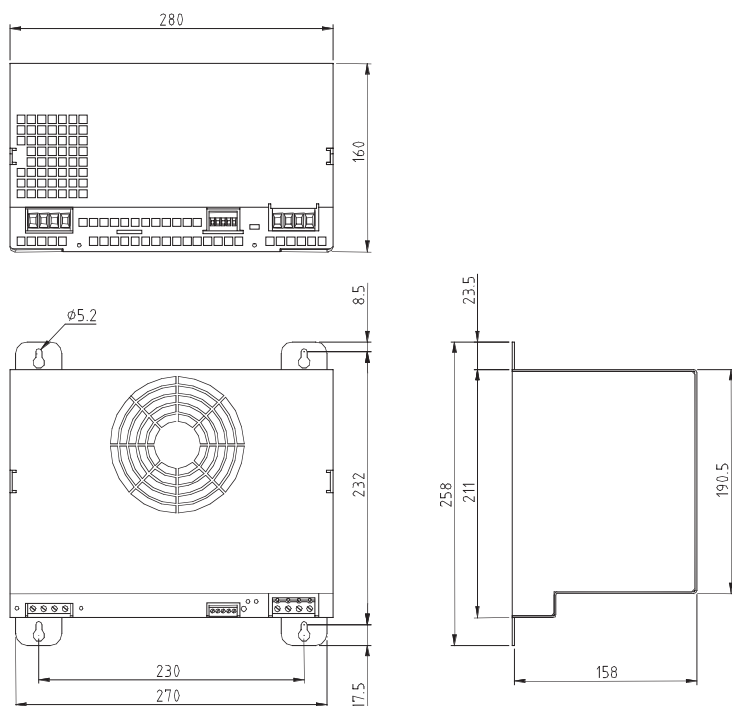





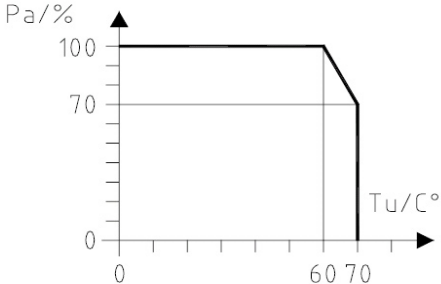
- 2000 watts output power
- 3x 340-550V wide range input
(at 96V output: 3x 340-460V)
- IT- and Delta-Net suitable
- Mains input protected by fuse
- Mains buffering up to 30ms
- Output adjustable
- Parallel connection with load sharing
- Power-Boost at 24V output
- Various monitoring and control signals
- 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	PH2003-2480 14.5940.105
48	0 - 40	42 - 63	PH2003-4840 14.5940.205
96	0 - 23	93 - 99	PH2003-9623 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

1. INPUT		6. EMC	
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	$< 70 A_{peak}$ typ. - in cold state $< 150 A_{peak}$ 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
2. OUTPUT		Flicker	EN 61000-3-3
Preset range V_{out}	23-30 V / 42-63 V / 93-99 V	7. OPERATING DATA	
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 Vo, red LED for error	Weight	3.9 kg
Ripple	typ. 60 mVpp / 75 mVpp / 35 mVpp	Fire protection has to be ensured by the surrounding case.	
Noise voltage	typ. 120 mVpp (band width 20 MHz)	8. MECHANICS	
Switch on/ switch off	No Vo overshoot (soft-start)	Connection	Mains input: 3-pole 0.75-4/ 6 mm ² strand/wire AWG 18-12/ 10 0.5-0.6 Nm PE protective: 1-pole 0.75-4/ 6mm ² strand/wire or by wall mounting plates Load output: 4-pole 2.5-10/ 16 mm ² strand/wire AWG 12-8/ 6 1.2-1.5 Nm Control signals: 5-pole 0.15-2.5 mm ² 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	9. EXPLANATORY NOTES	
Parallel connection	yes	PE protective	Protective conductor. Do not u supply without PE-connection, optional by connector or mounting plates
3. REGULATION		L1 / L2 / L3 + / -	Mains phases Load connections
Line regulation	$< 0.2\%$ for Vo bei $V_{i_{min}} - V_{i_{max}}$	Relais/ OK/ Fail	Monitoring connections
Load regulation	$< 0.6\%$ for Vo bei Io 0 - 100% single mode $< 4.5\%$ for Vo bei Io 0 - 100% parallel mode	OFF / $U_{a_{intern}}$	Control connections
Response time	< 1 ms at Ia 20 - 80%	Switching from Single to parallel operation mode	Use switch at the front of housing
4. PROTECTION AND CONTROLLING		 Please refer to the MGV user instructions before use. (also in internet: www.mgv.de)	
Overvoltage protection	30-34 V / 63-73 V / 99-115 V automatic repeat		
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	Derating	
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		
5. SAFETY			
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			
Ensure fire protection by means of the surrounding housing system.			