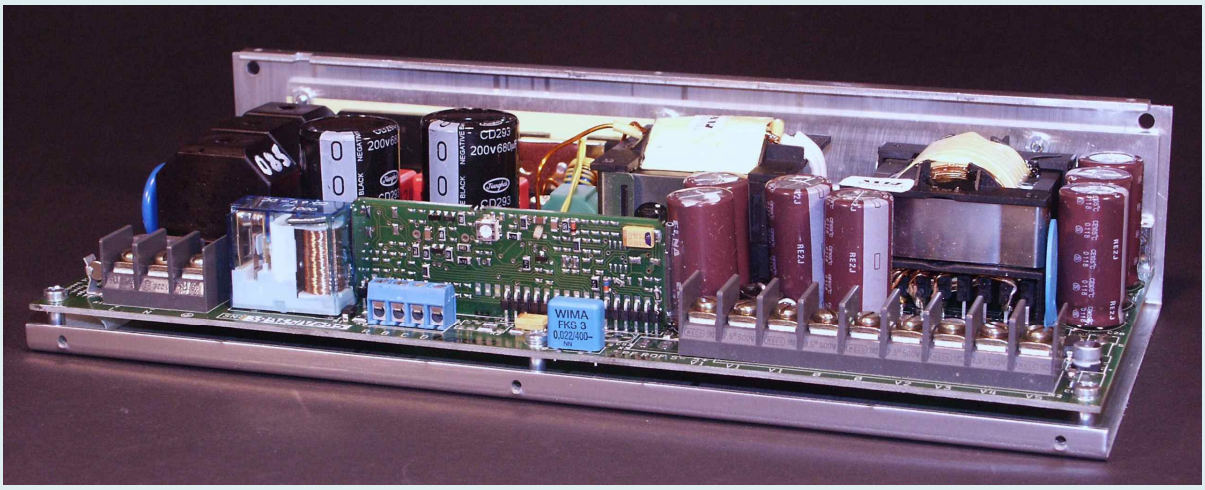
- 1 to 5 output
- High reliability
- 200 W/280 W for 10 s
- Option PFC
- Option AVS 115/230 V_{AC}
- Option VME-Bus-Signals



Short description
The P200 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 200 W is increasable to 280 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.

Variation
max. 200 W, 250 W with fan
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_{AC}) or with a power factor correction circuit (PFC) to meet the standard EN 61000 part 3-2. DC-supply with 110/220 V_{DC} is possible when using PFC.
The power supply may be switched off by remote On/Off-input. Power-fail or DC-fail can be provided 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.

Variation	Output 1	Output 2	Output 3	Output 4	Output 5
P200/5	5 V / 30 A				
P200/12	12 V / 18 A				
P200/24	24 V / 10 A				
P200/48	48 V / 5 A				
P200/60	60 V / 4 A				
P200/31	5 V / 25A	12 V / 6 A	-12 V / 3 A		
P200/32	5 V / 20 A	15 V / 3 A	-15 V / 3 A		
P200/41*	5V / 40 A	12 V / 10 A	-12 V / 3 A	24 V / 10 A	
P200/51	5 V / 20 A	12 V / 4 A	-12 V / 4 A	24 V / 4 A	-5 V / 4 A
P200/52	5 V / 20 A	15 V / 3 A	-15 V / 3 A	24 V / 4 A	-5 V / 4 A
Further versions on demand				* forced cooling	

Input

Input voltage nom.	115 V_{AC} / 230 V_{AC} / 250 V_{DC}
Input voltage range	103-132 V_{AC} or 207-264 V_{AC}, switchable or option AVS 250-370 V_{DC}
Power Factor Correction	Optional, 103-264 V_{AC}
Input current	<5 A
Inrush current	<30 A_{pk} limited by thermistor
Input power	425 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 versions on demand	
Output current	Max. 40 A, main output Max. 10 A, secondary output See table, further version on demand	
Efficiency	typ. 80%	
Ripple	<0.2% rms; <1% pp (range 30 MHz)	
Dyn. Load regulation	± 1% load changing 50% / 60%	
	Main output	**Secondary output**
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	ca. +/-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	By 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_{AC}
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	IP00, Open Frame

Protection

Current limiting	Main output constant current >105%, secondary outputs protection	
Power limiting	200 W, 280 W for 10 s, depends on variation	
Over-voltage protection	105 – 130%, depends on variation	resettable by mains separation

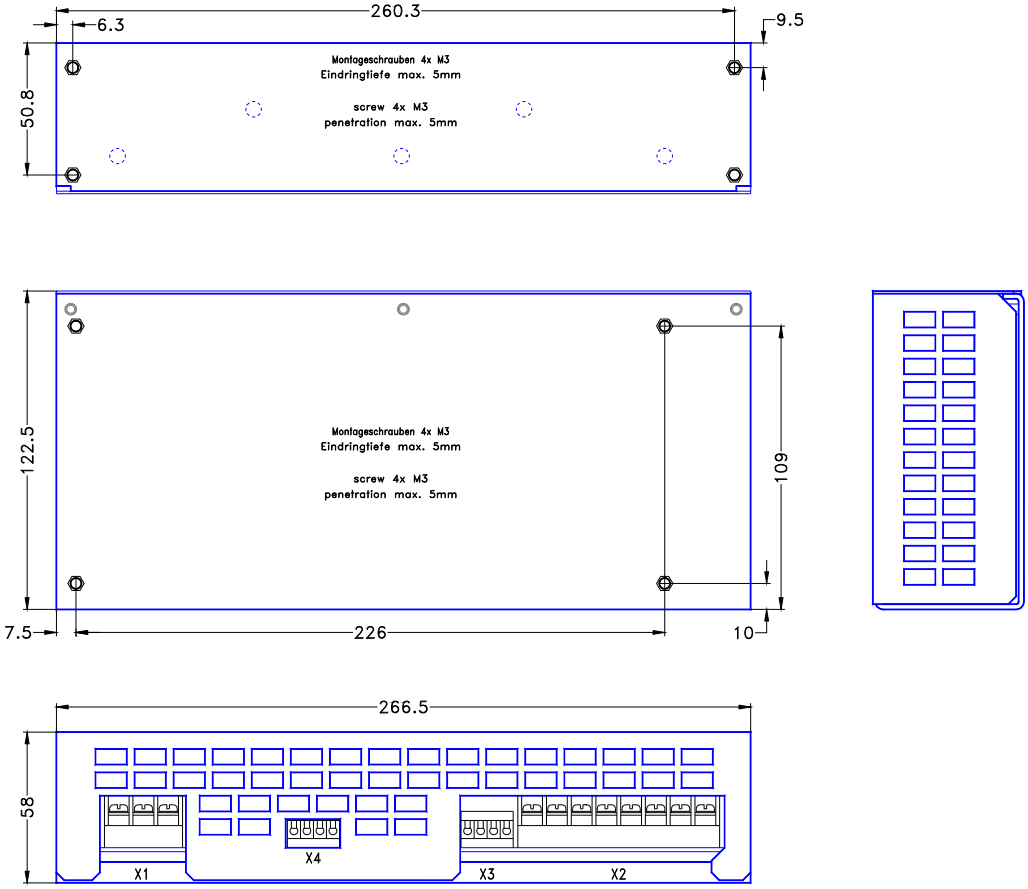
Interfaces and signals

LED green	Power supply in normal operation
Power Fail	Optional, TTL-compatible. Log. 0 = Power-Fail, after that 10 s 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
Mounting	Open Frame, optional with cover for free convection or fans
Measurements	See drawing
Weight	1.3 kg

Mechanics P200



Terminal configuration

X1-1	Line	X3-1	Power-Fail	X2-1	Output 1
X1-2	Neutral	X3-2	Remote On/Off	X2-2	Output 1
X1-3	Earth	X3-3	Sense +	X2-3	0 V
		X3-4	Sense -	X2-4	0 V
		X4-1	Option	X2-5	Output 2
X5-6	110 V-Bridge	X4-2	Option	X2-6	Output 3
		X4-3	Option	X2-7	Output 4
		X4-4	Option	X2-8	Output 5

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