



Switching Power Supplies



Control



Sense



Switch



Control



Safety



Fieldbus



SPD Switching Power Supplies

CARLO GAVAZZI presents a new range of power supplies especially designed for the automation market. The wide range of supply voltages and DC output voltages/power provide a multitude of choices for all low power electrical or electronic devices commonly used in automatic machinery. Components such as sensors, electromechanical relays, contactors, solid state relays, timers, temperature controllers, PLCs, process controllers, DC motors, solenoids, displays, etc. now have a reliable power source.



Space
Optimization



Diagnostic
Warning



User
Friendly



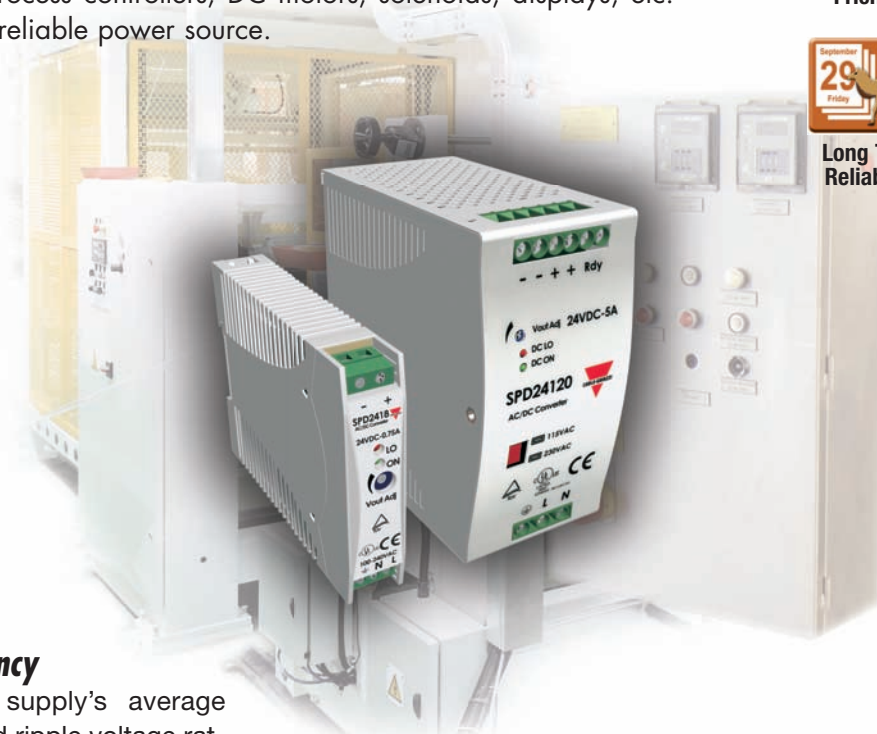
Minimizing
Energy Cost



Long Term
Reliability



Long Term
Reliability



High Efficiency

The power supply's average efficiency and ripple voltage ratings are comparable or better than most power supplies on the market.

Product Range

	5V	12V	15V	24V	48V
SPD 5-10-18W	■	■	■	■	
SPD 30-60W	■	■		■	■
SPD 120W		■		■	■
SPD 240-480W				■	■

Adjustable Output

All models provide a front potentiometer in order to adjust the output voltage. This useful feature can provide a voltage surplus when line voltage losses cause low voltages to the load.

Parallel Connection

Parallel connection is a standard feature with the 240W and 480W versions, and optional on the 120W version.

Visual and Electrical Indications

Models up to 18W are equipped with two front LEDs, which provide a visual indication of the 'Power Out' enabled and 'Low Voltage' on the output. All other sizes are equipped with an LED indication and also with an output 'Power Ready' signal. This signal could be used by other electronic devices or to power an alarm (this feature is only available on 24VDC output versions).

Power Factor Correction (PFC)

The PFC function is a standard feature on the 240W and 480W models and available upon request on the 120W model.

Approvals and Warranty

All SPD Power Supplies are approved according to UL, cUL, TÜV and CE safety standards: UL class 2 recognized and Class B for the emissions according to European standards. They are also RoHS compliant. All models feature a Two Year Warranty.



Sense

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Ventilation Grid

Output Terminals

Also available with spring connectors.

Model Number

'LO' LED

Indicates output voltage too low.

'ON' LED

Indicates power output is OK.

Safety Label

Approval data file numbers EAN cod and traceability data.

DIN Rail Clip

Easy installation on any kind of DIN Rail.

Input Terminals

Also available with spring or screw connectors.



TRIMMER and STATUS LEDs

An adjustment trimmer pot is featured on all the models throughout the range. It allows a fine regulation of the output with the two 'status LEDs', therefore the information about correct operation of power supply is available at a glance. All models, except the 30W and 60W, feature two LEDs: one for power output (ON) and one for indication of low voltage on output (LO).

SPD 5, 10 and 18W

- 5, 10 and 18W Switching Power Supplies
- 22.5mm wide, plastic enclosure
- DIN rail mounting
- Screw terminal or spring terminal connections
- Input voltage: 90-265VAC or 120-370VDC
- Available output voltages: 5, 12, 15 or 24 VDC
- Output voltage adjustment
- Internal noise filter
- Short circuit protection
- Front indication of power 'OK' and 'Low Voltage' output
- Operating temperature without derating: -10° to +60°C



Switching Power Supplies



Ventilation Grid

Model Number

Output Voltage Adjustment

Allows adjustment of output voltage within a small range to the required value.

DIN Rail Clip

Easy installation on any kind of DIN Rail.

Safety Label

Approval data file numbers EAN code and traceability data.

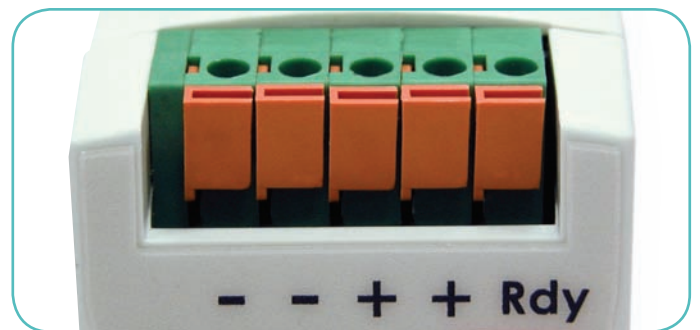
'ON' LED

Indicates power output is OK.

OPTIONAL SPRING LOADED TERMINALS

On all models up to 60W a choice between spring loaded terminals and screw terminals is provided. Spring loaded terminals allow fast and reliable machine connection, saving time and money.

On 30W and 60W '+' and '-' terminals are doubled in order to increase current capacity of connection wires using two smaller section cables.



SPD 30 and 60W

- 30 and 60W Switching Power Supplies
- 40.5mm wide, plastic enclosure
- DIN rail mounting
- Screw terminal or spring terminal connections
- Input voltage: 85-264VAC or 90-375VDC
- Available output voltages: 5, 12, 24 and 48VDC
- Output voltage adjustment
- Internal noise filter
- Short circuit protection
- Front indication of power 'ON'
- Output with electrical signal of power 'Ready'
- Operating temperature without derating: -10° to +60°C



Ventilation Grid

Output Ready Terminals

Useful feature providing an electrical indication of good operation.

Output Terminals

Double terminals for each pole for easy parallel connection or to use smaller conductors.

Single/Parallel Switch

Selection of operation as a single power supply or in parallel with another one.

Vout Adjustment

Allows adjustment of output voltage within a small range to the required value.

'LO' LED

Indicates output voltage too low.

'ON' LED

Indicates power output is OK.

Model Number

Input Terminals

Also available with removable terminals and/or built in PFC function.



SPD 120W

- 120W Switching Power Supply
- Metal housing
- DIN rail mounting
- Screw terminals or detachable connectors
- Input voltage: 93-264VAC or 210-370VDC (115/230 selectable by switch)
- Available output voltages: 12, 24 and 48VDC
- Output voltage adjustment
- PFC function available on request
- Parallel function available on request (up to three power supplies)
- Short circuit protection and overload protection
- Front indication of Power 'OK' and 'Output Voltage Low'
- Relay output for power 'Ready' signal (voltage free terminals)
- Operating temperature without derating: -10° to $+60^{\circ}\text{C}$

SPD 240W

- 240W Switching Power Supply
- Metal housing
- DIN rail mounting
- Screw terminals or detachable connectors
- Input voltage 93-264VAC or 210-370VDC (115/230 autoselect)
- Available output voltages 24 and 48VDC
- Output voltage adjustment
- PFC function standard
- Parallel function standard (up to three power supplies) selectable from front panel
- Short circuit protection, overvoltage and overload protection
- Front indication of Power 'OK' and 'Output Voltage Low'
- Relay Output for power 'Ready' signal (voltage free terminals)
- Operating temperature without derating: -10° to $+60^{\circ}\text{C}$



Ventilation Grid

Model Number

Input Terminals

Also available with removable terminals PFC function: built in.

Safety Label

Approval data file numbers EAN cod and traceability data.

DIN Rail Clip

Easy installation on any kind of DIN Rail.

'ON' LED

Indicates power output is OK.

'LO' LED

Indicates output voltage too low.

Vout Adjustment

Allows voltage output voltage adjustment within a small range to the required value.

Output Terminals

Also available with removable terminals

Output Ready Terminals

Useful feature providing an electrical indication of good operation.

PARALLEL or SINGLE FUNCTION SWITCH

On the 240W and 480W versions the parallel/single function switch is a standard feature, on the 120W version it is available as an option. By setting this switch on the 'Parallel' position it is possible to connect up to three power supplies in parallel, in order to increase output power.

Also on the 'Parallel' position, voltage output is fixed and not adjustable in order to prevent unbalanced output voltages. Output '+' and '-' terminals are doubled, on models from 120W, in order to easily facilitate parallel connection.



SPD 480W

- 480W switching power supply
- Metal housing
- Screw terminals or detachable connectors
- Input voltage: 90-264VAC or 120-370VDC (115/230 autoselected)
- Output voltage adjustment
- PFC function standard
- Parallel function standard (selectable by front switch)
- Short circuit, overload and overvoltage protection
- Relay output for power 'Ready' signal (voltage free terminals)
- Operating temperature without derating: -10° to $+60^{\circ}\text{C}$

Switching Power Supplies

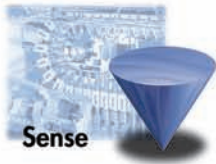


Part Number	Description	Vin *VAC	Vout VDC	Iout A
SPD 05 05 I	Switching Power Supply 5W, DIN Rail	100 - 240	5	1
SPD 05 05 IB	Switching Power Supply 5W, DIN Rail, Spring terminals	100 - 240	5	1
SPD 12 05 I	Switching Power Supply 5W, DIN Rail	100 - 240	12	0.42
SPD 12 05 I B	Switching Power Supply 5W, DIN Rail, Spring terminals	100 - 240	12	0.42
SPD 15 05 I	Switching Power Supply 5W, DIN Rail	100 - 240	15	0.34
SPD 15 05 I B	Switching Power Supply 5W, DIN Rail, Spring terminals	100 - 240	15	0.34
SPD 24 05 I	Switching Power Supply 5W, DIN Rail	100 - 240	24	0.21
SPD 24 05 I B	Switching Power Supply 5W, DIN Rail, Spring terminals	100 - 240	24	0.21
SPD 05 10 I	Switching Power Supply 10W, DIN Rail	100 - 240	5	2
SPD 05 10 I B	Switching Power Supply 10W, DIN Rail, Spring terminals	100 - 240	5	2
SPD 12 10 I	Switching Power Supply 10W, DIN Rail	100 - 240	12	0.84
SPD 12 10 I B	Switching Power Supply 10W, DIN Rail, Spring terminals	100 - 240	12	0.84
SPD 15 10 I	Switching Power Supply 10W, DIN Rail	100 - 240	15	0.67
SPD 15 10 I B	Switching Power Supply 10W, DIN Rail, Spring terminals	100 - 240	15	0.67
SPD 24 10 I	Switching Power Supply 10W, DIN Rail	100 - 240	24	0.42
SPD 24 10 I B	Switching Power Supply 10W, DIN Rail, Spring terminals	100 - 240	24	0.42
SPD 05 18 I	Switching Power Supply 15W, DIN Rail	100 - 240	5	3
SPD 05 18 I B	Switching Power Supply 15W, DIN Rail, Spring terminals	100 - 240	5	3
SPD 12 18 I	Switching Power Supply 18W, DIN Rail	100 - 240	12	1.5
SPD 12 18 I B	Switching Power Supply 18W, DIN Rail, Spring terminals	100 - 240	12	1.5
SPD 15 18 I	Switching Power Supply 18W, DIN Rail	100 - 240	15	1.2
SPD 15 18 I B	Switching Power Supply 18W, DIN Rail, Spring terminals	100 - 240	15	1.2
SPD 24 18 I	Switching Power Supply 18W, DIN Rail	100 - 240	24	0.75
SPD 24 18 I B	Switching Power Supply 18W, DIN Rail, Spring terminals	100 - 240	24	0.75
SPD 05 30 I	Switching Power Supply 30W, DIN Rail	100 - 240	5	6
SPD 05 30 I B	Switching Power Supply 30W, DIN Rail, Spring terminals	100 - 240	5	6
SPD 12 30 I	Switching Power Supply 30W, DIN Rail	100 - 240	12	2.5
SPD 12 30 I B	Switching Power Supply 30W, DIN Rail, Spring terminals	100 - 240	12	2.5
SPD 24 30 I	Switching Power Supply 30W, DIN Rail,	100 - 240	24	1.25
SPD 24 30 I B	Switching Power Supply 30W, DIN Rail, Spring terminals	100 - 240	24	1.25
SPD 48 30 I	Switching Power Supply 30W, DIN Rail,	100 - 240	48	0.625
SPD 48 30 I B	Switching Power Supply 30W, DIN Rail, Spring terminals	100 - 240	48	0.625
SPD 05 60 I	Switching Power Supply 50W, DIN Rail	100 - 240	5	10
SPD 05 60 I B	Switching Power Supply 50W, DIN Rail, Spring terminals	100 - 240	5	10
SPD 12 60 I	Switching Power Supply 60W, DIN Rail	100 - 240	12	5
SPD 12 60 I B	Switching Power Supply 60W, DIN Rail, Spring terminals	100 - 240	12	5
SPD 24 60 I	Switching Power Supply 60W, DIN Rail	100 - 240	24	2.5
SPD 24 60 I B	Switching Power Supply 60W, DIN Rail, Spring terminals	100 - 240	24	2.5
SPD 48 60 I	Switching Power Supply 60W, DIN Rail	100 - 240	48	1.25
SPD 48 60 I B	Switching Power Supply 60W, DIN Rail, Spring terminals	100 - 240	48	1.25
SPD 12 120 I	Switching Power Supply 120W, DIN Rail	100 - 240	12	10
SP D 12 120 I F	Switching Power Supply 120W, DIN Rail, with PFC	100 - 240	12	10
SP D 12 120 I P	Switching Power Supply 120W, DIN Rail, with Parallel function	100 - 240	12	10
SP D 12 120 I FP	Switching Power Supply 120W, DIN Rail, with PFC and Parallel function	100 - 240	12	10

Part Number	Description	Vin *VAC	Vout VDC	Iout A
SP D 12 120 I B	Switching Power Supply 120W, DIN Rail, Removable connectors	100 - 240	12	10
SPD 12 120 I BF	Switching Power Supply 120W, DIN Rail, Removable connectors and PFC	100 - 240	12	10
SPD 12 120 I BP	Switching Power Supply 120W, DIN Rail, Removable connectors and Parallel function	100 - 240	12	10
SPD 12 120 I BFP	Switching Power Supply 120W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	12	10
SPD 24 120 I	Switching Power Supply 120W, DIN Rail	100 - 240	24	5
SPD 24 120 I F	Switching Power Supply 120W, DIN Rail, with PFC	100 - 240	24	5
SPD 24 120 I P	Switching Power Supply 120W, DIN Rail, with Parallel function	100 - 240	24	5
SPD 24 120 I FP	Switching Power Supply 120W, DIN Rail, with PFC and Parallel function	100 - 240	24	5
SPD 24 120 I B	Switching Power Supply 120W, DIN Rail, Removable connectors	100 - 240	24	5
SPD 24 120 I BF	Switching Power Supply 120W, DIN Rail, Removable connectors and PFC	100 - 240	24	5
SPD 24 120 I BP	Switching Power Supply 120W, DIN Rail, Removable connectors and Parallel function	100 - 240	24	5
SPD 24 120 I BFP	Switching Power Supply 120W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	24	5
SPD 48 120 I	Switching Power Supply 120W, DIN Rail	100 - 240	48	2.5
SPD 48 120 I F	Switching Power Supply 120W, DIN Rail, with PFC	100 - 240	48	2.5
SPD 48 120 I P	Switching Power Supply 120W, DIN Rail, with Parallel function	100 - 240	48	2.5
SPD 48 120 I FP	Switching Power Supply 120W, DIN Rail, with PFC and Parallel function	100 - 240	48	2.5
SPD 48 120 I B	Switching Power Supply 120W, DIN Rail, Removable connectors	100 - 240	48	2.5
SPD 48 120 I BF	Switching Power Supply 120W, DIN Rail, Removable connectors and PFC,	100 - 240	48	2.5
SPD 48 120 I BP	Switching Power Supply 120W, DIN Rail, Removable connectors and Parallel function,	100 - 240	48	2.5
SPD 48 120 I BFP	Switching Power Supply 120W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	48	2.5
SPD 24 240 I	Switching Power Supply 240W, DIN Rail, PFC and Parallel function	100 - 240	24	10
SPD 24 240 I B	Switching Power Supply 240W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	24	10
SPD 48 240 I	Switching Power Supply 240W, DIN Rail, PFC and Parallel function	100 - 240	48	5
SPD 48 240 I B	Switching Power Supply 240W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	48	5
SPD 24 480 I	Switching Power Supply 480W, DIN Rail, PFC and Parallel function	100 - 240	24	20
SPD 24 480 IB	Switching Power Supply 480W, DIN Rail, Removable connector, PFC and Parallel function	100 - 240	24	20
SPD 48 480 I	Switching Power Supply 480W, DIN Rail, PFC and Parallel function	100 - 240	48	10
SPD 48 480 IB	Switching Power Supply 480W, DIN Rail, Removable connector, PFC and Parallel function	100 - 240	48	10

* Approximate AC supply voltage is 100-240VAC. However, they can also be powered by lower and higher AC voltages and also DC Voltages. See datasheet for more accurate specifications.

The Complete Product Package



Sense

Inductive Proximity Sensors
 Tripleshield™ Capacitive Sensors
 Photoelectric Sensors
 Inductive Loop Detectors
 Ultrasonic Sensors
 Level Sensors
 Limit Switches
 Magnetic Switches



Switch

Solid State Relays
 Contactors and Overloads
 Manual Motor Starters
 Motor Controllers
 Variable Frequency Drives
 Electromechanical Relays
 Pilot Devices
 Cam Switches
 Rotary Disconnects



Control

Energy Management
 Digital Panel Meters
 PID Controllers
 Time Delay Relays
 Current Monitoring Relays
 Voltage Monitoring Relays
 Three Phase Monitoring Relays
 Signal Conditioners
 Current Transformers
 Enclosures



Safety

Light Curtains
 Control Modules
 Interlock Switches
 Mat Systems
 Magnetic Sensors



Fieldbus

Dupline Field & Installation Bus
 Building Automation Systems
 Elevator Systems

A Global Force in Industrial Automation

CARLO GAVAZZI has a multitude of sales offices spanning North America (not to mention our hundreds of distributors). Therefore, we can be viewed as "your local automation resource" - assisting you every step of the way in finding the proper solution for your various application requirements. Naturally, our job is greatly simplified as we have such a vast range of solutions to offer you via our comprehensive product package.

Our worldwide sales offices make us an ideal business partner, especially for manufacturers of exported machinery, as our products are available locally and they are CE marked.

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