



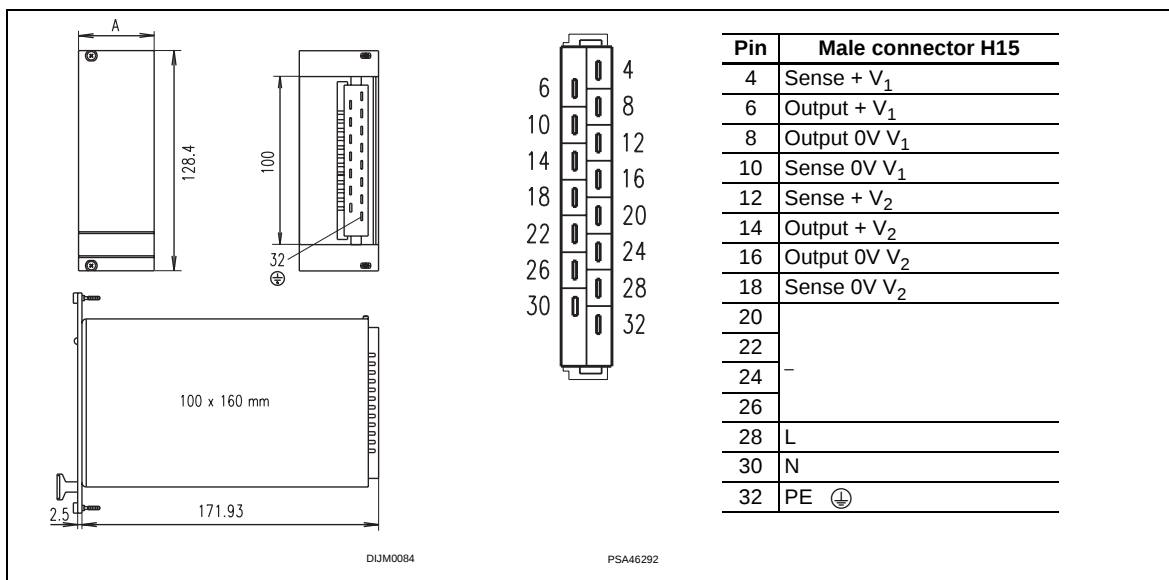
19" compatible AC/DC linear control systems



11300001

Dual, 10 – 58 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)
- 2 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



Note

Outputs metalically separated. The front panel is not included in delivery.

Output data at T _U = 0 ... 50 °C						Order No. ¹⁾		
Voltage in V		Current in A		Power output in W	Width A in HP	Power supply Type	Mains voltage ⁴⁾ 230 V _{AC}	Front panel ²⁾ EMC
V ₁	V ₂	I ₁	I ₂					
5	5	1.4	1.4	14	10	PSM 205	13105-021	21005-477
		0.4	0.4	10	6	PSK 212 ³⁾	13105-017	21005-476
12	12	1.0	1.0	24	10	PSM 212	13105-022	21005-477
		1.5	1.5	36	14	PSG 212	13105-027	21005-478
15	15	0.4	0.4	12	6	PSK 215 ³⁾	13105-018	21005-476
		1.0	1.0	30	10	PSM 215	13105-023	21005-477
		1.5	1.5	45	14	PSG 215	13105-028	21005-478
24	24	1.2	1.2	58	14	PSG 224	13105-029	21005-478

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 (103.5 ... 126.5) V_{AC} 230 (207 ... 253) V_{AC}		
Mains nominal current at 230 V_{AC}		PSK 0.16 A, PSM 0.35 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 ... 60 %		
Current at switch-on		< 15 A (PSK < 3 A)		
Discharge current		< 50 μ A		
Output parameters		$V_{1,2}$		
Output voltage (potentiometer $V_{1,2}$ at front)	factory set	12	15	24
	Adjustment range [V]	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 $C_{1,2}$ (50 ... 150 %)	PSK [A]	0.4 (0.2)	0.4 (0.2)	0.3 (0.15)
	PSM [A]	1.0 (0.6)	1.0 (0.6)	0.6 (0.4)
	PSG [A]	1.5 (0.9)	1.5 (0.9)	1.2 (0.8)
Derating from 50 to 70 °C approx.		2 %/K		
Residual ripple		$\leq$ 2 mV		
Load control, static ($I_{1,2} = 0 \dots I_{1,2 \text{ Nominal}}$)		< 0.01 %		
Mains control at $\pm$ 10 % change in mains voltage		< 0.01 %		
Overall control time, tolerance 0.1 % $\times V_{1/2 \text{ Nominal}}$, load change 0 ... 100 % $di/dt = 0.135 \text{ A}/\mu$ s		$\leq$ 50 μ s		
Temperature coefficient		0.01 %/K		
Output can be switched in series and in parallel		Yes		

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	Constant current	
Over-load protection, short-circuit current controlled max.	$I_{1/2 \text{ Nominal}} + 15$ %	
Over-voltage protection OVP (shuts power supply off), automatic response value approx.	$V_{1/2} + 20$ %	–
Over-temperature protection of the series pass transistors	Yes	
Remote sense compensated per line (with $V_{1/2 \text{ Nominal}}$)	Max. 0.5 V	
Air and creepage distance Primary-secondary side/ Primary PE	≥ 8 mm / ≥ 4 mm	
Output voltage present, LED green	LED POWER	

Test and environmental conditions

Test voltage to EN 60950	Input-output	4.3 kV _{DC}
	Input PE	2.2 kV _{DC}
	Output PE	0.7 kV _{DC}
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	
Electro-magnetic compatibility CE	Interference-emission	EN 50081-1, EN 55011 Class B, EN 55022 Class B
	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 (PSM, PSG) EN 60601-1 (PSM, PSG)
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 960.000 h PSM / PSG 580.000 h	

Schematic wiring diagram

