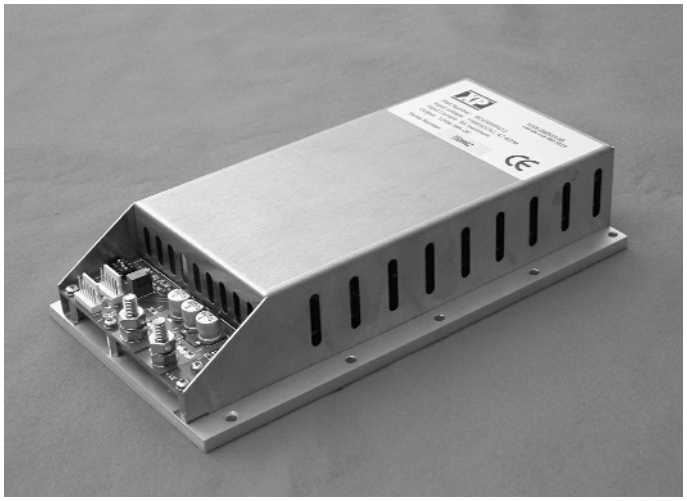
AC/DC Industrial Type

200-400 Watts
BCC Series

XPiQ inc.
Intelligent Design Quality Product



Baseplate Cooled

Wide Operating Temp

ETSI, EMC & Environmental Compliant

Simple Parallel Operation

Active PFC

Remote ON/OFF

Low Temperature Option

PRELIMINARY
Q4 2003

Specification

Input

Input Voltage	•	*90-264 VAC*
Harmonics	•	*EN61000-3-2 (Active PFC)*
Fuse Protection	•	*Input PCB mounted*

Output

Output Power	•	*See Table*
Output Voltage	•	*See Table*
Output Voltage Adjustment	•	*-6 to +10% Vnom*
Output Current	•	*See Table*
Output Set Tolerance	•	*±1% nominal*
Load Regulation	•	*See Table*
Ripple & Noise	•	*<150 mV pk-pk, 20 MHz bandwidth*
Hold Up Time	•	*10 ms at low line (90 V), rated output*
Minimum Load	•	*No minimum load*
Overload Protection	•	*105-135% constant current limiting with auto recovery*
Overvoltage Protection	•	*105-140% Vnom except 3.3 V module 130-166%*
Remote Sense	•	*Compensates for lead drops of up to 500 mV on output*
Remote ON/OFF	•	*A logic '0' on the ROF connection electronically disables the output (contact sales for full set of application notes)*

General

Earth Leakage Current	•	*In accordance with EN60950 (1.5 mA max)*
Redundancy & Current Sharing	•	*Up to 3 off modules can be connected in parallel modules sharing within 10% Total output power derates by 10%*

Environmental

Operating Temperature	•	*-20 °C to +70 °C, with baseplate maintained below +83 °C utilizing system cooling, -40 °C option available add suffix 'L' to model number*
Storage Temperature	•	*-40 °C to +85 °C*
Temperature Coefficient	•	*0.05%/°C*
Relative Humidity	•	*20-95% non-condensing, units can be conformally coated for high humidity environments add suffix 'E' to model number*
Cooling	•	*Conduction via 4 mm thick aluminum baseplate*
Shock & Vibration	•	*10-500 Hz, 2 G 10 min/1 cycle, period for 60 mins on each axis*

EMC & Safety

EMC Emissions	•	*EN55022 Level B conducted*
EMC Immunity	•	*EN61000-4-4 level 3 EN61000-4-5 level 3*
Safety Approvals	•	*EN60950*
CE Mark Directives	•	*CE Marked to LVD*

** Preliminary datasheet - see website for current specs*

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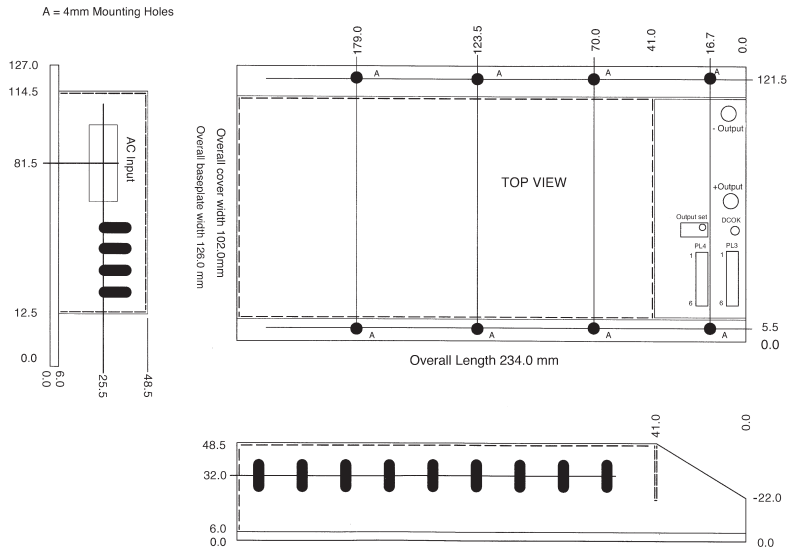
OUTPUT VOLTAGE & CURRENT RATINGS — BCC

Output Power	Output Voltage	Output Current	Output Load Regulation	Model Number
165 W	3.3 V	50.0 A	1.5%	BCC200PS03
200 W	5.0 V	40.0 A	1.5%	**BCC200PS05**
210 W	7.5 V	28.0 A	1.5%	BCC200PS07
240 W	12.0 V	20.0 A	1.5%	**BCC200PS12**
264 W	3.3 V	80.0 A	1.5%	BCC400PS03
400 W	5.0 V	80.0 A	1.5%	**BCC400PS05**
405 W	7.5 V	54.0 A	1.5%	BCC400PS07
408 W	12.0 V	34.0 A	1.0%	**BCC400PS12**
405 W	15.0 V	27.0 A	1.0%	**BCC400PS15**
396 W	18.0 V	22.0 A	1.0%	BCC400PS18
408 W	24.0 V	17.0 A	1.0%	**BCC400PS24**
406 W	28.0 V	14.5 A	1.0%	BCC400PS28

Notes

1. *For -40 °C operating temperature, add suffix 'L' to model number.*
2. *For conformally coated option, add suffix 'E' to model number.*
3. *Part numbers in bold are standard stock models, all others are build to order.*

Mechanical Details



Input:

AMP Mat'n'lok 3 way.
Mating housing AMP 350766-1.
Socket crimp AMP 926893-1.
Pin 1: Live
Pin 2: Earth
Pin 3: Neutral

Output:

Power output +ve and -ve by M6 studs.
Use appropriate ring terminals and wire for the load current.
Signal connections on two 0.1" headers (PL3 & PL4).
Mating Housing: Molex 22-01-2065.
Mating Crimp: Molex 08-50-0032.

PL3 Connections	
Pin	Function
1	Current Balance
2	Voltage Balance
3	Trim
4	-Remote Sense
5	+Remote Sense
6	Remote on/off

PL4 Connections	
Pin	Function
1	Current Balance
2	Voltage Balance
3	Trim
4	-Remote Sense
5	+Remote Sense
6	Temp Warning

Accessories
1. For Input and Output Connector Kit - order part 'BCC connector kit'.
2. For Thermal Pad, order part 'BCC Therm'.

Application Notes

Current and Voltage balance pins are used to connect units in parallel - see drawing.
Remote on/off: Output is on with pin left floating, pull pin down to -Output to turn output off.

Temp Warning: When baseplate is in normal temperature range, output is 5 V typical; goes low, (0.5 V @ 5 mA), when baseplate exceeds safe level.

Remote sense pins are used to compensate for lead drops. For up to 0.5 V max. When not used, move switch SW1 to local positions. See below for switch positions.

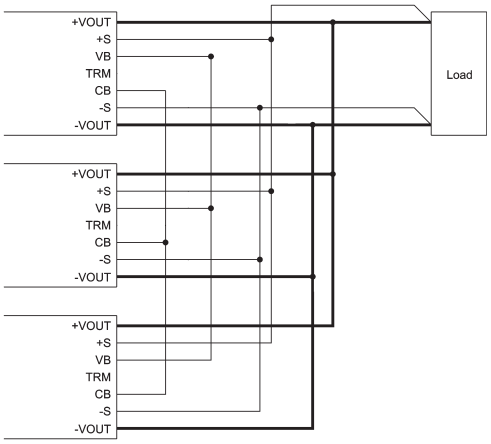
The BCC series is approximately 80% efficient so for 400 W load consumption, the cooling system used will have to be able to absorb 100 W while maintaining the baseplate to a maximum of +83 °C.

Remote Sense Switchers

	Remote	Local
SW1 A (1)	ON	OFF
SW1 B (2)	ON	OFF
SW1 C (3)	OFF	ON
SW1 D (4)	OFF	ON

Contact sales office for a full set of Application Notes.

Examples of parallel operation



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