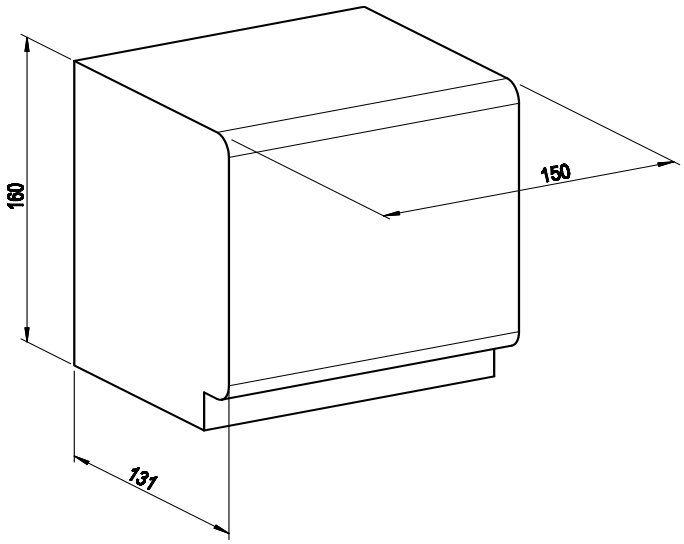
AC / DC POWER SUPPLY
PRIMARY SWITCHED · SINGLE OUTPUT
PH1013 SERIES

- 960 watts output power
- Only 150 mm wide
- 3 x 340-550VAC wide range input
- Power boost with 80 A for 2s max.
- Operation in any assembly position
- Primary and secundary overvoltage protection
- Overtemperature protection
- Parallel connection with load sharing
- 3 year warranty



Dimensions LxWxH (plus DIN-rail)
150x160x131 mm

Dimensions LxWxH (Wall mounting)
150x160x127 mm

Detailed dimension drawing on request.

ORDER DATAS				*Order numbers*
Vo **V**	**Io** **A**	**Preset range Vo** **V**	**Typ-No.** DIN-rail	**Typ-No.** Wall mounting
24	**0 - 40**	23.5 - 28.5	**PH1013-2440** *14.5941.700*	**PH1013-2440** *14.5941.705*
Additionally: Input connector cover (10 pcs)			*14.5904.500.200*	

Please ensure a distance of approx. 50mm between the air-inlet openings of the housing and surrounding components or surfaces. Also make sure that outgoing air is not sucked back into the device during the installation.

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1. INPUT

Input voltage range	AC 3 x 340-550V, 50/60Hz
Efficiency	90% typ.
Input current limitation	< 50 A_{peak} typ. - in cold state < 100 A_{peak} typ. - in hot state
Fuse	external fuse with 16A to max. 32A necessary (C,D,K)

2. OUTPUT

Preset range Vo	23.5 - 28,5V 24V/+-0.1V justified by MGV
Max. output power	960W
Operation indicator	green LED for Vo, red LED for error
Ripple	70 mV_{ss} typ.
Noise voltage	100 mV_{ss} typ.
Temperature coefficient	≤ 0.025% / K
Switch on / switch off	No Vo overshoot (soft-start)
start-up delay	≤ 150 ms
Rise time	10 ms / 30 ms typ. at 100,000 µF load
Serial connection	yes (max. 2 identical power supplies)
Parallel connection	yes (max. 3 identical power supplies)
battery operation	after consulting MGV possible

3. REGULATION

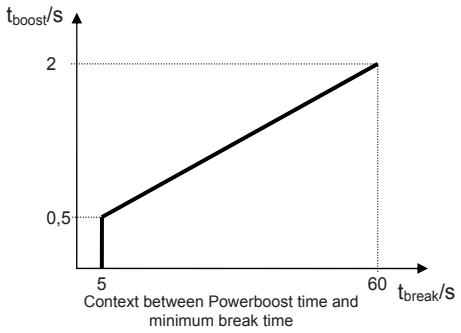
Line regulation	< 0.2% for Vo at Vi_{min} - Vi_{max}
Load regulation	< 0.5% for Vo at Io 0 - 100% single operation < 5% for Vo at Io 0 - 100% parallel operation
Response time	1 ms typ. at Ia 20 - 80%

4. PROTECTION AND CONTROLLING

Overvoltage protection	29 - 35V automatical repeating
Current limitation	see diagram, output permanent short-circuit proof
Ticker operation	Vo < 16V min. 0.5s ON and approx. 5s OFF
Overtemperature protection	Switches off if inside temperature becomes to high, reconnection with hysteresis
Mains buffering	18 ms typ. in normal operation (see diagram)
Control signal	Relay contact (<60V/0.2A), changing at Vo < 15-17V from OK to FAIL
Control signal OFF	External switch-off with 5 - 29VDC/5mA_{min} or switch from Vo

5. EMC

Interference suppression/	EN 61000-6-2 / EN61204-3	
interference immunity	EN 61000-4-2	8/15 kV
	EN 61000-4-3	Noise level 10V/m
Burst (input)	EN 61000-4-4	4 kV
(output)	EN 61000-4-4	2 kV
Surge (input)	EN 61000-4-5	2/4 kV
(output)	EN 61000-4-5	0.5 kV
	EN 61000-4-6	Noise level 10V
	EN 61000-4-8	30 A/m
	EN 61000-4-11	
Interference emission	EN 61000-6-3 / EN61204-3	
	EN 55022 / EN 55011 Class B	
	Radiation depends on assembly	



Context between Powerboost time and minimum break time

6. SAFETY

	EN 60950 / VDE 0805 / VDE 113
	Safety class I / VDE 0100 / IP20
	UL 508 listed / UL 60950
	SELV-output (EN60950)
	pollution degree 2

Ensure fire protection by means of the surrounding housing system.

7. OPERATING DATA

Temperature range	0...+70°C, integral, temperature controlled fan, air intake bottom-up
Derating	2.5% / K at +60°C
Weight	2.1 kg

8. MECHANICS

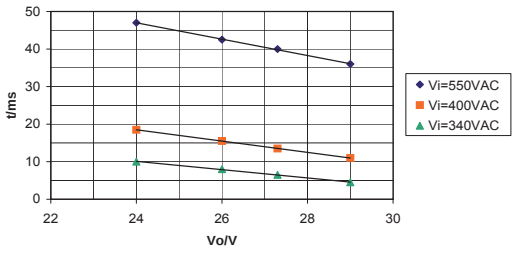
Connection	Main input:	4-pole 0.75-4/6 mm² strand / wire tightening torque 0.5...0.8Nm
	Load output:	4-pole 2.5-10/16 mm² strand / wire tightening torque 1.7Nm
	Controll signals:	4-pole 0.25-2.5 mm² strand / wire tightening torque 0.5Nm
Assembly	All systems can be snapped onto a symmetrical 35mm DIN-rail according to EN 50022 with a diameter of 1 to 2.5 mm or directly be screwed onto the wall. Please notice the assembly conditions.	

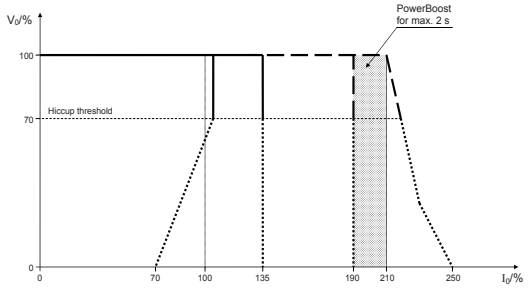
9. EXPLANATORY NOTES

PE	**Protective conductor** **Do not use supply without PE-connection!**
L1 / L2 / L3	Main phases
+ / -	Load connection
Relay OK/FAIL	Monitoring connections
OFF	Control connection

Please refer to the MGV user instructions before use. (also in internet www.mgv.de)

Mains buffering Io=40A





Start-up takes place with Powerboost between 190% and 210% of the nominal current for a period of approx. 2s. Start-up frequency is approx. 0.18 Hz. The average short-circuit current is about 15% Inominal. You can use Powerboost also in running operation.