

SCP Series, 30 Watt; Single, Dual and Triple



These switchers are compact, rugged power supplies designed to power many of your industrial control and instrumentation devices and equipment, with high reliability and tight regulation through the most difficult factory-floor conditions around the globe. “User friendly” applies to these unique power supplies that feature easy-to-install DIN Rail and chassis mounting. Terminations are also easy to access (AC and DC terminations are well separated) and simple to wire. Safety is another aspect where the SCP distinguishes itself. The encapsulated design meets IP20 specifications, and the wide range of voltages will reliably support almost any low-power device in your cabinet or system for years to come.

Features

- International approvals for global use
- DIN Rail or Chassis Mount
- Rugged, encapsulated design to resist environment
- IP20 protection
- Many output voltages, 3.3-48 Volts; single, dual, triple
- Five year limited warranty

Packaging and Mounting Specifications

- Simple snap-on for DIN Rail TS35/7.5 or TS35/15
- M3 screw clamp terminations
- Chassis mounting possible on -DN Low-Profile versions by removing DIN clips (simply unscrew at the back of the unit).

Selection Table

Low Profile Catalog Number	Description	Output Voltages						Min Load V1 A	Efficiency %
		V1		V2		V3			
		Vdc	A	Vdc	A	Vdc	A		
SCP 30S3.3-DN	3.3 V	3.3	6.0	-	-	-	-	0	≥ 62
SCP 30S5-DN	5 V	5	6.0	-	-	-	-	0	≥ 70
SCP 30S12-DN	12 V	12	2.5	-	-	-	-	0	≥ 75
SCP 30S15-DN	15 V	15	2.0	-	-	-	-	0	≥ 75
SCP 30S24-DN	24 V	24	1.3	-	-	-	-	0	≥ 77
SCP 30S48-DN	48 V	48	0.6	-	-	-	-	0	≥ 77
SCP 30D12-DN	Dual O/P +/- 12 V	12	1.2	-12	1.2	-	-	0.12	≥ 68
SCP 30D15-DN	Dual O/P +/- 15 V	15	1.0	-15	1.0	-	-	0.15	≥ 68
SCP 30D512-DN	Dual O/P 5 V & 12 V	5	3.0	12	1.2	-	-	0.3	≥ 68
SCP 30D524-DN	Dual O/P 5 V & 24 V	5	3.0	24	0.6	-	-	0.3	≥ 68
SCP 30T512-DN	Triple O/P 5/12/12 V	5	3.0	-12	0.6	12	0.6	0.3	≥ 68
SCP 30T515-DN	Triple O/P 5/15/15 V	5	3.0	-15	0.5	15	0.5	0.3	≥ 68

Please order using the following model number suffixes:

**-DN:** Low Profile – DIN Rail or Chassis Mount (ie: SCP30S3.3-DN).

**B-DN:** Slim Line – DIN Rail Mount Availability Only (ie: SCP30S3.3B-DN).

Note: Slim line version not available on SCP30D512-DN

Options and Accessories

- SCP-MDC – Pair of metal DIN clips
- SCP-PDC – 1 plastic DIN clip with lever for removal from rail

Certifications and Compliances

- UL Recognized Component, ITE, E137632
- - IEC/EN 60950-1, 2nd Edition
- IP20
- RoHS Compliant

## Specifications

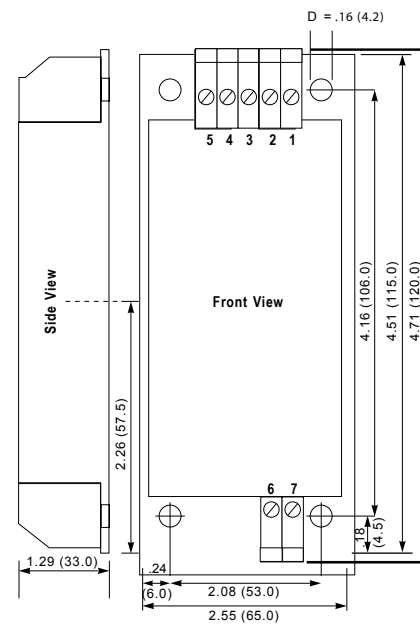
Parameter	Condition	Value
<b>Input</b>		
AC Input Voltage	—	85 - 264 Vac
DC Input Voltage	—	100 - 375 Vdc
Input Frequency	—	50/60 HZ
Filtering EMI/RFI	—	EN 55011/B, 55022/B
Switching Frequency	—	Typ. 100 kHz
Input Fusing Required	—	Use 2.0 A Slow Fuse
<b>Output</b>		
Output Voltage Accuracy	$V_{in} = 230V, I_{out} = \text{max}, 25^{\circ}C$	$V1 \leq \pm 1\%, V2/3 \leq \pm 3\%$
Ripple	$V_{in} = \text{min}, I_{out} = \text{max}, 25^{\circ}C$	$\leq 1\%, V_{out}$
Noise	$V_{in} = \text{min}, I_{out} = \text{max}, 25^{\circ}C$	$\leq 2\%, V_{out}$
Line Regulation	$V_{in} = \text{min/max } 25^{\circ}C$ $I_{out} = \text{max}, 25^{\circ}C$	$\leq +0.5\%, V_{out}$
Load Regulation	$I_{out} = 10 \text{ to } 90 \text{ to } 10\%$ , $25^{\circ}C, V_{in} = 230 \text{ Vac}, 25^{\circ}C$	$\leq +0.5\%, V_{out}$
Overcurrent Protection	—	105 to 130% $I_{nom}$
Load Regulation Timing	10 to 90 to 10%, 25°C	<4 ms
Temperature Coefficient	$T_{amb} = -25 \text{ to } +65^{\circ}C$	0.01%/K
Overload/Short Circuit	Continuous	
Derating Single/Dual/Triple	$T_{amb} > 50^{\circ}C$	2/3/5%/K max
<b>General</b>		
Holdup Time	$V_{in} = 230 \text{ Vac}$	>50 ms
Operating Temperature	—	-25 to +65°C
Storage Temperature	$T_{amb} = 25^{\circ}C$	45 to +85°C
Case Temperature Rise at Full Load	—	45 K max
MTBF at 25°C (input/output)	acc. MIL-HDBK-217F	800,000 hrs
Transient Protection	—	EN61000-4-2, 3, 4, 5
Cooling	—	Convection
Weight – lbs (kg)	0.7 lbs (.34 kg)	0.8 lbs (.38 kg)
Case Material/Potting	—	UL94-VO
Protection	—	IP20
Visual Indicators	—	Green LED indicates DC OK for B-DN Slim Line versions only

## Dimensions (H x W x D)

- Low Profile “-DN”**  
 4.72 x 2.55 x 1.29 inches (120.0 x 65.0 x 33.0 mm)  
 (Takes up 2.55 inches or 65.0 mm on DIN Rail)
- Slim Line “B-DN”**  
 4.72 x 1.29 x 2.68 inches (120.0 x 33.0 x 68.0 mm)  
 (Takes up 1.29 inches or 33.0 mm on DIN Rail)

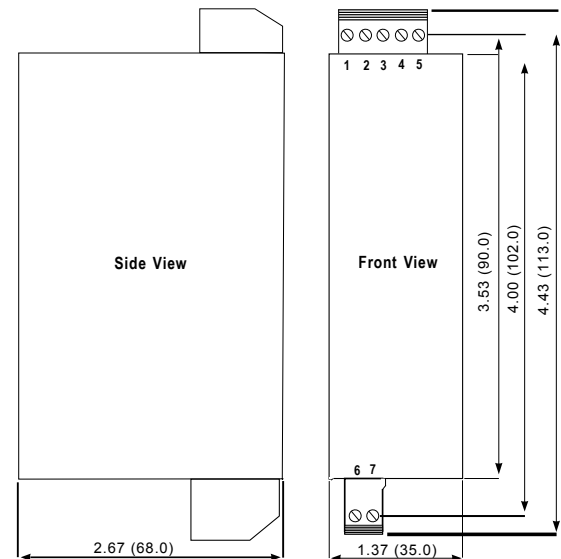
## Dimensional Diagram – in (mm)

### Low Profile DIN Rail (-DN) or Chassis Mount \*



\* Unscrew DIN connector for chassis mounting.

### Slim Line DIN Rail Mount only (B-DN)



## Pin-Out

SCP 30	1	2	3	4	5	6	7
Single				RETURN	+V1	IN	IN
Dual sym			-V2	COM	+V1	IN	IN
Dual asym		COM (V1)	+V1	COM V3	+V3	IN	IN
Triple	-V2	COM (V1)	COM (V2/3)	+V1	+V3	IN	IN

### DC Power Supply Selection Worksheet

Power supplies can be selected by following the directions below. Enter your power requirements and a list of matching power supplies will list. You can also manually select a power supply by following the directions below:

- 1) Gather the required information.
  - Input voltage and frequency?
  - Wattage needed?
  - Number of outputs?
  - Voltage of each output?
  - Amperage of each output?
  - Don't forget to take into account the peak loading of each output.
  - Battery Back-up?
  
- 2) Calculate the power (wattage) of the DC power supply you need. If more than one output is required, do the following calculation:
  - Multiply the Voltage times the amperage of each output to calculate the wattage of each output. Next, add together the wattage of each output to get the total wattage for the supply.
  
- 3) Determine which models from the Power Supply Selection Chart (on the next page) meet all of the required specifications.
  
- 4) Reference [www.solahd.com](http://www.solahd.com) for the latest specifications sheets.
  
- 5) Check the mounting style, connections and physical size of the power supply to ensure its suitability for the intended application.
  
- 6) Check for applicable safety approvals for the country and application the power supply will be used in.

#### Selection Worksheet

Output:

- \_\_\_\_\_ Vdc x \_\_\_\_\_ Amps = \_\_\_\_\_ Watts
- \_\_\_\_\_ Vdc x \_\_\_\_\_ Amps = \_\_\_\_\_ Watts
- \_\_\_\_\_ Vdc x \_\_\_\_\_ Amps = \_\_\_\_\_ Watts
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- \_\_\_\_\_ Vdc x \_\_\_\_\_ Amps = \_\_\_\_\_ Watts
- \_\_\_\_\_ Vdc x \_\_\_\_\_ Amps = \_\_\_\_\_ Watts

Add Watts from each output to calculate

Total Watts = \_\_\_\_\_

Physical Dimensions:

\_\_\_\_\_ H x \_\_\_\_\_ W x \_\_\_\_\_ D

Mounting:

- \_\_\_\_\_ DIN Rail
- \_\_\_\_\_ Chassis
- \_\_\_\_\_ Other

Other required features or options:

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If you have filled out this form and cannot find the appropriate power supply, e-mail this information to the Technical Services group:  
[solahd.technicalservices@emerson.com](mailto:solahd.technicalservices@emerson.com)

### Power Supply Selection Table

This chart is intended only as a guide for selecting a series of DC power supply, some of the series listed may not work in all applications.

Series	Input Voltage				Output Voltage						Power Range (Total Watts)	Number of Outputs				Notes	Page
	DC	115 Vac	230 Vac	380/480 Vac	3.3 V	5 V	12 V	15 V	24 V	48 V		Single	Dual	Triple	>4		
<b>SDN-C™ SDN-PT™ SDN Redundant</b>	X	X	X	X			X		X	X	<b>60 – 960</b>	X				- DIN Rail mount - DC Battery Back-up Available - Redundant options	117 -130
<b>SDPT™</b>	X	X	X			X	X	X	X	X	<b>15 – 100</b>	X				- DIN Rail mount compact	134
<b>SCP</b>	X	X	X		X	X	X	X	X	X	<b>30 – 100</b>	X	X	X		- DIN Rail mount/Chassis	140
<b>SCD</b>	X					X	X	X	X	X	<b>30</b>	X	X			- DIN Rail mount/Chassis - DC input	142
<b>GL OEM Switchers</b>		X	X		X	X	X	X	X		<b>25 – 500</b>	X	X	X	X	- 25 - 250 Watt - Optional Covers	148
<b>Silver Line Linears</b>		X	X			X	X	X	X		<b>15 – 244</b>	X	X	X		- Industry standard footprint - Screw terminals and optional covers	144

### DIN Rail Selection Guide

Output Voltages											
	48	24	15	12	10	5	±15	±12	5/24	5/12/12	
<b>A M P S</b>	1	SDP 1-48-100T	SDP 06-24-100T							SCP 30D524-DN SCP 30S524B-DN	
			SDP 1-24-100T	SCP 30S15-DN							SCP 30T512-DN
	2.5		SDN 2.5-24-100P SDP 2-24-100T		SDP 2-12-100T SCP 30S12B-DN			SCP 30D15-DN	SCP 30D12-DN		
	3			SDP 3-15-100T		SDP 2-12-100T					
	3.8		SDN 4-24-100LP SDP 4-24-100LT								
	4		SDP 4-24-100RT								
	5	SDN 5-48-100P	SDN 5-24-100C SDN 5-24-100P SDN 5-24-480C (30)				SDP 5-5-100T SCP 30S5B-DN				
	9			ddwwwdwww9-12-100P							
	10		SDN 10-24-100C SDN 10-24-100P SDN 10-24-480C (30)								
	16				SDN 16-12-100P						
20		SDN 20-24-100C SDN 20-24-480CC (30)									
40		SDN 40-24-480C (30)									