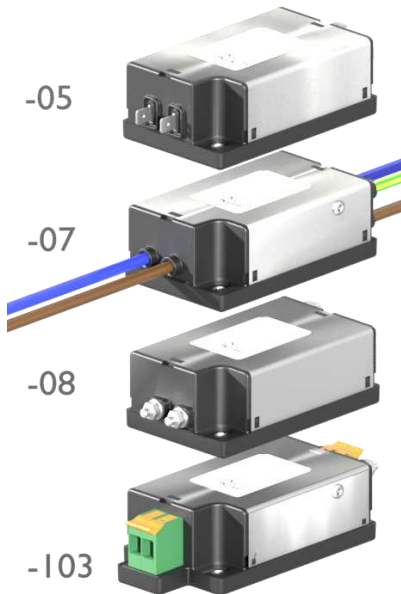
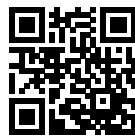


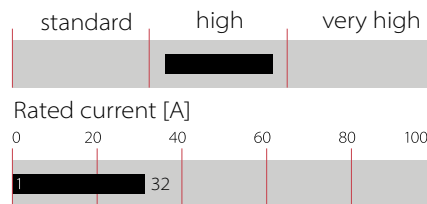
# Compact - High performance, EMC/EMI filter



- Excellent EMC filter for robotics, datacenters and a variety of other applications
- Multiple terminals combination available: Fast-on, wire leads, bolt and clamps
- Almost all combinations of above mentioned terminals available
- Voltage rating of 277 VAC
- Voltage rating of 400 VDC
- Height fits within 1 HU of a 19" rack application
- 50°C operating temperature



### Performance indicators



### Approvals & Compliances



### Features and benefits

- FN2500 / FN2520 series fits perfectly within 1U height for rack mount
- The filters are built to perform perfectly in datacenter and audio video equipment
- The shape allows a convenient and space-saving installation
- The filters offer versatile terminal connection combinations
- 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

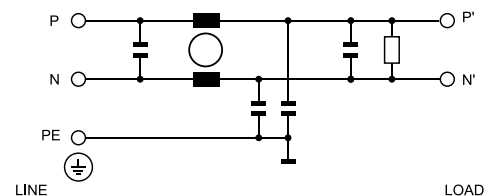
### Typical applications

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

### Technical specifications





<b>Rated operating voltage</b>	277 VAC, 400 VDC
<b>Operating frequency</b>	DC to 60 Hz
<b>Rated currents</b>	10 to 32 A @ 50°C
<b>Overload capability</b>	1.5 x rated current for 1 minute once per hour
<b>Cooling</b>	Natural cooling AN
<b>Climatic category</b>	40/100/21 (acc. IEC60068-1)
<b>Flammability corresponding to</b>	UL 94 V0
<b>Surge withstand</b>	2kV Ph-Ph / 4kV Ph-PE (Level 4)
<b>High potential test voltage</b>	P(DC+) → N(DC-) 1500 VDC for 2 sec* P(DC+) → PE 2500 VDC for 2 sec*
<b>Altitude</b>	2000 m
<b>Certified to</b>	UL 60939-3, GB/T 15287, CSA 22.2 No. 8-13, IEC/EN 60939 (applies to AC and DC applications)
<b>MTBF</b>	> 300.000 h
<b>Protection category</b>	IP00
<b>Pollution degree</b>	2 acc. IEC 60664-1
<b>Vibration and shock</b>	3M12 acc. IEC 60721-3-3
<b>Overvoltage category</b>	II acc. IEC 60664-1
<b>Temperature range (operation and storage)</b>	-40°C to +100°C (with derating >50°C)

### Typical electrical schematic (please refer to page 3 for further details)



\*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	L2	Cx1	Cx2	Cy1	Cy2	R	line side/load side				[g]
	[A]	[mA]	[W]	[mH]	[mH]	[μF]	[μF]	[nF]	[nF]	[kΩ]					
<b>Single stage</b>															
FN2500-10-yy-C13	10 (11)	0.79 (0.45)	2.5	9.3	-	1	0.47	10	-	680	-05	-07	-08	-103	260
FN2500-15-yy-C13	15 (17)	0.79 (0.45)	3.0	4.4	-	1	0.47	10	-	680	-05	-07	-08	-103	260
FN2500-20-yy-C13	20 (22)	0.79 (0.45)	3.0	2.7	-	1	0.47	10	-	680	-05	-07	-08	-103	270
FN2500-25-yy-C13	25 (27)	0.79 (0.45)	3.8	1.7	-	1	0.47	10	-	680	n.a	-07	-08	-103	270
FN2500-32-yy-C13	32 (35)	0.79 (0.45)	5.6	1.6	-	1	0.47	10	-	680	n.a	-07	-08	-103	440
<b>Dual stage</b>															
FN2520-10-yy-C1111	10	0.74 (0.43)	tbd	9.3	9.3	1	0.47	4.7	4.7	680	-05	-07	-08	-103	tbd
FN2520-15-yy-C1111	15	0.74 (0.43)	tbd	4.4	4.4	1	0.47	4.7	4.7	680	-05	-07	-08	-103	tbd
FN2520-20-yy-C1111	20	0.74 (0.43)	tbd	2.7	2.7	1	0.47	4.7	4.7	680	-05	-07	-08	-103	tbd
FN2520-25-yy-C1111	25	0.74 (0.43)	tbd	1.7	1.7	1	0.47	4.7	4.7	680	n.a	-07	-08	-103	tbd
FN2520-32-yy-C1111	32	0.74 (0.43)	tbd	1.6	1.6	1	0.47	4.7	4.7	680	n.a	-07	-08	-103	tbd

\* Maximum leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

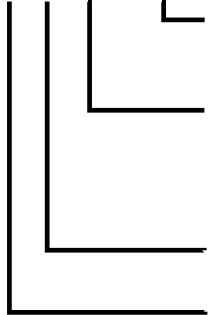
\*\* Tolerances apply: Inductance: -30/+50%, Capacitance: ±20%, Resistance: ±10%.

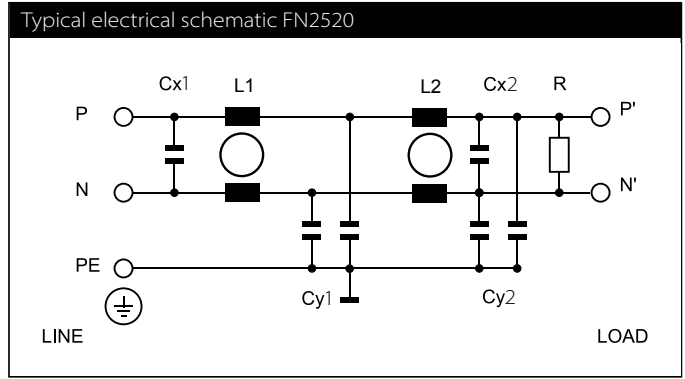
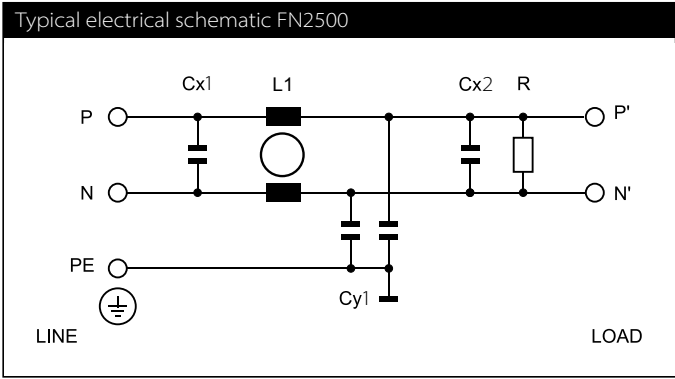
\*\*\*Standard parts have same input and output connections For combinations, please contact sales.

\*\*\*\*Weight depending on choice of connectors.

### Product selector

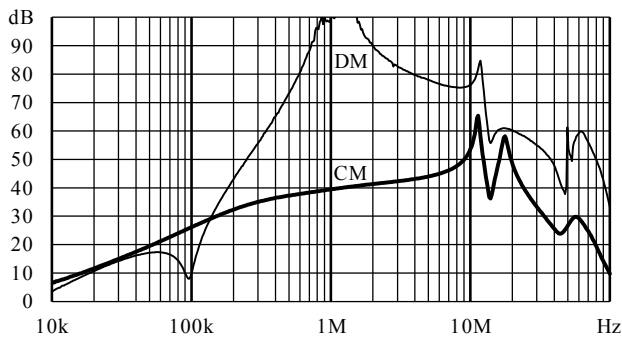
## FN25tt-xx-yy-Czzzz

	<b>zzzz – Y-capacitor option</b>
	1111: 4.7 nF / 4.7nF
	13: 10 nF / -
<b>yy – Line / load terminal types</b>	
05: fast-on 6.3 x 0.8 mm (up to 20 A only)	
07: wire leads	
08: M4 screw	
103: push-in terminal	
<b>xx – Rated current</b>	
10-32: 10 A – 32 A	
<b>tt – Product family</b>	
00: Single inductor stage L1	
20: Dual inductor stages L1 & L2	

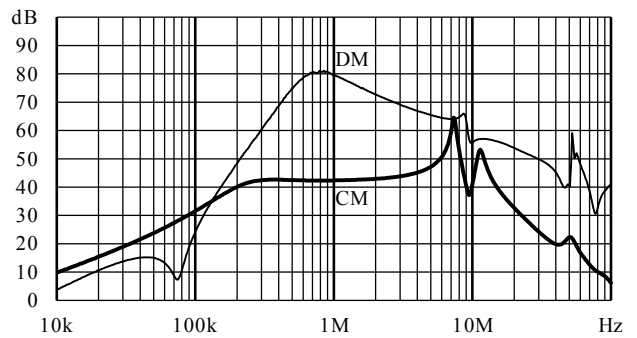


### Typical filter attenuation

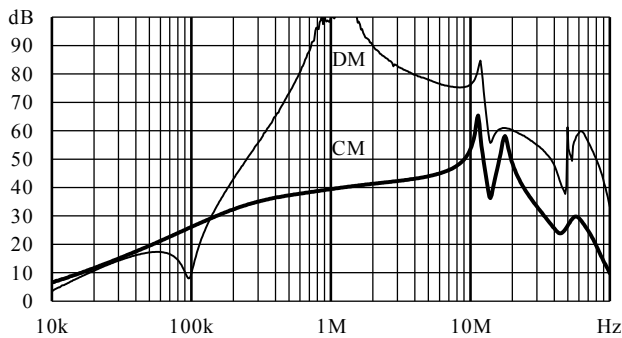
Per CISPR 17: symmetrical 50 Ω/50 Ω -> Differential Mode (DM); asymmetrical 50 Ω/50 Ω -> Common Mode (CM)



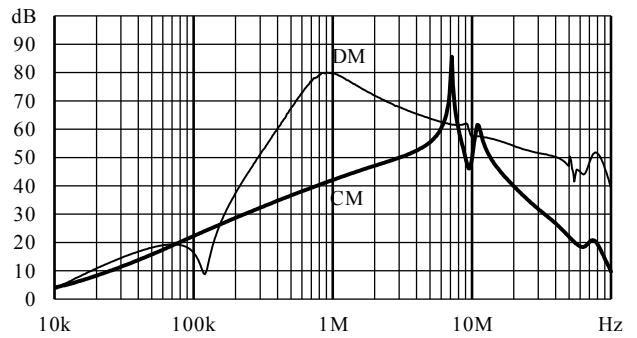
FN2500-10-yy-C13



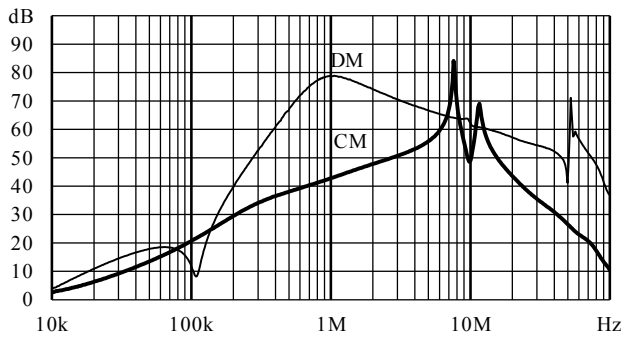
FN2500-15-yy-C13



FN2500-20-yy-C13



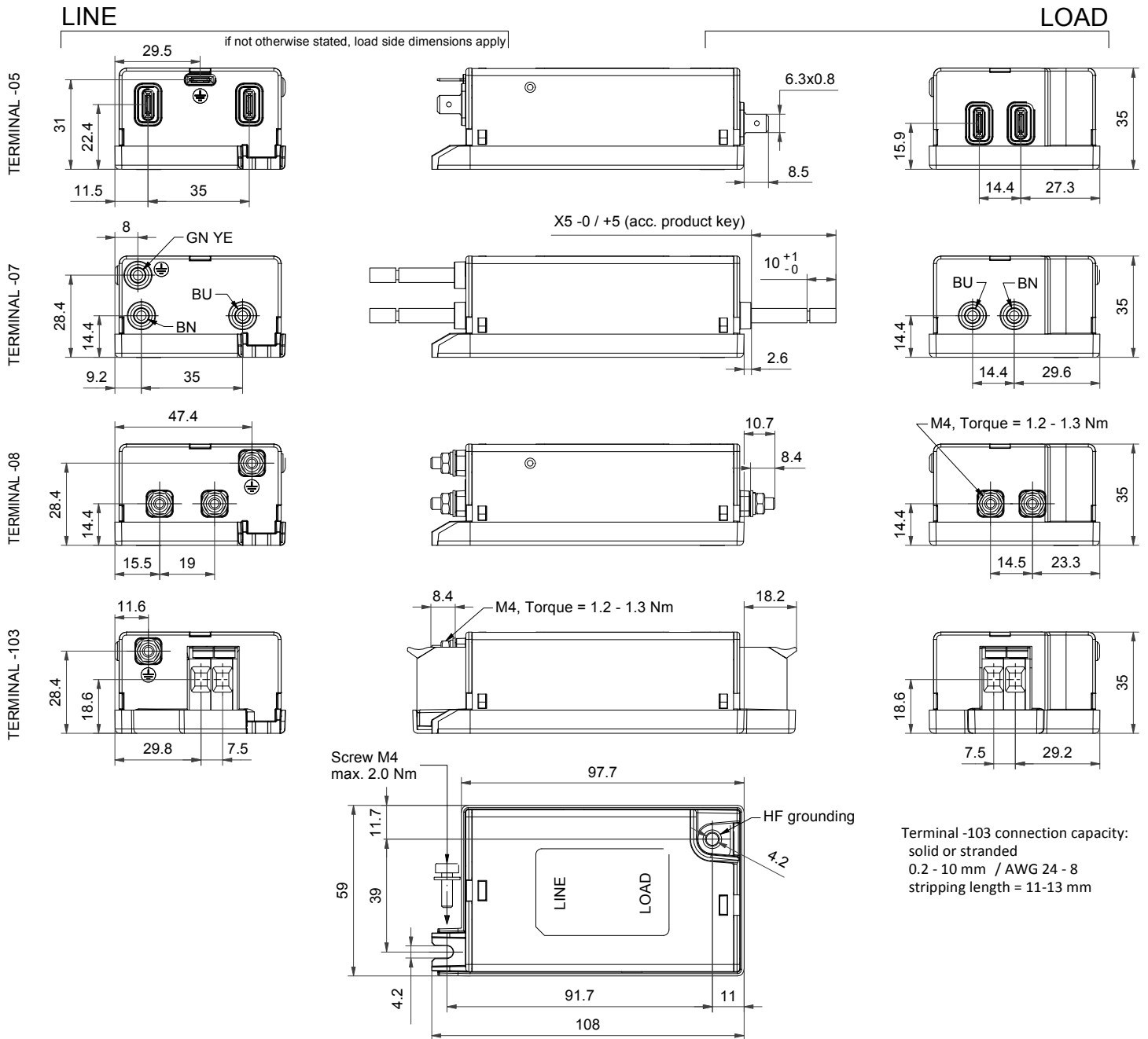
FN2500-25-yy-C13



FN2500-32-yy-C13

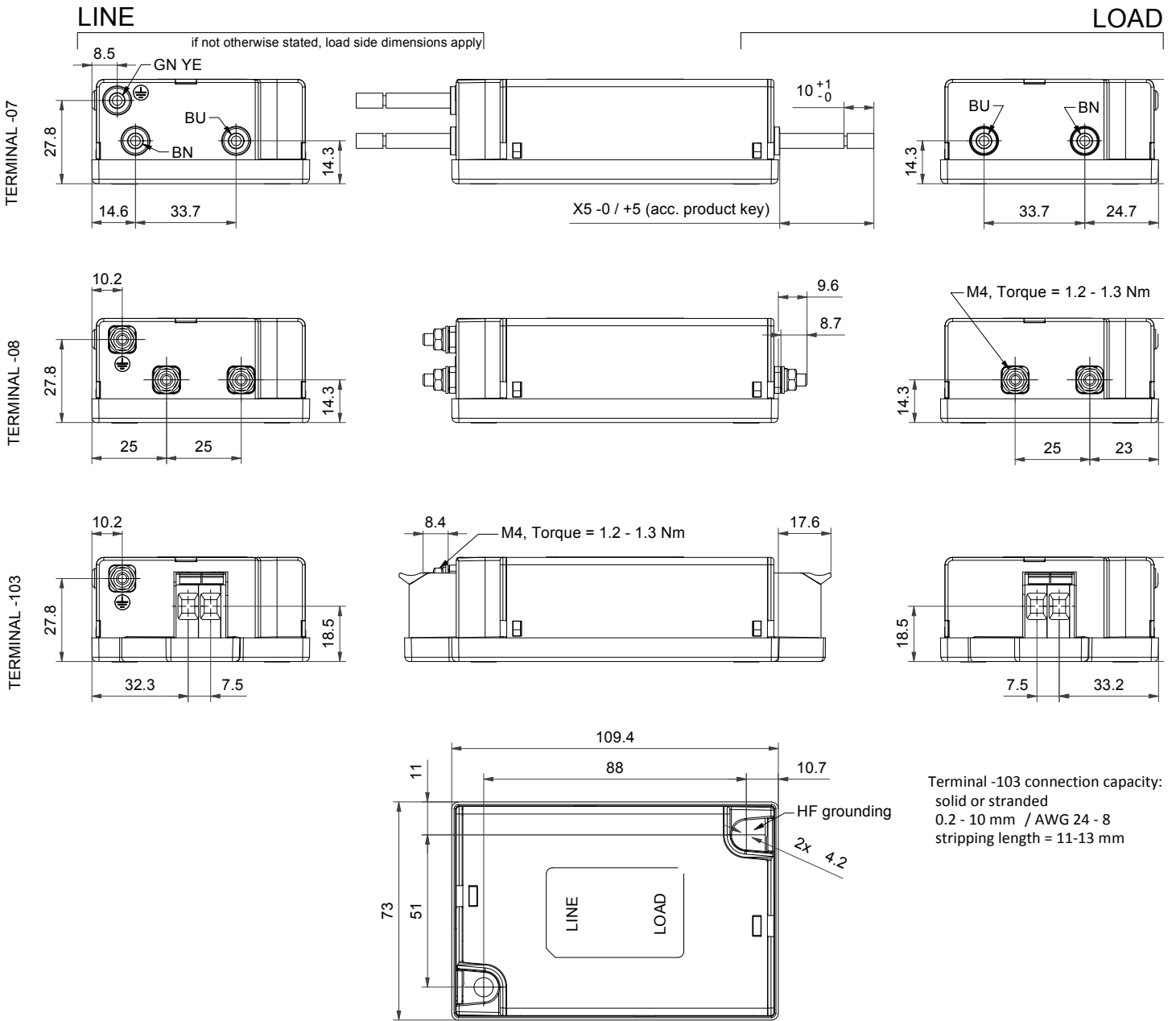
### Dimensions FN2500 - 10 A to 25 A

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



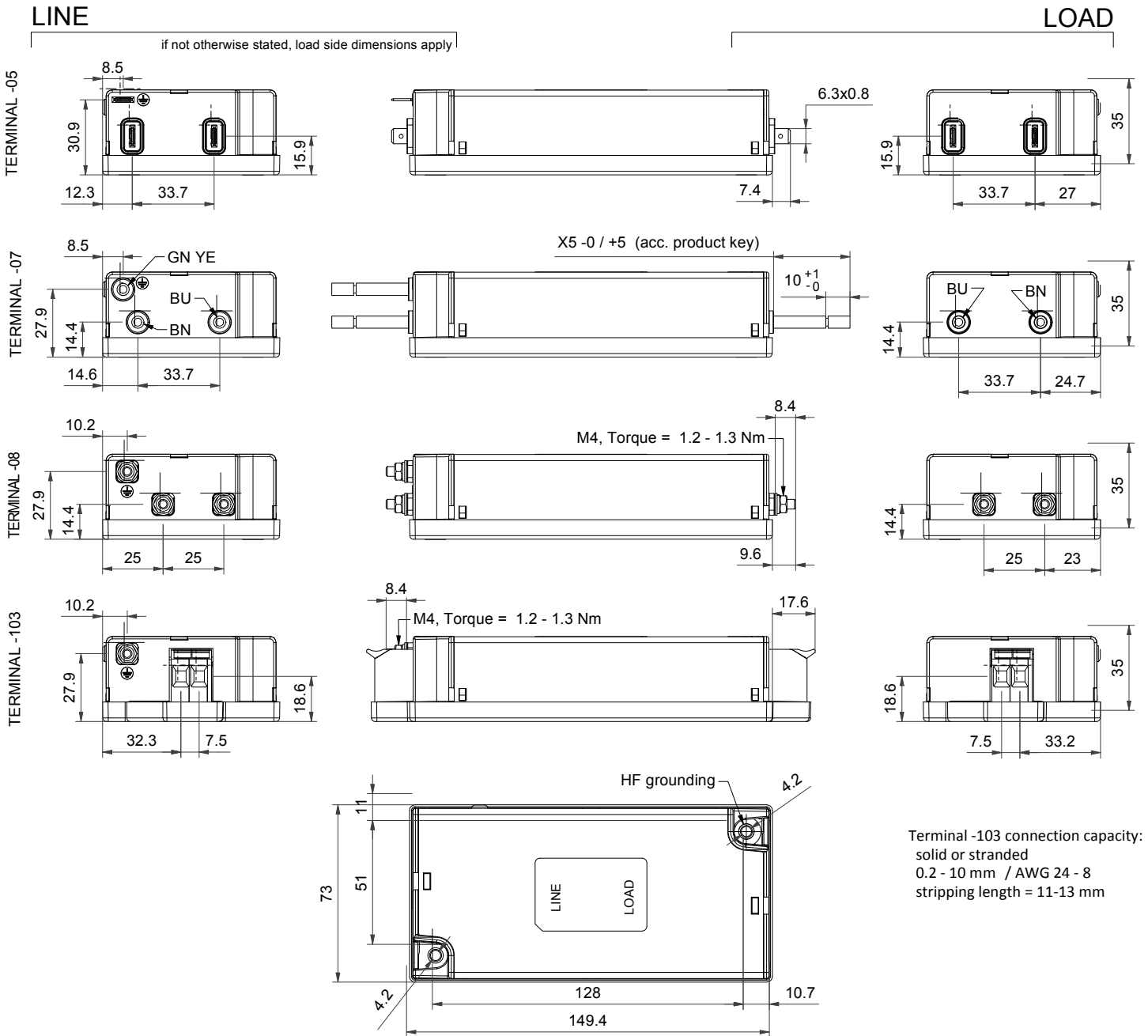
### Dimensions FN2500 - 32 A

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



### Dimensions FN2520 - 10 A to 32 A - dual inductor stage

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





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