



**EXIDE ADITYA**

MPPT SOLAR PCU





# MPPT SOLAR PCU

Exide offers high efficiency MPPT based Solar Off-Grid Power Conditioning Units. A perfect blend of best-in-class technology and design, ensures maximum harness of solar energy, delivers reliable and quality power output. Intelligent Power sharing logic automatically selects Solar as top priority source for recharging of battery and minimizes grid consumption. The wide range of capacities make the products suitable for various off-grid applications and scale of systems.

## KEY FEATURES

- **Advanced MPPT Technology** for higher power extraction from PV Array
- **Priority Settings** consent low grid consumption, consumer savings in electricity bill and extended back-up.
- **ASIC Technology** based Battery charging for extended battery life.
- **User Expediency** – LCD Display with Tri-Colour backlight for convenient display of parameters
- **Safety Assurance** – Comprehensive in-built protections for reverse polarity, short circuit, battery over charging etc.
- **Product performance** meets IS 16221 and IEC 62109 specifications

## APPLICATIONS

Solar Minigrids



Solar Roof-top for Individual Residences, Gated Communities, Clubs & Institutions



Commercial & Industrial Rooftop Solar Plants



Rooftop Solar Plants for Health Care & Emergency Lighting Systems





# MPPT SOLAR PCU

## SPECIFICATIONS

Model	ADITYA 2K24V	ADITYA 2.5K48V	ADITYA 3.5K48V	ADITYA 5K48V	ADITYA 5K96V	ADITYA 7.5K120V	ADITYA 10K120V
Rated capacity (kVA)	2	2.5	3.5	5	5	7.5	10
Battery nominal voltage (V)	24	48	48	48	96	120	120
Maximum PV input power (W)	2010	2680	4020	5360	5360	8040	10720
Maximum PV input voltage (V)	99		198		396		
MPPT operating voltage range (V)	60-80		120-160		240-320		
Minimum PV input voltage (V)	60		120		180		
Maximum PV input current (A)	26.5	35.5	26.5	35.5	17.7	26.5	35.5
Maximum charging current from grid (A)	20 default (5-20 adjustable)	16 default (5-16 adjustable)	18 default (5-18 adjustable)	24 default (5-24 adjustable)	16 default (5-16 adjustable)	16 default (5-16 adjustable)	20 default (5-20 adjustable)
No. of output phase	1						
Output voltage (V)	225±1%		230±1%				
Output frequency (Hz)	50±1%						
Rated output current (A)	7.4±0.5	11.5±0.5	13±0.5	17.5±0.5	17.5±0.5	26±0.5	35±0.5
Output power factor	0.8						
Operating temperature range	0°C - 45°C						
Storage temperature range	10°C - 60°C						
RH	5% - 95% Non-condensate						
Maximum altitude (mtr A.S.L)	2000						
Ingress protection	IP21						
Dimension (D x W x H in mm)	325 x 276 x 379		420 x 276 x 630			470 x 276 x 770	
Approx. Weight (kg)	23	27	44	56	58	65	79
Protections	PV reverse polarity, PV reverse current flow, PV surge, Grid input over and under voltage, Grid frequency out of range, Battery over and under voltage, Battery overcharge, Battery reverse polarity, Overload, Load short circuit, Inverter over-temperature						
Cooling	Air cooled						
Display parameters	Solar Power Availability, Total PV generation, PV current to battery and load, UPS ON/OFF, Applied load %, O/P voltage, Battery Voltage, Battery Charging/Discharging Status, Mains I/P voltage, Operation Mode, Overload, Short circuit trip, Fuse/MCB trip, PV reverse, Over-temperature, Battery low/Over charge protection						

## SYSTEM CONFIGURATIONS WITH MPPT SOLAR PCU

System Rated Capacity (VA)	Power pack	Estimated Backup Duration (Hrs)	Battery configuration			PV Module configuration			Dependency	Estimated Roof space required (ft <sup>2</sup> )
			Rating	S*	P*	Rating	S*	P*		
<b>2000 (24V)</b>	335Wp x 6 + 6LMS150L x 4 + 2kVA	2	12V 150Ah	2	2	335Wp	2	3	100%	216
	335Wp x 6 + 6LMS200L x 4 + 2kVA	2.5	12V 200Ah	2	2	335Wp	2	3	100%	216
<b>2500 (48V)</b>	335Wp x 8 + 6LMS200L x 4 + 2.5kVA	2	12V 200Ah	4	1	335Wp	2	4	100%	288
	335Wp x 8 + 6LMS150L x 8 + 2.5kVA	3	12V 150Ah	4	2	335Wp	2	4	94%	288
<b>3500 (48V)</b>	335Wp x 12 + 6LMS150L x 8 + 3.5kVA	2	12V 150Ah	4	2	335Wp	4	3	100%	433
	335Wp x 12 + 6LMS200L x 8 + 3.5kVA	3	12V 200Ah	4	2	335Wp	4	3	94%	433
<b>5000 (48V)</b>	335Wp x 16 + 6LMS200L x 8 + 5kVA	2	12V 200Ah	4	2	335Wp	4	4	100%	577
	335Wp x 16 + 6LMS150L x 12 + 5kVA	2.5	12V 150Ah	4	3	335Wp	4	4	100%	577
<b>5000 (96V)</b>	335Wp x 16 + 6LMS200L x 8 + 5kVA	2	12V 200Ah	8	1	335Wp	8	2	100%	577
	335Wp x 16 + 6LMS150L x 16 + 5kVA	3	12V 150Ah	8	2	335Wp	8	2	94%	577
<b>7500 (120V)</b>	335Wp x 24 + 6LMS200L x 10 + 7.5kVA	2	12V 200Ah	10	1	335Wp	8	3	100%	865
	335Wp x 24 + 6LMS150L x 20 + 7.5kVA	3	12V 150Ah	10	2	335Wp	8	3	94%	865
<b>10000 (120V)</b>	335Wp x 32 + 6LMS150L x 20 + 10kVA	2	12V 150Ah	10	2	335Wp	8	4	100%	1154
	335Wp x 32 + 6LMS200L x 20 + 10kVA	2.5	12V 200Ah	10	2	335Wp	8	4	100%	1154

\*S- No. of components in series; P- No. of components in parallel

# EXIDE PWM SOLAR PCU

The New Generation PWM based Solar Off-Grid UPS range incorporates advanced Microcontroller based technology with high quality MOSFET based design. These are powered by Priority selection logic for minimum utilization of Grid power. These products have Large digital LCD display that help in easy operation.

## KEY FEATURES

- **Superior Power Quality with Pure Sine wave output for longevity of connected appliances**
- **Reliable operation with SMT technology based assembling of SMD components**
- **Mains Power Saving – Priority oriented charging and power sharing with maximum priority to Solar**
- **Wide Mains Input Voltage Range – Enables battery charging even on high variations of Mains voltage**
- **Safety Assurance – Comprehensive in-built protections for reverse polarity, short circuit, battery over charging etc**
- **Product performance meets IS 16221 and IEC 62109 specifications**

### APPLICATIONS

Community Solar Plants



Solar Microgrids



Solar Power Packs and Home Lighting Systems



Solar based Signalling and Communication Systems

# EXIDE PWM SOLAR PCU

## SPECIFICATIONS

Model	EXIDE 700	EXIDE 900	EXIDE 1100	EXIDE 1500	EXIDE 2200	EXIDE 2.5kVA	EXIDE 3kVA	EXIDE 3.5kVA	EXIDE 5.2kVA 48V	EXIDE 5.2kVA 96V	EXIDE 7.5kVA 120V	EXIDE 10kVA 120V	EXIDE 10kVA 180V	
Rated capacity (VA)	650	850	1050	1450	2000	2500	3000	3500	5200	5200	7500	10000	10000	
Battery nominal voltage (V)	12		24		48			96		120		180		
Maximum PV input power (W)	450		900	1500	3000			4200	6000	7500	10500	11250		
Maximum PV input voltage (V)	25		50		100			200		250		375		
Minimum PV input voltage (V)	16		32		64			128		160		240		
Maximum PV input current (A)	30				50			70	50		70	50		
Grid input voltage range- Normal Mode/UPS Mode (V)	90V ~ 300V/ 180V ~ 270V					100V ~ 280V/ 180V ~ 260V								
Max. charging current from grid -HC Mode/NC Mode (A)	15/11	17/12	18/13	17/12	20/14	15/12	15/12	15/12	22/18	17/12	17/12	20/16	18/14	
No. of output phase	1													
Output voltage (V)	220±7													
Output frequency (Hz)	50±1													
Output power factor	0.8													
Operating temperature range	0°C - 45°C													
Storage temperature range	10°C - 60°C													
RH	5% - 95% Non-condensate													
Maximum altitude (mtr A.S.L)	2000													
Ingress protection	IP20													
Dimension (H x W x D in mm)	343 x 330 x 118			400 x 370 x 250		420 x 385 x 490			500 x 380 x 575				560x395x595	
Weight (kg)	9	10	10.5	16.5	17.2	27.2	31.2	31.2	45.5	44.5	74	74	74.2	
Protections	PV reverse polarity, PV reverse current flow, PV surge, Grid input over and under voltage, Grid frequency out of range, battery over and under voltage, Battery overcharge, Battery reverse polarity, Overload, Load short circuit, Inverter over-temperature													
Cooling	Air cooled													
Display parameters	Solar Power Availability, Applied load %, Battery Voltage, Battery Charging/Charged Status, Mains I/P voltage, Operation Mode, Overload, Short circuit trip, Fuse/MCB trip, PV reverse, Over-temperature, Battery low/Over charge protection													

**EXIDE**

# SYSTEM CONFIGURATIONS WITH PWM SOLAR PCU

System Rated Capacity (VA)	Description	Estimated Backup Duration (Hrs)	Battery configuration			PV Module configuration			Dependency on PV	Estimated Roof space required (ft <sup>2</sup> )
			Rating	S*	P*	Rating	S*	P*		
<b>1450 (24V)</b>	335W <sub>p</sub> x 3 + 6LMS200L x 2 + 1450VA	2	12V 200Ah	2	1	335W <sub>p</sub>	1	3	100%	108
	335W <sub>p</sub> x 3 + 6LMS150L x 4 + 1450VA	3	12V 150Ah	2	2	335W <sub>p</sub>	1	3	75%	108
<b>2000 (24V)</b>	335W <sub>p</sub> x 4 + 6LMS150L x 4 + 2000VA	2	12V 150Ah	2	2	335W <sub>p</sub>	1	4	100%	144
	335W <sub>p</sub> x 4 + 6LMS200L x 4 + 2000VA	3	12V 200Ah	2	2	335W <sub>p</sub>	1	4	72%	144
<b>2500 (48V)</b>	335W <sub>p</sub> x 10 + 6LMS200L x 4 + 2500VA	2	12V 200Ah	4	1	335W <sub>p</sub>	2	5	100%	361
	335W <sub>p</sub> x 10 + 6LMS150L x 8 + 2500VA	3	12V 150Ah	4	2	335W <sub>p</sub>	2	5	100%	361
<b>3000 (48V)</b>	335W <sub>p</sub> x 10 + 6LMS150L x 8 + 3000VA	2	12V 150Ah	4	2	335W <sub>p</sub>	2	5	100%	361
	335W <sub>p</sub> x 10 + 6LMS200L x 8 + 3000VA	3	12V 200Ah	4	2	335W <sub>p</sub>	2	5	98%	361
<b>3500 (48V)</b>	335W <sub>p</sub> x 10 + 6LMS150L x 8 + 3500VA	2	12V 150Ah	4	2	335W <sub>p</sub>	2	5	100%	361
	335W <sub>p</sub> x 10 + 6LMS200L x 8 + 3500VA	3	12V 200Ah	4	2	335W <sub>p</sub>	2	5	84%	361
<b>5200 (48V)</b>	335W <sub>p</sub> x 12 + 6LMS200L x 8 + 5.2kVA	2	12V 200Ah	4	2	335W <sub>p</sub>	2	6	100%	433
	335W <sub>p</sub> x 12 + 6LMS200L x 12 + 5.2kVA	3	12V 200Ah	4	3	335W <sub>p</sub>	2	6	68%	433
<b>5200 (96V)</b>	335W <sub>p</sub> x 16 + 6LMS200L x 8 + 5.2kVA	2	12V 200Ah	8	1	335W <sub>p</sub>	4	4	100%	577
	335W <sub>p</sub> x 16 + 6LMS150L x 16 + 5.2kVA	3	12V 150Ah	8	2	335W <sub>p</sub>	4	4	90%	577
<b>7500 (120V)</b>	335W <sub>p</sub> x 20 + 6LMS200L x 10 + 7.5kVA	2	12V 200Ah	10	1	335W <sub>p</sub>	5	4	100%	721
	335W <sub>p</sub> x 20 + 6LMS200L x 20 + 7.5kVA	3	12V 200Ah	10	2	335W <sub>p</sub>	5	4	78%	721
<b>10000 (120V)</b>	335W <sub>p</sub> x 30 + 6LMS150L x 20 + 10kVA	2	12V 150Ah	10	2	335W <sub>p</sub>	5	6	100%	1082
	335W <sub>p</sub> x 30 + 6LMS200L x 20 + 10kVA	2.5	12V 200Ah	10	2	335W <sub>p</sub>	5	6	100%	1082
<b>10000 (180V)</b>	335W <sub>p</sub> x 32 + 6LMS200L x 15 + 10kVA	2	12V 200Ah	15	1	335W <sub>p</sub>	8	4	100%	1154
	335W <sub>p</sub> x 32 + 6LMS150L x 30 + 10kVA	3	12V 150Ah	15	2	335W <sub>p</sub>	8	4	94%	1154

\*S- No. of components in series; P- No. of components in parallel

# EXIDE



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