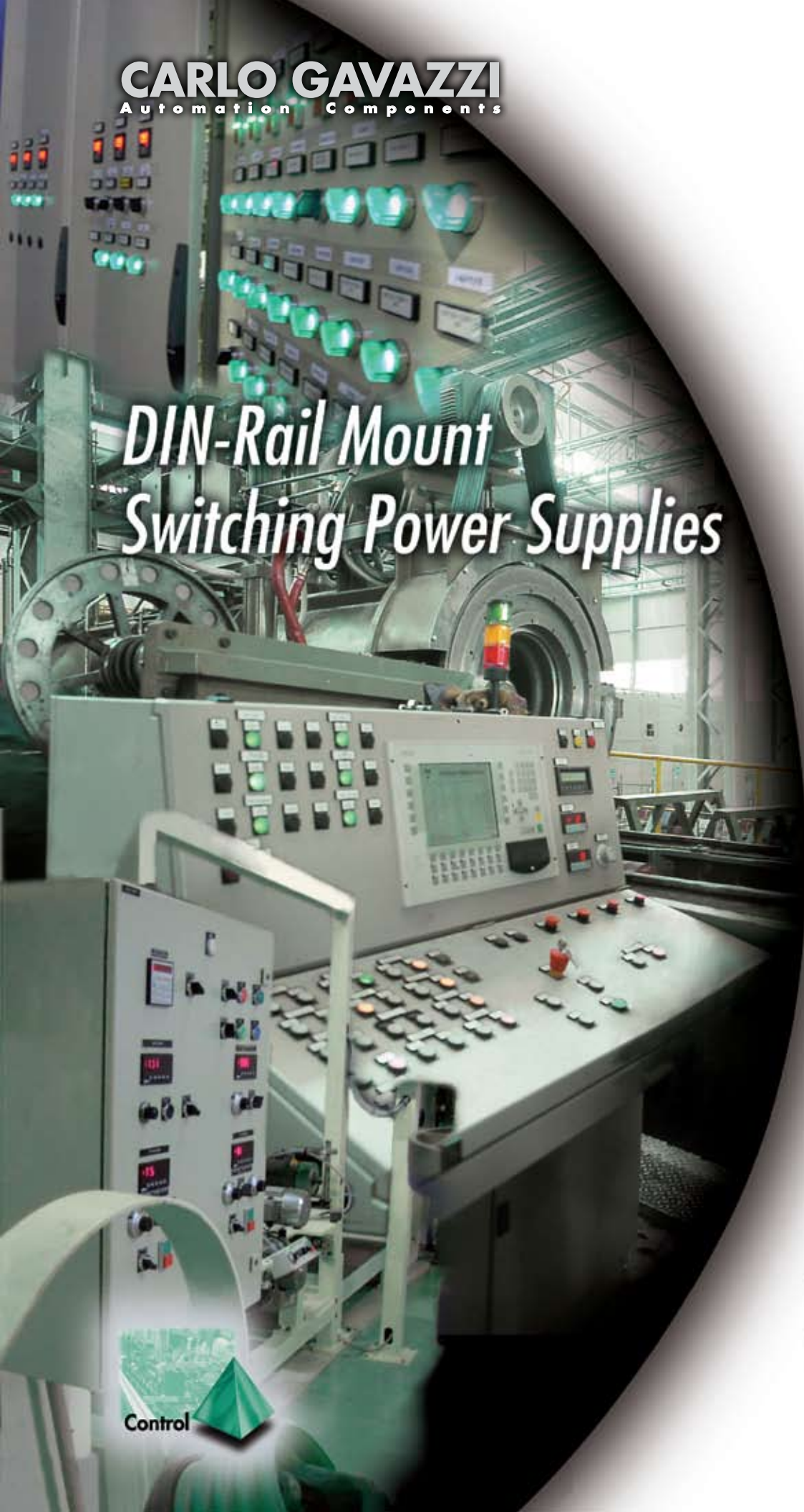


**CARLO GAVAZZI**  
Automation Components



# *DIN-Rail Mount Switching Power Supplies*



Control



## SPD Switching Power Supplies

CARLO GAVAZZI presents one of the most complete ranges of DIN rail mount power supplies for the automation industry.

Most features that the other manufacturers provide as options are included as standard throughout the SPD product range. The selection of the required SPD Power Supply is very simple. Choose the output voltage, the output power, and you're done. If you require PFC, parallel connection, or an output relay, most SPD models include those features as standard.

Now, the SPD power supplies are also available with a 3-phase input and bi-phase input. These new products, as well as the existing SPD single phase power supplies, feature very compact design, high efficiencies and overall high specs.

The three phase power supplies are specifically tailored for the automation industry: the input is three phase 400~500VAC but what makes them unique is the fact that they can also be powered with 380~575VAC single phase input voltage.



**Space Optimization**



**Diagnostic Warning**



**User Friendly**



**Minimizing Energy Cost**



**Long Term Reliability**



**Long Term Reliability**

### High Efficiency

The SPD Series efficiency is quite high, up to 93%.

### Universal Output

On single phase models the rated input voltage is automatically selected by the Power supply (120~240). On the three phase models, the input voltage can be provided by either three phases, or only two, provided the two phase voltage is between 340-575VAC. When only 2 phases are connected the maximum output power is derated by 25%. They can also be powered with DC voltage.

### Adjustable Output

All SPD models provide a front potentiometer to adjust the output voltage, typically within a span of +/- 10% of the rated output 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

Power factor correction is standard on all units 240W and higher.

### Parallel Connection

All SPD power supplies rated 120W and higher, which feature the parallel feature, can be connected with one identical unit to double the power. Some models can be connected to two or three identical units.

### Visual and Electrical Indications

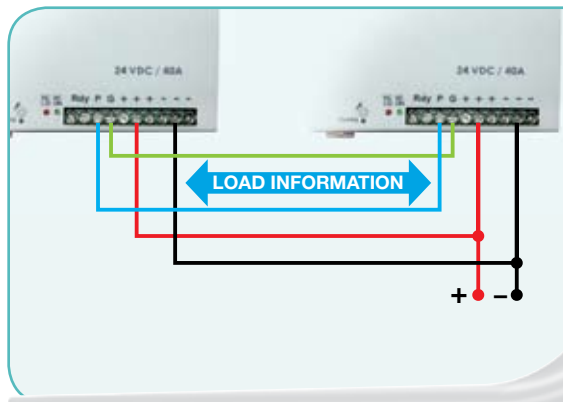
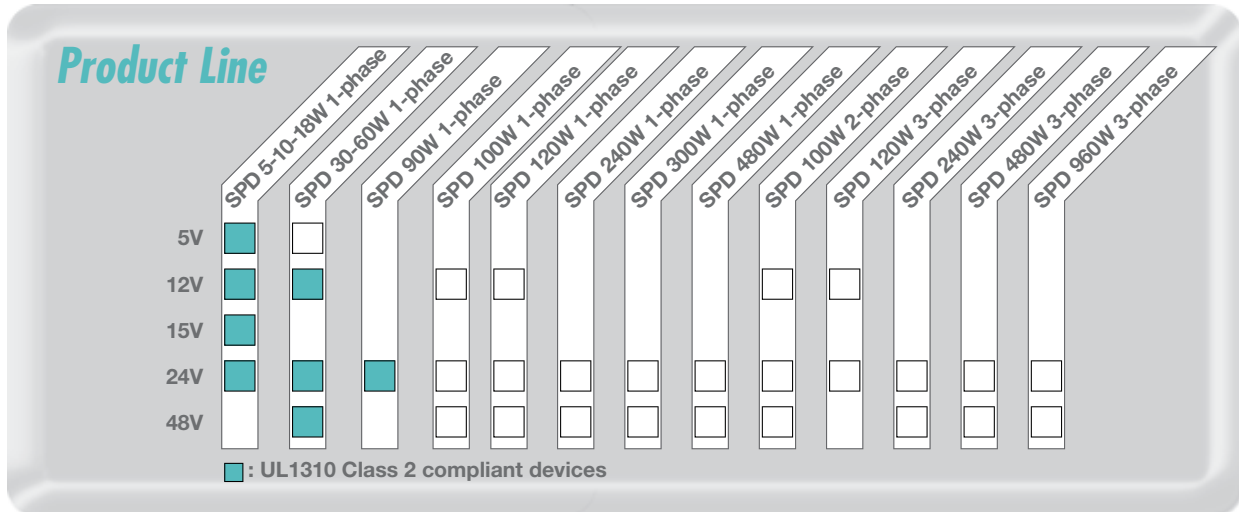
All the models are equipped with double LED indication: one for output voltage and one for power ready. They are also equipped, only on 24VDC output, with a free contact relay output providing a signal of power ready.

### Approvals and Warranty

All SPD power supplies are approved according to UL, cUL, TÜV and safety standards: NEC Class 2 compliant and Class B for the emissions according to European standards.

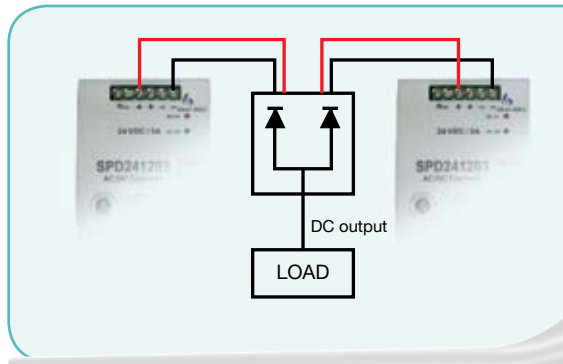
All models feature a Two Year Warranty.





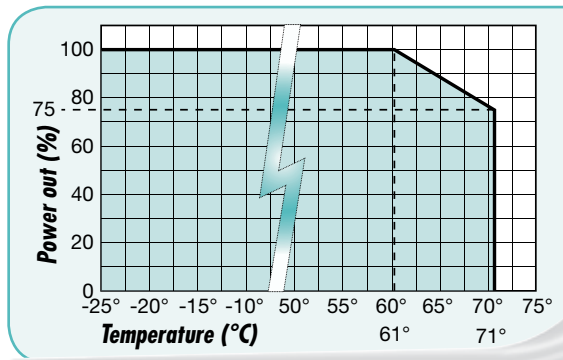
## Active Current Sharing

Carlo Gavazzi's power supplies rated above 120W can be connected in parallel to provide more power. The 960W version offers the additional feature of Active Current Sharing. A simple connection of two wires from one power supply to the other results in a data exchange that automatically monitors and adapts each to assure equal distribution of their respective output power.



## Redundant Module

The redundant module allows for the connection of two or more power supplies, thus guaranteeing the supply of DC power, even if one of the other power supplies fails.



## Temperature Derating

All switching power supplies are subject to derating, based upon the ambient temperature. The operating range of the SPD Series is -25°C to +60°C without derating. Most power supplies on the market have their derating begin at +50°C. Carlo Gavazzi's SPD Series derating starts at +61°C, and the operation is possible up to +70°C with 25% derating.



### Front Adjustments and LEDs

An adjustment trimmer potentiometer serves to fine tune the output voltage within a span of approximately +/- 10% of the rated voltage.

With the 120W+ models, a slide switch is provided to select between Single or Parallel operation

There is a red LED which indicates if the power supply's output is out of the specified output range. Additionally, on all models except the 30W and 60W models, there is a green LED which indicates the output voltage is on.

### Spring Loaded Terminals

On all models up to 60W, a choice between spring loaded terminals and screw terminals are offered. Spring loaded terminals allow fast and reliable connections, saving time and money.

All power supplies from 30W and above, have dual terminals, for the connection of the "+" and the "-" outputs. This feature allows for the use of smaller conductors and also simplifies parallel connections.



# Switching Power Supplies



## Terminals

The screw terminals of the single phase power supplies with metal enclosure (120 to 480W) can be supplied with either fixed terminals or removable connectors. The DC output terminals are doubled or tripled (depending upon output current) in order to ease the parallel connection or to connect more devices to the same power supply.



The 24VDC Output devices have 2 terminals, identified by R DY, that 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 the abnormal situation. The 5W, 10W and 18W devices do not offer this unique feature, whereas all the others SPDs do.



SPD 120W 3-phase



SPD 240W 3-phase



SPD 480W 3-phase



SPD 960W 3-phase

## SPM Low Profile Modular Switching Power Supplies

	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

UL1310 Class 2 compliant devices are in RED

The SPM family of switching power supplies was specifically developed for commercial and residential applications due to their shallow depth of 55mm (2.2"). The housing width is modular in concept and varies according to the output power, from a standard 1 DIN module up through a 5 DIN module. Due to the extensive offering of models that are NEC Class 2 Compliant, the wide range of output voltages and power available, the entire SPM family makes an excellent choice for industrial automation applications where a DC voltage is required.





Item Number	SPD Single Phase Description	Vin VAC	Vin VDC	Vout VDC	Iout A
SPD05051	5W, Screw terminals	90-265	120-370	5	1
SPD05051B	5W, Spring terminals			5	1
SPD12051	5W, Screw terminals			12	0.42
SPD12051B	5W, Spring terminals			12	0.42
SPD15051	5W, Screw terminals			15	0.34
SPD15051B	5W, Spring terminals			15	0.34
SPD24051	5W, Screw terminals			24	0.21
SPD24051B	5W, Spring terminals			24	0.21
SPD05101	10W, Screw terminals			5	2
SPD05101B	10W, Spring terminals			5	2
SPD12101	10W, Screw terminals			12	0.84
SPD12101B	10W, Spring terminals			12	0.84
SPD15101	10W, Screw terminals			15	0.67
SPD15101B	10W, Spring terminals			15	0.67
SPD24101	10W, Screw terminals			24	0.42
SPD24101B	10W, Spring terminals			24	0.42
SPD05181	18W, Screw terminals			5	3
SPD05181B	18W, Spring terminals			5	3
SPD12181	18W, Screw terminals			12	1.5
SPD12181B	18W, Spring terminals			12	1.5
SPD15181	18W, Screw terminals			15	1.2
SPD15181B	18W, Spring terminals			15	1.2
SPD24181	18W, Screw terminals			24	0.75
SPD24181B	18W, Spring terminals			24	0.75
SPD05301	30W, Screw terminals			5	6
SPD05301B	30W, Spring terminals			5	6
SPD12301	30W, Screw terminals			12	2.5
SPD12301B	30W, Spring terminals			12	2.5
SPD24301	30W, Screw terminals, RDY out			24	1.25
SPD24301B	30W, Spring terminals, RDY out			24	1.25
SPD48301	30W, Screw terminals			48	0.625
SPD48301B	30W, Spring terminals			48	0.625
SPD05601	60W, Screw terminals			5	10
SPD05601B	60W, Spring terminals	5	10		
SPD12601	60W, Screw terminals	12	5		
SPD12601B	60W, Spring terminals	12	5		
SPD24601	60W, Screw terminals, RDY out	24	2.5		
SPD24601B	60W, Spring terminals, RDY out	24	2.5		
SPD48601	60W, Screw terminals	48	1.25		
SPD48601B	60W, Spring terminals	48	1.25		
SPD24901L	90W, Screw terminals, Plastic enclosure, RDY out	90-264	120-375	24	3.8

Item Number	SPD Single Phase Description	Vin VAC	Vin VDC	Vout VDC	Iout A		
SPD121001	100W, Screw terminals, Parallel function, Plastic enclosure	90-264	120-375	12	8.4		
SPD241001	100W, Screw terminals, Parallel function, RDY out, Plastic enclosure			24	4.2		
SPD481001	100W, Screw terminals, Parallel function, Plastic enclosure			48	2.1		
SPD24901	90W, Screw terminals, PFC, Parallel function, Metal enclosure	90-264	120-375	24	3.8		
SPD24901B	90W, Removable connector, PFC, parallel function, Metal enclosure			24	3.8		
SPD121201	120W, Screw terminals	93-264	120-375	12	10		
SPD121201B	120W, Removable connector			12	10		
SPD241201	120W, Screw terminals, RDY out			24	5		
SPD241201B	120W, Removable connector, RDY out			24	5		
SPD481201	120W, Screw terminals			48	2.5		
SPD481201B	120W, Removable connector			48	2.5		
SPD121201N	120W, Screw terminals, PFC, Parallel function	90-264	210-370	12	10		
SPD121201BN	120W, Removable connector, PFC, Parallel function			12	10		
SPD241201N	120W, Screw terminals, PFC, Parallel function, RDY out			24	10		
SPD241201BN	120W, Removable connector, PFC, Parallel function, RDY out			24	10		
SPD481201N	120W, Screw terminals, PFC, Parallel function			48	10		
SPD481201BN	120W, Removable connector, PFC, Parallel function			48	10		
SPD242401	240W, Screw terminals, PFC, Parallel function, RDY out	93-264	120-375	24	10		
SPD242401B	240W, Removable connector, PFC, Parallel function, RDY out			24	10		
SPD482401	240W, Screw terminals, PFC, Parallel function			48	5		
SPD482401B	240W, Removable connector, PFC, Parallel function			48	5		
SPD243001	300W, Screw terminals, PFC, Parallel function, RDY out	90-264	210-375	24	12.5		
SPD243001B	300W, Removable connector, PFC, Parallel function, RDY out			24	12.5		
SPD483001	300W, Screw terminals, PFC, Parallel function			48	6.25		
SPD483001B	300W, Removable connector, PFC, Parallel function			48	6.25		
SPD244801	480W, Screw terminals, PFC, Parallel function, RDY out			90-264	210-370	24	20
SPD244801B	480W, Removable connector, PFC, Parallel function					24	20
SPD484801	480W, Screw terminals, PFC, Parallel function	48	10				
SPD484801B	480W, Removable connector, PFC, Parallel function	48	10				

Item Number	SPD Bi and Three Phase Description	Vin VAC	Vin VDC	Vout VDC	Iout A
SPD121002	2ph 100W, Screw terminals, Parallel function, Plastic enclosure	340-575	480-820	12	8.4
SPD241002	2ph 100W, Screw terminals, Parallel function, RDY out, Plastic enclosure			24	4.2
SPD481002	2ph 100W, Screw terminals, Parallel function, Plastic enclosure			48	2.1
SPD121203	3ph 120W, Screw terminals, PFC			12	10
SPD241203	3ph 120W, Screw terminals, PFC, RDY out			24	5
SPD242403	3ph 240W, Screw terminals, PFC and parallel function, RDY out			24	10
SPD482403	3ph 240W, Screw terminals, PFC and parallel function			48	5
SPD244803	3ph 480W, Screw terminals, PFC and parallel function, RDY out			24	20
SPD484803	3ph 480W, Screw terminals, PFC and parallel function			48	10
SPD249603	3ph 960W, Screw terminals, PFC, Active parallel function, RDY out			24	40
SPD249603L	3ph 960W, Screw terminals, PFC			24	40
SPD489603	3ph 960W, Screw terminals, PFC, Active parallel function			48	20

Item Number	SPM Single Phase Description	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 10W			15	0.67		
SPM1241	1DIN module 10W			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 30W			24	1.3		
SPM4051	4DIN module 35W			5	7		
SPM4121	4DIN module 54W			12	4.5		
SPM4151	4DIN module 60W			15	4		
SPM4241	4DIN module 60W			24	2.5		
SPM5051	5DIN module 60W			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.			N/A	24	24	20
SPM2RM2410	Redundant Module 24Vin 10A max.			N/A	5-24	Vin	10

# The Complete Product Package



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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 RoHS and CE marked.

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