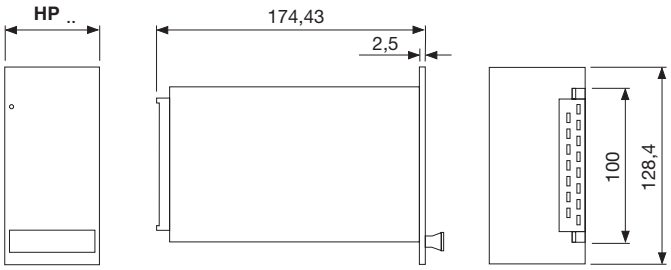
AC / DC POWER SUPPLY
PRIMARY SWITCHED MODE
SINGLE OUTPUT
P 110 SERIES

- **19" plug-in module**
- **Autoranging 120/230 VAC**
- **Remote on/off**
- **Optional Power-Fail and ACFAIL signal**
- **Short-cicuit protection**
- **Design certification and output SELV according to EN 60950**
- **Overtemperature protection**



3U

Front panel: 8HP - 40.3
Handle width: 3HP

ORDER DATA				*Order numbers in italics*	
Vo V	**Io A**	**Width HP**	**Height U**	**Type No.** with PF signal	**Type No.** with ACFAIL signal
5	0 – **15**	8	3	**P110-05151PF** *15.9240.002*	**P110-05151AC** *15.9240.004*
5	0 – **20**	8	3	**P110-05201PF** *15.9240.102*	**P110-05201AC** *15.9240.104*
12	0 – **9**	8	3	**P110-12091PF** *15.9240.202*	**P110-12091AC** *15.9240.204*
15	0 – **7**	8	3	**P110-15071PF** *15.9240.302*	**P110-15071AC** *15.9240.304*
24	0 – **5**	8	3	**P110-24051PF** *15.9240.402*	**P110-24051AC** *15.9240.404*
48	0 – **2,5**	8	3	**P110-48021PF** *15.9240.502*	**P110-48021AC** *15.9240.504*

Additional output voltages upon request, e.g. 3.3 V

Additionally:

Front panel (natural anodized)	*33.1571.006.011*
Assembly kit for DIN-rail	*15.7140.000.190*
Assembly kit for wall mounting	*15.7140.000.290*

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INPUT

Input voltage range	AC 187 – 264V, 50/60 Hz with autoranging to AC 99 – 138V or DC 264 - 347V
Efficiency	80 – 87%
Input current limitation	≤ 10 A_{peak} typ. – in cold state ≤ 15 A_{peak} typ. – in hot state
Internal fuse	3.15 AT

OUTPUT

Preset range Vo	±5%
Operation indicator	Green LED for Vo
Ripple	< 40 mV_{pp}, < 50m V_{pp} at 48 V
Noise voltage	< 50 mV_{pp} typ. (band width 20 MHz)
Temperature coefficient	≤ 0.025% / K
Switch on/switch off	No overshoot of Vo (soft-start)
Shut down on/off SD	TTL-compatible low = off, high or open = on (in relation to -L, approx. 0.5 mA at low)
Remote on/off OFF	low or open = on, high = off (in relation to -L, approx. 20 mA at high and 5 V)
Start-up delay	Typ. 500 ms
Rise time	≤ 30 ms

REGULATION

Line regulation	< 0.1% for Vo at V_{imin} - V_{imax}
Load regulation	< 0.2% for Vo at Io 0 - 100%
Response time	< 0.5 ms at Io 20 - 80%

PROTECTION AND CONTROLLING

Overvoltage protection	125% ±5% $V_{onominal}$, automatic repeat
Current limitation	Typ. 110% $I_{onominal}$, straight characteristic, output permanent short-circuit proof
Overtemperature protection	Reduction of output voltage Vo until unit switches off. Return to normal operation after cooling down.
Mains buffering	40 ms at 100% load
Power-Fail (see diagram)	The transistor for the PF-signal is blocked, if the output voltage has reached a value > 95% of the nominal output voltage. The transistor becomes conductive > 10 ms before the output voltage drops.
Signals ACFAIL and SYSRESET	Open collector, low-active-level

SAFETY

EN 60950 / VDE 0805
Safety Class I, VDE 0100
CSA NRTL/C / UL 1950 / CSA 22.2-950

EMC

Mains feedback (PFC)	EN 61000-3-2	Class A
Flicker	EN 61000-3-3	
Interference suppression/ interference immunity	EN 61000-6-2	
	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 61000-4-11	
Interference emission	EN 50081-1 EN 55011/EN 55022 Class B, Radiation depends on assembly	

OPERATING DATA

Temperature range	0 to+70°C, at free convection
Derating	2.5% / K at +50°C (see diagram)
Weight	0.52 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 superior housing system.

MECHANICS

Dimensions	19" plug-in module according to DIN 41494 Part 5
Connection	Connector H 15/DIN 41612 codable

PIN ASSIGNMENT

H15 DIN 41612	30	26	22	18	14	10	6
	N	1)	OFF	SD	-L	-L	-F
PE	28	24	20	16	12	8	4
⏚	L1	PF ACFAIL	1)	SYS-RESET	+L	+L	+F

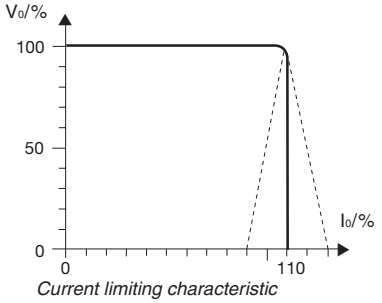
1) internally connected

EXPLANATORY NOTES

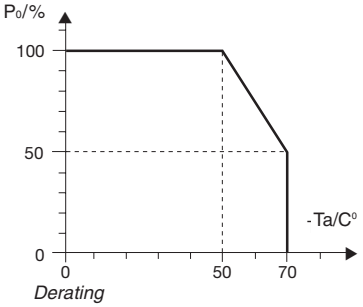
PE ⏚	Protective conductor **Do not use supply without PE-connection!**
L1 / N	Mains phase / neutral conductor
L	Load connection (**14 A max.** for each contact)
F	Sense connections

For reliable operation of the device, it is necessary to connect +L with +F and -L with -F. Maximum voltage compensation of 0.25 V per line.

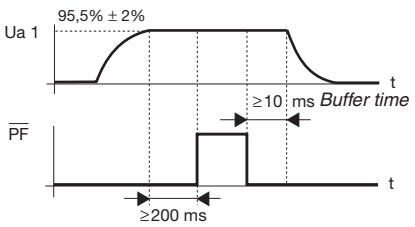
Please refer to the MGV user instructions before use (also in Internet: www.mgv.de)

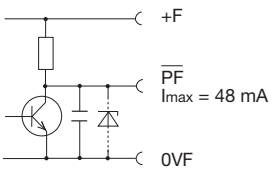


Current limiting characteristic

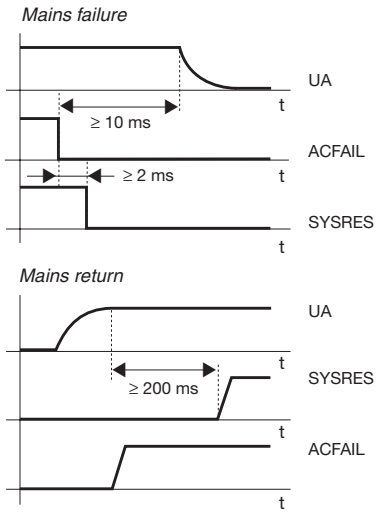


Derating





Power-Fail-Signal



Signale ACFAIL / SYSRESET