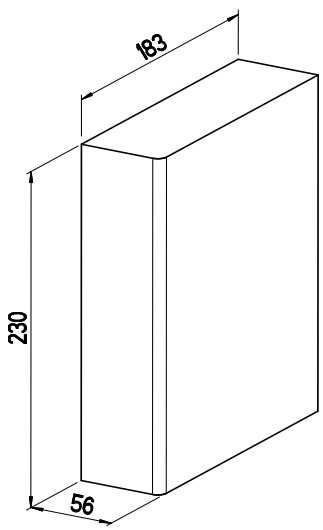
AC / DC POWER SUPPLY
PRIMARY SWITCHED · SINGLE OUTPUT
SPH613 SERIES

- 600 watts output power
- Only 56mm wide
- 3 x 340-550VAC wide range input
- Parallel connection with load sharing
- Power boost with 40 A for 2s max.
- Operation in any assembly position
- Primary and secundary overvoltage protection
- Overtemperature protection



Dimensions LxWxH (DIN-rail)
56 x 230 x 183 (+28 for connector) mm

Dimensions LxWxH (Wall-mounting)
56 x 230 x 177 (+28 for connector) mm

Detailed dimension drawing please see www.mgv.de

ORDER DATAS				*Order numbers*
Vo **V**	**Io** **A**	**Preset range Vo** **V**	**Typ-No.** DIN-rail	**Typ-No.** Wall mounting
24	**0 - 25**	23.5 - 28.5	**SPH613-2425*** *14.5943.000*	**SPH613-2425*** *14.5943.005*
24	**0 - 25**	23.5 - 28.5	**SPH613-2426** *14.5942.900*	**SPH613-2426** *14.5942.905*
* Relay contact and Control signal OFF are not included in SPH613-2425				

The distance between the surrounding components and the air admission and air exit holes should be at least 20 mm.
Please ensure that exhaust air is not immediately sucked in again.

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1. INPUT

Input voltage range	AC 3 x 340-550V, 50/60Hz
Efficiency	90% typ.
Input current limitation	< 70 A_{peak} typ. - in cold state
	< 100 A_{peak} typ. - in hot state
Fuse	intern 3x4AT, 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	600W
Operation indicator	green LED for Vo, red LED for error
Ripple	10 mV_{ss} typ.
Noise voltage	25 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

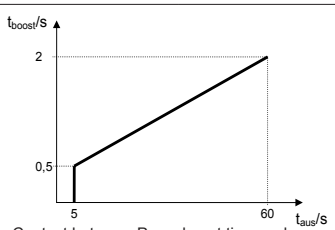
Line regulation	< 0.2% for Vo at Vi_{min} - Vi_{max}
Load regulation	< 0.5% for Vo at Io 0-100% single operation
	< 3.5% for Vo at Io 0-100% parallel operation
Response time	1 ms typ. at Ia 20 - 80%

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)
Relay contact*	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

Mains feedback (PFC)	EN 61000-3-2 Class A at Vi=400VAC with ext. PFC rated 3.8mH / 2.1A	
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	4 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	
Flicker	EN61000-3-3	



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% / K at +60°C
Weight	1.6 kg

8. MECHANICS

Connection	Main input:	4-pole
		0.2 - 2.5 mm² strand / wire
		tightening torque 0.5Nm
	Load output:	5-pole
		0.25 - 4 mm² strand / wire
		tightening torque 1.2Nm
	Controll signals:	4-pole *
		0.14-1.5 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

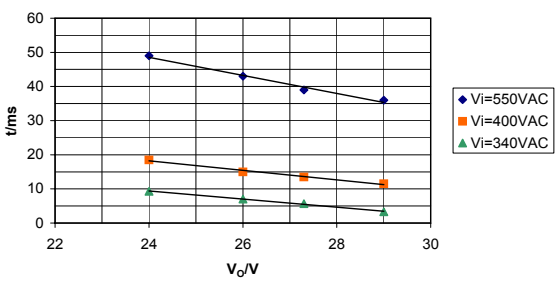
PE	⏚	**Protective conductor**
		Do not use supply without PE-connection!
L1 / L2 / L3		Main phases
+ / -		Load connection **(18 A max. for each contact)**
Relay OK/FAIL*		Monitoring connections
OFF*		Control connection

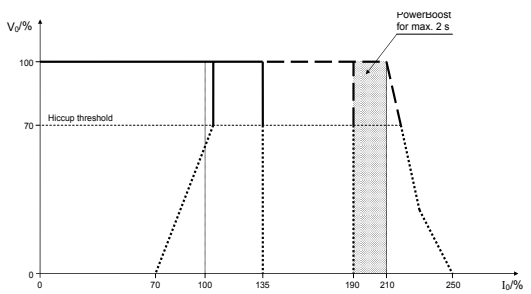
*** Relay contact and Control signal OFF are not included in SPH613-2425**

safety information
www.mgv.de

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

Mains buffering I_O=25A





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.