

Portfolio overview



SIMATIC Design Optimum supply for SIMATIC S7 and more







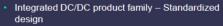
SITOP DC/DC converter PSU3400

Stable supply despite fluctuating DC voltage



Technology overview

Input	DC 12/24/48/(DC 918 V/14 32 V/DC 28 54 V)
Output	DC 12 V/8 A; 15 A; (DC 12 15,5 V) DC 24 V/4 A; 3,5 A (NEC Class 2); 5 A; 10 A (24 28 V)
Efficiency No-load loss	Up to 93.5% <0.5 W
Status signaling	Green LED: Relay contact and DC OK Yellow LED: Overload
Temperature range	-25 +70 ° C
Certifications	(E B GL ABS



- Reverse polarity protection at input prevents faulty installation
- Adjustable output voltage for compensation of voltage drops
- High efficiency up to 93%
- Ambient temperature range from -25 to +70 °C
- Reliable indication of operating state by LEDs
- Floating relay contact for further processing of operating state
- · Parallel switching for enhanced performance



	Power supply in SIMATION	C-Design			
	24 V DC/2.5 A, PM1207	120/230 V AC (85 132/176 264 V AC)	70 x 100 x 75	6EP1332-1SH71	Compact Power Module for the S7-1200 with automatic range switchover
	24 V DC/2 A, PS307		40 x 125 x 120	6ES7307-1BA01-0AA0	System and load power supply for the
4	24 V DC/5 A, PS307	(85 132/170 264 V AC)	60 x 125 x 120	6ES7307-1EA01-0AA0	S7-300 in new narrow design with automatic range switchover
	24 V DC/10 A, PS307		80 x 125 x 120	6ES7307-1KA02-0AA0	
	24 V DC/3 A, PM1507	120/230 V AC	50 x 147 x 135	6EP1332-4BA00	• Load power supply of S7-1500 in slimline design with
	24 V DC/8 A, PM1507	(85 132 V/170 264 V AC)	75 x 147 x 135	6EP1333-4BA00	automatic range switchover and extra power (1.5 x I _{rated} for 5 s/min)
-	24 V DC/5 A, ET 200SP PS	120/230 V AC	160 x 117 x 75	6EP7133-6AB00-0BN0	Power supply for SIMATIC ET 200SP distributed I/O
	24 V DC/10 A, ET 200SP PS	(85 132 V/170 264 V AC)		6EP7133-6AE00-0BN0	flat design, with automatic range selection, extra power (1.5 \times $I_{\rm rated}$ for 5 s/min), current monitor and plugs for 6 load circuits
	24 V DC/8 A, ET200pro PS	400 – 480 V 3 AC (340 550 V 3 AC)	310 x 135 x 90	6ES7148-4PC00-0HA0	Power supply in degree of protection IP67 for electronics/sensors and load voltage for the SIMATIC ET200pro
	DC/DC converter				
	24 V DC/4 A, PSU3400	12 V DC (9 18 V DC)	32 x 100 x 100	6EP3133-0TA10-0AY0	Stable output voltage from fluctuating
	12 V DC/8 A, PSU3400		32 x 100 x 100	6EP3123-0TA00-0AY0	DC voltage • Ideal for battery-operated applications such as
	12 V DC/15 A, PSU3400	startup from 18 V	42 x 125 x 120	6EP3124-0TA00-0AY0	driverless transport vehicles
	24 V DC/5 A, PSU3400		32 x 100 x 100	6EP3133-0TA00-0AY0	 PSU3400 in narrow metal housing, with reverse polarity protection and high efficiency
	24 V DC/10 A, PSU3400		42 x 125 x 120	6EP3134-0TA00-0AY0	up to 93.5%
	24 V DC/3.5 A, NEC Class 2, PSU3400	48 V DC (28 54 V DC) startup from 36 V	32 x 100 x 100	6EP3233-0TA10-0AY0	PSU3400 24 V DC/24 V DC for compensating voltage losses with long cables
	24 V DC/5 A, PSU340		32 x 100 x 100	6EP3233-0TA00-0AY0	
	24 V DC/10 A, PSU3400		42 x 125 x 120	6EP3234-0TA00-0AY0	
	24 V DC/20 A, PSU400M	600 V DC (300 900 V DC) startup from 340 V	90 x 125 x 125	6EP1536-3AA00	 High input voltage, e.g. for operation at the DC link of drives High efficiency of 95%

SIMATIC-design power supplies

The optimal supply for SIMATIC S7 and more. Regarding design and functionality, the original power supplies of the SIMATIC integrate optimally into the PLC network. The startup and power reserves of the SITOP power supply units meet the requirements of the respective controllers. In addition, the mounting options of both components are the same. All of this ensures that controller and power supply or peripherals are perfectly matched.



SIMATIC PS307/1AC/24VDC/2A

SIMATIC S7-300 Regulated power supply PS307 input: 120/230 V AC, output: 24 V DC/2 A

Input	
type of the power supply network	1-phase AC
supply voltage at AC	
initial value	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
design of input wide range input	No
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
operating condition of the mains buffering	at Vin = 93/187 V
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 93/187 V
line frequency	
1 rated value	50 Hz
• 2 rated value	60 Hz
line frequency	47 63 Hz
input current	
 at rated input voltage 120 V 	0.9 A
 at rated input voltage 230 V 	0.5 A
current limitation of inrush current at 25 °C maximum	22 A
duration of inrush current limiting at 25 °C	
maximum	3 ms
l2t value maximum	1 A ² ·s
fuse protection type	T 1.6 A/250 V (not accessible)
• in the feeder	Recommended miniature circuit breaker: 3 A characteristic C
Dutput	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
 at output 1 at DC rated value 	24 V
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
 on slow fluctuation of input voltage 	0.1 %
on slow fluctuation of ohm loading	0.2 %
residual ripple	
maximum	50 mV



SIMATIC PS307/1AC/24VDC/5A

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

1-phase AC
Automatic range selection
120 V
230 V
85 132 V
170 264 V
No
2.3 × Vin rated, 1.3 ms
at Vin = 93/187 V
20 ms
at Vin = 93/187 V
50 Hz
60 Hz
47 63 Hz
2.3 A
1.2 A
20 A
3 ms
1.2 A ² ·s
T 3,15 A/250 V (not accessible)
Recommended miniature circuit breaker: from 6 A characteristic C
Controlled, isolated DC voltage
24 V
24 V
3 %
0.1 %
0.5 %
50 mV



SIMATIC PS307/1AC/24VDC/10A

SIMATIC S7-300 Regulated power supply PS307 input: 120/230 V AC, output: 24 V / 10 A DC

Input	
type of the power supply network	1-phase AC
supply voltage at AC	
initial value	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
design of input wide range input	No
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
operating condition of the mains buffering	at Vin = 93/187 V
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 93/187 V
line frequency	
1 rated value	50 Hz
2 rated value	60 Hz
line frequency	47 63 Hz
input current	
 at rated input voltage 120 V 	4.2 A
at rated input voltage 230 V	1.9 A
current limitation of inrush current at 25 °C maximum	55 A
duration of inrush current limiting at 25 °C	
maximum	3 ms
I2t value maximum	3.3 A ² ·s
fuse protection type	T 6.3 A/250 V (not accessible)
• in the feeder	Recommended miniature circuit breaker: from 10 A characteristic C
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
at output 1 at DC rated value	24 V
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
 on slow fluctuation of input voltage 	0.1 %
on slow fluctuation of ohm loading	0.5 %
residual ripple	
maximum	50 mV

Data sheet 6EP1332-4BA00



SIMATIC PM1507/1AC/24VDC/3A

SIMATIC PM 1507 24 V/3 A Stabilized power supply for SIMATIC S7-1500 input: 120/230 V AC, output: 24 V DC/3 A

Input	
type of the power supply network	1-phase AC
supply voltage at AC	
• initial value	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
design of input wide range input	No
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
operating condition of the mains buffering	at Vin = 93/187 V
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 93/187 V
line frequency	
• 1 rated value	50 Hz
2 rated value	60 Hz
line frequency	45 65 Hz
input current	
 at rated input voltage 120 V 	1.4 A
 at rated input voltage 230 V 	0.8 A
current limitation of inrush current at 25 °C maximum	23 A
duration of inrush current limiting at 25 °C	
• maximum	3 ms
I2t value maximum	1.3 A ² ·s
fuse protection type	T 3,15 A/250 V (not accessible)
• in the feeder	Recommended miniature circuit breaker: 10 A characteristic B or 6 A characteristic C
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
at output 1 at DC rated value	24 V
relative overall tolerance of the voltage	1 %
relative control precision of the output voltage	
 on slow fluctuation of input voltage 	0.1 %
on slow fluctuation of ohm loading	0.1 %
residual ripple	

Data sheet 6EP1333-4BA00



SIMATIC PM1507/1AC/24VDC/8A

SIMATIC PM 1507 24 V/8 A Regulated power supply for SIMATIC S7-1500 input: 120/230 V AC, output: 24 V DC/8 A

Input	
type of the power supply network	1-phase AC
supply voltage at AC	
• initial value	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
design of input wide range input	No
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
operating condition of the mains buffering	at Vin = 93/187 V
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 93/187 V
line frequency	
1 rated value	50 Hz
2 rated value	60 Hz
line frequency	45 65 Hz
input current	
 at rated input voltage 120 V 	3.7 A
 at rated input voltage 230 ∨ 	1.7 A
current limitation of inrush current at 25 °C maximum	62 A
duration of inrush current limiting at 25 °C	
• maximum	3 ms
I2t value maximum	12 A²·s
fuse protection type	T 6.3 A/250 V (not accessible)
• in the feeder	Recommended miniature circuit breaker: 16 A characteristic B or 10 A characteristic C
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
at output 1 at DC rated value	24 V
relative overall tolerance of the voltage	1 %
relative control precision of the output voltage	
 on slow fluctuation of input voltage 	0.1 %
 on slow fluctuation of ohm loading 	0.1 %
residual ripple	



SIMATIC ET 200SP PS/1AC/24VDC/5A

SIMATIC ET 200SP PS 24V/5A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/5 A

Input					
type of the power supply network	1-phase AC				
supply voltage at AC					
• initial value	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				
design of input wide range input	No				
overvoltage overload capability	2.3 × Vin rated, 1.3 ms				
operating condition of the mains buffering	at Vin = 93/187 V				
buffering time for rated value of the output current in the event of power failure minimum	20 ms				
operating condition of the mains buffering	at Vin = 93/187 V				
line frequency					
1 rated value	50 Hz				
2 rated value	60 Hz				
line frequency	47 63 Hz				
input current					
 at rated input voltage 120 V 	2.16 A				
• at rated input voltage 230 V	1.22 A				
current limitation of inrush current at 25 °C maximum	45 A				
I2t value maximum	3.15 A ² ·s				
fuse protection type	T 3,15 A/250 V (not accessible)				
• in the feeder	recommended LS switch: B/C 6 A/3 A				
Output					
voltage curve at output	Controlled, isolated DC voltage				
output voltage at DC rated value	24 V				
output voltage					
at output 1 at DC rated value	24 V				
relative overall tolerance of the voltage	3 %				
relative control precision of the output voltage					
 on slow fluctuation of input voltage 	0.1 %				
 on slow fluctuation of ohm loading 	1 %				
residual ripple					
• maximum	150 mV				
• typical	50 mV				
voltage peak					



SIMATIC ET 200SP PS/1AC/24VDC/10A

SIMATIC ET 200SP PS 24V/10A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/10 A

Input				
type of the power supply network	1-phase AC			
supply voltage at AC				
initial value	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			
design of input wide range input	No			
overvoltage overload capability	2.3 × Vin rated, 1.3 ms			
operating condition of the mains buffering	at Vin = 93/187 V			
buffering time for rated value of the output current in the event of power failure minimum	20 ms			
operating condition of the mains buffering	at Vin = 93/187 V			
line frequency				
1 rated value	50 Hz			
2 rated value	60 Hz			
line frequency	47 63 Hz			
input current				
 at rated input voltage 120 V 	4.34 A			
 at rated input voltage 230 V 	1.92 A			
current limitation of inrush current at 25 °C maximum	60 A			
I2t value maximum	6.3 A ² ·s			
fuse protection type	T 6.3 A/250 V (not accessible)			
• in the feeder	recommended LS switch: B/C 10 A/6 A			
Output				
voltage curve at output	Controlled, isolated DC voltage			
output voltage at DC rated value	24 V			
output voltage				
 at output 1 at DC rated value 	24 V			
relative overall tolerance of the voltage	3 %			
relative control precision of the output voltage				
 on slow fluctuation of input voltage 	0.1 %			
 on slow fluctuation of ohm loading 	1 %			
residual ripple				
maximum	150 mV			
• typical	50 mV			
voltage peak				

SITOP PSU3400 DC/DC converters

Features and benefit

Feature

- · Wide input voltage range
- · Reverse polarity protection at input side
- · Narrow overall width
- Mounting in different installation positions
- · Adjustable output voltage
- Rated insulation voltage input / output 1,5 kV DC
- From 10 A: Signaling contact DC o.k.
- High efficiency up to 93 %
- · Comprehensive certificates

> Benefit

- Operation at batteries 12 V DC, 24 V DC, 48 V DC, ... up to 240 V DC
- · Avoidance of wrong installation
- · Small assembly area
- · Space saving
- · Compensation of voltage drops
- · Protection against overload at the input
- · Easy integration in plant monitoring
- Low energy consumption Low heat generation
- · Worldwide use



SITOP PSU3400 DC/DC converters SITOP product portfolio



1) NEC Class 2 in preparation

DC/DC converter













				Pro-					-	
Technical data	DC/DC converter									
Output voltage / current, type	24 V/2.5 A PSU3400 uni	24 V/4 A, PSU3400	12 V/8 A, PSU3400	24 V/5 A, PSU3400	12 V/15 A, PSU3400	24 V/10 A, PSU3400	24 V/3,5 A NEC Class 2, PSU3400	24 W5 A, PSU3400	24 V/10 A, PSU3400	24 V/20 A, PSU400M
Article No.	6EP3332-0TA00-0AY0	6EP3133-0TA10- 0AY0	6EP3123-0TA00- 0AY0	6EP3133-0TA00- 0AY0	6EP3124-0TA00- 0AY0	6EP3134-0TA00- 0AY0	6EP3233-OTA 10-0AY0	6EP3233-0TA00- 0AY0	6EP3234-0TA00-0AY0	6EP1536-3AA00
Rated input voltage	24 V DC, 230 V AC	12 V DC	24 V DC	24 V DC	24 V DC	24 V DC	48 V DC	48 V DC	48 V DC	600 V DC ¹⁾
– Range	18264 V DC, 88264 V AC	918V DC	1832 V DC, 14 short-term with de		14 32 V DC, derating for 141	14 33 4 0 0		8 60 V DC, startup from 36 V, derating for 28–36 V		300900 V DC, startup from approx. 340 V
Mains buffering	> 5 ms	> 2 ms	>5 ms	> 5 ms	> 5 ms	> 5 ms	> 5 ms	> 5 ms	> 5 ms	-
Rated input current	1,9 A (at 24 V DC)	9.0 A	4.5 A	5.5 A	8.4 A	10.8 A	1.9 A	2.7 A	5.4 A	0.85 A
- Inrush current	<15 A	<15 A	<15 A	<15 A	< 15 A	< 15 A	<15 A	<15 A	< 15 A	< 8 A
Recommended miniature circuit breaker (not necessary in case of feed-in by SITOP)	16 A characteristic B or C	16 A characteristic B or C	10 A characteristic	c B or C	16 A characteristic	C B or C	10 A characteristic B or C		16 A characteristic B or C	-
Rated output voltage	24 V DC	24 V DC	12 V DC	24 V DC	12 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
- Tolerance	± 1%	± 3%	± 3%	± 3%	± 2%	± 1%	± 3%	±3%	± 1%	±3%
- Setting range	2428 V DC	2428 V DC	1215.5 V DC	2428 V DC	1215.5 V DC	2428 V DC	2428 V DC	2428 V DC	2428 V DC	2428.8 V DC
Rated output current	2.5 A	4 A	8 A	5 A	15 A	10A	3.5 A	5 A	10 A	20 A
- Overload behavior	3.5 A	-	-	6 A up to 40 °C	-	12 A up to 40 °C	-	6 A up to 40 °C	12 A up to 40 °C	30A
– Derating	-	from +60 °C (2%/K)	from +60 °C (2%/K)	from +60 °C (2%/K)	from +60 °C (2%/K)	from +60 °C (2%/K)	-	from +60 °C (2%/K)	from +60 °C (2%/K)	from +60 °C (5.5 %/K), 300400 V DC, 824900 V D
Efficiency at rated values, approx.	85 %	89.00%	89.4%	92.5%	91.00 %	93.00 %	90.4%	91.6%	93.5%	95%
Signaling contact "DC o. k."	No	No	No	No	Yes	Yes	No	No	Yes	Yes
Parallel switching	Yes, 2 units	Yes, 2 units	Yes, 2 units	Yes, 2 units	Yes, 2 units	Yes, 2 units	-	Yes, 2 units	Yes, 2 units	Yes, output line switchable
Electronic short-circuit protection	Yes, restart							Yes, constant current or latchin shutdown selectable		
Radio suppression level (EN 55022)	Class B	Class B	Class B	Class B	Class B	Class B	Class B	Class B	Class B	Class A (emission)
Line harmonics limitation (EN 61000-3-2)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	No
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Ambient temperature	-25+70 °C	-25+70 °C	-25+70°C	-25+70 °C	-25+70 °C	-25+70°C	-25+70 °C	-25+70 °C	-25+70 °C	-25+70 °C
Installation	DIN rail									
Dimensions (W x H x D) in mm	32 x 100 x 100				42 x 125 x 120	42 x 125 x 120	32 x 100 x 100	32 x 100 x 100	42 x 125 x 120	90x 125 x 125
Weight approx.	0.3 kg	0.4kg	0.4kg	0.4kg	0.6 kg	0.6 kg	0.4kg	0.4kg	0.6 kg	1.2 kg
Certification	CE, cULus	CE, cULus, ABS, DI	W GL 6EP3233-0TA	10-0AYO: NEC Class	2					CE, cULus, CB, DNV GL

¹⁾ The SITOP PSU400M power supply is designed for connection to a DC link power system, which means that the input voltage rises and falls successively while charging the DC link. Hot plug-in and hot plug-out of the input voltage above 450 V is not allowed. The 6EP1566-3AA00 ballast device for limiting the voltage rise must be used for this purpose.

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified).

Special designs

Equipped for specific tasks and conditions

Wall mounting High degree of

protection



Battery charging



output voltage

Alternative



Special area of application



SITOP PSU100D

12 V and 24 V power supply units in aluminum enclosure for direct wall mounting

SITOP PSU100P

24 V/5 A and 8 A power supply in IP67 for distributed applications



SITOP PSU3800

Constant current characteristic for optimum charging of 12 V/24 V batteries

SITOP PSU3600

Dual: Two outputs with 15 V/3.5 A each Flexi:

3 - 52 V/10 A output, fixed or dynamic setting

SITOP PSU100E

1-phase power supply 48 V/5 A in slim metal enclosure

SITOP PSU300E

3-phase power supply 24 V/5 A in slim metal enclosure