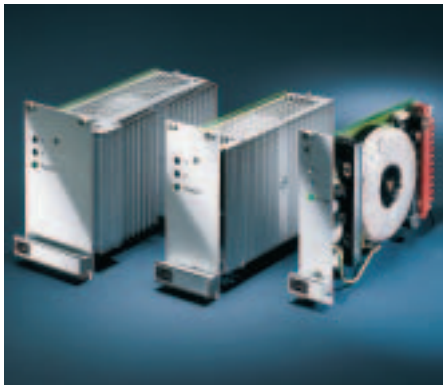
19” compatible AC/DC linear control systems

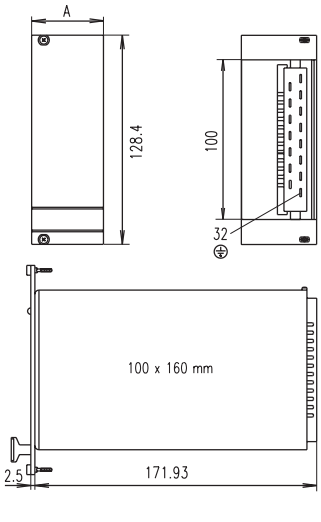


11397001

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

CE



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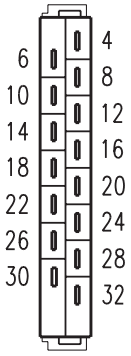

PSA46292

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.

Output data at T_U = 0 ... 50 °C				Order No. (1 unit)[1]		
Voltage	Current	Power output	Width A	Power supply	Mains voltage[4]	Front panel[2] EMC
in V	in A	in W	in HP	Type	230 V_{AC}	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					
Mainsvoltage (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_1 = 0 ... $I_{1Nominal}$)		< 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 A/µs		≤ 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 failurebridging 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.		$I_{1\ Nom.}$ + 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_U = 40 °C		PSK 1,100,000 h PSM/PSG 730,000 h

Schematic wiring diagram