

# SITOP power supply

Technical data



## SITOP Power Supply

Answers for industry.

**SIEMENS**

# Selection table

## SITOP power supplies

| Input voltage              | Output current | modular            | smart              | LOGO!Power     | "Special design, special use" | SIMATIC design     | Others        |
|----------------------------|----------------|--------------------|--------------------|----------------|-------------------------------|--------------------|---------------|
| <b>Output voltage 24 V</b> |                |                    |                    |                |                               |                    |               |
| 1-phase 120V AC, 230V AC   | 0.5 A          |                    |                    |                | 6EP1331-2BA10                 |                    |               |
|                            | 1.3 A          |                    |                    | 6EP1 331-1SH02 |                               |                    |               |
|                            | 2 A            |                    |                    |                |                               | 6ES7307-1BA00-0AA0 |               |
|                            | 2.5 A          |                    | 6EP1332-2BA10      | 6EP1 332-1SH42 | 6EP1232-1AA00                 | 6EP1332-1SH71      | 6EP1332-1SH12 |
|                            | 3.5 A          |                    |                    |                |                               | 6EP1332-1SH31      |               |
|                            | 3.7 A          |                    |                    |                | 6EP1332-2BA00                 |                    |               |
|                            | 4 A            |                    |                    | 6EP1332-1SH51  | 6EP1232-1AA10                 |                    | 6EP1332-1SH22 |
|                            | 5 A            | 6EP1333-3BA00      | 6EP1333-2AA01      |                | 6EP1333-1AL12                 | 6ES7307-1EA80-0AA0 |               |
|                            |                | 6EP1333-3BA00-8AC0 | 6EP1333-2BA01      |                |                               | 6ES7307-1EA00-0AA0 |               |
|                            | 6 A            |                    |                    |                | 6EP1233-1AA00                 |                    |               |
|                            | 10 A           | 6EP1334-3BA00      | 6EP1334-2AA01      |                | 6EP1334-1AL12                 | 6ES7307-1KA01-0AA0 | 6EP1334-1SH01 |
|                            |                | 6EP1334-3BA00-8AB0 | 6EP1334-2BA01      |                |                               |                    |               |
|                            |                |                    | 6EP1334-2AA01-0AB0 |                |                               |                    |               |
|                            | 12 A           |                    |                    |                | 6EP1234-1AA00                 |                    |               |
|                            | 20 A           | 6EP1336-3BA00      |                    |                |                               |                    |               |
|                            |                | 6EP1336-3BA00-8AA0 |                    |                |                               |                    |               |
| 40 A                       | 6EP1337-3BA00  |                    |                    |                |                               |                    |               |

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| Input voltage              | Output current | modular                                | "Special design,<br>special use" | SIMATIC design      | Others         |               |
|----------------------------|----------------|--|----------------------------------|---------------------|----------------|---------------|
| <b>Output voltage 24 V</b> |                |  |                                  |                     |                |               |
| 3-phase 400 to 500 V AC    | 5 A            | 6EP1333-3BA00 (...-8AC0) <sup>1)</sup> |                                  |                     |                |               |
|                            | 8 A            |  | 6EP1 433-2CA00                   | 6ES7 148-4PC00-0HA0 |                |               |
|                            | 10 A           | 6EP1334-3BA00 (...-8AB0) <sup>1)</sup> |                                  |                     |                |               |
|                            | 20 A           | 6EP1436-3BA10                          |                                  |                     |                | 6EP1434-2BA00 |
|                            |                | 6EP1436-3BA00                          |                                  |                     |                | 6EP1436-2BA00 |
|                            |                | 6EP1436-3BA00-8AA0                     |                                  |                     |                |               |
|                            | 30 A           |  |                                  |                     | 6EP1437-2BA00  |               |
|                            | 40 A           | 6EP1437-3BA10                          |                                  |                     |                | 6EP1437-2BA10 |
|                            |                | 6EP1437-3BA00                          |                                  |                     |                |               |
| 6EP1437-3BA00-8AA0         |                |  |                                  |                     |                |               |
| 48 to 220 V DC             | 0.375 A        |  | 6EP1731-2BA00                    |                     |                |               |
| 48 to 110 V DC             | 2 A            |  |                                  |                     | 6EP1732-0AA0   |               |
| 24 to 110 V DC             | 2 A            |  |                                  | 6ES7305-1BA80-0AA0  |                |               |
| 110 to 350 V DC            | 2.5 A          |  |                                  |                     | 6EP1332-1SH12  |               |
|                            | 4 A            |  |                                  |                     | 6EP1332-1SH22  |               |
|                            | 10 A           |  |                                  |                     | 6EP1 334-1SH01 |               |

<sup>1)</sup>Connection to 2 phases 230 to 500 V AC – see data sheet SITOP modular 1-/2-phase

| Input voltage                                 | Output current      | modular       | smart         | LOGO!Power     | "Special design,<br>special use" |
|---|---------------------|---------------|---------------|----------------|----------------------------------|
| <b>Output voltage 5, 12, 15, 48, ... V DC</b> |                     |               |               |                |                                  |
| 1-phase 120 V AC, 230 V AC                    | 5 V/3 A             |               |               | 6EP1 311-1SH02 |                                  |
|   | 5 V/6.3 A           |               |               | 6EP1 311-1SH12 |                                  |
|   | 12 V/1.9 A          |               |               | 6EP1 321-1SH02 |                                  |
|   | 12 V/4.5 A          |               |               | 6EP1 322-1SH02 |                                  |
|   | 15 V/1.9 A          |               |               | 6EP1 351-1SH02 |                                  |
|   | 15 V/4 A            |               |               | 6EP1 352-1SH02 |                                  |
|   | 3 to 52 V/2 to 10 A |               |               |                | 6EP1353-2BA00                    |
|   | 2 x 15 V/3.5 A      |               |               |                | 6EP1353-0AA00                    |
| 24 V DC                                       | 12 V/2.5 A          |               |               |                | 6EP1621-2BA00                    |
| 3-phase 400 to 500 V AC                       | 48 V/10 A           |               | 6EP1456-2BA00 |                |                                  |
|   | 48 V/20 A           | 6EP1457-3BA00 |               |                |                                  |

Gray: more information in Catalog KT10.1 or in Online Catalog CA01

# SITOP modular

## The modular power supply



| Technical data                            | SITOP modular 1-phase and 2-phase <sup>1)</sup>  |                                    |                                     |                                     |
|---|--|------------------------------------|-------------------------------------|-------------------------------------|
| Output voltage/current                    | 24 V/5 A   | 24 V/10 A                          | 24 V/20 A                           | 24 V/40 A                           |
| Order no.                                 | 6EP1333-3BA00  | 6EP1334-3BA00                      | 6EP1336-3BA00                       | 6EP1337-3BA00                       |
| – with protection-coated PCB              | 6EP1333-3BA00-8AC0   | 6EP1334-3BA00-8AB0                 | 6EP1336-3BA00-8AA0                  | –                                   |
| Rated input voltage                       | 120 – 230/230 – 500 V AC   | 120 – 230/230 – 500 V AC           | 120/230 V AC                        | 120/230 V AC                        |
| – Range                                   | 85...264/176...550 V AC  | 85...264/176...550 V AC            | 93...132/183...264 V AC             | 95...132/190...264 V AC             |
| Mains buffering                           | > 25 ms (at 120/230 V)   | > 25 ms (at 120/230 V)             | > 20 ms (at 230 V)                  | > 20 ms (at 230 V)                  |
| Rated line frequency                      | 50/60 Hz   | 50/60 Hz                           | 50/60 Hz                            | 50/60 Hz                            |
| Rated input current                       | 2.2 to 1.2/1.2 to 0.61 A   | 4.4 to 2.4/2.4 to 1.1 A            | 7.7/3.5 A                           | 15.0/8.0 A                          |
| – Inrush current (25 °C)                  | < 35 A   | < 35 A                             | < 60 A                              | < 125 A                             |
| – Recommended miniature circuit breaker   | 6 A charact. C<br>or 3RV1021-1xA10   | 6 A charact. C<br>or 3RV1021-1xA10 | 10 A charact. C<br>or 3RV1421-1xA10 | 20 A charact. C<br>or 3RV1421-xxA10 |
| Rated output voltage                      | 24 V DC  | 24 V DC                            | 24 V DC                             | 24 V DC                             |
| – Tolerance                               | ± 3 %  | ± 3 %                              | ± 3 %                               | ± 3 %                               |
| – Setting range                           | 24...28.8 V DC   | 24...28.8 V DC                     | 24...28.8 V DC                      | 24...28.8 V DC                      |
| Rated output current                      | 5 A  | 10 A                               | 20 A                                | 40 A                                |
| Efficiency at rated values, approx.       | 87 %   | 87 %                               | 89 %                                | 88 %                                |
| Switching in parallel                     | Yes, output characteristic can be switched to parallel operation                                     |                                    |                                     |                                     |
| Brief overload characteristics            | Power boost: 3 x rated output current for 25 ms  |                                    |                                     |                                     |
| Electronic short-circuit protection       | Yes, constant current or latching shutdown selectable. Constant current: 1.15 x rated output current |                                    |                                     |                                     |
| Radio interference suppression (EN 55022) | Class B  | Class B                            | Class B                             | Class B                             |
| Line harmonics limitation (EN 61000-3-2)  | Yes  | Yes                                | Yes                                 | No                                  |
| Degree of protection (EN 60529)           | IP20   | IP20                               | IP20                                | IP20                                |
| Ambient temperature                       | 0...+60 °C   | 0...+60 °C                         | 0...+60 °C                          | 0...+60 °C                          |
| Dimensions (W x H x D) in mm              | 70 x 125 x 125   | 90 x 125 x 125                     | 160 x 125 x 125                     | 240 x 125 x 125                     |
| Weight approx.                            | 1.2 kg   | 1.4 kg                             | 2.2 kg                              | 2.9 kg                              |
| Certification                             | CE, cULus, SEMI F47 <sup>2)</sup>  | CE, cULus, SEMI F47 <sup>2)</sup>  | CE, cULus, SEMI F47 <sup>3)</sup>   | CE, cULus, SEMI F47 <sup>4)</sup>   |

<sup>1)</sup> Connection to 2 phases of a three-phase supply system

<sup>2)</sup> At input voltage 120 to 230 V AC

<sup>3)</sup> In conjunction with a buffer module

<sup>4)</sup> In conjunction with two buffer modules

|   | new!  |   | new!  |   |   |
|---|---|---|---|---|---|
|   |                                    |  |  |  |  |
| Technical data                            | SITOP modular 3-phase   |   |   |   |   |
| Output voltage/current                    | 24 V/20 A   | 24 V/20 A   | 24 V/40 A   | 24 V/40 A   | 48 V/20 A   |
| Order no.                                 | 6EP1436-3BA10   | 6EP1436-3BA00   | 6EP1437-3BA10   | 6EP1437-3BA00   | 6EP1457-3BA00   |
| – with protection-coated PCB              | –   | 6EP1436-3BA00-8AA0  | –   | 6EP1437-3BA00-8AA0  | –   |
| Rated input voltage                       | 400 – 500 V 3 AC  | 400 – 500 V 3 AC  | 400 – 500 V 3 AC  | 400 – 500 V 3 AC  | 400 – 500 V 3 AC  |
| – Range                                   | 320...575 V 3 AC  | 340...550 V 3 AC  | 320...575 V 3 AC  | 340...550 V 3 AC  | 340...550 V 3 AC  |
| Mains buffering                           | > 15 ms (at 400 V)  | > 6 ms (at 400 V)   | > 15 ms (at 400 V)  | > 6 ms (at 400 V)   | > 6 ms (at 400 V)   |
| Rated line frequency                      | 50/60 Hz  | 50/60 Hz  | 50/60 Hz  | 50/60 Hz  | 50/60 Hz  |
| Rated input current                       | 1.1 – 0.9 A   | 1.1 – 0.9 A   | 2.6 – 1.2 A   | 2.0 – 1.7 A   | approx. 2.2 A (at 400 V)  |
| – Inrush current (25 °C)                  | < 18 A  | < 35 A  | < 56 A  | < 70 A  | < 70 A  |
| – Required miniature circuit breaker      | 6 – 16 A charact. C, 3-ph. coupled or 3RV1021-1DA10, 3RV1721-1DD10  | 6 – 16 A charact. C, 3-ph. coupled or 3RV1021-1DA10, 3RV1721-1DD10                | 10 – 16 A charact. C 3-ph. coupled or 3 RV1021-1DA10, 3RV1721-1DD10                 | 10 – 16 A charact. C, 3-ph. coupled or 3RV1021-1DA10, 3RV1721-1DD10                 | 10 – 16 A char. C, 3-ph. coupled or 3RV1021-1DA10, 3RV1721-1DD10                    |
| Rated output voltage                      | 24 V DC   | 24 V DC   | 24 V DC   | 24 V DC   | 48 V DC   |
| – Tolerance                               | ± 3 %   | ± 3 %   | ± 3 %   | ± 3 %   | ± 3 %   |
| – Setting range                           | 24...28.8 V DC  | 24...28.8 V DC  | 24...28.8 V DC  | 24...28.8 V DC  | 42...56 V DC  |
| Rated output current                      | 20 A  | 20 A  | 40 A  | 40 A  | 20 A  |
| Efficiency at rated values, approx.       | 93 %  | 90 %  | 93 %  | 90 %  | 90 %  |
| Switching in parallel                     | Yes, output characteristic can be switched to parallel operation  |   |   |   |   |
| Brief overload characteristics            | Power boost: 3 x rated output current for 25 ms, extra power <sup>1)</sup> : 1.5 x rated output current for 5 s/min |   |   |   |   |
| Electronic short-circuit protection       | Yes, constant current or latching shutdown selectable. Constant current: approx. 1.15 x rated output current        |   |   |   |   |
| Radio interference suppression (EN 55022) | Class B   | Class B   | Class B   | Class B   | Class B   |
| Line harmonics limitation (EN 61000-3-2)  | Yes   | Yes   | Yes   | Yes   | Yes   |
| Degree of protection (EN 60529)           | IP20  | IP20  | IP20  | IP20  | IP20  |
| Ambient temperature                       | –10...+60 °C  | 0...+60 °C  | –10...+60 °C  | 0...+60 °C  | 0...+60 °C  |
| Dimensions (W x H x D) in mm              | 70 x 125 x 125  | 160 x 125 x 125   | 150 x 125 x 150   | 240 x 125 x 125   | 240 x 125 x 125   |
| Weight approx.                            | 1.2 kg  | 2.0 kg  | 3.4 kg  | 3.2 kg  | 3.2 kg  |
| Certification                             | CE, cULus   | CE, UL, CSA, SEMI F47   | CE, cULus   | CE, UL, CSA, SEMI F47   | CE, UL, CSA   |

<sup>1)</sup> Extra power only available with 6EP1436-3BA10 and 6EP1437-3BA10

# SITOP smart

## The slim universal power supply



| Technical data  | SITOP smart 1-phase  |  |  |  |  |  | SITOP smart 3-phase, 48V   |
|---|--|--|--|--|--|--|--|
| Output voltage/current  | 24 V/2.5 A   | 24 V/5 A                                     | 24 V/5 A                                     | 24 V/10 A                                    | 24 V/10 A                                    | 24 V/10 A Wallmount                          | 48 V/10 A  |
| Order no.   | 6EP1332-2BA10  | 6EP1333-2AA01                                | 6EP1333-2BA01                                | 6EP1334-2AA01                                | 6EP1334-2BA01                                | 6EP1334-2AA01-0AB0                           | 6EP1456-2BA00  |
| Rated input voltage<br>– Range  | 120/230 V AC<br>85...132/<br>170...264 V AC  | 120/230 V AC<br>85...132/<br>170...264 V AC  | 120/230 V AC<br>85...132/<br>170...264 V AC  | 120/230 V AC<br>85...132/<br>170...264 V AC  | 120/230 V AC<br>85...132/<br>170...264 V AC  | 120/230 V AC<br>85...132/<br>170...264 V AC  | 400 – 500 V 3 AC<br>360...550 V 3 AC   |
| Mains buffering   | > 20 ms (at 93/187 V)  | > 20 ms (at 93/187 V)                        | > 20 ms (at 93/187 V)                        | > 20 ms (at 93/187 V)                        | > 20 ms (at 93/187 V)                        | > 20 ms (at 93/187 V)                        | > 7 ms (at 400 V)  |
| Rated line frequency  | 50/60 Hz   | 50/60 Hz                                     | 50/60 Hz                                     | 50/60 Hz                                     | 50/60 Hz                                     | 50/60 Hz                                     | 50/60 Hz   |
| Rated input current<br>– Inrush current (25 °C)<br>– Recommended <sup>1)</sup> miniature<br>circuit breaker | 1.1/0.65 A<br>< 14 A<br>3 A characteristic C   | 2.1/1.15 A<br>< 32 A<br>6 A characteristic C | 2.1/1.15 A<br>< 32 A<br>6 A characteristic C | 4.1/2.4 A<br>< 65 A<br>10 A characteristic C | 4.1/2.0 A<br>< 65 A<br>10 A characteristic C | 4.1/2.0 A<br>< 65 A<br>10 A characteristic C | 1.1 to 0.9 A<br>< 18 A<br>From 6 – 16 A charact. C,<br>3-ph. coupled or<br>3 RV1021-1DA10 or<br>3 RV1721-1DD10 |
| Rated output voltage<br>– Tolerance<br>– Setting range  | 24 V DC<br>± 3 %<br>22.8...28 V DC   | 24 V DC<br>± 3 %<br>22.8...28 V DC           | 24 V DC<br>± 3 %<br>22.8...28 V DC           | 24 V DC<br>± 3 %<br>22.8...28 V DC           | 24 V DC<br>± 3 %<br>22.8...28 V DC           | 24 V DC<br>± 3 %<br>22.8...28 V DC           | 48 V DC<br>± 3 %<br>42...56 V DC   |
| Rated output current  | 2.5 A (3 A to +45 °C)  | 5 A (6 A to +45 °C)                          | 5 A (6 A to +45 °C)                          | 10 A (12 A to +45 °C)                        | 10 A (12 A to +45 °C)                        | 10 A (12 A to +45 °C)                        | 10 A   |
| Efficiency at rated values<br>approx.   | 85 %   | 87 %   | 87 %   | 90 %   | 91 %   | 90 %   | 93 %   |
| Switching in parallel   | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  |
| Brief overload characteristics  | Extra power: 1.5 x rated output current for 5 s/min                                      |  |  |  |  |  |  |
| Electronic short-circuit<br>protection  | Yes, constant current  |  |  |  |  |  |  |
| Radio interference<br>suppression (EN 55022)  | Class B  | Class B                                      | Class B                                      | Class B                                      | Class B                                      | Class B                                      | Class B  |
| Line harmonics limitation<br>(EN 61000-3-2)   | Not applicable   | No   | Yes  | No   | Yes  | Yes  | Yes  |
| Degree of protection (EN 60529)   | IP20   | IP20   | IP20   | IP20   | IP20   | IP 20  | IP 20  |
| Ambient temperature   | 0...+60 °C   | 0...+60 °C                                   | 0...+60 °C                                   | 0...+60 °C                                   | 0...+60 °C                                   | 0...+60 °C                                   | 0...+60 °C   |
| Dimensions (W x H x D) in mm  | 32.5 x 125 x 125   | 50 x 125 x 125                               | 50 x 125 x 125                               | 70 x 125 x 125                               | 70 x 125 x 125                               | 70 x 125 x 125                               | 70 x 125 x 125   |
| Weight approx.  | 0.4 kg   | 0.5 kg                                       | 0.5 kg                                       | 0.75 kg                                      | 0.8 kg                                       | 0.85 kg                                      | 1.2 kg   |
| Certification   | CE, UL, CSA, GL, ATEX, Hazardous Location Class I Div 2 Groups A, B, C & D, T4 CE, cULus |  |  |  |  |  | CE, cULus  |

<sup>1)</sup> 6EP1456-2BA00: Fusing required

# LOGO!Power – the mini power packs



| Technical data   | 54 mm design                      |                                 |                             |  | 72 mm design                      |                                 |                             |  | 90 mm design                         |
|--|-----------------------------------|---------------------------------|-----------------------------|--|-----------------------------------|---------------------------------|-----------------------------|--|--------------------------------------|
| SITOP  | 5V/3A                             | 12V/1.9A                        | 15V/1.9A                    | 24V/1.3A   | 5V/6.3A                           | 12V/4.5A                        | 15V/4A                      | 24V/2.5A   | 24V/4A                               |
| Order no.  | 6EP1311-1SH02                     | 6EP1321-1SH02                   | 6EP1351-1SH02               | 6EP1331-1SH02  | 6EP1311-1SH12                     | 6EP1322-1SH02                   | 6EP1352-1SH02               | 6EP1332-1SH42  | 6EP1332-1SH51                        |
| Rated input voltage<br>– Range   | 100 – 240V AC<br>85...264V AC     |                                 |                             |  | 100 – 240V AC<br>85...264V AC     |                                 |                             |  | 100 – 240V AC<br>85...264V AC        |
| Mains buffering  | > 40 ms (at 187V)                 |                                 |                             |  | > 40 ms (at 187V)                 |                                 |                             |  | > 40 ms (at 187V)                    |
| Rated line frequency   | 50/60 Hz                          |                                 |                             |  | 50/60 Hz                          |                                 |                             |  | 50/60 Hz                             |
| Rated input current<br>– Inrush current (25 °C)<br>– Recommended miniature circuit breaker | 0.36 to 0.22 A<br>< 15 A          | 0.53 to 0.30 A                  | 0.63 to 0.33 A              | 0.70 to 0.35 A                                       | 0.71 to 0.37 A<br>< 30 A          | 1.13 to 0.61 A                  | 1.24 to 0.68 A              | 1.22 to 0.66 A                                       | 1.95 to 0.97 A<br>< 30 A             |
| Rated output voltage<br>– Tolerance<br>– Setting range                                     | 5 V DC<br>± 3 %<br>4.6...5.4 V DC | 12 V DC<br>10.5...16.1 V DC     | 15 V DC<br>10.5...16.1 V DC | 24 V DC<br>22.2...26.4 V DC                          | 5 V DC<br>± 3 %<br>4.6...5.4 V DC | 12 V DC<br>10.5...16.1 V DC     | 15 V DC<br>10.5...16.1 V DC | 24 V DC<br>22.2...26.4 V DC                          | 24 V DC<br>± 3 %<br>22.2...26.4 V DC |
| Rated output current   | 3.0 A                             | 1.9 A                           | 1.9 A                       | 1.3 A  | 6.3 A                             | 4.5 A                           | 4.0 A                       | 2.5 A  | 4.0 A                                |
| Efficiency at rated values, approx.  | 76 %                              | 80 %                            | 80 %                        | 82 %   | 83 %                              | 85 %                            | 85 %                        | 87 %   | 89 %                                 |
| Switching in parallel  | Yes                               |                                 |                             |  | Yes                               |                                 |                             |  | Yes                                  |
| Electronic short-circuit protection  | Yes, constant current             |                                 |                             |  | Yes, constant current             |                                 |                             |  | Yes, constant current                |
| Radio interference suppression<br>(EN 55022)   | Class B                           |                                 |                             |  | Class B                           |                                 |                             |  | Class B                              |
| Line harmonics limitation<br>(EN 61000-3-2)  | Not applicable                    |                                 |                             |  | Not applicable                    |                                 |                             |  | Yes                                  |
| Degree of protection (EN 60529)  | IP20                              |                                 |                             |  | IP20                              |                                 |                             |  | IP20                                 |
| Ambient temperature  | –20...+55 °C                      |                                 |                             |  | –20...+55 °C                      |                                 |                             |  | –20...+55 °C                         |
| Dimensions (W x H x D) in mm   | 54 x 90 x 55                      |                                 |                             |  | 72 x 90 x 55                      |                                 |                             |  | 90 x 90 x 55                         |
| Weight approx.   | 0.17 kg                           |                                 |                             |  | 0.25 kg                           |                                 |                             |  | 0.34 kg                              |
| Certification  | CE, cULus, FM,<br>GL, ATEX        | CE, cULus, FM,<br>GL, ABS, ATEX | CE, cULus, FM,<br>GL, ATEX  | CE, cULus, FM,<br>GL, ABS, ATEX,<br>SEMI F47, Class2 | CE, cULus, FM,<br>GL, ATEX        | CE, cULus, FM,<br>GL, ABS, ATEX | CE, cULus, FM,<br>GL, ATEX  | CE, cULus, FM,<br>GL, ABS, ATEX,<br>SEMI F47, Class2 | CE, cULus, FM, GL,<br>ABS, ATEX      |

# SITOP

## in special design, for special uses



| Technical data                            | SITOP power 0.5        |                        | SITOP flat design          |                            | SITOP PSA100E  |                    |                     |                   |
|---|------------------------|------------------------|----------------------------|----------------------------|--|--------------------|---------------------|-------------------|
| Output voltage/current                    | 24 V/0.375 A           | 24 V/0.5 A             | 24 V/5 A                   | 24 V/10 A                  | 24 V/2,5 A   | 24 V/4 A           | 24 V/6 A            | 24 V/12 A         |
| Order no.                                 | 6EP1731-2BA00          | 6EP1331-2BA10          | 6EP1333-1AL12              | 6EP1334-1AL12              | 6EP1232-1AA00  | 6EP1232-1AA10      | 6EP1233-1AA00       | 6EP1234-1AA00     |
| Rated input voltage                       | 48–220V DC             | 120–230V AC            | 120/230V AC                | 120/230V AC                | 230V AC  | 230V AC            | 230V AC             | 230V AC           |
| – Range                                   | 30–264V DC             | 93–264V AC             | 85...132/<br>170...264V AC | 85...132/<br>170...264V AC | 187...264V AC  | 187...264V AC      | 187...264V AC       | 187...264V AC     |
| Mains buffering                           | > 10 ms (at 220V DC)   | > 10 ms (at 230V)      | > 20 ms (at 93/187V)       | > 20 ms (at 93/187V)       | > 10 ms (at 230V)  | > 10 ms (at 230V)  | > 10 ms (at 230V)   | > 10 ms (at 230V) |
| Rated line frequency                      | 50/60Hz                | 50/60Hz                | 50/60Hz                    | 50/60Hz                    | 50/60Hz  | 50/60Hz            | 50/60Hz             | 50/60Hz           |
| Rated input current                       | 0.3–0.06A              | 0.22–0.13A             | 2.2/1.2A                   | 4/2.5A                     | 0.65A  | 1.1A               | 1.4A                | 2.5A              |
| – Inrush current (25°C)                   | < 35A                  | < 23A                  | < 32A                      | < 65A                      | < 30A  | < 30A              | < 35A               | < 50A             |
| – Recommended miniature circuit breaker   | From 3A charact. C     | From 3A charact. C     | From 6A charact. C         | From 10A charact. C        | From 6A charact. C   | From 6A charact. C | From 10A charact. C | 10A charact. C    |
| Rated output voltage                      | 24V DC                 | 24V DC                 | 24V DC                     | 24V DC                     | 24V DC   | 24V DC             | 24V DC              | 24V DC            |
| – Tolerance                               | ±3%                    | ±3%                    | ±1%                        | ±1%                        | ±3%  | ±3%                | ±3%                 | ±3%               |
| – Setting range                           | –                      | –                      | 22...29V DC                | 22...29V DC                | 23...26V DC  | 23...26V DC        | 23...26V DC         | 23...26V DC       |
| Rated output current                      | 0.375A                 | 0.5A                   | 5A                         | 10A                        | 2.5A (+45°C)   | 4A (+45°C)         | 6A (+45°C)          | 12A (+45°C)       |
| Efficiency at rated values, approx.       | 68%                    | 74%                    | 88%                        | 89%                        | 84%  | 87%                | 87%                 | 88%               |
| Switching in parallel                     | No                     | No                     | Yes                        | Yes                        | Yes  | Yes                | Yes                 | Yes               |
| Electronic short-circuit protection       | Yes, restart           | Yes, constant current  | Yes, restart               | Yes, restart               | Yes, restart   | Yes, restart       | Yes, restart        | Yes, restart      |
| Radio interference suppression (EN 55022) | Class B                | Class B                | Class B                    | Class B                    | Class B  | Class B            | Class B             | Class B           |
| Line harmonics limitation (EN 61000-3-2)  | Not applicable         | Not applicable         | No                         | No                         | Not applicable   | No                 | No                  | No                |
| Degree of protection (EN 60529)           | IP20                   | IP20                   | IP20                       | IP20                       | IP20   | IP20               | IP20                | IP20              |
| Ambient temperature                       | –25...+70°C            | –25...+70°C            | 0...+60°C                  | 0...+60°C                  | –10°C...+70°C (Derating 45°C...70°C)                                       |                    |                     |                   |
| Installation                              | Standard mounting rail | Standard mounting rail | Standard mounting rail     | Standard mounting rail     | Wall mounting and standard mounting rail, variFromle installation position |                    |                     |                   |
| Dimensions (W x H x D) in mm              | 22.5 x 80 x 91         | 22.5 x 80 x 91         | 160 x 130 x 60             | 160 x 130 x 60             | approx. 52 x 170 x 110 incl. mounting rail clip                            |                    |                     |                   |
| Weight approx.                            | 0.14 kg                | 0.11 kg                | 0.6 kg                     | 0.72 kg                    | 0.8 kg   | 0.8 kg             | 0.9 kg              | 0.9 kg            |
| Certification                             | CE, cULus              | CE, cULus              | CE, cULus                  | CE, cULus                  | CE, cULus  | CE, cULus          | CE, cULus           | CE, cULus         |




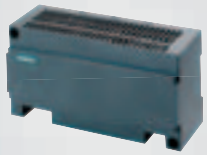



# SITOP

## in special design, for special uses

|   |  | new!<br> | new!<br> |  |  |
|---|---|--|---|---|---|
| Technical data                            | Class2 approval   | SITOP PSU300P in IP67  | SITOP DC/DC   | SITOP dual  | SITOP flexi   |
| Output voltage/current                    | 24 V/3.7 A  | 24 V/8 A   | 12 V/2.5 A  | 2 x 15 V/3.5 A  | 3...52 V/10 A   |
| Order no.                                 | 6EP1332-2BA00   | 6EP1 433-2CA00   | 6EP1621-2BA00   | 6EP1353-0AA00   | 6EP1353-2BA00   |
| Rated input voltage                       | 120/230 V AC  | 400 – 480 V 3 AC   | 24 V DC   | 120 – 230 V AC  | 120/230 V AC  |
| – Range                                   | 93...132 V/187...264 V AC   | 340...550 V 3 AC   | 18.5...30.2 V DC  | 93...264 V AC   | 85...132 V/170...264 V AC   |
| Mains buffering                           | > 10 ms (at 93/187 V)   | 15 ms (at 400 V)   | > 5 ms  | > 10/40 ms (at 120/187 V)   | > 10 ms (at 93/187 V)   |
| Rated line frequency                      | 50/60 Hz  | 50/60 Hz   | –   | 50/60 Hz  | 50/60 Hz  |
| Rated input current                       | 1.8/0.7 A   | 2 A  | 1.6 A   | 1.6/1.0 A   | 2.2/0.9 A   |
| – Inrush current (25 °C)                  | < 32 A  | < 40 A   | < 20 A for 20 ms  | < 30 A, < 3 ms  | < 32 A  |
| – Recommended miniature circuit breaker   | 6 A charact. C  | 3RV1021-1DA10  | 10 A charact. B   | 10 A characteristic C, 16 A characteristic B  |   |
| Rated output voltage                      | 24 V DC   | 24 V DC  | 12 V DC   | 2 x 15 V DC   | 24 V DC   |
| – Tolerance                               | ± 3 %   | –5%/+3 %   | ± 3 %   | ± 3 %   | ± 1 %   |
| – Setting range                           | 22.8...26.4 V DC <sup>1)</sup>  | –  | 12...14 V DC  | 14.5...17 V DC  | 3...52 V DC   |
| Rated output current                      | 3.7 A   | 8 A  | 2.5 A   | 2 x 3.5 A (2 x 2.5 A from 45 °C)  | 2 to 10 A (max. 125 W)  |
| Efficiency at rated values, approx.       | > 80 %  | 88 %   | 80 %  | 80 %  | 84 % (at 24 V/5 A)  |
| Switching in parallel                     | Yes <sup>1)</sup>   | No   | Yes, 2 units  | Yes   | Yes   |
| Electronic short-circuit protection       | Yes, restart  | Yes, restart   | Yes, constant current   | Yes, restart  | Yes, constant current   |
| Radio interference suppression (EN 55022) | Class B   | Class A  | Class B   | Class A   | Class B   |
| Line harmonics limitation (EN 61000-3-2)  | Yes   | No   | Yes   | No  | Yes   |
| Degree of protection (EN 60529)           | IP20  | IP67   | IP20  | IP20  | IP20  |
| Ambient temperature                       | 0...+60 °C  | –25 °C...+55 °C  | 0...+60 °C  | 0...+60 °C (Derating from 45 °C)  | 0...+60 °C  |
| Installation                              | DIN rail  | Screw-mounting on SIMATIC ET200pro system rail   | DIN rail  | DIN rail  | DIN rail  |
| Dimensions (W x H x D) in mm              | 70 x 125 x 125  | 310 x 135.5 x 90 + plug connector  | 32.5 x 125 x 125  | 75 x 125 x 125  | 75 x 125 x 125  |
| Weight approx.                            | 0.75 kg   | 2.8 kg   | 0.26 kg   | 0.75 kg   | 0.9 kg  |
| Certification                             | CE, cULus, Class2   | CE, UL 508 pending   | CE, cULus   | CE  | CE, cULus   |

<sup>1)</sup> Only permissible at an ambient temperature of 0 to 50 °C






# SITOP in SIMATIC design

|   | new!  |   |   |   |   |   | new!   |
|---|---|---|---|---|---|---|--|
|   |  |  |        |  |  |  |  |
| Technical data                            | SIMATIC S7-1200 design  | SIMATIC S7-200 design   | SIMATIC S7-300 design   |   |   | SIMATIC ET200pro PS   |  |
| Output voltage/current                    | 24V/2.5 A – PM1207  | 24 V/3.5 A  | 24 V/2 A  | 24 V/5 A  | 24 V/5 A Outdoor <sup>1)</sup>  | 24 V/10 A   | 24 V/8 A                                       |
| Order no.                                 | 6EP1332-1SH71   | 6EP1332-1SH31   | 6ES7307-1BA00-0AA0  | 6ES7307-1EA00-0AA0  | 6ES7307-1EA80-0AA0  | 6ES7307-1KA01-0AA0  | 6ES7 148-4PC00-0HA0                            |
| Rated input voltage                       | 120/230V AC   | 120/230V AC   | 120/230V AC   | 120/230V AC   | 120/230V AC   | 120/230V AC   | 400-480V 3 AC                                  |
| – Range                                   | 85...132V/176...264V AC   | 93...132V/187...264V AC   | 85...132V/170...264V AC   | 85...132V/170...264V AC   | 93...132V/187...264V AC   | 85...132V/170...264V AC   | 340...550V 3 AC                                |
| Mains buffering                           | > 20 ms (at 93/187V)  | > 20 ms (at 93/187V)  | > 20 ms (at 93/187V)  | > 20 ms (at 93/187V)  | > 20 ms (at 93/187V)  | > 20 ms (at 93/187V)  | 15 ms (at 400V)                                |
| Rated line frequency                      | 50/60Hz   | 50/60Hz   | 50/60Hz   | 50/60Hz   | 50/60Hz   | 50/60Hz   | 50/60Hz  |
| Rated input current                       | 1.2/0.67 A  | 1.65/0.95 A   | 0.9/0.6 A   | 2.2/1.3 A   | 2.2/1.2 A   | 4.1/1.8 A   | 2 A  |
| – Inrush current (25°C)                   | < 13 A  | < 33 A  | < 20 A  | < 45 A  | < 45 A  | < 55 A  | < 40 A   |
| – Recommended miniature circuit breaker   | 16 A charact. B, 10 A charact. C  | 10 A charact. C, 6 A charact. D   | 3 A charact. C  | 6 A charact. C  | 10 A charact. C   | 10 A charact. C   | 3RV1021-1DA15 or fuse max. 25 A, time-lag      |
| Rated output voltage                      | 24V DC  | 24 V DC   | 24 V DC   | 24 V DC   | 24 V DC   | 24 V DC   | 24 V DC  |
| – Tolerance                               | ± 3%  | ± 5%  | ± 3%  | ± 3%  | ± 3%  | ± 3%  | –5%/+3%  |
| – Setting range                           | –   | –   | –   | –   | –   | –   | –  |
| Rated output current                      | 2.5 A   | 3.5 A   | 2 A   | 5 A   | 5 A   | 10 A  | 8 A  |
| Efficiency at rated values, approx.       | 83%   | 84%   | 83%   | 87%   | 84%   | 87%   | 88%  |
| Switching in parallel                     | Yes, 2 units  | Yes, up to 5 units  | No  | No  | No  | No  | No   |
| Electronic short-circuit protection       | Yes, restart  | Yes, restart  | Yes, restart  | Yes, restart  | Yes, restart  | Yes, restart  | Yes, restart                                   |
| Radio interference suppression (EN 55022) | Class B   | Class B   | Class B   | Class B   | Class A   | Class B   | Class A  |
| Line harmonics limitation (EN 61000-3-2)  | Not applicable  | Yes   | Not applicable  | Yes   | No  | Yes   | No   |
| Degree of protection (EN 60529)           | IP20  | IP20  | IP20  | IP20  | IP20  | IP20  | IP67   |
| Ambient temperature                       | 0...+60°C   | 0...+60°C   | 0...+60°C   | 0...+60°C   | –25...+70°C   | 0...+60°C   | –25°C...+55°C                                  |
| Installation                              | DIN rail  | DIN rail or wall mounting   | Can be mounted on S7 rail. Mounting adapter for DIN rail 35 x 15 mm: 6ES7390-6BA00-0AA0 |   |   |   | Screw mounting on SIMATIC ET200pro system rail |
| Dimensions (W x H x D) in mm              | 70 x 100 x 75   | 160 x 80 x 62   | 50 x 125 x 120  | 80 x 125 x 120  | 80 x 125 x 120  | 120 x 125 x 120   | 310 x 135.5 x 90 + plug connector              |
| Weight approx.                            | 0.3 kg  | 0.5 kg  | 0.42 kg   | 0.74 kg   | 0.57 kg   | 1.1 kg  | 2.8 kg   |
| Certification                             | CE, UL, CSA   | CE, UL, CSA   | CE, UL, CSA   | CE, UL, CSA   | CE, UL, CSA   | CE, UL, CSA   | CE, UL 508 pending                             |

<sup>1)</sup> Condensation permissible, increased vibration and shock resistance

# SITOP expansion modules

## The range for all-round protection

|   |    |    |   |   |                       |                   |
|---|---|---|--|--|-----------------------|--|
| Technical data                            | Signaling   | Mains buffering   | Redundancy   | Monitoring   |                       |  |
| SITOP                                     | Signaling module <sup>1)</sup>  | Buffer module <sup>2)</sup>   | Redundancy module  | SITOP PSE200U selectivity module   |                       | SITOP select diagnosis module  |
| Order no.                                 | 6EP1961-3BA10   | 6EP1961-3BA00   | 6EP1961-3BA20  | 6EP1961-2BA10  | 6EP1961-2BA20         | 6EP1961-2BA00  |
| Rated input voltage – Range               | Contact rating<br>240V AC/6A  | 24 V DC<br>24...28.8 V DC   | 24 V DC<br>24...28,8 V DC  | 24 V DC<br>22...30V DC   |                       | 24 V DC<br>22...30 V DC  |
| Brief description of product/function     | Signaling module for snapping onto the side of the basic unit; automatic contacting, with floating signaling contacts for "Output voltage o.k." and "operating readiness o.k."; with signal input for switching the basic unit ON/OFF remotely. | Buffer module for mains buffering; connection by parallel switching at the output of the basic unit (6EP1x3x-3BA0x); buffer time 100 ms at 40 A to 800 ms at 5 A load current; multiplication possible using parallel switching; maximum buffer time 3 s. | Module for redundancy mode. Decoupling of two 5 A to 20 A power supplies or one 40 A power supply per redundancy module. Floating relay contact and green LED for signaling "Infeed 1 and 2 o.k.", switching threshold adjustable between 20 to 25 V DC. | Module for distributing the 24 V supply over up to four load feeders and their monitoring for overload; selective shutdown of faulty feeders, rated current individually adjustable; with common signaling contact, universal use for all power supplies. Individual load feeders can be switched on sequentially. |                       | Status indication via 2-color LED per channel, common reset via pushbutton, plug-in fuse per channel |
| Rated output current – Setting range      | Not applicable  | 40 A  | 40 A (Total output current)  | 4 x 3 A<br>0,5 to 3 A  | 4 x 10 A<br>3 to 10 A | 4 x 10 A<br>2 to 10 A  |
| Efficiency at rated values, approx.       | Not applicable  | Not applicable  | 97 %   | 97 %   |                       | 97 %   |
| Switching in parallel                     | Not applicable  | Yes   | No   | No   |                       | No   |
| Electronic short-circuit protection       | Not applicable  | Yes   | No   | Yes  |                       | Yes  |
| Radio interference suppression (EN 55022) | Class B   | Class B   | Class B  | Class B  |                       | Class B  |
| Degree of protection (EN 60529)           | IP20  | IP20  | IP20   | IP20   |                       | IP20   |
| Ambient temperature                       | 0...+60 °C  | 0...+60 °C  | 0...+60 °C   | 0...+60 °C   |                       | 0...+60 °C   |
| Dimensions (W x H x D) in mm              | 25 x 125 x 125  | 70 x 125 x 125  | 70 x 125 x 125   | 72 x 80 x 72   |                       | 72 x 90 x 90   |
| Weight approx.                            | 0.15 kg   | 1.2 kg  | 1.0 kg   | 0.22 kg  |                       | 0.4 kg   |
| Certification                             | CE, UL, CSA   | CE, UL, CSA   | CE, cULus, Hazardous Location Class I Div 2 Groups A, B, C & D, T4; ATEX   | CE, cULus  |                       | CE, cULus, Hazardous Location Class I Div 2 Groups A, B, C & D, T4; ATEX                             |

<sup>1)</sup> Can only be combined with SITOP modular power supply 6EP1\_\_-3BA00

<sup>2)</sup> Can only be combined with SITOP modular power supply 24 V DC

# Uninterruptible power supplies


## SITOP DC UPS with battery modules for bridging longer power failures



| Technical data   | SITOP DC UPS, for longer power failures                              |   |  |   |   |   |
|--|--|---|--|---|---|---|
| SITOP Output voltage/current                                 | DC UPS module 24 V/6 A   | DC UPS module 24 V/15 A                         | DC UPS module 24 V/40 A                    | DC UPS battery module 24 V/1.2 Ah <sup>1)</sup>                                       | DC UPS battery module 24 V/3.2 Ah <sup>1)</sup> | DC UPS battery module 24 V/7 Ah <sup>1)</sup> |
| Order no.<br>– with serial interface<br>– with USB interface | 6EP1931-2DC21<br>6EP1931-2DC31<br>6EP1931-2DC42                      | 6EP1931-2EC21<br>6EP1931-2EC31<br>6EP1931-2EC42 | 6EP1931-2FC21<br><br>6EP1931-2FC42         | 6EP1935-6MC01   | 6EP1935-6MD11                                   | 6EP1935-6ME21                                 |
| Input voltage  | 24 V DC, 22...29 V, Infeed from 24 V SITOP power supply:<br>Any      |   |  | Recomm. end-of-charge voltage: 26.4...27.3 V DC (> +20°C), 27.3...29.0 V DC (< +20°C) |   |   |
| Rated input current  | 6 A + approx. 0.6 A<br>with empty battery                            | 15 A + approx. 1 A<br>with empty battery        | 40 A + approx. 2.6 A<br>with empty battery | Charging current max. 0.3 A   | Charging current 0.7 A                          | Charging current max. 2.5 A                   |
| Rated output voltage   | 24 V DC (Upstream SITOP device or battery), charging voltage: 27.0 V |   |  | 24 V DC, 22 to 27.0 V DC (No-load operation)  |   |   |
| Rated output current   | 6 A, Charging current:<br>typ. 0.4 A                                 | 15 A, Charging current:<br>typ. 0.7 A           | 40 A, Charging current:<br>typ. 2 A        | 2.5 A   | 10 A  | 20 A  |
| Efficiency at rated values,<br>approx.                       | Buffer mode: 94 %,<br>Standby mode: 95 %                             | Buffer mode: 96 %,<br>Standby mode: 96 %        | Buffer mode: 97 %,<br>Standby mode: 97 %   | Not applicable  | Not applicable                                  | Not applicable                                |
| Overload and short-circuit<br>protection                     | Electronic, automatic restart  |   |  | Installed battery fuse  |   |   |
| Switching in parallel  | No   | No  | No   | 7.5 A/32 V  | 15 A/32 V                                       | 7.5 A/32 V                                    |
| Radio interference<br>suppression (EN 55022)                 | Class B  | Class B   | Class B                                    | Yes   | Yes   | Yes   |
| Degree of protection<br>(EN 60529)                           | IP20   | IP20  | IP20                                       | IP00  | IP00  | IP00  |
| Ambient temperature  | 0...+60°C  | 0...+60°C                                       | 0...+60°C                                  | +5...+40°C  | +5...+40°C                                      | +5...+40°C                                    |
| Installation   | DIN rail   | DIN rail  | DIN rail                                   | DIN rail  | DIN rail  | Wall mounting                                 |
| Dimensions (W x H x D)<br>in mm                              | 50 x 125 x 125   | 50 x 125 x 125                                  | 102 x 125 x 125                            | 96 x 106 x 108  | 190 x 151 x 82                                  | 186 x 168 x 121                               |
| Weight approx.   | 0.4 kg   | 0.4 kg  | 1.1 kg                                     | 2 kg  | 3.5 kg  | 6.0 kg  |
| Certification  | CE, cULus  | CE, cULus                                       | CE, cULus                                  | CE, cULus   | CE, cULus                                       | CE, cULus                                     |

<sup>1)</sup> Also available: high-temperature battery module 24 V/2.5 Ah (6EP1935-6MD31) for ambient temperature –40 to +60°C and battery module 24 V/12 Ah (6EP1935-6MF01)

# Selection table battery modules and power failure times



| Load current | Battery module 1.2Ah<br>(6EP1935-6MC01) | Battery module 3.2Ah<br>(6EP1935-6MD11) | Battery module 7Ah<br>(6EP1935-6ME21) | Battery module 12Ah<br>(6EP1935-6MF01) | Battery module <sup>1)</sup> 2.5Ah<br>(6EP1935-6MD31) |
|--------------|---|---|---------------------------------------|--|---|
| 1A           | 30 min.                                 | 2.5 h                                   | 6 h                                   | 11 h                                   | 2 h   |
| 2A           | 11 min.                                 | 45 min.                                 | 2.5 h                                 | 5 h                                    | 45 min.   |
| 3A           | 4 min.                                  | 25 min.                                 | 1.5 h                                 | 3 h                                    | 30 min.   |
| 4A           | 2 min.                                  | 20 min.                                 | 45 min.                               | 2 h                                    | 20 min.   |
| 6A           | 1 min.                                  | 10 min.                                 | 30 min.                               | 1 h                                    | 13 min.   |
| 8A           | –                                       | 4 min.                                  | 20 min.                               | 40 min.                                | 9 min.  |
| 10A          | –                                       | 1.5 min.                                | 15 min.                               | 30 min.                                | 7 min.  |
| 12A          | –                                       | 1 min.                                  | 10 min.                               | 25 min.                                | 5.5 min.  |
| 14A          | –                                       | 50 s                                    | 8 min.                                | 20 min.                                | 4.5 min.  |
| 16A          | –                                       | 40 s                                    | 6 min.                                | 15 min.                                | 4 min.  |
| 20A          | –                                       | –                                       | 2 min.                                | 11 min.                                | –   |

<sup>1)</sup> High temperature battery module for ambient temperature –40 to +60°C

# Uninterruptible power supplies – SITOP UPS500 maintenance-free DC UPS with capacitor technology



| Technical data                            |  | Maintenance-free DC UPS |   |   |                                   |
|---|--|-------------------------|---|---|-----------------------------------|
| SITOP                                     | UPS500S – Basic unit 15 A                                      |                         | UPS501 – Expansion module   | UPS500P – Basic unit 7 A, degree of protection IP65 |                                   |
| Energy                                    | 2.5 kW   | 5 kW                    | 5 kW  | 5 kW  | 10 kW                             |
| Order no.                                 | 6EP1 933-2EC41   | 6EP1 933-2EC51          | 6EP1935-5PG01   | 6EP1933-2NC01 <sup>1)</sup>                         | 6EP1933-2NC11 <sup>1)</sup>       |
| Input voltage                             | 24 V DC, 22...29 V, Infeed from SITOP 24 V                     |                         | Infeed from basic unit  | 24 V DC, 22.5...29 V, Infeed from SITOP 24 V        |                                   |
| Rated input current                       | 15.2 A + approx. 2.3 A in charging mode                        |                         | Description: expansion module for extending the buffering time, up to 3 units can be switched in parallel with one UPS500S basic unit | 7 A + approx. 2 A in charging mode                  |                                   |
| Rated output voltage                      | In buffer mode and normal mode 24 V DC +/-3 %                  |                         |   | In buffer mode and normal mode 24 V DC +/-3 %       |                                   |
| Rated output current                      | 15 A, charging current 1 A (factory setting) or 2 A selectable |                         |   | 7 A, charging current 2 A                           |                                   |
| Efficiency at rated values, approx.       | 97.50 %  |                         |   | 96.90 %   |                                   |
| Overload and short-circuit protection     | Electronic, automatic restart                                  |                         |   | Electronic, automatic restart                       |                                   |
| Switching in parallel                     | No   |                         | Yes, up to 3 units  | No  | No                                |
| Radio interference suppression (EN 55022) | Class B  | Class B                 | Class B   | Class B   | Class B                           |
| Degree of protection (EN 60529)           | IP20   | IP20                    | IP20  | IP65  | IP65                              |
| Ambient temperature                       | 0...+60 °C   | 0...+60 °C              | 0...+60 °C  | 0...+55 °C  | 0...+60 °C                        |
| Installation                              | DIN rail   | DIN rail                | DIN rail  | Screw mounting in all mounting positions            |                                   |
| Dimensions (W x H x D) in mm              | 120 x 125 x 125  | 120 x 125 x 125         | 70 x 125 x 125  | 400 (without connector) x 80 x 80                   | 470 (without connector) x 80 x 80 |
| Weight approx.                            | 1.0 kg   | 1.2 kg                  | 0.7 kg  | 1.9 kg  | 2.2 kg                            |
| Certification                             | CE, UL 508/CSA C22.2, File E197259                             |                         |   | CE, UL508 pending, File E179336                     |                                   |

<sup>1)</sup> Connector set with input and output connector as well as prepared USB cable in 2 m length: Order no. 6EP1975-2ES00

# Buffer times and charging times

## SITOP UPS500



| SITOP UPS500S/501S UPS500P configurations |        |      |          |          |          |          |          |          | UPS500P |       |
|---|--------|------|----------|----------|----------|----------|----------|----------|---------|-------|
| Basic unit                                | 2.5 kW | 5 kW | 2.5 kW   | 5 kW     | 2.5 kW   | 5 kW     | 2.5 kW   | 5 kW     | 5 kW    | 10 kW |
| Expansion modules                         | –      | –    | 1 x 5 kW | 1 x 5 kW | 2 x 5 kW | 2 x 5 kW | 3 x 5 kW | 3 x 5 kW | –       | –     |
| Total energy                              | 2.5 kW | 5 kW | 7.5 kW   | 10 kW    | 12.5 kW  | 15 kW    | 17.5 kW  | 20 kW    | 5 kW    | 10 kW |

| Buffer times |         |         |         |         |         |         |         |          |         |         |
|--------------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|
| Load current |         |         |         |         |         |         |         |          |         |         |
| 0.5 A        | 134 sec | 236 sec | 390 sec | 478 sec | 632 sec | 748 sec | 851 sec | 1007 sec | 284 sec | 647 sec |
| 0.8 A        | 90 sec  | 167 sec | 266 sec | 346 sec | 440 sec | 527 sec | 580 sec | 706 sec  | 190 sec | 435 sec |
| 1 A          | 75 sec  | 138 sec | 219 sec | 296 sec | 365 sec | 414 sec | 490 sec | 572 sec  | 153 sec | 351 sec |
| 2 A          | 38 sec  | 76 sec  | 122 sec | 156 sec | 203 sec | 230 sec | 265 sec | 306 sec  | 80 sec  | 152 sec |
| 3 A          | 26 sec  | 52 sec  | 82 sec  | 106 sec | 136 sec | 159 sec | 186 sec | 213 sec  | 53 sec  | 108 sec |
| 4 A          | 19 sec  | 39 sec  | 61 sec  | 81 sec  | 101 sec | 120 sec | 139 sec | 160 sec  | 40 sec  | 84 sec  |
| 5 A          | 15 sec  | 31 sec  | 49 sec  | 65 sec  | 81 sec  | 95 sec  | 111 sec | 130 sec  | 30 sec  | 68 sec  |
| 6 A          | 12 sec  | 26 sec  | 40 sec  | 55 sec  | 67 sec  | 80 sec  | 94 sec  | 106 sec  | 25 sec  | 57 sec  |
| 7 A          | 10 sec  | 21 sec  | 34 sec  | 47 sec  | 58 sec  | 69 sec  | 81 sec  | 82 sec   | 21 sec  | 49 sec  |
| 8 A          | 8 sec   | 18 sec  | 29 sec  | 40 sec  | 50 sec  | 59 sec  | 69 sec  | 79 sec   | –       | –       |
| 10 A         | 6 sec   | 15 sec  | 23 sec  | 32 sec  | 39 sec  | 47 sec  | 54 sec  | 62 sec   | –       | –       |
| 12 A         | 4 sec   | 12 sec  | 19 sec  | 26 sec  | 32 sec  | 38 sec  | 44 sec  | 52 sec   | –       | –       |
| 15 A         | 3 sec   | 9 sec   | 14 sec  | 20 sec  | 25 sec  | 30 sec  | 35 sec  | 40 sec   | –       | –       |

| Charging times   |         |         |         |         |         |         |         |         |         |         |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Charging current |         |         |         |         |         |         |         |         |         |         |
| 2 A              | 54 sec  | 120 sec | 158 sec | 223 sec | 263 sec | 318 sec | 355 sec | 417 sec | 130 sec | 360 sec |
| 1 A              | 110 sec | 205 sec | 311 sec | 425 sec | 503 sec | 625 sec | 695 sec | 816 sec | –       | –       |

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