

Product Selection Guide

AC-DC & DC-DC Converters - POL Switching Regulators - LED Drivers



Transforming AC & DC Power Supplies

Innovative Designs - Premium Quality - Micro Size Converters - Custom Design - Certified Manufacturing



www.gaptec-power.com

GAPTEC - AC-DC and DC-DC power supply solutions

GAPTEC Electronic was founded in 2010 and focuses on market demands and serving the market's needs. It specializes in isolated and non-isolated voltage transformers (AC-DC, DC-DC, POL and LED drivers), supplying a selected range of converters and modules with typical isolation and industrial voltages as well as currently common terminal pin assignments. The portfolio ranges from 0.01 Watt up to 1,300 Watts (DC-DC) and from 1 Watt up to 1,500 Watts (AC-DC).

ISO 9001:2015 certification, long-standing cooperation between certified manufacturing facilities in Taiwan and China and our development team together with our design engineers guarantees powerful and economical standard and custom-made products. A select product portfolio guarantees highest quality standards (UL62368, UL 60950, EN 50155, UL 60601) and maximum flexibility offering short lead-times at a low cost.

GAPTEC Electronic will continue to extend its product range tailored to the industrial electronics industry while keeping an eye out for new and innovative power-saving products. It guarantees the supply of all fully designed products well beyond the standard product cycle times. When re-ordering products, customers can rest assured that they will obtain a product that is 100% compatible and meets the same quality standard as the previously supplied unit. Any changes to the product design will be announced to customers at least six months in advance. Reliability is key - always.

-  Innovative Designs - Premium Quality - Micro Size Design
-  More than 35 years global power supply experience
-  Very short delivery times for most products (approx. 5-6 weeks)
-  Real second source for most common parts
-  UL approvals for a wide range of selected parts

AC-DC converters - galvanic isolated

PCB mounted, DIN rail versions, housing and open frame

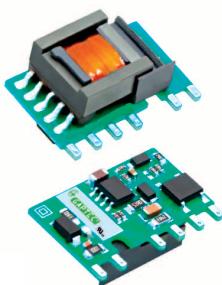
Our standard and custom designed AC-DC power converters are qualified by OEMs and used for municipal AC electric power systems, instrument and metering, communication and medical equipment. The modules provide universal input, high efficiency, high reliability, very low stand-by power and they are energy saving. Our AC-DC converters meet the most important requirements as far as operating temperature (-40°C up to +85°C), low ripple/noise, multiple protections, and they come with very small size dimensions. The parts provide universal input: 85VAC up to 528VAC or (100-745VDC) and isolation up to 4kVAC. GAPTEC Electronic offers customers short lead times and a 3-year warranty.



The new 1000 watts [1000ACPE_CF4 series](#) is an enclosed AC-DC switching power supply. It features universal AC input and at the same time accepts DC input voltage, cost-effective, low no load power consumption, high efficiency, high reliability and double or reinforced insulation. These converters offer excellent EMC performance and meet IEC / EN61000-4, CISPR32 / EN55032, IEC / UL / EN62368, EN60335, EN60601, GB4943 standards and they are widely used in areas of industrial, LED, street light control, electricity, security, telecommunications, smart home. etc.

Dimensions: (190.0 x 127.0 x 40.5 mm).

NEW: Feature series



5ACFEW_3 series

Description:

Miniature open frame size power converter

- Case size: SIP open frame
- 3 kVDC isolation
- UL62368 certified
- Short circuit protection (SCP)
- Input range: 85~305VAC/70~430VDC



AC-DC modules - INDUSTRIAL - 1 watt, 3 watt and 5 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
1	1ACOS	SIP open frame	wide	85-305VAC; 47-63Hz; 70-430VDC	5	Non-Isolated	-	-	57%	-40°C - +85°C	
3	3ACOS	SIP Open frame	wide	85-305VAC; 47-63Hz; 70-430VDC	12	Non-Isolated	-	-	57%	-40°C - +85°C	UL62368
3	3ACFEW_3	SIP Open frame	wide	85-305VAC; 47-63Hz; 70-430VDC	3.3; 5; 9; 12; 15; 24	3kVAC	-	-	80%	-40°C - +85°C	UL62368
3	3ACEW_4	DIP 1" x 1"	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24	4kVAC	-	-	79%	-40°C - +85°C	UL62368
3	3ACLEW_4	DIP Micro	wide	85-305VAC; 47-63Hz; 70-430VDC	3.3; 5; 6; 9; 12; 15; 24	4kVAC	-	-	79%	-40°C - +85°C	UL62368
5	5ACSEW_4	SIP	wide	85-305VAC; 47-63Hz; 120-370VDC	3.3; 5; 9; 12; 15; 24	4kVAC	-	-	77%	-40°C - +85°C	EN62368
5	5ACDM_3	DIP 1" x 1"	wide	90-264VAC; 47-63Hz; 120-370VDC	3.3; 5; 9; 12; 15; 24; 48	3kVAC	-	-	85%	-40°C - +70°C	UL62368
5	5ACOS_S	SIP Open frame	wide	85-305VAC; 47-63Hz; 70-430VDC	12; 15; 18	Non isolated	-	-	77%	-40°C - +85°C	
5	5ACEW_4	DIP 1" x 1"	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24	4kVAC	-	-	81.5%	-40°C - +85°C	UL62368
5	5ACFEW_3	SIP Open frame	wide	85-305VAC; 47-63Hz; 70-430VDC	3.3; 5; 9; 12; 15; 24	3kVAC	-	-	81%	-40°C - +85°C	UL62368



AC-DC modules - INDUSTRIAL - 10, 15, 20, 25, 30 and 40 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
10	10ACFEW_3	SIP Open frame	wide	85-305VAC; 47-63Hz; 70-430VDC	3.3; 5; 9; 12; 15; 24	3kVAC	▪	▪	81%	-40°C - +85°C	UL62368
10	10ACBEW_4	DIP 55 x 45mm	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24	4kVAC	▪	▪	85%	-40°C - +85°C	UL62368
10	10ACEW_4	DIP 40 x 25.4mm	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24	4kVAC	▪	▪	82%	-40°C - +85°C	UL62368
15	15ACEW_4	DIP 47.5 x 26.8mm	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24	4kVAC	▪	▪	86%	-40°C - +85°C	UL62368
15	15ACBEW_4	DIP 62 x 45mm	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24; 48	4kVAC	▪	▪	85%	-40°C - +85°C	UL62368
15	15ACSEW_4	SIP Housing	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24	4kVAC	▪	▪	84%	-40°C - +85°C	EN62368
20	20ACEW_4	DIP 52.4 x 27.2mm	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24	4kVAC	▪	▪	87%	-40°C - +85°C	UL62368
25	25ACBEW_4	DIP 70 x 48mm	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24; 48	4kVAC	▪	▪	87%	-40°C - +85°C	UL62368
30	30ACBEW_4	DIP 61.5 x 39mm	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24; 48	4kVAC	▪	▪	90%	-40°C - +85°C	UL62368
40	40ACBEW_4	DIP 89 x 63.5mm	wide	85-305VAC; 47-63Hz; 120-370VDC	3.3; 5; 9; 12; 15; 24; 48	4kVAC	▪	▪	84%	-40°C - +70°C	UL62368



AC-DC modules - INDUSTRIAL - 45 watt, 60 watt and 90 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
45	45ACAE_4	SIP 87 x 52mm	wide	85-264VAC; 47-63Hz; 120-370VDC	5; 12; 15; 24; 48	4kVAC	-	-	84%	-40°C - +70°C	UL62368
60	60ACAE_4	DIP 87 x 52mm	wide	85-264VAC; 47-63Hz; 120-370VDC	5; 12; 15; 24; 48	4kVAC	-	-	86%	-40°C - +70°C	UL62368
60	60ACAEW_4	DIP 87 x 52mm	wide	85-305VAC; 47-63Hz; 100-430VDC	5; 12; 15; 24; 48	4kVAC	-	-	86%	-40°C - +70°C	UL62368
60	60ACBE_4	DIP 96.32 x 58.5mm	wide	85-264VAC; 47-63Hz; 100-370VDC	5; 12; 15; 24; 48	4kVAC	-	-	86%	-40°C - +70°C	UL62368
60	60ACBEW_4	DIP 96.32 x 58mm	wide	85-305VAC; 47-63Hz; 100-370VDC	5; 12; 15; 24; 48	4kVAC	-	-	86%	-40°C - +70°C	UL62368
90	90ACAEW_4	DIP 87 x 52mm	wide	85-305VAC; 47-63Hz; 100-430VDC	12; 15; 24	4kVAC	-	-	93%	-40°C - +85°C	UL62368



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Booth A-341, Nuremberg, 9-11 April, 2024
Booth A4-103, Munich, 12-15 November, 2024



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AC-DC modules - MEDICAL - 25 watt, 30 watt, 60 watt, 100 and 150 watt

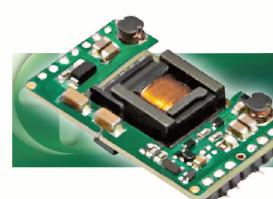


SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
25	25ACMEW_4	70 x 48mm	wide	85-264VAC; 47-63Hz; 120-370VDC	5; 12; 15; 18; 24	4kVAC	▪	▪	89%	-40°C - +85°C	UL60601
30	30ACMEB_4	61.1 x 45.6mm	wide	85-264VAC; 47-63Hz; 120-370VDC	5; 12; 15; 24	4kVAC	▪	▪	89%	-40°C - +80°C	UL60601
60	60ACMEB_4	89 x 63.5mm	wide	90-264VAC; 47-63Hz; 120-370VDC	5; 9; 12; 15; 24	4kVAC	▪	▪	83%	-25°C - +70°C	UL6060
100	100ACMEA_4	109.0 x 58.8mm	wide	90-264VAC; 47-63Hz;	12; 15; 24; 48	4kVAC	▪	▪	93.5%	-30°C - +70°C	UL60601
100	100ACMEB_4	83.9 x 58.8mm	wide	90-264VAC; 47-63Hz;	12; 24; 48	4kVAC	▪	▪	90%	-30°C - +70°C	UL60601
150	150ACMEA_4	109.0 x 58.8mm	wide	85-264VAC; 47-63Hz;	12; 15; 24; 48	4kVAC	▪	▪	93.5%	-30°C - +70°C	UL60601



For automobile electronic, industrial control and communication field applications



3TOC7_3RP series - DC-DC converter

Ultra wide input voltage range (7:1) - AEC-Q100 standards approved - 3kVAC isolation

AC-DC modules - POWER SUPPLY (MEDICAL) - 65, 180, 200, 280, 360, 500 and 550 watt



SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
65	65ACMOP_4	76.2 x 50.8 x 28.7mm	wide	90-264VAC; 47-63Hz	5, 12; 15; 19, 20, 24, 28, 48, 56	4kVAC	▪	▪	87%	-20°C - +70°C	UL60601
180	180ACMOP_4	127 x 76.2 x 30mm	wide	90-264VAC; 47-63Hz	12; 15; 19, 24, 28, 48	4kVAC	▪	▪	87%	0°C - +60°C	UL60601
200	200ACMUP_4	176 x 95 x 50mm	wide	90-264VAC; 47-63Hz;	12; 16; 19, 20, 24, 36, 48	4kVAC	▪	▪	87%	0°C - +60°C	UL60601
280	280ACMOP_4	127 x 76.2 x 30mm	wide	90-264VAC; 47-63Hz;	12; 24, 28, 36, 48, 54	4kVAC	▪	▪	91%	-20°C - +70°C	UL60601
280	280ACMUP_4	127 x 83.2 x 38mm	wide	90-264VAC; 47-63Hz	12; 24, 28, 36, 48, 54	4kVAC	▪	▪	91%	-20°C - +70°C	UL60601
280	280ACMHP_4	127 x 83.2 x 39.5mm	wide	90-264VAC; 47-63Hz	12; 24, 28, 36, 48, 54	4kVAC	▪	▪	91%	-20°C - +70°C	UL60601
360	360ACMOP_4	152.4 x 101.6 x 30mm	wide	90-264VAC; 47-63Hz;	12; 24, 28, 48, 54	4kVAC	▪	▪	90%	0°C - +70°C	UL60601
360	360ACMUP_4	203.2 x 118.5 x 42mm	wide	90-264VAC; 47-63Hz;	12; 24, 30, 36, 48, 54, 57	4kVAC	▪	▪	83%	0°C - +70°C	UL60601
500	500ACMUP_4	203 x 118.5 x 42mm	wide	90-264VAC; 47-63Hz;	12; 24, 30, 36, 48, 54, 57	4kVAC	▪	▪	83%	0°C - +70°C	UL60601
550	550ACMOP_C4	1271 x 76.2 x 40.5mm	wide	90-264VAC; 47-63Hz;	12; 15, 24, 27, 36, 48	4kVAC	▪	▪	94%	-40°C - +70°C	UL60601 UL62368

NEW: 15 WATT - SIP7 - 3.6kVAC Isolation - AC-DC converter

**15ACFEW series: Ultra wide input range:
176-528VAC and 248-745VDC**



AC-DC modules - DIN RAIL (INDUSTRIAL) - 30, 60, 75, 100, 120 and 150 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification	PFC
30	30ACDRS_4	92.66 x 58 x 35mm	Wide	85-264VAC; 47-63Hz 120-370VDC	5; 12; 15; 24; 48	4kVAC	▪	▪	90%	-40°C - +70°C	UL62368	
60	60ACDRS_4	92.66 x 58 x 52mm	wide	85-264VAC; 47-63Hz; 120-370VDC	5; 12; 15; 24; 48	4kVAC	▪	▪	91%	-40°C - +70°C	UL62368	
60	60ACDRW_4.7	125 x 114.5 x 32mm	Wide	180-550VAC; 47-63Hz; 254-780VDC	5; 12; 24; 48	4.7kVAC	▪	▪	91%	-30°C - +85°C	UL508	
75	75ACDRH_4	129.8 x 87.5 x 32mm	Wide	85-264VAC; 47-63Hz; 120-370VDC	12; 24; 48	4kVAC	▪	▪	90%	-30°C - +70°C	UL61010	
75	75ACDRN_3	125 x 114.5 x 32mm	Wide	90-264VAC; 47-63Hz; 127-370VDC	12; 24; 48	3kVAC	▪	▪	88.5%	-20°C - +70°C	UL61010	
100	100ACDRS_4	92.66 x 58 x 70mm	wide	85-264VAC; 47-63Hz; 120-370VDC	12; 15; 24; 48	4kVAC	▪	▪	90%	-40°C - +70°C	UL62368	
120	120ACDRH_4	128.82 x 110 x 32mm	Wide	85-264VAC; 47-63Hz; 254-780VDC	12; 24; 48	4kVAC	▪	▪	94%	-40°C - +70°C	UL62368	
120	120ACDRW_3	125 x 126.5 x 40mm	Wide	180-550VAC; 47-63Hz; 120-370VDC	12; 24; 48	3kVAC	▪	▪	92%	-25°C - +70°C	UL508	
120	120ACDRP_3	125 x 126.5 x 40mm	Wide	90-264VAC; 47-63Hz; 127-370VDC	12; 24; 48	3kVAC	▪	▪	91%	-25°C - +70°C	UL62368	
150	150ACDRS_4	89.12 x 58 x 105mm	wide	85-264VAC; 47-63Hz 120-370VDC	12; 15; 24; 48	4kVAC	▪	▪	91%	-30°C - +70°C	EN62368	

AC-DC modules - DIN RAIL (INDUSTRIAL) - 240, 480 and 960 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification	PFC
240	240ACDRH_C3	128 x 110 x 54mm	wide	85-264VAC; 47-63Hz 120-370VDC	12; 24; 48	3kVAC	▪	▪	94%	-40°C - +70°C	UL62368	▪
240	240ACDRP_C3	125 x 127 x 63mm	wide	90-264VAC; 47-63Hz 120-370VDC	12; 24; 48	3kVAC	▪	▪	94%	-30°C - +70°C	UL508	▪
240	240ACDRW_C3	125 x 127 x 63mm	wide	180-550VAC; 47-63Hz 254-780VDC	24; 48	3kVAC	▪	▪	94%	-30°C - +70°C	UL508	▪
240	240ACDRH_C3	125 x 127 x 63mm	wide	340-550VAC; 47-63Hz 480-780VDC	24; 48	3kVAC	▪	▪	90%	-30°C - +70°C	UL508	▪
480	480ACDRH_C3	130.6 x 131.5 x 48mm	wide	85-264VAC; 47-63Hz 120-370VDC	24; 48	3kVAC	▪	▪	94,5%	-40°C - +70°C	UL62368 UL61010	▪
480	480ACDRP_C3	125 x 142 x 85.5mm	wide	90-264VAC; 47-63Hz; 120-370VDC	24; 48	3kVAC	▪	▪	90%	-30°C - +70°C	UL508	▪
480	480ACDRW_C3	125 x 142 x 85.5mm	wide	180-550VAC; 47-63Hz; 254-780VDC	24; 48	3kVAC	▪	▪	90%	-30°C - +70°C	UL508	▪
480	480ACDRT_C3	125 x 142 x 85.5mm	wide	340-550VAC; 47-63Hz; 480-780VDC	24; 48	3kVAC	▪	▪	90%	-30°C - +70°C	UL508	▪
960	960ACDRP_C3	125.2 x 150 x 110mm	wide	180-264VAC; 47-63Hz; 254-370VDC	24; 48	3kVAC	▪	▪	94.4%	-30°C - +70°C	UL508	▪



AC-DC modules - OFF BOARD (HOUSING) - 15, 25, 35, 50, 75, 100, 150 and 320 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification	PFC
15	15ACPW_4	65 x 55 x 25mm	wide	85-305VAC; 47-63Hz 100-430VDC	3.3; 5; 12; 15; 24; 48	4kVAC	▪	▪	83%	-30°C - +70°C	UL62368	
25	25ACPW_4	65 x 55 x 25mm	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 12; 15; 24; 48	4kVAC	▪	▪	83%	-30°C - +70°C	UL62368	
35	35ACPE_4	99 x 82 x 26mm	wide	85-264VAC; 47-63Hz; 120-373VDC	5; 12; 15; 24	4kVAC	▪	▪	89%	-30°C - +70°C	UL62368	
35	35ACPW_4	92.5 x 82 x 26mm	wide	85-305VAC; 47-63Hz 100-430VDC	5; 12; 15; 24	4kVAC	▪	▪	87%	-30°C - +70°C	UL62368	
50	50ACPE_4	92.5 x 82 x 30mm	wide	85-264VAC; 47-63Hz; 120-373VDC	5; 12; 15; 24	4kVAC	▪	▪	90%	-30°C - +70°C	UL62368	
50	50ACPW_4	92.5 x 82 x 30mm	wide	85-305VAC; 47-63Hz 100-430VDC	5; 12; 15; 24	4kVAC	▪	▪	87%	-30°C - +70°C	UL62368	
75	75ACPE_4	92.5 x 97 x 30mm	wide	85-264VAC; 47-63Hz; 120-373VDC	5; 12; 15; 24	4kVAC	▪	▪	87%	-30°C - +70°C	UL62368	
75	75ACPW_4	92.5 x 97 x 30mm	wide	85-305VAC; 47-63Hz; 100-430VDC	5; 12; 15; 24	4kVAC	▪	▪	87%	-30°C - +70°C	UL62368	
100	100ACPE_4	122.5 x 97 x 30mm	wide	85-264VAC; 47-63Hz; 120-373VDC	5; 12; 15; 24; 36; 48	4kVAC	▪	▪	87%	-30°C - +70°C	UL62368	
100	100ACPW_4	122.5 x 97 x 30mm	wide	85-305VAC; 47-63Hz; 100-430VDC	5; 12; 15; 24; 36; 48	4kVAC	▪	▪	87%	-30°C - +70°C	UL62368	
150	150ACPE_4	152.45 x 97 x 30mm	wide	85-264VAC; 47-63Hz; 120-370VDC	12; 15; 24; 36; 48	4kVAC	▪	▪	87%	-30°C - +70°C	UL62368	
150	150ACPW_4	152.45 x 97 x 30mm	wide	85-305VAC; 47-63Hz; 100-430VDC	12; 15; 24; 36; 48	4kVAC	▪	▪	87%	-30°C - +70°C	UL62368	
225	225ACPE_4	103.40 x 62 x 37m	wide	90-264VAC; 47-63Hz; 120-370VDC	12; 15; 24; 36; 48	4kVAC	▪	▪	94%	-30°C - +70°C	UL62368	▪
320	320ACPW_CF4	215.0 x 115.0 x 30.0mm	wide	85-305VAC; 47-63Hz; 100-430VDC	4; 5; 12; 15; 24; 27; 48	4kVAC	▪	▪	87,5%	-30°C - +70°C	UL62368	▪



AC-DC modules - OFF BOARD (HOUSING) - 350, 450, 500, 600, 1000 and 1500watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification	PFC
350	320ACPE_C4	120.0 x 86 x 35mm	wide	90-264VAC; 47-63Hz 127-370VDC	12; 15; 24; 27; 36; 48	4kVAC	▪	▪	94%	-30°C - +70°C	UL62368	▪
450	450ACP1E_C4	215.0 x 115.0 x 30.0mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12; 15; 24; 48	4kVAC	▪	▪	88%	-30°C - +70°C	UL62368	▪
450	450ACP2E_C4	215.0 x 115.0 x 30.0mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12; 15; 24; 48	4kVAC	▪	▪	88%	-30°C - +70°C	UL62368	▪
500	500ACP1E_C4	130 x 86 x 43.0mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12; 15; 24; 48	4kVAC	▪	▪	88%	-30°C - +70°C	UL62368	▪
500	500ACP2E_C4	130 x 86 x 43.0mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12; 15; 24; 48	4kVAC	▪	▪	88%	-30°C - +70°C	UL62368	▪
600	600ACPE_CF4	127 x 76.2 x 40.5mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12; 15; 24; 27; 36; 48	4kVAC	▪	▪	94%	-40°C - +70°C	UL62368 UL60601	▪
1000	1000ACPE_CF4	190 x 127 x 40.5mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12; 15; 24; 27; 36; 48	4kVAC	▪	▪	94%	-40°C - +70°C	UL62368 UL60601	▪
1500	1500AC2E_CF4	190 x 127 x 40.5mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12; 15; 24; 27; 36; 48	4kVAC	▪	▪	94%	-40°C - +70°C	UL62368 UL60601	▪

1Watt Regulated Single Output Converter - The New Fixed Input 1S10B_7RP series



Reinforced isolation voltage: 5000VAC or 7000VDC

Electrical clearance and creepage distance above 16mm. Meets CTI level 1.

AC-DC modules - OFF BOARD (OPEN FRAME) - 3, 5, 10, 15, 30, 45, 65, 120 and 180 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification	PFC
3	3ACFO_3	42 x 16 x 17mm	wide	85-264VAC; 47-63Hz 120-370VDC	3.3; 5; 9; 12; 15; 24	3kVAC	▪	▪	79%	-25°C - +70°C		
5	5ACFO_3	42 x 16 x 17mm	wide	165-264VAC; 47-63Hz; 230-370VDC	3.3; 5; 9; 12; 15; 24	3kVAC	▪	▪	79%	-25°C - +70°C		
10	10ACOW_3	60 x 42 x 16.3mm	wide	85-305VAC; 47-63Hz; 100-430VDC	3.3; 5; 9; 12; 15; 24	3kVAC	▪	▪	81%	-25°C - +70°C	UL62368	
10	10ACOW8_4	80 x 40 x 35mm	wide	57-528VAC; 47-63Hz; 80-745VDC	5.1; 12	4kVAC	▪	▪	78%	-40°C - +70°C		
15	15ACO_3	63.5 x 45.7 x 19mm	wide	85-264VAC; 47-63Hz; 120-370VDC	3.3; 5; 9; 12; 15	3kVAC	▪	▪	81%	-25°C - +70°C		
15	15ACOW_4	87.5 x 50.0 x 22mm	wide	85-305VAC; 47-63Hz 100-430VDC	3.3; 5; 12; 15; 24	4kVAC	▪	▪	85%	-25°C - +70°C		
30	30ACO_3	76.2 x 44.45 x 27mm	wide	85-264VAC; 47-63Hz 120-370VDC	3.3; 5; 9; 12; 15; 24; 48	3kVAC	▪	▪	88%	-25°C - +70°C	UL62368	
45	45ACO_3	76.2 x 50.8 x 30mm	wide	85-264VAC; 47-63Hz 100-370VDC	3.3; 5; 9; 12; 15; 24; 48	3kVAC	▪	▪	87%	-25°C - +70°C	UL62368	
65	65ACMOP_4	76.2 x 50.8 x 28.7mm	wide	90-264VAC; 47-63Hz	5, 12, 15, 19, 20, 24, 28; 48	4kVAC	▪	▪	87%	-20°C - +70°C	UL60601	
65	65ACO_3	76.2 x 44.8 x 30.0mm	wide	85-264VAC; 47-63Hz; 120-373VDC	5; 9; 12; 15; 24; 48	3kVAC	▪	▪	87%	-25°C - +70°C	UL62368	
120	120ACMOP_C4	76.2 x 50.8 x 3.0mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12; 15; 19; 24; 27; 36; 48; 54	4kVAC	▪	▪	95%	-40°C - +85°C	UL62368	▪
180	180ACMOP_4	127 x 76.2 x 30 mm	wide	90-264VAC; 47-63Hz;	12, 15, 19, 24, 28, 48	4kVAC	▪	▪	87%	0°C - +60°C	UL60601	▪

AC-DC modules - OFF BOARD (OPEN FRAME) - 200, 280, 350, 360, 450, 500 and 550 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VAC/VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification	PFC
200	200ACMUP_4	176 x 95 x 50mm	wide	90-264VAC; 47-63Hz;	12, 16, 19, 20, 24, 36, 48	4kVAC	▪	▪	87%	0°C - +60°C	UL60601	▪
225	225ACMOP_C4	101 x 44.45 x 25.4mm	wide	90-264VAC; 47-63Hz; 120-370VDC	12; 15; 24; 27; 36; 48	4kVAC	▪	▪	94%	-40°C - +70°C	UL60601 UL62368	▪
280	280ACMOP_4	127 x 76.2 x 30mm	wide	90-264VAC; 47-63Hz	12; 24; 28; 36; 48; 54	4kVAC	▪	▪	91%	-20°C - +70°C	UL60601	▪
280	280ACMUP_4	127 x 83.2 x 38mm	wide	90-264VAC; 47-63Hz	12; 24; 28; 36; 48; 54	4kVAC	▪	▪	91%	-20°C - +70°C	UL60601	▪
280	280ACMHP_4	127 x 83.2 x 38mm	wide	90-264VAC; 47-63Hz	12; 24; 28; 36; 48; 54	4kVAC	▪	▪	91%	-20°C - +70°C	UL60601	▪
350	350ACMOP_C4	127 x 76.2 x 25.4mm	wide	90-264VAC; 47-63Hz; 127-373VDC	12; 15; 24; 27; 36; 48	4kVAC	▪	▪	94%	-40°C - +70°C	UL60601 UL62368	▪
360	360ACMOP_4	152.4 x 101.6 x 30mm	wide	90-264VAC; 47-63Hz;	12, 24, 28, 48, 54	4kVAC	▪	▪	90%	0°C - +70°C	UL60601	▪
360	360ACMUP_4	203.2 x 118.5 x 42mm	wide	90-264VAC; 47-63Hz;	12, 24, 28, 48, 54, 57	4kVAC	▪	▪	83%	0°C - +70°C	UL60601	▪
450	450ACMOP_C4	127 x 76.2 x 38.5mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12; 15; 24; 27; 36; 48	4kVAC	▪	▪	94%	-40°C - +70°C	UL60601	▪
500	500ACMUP_4	203.2 x 118.5 x 42mm	wide	90-264VAC; 47-63Hz;	12, 24, 30, 36, 48, 54, 57	4kVAC	▪	▪	83%	0°C - +70°C	UL60601	▪
550	550ACMOP_C4	127 x 76.20 x 40.5mm	wide	90-264VAC; 47-63Hz; 127-370VDC	12, 15; 24, 27, 36, 48	4kVAC	▪	▪	94%	-40°C - +70°C	UL62368 UL60601	▪



DC-DC converters - galvanic isolated

Our DC-DC power supplies are trusted by OEMs and used in industry control, medical applications, telecom and communication, transportation and railway. Our power supplies meet the most important specifications in terms of output voltage ripple, low noise, high density, high efficiency (up to 93%), wide operating temperature range (up to -55°C/+125°C), input/output isolation and EMC. GAPTEC has a broad range of DC-DC converters, with output power ranges from 0.01 watt to 1300 watts. Our products are available as THT (through hole technology) and SMT (service mount technology), in ultra small packages with high power density and isolation voltages up to 4.2kVAC/6kVDC & reinforced up to 6kVDC.



Ultra wide input range DC-DC converters, isolated & regulated, single output, DIP & SMD package and ultra low case design.

DC-DC converters - photovoltaic

Our DCP series DC-DC converters are generally used in the control and monitoring system for photovoltaic installations. Those converters are characterized by an extremely wide input voltage range of 200 - 1500VDC and in addition they are offering a high galvanic isolation (4kVDC). The operating temperature range is from -40°C to +85°C. Our DCP series offers the following power classes: 5, 10, 15 & 40 watts, along with the common industry standard output voltages. All converters are SCP (short circuit protected) to protect the converters and applications in the area of operation. The products are offered in compact size and in metal housings as through hole versions.



All parts are RoHS compliance and most with safety approvals (UL).

DC-DC converters - INDUSTRIAL - 0.01 watt, 0.1 watt and 0.25 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
0.01	0.1S4A_1.5U	SIP4	±10%	5; 7-8	3.3; 5	1.5kVDC		▪	90%	-40°C - +85°C	
0.1	0.1S4A_1.5U	SIP4	±10%	3.3; 5; 12	3.3; 5; 9; 12; 15	1.5kVDC			86%	-40°C - +85°C	
0.1	0.1MS4A_1.5UP	SIP4 micro	±10%	3.3; 5; 12	3.3; 5; 9; 12; 15	1.5kVDC		▪	78%	-40°C - +105°C	
0.1	0.1MD4A_1.5U	DIP4 micro	±10%	3.3; 5	3.3; 5	1.5kVDC			50%	-40°C - +85°C	
0.1	0.1D8A_1.5U	DIP8	±10%	3.3; 5; 12	3.3; 5; 9; 12; 15	1.5kVDC			86%	-40°C - +85°C	
0.1	0.1S7B_3UP	SIP7	±10%	3.3; 5; 12; 15; 24	3.3; 5; 9; 12; 15; 24; ±5 ±9; ±12; ±15	3kVDC		▪	80%	-40°C - +105°C	
0.1	0.1D14B_3UP	DIP14	±10%	3.3; 5; 12	3.3; 5; 9; 12; 15 ±5 ±9; ±12; ±15	3kVDC		▪	80%	-40°C - +105°C	
0.25	QS4E_1U	SIP4	±10%	3.3; 5; 7.2; 12; 15; 24; 48	3.3; 5; 7.2; 9; 12; 15; 24	1kVDC			74%	-40°C - +85°C	
0.25	QS4E_3U	SIP4	±10%	3.3; 5; 7.2; 12; 15; 24; 48	3.3; 5; 7.2; 9; 12; 15; 24	3kVDC			76%	-40°C - +85°C	
0.25	QS4E_1.5UP	SIP4	±10%	3.3; 5; 12; 24	3.3; 5; 9; 12; 15	1.5kVDC		▪	75%	-40°C - +105°C	
0.25	QD8E_1U	DIP8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 7.2; 9; 12; 15; 24	1kVDC			73%	-40°C - +85°C	
0.25	QD8E_1.5UP	DIP8	±10%	3.3; 5; 12; 24	3.3; 5; 9; 12; 15	1.5kVDC		▪	75%	-40°C - +105°C	
0.25	QD8E_3U	DIP8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 7.2; 9; 12; 15; 24	3kVDC			73%	-40°C - +85°C	
0.25	QS7A_3UP	SIP7	±10%	3.3; 5; 12; 15	3.3; 5; 9; 12; 15; 24	3kVDC		▪	73%	-40°C - +85°C	
0.25	QS7B_3UP	SIP7	±10%	3.3; 5; 12; 15	±5 ±9; ±12; ±15; ±24	3kVDC		▪	81%	-40°C - +105°C	
0.25	QT8E_1U	SMD8	±10%	3.3; 5; 12; 15	3.3; 5; 9; 12; 15	1kVDC			72%	-40°C - +85°C	

DC-DC converters - INDUSTRIAL - 0.25 watt and 0.5 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
0.25	QT8A1_1.5UP	SMD8	±10%	3.3; 5; 9; 12; 15; 24	3.3; 5; 9; 12; 15	1.5kVDC		▪	77%	-40°C - +105°C	
0.25	QT8B1_1.5UP	SMD8	±10%	3.3; 5; 9; 12; 15; 24	3.3; 5; 9; 12; 15	1.5kVDC		▪	77%	-40°C - +105°C	
0.25	QT8A_3UP	SMD8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 9; 12; 15	3kVDC		▪	78%	-40°C - +105°C	
0.25	QT8A1_3UP	SMD8	±10%	3.3; 5; 9; 12; 15; 24	3.3; 5; 9; 12; 15	3kVDC		▪	77%	-40°C - +105°C	
0.25	QT8B1_3UP	SMD8	±10%	3.3; 5; 9; 12; 15; 24	3.3; 5; 9; 12; 15	1.5kVDC		▪	77%	-40°C - +105°C	
0.25	QT8C1_3UP	SMD8	±10%	3.3; 5; 9; 12; 15; 24	3.3; 5; 9; 12; 15	1.5kVDC		▪	77%	-40°C - +105°C	
0.25	QT8B_3UP	SMD8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 9; 12; 15	1.5kVDC		▪	78%	-40°C - +105°C	
0.5	0.5S4E_1U	SIP4	±10%	3.3; 5; 12; 15; 24; 48	3.3; 5; 7.2; 9; 12; 15; 18; 24	1kVDC			79%	-40°C - +85°C	
0.5	0.5S4B_1.5UP	SIP4	±10%	3.3; 5; 12	3.3; 5; 9; 12; 15	1kVDC		▪	78%	-40°C - +105°C	
0.5	0.5S4E_3U	SIP4	±10%	3.3; 5; 12; 15; 24; 48	3.3; 5; 7.2; 9; 12; 15; 18; 24	3kVDC			83%	-40°C - +85°C	
0.5	0.5MD4A_1.5U	DIP4 micro	±10%	3.3; 5; 12	3.3; 5	1.5kVDC			50%	-40°C - +85°C	
0.5	0.5D8E_1U	DIP8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 7.2; 9; 12; 15; 18; 24	1kVDC			77%	-40°C - +85°C	
0.5	0.5D8B_1.5UP	DIP8		3.3; 5; 12	3.3; 5; 9; 12; 15	1.5kVDC		▪	78%	-40°C - +105°C	
0.5	0.5D8E_3U	DIP8	±10%	3.3; 5; 12; 15	3.3; 5; 7.2; 9; 12; 15; 18; 24	1kVDC			77%	-40°C - +85°C	
0.5	0.5S7B_3UP	SIP7	±10%	3.3; 5; 12; 15	3.3; 5; 9; 12; 15; 24; ±5 ±9; ±12; ±15	3kVDC		▪	83%	-40°C - +105°C	
0.5	0.5T8E_1U	DIP8	±10%	3.3; 5; 9; 12; 15	3.3; 5; 9; 12; 15	1kVDC			78%	-40°C - +85°C	
0.5	0.5D14B_3UP	DIP14	±10%	3.3; 5; 12	3.3; 5; 9; 12; 15; ±5 ±9; ±12; ±15	3kVDC		▪	80%	-40°C - +105°C	
0.5	0.5T8A_3UP	SMD8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 9; 12; 15	3kVDC		▪	78%	-40°C - +105°C	
0.5	0.5T8CE_1UP	SMD8	±10%	24	15	1kVDC		▪	77%	-40°C - +105°C	
0.5	0.5TS16_5RP	SOIC16	±10%	5	3.3; 3.7; 5.0; 5.4	5kVDC		▪	53%	-55°C - +125°C	

DC-DC converters - INDUSTRIAL - 0.75 watt and 1 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
0.75	0.75S4A_3RP	SIP4	±10%	5	3.3; 5; 9; 12; 15	3kVDC	▪	▪	74%	-40°C - +85°C	UL62368
0.75	0.75T8A_1.5RP	SMD8	±10%	5	3.3; 5; 9; 12; 15	1.5kVDC	▪	▪	74%	-40°C - +85°C	UL62368
1	1TM14_3UP	SMD	±10%	5	5	3kVDC	▪	▪	85%	-40°C - +125°C	UL62368
1	1S4E_1U	SIP4	±10%	3.3; 5; 12; 15; 24; 48	3.3; 5; 7.2; 9; 12; 15; 18; 24	1kVDC	▪	▪	83%	-40°C - +85°C	
1	1S4AE_1.5UP	SIP4	±10%	3.3; 5; 9; 12; 15; 24	3.3; 5; 9; 12; 15; 24	1.5kVDC	▪	▪	80%	-40°C - +105°C	UL62368
1	1S4AE_3UP	SIP4	±10%	3.3; 5; 9; 12; 15; 24	3.3; 5; 9; 12; 15; 24	3kVDC	▪	▪	80%	-40°C - +105°C	UL62368
1	1MS4A_3UP	SIP4 micro	±10%	3.3; 5; 12; 24	3; 5; 9; 12; 15	3kVDC	▪	▪	81%	-40°C - +85°C	
1	1MD6A_1.5UP	DIP4 micro	±10%	3.3; 5	3.3; 5	1.5kVDC	▪	▪	82%	-40°C - +105°C	
1	1D8E_3UP	DIP8	±10%	3.3; 5; 9; 12; 15; 24	3.3; 5; 9; 12; 15; 24 ±3.3; ±5; ±9; ±12; ±15; ±24	3kVDC	▪	▪	87%	-40°C - +105°C	
1	1D8AE_1.5UP	DIP8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 9; 12; 15; 24	1.5kVDC	▪	▪	83%	-40°C - +105°C	
1	1D8AE_3UP	DIP8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 9; 12; 15; 24	3kVDC	▪	▪	83%	-40°C - +105°C	UL62368
1	1MD8A_3UP	DIP8 micro	±10%	3.3; 5; 9; 12; 24	3.3; 5; 9; 12; 15	3kVDC	▪	▪	81%	-40°C - +85°C	
1	1D8W_1.5RP	DIP	2:1	9-18; 18-36	3.3; 5; 12; 15; 24	1.5kVDC	▪	▪	80%	-40°C - +85°C	UL62368
1	1D14A_DS3UP	DIP14	±10%	5; 12	3.3; 5; 9; 12; 15	3kVDC	▪	▪	80%	-40°C - +85°C	
1	1D14C_3UP	DIP14	±10%	3.3; 5; 12; 15; 24	3.3; 5; 12; 15; ±5; ±12; ±15	3kVDC	▪	▪	81%	-40°C - +105°C	UL60950
1	1S7AE_DS1U	SIP7	±10%	5; 12; 24	Vout1: 3.3; 5; 7.2; 9; 12; 15 Vout2: 3.3; 5; 7.2; 9; 12; 15	1kVDC	▪	▪	80%	-40°C - +85°C	
1	1S7A_DS1U	SIP7	±10%	5; 9; 12; 15; 24	Vout1: 3.3; 5; 9; 12; 15; 24 Vout2: 3.3; 5; 9; 12; 15; 24	1kVDC	▪	▪	80%	-40°C - +85°C	
1	1S7A_DS3UP	SIP7	±10%	5; 9; 12; 15; 24	Vout1: 3.3; 5; 9; 12; 15; 24 Vout2: 3.3; 5; 9; 12; 15; 24	3kVDC	▪	▪	80%	-40°C - +85°C	
1	1S7AE_1U	SIP7	±10%	3.3; 5; 12; 15; 24; 48	3.3; 5; 9; 12; 15; 18; 24; ±3.3; ±5; ±7.2; ±9; ±12; ±15; ±24	1kVDC	▪	▪	86%	-40°C - +85°C	
1	1S7A_1.5UP	SIP7	±10%	5	5; 9; 12; 15; ±5; ±9; ±12; ±15	1.5kVDC	▪	▪	83%	-40°C - +105°C	UL62368

DC-DC converters - INDUSTRIAL - 1 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
1	1S7B_3UP	SIP7	±10%	5	3.3; 5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	3kVDC		▪	83%	-40°C - +105°C	UL62368
1	1S7B_4UP	SIP7	±10%	3.3; 5; 9; 12; 15; 24	3.3; 5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24 ±5; ±9; ±12; ±15; ±24	4kVDC		▪	80%	-40°C - +105°C	
1	1S7B_6U	SIP7	±10%	5; 9; 12; 15; 24	5; 9; 12; 15; 24;	6kVDC			80%	-40°C - +85°C	
1	1S7B1_6UP	SIP7	±10%	5; 12; 15; 24	3.3; 5; 12; 24; ±5; ±7.2; ±9; ±12; ±15	6kVDC		▪	82%	-40°C - +105°C	UL60601
1	1S7AE_1RP	SIP7	±10%	5; 12; 15; 24	3.3; 5; 9; 12; 15; 24	1kVDC		▪	75%	-40°C - +85°C	
1	1S7BE_3RP	SIP7	±10%	3.3; 5; 12; 24	3.3; 5; 7.2; 9; 12; 15	3kVDC		▪	71%	-40°C - +85°C	
1	1S7WA_3RP	SIP7	2:1	4.5-9; 9-18; 18-36	5; 9; 12; 15; 24	3kVDC		▪	83%	-40°C - +95°C	
1	1S7WB_3RP	SIP7	2:1	4.5-9; 9-18; 18-36	5; 9; 12; 15; 24	3kVDC		▪	83%	-40°C - +95°C	
1	1S6W4_1.6RP	SIP6	2:1	4.5-18; 9-36; 18-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.6kVDC		▪	85%	-40°C - +100°C	
1	1S6W_2RP	SIP6	2:1	4.5-9; 9-18; 18-36; 36-75	3.3; 5; 9; 12; 15; ±5; ±9; ±12; ±15	2kVDC		▪	82%	-40°C - +100°C	
1	1S8W_1.5RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-75	5; 9; 12; 15; 24; ±5; ±12; ±15	1.5kVDC		▪	79%	-40°C - +85°C	UL62368
1	1S8W_3RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-75	3.3; 5; 9; 12; 15; ±5; ±12; ±15	3kVDC		▪	81%	-40°C - +85°C	UL62368
1	1S8W_2RP	SIP8	2:1	4.5-9; 9-18; 18-36	3.3; 5; 9; 12; 15; 24; ±3.3; ±5; ±12; ±15	2; 4; 5.2kVDC		▪	81%	-40°C - +100°C	
1	1S8W4_2RP	SIP8	4:1	4.5-18; 9-36; 18-75	3.3; 5; 9; 12; 15; 24; ±3.3; ±5; ±12; ±15	2 & 4kVDC		▪	81%	-40°C - +100°C	
1	1S10B_7RP	SIP10	±10%	5	5	7kVDC		▪	68%	-40°C - +105°C	
1	1T8E_1U	SMD8	±10%	3.3; 5; 9; 12; 15	3.3; 5; 9; 12; 15	1kVDC			80%	-40°C - +85°C	
1	1T8B_1U	SMD8	±10%	3.3; 5; 9; 12; 15	3.3; 5; 9; 12; 15	1kVDC			80%	-40°C - +85°C	
1	1T8A1_1.5UP	SMD8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 9; 12; 15; 24	1.5kVDC		▪	83%	-40°C - +105°C	UL62368
1	1T8B1_1.5UP	SMD8	±10%	5	3.3; 5; 9; 12	1.5kVDC		▪	83%	-40°C - +105°C	UL62368
1	1T8CE_1.5UP	SMD8	±10%	5	5	1.5kVDC		▪	80%	-40°C - +105°C	

DC-DC converters - INDUSTRIAL - 1 watt, 1.5 watt and 2 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
1	1T8A1_3UP	SMD8	±10%	3.3; 5; 12; 15; 24	3.3; 5; 9; 12; 15; 24	3kVDC	-	-	85%	-40°C - +105°C	UL62368
1	1T8A1_3RP	SMD8	±10%	3.3; 5; 9; 12; 15	3.3; 5; 9; 12; 15	3kVDC	-	-	71%	-40°C - +105°C	
1	1T8A1_3.5UP	SMD8	±10%	5	5	3.5kVDC	-	-	81%	-55°C - +125°C	
1	1T8W_1.5RP	SMD	2:1	9-18; 18-36	3.3; 5; 12; 15; 24	1.5kVDC	-	-	80%	-40°C - +85°C	UL62368
1	1T10A1_1.5UP	SMD10	±10%	5; 12; 15; 24	±5; ±9; ±12; ±15; ±24	1.5kVDC	-	-	82%	-40°C - +105°C	UL62368
1	1T10A1_3U	SMD10	±10%	3.3; 5; 9	3.3; 5; 9; ±3.3; ±5; ±9	3kVDC	-	-	75%	-40°C - +85°C	
1	1T10A1_3UP	SMD10	±10%	5; 12; 15; 24	±5; ±9; ±12; ±15; ±24	3kVDC	-	-	82%	-40°C - +105°C	UL62368
1	1T10A1_3RP	SMD10	±10%	5; 12; 15	5; 12; 15	3kVDC	-	-	71%	-40°C - +85°C	
1	1TM16_3UP	SMD	±10%	5; 12; 24	5; 9; 12; 15; 24	3kVDC	-	-	81%	-40°C - +125°C	
1	1T12CW_1.5RP	SMD12	2:1	9-18; 18-36; 36-72	5; 12; 15; 24	1.5kVDC	-	-	75%	-40°C - +85°C	
1	1T16WE_1.5RP	SMD16	2:1	4.5-9; 9-18; 18-36	3.3; 5; 12; 15; ±5; ±12; ±15	1.5kVDC	-	-	80%	-40°C - +85°C	
1	1T12A1_3UP	SMD12	±10%	3.3; 5; 9; 12; 15	3.3; 5; 9; 12; 15; ±3.3; ±5; ±9; ±12; ±15; ±24	3kVDC	-	-	85%	-40°C - +105°C	
1.5	1.5D8A_1U	DIP8	±10%	5	5	1kVDC	-	-	70%	-40°C - +85°C	
2	2S4E_1U	SIP4	±10%	5; 12; 15; 24; 48	3.3; 5; 9; 12; 15; 24	1kVDC	-	-	88%	-40°C - +85°C	
2	2S4AE_1.5UP	SIP4	±10%	5; 12; 24	5; 9; 12; 15; 24	1.5kVDC	-	-	82%	-40°C - +85°C	
2	2MS4A_1.5UP	SIP4 micro	±10%	24	3.3	1.5kVDC	-	-	84%	-40°C - +105°C	
2	2S7A_1U	SIP7	±10%	5; 12; 15; 24; 48	3.3; 5; 7.2 ; 9; 12; 15; 24; ±3.3; ±5; ±7.2; ±12; ±15; ±18; ±24	1kVDC	-	-	82%	-40°C - +85°C	
2	2S7AE_1.5UP	SIP7	±10%	5; 12; 15; 24	3.3; 5; 12; 15; 24; ±3.3; ±5; ±7.2; ±12; ±15; ±24	1.5kVDC	-	-	84%	-40°C - +105°C	UL62368
2	2S7A_1RP	SIP7	±10%	5; 12; 15; 24	5; 12; 15	1kVDC	-	-	72%	-40°C - +85°C	
2	2S7BE_3UP	SIP7	±10%	5; 12; 15; 24	3.3; 5; 12; 15; ±5; ±12; ±15	3kVDC	-	-	81%	-40°C - +105°C	UL60950



DC-DC converters - INDUSTRIAL - 2 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
2	2S7BE_6U	SIP7	±10%	3.3; 5; 12; 24; 48	3.3; 5; 9; 12; 15; 24; ±3.3; ±5; ±9; ±12; ±15; ±24	6kVDC			82%	-40°C - +85°C	
2	2S7B1_6UP	SIP7	±10%	5; 12; 24	5; 9; 12; 15; ±5; ±9; ±12; ±15	6kVDC		▪	80%	-40°C - +95°C	UL60601
2	2D14B1_3UP	DIP14	±10%	5; 12; 15; 24	5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	3kVDC	▪	▪	85%	-40°C - +85°C	
2	2S7WA_3RP	SIP7	2:1	4.5-9; 9-18; 18-36	5; 9; 12; 15; 24	3kVDC	▪	▪	83%	-40°C - +95°C	
2	2S7WB_3RP	SIP7	2:1	4.5-9; 9-18; 18-36	5; 9; 12; 15; 24	3kVDC	▪	▪	83%	-40°C - +95°C	
2	2D14B1_1U	DIP14	±10%	3.3; 5; 12; 24; 48	3.3; 5; 7.2; 9; 12; 15; 18; 24; ±3.3; ±5; ±7.2; ±9; ±12; ±15; ±18; ±24	1kVDC			82%	-40°C - +85°C	
2	2D14B1_1.5UP	DIP14	±10%	12; 15; 24	5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	1.5kVDC		▪	85%	-40°C - +95°C	UL60950
2	2S8WE_1RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-72	3.3; 5; 9; 12; 15; 24	1kVDC	▪	▪	80%	-40°C - +85°C	
2	2S8WE_3RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-72	3.3; 5; 9; 12; 15; 24	3kVDC	▪	▪	80%	-40°C - +85°C	
2	2S8W_2RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-75	3.3; 5; 9; 12; 15; ±3.3; ±5; ±12; ±15	2; 4; 5.2kVDC	▪	▪	85%	-40°C - +100°C	
2	2S8WE4_1RP	SIP8	4:1	9-36; 18-75	5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	1kVDC	▪	▪	80%	-40°C - +85°C	
2	2S8WE4_3RP	SIP8	4:1	9-36; 18-75	5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	3kVDC	▪	▪	80%	-40°C - +85°C	
2	2T8E_1U	SMD8	±10%	3.3; 5; 9; 12	3.3; 5; 9; 12	1kVDC			74%	-40°C - +85°C	
2	2T8A1_1.5UP	SMD8	±10%	5; 12; 15; 24	3.3; 5; 9; 12; 15; 24	1.5kVDC	▪		85%	-40°C - +105°C	
2	2T8A1_3UP	SMD8	±10%	5; 12; 15; 24	5; 9; 12; 15; 24	3kVDC	▪		85%	-40°C - +105°C	
2	2D16WA_1.5RP	DIP16	2:1	4.5-9; 9-18; 18-36	3.3; 5; 12; 15; 24; ±5; ±12; ±15	1.5kVDC	▪	▪	80%	-40°C - +85°C	
2	2T16WE_1.5RP	SMD16	2:1	4.5-9; 9-18; 18-36	3.3; 5; 12; 15; ±5; ±12; ±15; ±24	1.5kVDC	▪	▪	83%	-40°C - +85°C	

DC-DC converters - INDUSTRIAL - 3 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
3	3S4A_1UP	SIP4	±10%	5; 12	5; 9; 12; 15; 18	1kVDC	-	-	86%	-40°C - +85°C	
3	3D8A_1UP	SIP4	±10%	5; 12	5; 9; 12; 15; 18	1kVDC	-	-	86%	-40°C - +85°C	
3	3S4AE_1UP	SIP4	±10%	5; 9; 12; 15	5; 9; 12; 15	1kVDC	-	-	84%	-40°C - +85°C	
3	3MS4A_1UP	SIP4 micro	±10%	5; 12; 24	3.3; 5; 9; 12; 15	1kVDC	-	-	84%	-40°C - +85°C	
3	3MS4B_3UP	SIP4 micro	±10%	5; 12; 24	3.3; 5; 9; 12; 15	3kVDC	-	-	84%	-40°C - +85°C	
3	3S6W4_1.6RP	SIP6	4:1	4.5-18; 9-36; 18-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.6kVDC	-	-	84%	-40°C - +71°C	
3	3S6W4_3RP	SIP6	4:1	4.5-18; 9-36; 18-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.6kVDC	-	-	84%	-40°C - +71°C	
3	3S7A_1U	SIP7	±10%	5; 12	5; 9; 12; 15; ±5; ±9; ±12; ±15	1kVDC	-	-	90%	-40°C - +85°C	
3	3S7A_1.5UP	SIP7	±10%	3.3; 5; 12; 24; 48	3.3; 5; 9; 12; 15; 24	1.5kVDC	-	-	88%	-40°C - +105°C	
3	3S7B_3U	SIP7	±10%	5; 12	5; 9; 12; 15; ±5; ±9; ±12; ±15	3kVDC	-	-	90%	-40°C - +85°C	
3	3S7B_3UP	SIP7	±10%	3.3; 5; 12; 24	3.3; 5; 9; 12; 15; ±5; ±9; ±12; ±15; ±24	3kVDC	-	-	87%	-40°C - +85°C	
3	3S7BE_3UP	SIP7	±10%	5; 12; 15	5; 9; 12; 15	3kVDC	-	-	88%	-40°C - +85°C	
3	3T8W_1.5RP	SMD	2:1	9-18; 18-36	3.3; 5; 12; 15; 24	1.5kVDC	-	-	80%	-40°C - +85°C	UL62368
3	3S8FW_1.5RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-75	5; 9; 12; 15; ±5; ±9; ±12; ±15	1.5kVDC	-	-	84%	-40°C - +85°C	
3	3S8W_1.5RP	SIP8	2:1	36-75	5; 12; 15; 24	1.5kVDC	-	-	84%	-40°C - +85°C	
3	3D8W_1.5RP	DIP8	2:1	9-18; 18-36	3.3; 5; 12; 15; 24	1.5kVDC	-	-	80%	-40°C - +85°C	UL62368
3	3S8W_3RP	SIP8	2:1	4.5-9; 9-18; 18-36;	3.3; 5; 9; 12; 15; ±5; ±9; ±12; ±15	3kVDC	-	-	83%	-40°C - +85°C	
3	3S8W_2RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-75	3.3; 5; 9; 12; 15; ±5; ±12; ±15	2 & 4kVDC	-	-	86%	-40°C - +100°C	
3	3S8EW4_1.5RP	SIP8	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; ±5; ±9; ±12; ±15	1.5kVDC	-	-	80%	-40°C - +85°C	
3	3S8W4_2RP	SIP8	4:1	4.5-18; 9-36; 18-75	3.3; 5; 12; 15; ±3.3; ±5; ±12; ±15	2 & 4kVDC	-	-	86%	-40°C - +100°C	



DC-DC converters - INDUSTRIAL - 3 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
3	3S8W_4.3RP	SIP8	2:1	7-18	15	4.3kVDC	▪	▪	83%	-40°C - +105°C	
3	3S8W8_3RP	SIP8	8:1	4.5-36	5; 12; 15; ±5; ±12; ±15	3kVDC	▪	▪	79%	-40°C - +105°C	
3	3S10W4_DS3RP	SIP10	4:1	18-75	Vout1: 5 Vout2: 5; 12; 24	3kVDC	▪	▪	78%	-40°C - +85°C	
3	3D6AW4_1.5RP	DIP	4:1	4.5-9; 9-36	5; 12; 15; 24	1.5kVDC	▪	▪	82%	-40°C - +85°C	
3	3D6FAW4_1.5RP	DIP	4:1	4.5-9; 9-36	5; 12; 15; 24	1.5kVDC	▪	▪	82%	-40°C - +85°C	
3	3T6AW4_1.5RP	SMD	4:1	4.5-9; 9-36	5; 12; 15; 24	1.5kVDC	▪	▪	8%	-40°C - +85°C	
3	3T14W4_1.5RP	SMD14	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24	1.5kVDC	▪	▪	83%	-40°C - +85°C	UL62368
3	3T16WE_1.5RP	SMD16	2:1	4.5-9; 9-18; 18-36; 36-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.5kVDC	▪	▪	82%	-40°C - +85°C	
3	3DAW_1.5	DIP24	2:1	4.5-9; 9-18; 18-36; 36-72	5; 9; 12; 15; 24; ±9; ±12; ±15; ±24	1.5kVDC	▪	▪	81%	-40°C - +85°C	
3	3TAW_1.5	SMD24	2:1	9-18; 18-36; 36-75	5; 12; 15; ±5; ±12; ±15	1.5kVDC	▪	▪	85%	-40°C - +85°C	
3	3DAW_3	DIP24	2:1	4.5-9; 9-18; 18-36; 36-75	3.3; 5; 12; 15; 24; ±9; ±12; ±15	3kVDC	▪	▪	86%	-40°C - +85°C	
3	3DAW_2	DIP24	2:1	4.5-9; 9-18; 18-36; 36-75	3.3; 5; 12; 15; ±3.3; ±5; ±12; ±15	2; 4; 6kVDC	▪	▪	85%	-40°C - +100°C	
3	3DAW4_1.5	DIP24	4:1	9-36; 18-72	3.3; 5; 9; 12; 15; 24	1.5kVDC	▪	▪	83%	-40°C - +85°C	
3	3DAW4_2	DIP24	4:1	4.5-18; 9-36; 18-75	3.3; 5; 12; 15; ±5; ±12; ±15	2; 4; 6kVDC	▪	▪	86%	-40°C - +100°C	
3	3TCW7_3RP	SMD	2:1	9-18; 18-36; 36-75	5; 12; 15; ±5; ±12; ±15	1.5kVDC	▪	▪	85%	-40°C - +85°C	
3	3TOCW7_3RP	SMD	2:1	9-18; 18-36; 36-75	5; 12; 15; ±5; ±12; ±15	1.5kVDC	▪	▪	85%	-40°C - +85°C	



DC-DC converters - INDUSTRIAL - 5 watt and 6 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
5	5S8W_2RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-75	3.3; 5; 12; 15; ±5; ±12; ±15	2; 4kVDC	•	•	85%	-40°C - +100°C	
5	5S8W4_2RP	SIP8	4:1	9-36; 18-75	3.3; 5; 12; 15; ±5; ±12; ±15	2; 4kVDC	•	•	85%	-40°C - +85°C	
5	5DAW_2	DIP24	2:1	4.5-9; 9-18; 18-36; 36-75	3.3; 5; 12; 15; ±5; ±12; ±15	2; 4; 6kVDC	•	•	87%	-40°C - +100°C	
5	5DAW4_2	DIP24	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; ±5; ±9; ±12; ±15	2; 4; 6kVDC	•	•	85%	-40°C - +100°C	
5	5TAW_1.5	SMD24	2:1	9-18; 18-36; 36-72	5; 12; 15; ±5; ±12; ±15	1.5kVDC	•	•	85%	-40°C - +85°C	
6	6S8FW_1.5	SIP8 open frame	2:1	36-75	5; 12; 15; 24	1.5kVDC	•	•	85%	-40°C - +85°C	
6	6S8W_1.6RP	SIP8	2:1	9-18; 18-36	3.3; 5; 9; 12; 15; 24	1.6kVDC	•	•	87%	-40°C - +85°C	
6	6S8W_3RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-75	5; 9; 12; 15; ±5; ±12; ±15	3kVDC	•	•	88%	-40°C - +85°C	
6	6S8W4_1.5RP	SIP8	4:1	9-36; 18-72	3.3; 5; 9; 12; 15; 24; ±5; ±12; ±15	1.5kVDC	•	•	88%	-40°C - +85°C	
6	6S8W4_1.6RP	SIP8	4:1	9-36	3.3; 5; 9; 12; 15; 24	1.6kVDC	•	•	88%	-40°C - +85°C	UL62368
6	6S8W10_1.5RP	SIP8	10:1	6-60	3.3; 5; 9; 12; 15; 24	1.6kVDC	•	•	87%	-40°C - +85°C	
6	6DAW_1.5	DIP24	2:1	9-18; 18-36; 36-72	5; 9; 12; 15; 24; ±9; ±12; ±15; ±24	1.5kVDC	•	•	87%	-40°C - +85°C	
6	6D6AW_1.5	DIP	2:1	9-18; 18-36	3.3; 5; 12; 15	1.5kVDC	•	•	86%	-40°C - +85°C	
6	6TCW7_3RP	SMD	7:1	6-42	5; 12; 15; 24	3kVDC	•	•	82%	-40°C - +105°C	
6	6TOCW7_3RP	SMD	7:1	6-42	5; 12; 15; 24	3kVDC	•	•	82%	-40°C - +105°C	
6	6T6AW_1.5RP	SMD	2:1	9-18; 18-36	3.3; 5; 12; 15	1.5kVDC	•	•	86%	-40°C - +85°C	
6	6DAW4_1.5	DIP24	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; ±5; ±12; ±15	1.5kVDC	•	•	88%	-40°C - +85°C	UL60950
6	6DMW_1.5	1"x1"	2:1	9-18; 18-36	5; 12; 15; 24; ±5; ±12; ±15	1.5kVDC	•	•	87%	-40°C - +85°C	UL60950
6	6DMW4_1.5	1"x1"	4:1	9-36; 18-75	5; 9; 12; 15; 24; ±5; ±12; ±15; ±24	1.5kVDC	•	•	88%	-40°C - +85°C	UL60950
6	6DMRW4_2.25	1"x1"	4:1	40-160	5; 12; 15; 24	2.25kVDC	•	•	86%	-40°C - +85°C	
6	6DAW4_3	DIP24	4:1	9-36; 18-72	3.3; 5; 9; 12; 15; 24; ±5; ±12; ±15	3kVDC	•	•	88%	-40°C - +85°C	UL60950
6	6DAMW4_6	DIP24	4:1	9-36; 18-72	5; 9; 12; 15; 24;	6kVDC	•	•	85%	-40°C - +85°C	



DC-DC converters - INDUSTRIAL - 7.5 watt, 8 watt, 9 watt and 10 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
7.5	7.5DAW_2	DIP24	2:1	9-18; 18-36; 36-75	3.3; 5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	2; 3kVDC	▪	▪	87%	-40°C - +100°C	
8	8DPW_1.6	DIP24	2:1	4.5-9; 9-18; 18-36; 36-72	3.3; 5; 12; 15; ±5; ±12; ±15	1.6kVDC	▪	▪	86%	-40°C - +85°C	
8	8DPW4_1.6	DIP24	4:1	9-36; 18-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.6kVDC	▪	▪	86%	-40°C - +85°C	
8	8DPRW4_3	DIP24	4:1	13-70; 42-176	3.3; 5; 12; 15; ±5; ±12; ±15	3kVDC	▪	▪	86%	-40°C - +85°C	
9	9S8W4E_1.6RP	SIP8	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24; ±5; ±12; ±15	1.6kVDC	▪	▪	89%	-40°C - +100°C	
10	10S8W_1.5RP	SIP8	2:1	9-18; 18-36	3.3; 5; 9; 12; 15; 24	1.5kVDC	▪	▪	88%	-40°C - +85°C	
10	10S8W4_1.5RP	SIP8	4:1	9-36	3.3; 5; 9; 12; 15; 24	1.5kVDC	▪	▪	88%	-40°C - +85°C	
10	10S8W4_2.25RP	SIP8	4:1	9-36; 18-75	5; 12; 15; 24; ±5; ±12; ±15	2.25kVDC	▪	▪	87.5%	-40°C - +85°C	
10	10DPWE_1.5	DIP24	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; 24; ±5; ±12; ±15	1.5kVDC	▪	▪	83%	-40°C - +85°C	
10	10DPWE4_1.5	DIP24	4:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; 24; ±5; ±12; ±15	1.5kVDC	▪	▪	83%	-40°C - +85°C	
10	10DMW_1.5	DIP24	2:1	4.5-9; 9-18; 18-36; 36-75	5; 12; 24; 48	1.5kVDC	▪	▪	85%	-40°C - +85°C	
10	10DMW4_1.5	1"x1"	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	1.5kVDC	▪	▪	88%	-40°C - +85°C	UL60950
10	10DMWE4_1.5	1"x1"	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	1.5kVDC	▪	▪	88%	-40°C - +85°C	UL60950
10	10DMW4_DS1.5	1"x1"	4:1	18-75	Vout1: 5 Vout2: 5; 12; 24	1.5kVDC	▪	▪	84%	-40°C - +85°C	
10	10D6AW4_1.5	DIP	4:1	9-36	5; 12; 15	1.5kVDC	▪	▪	88%	-40°C - +85°C	
10	10D16W4_1.6RP	DIP16	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	1.5kVDC	▪	▪	88%	-40°C - +85°C	UL60950
10	10D16W4_3RP	DIP16	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	1.5kVDC	▪	▪	88%	-40°C - +85°C	UL60950
10	10T6AW4_1.5	SMD	4:1	9-36	5; 12; 15	1.5kVDC	▪	▪	88%	-40°C - +85°C	
10	10DAW_1.5R	2"x1"	2:1	9-18; 18-36; 36-72	3.3; 5; 12; 15; 24; ±5; ±12; ±15; ±24	1.5kVDC	▪	▪	88%	-40°C - +85°C	
10	10DAW4_1.5	2"x1"	4:1	9-36; 18-75	3.3; 5; 12; 15; 24; ±5; ±12; ±15; ±24	1.5kVDC	▪	▪	87%	-40°C - +85°C	
10	10DAW4_1.5R	2"x1"	4:1	9-36; 18-75	3.3; 5; 12; 15; 24; ±5; ±12; ±15; ±24	1.5kVDC	▪	▪	87%	-40°C - +85°C	
10	10DRW4_2.25	2"x1"	4:1	40-160	3.3; 5; 12; 15; 24	2.25kVDC	▪	▪	85%	-40°C - +85°C	
10	10DAW4_3	2"x1"	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24; ±5; ±12; ±15	3kVDC	▪	▪	88%	-40°C - +85°C	UL60950

DC-DC converters - INDUSTRIAL - 12 watt, 15 watt and 20 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	max.	Operating Temp.	Certification
12	12DPW_1.5	DIP24	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.5kVDC	▪	▪	83%	-40°C - +85°C	
12	12DPW4_1.5	DIP24	4:1	9-36; 18-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.5kVDC	▪	▪	83%	-40°C - +85°C	
15	15D16W4_1.5	DIP16	4:1	9-36; 18-75	3.3; 5; 12; 15	1.5kVDC	▪	▪	89%	-40°C - +85°C	
15	15DPW_1.6	DIP24	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.6kVDC	▪	▪	90%	-40°C - +85°C	
15	15DPW4_1.6	DIP24	4:1	9-36; 18-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.6kVDC	▪	▪	90%	-40°C - +85°C	
15	15DMWE_1.5	1"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; 24	1.5kVDC	▪	▪	91%	-40°C - +105°C	
15	15DMW_1.5	1"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	▪	▪	89%	-40°C - +85°C	
15	15DMOW4_1.5	1"x1"	4:1	18-75	3.3; 12	1.5kVDC	▪	▪	88,5%	-40°C - +85°C	
15	15D15AW4_1.5RP	DIP15	4:1	9-36; 18-75	3.3; 5; 12; 15	1.5kVDC	▪	▪	89%	-40°C - +85°C	
15	15DF15AW4_1.5RP	DIP15	4:1	9-36; 18-75	3.3; 5; 12; 15	1.5kVDC	▪	▪	89%	-40°C - +85°C	
15	15T15AW4_1.5RP	SMD15	4:1	9-36; 18-75	3.3; 5; 12; 15	1.5kVDC	▪	▪	89%	-40°C - +85°C	
15	15TF15AW4_1.5RP	SMD15	4:1	9-36; 18-75	3.3; 5; 12; 15	1.5kVDC	▪	▪	89%	-40°C - +85°C	
15	15DMWE4_1.5	1"x1"	4:1	9-36; 18-75	3.3; 5; 12; 15; 24; ±5; ±12; ±15; ±24	1.5kVDC	▪	▪	91%	-40°C - +105°C	UL62368
15	15DMW4_1.5	1"x1"	4:1	9-36; 18-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	▪	▪	88%	-40°C - +85°C	
15	15DAWE_1.5	2"x1"	2:1	18-36; 36-75	3.3; 5; 12; 15; 24	1.5kVDC	▪	▪	90%	-40°C - +85°C	UL60950
15	15DRW4_2.25	2"x1"	4:1	40-160	3.3; 5; 12; 15; 24	2.25kVDC	▪	▪	86%	-40°C - +85°C	UL62368
20	20DAWE4_1.5	2"x1"	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24; ±5; ±9; ±12; ±15	1.5kVDC	▪	▪	90%	-40°C - +85°C	UL60950
20	20DPEW4_1.6	DIP24	4:1	9-36; 18-75	5; 9; 12; 15; ±12; ±15	1.6kVDC	▪	▪	80%	-40°C - +87°C	
20	20DMW_1.5	1"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	▪	▪	90%	-40°C - +85°C	
20	20DMWE_1.5	1"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; 24	1.5kVDC	▪	▪	91%	-40°C - +105°C	
20	20DMWE4_1.5	1"x1"	4:1	9-36; 18-75	3.3; 5; 12; 15	1.5kVDC	▪	▪	91%	-40°C - +105°C	UL62368
20	20DAWE_1.5	2"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 9; 12; 15; 24; 110; ±5; ±9; ±12; ±15; ±24	1.5kVDC	▪	▪	90%	-40°C - +85°C	UL60950

DC-DC converters - INDUSTRIAL - 20 watt, 25 watt, 30 watt and 40 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
20	20DAW8_1.6	2"x1"	8:1	9-75	5; 9; 12; 15; 24; ±12; ±15	1.6kVDC	-	-	91%	-40°C - +83°C	UL62368
20	20DAW4_3	2"x1"	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24	3kVDC	-	-	89%	-40°C - +85°C	UL60950
20	20DRW4_2.25	2"x1"	4:1	40-160	3.3; 5; 12; 15; 24	2.25kVDC	-	-	86%	-40°C - +85°C	
20	20DBW8_1.5	2"x1.6"	8:1	6-50	5	1.5kVDC	-	-	90%	-40°C - +85°C	
20	20DBW10_1.5	2"x1.6"	10:1	6-60	5	1.5kVDC	-	-	82%	-40°C - +85°C	
25	25DPEW4_1.6	DIP24	4:1	9-36; 18-75	5; 9; 12; 15; ±12; ±15	1.6kVDC	-	-	88%	-40°C - +87°C	
25	25DMOW_1.5	15.24 x 19.1 mm	2:1	36-75	5	1.5kVDC	-	-	88%	-40°C - +85°C	UL60950
25	25TMOW_1.5	15.24 x 19.1 mm	2:1	36-75	5	1.5kVDC	-	-	88%	-40°C - +85°C	UL60950
30	30DAWE_1.5	2"x1"	2:1	18-36; 36-75	3.3; 5; 12; 15; 24	1.5kVDC	-	-	89%	-40°C - +85°C	UL60950
30	30TB16FW_1.5	1/16 brick	2:1	36-75	3.3	1.5kVDC	-	-	91%	-40°C - +85°C	UL60950
30	30DMWE4_1.5	1"x1"	4:1	9-36; 18-75	3.3; 5; 12; 15; 24; ±12; ±15; ±24	1.5kVDC	-	-	92%	-40°C - +80°C	
30	30DMW_1.6	1"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±12; ±15	1.6kVDC	-	-	88%	-40°C - +100°C	UL60950
30	30DMW4_1.5	1"x1"	4:1	18-75	5; 12; 15; 24; ±12; ±15; ±24	1.5kVDC	-	-	92%	-40°C - +85°C	UL62368
30	30DMW4_1.6	1"x1"	4:1	9-36; 18-75	3.3; 5; 12; 15; ±12; ±15	1.6kVDC	-	-	92%	-40°C - +75°C	UL60950
30	30DAW4_1.5	2"x1"	4:1	9-36; 18-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	-	-	88%	-40°C - +85°C	UL62368
30	30DAW8_1.6	2"x1"	8:1	9-75	5; 12; 15; 24; ±12; ±15	1.6kVDC	-	-	91%	-40°C - +70°C	UL62368
30	30DBW4_1.5	2"x1.6"	4:1	9-36; 18-75	3.3; 5; 9; 12; 15; 24	1.5kVDC	-	-	89%	-40°C - +75°C	
30	30B16FW_1.5	1/16 brick	2:1	36-75	3.3	1.5kVDC	-	-	91%	-40°C - +85°C	UL60950
40	40DAWE_1.5	2"x1"	2:1	18-36; 36-75	12; 15; 24	1.5kVDC	-	-	91%	-40°C - +85°C	UL62368
40	40DAW_1.5	2"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	-	-	91%	-40°C - +85°C	
40	40DMWE4_1.5	1"x1"	4:1	9-36	3.3; 5; 12; 15; 24; 28	1.5kVDC	-	-	91%	-40°C - +85°C	UL62368
40	40DAW8_1.6	2"x1"	8:1	9-75	5; 12; 15; 24; ±12; ±15	1.6kVDC	-	-	91%	-40°C - +85°C	
40	40DDW_1.5	2"x2"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	-	-	91%	-40°C - +85°C	
40	40DDW4_1.5	2"x2"	4:1	9-36; 18-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	-	-	90%	-40°C - +85°C	



DC-DC converters - INDUSTRIAL - 50 watt, 60 watt, 75 watt, 100 watt, 150 watt and 200 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
50	50DAW_1.5R	2"x1"	2:1	18-36; 36-75	3.3; 5; 12; 15; 24	1.5kVDC	▪	▪	93%	-40°C - +85°C	
50	50DAW4_1.5R	2"x1"	4:1	9-36; 18-75	5; 12; 15; 24	1.5kVDC	▪	▪	92%	-40°C - +85°C	
50	50QBW_1.5	Q-Brick	2:1	9-18; 18-36; 36-72	5; 12; 15; 24; 28	1.5kVDC	▪	▪	85%	-25°C - +70°C	
50	50QBW4_1.5	Q-Brick	4:1	9-36; 18-75	5; 12; 15; 24; 28	1.5kVDC	▪	▪	85%	-25°C - +70°C	
60	60DAW4_1.5	2"x1"	4:1	9-36	5; 12; 15; 24	1.6kVDC	▪	▪	92,5%	-40°C - +85°C	UL60950
60	60DAW4_1.6	2"x1"	4:1	9-36; 18-75	5; 12; 15; ±5; ±12; ±15	1.6kVDC	▪	▪	92,5%	-40°C - +85°C	UL60950
60	60DDW_3	2"x 2"	2:1	9-18; 18-36; 36-75	5; 12; 15; ±5; ±12; ±15	3kVDC	▪	▪	88%	-40°C - +80°C	
60	60DDW4_3	2"x 2"	4:1	9-36; 18-75	5; 12; 15; ±5; ±12; ±15	3kVDC	▪	▪	88%	-40°C - +80°C	
75	75QBW4_2.25	Q-Brick	4:1	18-75	5; 12; 15; 24; 48	2.25kVDC	▪	▪	93%	-40°C - +85°C	
75	75QBRW4_3	Q-Brick	4:1	18-75	5; 12; 15; 24; 48	2.25kVDC	▪	▪	93%	-40°C - +85°C	
75	75HBW4_1.5	H-Brick	4:1	9-36; 18-75	3,3; 5; 12; 15; 24; 48	1.5kVDC	▪	▪	85%	-40°C - +100°C	
75	75HBAW4_1.5	H-Brick	4:1	9-36; 18-75; 40-160	3,3; 5; 12; 15; 24	2.25kVDC	▪	▪	92%	-40°C - +87°C	
75	75QBW4_2.25	Q-Brick	wide	18-75	5; 12; 15; 24; 48	3kVDC	▪	▪	92%	-40°C - +100°C	
100	100HBAW_1.5	H-Brick	2:1 ; 4:1	9-18; 18-36; 9-36; 18-72	3.3; 5; 12; 15; 24; 48	1.5kVDC	▪	▪	90%	-40°C - +85°C	
100	100QBW4_2.25	Q-Brick	4:1	18-75	5; 12; 15; 24; 48	2.25kVDC	▪	▪	94%	-40°C - +85°C	
100	100QBRW4_3	Q-Brick	wide	66-160	24	3kVDC	▪	▪	92%	-40°C - +100°C	
150	150HB4_1.5	H-Brick	4:1	18-72	28; 48	1.5kVDC	▪	▪	80%	-25°C - +85°C	
150	150QBW4_2.25	Q-Brick	4:1	18-75	12; 24; 48	2.25kVDC	▪	▪	94%	-40°C - +85°C	
150	150HBRW4_3	H-Brick	4:1	50-160	12; 15; 24	3kVDC	▪	▪	91%	-40°C - +100°C	
200	200QBOW4_1.5	Q-Brick	4:1	18-75	12; 24; 48	2.25kVDC	▪	▪	91%	-40°C - +85°C	
200	200QBW4_2.25	Q-Brick	4:1	18-75	12; 24; 48	2.25kVDC	▪	▪	91%	-40°C - +85°C	

DC-DC converters - INDUSTRIAL - 350, 400, 450, 500, 700, 800 and 1300 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
350	350HBAW_1.5	H-Brick	2:1	20-36	12; 24; 28; 32	1.5kVDC	▪	▪	89%	-40°C - +100°C	
400	400QBW4_2.25	Q-Brick	4:1	36-75	12; 15; 24; 28	2.25kVDC	▪	▪	91%	-40°C - +85°C	
400	400HBW_2.25	H-Brick	4:1	36-75	12; 15; 24; 28	2.25kVDC	▪	▪	91%	-40°C - +85°C	
450	450HBAW_1.5	H-Brick	2:1	36-75	28; 48	1.5kVDC	▪	▪	94.5%	-40°C - +100°C	UL60950
500	500HBAW_1.5	H-Brick	2:1	36-75	50	1.5kVDC	▪	▪	93%	-40°C - +100°C	UL60950
500	500HBAW_2.25	H-Brick	2:1	18-36	12; 15; 24; 28	2.25kVDC	▪	▪	94%	-40°C - +100°C	
700	700HBAW_1.5	H-Brick	2:1	36-75	28; 50	1.5kVDC	▪	▪	94%	-40°C - +100°C	UL60950
800	800QBAW_1.5	Q-Brick	2:1	40-60	110.8; 10.9; 12; 12.1	2.25kVDC	▪	▪	94%	-40°C - +100°C	
1300	1300QBAW_1.5	Q-Brick	2:1	45-60	110.8; 10.9; 12; 12.1	2.25kVDC	▪	▪	94%	-40°C - +100°C	



Meets requirements of railway standard EN50155

DC-DC Converters for higher than normal reliability Railway Vehicle Applications

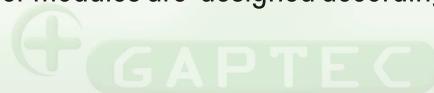
High isolation voltage 2250VDC - Wide input range 40-160VDC



Click here to enlarge the Railway Application schema

DC-DC IGBT&SiC power modules

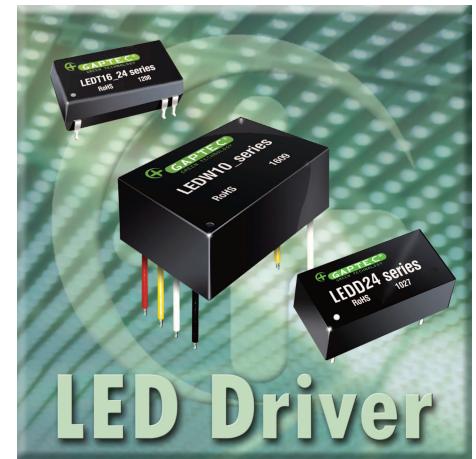
Our brand new regulated DC-DC power modules series - especially designed for driving IGBT and SiC drivers - can be widely used in frequency transformers, AC servo control systems, welding equipment and UPS (uninterruptible power supplies). Specially tailored to meet the IGBT & SiC driver technology standard, those power modules offer a wide range of protection features such as: output overvoltage protection and (SCP) continuous short circuit protection, that grant a safe operation. High isolation up to 6kVDC, isolated outputs and an operating temperature range from -40°C to +105°C meet all the safety requirements for SiC drivers. The power modules are designed according to EN60950 & IEC 60950 requirements.



DC-DC Power Modules Series - designed for driving IGBT and SiC drivers in frequency transformers, AC servo control systems, welding equipment and UPS.

DC-DC LED drivers

Our constant current DC-DC LED drivers offer a very wide input voltage range to guarantee a constant light level throughout the life span of driving LED's. Possible applications can be found in the consumer & the industrial area. Selected types offer the option/ability to either use the analogue or the PWM dimming mode. The selected small case sizes (micro DIP, DIP24 or the SMD16 housing for SMT processing) allow currents of 300 - 1200mA and meet the EN55015 Standard with the already built-in EMI filter. Continuous short circuit protection (SCP) and high efficiencies up to 97% ensure a long life and very high MTBF values.



High efficient DC-DC LED driver in miniature dimensions.

DC-DC converters - RAILWAY - 6, 8, 10, 15, 20, 75, 100, 150 and 250 watt



SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
6	6DMRW4_2.25	1"x1"	4:1	40-160	5; 12; 15; 24	2.25kVDC	▪	▪	86%	-40°C - +85°C	EN50155
8	8DPRW4_3	DIP24	4:1	13-70; 42-176	3.3; 5; 12; 15; ±5; ±12; ±15	3kVDC	▪	▪	86%	-40°C - +85°C	EN50155
10	10DRW4_2.25	2"x1"	4:1	40-160	3.3; 5; 12; 15; 24	2.25kVDC	▪	▪	85%	-40°C - +85°C	EN50155
15	15DRW4_2.25	2"x1"	4:1	40-160	3.3; 5; 12; 15; 24	2.25kVDC	▪	▪	86%	-40°C - +85°C	EN50155
20	20DRW4_2.25	2"x1"	4:1	40-160	3.3; 5; 12; 15; 24	2.25kVDC	▪	▪	86%	-40°C - +85°C	EN50155
75	75QBRW4_2.25	Q-Brick	wide	18-75	5; 12; 15; 24; 48	3kVDC	▪	▪	92%	-40°C - +100°C	EN50155
100	100QBRW4_3	Q-Brick	wide	66-160	24	3kVDC	▪	▪	92%	-40°C - +100°C	EN50155
150	150HBRW4_3	H-Brick	4:1	50-160	12; 15; 24	3kVDC	▪	▪	91%	-40°C - +100°C	EN50155
250	250HBRW4_3	H-Brick	4:1	66-160	5; 12; 15; 24; 48; 54	3kVDC	▪	▪	90%	-40°C - +105°C	EN50155



DC-DC converters - TELECOM POWER - 5, 6, 7.5, 8, 10, 12, 15 and 20 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
5	5TAW_1.5	SMD24	2:1	9-18; 18-36; 36-72	5; 12; 15; ±5; ±12; ±15	1.5kVDC	▪	▪	85%	-40°C - +85°C	
6	6S8W_3RP	SIP8	2:1	4.5-9; 9-18; 18-36; 36-75	5; 9; 12; 15; ±5; ±12; ±15	3kVDC	▪	▪	88%	-40°C - +85°C	
6	6DAW_1.5	DIP24	2:1	9-18; 18-36; 36-72	5; 9; 12; 15; 24; ±9; ±12; ±15; ±24	1.5kVDC	▪	▪	87%	-40°C - +85°C	
7.5	7.5DAW_2	DIP24	2:1	9-18; 18-36; 36-75	3.3; 5; 9; 12; 15; 24; ±5; ±9; ±12; ±15; ±24	2; 3kVDC	▪	▪	87%	-40°C - +100°C	
8	8DPW_1.6	DIP24	2:1	4.5-9; 9-18; 18-36; 36-72	3.3; 5; 12; 15; ±5; ±12; ±15	1.6kVDC	▪	▪	86%	-40°C - +85°C	
10	10DAW_1.5	2"x1"	2:1	9-18; 18-36; 36-72	3.3; 5; 12; 15; 24; ±5; ±12; ±15; ±24	1.5kVDC	▪	▪	88%	-40°C - +85°C	
12	12DPW_1.5	DIP24	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.5kVDC	▪	▪	83%	-40°C - +85°C	
15	15DPW_1.6	DIP24	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±5; ±12; ±15	1.6kVDC	▪	▪	90%	-40°C - +85°C	
15	15DMWE_1.5	1"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; 24	1.5kVDC	▪	▪	91%	-40°C - +105°C	
15	15DMW_1.5	1"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	▪	▪	89%	-40°C - +85°C	
15	15DAWE_1.5	2"x1"	2:1	18-36; 36-75	3.3; 5; 12; 15; 24	1.5kVDC	▪	▪	90%	-40°C - +85°C	UL60950
20	20DMW_1.5	1"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	▪	▪	90%	-40°C - +85°C	
20	20DMWE_1.5	1"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; 24	1.5kVDC	▪	▪	91%	-40°C - +105°C	
20	20DAWE_1.5	2"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 9; 12; 15; 24; 110; ±5; ±9; ±12; ±15; ±24	1.5kVDC	▪	▪	90%	-40°C - +85°C	UL60950

DC-DC converters - TELECOM POWER - 25, 30, 40, 50, 60, 450, 500 and 700 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
25	25DMOW_1.5	15.24 x 19.1	2:1	36-75	5	1.5kVDC	▪	▪	88%	-40°C - +85°C	UL60950
25	25TMOW_1.5	15.24 x 19.1	2:1	36-75	5	1.5kVDC	▪	▪	88%	-40°C - +85°C	UL60950
30	30TB16FW_1.5	1/16 Brick	2:1	36-75	3.3	1.5kVDC	▪	▪	91%	-40°C - +85°C	UL60950
30	30B16FW_1.5	1/16 Brick	2:1	36-75	3.3	1.5kVDC	▪	▪	91%	-40°C - +85°C	UL60950
40	40DAWE_1.5	2"x1"	2:1	18-36; 36-75	12; 15; 24	1.5kVDC	▪	▪	91%	-40°C - +85°C	UL62368
40	40DMWE4_1.5	1"x1"	2:1	9-36	3.3; 5; 12; 15; 24; 28	1.5kVDC	▪	▪	91%	-40°C - +85°C	UL62368
40	40DAW_1.5	2"x1"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	▪	▪	91%	-40°C - +85°C	
40	40DDW_1.5	2"x2"	2:1	9-18; 18-36; 36-75	3.3; 5; 12; 15; ±12; ±15	1.5kVDC	▪	▪	91%	-40°C - +85°C	
50	50DAW_1.5R	2"x1"	2:1	18-36; 36-75	3.3; 5; 12; 15; 24	1.5kVDC	▪	▪	93%	-40°C - +85°C	
50	50DAW4_1.6	2"x1"	4:1	9-36; 18-75	5; 12; 15; 24	1.5kVDC	▪	▪	92%	-40°C - +85°C	
60	60DDW_1.5	2"x2"	2:1	18-36; 36-75	3.3; 5; 12; 15	1.5kVDC	▪	▪	90%	-40°C - +70°C	
60	60DDW_3	2"x2"	2:1	9-18; 18-36; 36-75	5; 12; 15; ±5; ±12; ±15	3kVDC	▪	▪	88%	-40°C - +80°C	
450	450HBAW_1.5	H-Brick	2:1	36-75	28; 48	1.5kVDC	▪	▪	94.5%	-40°C - +100°C	UL60950
500	500HBAW_1.5	H-Brick	2:1	36-75	50	1.5kVDC	▪	▪	93%	-40°C - +100°C	UL60950
700	700HBAW_1.5	H-Brick	2:1	36-75	28; 50	1.5kVDC	▪	▪	94%	-40°C - +100°C	UL60950

DC-DC converters - PHOTOVOLTAIC - 5 watt, 10 watt, 15 watt, 40 watt and 50 watt

SCP = Short Circuit Protection

Power Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
5 5DCPE_4	DIP 70 x 48 mm	wide	100 - 1000	5	4kVDC	▪	▪	72%	-40°C - +70°C	
10 10DCPE_4	DIP 70 x 48 mm	wide	100 - 1000	5; 9; 24	4kVDC	▪	▪	80%	-40°C - +70°C	
10 10DCPW_4	DIP 111.76 x 75.0 mm	wide	200 - 1500	5	4kVDC	▪	▪	64%	-40°C - +70°C	
15 15DCPEW_4	DIP 89 x 63.5 mm	wide	200 - 1500	5; 12; 15; 24	4kVDC	▪	▪	80%	-40°C - +70°C	
15 15DCPW_4	DIP 111.76 x 75.0 mm	wide	200 - 1500	12; 15; 24	4kVDC	▪	▪	74%	-40°C - +70°C	
40 40DCP_4	DIP 89.0 x 63.5 mm	wide	200 - 1200	12; 15; 24	4kVDC	▪	▪	84%	-40°C - +70°C	
40 40DCPW_4	DIP	wide	200 - 1500	12; 15; 24	4kVDC	▪	▪	80%	-40°C - +70°C	
50 50DCPEW_4	DIP 109.0 x 58.5 mm 111.76 x 75.0 mm	wide	80 - 750	12; 24	4kVDC	▪	▪	85%	-40°C - +70°C	

3S8W8_3RP series - 3 Watt - Single and Dual Output DC-DC Converter



8:1 Input Voltage Range 4.5 to 36VDC

High efficiency up to 79% - EN62368 approved - isolation test voltage 3kVDC

DC-DC converters - IGBT - 1.8 watt, 2.0 watt, 3.6 watt, 4.8 watt and 7.2 watt

SCP = Short Circuit Protection

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
1.8	1.8S7BT_3	SIP7	wide; ±10%	12; 15; 24	+15/-8.7; +9; +9/-9; +17; -8.7; +15/-8.7; +15/-8	3kVAC/6kVDC	▪	▪	80%	-40°C - +105°C	UL60950
2.0	2S7BT_D5.2P	SIP7	wide; ±10%	12; 15	+15/-8.7	5.2kVDC	▪	▪	80%	-40°C - +105°C	
3.6	3.6DABT_S12	2"x1"	±10%	15	24	12kVDC	▪	▪	80%	-40°C - +85°C	
4.8	4.8DBTSW_D3	DIP24	wide	7-18	+15/-9	3kVDC	▪	▪	83%	-40°C - +105°C	
4.8	4.8DBTW_D3	DIP24	wide	9-18; 18-36	+15/-9	3kVDC	▪	▪	85%	-40°C - +85°C	
4.8	4.8DBT_D4	DIP24	±10%	15	+15/-9	4kVDC	▪	▪	87%	-40°C - +85°	
7.2	7.2DBTW4_D4.2	DIP24	wide	9-36	24/24	4.2kVDC	▪	▪	85%	-40°C - +105°C	

DC-DC converters - SiC - 2 watt, 2.4 watt and 3 watt

Power	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
2.0	2S7SIC_D5.2P	SIP7	wide; ±10%	12; 15; 24	+15/-3.0; +15/-5.0; +20/-3.0; +20/-5.0	5.2kVDC	▪	▪	80%	-40°C - +105°C	
2.4	2.4S7SIC_12153.5D6UP	SIP7	±10%	12	+15/-3.5	3.5kVAC / 6kVDC	▪	▪	81%	-40°C - +105°C	
2.4	2.4S7SIC_122004D6UP	SIP7	±10%	12	+20/-4	3.5kVAC / 6kVDC	▪	▪	80%	-40°C - +105°C	
2.4	2.4S7SIC_152004D6UP	SIP7	±10%	15	+20/-4	3.5kVAC / 6kVDC	▪	▪	83%	-40°C - +105°C	UL60950
2.4	2.4S7SIC_151505D6UP	SIP7	±10%	15	+15/-5	3.5kVAC / 6kVDC	▪	▪	80%	-40°C - +105°C	
2.4	2.4S7SIC_242004D6UP	SIP7	±10%	24	+20/-4	3.5kVAC / 6kVDC	▪	▪	80%	-40°C - +105°C	
3.0	3S7SIC_D5UP	SIP7	±10%	5; 12; 15; 24	+15/-5; +20/-4; +18/-3.5; +15/-4; +20/-5	5kVAC	▪	▪	87%	-40°C - +105°C	

DC-DC converters - non isolated - switching regulators point of load

Our DC-DC converters (POL) are trusted by OEMs and used in long-time stand-by battery, handheld equipment and portable devices. Those converters are designed as an alternative to replace triple-port linear regulators. Our point of load switching regulators meet the most important specifications in terms of output voltage ripple, low noise, high density, high efficiency (up to 97%), wide operating temperature range (up to -40 °C to +105 °C). GAPTEC offers a broad range of DC-DC converters, with output current that ranges from 0.5 to 16 amperes. Products are available as board mount and chassis mount.



The LCW78_1.0 series is a non-isolated POL switching regulator with an ultra-wide 14:1 high input voltage range (5-72VDC) with 1A output current that comes in a standard SIP3 package, covering most of the battery ranges and the standard power bus. This series offers high efficiency up to 96% and a very low quiescent current: 500uA.

Further features are a low ripple and noise (50 mVp-p) and short circuit protection (SCP). Ideally used for battery system applications, these high efficiency switching regulators are ideally suited to replace LM78xx linear regulators and are pin compatible.

NEW: Feature series



LMTM78-1.0 series

Ultra-small, ultra-thin DFN package
(9.0 x 7.0 x 3.1mm)

Non isolated: YES

Output current: 1A

Short Circuit Protected (SCP): YES

Meets AEC-Q100

High efficiency up to 94%



DC-DC converters - STEP DOWN REGULATORS - 0.1A, 0.5A and 1.0A

SCP = Short Circuit Protection

Power (A)	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
0.1	LCS4_0.1	SIP3	wide	0.65-3.6	1.8; 2.5; 3.3; 3.6	0.1	Non-isolated	▪	▪	97%	-55°C - +125°C	
0.5	LMOE78_0.5	SIP3 open frame	wide	4.75-36	3.3; 5; 12; 15	0.5	Non-isolated	▪	▪	93%	-40°C - +85°C	
0.5	LCN78_0.5	SIP3	wide	4.5-42	3.3; 5; 12	0.5	Non-isolated	▪	▪	96%	-40°C - +85°C	
0.5	LCP78_0.5	SIP3	wide	4.5-42	3.3; 5	0.5	Non-isolated	▪	▪	95%	-40°C - +85°C	
0.5	LCB78_0.5	SIP3	wide	4.5-55	3.3; 5	0.5	Non-isolated	▪	▪	95%	-40°C - +85°C	
0.5	LMW78_0.5R	SIP3	wide	9-90	3.3; 5; 6.5; 9; 12; 15; 24	0.5	Non-isolated	▪	▪	93%	-40°C - +85°C	
0.5	LCW78_0.5	SIP3	wide	9-75	3.3; 5; 6.5; 9; 12; 15	0.5	Non-isolated	▪	▪	89%	-40°C - +85°C	
0.5	LMTOW78_0.5	SMD open frame	wide	9-72	3.3; 5; 6.5; 7.2; 9; 12; 15	0.5	Non-isolated	▪	▪	84%	-40°C - +85°C	
0.5	LC78_0.5	SIP3	wide	4.75-28	3.3; 5; 12	0.5	Non-isolated	▪	▪	95%	-40°C - +85°C	
0.5	LMT078_0.5	SMD open frame	wide	4.75-36	3.3; 5; 9; 12; 15	0.5	Non-isolated	▪	▪	93%	-40°C - +85°C	
0.5	LMTOE78_0.5	SMD open frame	wide	4.75-36	3.3; 5; 9; 12; 15	0.5	Non-isolated	▪	▪	93%	-40°C - +85°C	
0.5	LMTM78_0.5	SMD	wide	4.75-36	3.3; 5; 6.5; 9; 12; 15	0.5	Non-isolated	▪	▪	92%	-40°C - +100°C	
0.5	LMT78_0.5R	SMD	wide	4.75-36	1.5; 1.8; 2.5; 3.3; 5; 6.5; 9; 12; 15	0.5	Non-isolated	▪	▪	95%	-40°C - +85°C	UL62368
0.5	LMS78_0.5R	SIP3	wide	4.75-36	3.3; 5; 9; 12; 15	0.5	Non-isolated	▪	▪	96%	-40°C - +85°C	UL60950
0.5	LMW78_0.5W	SIP3 wired	wide	4.75-36	3.3; 5; 9; 12; 15	0.5	Non-isolated	▪	▪	95%	-40°C - +85°C	
0.5	LM078_0.5	SIP3 open frame	wide	4.75-36	3.3; 5; 12; 15	0.5	Non-isolated	▪	▪	93%	-40°C - +85°C	UL60950
1.0	LMT78_1.0R	SMD	wide	4.75-36	1.5; 1.8; 2.5; 3.3; 5; 6.5; 9; 12; 15	1.0	Non-isolated	▪	▪	95%	-40°C - +85°C	UL62368
1.0	LCE78_1.0	SIP3	wide	4.75-28	3.3; 5	1.0	Non-isolated	▪	▪	85%	-40°C - +75°C	
1.0	LME78_1.0	SIP3	wide	6-36	3.3; 5; 9; 12; 15	1.0	Non-isolated	▪	▪	96%	-40°C - +85°C	UL62368
1.0	LM078_1.0	SIP3 open frame	wide	6-36	3.3; 5; 12; 15	1.0	Non-isolated	▪	▪	94%	-40°C - +85°C	UL60950
1.0	LMT078_1.0	SMD open frame	wide	3-5.5; 4.6-36	1.2; 1.5; 1.8; 2.5; 3.3; 5; 6.5; 9; 12; 15	1.0	Non-isolated	▪	▪	94%	-40°C - +85°C	
1.0	LMS78_1.0R	SIP3	wide	6-36	3.3; 5; 9; 12; 15	1.0	Non-isolated	▪	▪	94%	-40°C - +85°C	UL60950
1.0	LC78_1.0	SIP3	wide	4.5-42	3.3; 5; 12	1.0	Non-isolated	▪	▪	93%	-40°C - +85°C	
1.0	LMP78_1.0	SIP3	wide	4.5-42	1.2; 1.5; 1.8; 2.5; 3.3; 5; 6.5; 9; 12; 15	1.0	Non-isolated	▪	▪	97%	-40°C - +85°C	
1.0	LMTM78_1.0	SMD	wide	4.75-36	3.3; 5; 6.5; 9; 12; 15	1.0	Non-isolated	▪	▪	94%	-40°C - +105°C	
1.0	LCW78_1.0	SIP3	wide	5-72	3.3; 5; 9; 12; 24	1.0	Non-isolated	▪	▪	96%	-40°C - +100°C	
1.0	LMW78_1.0	SIP3	wide	9-75	3.3; 5; 6.5; 9; 12; 24	1.0	Non-isolated	▪	▪	96%	-40°C - +100°C	

DC-DC converters - STEP DOWN REGULATORS - 1.5, 2, 3, 6, 10, 12 and 16A

SCP = Short Circuit Protection

Power (A)	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	Isolation	Regulation	SCP	n max.	Operating Temp.	Certification
1.5	LMP78_1.5	SIP3	wide	6-36	3.3; 5	1.5	Non-isolated	▪	▪	88%	-40°C - +85°C	
2	LMS78_2.0R	SIP3	wide	4.75-36	3.3; 5; 9; 12; 15	2.0	Non-isolated	▪	▪	93%	-40°C - +85°C	
2	LC78_2.0	SIP3	wide	4.5-30	1.8; 2.5; 3.3; 5; 12	2.0	Non-isolated	▪	▪	94%	-40°C - +85°C	
2	LCW78_2.0	SIP3	wide	4.5-36	1.8; 2.5; 3.3; 5	2.0	Non-isolated	▪	▪	90%	-40°C - +85°C	
2	LM12S78_2.0	SIP12	wide	8-36	3.3; 5; 6.5; 9; 12; 15	2.0	Non-isolated	▪	▪	95%	-40°C - +85°C	
3	LC78_3.0	SIP3	wide	4.5-28	1.8; 2.5; 3.3; 5	3.0	Non-isolated	▪	▪	95%	-40°C - +85°C	
3	LM078_3.0	SIP5	wide	4.5-14; 10-30	0.59-6; 3-6; 5-15	3.0	Non-isolated	▪	▪	95%	-40°C - +85°C	
3	LM12S78_3.0	SIP12	wide	8-36	3.3; 5; 6.5; 9; 12; 15	3.0	Non-isolated	▪	▪	95%	-40°C - +85°C	
3	LM12S078_3.0	SIP12	wide	8-36	3.3; 5; 6.5; 9; 12; 15	3.0	Non-isolated	▪	▪	95%	-40°C - +85°C	
6	LOT_12-06R-X	SMD	wide	2.4-5.5; 8.3-14	0.75-3.3; 0.75-5	6	Non-isolated	▪	▪	93%	-40°C - +85°C	
6	LOT_12-06MR-X	SMD micro	wide	4.5-14.4	0.6-5.5	6	Non-isolated	▪	▪	93%	-40°C - +85°C	
10	LOT_12-10R-X	SMD	wide	8.3-14	0.75-5.0	10	Non-isolated	▪	▪	94%	-40°C - +85°C	
10	LOB16W_10	DIP	wide	9-60	0-60	10	Non-isolated	▪	▪	94%	-40°C - +85°C	
10	LOQBW_10	DIP	wide	16-75	12; 24	10	Non-isolated	▪	▪	94%	-40°C - +85°C	
12	LOT_12-12MR-X	SMD micro	wide	4.5-14.4	0.6-5.5	12	Non-isolated	▪	▪	93%	-40°C - +85°C	
16	LOT_12-16R-X	SMD	wide	8.3-14	0.75-5.0	16	Non-isolated	▪	▪	92%	-40°C - +85°C	
16	LOT_12-16MR-X	SMD micro	wide	4.5-14.4	0.6-5.5	16	Non-isolated	▪	▪	93%	-40°C - +85°C	
16	LOT_12-20R-X	SMD	wide	8.3-14	0.75-5.0	16	Non-isolated	▪	▪	92%	-40°C - +85°C	

DC-DC converters - LED DRIVERS - 0.3A - 1.2A

SCP = Short Circuit Protection

Power (A)	Series	Case Size	Input Range	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	Isolation	Regulation	SCP	n max.	Operating Temp.	Dimming
0.3 - 0.7	LEDD10_R	DIP 22.8 x 10.2 mm	wide	6 - 36	3.3 - 33	0.3 - 0.7	Non-isolated	▪	▪	95%	-40°C - +85°C	Analogue & PWM
0.3 - 0.7	LEDW10	DIP 22.3 x 12.55 mm	wide	5.5 - 48	3.3 - 36	0.3 - 0.7	Non-isolated	▪	▪	96%	-40°C - +85°C	Analogue & PWM
0.3 - 0.7	LEDW10_A	DIP 22.3 x 12.55 mm	wide	5.5 - 48	3.3 - 36	0.3 - 0.7	Non-isolated	▪	▪	96%	-40°C - +85°C	Analogue
0.3 - 0.7	LEDW10_P	DIP 22.3 x 12.55 mm	wide	5.5 - 48	3.3 - 36	0.3 - 0.7	Non-isolated	▪	▪	96%	-40°C - +85°C	PWM
0.3 - 0.7	LEDOT10	SMD	wide	6 - 36	±6; ±7	0.3 - 0.7	Non-isolated	▪	▪	94%	-40°C - +85°C	Analogue & PWM
0.3 - 0.7	LEDT16	SMD16	wide	5.5 - 48	3.3 - 36	0.3 - 0.7	Non-isolated	▪	▪	96%	-40°C - +85°C	Analogue & PWM
0.5 - 1.0	LEDD16	DIP16	wide	7 - 30	2 - 28	0.5 - 1.0	Non-isolated	▪	▪	95%	-40°C - +85°C	Analogue & PWM
1.0 - 1.2	LEDD24_R	DIP24	wide	6 - 36	3.3 - 33	1.0 - 1.2	Non-isolated	▪	▪	97%	-40°C - +85°C	Analogue & PWM

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