# SITOP Power Supplies Switched Mode Regulated Technology

Power supplies, single-phase

#### Description

SITOP switched mode power supplies offer high efficiency, safe electrical isolation (SELV) and low weight.

Different versions are available depending on the output current and application required.

The 2.5 A, 5 A and 10 A power supplies are the first members of a generation of 24 VDC power supplies, called SITOP smart.

They come with a 1/3 smaller width compared to the former generation, ATEX and UL class 1, div 2 agency approvals for use in hazardous locations and a power boost function to serve high inrush loads.

Power supplies are suitable for worldwide single-phase networks. Every power supply provides LED status display, adjustable output voltage and can be snapped on DIN rail.

Power supplies meet

- radio interference suppression class B,
- ambient temperature range from 0 °C to +60 °C.

#### Selection and ordering data

|       | Design                      | Input<br>voltage,<br>rated value<br><i>U</i> e <sub>Rated</sub>   | Output<br>voltage,<br>rated value<br><i>U</i> a Rated | Current,<br>rated<br>value<br>I <sub>a Rated</sub> | Dimensions<br>(W x H x D) | Order No.    | Weigh<br>approx |
|-------|-----------------------------|---|---|--|---------------------------|--------------|-----------------|
|       | 04 VD                       |   | Oa Hated  | 1a Hated   | 111111                    |              | kg              |
|       | * 0.375                     | A 48 – 220 VDC<br>(30 – 264 VDC/<br>30 – 187 VAC)   | 24 VDC ±2%  | 0.375 A  | 22.5 x 80 x 91            | 6EP17312BA00 | 0.2             |
|       | * 0.5 A                     | 120 – 230 VAC<br>(93 – 264 VAC)   | 24 VDC ±2%  | 0.5 A  | 22.5 x 80 x 91            | 6EP13312BA10 | 0.2             |
|       | Limitati                    | on of input current harm  | onics according to                                    | EN 61 000  | )-3-2.                    |              |                 |
|       | 2.5 A                       | 120 – 230 VAC<br>(85 – 132 VAC/<br>170 – 264 VAC)   | 24 VDC ±3%  |  | 33 x 125 x 125            | 6EP13322BA10 | 0.4             |
| -     | Limitati                    | on of input current harm  | onics according to                                    | EN 61 000  | )-3-2                     |              |                 |
|       | 5 A                         | 120 – 230 VAC<br>(85 – 132 VAC/<br>170 – 264 VAC)   | 24 VDC ±3%  |  | 50 x 125 x 125            | 6EP13332BA01 | 0.5             |
|       | 5 A                         | 120 – 230 VAC<br>(85 – 132 VAC/<br>170 – 264 VAC)   | 24 VDC ±3%  | 5 A  | 50 x 125 x 125            | 6EP13332AA01 | 0.5             |
|       | Limitati                    | on of input current harm  |   |  |                           |              |                 |
|       | 10 A                        | 120 – 230 VAC<br>(85 – 132 VAC/<br>170 – 264 VAC)   | 24 VDC ±3%  | 10 A   | 70 x 125 x 135            | 6EP13342BA01 | 0.8             |
| 8     | 10 A                        | 120 – 230 VAC<br>(85 – 132 VAC/<br>170 – 264 VAC)   | 24 VDC ±3%  | 10 A   | 70 x 125 x 135            | 6EP13342AA01 | 0.8             |
|       | Deg. of                     | Deg. of protection IP 65, adapted to ET 200X; Wall mounting radio interference suppression class A, ambient temperature -20°C to 55°C |   |  |                           |              |                 |
| All I | 10 A                        | 120 – 230 VAC<br>(93 – 132 VAC/<br>187 – 264 VAC)   | 24 VDC ±3%  |  | 140 x 270 x 126           | 6EP13342CA00 | 1.7             |
| -     | Limitati                    | on of input current harm  | onics according to                                    | EN 61 000  | )-3-2                     |              |                 |
| 1     | 20 A                        | 120 – 230 VAC<br>(90 – 132 VAC/<br>187 – 264 VAC)   | 24 VDC ±3%  | 20 A   | 280 x 125 x 92            | 6EP13362BA00 | 2.0             |
|       |                             | to 52 VDC power s   |   |  |                           |              |                 |
| de    |                             | on of input current harm<br>ble output voltage 3 V =  |   |  |                           |              |                 |
| M     | max.<br>10 A<br>or<br>120 W | 120 – 230 VAC<br>(85 – 132 VAC/<br>170 – 264 VAC)   | 3 – 52 VDC<br>± 1%                                    | 10 A   | 75 x 125 x 125            | 6EP13532BA00 | 0.9             |

<sup>\*</sup> without adjustable output voltage.

## ww.DataSheet SITOP Power Supplies

### Switched Mode Regulated Technology

Power supplies, single phase, three phase; Power security components

#### Description

#### Modular power supplies

Basis of the modular concept is a complete line of 24 VDC power supplies from 5A up to 40A.

- compact design
- adjustable output voltage up to 28.8 VDC
- 3 LED operating indications
- Selectable reaction to short circuit: automatic restart or storing shutdown
- Possible to use in parallel connection (load sharing)
- DIN rail mounting

#### SITOP Modular comes in:

 5A, 10A, 20A and 40A devices can be used for single-phase (L1 and N) and for 3-phase applications by using 2 hot wires only within the provided input voltage range capability

The power supplies fulfill:

- Radio interference suppression, class B
- Restriction of the input current harmonic waves in acc. w. EN 61 000-3-2 (except 6EP1337-3BA00)

Power supplies and add-on modules meet:

 Ambient temperature range from 0°C + 60°C

#### **Power Security Components**

The signaling module can be snapped onto the left side of the basic device. The module offers floating signal contacts ("output voltage o.k. and "ready for operation o.k.") and a signal input for remote ON/OFF of the basic device.

The <u>buffer module</u> bypasses power interruptions in the msec range. 100 msec at 40 A, 800 msec at 5 A, up to max. of 3 sec at low load current, DIN rail mounting is possible at any location in the switching cabinet.

The redundancy module guarantees stable 24VDC power by decoupling two power supplies in parallel operation. The module monitors both power supplies and makes sure that the stand by power supply immediately takes over when the output voltage of the operating power supply drops below the (adjustable) threshold voltage. For applications above 20 amps one redundancy module per power supply is required.

#### Selection and ordering data

| Design              | Input voltage, rated value                  | Output voltage, rated value | Current, rated       | Dimensions      | Order No.    | Weight approx |
|---------------------|---|-----------------------------|----------------------|-----------------|--------------|---------------|
|                     |   |                             | value                | (W x H x D)     |              |               |
| 24 VDC n            | Ue Rated ower supplies, single-phase        | V <sub>a Rated</sub>        | I <sub>a Rated</sub> | mm              |              | kg            |
| 5 A                 | 120/230-500 VAC                             | 24 VDC ±3%                  | 5 A                  | 70 x 125 x 125  | 6EP13333BA00 | 1.2           |
|                     | (85–132 VAC/176–550 VAC)                    |                             |                      |                 |              |               |
| 10 A                | 120/230-500 VAC<br>(85-132 VAC/176-550 VAC) | 24 VDC ±3%                  | 10 A                 | 90 x 125 x 125  | 6EP13343BA00 | 1.4           |
| 20 A                | 120/230 VAC<br>(85-132 VAC/176-264 VAC)     | 24 VDC ±3%                  | 20 A                 | 160 x 125 x 125 | 6EP13363BA00 | 2.2           |
| 40 A                | 120/230 VAC<br>(85-132 VAC/176-264 VAC)     | 24 VDC ±3%                  | 40 A                 | 240 x 125 x 125 | 6EP13373BA00 | 2.9           |
| 24 VDC p            | ower supplies, three-phase                  | е                           |                      |                 |              |               |
| 20 A                | 3 x 400-500 VAC<br>(3 x 340-550 VAC)        | 24 VDC ±3%                  | 20 A                 | 160x 125 x 125  | 6EP14363BA00 | 2.0           |
| 40 A                | 3 x 400–500 VAC<br>(3 x 340–550 VAC)        | 24 VDC ±3%                  | 40 A                 | 240 x 125 x 125 | 6EP14373BA00 | 3.2           |
| Power se            | curity components                           |                             |                      |                 |              |               |
| Signaling<br>module |   |                             |                      | 25 x 125 x 125  | 6EP19613BA10 | 0.2           |
| Buffer<br>module    | 24 VDC<br>(24–28.8 VDC)                     | 24 VDC ±3%                  | 40 A                 | 70 x 125 x 125  | 6EP19613BA00 | 1.0           |
| Redundand<br>module | 24 VDC<br>(24–28.8 VDC)                     | 0.5 VDC ±3%                 | 20 A                 | 70 x 125 x 125  | 6EP19613BA20 | 1.0           |

Further information is provided in catalog KT 10.1 or: www.siemens.com/sitop