

## 50 kW SmartLoad || BN 546430

Coaxial load with intelligent control:

- Standby function
- Pump and fan activated only when needed
- Super fast self protection
- Interlock signal
- Single phase power supply
- Rear and side walls can be covered
- Outdoor heat exchanger
- Pressurized cooling circuit



Indoor load unit



Outdoor heat exchanger

### Operating modes

Standby and RF power approx. 80 W	natural cooling without pump or fan *
RF power approx. 80 W to approx. 800 W	pump only *
RF power approx. 800 W to 50 kW	pump and fan *

\* Depending on the ambient temperature and the RF power applied, the pump and/or fan can switch on at any time and switch off again according to the required cooling capacity.

### Radio frequency characteristics

Interface type	6 1/8" EIA (50 Ω) per IEC 60339-2, facing upwards
Frequency range	DC to 790 MHz
Average power rating, max.	50 kW
Proof voltage, max.	17 kV
VSWR, max.	1.04 @ DC to 108 MHz or 1.04 @ 108 to 470 MHz or 1.04 @ 470 to 790 MHz or 1.08 @ DC to 790 MHz

### Cooling Aggregate

Mains supply:	Mains voltage Mains frequency Real power consumption Nominal current, max.	187 to 264 V, L, N, PE (or L+, L-, Ground) 50 / 60 Hz 50 W (standby), 3.1 kW (full operation) 15.5 A
Mains panel connector		male power socket, acc. IEC 60320-1 (C20)
Interlock loop connection		two-pole connector with screwlocking acc. IEC 60130-9, Co. Binder, series 581/680/682, TYP 09-0303-00-02, or at termination block inside control box
Interlock loop contact load		SELV per IEC 60950-1 max. 42.4 V AC <sub>pk</sub> / 60 V DC max. 1 A
Heat exchanger		50 kW special SPINNER single ventilator type
Noise level, approx.	Indoor load unit 65 dB (A) @ 1 m distance	Outdoor heat exchanger 48 dB (A) @ 10 m distance
Product Manual		M36445
Maximum distance indoor unit / heat exchanger		10 m
Max. height difference indoor unit / heat exchanger		3.5 m
Pressure of cooling system		0.75 to 1.1 bar
Weight, approx.		290 kg

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**Environmental conditions**

<b>Operation</b>		
Operational environment	operating sites with limited access	
Ambient temperature range	Indoor load unit -10 to +45°C	Outdoor heat exchanger -30 to +45°C *
Relative humidity, max.	95% (non-condensing)	
Altitude, max.	2286 m	
IP protection level	Indoor load unit IP20 per EN 60529	Outdoor heat exchanger IP55 per EN 60529 (suitable for salt water environments)
<b>Storage and transport</b>		
Ambient temperature range	-20 to +70°C	
Relative humidity, max.	95% (non-condensing)	

\* from -30 to -20°C a slow power ramp-up is required (pre warming of coolant with 5 to 7 kW for approx. 10 minutes)

**Coolant**

Capacity of cooling circuit, approx.	30 litres (dummy load supplied in unfilled state)
Chemical composition, brand	mixture of distilled water, 50 Vol. % ethylene glycol and corrosion inhibitor, STAUBCO® Cool N -40°C
Density (temperature sensitive)	1.08 kg/dm <sup>3</sup> @ +20°C

**Scope of delivery and accessories**

Scope of delivery	dummy load indoor unit outdoor heat exchanger with 10 m hard-wired cable power cord with IEC 60320-1 C19 socket (pigtail) interlock cable connector product manual material safety data sheet of the coolant 20 m hose to connect indoor unit to outdoor heat exchanger 2 pcs automatic vents 50 litres coolant 1 set of clamps, etc. to connect hoses	
Spare parts	power cord with IEC 60320-1 C19 socket (pigtail) interlock cable connector STAUBCO® Cool N -40°C coolant, 25 litres canister automatic vent	BN A77310 BN 102964 BN A75272 BN B29689
Accessories	filling pump set 230 V AC, 50 Hz filling pump set 115 V AC, 60 Hz wall hanger support set	BN 155890C0000 BN 155890C0001 BN A76789C0001

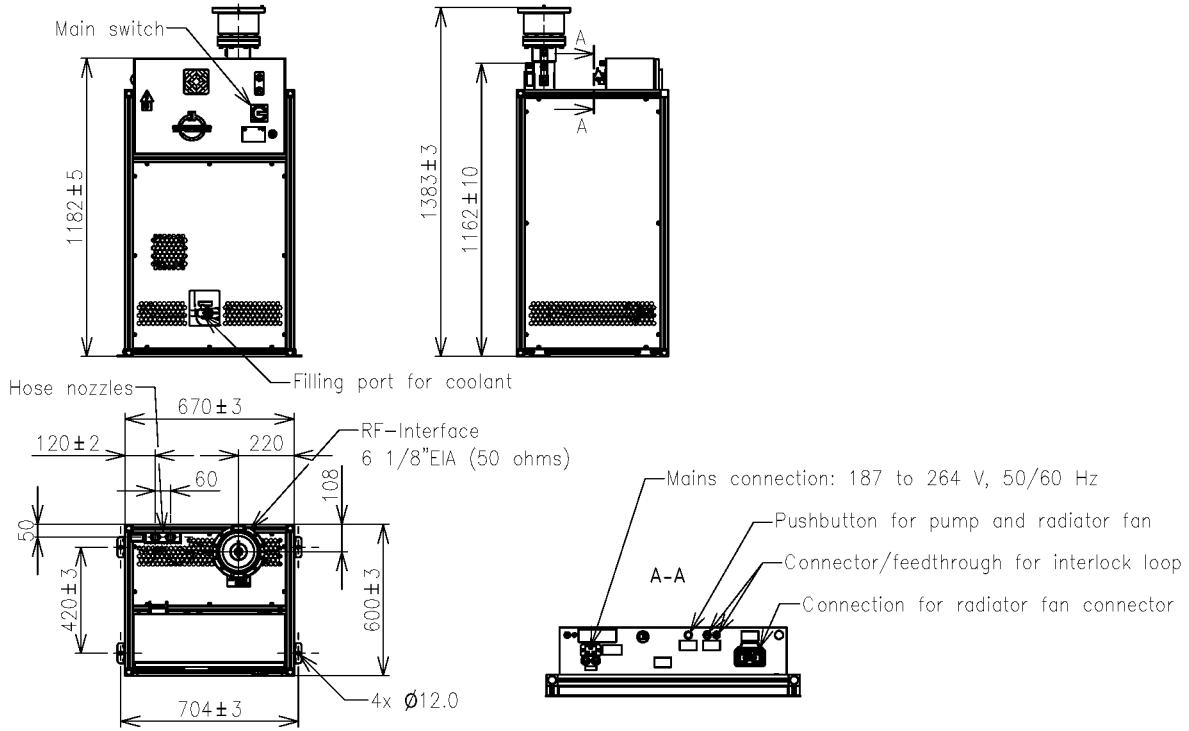
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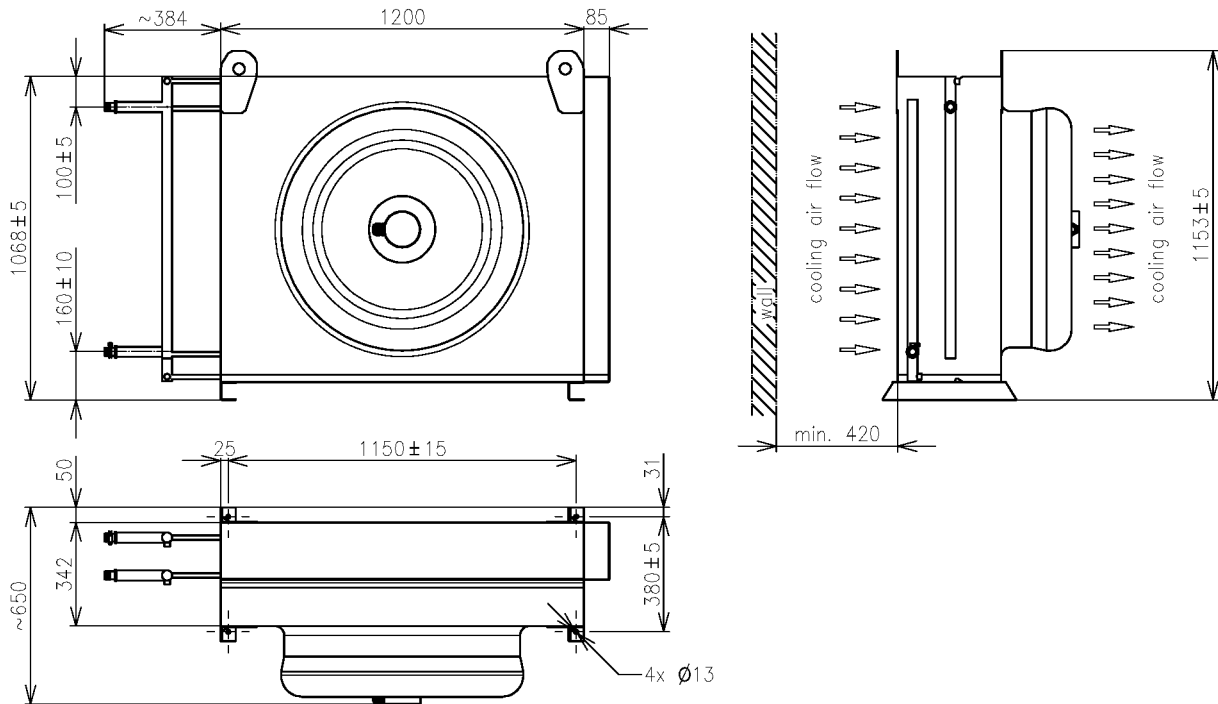
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Outline (all dimensions in millimeter)

Indoor load unit



Outdoor heat exchanger



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