PRODUCT HIGHLIGHTS

bel POWER SOLUTIONS & PROTECTION

a bel group

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ABOUT BEL

Bel is a publicly traded company that has been operated by the same family for over 65 years. Our history of organic growth and acquisitions have broadened our product portfolio. This has established Bel as a world leader with a diverse offering of power, protection and interconnect products. We design and manufacture these products, which are primarily used in the networking, telecommunications, computing, military, aerospace, transportation and broadcasting industries. Bel's portfolio of products also finds application in the automotive, medical and consumer electronics markets.

ABOUT BEL POWER SOLUTIONS

Bel Power Solutions provides intelligent, efficient and reliable power conversion devices. We support global customers and local markets with strategically located manufacturing and R&D facilities. We continue to focus on the growth of our business with strategic customers and distributors. Applications of our power conversion devices range from board mount power to system-level architectures for servers, storage, networking, industrial and telecommunications industries.

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TITANIUM EFFICIENCY

Products Highlights

- Best-in-class, certified Titanium efficiency
- Wide AC input voltage range with active PFC
- Output Voltage 12 VDC or 48 VDC
- Hot-plug capable
- Parallel operation with active current sharing
- Full digital control for improved performance
- High power density design
- Power Management Bus / CAN bus protocol for control, programming and monitoring
- Overtemperature, overvoltage and overcurrent protection

AC/HVDC to DC Input

Model	AC V_{IN}	DC V_{IN}	V_{OUT}	V_{SB}	Power	Dimensions (L x W x H)
TET1500-12-054xA	90 - 305 VAC	180 - 400 VDC	12 VDC	3.3 / 5 V	1500 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
TET2000-12-086xA	90 - 264 VAC	180 - 300 VDC	12 VDC	12 V	2000 W	195 x 86 x 40 mm 7.28 x 3.39 x 1.57 in
TET2200-12-086xA	90 - 264 VAC	180 - 300 VDC	12 VDC	12 V	2200 W	196.5 x 86 x 40 mm 7.7 x 3.39 x 1.57
TET2400-12-054xA	90 - 264 VAC	180 - 350 VDC	12 VDC	3.3/5 V or 12 V	2400 W	321.5 x 54.5 x 40 mm 2.66 x 2.14 x 1.57 in
TET2500-12-086NA	90 - 264 VAC	180 - 300 VDC	12 VDC	12 V	2500 W	195 x 86 x 40 mm 7.68 x 3.39 x 1.57 in
TET3000-12-069RA	90 - 300 VAC	180 - 410 VDC	12 VDC	12 V	3000 W	555 x 69 x 40.5 mm 21.85 x 2.72 x 1.60 in
TET3200-12-069xA	90 - 300 VAC	180 - 410 VDC	12 VDC	12 V	3200 W	555 x 69 x 40.5 mm 21.85 x 2.72 x 1.60 in
TET3600-48-104xA	90 - 264 VAC	240 - 380 VDC	48 VDC	12 V	3600 W	266 x 104 x 40 mm 10.47 x 4.09 x 1.57 in
TET4000-48-069RAH	90 - 305 VAC	192 - 400 VDC	48 VDC	12 V	4000 W	530 x 69 x 40.5 mm 20.89 x 2.72 x 1.60 in
TET4800-48-069RA	90 - 305 VAC	192 - 400 VDC	48 VDC	12 V	4800 W	530 x 69 x 40.5 mm 20.89 x 2.72 x 1.60 in

HIGH PERFORMANCE COMPUTING

Bel Power Solutions offers a variety of power shelves, power supply units, AC and DC power distributions units, system controllers and cable harnesses to address AC and DC, 12Vout and 48Vout power conversion needs from the PDU to the CPU.

Through strong cooperation with rack manufacturers and integration partners, Bel Power Solutions can help to provide a complete solution for your high performance computing requirements.

			INPUT					
			AC (Y) 277/480 VAC	AC (Y) 240/415 VAC	AC (Δ) 208 VAC	AC (1-Phase) 3x 230 VAC	- 48 VDC	+380 VDC
OUTPUT	+12 VDC	Triple Busbar Straight	SPSPFE3-05G	*SPSPFE3-15**	SPSPFE3-09	-	*SPSPFF3-03**	*SPSPFE3-13**
		Single Busbar Straight	SPSPFE3-06G	*SPSPFE3-16**	SPSPFE3-10	SPSTET4-02	*SPSPFF3-02**	*SPSPFE3-12**
		Single Busbar Offset [1]	SPSPFE3-08	*SPSPFE3-14**	SPSPFE3-11	-	SPSPFF3-01	SPSPFE3-07
	+48 VDC	Single Busbar Offset Short [2]	SPSTET4-01	SPSTET4-11	*SPSTET4-03**	-	N/A	*SPSTET4-04**
		Single Busbar Offset Long [1]	SPSTET4-07	SPSTET4-12	-	-	N/A	-
		Single Busbar Straight Long	SPSTET4-09	SPSTET4-13	-	-	N/A	-
		Triple Busbar Straight Long	SPSTET4-08	SPSTET4-14	-	-	N/A	-
	+380 VDC	Connector Type	*SPSTET4-05**	-	*SPSTET4-06**	-	-	N/A

[1] *Mates with V2*
[2] *Mates with V2 shallow rack*

** Available on request requiring short design cycle.*

ACCESSORIES

Network Attached Controller (NAC)

- a shelf level controller providing monitoring and control functions through a 10/100 Mb base Ethernet port and can be connected directly to the data center management network

AC & DC PDUs

- used for distributing main and auxiliary power, and monitor signals in power racks

Cable Harness Kits

- used for connecting AC and DC PDUs to power shelves, various lengths available

Blanking Panels

- easily installed to fill unused positions in power shelves

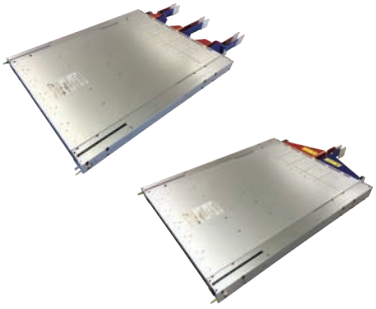
12 V SOLUTIONS

V2 Power Shelf

SPSFCBK-18

- Holds three hot-pluggable 3300 W PSU's **SPAFCBK-11G** and three 3600 W lithium ion battery back-up units
- Three-phase 200 - 277 VAC input to shelf
- Redundant configuration (2+1)
- Main output 6600 W / 12.6 VDC
- Auxiliary output 600 W / 54 VDC
- Communication via RS485 interface
- Variety of AC PDUs available:
  - YSD.00152
  - YSD.00162
  - YSD.00217
  - YSD.00217
  - YSD.00219
  - YSD.00222
- DC PDU available:
  - YSD.00134

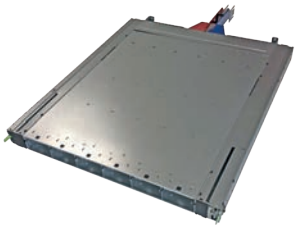
AC & HV DC Input Shelves



SPSPFE3-XX

- Up to six slots for PSUs:
  - **PFE3000-12-069RA**
  - **PFE3600-12-069RA**
  - **TET3000-12-069RA**
- Output power up to 18 kW
- Two separate inputs
- Triple or single busbar for +12 VDC output
- Communication via Ethernet and I²C / Power Management Bus
- Redundant configuration (3+3 or 5+1)
- Network Attached Controller:
  - NACx006-01 (optional)
- HV DC PDU available:
  - YSU.00218
- Blanking panel:
  - SPSPFE3-BP01G
- Modifiable to 19"rack

48 V SOLUTIONS



SPSTET4-XX

- Holds up to six PSUs:
  - **TET4000-48-069RAH**
  - **TET4800-48-069RA**
- Output power up to 24 kW
- Dual three-phase AC input
- Redundant configuration (3+3 or 5+1)
- Single 48 V output busbar
- Communication via CAN bus interface
- Network Attached Controller:
  - NAC1026-01 (optional)
- Blanking panel:
  - SPSPFE3-BP01G
- Modifiable to 19"rack

DC-DC SOLUTIONS

SPSPFF3-XX

- Holds up to six PSUs:
  - **PFF3000-12-069RA**
- Output power up to 18 kW
- 2x 250 ADC inputs
- Redundant configuration (3+3 or 5+1)
- Single 12 V output busbar
- Communication via Ethernet and I²C / Power Management Bus
- Network Attached Controller
  - NAC2006-01 (optional)
- DC PDU available:
  - YSU.00225
- Blanking panel:
  - SPSPFE3-BP02G
- Modifiable to 19"rack

AC-DC PLATINUM EFFICIENCY

Products Highlights

- Platinum efficiency
- Output power 600 to 3600 Watts
- AC input with Power Factor Correction (PFC) - all models
- High Voltage DC inputs
- 12 and 48 VDC outputs
- High power density up to 43 W/in^3
- Parallel operation with active analog / digital current sharing
- Standby output (always present)
- Forward and reverse airflow
- I^{2}C communication interface with Power Management Bus protocol for control, programming and monitoring

Model	AC V_{IN}	DC V_{IN}	V_{OUT}	V_{SB}	Power	Dimensions (L x W x H)
PFE600-12-054xA	90 - 264 VAC	N/A	12 VDC	3.3/5 V	600 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
PET750-12-050xA	90 - 264 VAC	N/A	12 VDC	5 V	750 W	300 x 50.5 x 40 mm 11.81 x 1.99 x 1.57 in
PET800-12-074xA	90 - 264 VAC	N/A	12 VDC	12 V	800 W	185 x 73.5 x 39 mm 7.28 x 2.89 x 1.53 in
PFE850-12-054xA	90 - 264 VAC	N/A	12 VDC	3.3/5 V	850 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
PFE1100-12-054xA	90 - 264 VAC	N/A	12 VDC	3.3/5 V	1100 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
PFS1200-12-054xA	90 - 264 VAC	180 - 350 VDC	12 VDC	3.3/5 V or 12 V	1200 W	228 x 54.5 x 40 mm 8.98 x 2.14 x 1.57 in
PET1300-12-054xA	90 - 264 VAC	N/A	12 VDC	3.3 V	1300 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
PFE1300-48-054NA	90 - 264 VAC	N/A	48 VDC	3.3/5 V	1300 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
PFE1500-12-054xA	90 - 264 VAC	180 - 350 VDC	12 VDC	3.3/5 V or 12 V	1500 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
PES1600-12-080NA	90 - 140 / 180 - 264 VAC	180 - 300 VDC	12 VDC	12 V	1600 W	195 x 80 x 40 mm 7.68 x 3.15 x 1.57 in
PET1600-12-074xA	90 - 140 / 180 - 264 VAC	N/A	12 VDC	12 V	1600 W	265 x 73.5 x 40 mm 10.43 x 2.89 x 1.57 in
PFD1600-12-054xA	90 - 264 VAC	190 - 350 VDC	12 VDC	3.3/5 V	1600 W	321 x 54.5 x 40 mm 12.64 x 2.14 x 1.57 in
PTT1600-12-054NA	90 - 264 VAC	180 - 350 VDC	12 VDC	12 V	1600 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
PET2000-12-074xA	90 - 140 / 180 - 264 VAC	N/A	12 VDC	12 V	2000 W	265 x 73.5 x 40 mm 10.43 x 2.89 x 1.57 in
PET2000-12-074xH	90 - 140 / 180 - 305 VAC	192 - 400 VDC	12 VDC	12 V	2000 W	265 x 73.5 x 40 mm 10.43 x 2.89 x 1.57 in
PTU2000-12-074NA	90 - 140 / 180 - 264 VAC	N/A	12 VDC	12 V	2000 W	140 x 73.5 x 80 mm 5.51 x 2.89 x 3.15 in
PES2200-12-080xA	90 - 140 / 180 - 264 VAC	180 - 300 VDC	12 VDC	12 V	2200 W	195 x 80 x 40 mm 7.68 x 3.15 x 1.57 in
PFE3000-12-069RA	90 - 300 VAC	192 - 400 VDC	12 VDC	12 V	3000 W	555 x 69 x 42 mm 21.85 x 2.72 x 1.65 in
PFE3000-360-069RA	180 - 305 VAC	180 - 400 VDC	360 VDC	N/A	3000 W	528 x 69 x 40.6 mm 20.79 x 2.72 x 1.60 in
PFE3600-12-069RA	90 - 300 VAC	192 - 400 VDC	12 VDC	12 V	3600 W	555 x 69 x 42 mm 21.85 x 2.72 x 1.65 in

DC-DC PLATINUM EFFICIENCY

Products Highlights

- Platinum efficiency
- Output power 700 to 3000 Watts
- -40 to -72 VDC input
- 12 VDC output
- High power density up to 43 W/in^3
- Parallel operation with active analog / digital current sharing
- Standby output (always present)
- Forward and reverse airflow
- I^{2}C communication interface with Power Management Bus protocol for control, programming and monitoring

Model	DC V_{IN}	V_{OUT}	V_{SB}	Power	Dimensions (L x W x H)
PET750-12-050xD	-40 to -72 VDC	12 VDC	5 V	750 W	300 x 50.5 x 40 mm 11.81 x 1.99 x 1.57 in
PET800-12-074xD	-40 to -72 VDC	12 VDC	12 V	800 W	185 x 73.5 x 39 mm 7.28 x 2.89 x 1.53 in
PFE1100-12-054xD	-40 to -72 VDC	12 VDC	3.3/5 V	1100 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
PFS1200-12-054xD	-40 to -72 VDC	12 VDC	3.3/5 V	1200 W	228 x 54.5 x 40 mm 8.98 x 2.14 x 1.57 in
PFE1500-12-054xD	-40 to -72 VDC	12 VDC	12 V	1500 W	321.5 x 54.5 x 40 mm 12.66 x 2.14 x 1.57 in
PES1600-12-080xD	-40 to -72 VDC	12 VDC	12 V	1600 W	195 x 80 x 40 mm 7.68 x 3.15 x 1.57 in
PET1600-12-074xD	-40 to -72 VDC	12 VDC	12 V	1600 W	265 x 73.5 x 40 mm 10.43 x 2.89 x 1.57 in
PET2000-12-074xD	-40 to -72 VDC	12 VDC	12 V	2000 W	265 x 73.5 x 40 mm 10.43 x 2.89 x 1.57 in
PTU2000-12-074ND	-40 to -72 VDC	12 VDC	12 V	2000 W	140 x 73.5 x 80 mm 5.51 x 2.89 x 3.15 in
PES2200-12-080xD	-40 to -75 VDC	12 VDC	12 V	2200 W	195 x 80 x 40 mm 7.68 x 3.15 x 1.57 in
TET2200-12-086xD	-40 to - 72 VDC	12 VDC	12 V	2200 W	196.5 x 86 x 40 mm 7.7 x 3.39 x 1.57 in
PFF3000-12-069RD	-40 to -72 VDC	12 VDC	12 V	3000 W	555 x 69 x 42 mm 21.85 x 2.72 x 1.65 in

NON-ISOLATED DC-DC BMP

MICROSIP / POWERSIP

Product Highlights

- Industry standard package
- Remote on/off
- Input under voltage lockout
- OCP / SCP / OVP
- Wide output voltage trim ranges

Series	V_{IN}	V_{OUT}	I_{OUT}	Power
VRAx	4.5 - 13.8 V	0.59 - 5.1 V	10 A	50 W
VRPx	4.5 - 13.8 V	0.591 - 5.1 V	90 A	150 W
VRNF *	8.0 - 14.0 V	0.600 - 2.0 V	120 A	240 W

** Power Management Bus*

TUNABLE LOOP™

Product Highlights

- Remote on/off and remote sense
- Adjustable output voltage
- Output voltage sequencing option
- OCP / SCP / OVP
- Tunable Loop™

Series	V_{IN}	V_{OUT}	I_{OUT}	Power
SLIN	2.4 - 14 V	0.59 - 5.5 V	2 - 50 A	100 W
SLAN	3 - 14.4 V	0.6 - 5.5 V	3 - 40 A	110 W
SLDN *	3 - 14.4 V	0.45 - 5.5 V	3 - 40 A	110 W

** Output voltage can be trimmed down to 0.45 V using Power Management Bus.*

VRM SERIES

Product Highlights

- Intel specification compliant
- VID programmable output
- Current monitoring option
- Remote on/off and remote sense
- Thermal warning signal option

VRM Spec	V_{IN}	V_{OUT}	I_{OUT}
VRM11.x	6.5 - 13.8 V	0.5 - 1.6 V	120 A
VRM12.x	6.5 - 13.8 V	0.6 - 1.52 V *	165 A / 25 A *
VRM13	8.0 - 14.0 V	0.5 - 185 V	205 A

** Dual*

SRBP / SRBH / SRPE

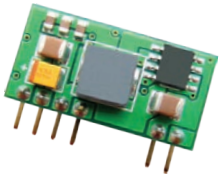
Product Highlights

- Vertical surface mount (SRPE)
- Compensation-less COT control (SRPE)
- Configurable output single/dual (SRBP)
- Step sown digital converter (SRBP)
- Parallelable up to 4 modules (SRBP)

Series	V_{IN}	V_{OUT}	I_{OUT}	Power
SRPE	4.5 - 13.2 V	0.6 - 5.5 V	50 A	100 W
SRBP *	7.5 - 14 V	0.6 - 5.2 V	80 A	200 W
SRBH	8.0 - 36.0 V	1.2 - 5.0 V	6 A	30 W

** Configurable via Power Management Bus*

BOBCAT SERIES



Product Highlights

- Industry standard package
- Surface or vertical mount
- Remote on/off
- OCP / SCP / OVP
- Output voltage sequencing option

Series	V_{IN}	V_{OUT}	I_{OUT}	Power
xRBA	2.4 - 14 V	0.75 - 5 V	3 - 6 A	30 W
xRBC	2.4 - 30 V	0.75 - 15 V	10 - 30 A	90 W

POWER BLOCK SERIES

Product Highlights

- Horizontal SMD package
- High power density
- Small footprint
- Pick and placable
- Easily modified

Part Number	V_{IN}	V_{OUT}	I_{OUT}	Power
SRBL-30A1A0	7 - 13.2 V	0.8 - 5.0 V	35 A	175 W
SRBL-60A1A0	7 - 13.2 V	0.7 - 3.3 V	60 A	198 W
SRBL-C0A1A0	7 - 13.2 V	0.6 - 3.3 V	100 A	330 W
SRBL-C4A1A0	7 - 13.2 V	0.6 - 3.3 V	140 A	462 W

REGULATED BUS CONVERTERS

Product Highlights

- Footprint 1/16, 1/8 & 1/4 brick
- Parallel operation with droop
- Industry standard pin out
- Turns ratio 4:1
- OCP / SCP / OVP / OTP

Part Number		V_{IN}	V_{OUT}	$I_{OUT\ MAX}$	Power
0RSB-D5S10L	1/16	45 - 56 V	10.6 V	30 A	310 W
0RRE-32S10L	1/8	38 - 55 V	8.2 V	30 A	240 W
0RCY-F0S10B		45 - 56 V	10.2 V	49 A	500 W
0RQB-S0M11L	1/4	48.6 - 60 V	11.2 V	62.5 A	700 W
0RQB-E0M12B		45.6 - 50.4 V	12 V	70 A	840 W
0RQB-X0S11B		45 - 58 V	10.6 V	94.3 A	1000 W
0RQB-X3S11B		45 - 58.5 V	10.4 V	125 A	1300 W
0RQB-X5M12BG		48 - 60 V	12 V	125 A	1500 W
0RQP-X5M12BG *		48 - 60 V	12 V	125 A	1500 W

** Power Management Bus*

SINGLE OUTPUT BRICKS

Product Highlights

- Footprint 1/16, 1/8 & 1/4 brick
- Through hole (THT) and surface mount (SMT) options
- High power density
- Power Management Bus

Series		V_{IN}	V_{OUT}	$I_{OUT\ MAX}$	Power
xRSB	1/16	18 – 75 V	1.2, 1.5, 1.8, 2.5, 3.3, 5, 12 V	20 A	100 W
0RCY	1/8	18 – 75 V	1.2, 1.5, 1.8, 2.5, 3.3, 5, 12 V	60 A	300 W
0RCP *		36 – 75 V	12 V	20 A	240 W
0RQB	1/4	18 – 75 V	1.2, 1.5, 1.8, 2.5, 3.3, 5, 12 V	100 A	600 W
0RQP *		36 – 75 V	12 V	54 A	650 W

** Output voltage can be trimmed by Power Management Bus.*

DUAL OUTPUT BRICKS

Product Highlights

- Industry standard package
- Dual outputs
- Remote on/off
- OCP / OVP / OTP / SCP
- Under voltage lockout

Part Number*	V_{IN}	$V_{OUT\ NOM}$	$I_{OUT\ MAX}$	Power
0RXC-75TD30	36 – 75 V	3.3 V / 1.8 V	5 A / 15 A	77 W
0RXW-65TD10	36 – 75 V	+12 V / -12 V	2.7 A / 2.7 A	65 W
SRXA-50TD10	36 – 72 V	3.0 V / 2.0 V	10 A / 10 A	62 W
SRXA-60TD10	36 – 72 V	4.5 V / 3.0 V	10 A / 10 A	60 W

** PNs above are Active High. Change the last letter to "L" to indicate Active Low.*

QUAD OUTPUT BRICKS

Product Highlights

- Four outputs
- High efficiency
- Programmable voltage control
- Digital frequency selection
- Over load protection

Part Number*	V_{IN}	$V_{OUT\ NOM}$	$I_{OUT\ MAX}$	Power
SRXA-40AQ1L	10.8 – 13.2 V	1.2 V 2.5 V 3.3 V - 12 V	6.0 A 1.5 A 1.5 A 2.0 A	40 W

** PN above is Active Low.*

POWER OVER ETHERNET

Product Highlights

- Fixed frequency
- Input under voltage lockout
- Input over voltage lockout
- Short circuit protection
- OVP / OTP

Series	V_{IN}	V_{OUT}	I_{OUT}	Power
Quarter Brick				
0RQB-C5U54x	18 – 75 V	54 V	3.0 A	162 W
Half Brick				
0RHB-F5S53x	38 – 62 V	54 V	10.2 A	550 W

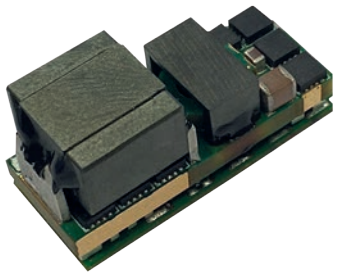
INPUT FILTERS

Product Highlights

- Through hole & surface mount
- Differential LC-filter stage
- Low profile
- Operating temperature range -40 to 85 °C

Part Number	V_{IN}	I_{MAX}	Mount
F2410-G	0 - 45 V	10 A	SMT
F4804A-G	0 - 80 V	4 A	SMT
F4810-G	0 - 80 V	10 A	SMT
FC100V5A-G	0 - 100 V	5 A	THT
FC100V6A-G	0 - 100 V	6 A	THT
FC100V10A-G	0 - 100 V	10 A	THT
FC100V20A	0 - 100 V	20 A	THT

48 V-TO-POL POWER STAMP



POWER STAMP ALLIANCE

Applications:

- High performance computing
- Servers, storage and data processing
- Intel® VR13.HC CPUs
- DDR4 memory
- IBM® POWER9™

Product Highlights

- Direct conversion from 48 V or 54 V bus
- Peak efficiency >94% @ 1.8 Vout; >91% @ 1.0 Vout
- Up to 140 W continuous output power / 200 W peak
- Power density exceeding 300 W/in^3
- Parallel up to six “stamps” with automatic phase shedding
- Source and sink mode for fast transient response
- Power Management Bus with configurable AVSBus® or Intel SVID interface
- Evaluation boards available for ASICs, Intel® VR13. and Intel® VR13.HC

Part Number	V_{IN}	V_{OUT}*	I_{OUT}	I_{OUT} peak	Efficiency (Typ.)
MAIN Power Stamps					
ST4-1V8M07xx	40 – 60 V	1.6 – 2.0 V	70 A	100 A	94%
ST4-1V2M07xx	40 – 60 V	1.16 – 1.26 V	70 A	100 A	91.6%
ST4-1V0M07xx	40 – 60 V	0.9 – 1.1 V	70 A	100 A	91%
SATELLITE Power Stamps					
ST4-1V8S07xx	40 – 60 V	1.6 – 2.0 V	70 A	100 A	94%
ST4-1V2S07xx	40 – 60 V	1.16 – 1.26	70 A	100 A	91.6%
ST4-1V0S07xx	40 – 60 V	0.9 – 1.1	70 A	100 A	91%
Controller IC					
STPSA60	-	-	-	-	-

* Output voltage range of typical applications - Contact factory for different output voltage settings.

www.powerstamp.org

ON-BOARD POWER SYSTEM MANAGEMENT

Product Highlights

- 44 /64 / 100 Pin TQFP
- Digital Signal Processor (DSP) based with Bel firmware
- Power up / down sequencing logic
- Fault detection and reporting
- I2C serial interface options
- Voltage margining via closed loop trim
- Configurable through serial interface
- Customizable through software
- Programmed parameters saved in non volatile memory
- Intelligent configuration capability

Part Number	Input Voltage	Control & Monitor POL Number	Monitor VRM Number	Monitor Analog Input Number
TRKF-44D62ER	3.3 V	4	0	2
TRKF-64D82ER	3.3 V	8	2	2
TRKF-10DC4ER	3.3 V	12	4	3

POWERLINE MODULES

Product Highlights

- Based on Qualcomm Atheros AR7410/AR1500 chipsets
- Comply with HomePlug® AV standards
- Temperature rated for industrial applications
- 128-bit AES Link Encryption with key management for secure power line communications
- Dynamic channel adaptation and channel estimation maximizes throughput in harsh channel conditions
- THT mounting configuration using standard 1.27 mm pin header

Part Number	Description	Temp. Range	Market	Data Rate
0804-5000A50	HomePlug® / Powerline Module RGMII HORIZONTAL	-40 to +85°C	US / AS	500 Mbps
0804-5000A51	HomePlug® / Powerline Module MII HORIZONTAL	-40 to +85°C	US / AS	500 Mbps
0804-5000E50	HomePlug® / Powerline Module RGMII HORIZONTAL	-40 to +85°C	EU	500 Mbps
0804-5000E51	HomePlug® / Powerline Module MII HORIZONTAL	-40 to +85°C	EU	500 Mbps
0804-5000V50	HomePlug® / Powerline Module RGMII VERTICAL	-40 to +85°C	WORLDWIDE	500 Mbps
0804-5000V51	HomePlug® / Powerline Module MII VERTICAL	0 to +70°C	WORLDWIDE	500 Mbps
0804-5000X50	HomePlug® / Powerline Module COAX RGMII HORIZONTAL	0 to +70°C	WORLDWIDE	500 Mbps
0804-5000X51	HomePlug® / Powerline Module COAX MII HORIZONTAL	-40 to +85°C	WORLDWIDE	500 Mbps
0804-EVALB02	HomePlug® / Powerline Module EVALUATION MODULE	0 to +85°C	LOAN ONLY	500 Mbps

CUSTOM & VALUE-ADDED SOLUTIONS

Bel Power Solutions designs and manufactures a wide range of standard products, but we are able to manage design changes to provide the ideal solution for our customers through the modification of our standard products, value-added enhancements or by developing fully customized designs.

We offer:

- Changes in packaging (modified cable lengths, form factors, custom connectors)
- Modified performance (custom voltages, custom functions, cooling options, temperature ranges)
- Value-add enhancements
- Manufacturing services
- Vertical integrations
- Design and development

ENCLOSED HIGH POWER

TCP SERIES

Product Highlights

- World-wide 3-phase input voltage range (180 - 528 VAC L-L)
- High power density 18.5 W/in^3 with efficiency >94%
- Pulse load capability (0 - 100 kHz) with low voltage droop
- Adjustable output voltages (28 V / 48 V / 90 V) with fast setting response
- 3500 W / 4000 W output power models available
- Parallel operation up to 16 units (50.4 kW)
- Cold plate cooling system

TCR-4-48G SHELF

Product Highlights

- 19” shelf with water-cooling base plate
- Compatible with all TCP series PSUs (up to 4 units)
- Parallel operation up to 4 racks (50.4 kW)
- 3-phase solid state relay for power modules AC input connection
- Input and output coolant temperature measurement

TXP SERIES

Product Highlights

- Three-phase input voltage range (nom. 200 Vrms to 480 Vrms)
- Adjustable output voltages (48 V / 110 V), auxiliary output 12 V / 0.8 A
- 3500 W / 4000 W output power models available
- Parallel operation up to 8 units (28/32 kW); serial operation up to 4 units
- Internal fan cooling system
- RS485 / CAN bus interfaces

LBC SERIES SHELF

Product Highlights

- Input voltage: 3x 400 / 480 VAC (350 - 528 VAC)
- Compatible with all TXP Series PSUs (up to 4 units)
- Output voltage for 110 V NiCd battery (adjustable 85 – 137.5 VDC)
- Output power 8000 W / 12000 W
- Operating temperature -25 to 55°C without derating
- CAN bus / Ethernet interface

FXC / FXP SERIES

Product Highlights

- Three-phase AC input (nom. 220 or 480 V) with front panel selectable input range
- Suitable for 3U or 5U height shelf mounting (FRH7000G, FRV7000G)
- Module power up to 7000 W, parallelable up to 210 kW
- Single-wire / droop current share with current share control for up to 30 units
- Remote voltage adjustment and current monitoring

BPEU SERIES

Product Highlights

- Designed to power radio-frequency power amplifier (RFPA) applications
- Input voltages 185 - 264 VAC (single phase) / 170- 242 VAC (three phase) with PFC
- Single, dual or multiple outputs up to 50 V
- Output power up to 3000 W
- Current and voltage monitoring

LPM / LMM SERIES

INDUSTRIAL – LPM Series

- CSA/UL 60950-1, EN 60950-1, IEC 60950-1

Applications:
telecommunications, test & measurement, audio/broadcast, linear and rotary motion

MEDICAL – LMM Series

- CSA/UL 60601-1, EN/IEC 60601-1

Applications:
imaging equipment, diagnostic, ultrasound, anesthesiology, home health care

Product Highlights

- AC input voltage range 85 - 264 VAC with Power Factor Correction (PFC)
- DC input voltage range 120 - 380 VDC (440 Hz)
- Up to 12 outputs (voltages of 1.5 to 54 VDC) (up to 200 VDC when connected in series)
- Output power up to 1600 W
- 1 to 4 or 6 isolated output slots, fully user configurable
- High efficiency up to 92% and power density up to 18 W/in³
- Low fan noise levels - intelligent speed control by load & temperature (LMM/LPM616)
- Leakage current < 0.5 mA
- Auxiliary over 5 V (1 A)
- Zero load operation
- Configurable for fast prototyping
- Extra-low 1U profile, dimensions: 303.7 x 127 x 40.64 mm (11.9 x 5 x 1.6 in)

Visit our online configuration tool:

Part Number	Modular Designator	Single Output (Factory Set)	Adjustable Output Voltage Range	Max. Output Current	Max. Output Power
LPM126-OUTA1-05	E	5 VDC	2.0 to 5.3 VDC	53 A	265 W
LPM126-OUTA1-12	F	12 VDC	5.2 to 15 VDC	22 A	265 W
LPM126-OUTA1-24	G	24 VDC	14 to 30 VDC	11 A	265 W
LPM126-OUTA1-36	H	36 VDC	29 to 44 VDC	7.4 A	265 W
LPM126-OUTA1-48	J	48 VDC	43 to 54 VDC	5.5 A	265 W
LPM109-OUTA1-10	K	15 VDC	1.5 to 15 VDC	6 A	90 W
LPM109-OUTA1-20	L	30 VDC	3 to 32 VDC	3 A	90 W
LPM118-OUTA2-10	M	15 VDC	2x 1.5 to 12 VDC	2x 6 A	2x 90 W
LPM118-OUTA2-20	N	30 VDC	2x 3.0 to 32 VDC	2x 3 A	2x 90 W

LINEAR REGULATORS

Product Highlights

- Worldwide AC input capabilities
- ±0.05% output regulation; low output ripple
- MTBF over 300 kh
- 100% burn-in
- OVP standard on 5 V single outputs, optional for other outputs under 48 V

Series		V_{IN}	V_{OUT}	Power
F		100 - 264 V	5 - 28 V	192 - 288 W
G	Single Output	100 - 264 V	5 V	175 W
Hx		100 - 264 V	5 - 28 V	7.5 - 192 W
Hxx	Dual Output	100 - 264 V	5 - 24 V	9.6 - 150 W
Hxxx	Triple Output	100 - 264 V	5 - 15 V	16 - 150 W
CP131		100 - 264 V	5 - 15 V	51 - 85 W

ABC/ABS/ABE/ACC SERIES
MBC/MBS/MBE/MCC SERIES

The series provide up to 1200 W of output power through the wide input voltage range 85 – 305 VAC in various low profile, 1U compatible packages, each designed for specific cooling conditions that best suit space constrained environments.

Product Highlights

- Wide AC input voltage 85 – 305 VAC
- Variety of single outputs form 5 V to 58 V
- Multiple outputs with MBC40 & MBC60
- Low profile series - height ≤ 1 inch
- Efficiency up to 94 %
- Operating temperature range -40 to +70°C
- Variety of packages and cover kits available

INDUSTRIAL – ABC Series

- CSA/UL60950-1, EN60950-1, IEC60950-1

Applications:
instrumentation, process control, lighting, test equipment, automation, Mil COTS

MEDICAL – MBC Series

- CSA/UL60601-1, EN/IEC 60601-1
- 2x MOPP (Means of Patient Protection) for Class I and II Applications

Applications:
monitoring, diagnostic, ultrasound, dialysis home health care, drug pump devices

Series		Power [W]	Voltages [V]	Mechanical Package	Size [in]
ABC40	MBC40	40	5, 12, 15, 24, 48	Open Frame	2 x 4 x 1.2
ABC41	MBC41	40	5, 12, 15, 24, 30, 48, 58	Open Frame	2 x 3 x 0.75
ABC60	MBC60	60	5, 12, 15, 24, 48	Open Frame	2 x 4 x 1.2
ABC75	MBC75	75	12, 15, 24, 30, 48, 58	Open Frame	2 x 3 x 1
ABC120	MBC120	120	12, 15, 24, 30, 48, 58	Open Frame	2 x 3 x 1.18
ABC150	MBC15	150	5, 12, 15, 24, 48	Open Frame	2 x 4 x 1.3
ABC180	MBC180	180	12, 15, 24, 30, 48, 58	Open Frame	2 x 4 x 0.75
ABC200	-	200	12, 15, 24, 48	Open Frame	2 x 4 x 1.5
ABC201	MBC20	200	5, 12, 15, 24, 30, 48	Open Frame	3 x 5 x 1.5
ABC225	MBC225	225	12, 15, 24, 30, 48, 58	Open Frame	2 x 4 x 1
-	MBC250	250	12, 24, 48	U-Channel	3 x 5 x 1.5
ABC275	MBC275	275	12, 15, 24, 30, 48, 58	Open Frame	3 x 5 x 0.75
ABC300	MBC300	300	5, 12, 15, 24, 30, 48	Open Frame	3 x 5 x 1.5
ABC350	MBC350	350	12, 15, 24, 30, 48, 58	Open Frame	3 x 5 x 1
ABC400	-	400	12, 24, 48	U-Channel	3 x 5 x 1.5
ABS400	MBS400	400	12, 24, 36, 48	Sealed Chassis (heatsink)	3.27 x 8.34 x 1.65(2.76)
ABC401	MBC401	400	12, 24, 28, 36, 48	Open Frame U-Channel Perforated Cover Vented Cover (Top Fan) Enclosed (Front Fan)	2.99 x 6.46 x 1.48 3.32 x 6.55 x 1.57 3.32 x 6.71 x 1.61 3.32 x 6.55 x 1.61 3.32 x 7.20 x 1.61
ABC450	MBC450	450	5, 12, 15, 24, 30, 48	U-Channel	4 x 6.5 x 1.6
ABC550	MBC550	550	12, 15, 24, 30, 48, 58	Open Frame	3 x 5 x 1.5
ABC600	MBC600	600	12, 15, 24, 28, 48	U-Channel	5 x 8 x 1.6
ACC600	MCC600	600	12, 15, 24, 30, 48, 58	U-Channel	5 x 8.5 x 1.61
ABC601	-	600	24, 28, 36, 48	U-Channel, Enclosed (Front Fan)	4.21 x 7.03 x 1.61 4.21 x 8.11 x 1.60
ABS601	MBS601	600	24, 48	Sealed Chassis	4.92 x 9.86 x 2.36
ACC750	MCC750	750	24, 48	U-Channel Protective Cover	4 x 9.21 x 1.61 4 x 9.24 x 1.61
ABC800	MBC800	800	12, 15, 24, 30, 48, 58	U-Channel	5 x 8.50 x 1.61
ABE1000	MBE1000	1000	12, 15, 24, 30, 48, 58	Enclosed (Front Fan)	5 x 9.45 x 1.61
ABC/ ABE1200	MBC/ MBE1200	1200	24, 48	U-Channel Protective Cover Enclosed (Front Fan)	4 x 9.21 x 1.61 4 x 9.24 x 1.61 4 x 10.4 x 1.61

DIN RAIL CONVERTERS

Bel Power Solution offers wide portfolio of power supplies with AC (1/2/3 phases) or DC (up to 750 VDC) input or both AC and DC inputs.
All series have different models rated according to the output voltage (5 to 205 VDC), covering from 5W to 2400 W and include the newest technologies for high efficiency, high reliability and best cost/performance ratio.

Product Highlights

- Wide AC and DC input voltage ranges
- Suitable for applications in SELV and PELV circuits Class I or Class II
- Single, two or three-phase input
- Adjustable output
- Easily paralleled for redundancy
- High reliability
- High overload capability
- Compact size
- Variety of redundancy and back-up units available

Series	V_{IN}	V_{OUT}	Power	Dimensions
LDN20	90 - 264 VAC (110 - 345 VDC)	12, 24 VDC	20 W	35 x 61.5 x 90 mm
LDN40	90 - 264 VAC (110 - 345 VDC)	5 - 15, 2x 12 - 16, 12 - 15, 24 VDC	40 W	72 x 61.5 x 90 mm
LDN80	90 - 264 VAC (110 - 345 VDC)	12 -15, 24 VDC	80 W	72 x 61.5 x 90 mm
LDN85*	90 - 264 VAC (110 - 345 VDC)	5, 24 VDC	85 W	40 x 110 x 115 mm
LDN120*	90 - 264 VAC (110 - 345 VDC)	12 - 15, 24, 48 VDC	120 W	40 x 110 x 115 mm
LDN240*	90 - 132 / 187-264 VAC (270 - 345 VDC)	12 - 15, 24, 48, 72 VDC	240 W	63 x 117 x 140 mm
LDN480	187 - 264 VAC (250 – 375 VDC)	24 VDC	480 W	73 x 125 x 140 mm
LDN481	90 - 132 / 187-264 VAC (270 - 345 VDC)	24, 48, 72 VDC	480 W	80 x 137.5 x 127 mm
LDC120*	90 - 264 VAC (110 - 345 VDC)	12 - 24, 24 - 48 VDC	120 W	35 x 104 x 103 mm
LDC240*	90 - 264 VAC (110 - 345 VDC)	12, 24, 36, 48, 72 VDC	240 W	40 x 110 x 115 mm
LDC480*	90 - 264 VAC (110 - 345 VDC)	24, 36, 48, 72 VDC	480 W	56 x 117 x 140 mm
LDW25	90 - 550 VAC (150 - 725 VDC), 1/2 ph	24 VDC	25 W	72 x 61.5 x 90 mm
LDW120*	187 - 550 VAC (250 - 725 VDC), 1/2 ph	12 - 15, 24, 48 VDC	120 W	40 x 110 x 115 mm
LDW240*	187 - 550 VAC (250 - 725 VDC), 1/2/3 ph	12 - 15, 24, 48, 72 VDC	240 W	54 x 110 x 115 mm
LDW480	187 - 550 VAC (250 - 725 VDC), 1/2/3 ph	24, 48, 72 VDC	480 W	73 x 125 x 140 mm
LDT480	340 - 550 VAC (470 - 725 VDC)	24 VDC	480 W	73 x 125 x 140 mm
LDT481	340 - 550 VAC (520 - 725 VDC)	12 - 15, 24, 48, 72 VDC	480 W	80 x 137.5 x 127 mm
LDT720	340 - 550 VAC (520 - 725 VDC)	24, 48 VDC	720 W	80 x 137.5 x 127 mm
LDT960	340 - 550 VAC (520 - 725 VDC)	24, 48, 72 VDC	960 W	80 x 137.5 x 127 mm
LDT2400*	340 - 550 VAC (520 - 725 VDC)	12 - 24, 24 - 48, 72, 85 -170 VDC	2400 W	233 x 101 x 160 mm
LDP200	170 - 550 VAC (250 - 725 VDC)	24 - 120 / 36 - 205 VDC (Program.)	200 W	80 x 100 x 120 mm
LDD3	9 - 18 VDC	5 VDC	3 W	35 x 61.5 x 90 mm
LDD240*	90 - 148 VDC	24 VDC	240 W	54 x 110 x 115 mm
LDD240-WU*	11 - 55 VDC	5 - 55 VDC (Program.)	240 W	40 x 110 x 115 mm
LDD960-UU	10 - 60 VDC	10 - 55 VDC (DC-UPS)	960 W	54 x 110 x 115 mm

** Built-in ORing (optional)*

RUGGEDIZED MELCHER™ PRODUCTS

RUGGED CASSETTES

MELCHER™ The Power Partners.

Product Highlights

- Wide input for battery applications from 12 V to 220 V nominal
- High efficiency, up to 94.5% including input filter
- Ultra-wide output voltage adjustment
- Rugged aluminum case, conformally coated
- Convection cooled for Ta -40 ˚C to +71 °C
- Self-cooling, no derating over the specified temperature range
- Tested and approved for railway, immune to extreme harsh environmental conditions
- Full I/O protection and filters

Series	AC V_{IN}	DC V_{IN}	V_{OUT}	# of OUTs	Power
HP Series	N/A	12.5 - 154 VDC	5 - 96 V	1, 2, 3, 4	120 - 192 W
HR Series	N/A	12 - 168 VDC	±12, ±15, ±48 V	1 or 2	144 - 288 W
ER Series	N/A	66 - 168 VDC	±12, ±15, ±48 V	1 or 2	144 - 288 W
LR Series *	90 - 264 VAC	N/A	±12, ±15 V	2	240 - 300 W
LKP Series *	187 - 255 VAC	N/A	12, 24, 48; ±12, ±24 V	1 or 2	250 W
K Series *	85 - 264 VAC #	8 - 385 VDC	5, 12, 15, 24, 48; ±12, ±15, ±24 V	1 or 2	150 W
Q Series	N/A	14.4 - 154 VDC	3.3 - 48; ±5, ±12, ±15, ±24 V	1 or 2	82 - 132 W
P Series	N/A	14.4 - 154 VDC	3.3 - 96 V	1, 2, 3, 4	100 - 192 W
M Series	85 - 264 VAC #	8 - 385 VDC	5 - 60; ±12, ±15; 5/±12, 5/±15 V	1, 2, 3	50 W
S Series *	85 - 264 VAC #	8 - 385 VDC	5, 12, 15, 24, 48; ±12, ±15, ±24 V	1, 2	100 W
T Series *	70 - 140; 85 - 255 VAC	N/A	24 - 54.5 V	1	500 W

** with PFC* *# 47 - 440 Hz*

RUGGED CHASSIS MOUNT

MELCHER™ The Power Partners.

Product Highlights

- Input voltage ranges optimized for 12, 24, 36, 72 or 110 V batteries
- Output voltages: 12 V, 15 V and 24 V
- Integrated enclosure for chassis mounting
- Extremely high efficiency, high power density and low inrush current
- Reliable cage clamp terminal (Option: pluggable connector)
- Overtemperature, overvoltage, overcurrent and overload protection
- Compliant to EN 50155 and EN 45545, AREMA compliant

Series	V_{IN}	V_{OUT}	I_{OUT}	Power
12RCM60-XX	12/24 V (8 – 36 V)	12 V / 15 V / 24 V	5 A / 4 A / 2.5 A	60 W
XRCM60-XX	110 V (16.8 – 137.5 V)			60 W
24RCM150-XX	24 V (16.8 – 45 V)	12 V / 15 V / 24 V	12.5 A / 10 A / 6.25 A	150 W
110RCM150-XX	110 V (50.4 – 137.5 V)			
24RCM300-XX	24 V (16.8 – 45 V)	12 V / 24 V	25 A / 12.5 A	300 W
110RCM300-XX	110 V (50.4 – 137.5 V)			
72RCM500-24	72 V (50.4 – 90 V)	24 V	21 A	500 W
110RCM500-24	110 V (77 – 137.5 V)			
72RCM1000-24	72 V (50.4 – 90 V)	24 V	42 A	1000 W
110RCM1000-24	110 V (77 – 137.5 V)			

RUGGED DC-DC BMP

MELCHER™ The Power Partners.

Product Highlights

- Wide input voltage ranges
- Efficiency up to 93.5%
- Wide operating temperature ranges: startup at -40 °C or below with no derating to 70 °C
- Isolated converters with magnetic feedback
- I/O test voltages up to 3 kVAC
- Low output ripple and excellent dynamic response
- Meet or exceed national and international railway standards, in compliance with EN50155 and EN50121
- Variety of mounting styles for numerous applications

Series	V_{IN}	V_{OUT}	Power
IMX4	4.7 - 121 V	3.3 - 48 V	4 W
IMX7	8.4 - 150 V	3.3 - 48 V	7 W
IMX15/IMY15	8.4 - 150 V	3.3 - 48 V	15 W
IMX35	9 - 150 V	5 - 60 V	35 W
IMX70/IMY70	12 - 154 V	5 - 48 V	90 W
Non-Isolated Boost Converter			
IBX15	15.4 - 154 V	50 - 160 V	110 W

Part Number	V_{IN}	V_{OUT}	Power
0RQB-15Y05x	14.5 – 154 VDC	5.0 V	15 W
0RQB-30Y	14.5 – 154 VDC	5, 12 V	30 W
0RQB-50Y	14.5 – 154 VDC	5, 12, 15, 24, 48 V	50 W
0RQB-C5U24L	16 – 67 VDC	24 V	150 W
0RQB-C5U54L	16 – 67 VDC	54 V	162 W
0RQB-C5W24x	50 – 160 VDC	24 V	144 W
0RQB-C5W54L	43 – 154 VDC	54 V	162 W
0RQB-D0W12x	50 – 154 VDC	12 V	200 W

SWITCHING REGULATORS

MELCHER™ The Power Partners.

Product Highlights

- Non-Isolated buck converters
- High reliability
- Efficiency up to 96%
- Low output ripple
- Excellent dynamic response
- -40 ˚C to +71 °C, no derating or air flow
- Full metal jacket, rack / chassis mount

Series	V_{IN}	V_{OUT}	I_{OUT}
PSR Series*	7 – 40, 8 – 80 VDC	0 – 36 VDC	2 – 4 A
PSA Series*	7 – 35, 18 – 156 VDC	0 – 48 VDC	1 – 5 A
PSB Series*	7 – 40, 8 – 80, 15 – 156 VDC	0 – 48 VDC	4 – 8 A
PSC Series*	7 – 40, 8 – 80, 18 – 156 VDC	0 – 48 VDC	6 – 12 A
PSL Series**	7 – 40, 8 – 80, 18 – 156 VDC	0 – 48 VDC	6 – 12 A
PSS Series**	8 – 40, 8 – 80, 18 – 156 VDC	0 – 48 VDC	9 – 18 A
PSK Series**	8 – 40, 8 – 80, 18 – 156 VDC	0 – 48 VDC	12 – 25 A

** PCB or Chassis mounting* ***Rack or Chassis mounting*

RUGGEDIZED MELCHER™ PRODUCTS

COMPACT PCI®

MELCHER™ The Power Partners.

Product Highlights

- Wide AC or DC input range with PFC
- 4 high current outputs with flexible load distribution
- Integrated ORing FETs/diodes for true redundancy
- Inhibit and enable inputs
- Single-wire current share function for 3 outputs
- Compliant to PICMG® power interface specification for CompactPCI® systems

Model	AC V_{IN}	DC V_{IN}	V_{OUT}	I_{OUT}	Power
CPA250-4530G	90 – 264 VAC	N/A	5, 3.3, ±12 VDC	40, 40, 5, 2 A	250 W
CPA500-4530G	90 – 264 VAC	N/A	5, 3.3, ±12 VDC	50, 60, 12, 4 A	500 W
CPD250-4530G	N/A	36 – 75 VDC	5, 3.3, ±12 VDC	40, 40, 5, 2 A	250 W
CPD500-4530G	N/A	36 – 75 VDC	5, 3.3, ±12 VDC	50, 60, 12, 4 A	500 W

PCI: Peripheral Component Interconnect *PICMG: PCI Industrial Computer Manufacturers Group*

DIN RAIL

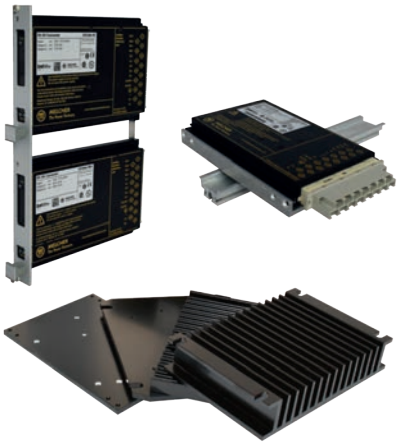
MELCHER™ The Power Partners.

Product Highlights

- Excellent immunity to environmental conditions
- Wide temperature range
- Rectifier and battery charger versions
- Class 1 equipment
- DIN Rail mounting kits available

Series	AC V_{IN}	DC V_{IN}	V_{OUT}	Power
LW Series (single)	85 - 264 VAC	90 - 350 VDC	12, 24, 36, 48 VDC	125 W
LW Series (dual)	85 - 264 VAC	90 - 350 VDC	2x 12, 2x 24, 2x 36, 2x 48 VDC	250 W
LX Series (triple)	85 - 264 VAC	90 - 350 VDC	24, 36, 48 VDC	375 W
LX Series (quad)	85 - 264 VAC	90 - 350 VDC	2x 24, 2x 36, 2x 48 VDC	500 W
EW Series (single/dual)	N/A	66 - 150 VDC	24 or 2x 24 VDC	120, 240 W

MELCHER™ PRODUCTS ACCESSORIES



MELCHER™ The Power Partners.

Product Highlights

- 19" racks and backplanes
- Base plates or heat sinks for chassis mounting
- Mating female connectors for solder, cage clamp or faston connections
- Connector retention devices
- Front panels for 19" rack mount
- Chassis and DIN Rail mounting kits
- Filters and ring core chokes
- Temperature sensors for optimal battery charging

DC-DC CONVERTERS

Down Converters

Product Highlights

- Input voltage 240-430 / 400-850 VDC
- 93% typical efficiency
- Up to 4 kW power (max. 16 kW)
- Full galvanic isolation between I/O
- CAN bus serial interface
- Liquid or convection cooling
- Various HVIL input connectors
- Flexible output connectivity
- Wide operational temperature range
- IP65 and IP67

Bi-Directional Converter

Product Highlights

- Input voltage 500 - 800 VDC
- Adjustable output voltage 48 - 57 VDC
- 96.5% typical efficiency
- Up to 22.5 kW power (max. 90 kW)
- Full galvanic isolation between I/O
- CAN bus serial interface
- Liquid cooled
- Operating temperature -40 to +70 °C

DC-AC INVERTERS

Product Highlights

- Input voltage 240-430 / 400-850 VDC
- 92% typical efficiency
- Up to 6 kW power (max. 36 kW)
- CAN bus serial interface
- Liquid or convection cooling
- Various HVIL input connectors
- Flexible output connectivity
- Single or 3-phase configuration

INVERTER CHARGERS

Product Highlights

- Input voltage 90 – 264 VAC (47 – 63 Hz)
- Charge mode output 250 - 435 VDC
- Export mode output 120/240 VAC (50/60 Hz)
- Liquid cooled only
- CAN bus serial interface
- Operating temperature -40 to +85 °C
- IP65 and IP67
- Grid-tie model available (UL1741 cert.)

BATTERY CHARGERS

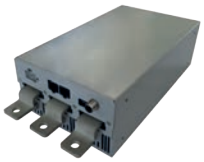
BCN25-700-8

- Three phase input 414 - 632 VAC
- Output 250 - 800 VDC
- Output power up to 25 kW
- Operating temperature -40 to +65 °C
- Liquid cooled
- IP65 and IP67

BCL25-700-8

- Three phase input 330 - 528 VAC
- Output 240 - 800 VDC
- Input power up to 25 kW / 480 VAC
- Operating temperature -40 to +60 °C
- Liquid cooled
- IP6K9K and IP67

CUSTOM SOLUTIONS



Product Highlights

- Motor controllers for bow thrusters
- Inverters for marine applications
- Mating connector kits available

About Bel Power Solutions

Bel Power Solutions & Protection offers world-class AC-DC and DC-DC power conversion products, value-add power solutions, complete box-build solutions and contract manufacturing services, along with a complete portfolio of Electronic Circuit Protection devices. Bel's a market leader in eMobility and HEV (hybrid and electric vehicle) and hybrid marine solutions, known internationally for Melcher™ railway and technology leaders in the development of high efficiency, high power density front-end products. We support global customers and local markets with strategically located manufacturing and R&D facilities around the world. Applications of our power conversion devices range from board mount power to system-level architectures for servers, storage, networking, industrial and telecommunications industries.

bel POWER SOLUTIONS & PROTECTION

a bel group

For more information, please contact us:

North America
+1 408 785 5200

Asia-Pacific
+86 755 2988 5888

Europe, Middle East
+353 61 225 977

belfuse.com/power-solutions

BCB.00103_AF5_PRODUCT HIGHLIGHTS