



Diamond Series

Solar PCU - MPPT

- DSPic based Pure Sine Wave design
- Inbuilt MPPT Charge Controller.
- Maximum preference to Solar Power.
- USB based monitoring.
- 30 days data Logs.
- Inbuilt DC and AC energy meter.
- Tested as per IEC 61683 and IEC 60068-2-(1,2,14,30) standards.
- Robust design-20 yrs product life
- AC and DC Parameter configurable from LCD Switches :-
 - AC - Output Voltage/Input Voltage
 - DC - Charging Voltage/Charging Current
- Enable/Disable by LCD Switches :- NLSD Grid Charging, IT Load
- Operating Mode - PCU/SMART/HYBRID
- Application - Hospitals, Schools, Home, Industries, Petrol Pumps, Banks, Offices.



TECHNICAL SPECIFICATION

Parameters	Units	Rating				
Model No.		EDM3000	EDM5000	EDM5000	EDM7500	EDM10000
System Rating	VA	3000	5000	5000	7500	10000
Operating DC Voltage	V	48	48	96	120	120
Photovoltaic Input						
Input Voltage Range (Min-Max)	VDC	80-230	80-230	160-400	200-500	200-500
Maximum PV Power Recommended	KW	3.0	5.0	5.0	7.5	10
Solar Charge Controller Rating	A	60	100	50	60	80
MPPT Based Charging Controller						
Switching Element		IGBT				
Controller		DSP				
Type of Charger		MPPT				
Efficiency	%	95				
Parameter		Configurable				Default Value
Battery Low Buzzer	V	Batt. Low Cut +0.2				10.7
Battery Low Cut	V	10-11.7				10.5
Battery High Cut (INV.)	V	SPV Present-SPV CHG. REF +1V for 15Sec, SPV CHG. REF +1.5V for 2Sec				Auto
		SPV Absent-SPV CHG. REF for 15Sec, SPV CHG. REF +0.2V for 2Sec				Auto
Battery Charging Voltage by SPV	V	13.5-16				14.6
Battery Charging Current by SPV	A	12-60				30A
Battery Charging Voltage by Grid	V	13.0-15.5				14.2
Battery Charging Current by Grid	A	6-15				12
Grid Low Cut Voltage (IT Mode- Enable/Disable)	V	NA/120-200				175/120
Grid High Cut Voltage (IT Mode- Enable/Disable)	V	NA/245-280				260/280
Grid Charging		Enable/Disable				Enable
IT Load		Enable/Disable				Enable
Operating Mode		Smart/PCU/Hybrid				Smart
Output Voltage Low	V	170-190				185
Output Voltage High	V	250-260				255
No Load Shut Down		Enable/Disable				Disable
Input Source		Grid/Genset				Grid
Battery						
Grid Disconnect (Solar Available) PCU/SMART		@14.5/Battery for 2minutes or 13.5/Battery-100% Current				
Grid Reconnect (PCU Mode/Smart Mode)	V	11-12				11.5
Temp. Compensation		@3mV/cell/°C ; 18mV/Battery/°C				
Inverter						
Switching Element		Mosfet		IGBT		
Control		PWM				
Nominal Output Voltage	VAC	220				
Output Supply Phase		1Phase, 3Wire				
Output Waveform		Pure Sine Wave				
Nominal Frequency	Hz	50.0				
Load Current	A	13.5	18	18	27	36
Voltage Regulation	%	1				
Output Voltage Distortion with 100% Linear Load	%	<3				
Overload Capacity (IT LOAD DISABLE)	%	100-120(2time auto reset) : 60sec 120-150(2time auto reset) : 30sec 150-200 : 2sec		200-300 : 1sec 300-400 : 250ms >400 : 20ms		
Overload Capacity (IT LOAD ENABLE)	%	100-110 : 10 Min 110-120 : 2 Min 120-150 : 30sec		150-200 : 2Sec 200-300 : 1Sec 300-400 : 250ms >400 : 20ms		
Peak Efficiency	%	>88				
Noise @ 1meter	dB	50				
Cooling		Temp Controlled, Fan				
Protections		Overload, Battery Low, Battery High, Output Low, Output High, Output Short Ckt., Overheat, Under Frequency, Over Frequency, Solar Panel Reverse				
Display Parameters		Battery Voltage, Charging Current, Discharging Current, Charging KWH, Discharging KWH, Solar Voltage, Solar Current, Instantaneous Power, Cumulative Power, Grid Voltage, Grid Current, Grid Frequency, Output Voltage, Output Current, Output Frequency NLSD En/Dn, IT Load En/Dn Grid Charger En/Dn, Operating Mode PCU/SMT/HYD Reset for System ON/OFF, UP, DOWN, BACK, ENTER (for LCD Configuration)				
Switches		Reset for System ON/OFF, UP, DOWN, BACK, ENTER (for LCD Configuration)				
Indications		System ON, Inverter ON, SPV Charging, Grid Charging, Battery Low/High, Overload, Overheat, Mains Low, Mains High, Under Frequency, Over Frequency, NLSD, Fault				
Environment						
Operating Temperature	°C	0-50				
Max Relative Humidity @25°C(non condensing)	%	95				
Degree of Protection		IP21				
Data Logging		30 Day Data Storage				
Dimension (LxWxH)	Inch	18 x 10 x 18		24 x 13 x 23		24 x 13 x 26
Weight (Approx)	Kg.	44	51	71	80	103

*Specification are subject to change without prior notice due to constant improvement in design & technology.



EASTMAN AUTO & POWER LTD.
572, Udyog Vihar, Phase-5, Gurgaon - 122016,
Haryana[INDIA]
sales@eastmanglobal.com
www.eaplworld.com | +91 124 4627900