CARLO GAVAZZI
Automation Components

CARLO GAVAZZI

Switching Power Supplies
From 5W up to 960W

Din Rail Type
Low Profile
Enclosed Type

SPD484B03

Control

Control

Switching Power Supplies

CARLO GAVAZZI provides one of the most complete ranges of power supplies for the automation industry. Most features that other manufacturers provide as options are included as standard features throughout our product range. The selection of the required Power Supply is very simple, you only have to choose the output voltage and the output power. If you require PFC, parallel connection, or output relay, most SPD models include those as standard features. Power supplies are also available with 3 phase inputs specifically tailored for the automation industry. The input is three phase 400-500VAC, but they can also be powered with 380-575VAC single phase input voltage. The SPP Enclosed Switching Power Supply meets your needs for AC/DC and DC/DC power requirements. They provide the most flexible OEM system power solutions from 20W, 35W and 60W for industrial control and automation applications. All Carlo Gavazzi single and three-phase power supplies feature compact designs, high efficiencies and exceptional specifications. Each carries full certification and offers a wide range of universal inputs, screw terminal connections and provides optimum performance.

Diagnostic Warning

Inventory Reduction

Space Optimization

User Friendly

Long Term Reliability

High Efficiency
The power supply's typical efficiency is very high, up to 93%.

Universal Input
On all the models the rated input voltage is automatically selected by the Power Supply. They can also be powered with DC voltage. On the three phase models the input voltage can be provided by either three phase or even just 2 phases

Adjustable Output
All the DIN rail models provide a front potentiometer in order to adjust the output voltage. Generally within a span of ±10% of the rated voltage.

"Bi-phase" Input
A 100W power supply is available with high-voltage single phase input. The SPDxx1002 can be powered with 380~575VAC input.

Power Factor Correction
PFC function is standard on all the SPD from 90W to 960W.

Parallel
Most of the power supplies can be connected in parallel with one identical unit in order to double the power, some models can be connected up to 3 units.

Visual and Electrical Indications
Most of the models are equipped with double LED indication: one for output voltage and one for power ready. They are also equipped, on 24VDC output, with a voltage free contact relay output providing a signal of power ready.

Approvals and Warranty
All power supplies are approved according to the related European and North American safety standards. All models feature a two year warranty.

Control

SPD 5W/10W/18W 1-PHASE

SPD 30W/60W 1-PHASE

SPD 90W/100W 1-PHASE

SPD 120W 1-Phase
SP120w "N"1-Phase

**SPD 240W 1-PHASE**

SPD 300W 1-PHASE

Front adjustments and LEDs

The adjustments are placed on the front panel of the SPD Power Supplies. We have an adjustment trimmer pot which serves to fine tune the output voltage within a span of approximately, ±10% of the rated voltage.
On the models from 100W up, there is also a sliding switch which has to be used in order to select the single or parallel operation.
Most models have two LEDs, one green and one red, which indicate the operation is normal. The green one indicates the output is OK the second one is lit when the output voltage is out of the specified range.
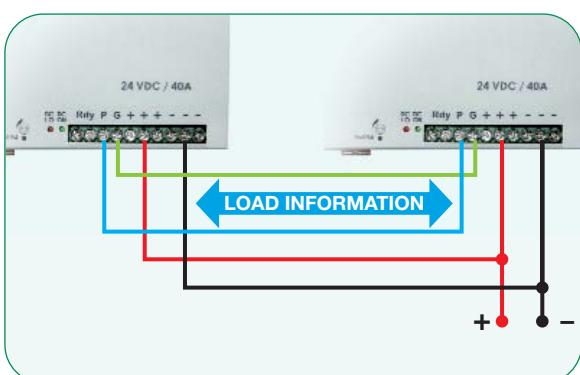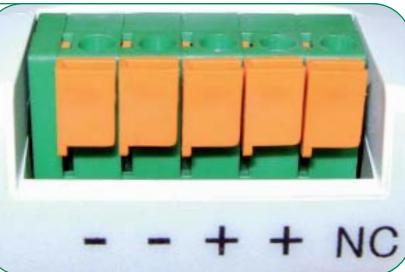
Spring Loaded Terminals

On all models up to 60W a choice between spring load terminals and screw terminals is provided. Spring loaded terminals allow fast and reliable machine connection, saving time and money.
All power supplies, from 30W and above, have more than one terminal for the connection of the "+" and the "-" outputs. This feature allows to use smaller conductors for the wiring or to ease the parallel connection.

Active Current Sharing

The 960 watt power supplies feature active current sharing. By connecting two wires from one power supply to the other, they exchange information regarding the output current and adapt one another to have equal outputs.

LOAD INFORMATION

DIN-Rail Switching Power Supplies

SPD 480W 1-Phase

SPD 100W 2-Phase

SPD 120W 3-Phase

SPD 240W 3-Phase
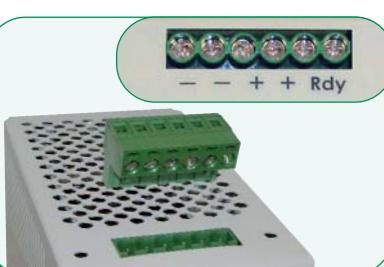
SPD 480W 3-Phase

SPD 960W 3-Phase
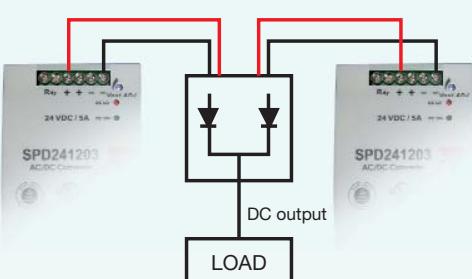
Available Terminals

The screw terminals of the single phase power supplies with metal enclosure (120W to 480W) can be chosen with fixed terminals or removable connectors. The 24VDC output devices have two terminals, identified by RDY, which provide an external electrical indication of the power status. In case of failure (low output voltage or no output), the internal contact opens indicating to remote devices there is an abnormal situation. The 5W, 10W and 18W are not equipped with it.

Main Features

- Universal single phase AC input 85 to 264 VAC
- Universal three phase AC input 340 to 575VAC or 480 to 820VDC
- LOW voltage LED indicator
- High efficiency up to 89%
- Fine output voltage regulation
- Short circuit protection
- Overload protection
- Internal input filter
- Operating temperature w/o derating -25°C to +60°C
- Active parallel function
- UL 1310 Class 2 Output

DC output

LOAD

Redundant Module

The redundant module allows the connection of two or more power supplies guaranteeing the supply of DC power in case of failure of one of the power supplies.

Low Profile Switching Power Supplies

| SPM1 10W | SPM3 30W | SPM4 60W | SPM5 100W |
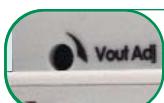
Output Terminals
Double screw terminals for each pole.

Vout Adjustment
Allows adjustment of output voltage within a small range to the required value.
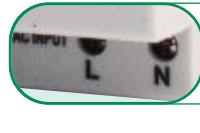
"LOW" LED
Indicates output voltage too low.

"ON" LED
Indicates power output is OK.

Ventilation Grid

Input Terminals

DIN Rail Clip
Easy installation an any kind of DIN Rail.

Main Features

- Universal input 90/264VAC – 120/370VDC
- LOW voltage LED indicator
- High efficiency up to 89%
- Fine output voltage regulation
- Short circuit protection
- Overload protection
- Internal input filter
- Operating temperature w/o derating -25°C to +60°C
- UL 1310 Class 2 output
- From 1 to 5 DIN models

Modular Concept

This family is specifically developed for home and building automation distribution boxes, with just a little more than 55mm/2.18" of depth, which allows flush mounting on the front panel of the boxes. This concept is modular according to DIN standard.
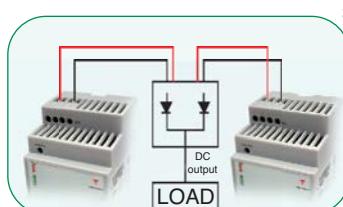
Product Line

The availability of models is broad. The 91W version of SPM5 is Class 2 UL 1310 Listed and has been specifically developed to meet this requirement.

	5V	12V	15V	24V	24VS
SPM1	7.5W	10W	10W	10W	
SPM3	15W	25W	30W	30W	
SPM4	35W	54W	60W	60W	
SPM5	60W	72W	75W	100W	91W

Redundant Module

The redundat module allows the connection of two or more power supplies guaranteeing the supply of DC power if one of the power supplies should fail.

DC output

LOAD

Enclosed Switching Power Supplies

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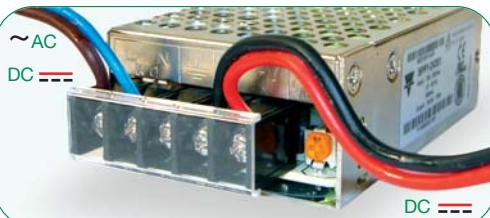
| SPP 20W | SPP 35W | SPP 60W |

Connection

The Enclosed Switching Power Supply meets your needs for AC/DC and DC/DC power requirements.

~AC
DC ---

DC ---
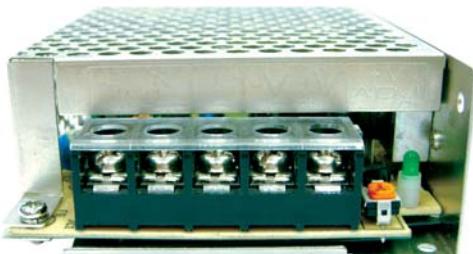
Main Features

- Universal AC input by 88 to 264VAC or 20 to 375VDC
- Output Voltage: 5V, 12V, 15V, and 24VDC
- Low stand-by power consumption: less than 0.3W.
- High efficiency up to 89%
- Short circuit protection
- Internal input filter
- High average efficiency (meets ErP)
- High Operating temperature w/o derating -40°C to +71°C
- CE, TUV, UL, and cURus approved

Mounting

All the enclosed switching power supplies can be installed either in vertical or horizontal position.

Horizontal Mounting

Vertical Mounting

Compact Dimension

The Enclosed power supplies feature very compact design, high efficiency and overall high specifications.

Dimensions LxWxD mm (inch)
92 x 54 x 30 (3.62 x 2.13 x 1.18)

Dimensions LxWxD mm (inch)
75 x 51 x 28 (3.07 x 2 x 1.1)

Dimensions LxWxD mm (inch)
98 x 82 x 35 (3.86 x 3.23 x 1.38)

Switching Power Supplies

CARLO GAVAZZI

SPD Single Phase Description Item Number Screw Terminal	Spring Terminal	W	Vin VAC	Vin VDC	Vout VDC	Iout VDC
SPD05051	SPD05051B	5W			5	1
SPD12051	SPD12051B				5	1
SPD15051	SPD15051B				12	0,42
SPD24051	SPD24051B				24	0,21
SPD05101	SPD05101B	10W	90-265	120-370	5	2
SPD12101	SPD12101B				12	0,84
SPD15101	SPD15101B				15	0,67
SPD24101	SPD24101B				24	0,42
SPD05181	SPD05181B	18W			5	3
SPD12181	SPD12181B				12	1,5
SPD15181	SPD15181B				15	1,2
SPD24181	SPD24181B				24	0,75
SPD05301	SPD05301B	30W	85-264	90-375	5	6
SPD12301	SPD12301B				12	2,5
SPD24301	SPD24301B				24	1,25
SPD48301	SPD48301B				48	0,625
SPD05601	SPD05601B	60W			5	10
SPD12601	SPD12601B				12	5
SPD24601	SPD24601B				24	2,5
SPD48601	SPD48601B				48	1,25
SPD24901L ST, PE, RDY out		90W	90-264	120-375	24	3,8

-ST: Screw Terminal
PE: Plastinc Enclosure

Item Number	SPD Bi and Three Phase Description	W	Vin VAC	Vin VDC	Vout VDC	Iout A
SPD121002	2ph, ST, PF, PE	100W			12	8,4
SPD241002	2ph, ST, PF, RDY out, PE				24	4,2
SPD481002	2ph, ST, PF, PE				48	2,1
SPD121203	3ph, ST, PFC, ME	120W			12	10
SPD241203	3ph, ST, PFC, RDY out, ME				24	5
SPD242403	3ph, ST, PFC and PF, RDY out, ME	240W	340-575	480-820	24	10
SPD482403	3ph, ST, PFC and parallel function, ME				48	5
SPD244803	3ph, ST, PFC and PF, RDY out, ME	480W			24	20
SPD484803	3ph, ST, PFC and PF, ME				48	10
SPD249603	3ph, ST, PFC, APF, RDY out, ME	960W			24	40
SPD249603L	3ph, ST, PFC, ME				24	40
SPD489603	3ph, ST, PFC, APF, ME				48	20

PFC: Power Factor Correction
ST: Screw Terminal
PF: Parallel Function
RC: Removable Connector
APF: Active Parallel Function
PE: Plastic Enclosure
ME: Metal Enclosure

Item Number	SPP1 Single Phase description	W	Vin VAC	Vin VDC	Vout VDC	Iout A
SPP1 05201	Enclosed type Screw Terminal	20W			5	4
SPP1 12201	Enclosed type Screw Terminal				12	1,7
SPP1 15201	Enclosed type Screw Terminal				15	1,4
SPP1 24201	Enclosed type Screw Terminal				24	0,9
SPP1 05351	Enclosed type Screw Terminal	35W	88-264	20-375	5	6
SPP1 12351	Enclosed type Screw Terminal				12	3
SPP1 15351	Enclosed type Screw Terminal				15	2,4
SPP1 24351	Enclosed type Screw Terminal				24	1,5
SPP1 05601	Enclosed type Screw Terminal	60W			5	9
SPP1 12601	Enclosed type Screw Terminal				12	5
SPP1 15601	Enclosed type Screw Terminal				15	4
SPP1 24601	Enclosed type Screw Terminal				24	2,5

Item Number	SPD Single Phase Description	W	Vin VAC	Vin VDC	Vout VDC	Iout A
SPD121001	ST, PF, PE	100W	90-264	120-375	12	8,4
SPD241001	ST, PF, RDY out, PE				24	4,2
SPD481001	ST, PF, PE				48	2,1
SPD24901	ST, PFC, PF. ME	90W			24	3,8
SPD24901B	RC, PFC, PF. ME				24	3,8
SPD121201	Screw terminals	120W	93-264	210-370	12	10
SPD121201B	Removable connector				12	10
SPD241201	Screw terminals, RDY out				24	5
SPD241201B	Removable connector, RDY out				24	5
SPD481201	Screw terminals				48	2,5
SPD481201B	Removable connector				48	2,5
SPD121201N	ST, PFC, PF		90-264		12	10
SPD121201BN	RC, PFC, PF				12	10
SPD241201N	ST, PFC, PF, RDY out				24	10
SPD241201BN	RC, PFC, PF, RDY out				24	10
SPD481201N	ST, PFC, PF				48	10
SPD481201BN	RC, PFC, PF				48	10
SPD242401	ST, PFC, PF, RDY out	240W	93-264		24	10
SPD242401B	RC, PFC, PF, RDY out				24	10
SPD482401	ST, PFC, PF				48	5
SPD482401B	RC, PFC, PF				48	5
SPD243001	ST, PFC, PF, RDY out	300W		210-375	24	12,5
SPD243001B	RC, PFC, PF, RDY out				24	12,5
SPD483001	ST, PFC, PF				48	6,25
SPD483001B	RC, PFC, PF				48	6,25
SPD244801	ST, PFC, PF, RDY out	480W	90-264	210-370	24	20
SPD244801B	RC, PFC, PF				24	20
SPD484801	ST, PFC, PF				48	10
SPD484801B	RC, PFC, PF				48	10

PFC: Power Factor Correction
ST: Screw Terminal
PF: Parallel Function
RC: Removable Connector
PE: Plastic Enclure
ME: Metal Enclosure

Item Number	SPM Single Phase Description	W	Vin VAC	Vin VDC	Vout VDC	Iout A
SPM1051	1DIN module	7.5W	90-264	120-370	5	1,5
SPM1121	1DIN module	10W			12	0,83
SPM1151	1DIN module				15	0,67
SPM1241	1DIN module				24	0,42
SPM3051	3DIN module	15W			5	3
SPM3121	3DIN module	25W			12	2,1
SPM3151	3DIN module	30W			15	2
SPM3241	3DIN module				24	1,3
SPM4051	4DIN module	35W			5	7
SPM4121	4DIN module	54W			12	4,5
SPM4151	4DIN module				15	4
SPM4241	4DIN module	60W			24	2,5
SPM5051	5DIN module				5	12
SPM5121	5DIN module	72W			12	6
SPM5151	5DIN module	75W			15	5
SPM5241	5DIN module	100W			24	4,2
SPM5241S	5DIN module	91W			24	3,8

SPD24RM20	Redundant Module 24Vin 20A max.		***	5-24	Vin	20
SPM2RM2410	Redundant Module 24Vin 10A max.		***	5-24	24	10

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