

250/500 Watts Peak

- 250 W Convection-cooled Rating
- 500 W Peak Power
- IT & Medical Safety (BF) Approvals
- U Channel 4" x 7.5" Package
- 80 VAC to 300 VAC Input
- 5 V/1.5A Standby & 12 V/0.6 A Auxiliary
- AC OK Signal, Inhibit
- Current Share
- 3 Year Warranty



Dimensions:

CMP250:
7.50 x 4.00 x 1.57" (190.5 x 101.6 x 39.9 mm)

CMP250-C:
7.89 x 4.12 x 1.92" (200.5 x 104.6 x 48.8 mm)

The universal AC input CMP250 provides up to 500 W peak power and 250 W convection-cooled in a 7.5" x 4" package, over the temperature range -40 °C to +50 °C with derating to +70 °C. Approved for IT and Medical (BF) applications and with a feature set including constant current overload characteristics, a 5 V/1.5 A standby output, 12 V/0.6 A auxiliary, AC OK signal, inhibit, current share the CMP250 is ideal for motors and other electromechanical loads, without the need for fan cooling, in both industrial and medical applications.

Models & Ratings

Output Voltage V1	Output Current V1		Standby Supply V2	Aux. Supply V3	Output Power		Model Number ⁽¹⁾
	Convection	Peak			Convection	Peak ⁽²⁾	
24 V	10.4 A	20.8 A	5.0 V / 1.5 A	12.0 V / 0.6 A	250 W	500 W	CMP250PS24
36 V	6.9 A	13.8 A	5.0 V / 1.5 A	12.0 V / 0.6 A	250 W	500 W	CMP250PS36
48 V	5.2 A	10.4 A	5.0 V / 1.5 A	12.0 V / 0.6 A	250 W	500 W	CMP250PS48

Notes

1. Add suffix '-C' for covered version, e.g. CMP250PS24-C (20% derating applies)
2. Peak current/power available for up to 1 minute. Average power must not exceed 225 W, other peak and average load conditions can be accommodated limited by the thermal considerations and average power rating. Peak power and average power derate below 90 VAC.

Summary

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Range	80	115/230	264	VAC	Derate output power <90 VAC, see fig.1 0.5 seconds max
			300		
No Load Input Power		1.3		W	All models, when optional inhibit activated
Input Frequency	47	50/60	63	Hz	
Power Factor		>0.95			EN61000-3-2 class A compliant EN61000-3-2 class C for loads ≥50%
Input Current - Full Load		5.2/2.6		A	115/230 VAC. 500 W
Inrush Current		30	40	A	Cold start 25 °C, 230 VAC
Earth Leakage Current		100/200	250	µA	Typ. 115/230 VAC 50 Hz, Max 264 VAC 60 Hz
Patient Leakage Current		55	80	µA	
Efficiency		89		%	230 VAC, 250 W
Operating Temperature	-40		+70	°C	See derating curve, fig.8 and Thermal Considerations on page 8
EMC	EN55032/11 Class B Conducted & Radiated, EN61000-3-2, EN61000-3-3				
Safety Approvals	EN62368-1, UL62368-1, CSA C22.2 No. 62368-1, IEC62368-1, IEC60950-1 Ed 2, IEC60601-1 Ed 3 Including Risk Management, ANSI/AAMI ES60601-1:2005 & CSA C22.2, No.60601-1:14				

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	80	115/230	264	VAC	Derate output power < 90 VAC. See fig. 1
Input Voltage - Fault Condition			300	VAC	0.5 seconds max
Input Frequency	47	50/60	63	Hz	
Power Factor		>0.95			EN61000-3-2 class A compliant EN61000-3-2 class C for loads $\geq 50\%$
Input Current - Full Load		5.2/2.6		A	115/230 VAC. 500 W
No Load Input Power		1.3		W	All models, when optional inhibit activated
		7.8			CMP250PS24 - 115V AC
		6.4			CMP250PS24 - 230V AC
		6.5			CMP250PS36 - 115V AC
		4.2			CMP250PS36 - 230V AC
		7.0			CMP250PS48 - 115V AC
		6.0			CMP250PS48 - 230V AC
Inrush Current		30	40	A	230 VAC
Earth Leakage Current		100/200	250	μ A	Typ. 115/230 VAC 50 Hz, Max 264 VAC 60 Hz
Input Protection	F10 A/250V internal fuse in both AC lines				

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage	24		48	VDC	See Models and Ratings table
Initial Set Accuracy			± 1	%	50% load, 115/230 VAC
Output Voltage Adjustment			± 10	%	
Minimum Load	0			A	
Start Up Delay		1.0	2.0	s	115/230 VAC full load from input AC turn on
Hold Up Time	20			ms	90 VAC, 250 W
Drift			± 0.2	%	After 20 min warm up
Line Regulation			0.5	%	
Load Regulation			1.0	%	0-100% load
Transient Response			<4	%	Recovery within 1% in less than 500 μ s for a 50-75%-50% load change
Ripple & Noise			1	% pk-pk	20 MHz bandwidth
Overvoltage Protection	115		140	%	Vnom DC. Output 1, recycle input to reset
Overload Protection	205		255	%	Of average power, approx. constant current
Short Circuit Protection					Continuous, no damage
Temperature Coefficient			0.05	%/°C	
Overtemperature Protection					Shut down & auto recovery
Patient Leakage Current		55	80	μ A	

Input Voltage Derating

Figure 1

