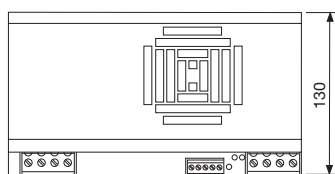
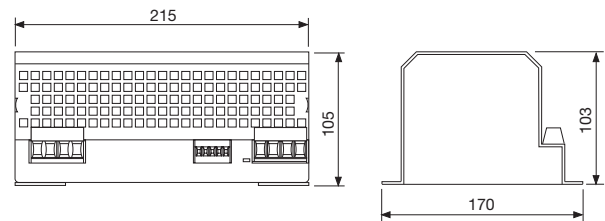
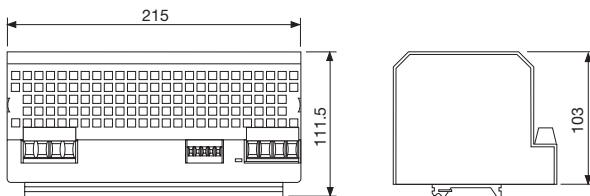
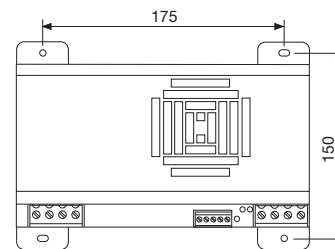


- Assembly kit for DIN-rail or wall mounting
- 3 x 340 - 550 V wide range input
- Optional power factor correction (PFC)
- IT-net suitable
- Mains input protected by fuse
- Mains buffering 10 - 18 ms
- Output adjustable
- Parallel connection with load sharing
- Power boost with high start-up current
- Diverse control and load signals
- Primary/secondary overvoltage protection
- Overtemperature protection
- Operational in every installation position by integrated fan



DIN-rail mounting



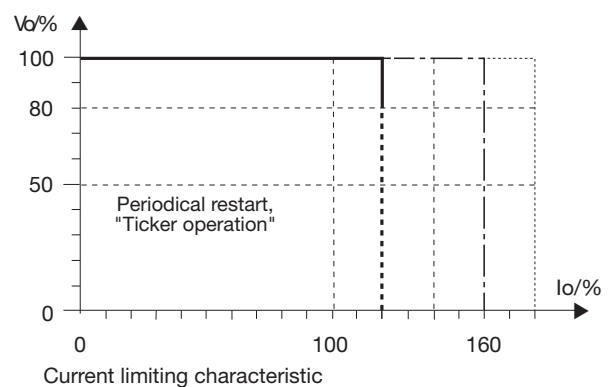
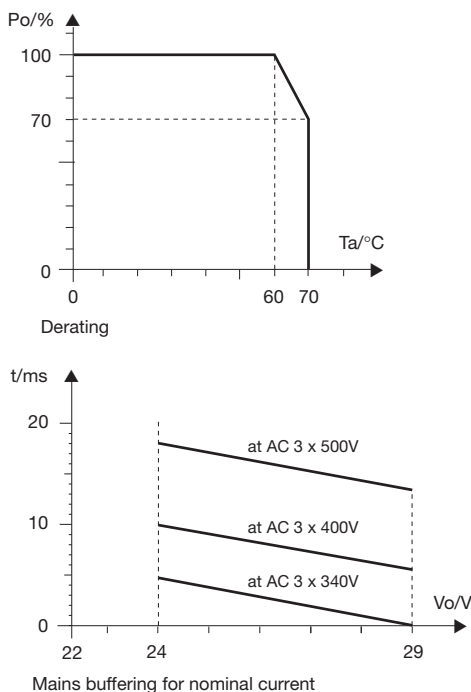
Wall mounting

ORDER DATA		<i>Order numbers in italics</i>	
V _o	I _o	Type No.	Type No.
V	A	DIN-rail	Wall mounting
24	0 - 20	<i>PH513-2420</i> <i>15.8041.800</i>	<i>PH513-2420</i> <i>15.8041.805</i>
24	0 - 20	<i>PH513-2420PFC</i> <i>15.8041.900</i>	<i>PH513-2420PFC</i> <i>15.8041.905</i>
Further output voltages (e.g. 48 V, 60 V) upon request			

Please ensure a distance of approx. 50 mm of the air inlet openings at the front of the housing and of the air outlet openings at the top and at the bottom of the device from surrounding components or surfaces. Also make sure during installation that outgoing air will not be once more sucked into the device.

**AC / DC POWER SUPPLY
PRIMARY SWITCHED MODE
SINGLE OUTPUT
PH 513 SERIES**

INPUT		EMC	
Input voltage range	AC 3 x 340 - 550 V, 50/60 Hz	Mains feedback (PFC)	EN 61000-3-2: 1995 Class A applicable for PFC model only!
Efficiency	88%	Interference suppression/interference immunity	EN 50082-2: 1995 EN 61000-4-2 Intensity 4 EN 61000-4-3 Noise level 10 V/m EN 61000-4-4 Intensity 4 EN 61000-4-5 Intensity 4 EN 61000-4-6 Noise level 10 V EN 61000-4-11
Input current limitation	< 50 A _{peak} typ. – in cold state < 100 A _{peak} typ. – in hot state	Interference emission	EN 50081-1 EN 55011, EN 55022 Class B, interference transmission depends on assembly
Fuse	Internal fuse with 3 x 2.5 AT External fuse sufficient up to max. 32 A	OPERATING DATA	
OUTPUT		Temperature range	0...+70°C, internal, temperature-controlled ventilator, air intake at the front
Adjustment range	22 - 29 V, Factory preset at 24 V / ±1 V	Derating	3% / K at +60°C (see diagram)
Max. output	480 W	Weight	without PFC approx. 1.5 kg, with PFC approx. 1.7 kg
Operation indicator	Green LED for Vo, red LED for error	In general, kindly refer to the MGV user instructions before use. Fire protection has to be ensured by the surrounding housing system.	
Ripple	typ. 60 mV _{pp}	MECHANICS	
Noise voltage	typ. 100 mV _{pp} typ. (band width 20 MHz)	Connection	Mains input: 4 poles, 0.75 - 10/16 mm ² strand/wire Load output: 4 poles, 2.5 - 10/16 mm ² strand/wire Control signals: 5 poles, 0.15 - 2.5 mm ²
Temperature coefficient	≤ 0.025% / K	Assembly	All systems can be snapped onto a symmetrical 35 x 7.5 mm DIN-rail (DIN 50022) or mounted onto a sidewall with mounting plates.
Switch on/switch off performance	No overshooting of Vo (soft-start)	EXPLANATION	
Rise-delay time	≤ 0.1 s	PE	Protective conductor has to be equipped with a larger conductor cross section than the mains connection L1 / L2 / L3. Do not use supply without PE-connection!
Run-up time	typ. 15 ms/150 ms at 100.000 µF load	L1 / L2 / L3	Mains phases
REGULATION		+/-	Load connections
Line regulation	< 0.2% for Vo at V _{imin} - V _{imax}	Relay/OK/Fail	Monitoring connections
Load regulation	< 0.5% for Vo at Io 0 - 100% for single operation < 3% for Vo at Io 0 - 100% for parallel operation	Off/Ua	Control connections
Response time	< 0.3 ms at Io 20 - 80%	Switching from single to parallel operation mode	By switch at the bottom of housing
PROTECTION AND CONTROLLING		SAFETY	
Overvoltage protection	29 - 34 V, automatically repeating	EN 60950 / VDE 0805 / VDE 113	
Current limitation	105 - 140% I _{nominal} (see diagram) output permanent short-circuit proof	Safety Class I, VDE 0100, IP 20	
Overtemperature protection	Switches off if inside temperature becomes too high, reconnection with hysteresis	Sparking distance in air and leakage distance acc. to VDE 0160/pr EN 50178	
Mains buffering	see diagram	UL 508 Listed / UL 1950 / CSA 22.2-950	
Monitoring signal	Relay contact (< 60 V / 0.2 A) Change-over at approx. 19 V		
Control signal OFF	External switching off with > 2 - 24 V or with switch from Vo		



The start-up takes place with short-circuit current between 130 and 170% of the nominal current for a period of approx. 0.4 s. Start-up frequency is approx. 0.3 Hz. The average short-circuit current is about 25% I_{nominal}