



## Overview

# Switching power supplies and UPS

# Overview

## Switching power supplies

Series	up to 15.12 W					up to 26.4 W					up to 30 W					up to 36 W				
	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V
SPDE																				
SPDC																				
SPDM																				
SPD 2-ph																				
SPD 3-ph																				
SPPC						▼	▼		▼							▼	▼		▼	
SPMA	▼	▼	▼	▼			▼					▼								▼

  

Series	up to 100.8 W					120 W					up to 151.2 W					up to 201.6 W					240 W					
	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	
SPDE							▼		▼	▼							▼								▼	▼
SPDC							▼		▼																▼	▼
SPDM							▼		▼	▼															▼	▼
SPD 2-ph				▼																					▼	▼
SPD 3-ph							▼		▼																▼	▼
SPPC												▼		▼			▼		▼	▼				▼	▼	
SPMA				▼																					▼	▼

### SPDE series – Ultra compact power supply

The new generation of Carlo Gavazzi power supplies encompasses high performance within an extremely compact footprint, saving up to 50% space compared to similar devices. The SPDE comes in single phase input model types. It is extremely suitable for applications where high efficiency and

wide operating temperatures are required. The SPDE series consists of 3 frame sizes, starting from 75 W with 32 mm width, to maximum 480 W with 48 mm width. The high quality of these power supplies is certified by a series of industry approvals: CE, UKCA, UL61010, UL62368.



### SPDM series – Medium compact power supply

This family of single phase input power supplies feature a reduced footprint, saving up to 30% space compared to similar devices. There are no frills, just standard features with high

performance and high reliability. The power rating ranges from 120 W to 240 W. The SPDM 120W comes with UL60950 and UL508.



### SPDC series – Advanced compact power supply

This compact family achieves high performance in compact dimensions. It is ideal for critical installations where space and reliability are of utmost importance. The SPDC power boost can provide 150% of the rated output power for up to 3 seconds, to support

the extra power needed during critical start-ups. The parallel feature provides redundancy in times of breakdown. The SPDC comes with UL60950 and UL508.



Series	Screw terminals	Parallel operation	Active current sharing	Power boost	Redundancy module	Battery charger / UPS
SPDE	▼			▼		
SPDC	▼	▼		▼		
SPDM	▼					
SPD 2-ph	▼	▼	▼			
SPD 3-ph	▼	▼	▼			
SPPC	▼					
SPMA	▼					
SPD RM	▼				▼	
SPUBC	▼	▼		▼		▼
SPUC	▼					▼
SPM5BC	▼					▼

# Switching power supplies

OUTPUT																									
Series	up to 54 W					60 W					up to 76.8 W					up to 91.92 W									
	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V					
SPDE												▼		▼	▼										
SPDC																									
SPDM																									
SPD 2-ph																									
SPD 3-ph																									
SPPC	▼	▼	▼	▼	▼	▼								▼		▼	▼								
SPMA		▼						▼	▼								▼	▼	▼						
Series	up to 321.6 W					up to 528 W					up to 652.8 W					792 W					960 W				
	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V	5V	12V	15V	24V	48V
SPDE																									
SPDC																									
SPDM																									
SPD 2-ph																									
SPD 3-ph																									
SPPC	▼		▼	▼		▼			▼	▼			▼		▼	▼					▼	▼			
SPMA																									



## SPMA series - Low-profile DIN rail power supplies for building automation and electric car battery chargers

The SPMA series is a very compact DIN rail power supply designed for electrical panels with limited space. The SPMA series consists of 3 frame sizes, starting from 1 DIN (17.5 mm) for the 15 W to a maximum of 4 DIN

(70 mm) for the 100 W model. The low-profile design of SPMA makes it ideal for applications such as building automation and electrical vehicle charging stations as it is designed with 4 kVAC isolation voltage.



## SPPC series - Enclosed type power supply

Enclosed metal casing power supplies are durable and economical, providing an excellent choice for customers, especially OEM machine makers, for any application. Power ratings range from 25 W to 800 W: in addition, the

SPPC comes with PFC from 100 W upwards. It comes with CE and UL approvals to cater to customers' requirements.



## Battery chargers, UPS and Redundancy modules

Carlo Gavazzi provides the ideal selection of special devices for any critical applications. The Battery Chargers and UPS optimise the backup battery performance through controlled charging/discharging, while our advanced SPUBC integrates

a power supply, battery charger and UPS into a single unit. The Redundancy Modules guarantee the continuity of the DC supply to applications with zero downtime, enabling a consistent output even when a source is faulty.

	cURus UL 60950-1	cURus UL 62368-1	cULus UL 508	cULus UL 61010	UL 1310 Class 2	UL ISA 12.12.01 Class I Div2	CE	UKCA
SPDE		Only 75 W		▼			▼	▼
SPDC	▼		▼				▼	▼
SPDM	Only 120 W		Only 120 W				▼	▼
SPD 2-ph	▼		▼			▼	▼	▼
SPD 3-ph	▼		▼			▼	▼	▼
SPPC	▼						▼	▼
SPMA		▼	▼		▼	▼	▼	▼
SPD RM	▼		▼				▼	▼
SPUBC	▼		▼				▼	▼
SPUC			▼				▼	▼
SPM5BC	▼						▼	▼

# Overview

## Switching power supplies

### SPDE Series - Single phase - DIN rail mounting



Device	<b>SPDE 75W</b>	<b>SPDE 120W</b>	<b>SPDE 120W R</b>
Output power	75 W	120 W	120 W
Available output voltage DC	12 V - 24 V - 48 V	24 V	12 V - 24 V - 48 V
Input AC	90...264 V	90...264 V	90...264 V
Input DC	120...370 V	127...370 V	127...370 V
Approvals	CE - UKCA - cULus - cURus	CE - UKCA - cULus	CE - UKCA - cULus
Dimensions	87.5 x 32 x 129.80 mm (3.44" x 1.26" x 5.11")	100 x 36 x 129.80 mm (3.94" x 1.42" x 5.11")	110 x 32 x 128.82 mm (4.33" x 1.26" x 5.07")
Efficiency	90%	89%	89%
DC ok	NO	NO	YES

### SPDE Series - Single phase - DIN rail mounting



Device	<b>SPDE 190W</b>	<b>SPDE 240W R</b>	<b>SPDE 480W R</b>
Output power	190 W	240 W	480 W
Available output voltage DC	12 V	24 V - 48 V	24 V - 48 V
Input AC	85...264 V	85...264 V	85...264 V
Input DC	120...370 V	120...370 V	120...370 V
Approvals	CE - UKCA - cULus	CE - UKCA - cULus	CE - UKCA - cULus
Dimensions	110 x 41 x 128.82 mm (4.33" x 1.61" x 5.07")	110 x 41 x 128.82 mm (4.33" x 1.61" x 5.07")	131.5 x 48 x 130.60 mm (5.18" x 1.89" x 5.14")
Efficiency	92,00%	94,00%	94,00%
DC ok	YES	YES	YES

### SPDC Series - Single phase - DIN Rail mounting



Device	<b>SPDC 120W</b>	<b>SPDC 240W</b>	<b>SPDC 480W</b>
Output power	120 W	240 W	480 W
Available output voltage DC	12 V - 24 V	24 V	24 V - 48 V
Input AC	85...264 V	85...264 V	90...264 V
Input DC	127...375 V	127...375 V	130...350 V
Approvals	CE - cULus - cURus	CE - cULus - cURus	CE - cULus - cURus
Dimensions	124 x 119 x 32 mm (4.88" x 4.69" x 1.26")	124 x 119 x 45 mm (4.88" x 4.69" x 1.77")	124 x 127 x 70 mm (4.88" x 5.00" x 2.75")
Efficiency	91%	91%	93%
DC ok	YES	YES	YES

# Switching power supplies

## SPDM Series - Single phase - DIN Rail mounting



Device	SPDM 120W	SPDM 240W
Output power	120 W	240 W
Available output voltage DC	12V - 24 V - 48 V	24 V - 48 V
Input AC	90...264 V	90...264 V
Input DC	127...375 V	127...370 V
Approvals	CE - cULus - cURus	CE - cULus - cURus
Dimensions	124 x 119 x 45 mm (4.88" x 4.69" x 1.77")	124 x 127 x 70 mm (4.88" x 5.00" x 2.75")
Efficiency	88%	88%
DC ok	NO	NO

## SPD Series - Bi/Three phase - DIN rail mounting



Device	SPD 100W/2	SPD 120W/3	SPD 240W/3
Output power	100 W	120 W	240 W
Available output voltage DC	24 V	12 V - 24 V	24 V - 48 V
Input AC	340...575 V	340...575 V	340...575 V
Input DC	340...820 V	340...820 V	340...820 V
Approvals	CE - UKCA - cULus - cURus - UL ISA 12.12.01 Class I Div2	CE - UKCA - cULus - cURus - UL ISA 12.12.01 Class I Div2	CE - UKCA - cULus - cURus - UL ISA 12.12.01 Class I Div2
Dimensions	90 x 54 x 114 mm (3.54" x 2.13" x 4.49")	124 x 74.3 x 118.8 mm (4.88" x 2.92" x 4.68")	124 x 89 x 118.8 mm (4.88" x 3.5" x 4.68")
Efficiency	89%	89%	91%
DC ok	YES	YES	YES

## SPD Series - Bi/Three phase - DIN rail mounting



Device	SPD 480W/3	SPD 960W/3
Output power	480 W	960 W
Available output voltage DC	24 V - 48 V	24 V - 48 V
Input AC	340...575 V	340...575 V
Input DC	340...820 V	340...820 V
Approvals	CE - UKCA - cULus - cURus - UL ISA 12.12.01 Class I Div2	CE - UKCA - cULus - cURus - UL ISA 12.12.01 Class I Div2
Dimensions	124 x 150 x 118.8 mm (4.88" x 5.91" x 4.68")	126.2 x 275.8 x 118.8 mm (4.97" x 10.86" x 4.68")
Efficiency	91%	93%
DC ok	YES	YES
Options		Without current sharing [L]

# Switching power supplies

## SPPC Series - Single phase - Panel mounting



Device	SPPC 25W	SPPC 35W	SPPC 50W	SPPC 75W
Output power	25...26.4W	30...36 W	40...53.76 W	60...76.8 W
Available output voltage DC	5 V - 12 V - 24 V	5 V - 12 V - 24 V	5 V - 12 V - 15 V - 24 V - 48 V	5 V - 12 V - 24 V - 48 V
Input AC	90...264 V	90...264 V	90...264 V	90...264 V
Input DC	127...370 V	127...370 V	127...370 V	127...370 V
Approvals	CE - cURus	CE - cURus	CE - cURus	CE - cURus
Dimensions	79 x 51 x 28.8 mm (3.11" x 2" x 1.13")	101.6 x 63.5 x 33 mm (4" x 2.5" x 1.29")	99 x 82 x 35 mm (3.89" x 3.22" x 1.37")	129 x 98 x 39 mm (5.08" x 3.85" x 1.53")
Efficiency	85%	87%	89%	89%

## SPPC Series - Single phase - Panel mounting



Device	SPPC 150W	SPPC 200W	SPPC 240W
Output power	150...151.2 W	200...201.6 W	240 W
Available output voltage DC	12 V - 24 V	5 V - 12 V - 24 V - 48 V	12 V - 24 V
Input AC	86...264 V	85...264 V	85...264 V
Input DC	120...370 V	120...370 V	120...370 V
Approvals	CE - cURus	CE - cURus	CE - cURus
Dimensions	160 x 98 x 38 mm (6.29" x 3.85" x 1.49")	199 x 99 x 50 mm (7.83" x 3.89" x 1.96")	199 x 99 x 50 mm (7.83" x 3.89" x 1.96")
Efficiency	87%	87%	86%
Features	Compact, PFC	Compact, PFC	Compact, PFC

## SPPC Series - Single phase - Panel mounting



Device	SPPC 320W	SPPC 480W	SPPC 600W	SPPC 800W
Output power	275...321.6 W	408...528 W	504...652.8 W	792 W
Available output voltage DC	5 V - 12 V - 24 V - 48 V	12V - 24V - 36V - 48V	12 V - 24 V - 36 V - 48 V	24 V - 48 V
Input AC	85...264 V	90...264 V	90...264 V	90...264 V
Input DC	120...370 V	127...370 V	127...370 V	127...370 V
Approvals	CE - cURus	CE - cURus	CE - cURus	CE - cURus
Dimensions	199 x 99 x 50 mm (7.83" x 3.89" x 1.96")	226 x 116.5 x 41 mm (8.89" x 4.58" x 1.61")	226 x 116.5 x 41 mm (8.89" x 4.58" x 1.61")	226 x 116.5 x 41 mm (8.89" x 4.58" x 1.61")
Efficiency	87%	90%	90%	90%
Features	Compact, PFC	Compact, PFC	Compact, PFC	Compact, PFC



# Switching power supplies

## SPMA Series - Single phase - DIN rail mounting



Device	SPMA 15	SPMA 30	SPMA 60	SPMA 100
Output power	12...15 W	25...36 W	54...60 W	85...100 W
Available output voltage DC	5 V - 12 V - 15 V - 24 V	5 V - 12 V - 15 V - 24 V	12 V - 15 V - 24 V	12 V - 15 V - 24 V
Input AC	85...264 V	85...264 V	85...264 V	85...264 V
Input DC	120...350 V	120...350 V	120...350 V	120...350 V
Approvals	CE - UKCA - cULus - cURus - UL1310 Class 2 - UL ISA 12.12.01 Class I Div2	CE - UKCA - cULus - cURus - UL1310 Class 2 - UL ISA 12.12.01 Class I Div2	CE - UKCA - cULus - cURus - UL1310 Class 2 - UL ISA 12.12.01 Class I Div2	CE - UKCA - cULus - cURus - UL1310 Class 2 - UL ISA 12.12.01 Class I Div2
Dimensions	91 x 18 x 63 mm (3.58" x 0.71" x 2.48")	91 x 52.5 x 63 mm (3.58" x 2.07" x 2.48")	91 x 52.5 x 63 mm (3.58" x 2.07" x 2.48")	91 x 70 x 63 mm (3.58" x 2.76" x 2.48")
Efficiency	85%	88%	89%	89%
DC ok (LED indication)	YES	YES	YES	YES
Options	Conformal coating [SCC]	Conformal coating [SCC]	Conformal coating [SCC]	Conformal coating [SCC]

## Battery chargers & UPS



Device	SPUBC UPS battery charger	SPUC UPS controller	SPM5 Battery charger
Output power	120 W	360 W - 720 W	30 W - 60 W
Available output voltage DC	12 V - 24 V	12 V - 24 V	12 V - 24 V
Input AC	115...277 V		90...264 V
Input DC		11...14 V - 22...28 V	
Approvals	CE - UKCA - cURus	CE - UKCA - cULus - cURus	CE - UKCA
Dimensions	65 x 115 x 135 mm (2.56" x 4.53" x 5.31")	90 x 54 x 114 mm (3.54" x 2.13" x 4.49")	91 x 90 x 57 mm (3.58" x 3.54" x 2.24")
Mounting	DIN rail	DIN rail	DIN rail

## DIN-rail battery bank

## Redundancy modules



Device	SPUBAT24	SPD RM
Output current	1.2 A - 3.2 A - 7.2 A - 12 A	20 A
Available output voltage DC	DC 24 V	24 V
Input DC	24 V	21...28 V
Approvals	CE	CE - UKCA - cULus - cURus
Dimensions	SPUBAT241A2: 176 x 67 x 122 mm (6.93" x 2.64" x 4.8") SPUBAT243A2: 193 x 75 x 163 mm (7.59" x 2.95" x 6.42") SPUBAT247A2: 203 x 139 x 129 mm (7.99" x 5.47" x 5.08") SPUBAT2412A: 201 x 114 x 205 mm (7.91" x 4.49" x 8.07")	90 x 54 x 114 mm (3.54" x 2.13" x 4.49")
Mounting	DIN rail	DIN rail

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