SIEMENS

Data sheet

6ES7307-1EA01-0AA0



SIMATIC S7-300 Regulated power supply PS307 input: 120/230 V AC, output: 24 V/5 A DC

DC	
Input	
Input	1-phase AC
Note	Automatic range selection
supply voltage	
• 1 at AC rated value	120 V
 2 at AC rated value 	230 V
input voltage	
• 1 at AC	85 132 V
• 2 at AC	170 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering	at Vin = 93/187 V
Mains buffering at lout rated, min.	20 ms; at Vin = 93/187 V
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	47 63 Hz
input current	
 at rated input voltage 120 V 	2.3 A
 at rated input voltage 230 V 	1.2 A
Switch-on current limiting (+25 °C), max.	20 A
duration of inrush current limiting at 25 °C	
• maximum	3 ms
l²t, max.	1.2 A ² ·s
Built-in incoming fuse	T 3,15 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 6 A characteristic C
Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.5 %
Residual ripple peak-peak, max.	50 mV
Residual ripple peak-peak, typ.	10 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	150 mV

SIMATIC PS307/1AC/24VDC/5A

Spikes peak-peak, typ. (bandwidh: 20 MHz) 20 mV product function output voltage adjustable No Output voltage setting - Status display Green LED for 24 V OK Ontog the voltage setting - Status display Green LED for 24 V OK Outge rise, typ. 10 ms Rated current value low rated 5 A Current ange 0 5 A supplied active power typical 20 A short-tern overload current 20 A - on short-circuiting during the start-up 100 ms - at short-circuiting during the start-up 100 ms - et short-circuiting during the start-up 100 ms - et short-circuiting during the start-up 100 ms - et short-circuiting during the start-up 100 ms - Efficiency at Vout ratel, or tarted, approx. 18 W Clead slop setting 1.3 %		
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Status display Green LED for 24 V OK On/off behavior No evershood of Vout (soft start) Startup Gely, max. 2 s Voltage rise, typ. 10 ms Rated current value lout rated 5 A Current range 0 5 A supplied active power typical 120 W short-term overload current 20 A • en short-circuit during operation typical 20 A • at short-circuit during operation typical 20 A • at short-circuit during operation 100 ms • efficiency Efficiency Efficiency 0.01 rated .15 %, max. Dynamic load smoothing (out: 50/100/54), but at typ. 0.3 ms Load step setting time 100 to 50%, typ. 0.3 ms Load step setting time 100 to 50%, typ. 0.3 ms Uurput verve/stage protection Additional control loop, shutdown at < 28.8 V, automatic restart	product function output voltage adjustable	No
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FM approvalClass I, Div. 2, Group ABCD, T4CB approvalNoMarine approvalIn S7-300 systemEMCEmitted interferenceEmitted interferenceEN 55022 Class BSupply harmonics limitationEN 61000-3-2Noise immunityEN 61000-6-2		
CB approvalNoMarine approvalIn S7-300 systemEMCEmitted interferenceEmitted interferenceEN 55022 Class BSupply harmonics limitationEN 61000-3-2Noise immunityEN 61000-6-2		
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EMC Emitted interference EN 55022 Class B Supply harmonics limitation EN 61000-3-2 Noise immunity EN 61000-6-2		
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Supply harmonics limitationEN 61000-3-2Noise immunityEN 61000-6-2	EMC	
Noise immunity EN 61000-6-2	Emitted interference	EN 55022 Class B
	Supply harmonics limitation	EN 61000-3-2
	Noise immunity	EN 61000-6-2
ambient temperature		
	• during operation	0 60 °C
	during operation Note	0 60 °C
• during transport -40 +85 °C	— Note	with natural convection

during storage	-40 +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 95% no condensation
Mechanics	
Connection technology	screw-type terminals
Connections	
Supply input	L, N, PE: 1 screw terminal each for 0.5 2.5 mm ² single-core/finely stranded
Output	L+, M: 3 screw terminals each for 0.5 2.5 mm ²
Auxiliary	-
width of the enclosure	60 mm
height of the enclosure	125 mm
depth of the enclosure	120 mm
required spacing	
• top	40 mm
bottom	40 mm
• left	0 mm
• right	0 mm
Weight, approx.	0.6 kg
product feature of the enclosure housing can be lined up	Yes
Installation	Can be mounted onto S7 rail
mechanical accessories	Mounting adapter for standard mounting rail (6EP1971-1BA00)
MTBF at 40 °C	2 480 589 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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