



## BPC Inverter System

## 75 kVA - 48 VDC - 120/240/208 VAC

Telecom

Datacom

Mass Transit

Oil &amp; Gas

Utilities



BPC Inverter System

### Product Description

The BPC Inverter is a ready-made inverter package rated up to 75 kVA capacity and designed to provide a pure sine wave AC supply as a complement to any existing DC power solution. Compact, friendly Plug & Play installation, self-standing open relay rack ideal for low MTTR applications in power room. It can be used either to piggyback DC power sources or as fully integrated AC power center with built-in in and out protections. Thanks to TSI technology, it provides outstanding power conditioning and high-end availability.

### Applications

Convenient for any Mission Critical Applications. A must when any glitch matters.

The solution to power up demanding AC loads at low OPEX from a combination of AC and DC sources present on site.

It reveals its full worth in harsh electrical environments and for long autonomy requirements. It handles any type of AC load including laser printers, compressors and induction motors.

Typical applications include aggregation network infrastructure components (MGW, RNC, SSP, PTP-RL, IP/Router...); HVAC equipments, small datacenter...

### Product Features

- Permanent AC to AC double conversion
- Great disturbance rejection rate
- Redundant AC & DC input sources
- Source change over not visible by the load
- Highly efficient energy conversion
- Preserve battery life expectancy
- Compact footprint
- Offers space for AC distribution or integration with 3rd party equipment
- Operates until 65°C/149°F (de-rating may apply)
- Can be provided with 120 VAC, 120/240 VAC and 120/208 VAC system configurations

### General Specifications

<b>Applicable standards</b>	IEC 61000-4 / FCC part 15 / cULus 1778 Listed / RoHS
<b>MTBF (each module)</b>	240,000 hours
<b>Efficiency (Typical): Enhanced power conversion / online</b>	95% / 91%
<b>Dielectric strength DC/AC</b>	4,300VDC
<b>True redundant systems - Compliant</b>	3 disconnection levels on AC out and DC in power ports 4 disconnection levels on AC in port
<b>Vibration</b>	GR63 office vibration 0-100Hz-0.1g / transport vibration 5-100Hz 0.5g 100-500Hz-1.5g / Drop test
<b>Altitude above sea</b>	<1,500m no derating >1,500m – 0.8 % derating per 100m
<b>Ambient / storage temperature / relative humidity</b>	-40 – 70°C (-40 – 158°F) / 95%, non-condensing
<b>Operating temperature measured at both Room and inlet levels</b>	-20 – 40°C (-4 – 104°F) for rated power (7) 40 – 65°C with 2% / °C derating (1) 104 – 149°F with 1% / °F derating (1)
<b>Operating ambience / ingress protection</b>	Free from dust and corrosive materials / NEMA 1 (2)
<b>Material (casing)</b>	Coated steel-ALU ZINC

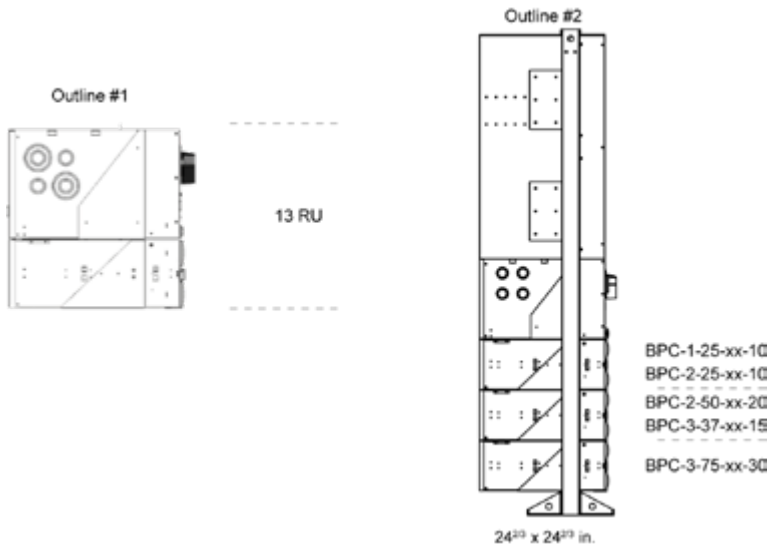
DC Input Specifications	
Nominal voltage (DC) / voltage range	48VDC / (40 – 60VDC)
Voltage ripple	<2mV Psopho
Input voltage boundaries	40 – 57VDC user selectable
DC input protections	1 60 Amps MCB per module

AC Input Specifications	
Voltage range (AC) (full power rating)	104 – 138VAC
Brownout range and behavior	80 – 104VAC use DC source contribution if need be (can be disabled)
Conformity range before transfer to DC	Adjustable from 80 – 138VAC
Power factor	>99%
Frequency range (selectable) / synchronization range	50 – 60Hz / range 47 – 53Hz / 57 – 63Hz

AC Output Specifications	
Admissible load power factor	Full VA power rating from 0 inductive to 0 capacitive Limited to W power rating from Pf 0.8 to 1
Frequency / frequency accuracy	50 – 60Hz / 0.03%
Total harmonic distortion (resistive load)	<1.5%
Load impact recovery time	0.4ms
Turn on delay	30s
Short duration overload capacity	150% - 15s
Long duration overload capacity	110% permanent
Crest factor at nominal power with short circuit management and protection	3.1
Short circuit clear up Ccapacity (3)	10 x In for 20ms
Short Circuit Clear Up Capacity When AC is not Present	1.5 x In for 15s

Energy Source Changeover	
Total transient voltage duration (max) (as see from the load)	0s (and no glitch)
Maintenance bypass (MBP)	Yes

Signaling & Supervision	
Display	LED w/module status and power bargraph + CATENA Display
Alarms output / supervision	3 Dry Contacts (Maj, Min, User adj)
Remote monitoring	TCP-IP with SNMP V1
Remote on / off	via T2S controller



- (1) Operation beyond 40°C (104°F) and derating are not UL certified
- (2) Specific execution can be provided on request
- (3) While the boost function is enabled and AC source present
- (7) Internal temperature management and switch off

	BPC-1-25-xx-10	BPC-2-25-xx-10	BPC-2-50-xx-20	BPC-3-37-xx-15	BPC-3-75-xx-30
<b>General</b>					
Nominal voltage (AC) input & output	120VAC L-N	120VAC L-N / 240VAC L-L (120 AC / 208VAC ORQ)	120VAC L-N / 240VAC L-L (120VAC / 208VAC ORQ)	120VAC L-N / 208VAC L-L	120VAC L-N / 208VAC L-L
Nominal output power (VA) / (W) (when fully populated)	25kVA / 20kW	25kVA / 20kW	50kVA / 40kW	37.5kVA / 30kW	75kVA / 60kW
<b>Current Specifications</b>					
Nominal AC output current Protected against reverse current	208A	104A per phase	208A per phase	104A per phase	208A per phase
Short circuit current after clear up capacity	229A	115A per phase	229A per phase	115A per phase	229A per phase
Nominal DC current (at floating voltage and 2000W per module output)	232A No2 feeder	232A No2 feeder	232A No4 feeder	232A No3 feeder	232A No6 feeder
Nominal AC input current (5) (at 120Vac and 2000W per module output)	176A per phase	88A per phase	176A per phase	88A per phase	176A per phase
<b>Selectable Options</b>					
<b>Piggyback</b>					
DC input connection (5)	2 x 2 500 Kc mil double hole lug	2 x 2 500 Kc mil double hole lug		N/A	
AC input connection / protection (5)	Terminal block / none			N/A	
AC output connection / protection (5)	Terminal block / none			N/A	
Mechanical	Outline #1 (see previous page)			N/A	
<b>Bulk Protected In &amp; Out</b>					
DC input connection (5)	Connecting plate single or double lug				
AC input connection / protection (5)	Supplementary breaker 300A	Supplementary breaker 150A 2 pole	Supplementary breaker 300A 2 pole	Supplementary breaker 150A 3 pole	Supplementary breaker 300A 3 pole
AC output connection / protection (5)	Branch Circuit Protection 300A	Branch Circuit Protection 150A 2 pole	Branch Circuit Protection 300A 2 pole	Branch Circuit Protection 150A 3 pole	Branch Circuit Protection 300A 3 pole
Mechanical	Outline #2 (see previous page)				
<b>Bulk Protected Out (6)</b>					
DC input connection (5)	N/A		Connecting plate single or double lug	N/A	Connecting plate single or double lug
AC input connection / protection (5)	N/A		Terminal block / none	N/A	Terminal block / none
AC output connection / protection (5)	N/A		No2 Branch Circuit Protection 2 x 300A 2 pole or 2 x 150A 2 pole	N/A	No2 Branch Circuit Protection 2 x 300A 3 pole or 2 x 150A 3 pole
<b>Built-in Distribution</b>					
DC input connection (5)	N/A		Connecting plate single or double lug		
AC input connection / protection (5)	N/A		Terminal block / none		
AC output connection / protection (5)	N/A	Square-D panel QO 125A 20-Space	Square-D panel QO 225A 42-Space	Square-D panel QO 125A 42-Space	Square-D panel QO 225A 42-Space

(4) Inverter module current consumption only. Use output current for circuit sizing while MBP is present.

(5) Refer to specific document for NEC compliance for external protections and cable sizing

(6) Available options with No2 output breaker full or 1/2 rating and no input breaker

(7) Piggyback version in 50kVA and 75kVA to be phased out

(n/a) Option not available

## Ordering Information

Model No.	Description
BPC Inverter System	75kVA Open Frame Inverter System