

# BPF 70/3-150

Highly Selective Band-Pass Filter for the 450 MHz Band with High Power-Handling Capability (150 W)

## DESCRIPTION

- This band-pass filter is mainly applied to prevent interference between transceivers with narrow frequency spacing which are operating on antennas installed very close to each other.
- One of the transmitters may cause intermodulation in the output amplifier of the other transmitter, or the presence of one transmitter might "block" the contrary receiver or desense it because of excess sideband noise.
- The BPF 70/3-150 consists of 3 full-size quarter wavelength cavities with adjustable capacitive coupling between the resonators. This filter is applied when other available band-pass filters or pass-reject filters do not provide adequate power handling capability, or lack in attenuation at narrow separations.
- The filter has a very steep rolloff between the pass-range and the stop-band. This rolloff can be made even steeper by sacrificing on insertion loss. This "trade-off" may be necessary by very small separations or by highly required stop-band attenuation. Please note that the full power rating of 150 W can only be kept when keeping insertion loss below 1 dB. If insertion loss is raised to 2 dB, maximum allowable input power is 75 W.
- Another feature of this filter is its ability to be tuned with a certain pass-range bandwidth.
- The housing is made of extruded aluminium, the chassis of passivated steel, and teflon insulation has been used in the coaxial cables and in the connectors. The filter is black vinyl coated to prevent corrosion.



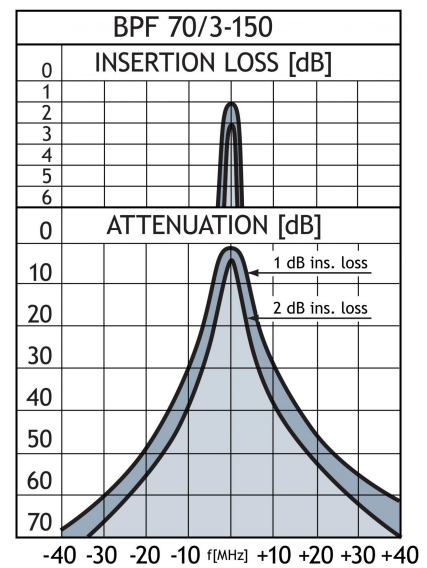
## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
BPF 70/3-150	200000926

## SPECIFICATIONS

ELECTRICAL	
MODEL	BPF 70/3-150
FILTER TYPE	Band-pass filter
TUNING RANGE	380 - 470 MHz
MAX. INPUT POWER	@ max. 1 dB insertion loss: 150 W @ max. 2 dB insertion loss: 75 W
ATTENUATION AROUND PASS-BAND	See curves
OUT OF BAND REJECTION	See curves
IMPEDANCE	Nom. 50 Ω
SWR	≤ 1.4
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	257 (incl. conn.) x 125 x 50 mm
WEIGHT	Approx. 1.17 kg

## TYPICAL RESPONSE CURVES



## ORDERING INFORMATION

The BPF 70/3-150 is delivered factory tuned. Depending on the nature of the problem the band-pass filter has to solve, please specify the relevant of the following data when ordering: Centre frequency, operating frequency of disturbed or disturbing transmitter, required attenuation at stop-frequency, tolerable insertion loss and, optionally: pass range bandwidth.



PROCOM A/S reserve the right to amend specifications without prior notice.

10/03/11