

AC-DC DIN rail mountable power supply

Features

- High efficiency up to 94 %
- High peak current (150% of the rated current for 3 seconds)
- **Ultra slim design with only 32 mm width**
- Active PFC function
- SELV components design
- Universal power supply voltage 85-264 VAC (127-370 VDC)
- Overload protection with constant current circuit



MODELLI - Model List							
	Code	Input voltage	Output wattage	Output voltage	Output current	Power factor	Efficiency
GSA SWP05	0160002605	85÷264 VAC	120 W	24 VDC	5 A	0,94	>94%

All specifications typical at nominal line, full load, 25°C unless otherwise noted.

Characteristics	Conditions	Value			
		min.	typ.	max.	unit
Isolation voltage	Input-Output Input-FG	3000 / 4242 1500 / 2121			VAC / VDC
Isolation resistance	Input-Output, @500 VDC	50			MΩ
Ambient temperature	@ Vi nom 120/240Vac, Io nom	-25		+50/+60	°C
Derating - see curve)	Vi nom 120/240Vac, +50/60°C ÷ +70°C Vi nom 120/240Vac, -25°C ÷ -40°C		-3,5 (120VAC) -4 (240VAC) -4		W / °C
Storage temperature		-40		+85	°C
Relative humidity	Vi nom, Io nom	5		95	% RH
Life time expectation	@ ta 25°C / 5A-24V & 10A-12V		100000		hours
MTBF MIL-HDBK-217F	@ ta 25°C / 5A-24V & 10A-12V		>300000		hours
Altitude during operation	IEC 60068-2-13			4850	m
Dimension (W x H x D)		32 x 124 x 118			mm
Cooling	Free air convection				

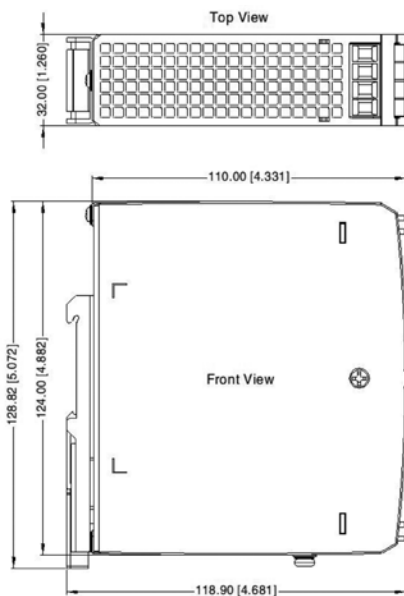
Input Specifications						
Characteristics	Conditions		Value			
			min.	typ.	max.	unit
Rated input voltage	Io nom			120 / 240		VAC
Absolute input max. range	Ta min...Ta max, Io nom	AC DC	85 120		264 373	VAC VDC
Input current	Vi: 120 / 240 VAC, Io nom			1.5 / 0.75		A
Rated input current	Vi: 90 VAC, Io nom				3	A
Line frequency	Vi nom, Io nom		47		63	Hz
Inrush current	Vi: 240 VAC, Io nom				30	A
Power dissipation	Vi: 240 VAC, Io nom				7.5	W
Leakage current					<1	mA
PFC (active)	Vi: 240 VAC, Io nom			0.94		
Output Specifications						
Output voltage accuracy (adjusted before shipment)	Vi nom, Io max		0		+1	%
Minimum load	Vi nom		0			%
Line regulation	Io nom, Vi min...Vi max				± 0.5	%
Load regulation	Vi nom, Io min...Io nom				± 1	%
Voltage trim range	Vi nom		23.5 / 11.8		28 / 14	VDC
Rated continuous loading	Vi nom		5A@24VDC / 4.2A@28VDC			
Hold up time	Vi: 120 / 240 VAC, Io nom		20			ms
Ripple and noise	Vi nom, Io nom, BW = 20 MHz				100	mVpp
Output overvoltage protection			Vout 24V	35		VDC
Capacitor load	Vi nom, Io nom		Vout 24V	50000		µF
Relay DC ON (Green LED ON)			30 VDC / 1A max.			
DC LOW indicator threshold after start up (Green LED OFF)	relay is disconnected (open contact)	Vout 24V		21.6		VDC
Efficiency	Vi nom, Io nom, Po / Pi		94%			
Control and Protection						
Internal input fuse			(not user replaceable)			
Internal surge voltage protection	IEC 61000-4-5		Varistor			
Recommended external protection	it is strongly recommended to provide external surge arresters (SPD) according to local regulations		T10A / MCB 10A curva (curve) C			
Overload limit	Vi nom, hycupp mode auto recovery)	Vout 24V		8		A
Output short circuit	Vi nom, Io nom auto recovery)		costant current/ hycupp mode 15 A x 1 s, stop 10 s			
Protection Class			Classe I			
Thermal protection			Turns off the device if the internal temperature exceeds a safe limit, the device restarts automatically after cooling down.			
Degree of protection			IP20			
Status Signals			DC ON - green LED ON OVERLOAD - green LED OFF , dry contact (NO, 24VDC /1A) DC OK - dry contact (NC, 24VDC /1A)			

Approvals and Standards

Safety Standards	IEC/EN/UL62368 UL61010	
Emission	EN55032 (CISPR32) Class B EN61000-3-2 Class A & Class D	
Immunity	EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-6 EN61000-4-11	Contact ±6KV/Air ±8KV 10V/m ±4KV line to line ±2KV/line to ground ±4KV 10 Vr.m.s 0%, 70%
Pollution degree	IEC60664-1	2

Physical Characteristics

Case size [mm]	32 x 124 x 110
Case material	Metal
Weight	490 g



Construction

Easy snap-on mounting on to the DIN-Rail (TS35/7.5 or TS35/15), unit sits safely and firmly on the rail.

Installation

Ventilation / Cooling

Normal convection

Recommended distances see fig.3

Connector size range

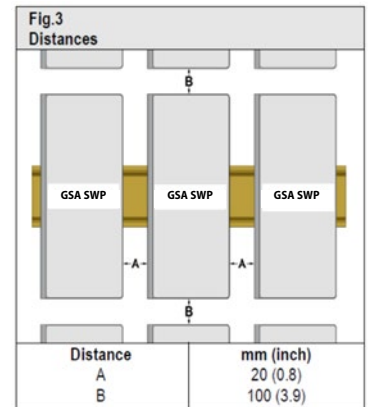
AWG26-10 (0.13~5 mm²) flexible / solid cable

Input connector can withstand torque at max. 0.4 Nm

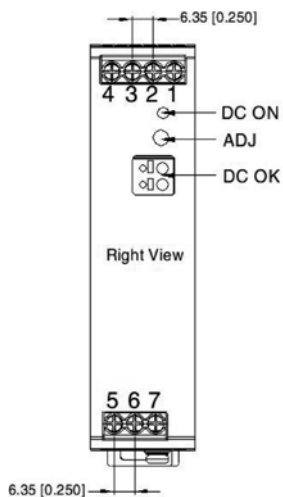
Output connector can withstand torque at max. 0.4 Nm

8 mm stripping at cable end recommends

Use copper conductors only, 60/75°C



Pin assignment



Pin-Out	
Pin	Mark
1	-Vo
2	-Vo
3	+Vo
4	+Vo
5	AC(N)
6	AC(L)
7	⏏

Note:
Unit: mm[inch]
DC ON: Output status indicator LED
ADJ: Output adjustable resistor
Wire range: 26-10 AWG
Tightening torque: Max 0.4 N-m
Mounting rail: TS35, rail needs to connect safety ground
General tolerances: ± 1.00[± 0.039]

Derating Curve

