

**CARLO GAVAZZI**  
Automation Components



*Switching  
Power  
Supplies*

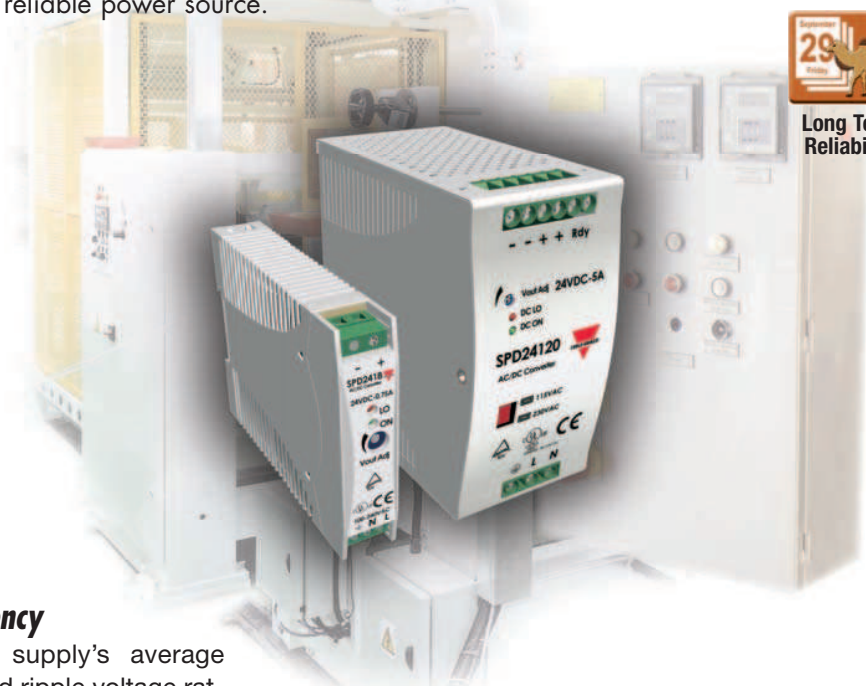


Control



## 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, TUV 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.



Specifications are subject to change without notice.



**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 cod and traceability data.

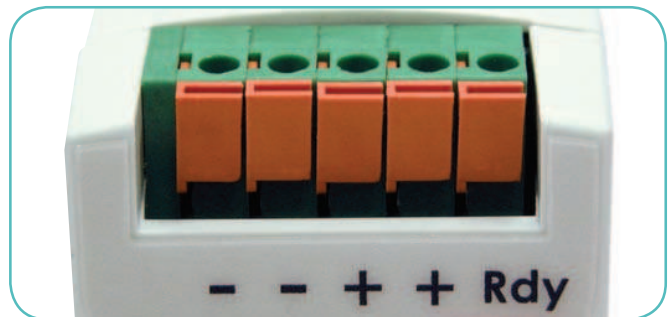
**'ON' LED**

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

Specifications are subject to change without notice.

### 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°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°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°C

# Switching Power Supplies



Part Number	Description	Vin *VAC	Vout VDC	Iout A
SPD 05 05 1	Switching Power Supply 5W, DIN Rail	100 - 240	5	1
SPD 05 05 1B	Switching Power Supply 5W, DIN Rail Spring terminals	100 - 240	5	1
SPD 12 05 1	Switching Power Supply 5W, DIN Rail	100 - 240	12	0.42
SPD 12 05 1 B	Switching Power Supply 5W, DIN Rail, Spring terminals	100 - 240	12	0.42
SPD 15 05 1	Switching Power Supply 5W, DIN Rail	100 - 240	15	0.34
SPD 15 05 1 B	Switching Power Supply 5W, DIN Rail, Spring terminals	100 - 240	15	0.34
SPD 24 05 1	Switching Power Supply 5W, DIN Rail	100 - 240	24	0.21
SPD 24 05 1 B	Switching Power Supply 5W, DIN Rail, Spring terminals	100 - 240	24	0.21
SPD 05 10 1	Switching Power Supply 10W, DIN Rail	100 - 240	5	2
SPD 05 10 1 B	Switching Power Supply 10W, DIN Rail, Spring terminals	100 - 240	5	2
SPD 12 10 1	Switching Power Supply 10W, DIN Rail	100 - 240	12	0.84
SPD 12 10 1 B	Switching Power Supply 10W, DIN Rail, Spring terminals	100 - 240	12	0.84
SPD 15 10 1	Switching Power Supply 10W, DIN Rail	100 - 240	15	0.67
SPD 15 10 1 B	Switching Power Supply 10W, DIN Rail, Spring terminals	100 - 240	15	0.67
SPD 24 10 1	Switching Power Supply 10W, DIN Rail	100 - 240	24	0.42
SPD 24 10 1 B	Switching Power Supply 10W, DIN Rail, Spring terminals	100 - 240	24	0.42
SPD 05 18 1	Switching Power Supply 15W, DIN Rail	100 - 240	5	3
SPD 05 18 1 B	Switching Power Supply 15W, DIN Rail, Spring terminals	100 - 240	5	3
SPD 12 18 1	Switching Power Supply 18W, DIN Rail	100 - 240	12	1.5
SPD 12 18 1 B	Switching Power Supply 18W, DIN Rail, Spring terminals	100 - 240	12	1.5
SPD 15 18 1	Switching Power Supply 18W, DIN Rail	100 - 240	15	1.2
SPD 15 18 1 B	Switching Power Supply 18W, DIN Rail, Spring terminals	100 - 240	15	1.2
SPD 24 18 1	Switching Power Supply 18W, DIN Rail	100 - 240	24	0.75
SPD 24 18 1 B	Switching Power Supply 18W, DIN Rail, Spring terminals	100 - 240	24	0.75
SPD 05 30 1	Switching Power Supply 30W, DIN Rail	100 - 240	5	6
SPD 05 30 1 B	Switching Power Supply 30W, DIN Rail, Spring terminals	100 - 240	5	6
SPD 12 30 1	Switching Power Supply 30W, DIN Rail	100 - 240	12	2.5
SPD 12 30 1 B	Switching Power Supply 30W, DIN Rail, Spring terminals	100 - 240	12	2.5
SPD 24 30 1	Switching Power Supply 30W, DIN Rail,	100 - 240	24	1.25
SPD 24 30 1 B	Switching Power Supply 30W, DIN Rail, Spring terminals	100 - 240	24	1.25
SPD 48 30 1	Switching Power Supply 30W, DIN Rail,	100 - 240	48	0.625
SPD 48 30 1 B	Switching Power Supply 30W, DIN Rail, Spring terminals	100 - 240	48	0.625
SPD 05 60 1	Switching Power Supply 50W, DIN Rail	100 - 240	5	10
SPD 05 60 1 B	Switching Power Supply 50W, DIN Rail, Spring terminals	100 - 240	5	10
SPD 12 60 1	Switching Power Supply 60W, DIN Rail	100 - 240	12	5
SPD 12 60 1 B	Switching Power Supply 60W, DIN Rail, Spring terminals	100 - 240	12	5
SPD 24 60 1	Switching Power Supply 60W, DIN Rail	100 - 240	24	2.5
SPD 24 60 1 B	Switching Power Supply 60W, DIN Rail, Spring terminals	100 - 240	24	2.5
SPD 48 60 1	Switching Power Supply 60W, DIN Rail	100 - 240	48	1.25
SPD 48 60 1 B	Switching Power Supply 60W, DIN Rail, Spring terminals	100 - 240	48	1.25
SPD 12 120 1	Switching Power Supply 120W, DIN Rail	100 - 240	12	10
SP D 12 120 1 F	Switching Power Supply 120W, DIN Rail, with PFC	100 - 240 with PFC	12	10
SP D 12 120 1 P	Switching Power Supply 120W, DIN Rail, with Parallel function	100 - 240	12	10
SP D 12 120 1 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 1 B	Switching Power Supply 120W, DIN Rail, Removable connectors	100 - 240	12	10
SPD 12 120 1 BF	Switching Power Supply 120W, DIN Rail, Removable connectors and PFC	100 - 240	12	10
SPD 12 120 1 BP	Switching Power Supply 120W, DIN Rail, Removable connectors and Parallel function	100 - 240	12	10
SPD 12 120 1 BFP	Switching Power Supply 120W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	12	10
SPD 24 120 1	Switching Power Supply 120W, DIN Rail	100 - 240	24	5
SPD 24 120 1 F	Switching Power Supply 120W, DIN Rail, with PFC	100 - 240 with PFC	24	5
SPD 24 120 1 P	Switching Power Supply 120W, DIN Rail, with Parallel function	100 - 240	24	5
SPD 24 120 1 FP	Switching Power Supply 120W, DIN Rail, with PFC and Parallel function	100 - 240	24	5
SPD 24 120 1 B	Switching Power Supply 120W, DIN Rail, Removable connectors	100 - 240	24	5
SPD 24 120 1 BF	Switching Power Supply 120W, DIN Rail, Removable connectors and PFC	100 - 240	24	5
SPD 24 120 1 BP	Switching Power Supply 120W, DIN Rail, Removable connectors and Parallel function	100 - 240	24	5
SPD 24 120 1 BFP	Switching Power Supply 120W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	24	5
SPD 48 120 1	Switching Power Supply 120W, DIN Rail	100 - 240	48	2.5
SPD 48 120 1 F	Switching Power Supply 120W, DIN Rail, with PFC	100 - 240 with PFC	48	2.5
SPD 48 120 1 P	Switching Power Supply 120W, DIN Rail, with Parallel function	100 - 240	48	2.5
SPD 48 120 1 FP	Switching Power Supply 120W, DIN Rail, with PFC and Parallel function	100 - 240	48	2.5
SPD 48 120 1 B	Switching Power Supply 120W, DIN Rail, Removable connectors	100 - 240	48	2.5
SPD 48 120 1 BF	Switching Power Supply 120W, DIN Rail, Removable connectors and PFC,	100 - 240	48	2.5
SPD 48 120 1 BP	Switching Power Supply 120W, DIN Rail, Removable connectors and Parallel function,	100 - 240	48	2.5
SPD 48 120 1 BFP	Switching Power Supply 120W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	48	2.5
SPD 24 240 1	Switching Power Supply 240W, DIN Rail, PFC and Parallel function	100 - 240	24	10
SPD 24 240 1 B	Switching Power Supply 240W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	24	10
SPD 48 240 1	Switching Power Supply 240W, DIN Rail, PFC and Parallel function	100 - 240	48	5
SPD 48 240 1 B	Switching Power Supply 240W, DIN Rail, Removable connectors, PFC and Parallel function	100 - 240	48	5
SPD 24 480 1	Switching Power Supply 480W, DIN Rail, PFC and Parallel function	100 - 240	24	20
SPD 24 480 1B	Switching Power Supply 480W, DIN Rail, Removable connector, PFC and Parallel function	100 - 240	24	20
SPD 48 480 1	Switching Power Supply 480W, DIN Rail, PFC and Parallel function	100 - 240	48	10
SPD 48 480 1B	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.