## SIEMENS

## Data sheet

## 6EP3333-6SB00-0AY0



LOGO!Power/1AC/24VDC/4A

LOGO!Power 24 V / 4 A stabilized power supply input: 100-240 V AC output: 24 V DC / 4 A \*Ex approval no longer available\*

| Input  |  |
|--|--|
| type of the power supply network   | 1-phase AC or DC   |
| supply voltage at AC   |  |
| minimum rated value  | 100 V  |
| maximum rated value  | 240 V  |
| • initial value  | 85 V   |
| • full-scale value   | 264 V  |
| input voltage  |  |
| • at DC  | 110 300 V  |
| design of input wide range input   | Yes  |
| overvoltage overload capability  | 300 V AC for 1 s   |
| operating condition of the mains buffering   | at Vin = 187 V   |
| buffering time for rated value of the output current in the event of power failure minimum | 40 ms  |
| operating condition of the mains buffering   | at Vin = 187 V   |
| line frequency   |  |
| • 1 rated value  | 50 Hz  |
| • 2 rated value  | 60 Hz  |
| line frequency   | 47 63 Hz   |
| input current  |  |
| <ul> <li>at rated input voltage 120 V</li> </ul>   | 1.95 A   |
| • at rated input voltage 230 V   | 0.97 A   |
| current limitation of inrush current at 25 °C maximum                                      | 31 A   |
| l2t value maximum  | 2.5 A <sup>2</sup> ·s  |
| fuse protection type   | internal   |
| • in the feeder  | Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C |
| Output   |  |
| voltage curve at output  | Controlled, isolated DC voltage  |
| output voltage at DC rated value   | 24 V   |
| output voltage   |  |
| <ul> <li>at output 1 at DC rated value</li> </ul>  | 24 V   |
| relative overall tolerance of the voltage  | 3 %  |
| relative control precision of the output voltage   |  |
| <ul> <li>on slow fluctuation of input voltage</li> </ul>                                   | 0.1 %  |
| <ul> <li>on slow fluctuation of ohm loading</li> </ul>                                     | 0.1 %  |
| residual ripple  |  |
| • maximum  | 200 mV   |
| • typical  | 30 mV  |
| voltage peak   |  |
| • maximum  | 300 mV   |

| a turical  | $[0,\infty)/$   |
|--|---|
| • typical  | 50 mV   |
| adjustable output voltage  | 22.2 26.4 V<br>Yes  |
| product function output voltage adjustable   |   |
| type of output voltage setting<br>display version for normal operation   | via potentiometer<br>Green LED for output voltage OK  |
| behavior of the output voltage when switching on   | No overshoot of Vout (soft start)   |
| response delay maximum   | 0.5 s   |
| voltage increase time of the output voltage  | 0.0 5   |
| typical  | 100 ms  |
| output current   |   |
| rated value  | 4 A   |
| rated range  | 0 4 A; +55 +70 °C: Derating 2%/K  |
| supplied active power typical  | 96 W  |
| product feature  |   |
| bridging of equipment  | Yes   |
| number of parallel-switched equipment resources for increasing   | 2   |
| the power  |   |
| Efficiency   |   |
| efficiency in percent  | 89.1 %  |
| power loss [W]   |   |
| <ul> <li>at rated output voltage for rated value of the output<br/>current typical</li> </ul>  | 11.7 W  |
| <ul> <li>during no-load operation maximum</li> </ul>   | 0.3 W   |
| Closed-loop control  |   |
| relative control precision of the output voltage with rapid<br>fluctuation of the input voltage by +/- 15% typical   | 0.2 %   |
| relative control precision of the output voltage at load step of<br>resistive load 10/90/10 % typical  | 2 %   |
| setting time   |   |
| <ul> <li>load step 10 to 90% typical</li> </ul>  | 1 ms  |
| <ul> <li>load step 90 to 10% typical</li> </ul>  | 1 ms  |
|  |   |
| Protection and monitoring  |   |
| Protection and monitoring<br>design of the overvoltage protection  | Yes, according to EN 60950-1  |
| Protection and monitoring<br>design of the overvoltage protection<br>• typical   | Yes, according to EN 60950-1<br>5 A<br>Yes  |
| Protection and monitoring<br>design of the overvoltage protection<br>• typical<br>property of the output short-circuit proof   | 5 A<br>Yes  |
| Protection and monitoring<br>design of the overvoltage protection<br>• typical<br>property of the output short-circuit proof<br>design of short-circuit protection   | 5 A   |
| Protection and monitoring<br>design of the overvoltage protection<br>• typical<br>property of the output short-circuit proof   | 5 A<br>Yes  |
| Protection and monitoring<br>design of the overvoltage protection<br>• typical<br>property of the output short-circuit proof<br>design of short-circuit protection<br>enduring short circuit current RMS value   | 5 A<br>Yes<br>Constant current characteristic   |
| Protection and monitoring<br>design of the overvoltage protection<br>• typical<br>property of the output short-circuit proof<br>design of short-circuit protection<br>enduring short circuit current RMS value<br>• maximum  | 5 A<br>Yes<br>Constant current characteristic<br>5 A  |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation  | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms   |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit   | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms   |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current  | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A  |
| Protection and monitoring<br>design of the overvoltage protection<br>• typical<br>property of the output short-circuit proof<br>design of short-circuit protection<br>enduring short circuit current RMS value<br>• maximum<br>overcurrent overload capability in normal operation<br>display version for overload and short circuit<br>measuring point for output current<br>overcurrent overload capability when switching on  | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A  |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety   | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms   |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output   | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes  |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output         galvanic isolation  | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes<br>Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178  |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output         galvanic isolation         operating resource protection class  | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes<br>Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178<br>Class II (without protective conductor)   |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output         galvanic isolation         operating resource protection class         protection class IP  | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes<br>Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178<br>Class II (without protective conductor)   |
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| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output         galvanic isolation         operating resource protection class         protection class IP         Approvals         certificate of suitability         • CE marking  | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes<br>Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178<br>Class II (without protective conductor)<br>IP20<br>Yes<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-   |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output         galvanic isolation         operating resource protection class         protection class IP         Approvals         certificate of suitability         • CE marking         • UL approval  | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes<br>Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178<br>Class II (without protective conductor)<br>IP20<br>Yes<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 60950), File E151273<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-  |
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| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output         galvanic isolation         operating resource protection class         protection class IP         Approvals         certificate of suitability         • CE marking         • UL approval         • CSA approval         • NEC Class 2   | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes<br>Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178<br>Class II (without protective conductor)<br>IP20<br>Yes<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 60950), File E151273<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 60950), File E151273<br>No        |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output         galvanic isolation         operating resource protection class         protection class IP         Approvals         certificate of suitability         • CE marking         • UL approval         • CSA approval         • REC Class 2         • EAC approval  | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes<br>Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178<br>Class II (without protective conductor)<br>IP20<br>Yes<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 60950), File E151273<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 60950), File E151273<br>No        |
| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output         galvanic isolation         operating resource protection class         protection class IP         Approvals         certificate of suitability         • CE marking         • UL approval         • CSA approval         • RAC approval         • RAC approval   | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes<br>Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178<br>Class II (without protective conductor)<br>IP20<br>Yes<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 60950), File E151273<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 60950), File E151273<br>No<br>Yes |
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| Protection and monitoring         design of the overvoltage protection         • typical         property of the output short-circuit proof         design of short-circuit protection         enduring short circuit current RMS value         • maximum         overcurrent overload capability in normal operation         display version for overload and short circuit         measuring point for output current         overcurrent overload capability when switching on         Safety         galvanic isolation between input and output         galvanic isolation         operating resource protection class         protection class IP         Approvals         certificate of suitability         • CE marking         • UL approval         • CSA approval         • NEC Class 2         • EAC approval         type of certification         • BIS         • CB-certificate | 5 A<br>Yes<br>Constant current characteristic<br>5 A<br>overload capability 150% lout rated typ. 200 ms<br>-<br>50 mV =^ 4 A<br>150% lout rated typ. 200 ms<br>Yes<br>Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178<br>Class II (without protective conductor)<br>IP20<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 107.1), File E197259; cURus-<br>Recognized (UL 60950, CSA C22.2 No. 60950), File E151273<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 60950), File E151273<br>No<br>Yes  |

| ULhazloc approval   | No  |
|---|---|
| • cCSAus, Class 1, Division 2                                     | No  |
| FM registration   | No  |
| certificate of suitability shipbuilding approval                  | Yes   |
| Marine classification association                                 |   |
| <ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul> | Yes   |
| <ul> <li>French marine classification society (BV)</li> </ul>     | Yes   |
| <ul> <li>Lloyds Register of Shipping (LRS)</li> </ul>             | Yes   |
| EMC   |   |
| standard  |   |
| <ul> <li>for emitted interference</li> </ul>                      | EN 55022 Class B  |
| <ul> <li>for mains harmonics limitation</li> </ul>                | EN 61000-3-2  |
| <ul> <li>for interference immunity</li> </ul>                     | EN 61000-6-2  |
| environmental conditions  |   |
| ambient temperature   |   |
| during operation  | -25 +70 °C; with natural convection   |
| <ul> <li>during transport</li> </ul>                              | -40 +85 °C  |
| during storage  | -40 +85 °C  |
| environmental category according to IEC 60721                     | Climate class 3K3, 5 95% no condensation  |
| Mechanics   |   |
| type of electrical connection                                     | screw-type terminals  |
| • at input  | L, N: 1 screw terminal each for 0.5 2.5 mm2 single-core/finely stranded   |
| • at output   | +, -: 1 screw terminal each for 0.5 2.5 mm <sup>2</sup>   |
| <ul> <li>for auxiliary contacts</li> </ul>                        |   |
| width of the enclosure  | 72 mm   |
| height of the enclosure   | 90 mm   |
| depth of the enclosure  | 53 mm   |
| required spacing  |   |
| • top   | 20 mm   |
| • bottom  | 20 mm   |
| • left  | 0 mm  |
| • right   | 0 mm  |
| net weight  | 0.29 kg   |
| product feature of the enclosure housing can be lined up          | Yes   |
| fastening method  | Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions                           |
| MTBF at 40 °C   | 2 391 480 h   |
| other information   | Specifications at rated input voltage and ambient temperature +25 $^\circ\mathrm{C}$ (unless otherwise specified) |

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