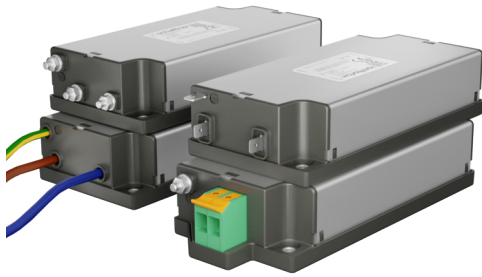
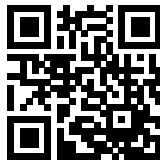


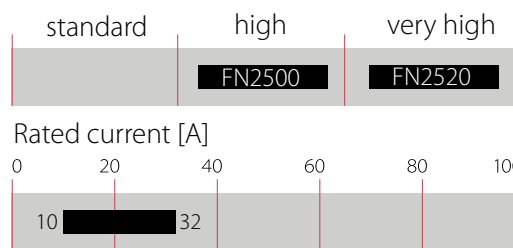
## Low Profile - Very High Performance, EMC/RFI filter



- 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
- 2-stage filter performance



## Performance indicators



## Technical Specifications

|                                                  |                                                                                               |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Maximum continuous operating voltage</b>      | 277 VAC / 400 VDC (CQC: 250 VAC / 250 VDC)                                                    |
| <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>Operating frequency</b>                       | DC to 60 Hz                                                                                   |
| <b>High potential test voltage</b>               | P(DC+) -> N(DC-) 1500 VDC for 2 sec*<br>P(DC+)/N(DC-) -> PE 2500 VDC for 2 sec*               |
| <b>Overvoltage category</b>                      | II acc. IEC 60664-1                                                                           |
| <b>Pollution degree</b>                          | 2 acc. IEC 60664-1                                                                            |
| <b>Surge withstand</b>                           | 2 kV Ph-Ph / 4 kV Ph-PE (Level 4)                                                             |
| <b>Temperature range (operation and storage)</b> | FN2500: -40°C to +100°C (with derating >50°C)<br>FN2520: -40°C to +85°C (with derating >50°C) |
| <b>Climatic category</b>                         | FN2500: 40/100/21 acc. IEC60068-1                                                             |
| <b>Cooling</b>                                   | Natural cooling AN                                                                            |
| <b>Altitude</b>                                  | Derating above 2000 m                                                                         |
| <b>Protection category</b>                       | IP00 / IP20 for -103 terminals                                                                |
| <b>Flammability corresponding to</b>             | Plastic material: UL 94 V0<br>Laces for -07 version: UL 94 VW1                                |
| <b>Vibration and shock</b>                       | 3M12 acc. IEC 60721-3-3                                                                       |
| <b>Certified to</b>                              | UL/IEC 60939-3, CSA 22.2 No. 8-13, GB/T 15287                                                 |
| <b>MTBF (Mil-HB-217F)</b>                        | >300,000 h @ 50°C/277 V                                                                       |

## Approvals & Compliances



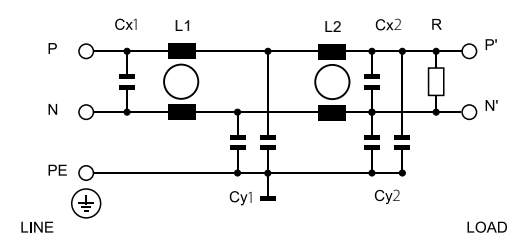
## Features and Benefits

- FN2520 series fits perfectly within 1HU height for rack mount applications
- 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



Filter Selection Table

| Filter             | Rated current      | Leakage current*  | Power loss | Inductance** |      | Capacitance** |      |      |      | Resistance** | Connections***                                                                      |                                                                                     |                                                                                     |                                                                                     | Weight max**** |
|--------------------|--------------------|-------------------|------------|--------------|------|---------------|------|------|------|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------|
|                    | @ 50°C<br>(@ 40°C) | @ 277 VAC/50 Hz   | @ 25°C     | L1           | L2   | Cx1           | Cx2  | Cy1  | Cy2  | R            | line side/load side                                                                 |                                                                                     |                                                                                     |                                                                                     |                |
|                    |                    | (@ 120 VAC/60 Hz) |            |              |      |               |      |      |      |              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                |
|                    | [A]                | [mA]              | [W]        | [mH]         | [mH] | [µF]          | [µF] | [nF] | [nF] | [kΩ]         |  |  |  |  | [kg]           |
| Two-stage          |                    |                   |            |              |      |               |      |      |      |              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                |
| FN2520-10-yy-C1111 | 10 (11)            | 0.82 (0.43)       | 8.0        | 8.3          | 8.3  | 1             | 0.47 | 4.7  | 4.7  | 680          | -05                                                                                 | -07                                                                                 | -08                                                                                 | -103                                                                                | 0.4            |
| FN2520-15-yy-C1111 | 15 (17)            | 0.82 (0.43)       | 9.0        | 4.0          | 4.0  | 1             | 0.47 | 4.7  | 4.7  | 680          | -05                                                                                 | -07                                                                                 | -08                                                                                 | -103                                                                                | 0.4            |
| FN2520-20-yy-C1111 | 20 (22)            | 0.82 (0.43)       | 8.4        | 2.4          | 2.4  | 1             | 0.47 | 4.7  | 4.7  | 680          | -05                                                                                 | -07                                                                                 | -08                                                                                 | -103                                                                                | 0.5            |
| FN2520-25-yy-C1111 | 25 (27)            | 0.82 (0.43)       | 11.0       | 1.5          | 1.5  | 1             | 0.47 | 4.7  | 4.7  | 680          | n.a                                                                                 | -07                                                                                 | -08                                                                                 | -103                                                                                | 0.5            |
| FN2520-32-yy-C1111 | 32 (35)            | 0.82 (0.43)       | 13.2       | 0.9          | 0.9  | 1             | 0.47 | 4.7  | 4.7  | 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

FN2520-xx-yy-C1111

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

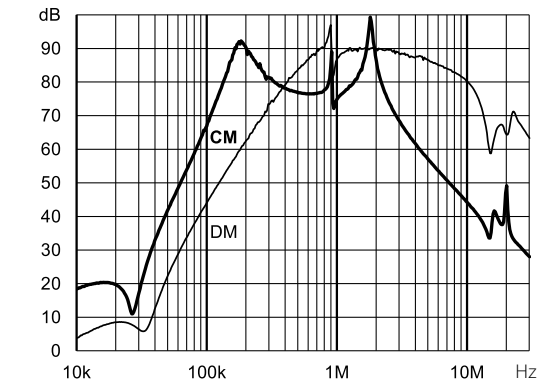
xx – Rated current

10-32: 10 A – 32 A

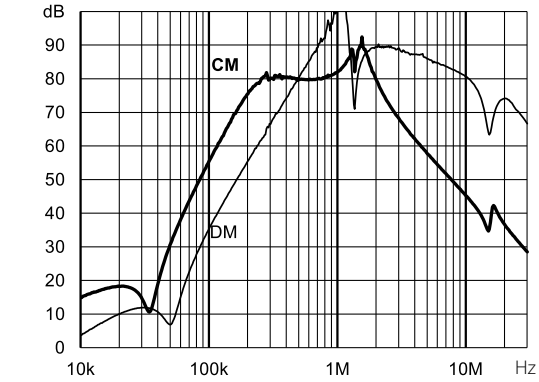
Typical Filter Attenuation

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

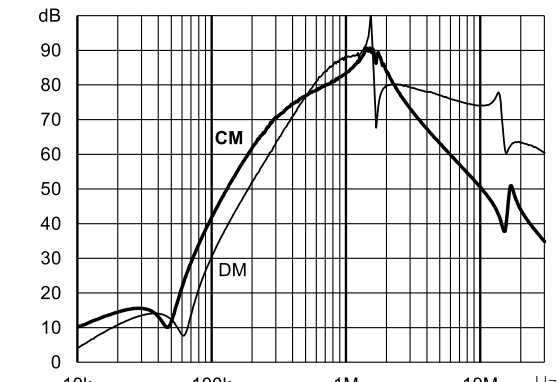
FN2520 - Two-stage filter



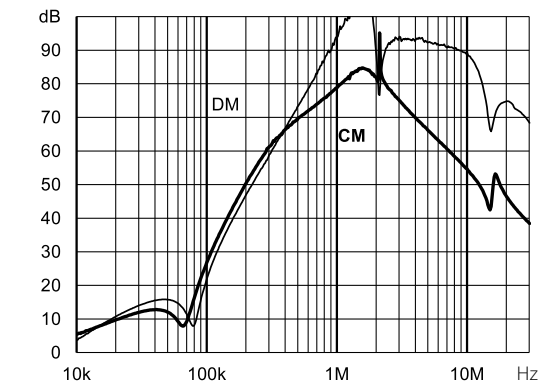
FN2520-10-yy-C1111



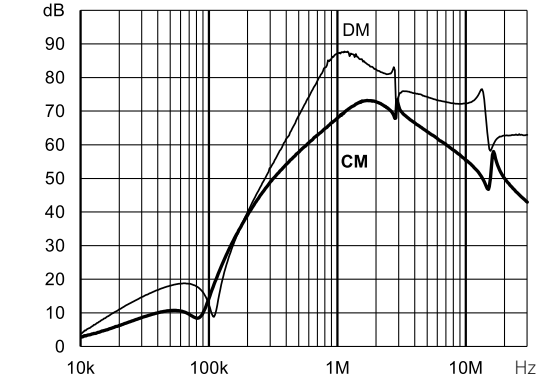
FN2520-15-yy-C1111



FN2520-20-yy-C1111



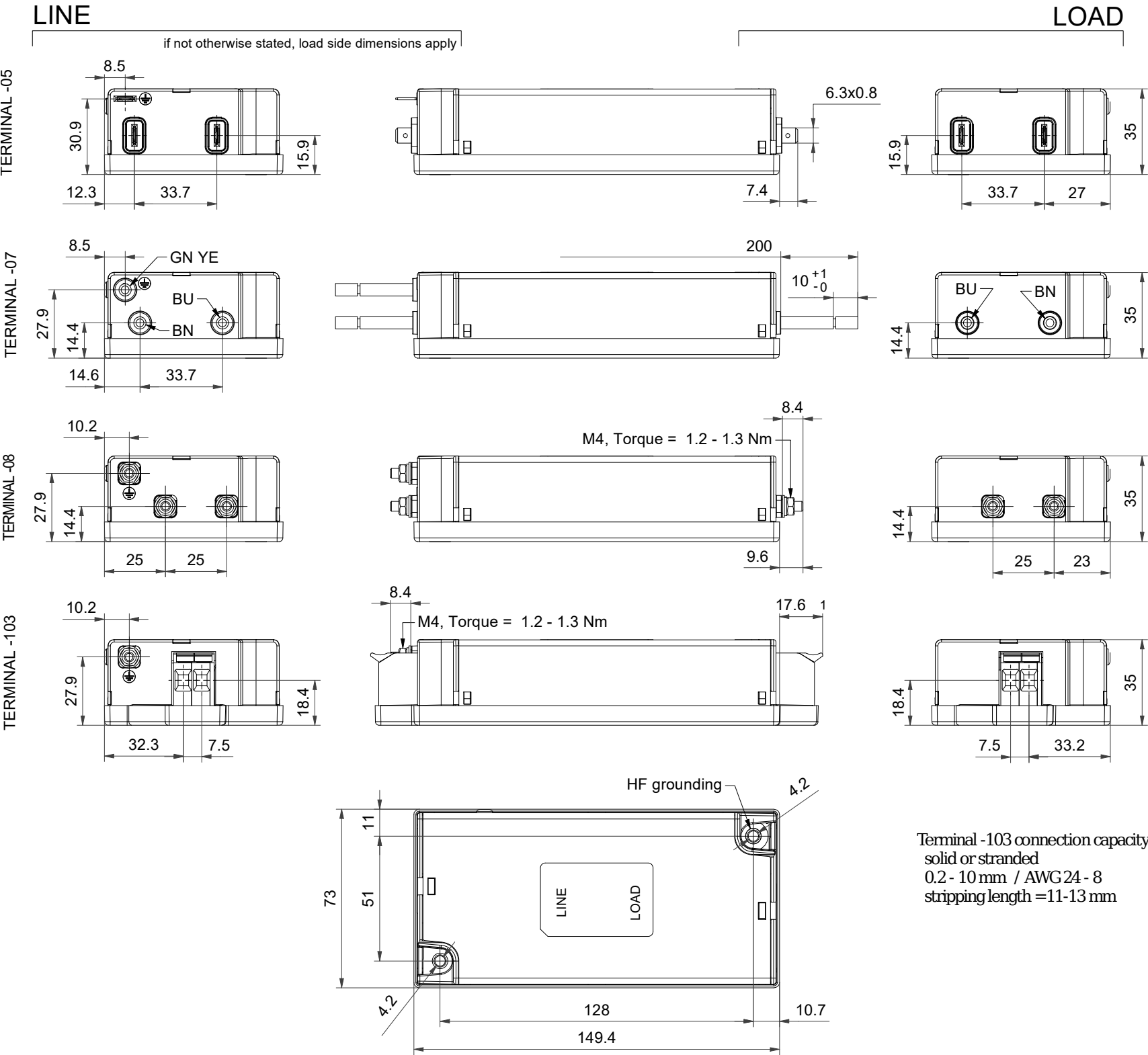
FN2520-25-yy-C1111



FN2520-32-yy-C1111

Dimensions FN2520 - 10 A To 32 A - Two-stage Filter

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



Headquarters, Global  
Innovation and  
Development

**Switzerland**  
**Schaffner Group**  
Industrie Nord  
Nordstrasse 5  
4542  
Luterbach  
+41 32 681 66 26  
[info@schaffner.com](mailto:info@schaffner.com)

Sales and Application  
Centers

**Finland**  
**Schaffner Oy**  
Lohjanharjuntie 1109  
08500  
Lohja  
+ 358 50 468 72 84  
[finlandsales@schaffner.com](mailto: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](mailto:francesales@schaffner.com)

**Germany**  
**Schaffner Deutschland GmbH**  
Ohiostr. 8  
76149  
Karlsruhe  
+49 721 56910  
[germanysales@schaffner.com](mailto:germanysales@schaffner.com)

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

**Sweden**  
**Schaffner EMC AB**  
Östermalmstrorg 1  
114 42  
Stockholm  
+46 8 5050 2425  
[swedensales@schaffner.com](mailto:swedensales@schaffner.com)

**Switzerland**  
**Schaffner EMV AG**  
Industrie Nord  
Nordstrasse 5  
4542  
Luterbach  
+41 32 681 66 26  
[switzerlandsales@schaffner.com](mailto:switzerlandsales@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](mailto:indiasales@schaffner.com)

**United Kingdom**  
**Schaffner Ltd.**  
Suite 1 Oakmede Place  
Terrace Road  
RG42 4JF  
Binfield  
+44 118 9770070  
[schaffner.uksales@te.com](mailto:schaffner.uksales@te.com)

**United States**  
**Schaffner EMC Inc.**  
52 Mayfield Avenue  
Edison, New Jersey  
+1 732 225 9533  
[usasales@schaffner.com](mailto:usasales@schaffner.com)

To find your local partner within  
Schaffner's global network [schaffner.com](https://www.schaffner.com)

© 2025 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.

# Mouser Electronics

Authorized Distributor

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

[Schaffner:](#)

|                                           |                                            |                                            |                                            |                                            |
|-------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| <u><a href="#">FN2520-10-05-C1111</a></u> | <u><a href="#">FN2520-10-07-C1111</a></u>  | <u><a href="#">FN2520-10-08-C1111</a></u>  | <u><a href="#">FN2520-10-103-C1111</a></u> | <u><a href="#">FN2520-15-05-C1111</a></u>  |
| <u><a href="#">FN2520-15-07-C1111</a></u> | <u><a href="#">FN2520-15-08-C1111</a></u>  | <u><a href="#">FN2520-15-103-C1111</a></u> | <u><a href="#">FN2520-20-05-C1111</a></u>  | <u><a href="#">FN2520-20-07-C1111</a></u>  |
| <u><a href="#">FN2520-20-08-C1111</a></u> | <u><a href="#">FN2520-20-103-C1111</a></u> | <u><a href="#">FN2520-25-07-C1111</a></u>  | <u><a href="#">FN2520-25-08-C1111</a></u>  | <u><a href="#">FN2520-25-103-C1111</a></u> |
| <u><a href="#">FN2520-32-07-C1111</a></u> | <u><a href="#">FN2520-32-08-C1111</a></u>  | <u><a href="#">FN2520-32-103-C1111</a></u> |                                            |                                            |