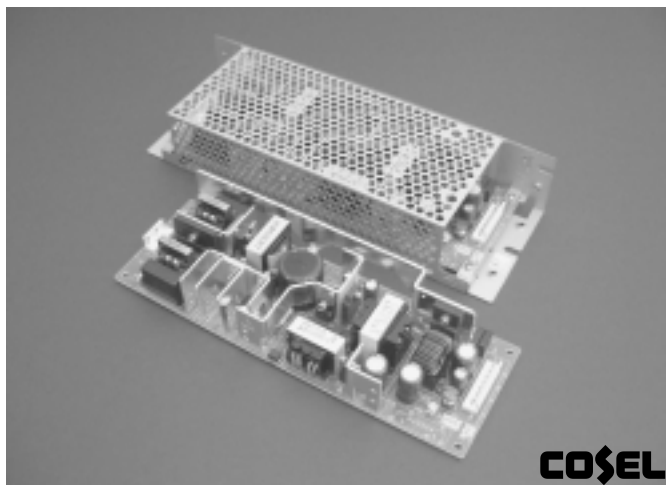


AC-DC Open Frame

100-225 Watts CPL Series



THE **XP**ERTS IN POWER

Isolated Outputs

High Peak Current Ratings

Compact PCB Construction

Optional Remote On/Off

Adjustable Output Voltage

EN55022 Level B

Cover, Connector & Loom Kits Available

Specification

Input

Input Voltage	• 85-264 VAC (120-370 VDC)
Input Frequency	• 47-63 Hz
Inrush Current	• 15/30 A at 120/230 VAC in, 100% load & 25 °C
Power Factor	• 0.99 typical at 100 VAC, 0.93 typical at 200 VAC & 100% load to IEC61000-3-2
Earth Leakage Current	• 0.75 mA max at 230 VAC 60 Hz

Output

Output Voltage	• See Tables
Output Voltage Adjustment	• $\pm 10\%$ V1 only
Minimum Load	• No minimum load required
Start Up Time	• V1 250 ms, V2 500ms
Hold Up Time	• V1 40 ms, V2 20 ms at 120 VAC
Line Regulation	• 0.4% max over specified input range
Load Regulation	• 0.8% max for a 100% load change
Ripple & Noise	• 150 mV pk-pk max (0 °C to +50 °C)
Overcurrent Protection	• >105% of rated current on V1 & >101% of peak current on V2 auto recovery
Overvoltage Protection	• >115% of nominal value for V1 & 115-140% of nominal value for V2

General

Efficiency	• 74-83% depending on specific model
Isolation	• 3000 VAC Input to Output 2000 VAC Input to Ground 500 VAC Output to Ground V1 to V2 100 VAC 1 min, cut off current 100 mA, 100 VDC 10 M Ω min
Switching Frequency	• 80-500 kHz

Options

- Designated by the following suffixes to the model number:
Reduce leakage current <0.1 mA '-G'
Remote ON/OFF '-R'
Cover fitted '-C'
Screw terminals '-T'
Add 4 outputs by the addition of a DC-DC converter to the board '-Z'
Contact Sales Office

Environmental

Operating Temperature	• -10 °C to +70 °C (See Derating Curve)
Storage Temperature	• -20 °C to +75 °C
Humidity	• 20-90% RH, non condensing
Shock	• 196.1 m/s ² (20 G), 11 ms once each X, Y & Z axis
Vibration	• 2 G 10-55 Hz, 3 axis

EMC & Safety

Emissions	• EN55022 Level B conducted EN55022 Level B radiated
ESD Susceptibility	• EN61000-4-2 Level 2 contact Level 3 air
Radiated Susceptibility	• EN61000-4-3 Level 3
EFT/Burst	• EN61000-4-4 Level 3
Surge	• EN61000-4-5 Level 3 line to line Level 4 line to ground
Safety Approvals	• UL1950, C-UL, EN60950, VDE0160

OUTPUT VOLTAGE & CURRENT RATINGS - 100 WATT MODEL

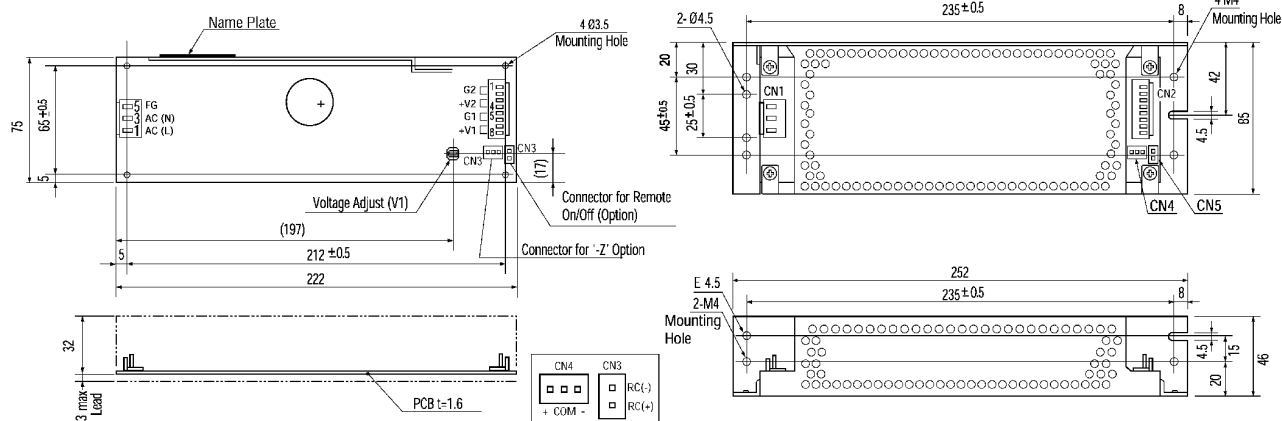
CPL

Output Voltage	Current Rating		Regulation		Ripple & Noise pk-pk ⁽²⁾	Efficiency ⁽³⁾ Typical	Model Number
	Maximum	Peak ⁽¹⁾	Line	Load			
+5 V ₁	5.0 A	-	20 mV	40 mV	120 mV	80%	CPL100PD24
+24 V ₂	4.0 A	7 A	96 mV	150 mV	150 mV		
+5 V ₁	5.0 A	-	20 mV	40 mV	120 mV	76%	CPL100PD12
+12 V ₂	5.0 A	10 A	48 mV	100 mV	150 mV		

Notes

1. Peak rating for 10 sec with a duty cycle of 35% max.
2. Measured with 22 μ F cap within 150 mm of output terminal at 20 MHz bandwidth.
3. Measured at 200 VAC input & 100% load.

Mechanical Details - 100 Watt Models



I/O Connector	Mating Connector	Terminal
CN1	B3P5-VH	VHR-5N
CN2	B8P-VH	VHR-8N
CN3 (Option)	B2B-XH-A	XHP-2
CN4 (Option)	B3B-XH-A	XHP-3

CN1	
Pin No.	Input
1	AC(L)
2	-
3	AC(N)
4	-
5	FG

CN2	
Pin No.	Output
1, 2	G2
3, 4	V2
5, 6	G1
7, 8	V1

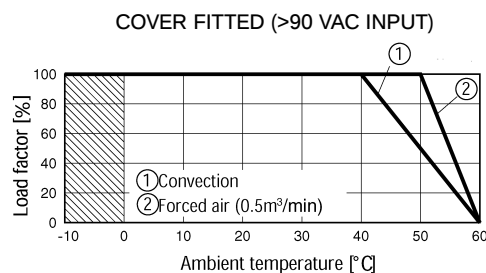
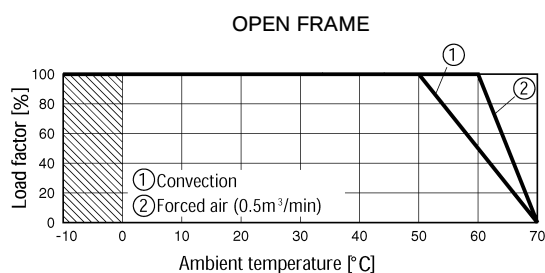
CN3 (Optional)	
Pin No.	Remote On/Off
1	RC(+)
2	RC(-)

CN4 (Optional)	
Pin No.	'-Z'
1	+
2	COM
3	-

NOTES:

- Weight 420g or less (without chassis & cover).
- Tolerance ± 1 .
- Dimensions in mm.
- PCB Material : CEM3.
- Optional chassis & cover, order part no. CPL100 COVER or add suffix '-C' to the model number to receive the unit with the cover fitted.
- Mounting torque 1.5 N m (16 kgf cm) max.
- Keep drawing current per pin below 5 A (7 A @ pk load) for CN2.
- Optional connector kit available, order part no. CPL100/150 CON.
- Optional loom kit available, order part no. CPL100/150 LOOM.

Derating Curves - 100 Watt Models



OUTPUT VOLTAGE & CURRENT RATINGS - 150 WATT MODEL

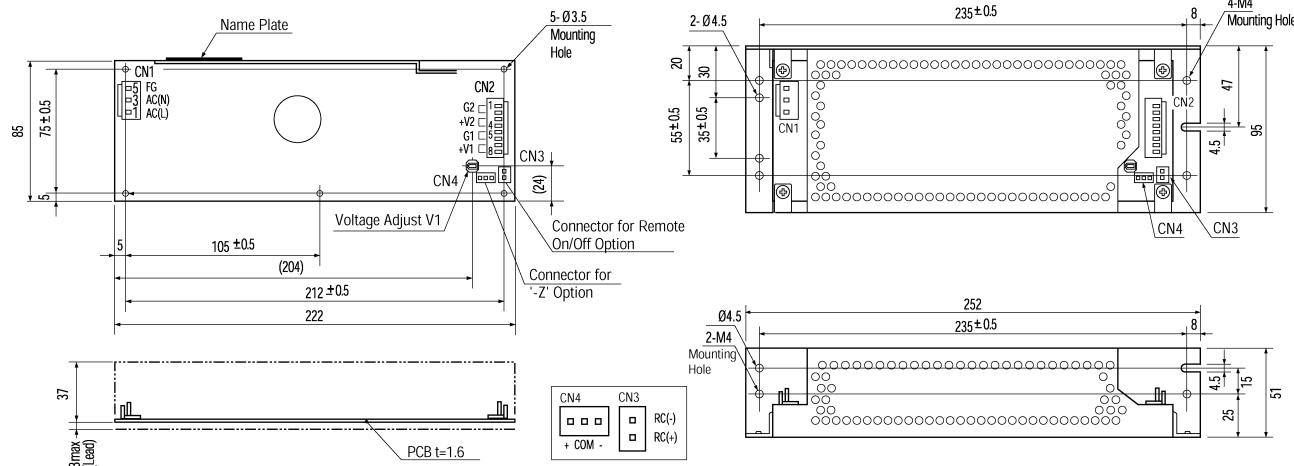
CPL

Output Voltage	Current Rating		Regulation		Ripple & Noise pk-pk ⁽²⁾	Efficiency ⁽³⁾ Typical	Model Number
	Maximum	Peak ⁽¹⁾	Line	Load			
+5 V ₁	5.0 A	-	20 mV	40 mV	120 mV	82%	CPL150PD24
+24 V ₂	6.0 A	10 A	96 mV	150 mV	150 mV		
+5 V ₁	5.0 A	-	20 mV	40 mV	120 mV	79%	CPL150PD12
+12 V ₂	7.5 A	14 A	48 mV	100 mV	150 mV		

Notes

1. Peak rating for 10 sec with a duty cycle of 35% max.
2. Measured with 22 μ F cap within 150 mm of output terminal at 20 MHz bandwidth.
3. Measured at 200 V AC input & 100% load.

Mechanical Details - 150 Watt Models



I/O Connector	Mating Connector	Terminal
CN1	B3P5-VH	VHR-5N
		Chain: SVH-21T-P1.1
		Loose: 8VH-21T-P1.1
CN2	B8P-VH	VHR-8N
		Chain: SVH-21T-P1.1
		Loose: 8VH-21T-P1.1
CN3 (Option)	B2B-XH-A	XHP-2
		Chain: SXH-001-P0.6
		Loose: BXH-001T-P0.6
CN4 (Option)	B3B-XH-A	XHP-3
		Chain: SXH-001-P0.6
		Loose: BXH-001T-P0.6

CN1	
Pin No.	Input
1	AC(L)
2	-
3	AC(N)
4	-
5	FG

CN2	
Pin No.	Output
1, 2	G2
3, 4	V2
5, 6	G1
7, 8	V1

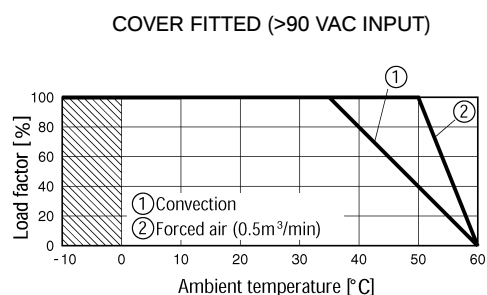
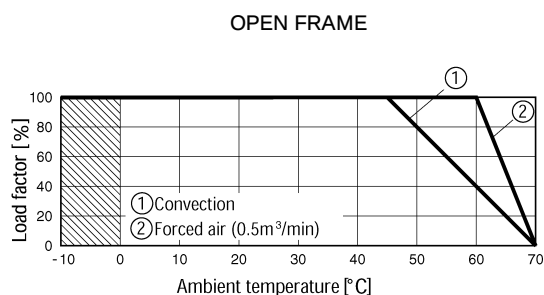
CN3 (Optional)	
Pin No.	Remote On/Off
1	RC(+)
2	RC(-)

CN4 (Optional)	
Pin No.	'-Z'
1	+
2	COM
3	-

NOTES:

- Weight 530g or less (without chassis & cover).
- Tolerance ± 1 .
- Dimensions in mm.
- PCB Material : CEM3.
- Optional chassis & cover, order part no. CPL150 COVER or add suffix '-C' to the model number to receive the unit with the cover fitted.
- Mounting torque 1.5N m (16 kgf cm) max.
- Ensure current per pin is below 5 A (7 A @ pk load) for CN2.
- Optional connector kit available, order part no. CPL100/150 CON.
- Optional loom kit available, order part no. CPL100/150 LOOM.

Derating Curves - 150 Watt Models



OUTPUT VOLTAGE & CURRENT RATINGS - 225 WATT MODEL

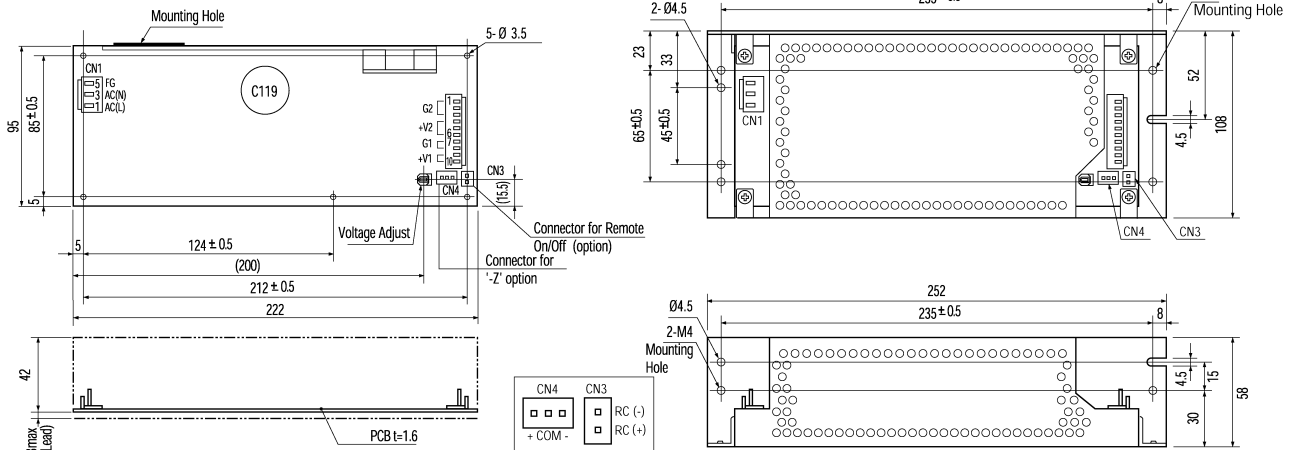
CPL

Output Voltage	Current Rating		Regulation		Ripple & Noise pk-pk ⁽²⁾	Efficiency ⁽³⁾ Typical	Model Number
	Maximum	Peak ⁽¹⁾	Line	Load			
+5 V ₁	5.0 A	-	20 mV	40 mV	120 mV	83%	CPL225PD24
+24 V ₂	9.0 A	14 A	96 mV	150 mV	150 mV		
+5 V ₁	5.0 A	-	20 mV	40 mV	120 mV	79%	CPL225PD12
+12 V ₂	10.0 A	20 A	48 mV	100 mV	150 mV		

Notes

1. Peak rating for 10 sec with a duty cycle of 35% max.
2. Measured with 22 μ F cap within 150 mm of output terminal at 20 MHz bandwidth.
3. Measured at 200 V AC input & 100% load.

Mechanical Details - 225 Watt Models



I/O Connector	Mating Connector	Terminal
CN1	B3P5-VH	VHR-5N
CN2	B8P-VH	VHR-8N
CN3 (Option)	B2B-XH-A	XHP-2
CN4 (Option)	B3B-XH-A	XHP-3

NOTES:

- Weight 700g or less (without chassis & cover).
- Tolerance ± 1 .
- Dimensions in mm.
- PCB Material : CEM3.
- Optional chassis & cover, order part no. CPL225 COVER or add suffix '-C' to the model number to receive the unit with the cover fitted.
- Mounting torque 1.5N m (16 kgf cm) max.
- Keep drawing current per pin below 5 A (7 A @ pk load) for CN2.
- Optional connector kit available, order part no. CPL225 CON.
- Optional loom kit available, order part no. CPL225 LOOM.

CN1	
Pin No.	Input
1	AC(L)
2	-
3	AC(N)
4	-
5	FG

CN2	
Pin No.	Output
1, 2, 3	G2
4, 5, 6	V2
7, 8	G1
9, 10	V1

CN3 (Optional)	
Pin No.	Remote On/Off
1	RC(+)
2	RC(-)

CN4 (Optional)	
Pin No.	'-Z'
1	+
2	COM
3	-

Derating Curves - 225 Watt Models

