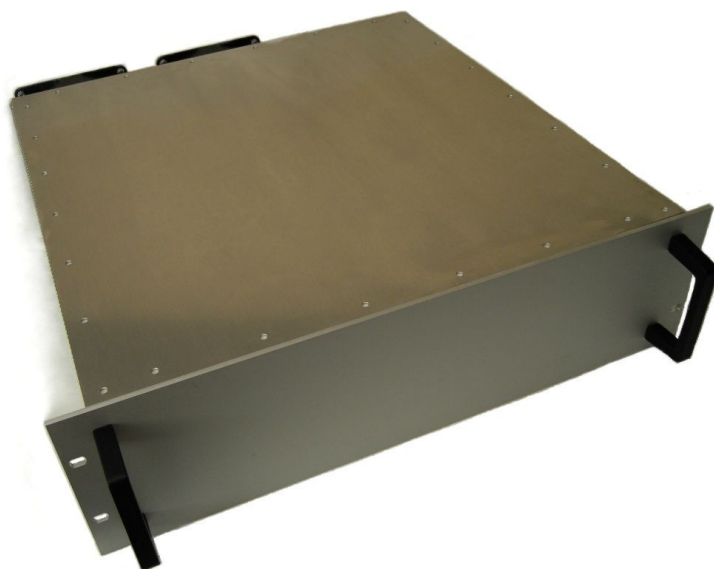


**Switching Mode Power Supply
for Magnetron use****Single – Power-Supply
PPS-MWS-2000-4000-CAN1
PPS-MWS-2000-4000-CAN1H****TECHNICAL DATA**

PPS-MWS-2000-4000-CAN1 SINGLE pulsed Magnetron Power Supply
PPS-MWS-2000-4000-CAN1H SINGLE pulsed Magnetron Power Supply with Heat-Regulation

1x 2000W/4000W (continuous / pulse-peak) MicroWave-/HF-Power Magnetron-Type: 2.0 kW / 2450 MHz Adjustable Power from 10 % - 100 % Standard Ripple	Dimensions: 19'' rack (plug-in-case) 3 units height 508 mm depth (incl. Fan's)
CAN-Bus controlled (CAN01 or CanPH02c) CAN01 -Protocol or CanPH02c-Protocol (coming soon)	Air- and water-cooled: water-cooled (5 l/min; 4 bar) Input POWER: 3-ph 400V~ 47-63 Hz (max 5 A/ph) Input-AUX-PWR: 230V~ 47-63 Hz

1x Magnetron – Heater – Regulation (optional) Leading edge phase controlled heat-regulation

*Delivered with all needed device connectors:*

- | | | |
|-----------------------|-------------|----|
| - Interlock | - connector | 1x |
| - 3x 400 V~ / 3 phase | - connector | 1x |
| - 1x 230 V~ | - connector | 1x |
| - MW-Head | - connector | 1x |
| - HV -LEMO (10 kV) | - connector | 1x |

Not included:

- | | | |
|------------------|------------------------------|--|
| - Water-IN /-OUT | - flexible tube | |
| | (e.g.: FESTO ,PUN 10 x 1.5') | |
| - CAN-Bus | - connector | |

**Attention: -- Microwaves and High-Voltage are dangerous --**

Very important to avoid any injury :

Use INTERLOCK -Switch(es) to prevent any microwave output, if microwave-system is not complete closed. Responsible for the correct interruption of the microwave energy production is the constructor of the complete microwave-system.

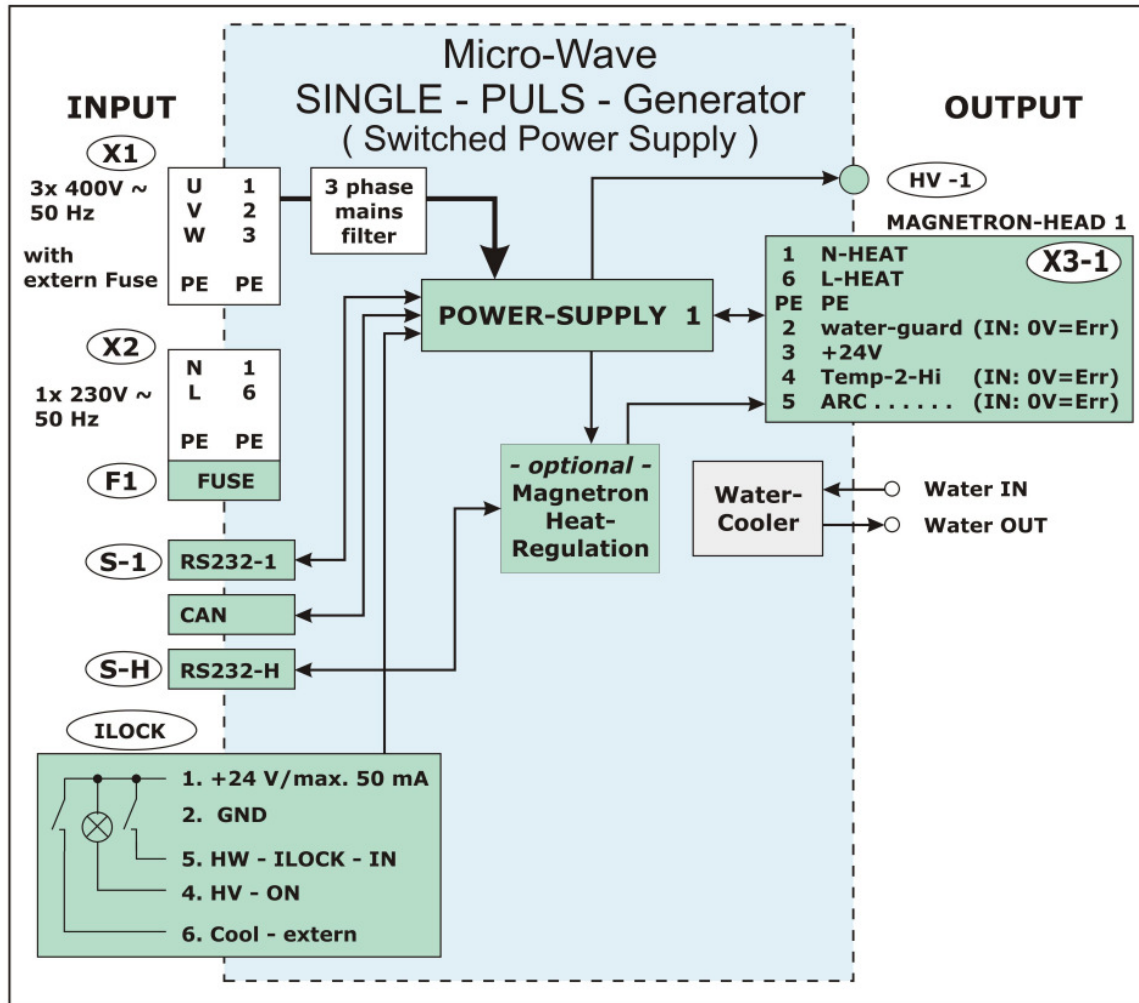
1 General Description / Block Diagramm

The PPS-MWS-2000-4000-CAN1 power supply could be controlled over CAN-Bus

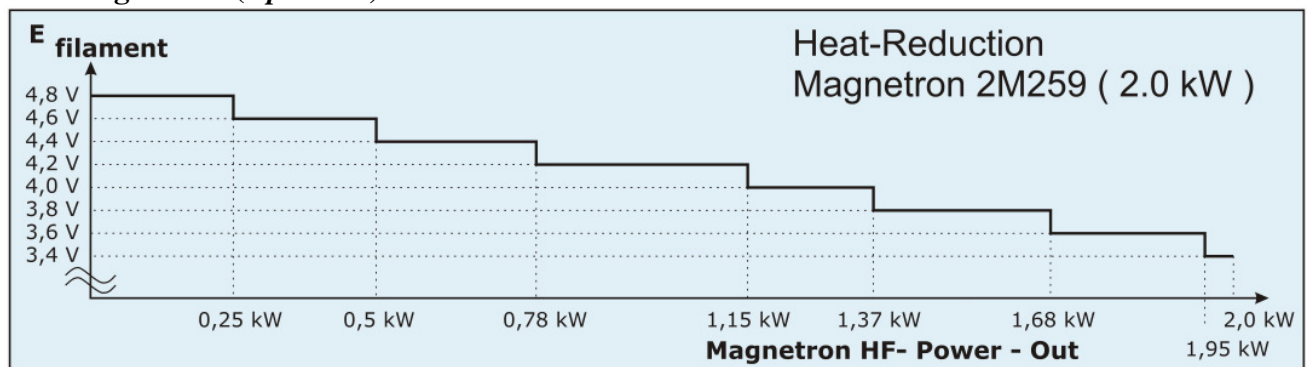
Either with the **CAN01** – Protocol
 or with the CanPH02c – Protocol (*coming soon*)

→ CAN-Bus-Protocol about the **CAN01** (and CanPH02c) - Protocol
 placed in the **CAN01** / CanPH02c – **Manual**

Block – Diagram



Heat Regulation (optional)

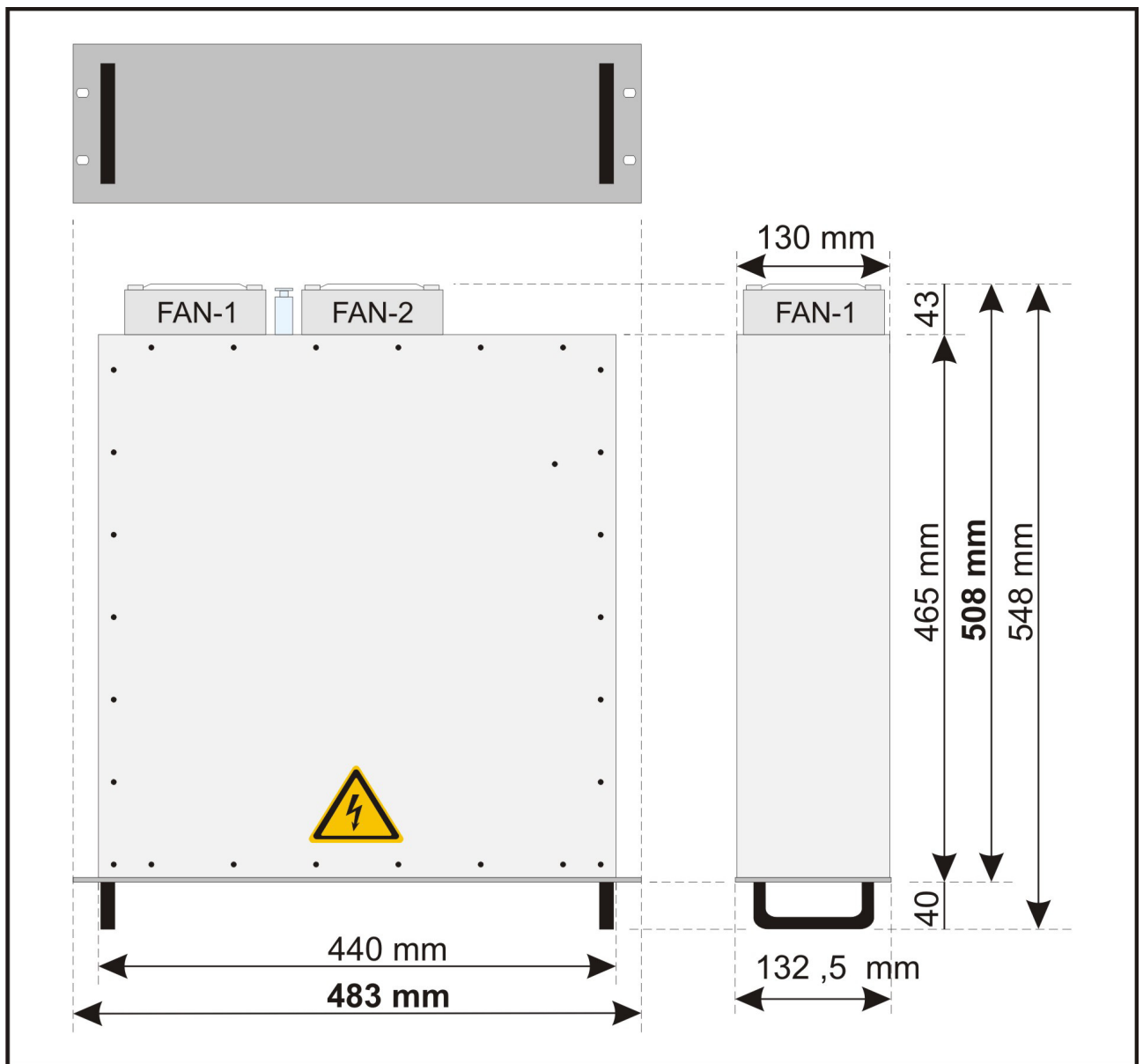


3 Environment Conditions

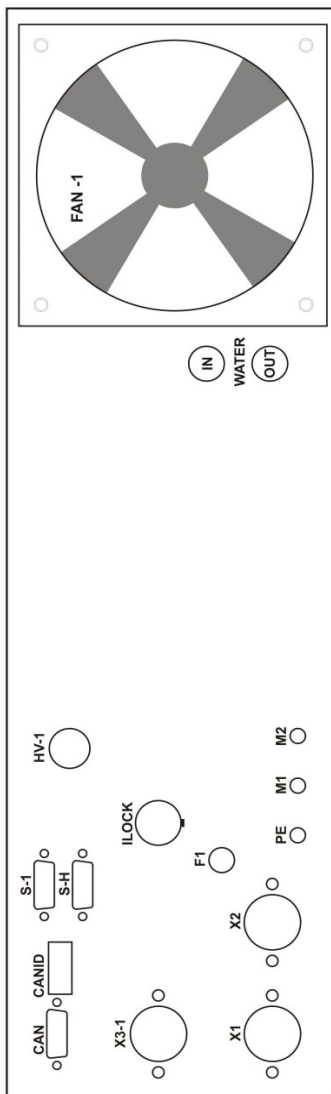
USE INDOOR USE only
Temperature 5° C to 40° C

4 Mechanical Data

Dimension without handhold L x W x H **508 x 483 x 132.5 mm³** (length x width x height)
Dimension with handhold L x W x H 548 x 483 x 132.5 mm³
19'' rack (plug-in-case)
3 rack-units height
Weight (approximately) **13 kg**



5 Back-Side of Device / Connectors



>> Connectors <<

Abbreviations:

PS-1 ... Power-Supply-1

HV-1 > High-Voltage PS-1

X1 > INPUT_: 3 phase ... 400 V~

X2 > INPUT_: 1 phase AUX 230 V~

X3-1 > OUTPUT: MW-Head-Output PS-1

PE > protective earth

M1 > Ground-1

M2 > Ground-2

ILOCK > Interlock - Connector

F1 .. > Fuse 230 V~ (AUX-Voltage)

WATER-IN > water-cooling IN

WATER-OUT > water-cooling OUT

FAN-1 > air-cooling PS-1

Communication-Ports:

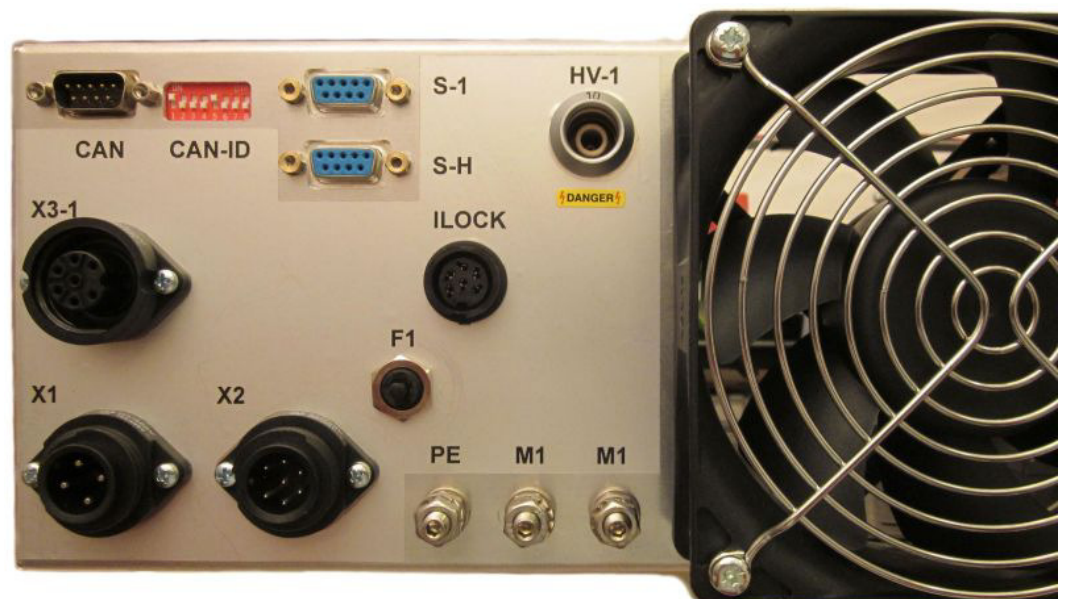
CAN > CAN-Bus-Port (SUBD9)

CANID > Can-Start-ID (Dip-Switches)

S-1 > Serial PS-1 (Firmware-Update)

S-H > Serial Heat-Regulation

Back-Side



6 Connectors Details & Pinning

6.1 Connectors Details

Needed Cable-Connectors included in delivery of new device:

Qty	Name	Definition	male	/female	Producer	Factory-Nr
1x	X1	3x 400V~	3x 400V~ / 50Hz (47-63Hz)	3 Phase	female	Binder 693.99.4222.00.04
1x	X2	1x 230V~	1x 230V~ / 50Hz (47-63Hz)	1 Phase	female	Binder 693.99.4226.00.07
1x	X3-1	MW-Head-1	MW-Head-1	Power-Supply-1	male	Binder 693.99.4225.00.07

1x	ILOCK	Interlock	ILOCK for both	Power-Supplies	male	Binder 678.99.0617.00.06
1x	HV-1	Hi-Volt-1	HV-1 from	Power-Supply-1	male	LEMO FFA.1Y.410.CLAC47 (-10kV)

Note: 1x HV-Lemo includes
1x gold-tube

Connectors NOT included in delivery of new device:

Qty	Name	Definition	male	/female	Producer	Factory-Nr
1x	CAN	Can-Bus	To control	Power-Supply-1	female	
			And	Power-Supply-2		
2x	S-1	Serial-1	RS232 of	Power-Supply-1 ...	male	
	S-H	Ser-Heat	RS232 of	MW-Heat-Control		
			... for	Firmware-Update		
2x	WATER	Water-IN	Cooling of	Power-Supply-1	FESTO	PUN10x1.5
		Water-OUT	and	Power-Supply-2		

6.2 Connectors Pinning

1.	X1	400V~/50 Hz	-- 3 Phase	1,5 mm²
Pin	Name	Definition		
1	U	400V~ / 50Hz (47-63Hz) ... Phase-1		
2	V	400V~ / 50Hz (47-63Hz) ... Phase-2		
3	W	400V~ / 50Hz (47-63Hz) ... Phase-3		
4	PE	Protective Earth		
2.	X2	230V~/50 Hz	-- 1 Phase	1,0 mm²
1	N	N - 230V~ / 50Hz (47-63Hz)		
2		./.		
3		./.		
4		./.		
5		./.		
6	L	L - 230V~ / 50Hz (47-63Hz)		
PE	PE	Protective Earth		
3.	X3-1	MW-Head-1	230V~	1,0 mm²
			24V	0,75 mm²
1	N-HEAT	N - 230V~ / 50Hz (47-63Hz)		
2	Water-guard	IN: 0V=Err	24V=No Error	
3	+24V	Intern	24V power-supply	
4	Temp-2-Hi	IN: 0V=Err	24V=No Error	
5	ARC	IN: 0V=Err	24V=No Error	
6	L-HEAT	L - 230V~ / 50Hz (47-63Hz)		
PE	PE	Protective Earth		
4.	ILOCK	Interlock	0,75 mm²	
1	+24V/max 50mA	Intern	24V power-supply	
2	GND	Intern	GND power-supply	
3				
4	HV-ON	Indicates HV-ON		
5	HW-ILOCK-IN	Hardware-ILOCK extern connected		
6	Cool-extern	Cool-Extern input for detection		