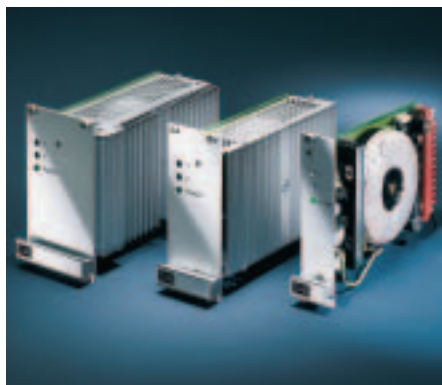




19" compatible AC/DC linear control systems



11397001



Single, 8 – 60 W

- 19" compatible AC/DC power supply, pluggable 3 U
- Mains input voltage 230 V_{AC} (can be converted to 115 V_{AC} with conversion kit, see below)
- 1 output voltage
- High control accuracy
- Low residual ripple and very low-interference
- Suitable for medical applications (8 mm safety clearances)
- High reliability and long life
- PSM, PSG
 - Output voltage can be externally remote controlled (1 ... 10 V)
 - Conversion of the control curve for sensitive loads (U/I - Fold Back)
 - Current measurement via shunt

DJ3M0084

PSA46292

Pin	PSK single	PSM, PSG single
4	Sense + V_1	Sense + V_1
6	Output + V_1	Output + V_1
8	Output 0V V_1	Output 0V V_1
10	Sense 0V V_1	Sense 0V V_1
12		Optional: Redundancy diode
14		External on/off
16		GND
18	-	V remote input + V_C
20		V-shunt + V_S
22		V-shunt - V_S
24		-
26		-
28	L	L
30	N	N
32	PE ⊕	PE ⊕

Note

The front panel is not included in delivery.

Voltage in V	Output data at T _U = 0 ... 50 °C			Power supply Type	Order No. (1 unit) ¹⁾	
	Current in A	Power output in W	Width A in HP		Mains voltage ⁴⁾ 230 V _{AC}	Front panel ²⁾ EMC anodised
5	1.5	8	6	PSK 105 ³⁾	13105-001	21005-475
	4,0	20	10	PSM 105	13105-006	21005-473
	6,0	30	14	PSG 105	13105-011	21005-474
12	1.1	13	6	PSK 112 ³⁾	13105-002	21005-475
	2.8	31	10	PSM 112	13105-007	21005-473
	4.2	50	14	PSG 112	13105-012	21005-474
15	1,0	15	6	PSK 115 ³⁾	13105-003	21005-475
	2.2	33	10	PSM 115	13105-008	21005-473
	3.5	53	14	PSG 115	13105-013	21005-474
24	0.6	16	6	PSK 124 ³⁾	13105-004	21005-475
	1.5	36	10	PSM 124	13105-009	21005-473
	2.5	60	14	PSG 124	13105-014	21005-474

¹⁾ Please order front panel and other accessories separately

²⁾ Front anodised, rear side chromated, slotted on both sides for mounting EMC contact strips in the event of increased EMC requirements
(3 U EMC contact strips, Order No. 21101-705, 10 pieces)

³⁾ Without case

⁴⁾ Mains voltage conversion kit 230 V to 115 V (Order No. 43105-999)

Mating connector H15F with FASTON connection, Order No. 69001-733



Technical data

Input parameters					
Mains voltage (with conversion kit)	Nominal values V_{IN} (operating ranges)	115 (103.5 ... 126.5) V _{AC} 230 (207 ... 253) V _{AC}			
Mains nominal current at 230 V _{AC}	PSK 0.16 A, PSM 0.36 A, PSG 0.45 A				
Mains frequency range	48 – 62 Hz				
Mains input current in accordance with	EN 61000-3-2 + A14				
Efficiency type	40 ... 65 %				
Current at switch-on	< 15 A (PSK < 3 A)				
Discharge current	< 50 µA				
Output parameters					
Output voltage (potentiometer V at front)	factory set	5	12	15	24
	Adjustment range [V]	4.75 ... 5.25	11.5 ... 12.5	13.5 ... 15.5	23 ... 25.0
Output current at 50 °C (70 °C), max. current can be adjusted with front potentiometer C (50 ... 150 %)	PSK [A]	1.5 (0.9)	1.1 (0.7)	1.0 (0.6)	0.6 (0.4)
	PSM [A]	4.0 (2.4)	2.8 (1.7)	2.2 (1.3)	1.5 (0.9)
	PSG [A]	6.0 (3.7)	4.2 (2.5)	3.5 (2.0)	2.5 (1.5)
Derating from 50 to 70 °C	2 %/K				
Residual ripple	≤ 2 mV				
Load control, static ($I_L = 0 \dots I_{1Nominal}$)	< 0.01 %				
Mains control at ± 10 % change in mains voltage	< 0.01 %				
Overall control time, tolerance 0.1 % × $V_{1Nominal}$, load change 0 ... 100 % $di/dt = 0.135 \text{ A}/\mu\text{s}$	≤ 50 µs				
Temperature coefficient	0.01 %/K				
Output can be externally shut off with voltage	4 ... 24 V _{DC} -> GND				
Output can be switched in series and in parallel (optionally with diode for redundancy operation)	Yes (PSM, PSG)				
Output can be remote controlled	1 ... 10 V ~ 0.1 ... 1 × V _{Nominal} (PSM, PSG)				
Measurement resistance (shunt) corresponds to	~ 10 mV/A (PSM, PSG)				

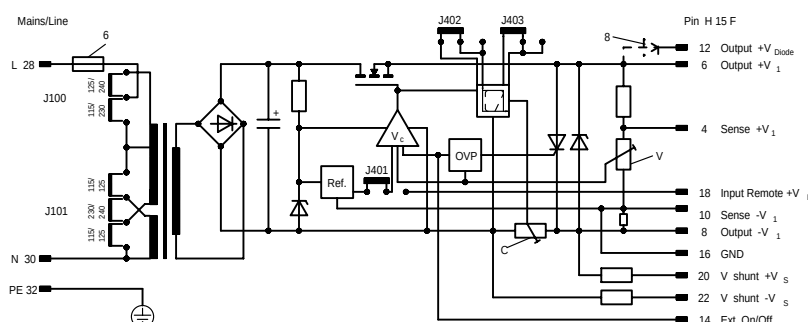
Protection and monitoring facilities

Power failure bridging at 100 % load	$V_{IN} = 207 V$, PSK > 10 ms, PSM > 7 ms, PSG > 6 ms $V_{IN} = 230 V$, PSK > 16 ms, PSM > 10 ms, PSG > 8 ms
Current limitation	Yes
Over-load protection, short-circuit current controlled max.	$I_{1Nom.} + 15 \%$
Over-voltage protection OVP (shuts power supply off), automatic response value approx.	$V_1 + 20 \%$
Over-temperature protection of the series pass transistor	Yes
Remote sense compensated per line (with $V_{1Nominal}$)	Max. 0.5 V
Air and creepage distance Primary-secondary side/ Primary PE	≥ 8 mm / ≥ 4 mm
Output voltage present, LED green	LED POWER

Other characteristics

Climatic test to		IEC 68-2-38
Shock and vibration		EN 60068-2-6
Dimensions: Height 3 U		Width: PSK 6 HP, PSM 10 HP, PSG 14 HP
Weight (mass)		PSK 0.8 kg, PSM 1.6 kg, PSG 1.9 kg
CE	EMC interference-emission	EN 50081-1, EN 55011 Class B, EN 55022 Class B
	EMC interference-immunity, degree of severity 3	EN 50082-2, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5
	Safety, class of protection 1	EN 60950 (LGA for PSK, PSM, PSG) EN 60601-1 (PSK)
Test voltage to EN 60950	Input-output	4.3 kV _{DC}
	Input PE	2.2 kV _{DC}
	Output PE	0.7 kV _{DC}
Toroidal transformer (low emission)		EN 60742
Power supply maintenance-free		Yes
Cooling		Convection
Operation/storage ambient temperature		0 ... 70°C / -20 ... +85°C
Relative humidity, non-condensing (operation/storage)		30 ... 80 % / 10 ... 95 %
MTBF at full load, T _{II} = 40 °C		PSK 1,100,000 h PSM/PSG 730,000 h

Schematic wiring diagram



MPA45030