolerances: ISO2768-cL/EN22768-cL applies



Dimensions FN2500 - 32 A - Single-stage Filter

For dimensions [mm] without tolerances: ISO2768-cL/EN22768-cL applies



Headquarters, Global Innovation and Development

Switzerland

Schaffner Group

Industrie Nord
Nordstrasse 11e
4542
Luterbach
+41 32 681 66 26
info@schaffner.com

Sales and Application Centers

Finland

Schaffner Oy

Sauvonrinne 19 H
8500
Lohja
+358 50 468 7284
finlandsales@schaffner.com

France

Schaffner EMC S.A.S.

16-20 Rue Louis Rameau
95875
Bezons
+33 1 34 34 30 60
francesales@schaffner.com

Germany

Schaffner Deutschland GmbH

Schoemperlenstrasse 12B
76185
Karlsruhe
+49 721 56910
germanysales@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

United Kingdom

Schaffner Ltd.

Suite 1 Oakmede Place
Terrace Road
RG42 4JF
Binfield
+44 118 9770070
uksales@schaffner.com

United States

Schaffner EMC Inc.

52 Mayfield Avenue
Edison, New Jersey
+1 732 225 9533
usasales@schaffner.com

Sweden

Schaffner EMC AB

Östermalmstrorg 1
114 42
Stockholm
+46 8 5050 2425
swedensales@schaffner.com

Switzerland

Schaffner EMV AG

Industrie Nord
Nordstrasse 11e
4542
Luterbach
+41 32 681 66 26
switzerlandsales@schaffner.com

Taiwan

Schaffner EMV Ltd.

U-Town
20 Floor-2 No 97 Section 1 XinTai 5th Road
XiZhi District
22175
New Taipei City
+886 226975500
taiwansales@schaffner.com

Italy

Schaffner EMC S.r.l.

Via Ticino, 30
20900
Monza (MB)
+39 039 21 41 070
italysales@schaffner.com

Japan

Schaffner EMC K.K.

ISM Sangenjaya
7F 1-32-12 Kamiyuma Setagaya-ku
154-0011
Tokyo
+81 3 5712 3650
japansales@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

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

© 2023 Schaffner Group

The content of this document has been carefully checked and understood. However, neither Schaffner nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifications are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Schaffner does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Swiss law and resulting disputes shall be settled by the courts at the place of business of Schaffner Holding AG. Latest publications and a complete disclaimer can be downloaded from the Schaffner website. All trademarks recognized.