

Stabilized Power Supplies

SITOP 6EP Power Supplies

DC-UPS uninterruptible power supplies

Overview

To combat prolonged mains failures the 24 V SITOP power supply units can be upgraded into a DC-UPS uninterruptible power supply.

SITOP offers two systems for this purpose:

- Battery modules as energy stores which provide a buffer in the hours range
- Capacitors for 24 V buffering in the minutes range

The combination is used for example in machine-tool building, in the textile industry, on all types of production lines and filling plants, and in conjunction with 24 V industrial PCs. They prevent the negative consequences which often result from mains failures.

For the SIMATIC IPC this means that all running applications, including the operating system, can be shut down under stabilized conditions.

The DC-UPS 24 V uninterruptible power supply with battery modules is comprised of DC-UPS modules with 6 A, 15 A or 40 A output current and the battery modules 1.2 Ah, 3.2 Ah, 7 Ah and 12 Ah (containing lead rechargeable batteries with corrosion-resistant lead-calcium high-performance grid plates and glass fiber fleece) and 2.5 Ah (containing "high-temperature rechargeable batteries" type Reinblei).

Selection and ordering data

Version	Inputs Rated voltage U_e Rated	Output Rated voltage U_a Rated	Rated current I_a Rated	Dimensions (W × H × D) mm	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
DC UPS modules										
 6EP1 931-2.C..	6 A 24 V DC (22 ... 29 V) With serial interface With USB interface	24 V DC (mains operation: 21.5 ... 28.5 V, battery operation: 27.0 ... 18.5 V)	6 A	50 × 125 × 125 ▶		6EP1 931-2DC21		1	1 unit	585
				50 × 125 × 125 ▶		6EP1 931-2DC31		1	1 unit	585
				50 × 125 × 125 ▶		6EP1 931-2DC42		1	1 unit	585
 6EP1 931-2FC..	15 A 24 V DC (22 ... 29 V) With serial interface With USB interface	24 V DC (mains operation: 21.5 ... 28.5 V, battery operation: 27.0 V ... 18.5 V)	15 A	50 × 125 × 125 ▶		6EP1 931-2EC21		1	1 unit	585
				50 × 125 × 125 ▶		6EP1 931-2EC31		1	1 unit	585
				50 × 125 × 125 ▶		6EP1 931-2EC42		1	1 unit	585
	40 A 24 V DC (22 ... 29 V) With USB interface	24 V DC (mains operation: 21.5 ... 28.5 V, battery operation: 27.0 ... 18.5 V)	40 A	102 × 125 × 125 ▶		6EP1 931-2FC21		1	1 unit	585
				102 × 125 × 125 ▶		6EP1 931-2FC42		1	1 unit	585

Battery modules as energy stores

Version	Charging voltage at +25 °C U_{Charge}	Output Rated voltage U_a Rated	Dimensions (W × H × D) mm	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Battery modules									
For DC-UPS modules 6 A and 15 A									
 6EP1 935-6MC01	1.2 Ah	27.0 V DC	24 V DC (end of charge voltage: 27.0 V, exhaustive discharge protection: 18.5 V)	96 × 106 × 108 ▶	6EP1 935-6MC01		1	1 unit	585
	2.5 Ah/ high temperature rechargeable battery	27.7 V DC	24 V DC (end of charge voltage: 27.7 V, exhaustive discharge protection: 18.5 V)	265 × 151 × 91 ▶	6EP1 935-6MD31		1	1 unit	585
	3.2 Ah	27.0 V DC	24 V DC (end of charge voltage: 27.0 V, exhaustive discharge protection: 18.5 V)	190 × 151 × 82 ▶	6EP1 935-6MD11		1	1 unit	585
For DC-UPS modules 6 A to 40 A									
 6EP1 935-6ME21	7 Ah	27.0 V DC	24 V DC (end of charge voltage: 27.0 V, exhaustive discharge protection: 18.5 V)	186 × 168 × 121 ▶	6EP1 935-6ME21		1	1 unit	585
	12 Ah	27.0 V DC	24 V DC (end of charge voltage: 27.0 V, exhaustive discharge protection: 18.5 V)	253 × 168 × 121 ▶	6EP1 935-6MF01		1	1 unit	585

For capacitors as energy stores see page 11/62.