

SCP-X Extreme Environment Series

The SCP-X is a rugged power supply designed for use in extreme environments. The metal case reduces costs by eliminating separate enclosures. Quick change connectors simplify connectivity for distributed I/O devices on industrial machinery. This model provides 24 Vdc output with limited power to meet Class 2 requirements. Two models are currently offered based on application.



Control Power (-CP) Applications

The SCP100S24X-CP is designed for Control Power applications where a grounded power supply output is required (Figure 2). The output power is limited to approx 96 total watts.

- Input connector: 3-pole, male receptacle externally threaded with 7/8"-16 UN mounting thread.
- Output connector: 4-pole, female receptacle internally threaded with 7/8"-16 UN mounting thread.

DeviceNet™ (-DVN) Applications

The SCP100S24X-DVN is designed for DeviceNet™ application where an isolated output from ground is required (Figure 2).

- Input connector: 3-pole, male receptacle externally threaded with 7/8"-16 UN mounting thread.
- Output connector: 4-pole, female receptacle internally threaded with 7/8"-16 UN mounting thread.

Features

- IP66/67 Versatile/NEMA 4X Rated
- 24 Vdc, 115/230 Vac, 3.8A Nominal Current
- Listed power supply for stand alone applications
- Can be mounted in any orientation without limitation
- Universal input
- High ambient temperature up to 60°C without derating
- DC OK Green LED
- Worldwide approvals
- Five year limited warranty

Certifications and Compliances *

- UL Listed, Ind. Control Equipment, E61379, ITE, E137632
 - UL 508, CSA C22.2 No. 107.1
 - UL 60950-1/CSA C22.2 No. 60950-1, 2nd Edition
- UL Recognized Component, Haz. Loc., E234790



- UL 60079-15/CSA E60079-15
- Class I, Zone 2, AEx nA IIC, Ex nA IIC
- - Low Voltage Directive
 - IEC/EN60950-1, 2nd Edition
- - ATEX Directive
 - EN60079-15
 - II 3 G, EEx nA IIC
- RoHS Compliant

Related Products

- SDN Series

Selection Table

| Catalog Number | Output Current | Output Voltage | Output Power |
|-----------------|----------------|----------------|--------------|
| SCP 100S24X-CP | 3.8 A | 24 Vdc | 95 W |
| SCP 100S24X-DVN | | | |

Recommended Electrical Connections ¹

| Catalog Number | Input 3-PIN Connections | Output 4-PIN Connections |
|-----------------|---|--------------------------------------|
| SCP 100S24X-CP | Daniel Woodhead P/N 103000A01FXX0 ² | Turck RSM46 *M * length in meters |
| SCP 100S24X-DVN | | |

1. Connections to be provided by the user.
2. XX is the length of the cordset in foot.

* Refer to user manual for installation requirements when used in hazardous locations.

SCP100S24X-CP and SCP100S24X-DVN Mechanical Diagrams

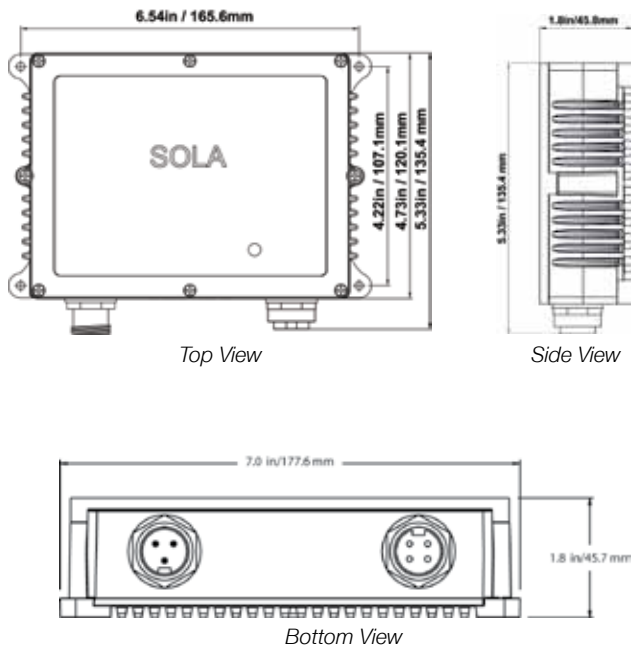
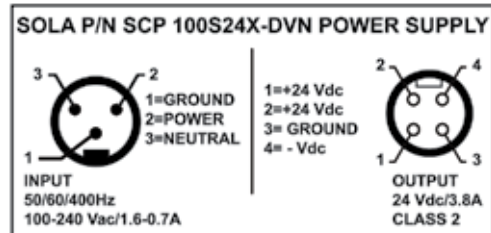
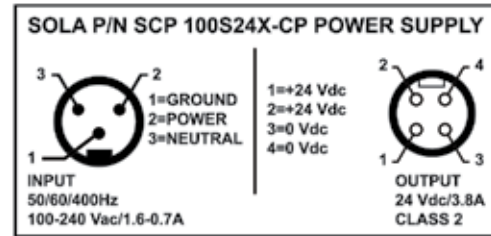


Figure 2

Electrical Connections



Notes:

- 1.Vdc connections are internally bonded to ground
2. V- is isolated from ground. V- is a separately derived source so it is permissible to bond to ground if required in the application.

SCP-X Specifications

| Input | |
|--------------------------------------|--|
| Nominal Voltage | Any voltage from 100 to 240 Vac Input |
| -AC Range | 85 - 264 Vac Universal Input |
| -DC Range | 100 - 353 Vdc |
| Nominal Current ¹ | 1.6A / 0.7A |
| -Inrush current max. | Typ. <25A |
| Power Factor Correction ² | 0.95 |
| Frequency | 50/60/400 Hz |
| Output | |
| Power Back Immunity | 35 V |
| Overvoltage Protection | 25-25.5 Vdc, autorecovery |
| Nominal Voltage | 24 Vdc |
| Tolerance | < +/-2% overall (combination line, load, time and temperature related changes) |
| - Line Regulation | < 0.5% |
| - Load Regulation | < 0.5% |
| - Time & Temp. Drift | < 1% |
| Ripple ³ | < 50 mVpp |
| Total Nominal Current | 3.8A |
| Holdup Time | > 25 ms (Full load, 100 Vac Input @ T _{amb} =+25°C) to 95% output voltage |
| General | |
| Emissions | EN61000-6-3, EN61204-3, EN55022 Class B, EN61000-3-2, EN61000-3-3 |
| Immunity | EN61000-6-2, EN61204-3, EN55024, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8, IEC61000-4-11 |
| Temperature | Storage: -40° to +85°C, Operation: -40° to +60°C full power with linear derating to half power from 60° to 70°C (Convection cooling, no forced air required). Operation up to 100% load permissible with sideways or front side up mounting orientation. |
| Humidity | Up to 100% RH with condensation |
| Altitude | 2,000 meters (6,600 feet) |
| Vibration | 1.0 gravity (g) peak, 10-500 Hz (random wave). Passed random vibration test conditions for 3 axes for 60 minutes duration while energized and operating. |
| Shock | 4 gravity peak, 22 milliseconds half-sine pulse, 3 times on 6 faces while energized and operating |
| Warranty | 5 Year Limited Warranty |
| MTBF | >500,000 hours according to Telecordia/Bellcore SR-332 Issue 1, (V _{in} 120 Vac, T _{amb} =40°C) |
| General Protection/Safety | Protected against continuous short-circuit, continuous overload, continuous open circuit. Protection Class 1 (IEC536), degree of protection IP66/67 versatile (IEC 529). Safe low voltage: SELV (acc. IEC60950) |
| Status Indicators – Visual | DC OK LED |
| Installation | |
| Fusing | Internally fused, fuses not replaceable |
| -Input | |
| -Output | Electronically current limited to meet Class 2 per UL1310 |
| Mounting | Chassis mounted via built in mounting tabs. Removal and replacement of the unit shall be possible from front of panel. |
| Connections | Input: One 3 pin IP67 molded plug (mini change), internally threaded. Output: Two 4 pin IP67 molded receptacle (mini change), externally threaded. |
| Case | IP66/67 versatile ingress protection; also meets UL50 Type 4X enclosure |
| Min. Required Free Space | 1 in. (25 mm) all sides (permissible to mount in any orientation) |
| H x W x D inches (mm) | 4.73 x 6.52 x 1.80 (120.0 x 166.0 x 46.0) |
| Weight – lbs (kg) | 2.6 (1.16) |

1. Input current ratings are specified with low input, line conditions, worst case efficiency values and power factor.
2. Power Factor Correction at 50/60 Hz only.

3. Ripple/noise is stated as typical AC values when measured with a 20 MHz, bandwidth scope and 50 Ohm termination.