

Issue  
10/2021

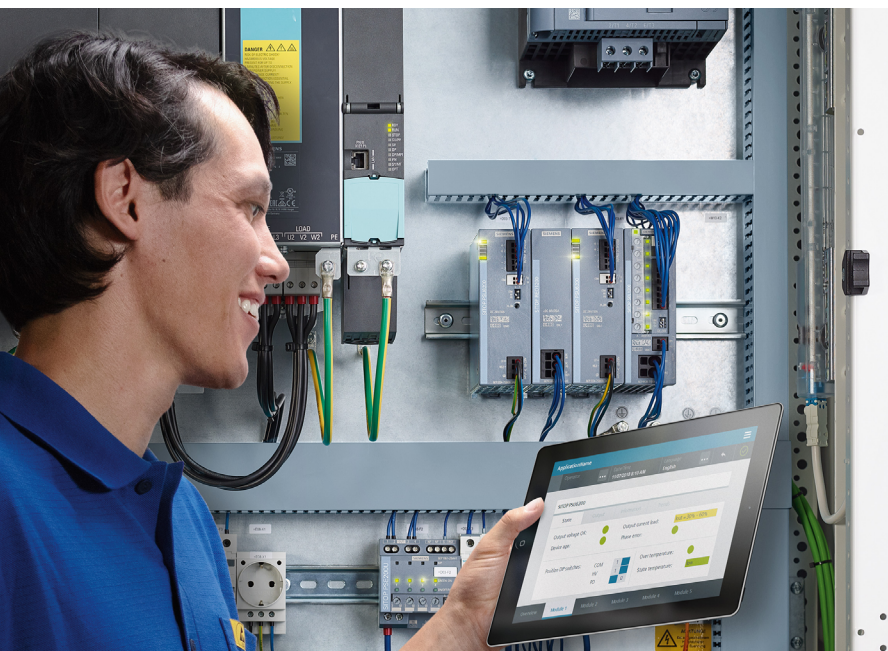
# High performance. Focused diagnostics.

SITOP PSU6200 – the all-around power supply for a wide range of applications  
[siemens.com/sitop-psu6200](https://www.siemens.com/sitop-psu6200)

**SIEMENS**



# Focused diagnostics. Simple Integration.



My power supply is able to think and shows me how my plant's power supply is doing. This makes the check-up fun."

Alex, technician for a medium-sized machine and plant manufacturer

Thanks to a diagnostics monitor and interface, Alex has an instantaneous overview.

## Important status messages ...

... from SITOP PSU6200 never go unnoticed by Alex the technician. The unit's LEDs tell him whether all the parameters are in the green zone, or if there's something he needs to do to ensure that his plant continues to operate smoothly.

## Integrated in the automation ...

... Alex benefits from detailed status messages with SITOP PSU6200 power supply units as of 24 V/10 A. He can view the status and all relevant operational data via a single digital input on the PLC and use a free function block to evaluate the serial code. Alex immediately detects whether a value is critical on a ready-to-use faceplate. This allows him to find a remedy before the machine is affected.

## Simple Integration

- LED and signaling contact for "DC o.k." on all versions, diagnostics monitor and interface as of 24 V/10 A, 12 V/12 A and 48 V/5 A
- Diagnostics monitor with utilization and end-of-service-life indication via LEDs for "DC o.k.," utilization, and remaining service life
- Diagnostics interface for connecting to the automation via just one digital PLC input
  - Display of operating parameters and status: power, voltage, overload, operating hours, temperature status, manufacturing date and type
  - Evaluation by means of preassembled function block as ready-to-run code for SIMATIC S7-1200, 1500, 300 and 400 as well as display on WinCC faceplate

# Fast installation. High efficiency.

Labeling on front panel, push-in terminals, reduced space requirement – Luke prefers easy handling in his work as an electrician.

## Reliable wiring every minute ...

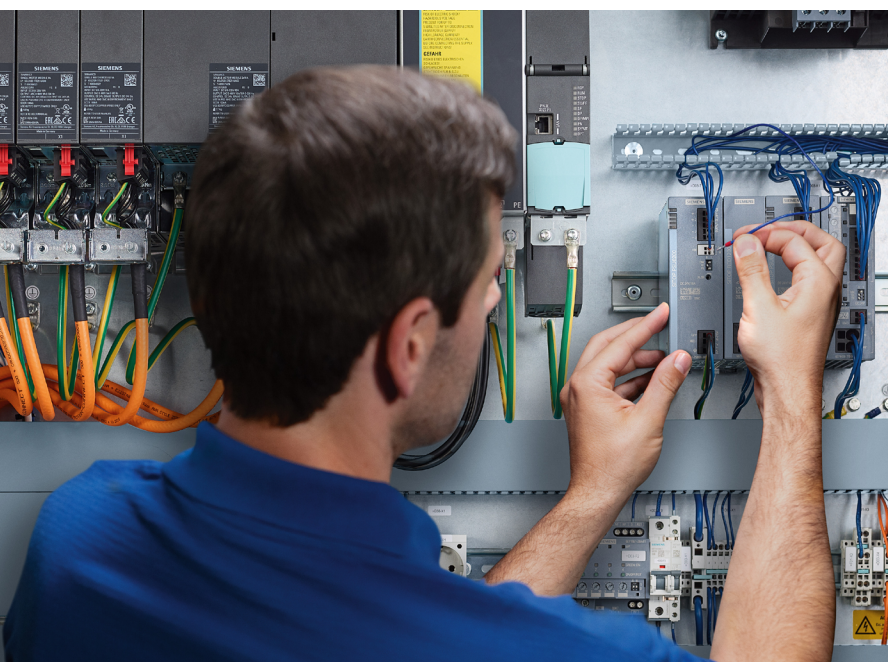
... is child's play for Luke with the SITOP PSU6200: The unique terminal labeling prevents errors during wiring because it precisely corresponds to the label on the circuit diagram. Push-in terminals also make wiring faster, ensuring a secure connection with or without end sleeves – whether you're using single- or multiple-stranded.

## More room in the control cabinet ...

... is a valuable commodity for Luke, given today's packing density. With SITOP PSU6200, he benefits from a narrow overall width. In addition, the power supply units require no lateral installation clearances between components on the DIN rail. All these features combine to deliver a high degree of efficiency of up to 96,6%.

## High efficiency

- Push-in terminals
- Unique terminal labeling on the front of the unit
- Additional minus terminal (grounding) for potential equalization/PELV according to the Machinery Directive
- Line fed in from the front
- Slim design
- No lateral installation clearances required
- High degree of efficiency of up to 96% (24 V/40 A) or 96.6% (48 V/20 A)
- As of 24 V/10 A, 12 V/12 A and 48 V/5 A: active PFC (power factor correction) for low inrush currents and high power factor/reduction of reactive current component



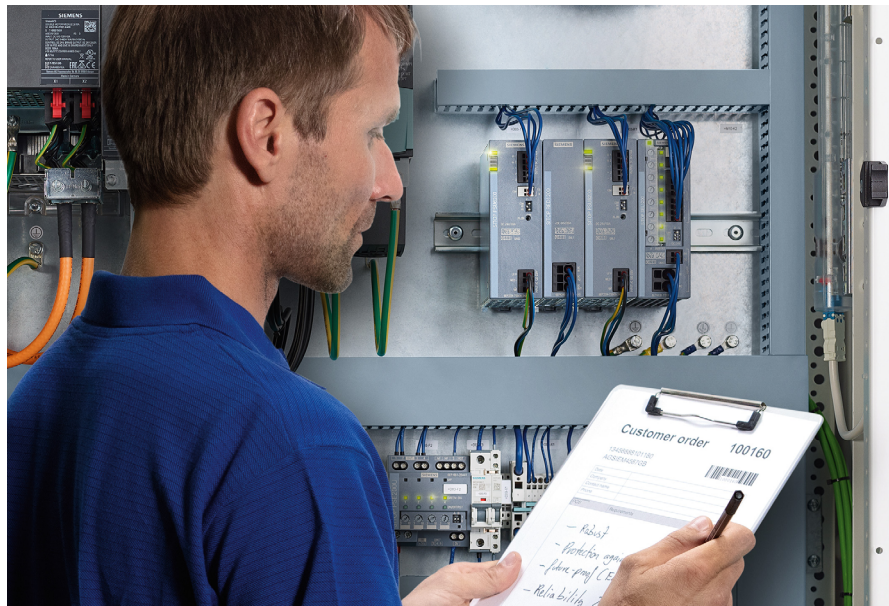
Installation and wiring  
now go like clockwork,  
and I also save valuable  
space.”

Luke, electrician for a control  
cabinet builder



When it comes to reliability,  
I make no concessions.  
With SITOP PSU6200,  
I don't have to."

Tom, department head for a control  
cabinet builder



## Dependable operation. High reliability.

As head of control cabinet building, Tom relies on a high overload capacity, a robust, wide-range input, and a strong metal enclosure when powering plants.

### **Constant current ...**

... even under difficult conditions – for Tom, that starts with the right power supply. With SITOP PSU6200, he's on the safe side. With its extra power, it provides a 50 percent higher rated current for up to five seconds in the event of an overload. In the case of an extremely high overload, it keeps the current constant and changes to hiccup mode for self-protection only when the output voltage drops to 15 volts. Once the overload has been corrected, it continues in normal operation.

### **Extreme ruggedness ...**

... is required in industries with harsh environmental conditions. That's why SITOP PSU6200 is just right for Tom. The power supply unit is tough, both electrically and mechanically. The wide-range input can handle a lot of undervoltage and

overvoltage, where the 1-phase devices are suitable for AC and DC voltage and the 3-phase can be operated with only 2 phases in the event of a phase failure. And the metal enclosure isn't just rugged, it also optimally dissipates heat losses – which are already low, thanks to a high degree of efficiency. These are all ideal conditions for a long service life. Reliable power supplies are also available for potentially explosive environments. The Ex-versions already comply with the ATEX standard that will go into effect in April 2022.

### **High reliability**

- High overload capacity, thanks to 150% extra power for 5 s/min and constant current behavior
- Rugged input: 1-phase with wide range and DC capability, 3-phase suitable for continuous operation when one phase fails
- Rugged metal enclosure
- Designed for optimal heat dissipation
- Ex-versions according to the new ATEX standard as of April 2022



# Many features. Powerful device.

## SITOP PSU6200 – product highlights at a glance

### Diagnostics monitor

SITOP PSU6200 power supply units as of 24 V/10 A, 12 V/12 A and 48 V/5 A indicate their operating status, current utilization, and end of service life via LEDs

Output voltage o.k.

Utilization



< 30%



> 30%



> 60%



> 90%



< 10% Service life

Award-winning Industry Design



Identification label: Article No.  
6ES7193-6LF30-0AW0 (150 units)

Rugged metal enclosure

Push-in terminals  
permit secure assembly without  
need for tools

Diagnostics monitor  
(5 LEDs)

Unique terminal labeling  
for error-free wiring

Data Matrix Code  
(product information via  
Service and Support app)

Additional minus terminal  
for grounding PELV circuits according to  
the Machinery Directive

Diagnostics interface

1-phase  
wide-range input, DC-capable  
85–275 V AC or 85–275 V DC  
3-phase:  
Continuous 2-phase operation  
possible if one phase fails  
323...576 V 3 AC

Robust input  
protects against  
undervoltage and  
overvoltage

### Setting options

- COM (signaling relay/diagnostics interface)
- HV (response value for signaling contact DC o.k. -> 10 V/11.8 V, 20 V/23 V or 43 V/46 V)
- PO (parallel operation)

Output voltage setting  
12–15.5 V DC, 24–28 V DC or 48–56 V DC

Direct side-by-side mounting  
without clearances saves space

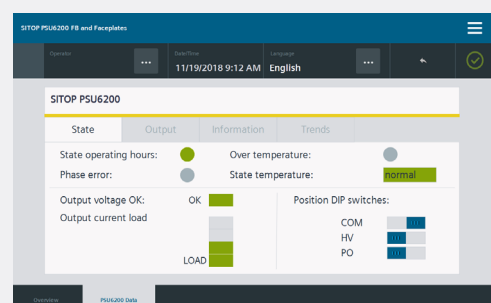
Active PFC as of 24 V/10 A, 12 V/12 A and 48 V/5 A  
Active power factor correction means a high  
power factor and the wide-range input

### Diagnostics interface

SITOP PSU6200 power supply units as of 24 V/10 A, 12 V/12 A und 48 V/5 A output a serial code via the diagnostics interface. The signal can be read in via a digital input on a PLC and evaluated by a function block. Function blocks are available for SIMATIC S7-1200, 1500, 300 and 400. For easy visualization in WinCC, a faceplate is also available for download (see right).

The following status and operating parameters are displayed:

- DC o.k., Utilization < 30%, > 30%, > 60%, > 90%
- Remaining service life < 10%
- Output current (resolution 1 A)
- Output voltage (resolution 0.1 V)
- Device temperature < 40°C, < 60°C, < 70°C, overtemperature
- Meter for overvoltages and undervoltages at the DC terminal
- Manufacturing date, article number
- Device settings (COM, HV, PO)





# SITOP PSU6200 portfolio

## Technical data 1-phase power supplies

New: Ex-version



Output voltage/current	24 V/1.3 A	12 V/2 A	24 V/2.5 A	24 V/3.7 A	24 V/5 A	12 V/7 A
Article No.	6EP3331-7SB00-0AX0	6EP3321-7SB00-0AX0	6EP3332-7SB00-0AX0	6EP3333-7LB00-0AX0	6EP3333-7SB00-0AX0	6EP3323-7SB00-0AX0
Article No. Ex-version					6EP3333-7SC00-0AX0	
Rated input voltage value	120–230 V AC/120–240 V DC			120–230 V AC/120–240 V DC		
– Range	85–264 V AC/110–275 V DC			85–275 V AC/99–275 V DC		
Mains buffering	150 ms at U <sub>in</sub> = 230 V	150 ms at U <sub>in</sub> = 230 V	150 ms at U <sub>in</sub> = 230 V	90 ms at U <sub>in</sub> = 230 V	80 ms at U <sub>in</sub> = 230 V	90 ms at U <sub>in</sub> = 230 V
Line frequency, rated value	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current value	0.6/0.3 A	0.5/0.3 A	1.1/0.6 A	1.5/0.9 A	1.9/1.1 A	1.4/0.8 A
– Inrush current <sup>1)</sup>	< 32 A	< 32 A	< 32 A	< 29 A	< 29 A	< 29 A
– Recom. miniature circuit breaker	From 6 A characteristic C	From 6 A characteristic C	From 6 A characteristic C	From 6 A characteristic C	From 6 A characteristic C	From 6 A characteristic C
Rated output voltage	24 V	12 V	24 V	24 V	24 V	12 V
– Tolerance	± 3%	± 3%	± 3%	± 3%	± 3%	± 3%
– Setting range	22.2–26.4 V	10.5–12.9 V	22.2–26.4 V	24–28 V	24–28 V	12–15.5 V
Rated output current	1.3 A	2 A	2.5 A	3.7 A	5 A	7 A
– Continuously up to +45°C	1.3 A	2 A	2.5 A	3.7 A	6 A	8.4 A
– Overload behavior (extra power for 5 s/min)	–	–	–	–	150%	150%
– Derating	As of +60°C (2.5%/K)	–	As of +60°C (1.5%/K)	–	As of +60°C (2%/K)	As of +60°C (2%/K)
Efficiency at rated values, approx.	86.3%	83.3%	89%	89.3%	90.2%	87.1%
Signaling interface	No	No	No	DC o.k.	DC o.k.	DC o.k.
Parallel switching	No	No	No	No	No	No
Electronic short-circuit protection	Yes, restart	Yes, restart	Yes, restart	Yes, constant current (< 15 V hiccup)	Yes, constant current (< 15 V hiccup)	Yes, constant current (< 9 V hiccup)
Radio interference level (EN 55022)	Class B	Class B	Class B	Class B	Class B	Class B
Radio interference suppression (EN 61000-3-2)	Not applicable	Not applicable	Not applicable	Yes	Yes	Yes
Degree of protection (EN 60529)	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Ambient temperature (Operation/ startup)	–25 ... +70 °C / startup as of –25 °C			–30 ... +70 °C / startup as of –40 °C		–25 ... +70 °C / startup as of –25 °C
Dimensions (W x H x D) in mm	25 x 100 x 88	25 x 100 x 88	40 x 100 x 88	35 x 135 x 125	35 x 135 x 125	35 x 135 x 125
Weight, approx.	0.2 kg	0.2 kg	0.25 kg	0.7 kg	0.7 kg	0.7 kg
Certificates	CE, cULus, cCSAus, CB, SEMI F47. 24 V/1.3 A; 2.5 A; 3.7 A; 12 V/2 A: NEC Class 2. 6EP3333-7SC00-0AX0: ATEX, IECEx, CCC. In preparation: DNV GL, ABS.					

<sup>1)</sup> Inrush current can be limited by means of a SITOP inrush current limiter: Article no. 6EP4683-6LB00-0AY0 (max. 5 A, 100–240 V AC)  
Technical specifications apply at rated input voltage and ambient temperature of +25°C (unless otherwise specified)






To protect against network outages, the SITOP PSU6200 power supplies can be expanded to an uninterruptible DC power supply. Modules are also available in the same attractive design as the PSU6200 to provide redundant operation and to selectively protect 24V load circuits.

[siemens.com/sitop-addons](https://www.siemens.com/sitop-addons)



# SITOP PSU6200 portfolio

## Technical data 1-phase power supplies

	New: Ex-version		New: Ex-version		New
					
<b>Output voltage/current</b>	<b>24 V/10 A</b>	<b>12 V/12 A</b>	<b>48 V/5 A</b>	<b>24 V/20 A</b>	<b>48 V/10 A</b>
Article No.	6EP3334-7SB00-3AX0	6EP3324-7SB00-3AX0	6EP3344-7SB00-3AX0	6EP3336-7SB00-3AX0	6EP3346-7SB00-3AX0
Article No. Ex-version	6EP3334-7SC00-3AX0			6EP3336-7SC00-3AX0 <sup>1)</sup>	
Rated input voltage value	120–230 V AC/110–240 V DC				
– Range	85–264 V AC/85–275 V DC				
Mains buffering	45 ms at U <sub>in</sub> = 230 V	70 ms at U <sub>in</sub> = 230 V	46 ms at U <sub>in</sub> = 230 V	25 ms bei U <sub>e</sub> = 230 V	25 ms bei U <sub>e</sub> = 230 V
Line frequency, rated value	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current value	2.2/1.2 A	1.4/0.8 A	2.2/1.2 A	4.3/2.3 A	4.3/2.3 A
– Inrush current	< 6 A	< 6 A	< 6 A	< 12 A	< 12 A
– Recom. miniature circuit breaker	From 10 A characteristic C	From 6 A characteristic C	From 10 A characteristic C	From 10 A characteristic C	From 10 A characteristic C
Rated output voltage	24 V	12 V	48 V	24 V	48 V
– Tolerance	± 3%	± 3%	± 3%	± 3%	± 3%
– Setting range	24–28 V	12–15.5 V	48–56 V	24–28 V	48–56 V
Rated output current	10 A	12 A	5 A	20 A	10 A
– Continuously up to +45 °C	12 A	14.4 A	6 A	24 A	12 A
– Overload behavior (extra power for 5 s/min)	150%	150%	150%	150%	150%
– Derating	As of +60°C (2%/K)	As of +60°C (2%/K)	As of +60°C (3%/K)	As of +60°C (1%/K)	As of +60°C (3%/K)
Efficiency at rated values, approx.	92.8%	89.3%	93.9%	95.1%	95.8%
Signaling interface	DC o.k./Diagnose	DC o.k./Diagnose	DC o.k./Diagnose	DC o.k./Diagnose	DC o.k./Diagnose
Parallel switching	Yes, 2 units	Yes, 2 units	Yes, 2 units	Yes, 2 units	Yes, 2 units
Electronic short-circuit protection	Yes, constant current (< 15 V hiccup)	Yes, constant current (< 9 V hiccup)	Yes, constant current (< 30 V hiccup)	Yes, constant current (< 15 V hiccup)	Yes, constant current (< 30 V hiccup)
Radio interference level (EN 55022)	Class B	Class B	Class B	Class B	Class B
Radio interference suppression (EN 61000-3-2)	Yes	Yes	Yes	Yes	Yes
Degree of protection (EN 60529)	IP 20	IP 20	IP 20	IP 20	IP 20
Ambient temperature (Operation/ startup)	–30 ... +70 °C / startup as of –40 °C	–25 ... +70 °C / startup as of –40 °C	–30 ... +70 °C / startup as of –40 °C		
Dimensions (W x H x D) in mm	45 x 135 x 125	45 x 135 x 125	45 x 135 x 125	70 x 135 x 155	70 x 135 x 155
Weight, approx.	0.9 kg	0.9 kg	0.9 kg	1.5 kg	1.5 kg
Certificates	CE, cULus, cCSAus, CB, SEMI F47. 6EP3334-7SC00-0AX0, 6EP3336-7SC00-0AX0: ATEX, IECEx, CCC. Coming soon: DNV GL, ABS				

<sup>1)</sup> Planned start of delivery: 4th quarter 2021

Technical specifications apply at rated input voltage and ambient temperature of +25°C (unless otherwise specified)








The sturdy SITOP RED1200 redundancy modules with 20 A and 40 A total current decouple power supplies with output voltages of 12 to 48 V.



# SITOP PSU6200

## portfolio

### Technical data 3-phase power supplies

	New			New	
					
Output voltage/current	24 V/5 A	24 V/10 A	48 V/5 A	24 V/20 A	48 V/10 A
Article No.	6EP3433-7SB00-0AX0	6EP3434-7SB00-3AX0	6EP3444-7SB00-3AX0	6EP3436-7SB00-3AX0	6EP3446-7SB00-3AX0
Rated input voltage value	400–500 V 3AC				
– Range	323 ... 576 V 3AC, 450 ... 600 V DC				
Mains buffering	20 ms at U <sub>in</sub> = 400 V	30 ms at U <sub>in</sub> = 400 V	30 ms at U <sub>in</sub> = 400 V	25 ms at U <sub>in</sub> = 400 V	25 ms at U <sub>in</sub> = 400 V
Line frequency, rated value	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current value	0.33/0.28 A	0.39/0.32 A	0.39/0.32 A	0.77/0.62 A	0.77/0.62 A
– Inrush current	< 22 A	< 13 A	< 13 A	< 17 A	< 17 A
– Recom. miniature circuit breaker	4...10 A char.C 3-ph. coupled <sup>1)</sup>	4...16 A Char. C 3-ph. coupled <sup>1)</sup>			
Rated output voltage	24 V	24 V	48 V	24 V	48 V
– Tolerance	± 3%	± 3%	± 3%	± 3%	± 3%
– Setting range	24–28 V	24–28 V	48–56 V	24–28 V	48–56 V
Rated output current	5 A	10 A	5 A	20 A	10 A
– Continuously up to +45°C	6 A	12 A	6 A	24 A	12 A
– Overload behavior (extra power for 5 s/min)	150%	150%	150%	150%	150%
– Derating	As of +60°C (3%/K)	As of +60°C (3%/K)	As of +60°C (3%/K)	As of +60°C (3%/K)	As of +60°C (3%/K)
Efficiency at rated values, approx.	91.2%	95.4%	95.6%	95.5%	96.2%
Signaling interface	DC o.k.	DC o.k./diagnostics	DC o.k./diagnostics	DC o.k./diagnostics	DC o.k./diagnostics
Parallel switching	No	Yes, 2 units	Yes, 2 units	Yes, 2 units	Yes, 2 units
Electronic short-circuit protection	Yes, constant current (< 15 V hiccup)	Yes, constant current (< 15 V hiccup)	Yes, constant current (< 30 V hiccup)	Yes, constant current (< 15 V hiccup)	Yes, constant current (< 30 V hiccup)
Radio interference level (EN 55022)	Class B	Class B	Class B	Class B	Class B
Radio interference suppression (EN 61000-3-2)	Yes	Yes	Yes	Yes	Yes
Degree of protection (EN 60529)	IP 20	IP 20	IP 20	IP 20	IP 20
Ambient temperature (Operation/ startup)	–30...+70 °C / startup as of –40 °C				
Dimensions (W x H x D) in mm	35 x 135 x 125	45 x 135 x 155	45 x 135 x 155	70 x 135 x 155	70 x 135 x 155
Weight, approx.	0.7 kg	0.9 kg	0.9 kg	1.5 kg	1.5 kg
Certificates	CE, cULus, in preparation: cCSAus, DNV GL, ABS, SEMI F47				



<sup>1)</sup> Or 3RV2011-1EA10 or 3RV2711-1ED10

Technical specifications apply at rated input voltage and ambient temperature of +25°C (unless otherwise specified)



# SITOP PSU6200 portfolio

## Technical data 3-phase power supplies

	Neu	Neu
		
<b>Ausgangsspannung/ -strom</b>	<b>24 V/40 A</b>	<b>48 V/20 A</b>
Article No.	6EP3437-7SB00-3AX0	6EP3447-7SB00-3AX0
Rated input voltage value	3 400–500 V AC	
– Range	3 323 to 576 V AC, 450 to 600 V DC	
Mains buffering	25 ms at U <sub>in</sub> = 400 V	25 ms at U <sub>in</sub> = 400 V
Line frequency, rated value	50/60 Hz	50/60 Hz
Rated input current value	1.5/1.2 A	1.5/1.2 A
– Inrush current	< 10 A	< 10 A
– Recom. miniature circuit breaker	4 to 16 A Char. C 3-ph. coupled <sup>1)</sup>	
Rated output voltage	24 V	48 V
– Tolerance	± 3%	± 3%
– Setting range	24–28 V	48–56 V
Rated output current	40 A	20 A
– Continuously up to +45°C	48 A	24 A
– Overload behavior (extra power for 5 s/min)	150%	150%
– Derating	Above +60°C (3%/K)	Above +60°C (3%/K)
Efficiency at rated values, approx.	96.0%	96.6%
Signaling interface	DC o.k./diagnostics	DC o.k./diagnostics
Parallel switching	Yes, 2 units	Yes, 2 units
Electronic short-circuit protection	Yes, constant current (< 15 V hiccup)	Yes, constant current (< 15 V hiccup)
Radio interference level (EN 55022)	Class B	Class B
Radio interference suppression (EN 61000-3-2)	yes	yes
Degree of protection (EN 60529)	IP 20	IP 20
Ambient temperature (Operation/ startup)	–30 to +70°C/above –40°C	
Dimensions (W x H x D) in mm	95 x 135 x 155	95 x 135 x 155
Weight, approx.	2.1 kg	2.1 kg

<sup>1)</sup> Or 3RV2011-1EA10 or 3RV2711-1ED10

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



Compact SITOP SEL1200 and 1400 selectivity modules for enhanced overload protection. The diagnostics interface enables extensive analyses.

**Offer good until Sept. 30, 2022:**

Starter package with 20% discount consisting of  
SITOP PSU6200, 1 AC, 24 V/10 A  
SITOP SEL1400, 4 x 10 A  
[Industry Mall: 6EP3334-7SB00-3AP0](mailto:Industry.Mall: 6EP3334-7SB00-3AP0)

**Published by  
Siemens AG**

Digital Industries  
Process Automation  
Östliche Rheinbrückenstr. 50  
76187 Karlsruhe, Germany

**For the U.S. published by  
Siemens Industry Inc.**

100 Technology Drive  
Alpharetta, GA 30005  
United States

Article No.: DIPA-B10215-00-7600  
Dispo 10001

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