



19" compatible AC/DC linear control systems



11300002

Triple, 7 - 39 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)
- 3 output voltages (galvanically separated)
- High control accuracy
- Low residual ripple and very low-interference
- Suitable for medical applications (8 mm safety clearances)
- High reliability and long life



100 x 160 mm

DUM0084

PSA46292

Pin	Connection
4	Sense + V ₁ (PSM, PSG)
6	Output + V ₁
8	Output 0V V ₁
10	Sense 0V V ₁ (PSM, PSG)
12	Output + V ₂
14	Output - V ₂
16	Output + V ₃
18	Output - V ₃
20	Data save
22	Power failure
24	0 V for pin 20, 22
26	-
28	L
30	N
32	PE ⊕

Note

The front panel is not included in delivery.

Output data at T _U = 0 ... 50 °C								Order No. (1 unit) ¹⁾		
Voltage in V			Current in A			Power output in W	Width in HP	Power supply Type	Mains voltage ⁴⁾ 230 V _{AC}	Front panel ²⁾ EMC anodised
V ₁	V ₂	V ₃	I ₁	I ₂	I ₃					
5	12	12	0.5	0.2	0.2	8	6	PSK 312 ³⁾	13105-051	21005-470
			1.5	0.5	0.5	20	10	PSM 312	13105-052	21005-451
			3.0	1.0	1.0	39	14	PSG 312	13105-053	21005-439

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

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Technical data

Input parameters			
Mains voltage (with conversion kit)	Nominal values V_{IN} (operating-ranges)	115 V _{AC} (103.5 ... 126.5) 230 V _{AC} (207 ... 253)	
Mains nominal current at 230 V _{AC}		PSK 0.11 A, PSM 0.3 A, PSG 0.4 A	
Mains frequency range		48 – 62 Hz	
Mains input current in accordance with		EN 61000-3-2 + A14	
Efficiency type		PSK 40 ... 46 %, PSM, PSG 45 ... 52 %	
Current at switch-on		< 15 A (PSK < 2 A)	
Discharge current		< 50 µA	
Output parameters			
		V_1	$V_{2,3}$
Output voltage (potentiometer $V_{1,2,3}$ at front)	factory set	5 V	12 V, 15 V
	Adjustment-range	4.755.25 ... V	12 ... 15.5 V
Output current at 50 °C (70 °C)	PSK	0.5 (0.3) A	0.2 (0.1) A
	PSM	1.5 (0.8) A	0.5 (0.3) A
	PSG	3 (1.5) A	1 (0.6) A
Load control, static ($I_1=0...I_1$ Nominal)	PSK	≤ 0.2 %	≤ 0.3 %
	PSM	≤ 0.01 %	≤ 1 %
	PSG	≤ 0.01 %	≤ 2 %
Residual ripple		≤ 2 mV	
Mains control at ± 10 % change in mains voltage		< 0.01 %	< 0.2 %
Overall control time, tolerance 0.1 % × $V_{1/2}$ Nominal, load change 0 ... 100 % $di/dt = 0.135$ A/µs		≤ 50 µs	
Temperature coefficient		0.05 %/K	
Remote sense (PSM, PSG) compensated		Max. 0.5 V	–

Protection and monitoring facilities

Power failurebridging at 100 % load	$V_{IN} = 207$ V, PSK, PSM > 10 ms, PSG > 7 ms, $V_{IN} = 230$ V, PSK, PSM > 15 ms, PSG > 12 ms
Over-voltage protection OVP for 5 V in the case of PSM and PSG	$V_{Nominal} + 20$ %
Current limitation	Constant current
Over-load protection, short-circuit current controlled max.	I_1 type: PSK: $I_{nom.} + 20$ %, PSM/PSG: $I_{nom.} + 50$ %, $I_{2,3}$ type: 2 A
Over-temperature protection of the series pass transistor	Yes
Air and creepage distance Primary-secondary side/ Primary PE	≥ 8 mm / ≥ 4 mm
Power failure signals	Power failure, save data: Active low, open collector
Output voltage present, LED green	LED POWER V_1, V_2, V_3

Test and environmental conditions

Climatic test to	IEC 68-2-38	
Shock and vibration in accordance with (acceleration of 2 g)	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
Test voltage to EN 60950	Input-output	4.3 kV _{DC}
	Input PE	2.2 kV _{DC}
	Output PE	0.7 kV _{DC}
	Output-output	0.7 kV _{DC}
Toroidal transformer (low emission) to	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 850,000 h PSM/PSG 470,000 h	

Schematic wiring diagram

