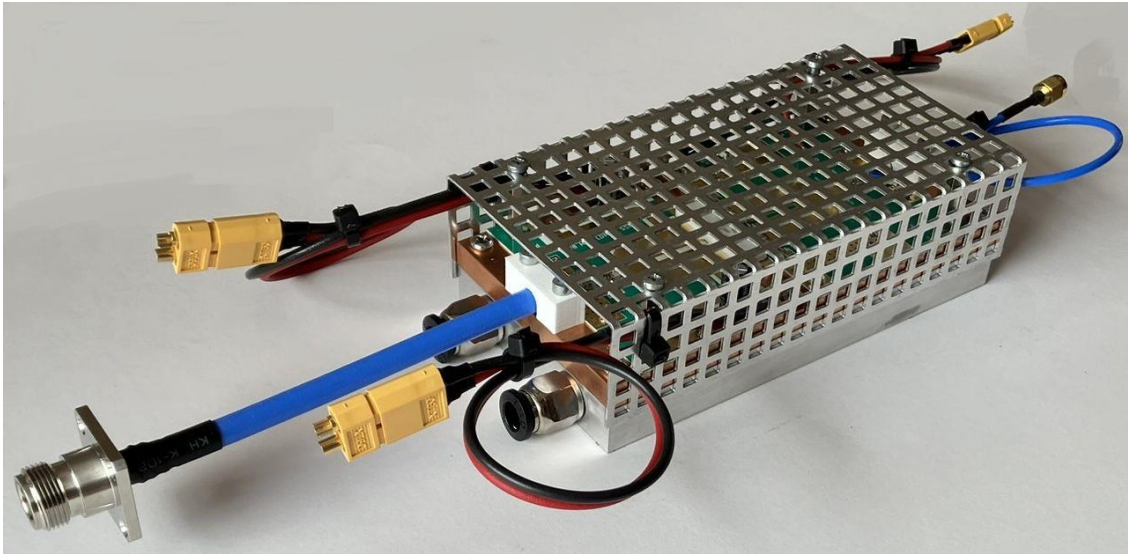


# AMPLEON BLF13H9L750 23CM HPA



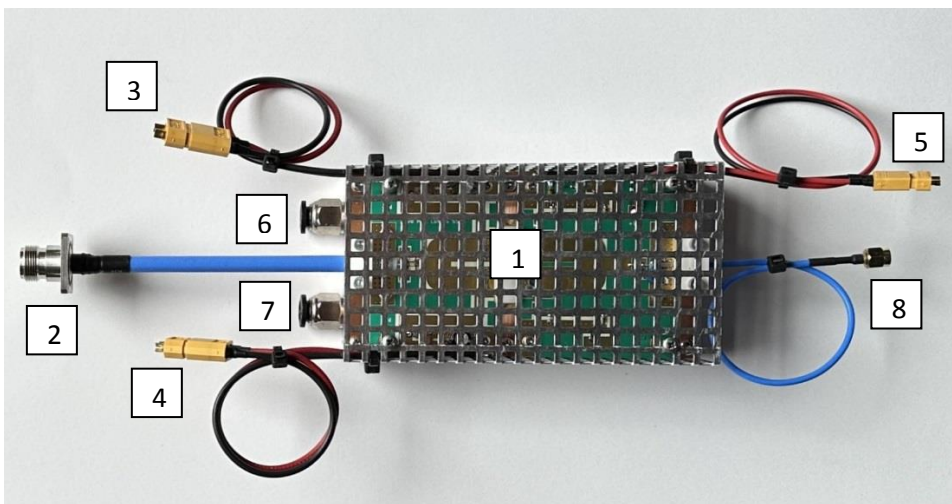
## Background information

This amplifier is designed to make a reliable unit to use with the Venus bounce test at the Dwingelo 25m telescope fall 2026. During the 2025 tests the initial amplifier broke down after at the third transmission of 4 minutes full power. At the test in 2026, two off this units will be used to make a reliable 1 kW output. I decided to make a small batch of these amplifiers to reduce the overall costs by selling the additional amplifiers.

## General information

- Minimal 600W output
- Using proven technology with rugged 750W LDmos devices at 50V
- Water cooling for thermal stability to accommodate long full power transmissions
- High gain to use with modern 10W transceivers. (IC9700)
- More or less plug and play!
- Small footprint 150x80mm

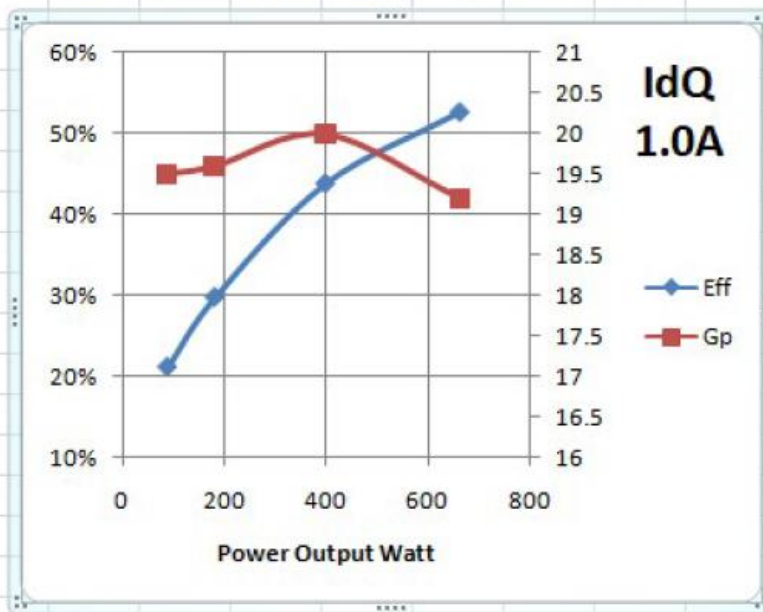
## Overview



1. Main module LxWxH 150 x 80 x 45
2. Output connector N type female flange
3. First XP60 drain voltage connector 50V (10A+)
4. Second XP60 drain voltage connector 50V (10A+) total 20A
5. XP30 bias voltage connector 12V
6. 8mm "push in" water inlet (8mm OD pneumatic tube)
7. 8mm "push in" water outlet (8mm OD pneumatic tube)
8. Input connector SMA type male.

## Performance

IdQ-1.0A	Pin dBm	Pout W	Ui corr dBm	Pout dBm	Ui 47V dBm	lin	Pin	gain dB	Comp dB	eff	Rp ohm	Pdisp
	30	89	49.8	49.5	49.8	8.5	423	19.5	-0.5	21%	22.5	334
	33	182	49.7	52.6	49.8	12.3	612	19.6	-0.4	30%	11.0	430
	36	398	49.9	56.0	50.0	18.2	908	20	0	44%	5.1	510
	39	661	50.0	58.2	50.1	25.1	1254	19.2	0.8	53%	3.1	594



These tests are made on an automated (one shot) test bench using a 200ms pulse. For longer transmissions the gain is about 1dB less. Despite the water cooling there is the need for a small airflow on top of the pcb. A 40x40mm fan on top of the lid will do. Bias is adjusted to 1A.

## Availability

These units are sold by my private company. You get an invoice and warranty on normal use. Prices are including Dutch taxes, excluding post and package.

First come, first go! Total price including tax; €900,--

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