

SDU AC -A Series, DIN Rail UPS

The SolaHD 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

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)
SDU 500A	500/300	120 Vac, 50/60 Hz	4/18	IP20 touch proof, screw terminals. Wire range: 10 ~ 18 AWG.	10.6 (4.8)
SDU 850A	850/510		2/10		11.5 (5.2)
SDU 500A-5	500/300	230 Vac, 50/60 Hz	4/18		10.6 (4.8)
SDU 850A-5	850/510		2/10		11.5 (5.2)

Note: Run times in this table are approximate. They are based upon new, fully charged standard battery modules at a temperature of 25°C (77°F) with 100% resistive UPS loading. Run times listed above can vary by +/-5% due to manufacturing variances of the individual batteries



- **UL** 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** UL Recognized Component, Hazardous Locations E491259
 - ANSI ISA 12.12.01/CSA 213
 - Class I, Division 2, Groups A, B, C, D, T3
- **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.
- **RoHS** Compliant

Related Products

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

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			
	Dimensions – inches (mm)			
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)
	Input Parameters			
Voltage	120 V (+10%, -20%)		230 V (+/- 15%)	
Frequency	50 +/- 5 Hz or 60 Hz +/- 6 Hz (auto sensing)			
	Output AC Parameters			
Voltage (Battery Mode)	Simulated sinewave			
	+/- 5%			
Frequency (On Battery)	50 or 60 Hz +/- 0.3 Hz			
Overload Protection	UPS automatic shutdown if overload exceeds: 105% of nominal at 20 seconds, 120% of nominal at 10 seconds, 130% of nominal at 3 seconds			
Short Circuit	UPS shutdown, auto-recovery			
	Battery Parameters			
Battery Type	Sealed, non-spillable, maintenance-free lead acid batteries			
Transfer Time	Typical <8 ms			
Back–Up Time (minutes) Full Load/Half Load	4/18	2/10	4/18	2/10
Recharge Time	8 hours to 90% capacity of full discharge			
	Environmental			
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 6,600 ft. (2000m)			
Audible Noise	< 40 dBA (1 meter from surface)			
	Standards			
EMC	FCC Part 15, Subpart B, Class A Level 4; EMC: EN62040-2; EN55032; CISPR22; 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) 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/S², displacement of 0.35mm, 60 min per axis for all X, Y, Z direction. 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



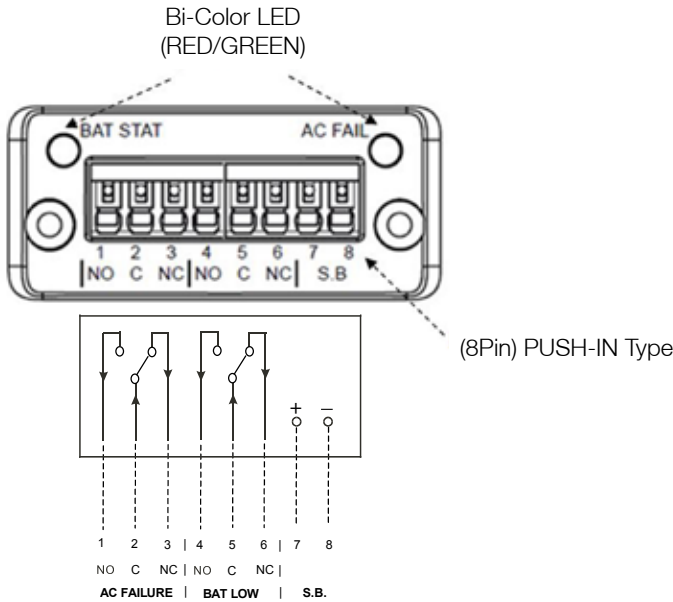
Active - (Industrial Ethernet)



Passive

Catalog Number	Description	Approx. Ship Weight – oz. (g)
Active - (Industrial Ethernet)		
SDUENETPCARD	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)
Passive		
SDUCFRELAYCARD	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)
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 Specifications

Description	Catalog Number	
	SDUCFRELAYCARD	Active Cards (Example: SDUENETIPCARD)
Input		
Nominal Voltage	+3.3 V ±5 %	
Standby Signal	Active low via normally open momentary switch	
Frequency	50/60 Hz	
Output		
LED Diagnostics	Refer to diagram	Refer to diagram NS = Network Status, MS=Module Status
Relay Logic Signals	Refer to diagram	—
Relay Contact Ratings	60 V peak, 1A	—
Case/Enclosure Material	Housing: LCP(Liquid Crystal Polymer) Color: Natural, Thermoplastic,UL 94 V-0	
Weight & Dimensions		
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	
EMC		
Immunity/Emissions	Emission EN 61000-6-4 EN55016-2-3 Radiated emission EN55022 Conducted emission Immunity EN 61000-6-2 EN61000-4-2 Electrostatic discharge, EN61000-4-3 Radiated immunity. EN61000-4-4 Fast transients/burst, EN61000-4-6 Conducted immunity	
Temperature °F (°C)	Storage: -40 to +185 (-40 to +85) 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/S², displacement of 0.35mm, 60 min per axis for all X, Y, Z direction. 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). 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 60068-2-2, 60068-2-3	
Warranty	2 Years	
MTBF (bellcore)	1,968,800 Hours	
General Protection	Protected against Continuous short -circuit, Continuous overload, Continuous open circuit. Galvanic Isolation: I/P to O/P: 3 KVac, I/P to GND: 1.5 KVac, O/P to GND: 0.5 KVac	

Mouser Electronics

Authorized Distributor

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Sola/Hevi-Duty:

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[SDUECATCARD](#) [SDUMBUSCARD](#) [SDUPNETCARD](#)