

- 1 to 5 outputs
- High reliability
- 350 W / 550 W for 10 s
- Option PFC
- Option AVS 115 / 230 V<sub>AC</sub>
- Option VME-Bus-Signals



### Short description

The P350 is an open-frame power supply unit with an additional cover. The primary-secondary conversion occurs in rugged half-bridge-technology. Besides the controlled main output up to four secondary voltages are possible. The total power of 350 W is increasable to 550 W for 10 s. Due to the design of the circuit as voltage- and current source and the optional features, the device is suitable for a variety of applications.

### Variations

max. 350 W, 550 W for 10 s  
 max. 40 A, secondary output 10 A  
 max. 150 V

### Options

The power supply unit can be provided with an automatic input voltage detection (AVS 115 / 230 V<sub>AC</sub>) or with a power-factor correction-circuit (PFC) to meet the standard EN61000 part 3-2. With PFC DC-supply with 110/220 V<sub>DC</sub> is possible.

The power supply may be switched off by remote On/Off-input. Power-fail or DC-fail can be provided also as relay contact. Alternatively, VME-bus-signals can be generated. The output voltage is controllable by an analogue signal. The convection cooling can be assisted by a temperature controlled fan (P550).

Variation	Output 1	Output 2	Output 3	Output 4	Output 5
P350/5	5 V / 60 A				
P350/12	12 V / 30 A				
P350/24	24 V / 15 A				
P350/48	48 V / 8 A				
P350/60	60 V / 6 A				
P350/31	5 V / 50A	12 V / 6 A	-12 V / 3 A		
P350/32	5 V / 50 A	15 V / 3 A	-15 V / 3 A		
P350/41	5V / 40 A	12 V / 10 A	-12 V / 3 A	24 V / 10 A	
P350/51	5 V / 40 A	12 V / 4 A	-12 V / 4 A	24 V / 4 A	-5 V / 4 A
P350/52	5 V / 40 A	15 V / 3 A	-15 V / 3 A	24 V / 4 A	-5 V / 4 A
Further variations on demand					

**Input**

Input voltage nom.	115 V <sub>AC</sub> / 230 V <sub>AC</sub> / 220 V <sub>DC</sub>
Input voltage range	103-132 V <sub>AC</sub> or 207-264 V <sub>AC</sub> , switchable or option AVS 250-370 V <sub>DC</sub>
Power Factor Correction	Optional, 103-264 V <sub>AC</sub> , 20% power reduction
Input current	<8 A
Inrush current	<30 A <sub>pk</sub> limited by thermistor
Input power	980 VA, without PFC
Input frequency	47 - 63 Hz or DC
RFI, isolation, leakage current, voltage- and transient response	See standards

**Output**

Output voltage	Max. 200 V, see table, further variations on demand	
Output current	Max. 40 A, main output Max. 10 A, secondary output See table, further variations on demand	
Efficiency	Typ. 80%	
Ripple	<0.2% rms; <1% pp (range 30 Mhz)	
Dyn. Load regulation	± 1% load changing 50% / 60%	
	<b>Main output</b>	<b>Secondary output</b>
Load regulation	+/-1%, 50% load	+/-3%, 25-100% load
Line regulation	0.02%	0.05%
Cross regulation	+/-10% load changing	+/-1%
Temperature coefficient	0.02%/°K	0.05%/°K
Matching range	Approx. +/-15%	
Hold up time	>28 ms at nominal voltage and load	
Parallel working mode	Possible, option decouple diode	

**Ambient conditions**

Temperature range	0°C to 50°C, over 50°C: Derating with 2.5%/°C
Forced cooling	0°C to 70°C, flow rate >1 m/s
Storage temperature range	-20°C to + 85°C
Humidity	0 – 90% non-condensing

### Standards

Low-voltage directive	2006/95/EG
Safety	EN 60950-1, EN 61010-1
High-voltage test	EN 60950-1
Clearance- and creeping distances	8 mm input – output 4 mm input – chassis 2 mm output – chassis
Leakage current	< 0.5 mA at 50 Hz and 265 V <sub>AC</sub>
EMC	2004/108/EG
RFI	EN 55011 class A (optional class B)
ESD	EN 61000-4-2: 8 kV
Burst	EN 61000-4-4: 4 kV
Appliance class	I
Ingress protection rate	IP20, with cover

### Protection

Current limiting	Main output constant current >105%, secondary output protection
Power limiting	350 W, 550 W for 10 s, depends on variation
Over-voltage protection	105 – 130%, depends on variation          resettable by mains separation

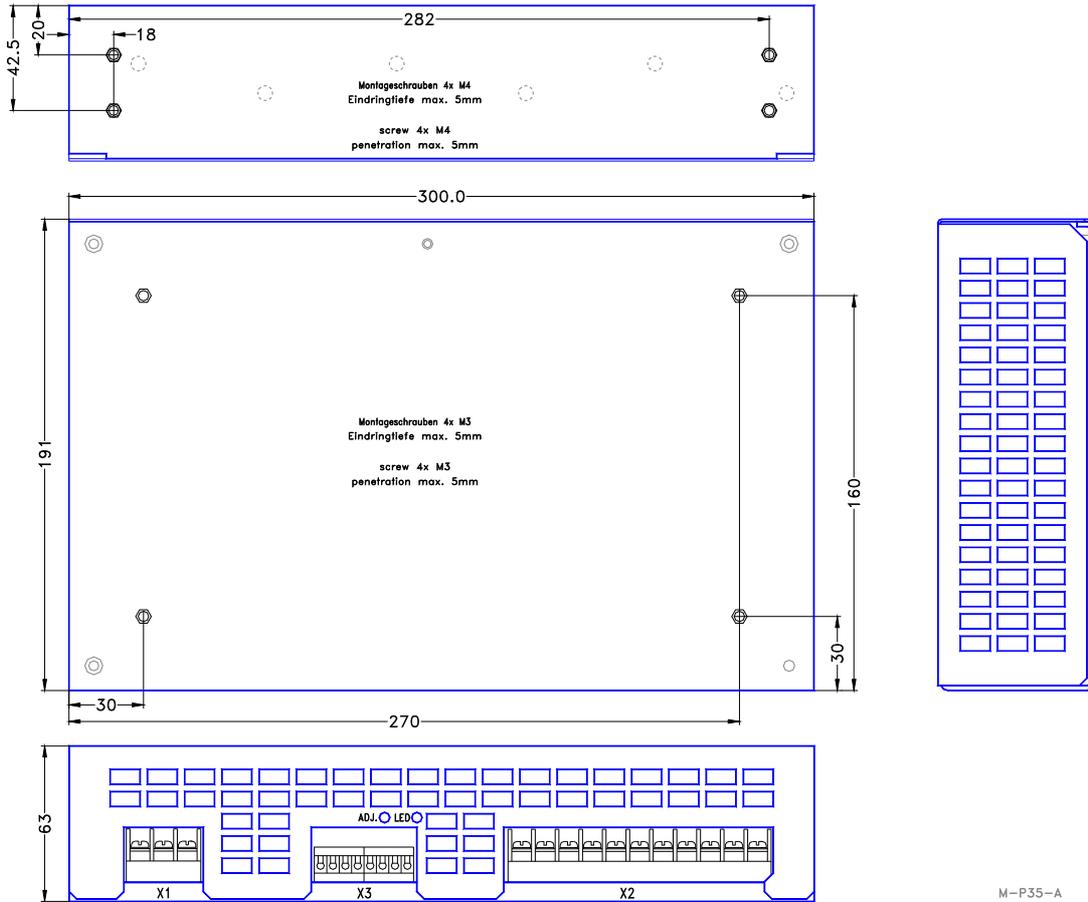
### Interfaces and signals

LED green	Power supply in normal operation
Power Fail	Optional, TTL-compatible . log. 0 = Power Fail, after that 10s hold time
Remote On/Off	Optional, power reduction
DC-Fail	Optional, main output
AC-Fail	Optional
System-Reset	Optional
Sense	Optional

### Mechanics / mounting

Cooling	Free convection, optional temperature controlled fan (P550)
Mounting	Open Frame, optional with cover for free convection or fan
Measurements	See drawing
Weight	2.2 kg

**Mechanics P350**



**Terminal configuration**

X1-1	Line	X2-5	0 V	X3-1	Option
X1-2	Neutral	X2-6	0 V	X3-2	Option
X1-3	Earth	X2-7	0 V	X3-3	Option
X5-6	110V-bridge	X2-8	Output 5	X3-4	Option
X2-1	+ Sense output 1	X2-9	Output 3	X3-5	0V
X2-2	Output 1	X2-10	Output 2	X3-6	Remote On/Off
X2-3	Output 1	X2-11	Output 4	X3-7	System Reset
X2-4	Output 1			X3-8	Power Fail

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