

13100 Alondra Blvd., #106. Cerritos, California 90703 Tel: 562-677-1268, Fax: 562-677-1269 web site: http://www.enhanceusa.com

- Power The World with Highest Efficiency



## ENO-2090

**Features** 

- 90W Output, Active PFC
- Protections: OVP, OPP, SCP, OTP
- Reliability: MTBF 100,000 hrs @ 25°C, Full Load
- High Efficiency: 80% @ 115Vac, Full Load
- Safety Approval: Pending
- Warranty: 1-year manufacturer

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$(\epsilon)$	FC	RoHS
		COMPLIANT 2002/95/EC

Input Specification					
Parameter	Conditions/Description		Normal	Max.	Units
Input Voltage Range	Universal Input	90	100-240	264	V(ac)
Input Frequency Range		47	60/50	63	Hz
•	Measured at 90 Vac / 264 Vac input, full load output			2.0	A
Inrush Current	Measured at 50A@115Vrms /100A@ 230Vac (25°C ambient temperature, cold start).				A
Efficiency	Measured at 115 Vac or 230Vac , Full Load		80		%

Output Specification									
	Vo	ltage Regu	lation	Ripple Noise	(	Output Curr	ent (Amps	5)	
Conditions/Description	Range		Max. (V)	(mVp-p)	Min.	Normal	Max.	Peak	Units
	+/-5%	3.14	3.47	50	0	-	6	-	
	+/-5%	4.75	5.25	50	1	-	8	-	
	+/-5%	4.75	5.25	50	0	-	1.0	3.5	
	+/-5%	11.4	12.6	120	0	-	6	19	
	+/-10%	-10.8	-13.2	120	0	-	0.3	-	
Measured at 115Vac/60Hz or 230Vac/50Hz/90	% load aft	er power so	urce remove	ed.	16				mSec
					-		10		mSec
		Conditions/Description Range   +/-5% +/-5%   +/-5% +/-5%   +/-5% +/-10%	Conditions/Description Range Min. (V)   +/-5% 3.14   +/-5% 4.75   +/-5% 4.75   +/-5% 11.4   +/-10% -10.8	+/-5% 3.14 3.47 +/-5% 4.75 5.25 +/-5% 4.75 5.25 +/-5% 11.4 12.6 +/-10% -10.8 -13.2	Conditions/Description Range Min. (V) Max. (V) (m/p-p)   +/-5% 3.14 3.47 50   +/-5% 4.75 5.25 50   +/-5% 4.75 5.25 50   +/-5% 1.75 5.25 50   +/-5% 1.4 12.6 120	Conditions/Description Range Min. (V) Max. (V) (mVp-p) Min.   +/-5% 3.14 3.47 50 0   +/-5% 4.75 5.25 50 1   +/-5% 4.75 5.25 50 0   +/-5% 1.4 12.6 120 0   +/-10% -10.8 -13.2 120 0	Conditions/Description Range Min. (V) Max. (V) (mVp-p) Min. Normal   +/-5% 3.14 3.47 50 0 -   +/-5% 4.75 5.25 50 1 -   +/-5% 4.75 5.25 50 0 -   +/-5% 1.4 12.6 120 0 -   +/-5% 10.8 -13.2 120 0 -	Conditions/Description Range Min. (V) Max. (V) (mVp-p) Min. Normal Max.   1 +/-5% 3.14 3.47 50 0 6 6   +/-5% 4.75 5.25 50 1 8 8   +/-5% 4.75 5.25 50 0 - 1.0   +/-5% 1.1.4 12.6 120 0 - 6   +/-10% -10.8 -13.2 120 0 - 0.3   Measured at 115Vac/60Hz or 230Vac/50Hz/90% load after power source removed. 16 16	Conditions/Description Range Min. (V) Max. (V) (mVp-p) Min. Normal Max. Peak   +/-5% 3.14 3.47 50 0 - 6 -   +/-5% 4.75 5.25 50 1 - 8 -   +/-5% 4.75 5.25 50 0 - 1.0 3.5   +/-5% 11.4 12.6 120 0 - 6 19   +/-10% 10.8 -13.2 120 0 - 0.3 -   Measured at 115Vac/60Hz or 230Vac/50Hz/90% load after power source removed. 16 16 -

Total Combined Output of +3.3V and +5V can not exceed 45W.

Enviromental Specification					
Parameter	Conditions/Description		Normal	Max.	Units
MTBF	Calculated via MIL-HDBK-217F $@$ 25°C ambient temperature , Full load, 110 Vac	100,000			Hours
Operating Temperature	Full load	0		40	°C
Storage Temperature		-40		70	°C
Relative Humidity	Non-Condensing	20		85	%
Dimension	Length x Width x Height	165 x 65	x 40/6.5 x	2.56 x 1.57	mm / inch
ROHS European Directive 2002/95/EC					

Reliability Protection		
Parameter	Conditions/Description	Recovery Mode
Overload	Transit to current limit mode if output over 110% - 180%	Shut Down Output, Auto recover once reset AC power-on by user
Over Voltage		Shut Down Output, Auto recover once reset AC power-on by user
Short Circuit		Shut Down Output, Auto Recover once faults conditions removed
Over Temperature		Shut Down Output, Auto Recover once faults conditions removed

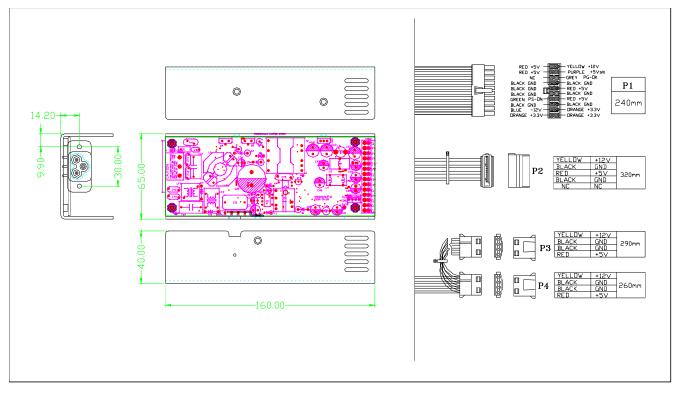
Safety & EMC Compliance				
Category	Standard		Comment	
SAFETY	cUL, Nemko		Meet	
EMI Conduction & Radiation			Compliance	
Harmonic Current Emissions		EN61000-3-2	Compliance	
EMS Immunity	Voltage Fluctuation	EN61000-3-3	Compliance	
	Electrostatic Discharge (ESD)	EN61000-4-2	Compliance	
	Radiated Susceptibilty	EN61000-4-3	Compliance	
	Fast Transients / Burst - EFT	EN61000-4-4	Compliance	
	Input Line Surge Immunity	EN61000-4-5	Compliance	
	Conducted Susceptibility	EN61000-4-6	Compliance	
	Power Frequency Magnetic Field	EN61000-4-8	Compliance	
	Voltage Dips	EN61000-4-11	Compliance	

Industrial Panel PC



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P1	Molex 39-01-2200 or equivalent
P3,P4	Molex 8981-04P or equivalent
P2	Molex 88751 or equivalent SATA

## Notes

- Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheet are no longer controlled by Enhance Electronics, refer to <u>http://www.enhanceusa.com</u> for the most current product specifications.
- 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured.
- 3. Mechanical drawings (model No. ENO-2090) is for reference only. The cable wire configuration may vary from other custom designed models as picture showing. Please contact your sales representative for detail.
- 4. Specifications are for reference only. All specifications are measured at an ambient temperature of 25°C, humidity 65%, 230Vac nominal input voltage and at rated output load unless otherwise specified.