OVERVIEW CATALOG

Highlights and Product News

2022/23

vitec POWER GmbH

About us

Vitec Power GmbH is a leading partner in Power Supply applications since more than 30 years. Our high expertise along with the wide portfolio on products and suppliers allow us to search for our customers the optimized solution in terms of quality, price and availability. Headquartered in Austria we served with our team the Eastern Europe region already at a very early stage. Growing together with our customers was essential to build up the local offices in selected countries where we are able now to support even faster and more focused.

Trying to be a vital part off the world wide efforts to reduce emission we do not just offer the products with highest efficiencies available on the market but also start offering Green Technology. Our partner is a leading provider of hydrogen and direct methanol fuel cells for stationary and mobile hybrid power solutions. With the Clean Energy and Clean Power Management business segments, SFC Energy is a sustainably profitable fuel cell producer.

Power consumption reducing LED Vehicle Lighting, Vitec Power is offering now, allows us also to participate in the growing market of e-mobility and legacy vehicle markets.

Short lines of communication guarantee rapid and qualified support. Thanks to the close cooperation with our suppliers, Vitec Power is able to advise customers on the latest technology trends and provide product roadmaps to consider upcoming technologies at a very early stage. In addition to the technical solution, Vitec Power also keeps an eye on prices, availability and developments, which allows Vitec Power to build and maintain loyal and long-term business relationships.

Check out our website
www.vitecpower.com

- Office Poland
- Office Germany & Austria
- Office South East (Hungary, Romania, Bulgaria & Ex-Yugoslavia)
- Office CIS states
- Office Czech Republic & Slovakia

Advanced Energy

Hubert Prieger
Regional Sales Manager Central Europe

„Advanced Energy relies on partners that understand the needs of our customers and have the capabilities to consult and add value to their power requirements. Vitec Power GmbH has these required capabilities and accompanies our customers throughout the entire product life cycle from design conception, mass production, End-Of-Life Management, and next generation design. Our affiliation is based on best-in-class products, superior sales support and a long-standing relationship centered around two key elements: competence and trust!"

CINCON

Ivano Vergagni
Regional Sales Manager Central Europe

Experience In dealing with Vitec offers a complete comprehensive and valuable approach than usual collaboration between Manufacturer and Sales Partner in the Power Arena.
Their long time experience level of operation is similar of two Colleagues working in the same Company and this assure and provide satisfaction to each Final Customer, despite their location in Europe.
The add on is also constituted by the capability to qualify each Customer need which strongly facilitate the Power Solution offer.

NOLDEN cars & concepts

David Rautenberg
Executive Partner

A few years ago, NOLDEN Cars & Concepts GmbH and VITEC Power GmbH entered into a strategic partnership for Austria and the countries in Eastern Europe. Due to the extraordinarily high quality requirements for our products, we also place very high demands on our sales partners. Due to the long-standing and personal business relationship, joint projects have also been implemented by well-known armaments suppliers abroad.

David Rautenberg, Managing Partner: „Through this partnership, both companies have been able to successfully expand their range of services throughout Europe. We look forward to continuing our very good cooperation."

Everything in view

Power Supplies

PCB Relays

Fuell Cells and Batteries

Vehicle Lights

vitec
dc conversion

Vitec dc conversion is offering a wide range of small and medium PCB mounted DC/DC converters and DC/DC devices from 1 to 200W. Covering today's demands in electronic applications Vitec is providing galvanic isolated converters with 1 to 3 outputs in through-hole as well as SMD versions. Input ranges from +10% up to ultra wide 16:1 versions and regulated or unregulated types are already representing a very complete standard portfolio. In addition to that we are able to provide custom-specific solution matching your requirements and expectations. Our products meet several industry specific standards as for example medical applications with higher isolations or constant current demands for LED devices.

Low Power DC-DC converter

Features and Applications

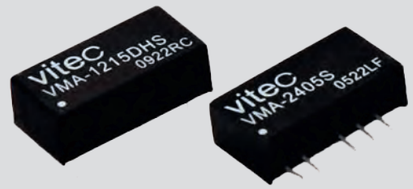
- with industrial standard pining 1-60 Watt
- Input Range: +/- 10%
- 2:1 wide input
- 4:1 ultra wide input
- regulated and unregulated
- 1-3 Outputs
- Dimension: SIL package , DIL package or Bricks
- Cost effective; RoHS
- Isolation resistance 1-6 kV

VME Series

1 Watt / 1-3 kVdc Isolation, unregulated
+/- 10% Input Range

VMA Series

1 Watt/ 1-6 kVdc Isolation, unregulated
+/- 10% Input Range



VMW Series

2 - 12 Watt/ 1500 Vdc Isolation
4:1 Input Range

VTW20Q

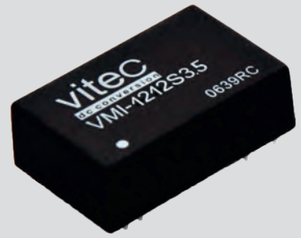
20 Watt/ 1500 Vdc Isolation
4:1 Input Range

VMG Series

1 - 3 Watt/ 1000-3000 kVdc Isolation
2:1 Input Range

VMI Series

3.5 Watt/ 5 kVdc Isolation
+/- 10% Input Range



High Power DC-DC converter (up to 200 W)

VCU50 Series

- 12:1 Ultra Wide Input Range
- 14-160 Vdc Railway Input Range
- Efficiency up to 89%
- 30-50 Watt Isolated & Regulated Output
- 3000 Vdc

Model No.	nominal Input Voltage Range	nominal Outout Voltage	Output Current @ full load	Input Current @ no load	Input Current @ full load	max. Cpactive Load	Efficiency
VCU50-7205S	72 (16~160)	5	6.0	8	530	10000	83
VCU50-7212S		12	4.2	8	810	6800	87
VCU50-7224S		24	2.1	8	810	3300	89
VCU50-7248S		48	1.05	12	810	680	88

VCQ75U Series

- 8:1 Ultra Wide Input Range
- 9.5-75 Vdc Railway Input Range
- Efficiency up to 90%
- 75 Watt Isolated & Regulated Output
- 3000 Vdc I/O Isolation

Model No.	nominal Input Voltage Range	nominal Outout Voltage	Output Current @ full load	Input Current @ no load	Input Current @ full load	max. Cpactive Load	Efficiency
VCQ75U-3612S	36 (9.5 ~ 75)	12	6.25	10	2315	14000	90
VCQ75U-3615S		15	5	10	2315	10000	90
VCQ75U-3624S		24	3.12	12	2311	3900	90
VCQ75U-3628S		28	2.67	12	2307	3200	90
VCQ75U-3648S		48	1.56	12	2311	1100	90

Industrial/ Railway DC-DC Converter (50-200 W)

VTW75/ VTW100/ VTW150/ VTW200 Series

- 3000 Vac Isolation
- 4:1 Wide Input Range
- No Min. Load Required
- Remote ON/OFF
- Over Voltage and Over Current Protection
- Short Circuit and Over Load Protection

VTW	75	-	24	05	S	X	-	YYY
Series Name	**Output Power** 75 = 75 W 100 = 100 W 150 = 150 W 200 = 200 W		**Input Voltage** 24 = 24 Vdc 48 = 48 Vdc 110 = 110 Vdc	**Output Voltage** 24 = 24 Vdc 48 = 48 Vdc 110 = 110 Vdc 15 = 15 Vdc 24 = 24 Vdc 28 = 28 Vdc 48 = 48 Vdc	**Single Output**	logic control mechanical options assembly options filter options		

product highlights

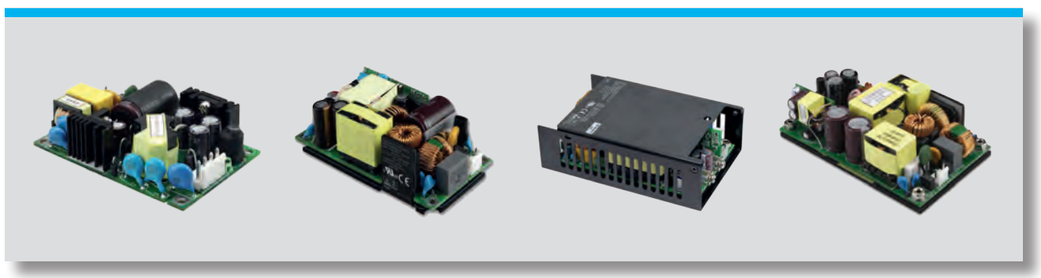
Cincon Electronics Co., Ltd. is a global supplier of switch mode power conversion products to the communications, computer, industrial, medical, consumer and lighting markets. Cincon design and manufacture industry standard, RoHS compliant, DC-DC converters, AC-DC power supplies and LED power supplies. Their current offerings comprise over 3000 standard products including single & multiple output DC-DC converters from 1W to 750W , single & multiple output AC adapters from 5W to 150 W, open frame AC-DC power supplies from 5W to 700W and LED power supplies from 15W to 150W.

Industrial and Railway DC-DC

- Wide Input Range: 14Vdc to 160Vdc
- CMFC/CMFD Plug-in Chassis Mount Module
- Power Ranges from 8W to 600W
- EN50155: 2017 & EN61373 approved

Industrial / Medical Power AC-DC

- 2MOPP & IEC/EN60601-1 Approved
- Meets IEC/EN60335-1



High Input Voltage DC-DC Converter

CQB75-300S (75 Watts)

180 - 450 Vdc Input

- Quarter Brick
- Efficiency Up to 90%
- Remote On/Off
- Low No Load Power Consumption
- Fully Protected (OTP/OCP/OVP/UVLO)
- Quarter Brick Size Meet Industrial Standard 2.28"x1.45"x0.5"
- CB Test Certificate IEC62368-1
- 180 ~ 425 Vdc Input

CHB300-300S (300 Watts)

180 - 425 Vdc Input

- Half Brick
- Efficiency to 90%
- Over Temperature Protection
- Low No Load Power Consumption
- Half-Brick Size Meet Industrial standard
- UL60950-1 2nd (Reinforced Insulation) Approval

CQB150-300S (150 Watts)

180 - 425 Vdc Input

- 150W Isolated Output
- Efficiency Up to 89%
- Output Voltage: 12V, 15V, 24V, 28V, 48V, 5V
- Dimensions: 2.28×1.45x0.50 (Quarter Brick)
- Fixed Switching Frequency
- Regulated Outputs
- Remote On/Off
- Low No Load Power Consumption

CFB750-300SXX-CMFD

200 - 425 V Input

- Power: 750W
- Full Brick Chassis Mount DC-DC Converter
- Output Voltage: 12V, 15V, 24V, 28V, 36V, 48V
- Dimensions: 9.45x4.33x1.65
- Efficiency Up to 90%
- Fixed Switching Frequency
- Regulated Outputs
- Remote On/Off

CFB600-300S (600 Watts)

180 - 425 Vdc Input

- Full Brick DC-DC Converter
- 600W Isolated Output
- Efficiency to 91%
- Fixed Switching Frequency
- Input Under-Voltage Protection
- Over Temperature Protection
- Over Voltage/Current Protection
- Remote On/Off

CHB300-300SXX CMFC(D)

180 - 425V Input

- Half Brick Chassis Mount DC-DC Converter
- 300W Isolated Output
- Efficiency to 90%
- Power: 300 Watts
- Output Voltage: 12V, 24V, 28V, 48V, 5V
- Dimensions: 6.50 x 3.00 x 1.52 (CMFC) / 6.50 x 3.09 x 1.57 (CMFD)
- Fixed Switching Frequency

CQB50W12-CMFC(D)

14 -160V Input
12:1 Input Range

- Output Voltage: 12V, 24V, 48V, 5V
- Dimensions:4.60x2.40x1.26(CMFC)/ 4.60x2.49x1.35 (CMFD)
- Efficiency to 89%
- Fixed Switching Frequency
- 30-50W Isolated Output
- Regulated Outputs
- Remote On/Off

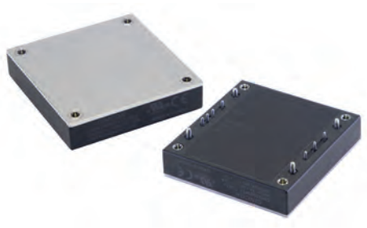
CQB75W8 (75 Watts)

9 - 75V Input
8 :1 Input Range

- Efficiency Up to 90%
- Railway DC-DC Converter
- Output Voltage: 12V, 15V, 24V, 28V, 48V
- Dimensions: 2.28×1.45x0.50 (Quarter Brick)
- CB Test Certificate IEC62368-1
- Low No Load Power Consumption
- 3000Vac I/O Isolation

Ultrawide Input DC-DC Converter

CHB150W12 / CHB200W12



14 - 160 Vdc Input
12:1 input range

- 150 & 200 Watts
- 2.28×2.40x0.50 (Half Brick)
- 3000Vac I/O Isolation
- Efficiency Up to 91%
- EN50155 Compliant with External Circuits
- CB Test Certificate IEC62368-1

EC7BW18 (20 Watts)

Ultra Wide 8,5 - 160 Vdc Input
16:1 Input range

- Fixed Switching Frequency Operating Case Temperature -40 to +105
- 2”x1”x0.4” Size Meet Industrial Standard
- Efficiency up to 90%
- UL62368-1 2nd (Reinforce Insulation) Approval
- Shock & Vibration EN50155 (EN61373) Compliant

CHB150W8 (150 Watts)

9 - 75 Vdc Input
8:1 Input Range

- 150W Isolated Output
- Efficiency to 90%
- Dimensions: 2.28×2.40x0.50 (Half Brick)
- Fully Isolated 1500VDC
- Half Brick DC-DC Converter
- Fixed Switching Frequency
- Input Under Voltage Protection

CQB50W12 (30-50 Watts)

14 - 160 Vdc Input
12:1 Input Range

- Dimensions: 2.28x1.45x0.5 (Quarter Brick)
- Efficiency Up to 89%
- Fixed Switching Frequency
- 3000Vdc I/O Isolation
- Regulated Outputs
- Remote On/Off

product highlights

Industrial / Medical Power AC-DC

CFM25S (25 Watts)

- Universal Input Range 90~264Vac
- High Efficiency up to 87%
- 2"x 1.1" Open Frame Compact Size
- No Load Input Power < 0.1W
- Operating Altitude 5000m
- Continuous Short Circuit Protection
- Over Voltage Protection
- Peak Load (2 Times of Rated Current
- Class II
- Approval IEC/EN/UL 62368-1

CFM41S (40 Watts)

- Universal Input 90~264VAC
- High Efficiency up to 90%
- N55032 Class B and CISPR/FCC Class B
- Approval IEC/EN/UL 62368-1
- Meets IEC/EN60335-1
- Continuous Short Circuit Protection
- No Load Power Consumption < 0.15W
- Peak Load (2 Times of Rated Current)
- Class II
- Over Voltage Protection

CFM130S Series (130 Watts)

- Universal Input Range 80~264Vac
- High Efficiency up to 94%
- 2"x 3" Open Frame Compact Size
- Class I & Class II
- 100W with Natural Convection
- Operating Altitude 5000m
- Continuous Short Circuit Protection
- 130 W Power, Fanless 100 W
- Active PFC Function
- Meets IEC/EN60335-1

CFM150S Series (150 Watts)

- Universal Input 90-264Vac
- 2"x 4" Open Frame Compact Size
- 120W with Natural Convection
- 150W with Base Cooling
- High Efficiency up to 94%
- Meets IEC/EN60335-1/60601-1
- No Load Input Power Consumption<150mW
- EMI Safety Meets Class I & Class II
- Operating Altitude 5000m

CFM61S (60 Watts)

- Universal Input 90~264VAC
- High Efficiency up to 90%
- Meets EN55032 Class B and CISRP/FCC Class B
- Approved IEC62368-1, UL62368-1, EN62368-1
- Continuous Short Circuit Protection
- Over Voltage Protection
- Meets EN55032 Class B and CISRP/FCC Class B
- No Load Power Consumption < 0.15W
- Class II

CFM81S (80 Watts)

- Universal Input Range 90~264Vac
- High Efficiency up to 91%
- 2"x 3" Open Frame Compact Size
- Class I and Class II
- No Load Power <0.3W
- Operating Altitude 5000m
- Continuous Short Circuit Protection
- Approval IEC/EN/UL 62368-1
- Peak Load (2 Times of Rated Current)

CFM260S Series (260 Watts)

- Universal Input Range 85~264Vac
- 220W with Natural Convection
- 260W with Fan-Cooled
- 2"x 4" Compact Size @CFM260SXXX
- No Load Input Power Consumption<0.2W
- High Efficiency up to 93.5% Typical
- 12V Fan Output
- Continuous Short Circuit Protection
- Meets Class I

CFM500S Series (500 Watts)

- Universal Input Range 80~264Vac
- High Efficiency up to 94.5%
- 3"x 5" Compact Size
- High Power Density Up to 20.96W/Inch3
- No Load Power Consumption<0.5W
- 390W Natural, 470 ~ 500W Conduction Convection
- Class I
- Approval IEC/EN/UL 62368-1

product highlights

NEW PRODUCTS

AC-DC Power Supplies

Cincon latest release list of AC-DC power supplies with the most updated safety approvals.

ITE/Industrial Class I Adapter

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
TRH220A	220W	90-264	12V, 24V, 36V, 48V, 56V	Altitude 5000m	7.087x2.953x1.752

Medical Class I & Class II Adapter

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
TR160M	160W	80-264	12V, 24V, 36V, 48V	2MOPP Altitude 5000m Meets EN60335-1	7.087x2.953x1.752
TR220M	220W	80-264	12V, 24V, 36V, 48V, 56V	2MOPP Altitude 5000m	7.087x2.953x1.752

ITE/Industrial On-Board Open Frame

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
CFM20S	20W	90-264	5V, 12V, 15V, 24V, 48V	Altitude 5000m Meets EN60335-1 Class II	2.382x1.300x0.906 (PCB-mount) 2.482x1.402x0.933 (Encapsulated) 3.000x1.300x0.831 (Wafer)

ITE/Industrial Connector Open Frame

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
CFM50S	50W	90-264	5V, 12V, 15V, 24V, 36V, 48V	Altitude 5000m Meets EN60335-1 Class I & Class II	3.000x2.000x1.067 (Wafer) 3.000x2.00x1.142 (PCB Mount) 3.598x2.520x1.358 (Cover)
CFM70S	70W	90-264	5V, 12V, 15V, 24V, 36V, 48V	Altitude 5000m Meets EN60335-1 Class I & Class II	3.000x2.000x1.067 (Wafer) 3.000x2.00x1.142 (PCB Mount) 3.598x2.520x1.358 (Cover)
CFM81S	80W	90-264	12V, 15V, 24V, 48V	2 Times Peak Load Altitude 5000m Approval EN60335-1 Class I & Class II	3.000x2.000x1.339 (Wafer) 3.200x2.441x1.575 (Cover)

Medical Baseplate-cooled Open Frame

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
CFM500M	500W	80-264	12V, 18V, 24V, 36V, 48V	2MOPP Altitude 5000m Meets EN60335-1 Class I	5.000x3.000x1.540 (Baseplate) 5.354x3.425x1.673 (Cover)

AC-DC Power Supplies

ITE/Industrial Baseplate-cooled Open Frame

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
CFM130S	130W	80-264	12V, 18V, 19V, 24V, 36V, 48V	Altitude 5000m Class I & Class II	3.000x2.000x1.20 (Open-frame) 3.598x2.000x1.299 (Baseplate) 3.598x2.520x1.358 (Cover)
CFM202S	200W	90-264	12V, 24V, 28V, 36V, 48V, 56V	Altitude 5000m Approval EN60335-1 Class I & Class II	4.000x2.000x1.311 (Baseplate) 4.598x2.520x1.358 (Cover)
CFM260S	260W	85-264	12V, 24V, 36V, 48V	Altitude 5000m Meets EN60335-1 Class I	4.000x2.000x1.441 (Open-frame) 4.598x2.000x1.520 (Baseplate) 4.598x2.520x1.594 (Cover)
CFM500S	500W	80-264	12V, 18V, 24V, 36V, 48V	Altitude 5000m Meets EN60335-1	5.000x3.000x1.540 (Baseplate) 5.354x3.425x1.673 (Cover)

ITE/Industrial Brick Power

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
CBM70S	70W	90-264	12V, 24V, 36V, 48V	Low Profile Wide Operating Temp. Built-in EMI Filter & Capacitor Class I	2.28x2.40x0.67
PDF700S	700W	90-264	12V, 24V, 28V, 48V, 56V	Low Profile Built-in PFC Altitude 5000 Class I	4.60x2.40x0.50
PFC750	750W	90-264	390V	Low Profile Built-in PFC Altitude 5000	2.28x2.40x0.50

DC-DC Power Supplies

Cincon latest release list of DC-DC converters with the most updated safety approvals.

16:1 Input Range

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
EC7BW18-ECRT/EDRT	20W	10~160V	12V, 15V, 5V, ±12V, ±15V, ±24V	EN50155/ EN50121-3-2/ EN45545-2 Compliant Low Inrush Current Input Reverse Polarity Protection A Without External Capacitor	4.45x2.33x0.85 (ECRT) 4.45x2.33x1.43 (EDRT)

12:1 Input Range

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
CHB150W12	150W	10~160V	5V, 12V, 15V, 24V, 48V	3KVac Isolation UL62368-1 & CB EN45545-2 EN50155 Compliant	2.28×2.40x0.50 (Half Brick)
CHB200W12	200W	10~160V	12V, 15V, 24V, 48V	3KVac Isolation UL62368-1 & CB EN45545-2 EN50155 Compliant	2.28×2.40x0.50 (Half Brick)

DC-DC Power Supplies

8:1 Input Range

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
CQB50W8	50W	9~75V	12V, 15V, 24V, 28V, 48V	3KVac Isolation UL62368 & CB EN45545-2 EN50155 Compliant	2.28×1.45x0.50 (Quarter Brick)
CQB50W8-36SXX-CMFC(D)	50W	9~75V	12V, 15V, 24V, 28V, 48V	Screw Terminal Build in filter Baseplate Cooled EN45545-2 EN50155 Compliant	4.60x2.40x1.46 (CMFC) 4.60x2.49x1.46 (CMFD)
CQB75W8	75W	9~75V	12V, 15V, 24V, 28V, 48V	3KVac Isolation UL62368 & CB EN45545-2 EN50155 Compliant	2.28×1.45x0.50 (Quarter Brick)
CQB75W8-36SXX-CMFC(D)	75W	9~75V	12V, 15V, 24V, 28V, 48V	Screw Terminal Build in filter Baseplate Cooled EN45545-2 EN50155 Compliant	4.60x2.40x1.46 (CMFC) 4.60x2.49x1.46 (CMFD)

4:1 Input Range

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
EC4SAWH	6W	18~74V, 9~36V	12V, 15V, 3.3V, 5V, ±12V, ±15V, ±5V	3KVDC Isolation	0.86x0.36x0.44(SIP8)
EC3SAWH	3W	18~74V, 9~36V	12V, 15V, 3.3V, 5V, ±12V, ±15V, ±5V	3KVDC Isolation	0.86x0.36x0.44(SIP8)
EC7AW	10W	18~74V, 9~36V	12V, 15V, 3.3V, 5V, ±12V, ±15V	3KVdc Isolation EN55032 Class A	1.25x0.80x0.40(DIP24)
CQB100W-110SXX-CMFC(D)	100W	43~160V	5V, 12V, 15V, 24V, 28V, 48V	Screw Terminal Build in filter Baseplate Cooled EN45545-2 EN50155 Compliant	4.60x2.40x1.26 (CMFC) 4.60x2.49x1.35 (CMFD)

2:1 Input Range

Model	Power	Input Voltage	Output Voltage	Features	Dimensions (Inch)
CQB75-300S-CMFC(D)	75W	180~450V	3.3V, 5V, 12V, 15V, 24V, 48V	Screw Terminal Build in filter EN45545-2 Baseplate Cooled	4.60x2.40x1.24 (CMFC) 4.60x2.49x1.35 (CMFD)
CQB75-300S	75W	180~450V	12V, 15V, 24V, 3.3V, 48V, 5V	3KVAC Isolation UL62368-1 & CB	2.28×1.45x0.50 (Quarter Brick)
CQB200	200W	18~36V	24V, 28V	2250Vdc Isolation UL62368-1 EN45545-2	2.28×1.45x0.50 (Quarter Brick)
CFB750-300SXX-CMFD	750W	200~425V	12V, 15V, 24V, 28V, 36V, 48V	Screw Terminal Build in filter EN45545-2 Baseplate Cooled	9.45x4.33x1.65
CFB800	800W	18~36V	28V	1.5KVDC Isolation	4.60×2.40x0.50 (Full Brick)

Delta Elektronika is an independent manufacturer of AC/DC power supplies. We are a family owned company with a strong technical culture. Delta Elektronika was established in 1959 has had since its headquarters in the South West of the Netherlands on the island Schouwen-Duiveland. We design and manufactures world class DC power units in a product line ranging from 150W to 15kW. Delta's design philosophy is highly appreciated by our customers in the industry, research and development, universities and many other sectors all over the world.

Programmable AC/DC Power Supply

ES150 Series

Unit	Voltage range	Current range
ES 015-10	0 - 15 V	0 - 10 A
ES 030-5	0 - 30 V	0 - 5 A
ES 075-2	0 - 75 V	0 - 2 A
ES 0300-0.45	0 - 300 V	0 - 0.45 A

EST150 Series

Unit	Voltage range	Current range
EST 150	2x 0 - 20 V	0 - 2.5 A
	0 - 10 V	0 - 5 A

ES300 Series

Unit	Voltage range	Current range
ES 030-10	0 - 30 V	0 - 10 A

SM800

Unit	Voltage range	Current range
SM 7.5-80	0 - 7.5 V	0 - 80 A
SM 18-50	0 - 18 V	0 - 50 A
SM 70-AR-24 (Autoranging output)	0 - 35 V / 0 - 70 V	0 - 24 A / 0 - 12 A
SM 400-AR-4 (Autoranging output)	0 - 200 V / 0 - 400 V	0 - 4 A / 0 - 2 A

SM1500

Unit	Voltage range	Current range
SM 15-100	0 - 15 V	0 - 100 A
SM 35-45	0 - 35 V	0 - 45 A
SM 52-30	0 - 52 V	0 - 30 A
SM 52-AR-60 (Autoranging output)	0 - 26 V/ 0 - 52 V	0 - 60 A/ 0 - 30 A
SM 70-22	0 - 70 V	0 - 22 A
SM 120-13	0 - 120 V	0 - 13 A
SM 300-5	0 - 300 V	0 - 5 A
SM 400-AR-8 (Autoranging output)	0 - 200 V/ 0 - 400 V	0 - 8 A/ 0 - 4 A

SM3300 Series

Unit	Voltage range	Current range
SM 18-220	0 - 18 V	0 - 220 A
SM 66-AR-110 (Autoranging output)	0 - 33 V / 0 - 66 V	0 - 110 A / 0 - 55 A
SM 100-AR-75 (Autoranging output)	0 - 50 V / 0 - 100 V	0 - 75 A / 0 - 37.5 A
SM 330-AR-22 (Autoranging output)	0 - 165 V / 0 - 330 V	0 - 22 A / 0 - 11 A
SM 660-AR-11 (Autoranging output)	0 - 330 V / 0 - 660 V	0 - 11 A / 0 - 5.5 A

SM6000 Series

Unit	Voltage range	Current range
SM 15-400	0 - 15 V	0 - 400 A
SM 30-200	0 - 30 V	0 - 200 A
SM 45-140	0 - 45V	0 - 140 A
SM 60-100	0 - 60 V	0 - 100 A
SM 70-90	0 - 70 V	0 - 90 A
SM 120-50	0 - 120 V	0 - 50 A
SM 300-20	0 - 300 V	0 - 20 A
SM 600-10	0 - 600 V	0 - 10 A

SM15K Series

Features:

- Bi-directional power supply with standard 15 kW source and sink
- Flexible output with Constant Power characteristics
- Power Regeneration Technology: in sink mode the PSU returns the energy back into the grid
- Easy Master/Slave parallel & series operation up to 900kW
- Very low heat dissipation. Efficiency is more than 95%. No need for expensive cooling systems.
- Excellent dynamic responses to load changes including all-digital control to adapt regulation to match load type
- Size: Width=19, Height= 3 U, Depth = 591 mm

Functionalities:

- Operation on wide range of 3 phase AC input voltages
- Master/Slave operation up to 900kW
- Large user display, menu driven operation
- EMC surpasses CE requirements: low emission and high immunity
- Low audible noise: temperature controlled cooling fans

Unit	Voltage range	Current range
SM 70-CP-450 (Bi-directional operation, Constant Power)	0 - 70 V	-450 .. 450 A
SM 500-CP-90 (Bi-directional operation, Constant Power)	0 - 500 V	-90 .. 90 A
SM 210-CP-150 (Bi-directional operation, Constant Power)	0 - 210 V	-150 .. 150 A
SM 1500-CP-30 (Bi-directional operation, Constant Power)	0 - 1500 V	-30 .. 30 A

High Power System

Unit	Voltage range	Current range
SM 70-CP-450 (Bi-directional operation)	0 - 70 V	-2700 .. 2700 A
SM 210-CP-150 (Bi-directional operation)	0 - 210 V	-3000 .. 3000 A
SM 500-CP-90 (Bi-directional operation)	0 - 1000 V	-5400 .. 5400 A
SM 1500-CP-30 (Bi-directional operation)	0 - 1500 V	-1800 .. 1800 A

Advanced Energy®

Advanced Energy is shaping and transforming the way the world's leading semiconductor and industrial companies use, deliver and control power efficiently.

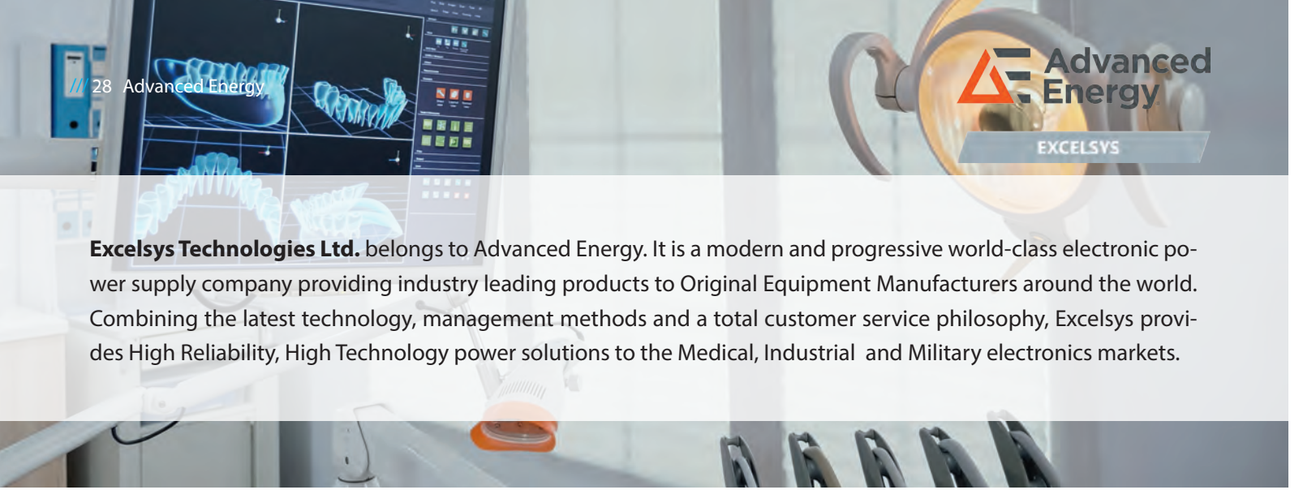
They develop and manufacture highly developed precision solutions for the energy supply, metrological monitoring and control of mission-critical applications and processes. Their power supply solutions enable innovations in complex semiconductor and thin-film plasma processes, high and low voltage applications and in temperature-critical environments. From everyday screens to life-saving medical devices and procedures, your products and solutions enable continuous development and improvement.

Advanced Energy
ULTRA VOLT

Advanced Energy's high voltage products feature high-performance power supplies and amplifiers. Each product line features hundreds of units, options, and accessories to meet your application needs. Trust a high voltage power supply provider with 40-plus combined years of experience. Advanced Energy's HiTek Power and UltraVolt product lines feature hundreds of units, options, and accessories to meet your application needs.

UltraVolt-High Voltage Power Supplies

Standard DC-DC							
Product Series	Descriptions	Power	Input Voltage	Ouput Voltage	Dimensions	Ripple	Example Model Number
A Series	Precision DC-DC Regulated Supplies	4, 15, 20, or 30	12 V on 4 W 24 V on 20, or 30 W	62 V to 40 kV	1/16 to 6A Series: 3.70 x 1.50 x 0.81 in	To 100 ppm	1/16A12-P4 40A24-N30
					10A Series: 3.72 x 1.52 x 0.96 in		
					15A Series: 4.70 x 1.52 x 0.96 in		
					20A Series: 5.70 x 1.52 x 0.96 in		
					25A Series: 6.90 x 1.60 x 0.96 in		
					30A Series: 6.90 x 1.60 x 1.14 in		
					35A Series: 6.90 x 1.60 x 1.14 in		
					40A Series: 7.96 x 1.60 x 1.40 in		
AA Series 	Miniature PCB-Mount, Regulated DC-DC Converters	4, 20, or 30	12 V on 4 W 24 V on 20, or 30 W	62 V to 6 kV	2.97 x 1.50 x 0.81 in	To 100 ppm	1/16AA24-P20 6AA12-N4
High Power C Series 	Capacitive Charging, DC-DC Power Supplies	60, 125, 250	24 V	125 V to 60 kV	1/8C to 6C 60&125W: 5.00 x 4.00 x 1.06 in	< 10,000 ppm	1/8C24-N125
					1/8C to 6C 250W: 8.00 x 5.00 x 1.06 in		6C24-P250
					8C to 30C 60&125W: 8.00 x 5.00 x 1.06 in		8C24-P60
					8C to 30C 250W: 9.25 x 5.00 x 2.03 in		30C24-N125
					40C to 60C: 4.00 x 5.00 x 63.50 in		50C24-P250
LE Series 	High Precision DC-DC Regulated Supplies	4, 15 (10 & 30 only), 20 (1 to 6 only), 30	24 V	1 to 30 kV	1 - 15 kV: 6.00 x 3.81 x 1.50 in	10 ppm	1LE24-P4
					20 - 30 kV: 7.28 x 3.94 x 1.50 in		30LE24-N30
HVA 	Precision DC-DC High Voltage Amplifiers	1, 1.5, or 2	24 V	1 to 20 kV	Small: 6.00 x 3.81 x 1.25 in	500 ppm	1HVA24-P1
					Large: 9.75 x 6.50 x 1.50 in		20HVA24-BP1
US Series 	Precise, Micro-Size High Voltage Power Supplies	100 mW	5, 12	200 to 500 V	1.00 x 0.81 x 0.43 in	< 100 ppm	0.5US5-P0.1



Excelsys Technologies Ltd. belongs to Advanced Energy. It is a modern and progressive world-class electronic power supply company providing industry leading products to Original Equipment Manufacturers around the world. Combining the latest technology, management methods and a total customer service philosophy, Excelsys provides High Reliability, High Technology power solutions to the Medical, Industrial and Military electronics markets.

Excelsys Power Supplies

Single Output Power Supplies

Highly efficient power supply that delivers up to 1008 W for use in medical, scientific, industrial, and harsh environmental applications.

Standard AC-DC (Single Outputs)								
Product Series	Descriptions	Output Power Watts	Free Air	Forced Air	Outputs	Available Output Voltages	Dimensions	Protection Class
CS1000 	Innovative, Fanless, 1U, High Efficiency, 1000 W, Single Output Power Supplies	1000	1000 W	Higher Ambient Temperature	1	1 - 58 V	10.30 x 5.00 x 1.50 in	Class I
Xsolo / Xsolo XB 	500 and 1000 W Ultra Compact, High-Reliability Single Output Power Supplies	1008	XS500 - 500 W	XS1000 - 1000 W	1	24 V, 48 V	500 W: 30.00 x 5.00 x 1.50 in 1000 W: 9.30 x 5.00 x 1.57 in	Class I

MIL-COTS Configurable Multiple Outputs Power Supplies

Modular Power Supplies with High Efficiency and High Reliability.

MIL-COTS (Configurable Multiple Outputs)							
Product Series	Descriptions	Output Power Watts	Output	Available Output Voltages	Input Voltage Range	Dimensions/ Weight	Ripple and Noise
XF Series 	Innovative, Fanless, 1U, High Efficiency, 1000 W, Single Output Power Supplies	1000 W	up to 12	1 - 58 V	universal Input 85 to 264 VAC	268 mm x 127 mm x 1U 1.7 kg	1% of nominal

Industrial/ Medical Configurable Multiple Outputs Power Supplies

Standard AC-DC (Single Outputs)						
Product Series	Descriptions	Output Power Watts	Outputs	Available Output Voltages	Dimensions	Protection Class
Xgen 	Up to 1340 W Multiple-Output, Modular Power Supplies	up to 1340	Up to 12	1 - 58 V	10 in x 3.5 in x 1U (4 Slott) 10 in x 5 in x 1U (6 Slott)	Class I
UltiMod 	High Efficiency, High Reliability, Modular Configurable Power Supplies	up to 1200	Up to 12	1 - 58 V	UX4: 10.20 x 3.50 x 1U UX6: 10.30 x 5.00 x 1U	Class I

Module for Xgen, Ultimod and XF

The Excelsys PowerPacs (Housings) can be populated with up to 12 powerMods providing up to 24 fully isolated DC outputs ranging from 1.0V to 58V. Users can select the modules most suitable for their application based on power level and/or desired control feature set. Outputs can be parallel connected for higher currents and series connected for higher voltages.

powerMods							
Model	Vnom (V)	Set Point Adjust Range	Dynamic Vtrim Range (v)	Imax (A)	Power (W)	Remote Sense	Power Good
XgA	12.0	10.8-15.6	—	12.5	150	—	—
XgB	24.0	19.2-26.4	—	8.3	200	—	—
XgC	36.0	28.8-39.6	—	5.6	200	—	—
XgD	48.0	38.5-50.4	—	4.2	200	—	—
XgE/Xg7	24.0	5.0-28.0	—	5.0	120	—	—
XgF/Xg8	24.0	5.0-28.0	—	3.0	72	—	Yes
	24.0	5.0-28.0	—	3.0	72	—	Yes
XgG	2.5	1.5-3.6	1.15-3.6	40.0	100	Yes	Yes
XgH	5.0	3.2-6.0	1.5-6.0	36.0	180	Yes	Yes
XgJ	12.0	6.0-15.0	4.0-15.0	18.3	220	Yes	Yes
XgK	24.0	12.0-30.0	8.0-30.0	9.2	220	Yes	Yes
XgL	48.0	28.0-58.0	8.0-58.0	5.0	240	Yes	Yes
Xg1	2.5	1.5-3.6	1.15-3.6	50.0	125	Yes	Yes
Xg2	5.0	3.2-6.0	1.5-6.0	40.0	200	Yes	Yes
Xg3	12.0	6.0-15.0	4.0-15.0	20.0	240	Yes	Yes
Xg4	24.0	12.0-30.0	8.0-30.0	10.0	240	Yes	Yes
Xg5	48.0	28.0-58.0	8.0-58.0	6.0	288	Yes	Yes
XgM	5.0	3.2-6.0	1.0 -6.0	40.0	200	Yes	Yes
XgN	12.0	6.0-15.0	1.0 - 15.0	20.0	240	Yes	Yes
XgP	24.0	12.0-30.0	1.0-30.0	10.0	240	Yes	Yes
XgQ	48.0	24.0-58.0	1.0 to 58.0	6.0	288	Yes	Yes
XgR	24.0	12.0-30.0	8.0-30.0	10.0	240	—	Yes
XgT	48.0	28.0-58.0	8.0-58.0	6.0	288	—	Yes

Excelsys Medical/Industrial Power Supplies

Configurable Multiple Outputs up to 3000 W

High Efficiency, Intelligent and Modular Power Supplies. You can find more information about the products in the table.

Standard AC-DC (Configurable Multiple Outputs)								
Product Series	Descriptions	Output Power Watts	Free Air	Forced Air	Outputs	Available Output Voltages	Dimensions	Protection Class
CX600 	Fanless 600 W, Intelligent, Modular Power Supply Platform	600	600 W	Higher Ambient Temperature	Up to 8	1 - 58 V	8.50 x 4.50 in x 1U	Class I
CX1000 	Fanless 1000 W, Intelligent, Modular Power Supply Platform	1000	1000 W Natural Convection -Cooled	Higher Ambient Temperature	Up to 12	1 - 58 V	10.00 x 6.50 x 1U	Class I
CX1800 	1800 W Intelligent, Modular Power Supplies	1800	–	1800 W	Up to 12	1 - 58 V	10.50 x 5.00 x 1U	Class I
CX3000 	High Efficiency, Intelligent and reliable 3000 W Modular Power Supplies	3000	–	3000 W Higher Ambient Temperature	Up to 24	1 - 58 V	11.80 x 5.20 x 4.70 in	Class I

Module for CX600/ 1000/ 1800 / 3000

The Excelsys PowerPacs (Housings) can be populated with up to 12 powerMods providing up to 24 fully isolated DC outputs ranging from 1.0V to 58V. Users can select the modules most suitable for their application based on power level and/or desired control feature set. Outputs can be parallel connected for higher currents and series connected for higher voltages.

CoolX CoolMods				
Single Output Modules (1 Slot)	Vnom (V)	Set Point Adjust Range (V)	Imax (A)	Power (W)
CmA	5	2.5-6.0	21.0	105
CmB [1]	12	6.0-15.0 [2]	15.0	180
CmC	24	15.0-28.0	8.3	200
CmD	48	28.0-58.0 [3]	4.2	200
High Power Modules (3 Slot)				
CmE [4]	24	24.0-25.2	25.0	600
CmF [4]	48	48.0-50.4	12.5	600
Dual Output Modules (1 Slot)				
CmG [5] V1	24	3.0-30.0	3.0	90
V2	24	3.0-30.0	3.0	90
CmH [6] V1	5	3.0-6.0	6.0	36
V2	24	3.0-30.0	3.0	90
Wide Trim Modules (1 Slot)				
CmA-W01	5	1.0-6.0	21.0	105
CmB-W01	12	1.0-15.0 [2]	15.0	180
CmC-W01	24	2.0-28.0	8.3	200
CmD-W01	48	3.0-58.0 [3]	4.2	200
High Voltage Modules (1 Slot)				
CmK [7]	200	175-205	0.6	132

*** SEMI F47 compliant at input voltages > 180 VAC.**

[1] Full dynamic specifications may not be met at full load when output voltage is trimmed by above 13 V.

[2] Max trim 14 V when used with high power module

[3] Max trim 56 V when used with high power module

[4] a) Only one high power module (CmE or CmF) can be used per CoolPac.

b) During load transients starting from 0% load on the High Power modules, other modules in the CoolPac may experience an output voltage dynamic during the load change. Contact applications support for details or support.

[5] For the CmG module, the max combined power of both outputs is 120 W.

[6] For the CmH module, the max combined power of both outputs is 100 W.

[7] When a CmK module is used in the same pack as a CmE or CmF module, one module slot must remain unpopulated.

Artesyn Embedded Power is a market leader in AC-DC power supplies and DC-DC conversion products under the Astec and Artesyn brand names. Our portfolio of DC-DC conversion products includes an extremely wide range of isolated DC-DC converters, non-isolated DC-DC converters, high voltage quarter-brick, half-brick and full-brick DC-DC converter modules and low power industrial. Our portfolio of AC-DC conversion products includes Low to Medium Power AC-DC Power Supplies (3 to 960 watts) and Medium to High Power AC-DC Power Supplies (3 to 24 watts)

Artesyn AC-DC Power Supplies

Standard AC-DC [1,2]								
Product Series	Descriptions	Output Power Watts		Outputs	Available Output Voltages	Dimensions	Protection Class	EMI Class
		Free Air	Forced Air					
LCC250 	Convection/Conduction Mounting	250	250	1	12 V, 24 V, 48 V	4.00 x 7.00 x 1.10 in	I	B
LCM300 [3] 	Bulk Front End	300	300	1	12 V, 15 V, 24 V, 36 V, 48 V	1.61 x 4.00 x 7.00 in	I	B
CNS650-MU [3] 	Open-frame	400	650	1	12 V, 24 V, 48 V	4.00 x 6.00 x 1.50 in	I, II	B
µMP04 [3] 	Configurable	400	600	1 to 12	0.9 - 60 V/4-40 A	10.11 x 3.50 x 1.57 in	I	B
LCC600 [3] 	Conduction Cooled	600	600	1	12 V, 24 V, 28 V, 36 V, 48 V	4.00 x 9.00 x 1.57 in	I	B
LCM600 [3] 	Bulk Front End	600	600	1	12 V, 15 V, 24 V, 36 V, 48 V	4.50 x 7.50 x 2.40 in	I	B
iMP4 	Configurable & Intelligent	750	1100	1 to 21	2 - 60 V/2 - 150 A	10.00 x 5.00 x 2.50 in	I	B
LCM1000 [3] 	Bulk Front End	1000	1000	1	12 V, 15 V, 24 V, 36 V, 48 V	2.50 x 5.20 x 10.00 in	I	B
iHP3 	Configurable & Intelligent	-	24000	8	12 V, 24 V, 48 V, 80 V 125 V, 250 V	5.22 x 19.00 x 27.90 in	I	B

[1] All products comply with the international standard IEC 60601-1 for medical devices, defined as Medical Electrical Equipment and Systems
[2] Individual product approvals are stated in the publicly published product data sheets and technical reference notes at www.vitecpower.com
[3] Models tested to comply according to the medical standard IEC 60601-1-2 4th Edition

Artesyn LCM Series

Benefits

- 89 to 93% typical full-load efficiency
- 9.6 to 57.6 V output, up to 79.2 V for LCM3000
- Optional 5 V @ 2 A standby, standard on LCM3000
- 2XMOPP
- Optional conformal coat
- Operating temperature -40 to +70°C (derating >50°C)

Applications

- Process control
- Imaging
- Dental
- Medical
- Laboratory
- Factory automation

LCM300 Series
310 W Total Power

- 350 W peak power for some models
- 7.1 W per in^3
- 177.8 x 101.6 x 41 mm (7 x 4 x 1.61 in)

LCM600 Series
600 W Total Power

- Optional constant current
- 7.41 W per in^3
- 190.5 x 114.3 x 61 mm (7.5 x 4.5 x 2.4 in)

LCM1000 Series
1000 W Total Power

- Optional constant current
- 7.7 W per in^3
- 254 x 132 x 63.5 mm (10 x 5.2 x 2.5 in)

LCM1500 Series
1500 W Total Power

- Optional constant current
- 12 W per in^3
- 254 x 132 x 63.5 mm (10 x 5.2 x 2.5 in)

LCM3000 Series
3000 W Total Power

- Optional constant current
- 15.7 W per in^3
- 276.9 x 177.8 x 63.5 mm (10.9 x 7.0 x 2.5 in)

Delta Electronics Group is a multi-billion dollar global company and its power supply products have been the first choice of top information technology, telecommunication and consumer electronics equipment manufacturers for decades. Delta's feature-rich DIN rail power supplies offers start-up at -40°C, Advanced Power Boost, SIL3 EN61508 and Smart monitoring functions on selected CliQ models. To fulfill the demands in maritime applications, CliQ M series complies with ABS and DNV-GL safety standards. Several CliQ models are also certified to ATEX and Class I, Div 2 for use in hazardous locations.

Din Rail Power Supplies

Force-GT

- Output Voltage: 12 V- 48 V
- Output Current: 2.5 A - 40 A
- Power: 120 W - 960W
- Full load operating temperature up to 60°C
- Built- in constant current circuit- for charging applocations
- Ultra-Slim design

CliQ

- Output Voltage: 12 V- 24V
- Output Current: 1.25 A - 20 A
- Power: 15 W - 480W
- ATEX & C1D2 certifications
- Power Boots up to 3s
- Terminal Block

CliQ II

- Output Voltage: 24 V
- Output Current: 2.5 A - 40 A
- Power: 60 W - 480 W
- IP20 Connector
- Power Boots up to 5s
- up to 92% efficiency

CliQ III

- Output Voltage: 24 V
- Output Current: 5 A - 20 A
- Power: 120 W - 480 W
- Power Boost up to 5s
- Cold Start from -40°C

CliQ M

- Output Voltage: 24 V
- Output Current: 3.4 A - 40 A
- Power: 81.6 W - 960 W
- Full power up to +60°C
- Advanced Power Boots (APB)
- Marine Certifications

CliQ VA

- Output Voltage: 24 V
- Output Current: 5 A - 20 A
- Power: 120 W - 480 W
- LCD display and intelligent over-load protection features
- up to 94% efficiency
- Advanced Power Boots (APB)

LYTE

- Output Voltage: 12 V - 48 V
- Output Current: 1.57 A - 20 A
- Power: 75 W - 480 W
- Cost Competitive Designs
- General Industrial Apllications
- Optional DC OK Relay Contact

LYTE II

- Output Voltage: 12 V - 48 V
- Output Current: 2.5 A - 20 A
- Power: 120 W - 240 W
- Extreme Slim width
- Reduced no-load power con-sumption
- Wide operating temperature

CHROME

- Output Voltage: 5 V - 24 V
- Output Current: 0.42 A - 6 A
- Power: 7.5 W - 91.2 W
- Class II double isolation
- NEC-Class 2

product highlights

Non-Isolated Board-mounted Module

DOSA

DOSA POL power modules are designed in an industry standard footprint and pinout. Each provides programmable output voltage by using an external resistor. Some series have flexible and programmable tracking and sequencing features to enable a variety of startup voltage as well as sequencing and tracking between power modules.

DOSA I

Part Number	Vin Range (VDC)	Vout Nominal (VDC)	Iout (A)	Power (W)	Eff (%)	Package	LxWxH (mm)
DNK05S0A0R30	4.5~5.5	0.8~3.63	30	109	95	SIP	50.8x12.7x14
DNK12S0A0R30	6~14	0.8~5	30	150	95	SIP	33x13.5x10
DNL04S0A0R16	2.8~5.5	0.75~3.63	16	58	95	SIP	50.8x13.4x8.5
DNL04S0A0S16	2.8~5.5	0.75~3.63	16	58	95	SMD	33x13.5x10
DNL10S0A0R16	8.3~14	0.75~5	16	80	92	SIP	50.8x13.4x8.5
DNL10S0A0S16	8.3~14	0.75~5	16	80	92	SMD	33x13.5x10
DNM04S0A0R10	2.8~5.5	0.75~3.63	10	36	96	SIP	50.8x12.7x9.5
DNM04S0A0S10	2.8~5.5	0.75~3.63	10	36	96	SMD	33x13.5x8.8
DNM10S0A0R10	8.3~14	0.75~5	10	50	93	SIP	50.8x12.7x9.5
DNM10S0A0S10	8.3~14	0.75~5	10	50	93	SMD	33x13.5x8.8
DNS04S0A0R06	2.8~5.5	0.75~3.63	6	22	94	SIP	25.4x12.7x6.6
DNS04S0A0S06	2.8~5.5	0.75~3.63	6	22	94	SMD	27.94x11.43x7.11
DNS10S0A0R06	8.3~14	0.75~5	6	30	89.5	SIP	25.4x12.7x6.6
DNS10S0A0S06	8.3~14	0.75~5	6	30	89.5	SMD	27.94x11.43x7.11
DNT04S0A0R03	2.4~5.5	0.75~3.63	3	11	93.5	SIP	22.86x10.16x6.35
DNT04S0A0R05	2.4~5.5	0.75~3.63	5	18	93.5	SIP	22.86x10.16x6.35
DNT04S0A0S03	2.4~5.5	0.75~3.63	3	11	93.5	SMD	20.32x11.43x6.86
DNT04S0A0S05	2.4~5.5	0.75~3.63	5	18	93.5	SMD	20.32x11.43x6.86
DNT12S0A0R03	8.3~14	0.75~5	3	15	92.5	SIP	22.86x10.16x6.35
DNT12S0A0R05	8.3~14	0.75~5	5	25	92.5	SIP	22.86x10.16x6.35
DNT12S0A0S03	8.3~14	0.75~5	3	15	92.5	SMD	20.32x11.43x6.86
DNT12S0A0S05	8.3~14	0.75~5	5	25	92.5	SMD	20.32x11.43x6.86
DNL10S0A0R20	8.3~14	0.75~5	20	100	93.5	SIP	50.8x12.7x9.5

DOSA II

Part Number	Vin Range (VDC)	Vout Nominal (VDC)	Iout (A)	Power (W)	Eff (%)	Package	LxWxH (mm)
DCK12S0A0S30	6~14	0.8~3.3	30	99	92.8	SMD	33x13.5x10
DCL12S0A0S20	4.5~14	0.69~5	20	100	93	SMD	33.02x13.46x8.5
DCM04S0A0S12	2.4~5.5	0.6~3.3	12	39.6	95	SMD	20.3x11.4x8.5
DCM12S0A0S12	4.5~14	0.69~5.5	12	66	95.4	SMD	20.3x11.4x8.5

Integrated POL

Integrated Point-of-Load power modules are designed in an industry standard, compact, IC-like, molded package. They are highly integrated and do not require external components to provide the point-of-load function. A copper pad on the back of the module, in close contact with the internal heat dissipation components, provides excellent thermal performance. All integrated POL power modules are manufactured by fully automatic assembly.

PM05S

Part Number	Vin Range (VDC)	Vout Nominal (VDC)	Iout (A)	Power (W)	Eff (%)	Package	LxWxH (mm)
PM05S090A	11~32	9	0.5	4.5	92	SIP	11.5x7.55x10.2
PM05S120A	15~32	12	0.5	6	94	SIP	11.5x7.55x10.2
PM05S150A	18~32	15	0.5	7.5	95	SIP	11.5x7.55x10.2
PM05S033A	4.75~32	3.3	0.5	1.65	81	SIP	11.5x7.55x10.2
PM05S025A	4.75~32	2.5	0.5	1.25	77	SIP	11.5x7.55x10.2
PM05S018A	4.75~32	1.8	0.5	0.9	71	SIP	11.5x7.55x10.2
PM05S015A	4.75~32	1.5	0.5	0.75	63	SIP	11.5x7.55x10.2
PM05S050A	6.5~32	5	0.5	2.5	86	SIP	11.5x7.55x10.2
PM05S065A	8~32	6.5	0.5	3.25	88	SIP	11.5x7.55x10.2

Martek Power is a world leader in the design and manufacture of standard, modified-standard, and custom ac-dc power supplies,power converters and dc-ac power inverters. We offer the widest range of switching power supplies and linear power supplies in the industry. With design and manufacturing centers in Europe, North America, North Africa and Asia, Martek Power is uniquely qualified to satisfy customers in worldwide markets with local technical and customer service support. Martek Power has over 45 years of experience supporting OEMs engaged in Medical, Networking, Telecom, Data Storage, Transportation, Computing, Military/Aerospace, Laser, Lamp & Lightings, and other Industrial applications.

DC-DC Converters (Railway Applications)

55W POWERTRON® DR SERIES

Special features include:

- 3U Euro cassette
- Single, Dual and Triple outputs
- Wide range of optional features

The following input voltages versions are available as standard:

- 110V (66.0 - 137.5V) dc (Suffix A)
- 72V (43.2 - 90.0V) dc (Suffix D)
- 52V (31.2 - 65.0V) dc (Suffix C)
- 36V (21.0 - 50.4V) dc (Suffix F)
- 24V (16.8 - 33.6V) dc (Suffix B)

Parameter	Detail
Efficiency	75% to 85% dependant on voltage combinations
Maximum Output Power	55W (45W for triple output) 60W for single 48Vdc output version
Output Voltage	Can be specified from 5V to 48Vdc
Setting Tolerance	±0.5% at 50% load, 15°C to 25°C
Temperature Coefficient	<0.02% / °C
Storage Temperature	-40°C to +85°C
Relative Humidity	95% max
Dimensions	168,5 x 8TE x 3U
Weight	0.7kg

100W POWERTRON® VER SERIES

- Very compact and cost effective
- High efficiency
- Each model covers two nominal vehicle battery voltages
- Standard and Enhanced versions available

The following input voltages versions are available as standard:

- V 72 / 110V (50.4 - 137.5V) dc (Suffix AD)
- V24 / 36V (16.8 - 50.4V) dc (Suffix BF)

Parameter	Detail
Efficiency	90% typical
Maximum Output Power	100W
Output Voltage	Can be specified from 12V to 48V
Setting Tolerance	±1.0% at 50% load, 15°C to 25°C
Temperature Coefficient	<0.02% / °C
Storage Temperature	55°C to +85°C
Relative Humidity	95% max
Dimensions	110x70x40mm/ 180x70x40mm
Weight	250g/ 350g

120W POWERTRON® SRE SERIES

- Very low profile
- Very high efficiency
- Fully enclosed 3U euro cassette

The following input voltages versions are available as standard:

- 110V (77.0 - 137.5V) dc (Suffix A)
- 72V (50.0 - 90.0V) dc (Suffix D)
- 52V (36.0 - 65.0V) dc (Suffix C)
- 36V (25.0 - 45.0V) dc (Suffix F)
- 24V (16.0 - 30.0V) dc (Suffix B)

Parameter	Detail
Efficiency	Typically 90%
Maximum Output Power	120W (for most output versions)
Output Voltage	Can be specified from 5V to 48V
Setting Tolerance	±0.6% at 50% load, 15°C to 25°C
Temperature Coefficient	<0.02% / °C
Storage Temperature	-55°C to +80°C
Relative Humidity	95% max
Dimensions	166,7 x 4TE (20.32mm) x 3U (111 mm)
Weight	<0.5kg

300W POWERTRON® ATG SERIES

- Wide choice of input and output voltages
- Fully compliant with rail standards, including EN50155 & EN50121.3.2

The following input voltages versions are available as standard:

- 110V (66.0 - 137.5V) dc (Suffix A)
- 72V (43.2 - 90.0V) dc (Suffix D)
- 52V (31.2 - 65.0V) dc (Suffix C)
- 36V (21.0 - 50.4V) dc (Suffix F)
- 24V (16.8 - 33.6V) dc (Suffix B)

Parameter	Detail
Efficiency	Typically 90%
Maximum Output Power	300W (except 12V output version which is rated at 240W continuous, 300W for 5 seconds)
Output Voltage	Can be specified from 12V to 110V
Setting Tolerance	±1.0% at 50% load, 15°C to 25°C
Temperature Coefficient	<0.02% / °C
Storage Temperature	-40°C to +80°C
Relative Humidity	95% max
Dimensions	238x130x60mm
Weight	<1.0kg

500W POWERTRON® PMR SERIES

- High efficiency
- Wide choice of input and output voltages
- Output series device
- Active current share fitted as standard
- Conduction cooled or convection only cooled models available
- Fully compliant with Rail standards, EN50155, EN50121.3.2

The following input voltages versions are available as standard:

- 110V (66.0 - 137.5V) dc (Suffix A)
- 72V (43.2 - 90.0V) dc (Suffix D)
- 52V (31.2 - 65.0V) dc (Suffix C)
- 36V (21.0 - 50.4V) dc (Suffix F)
- 24V (16.8 - 33.6V) dc (Suffix B)

Parameter	Detail
Efficiency	88% typical
Maximum Output Power	500W (24V input - 400W maximum)
Output Voltage	Can be specified from 12V to 50V
Setting Tolerance	±1.0% at 50% load, 15°C to 25°C
Temperature Coefficient	<0.02% / °C
Storage Temperature	-55°C to +80°C
Relative Humidity	95% max
Dimensions	250 x 158 x 70 mm / 250 x 158 x 112 mm
Weight	1.6 kg / 3.2 kg

DC-AC Inverters (Railway Applications)

250 W POWERTRON® ACR SERIES

Efficiency
75% to 85% dependant on voltage combinations

Maximum Output Power
250W continuous
400W peak (for 15 seconds)

Output voltage
230Vac

Dimensions
280 x 180 x 100 mm

Weight
<6.5 kg

POWERTRON® ASP SERIES

Efficiency
85% typically

Maximum Output Power
750W continuous (800W peak for 15 seconds)

Output voltage
230Vac

Dimensions
500 x 240 x 125 mm

Weight
<6 kg

Calex Manufacturing Co., Inc., a subsidiary of Murata Power Solutions, Inc. offers a wide variety of cutting-edge DC-DC power converters for automotive, transportation and industrial applications. Located in the Silicon Valley region of California, Calex has been supporting the electronics industry for more than 50 years with standard catalog converters, as well as custom tailored power solutions. Calex prides itself on developing industry-leading power conversion products that offer the highest efficiency and power density in an ultra-compact, light-weight package, all of which are designed, qualified, tested and manufactured in the USA at our manufacturing facility.

AC-DC Power Supplies

600W IHC Series

- AC-DC single DC output (12V, 24V, 48V)
- Universal AC input: 90 – 240 VAC
- Active PFC meets EN61000-3-2 Class A
- Rugged industrial applications - IP67 rated

Part Number	Package	Vin (VAC)	V out (VDC)	V out	I out (ADC)	Case Size
ACS48.600IHC	Chassis Mount	90 - 264	48	28	12.5	8.4" x 5.04" x 1.58"
ACS24.600IHC	Chassis Mount	90 - 264	24	28	25	8.4" x 5.04" x 1.58"
ACS12.600IHC	Chassis Mount	90 - 264	12	28	50	8.4" x 5.04" x 1.58"

300W CEV Series – Li-ion Battery Charger

- 90 – 264 VAC input range
- 300W output power
- 27.6V, 57.5V out for Li-ion charger

Part Number	Power	Package	Vin (VAC)	V out (VDC)	I out (ADC)	Case Size
ACS48.250CEV	300	Chassis Mount	90 - 264	57.5	5	6.3" x 3.9" x 2.25"
ACS24.250CEV	300	Chassis Mount	90 - 264	27.6	10	6.3" x 3.9" x 2.25"

Chassis Mount DC-DC Converters

3kW BCA Series Bi-Directional DC-DC

- Bi – Directional conversion - Buck, boost and pre-charge modes of operation
- Low Side (LS): 12V (24V) - High Side (HS): 48V Input
- Efficiency up to 97%
- Reverse polarity protection

Input Voltage Range (V)				Output current [A]		Output Power [W]		Efficiency [%] @ FL	
12 V In		48 V IN		Buck	Boost	Buck	Boost	Buck	Boost
Min	Max	Min	Max	Min	Max	Min	Max	Typ	Typ
7	18	24	58	250	83	3000	3000	95.5	95.3

1100 – 2100W MBH Series

- Delivers up to 2100 watts
- Efficiency up to 97%
- Low profile compact 9.0" x 6.5" x 1.25"
- Only 3.3 LBS
- No minimum load requirement

Model Number	Watts	V in Nominal	Vin Range	V out	I out	Case Size
12S28.40MBH	1100	13	10-16	28	40A	9.0" x 6.5" x 1.25"
13S28.60MBH	1700	13	10-16	28	60A	9.0" x 6.5" x 1.25"
13S28.75MBH	2100	13	10-16	28	75A	9.0" x 6.5" x 1.25"

360W TCE DC-DC Converter

- 6:1 Input voltage range
- High power density
- Small size 4.3" x 3.2." x 1.0"
- Efficiency up to 95.6%

Part Number	Watts	Vin Range	V out	Case Size
48S56.6TCE	360	9-60	56.0	4.3" x 3.2" x 1.0"

RAILWAY APPLICATIONS

SBM Series

- 50W DC-DC Sixteenth Brick Converters
- Input voltage range: 9 – 36 and 18 – 75 Vdc
- Outputs of 5,12,15, & 24 Vdc
- Industry standard Sixteenth Brick package
- Designed to meet EN50155 (RAILWAY APPLICATIONS)
- 1.44"x1.04"x0.50" (baseplate without flange)

Part Number	Vin (Vdc)	V out (Vdc)	I out (Adc)	Case Size
24QS24.50SBM	9 – 36	24	5	1.04" x 1.44" x 0.5"
24QS15.50SBM	9 – 36	15	3	1.04" x 1.44" x 0.5"
24QS12.50SBM	9 – 36	12	4.5	1.04" x 1.44" x 0.5"
24QS5.50SBM	9 – 36	5	10	1.04" x 1.44" x 0.5"
48QS12.50SBM	18 – 75	12	4.5	1.04" x 1.44" x 0.5"
48QS5.50SBM	18 – 75	5	10	1.04" x 1.44" x 0.5"

HBM Series

- 150W DC-DC Half Brick Converters
- Input voltage range: 57.6 – 160 Vdc
- Outputs of 5,12, & 24 Vdc
- Industry standard Half Brick package
- No minimum load required
- Size: 61.0mm X 57.9mm X 12.7mm

Part Number	Vin (Vdc)	V out	I out (Adc)	Case Size
110TS24.150HBM	57.6 – 160	24	6.25	2.4" x 2.20" x 0.5"
110TS12.150HBM	57.6 – 160	12	12.5	2.4" x 2.20" x 0.5"
110TS5.150HBM	57.6 – 160	5	30	2.4" x 2.20" x 0.5"

QBR Series

- 150W DC-DC Quarter Brick Converters
- Outputs of 12, 24 & 54 Vdc
- Full featured and protected Quarter Brick package
- Tight line and load regulation
- 3000 Vrms reinforced insulation

Part Number	Vin (Vdc)	V out	I out (Adc)	Case Size
72WS48.150QBR	16 – 160	48	3.125	1.58" x 2.4" x 0.53"
72WS24.150QBR	16 – 160	24	6.24	1.58" x 2.4" x 0.53"
72WS12.150QBR	16 – 160	12	12.5	1.58" x 2.4" x 0.53"

EBM Series 100 W

- 100W DC-DC Eighth Brick Converters
- Input voltage range: 57.6 – 160 Vdc
- Outputs of 5,12, & 24 Vdc
- Industry standard Eighth Brick package

Part Number	Vin (Vdc)	V out	I out (Adc)	Case Size
110TS24.100EBM	57.6 – 160	24	4.2	1.05" x 2.28" x 0.5"
110TS12.100EBM	57.6 – 160	12	8.3	1.05" x 2.28" x 0.5"
110TS5.100EBM	57.6 – 160	5	20	1.05" x 2.28" x 0.5"

EBM Series 120W

- 120W DC-DC Eighth Brick Converters
- Input voltage range: 9 – 36 Vdc
- Outputs of 5,12, & 24 Vdc
- Industry standard Eighth Brick package

Part Number	Vin (Vdc)	V out	I out (Adc)	Case Size
24QS24.120EBM	9 – 36	24	5	1.01" x 2.41" x 0.5"
24QS12.120EBM	9 – 36	12	10	1.01" x 2.41" x 0.5"
24QS5.120EBM	9 – 36	5	24	1.01" x 2.41" x 0.5"

Leading Edge Brick DC-DC Converter Solutions

- 1000 Watt FXW Full Brick Series – 96% efficient
- 1000 Watt FXP Full Brick Series – 96% efficient(parallel operation up to 3 units 2.8kW)
- 500 Watt MXW Half Brick Series – 95.7% efficient
- 360 Watt MTW Half Brick Series – 95.6% efficient
- 9 – 36V input range bricks

Additional High Power DC-DC Brick Solutions

Calex offers a variety of bricks with a wide input voltage range (4:1) for standard battery voltages of 12, 24, 28 & 48V

Series	Watts	V in Nominal	V out	V Range	Case Size	Package
QH SINGLE	75	24, 48	3.3, 5, 12, 15,24	2:1	1.45" x 2.28" x 0.52"	1/4 BRICK
QSW SINGLE	150	24	12	4:1	1.54" x 2.39" x 0.50"	1/4 BRICK
HEW SINGLE	100	24, 48	3.3, 5, 12, 15, 24	4:1	2.28" x 2.40" x 0.55"	1/2 BRICK
HEW SINGLE	150	24, 48	5, 12, 15, 24	4:1	2.28" x 2.40" x 0.55"	1/2 BRICK
QMW SINGLE	250	24	12	4:1	1.54" x 2.39" x 0.50"	1/4 BRICK

FX Series

- 1,000W DC-DC Full Brick Converters
- 4:1 Input range of 9 – 36V
- Industry leading efficiency of 96%
- Highest power density in an industry standard Full Brick package
- Operating temperature range of -40°C to 105°C
- Designed to meet MIL-STD-810G (shock & vibration)

Series	V in	V out	Features
FXW SINGLE	9 - 36	12,24,28,48,53	Trim & Sense Pins
FXT SINGLE	9 - 36	12,24,28,48,53	Trim & Sense Pins, Screw Terminals, Encapsulated
FXM SINGLE	9 - 36	12	Current and Temp monitor Pins
FXA SINGLE	9 - 36	12	Current ,Temp monitor Pins, Screw Terminals, Encapsulated
FXP SINGLE	9 - 36	12,24,28,48,53	Trim & Sense Pins, Paralleled up to 3 modules for 2800W

MXW Series

- 500W DC-DC Half Brick Converters
- 4:1 Input range of 9 – 36V
- Industry leading efficiency of 96%
- Highest power density in an industry standard Full Brick package
- Small size 2.4" x 2.5" x 0.52"
- Excellent thermal performance
- Over-Temperature protection
- Remote ON/OFF

Series	V in	V out	V Range	Case Size
MXW SINGLE	9 - 36	12,24,28	4:1	2.4" x 2.5" x 0.52"
MTW SINGLE	9 - 36	12,24,28	4:1	2.4" x 2.5" x 0.52"

HBR Series

- 250W DC-DC Half Brick Converters
- Input voltage range: 16 – 160 Vdc (10:1)
- Outputs of 12, 24 & 54 Vdc
- Full featured and protected Half Brick package
- 2.48 x 2.39 x 0.55, standard half-brick size
- OVP, OCP, OTP
- Efficiency up to 91% @ 72Vin, 12Vout

Part Number	Vin (Vdc)	V out (Vdc)	I out (Adc)	Case Size
72WS48.250HBR	16 – 160	48	5.25	2.4" x 2.4" x 0.55"
72WS24.250HBR	16 – 160	24	10.54	2.4" x 2.4" x 0.55"
72WS12.250HBR	16 - 160	12	21	2.4" x 2.4" x 0.55"

Electric Vehicle

An electric vehicle (EV), also referred to as an electric drive vehicle, is a vehicle which uses one or more electric motors for propulsion. EVs store electricity in an energy storage device, such as a battery. Electricity can be used as a transportation fuel to power battery EVs.

Calex offers products for multiple segments of the Electric Vehicle market, including:

- Mild hybrid vehicles
- Autonomous vehicles
- Recreation vehicles
- Electric industrial vehicles
- Agriculture vehicles
- Last mile transit

Product Features Overview:

- Products range in power from 300 watts to 3000 watts for battery voltages of 12, 24, 28, 48 & 400Vdc
- Standard brick size DC/DC converters
- Chassis mount converters
- IP rated enclosures
- High efficiency >95.5%

ISO 9001 2015 CERTIFIED

Product Overview Electric Vehicle

BCA Series Bi-directional DC-DC Converter

The 3,000 Watt 48S12.3K0BCA Bi-directional non-isolated DC/DC converter provides a complete solution for in-vehicle power distribution with 12V/48V battery configurations for a variety of applications including micro and mild hybrid automotive systems.

FX Series DC-DC Converter

The 4:1 Input Voltage 1000 Watt FX Series of DC/DC Full Brick converters provide a precisely regulated dc output. The output voltage is fully isolated from the input, allowing the output to be positive or negative polarity and with various ground connections. Threaded through holes are provided to allow easy mounting or addition of a heatsink for extended temperature operation. The case dimensions are 2.5 x 4.7 x 0.52 for all models in the series.

300W CEV AC-DC Charger

The CEV series of ruggedized IP67 rated enclosure (sealed) convection cooled AC-DC battery chargers are intended for harsh environment deployments and provide a single regulated Constant Voltage (CV) or Constant Current (CC) mode output, designed for use as a battery charger/current source for battery packs.

240W LPE DC-DC Converter

The "On-Board" DC/DC Converter is a ruggedized DC-DC power module intended to be permanently installed "on board" a mobile battery system application. The converter module is designed to operate from a 48Vdc (nominal) motive power battery source and provide a 12Vdc (nominal) output (at 20Adc) for power system control electronics. Optimized for harsh environments that require battery-operated systems.

Driven by our passion for technology and performance, here at intreXis, we are constantly researching ways to develop more efficient and improved solutions for our products.That is why intreXis Power Supplies now provides the most complete portfolio for railway applications on the market today. With output power ranging from 50 to 500 W, an ultra-wide input voltage range (14.4 to 154 VDC) and an extended temperature range (–50 to +85°C), the intreXis Boardnet Converter Platform power supplies are ideally suited to railway applications around the world.

Standard DC/DC Converter for Railway-Application

Ultra Wide input (>10:1)

Part Number	Input Nom.	Input Range	Output 1	Output 2
IC260_5	24,36,48,72,110 VDC	14.4...154 V	+5 V/80 W	
IC261_5	24,36,48,72,110 VDC	14.4...154 V	+12 V/120 W	
IC262_5	24,36,48,72,110 VDC	14.4...154 V	+15 V/150 W	
IC263_5	24,36,48,72,110 VDC	14.4...154 V	+24 V/150 W	
IC267_5	24,36,48,72,110 VDC	14.4...154 V	+28 V/150 W	
IC264_5	24,36,48,72,110 VDC	14.4...154 V	+48 V/150 W	
IC268_5	24,36,48,72,110 VDC	14.4...154 V	+55 V/150 W	
IC269_5	24,36,48,72,110 VDC	14.4...154 V	+110 V/150 W	
IC265_5	24,36,48,72,110 VDC	14.4...154 V	+15 V/75 W	-15 V/75 W
IC266_5	24,36,48,72,110 VDC	14.4...154 V	+24 V/75 W	-24 V/75 W

Part Number	Input Nom.	Input Range	Output 1
IC247_1	24,36,48,72,110 VDC	14.4...154 V	+15V/75W
IC248_5	24,36,48,72,110 VDC	14.4...154 V	+24V/75W

Part Number	Input Nom.	Input Range	Output 1
IC271_3	24,36,48,72,110 VDC	14.4...154 V	+12V/50W
IC272_3	24,36,48,72,110 VDC	14.4...154 V	+15V/50W
IC273_3	24,36,48,72,110 VDC	14.4...154 V	+24V/50W

Wide input (>10:1)

Part Number	Input Nom.	Input Range	Output 1
IC283	72,110 VDC	43.2...154 V	+24V/200,240W

High input voltage converter

Part Number	Input Nom.	Input Range	Output 1
IC521_1	1500 VDC	900 – 2100 V	+24V/250W
IC523_1	1500 VDC	900 – 2100 V	+48V/250W
IC524_1	1500 VDC	900 – 2100 V	+72V/250W
IC526_1	1500 VDC	900 – 2100 V	+110V/250W

USB Charger Railway

Part Number	Input Nom.	Input Range	Output 1	Output 2
IC320	110 / 230 VAC	85 – 264 VAC	5 VDC 10 W	5 VDC 10 W
IC323	24,36,48,72,110 VDC	14.4 – 154 VDC	5 VDC 10 W	5 VDC 10 W

powersystem TECHNOLOGY

In partnership with Vicor, worldwide leader in high density DC/DC converters, Power System Technology designs and manufactures modular power solutions. This approach reduces time for the design and bridging the gap between custom and off-the-shelf power supplies. Flexibility and reactivity of in-house manufacturing with dedicated equipment like wave soldering, automatic cut for wiring, ESD cabling bench and many more enables PST a fast response on changing requirements.Our engineers add extra circuitry and intelligence around standard Vicor power modules. They are using their expertise in E.M.I., thermal management, mechanical packaging and environment qualifications.

DC-AC Inverters (Railway Applications)

PST14X Family

PST14X DC-DC 320W

160 x 50 x 25mm

PST14X DC-DC 320W

160 x 50 x 25mm

PST14X Configurator

PST14X	Vin	V1 – V out	Pout	– Option
	12	N	N	H
		3V3	80	H1
		5	80	MV
		12	160	IP
		15	160	
		24	160	
		28	160	
		48	160	

PST14X	Vin	V1 – V out	Pout	– Option
	24	N	N	H
		5	180	H1
		12	320	MV
		15	320	IP
		24	320	
		28	320	
		36	320	
		48	320	

PST14X, very high power density 320W DC-DC converter in conduction cooled format, incorporates input EMI filtering, input transient protection, output protections, very robust mechanical package and connection required in most of the severe environment for industrial, railways, defense type of applications. The converter provides high power density thanks to the integration of Vicor Corp. DCM modules, high efficiency, input-to-output isolation, soft start, overtemperature protection, input over/undervoltage lockout. The outputs are short-circuit proof. The 100°C baseplate operation allows operation in high temperature environment. The output can be configured in many different output voltages from 3,3V to 48Vdc, others possibilities are even possible as semi-standard versions.

General features

- Input : 12 Vdc (9-50V), 24Vdc (18-36Vdc)
- Input filtering EN55022A & transient protection
- Reverse polarity protection
- 1 output from 3,3V to 48Vdc
- Operating temperature -40°C to +100°C baseplate
- Dimension 160*50*25mm

Signals

- Remote ON/OFF
- Input & Output LED
- Output voltage adjustment
- Output voltage remote sense
- PowerGood

Options

- -H : Addition of a 15mm heatsink (longitudinal fins)
- -H1 : Addition of a 15mm heatsink (transversalfins)
- -MV : MIL-STD810, 461, 704 / Components & PCB are covered with an acrilyc coating
- -IP : Integration into IP65 enclosure (consult factory)

DC-DC Conduction cooled

PST14 150, 250, 500W

PST14C DC-DC 150W
100 x 61 x 35mm

PST14B DC-DC 250W
140 x 61 x 35mm

PST14A DC-DC 500W
225 x 61 x 35mm

PST14, very compact DC-DC converter in chassis mount format, incorporates input filtering, input and output protections, very robust mechanical package and connection required in most of the severe environment for industrial, railways, defense type of applications. The converter provides high reliability thanks to the integration of Vicor Corp. Modules, high efficiency, input-to-out-put isolation, soft start, overtemperature protection, input over/undervoltage lockout. The converters wide range of inputs are protected against surges and transients and EMI filtered. The outputs are countinuously short-circuit proof. The 100°C baseplate operation allows operation in high temperature environment. The output can be configured in many different output voltages from 3,3V to 48Vdc, can be put in series and parallel, others possibilities are even possible as semi-standard versions.

Options

- -H : Addition of a 15mm heatsink
- -M : MIL-STD810, 461, 704/ MIL-STD1275 (A & B only, 12 or 24Vdc)
- -T : Components to comply with -40°C operation
- -IP : Integration into IP65 enclosure
- -V : Components & PCB are covered with an acrilyc coating

General features

- Input : 12, 24, 48, 72, 110Vdc
- Input fi ltering EN55022 & transient protection
- Reverse polarity protection
- Output from 3,3V to 48Vdc
- Operating temperature -20°C +100°C baseplate
- Parallel or series operations up to several kWs

Signals

- Remote ON/OFF
- Input & Output LED
- Output voltage adjustment
- Remote senses (A & B versions only)
- PowerGood

AC-DC Conduction cooled

PST21 150, 300, 600, 1200W

PST21D
165 x 61 x 35mm

PST21C
200 x 80 x 40mm

PST21B
200 x 127 x 40mm

PST21A
255 x 127 x 40mm

PST21, very compact AC-DC converter in conduction cooled format, incorporates input filtering, input and output protections, very robust mechanical package and connection required in most of the severe environment for industrial, defense type of applications. The PSU provides high reliability thanks to the integration of Vicor Corp.

General features

- Input : 85-265Vac
- Active PFC EN61000-3-2
- E.M.I. : EN55022, MIL-STD461E CE102 (M option)
- Output from 3,3V to 48Vdc
- Operating temperature -20°C +100°C baseplate
- Parallel or series operations up to several kWs

Signals

- Remote ON/OFF isolated
- Output LED
- Output voltage adjustment
- Remote senses (A & B versions only)
- PowerGood
- Paralleling with current share

PCB RELAYS

WRG (also called WangRong Electronics), founded in Shenzhen in 2000, has specialized in the development and manufacture of relays, terminals and surge protection devices. WRG products are certified to UL/cULus, VDE, TUV, CQC, and also in accordance with RoHS directive. The relays for fridges and washers have awarded German VDE Explosion Protection certificates, which indicates that WRG has become the first manufacturer in China who meets the explosion-proof requirements of relays for the new generation appliances.

PCB Relays - Highlights

RD Series Power Relay - 15 A „SUGAR CUBE“

Dimension: 19.0 x 15.5 x 15.4 mm
CQC: CQC12002082387
cULus: E345228
TUV: R50244311
VDE: 40047206

SSA approval rating[1]

cULus: (ANSI/UL 508 - ANSI/UL 60947-4-1)

(1formA) 10A/277Vac 12A/125/250Vac
10A/125Vac 15A/125/250Vac
1/4HP/240Vac TV-5/125/250Vac

(1formC) 12A/125/ 277Vac
15A/125/250Vac
N.O. TV-5/125/250Vac

VDE

(1formA) 10A/277Vac
12A/277Vac
15A/277Vac

(1formC) 10A/277Vac 15A/277Vac
12A/277Vac 7A[3A]/277Vac

[1] [Valu] in square brackets is the rated switched current for the N.C. throw of formC relay.

RC Series Power Relay - 5 A

Dimension: 20.3 x 7 x 14.7 mm
CQC: CQC12002067898
cULus: E345228
TUV: R50220640
VDE: 40034781

SSA approval rating

cULus: (ANSI/UL 508 - ANSI/UL 60947-4-1)

5A/250Vac
3A/250Vac
1/8HP/240Vac
5A/30Vdc

VDE

5A/250Vac
3A/250Vac

RJE Series Power Relay - 10 A

Dimension: 19.8 x 9.9 x 15.2 mm
CQC: CQC12002084196
cULus: E345228
TUV: R50246903
VDE: 40045973

SSA approval rating[1]

cULus: (ANSI/UL 508 - ANSI/UL 60947-4-1)

(1formA) 5A/277Vac 5A/30Vdc
10A/125Vac 1/6HP/277Vac

(1formC) 5A[3A]/277Vac
5A[5A]/30Vdc

VDE

(1formA) 5A/277Vac cosφ= 0.4
10A/277Vac 5A/30Vdc

(1formC) 5A[3A]/277Vac cosφ= 0.4

RB Series Power Relay - 20 A

Dimension: 28.9 x 12.6 x 15.4 mm
CQC: CQC12002086471
cULus: E345228
TUV: R50249912
VDE: 40048321

SSA approval rating[1]

cULus: (ANSI/UL 508 - ANSI/UL 60947-4-1)

(1formA) 16A/277Vac 1/2HP/120Vac
20A/250Vac TV-10/250Vac

(1formB) 16A/277Vac 20 A/250Vac

(1formC) 5A[3A]/277Vac

(2formC) 8A[4A]/277Vac

VDE

(1formA) 10A/277Vac cosφ= 0.4
20A/277Vac 16A/277Vac

(1formC) 20A/277Vac 16A/277Vac

(2formC) 8A[8A]/277Vac (each contact)

RF Series Power Relay - 25 A / 32 A

Dimension: 30.1 x 15.7 x 23.3 mm
CQC: CQC10002052738
cULus: E345228
TUV: R50194013
VDE: 40032929

SSA approval rating

cULus: (ANSI/UL 508 - ANSI/UL 60947-4-1)

2HP/240Vac
20A/277Vac
25A/277Vac
1.5HP/277VAC

VDE

32A/250Vac

VDE

25A/250Vac

FUEL CELLS & ACCESSOIRES

SFC Energy AG is a leading provider of hydrogen and methanol fuel cells for stationary and mobile hybrid power supply solutions. With the Clean Energy and Clean Power Management business areas, SFC Energy AG is a sustainably profitable fuel cell producer. The company sells its multiple award-winning products worldwide and has sold more than 55,000 fuel cells to date. Headquartered in Brunnthal near Munich, Germany, the company operates production sites in the Netherlands, Romania and Canada.

Hydrogen

Hydrogen 2.5

Max. output
2500 W

Nominal voltage
48 V DC

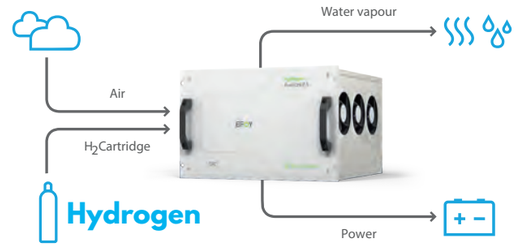
Weight
27 kg / 59.5 lbs

Dimensions
536 x 483 x 311 mm /
21.1 x 19 x 12.2 in

Connectable fuel cartridges / gas cylinders
The system has a connection. Several H_2 gas cylinders can beconnected to each other.

Operating temperature
-33°C to +50°C / -27.4 °F to 122 °F

Operating materials
Hydrogen



EFOY Pro 900

Methanol in EFOY fuel cartridges

Max. output
42 W

Nominal voltage
12 / 24 V DC

Dimensions/ Weight
448 x 198 x 275 mm / 17.6 x 7.8 x 10.8 in
6.5 kg / 14.3 lbs

Connectable fuel cartridges / gas cylinders
1 (up to 8 with EFOY Fuel Manager)

Operating temperature
-20 °C bis +50 °C / -4 °F to +122 °F

EFOY Pro 1800

Max. output
82 W

Nominal voltage
12 / 24 V DC

Dimensions/ Weight
448 x 198 x 275 mm / 17.6 x 7.8 x 10.8 in
7.2 kg / 15.9 lb

Connectable fuel cartridges / gas cylinders
1 (up to 8 with EFOY Fuel Manager)

Operating temperature
-20 °C bis +50 °C / -4 °F to +122 °F

EFOY Pro 2800

Methanol in EFOY fuel cartridges

Max. output
125 W

Nominal voltage
12 / 24 V DC

Dimensions / Weight
448 x 198 x 275 mm / 17.6 x 7.8 x 10.8 in
7.8 kg / 17.2 lbs

Connectable fuel cartridges / gas cylinders
1 (up to 8 with EFOY Fuel Manager)

Operating temperature
-20 °C bis +50 °C / -4 °F to +122 °F

EFOY Pro 12000

Max. output
500 W

Nominal voltage
24 / 48 V DC

Dimensions/ Weight
640 x 441 x 310 mm / 25.2 x 17.4 x 12.2 in
32 kg / 70.5 lbs

Connectable fuel cartridges / gas cylinders
2 (up to 4 with DCS1)

Operating temperature
-20 °C bis +50 °C / -4 °F to +122 °F

EFOY Lithium Batteries

The EFOY Lithium Battery is the ideal way to start using an off-grid power supply. The smart Battery Management System (BMS) continuously controls the battery parameters in order to optimise the battery's efficiency and to protect it. The battery is thus ideally protected against overdischarge and deep discharge, which has a positive effect on the service life.

EFOY Li 70

Nominal capacity
70 Ah

Nominal voltage
12.8 V

Weight
11.8 kg

Dimensions L x W x H
269 x 175 x 190 mm

EFOY Li 105

Nominal capacity
105 Ah

Nominal voltage
12.8 V

Weight
16.3 kg

Dimensions L x W x H
368 x 175 x 190 mm

EFOY ProCube

The EFOY ProCube is a mobile, maintenance-free complete solution for off-grid power supplies – instantly ready for use at all times and in any location. The box is suitable for outdoor use and is pre-cofigured so it can be customised to specific requirements by selecting the relevant size of EFOY Pro, fuel cartridge and battery.

Fuel cell solutions for defense applications

SFC JENNY 600S/ 1200S

Charging performance
600 Wh (per day)/ 1200 Wh (per day)

Rated power
25 W/ 50 W

Output voltage
10 – 30 V DC

Weight
1.7 kg/ 3.3 kg

Operating temperature
– 32°C to +55°C/ – 20°C to + 49°C

Application altitude
up to 4,000 m

Dimensions
184 x 74 x 252 or 214.5 x 96 x 264 mm

Power Manager 3G

Power range
max 500 W

Voltage range
8 – 33 V DC

Output voltage
10 – 30 V DC

Operating temperature
-32 °C to +55 °C

Dimensions
162 x 95 x 36 mm

Weight
520 g

SFC EMILY 3000

Max. output
3000 Wh

Rated power
125 W

Output voltage
12 V / 24 V /
9.5 V – 16.5 V DC

Weight
12.5 kg

Dimensions
476 x 206 x 286 mm

Operating temperature
-25°C to +50°C

Runtime with 10 l fuel cartridge
88 hours at 3000 Wh/ day

VEHICLE LIGHTS

NOLDEN

cars & concepts

Nolden Cars & Concepts have been committed to design excellence, quality and reliability for more than 20 years – two decades developing products for the challenging automotive accessories market and latterly more specifically lighting systems. Whilst we do supply halogen lamps it is the development of our comprehensive LED lighting range that has proved a major improvement for our customers' night driving experience. In our pursuit of excellence the whole focus has been the design and manufacture of high quality, state-of-the-art products which we believe are second to none.

NCC® AVEGO

The NCC® AVEGO LED lights in the two versions „U" and „O" offer unimagined design possibilities for your new vehicles. A light guide provides the light functions daytime running light, position light and indicator. All this of course with the latest LED technology in a sensationally small housing, enabling installations in the most restricted or difficult locations. Ex works with the DEUTSCH housing connector, adapters for other plugs are possible. Versions for ECE LHD and ECE RHD and for SAE are available. Inner bezel only available in black. Optional fitting via lamp body or mounting frame

The NCC® AVEGO LED lights in two versions „U" and „O" offer unimagined design possibilities for your new

- LED Low Beam „O" (LHD or RHD)
- LED Low Beam „U" (LHD or RHD)
- LED High Beam „O"
  (optionally available with integrated resistor or ISO impulse; with holding frame or mounting ears)
- LED High Beam „U"
  (optionally available with integrated resistor or ISO impulse; with holding frame or mounting ears)
- Mono LED Low Beam „O" (LHD or RHD)
- Mono LED High Beam „U" (LHD or RHD)

NCC® 90 MM MODULES

NCC® TPBN Multifunctional Light

A real innovation among the 90 mm LED multifunction lights, now a fog lamp as well as daytime running light, position light and indicator. Integrated driver and height adjustment with pre-mounted stainless steel bracket. Together with the NCC® 90 mm Bi-LED module, not only are all prescribed front lighting functions met but with an additional fog lamp as well.

Technical Data	
Type	M324
Dimensions (L x W)	90 mm x 66 mm
Quantity LEDs / Type	5 / OSRAM
Voltage	12 V and 24 V
Power @ 12 V	Daytime Running / Light: 4 W Position/ Light: 1 W/ Indicator: 4 W/ Fog Light: 8 W
Weight	450 g
Material Housing	ADC
Material Outer Lens	PC, hardened

NCC® ARTON

NCC® ARTON ANGULAR IS THE NEW DIMENSION THE WORLD'S FIRST RECTANGULAR LED HEADLIGHTS

The NCC® ARTON is available in either „Performance" format with three LED Low Beams and two LED High Beams, or to high performance „Competition" standard with four LED Low Beam and three LED High Beam modules. The inner bezel design is only available in a combination of glossy black and matt black.

NCC® ARTON LOW BEAM "COMPETITION"

Low beam of the „Competition" version with 4 LEDs. Perfect in combination with the „Competition" high beam with 3 LEDs.

NCC® ARTON LOW BEAM "PERFORMANCE"

Low beam of the „Performance" version with 3 LEDs. Perfect in combination with the „Performance" high beam with 2 LEDs.

NCC® ARTON HIGH BEAM "COMPETITION"

High beam of the „Competition" version with 3 LEDs. Perfect in combination with the „Competition" low beam with 4 LEDs.

NCC® ARTON HIGH BEAM "PERFORMANCE", Low Angle

High beam of the „Performance" version with 2 LEDs. „Low Angle" version with flat outer lens. Perfect in combination with the „Performance" low beam with 3 LEDs.

NCC® ARTON HIGH BEAM "PERFORMANCE", High Angle

High beam of the „Performance" version with 2 LEDs. „High Angle" version with strongly inclined outer lens. Perfect in combination with the „Performance" low beam with 3 LEDs.

NCC® 70 mm LED Fog Light G2

A 70 mm LED fog light of the 2nd generation with the latest LED technology and proven in serial production. Integrated driver with a low power consumption of only 6 W. A very homogeneous light with a light colour of 5950 K and perfect cut-off line together with a very shallow installation depth of only 55 mm.

Technical Data	
Type	M275A
Dimensions (L x W)	69 mm x 55 mm
Quantity LEDs / Type	1 / OSRAM
Voltage	12 V and 24 V
Power @ 12 V	Fog Light: 6 W
Weight	175 g
Material Housing	PC, hardened
Material Outer Lens	PMMA

NCC® A115 LED Work Light

The NCC® LED work light 115-4500 is a compact and powerful 16 LED work light and has been designed for professional heavy-duty use. A high strength aluminium housing, a hardened impact resistant polycarbonate lens and stainless steel bracket ensure maximum durability. Its innovative design enables the replacement of the LED board, front screen and power lead in the event of damage. Near or wide field illumination is simply achieved by selecting either of the two lens' included.

Technical Data	
Type	M258
Dimensions (L x W)	115 mm x 88 mm x 100 mm
Quantity LEDs / Type	4 / CREE
Voltage	12 V and 24 V
Power @ 12 V	Work Light: 45 W
Weight	1180 g
Material Housing	ADC
Material Outer Lens	PC

FULL-LED TAIL LIGHTS

NCC® TL1 LED Tail Light

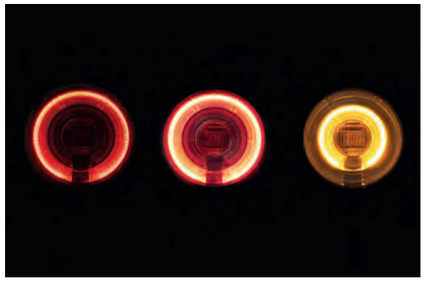
Unleash your creativity: Modern technology without compromise, offering greater freedom of design and still further potential applications. The NCC® TL1's state-of-the-art light guide technology not only has a striking appearance by day, it is even more impressive by night with it's unique lighting combination. Importantly it can, of course, be installed together with our patented NCC® LMS lighting failure control system. Available as a version with or without dynamic indicator. The NCC® TL1 has a modular design and can be supplemented with the „TL1 reversing light" and „TL1 rear fog light" modules.

NCC® TL2 LED Tail Light

The NCC® TL2 is an alternative cost effective version of the NCC® TL1. If sequential indicators and vertical mounting are not a requirement in your design, you have the equally attractive option in the NCC® TL2, where indicator, tail and stop lights are combined in a tail light for horizontal mounting only. All three light functions are created by the latest LED light guide technology. The NCC® TL2 has a modular design and can be supplemented with the „TL1 reversing light" and „TL1 rear fog light" modules.

NCC® 3D Modular LED Tail Light System

At NOLDEN we continually break new ground. We look for creative approaches from different perspectives, leaving well-trodden paths as we apply the latest technologies in our products' design and styling. All this contributes to our success which in turn drives us on time and again to new products. One of our full-LED tail light systems is called NCC® 3D Modular: innovative circular modules for the rear of cars, trucks, caravans and motorhomes. With NCC® 3D Modular, special light guides are arranged three-dimensionally, creating optical depth. Modules with 112 mm diameter, as double and triple solution. Up to four light functions in one module.



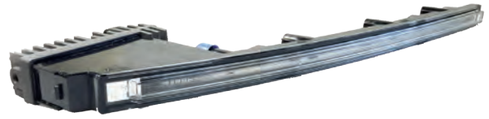
NCC® Transformer Pro

A very versatile LED daytime running light system. With the rectangular modules even more installation options are achievable. Inner bezel of each module only available in chrome.

- **Low Angle** (with slightly inclined lens)
- **High Angle** (lens with greater inclination)

Technical Data				
Type	M200D			
Dimensions (L x W)	41 mm x 39 mm x 29 mm (Low Angle) 49 mm x 39 mm x 29 mm (High Angle)			
Quantity LEDs / Type	6-9 / OSRAM			
Voltage	12 V and 24 V			
Quantity Modules	6	7	8	9
Power Daytime	9 W	7 W	8 W	9 W
Power Position Light	1 W	1 W	1 W	1 W
Power Indicator	7 W	7 W	7 W	7 W
Weight	55 g per Module			

NCC® X-Line Light Guide



The NCC® „X-LINE" Light Guide a multifunctional and impressively compact light. With the latest LED light guide technology the Daytime Running Light and Position Light functions guarantee very homogeneous illumination.

Technical Data	
Type	M256
Dimensions (L x W)	368 mm x 22 mm
Quantity LEDs / Type	2 / OSRAM
Voltage	12 V and 24 V
Power @ 12 V	Daytime Running Light: 18 W Position Light: 3 W
Mounting Points	4 (Tag Hole M6)
Weight	297 g
Homologation	ECE
Temperature	-40 °C - +80 °C

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We look forward to receiving your inquiries!

Best regards from your

Vitec-Power Team

vitec

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