

Emerson has a broad range of SolaHD power supplies to suit almost any application. Three tiers of DIN rail power supplies, from high reliability in the harshest of environments, to applications with extremely economical requirements. IP67-rated power supplies, conveniently mounted as a standalone device without an enclosure. Very compact power supplies and DC-to-DC converters for low wattage applications. High capacity modular power supplies for unusual custom application needs. Traditional linear power supplies for applications where modern switching design power supplies are not suitable.



SDN-C: Highest performance specifications and extensive international certifications ensure that SDN-C High Performance DIN Rail Power Supplies are suitable for the most extreme environments, including hazardous locations and off-shore applications. Wide operating temperature range and PowerBoost™ capability ensure reliable operation in the harshest industrial environments. Parallel operation, extensive LED diagnostics, and universal AC or DC input voltage simplify installation and maintenance. Available with 12 or 24 Vdc output; currents up to 40 A; with single phase AC, 3-phase AC, or DC input.

SDN-P: Providing industry leading performance at a reasonable cost, the SDN-P Core DIN Rail Power Supplies feature sag immunity, transient suppression, power factor correction, and wide operation temperature range. Available in output currents 2.5 A to 9 A; 12, 24, and 48 Vdc outputs; with 1-phase AC or DC input.

SDP: An extension of the Core Series, the SDP Low Power DIN Rail Power Supplies fill out the mid-range with low power options. The compact, lightweight power supplies come in output voltages from 5 to 48 Vdc and power ratings up to 100 Watts.

SVL: The cost effective SVL Essential DIN Rail Power Supplies are perfect for high volume, controlled environment applications, ranging from 15 to 480 Watts in 5, 12, 24 and 48 Volt combinations.

Power Supply Redundancy Modules: For an additional level of system reliability, our DIN Rail Redundancy Modules are used to support redundant power supply operation. The Redundancy Module continually monitors the condition of two power supplies connected to a single load. If one power supply fails, the Redundancy Module automatically changes over to the other power supply. It also provides important diagnostic information, and helps to balance the load between the two power supplies during normal operation. The Redundancy Modules have extensive international certifications required for harsh industrial environments and hazardous locations. The module works with SolaHD SDN-C, SDN-P, and most other power supplies capable of parallel operation.

SCP-X: No enclosure required! IP67-rated standalone SCP-X Extreme Environment IP67 Power Supplies deliver reliable field power to distributed and remote machine controls. Mounts directly on the machine or production line, eliminating the complexity and cost of unnecessary enclosures and excess wiring. Quick change connectors simplify connectivity to I/O devices. Class II rated, 24 Vdc output in single and dual 100 Watt models. Perfect for automotive, packaging and automated distribution applications.



SCP: The convenience of a very compact design in either DIN rail or chassis mount configuration, the SCP 30 Watt Power Supplies are available with Single, Dual and Triple output configurations.

SCD: Similar to the SCP Series, the very compact SCD 30 Watt DC-DC Converters provide DC to DC conversion in either DIN rail or chassis mounting configuration. Single, Dual and Triple output configurations.

SHP: The high power, modular design of SHP High Power Modular Power Supplies allow extremely flexible design of single or multiple output configurations up to 4920 Watts. Intelligent design option provides I2C or CANBUS/RS485 interface to monitor and control power supply attributes.

SL: Although linear design power supplies are generally considered to be old technology, the SL Silver Line Linear Power Supplies still provide some advantages over modern switching power supplies. Often preferred for applications where very tight regulation, very clean DC output, or very fast transient response is more important than the large, heavy, inefficient, heat producing operation inherent to linear-based power supply design.

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 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

_____ Vdc x _____ Amps = _____ Watts

_____ Vdc x _____ Amps = _____ Watts

_____ 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:

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

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				Page
	DC	1Ø AC	3Ø AC	3.3 V	5 V	12V	15 V	24 V	48V		Single	Dual	Triple	>4	
SDN-C High Performance, DIN Rail	X	X	X			X		X		120 – 960	X				124
SDN-P Core, DIN Rail	X	X				X		X	X	60 – 240	X				132
SDP Low Power, DIN Rail	X	X			X	X	X	X	X	15 – 100	X				144
SVL Essential, DIN Rail	X	X			X	X		X	X	15 – 480	X				147
Redundancy Modules, DIN Rail	X					X	X	X		Up to 1920	X				141
SCP-X Extreme Environment IP67	X	X						X		100, 2 X 100	X				160
SCP 30 Watt Multi-output	X	X		X	X	X	X	X	X	30	X	X	X		152
SCD 30 Watt DC-DC Converter	X				X	X	X	X	X	30	X	X			154
SHP High Power Modular	X	X		X	X	X	X	X	X	36 – 4920	X	X	X	X	171
SL Silver Line Linear		X			X	X	X	X		15 – 244	X	X	X		156

DIN Rail Selection Guide

Output Voltages											
	48	24	15	12	10	5	±15	±12	5/24	5/12/12	
AMPS	1	SDP 1-48-100T	SDP 06-24-100T SDP 1-24-100T SVL 1-24-100	SCP 30S15-DN					SCP 30D524-DN SCP30S524B-DN	SCP 30T512-DN	
	2.5	SVL 2-48-100	SDN 2.5-24-100P SDP 2-24-100T SVL 2-24-100		SDP 2-12-100T SCP 30S12B-DN		SCP 30D15-DN	SCP 30D12-DN			
	3			SDP 3-15-100T	SDP 3-15-100T	SDP2-12-100T	SVL 3-5-100				
	3.8		SDN 4-24-100LP SDP 4-24-100LT								
	4		SDP 4-24-100RT SVL 4-24-100		SVL 4-12-100						
	5	SDN 5-48-100P	SVL 5-24-100 SDN 5-24-100C SDN 5-24-100P SDN 5-24-480C (3Ø)			SDP 5-5-100T					
	6					SCP 30S5B-DN SVL 6-5-100					
	9			SDN 9-12-100P							
	10		SVL 10-24-100 SDN 10-24-100C SDN 10-24-100P SDN 10-24-480C (3Ø)								
	16			SDN 16-12-100C							
	20		SVL-20-24-100 SDN 20-24-100C SDN 20-24-480CD (3Ø)								
	40		SDN 40-24-480C (3Ø)								