



Features

- For DC networks
- Rated current 2,5 A
- Input voltage ranges: 10,5...36 VDC; 17...84 VDC
- Insertion loss more than 55 dB for 1...10 MHz
- Protection against overvoltage surges up to 500 VDC
- Low profile: 10 mm design
- Cases with mounting flanges and without flanges
- Operating temperature range from -60°C up to +125°C
- High reliability
- Metal case
- Completely replace the previous generation modules TEF2.5

For all special requirements placed on the last page of datasheet [please click here.](#)

Description

JETDF2.5 series **protection and filtration modules (filters)** are designed to operate in DC networks and to protect analog and digital equipment from surges and to filter noises in the input and output circuits of the modules and power supply units. Filters are made in low profile metal cases with mounting flanges and without flanges and suitable for all types of applications and feature wide temperature range that allows their application in equipments designated for different climatic conditions.

Pin type leads ensure the mounting of filters on PCB or three dimensional wiring. High reliability is guaranteed by using latest component base. Amorphous nanocrystalline cores in common mode chokes provide reliable noise filtering and temperature stability. Maximum effect is achieved when combining the application of these filters with DC/DC converters produced by Goncharov JET .

Ordering information

JETDF 2,5 - 12W - U T

1 2 3 4 5

- 1 - «JETDF» Series
- 2 - Rated current, A
- 3 - Input voltages
 - 12W - 12 VDC (10,5...36 VDC)
 - 24W - 24 VDC (17...84 VDC)
- 4 - Index of case design
 - U – metal case with flanges
 - C – metal case without flanges
- 5 - Index of operating temperature range
 - T -60°C ...+125°C

Technical information

Standard models

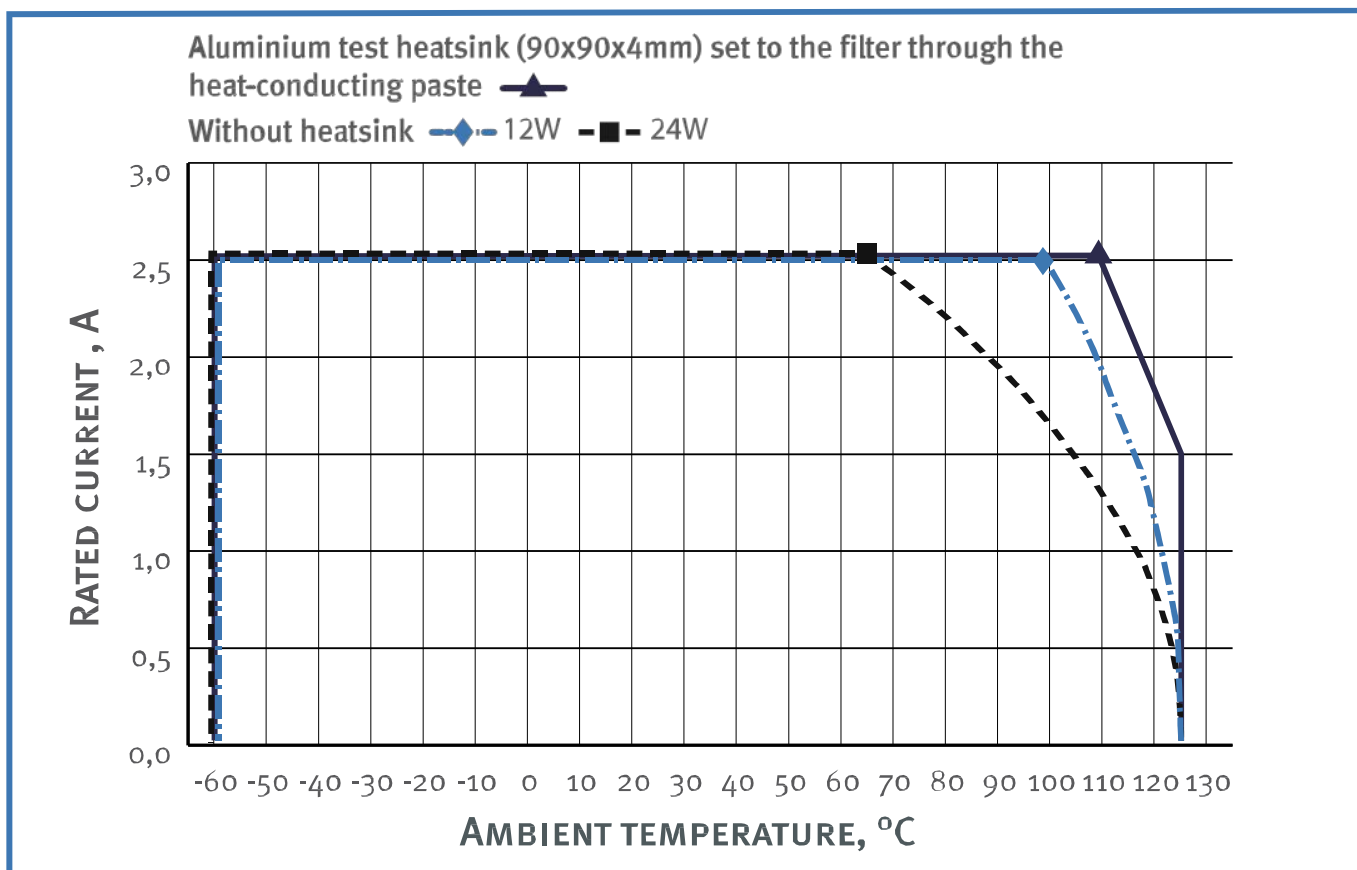
| Filter | Input voltage range | Limiting voltage @ 1 mA | Rated current | Maximal pulse power 10/1000 μs |
|-----------------|---------------------|-------------------------|---------------|--------------------------------|
| JETDF2,5-12W-XX | 10,5...36 VDC | =44...49 VDC | 2,5 A | 600 W |
| JETDF2,5-24W-XX | 17...84 VDC | =94...104 VDC | 2,5 A | 600 W |

Specifications informations for JETDF2,5 filters*

| Input specifications | |
|--|---|
| Input voltage range / transitional deviation, 1 sec =12W | =10,5...36 VDC / =10,5...40 VDC |
| Input voltage range / transitional deviation, 1 sec =24W | =17...84 VDC / =17...84 VDC |
| Output specifications | |
| Insertion loss in frequency range 0,15...0,3 MHz | ≥15 dB |
| Insertion loss in frequency range 0,3...1 MHz | ≥35 dB |
| Insertion loss in frequency range 1,0...10 MHz | ≥55 dB |
| Insertion loss in frequency range 10...30 MHz | ≥50 dB |
| Filter voltage drop =12W | ≤0,54 VDC |
| Filter voltage drop =24W | ≤1,2 VDC |
| General specifications | |
| Case temperature (operating and storage) | -60°C ...+125°C |
| Rated current derating (natural convection) | See diagram (dashed, dash-dotted curves) |
| Rated current with heatsink | See diagram (solid curve) |
| Humidity | 100 % @ 35 °C |
| Thermal resistance case — ambient without heatsink | 19,8 °C/W |
| Test voltage (Lines/Ground) | ~ 500 VAC |
| Isolation resistance @ 500 VDC | 20 MOhm |
| MTBF | 200000 hrs @ +50 °C |
| Cooling method | free air convection or forced air cooling |
| Weight (max) | 22 g |

* All specifications are valid for normal climatic conditions, $U_{in.nom.}$, $I_{out.nom.}$, unless otherwise stated.

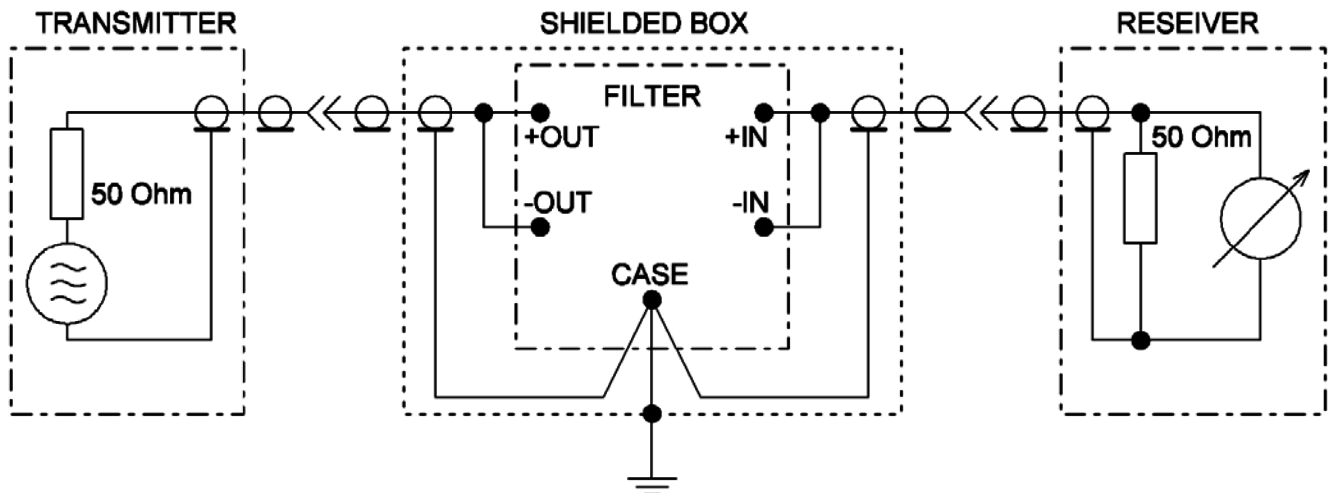
Rated current vs an ambient temperature



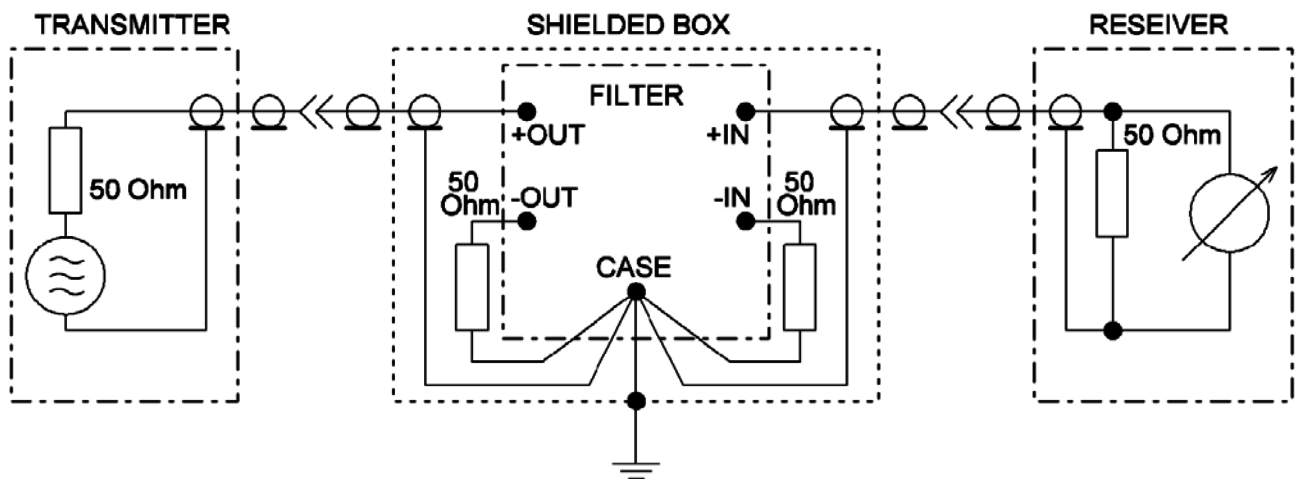
Dropping parts of the dashed and dash-dotted curves are in accordance with the **maximum temperature of the case** +125 °C. Rated current of protection and filtration modules must not exceed the values which are limited by corresponding curve for a given ambient temperature.

At points ■ ◆ and ▲ simultaneously present several extreme worst-case conditions, such as the combination of maximum case temperature and maximum rated current. Continuous filter operation at these points should be avoided.

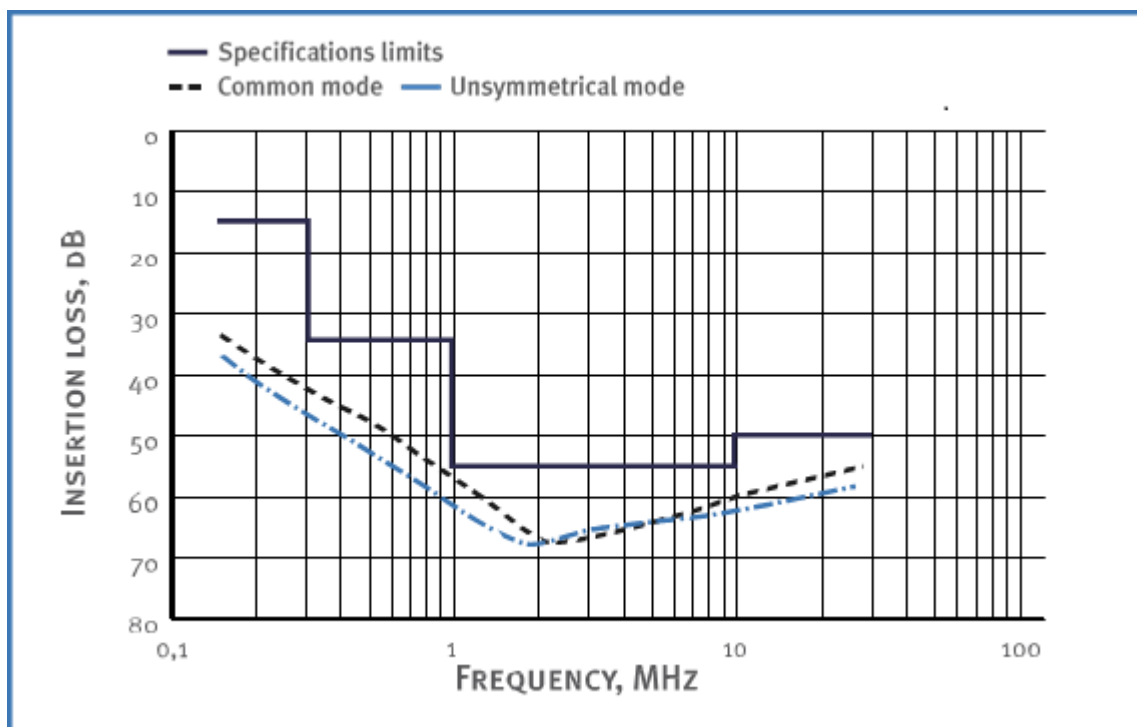
Common mode measurement



Unsymmetrical mode measurement



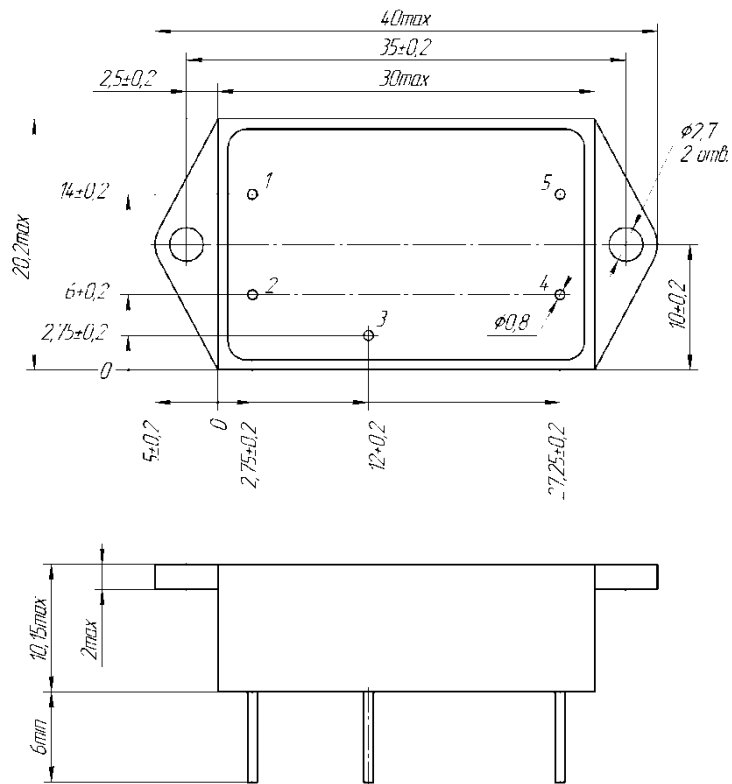
Typical insertion loss vs frequency



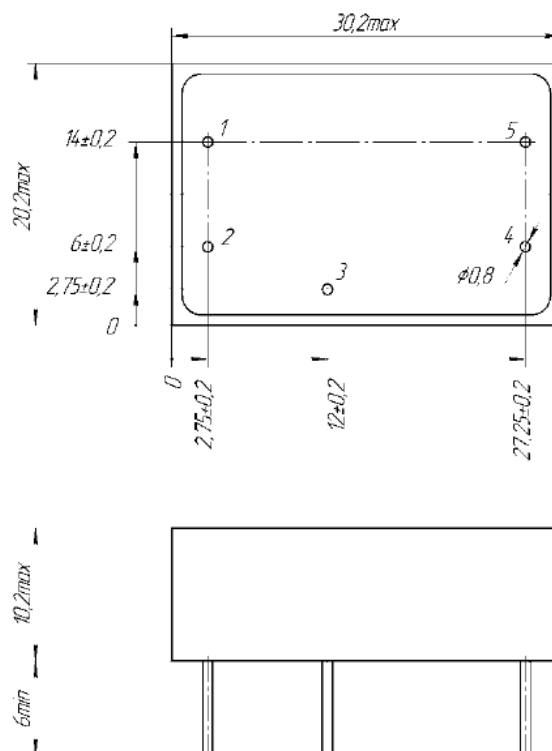
Pin out - modules JETDF2,5

| Nº pin | 1 | 2 | 3 | 4 | 5 |
|-------------|-----|-----|------|------|------|
| Designation | +IN | -IN | CASE | +OUT | -OUT |

JETDF2,5 with flanges (I case size)



JETDF2,5 without flanges (I case size)



Certificate

Certificate ISO*
CE conformity declaration

* Management system and R&D of Alexander Electric is ISO certified

Note

The advertising label can be placed on the top surface of the filter and must be removed before installation. Technical parameters contained on this label are the maximal allowable according to conditions of agreement with manufacturer.

Please, note that all information in this material is for reference only. Further detailed information (including: additional requirements, manuals and circuit schemes) is found on our website <http://www.goncharov-jet.com>.

Contact information

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According to company's policy in view of constant improvements of the production design the manufacturer reserves the right to itself change the contents of promotional materials without prior notification.

Special requirements