

VBD 400/25

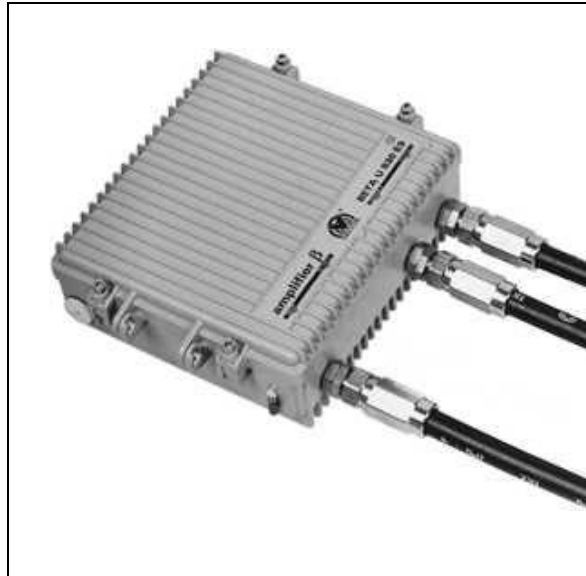
BOOSTER AMPLIFIER

GENERAL:

The VBD 400/25 (BETA S1) is a high gain RF line-amplifier equipped with two double power output-hybrids: one for each output, thus providing maximal performance for application in modern HFC networks. Configuration of the amplifier is easy using plug-in modules for both attenuation and slope of the RF-signals.

FEATURES:

- high gain, low noise
- double power hybrid per output
- two outputs
- inter-stage adjustment
- adjustment per output
- NMS interface for:
 - temperature
 - AC voltage level



Funea Broadband Services bv

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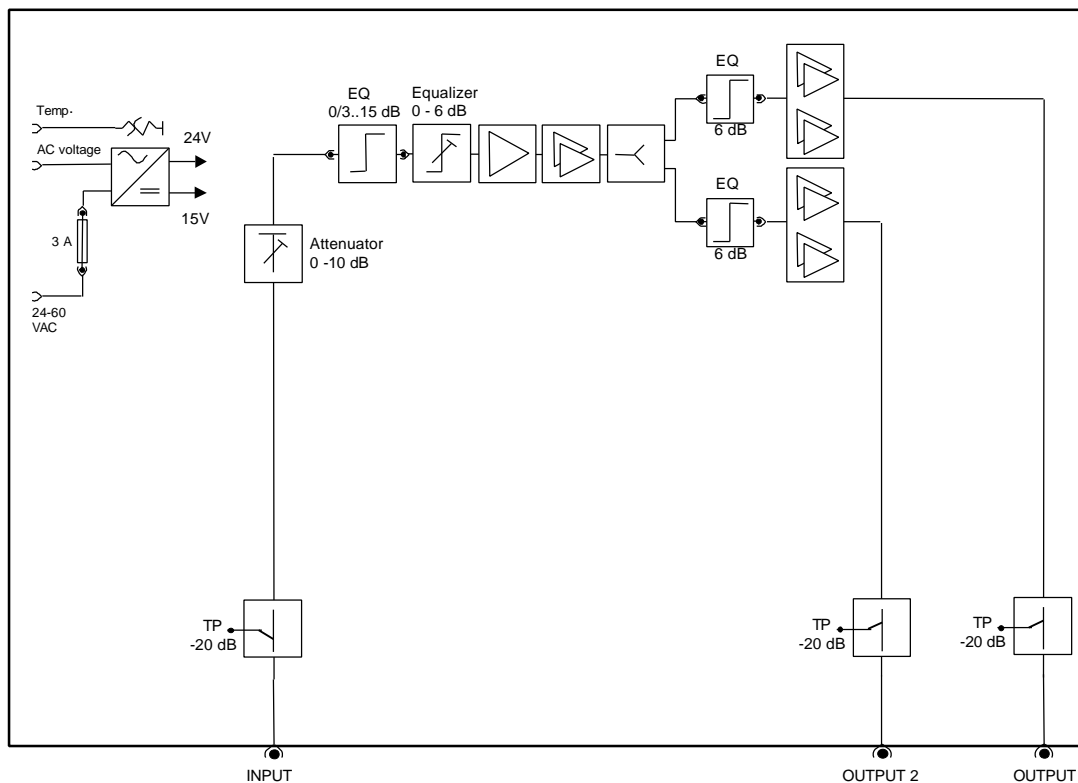
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BLOCKDIAGRAM:



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TECHNICAL SPECIFICATIONS:

Parameter	Specification		Note
Frequency range	47 - 862	MHz	
Max. gain	2 x 25	dB	
Operational gain	2 x 24	dB	with plug-in equalizers
Flatness	±0.7	dB	Typical value with nominal settings, max. ±0,5 dB when adjustable equalizer is from 0 to 6 dB.
Interstage slope	6	dB	one for each output stage
Return loss	20	dB	40 MHz, -1,5 dB/octave
Gain control	0 - 10	dB	Adjustable
Cable equalizer	0 - 6/12/18	dB	Adjustable + plug-in
Output level	2x122	dBμV	DIN 45004B, typical value at 862 MHz and +25°C, typical value at 606 MHz is 124 dBμV. Guaranteed value at 862 MHz, operating temperatures between -20 and +55°C is 122 dBμV.
CTB	107	dBμV	EN50083-3, CTB -60 dB at +25°C, 42 channels.
CSO	107	dBμV	EN50083-3, CSO -60 dB at +25°C, 42 channels.
Noise figure	<10	dB	Typical value at 862 MHz. Typical noise figure at 606 MHz is 9.0 dB. Guaranteed value at 862 MHz is 10 dB.
TP attenuation	20	dB	±0.7 dB input TP, F-type, internal
	20	dB	±0.7 dB output TP, F-type, internal
Radiation	<20	dBpW	L = 120 dBμV
Hum modulation	-70	dB	
Supply voltage	24 - 60	VAC	Recommended voltage range. Guaranteed operational voltage range is 20 - 65 V AC. LED indicator for "low AC voltage" threshold at 24 V.
Power consumption	<50	W	
Current consumption	1510	mA	15VDC
Connectors	IN OUT	IEC M14 IEC M14	
Monitoring	open collector		1. temperature normal/high 2. AC voltage level normal/low
Dimensions	190x240x90	mm	
Weight	2,6	kg	
Class of enclosure	IP 66		
Operating temp.	-20...+55	°C	
Surge protection:			
-inductive switching	100	A	2,5 kV; 1.5/40 μs
-electrost. discharge	80	A	5 kV; 10/100 ns
-max. current	20	kA	8 μs

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