

Single-phase, output current 2 A

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|---|---|-----------------------|
| Power supply, type | 2 A | 2 A |
| Order No. | 6ES7 307-1BA00-0AA0 | 6EP1 331-1SL11 |
| Input | Single-phase AC | |
| Rated voltage $V_{in \text{ rated}}$ | 120/230 V AC Settable via selector switch on device | |
| Voltage range | 85 to 132 V/170 to 264 V AC | |
| Overvoltage strength | $2.3 \times V_{in \text{ rated}}$, 1.3 ms | |
| Mains buffering $I_{out \text{ rated}}$ | $> 20 \text{ ms}$ at $V_{in} = 93/187 \text{ V}$ | |
| Rated line frequency; range | 50/60 Hz; 47 to 63 Hz | |
| Rated current $I_{in \text{ rated}}$ | 0.9/0.6 A | |
| Inrush current limitation (+25 °C) | $< 20 \text{ A}$, $< 3 \text{ ms}$ | |
| I^2t | $< 1.0 \text{ A}^2\text{s}$ | |
| Integrated line-side fuse | T 1.6 A/250 V (not accessible) | |
| Recommended circuit- breaker (IEC 898) in mains supply line | 3 A, Characteristic C | |
| Output | Stabilized, floating direct voltage | |
| Rated voltage $V_{out \text{ rated}}$ | 24 V DC | |
| Total tolerance | $\pm 3 \%$ | |
| • Stat. mains compensation | Approx. 0.1 % | |
| • Stat. load compensation | Approx. 0.2 % | |
| Residual ripple (clock frequency: approx. 50 kHz) | $< 150 \text{ mV}_{pp}$ (typ. $< 20 \text{ mV}_{pp}$) | |
| Spikes (bandwidth: 20 MHz) | $< 240 \text{ mV}_{pp}$ (typ. $< 150 \text{ mV}_{pp}$) | |
| Setting range | - | |
| Status display | Green LED for 24 V O.K. | |
| Power ON/OFF behavior | No overshoot of V_{out} (soft start) | |
| Starting delay/voltage rise | $< 3 \text{ s}$ /typ. 60 ms | |
| Rated current $I_{out \text{ rated}}$ | 2 A | |

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| Current range | |
| • Up to +45 °C | 0 to 2 A |
| • Up to +60 °C | 0 to 2 A |
| Dyn. V/I with | |
| • Starting on short circuit | typ. 10 A for 90 ms |
| • Short-circuit in operation | typ. 10 A for 90 ms |
| Parallel connection for increased output | Not permissible |
| Efficiency | |
| Efficiency at $V_{out\ rated}$, $I_{out\ rated}$ | Approx. 83 % |
| Power loss at $V_{out\ rated}$, $I_{out\ rated}$ | Approx. 10 W |
| Control | |
| Dyn. mains compensation ($V_{in\ rated} \pm 15\%$) | $\pm 0.3\% V_{out}$ |
| Dyn. load compensation (I_{out} : 50/100/50 %) | $\pm 0.8\% V_{out}$ |
| Settling time | |
| • Load step from 50 to 100 % | < 5 ms (typ. 2.5 ms) |
| • Load step from 100 to 50 % | < 5 ms (typ. 2.5 ms) |
| Protection and monitoring | |
| Output overvoltage protection | Additional control loop, shutdown at approx. 30 V, automatic restart |
| Current limitation | 2.2 to 2.6 A |
| Short-circuit protection | Electronic shutdown, automatic restart |
| RMS sustained short-circuit current | < 4 A |
| Overload/short-circuit indicator | - |
| Safety | |
| Electrical isolation primary/secondary | Yes, SELV output voltage V_{out} acc. to EN 60950 and EN 50178 |
| Protective class | Class I |
| Discharge current | < 3.5 mA (typ. 0.7 mA) |
| TÜV test | Yes |
| CE marking | Yes |

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| UL/cUL (CSA) approval | Yes, UL listed (UL 508), File E143289, CSA (CSA 22.2 No. 14-95) | |
| FM approval | Yes, Class I Div. 2 Group A, B, C, D T4 | |
| Appr. for use in marine vessels | in the S7-300 system | |
| Degree of protection (EN 60529) | IP20 | |
| EMC | | |
| Interference emission | EN 55022 Class B | |
| Line harmonics limitation | Not applicable | |
| Interference immunity | EN 61000-6-2 | |
| Operating specifications | | |
| Ambient temperature range | 0 to +60 °C with natural convection | |
| Transportation and storage temperature range | -40 to +85 °C | |
| Humidity rating | Climatic class 3K3 acc. to EN 60721, no condensation | |
| Mechanical specifications | | |
| Connections | | |
| <ul style="list-style-type: none"> • Mains input L, N, PE (DC input: L+1, M1, PE) | One screw-type terminal each for 0.5 to 2.5 mm ² single-core/finely stranded | |
| <ul style="list-style-type: none"> • Output L+ | 2 screw-type terminals for 0.5 to 2.5 mm ² | |
| <ul style="list-style-type: none"> • Output M | 2 screw-type terminals for 0.5 to 2.5 mm ² | |
| Dimensions (W x H x D) in mm | 50 x 125 x 120 | 50 x 125 x 135 |
| Weight approx. | 0.42 kg | |
| Mounting | Snap-mounting on S7 rail | Snap-mounting on DIN rail EN 50022-35x15 |
| Accessories | Mounting adapter for DIN rail and PS-CPU connecting comb | |