

# CENTURY™, CA SERIES

## 100 Watts: 1-5 Outputs with PFC

### KEY FEATURES

- Power Factor Correction to EN61000-3-2
- Ultra Low Profile 1U Case
- Auto-Range AC Input
- Full 100 Watts Output Power up to 50°C

### OTHER FEATURES

- Outputs From 3.3VDC To 48VDC
- Special Output Configurations
- 80kHz Switching Frequency
- Input EMI Filtering to EN55022 level 'B'
- Input Line Immunity to EN50082-1
- Inrush Current Limiting
- Overload and Overvoltage Protection
- Thermal Protection
- 150,000 Hours MTBF



### TWO-YEAR WARRANTY

### STANDARD MODELS

(For Other Models, Consult Factory)

Max Watts	Output 1 (V1)	Output 2 (V2)	Output 3 (V3)	Output 4 (V4) <sup>1</sup>	Output 5 (V5)	MODEL NUMBER
75	5.0V 15.0A	-	-	-	-	CA2000
98	12.0V 8.2A	-	-	-	-	CA3000
98	24.0V 4.1A	-	-	-	-	CA5000
100	+5.0V 15.0A	+12.0V 5.0A	-12.0V 5.0A	-	-	CA2330
100	+5.0V 15.0A	+15.0V 4.0A	-15.0V 4.0A	-	-	CA2440
100	+5.0V 15.0A	+12.0V 5.0A	-12.0V 5.0A	5.0V 2.0A	-	CA2332
100	+5.0V 15.0A	+15.0V 4.0A	-15.0V 4.0A	5.0V 2.0A	-	CA2442
100	+5.0V 15.0A	+12.0V 5.0A	-12.0V 5.0A	12.0V 2.0A	-	CA2333
100	+5.0V 15.0A	+12.0V 5.0A	-12.0V 5.0A	+24.0V 2.0A	-	CA2335
100	+5.0V 15.0A	+15.0V 4.0A	-15.0V 4.0A	+24.0V 2.0A	-	CA2445
100	+5.0V 15.0A	+12.0V 5.0A	-12.0V 5.0A	48.0V 1.3A	-	CA2337
100	+5.0V 15.0A	+12.0V 5.0A	-12.0V 5.0A	+3.3V 2.0A	-	CA2339
100	+3.3V 15.0A	+12.0V 5.0A	-12.0V 5.0A	5.0V 2.0A	-	CA9332
100	+5.0V 15.0A	+12.0V 5.0A	-12.0V 5.0A	12.0V 2.0A	-5.0V 0.3A	CA23332
100	+5.0V 15.0A	+15.0V 4.0A	-15.0V 4.0A	12.0V 2.0A	-5.0V 0.3A	CA24432
100	+5.0V 15.0A	+12.0V 5.0A	-12.0V 5.0A	+24.0V 2.0A	-5.0V 0.3A	CA23352
100	+5.0V 15.0A	+15.0V 4.0A	-15.0V 4.0A	+24.0V 2.0A	-5.0V 0.3A	CA24452
100	+5.0V 15.0A	+12.0V 5.0A	-12.0V 5.0A	48.0V 1.3A	-5.0V 0.3A	CA23372
100	+5.0V 15.0A	+15.0V 4.0A	-15.0V 4.0A	48.0V 1.3A	-5.0V 0.3A	CA24472

For modified versions, call our Modification Centre at ++44(0)1903 768205

#### NOTES:

1. V4 outputs with no polarity sign are floating.
2. For options add hyphen and option code as suffix to model number.
3. Options PF and R may not be specified at the same time.
4. PF and R Option outputs are TTL level. A PF TTL LO provides 3mS warning of AC failure. An R TTL HI is provided for 3mS when the main output is within limits after AC power is applied.  
When neither option is fitted an open collector output requiring a pull-up resistor to +5V is available.
5. PF or R Options are only available when V1 is +5V.

#### SAFETY CERTIFICATIONS

AGENCY	STANDARD
UL	UL1950
CUL	CSA22.2, No. 950
NEMKO	EN60-950

#### OPTIONS <sup>2,3,4,5</sup>

OPTIONS <sup>2,3,4,5</sup>	
L	L-Bracket without Cover
PF	TTL Power Fail Signal
R	TTL Reset Signal
S	Screw Terminal Strips

# SPECIFICATIONS

Typical at Nominal 115/230VAC Line, 40% Load and 25°C unless otherwise noted.

## OUTPUT SPECIFICATIONS

Voltage Setting.....	<±3% outputs 1, 4 & 5 <±5% outputs 2 & 3
Line Regulation <sup>1</sup> .....	<±0.15% outputs 1, 4 & 5 <±0.4% outputs 2 & 3
Load Regulation <sup>2</sup> .....	<±2.0% output 1 <±2.5% outputs 2 & 3 0.6% outputs 4 & 5
Cross Regulation <sup>3</sup> .....	<±3.5% outputs 2 & 3 <±0.2% outputs 4 & 5
Ripple & Noise <sup>4</sup> .....	<2% pk - pk output 1 <1% outputs 2 - 5
Hold-Up <sup>5</sup> .....	>16ms
Dynamic Response <sup>6</sup> .....	<500µs all outputs
Temperature Coefficient.....	<±0.05% all outputs
Minimum Load.....	10% on output 1
Overload Protection.....	Constant current, latches in short circuit reset by removal of AC power
Overvoltage Protection.....	SCR latch, output 1 set at 135% max. reset by removal of AC power

## INPUT SPECIFICATIONS

Input Voltage.....	85-127VAC/170-254VAC single phase, auto-range
Input Frequency.....	47-63Hz
Inrush Limiting.....	<50A peak (cold start)
Input EMI Filter, Conducted.....	EN55022 curve B FCC20780 pt. 15J curve B
Input Immunity, Conducted	
Fast transients, Line-Line.....	±2kV (EN61000-4-4 level 3)
Surges, Line-Line.....	±1kV (EN61000-4-5 level 2)
Surges, Line-Ground.....	±2kV (EN61000-4-5 level 3)
Input Protection.....	Internal fuse
Harmonic Distortion.....	EN61000-3-2 (class D)

## GENERAL SPECIFICATIONS

Efficiency.....	>75% at full load
Switching frequency.....	80kHz nominal
MTBF <sup>7</sup> .....	>150,000 hours
Isolation, class I <sup>8</sup> .....	>3000VAC input - output >1500VAC input - ground >50VDC output - ground
Safety Standards.....	EN60-950, UL1950, CSA22.2-950

## ENVIRONMENTAL SPECIFICATIONS

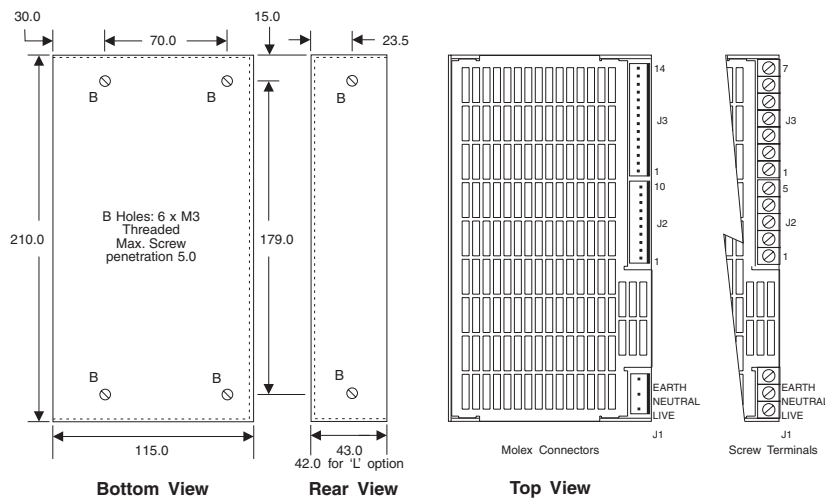
Operating Temperature.....	0°C to 70°C ambient
Derating <sup>9</sup> .....	2.0% / °C 50°C to 70°C
Storage Temperature.....	-40°C to +85°C
Cooling.....	Free air convection to 100W

## PHYSICAL SPECIFICATIONS

Case Material.....	Aluminium and Steel
Dimensions.....	43mm (H) x 210mm (L) x 115mm (W)

### NOTES:

- ±15% AC line change.
- 60% ±40% output load change.
- 75% ±25% output 1 load change, all other outputs 20% load.
- 10Hz - 30MHz differential measurement, 40% load and nominal line.
- 100W output power at nominal AC line.
- <4% deviation recovering to within 1% for 25% load change.
- Full load @ 25°C per MIL HDBK 217E.
- Input - output isolation figure is for isolation components only. 100% production Hipot tested.
- Further derating may be required for continuous operation at extreme low line and high temperature, consult factory.



### MOLEX CONNECTORS

(Standard)

#### J2 Outputs

PIN	FUNCTION	PIN	FUNCTION
1	Power Fail	6	-V1
2	-V1	7	+V1
3	-V1	8	+V1
4	-V1	9	+V1
5	-V1	10	+V1

#### J3 Outputs

PIN	FUNCTION	PIN	FUNCTION
1	-V2	8	+V3
2	-V2	9	-V4
3	+V2	10	-V4
4	+V2	11	+V4
5	-V3	12	+V4
6	-V3	13	-V5
7	+V3	14	+V5

### SCREW TERMINALS

(Option S)

#### J2 Outputs

PIN	FUNCTION
1	Power Fail
2	-V1
3	-V1
4	+V1
5	+V1

#### J3 Outputs

PIN	FUNCTION
1	-V2
2	+V2
3	-V3
4	+V3
5	-V4
6	+V4
7	-V5

### MATING CONNECTORS (MOLEX)

J 1	0.156" 5 pin plug accepts Molex 6442 series. Housing: 26-03-4050. Pins: 08-50-0189 (Trifurcon).
J 2	0.156" 10 pin plug accepts Molex 6442 series. Housing: 26-03-4101. Pins: 08-50-0189 (Trifurcon).
J 3	0.156" 14 pin plug accepts Molex 6442 series. Housing: 26-03-4141. Pins: 08-50-0189 (Trifurcon).

### MATING CONNECTOR KIT

Kit provides mating connectors for all CB Series models with Molex connectors. Order Kit No. 775-1421-000

**ALL DIMENSIONS IN mm.**  
 All specifications subject to change without notice.