



Features

- For AC networks
- Rated current 20 A
- **Input voltage from 80 to 264 VAC**
- Insertion loss more than 55 dB for 1...10 MHz
- Protection against overvoltages surges up to 1000 VAC
- Low profile 28 mm design
- Operating temperature range from -50°C...+85°C
- Humidity: up to 98%
- Metal case
- Completely replace the previous generation modules TEFA20

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

Description

JETAF series **protection and filtration modules (filters)** are designed to operate in AC 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, including high humidity of up to 98%. Modules are potted using heat-conducting insulating compound.

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 AC/DC power supplies produced by Goncharov JET.

Ordering information

JETAF 20 - 230 - S C P

1 2 3 4 5 6

- 1 - «JETAF» Series
- 2 - Rated current, A
- 3 - Input voltages
 - 230W** – 230 VAC (100...264 VAC)
 - 230** – 230 VAC (176...240 VAC)
 - 115** – 115 VAC (80...140 VAC)
- 4 - Index of case design
 - S** – execution with polymer potting protection
- 5 - Execution of outputs and the case
 - H** - base with a cover and blade solder pins
 - C** - base with a cover and terminal blocks*
- 6 - Index of operating temperature range
 - P** -50°C ...+85°C

Technical information

Standard models

Filter	Input voltage range	Limiting voltage @ 1 mA**	Rated current	I surge, max** (8/20 μs)
TEFA20-230W-XXX	100...264 VAC*	430 VDC	20 A	4,5 kA
TEFA20-230-XXX	176...240 VAC	430 VDC	20 A	4,5 kA
TEFA20-115-XXX	80...140 VAC	240 VDC	20 A	4,5 kA

* If compliance with various safety standards is required, please use input range 100...240 VAC.

** Modules without surge protection elements can be manufactured on prior request.

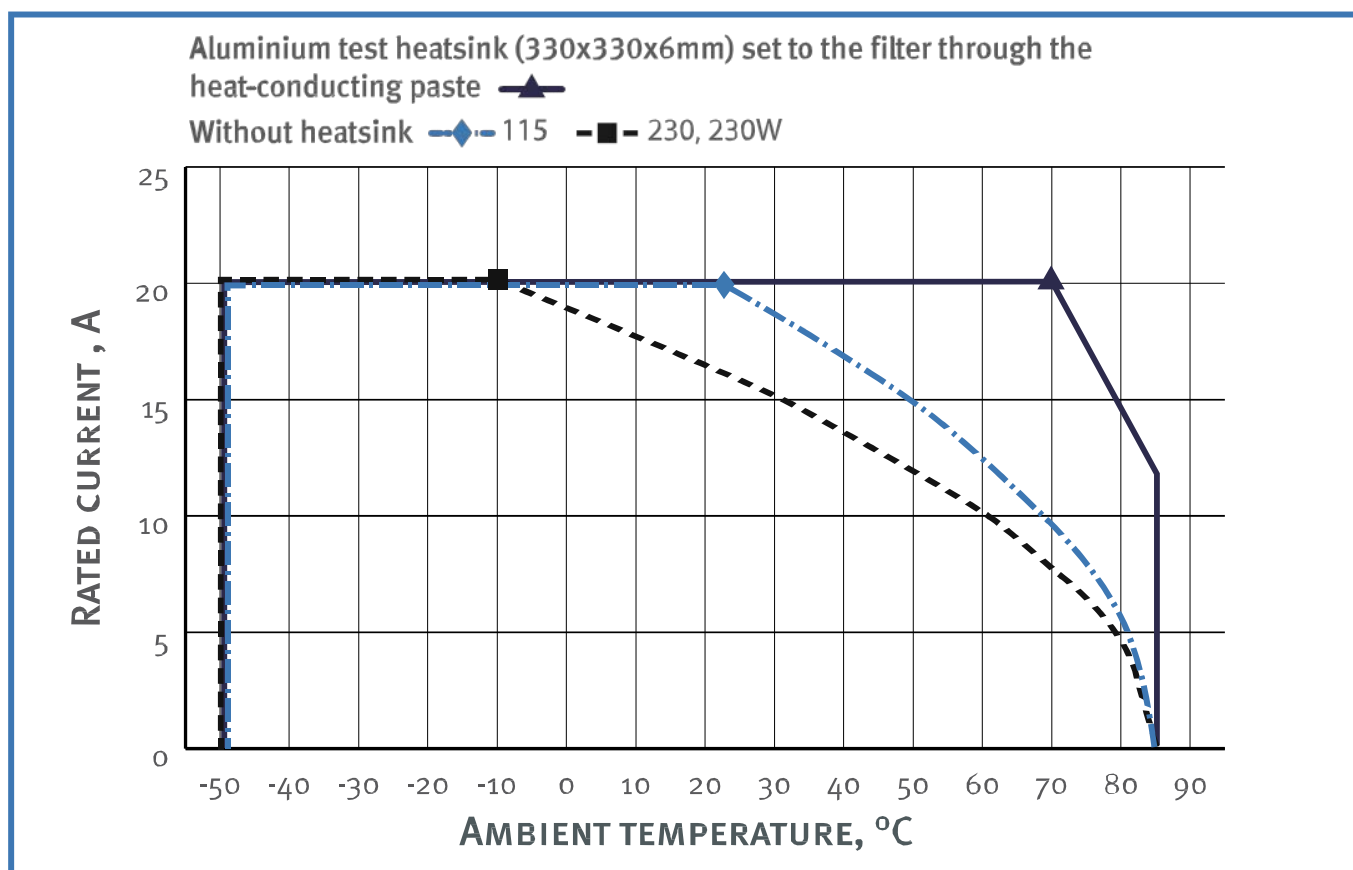
Specifications for JETAF20 filters*

Input specifications	
Input voltage range / transitional deviation 230W**	100...264 VAC / 100...264 VAC
Input voltage range / transitional deviation 230	176...240 VAC / 176...264 VAC
Input voltage range / transitional deviation 115	80...140 VAC / 80...140 VAC
Input frequency	47...440 Hz
Output specifications	
Insertion loss in frequency range 0,15...0,3 MHz	≥20 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 115	≤1,15 VAC
Filter voltage drop 230, 230W	≤2,3 VAC
General specifications	
Case temperature (operating and storage)	-50°C ...+85°C
Rated current derating (natural convection)	See diagram (dashed, dash-dotted curves)
Rated current with heatsink	See diagram (solid curve)
Humidity	98 % @ 35 °C
Thermal resistance case — ambient without heatsink	2,7 °C/W
Test voltage (Lines/Ground)	1500 VAC
Isolation resistance @ 500 VDC	20 MOhm
MTBF	200000 hrs @ +50 °C
Cooling method	free air convection or forced air cooling
Weight (max)	600 g

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

** If compliance with various safety standards is required, please use input range 100...240 VAC.

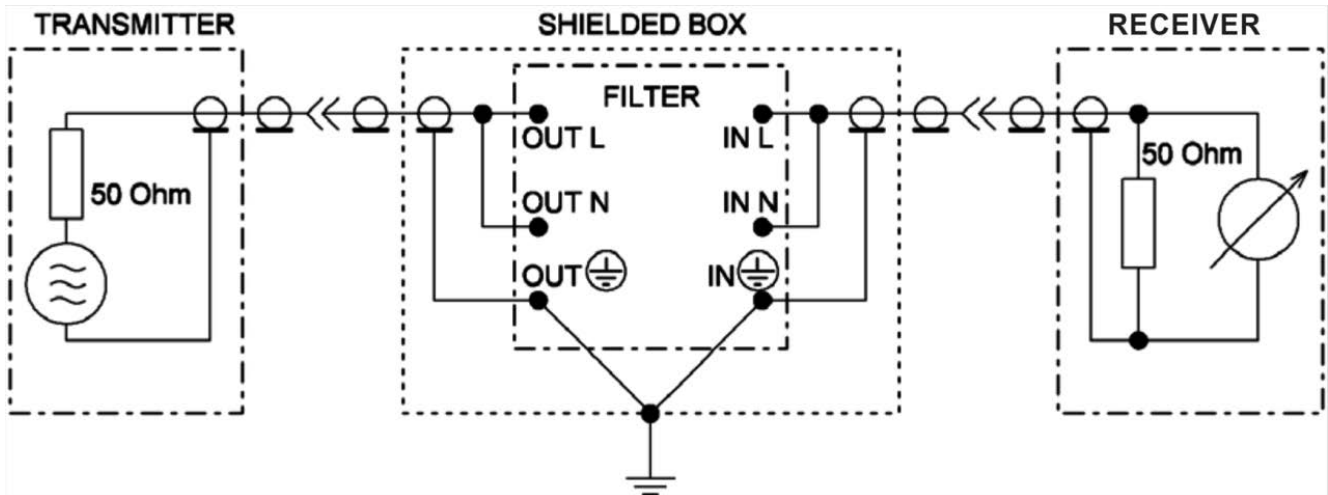
Rated current vs an ambient temperature



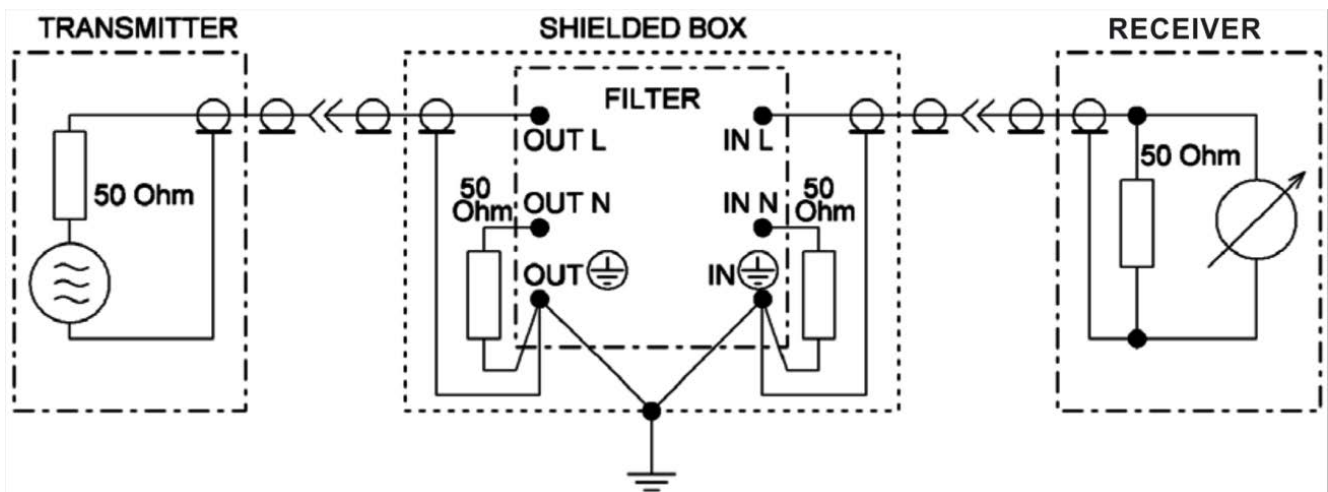
Dropping parts of the dashed and dash-dotted curves are in accordance with the **maximum temperature of the case** +85 °C. Rated current of protection and filtration modules must not exceed the values which are limited by corresponding curve for a given ambient temperature.

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.

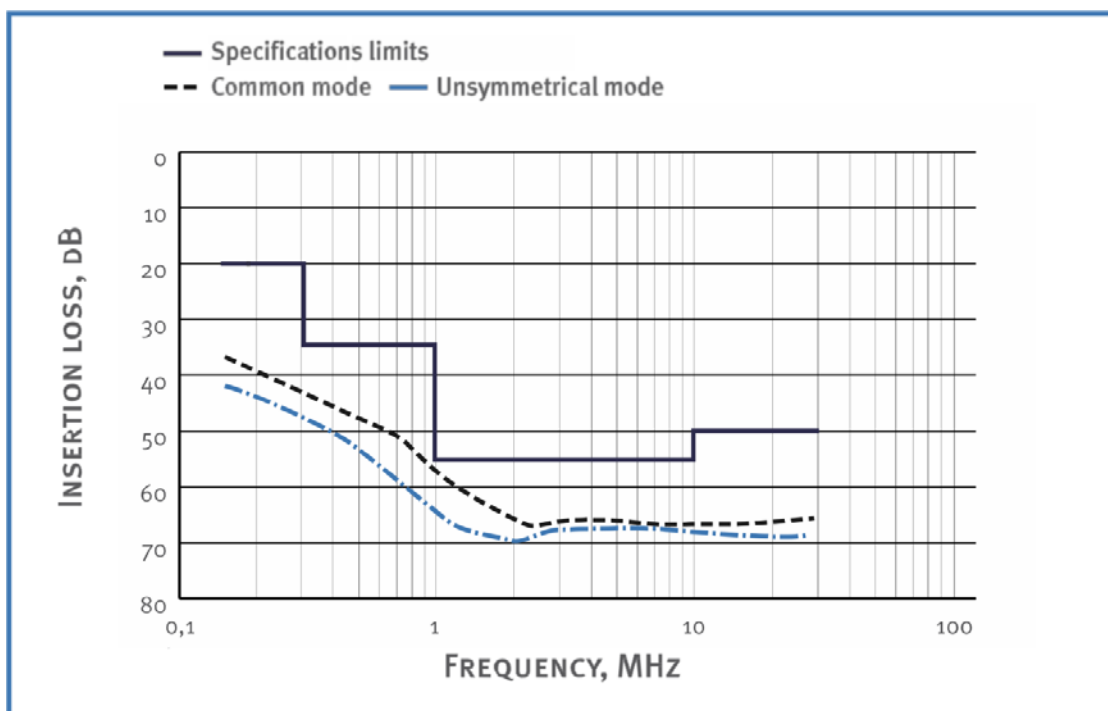
Common mode measurement



Unsymmetrical mode measurement



Typical insertion loss vs frequency



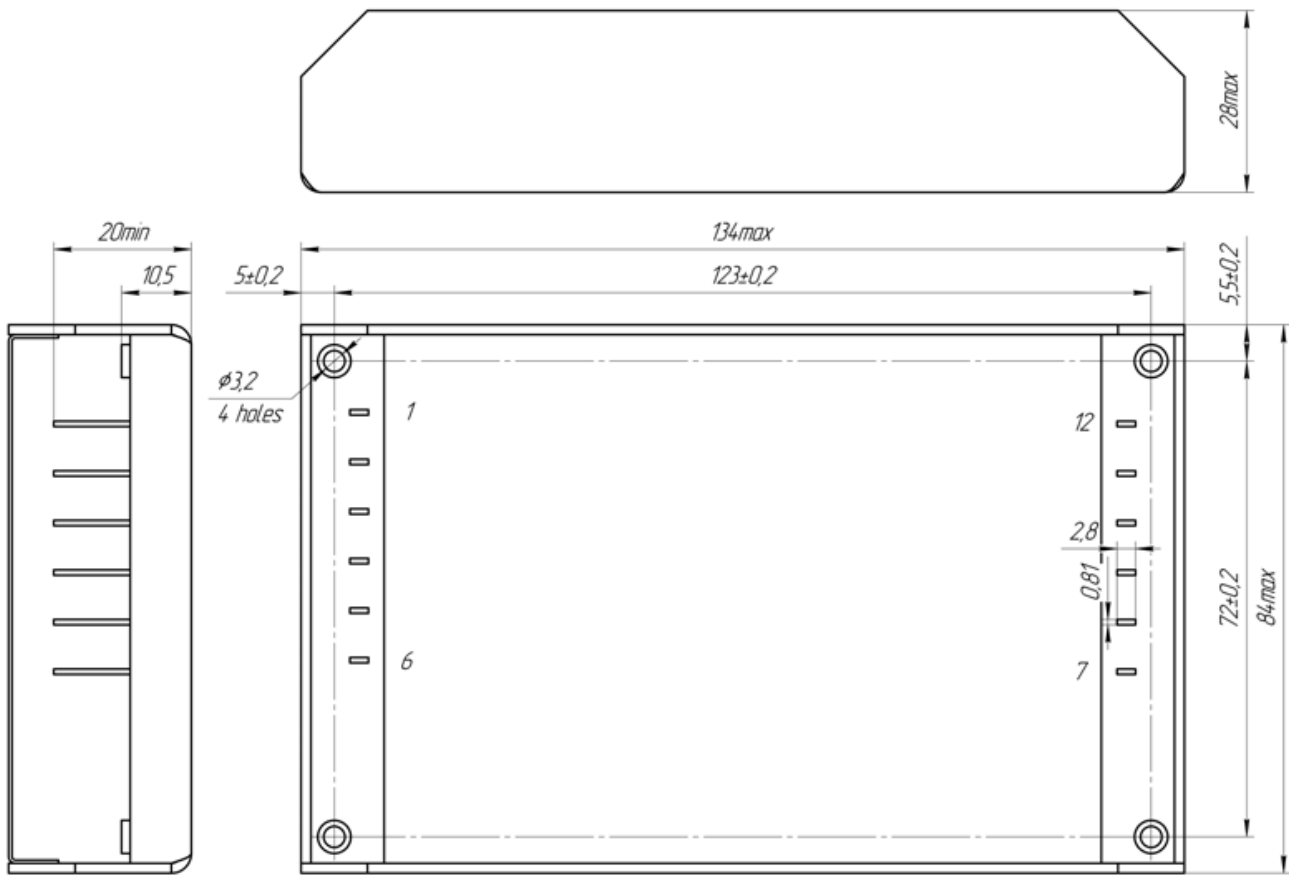
Pin out – JETAF20 series (models with the blade solder pins)

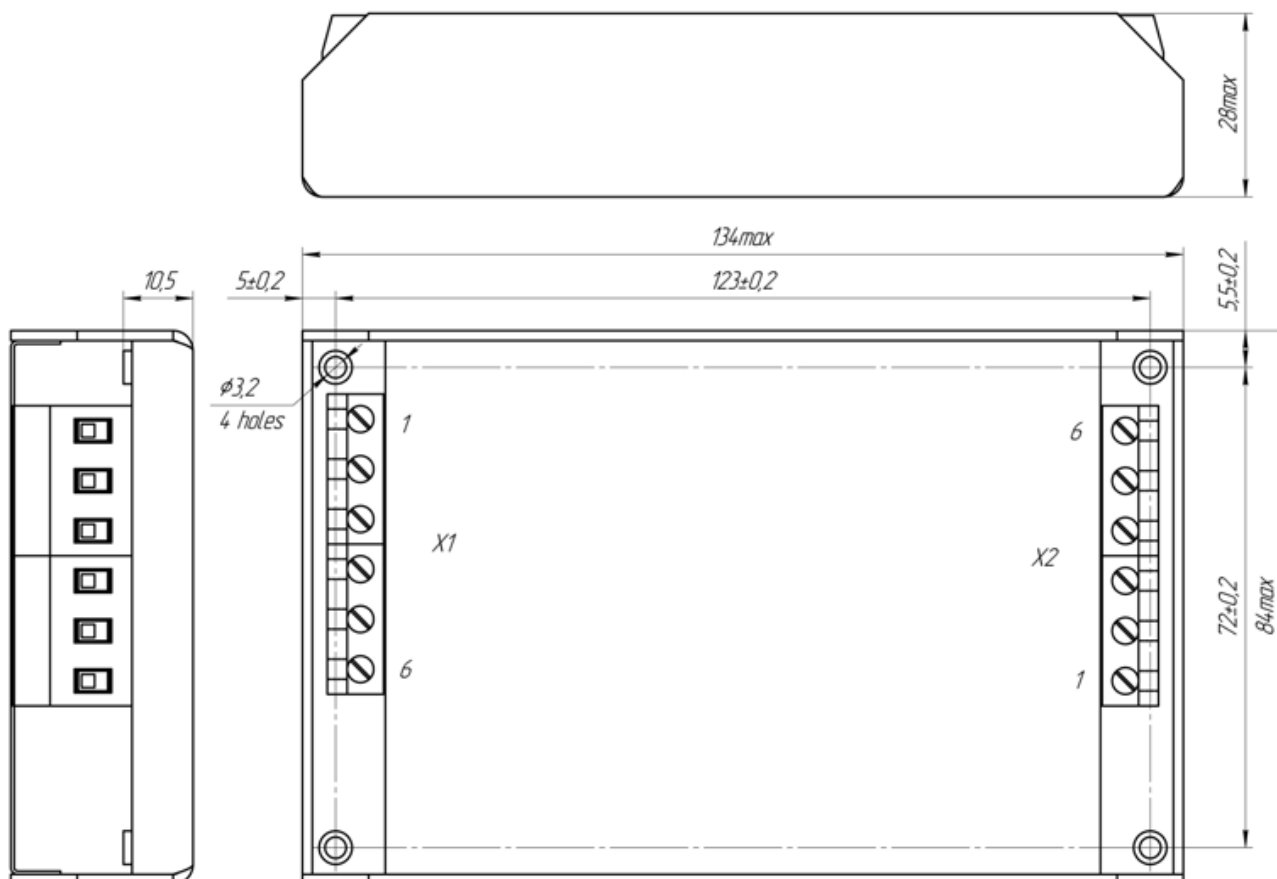
NºPIN	1	2	3	4	5	6	7	8	9	10	11	12
Designation	IN	IN	IN N	IN N	IN L	IN L	OUT L	OUT L	OUT N	OUT N	OUT	OUT

Pin out – JETAF20 series (models with the terminal block)

NºPIN	X1.1	X1.2	X1.3	X1.4	X1.5	X1.6	X2.1	X2.2	X2.3	X2.4	X2.5	X2.6
Designation	IN	IN	IN N	IN N	IN L	IN L	OUT L	OUT L	OUT N	OUT N	OUT	OUT

JETAF20 with blade solder pins (III case size)





Certificates

Certificate ISO*
CE conformity declaration

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

Note

The label can be placed on the top surface of the filter and must be removed before installation.

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

