

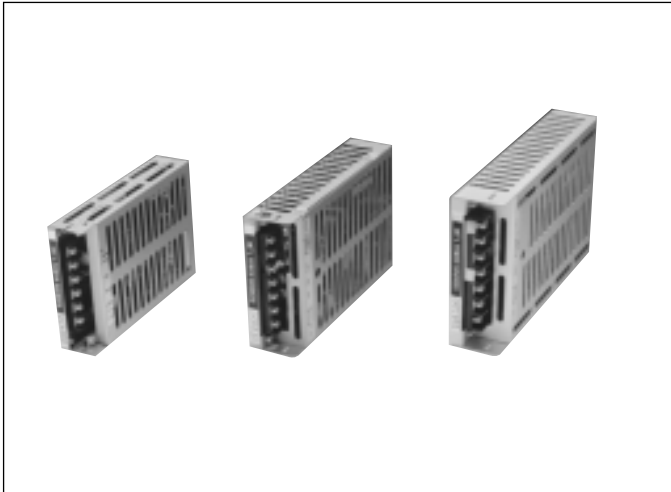
# DC/DC Converters

**XPiQ inc.**

Intelligent Design Quality Product



## 15-25-50 Watts DCA/DCB/DCC Series



- Efficiency to 86%
- Wide Input Ranges
- Adjustable Outputs
- Isolated Outputs
- Input/Output Protection
- Compact Size/Light Weight

### Specification

#### Input

- *Input Voltage Range* • See Table
- *Input Filter* •  $\pi$  Network
- *Input Protection* • Input Fuse

#### Output

- *Voltage Adjustment* •  $\pm 5\%$ , see note 1, page 2
- *Line Regulation (Full Input Range)* • 0.8%
- *Load Regulation (No Load-Full Load)* • 0.9%
- *Ripple & Noise (DC-100MHz)* • 5% of VOUT & 50mV p-p
- *Temperature Coefficient* • 0.03%/°C
- *Overvoltage Protection* • Zener Diode
- *Short Circuit Protection* • Foldback Current Limit

#### General

- *Switching Frequency* • 50 kHz Typical
- *Efficiency* • 75% Typical
- *Isolation (Input-Output-Case)* • 50 Mohm (500 VDC)
- *Weight* • DCA 250g, DCB,350g, DCC 410G

#### Environmental

- *Operating Temperature* • 0°C to 50°C (no derating)
- *Storage Temperature* • -20°C to 85°C

#### Safety and EMC

- *EMI/RFI* • Metal Case



## OUTPUT VOLTAGE & CURRENT RATINGS

DCA/DCB/DCC 15/25/50

Series		DCA	DCB	DCC
Output Code	Output Voltages	Output Current (s)	Output Current (s)	Output Current (s)
01	5 VDC	3.0 A	5.0 A	10 (8) A
02	12 VDC	1.2 A	2.1 A	4.3 (3.3) A
03	15 VDC	1.0 A	1.7 A	3.4 (2.7) A
04	24 VDC	0.62 A	1.1 A	2.5 (1.7) A
05	+12 VDC	0.75 A	1.2 A	2.0 (2.0) A
	-12 VDC	0.5 A	0.9 A	1.7 (1.5)A
06	+15 VDC	0.5 A	1.0 A	1.7A (1.5) A
	-15 VDC	0.5 A	0.7 A	1.5A (1.3) A
07	5 VDC	1.8 A	2.8 A	5.0 A
	+12 VDC	0.15 A	0.5 A	.83 (.73) A
	-12 VDC	0.15 A	0.5 A	.83 (.73) A
08	5 VDC	1.8 A	2.8 A	5.0A
	+15 VDC	0.15 A	0.36 A	.65 (.58)A
	-15 VDC	0.15 A	0.36 A	.65 (.58) A
10	48 VDC	-	0.5 A	1 (0.8) A

For 110/220 selectable inputs add suffix "S" to part number

### Ordering Guide: Series/Input Code

Example: DCC 201 - 50 Watt Series, 24 Volt Input, 5 Volt Output @ 10 AMPS

Series	Output
DCA	15 Watts
DCB	25 Watts
DCC	40/50 Watts

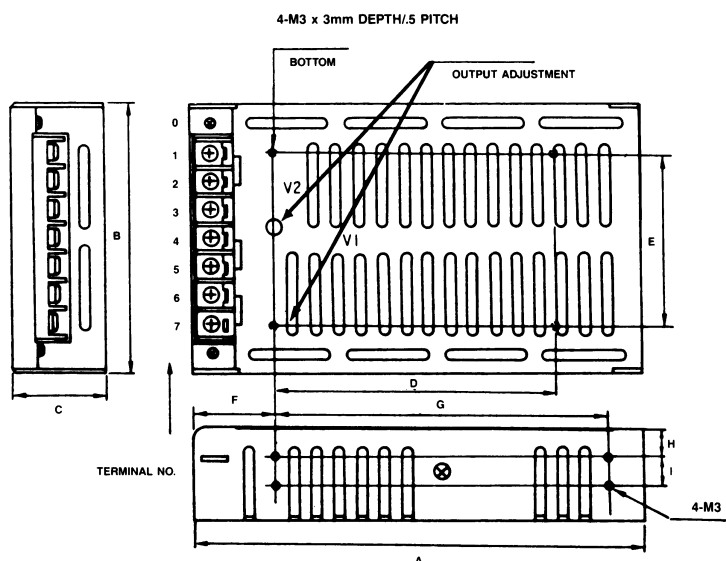
Input Code	Input Range
1	12 volt nominal (9-16 VDC)
2	24 volt nominal (19-32 VDC)
3	48 volt nominal (38-63 VDC)
4	110 volt nominal (85-140 VDC)

Output Code
From Chart Above

Series Terminal	DCA			DCB			DCC		
	Single Output	Dual Output	Triple Output	Single Output	Dual Output	Triple Output	Single Output	Dual Output	Triple Output
0	-	-	Case Gnd (FG)	Case Gnd (FG)	-	Case Gnd (FG)	-	-	Case Gnd (FG)
1	-VIN	-VIN	-VIN	+VIN	+VIN	+VIN	Case Gnd (FG)	+VIN	+VIN
2	+VIN	+VIN	+VIN	-VIN	-VIN	-VIN	+VIN	-VIN	-VIN
3	Case Gnd (FG)	Case Gnd (FG)	-V <sub>3</sub>	Filter Gnd (LFG)	Filter Gnd (FG)	-V <sub>3</sub>	-VIN	Case Gnd (FG)	-V <sub>3</sub>
4	-	-V <sub>OUT</sub>	-V <sub>2</sub>	-	+V <sub>2</sub>	-V <sub>2,3</sub> Common	Filter Gnd (FG)	+V <sub>2</sub>	V <sub>2,3</sub> Common
5	-V <sub>OUT</sub>	Common	Common	-	-V <sub>2</sub>	+V <sub>2</sub>	-V <sub>OUT</sub>	-V <sub>2</sub>	+V <sub>2</sub>
6	+V <sub>OUT</sub>	+V <sub>OUT</sub>	-V <sub>1</sub>	-V <sub>OUT</sub>	+V <sub>1</sub>	+V <sub>1</sub>	+V <sub>OUT</sub>	+V <sub>1</sub>	+V <sub>1</sub>
7	-	-	-	+V <sub>OUT</sub>	-V <sub>1</sub>	-V <sub>1</sub>	-	-V <sub>1</sub>	+V <sub>1</sub>

### Mechanical Details

Dimension	DCA	DCB	DCC
A	4.64(118)	5.31(135)	6.30(160)
B	3.15(80)	3.35(85)	3.78(96)
C	.98(25)	1.22(31)	1.30(33)
D	2.76(70)	2.76(70)	3.94(100)
E	2.05(52)	2.20(56)	2.40(61)
F	1.30(33)	1.28(32.5)	1.18(30)
G	—	3.74(95)	4.65(118)
H	—	.28(7)	.39(10)
I	—	.39(10)	.39(10)



1. DCA Triple output - no adjustment  
DCB /DCC triple outputs - only 5 VDC adjustable