## SDN－C Performance DIN Rail Series

High performance specifications and extensive international certifications ensure that the SolaHD SDN－C is suitable for the most extreme environments，including hazardous locations and off－shore applications．Features like wide operating temperature range，power boost capability， and adjustable output voltage ensure reliable operation in the harshest industrial environments．Parallel operation， extensive LED diagnostics，and universal AC or DC input voltage simplify installation and maintenance．For added reliability，the SDN－C power supplies can be used with the SolaHD Redundancy modules to provide redundant power supply operation．

## Applications

－Industrial Automation
－Process Control
－Material Handling and Conveyors
－Hazardous Locations
－Marine Applications

## Features

－Extensive international hazardous location certifications， including Class I，Zone 2，ATEX，IECEx，ExEAC． Hazardous location temperature code（T－Code）rating of T4．
－International off－shore certifications，including ABS and DNV－GL
－PowerBoost ${ }^{\text {TM }}$ enables short duration overload capability，to start loads with high inrush current
－Three LEDs provide extensive diagnostics
－Dual output terminals for convenience in wiring
－DC OK relay to provide diagnostic information to a PLC， controller，or monitoring system
－Universal AC and DC input voltages to accommodate global requirements
－Wide operating temperature range accommodates both extreme hot and extreme cold environments
－Active Power Factor Correction on most models
－Parallel operation capability standard
－Supports redundant power supply operation using optional SDNTM Redundancy modules
－5－year limited warranty


Certifications and Compliances＊
All Models
－©（IL）us Listed，Ind．Control Equipment，E61379
－UL 508，CSA C22．2 No． 107.1
－${ }_{c} \mathbf{N J}_{\text {us }}$ UL Recognized Component，ITE，E137632
－UL 60950－1／CSA C22．2 No．60950－1，2nd Edition
－c ${ }^{\text {us }}$ UL Recognized Component，Class I，Div 2； Class I Zone 2；T4 E234790
－CE－Low Voltage Directive
－IEC／EN60950－1，2nd Edition
－RoHS Compliant
Models SDN 5－24－100C，SDN 10－24－100C，SDN 16－12－100C，SDN
20－24－100C，SDN 40－24－100C，SDN 5－24－480C，SDN 10－24－480C， SDN 20－24－480CD
－c ${ }^{\text {I }}$ Us UL Recognized Component，Haz．Loc．，E234790
－UL60079－0／CSA E60079－0，UL 60079－15，CSA E60079－15
－Class I，Zone 2，AEx nA nC IIC，Ex nA nC IIC
－$\sum 一 ⿻ 上_{x}$ ATEX Directive
－EN60079－0，EN60079－7，EN60079－15
－$\left\langle\sum_{x} \| 3\right.$ G，Ex ec nC \｜C Gc
－IECEX Certified
－IEC 60079－0，IEC 60079－7，IEC 60079－15
－Ex ec nC IIC Gc
Models SDN 5－24－100C，SDN 10－24－100C，SDN 16－12－100C，SDN 20－24－100C，SDN 40－24－100C，SDN 5－24－480C，SDN 10－24－480C
－ExEF［ TR CU 012／2011 Safety of Equipment intended for Explosive Atmospheres
－4BS Type Approval
Models SDN 5－24－100C，SDN 10－24－100C，SDN 16－12－100C，SDN 20－24－100C，SDN 40－24－100C
－（三）Type Approved
Models SDN 5－24－100C，SDN 10－24－100C，SDN 20－24－100C，SDN 40－24－100C
－径 Certified

## Related Products

- SDN-C Redundancy Modules
- IP67 SCP-X Extreme Environment Series
- SDU UPS


## The SolaHD Difference



Narrow width
saves panel space

LED Light Status Conditions

|  | Normal | AC Power Loss | AC Input Low | No DC | High Load | Overload | Hot | Too Hot |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Input | Green | - | Amber | Green | Green | Green | Green | Green |
| Output | Green | - | Green | - | Amber | Amber | Green | - |
| Alarm | - | - | - | Red | Amber | Red | Amber | Amber |

SDN-C Specifications (Single Phase)

| Description |  | Catalog Number |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | SDN 16-12-100C | SDN 5-24-100C | SDN 10-24-100C | SDN 20-24-100C | SDN 40-24-100C |
| Input |  |  |  |  |  |
| Nominal AC Voltage (Range) | 100-240 Vac (85-264 Vac) |  |  |  |  |
| Nominal DC Voltage (range) | 100-340 Vdc (90-375 Vdc) |  |  | $\begin{aligned} & 100-250 \mathrm{Vdc} \\ & \text { (90-275 Vdc) } \end{aligned}$ | $\begin{aligned} & 120-340 \mathrm{Vdc} \\ & (108-375 \mathrm{Vdc}) \end{aligned}$ |
| Frequency | $43-67 \mathrm{~Hz}$ |  |  |  |  |
| Nominal Current ${ }^{1}$ | 1.77-0.9 A | 1.65-0.55 A | 3.2-1.0 A | 6-3A | 12-4A |
| -Inrush current | $\begin{gathered} \text { Typ. }<5.8 \mathrm{~A} \text { at } 120 \mathrm{Vac}, \\ <12.7 \mathrm{~A} \text { at } 230 \mathrm{Vac}, \\ \text { measured at } 25^{\circ} \mathrm{C} \end{gathered}$ | $\begin{gathered} \text { Typ. }<3.7 \mathrm{~A} \text { at } 120 \mathrm{Vac}, \\ <7.4 \mathrm{~A} \text { at } 230 \mathrm{Vac}, \\ \text { measured at } 25^{\circ} \mathrm{C} \end{gathered}$ | Typ. <12.7A at 120 Vac , $<24.8 \mathrm{~A}$ at 230 Vac , measured at $25^{\circ} \mathrm{C}$ | Typ. $<5.8 \mathrm{~A}$ at 120 Vac, $<11.5 \mathrm{~A}$ at 230 Vac , measured at $25^{\circ} \mathrm{C}$ | Typ. $<5.8 \mathrm{~A}$ at 120 Vac , $<11.5 \mathrm{~A}$ at 230 Vac, measured at $25^{\circ} \mathrm{C}$ |
| Efficiency (Losses ${ }^{2}$ ) | > 86.5\% typ. (24 W) | > 88\% typ. (14 W) | > 90\% typ. (24 W) | > 92\% (38 W) | > 93 \% (67 W) |
| Power Factor Correction | Active power factor correction typ. 0.98 @ $115 \mathrm{Vac} / 0.92$ @ 230 Vac |  |  |  |  |
| Output |  |  |  |  |  |
| Nominal Voltage | 12 V (12-15 Vdc Adj.) | 24 V (23.5-28.5 Vdc Adj.) |  |  |  |
| Initial Voltage Setting | $12.5 \mathrm{~V} \pm 1 \%$ | $24.5 \mathrm{~V} \pm 1 \%$ |  |  |  |
| -Tolerance | $< \pm 2$ \% overall (combination Line, load, time and temperature related changes) |  |  |  |  |
| -Ripple ${ }^{3}$ | $<100 \mathrm{mVpp}$ | < 50 mVpp |  | < 100 mV pp |  |
| PARD <br> (Periodic and Random Deviation) | 100 mVpp max |  |  |  |  |
| Nominal Current (Rated Power at $+60^{\circ} \mathrm{C}$ ) | 16 A (192 W) | 5 A (120 W) | 10 A (240 W) | 20 A (480 W) | 40 A (960 W) |
| Parallel Operation ${ }^{4}$ | Single or Parallel operation selectable via front switch. |  |  |  | Active Paralleling. |
| Turn On Time | $<1 \mathrm{~s}$ after AC is applied to input at full resistive load ( $\operatorname{Tamb}=+25^{\circ} \mathrm{C}$ ). $<1.5 \mathrm{~ms}$ with capacitive load $7000 \mu \mathrm{~F}$ |  |  |  |  |
| Holdup Time | >40ms (Full load, 100 Vac Input @ $T_{\text {amb }}=+25^{\circ} \mathrm{C}$ ) to 95\% output voltage | >20 ms (Full load, 100 Vac Input @ $\mathrm{T}_{\text {amb }}=+25^{\circ} \mathrm{C}$ ) to $95 \%$ output voltage |  |  |  |
| Voltage Fall Time | $<150 \mathrm{mS}$ from 95\% to 10\% rated voltage @ full load ( $\left.\mathrm{T}_{\text {amb }}=+25^{\circ} \mathrm{C}\right)$ |  |  |  |  |
| Protection |  |  |  |  |  |
| -Short Circuit | Output automatically goes to near zero and output is protected from continuous short circuit. Auto-recovery. |  |  |  |  |
| -Peak Current ${ }^{5}$ | $1.5 \times$ Nominal Current for $>4$ seconds minimum while holding voltage $>20 \mathrm{Vdc}$ ( $>10 \mathrm{Vdc}$ for SDN 16-12-100C) |  |  |  |  |
| -Overcurrent Protection | PowerBoost ${ }^{\text {TM }}$ |  |  |  |  |
| Back EMF Immunity | $<18 \mathrm{~V}$ No damage, auto-recovery | $<35 \mathrm{~V}$ No damage, auto-recovery |  |  |  |
| Overvoltage Protection | $>18 \text { but < } 20 \mathrm{Vdc},$ auto-recovery | > 30.5 but < 33 Vdc , auto-recovery |  |  |  |
| Overtemperature Protection | LED Alarm and Output shutdown, auto-recovery |  |  |  |  |
| Environmental Data |  |  |  |  |  |
| Emissions | EN61000-6-3, EN61000-6-4, Class B EN55011, EN61000-3-2 Class A, Class B EN 55032, EN 61326-1 Class B, EN 61000-3-3 |  |  |  |  |
| Immunity | EN 55024, EN 61000-6-1, EN 61000-6-2, EN 61326-1, SEMI F47 |  |  |  |  |
| General Protection/ Safety | Protected against continuous short circuit, continuous overload, continuous open circuit. <br> IEC 60950-1: Class I Earthed, Output is SELV (Safety Extra Low Voltage), Environmental Rating: Pollution Degree 2 IEC 60529 Ingress Protection Rating: IP20 |  |  |  |  |
| Temperature ${ }^{6}$ | Storage: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$, Operation $-40^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$ full power, with linear derating to $75 \%$ power from $+60^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ (Convection cooling). Operation up to $50 \%$ load with sideways or front-side-up mounting orientation. |  |  |  |  |
| Humidity | 5 to 95 \% RH Non-condensing; IEC 60068-2-2, IEC 60068-2-3 |  |  |  |  |
| Vibration | $2.5 \mathrm{~g} \mathrm{RMS}, 10-2000 \mathrm{~Hz}$ (random); three axes for 20 minutes each - IEC 60068-2-6 |  |  |  |  |
| Shock | 10(g) RMS, three axes, 11mseconds for each axis - IEC 60068-2-27 |  |  |  |  |
| Altitude | 0 to 6000 meters ( 0 to 20,000 feet) per MIL-STD-810F |  |  |  |  |

1. Input current ratings are conservatively specified with low AC input, worst case efficiency and power factor.
2. Losses are heat dissipation in watts at full load, nominal AC input line.
3. Ripple/noise is stated as typical values when measured with a 20 MHz , bandwidth scope and 50 Ohm resistor.
4. All models are capable of paralleling. For redundant operation, please use external Redundancy module. Only the 40A uses Active paralleling scheme. Please refer to user manual for details.
5. Peak current is calculated at nominal voltage levels.
6. Contact tech support for operation at $-40^{\circ} \mathrm{C}$.

SDN-C Specifications (Single Phase) continued

| Description |  | Catalog Number |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SDN 16-12-100C | SDN 5-24-100C | SDN 10-24-100C | SDN 20-24-100C | SDN 40-24-100C |
| Reliability |  |  |  |  |  |  |
| MTBF | Telcordia SR-332 Issue 2 Method 1 Case 3 @ $25^{\circ} \mathrm{C}$ | >2,088,000 hours @ 115 Vac >2,133,000 hours @ 230 Vac | >1,800,000 hours @ 115 Vac $>2,100,000$ hours @ 230 Vac | $>550,000$ hours @ 115 Vac $>650,000$ hours @ 230 Vac | >800,000 hours @ 115 Vac >850,000 hours @ 230 Vac | $>550,000$ hours @ 115 Vac $>570,000$ hours @ 230 Vac |
|  | Telcordia SR-332 <br> Issue 2 <br> Method 1 Case 3 <br> @ $40^{\circ} \mathrm{C}$ | >1,112,000 hours @ 115 Vac <br> >1,170,000 hours @ 230 Vac | $>1,000,000$ hours @ 115 Vac <br> $>1,100,000$ hours @ 230 Vac | $>300,000$ hours @ 115 Vac <br> $>400,000$ hours @ 230 Vac | $>500,000$ hours @ 115 Vac $>570,000$ hours @ 230 Vac | $>360,000$ hours @ 115 Vac <br> $>370,000$ hours @ 230 Vac |
| Installation |  |  |  |  |  |  |
| Fusing -Input |  | Input Branch fuse or circuit breaker should be provided by customer. See manual for details. |  |  |  |  |
| -Output |  | Outputs are capable of providing high currents for short periods of time for inductive load startup or switching. Fusing may be required for wire/loads if $2 x$ Nominal $O / P$ current rating cannot be tolerated. Continuous current overload allows for reliable fuse tripping. |  |  |  |  |
| Mounting |  | Simple snap-on to DIN TS35/7.5 or TS35/15 rail system. |  |  |  |  |
| Connections ${ }^{7,8}$ (Screw Type) | Input | 16-10 AWG (1.5-6 mm²) solid or stranded conductors. Screw torque: 4.4-6.5 lb-inch (50-73 N-cm). |  |  |  | 13-10 AWG <br> (3-6 mm²) solid/stranded conductors. <br> Screw Torque: 4.4 lb -inch ( $50 \mathrm{~N}-\mathrm{cm}$ ). |
|  | Output (dual output terminals) | 16-10 AWG (1.5-6 mm²) for solid or stranded conductors. Screw torque: 4.4-6.5 Ib-inch (50-73 N-cm). |  |  |  | 7-6 AWG (10.6-13 $\mathrm{mm}^{2}$ ) solid/stranded conductors. <br> Screw Torque: 15.6 lb-inch ( $176 \mathrm{~N}-\mathrm{cm}$ ) |
| -Free Space | Above \& Below | 0.98 in (25 mm) |  |  | 1.6 in (40 mm) | $0.98 \mathrm{in}(25 \mathrm{~mm})$ |
|  | Left \& Right | 0.39 in (10mm) |  |  |  | 0.59 in ( 15 mm ) |
|  | Front | 0.59 (15) |  |  |  |  |
| Dimensions - WxDxH in (mm) |  | $\begin{gathered} 4.85 \times 2.36 \times 4.36 \\ (123.0 \times 60.0 \times 110.0) \end{gathered}$ | $\begin{gathered} 4.85 \times 1.97 \times 4.36 \\ (123.0 \times 50.0 \times 110.0) \end{gathered}$ | $\begin{gathered} 4.85 \times 2.36 \times 4.36 \\ (123.0 \times 60.0 \times 110.0) \end{gathered}$ | $\begin{gathered} 4.85 \times 3.42 \times 4.98 \\ (123.0 \times 87.0 \times 127.0) \end{gathered}$ | $\begin{gathered} 4.85 \times 7.09 \times 4.81 \\ (123.0 \times 180.0 \times 122.0) \end{gathered}$ |
| Weight - lbs (kg) |  | 1.76 (0.80) | 1.3 (0.6) | 1.7 (0.8) | 3.0 (1.4) | 6.0 (2.8) |
| General |  |  |  |  |  |  |
| Case |  | Fully enclosed metal housing with fine ventilation grid to keep out small parts. IP20 touch proof |  |  |  |  |
| Status Indicators |  | Visual: 3 status LEDs (Input, Output, Alarm)Relay: N.O. contact rated 200mA/50 VdcSignal Active when Vout > 18.5 Vdc $+/-5 \%$ (Vout > 10.8 Vdc for SDN 16-12-100C) |  |  |  |  |
| Warranty |  | 5 Year Limited Warranty |  |  |  |  |

7. Screw terminals. Use only one copper wire per terminal. Non-ratcheting torque driver recommended.
8. SDN 40-24-100C only - Provided with Signal Mode terminal block which includes the following features: DC OK, Ground signal, PS ON, I_share connection. Refer to Signals Manual for terminal connection details..

SDN-C Specifications (Three Phase)

| Description | Catalog Number |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | SDN 5-24-480C | SDN 10-24-480C | SDN 20-24-480CD | SDN 40-24-480C |
| Input |  |  |  |  |
| Nominal AC Voltage (Range) | 380-480 Vac (320-540 Vac), 3-phase |  |  |  |
| Two-phase input ${ }^{1}$ | Yes |  |  |  |
| Nominal DC Voltage (Range) | $600 \mathrm{Vdc}(+/-50 \mathrm{Vdc})$ |  |  |  |
| Frequency | $50 / 60 \mathrm{~Hz}$ |  |  |  |
| Nominal Current ${ }^{2}$ | $3 \times 0.5 \mathrm{~A}$ | $3 \times 0.8 \mathrm{~A}$ | $3 \times 0.9 \mathrm{~A}$ | $3 \times 1.6 \mathrm{~A}$ |
| -Inrush current max. | Typ. < 25 A |  | Negligible |  |
| Efficiency (Losses ${ }^{3}$ ) | > 85\% (18 W) | 91\% (24W) | 93\% (42 W) | 94\% (78 W) |
| Power Factor Correction | Meets EN61000-3-2 Class A |  | Active Power Factor Correction > 0.92 |  |
| Output |  |  |  |  |
| Nominal Voltage ${ }^{4}$ | 24 V (23.5-28.5 Vdc Adj.) |  |  |  |
| Initial Voltage Setting | $24.5 \mathrm{~V} \pm 1 \%$ |  |  |  |
| -Tolerance | $< \pm 2$ \% overall (combination Line, load, time and temperature related changes) |  |  |  |
| -Ripple ${ }^{5}$ | < 50 mVpp |  | < 100 mVpp |  |
| PARD <br> (Periodic and Random Deviation) | 100 mVpp max |  | 200 mVpp max |  |
| Nominal Current (Rated Power) | $5 \mathrm{~A}(120 \mathrm{~W})$ | 10 A (240 W) | 20 A (480 W) | 40 A (960 W) |
| Parallel Operation ${ }^{6}$ | Single or Parallel operation selectable via front switch. |  |  | Active Paralleling. |
| Turn On Time | $<1 \mathrm{~s}$ after AC is applied to input at full resistive load ( $\mathrm{Tamb}=+25^{\circ} \mathrm{C}$ ). $<1.5 \mathrm{~s}$ With capacitive load $7000 \mu \mathrm{~F}$ |  |  |  |
| Holdup Time <br> (Full load, <br> 100 Vac Input @ $\mathrm{T}=+\mathbf{2 5}{ }^{\circ} \mathrm{C}$ ) | 20 ms |  |  | 15 ms |
| Voltage Fall Time | $<150 \mathrm{mS}$ from 95\% to 10\% rated voltage @ full load ( $\mathrm{T}=+25^{\circ} \mathrm{C}$ ) |  |  |  |
| Protection |  |  |  |  |
| -Short Circuit Current | Voltage output automatically goes to near zero and output is protected from continuous short circuit. Auto-recovery. |  |  |  |
| -Peak Current ${ }^{7}$ | $1.5 \times$ Nominal Current for $>4$ seconds minimum while holding voltage $>20 \mathrm{Vdc}$ |  |  |  |
| -Current Limit | PowerBoost ${ }^{\text {TM }}$ |  |  |  |
| Back EMF Immunity | $<35 \mathrm{~V}$ No damage, auto-recovery |  |  |  |
| Overvoltage Protection | > 30.5 but < 33 Vdc , auto-recovery |  |  |  |
| Over Temperature Protection | LED Alarm and Output shutdown, auto-recovery |  |  |  |
| Environmental Data |  |  |  |  |
| Emissions | EN 61000-6-3, EN 55011 Class B, EN 55022 Class B, EN 61326-1,EN 61000-3-2, EN 61000-3-3 |  | EN 61000-6-3, EN 55011 Class B, EN 55032 Class B, EN 61326-1, EN 61000-3-2, EN 61000-3-3 | EN 55011 Class B, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3 |
| Immunity | EN 55024, EN 61326-1, EN 61000-6-1, EN 61000-6-2, SEMI F47 |  | EN 55024, EN 61326-1, EN 61000-6-1, EN 61000-6-2, SEMI F47 | EN 61000-4-2, EN 61000-4-4, EN 61000-4-5, SEMI F47 |
| General Protection/ Safety | Protected against continuous short circuit, continuous overload, continuous open circuit. IEC 60950-1: Class I Earthed, Output is SELV (Safety Extra Low Voltage), Environmental Rating: Pollution Degree 2 IEC 60529 Ingress Protection Rating: IP20 |  |  |  |
| Temperature ${ }^{\text {8 }}$ | Storage: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$, Operation $-40^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$ full power, with linear derating to $75 \%$ power from 60 to $70^{\circ} \mathrm{C}$ (Convection cooling, no forced air required). Operation up to $50 \%$ load permissible with sideways or front-side-up mounting orientation. |  |  |  |
| Humidity | 5 to 95 \% RH Non-condensing, IEC 60068-2-2, IEC 60068-2-3 |  |  |  |
| Vibration | $2.5 \mathrm{~g} \mathrm{RMS}, 10-2000 \mathrm{~Hz}$ (random); three axes for 20 minutes each - IEC 60068-2-6 |  |  |  |
| Shock | 10 g RMS, three axes, 11 mseconds for each axis - IEC 60068-2-27 |  |  |  |
| Altitude | 0 to 3000 meters (0 to 10,000 feet) |  |  |  |

 to shut down if maximum operating temperature is exceeded.
2. Input current ratings are specified with low AC 3-phase input, line conditions, worst case efficiency values and power factor spikes. Input current at nominal AC 3-phase input will typically be half these values.
3. Losses are heat dissipation in watts at full load, nominal line.
4. $24-28 \mathrm{Vdc}$ adjustable guaranteed at full load.
5. Ripple/noise is stated as typical values when measured with a 20 MHZ , bandwidth scope and 50 Ohm resistor
6. All models are capable of paralleling. For redundant operation, please use external Redundancy module. Only the 40A uses active paralleling scheme. Please refer to user manual for details.
 zero Vout. The output voltage will immediately drop to almost zero when load rises above $150 \%$.
8. Contact Tech Support for operation $-40^{\circ} \mathrm{C}$.

## SDN-C Specifications (Three Phase)

| Description |  | Catalog Number |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SDN 5-24-480C | SDN 10-24-480C | SDN 20-24-480CD | SDN 40-24-480C |
| Reliability |  |  |  |  |  |
| MTBF | Telcordia SR-332 Issue 2 Method 1 Case 3 @ $25^{\circ} \mathrm{C}$ | $>1,100,000$ hours @ 380 Vac >900,000 hours @ 480 Vac | >1,400,000 hours @ 380 Vac >900,000 hours @ 480 Vac | >630,000 hours @ 380 Vac >630,000 hours @ 480 Vac | >600,000 hours @ 380 Vac >550,000 hours @ 480 Vac |
|  | Telcordia SR-332 Issue 2 <br> Method 1 Case 3 <br> @ $40^{\circ} \mathrm{C}$ | >600,000 hours @ 380 Vac >500,000 hours @ 480 Vac | >910,000 hours @ 380 Vac >600,000 hours @ 480 Vac | >460,000 hours @ 380 Vac >450,000 hours @ 480 Vac SDN 20-24-480CR | >380,000 hours @ 380 Vac >360,000 hours @ 480 Vac |
| Status Indicators |  | Visual: 3 status LEDs (Input, Output, Alarm) <br> Relay: N.O. contact rated $200 \mathrm{~mA} / 50 \mathrm{Vdc}$, Signal Active when Vout> $18.5 \mathrm{Vdc}+/-5 \%$ |  |  |  |
| Installation |  |  |  |  |  |
| Fusing -Input |  | Input Branch fuse or circuit breaker should be provided by customer. See manual for details. |  |  |  |
| -Output |  | Outputs are capable of providing high currents for short periods of time for inductive load startup or switching. Fusing may be required for wire/loads if $2 x$ Nominal O/P current rating cannot be tolerated. Continuous current overload allows for reliable fuse tripping. |  |  |  |
| Mounting |  | Simple snap-on to DIN TS35/7.5 or TS35/15 rail system. |  |  |  |
| Connections ${ }^{9,10}$ <br> (Screw Type) | Input | 16-10 AWG (1.5-6 mm²) for solid conductors. Screw Torque: $4.4 \mathrm{lb}-\mathrm{in}(\sim 50 \mathrm{~N}-\mathrm{cm})$. |  |  |  |
|  | Output | 16-10 AWG (1.5-6 mm²) for solid conductors. Screw Torque: 7 lb -inch ( $80 \mathrm{~N}-\mathrm{cm}$ ) |  |  | 7-6 AWG (10.6-13 mm²) solid or stranded conductors. Screw Torque: 15.6 lb -inch ( $176 \mathrm{~N}-\mathrm{cm}$ ) |
| -Free Space | Above \& Below | 0.98 in (25 mm) |  | 1.6 in (40 mm) | 2.80 in (70mm) |
|  | Left \& Right | $0.98 \mathrm{in}(25 \mathrm{~mm})$ |  |  |  |
|  | Front | 0.59 in . (15 mm) |  |  |  |
| Dimensions - WxDxH in (mm) |  | $\begin{gathered} 4.85 \times 1.97 \times 4.36 \\ (123.0 \times 50.0 \times 110.0) \end{gathered}$ | $\begin{gathered} 4.85 \times 2.36 \times 4.36 \\ (123.0 \times 60.0 \times 110.0) \end{gathered}$ | $\begin{gathered} 4.85 \times 3.42 \times 4.98 \\ (123.0 \times 87.0 \times 127.0) \end{gathered}$ | $\begin{gathered} 4.85 \times 7.09 \times 4.66 \\ (123.0 \times 180.0 \times 119.0) \end{gathered}$ |
| Weight - lbs (kg) |  | 1.2 (0.5) | 1.5 (0.7) | 2.7 (1.2) | 5.3 (2.4) |
| General |  |  |  |  |  |
| Case |  | Fully enclosed metal housing with fine ventilation grid to keep out small parts. IP20 touch proof |  |  |  |
| Status Indicators |  | Visual: 3 status LEDs (Input, Output, Alarm) <br> Relay: N.O. contact rated $200 \mathrm{~mA} / 50 \mathrm{Vdc}$, Signal Active when Vout> 18.5 Vdc $+/-5 \%$ |  |  |  |
| Warranty |  | 5 Year Limited Warranty |  |  |  |

[^0]SDN-C Series Dimensions


| Catalog <br> Number$\|$$\|c\|$ | H | W | D |
| :--- | :---: | :---: | :---: |
|  | $4.85(123.0)$ | $1.97(50.0)$ | $4.36(111.0)$ |
| SDN 10-24-100C | $4.85(123.0)$ | $2.36(60.0)$ | $4.36(111.0)$ |
| SDN 16-12-100C | $4.85(123.0)$ | $2.36(60.0)$ | $4.36(111.0)$ |
| SDN 20-24-100C | $4.85(123.0)$ | $3.42(87.0)$ | $4.98(127.0)$ |
| SDN 5-24-480C | $4.85(123.0)$ | $1.97(50.0)$ | $4.36(111.0)$ |
| SDN 10-24-480C | $4.85(123.0)$ | $2.36(60.0)$ | $4.36(111.0)$ |
| SDN 20-24-480CD | $4.85(123.0)$ | $3.42(87.0)$ | $4.98(127.0)$ |

SDN 40-24-480C Dimensions



SDN 40-24-100C Dimensions


Voltage adjustment potentiometer located on top of power supply

| Catalog <br> Number | Dimensions - inches (mm) |  |  |
| :---: | :---: | :---: | :---: |
|  | H | W | D |
| SDN 40-24-100C | $4.85(123.0)$ | $7.09(180.0)$ | $4.81(122.0)$ |
| SDN 40-24-480C | $4.85(123.0)$ | $7.09(180.0)$ | $4.66(119.0)$ |

SDN 40-24-100C and SDN 40-24-480C output signaling terminal block features: Shut Down, Power Good, Current Monitor, Current Balance, GND, and active current sharing through I_SHARE connectors (See Signals Manual for connection information).

## SDN-C Series Mounting

SolaHD SDN-C power supplies are designed to be easily and reliably mounted to DIN rail. For applications requiring mounting the power supply directly to the panel, optional Panel Mount Adapter Brackets are available.

## DIN Rail Mounting

Snap on the DIN rail:

1. Tilt unit slightly backwards. Put it onto the DIN rail
2. Push downwards until stopped
3. Push at the lower front edge to lock
4. Shake the unit slightly to ensure that the retainer has locked

Alternative Panel Mount: Using the optional SDN-PMBRK3 accessory, the unit can be screw mounted to a panel.


## Panel Mounting

Panel mounting of SDN-C power supplies is simplified by using an optional Panel Mounting Bracket kit. Each kit comes with two brackets for modifying one power supply. Choose the appropriate bracket kit based on the power supply model in the tables below. Note that the Panel Mount bracket will add approximately $2-4 \mathrm{~mm}$ in depth, compared to DIN rail mounting. Refer to the manual that comes with the bracket kit for detailed instructions on assembly and mounting.

## SDN-PMBRK3

| Power Supply |
| :---: |
| SDN 16-12-100C |
| SDN 5-24-100C |
| SDN 10-24-100C |
| SDN 20-24-100C |
| SDN 40-24-100C |
| SDN 10-24-480C |
| SDN 20-24-480CD |



Dimensions - in. (mm)


## SDN-PMBRK2

| Power Supply |
| :---: |
| SDN 5-24-480C |
| SDN 40-24-480C |

Dimensions - in. (mm)


## X-ON Electronics

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[^0]:    9. Screw terminals. Use only one copper wire per terminal. Non-ratcheting torque driver recommended.
    10. SDN 40-24-480C only: Output signaling terminal block features (Shut down, Power Good, Current Monitor, Current Balance, signal GND). Please refer to Signals Manual for details.
