EXIDE ADITYA

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SOLAR POWER CONDITIONING UNITS

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 5.2K48V	ADITYA 5.2K96V	ADITYA 7.5K120V	ADITYA 10K120V
Rated capacity (kVA)	2	2.5	3.5	5.2	5.2	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 battery charging current from PV	40A default (5A-50A adjustable)						
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)	380 x 370 x 360		530 x 385 x 735			530 x 385 x 785	
Approx. Weight (kg)	18	28	46	58	58	65	81
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^2)
			Rating	S*	P*	Rating	S*	P*		
2000 (24V)	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
2500 (48V)	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
3500 (48V)	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
5200 (48V)	335Wp x 16 + 6LMS200L x 8 + 5.2kVA	2	12V 200Ah	4	2	335Wp	4	4	100%	577
	335Wp x 16 + 6LMS150L x 12 + 5.2kVA	2.5	12V 150Ah	4	3	335Wp	4	4	100%	577
5200 (96V)	335Wp x 16 + 6LMS200L x 8 + 5.2kVA	2	12V 200Ah	8	1	335Wp	8	2	100%	577
	335Wp x 16 + 6LMS150L x 16 + 5.2kVA	3	12V 150Ah	8	2	335Wp	8	2	94%	577
7500 (120V)	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
10000 (120V)	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**

GRID-TIE INVERTER

Exide's ADITYA Grid Tied solar string inverter range offers perfect solution for residential, commercial and industrial rooftop solar power distribution projects. The products comprehend stringent quality control and testing process ensuring unmatched value addition to the user.

SALIENT FEATURES

- **Robust and light-weight Aluminium housing with IP65 protection**
- **Provision for upto 30% DC overloading with Ultra-high efficiency MPPT units for ensuring higher yield and faster return on investment**
- **Advanced Heat Management Technology for higher tolerance to temperature with no power derating upto 60°C**
- **Inbuilt DC Switch for 3 Phase models**
- **User friendly LCD display along with convenient LED based status indicators**
- **Provision for real-time plant monitoring through dedicated Wi-Fi/GPRS based RMS**
- **Wide Grid Feed-in voltage range for uninterrupted service even during grid fluctuations.**

APPLICATIONS

Residential & Commercial Rooftop Solar Plants

Community Rooftop Solar Plants

Institutional & Infrastructure Projects

Solar Parks and Industrial Rooftop Solar Plants

GRID-TIE INVERTER

		SINGLE PHASE				
	Model No.	ADITYA GT-1K	ADITYA GT-2K	ADITYA GT-3K	ADITYA GT-4K	ADITYA GT-5K
PV Input	Max. DC Input Power (kW)	1.3	2.6	3.9	5.2	6.5
	Max. DC Input Voltage (V)	550V			550V	
	Start-up Voltage [V]	70V				
	MPPT Voltage range (V)	70V-500V				
	Max input current per MPPT (A)	12.5A	12.5A	12.5A	12.5A	12.5A
	MPPT short circuit current (A)	18A	18A	18A	18A	18A
	Number of MPPT	1	1	1	2	2
	I/P strings per MPPT	1	1	1	1	1
AC Output	Rated output power (kW)	1	2	3	4	5
	Rated output Current [A]	4.37A	8.69A	13A	17.4A	21.7A
	Maximum output current	4.78A	9.56A	14.34A	19.13A	23.91A
	Grid voltage range (V) L-N	130V-295V				
	Grid Frequency range (Hz)	45Hz-55Hz				
	Power Factor (at rated output power)	>0.99				
	THDi	<3%				
	Connection phase	Single Phase (P+N+E)				
General Data	Peak Efficiency	97.20%	97.30%	97.60%	97.90%	97.90%
	MPPT Efficiency	99.99%				
	DC and AC Connector type	MC-4				
	Display	LED with LCD Display				
	Datalogger & Communication	WiFi/GPRS/RS485 Optional: RS232/ETHERNET LAN/Local Monitoring				
	Topology	Transformer-less				
	Consumption @ night	<1W				
	Operating Temp Range without power derating	-25°C to +60°C				
	Cooling Method	Natural Convection				
	Relative Humidity	0-100%				
	Max. Operational Altitude	<2000m				
	Noise at 1m distance	<20dBA				
	Designed Lifetime	>25Years				
	Dimensions (W*H*D) [mm]	297x223x117	297x223x117	297x223x117	395x328x154	395x328x154
	Net weight (Kg)	5.5	11.5	9.5	11.5	11.5
Protections	DC Switch	Optional				
	DC Reverse Polarity Protection	Yes				
	DC Surge protection	Yes				
	I/P Over voltage protection	Yes				
	I/P Short Circuit Protection	Yes				
	I/P Over Current Protection	Yes				
	O/P Over & Under voltage protection	Yes				
	O/P Over Current Protection	Yes				
	O/P Over & Under frequency	Yes				
	Insulation resistance detection	Yes				
	Residual current detection	Yes				
	AC Surge protection	Yes				
	Anti-Islanding Protection	Yes				
	Over-Temperature Protection	Yes				
Compliance	MPPT Efficiency	IEC 61683				
	Inverter Efficiency	IEC 61683				
	Over Voltage Category	IEC 62109-1				
	Safety Standard	IEC 62109-1&2				
	EMC Standard	IEC61000-6-1/2/3/4				
	Environment Protection	IEC 60068-2-1/2/14/15				
	Anti-Islanding	IEC-62116				
	Ingress Protection	IP65				

GRID-TIE INVERTER

		THREE PHASE							
	Model No.	ADITYA GT3-5K	ADITYA GT3-6K	ADITYA GT3-8K	ADITYA GT3-10K	ADITYA GT3-15K	ADITYA GT3-20K	ADITYA GT3-25K	ADITYA GT3-33K
PV Input	Max. DC Input Power (kW)	6.5	7.8	10.4	13	19.5	26	32.5	42.9
	Max. DC Input Voltage (V)	1000V							1100V
	Start-up Voltage [V]	250V							250V
	MPPT Voltage range (V)	200V - 850V							200V-1000V
	Max input current per MPPT (A)	12.5	12.5	12.5A	12.5	25A	25A	25A	30A
	MPPT short circuit current (A)	18A	18A	18A	18A	36A	36A	36A	45A
	Number of MPPT	2	2	2	2	2	2	2	3
	I/P strings per MPPT	1	1	1	1	2	2	2	2
AC Output	Rated output power (kW)	5	6	8	10	15	20	25	33
	Rated output Current [A]	7.2A	8.7A	11.6A	14.5A	21.7A	29A	36A	47.8A
	Maximum output current	7.93A	9.52A	12.7A	15.87A	23.84A	31.8A	39.73A	52.45A
	Grid voltage range (V) L-N	130V-295V							
	Grid Frequency range (Hz)	45Hz-55Hz							
	Power Factor (at rated output power)	>0.99							
	THDi	<3%							
	Connection phase 3 Phase	3 Phase (3P + N + E)							
General Data	Peak Efficiency	98.10%	98.10%	98.20%	98.20%	98.60%	98.60%	98.60%	98.70%
	MPPT Efficiency	99.99%							
	DC and AC Connector type	MC-4							
	Display	LED with LCD Display							
	Datalogger & Communication	WiFi/GPRS/RS485 ETHERNET LAN/Local Monitoring							
	Topology	Transformer-less							
	Consumption @ night	<1W							
	Operating Temp Range without power derating	-25°C to +60°C							
	Cooling Method	Natural Convection				Smart Fan Cooling			
	Relative Humidity	0-98% No Condensation							
	Max. Operational Altitude	<2000m							
	Noise at 1m distance	<30							
	Designed Lifetime	>25Years							
	Dimensions (W*H*D) [mm]	425 x 351 x 160	425 x 351 x 160	425 x 351 x 160	425 x 351 x 160	425 x 351 x 200	425 x 351 x 200	425 x 351 x 200	425 x 351 x 200
	Net weight (Kg)	12	16	16	16	16	31	31	60
Protections	DC Switch	Inbuilt							
	DC Reverse Polarity Protection	Yes							
	DC Surge protection	Yes							
	I/P Over voltage protection	Yes							
	I/P Short Circuit Protection	Yes							
	I/P Over Current Protection	Yes							
	O/P Over & Under voltage protection	Yes							
	O/P Over Current Protection	Yes							
	O/P Over & Under frequency	Yes							
	Insulation resistance detection	Yes							
	Residual current detection	Yes							
	AC Surge protection	Yes							
	Anti-Islanding Protection	Yes							
	Over-Temperature Protection	Yes							
Compliance	MPPT Efficiency	IEC 61683							
	Inverter Efficiency	IEC 61683							
	Over Voltage Category	IEC 62109-1							
	Safety Standard	IEC 62109-1&2							
	EMC Standard	IEC61000-6-1/2/3/4							
	Environment Protection	IEC 60068-2-1/2/14/15							
	Anti-Islanding	IEC-62116							
	Ingress Protection	IP65							

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.

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												

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