



Features

- For DC networks
- Rated current 20 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 TEFD20

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

Description

JETDF 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 20 - 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

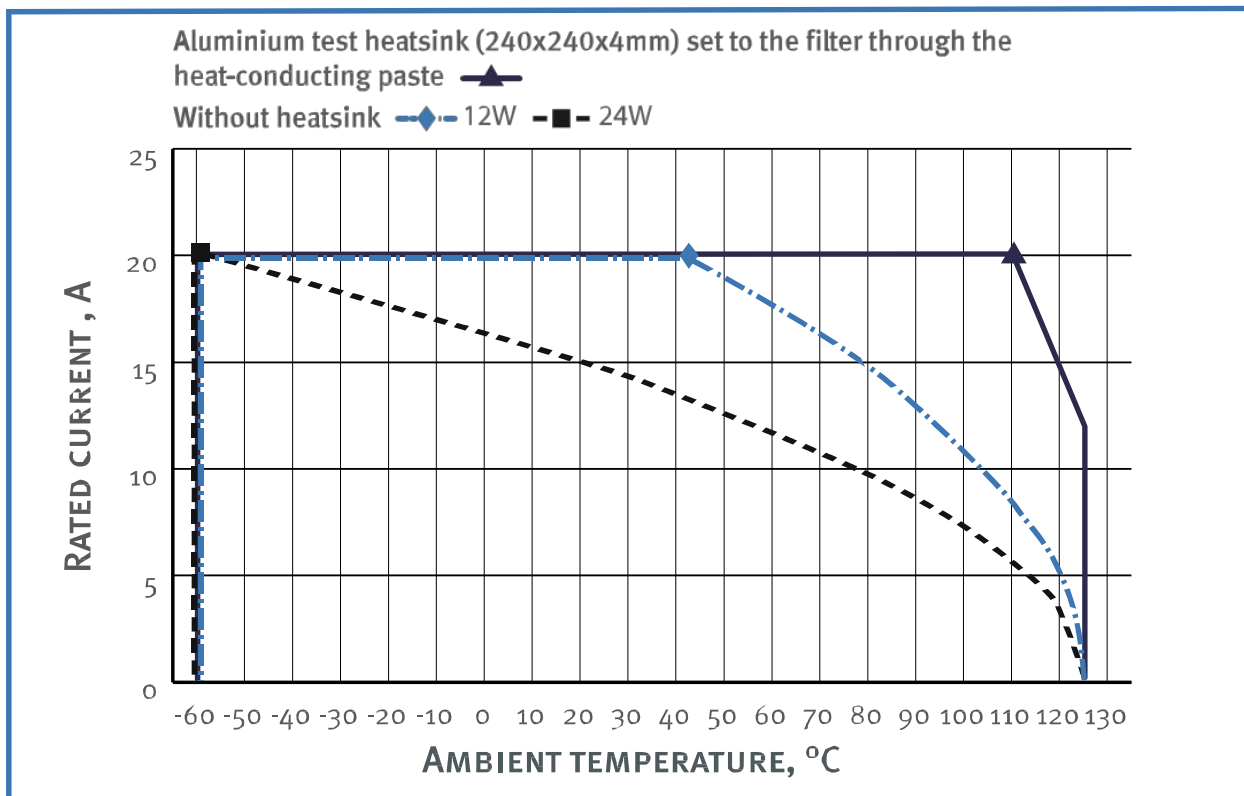
Standard models

Filter	Input voltage range	Limiting voltage @ 1 mA	Rated current	Maximal pulse power 8/20 μs
JETDF20-12W-XX	10,5...36 VDC	=44...49 VDC	20 A	0,25 kA
JETDF20-24W-XX	17...84 VDC	=94...104 VDC	20 A	1,2 kA

Specifications informations for JETDF20 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	7,8 °C/W
Test voltage (Lines/Ground)	1000 VDC
Isolation resistance @ 500 VDC	20 MΩ
MTBF	400000 hrs @ +50 °C
Cooling method	free air convection or forced air cooling
Weight (max)	65 g

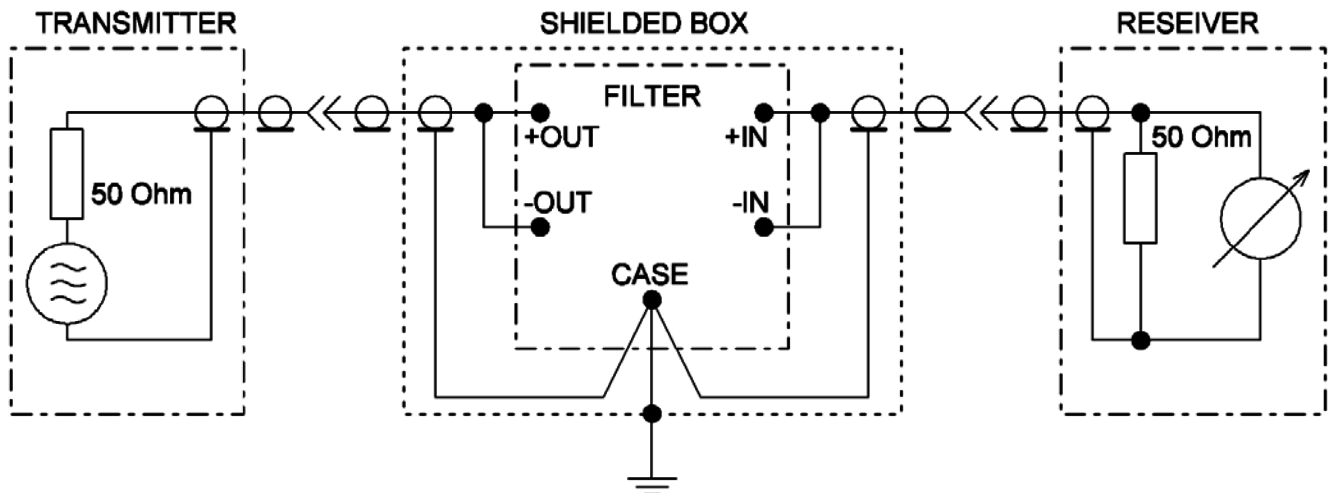
* All specifications are valid for normal climatic conditions, $U_{in.nom.}$, $I_{out.nom.}$, unless otherwise stated.



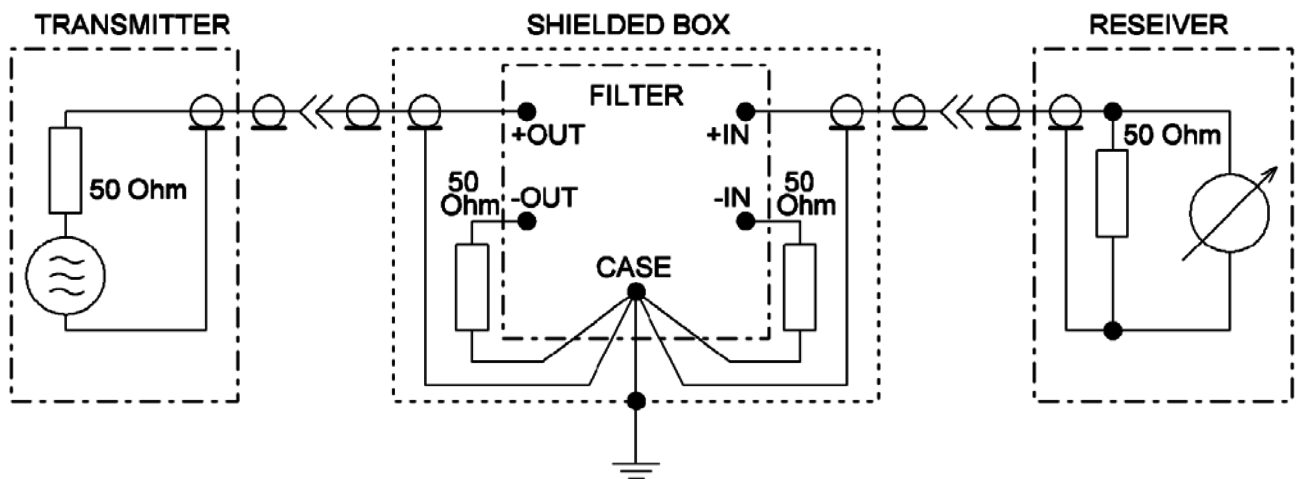
Dropping parts of the dashed and dash-dotted curves are in accordance with the **maximum temperature of the case** +125 °C. Rated current of protection and filtration modules must not exceed the values which are limited by corresponding curve for a given ambient temperature.

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.

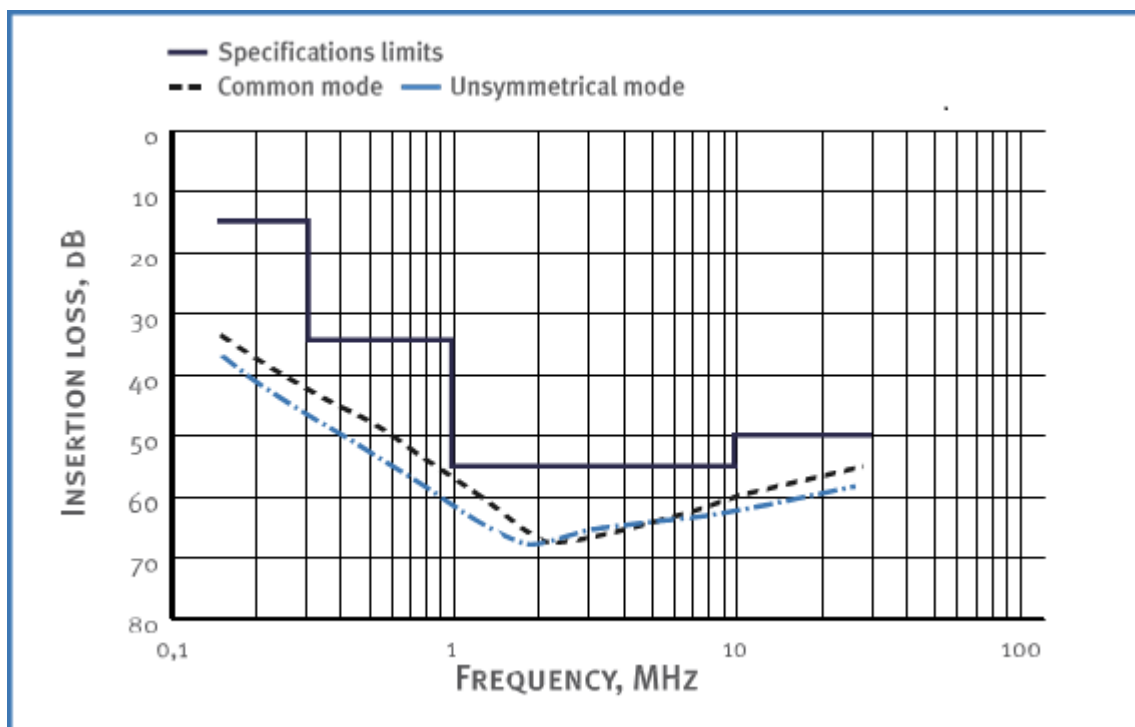
Common mode measurement



Unsymmetrical mode measurement



Typical insertion loss vs frequency



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