

### SDU AC -A Series, DIN Rail UPS

The SDU AC - A Series DIN Rail UPS combines an industry leading compact design with a wide operation temperature range, enhanced communication and unique installation options. The SDU series provides economical protection from damaging impulses and power interruptions. These units include easy to wire screw terminations for critical devices needing battery back up such as computer based control systems.

#### Applications

- Programmable Logic Controllers
- Factory Automation
- Robotics
- Conveying Equipment
- Computer-based Control Systems

#### Features

- Lightweight, compact industrial design
- Communications port for optional Industrial Ethernet protocols or discrete communication card
- Wide operation temperature range (0 °C to 50 °C)
- Cold start capability
- Software and cable included for easy installation
- Simulated sinewave output
- USB communication port
- Remote turn-on and shutdown capabilities
- Two year limited warranty
- Panel/wall mounting brackets (optional)



#### Certifications and Compliances

- **CE**
    - Low Voltage Directive: EN62040-1
    - EMC Directive: EN62040-2
  - Class 1 Division 2 - ANSI ISA 12.12.01/CSA 213 Pending
  - RoHS Compliant
  - **UL US** UL Recognized Component, UPS Equipment
    - UL 1778 5th Ed., CSA C22.2 No. 107.3
    - Suitable for UL 508 at full load output (no derating) and Ind. Control Equipment Applications
    - CSA C22.2 No. 107.1
    - Overvoltage Cat III, Pollution Degree III
    - ODVA Compliant
- EtherNet/IP™ SDUENETIPCARD has been tested and approved for conformance by the ODVA. More information about EtherNet/IP™ and the ODVA can be obtained from the following website: [www.odva.org](http://www.odva.org).

#### Related Products

- Portable MCR Power Conditioners
- STV Surge Protective Devices
- SDN DIN Rail Power Supplies
- STFV Plus Active Tracking® Filters

#### Selection Table

| Catalog Number    | Capacity (VA/W) | Volts, Frequency In/Out | Typical Back-Up Time (minutes) At full load/half load. | Input/Output Connections                                       | Approx. Ship Weight – lbs (kg) |
|-------------------|-----------------|-------------------------|--|--|--------------------------------|
| <b>SDU 500A</b>   | 500/300         | 120 Vac, 50/60 Hz       | 4/18   | IP20 touch proof, screw terminals.<br>Wire range: 10 ~ 18 AWG. | 10.6 (4.8)                     |
| <b>SDU 850A</b>   | 850/510         |                         | 2/10   |  | 11.5 (5.2)                     |
| <b>SDU 500A-5</b> | 500/300         | 230 Vac, 50/60 Hz       | 4/18   |  | 10.6 (4.8)                     |
| <b>SDU 850A-5</b> | 850/510         |                         | 2/10   |  | 11.5 (5.2)                     |

Specifications

| Catalog Number                                | SDU 500A  | SDU 850A   | SDU 500A-5      | SDU 850A-5 |
|---|---|------------|-----------------|------------|
| Capacity (VA/Watts)                           | 500/300   | 850/510    | 500/300         | 850/510    |
| Load Power Factor                             | 0.6   |            |                 |            |
| <b>Dimensions – inches (mm)</b>               |   |            |                 |            |
| Unit (H x W x D) – in. (mm)                   | 4.87 x 11.1 x 4.81 (123.7 x 281.9 x 122.3)  |            |                 |            |
| Weight – lbs (kg)                             | 10.6 (4.8)  | 11.5 (5.2) | 10.6 (4.8)      | 11.5 (5.2) |
| <b>Input Parameters</b>                       |   |            |                 |            |
| Voltage                                       | 120 V (+10%, -20%)  |            | 230 V (+/- 15%) |            |
| Frequency                                     | 50 +/- 5 Hz or 60 Hz +/- 6 Hz (auto sensing)  |            |                 |            |
| <b>Output AC Parameters</b>                   |   |            |                 |            |
| Voltage (Battery Mode)                        | Simulated sinewave<br>+/- 5%  |            |                 |            |
| Frequency (On Battery)                        | 50 or 60 Hz +/- 0.3 Hz  |            |                 |            |
| Overload Protection                           | UPS automatic shutdown if overload exceeds:<br>105% of nominal at 20 seconds,<br>120% of nominal at 10 seconds,<br>130% of nominal at 3 seconds   |            |                 |            |
| Short Circuit                                 | UPS shutdown, auto-recovery   |            |                 |            |
| <b>Battery Parameters</b>                     |   |            |                 |            |
| Battery Type                                  | Sealed, non-spillable, maintenance-free lead acid batteries   |            |                 |            |
| Transfer Time                                 | 4 - 6 ms typical  |            |                 |            |
| Back-Up Time (minutes)<br>Full Load/Half Load | 4/18  | 2/10       | 4/18            | 2/10       |
| Recharge Time                                 | 8 hours to 90% capacity of full discharge   |            |                 |            |
| <b>Environmental</b>                          |   |            |                 |            |
| Operating Temperature                         | 0 °C to 50 °C   |            |                 |            |
| Storage Temperature                           | -15 °C to 60 °C   |            |                 |            |
| Relative Humidity                             | 0 to 95%, non-condensing  |            |                 |            |
| Ambient Operation                             | 0-95% humidity non-condensing, 0-50 °C up to 5,000 ft. (1500m)  |            |                 |            |
| Audible Noise                                 | < 40dBA (1 meter from surface)  |            |                 |            |
| <b>Standards</b>                              |   |            |                 |            |
| EMC   | FCC Part 15, Subpart B, Class A Level 4; EMC: EN62040-2; EN55032; CISPR22;<br>EN61000-3-2; IEC61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -2-2   |            |                 |            |
| Elevation                                     | 5000 ft. without derating   |            |                 |            |
| Surge Protection                              | Meets IEEE C62.41, Category A   |            |                 |            |
| Shock   | Operating - IEC60068-2-27, Half Sine Wave: 10G for a duration of 11ms, shock for 1 direction (X axis)<br>Non-operating - IEC60068-2-27, Half Sine Wave : 30G for duration of 11ms, 3 shocks for all 3 axes  |            |                 |            |
| Vibration                                     | Operating - IEC60068-2-6, Sine Wave: 10Hz to 500Hz @19.6m/S <sup>2</sup> ,<br>displacement of 0.35mm, 60 min per axis for all X, Y, Z direction.<br>Non-operating - IEC60068-2-6, Random : 5hz to 500Hz (2.09Grms); 20 min per axis for all X,Y,Z |            |                 |            |
| Mounting                                      | To be mounted on DIN TS35/7.5 or TS35/15 rail system. Chassis mounting permissible via optional brackets (SDU-PMBRK).   |            |                 |            |

Comm Card Accessories



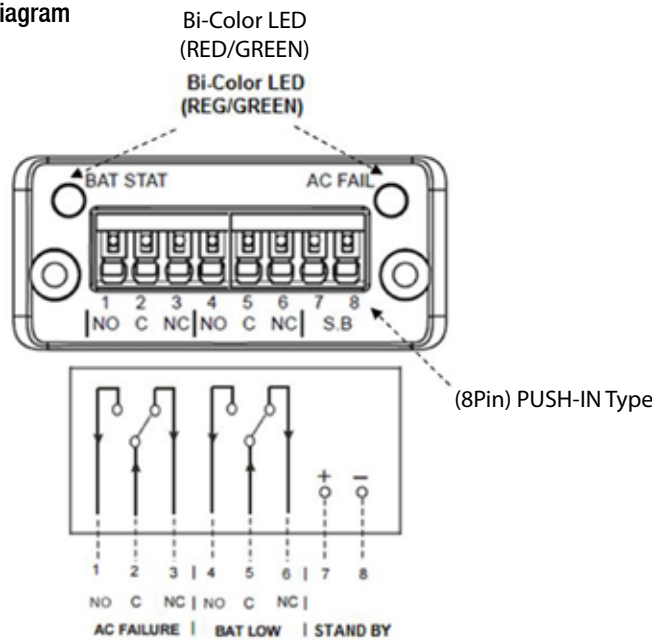
Active - (Industrial Ethernet)



Passive

| Catalog Number                        | Description                                   | Approx. Ship Weight – oz. (g) |
|---------------------------------------|---|-------------------------------|
| <b>Active - (Industrial Ethernet)</b> |   |                               |
| <b>SDUENETPCARD</b>                   | 2 Port EtherNet/IP™ COMM CARD                 | 1.0 (28.4)                    |
| <b>SDUECATCARD</b>                    | 2 Port EtherCAT COMM CARD                     | 1.0 (28.4)                    |
| <b>SDUMBUSCARD</b>                    | 2 Port Modbus® - TCP COMM CARD                | 1.0 (28.4)                    |
| <b>SDUPNETCARD</b>                    | 2 Port Profinet Industrial Protocol COMM CARD | 1.0 (28.4)                    |
| <b>SDUPWRLNKCARD</b>                  | 2 Port POWERLINK COMM CARD                    | 1.0 (28.4)                    |
| <b>Passive</b>                        |   |                               |
| <b>SDUCFRELAYCARD</b>                 | SDU CF Dry Contact I/O RELAY CARD             | 1.0 (28.4)                    |

SDU CF Relay Card Connection Diagram



SDU Accessories

| Catalog Number   | Description  | Approx. Ship Weight – oz. (g) |
|------------------|--|-------------------------------|
| <b>SDU-PMBRK</b> | Mounting brackets to secure UPS to wall, back of panel or enclosure. | 16.0 (454.0)                  |
| <b>SDUEDC</b>    | Enhanced DIN Clip to secure UPS to DIN rail                          | 1.6 (45.3)                    |

## Comm Card Specifications

| Description                    | Catalog Number  |   |
|--------------------------------|---|---|
|                                | SDUCFRELAYCARD  | Active Cards (Example: SDUENETPCARD) *                    |
| <b>Input</b>                   |   |   |
| Nominal Voltage                | +3.3 V $\pm$ 5 %  |   |
| Standby Signal                 | Active low via normally open momentary switch   |   |
| Frequency                      | 50/60 Hz  |   |
| <b>Output</b>                  |   |   |
| LED Diagnostics                | Refer to diagram  | Refer to diagram<br>NS = Network Status, MS=Module Status |
| Relay Logic Signals            | Refer to diagram  | —   |
| Relay Contact Ratings          | 60V peak, 1A  | —   |
| Case/Enclosure Material        | Housing: LCP(Liquid Crystal Polymer)<br>Color: Natural, Thermoplastic,UL 94 V-0   |   |
| <b>Weight &amp; Dimensions</b> |   |   |
| H x W x D, in. (mm)            | 0.91 x 2.0 x 2.2 (23 x 50 x 55) approximate   |   |
| Net Weight, oz. (g)            | 1.0 (28.4) approximate  |   |
| <b>EMC</b>                     |   |   |
| Immunity/Emissions             | Emission EN 61000-6-4 EN55016-2-3 Radiated emission EN55022 Conducted emission<br>Immunity EN 61000-6-2 EN61000-4-2 Electrostatic discharge, EN61000-4-3 Radiated immunity.<br>EN61000-4-4 Fast transients/burst, EN61000-4-6 Conducted immunity  |   |
| Approvals *                    | EN/IEC 60950-1 ; UL/CSA 60950-1 Pollution Degree 3 ;<br>UL 508 Pollution Degree 3 CSA 107.1; EU ROHS2,China ROHS2   |   |
| Temperature °F (°C)            | Storage: -40 to +185 (-40 to +85)<br>Operating: -40 to +158 (-40 to +70) Convection cooling; no forced air required.  |   |
| Vibration                      | Operating: IEC60068-2-6, Sine Wave: 10Hz to 500Hz @19.6m/S <sup>2</sup> , displacement of 0.35mm,<br>60 min per axis for all X, Y, Z direction.<br>Non-Operating: IEC60068-2-6, Random : 5hz to 500Hz (2.09Grms); 20 min per axis for all X,Y,Z direction.                                    |   |
| Shock                          | Operating: IEC60068-2-27, Half Sine Wave: 10G for a duration of 11ms, shock for 1 direction (X axis).<br>Non-Operating: IEC60068-2-27, Half Sine Wave : 50G for duration of 11ms, 3 shocks for each 3 directions.   |   |
| Humidity                       | 0% to 90% RH, noncondensing; IEC 68-2-2, 68-2-3   |   |
| Warranty                       | 2 Years   |   |
| MTBF (bellcore)                | 1,968,800 Hours   |   |
| General Protection/Safety      | Protected against Continuous short -circuit, Continuous overload, Continuous open circuit. Galvanic Isolation:<br>I/P to O/P: 3KVac, I/P to GND: 1.5KVac, O/P to GND: 0.5KVac<br>Protection class 1 (IEC536), degree of protection IP20 (IEC 529) Safe low voltage: SELV (acc. EN60950); ROHS |   |

\* Approvals apply for ActiveCards. Contact Technical support for Passive Cards.