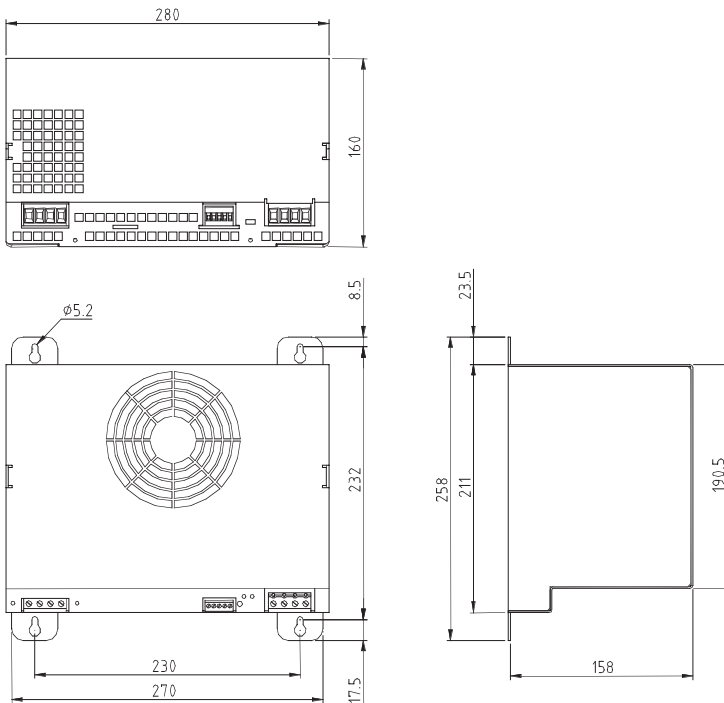





- 2000 watts output power
- 3x 340-550V wide range input  
(at 96V output: 3x 340-460V)
- IT- and Delta-Net suitable
- Mains input protected by fuse
- Mains buffering up to 30ms
- Output adjustable
- Parallel connection with load sharing
- Power-Boost at 24V output
- Various monitoring and control signals
- Primary / secondary overvoltage protection
- Overtemperature protection
- Can be operated in any assembly position



ORDER DATA			ORDER NUMBERS
Vo V	Io A	Preset range Vo V	Typ-No. Wall mounting
24	0 - 80	23 - 30	<b>PH2003-2480</b> 14.5940.105
48	0 - 40	42 - 63	<b>PH2003-4840</b> 14.5940.205
96	0 - 23	93 - 99	<b>PH2003-9623</b> 14.5940.305

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

**AC / DC POWER SUPPLY  
PRIMARY SWITCHED · SINGLE OUTPUT  
PH2003 SERIES**

<b>1. INPUT</b>		<b>6. EMC</b>	
Input voltage range	AC 3 x 340-550V, 50/60Hz (340-460 V at $U_a=96$ V), 50/60 Hz or DC 480-800 V (480-650 V at $U_a=96$ V) Ext. DC-Fuse necessary (KLKD 15)	Interference suppression/ interference immunity	EN 61000-6-2 / EN61204-3 EN 61000-4-2 8/15 kV EN 61000-4-3 noise level 10V/m
Efficiency	91-94.5%	Burst (input) (output) (relay)	EN 61000-4-4 4 kV EN 61000-4-4 4 kV EN 61000-4-4 2 kV
Input current limitation	< 70 A <sub>peak</sub> typ. - in cold state < 150 A <sub>peak</sub> typ. - in hot state	Surge (input) (output) (relay)	EN 61000-4-5 2/4 kV EN 61000-4-5 0,5 kV EN 61000-4-5 1 kV EN 61000-4-6 noise level 10V ENV 50204 noise level 10V/m EN 61000-4-11
Fuse	intern 3 x 12.5AT, external fuse with 16A to 63A necessary (C , D , K )	Interference emission	EN 61000-6-4 / EN61204-3 EN 55011 / EN 55022 Class B Radiation depends on assembly
<b>2. OUTPUT</b>		Flicker	EN 61000-3-3
Preset range $V_{out}$	23-30 V / 42-63 V / 93-99 V	<b>7. OPERATING DATA</b>	
Max. output	2000W	Temperature range	0...+70°C, integral, temperature controlled fan, air intake bottom up
Overload characteristic at 24V output (Power-Boost)	> 105A for > 0.5 s. Max. overload 10% ED at a frequency up to 3 Hz.	Derating	3%/ K over +60°C
Operation indicator	Green LED for $V_o$ , red LED for error	Weight	3.9 kg
Ripple	typ. 60 mVpp / 75 mVpp / 35 mVpp	<b>Fire protection has to be ensured by the surrounding case.</b>	
Noise voltage	typ. 120 mVpp (band width 20 MHz)	<b>8. MECHANICS</b>	
Switch on/ switch off	No $V_o$ overshoot (soft-start)	Connection	Mains input: 3-pole 0.75-4/ 6 mm <sup>2</sup> strand/wire AWG 18-12/ 10 0.5-0.6 Nm PE protective: 1-pole 0.75-4/ 6mm <sup>2</sup> strand/wire or by wall mounting plates Load output: 4-pole 2.5-10/ 16 mm <sup>2</sup> strand/wire AWG 12-8/ 6 1.2-1.5 Nm Control signals: 5-pole 0.15-2.5 mm <sup>2</sup> AWG 24-14 0.5-0.6 Nm
Start up delay	typ. 1 s	Assembly	Wall mounting with plates at top and bottom (optional: lateral)
Rise time	typ. 10 ms / 40 ms at 100.000 µF load and 24V	<b>9. EXPLANATORY NOTES</b>	
Parallel connection	yes	PE protective	⊕ <b>Protective conductor. Do not u supply without PE-connection, optional by connector or mounting plates</b>
<b>3. REGULATION</b>		L1 / L2 / L3	Mains phases
Line regulation	< 0.2% for $V_o$ bei $V_{i_{min}} - V_{i_{max}}$	+ / -	Load connections
Load regulation	< 0.6% for $V_o$ bei $I_o$ 0 - 100% single mode < 4.5% for $V_o$ bei $I_o$ 0 - 100% parallel mode	Relais/ OK/ Fail	Monitoring connections
Response time	< 1 ms at $I_a$ 20 - 80%	OFF / $U_{a_{intern}}$	Control connections
<b>4. PROTECTION AND CONTROLLING</b>		Switching from Single to parallel operation mode	Use switch at the front of housing
Overvoltage protection	30-34 V / 63-73 V / 99-115 V automatic repeat	 <b>Please refer to the MGV user instructions before use. (also in internet: <a href="http://www.mgv.de">www.mgv.de</a>)</b>	
Current limitation	105-130%, output perman. short-circuit proof		
Ticker operation	$U_a < 17V / 24V / 30V$ 1s ON approx. 5s OFF		
Overtemperature protection	Device switches off if overheated, periodical restart		
Mains buffering	15ms / 14ms / 9ms at $V_i = 3 \times 400$ Vac		
Power-Good-Signal („DC-OK“)	Internal relay changes over at $U_a > 20V/40V/86V$ , if device is operating and no OVP exists		
Control signal OFF	External switch off with 4-29 V / 4-63 V / 4-29 V and min. 5mA		
<b>5. SAFETY</b>			
EN 60950 / VDE 0805 / VDE 113 Safety Class I / VDE 0100 / IP 20 Sparking distance in air and leakage distance according to VDE 0160/pr / EN 50178 UL 508 listed / UL 60950 / CSA 22.2 - 60950 24V output SELV pollution degree 2			
<b>Ensure fire protection by means of the surrounding housing system.</b>			

