



## SDU AC - B SERIES DIN RAIL UPS

The SolaHD SDU AC - B 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
- User Replaceable Battery
- Long-Life High-Temperature Battery
- Wide operation temperature range (0 °C to 50 °C)
- Cold start capability
- Software and cable included for easy installation
- Simulated sinewave output
- Remote turn-on and shutdown capabilities

- USB communication port
- Two year limited warranty
- Panel/wall mounting brackets (optional)

### CERTIFICATIONS AND COMPLIANCES

- - Low Voltage Directive: EN62040-1
  - EMC Directive: EN62040-2 EN55032; EN 55011, EN 55024, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61326-1, EN61000-3-2, EN 61000-3-3, IEC/EN 61000-4 Series
- UL Recognized Component, UPS Equipment, E179213
  - 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 Overvoltage Cat III, Pollution Degree III

- UL Recognized Component, Hazardous Locations E491259
  - ANSI ISA 12.12.01/CSA 213
  - Class I, Division 2, Groups A, B, C, D, T4
- 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).
- RoHS Compliant

### RELATED PRODUCTS

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

### SDU ACCESSORIES

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

### COMM CARD ACCESSORIES

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

**SOLAHD** For product information:  
[www.solahd.com](http://www.solahd.com)  
 1.800.377.4384



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## SPECIFICATIONS

| Description                                 | SDU 500B   | SDU 850B       | SDU 500B-5      | SDU 850B-5     |
|---|--|----------------|-----------------|----------------|
| <b>Input</b>                                |  |                |                 |                |
| Capacity (VA/Watts)                         | 500/300  | 850/510        | 500/300         | 850/510        |
| Nominal Voltage                             | 120 Vac  |                | 230 Vac         |                |
| Frequency                                   | 50 or 60 Hz  |                |                 |                |
| Harmonic                                    | THD: 38.1%; Maximum single harmonic distortion of: 31.3%   |                |                 |                |
| Power Factor                                | 0.6  |                |                 |                |
| <b>Output (Back-Up Mode)</b>                |  |                |                 |                |
| Voltage Vac                                 | Simulated sinewave   |                |                 |                |
|   | 120 V  |                | 230 V           |                |
| Frequency                                   | 50 or 60 Hz  |                |                 |                |
| Transfer Time                               | Typical <8 ms  |                |                 |                |
| <b>Protection</b>                           |  |                |                 |                |
| Input (Internal)                            | 10 A   | 8 A            | 6.3 A           |                |
| Overload Protection                         | UPS shutdown if overload exceeds 105% of nominal at 20 s, 120% at 10 s, 130% at 3 s; auto-recovery   |                |                 |                |
| Short Circuit (Utility Mode)                | In the event of dead short on the outputs of the UPS, input fuse will break<br>Once the fuse opens, UPS goes to battery mode and goes on battery mode short circuit protection until OSCP is removed   |                |                 |                |
| Short Circuit (Battery Mode)                | Retry until the short circuit is removed or battery defect   |                |                 |                |
| <b>Battery</b>                              |  |                |                 |                |
| Type  | Sealed, maintenance-free, lead acid batteries  |                |                 |                |
| Typical Recharge Time                       | 8 hours  |                |                 |                |
| Typical Back-Up Time At full load/half load | 4:20/14:30 min.  | 1:30/7:00 min. | 4:20/14:30 min. | 1:30/7:00 min. |
| <b>Alarm</b>                                |  |                |                 |                |
| ON Battery                                  | Slow beeping every 10 seconds  |                |                 |                |
| Battery Low                                 | Rapid beeping every second   |                |                 |                |
| Overload                                    | Continuous beeping sound   |                |                 |                |
| <b>Environment</b>                          |  |                |                 |                |
| Ambient Operation                           | 0-95% humidity non-condensing,<br>Ordinary Location: 0 to +50 °C (+32 to +122 °F) up to 3000 m (9842.5 ft.)<br>Hazardous Location: 0 to +40 °C (+32 to +104 °F) up to 2000 m (6600 ft.)  |                |                 |                |
| Audible Noise                               | < 40 dBA (1 meter from surface)  |                |                 |                |
| Vibration                                   | Operating - IEC60068-2-6, Sine Wave: 10 Hz to 60 Hz displacement of 0.35 mm, 60 Hz to 500 Hz @ 5G;<br>60 min. per axis for all X, Y, Z direction<br>Non-operating - IEC60068-2-6, Random: 5 Hz to 500 Hz@ 2 Grms; 20 min per axis for all X,Y,Z                          |                |                 |                |
| Shock                                       | Operating - IEC60068-2-27, Half Sine Wave: 10 G for a duration of 10 ms, 3 shocks each in 3 axes in positive and negative direction<br>Non-operating - IEC60068-2-27, Half Sine Wave : 20 g for duration of 10 ms, 3 shocks in 3 axes in positive and negative direction |                |                 |                |
| <b>Dimensions</b>                           |  |                |                 |                |
| Unit (H x W x D) - in. (mm)                 | 4.89 x 10.91 x 5.22 (124.2 x 277.0 x 132.7)  |                |                 |                |
| Weight - lbs (kg)                           | 10.8 (4.9)   | 11.5 (5.2)     | 10.8 (4.9)      | 11.5 (5.2)     |