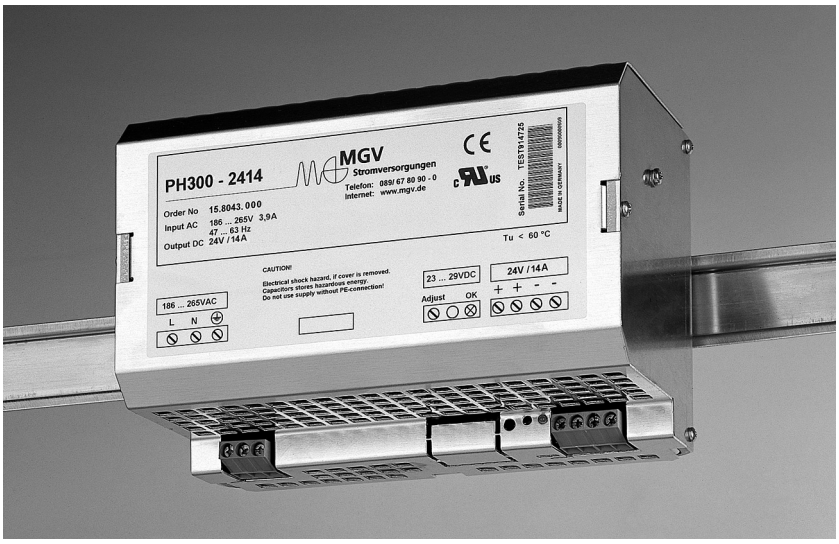
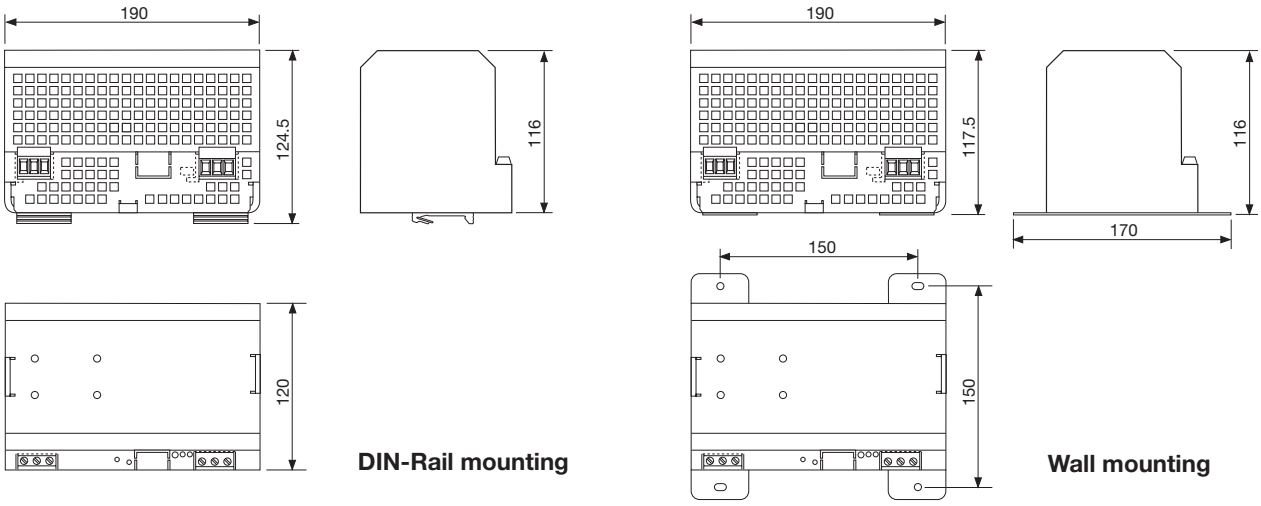
AC / DC POWER SUPPLY
PRIMARY SWITCHED MODE
SINGLE OUTPUT
PH 300 SERIES



- **Assembly kits for DIN-rail or wall mounting**
- **Input: 120 or 230 VAC**
- **Power-Factor-Correction optional for 230 VAC**
- **Mains buffering up to 85 ms**
- **Parallel connection with load sharing**
- **Output adjustable**
- **Output SELV according to EN 60950**
- **Primary/secondary overvoltage protection**
- **Overtemperature protection**
- **EMC-standards EN 50081-1 and EN 50082-2**



For proper ventilation please ensure a distance of approx. 50 mm spacing at top and bottom of the housing.
A distance of min. 15 mm should also be given to the right and left of device.

ORDER DATA 230 VAC input		*Order numbers in italics*	
Vo V	**Io A**	**Type No.** DIN-Rail	**Type No.** Wall mounting
12	0 - **20**	**PH300-1220** *15.8043.510*	**PH300-1220** *15.8043.515*
12	0 - **20**	**PH300-1220PFC** *15.8043.610*	**PH300-1220PFC** *15.8043.615*
15	0 - **20**	**PH300-1520** *15.8043.500*	**PH300-1520** *15.8043.505*
15	0 - **20**	**PH300-1520PFC** *15.8043.600*	**PH300-1520PFC** *15.8043.605*
24	0 - **14**	**PH300-2414** *15.8043.000*	**PH300-2414** *15.8043.005*
24	0 - **14**	**PH300-2414PFC** *15.8043.400*	**PH300-2414PFC** *15.8043.405*

ORDER DATA 120 VAC input		*Order numbers in italics*	
Vo V	**Io A**	**Type No.** DIN-Rail	**Type No.** Wall mounting
24	0 - **14**	**PH300-2414** *15.8042.900*	**PH300-2414** *15.8042.905*

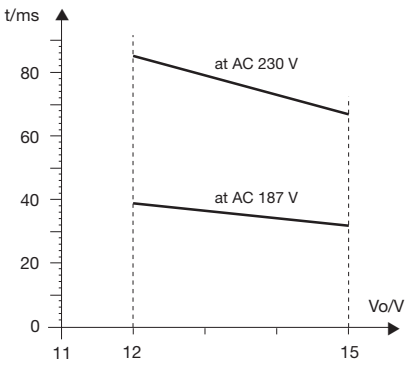
MGV Stromversorgungen GmbH · Bayerwaldstraße 27 · 81737 München · Germany
Tel. +49 / 89 / 67 80 90-0 · Fax +49 / 89 / 67 80 90 80 · Email: info@mgv.de · Internet: www.mgv.de

INPUT	
Input voltage range	AC 187 - 264 V, 50/60 Hz or AC 94 - 132 V
Efficiency	typ. 85 - 88.5%
Input current limitation	< 35 A_{peak} typ. – in cold state < 70 A_{peak} typ. – in hot state
Internal fuse	8 AT (10 AT for 120 VAC input)
OUTPUT	
Adjustment range	12 - 15 V, 23 - 29 V, Factory preset at 12 V, 15 V, 24 V / ±0.1 V
Operation indicator	Green LED for Vo
Ripple	typ. 65 mV_{pp}
Noise voltage	typ. 100 mV_{pp} (band width 20 MHz)
Temperature coefficient	≤ 0.025% / K
Switch on/switch off performance	No overshooting of Vo (soft-start)
Rise-delay time	≤ 1 s
Run-up time	typ. 4 ms / 180 ms at 100.000 µF load
REGULATION	
Line regulation	< 0.2% for Vo at V_{imin} - V_{imax}
Load regulation	< 0.5% for Vo at Io 0 - 100% at single operation < 4% for Vo at Io 0 - 100% at parallel operation
Response time	< 0.5 ms at Io 20 - 80%
PROTECTION AND CONTROLLING	
Overvoltage protection	16 - 19.5 / 30 - 35 V automatically repeating
Current limitation	105 - 140% $I_{nominal}$, (105 - 150% $I_{nominal}$ at Vo = 24 V) output permanent short-circuit proof
Overtemperature protection	Switches off if inside temperature becomes too high
Mains buffering	up to 85 ms (see diagram)
SAFETY	
	IEC 60950 / EN 60950 / VDE 0805 / VDE 113 Safety Class I, VDE 0100, IP 20 Sparking distance in air and leakage distance according to VDE 0160 / EN 50178 UL 508 Listed, UL 1950, CSA 22.2-950

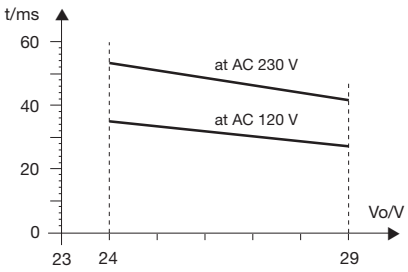
EMC		
Mains feedback (PFC)	EN 61000-3-2: 1995 Class D applicable for PFC models only!	
Flicker	EN 61000-3-3	
Interference suppression/ interference immunity	EN 50082-2: 1995 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-11 ENV 50204	 Intensity 4 Noise level 10 V/m Intensity 4 Intensity 4 Noise level 10 V
Interference emission	EN 50081-1: 1992 EN 55011 / EN 55022 Class B, interference transmission depends on assembly	
OPERATING DATA		
Temperature range	0...+70°C at free convection	
Derating	3% / K at +60°C	
Weight	1.8 kg (with PFC approx. 2.5 kg)	

Ventilation from bottom to top of the power supply and the housing-specific heatradiation must not be obstructed when installing the power supply. Ensure fire protection by means of the surrounding housing system. In general, kindly refer to the MGV user instructions before use.

MECHANICS	
Connection	Mains input: 3 poles 0.75 - 4/6 mm² (strand/wire) Load output: 4 poles 2.5 - 4/6 mm² (strand/wire)
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.
EXPLANATION	
PE ⏚	Protective conductor **Do not use supply without PE-connection!**
L / N	Mains phase/neutral conductor
+ / -	Load connections



Mains buffering for nominal current
(not applicable for PFC variety)



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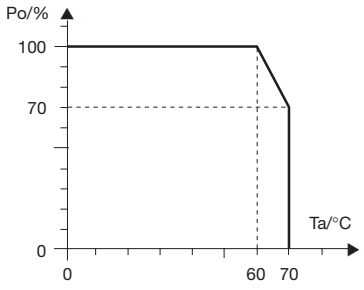
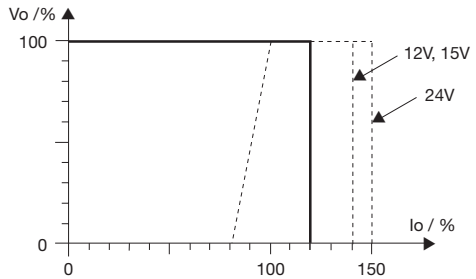


Derating



Current limiting characteristic