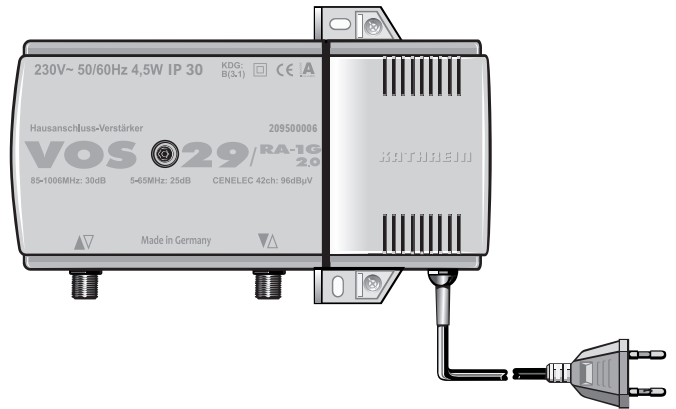


House connection amplifiers

Features

- House connection amplifiers for modern HFC networks up to 1 GHz
- Integrated high-efficiency switched-mode power supply unit
- Unit including forward path amplifier, return path amplifier, diplexer, actuators and power supply unit
- Die-cast housing with F-type connectors
- LED to indicate operational mode
- Interstage equaliser switchable with bridging plugs (6 dB pre-emphasis)
- Integrated variable attenuator (forward and return path; delivery condition return path: max. attenuation)
- Integrated adjustable equaliser (forward path)
- Integrated return path 5-65 MHz active
- Conform to: EN 60728-11, EN 50083-2 und EN 32368-1
- For indoor installation



The amplifiers comply with the EMC directive 2014/30/EU and Low-Voltage Directive 2014/35/EU applicable at the time of shipping.

Basic safety precautions



- Installation must be carried out by authorised specialist staff.
- Unplug from the mains before installation.
- Described amplifiers are exclusively for installation of HFC networks up to 1,006 MHz.
- Any other use or failure to comply with these instructions will void the warranty or guarantee.
- The amplifiers may only be installed in dry areas indoors. Do not install on or against highly combustible materials.
- The amplifiers must be earthed when installed (Cu, minimally 4 mm²).
- The safety regulations set out in the current EN 60728-11 and EN 62368-1 standards must be complied with.



- The supply voltage of the amplifiers is 230 VAC which can be fatal if touched directly.
- The only reliable method of disconnecting the amplifiers from the mains is to unplug them.
- Do not touch live parts.
- The power plug must be easy to operate as the means of cutting power to the amplifier, so the wall outlet must be close to the amplifier and easily accessible.
- The amplifiers may only be installed and deinstalled in the voltage-free condition.
- Do not operate the amplifiers without the factory-fitted protective cover over the power supply unit. The cover must be closed.
- No liquid-filled items may be placed on top of the amplifiers.
- The amplifiers are not to be exposed to dripping or splashing water.
- Ambient temperature range -20 to +55°C

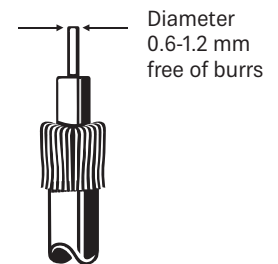
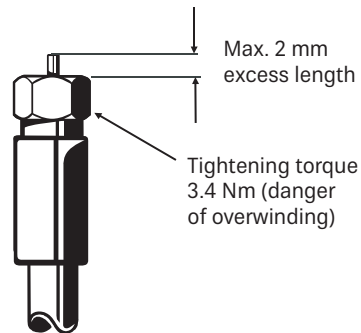
Mounting:

The following is required for installation:

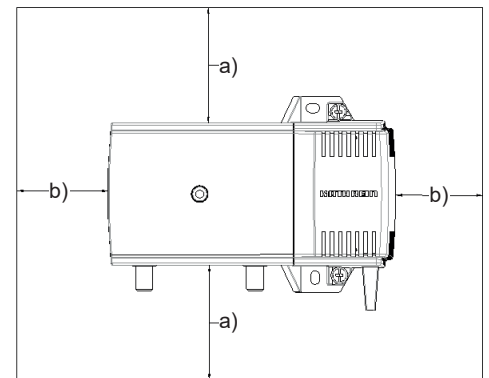
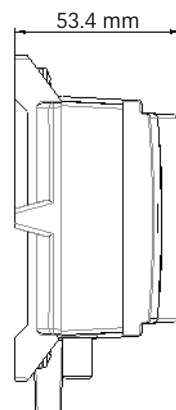
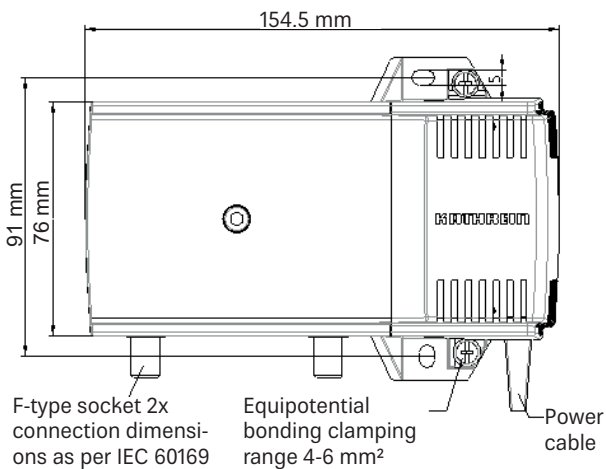
- Fixings: screws, max. $\varnothing$: 4,5 mm
- F-type connector plug as per EN 61169-24.



- An inner cable conductor diameter greater than 1.2 mm, or the presence of burrs may damage the sockets on the unit.

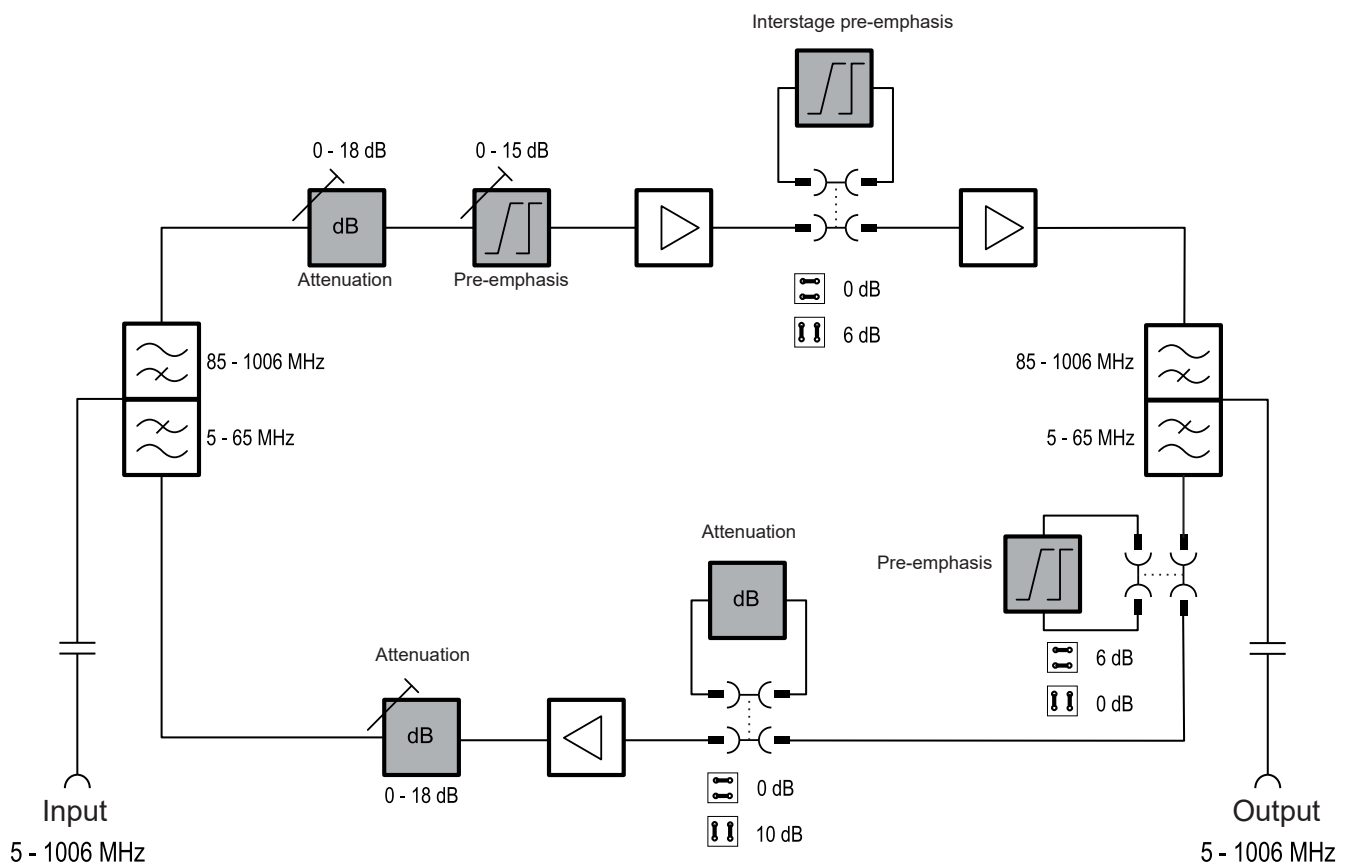


Permissible installation



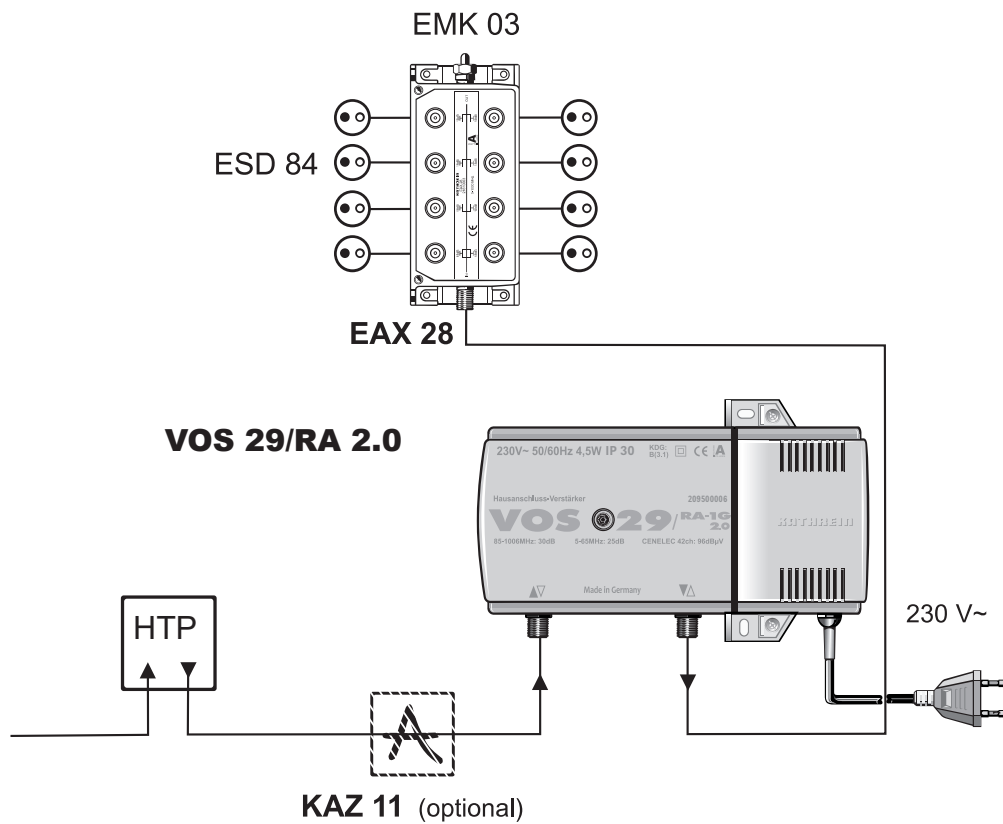
- a) Distances to boundary surfaces: ≥ 150 mm
- b) Distances to boundary surfaces: ≥ 50 mm

Block diagram



Connection example

Standard in-house distribution network for 8 connections with VOS 29/RA-1G 2.0



Technical data

Type		VOS 29/RA-1G 2.0
Order no.		209500006
Forward path		
Frequency range	MHz	85-1.006
Gain	dB	30
Max. operational level CENELEC 42 channels (60 dB CTB/CSO)	dBμV	96
Noise figure	dB	4.5
Gain setting range (on input)	dB	0-18
Equalisation setting range (on input)	dB	0-15
Setting range interstage equaliser 1)	dB	0/6
Return path		
Frequency range	MHz	5-65
Gain	dB	25
Gain setting range (on output 2)	dB	0-18
Gain setting range (on input 1)	dB	0/10
Equalisation setting range (on input 1)	dB	6
Noise figure	dB	5
Max. output level (60 dB IMod3/IMod2)	dBμV	116/106
Input level density (CINR: 50 dB)	dBμV	Typ. -8
Dynamic range (input level density)	dB	22
Maximum output level as per KDG 1TS 140 (medium system load)	dBμV	120
Classification to KDG 1 TS 140		B (3.1)
General		
Nominal input voltage	V _{AC}	230 (50/60 Hz)
Power consumption	W	4.5
Operational display		Green LED
RF connections		F-type connectors
Protection class/protection category (to EN 60529)		II / IP30
Temperature range	°C	-20 to +55
Dimensions	mm	105 x 155 x 54
Packing unit/weight	pc./kg	1 (10)/0.8

¹⁾ Settable using bridging plugs

²⁾ The attenuator is set to max. attenuation in the delivery status.

Disposal



Electronic equipment

Electronic equipment must not be disposed of in domestic waste. According to directive 2012/19/EU OF THE EUROPEAN PARLIAMENT AND COUNCIL of 04 July 2012 on waste electrical and electronic equipment, it must be disposed of professionally. At the end of its service life, take this unit to a designated public collection point for disposal.