



Orient Solar is a group company of the TPH Orient group of companies. Orient Solar is owned and managed by top industry professionals with immense experience in mechanical and electrical engineering, bringing over 70 years of experience in the same.

Orient Solar was founded on the principles of bringing the power of renewable energy to the average population at an affordable price through a strong belief in local manufacturing and expertise. With this goal in mind, Orient Solar boasts one of the largest fully automated panel manufacturing capacities and is one of the leading panel suppliers in the country. This includes M-10, M-6 and the most cutting edge panels available in the market today.

Our core principles rooted in innovation have also led to the creation of a host of smart city products for the average population and our societies everyday infrastructure. These products include inverters, batteries, solar benches, solar street lights, solar water pumps etc. Orient Solar also acts as a principle and lead EPC solution provider for ensuring the completion of each Solar Plant from concept life of a Solar Power Plant. These products use solar energy to create a more sustainable and future ready society and are necessities in todays world to ensure a sustainable future for us as a populous.

What We Have

Orient Renewables has a Expanding 2 GW Plant in Delhi NCR. This is a fully automated plant capable of producing the highest efficiency modules available anywhere in the world

We have adopted best-in-class technology platforms and have collaborated with leading technology providers. We manufacture module sizes starting from 2.5 Wp to 700 Wp. These modules are used for various on-grid and off-grid applications. We have a sole aim to procure the best quality raw material, to produce the most immaculate PV panels available. We have a vendor-agnostic approach, which allows us to recommend the best solution for all. Our broad-reaching procurement process guarantees you the best technology and our manufacturing infrastructure ensures the best quality. We also have in-house inverter and battery manufacturing capacity.

Why Choose Us

We are an IEC UL Certified Company. We are also impaneled with the Ministry of New & Renewable Energy(MNRE) for all segments including Solar Rooftop, Solar farming & other applications. We are also a BIS & ISO Certified Company, and are doing complete EPC Solutions for our patrons.

Our Infrastructure is one of the most technically advanced setups achieving global standards. Our team and years of technical expertise along with state of the art infrastructure and distinguished clientele allows us to be leaders in our segmentand an ideal solar energy partner for our customers.







ORIENT

X-PRESS SERIES

MONO PERC HALF CUT SOLAR PV MODULE 540-555 W



The Orient Solar X-Cel range is our 10 BB mono perc module. This product is our 540 W module. Orient Solar prides itself on being a renowned supplier of modules which are rigorously tested in accordance to global testing standards

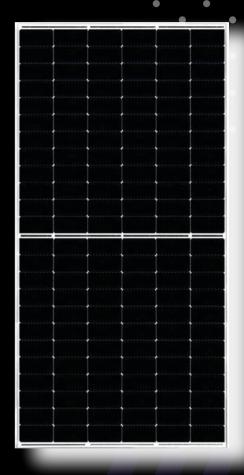
Best in Class Efficiency 21.50%

MBB Technology M10 Half Cut Cells

Non-Destructive Cell Cutting (NDC)

FEATURES

- High Power Generation
- High Efficiency
- 100% Pre and Post EL Inspection
- Undeniable Reliability
- Lower LID / LETID
- Efficient Temperature Coefficient
- Reduced Degradation
- Enhanced Low Light Performance
- Extraordinary PID Resistance





























MONO PERC HALF CUT SOLAR PV MODULE 540-555 W

ELECTRICAL DATA - STC* & NOCT**									
Model	Unit	Orient-	Orient-540		Orient-545		Orient-550		555
Parameters	Onit	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Capacity Rating Wp	Pmax	540	399	545	403	550	407	555	410
Max. Power Voltage in V	Vpm	41.64	39.35	41.80	39.50	41.93	39.62	42.05	39.74
Max. Power Current in A	Ipm	12.97	10.15	13.04	10.20	13.12	10.26	13.20	10.33
Open Circuit Voltage in V	Voc	49.60	46.59	49.75	46.74	49.90	46.88	50.00	46.97
Short Circuit Current in A	Isc	13.86	10.87	13.92	10.92	13.98	10.97	14.05	11.02
Module Efficiency	%	20.92		21.12 21.31			1.31	21.50	
Power Tolerance	Wp	-0/+4.99							

^{*}STC: lrradiance 1000 W/m², cell temperature 25°C, Air Mass AM 1.5 according to EN 60904-3. Average efficiency reduction of 4.5 % at 200 W/m² according to EN 60904-1. Measurement uncertainty $\pm 3\%$

^{**}NOCT irradiance 800 W/m^2 , ambient temperature 20°C, wind speed 1 m/sec.

MECHANICAL DATA		\setminus
Dimensions (L x W x H)	2277 mm x 1133 mm x 40mm	
Weight	30 kgs	
Junction Box	Split JB, IP 68 with 3 bypass diodes	
Cable	Solar Cable 4.0 mm², 400 mm (Higher cable option available on request)	
Front Glass	3.2 mm, High Transmission, AR coated tempered glass	
Solar Cells	Mono PERC Crystalline - M10 (144 pcs Half Cut)	
Cell Encapsulation	EVA - Ethylene Vinyl Acetate	
Backsheet	Composite Film	
Frame	Anodized Aluminium Alloy	
Mechanical Load Strength	5400 Pa (Snow Load), 2400 Pa (Wind Load)	

TEMPERATURE RATINGS		
Nominal Operating Cell Temperature (NOCT)	45°C (±2°C)	
Temperature Coefficient of Voc	-0.27%/°C	
Temperature Coefficient of Isc	0.045%/°C	
Temperature Coefficient of Pmax	-0.35%/°C	

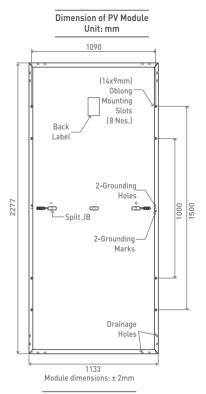
PERMISSIBLE OPERATING COND	ITIONS
Temperature Range	-40°C to +85°C
Maximum System Voltage	1500 V DC
Max. Series Fuse Rating	25 A

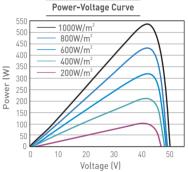
WARRANTY AND CERTIFICATIONS					
Product Warranty 10 years Product Warranty					
Performance Warranty 25 year Linear Performance Warranty					
General Terms & Conditions are applied					

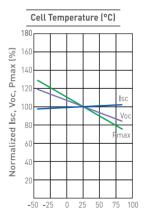
PACKAGING CONFIGURATION

Modules per Pallet

* Module dimension / hole to hole dimensions may vary.









25





ORIENT

X-AMP SERIES

MONO PERC HALF CUT SOLAR PV MODULE 590 W



The Orient Solar X-Cel range is our 10 BB mono perc module. This product is our 590 W module. ADM Orient prides itself on being a renowned supplier of modules which are rigorously tested in accordance to global testing standards.

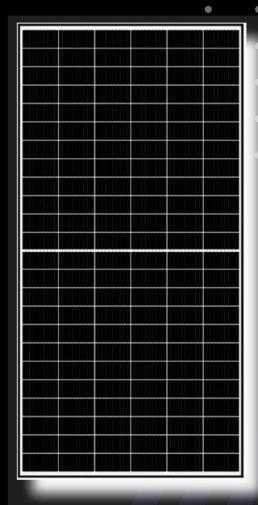
Best in Class Efficiency 21.50%

MBB Technology M10 Half Cut Cells

Non-Destructive Cell Cutting (NDC)

FEATURES

- High Power Generation
- High Efficiency
- 100% Pre and Post EL Inspection
- Undeniable Reliability
- Lower LID / LETID
- Efficient Temperature Coefficient
- Reduced Degradation
- Enhanced Low Light Performance
- Extraordinary PID Resistance





























MONO PERC HALF CUT SOLAR PV MODULE - 590 W

ELECTRICAL DATA - S			
Model	Unit	ORIENT-590	_
Parameters	Offic	STC	
Capacity Rating Wp	Pmax	590	
Max. Power Voltage in V	Vpm	45.99	
Max. Power Current in A	Ipm	12.85	
Open Circuit Voltage in V	Voc	53.51	
Short Circuit Current in A	Isc	13.47	
Module Efficiency	%	21.5	
Power Tolerance	Wp	-0/+4.99	

^{*}STC: lrradiance 1000 W/m², cell temperature 25°C, Air Mass AM 1.5 according to EN 60904-3. Average efficiency $reduction of 4.5\,\% \ at 200 \ W/m^2 \ according to EN 60904-1. \ Measurement \ uncertainty \ \pm 3\% \ at 200 \ W/m^2 \ according to EN 60904-1.$

^{**}NOCT irradiance 800 W/m², ambient temperature 20°C, wind speed 1 m/sec.

MECHANICAL DATA	
Dimensions (L x W x H)	2460 mm x 1133 mm x 40 mm
Weight	31 kgs
Junction Box	Split JB, IP 68 with 3 bypass diodes
Cable	Solar Cable 4.0 mm², 400 mm (Higher cable option available on request)
Front Glass	3.2 mm, High Transmission, AR coated tempered glass
Solar Cells	Mono PERC Crystalline - M10 (156 pcs Half Cut)
Cell Encapsulation	EVA – Ethylene Vinyl Acetate
Backsheet	Composite Film
Frame	Anodized Aluminium Alloy
Mechanical Load Strength	5400 Pa (Snow Load), 2400 Pa (Wind Load)

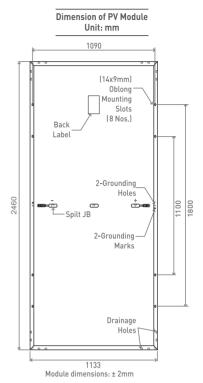
TEMPERATURE RATINGS		\ \
Nominal Operating Cell Temperature (NOCT)	45°C (±2°C)	
Temperature Coefficient of Voc	-0.27%/°C	
Temperature Coefficient of Isc	0.045%/°C	
Temperature Coefficient of Pmax	-0.35%/°C	

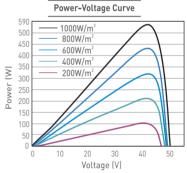
PERMISSIBLE OPERATING CONDITIONS						
Temperature Range	-40°C to +85°C					
Maximum System Voltage	1500 V DC					
Max. Series Fuse Rating	25 A					

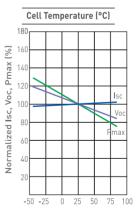
WARRANTY AND CERTIFICATIONS						
Product Warranty	10 years Product Warranty					
Performance Warranty 25 year Linear Performance Warranty						
General Terms & Conditions are applied						



Modules per Pallet









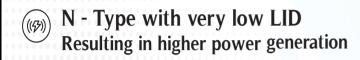




^{*} Module dimension / hole to hole dimensions may vary.



BIFACIAL-N TOPCON 144 CELLS (DUAL GLASS) 560W-590W NOVA - 144 TGG (XXX: 560-590Wp)



Positive Tolerance
Power output is guaranteed with a positive tolerance of 0~+4.99Wp

Better temperature coefficent (-0.30%/°c) higher power generation under higher ambient temperature conditions

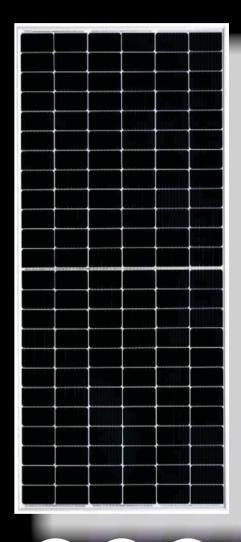
Higher Module Efficiency Module Eff. Up-to 22.8%

Advanced Technology MBB - MULTI BUS -BAR(16BB)
HALF-CUT N-TOPCON CELL

EXTENDED WIND AND SNOW LOADS Wind Load (2400Pascal)
Snow Load (5400Pascal)

Withstanding a harsh environment
Reliable quality leads to better sustainability,
even in harsh environments such as deserts,
Farms, coastal and the areas with ammonia exposure

Rigorous Testing Criteria
100% EL inspection, ensures defect-free modules

















Warranty





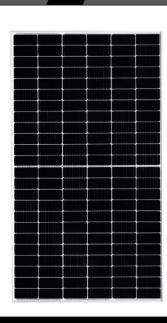


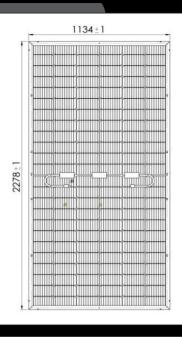


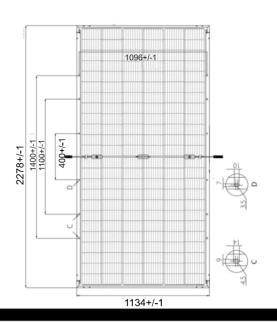




BIFACIAL-N TOPCON 144 CELLS (DUAL GLASS) 560W-590W







ELECTRICAL DATA PERFORMANCE

Conditions		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power, Pmax (Wp)	W	560	421	565	425	570	429	575	432	580	436	585	440	590	444
Voltage at Maximum power, Vmp	V	42.41	40.20	42.53	40.32	42.65	39.69	42.82	39.89	42.94	39.98	43.06	40.82	43.18	40.93
Current at maximum power, Imp	Α	13.22	10.47	13.3	10.54	13.37	10.80	13.43	10.84	13.51	10.91	13.59	10.78	13.67	10.84
Open circuit voltage, Voc	V	50.68	48.04	50.86	48.22	51.04	48.39	51.22	48.56	51.41	48.74	51.59	48.91	51.77	49.08
Short circuit current, Isc	Α	13.88	11.21	13.96	11.27	14.04	11.34	14.10	11.38	14.19	11.46	14.26	11.51	14.33	11.57
Fill Factor	%	80%	78%	80%	78%	80%	78%	80%	78%	80%	78%	80%	78%	80%	78%
Module Efficiency (%)		21.6	58%	21.	87%	22	.07%	22.	26%	22	.45%	22	.65%	22.8	84%
Operating Temperature (°C)		-4	.0°C~+8!	5°C		Tempe	rature c	oefficie	nts of Is	ic			+0.046	%/°C	
Maximum system voltage			1500 VD	С		Nomin	al opera	ting cel	ll tempe	erature	(NOCT)		45±2°C		
Maximum series fuse rating			30A			Fire Sat	ety						Class-C		
Power tolerance (Wp)			0~+3%			Protect	ion Clas	s II					Class-A	١	
Temperature coefficients of Pmax			-0.30%/°	С		Safety	Class	•			•		Class-I		

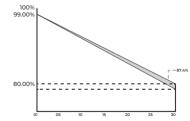
200W/m² as per IEC 60904- 1.

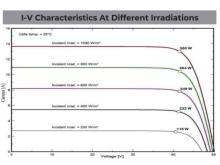
**STC: Irradiance 1000W/m² module temperature 25°C, AM =1.5: NOCT: Irradiance

Linear Performance warranty Product Warranty 12 Years Material & Processing First Year Degradation up to 90% for 10 Years

80% up to balance 20 Years

MODULE MECHANICAL DATA						
SPECIFICATION DATA						
Cell Type	N-TOPCon, 144 Cells					
Dimensions	2278x1134x30 mm					
Weight	32 Kgs					
Front Cover	2.00 mm					
Rear Cover	2.00 mm					
Frame Material	"Silver Anodized Aluminum Profile,					
J-Box	IP68, 3 diodes					
Cable	350 mm, 4 mm ²					
Connectors	Mc4 Compatible Connector					
Standard Packaging	36 Pieces/Pallet					
Module Pieces per Container	720 pieces (40*HQ)					



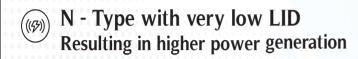


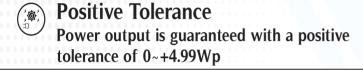


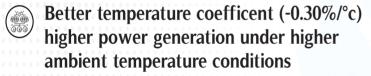




BIFACIAL-N TOPCON 156 CELLS (DUAL GLASS) 630W NOVA - 156 TGG (XXX: 630Wp)







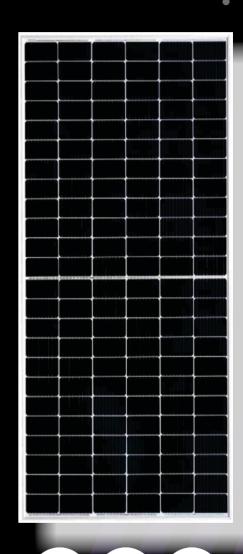
Higher Module Efficiency Module Eff. Up-to 23.5%

Advanced Technology MBB - MULTI BUS -BAR(16BB)
HALF-CUT N-TOPCON CELL

Wind Load (2400Pascal)
Snow Load (5400Pascal)

Withstanding a harsh environment
Reliable quality leads to better sustainability,
even in harsh environments such as deserts,
Farms, coastal and the areas with ammonia exposure

Rigorous Testing Criteria
100% EL inspection, ensures defect-free modules





30 Years

















Resistant









Orient Solar Inverter — Helios Series

Cutting edge solar inverters ensuring reliability along with immense efficiency.

Take control of your own energy!

Solar off grid systems refer to solar energy systems that produce and store energy independently using a solar panel, inverter, and battery storage. As such, with an off grid system, as the name suggests, you would not rely on the grid to provide you any energy and be completely energy independent.





 An efficient maximum power point tracking (MPPT) method plays an important role to improve the efficiency of a photovoltaic (PV) generation system. This study provides an extensive review of the current status of MPPT methods for PV systems which are classified into eight categories. The category is based on the tracking characteristics of the discussed



www.orientsolar.com



ORIENT HELIOS SERIES – MPPT SYSTEM

				Technical Spe	cifications				
	Parameters	Units				Rating			
	Model		2.5 KVA / 3.5 KVA	5 KVA	6 KVA / 7.5 KV	'A 10 KVA	15 KVA	15 KVA	20 KVA
	Operating DC Voltage	Volts	24	48	96	120	180	240	240
	System Capacity	KW	2	4	5/6	8	12	12	18
	Battery Capacity (Min/Max)	АН		•	•••	165 - 200		-	
	- Steel J. Company (comprises)	201		SPV Parar	meters				
CD	N/ Once Observit Valley Brown (Min Man)	W II	0/ 100			100 /50	000 450	0/0 /00	0/0 /00
SP	PV Open Circuit Voltage Range (Min-Max)	Volts	36-100	72-200	144-400	180-450	270-450	360-600	360-600
	Max SPV Power	KW	2.5	5	6 / 7.5	10	10	15	20
	Solar Charge Controller Rating	A	50	70	60	70	60	60	70
	Compatible SPV Panels								
				MPPT Based Cl	narge Controller				
	Switching Element		Mos	fet			IGBT Module		
	Controller					DSP			
	Type Of Charger					MPPT			
	MPPT Battery Curent Limiting(Default)						40A		
			25	A		> 95%	70/1		
	Efficiency		Ballani		Before III Velere	> 95%			
DOLL West	Parameters		Battery		Default Value				
PGU Work	king Mode Selection by Dip Switch / Selection Switch	Mode	SMART I	HYBRID PCU	SMART	Mode Sele	ction: Hybrid / PCU / Smart, IN	IV / UPS Selection	
			According Battry Type A	Achivo Rooet / Maine					
Grid	d Disconnect Solar Present (PCU/Smart)	Volts	Disconnect A	ifter 2Min)	TUBULAR	According Battry Type Achive Boos	t (Mains Disconnect After 2Mi	in)	TUBULAR
	Grid Reconnect (SMART/PCU)	Volts		11.8 /Batt ±2%		11-12	V		12V
				, 7.0 /Datt 12/0			•		124
	Low Cut Off	Volts				10.5 / Batt ±2%			
	Low Cut Off Recovery by SPV	Volts				11.5 / Batt ±2%			
	Low Buzzer	Volts				10.7 / Batt ±2%			
	High Cut Off	Volts				16.5/ Batt ±2%			
	High Cut Off Recovery	Volts				15.0 / Batt ±2%			
F	Boost Charging Volt by SPV TUB/SMF	Volts	14.2V±2%		14.8V Batt ±2%				
	Grid Boost Charging Volt TUB/SMF	Volts	SMF 14.0V±2%	TUB	14.4V±2%				
	Float Charging Voltage	Volts	13.5V±-2		13.7V±2%				
Cold Ct				20/			SETABLE THROUGH LC	D	
Grid Cha	arging Current Enable by Dip Switch (Normal)	Amps	12A ±	2%	NA				
Grid Ch	harging Current Enable by Dip Switch (High)	Amps	15A\±	2%	High				
Grid	d Charging Current Disable by Dip Switch	Amps	0Am	р	Enable				
				Ou	tput				
	Output Voltage Noload	Volts				230 ± 2%			
	Output Frequency	Hz				50 ± 2%			
	Overload		8.6	10.4 / 17.3	17.3/26	26/34.7	34.7	52.2	69.5
		Amps	0.0	10.4 / 17.5	17.0/20		34.1	32.2	07.3
	Over Load Retry UPS Mode	-				50 ± 2%			
	Overload Retry Inverter Mode	-				50 ± 2%			
				Gı	rid				
	Battery Charging Stages				5 (Softs	tart, Boost, Absorbtion, Float, Equali	se)		
	No of Phase					1Phase-3Wire P,N,E			
	NO OI FIIGOC	-							
		٧				100-280 ±2%			
	Voltage Range(Inverter Mode)					100-280 ±2%			
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode)	v				175-255 ±2%			
	Voltage Range(Inverter Mode)								
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode)	v			play	175-255 ±2% 45 - 55 ±2%			
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode)	v		Dis 16X2 LCD	play	175-255 ±2% 45 - 55 ±2%	20X4 LCD With Switch Configu	uration	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range	V Hz				175-255 ±2% 45 - 55 ±2%	20X4 LCD With Switch Configu	uration	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range	V Hz Alphanumeric Output (Inverter)				175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency	20X4 LCD With Switch Configu	uration	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display	V Hz Alphanumeric			Vol	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency		uration	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range	V Hz Alphanumeric Output (Inverter)			Vol	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency		uration	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display	V Hz Alphanumeric Output (Inverter) Input (Grid)			Vol	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency		uration	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery		16X2 LCD	Voltage	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current	al)		
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar		16X2 LCD	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option	al)		
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery		16X2 LCD Inverter Status, Mair	Voltage	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current	al) arging Stages/Over Temp, Syst	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery		16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current	al) arging Stages/Over Temp, Syst IGBT	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery		16X2 LCD Inverter Status, Mair	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current	al) arging Stages/Over Temp, Syst	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery		16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current	al) arging Stages/Over Temp, Syst IGBT	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INV/UPS (IT mode)	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults	≥80%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Cha	al) arging Stages/Over Temp, Syst IGBT	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INV/UPS (IT mode) Output voltage	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults	≥80%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Cha	al) arging Stages/Over Temp, Syst IGBT	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INV/UPS (IT mode) Output voltage Efficiency Phase	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults	≥80%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Cha	al) arging Stages/Over Temp, Syst IGBT	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INV/UPS (IT mode) Output voltage Efficiency Phase Output Waveform	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits	≥80%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Cha 230 ±2% ≥85% 1Phase-3Wire P,N,E Pure Sine Wave	al) arging Stages/Over Temp, Syst IGBT	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults	≥80%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Cha 230 ±2% ≥85% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2%	al) arging Stages/Over Temp, Syst IGBT	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter)	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz ms	≥90%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ns Status, Charger Status	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Cha 230 ±2% ≥85% 1Phase-3Wire P.N.E Pure Sine Wave 50 ±2% <10ms	al) arging Stages/Over Temp, Syst IGBT	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz	≥80%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ss Status, Charger Status erter	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Che 230 ±2% ≥85% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8	al) urging Stages/Over Temp, Syst IGBT Front Switch	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter)	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz ms	≥80%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage Voltage ss Status, Charger Status erter	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Cha 230 ±2% ≥85% 1Phase-3Wire P.N.E Pure Sine Wave 50 ±2% <10ms	al) urging Stages/Over Temp, Syst IGBT Front Switch	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz ms	≥80%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage ss Status, Charger Status erter System ON/OFF, Mode	175-255 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Che 230 ±2% ≥85% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED)	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz ms	≥80%	16X2 LCD Inverter Status, Mair Inverter MoSFET	Voltage is Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Che 230 ±2% 285% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger On	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz ms		Inverter Status, Mair Inverter Status, Mair Inverter Status, Mair Bry Dip Switch	Voltage is Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battery Low, Ove	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Che 230 ±2% 285% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger Onrioad, Charger On, Inverter On, Solar	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED)	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz ms		Inverter Status, Mair Inverter Status, Mair Inverter Status, Mair Bry Dip Switch	Voltage is Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battery Low, Ove	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Cha 230 ±2% 285% 1Phase-3Wire P.N.E Pure Sine Wave 5	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On	tem Uptime	Under Voltage and Over
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED) Alarm (Audible)	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz ms		Inverter Status, Mair Inverter Status, Mair Inverter Status, Mair Bry Dip Switch	Voltage is Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battery Low, Ove	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Che 230 ±2% 285% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger Onrioad, Charger On, Inverter On, Solar	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On	tem Uptime	Under Voltage and Over
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED) Alarm (Audible)	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz ms		Inverter Status, Mair Inverter Status, Mair Inverter Status, Mair Bry Dip Switch	Voltage as Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battery Low, Ove	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Cha 230 ±2% 285% 1Phase-3Wire P.N.E Pure Sine Wave 5	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On	tem Uptime	Under Voltage and Over
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INV/UPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED) Alarm (Audible) Protection	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits - Hz ms		Inverter Status, Mair Inverter Status, Mair Inverter Status, Mair Bry Dip Switch	Voltage as Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battery Low, Ove	175-255 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Cha 230 ±2% ≥85% 1Phase-3Wire P.N.E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger On rload, Charger On, Inverter On, Solar voltage Protection (MOV Varistors), Reverse Privoltage Protection (MOV Varistors), Reverse Privoltage Protection	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On	tem Uptime	Under Voltage and Over
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED) Alarm (Audible) Protection Cooling Operating Temp	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits Hz ms Pf		Inverter Status, Mair Inverter Status, Mair Inverter Status, Mair Bry Dip Switch	Voltage as Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battery Low, Ove	175-255 ±2% 45 - 55 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Cha 230 ±2% ≥85% 1Phase-3Wire P.N.E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger On rload, Charger On, Inverter On, Solar voltage Protection voltage Protection rcced Air cooling(Temp Controlled) 0-50	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On	tem Uptime	Under Voltage and Over
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED) Alarm (Audible) Protection Cooling Operating Temp Noise @ 1Meter Distance	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits Hz ms Pf		Inverter Status, Mair Inverter Status, Mair Inverter Status, Mair Bry Dip Switch	Voltage as Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battery Low, Ove	175-255 ±2% 45 - 55 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Cha 230 ±2% 230 ±2% ≥85% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger On rload. Charger On, Inverter On, Solar voltage Protection unced Air cooling (Temp Controlled) 0-50 50dB	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On	tem Uptime	Under Voltage and Over
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED) Alarm (Audible) Protection Cooling Operating Temp Noise @ 1Meter Distance Operating Humidity	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits Hz ms Pf		Inverter Status, Mair Inverter Status, Mair Inverter Status, Mair Bry Dip Switch	Voltage as Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battery Low, Ove	175-255 ±2% 45 - 55 ±2% 45 - 55 ±2% age, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Che 230 ±2% ≥85% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger On rload, Charger On, Inverter On, Solar voltection (MOV Varistors), Reverse Po Voltage Protaction rced Air cooling(Temp Controlled) 0-50 50dB 95	al) rging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On	tem Uptime	Under Voltage and Over
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED) Alarm (Audible) Protection Cooling Operating Temp Noise @ 1Meter Distance Operating Humidity Protection Class	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Volts Hz ms Pf	Overload, Short Circuit Pro	Inverter Status, Mair	Voltage as Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battlery Low, Ove V Surge and Transient p	175-255 ±2% 45 - 55 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Che 230 ±2% ≥85% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger On rload, Charger On, Inverter On, Solar voltection (MCV Varistors), Reverse Po Voltage Protectino rcced Air cooling (Tection Controlled) 0-50 50dB 95 IP20	al) Irging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On plarity of Battery, Over temper	tem Uptime	
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output Voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED) Alarm (Audible) Protection Cooling Operating Temp Noise @ 1Meter Distance Operating Humidity Protection Class Dimension (LXWXH)	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits Hz ms Pf	Overload, Short Circuit Pro	Inverter Status, Mair	Voltage as Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battlery Low, Ove V Surge and Transient p	175-255 ±2% 45 - 55 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current Solar Status and Battery Status/Che 230 ±2% 285% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger On rload, Charger On, Inverter On, Solar voltage Protection rced Air cooling(Temp Controlled) 0-50 50dB 95 IP20 600x400x810	al) Irging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On plarity of Battery, Over temper	tem Uptime	730x730x830
	Voltage Range(Inverter Mode) Voltage Range(UPS Mode) Frequency Range Display Parameters Switching Element INVIUPS (IT mode) Output voltage Efficiency Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Switches Indication (LED) Alarm (Audible) Protection Cooling Operating Temp Noise @ 1Meter Distance Operating Humidity Protection Class	V Hz Alphanumeric Output (Inverter) Input (Grid) Solar Battery Status/Faults - Voits Hz ms Pf C C mm kg	Overload, Short Circuit Pro	Inverter Status, Mair	Voltage as Status, Charger Status erter System ON/OFF, Mode Inverter On, Mains In F Battlery Low, Ove V Surge and Transient p	175-255 ±2% 45 - 55 ±2% 45 - 55 ±2% tage, Current, Power and Frequency Voltage and Frequency , Current, Power and Energy (Option Voltage, Current , Solar Status and Battery Status/Che 230 ±2% ≥85% 1Phase-3Wire P,N,E Pure Sine Wave 50 ±2% <10ms 0.8 s Selection: Hybrid / PCU / Smart, IN tange, Battery Low/High, Charger On rload, Charger On, Inverter On, Solar voltection (MCV Varistors), Reverse Po Voltage Protectino rcced Air cooling (Tection Controlled) 0-50 50dB 95 IP20	al) Irging Stages/Over Temp, Syst IGBT Front Switch V / UPS Selection , Overload, Faults r Charger On plarity of Battery, Over temper	tem Uptime	





KIAN SERIES - PWM SYSTEM

Orient Solar Inverter — Kian Series

Cutting edge solar inverters ensuring reliability along with immense efficiency.

Most homes use alternating current (AC) energy, not DC, so the energy produced by your solar panels isn't useful on its own. When your solar panels collect sunlight and turn it into energy, it gets sent to the inverter, which takes the DC energy and turns it into AC energy.





Features

- ***** Intelligent logic control
- * Pure sine wave UPS with 85% Efficiency ISOT: Intelligent solar optimization technique Inbuilt charge controller with 98% efficiency Intelligent battery monitoring
- * Battery charging commences at 110 Volt AC&DC Output





KIAN SERIES - PWM SYSTEM

		/				
		Tech	nnical Specificat	ions		
Parameters	Unit			Rating		
Model	KIAN	1100 (850VA)		1550 (1000VA)	215	50(1500VA)
Operating DC Voltage	Volts	12	SPV Parameters	12		12
Solar Working Mode Selection by			SPV Farameters			
Dip Switch		SMART			HYBRID	
SPV Open Circuit Voltage Range (Min-Max)	voc	16-30/-2V		16-30/-2v	32	- 60+/-2v
Max SPV Power	w	600		800		1200
Max Batt Current	Amps	50		60		50
Recommended Panel Cell	CELL	36		36		60/72
		PWM B	ased Charge Co			
Switching Element				MOSFET		
Controller Efficiency				DSP 95%		
Linciancy			Battery	3070		
Low Cut Off	Volts		200001	10.5/Batt	+/-2%	
Low Cut Off Recovery by (SPV	Volts			11.5/Batt	+/-2%	
Charging) Low Buzzer	Volts			10.7/Batt		
High Cut Off	Volts			15.5/Batt		
High Cut Off Recovery	Volts			15.0/Batt		
Battery Selection by Dip Switch	Volts	TUB	14.4V+/-2%	SMF	14V+/-2%	
Boost Charging Volt by SPV	Volts	TUB	14.8V+/-2%	SMF	14.4+/-2%	SETABLE
Boost Charging Volt by Grid	Volts	TUB	14.4V+/-2%	SMF	14V+/-2%	THROUGH LCD
Float Charging Volt by Grid	Volts	TUB	13.8+/-2%	SMF	13.5V+/-2%	
Grid Charging Current selection by Dip Switch / Configuration	Normal	10A +/-2%	High	12A +/-2%	Disable	0A
Setting	Horman	100 11-2/0		12A F/-2/0	DIGUDIO	VA
			Output			
Output@ No load				230 +/- 2%		
Output Frequency		680w		50 +/- 2% 800w		1.6KW
Overload	1	3.1		3.6		6.9
		55		67		67
Typical Efficiency		≥82%		≥82%		≥82%
			Display			
Display	Alphanumeric		Display	16X2 LCD		
Display	Alphanumeric Output				%) and Frequency	
Display	Output (Inverter)			Itage, Current (Load		
Display Parameters	Output (Inverter) Input (Grid)			Itage, Current (Load Voltage and F	requency	
	Output (Inverter)			Itage, Current (Load	Frequency Surrent	
	Output (Inverter) Input (Grid) Solar	Inverter Sta	Vo tus, Mains Status,	Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol	Frequency current current ar Status and Battery	Status/Charging Stages,
	Output (Inverter) Input (Grid) Solar Battery	Inverter Sta	Vo tus, Mains Status, OverHeat, C	Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol	requency current current	
	Output (Inverter) Input (Grid) Solar Battery	Inverter Sta	Vo tus, Mains Status,	Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol	Frequency current current ar Status and Battery CHG High/Low, SMF/T	
Parameters	Output (Inverter) Input (Grid) Solar Battery	Inverter Sta	Vo tus, Mains Status, OverHeat, C	ltage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable,	Frequency current current ar Status and Battery CHG High/Low, SMF/T re P,N,E	
Parameters No of Phase	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Sta	Vo tus, Mains Status, OverHeat, C	ltage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi	Frequency current current ar Status and Battery CHG High/Low, SMF/T re P,N,E +/-2%	
Parameters No of Phase Voltage Range(Inverter)	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Sta	Vo tus, Mains Status, OverHeat, C	Voltage and F Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280	Frequency current current ar Status and Battery CHG High/Low, SMF/T re P,N,E +/-2%	
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS)	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Sta	Vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	Voltage and F Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280	Frequency current current ar Status and Battery CHG High/Low, SMF/T re P,N,E +/-2% +/-2%	
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Sta	Vo tus, Mains Status, OverHeat, C Grid	Voltage and F Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + bost, Absorbtion, Fig	Frequency current current ar Status and Battery CHG High/Low, SMF/T are P,N,E +/-2% -/-2% bat, Equalise)	
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Sta	Vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	Voltage and F Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + bost, Absorbtion, Fid	Frequency current current ar Status and Battery CHG High/Low, SMF/T are P,N,E +/-2% -/-2%	
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Sta	Vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	Voltage, Current (Load Voltage, C Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55+ post, Absorbtion, Fid MOSF 230 +/-	Frequency Frequency Furrent Fu	
No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Sta	Vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	Voltage and F Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + bost, Absorbtion, Fid	Frequency Frequency Furrent Fu	
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V -	Inverter Sta	Vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	Voltage, Current (Load Voltage, C Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55+ bost, Absorbtion, Fid MOSF 230 +/- 1Phase-3Wi	Frequency Frequency Furrent Fu	
No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V	Inverter Sta	Vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	Voltage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + post, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wi Pure Sine	Frequency Furrent Furr	
No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz	Inverter Sta	Vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	Voltage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + post, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wi Pure Sine	Frequency Frequency Furrent Fu	
No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter)	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz - Hz	Inverter Sta	Vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	Voltage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + post, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wi Pure Sine 50 <10m	Frequency Frequency Furrent Fu	ubular
No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz - Hz		tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter	Voltage, Current (Load Voltage and F Voltage, C Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 +, cost, Absorbtion, Flo MOSF 230 +/- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim	Frequency Furrent Furr	u cuc Switch
No of Phase Voltage Range(Inverter) Voltage Range(Iverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz - Hz	ON/OFF, Mod	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter	Voltage, Current (Load Voltage and F Voltage, C Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + cost, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE	requency current current ar Status and Battery CHG High/Low, SMF/T cre P,N,E ++/-2%/-2% coat, Equalise) ET 2% cre P,N,E cre P,N,E cre Wave cre SSSMF, CHG.LO/CHG.H	II, CHG. Switch Configuration Setting
No of Phase Voltage Range(Inverter) Voltage Range(Iverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz - Hz	ON/OFF, Mod	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter	Voltage, Current (Load Voltage and F Voltage, C Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + cost, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE /CHG.DIS, Scroll Ofe In Range, Battery Love	requency current current ar Status and Battery CHG High/Low, SMF/T re P,N,E ++-2% ++-2% bat, Equalise) ET 2% bre P,N,E bre Wave as as B/SMF, CHG.LO/CHG.H ff w/High, Charger On, O	II, CHG. Switch Configuration Setting
No of Phase Voltage Range(Inverter) Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz - Hz	ON/OFF, Mod	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter le: Hybrid / Smart/ EN verter On, Mains In Battery Low, Ov	Voltage, Current (Load Voltage and F Voltage, C Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + cost, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE /CHG.DIS, Scroll Of Range, Battery Lov /erload, Charger On	requency current current ar Status and Battery CHG High/Low, SMF/T re P,N,E +/-2% +/-2% -/-2% coat, Equalise) ET 2% re P,N,E s Wave ss csSMF, CHG.LO/CHG.H ff w/High, Charger On, O , Inverter On, Solar Cl	II, CHG. Switch Configuration Setting Iverload, Faults harger On
No of Phase Voltage Range(Inverter) Voltage Range(Iverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz - Hz	ON/OFF, Mod Inv Overload,Shor	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter le: Hybrid / Smart/ EN/verter On, Mains In Battery Low, Ot	Voltage, Current (Load Voltage, Current (Load Voltage, Country Voltage, Country Voltage, Country Voltage, Country Indiana Indi	Frequency Frequency Furrent Fu	II, CHG. Switch Configuration Setting
No of Phase Voltage Range(Inverter) Voltage Range(Inverter) Voltage Range(Ipes) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz ms Pf	ON/OFF, Mod Inv Overload,Shor	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter Inverter Verter On, Mains In Battery Low, Overtice of Battery, Overtic	Voltage, Current (Load Voltage, Current (Load Voltage, Courter, Co	requency current current ar Status and Battery CHG High/Low, SMF/T cre P,N,E ++/-2% -+/-2%2% contact Equalise) ET 2% cre P,N,E contact Wave as as SSMF, CHG.LO/CHG.H ff cw/High, Charger On, O , Inverter On, Solar CI , Inverter On, Solar CI current Controlled)	II, CHG. Switch Configuration Setting Everload, Faults harger On protection (MOV Varistors),
No of Phase Voltage Range(Inverter) Voltage Range(Inverter) Voltage Range(Iper) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V - Hz ms Pf	ON/OFF, Mod Inv Overload,Shor	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter Inverter Verter On, Mains In Battery Low, Overtice of Battery, Overtic	Voltage, Current (Load Voltage, Current (Load Voltage, Courter, Co	requency current current ar Status and Battery CHG High/Low, SMF/T cre P,N,E ++/-2% -+/-2%2% contact Equalise) ET 2% cre P,N,E contact Wave as as SSMF, CHG.LO/CHG.H ff cw/High, Charger On, O , Inverter On, Solar CI , Inverter On, Solar CI current Controlled)	II, CHG. Switch Configuration Setting Everload, Faults harger On protection (MOV Varistors),
No of Phase Voltage Range(Inverter) Voltage Range(Inverter) Voltage Range(IPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Humidity	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz ms Pf	ON/OFF, Mod Inv Overload,Shor	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter Inverter Verter On, Mains In Battery Low, Overtice of Battery, Overtic	Voltage, Current (Load Voltage, Current (Load Voltage, Courter, Co	requency current current ar Status and Battery CHG High/Low, SMF/T cre P,N,E +/-2% -/-2% cht/-2% cht, Equalise) ET 2% cre P,N,E cht/-2% cht/-	II, CHG. Switch Configuration Setting Everload, Faults harger On protection (MOV Varistors),
No of Phase Voltage Range(Inverter) Voltage Range(Inverter) Voltage Range(Ips) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Humidity Protection Class	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V - Hz ms Pf	ON/OFF, Mod Inv Overload,Shor	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter Inverter Verter On, Mains In Battery Low, Overtice of Battery, Overtic	Voltage, Current (Load Voltage and F Voltage, C Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + cost, Absorbtion, Fice MOSF 230 +/- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE /CHG.DIS, Scroll Of I Range, Battery Loverload, Charger On n,Over Voltage, SPV r temperature Prote Forced Air cooling(T 0-50 95	requency current current ar Status and Battery CHG High/Low, SMF/T cre P,N,E ++/-2%/-2% coat, Equalise) ET 2% cre P,N,E c Wave ss ss/SMF, CHG.LO/CHG.H ff w/High, Charger On, O , Inverter On, Solar CI Surge and Transient is ction, under voltage and femp Controlled)	II, CHG. Switch Configuration Setting Everload, Faults harger On protection (MOV Varistors),
No of Phase Voltage Range(Inverter) Voltage Range(Iverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Humidity Protection Class Noise @ 1Meter Distance	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V V Hz Hz ms Pf C %	ON/OFF, Mod Inv Overload,Shor Reverse Polar	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter Inverter EN verter On, Mains Ir Battery Low, Overtive of Battery, Overity of Batt	Voltage, Current (Load Voltage, Current (Load Voltage, Courter, Co	requency current current ar Status and Battery CHG High/Low, SMF/T cre P,N,E ++/-2%/-2% coat, Equalise) ET 2% cre P,N,E c Wave ss ss/SMF, CHG.LO/CHG.H ff w/High, Charger On, O , Inverter On, Solar CI Surge and Transient is ction, under voltage and femp Controlled)	Switch Configuration Setting Overload, Faults harger On protection (MOV Varistors), and over voltage Protection
No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Temp Operating Humidity Protection Class Noise @ 1Meter Distance Weight	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V - Hz ms Pf	ON/OFF, Mod Inv Overload,Shor Reverse Polar	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter Inverter Verter On, Mains In Battery Low, Overtice of Battery, Overtic	Voltage, Current (Load Voltage, Current (Load Voltage, Courter, Co	requency current current ar Status and Battery CHG High/Low, SMF/T re P,N,E ++/-2% +-/-2%/	II, CHG. Switch Configuration Setting Everload, Faults harger On protection (MOV Varistors),
No of Phase Voltage Range(Inverter) Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Humidity Protection Class Noise @ 1Meter Distance	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V V Hz	ON/OFF, Mod Inv Overload,Shor Reverse Polar	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter Inverter Settle: Hybrid / Smart/ EN Verter On, Mains In Battery Low, Overticity of Battery, Ove	Voltage, Current (Load Voltage, Current (Load Voltage, Courter, Co	requency current current ar Status and Battery CHG High/Low, SMF/T re P,N,E ++/-2% ++/-2%2%	II, CHG. Switch Configuration Setting Iverload, Faults harger On protection (MOV Varistors), and over voltage Protection 15.96 x381x215







ORIENT

KIAN SERIES - PWM SYSTEM

Orient Solar Inverter — Kian Series

Cutting edge solar inverters ensuring reliability along with immense efficiency.

Pulse Width Modulated Inverters (PWM Inverter) have a wide range of applications. Practically these are used in power electronics circuits. The inverters based on the PWM technology and possess MOSFETs in the switching stage of the output.





Features

- •DSP-based; fewer components, small size less electricity bill more efficiency.
- Soft Start features; protects appliances at startup.
- Last Fault Display and record: the system records the last fault and you can analyze it.
- The adaptive loss reduction process gives a more efficient charging system.
- •5-stage battery charge control system for lower gassing and faster Charging
- •In-built SBM (Smart Battery Management) system to provide a higher degree of battery production & life Battery usage data is recorded for better evaluation of the battery.
- Supply the highest quality pure sine wave power; protects your expensive



ORIENT

KIAN SERIES - PWM SYSTEM

			. 10 '6 1				
2	1110	Tech	nical Specificat				
Parameters	Unit			Rating			
Model	KIAN	2800 (2000 VA)		4150 (3500VA)		5550(5000VA)	
Operating DC Voltage	Volts	24		48		48	
			SPV Parameters				
Solar Working Mode Selection by Dip Switch				PCU			
SPV Open Circuit Voltage Range	voc	32-60+/-2V		64-120+/-2V		64-120+/-2V	
(Min-Max)	W	1600		2800		4000	
Max SPV Power							
Max Batt Current	Amps	60		80		80	
Recommended Panel Cell	CELL	36/72 BWW B		60/72		60/72	
Outlinking Florens		PWW B	ased Charge Co				
Switching Element				MOSFET			
Controller				DSP			
Efficiency			Dattama	95%			
Law Out Off	Volta		Battery	40 5/0-44	. (00/		
Low Cut Off	Volts			10.5/Batt	+/-2%		
Low Cut Off Recovery by (SPV Charging)	Volts			11.5/Batt	+/-2%		
Low Buzzer	Volts			10.7/Batt	+/-2%		
High Cut Off	Volts			15.5/Batt	+/-2%		
High Cut Off Recovery	Volts			15.0/Batt	+/-2%		
Battery Selection by Dip Switch	Volts	TUB	14.4V+/-2%	SMF	14V+/-2	%	
Boost Charging Volt by SPV	Volts	TUB	14.8V+/-2%	SMF	14.4+/-2	%	SETABLE
Boost Charging Volt by Grid	Volts	TUB	14.4V+/-2%	SMF	14V+/-2	%	THROUGH LCD
Float Charging Volt by Grid	Volts	TUB	13.8+/-2%	SMF	13.5V+/-	2%	
Grid Charging Current selection		404		40.	a		
by Dip Switch / Configuration Setting	Normal	10A +/-2%	High	12A +/-2%	Disable	0A	
Cotang			Output				
Output@ No load				230 +/- 2%			
Output Frequency				50 +/- 2%			
, , , ,		1.6KW		зкพ		4KW	
Overload		6.9		13		17.3	
Overload	1	67		83		83	
Typical Efficiency		≥85%		≥85%		≥85%	
3,			Dioplay	=0070			
	Alphanumeric		Display				
Display	Alphanumeric Output			20x4 LCD			
	Alphanumeric Output (Inverter)				l%) and Frequen		
	Output			20x4 LCD			
	Output (Inverter)			20x4 LCD Itage, Current (Load	requency		
Display	Output (Inverter) Input (Grid)		Vo	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C	Frequency Current Current	юсу	
Display	Output (Inverter) Input (Grid) Solar	Inverter Stat	Vo tus, Mains Status,	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol	Frequency Current Current ar Status and Ba	icy ittery Status/Chargi	ng Stages,
Display	Output (Inverter) Input (Grid) Solar Battery	Inverter Stat	Vo tus, Mains Status,	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C	Frequency Current Current ar Status and Ba	icy ittery Status/Chargi	ng Stages,
Display	Output (Inverter) Input (Grid) Solar Battery	Inverter Stat	Vo tus, Mains Status, OverHeat, C	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol	Frequency Current Current ar Status and Ba CHG High/Low, S	icy ittery Status/Chargi	ng Stages,
Display Parameters	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Stat	Vo tus, Mains Status, OverHeat, C	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable,	Frequency Current Current ar Status and Ba CHG High/Low, S	icy ittery Status/Chargi	ng Stages,
Display Parameters No of Phase	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Stat	Vo tus, Mains Status, OverHeat, C	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi	Frequency Current Current ar Status and Ba CHG High/Low, \$ ire P,N,E +/-2%	icy ittery Status/Chargi	ng Stages,
Display Parameters No of Phase Voltage Range(Inverter)	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Stat	Vo tus, Mains Status, OverHeat, C	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280	Frequency Current Current ar Status and Ba CHG High/Low, \$ fire P,N,E +/-2%	icy ittery Status/Chargi	ng Stages,
Display Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS)	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Stat	Vo tus, Mains Status, OverHeat, C Grid	20x4 LCD itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255	Frequency Current Current ar Status and Ba CHG High/Low, \$ dire P,N,E +/-2% +/-2%	icy ittery Status/Chargi	ng Stages,
Display Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Stat	Vo tus, Mains Status, OverHeat, C Grid	20x4 LCD itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 +	Frequency Current Current ar Status and Ba CHG High/Low, \$ dire P,N,E +/-2% +/-2%	icy ittery Status/Chargi	ng Stages,
Display Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Stat	vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	20x4 LCD itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 +	Frequency Current ar Status and Ba CHG High/Low, S ire P,N,E +/-2% +/-2% pat, Equalise)	icy ittery Status/Chargi	ng Stages,
Display Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages	Output (Inverter) Input (Grid) Solar Battery Status/Faults	Inverter Stat	vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + bost, Absorbtion, Fle	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% +1-2% -1-2% pat, Equalise)	icy ittery Status/Chargi	ng Stages,
Display Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Stat	vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3W 100-280 175-255 45-55 + bost, Absorbtion, Fid	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% +1-2% -2-2% pat, Equalise)	icy ittery Status/Chargi	ng Stages,
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Stat	vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3W 100-280 175-255 45-55 + post, Absorbtion, Fid MOSF 230 */-	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% -1-2% oat, Equalise) ET 22%	icy ittery Status/Chargi	ng Stages,
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Stat	vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 +, bost, Absorbtion, Fid MOSF 230 +/- 1Phase-3Wi	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% -1-2% oat, Equalise) ET 22%	icy ittery Status/Chargi	ng Stages,
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Stat	vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + bost, Absorbtion, Flo MOSF 230 +/- 1Phase-3Wi Pure Sine	Frequency current current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% +1-2% coat, Equalise) ET 22% ire P,N,E	icy ittery Status/Chargi	ng Stages,
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Stat	vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280- 175-255- 45-55 + post, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wi Pure Sine	Frequency Current Current ar Status and Ba CHG High/Low, 8 ire P,N,E +/-2% +/-2%	icy ittery Status/Chargi	ng Stages,
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter)	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	Inverter Stat	vo tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + bost, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wi Pure Sine 50 <10m	Frequency Current Current ar Status and Ba CHG High/Low, S are P,N,E +1-2% +1-2% -1-2% pat, Equalise) ET 2% ire P,N,E b Wave	icy ittery Status/Chargi	ng Stages,
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz		tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55+ bost, Absorbtion, Fid MOSF 230 */- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% -1-2% -2-2% part, Equalise) ET 22% ire P,N,E Wave	attery Status/Chargi	Switch
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz		tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wil 100-280 175-255 45-55 + cost, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wil Pure Sine 50 <10m 0.8 3 Tim	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% -1-2% -2-2% part, Equalise) ET 22% ire P,N,E Wave	attery Status/Chargi	Switch Configuration
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	ON/OFF, Mode	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter	20x4 LCD Itage, Current (Load Voltage and F Voltage, C Voltage, C Charger Status, Sol 1Phase-3Wi 100-280 175-255 45-55+ bost, Absorbtion, Fid MOSF 230 */- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% +1-2% -2-2% -0-24, Equalise) ET 2% ire P,N,E Wave us s ssSMF, CHG.LO/Cff	ettery Status/Chargi	Switch Configuration Setting
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	ON/OFF, Mode	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + cost, Absorbtion, Fid MOSF 230 +/- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE //CHG.DIS, Scroll Of	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% -1-2% -2-2% coat, Equalise) ET 22% ire P,N,E EWave BS/SMF, CHG.LO/C ff w/High, Charger	attery Status/Chargi SMF/Tubular	Switch Configuration Setting
Parameters No of Phase Voltage Range(Inverter) Voltage Range(Inverter) Voltage Range(Ips) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	ON/OFF, Modeline	e: Hybrid / Smart/Enter On, Mains Ir Battery Low, Ov	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Voltage, Cl Voltage, Cl HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + Dost, Absorbtion, Fic MOSF 230 +1- 1Phase-3Wi Pure Sine 510 10m 0.8 3 Tim PCU, INV /UPS, TUE //CHG.DIS, Scroll Of reload, Charger On n, Over Voltage, SPV	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% +1-2% +1-2% -1	ettery Status/Chargi SMF/Tubular SMG-Tubular On, Overload, Fault lar Charger On sient protection (MC	Switch Configuration Setting s
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz	ON/OFF, Modeline	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter EN erter On, Mains Ir Battery Low, Ov	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55+ Dost, Absorbtion, Fid MOSF 230 */- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE /CHG.DIS, Scroll Of Range, Battery Lov rerload, Charger On n,Over Voltage,SPV r temperature Prote	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% +1-2% -1-2% -2-2%	ettery Status/Chargi SMF/Tubular SMF/Tubular On, Overload, Fault lar Charger On Sige and over voltag	Switch Configuration Setting s
Parameters No of Phase Voltage Range(Inverter) Voltage Range(IPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz ms Pf	ON/OFF, Modeline	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter EN erter On, Mains Ir Battery Low, Ov	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55+ Dost, Absorbtion, Fid MOSF 230 */- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE /CHG.DIS, Scroll Of In Range, Battery Lov rerload, Charger On In, Over Voltage, SPV r temperature Prote Forced Air cooling(T	Frequency Current Current Current Current CHG High/Low, S Ire P,N,E +1-2% -1-2% -1-2% -2-2% Coat, Equalise) ET 29% Ire P,N,E W/High, CHG,LO/C Iff W/High, Charger I, Inverter On, So Surge and Trans Surge and Trans Cition, under voltz Femp Controlled)	ettery Status/Chargi SMF/Tubular SMF/Tubular On, Overload, Fault lar Charger On Sige and over voltag	Switch Configuration Setting s
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V V Hz	ON/OFF, Modeline	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter EN erter On, Mains Ir Battery Low, Ov	20x4 LCD Itage, Current (Load Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TUE //CHG.DIS, Scroll Of n Range, Battery Lov verload, Charger On n,Over Voltage,SPV t temperature Prote Forced Air cooling(T	Frequency Current Current Current Current CHG High/Low, S Ire P,N,E +1-2% -1-2% -1-2% -2-2% Coat, Equalise) ET 29% Ire P,N,E W/High, CHG,LO/C Iff W/High, Charger I, Inverter On, So Surge and Trans Surge and Trans Cition, under voltz Femp Controlled)	ettery Status/Chargi SMF/Tubular SMF/Tubular On, Overload, Fault lar Charger On Sige and over voltag	Switch Configuration Setting s
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Humidity	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz ms Pf	ON/OFF, Modeline	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter EN erter On, Mains Ir Battery Low, Ov	20x4 LCD Itage, Current (Load Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wi 100-280 175-255 45-55 + 0ost, Absorbtion, Fic MOSF 230 +/- 1Phase-3Wi Pure Sine 50 <10m 0.8 3 Tim PCU, INV /UPS, TIM PCU, INV /UPS, TIM PCU, INV /UPS, Scroll Of n Range, Battery Lov verload, Charger On n, Over Voltage, SPV r temperature Prote Forced Air cooling(1) 0-50	Frequency Current Current Current Current Car Status and Ba CHG High/Low, S ire P,N,E +/-2% -/-2% -/-2% -/-2%	ettery Status/Chargi SMF/Tubular SMF/Tubular On, Overload, Fault lar Charger On Sige and over voltag	Switch Configuration Setting s
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Humidity Protection Class	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V V Hz	ON/OFF, Modeline	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter EN erter On, Mains Ir Battery Low, Ov	20x4 LCD Itage, Current (Load Voltage, Cl Charger Status, Sol HG Enable/Disable, 1Phase-3Wil 100-280 175-255 45-55 + 45-56 + 46-56 + 46-66 +	Frequency Current Current ar Status and Ba CHG High/Low, S ire P.N.E +1-2% +1-2% -1	ettery Status/Chargi SMF/Tubular SMF/Tubular On, Overload, Fault lar Charger On Sige and over voltag	Switch Configuration Setting s
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output Voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Temp Operating Humidity Protection Class Noise @ 1Meter Distance	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V V Hz - Hz ms Pf	ON/OFF, Mode Inve Overload, Short Reverse Polari	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter EN erter On, Mains Ir Battery Low, Ov	20x4 LCD Itage, Current (Load Voltage, Cl Indianable, Cl Indianab	Frequency Current Current ar Status and Ba CHG High/Low, S ire P.N.E +1-2% +1-2% -1	ettery Status/Chargi SMF/Tubular SHG.HI, CHG. On, Overload, Fault lar Charger On sient protection (MC age and over voltag	Switch Configuration Setting s
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Temp Operating Humidity Protection Class Noise @ 1Meter Distance Weight	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V V Hz - Hz ms Pf	ON/OFF, Mode Inve Overload, Short Reverse Polari	tus, Mains Status, OverHeat, C Grid 5 (Softstart, Bo Inverter EN erter On, Mains Ir Battery Low, Ov	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Voltage, Cl Charger Status, Sol 100-280 175-255 45-55 + cost, Absorbtion, Fid MOSF 230 +/ 1Phase-3Wi Pure Sind 3 Tim PCU, INV /UPS, TUE //CHG.DIS, Scroll Of a Range, Battery Lov verload, Charger Con n,Over Voltage,SPV r temperature Prote Forced Air cooling(1 0-50 1P2C 50dt 30.5	Frequency Current Current ar Status and Ba CHG High/Low, S ire P.N.E +1-2% +1-2% -1	attery Status/Chargi SMF/Tubular SHG.HI, CHG. On, Overload, Fault olar Charger On signt protection (MC age and over voltage	Switch Configuration Setting s
Parameters No of Phase Voltage Range(Inverter) Voltage Range(UPS) Frequency Range Battery Charging Stages Switching Element Output voltage Phase Output Waveform Frequency Changeover (Mains to Inverter) Output Power Factor Overload Retry Switches Indication Alarm Protection Cooling Operating Temp Operating Humidity Protection Class Noise @ 1Meter Distance	Output (Inverter) Input (Grid) Solar Battery Status/Faults - V V Hz - V Hz ms Pf C C % Kg LWH 4.	ON/OFF, Mode Inve Overload, Short Reverse Polari 20.55 32x381x215	e: Hybrid / Smart/EN erter On, Mains Ir Battery Low, Ov tity of Battery, Ove	20x4 LCD Itage, Current (Load Voltage, Cl Voltage, Cl Voltage, Cl Voltage, Cl Charger Status, Sol 10-280 175-255 45-55+ cost, Absorbtion, Fid MOSF 230 */- 1Phase-3Wi Pure Sine 500 <10m 0.8 3 Tim PCU, INV /UPS, TUE /CHG.DIS, Scroll Of n Range, Battery Low rerload, Charger Low rerload Low rerload Low Rever Low	Frequency Current Current ar Status and Ba CHG High/Low, S ire P,N,E +1-2% +1-2% -1-	tttery Status/Chargi SMF/Tubular SHG.HI, CHG. On, Overload, Fault olar Charger On sient protection (MC age and over voltage	Switch Configuration Setting s









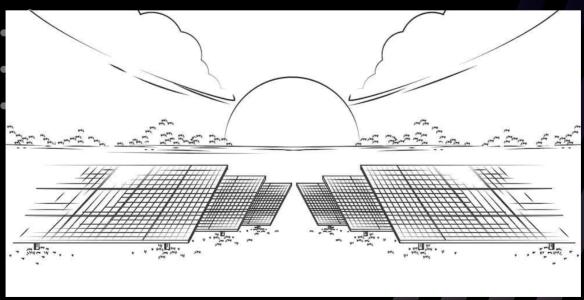


Solar on grid systems refer to solar energy systems that do not store the energy independently but supply it back to the grid. As such, in case your solar system over or under produces energy it does not matter as you will be supplied your energy needs from the grid as per normal and the solar energy you produced will be subtracted from your monthly bill.





Go green with our on grid solar power generating systems.





DATA SHEET

						Single P	hase	(1KW -	6 2KW)					
Model (KSY)(KW)	1	1.2	2	2.3	3	3.3 / 3.4	4	4.2	4 / 4.2	4.4/4.6	5	5.2 5.	4 6	6.2
Input (DC)		1.2				3.3 / 3.4	7	7.2	+/ +.2	4.4,4.0		3.2 3.	*	0.2
Max Peak DC Input Power (KW)	1.2	1.44	2.4	2.76	3.3	3.60	4.0	4.2	4.6	4.80		6		7.0
Max. DC I/P (V dc)			5	00Vdc			55	0Vdc			55	50Vdc		
Max. MPPT I/P Current (A)						16A						13A		
MPPT Short Circuit Current (A)				00 500			00.1		.0A		100			
MPPT Tracking Voltage (Vdc) Min. Start Voltage (V)				80-500	v 80V	dc	80-:	550V				-550V 0Vdc		
Number of MPPT Tracker					1	ac					100	2		
Strings per MPPT Trackers					_			1				-		
Output (AC)														
Rated output power (kw)	1	1.2	2	2.3	3	3.3 /3.4	4	4.2	4 / 4.2	4.4/ 4.6	5.0	5.2 5.4	6	6.2
Rated Grid Voltage (V)							2	30V (14	0V - 300V)	1			
Nominal Grid Freq.(Hz)						50	Hz / 60)Hz (47-	-52Hz) / (5	57-62Hz)				
Max. output Current AC (A)	4.33	5.22	8.69	10.00	13.04	14.34	17.39	18.26	18.26	20.00	21.7	22.6 23.4	7 26.08	26.95
AC Connection (With PE)								P + N	+ E					
THDI (%)							<3%	(At Ra	ted Power	r)				
Output Power Factor (%)						(0.8 Lea	ding 1	0.8 Lagg	ging				
Efficiency														
Max. Conversion Eff.(%)								98.	0					
Max. Euro Efficiency (%)								97.	5					
Protection														
Anti-Islanding Protection								Yes Inte	grated					
Insulation Resistance Detection							,	Yes Inte	grated					
Residual Current Monitoring							,	Yes Inte	grated				,	
Over Voltage Protection							,	Yes Inte	grated					
DC Switch								Optio	nal					
Surge Protection							M	OV / SP[) / Filters					
General Data														
Dimensions(W*H*D) mm				297×22	3×117	7mm				393	×324.5	5×154mm		
Weight (Kg)				4.	8Kg						10	OKg		
Noise Emission (db)								<300	dВ					
Display							LEI	O with L	CD Display	У				
DC Connection Type								MC-	-4					
AC Connection Type							Plug in	Connec	tor / Wire	e cables				
Communication Interface							W	/iFi/ GPF	RS/ RS 485					
Cooling Method							N	atural C	onvection					
Operating Ambient								-25 C -	+60°C					
Relative Humidity								0% - 1	.00%					
Max. Operating Altitude(m)							200	0 (>200	0 Derating	<u>;</u>)				
Protection Class								IP6	5					
Night Stand By Power Consumption (w)								<1						
Standard Warranty								8 Y	'ear					

BIS, IEC 62109 -1/2, IEC 61727, IEC 61683, IEC 60068, IEC 62116, IEC 61000 EMC

 * Note - All specification are subject to change without notice due to continuous upgradation in Modules Wp capacity









DATA SHEET

	Three Phase (3KW - 25KW)											
Model (KSY)(KW)	3	4	5	6	7	8	10	12(LM)	15	18	20	25
Input (DC)	<u> </u>			ľ	<i>'</i>	"	10	12(2111)	13	10	20	23
	2.60	4.00	6.00	7.20	0.40	0.60	12.00	12.00	10.00	24.60	24.00	27.50
Max Peak DC Input Power (KW)	3.60	4.80	6.00	7.20	8.40	9.60	12.00	12.00	18.00	21.60	24.00	27.50
Max. DC I/P (V dc)							1000Vdc					
Max. MPPT I/P Current (A)					13A					26	5A	
MPPT Short Circuit Current (A)					20A					40	DA	
MPPT Tracking Voltage (Vdc)						20	00-1000Vd	С				
Min. Start Voltage (V)							200Vdc					
Number of MPPT Tracker			1/2						2			
Strings per MPPT Trackers			1								2	
Output (AC)												
Rated output power (kw)	3	4	5	6	7	8	10	12	15	18	20	25
Rated Grid Voltage (V)							00V (300V					
Nominal Grid Freq.(Hz)	ı						OHz / 60Hz					
Max. output Current AC (A)	4.3	5.8	7.2	8.6	10.1	11.56	14.5	17.32	21.7	26.01	28.90	36.12
AC Connection (With PE)							3P + N + E					
THDI (%)						•	At Rated P					
Output Power Factor (%)						0.8 Leadi	ng 1 0.	8 Lagging		_	_	
Efficiency												
Max. Conversion Eff.(%)							98.0					
Max. Euro Efficiency (%)	_	_	_	_	_	_	97.5		_			
Protection												
Anti-Islanding Protection							Integrate					
Insulation Resistance Detection						Yes	Integrated	d				
Residual Current Monitoring						Yes	Integrated	d				,
Over Voltage Protection						Yes	Integrated	d				
DC Switch							Inbuilt					
Surge Protection						MOV	SPD / Filt	ers				
General Data												
Dimensions(W*H*D) mm				425	*346*16	Omm				425*35:	1*200mm	
Weight (Kg)					13.7Kg					20	OKg	
Noise Emission (db)					_		<30dB					
Display						LED w	ith LCD D	isplay				
DC Connection Type							MC-4					
AC Connection Type						Plu	g in Conne	ctor				
Communication Interface						WiFi	/ GPRS/ RS	485				
Cooling Method					Nat	ural Conv	ection / Sr	mart Fan C	ooling			
Operating Ambient						-2	25C - +60°C					
Relative Humidity						C	% - 100%					
Max. Operating Altitude(m)						2000 (>2000 Der	ating)				
Protection Class							IP65					
Night Stand By Power Consumption (w)							<1					
Standard Warranty							8 Year					

BIS ,IEC 62109 -1/2, IEC 61727, IEC 61683, IEC 60068, IEC 62116, IEC 61000 EMC

*Note - All specification are subject to change without notice due to continuous upgradation in Modules Wp capacity



DATA SHEET

			Three P	hase (30KW - 6	okw)		
Model (KSY)(KW)	30	33	35	40	45	50	60
Input (DC)							
Max Peak DC Input Power (KW)	36	39.6	42	48	54	60	60
Max. DC I/P (V dc)				1100Vdc			
Max. MPPT I/P Current (A)				30A			
MPPT Short Circuit Current (A)				46A			
MPPT Tracking Voltage (Vdc)				200-1000Vdc			
Min. Start Voltage (V)				200Vdc			
Number of MPPT Tracker		3				4	
Strings per MPPT Trackers				2			
Output (AC)							
Rated output power (kw)	30	33	35	40	45	50	60
Rated Grid Voltage (V)			380	V-400V (300V - 50	10V)		
Nominal Grid Freq.(Hz)				50Hz / 60Hz			
Max. output Current AC (A)	43.35	47.68	50.57	57.80	65.02	72.25	86.70
AC Connection (With PE)				3P + N + E			
THDI (%)			<	3% (At Rated Pow	er)		
Output Power Factor (%)			0.8 L	eading 1 0.8 La	agging		
Efficiency							
Max. Conversion Eff.(%)		98.0			9	98.7	
Max. Euro Efficiency (%)		97.5			9	98.3	
Protection							
Anti-Islanding Protection				Yes Integrated			
Insulation Resistance Detection				Yes Integrated			
Residual Current Monitoring				Yes Integrated			,
Over Voltage Protection				Yes Integrated			
DC Switch				Inbuilt			
Surge Protection				MOV / SPD / Filter	•		
General Data				WIOV 7 SI D 7 TIILEI	3		
Dimensions(W*H*D) mm				F00*42F*242			
				580*435*242mm			
Weight (Kg) Noise Emission (db)				40Kg <30dB			
Display			ı	.ED with LCD Displ	av		
DC Connection Type				MC-4	-,		
AC Connection Type				Terminal Block			
Communication Interface				WiFi/ GPRS/ RS 48	85		
Cooling Method				Convection / Smar		Į.	
Operating Ambient				-25 C - +60°C		,	
Relative Humidity				0% - 100%			
Max. Operating Altitude(m)			20	000 (>2000 Deratir	ng)		
Protection Class				IP65			
Night Stand By Power Consumption (w)				<1			
Standard Warranty				8 Year			



*Note - All specification are subject to change without notice due to continuous upgradation in Modules Wp capacity







ORIENT ARC SERIES HYBRID SYSTEM 5KVA/48V Single Phase

Get the best of both worlds and see the benefits of solar with our Hybrid Solar Systems.

Solar hybrid systems refer to solar energy systems that produce and store energy independently using a solar panel, inverter, and battery storage and are also tied to the grid. As such, with a hybrid system you get the best of both worlds where you would not rely on the grid for energy and be energy independent but in case you over or under produce energy you would still have the grid and receive the benefits of an on-grid system





Features

- Intelligent Off-grid & Hybrid modes
- Off-grid seamless switching
- Wide PV input voltage range
- Great battery compatibility
- Single phase / Unbalanced 3-phase
- Support up to 16 pcs in parallel host inverter automatically generated to manage the entire system
- Separated generator port available





ORIENT ARC SERIES HYBRID SYSTEM 5KVA/48V Single Phase

Specification									
INPUT (PV DC)									
Max. PV array power (W)	6000 (3000/3000)	8000 (4000/4000)	8000 (4000/4000)	8000 (4000/4000)					
Rated PV input voltage (V)	0000 (0000/0000)		320	0000 (1000/1000)					
Number of independent MPPT inputs			2						
PV input voltage range (V)		100	<u>2</u>						
MPPT voltage range (V)	120 [385								
Start-up voltage (V)	120 (385)								
Max. PV input current per MPPT (A)									
Max. PV short-circuit current input per MPPT (A)	17/17								
Battery	25/25								
Compatible battrey type		Lithium -ion	/Lead-Acid						
Rated battery voltage (V)			18						
Battery voltage (V)			4 ⊑60						
Max.charging/discharging current (A)	70	90	110	140					
Max.discharging/discharging power (W)	3000	4000	5000	6000					
Recomand capacity of battery per inverter	> 100 AH	> 200 AH	> 200 AH	> 200 AH					
force wake up battery from PV function	> 100 AH			> 200 AFI					
			ES .						
Force wake up battery from Grid function		Y	ES						
Grid			20						
Rated AC fraguency (U.E.)		23	30 /60						
Rated AC frequency (Hz)	10 F			26 F					
Rated AC output current (A)	13.5	17.5	22	26.5					
Rated AC output power (W)	3000	4000	5000	5000					
Max. AC input current (A)	26	35	35	35					
Max. AC input Power (W)	6000	8000	8000	8000					
PF			.99						
THDI			5%						
Rated AC current of BYPASS relays (A)		4	10						
UPS	2000	4000	5000	0000					
Rated output power (W)	3000	4000	5000	6000					
Rated output voltage (V)	40.5		30	00.5					
Rated output current (A)	13.5	17.5	22	26.5					
Rated output frequency (HZ)			/60						
Surge power, duration			, <2S <30ms@parallel						
Switching time									
Wave from THDV			wave						
11121		3	3%						
Efficiency			00						
Max. MPPT efficiency			.99						
Max. efficiency			.93						
EU. efficiency			·						
Max. charging efficiency			.93						
Max. discharging efficiency		0	.93						
Protection Over current/voltage protection		,	/E0						
Over current/voltage protection AC Short-circuit current protection			ÉS És						
Grid monitoring			ES (ES						
			ÉS						
AC Surge protection Type III Battery reverse polarity protection			ES ES						
General		Y	'ES						
		200*505* 405	-/44 O* 40 O* F O'						
Dimensions (W*H*D)			n/11.9* 19.9* 5.3inch						
Weight			(g/32lbs						
Ingress protection rating			p20						
Operating environment temperature range			50 °C						
Storage temperature range			_60 °C						
Relative humidity			_95%						
Display & Communication interface			8485/Wi-Fi/CAN						
Warranty			ears						
Cooling method			FAN						
Topology			mer -less						
Altitude		<200							
Noise emission (typical)		<50)db						
Standards & Certification									
IEC 6210 9-1,IEC 6210 9-2, IEC 61000									





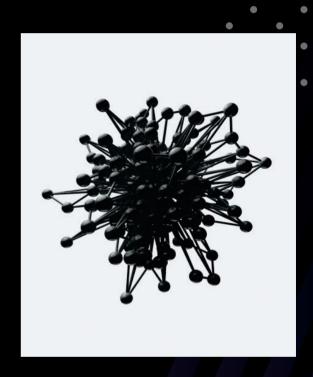
ORIENT APOLLO SERIES SMART LI-ION BATTERY



Storage systems batteries and inverters

A lithium-ion (Li-ion) battery is an advanced battery technology that uses lithium ions as a key component of its electrochemistry. During a discharge cycle, lithium atoms in the anode are ionized and separated from their electrons. The lithium ions move from the anode and pass through the electrolyte until they reach the cathode, where they recombine with their electrons and electrically neutralize.

Lithium Ion batteries have a number of advantages to traditional batteries. Iithium ion batteries have one of the highest energy densities of any battery technology today. This means that they can deliver large amounts of current for highpower applications. Li-ion batteries also have low self-discharge rate of around 1.5-2% per month. Li-ion batteries charge almost 4 times faster than their alternatives. Crucially Li-ion batteries are much easier to dispose of and so are better for the environment as compared to their competitors.





The future is now...
join it with
Orient Solar



ORIENT APOLLO SERIES SMART LI-ION BATTERY

SOLAR APPLICATION

Salient Benefits

- Long Life Cycle
- High Performance
- Eco-Friendly
- Maintenance Free
- High Safety Performance
- Wide operating temperature range
- Completely recyclable



Technical Specification:

Nominal Voltage (V) 12.8		Model Name	ORIENT128100ESS				
No. of cell in series		Nominal Voltage (V)	12.8				
No. of cell in parallel		Capacity (Ah)	100				
No. of cell in parallel	General	No. of cell in series	4				
Cell Type		No. of cell in parallel	1				
Chemistry		Total No. of cell	4				
Chemistry		Cell Type	Prismatic				
Maximum cut-off voltage (V)			LFP				
Minimum cut-off voltage (V)			14.6				
Charging Voltage (V)			11				
Recommended charging current (A) 30 Maximum charging current (A) 50			14.5				
Maximum charging current (A) 50							
Characteristics	Electrical						
Cell Discharging Protection level (V) 2.75							
Cell charging protection level (V) 3.65							
Balancing current (mA) 50							
Cycle Life							
Cell under voltage protection Yes							
Cell over voltage Protection Yes							
Protection Over current protection Yes Short circuit protection Yes Temperature Working Temperature (°C) 0 − 55 Storage Temperature (°C) 0 − 55 Others Dimension (mm) 275x95x245 (mm) Weight (Kg) 10 Approx. General Characteristics Model Name ORIENT128200ESS Nominal Voltage (V) 12.8 Capacity (Ah) 200 No. of cell in series 4 No. of cell in series 4 No. of cell in parallel 2 Cell Type Prismattic Chemistry LFP Maximum cut-off voltage (V) 14.6 Minimum cut-off voltage (V) 11 Characteristics Aminum cut-off voltage (V) Electrical Characteristics Aminum cut-off voltage (V) Electrical Characteristics Aminum cut-off voltage (V) Characteristics Aminum cut-off voltage (V) Aminum cut-off voltage (V) 1.1 Characteristics Aminum cut-off voltage (V) Recommended charging current (A) <td></td> <td></td> <td></td>							
Short circuit protection Yes							
Temperature Temperature Yes	Protection	*					
Temperature Working Temperature (°C)		1					
Storage Temperature (°C)							
Others	Temperature						
Others Weight (Kg) 10 Approx. Model Name ORIENT128200ESS Nominal Voltage (V) 12.8 Capacity (Ah) 200 No. of cell in series 4 No. of cell in parallel 2 Total No. of cell 8 Cell Type Prismatic Chemistry LFP Maximum cut-off voltage (V) 14.6 Minimum cut-off voltage (V) 11 Charging Voltage (V) 14.4 Recommended charging current (A) 30 Maximum discharging current (A) 40 Maximum discharging current (A) 40 Maximum discharging current (A) 100 Cell charging protection level (V) 2.75 Cell charging protection level (V) 3.65 Balancing current (mA) 50 Cycle Life 3000 Cell under voltage protection Yes Cell over voltage Protection Yes Over current protection Yes Short circuit protection Yes Short circuit protection Yes	1						
Weight (Kg) 10 Approx.	Others	Dimension (mm)	275x95x245 (mm)				
Nominal Voltage (V) 12.8		Weight (Kg)	10 Approx.				
Capacity (Ah) 200							
No. of cell in series		Nominal Voltage (V)					
No. of cell in parallel 2 Total No. of cell 8 Electrical Call Type Prismatic Chemistry LFP Maximum cut-off voltage (V) 14.6 Minimum cut-off voltage (V) 11 Charging Voltage (V) 14.4 Recommended charging current (A) 30 Maximum discharging current (A) 40 Maximum discharging current (A) 100 Cell Discharging Protection level (V) 2.75 Cell charging protection level (V) 3.65 Balancing current (mA) 50 Cycle Life 3000 Cell over voltage Protection Yes Cell over voltage Protection Yes Cell over voltage Protection Yes Temperature protection Yes Temperature protection Yes Temperature protection Yes Temperature (°C) 0 - 55 Storage Temperature (°C) 0 - 45 Dimension of Rack (LxWxH) TDB. Weight (Kg) 30 Approx.							
Total No. of cell 8		Capacity (Ah)	200				
Cell Type	General Characteristics	Capacity (Ah) No. of cell in series	200				
Chemistry	General Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel	200 4 2				
Maximum cut-off voltage (V)	General Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell	200 4 2 8				
Minimum cut-off voltage (V)	General Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type	200 4 2 8 Prismatic				
Recommended charging current (A) 30	General Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry	200 4 2 8 Prismatic LFP				
Maximum charging current (A)	General Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V)	200 4 2 8 Prismatic LFP 14.6				
Characteristies Maximum discharging current (A) 100 Cell Discharging Protection level (V) 2.75 Cell charging protection level (V) 3.65 Balancing current (mA) 50 Cycle Life 3000 Cell under voltage protection Yes Cell over voltage Protection Yes Protection Over current protection Yes Short circuit protection Yes Temperature protection Yes Working Temperature (°C) 0 – 55 Storage Temperature (°C) 0 - 45 Dimension of Rack (LxWxH) TDB. Weight (Kg) 30 Approx.	General Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V)	200 4 2 8 Prismatic LEP 14.6				
Cell Discharging Protection level (V) 2.75	General Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V)	200 4 2 8 Prismatic LFP 14.6 11				
Cell charging protection level (V) 3.65 Balancing current (mA) 50 Cycle Life 3000 Cell under voltage protection Yes Cell over voltage Protection Yes Over current protection Yes Short circuit protection Yes Temperature protection Yes Working Temperature (°C) 0 - 55 Storage Temperature (°C) 0 - 45 Dimension of Rack (LxWxH) TDB. Others Weight (Kg) 30 Approx.	Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A)	200 4 2 8 Prismatic LFP 14.6 11 14.4 30				
Balancing current (mA) 50	Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A)	200 4 2 8 Prismatic LFP 14.6 11 14.4 30 40				
Cycle Life 3000	Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Recommended charging current (A) Maximum charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V)	200 4 2 8 Prismatic LEP 14.6 11 14.4 30 40 100 2.75				
Cell under voltage protection Yes	Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Recommended charging current (A) Maximum charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Cell charging protection level (V)	200 4 2 8 Prismatic LEP 14.6 11 14.4 30 40 100 2.75 3.65				
Cell over voltage Protection Yes	Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A) Maximum charging current (A) Cell Discharging Protection level (V) Cell charging protection level (V) Balancing current (mA)	200 4 2 8 Prismatic LFP 14.6 11 14.4 30 40 100 2.75 3.65 50				
Protection Over current protection Yes Short circuit protection Yes Temperature protection Yes Working Temperature (°C) 0 - 55 Storage Temperature (°C) 0 - 45 Dimension of Rack (LxWxH) TDB. Others Weight (Kg) 30 Approx.	Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Recommended charging current (A) Maximum charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Balancing current (mA) Cycle Life	200 4 2 8 Prismatic LFP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000				
Short circuit protection Yes	Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Cell charging protection level (V) Balancing current (mA) Cycle Life Cell under voltage protection	200 4 2 8 Prismatic LFP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000 Yes				
Temperature protection Yes	Characteristics Electrical Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Cell charging protection level (V) Balancing current (mA) Cycle Life Cell under voltage protection Cell over voltage Protection	200 4 2 8 Prismatic LEP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000 Yes Yes				
Working Temperature (°C)	Characteristics Electrical Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Recommended charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Cell charging protection level (V) Balancing current (mA) Cycle Life Cell under voltage protection Cell over voltage Protection Over current protection	200 4 2 8 Prismatic LEP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000 Yes Yes Yes				
Storage Temperature (°C)	Characteristics Electrical Characteristics	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Recommended charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Cell charging protection level (V) Cell charging current (MA) Cycle Life Cell under voltage protection Cell over voltage Protection Over current protection Short circuit protection	200 4 2 8 Prismatic LEP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000 Yes Yes Yes Yes Yes				
Others Dimension of Rack (LxWxH) TDB. Weight (Kg) 30 Approx.	Electrical Characteristics Protection	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A) Maximum discharging current (A) Cell Discharging protection level (V) Cell charging protection level (V) Balancing current (mA) Cycle Life Cell under voltage protection Cell over voltage Protection Over current protection Short circuit protection Temperature protection	200 4 2 8 Prismatic LFP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000 Yes Yes Yes Yes Yes Yes				
Others Weight (Kg) 30 Approx.	Electrical Characteristics Protection	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A) Maximum discharging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Cell charging protection level (V) Cell charging current (mA) Cycle Life Cell under voltage protection Cell over voltage Protection Over current protection Short circuit protection Temperature protection Working Temperature (°C)	200 4 2 8 Prismatic LFP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000 Yes Yes Yes Yes Yes Yes Yes				
	Electrical Characteristics Protection	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Cell charging protection level (V) Total charging protection level (V) Cell charging protection level (V) Cell charging protection level (V) Total charging protection Cell over voltage Protection Cell over voltage Protection Total circuit protection Short circuit protection Temperature protection Working Temperature (°C) Storage Temperature (°C)	200 4 2 8 Prismatic LFP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000 Yes Yes Yes Yes Yes Yes O - 55 0 - 45				
gauge 20 34mm	Electrical Characteristics Protection Temperature	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Cell charging protection level (V) Balancing current (mA) Cycle Life Cell under voltage Protection Cell over voltage Protection Temperature protection Short circuit protection Working Temperature (°C) Storage Temperature (°C) Dimension of Rack (LxWxH)	200 4 2 8 Prismatic LFP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000 Yes Yes Yes Yes Yes Yes O - 55 0 - 45 TDB.				
	Electrical Characteristics Protection Temperature	Capacity (Ah) No. of cell in series No. of cell in parallel Total No. of cell Cell Type Chemistry Maximum cut-off voltage (V) Minimum cut-off voltage (V) Charging Voltage (V) Recommended charging current (A) Maximum discharging current (A) Cell Discharging Protection level (V) Cell charging protection level (V) Storage Protection Over current protection Cell over voltage Protection Over current protection Short circuit protection Temperature protection Working Temperature (°C) Storage Temperature (°C) Dimension of Rack (LxWxH) Weight (Kg)	200 4 2 8 Prismatic LFP 14.6 11 14.4 30 40 100 2.75 3.65 50 3000 Yes Yes Yes Yes Yes Yes TDB. 30 Approx.				

	Model Name	ORIENT256100ESS
	Nominal Voltage (V)	25.6
	Capacity (Ah)	100
General	No. of cell in series	8
Characteristics	No. of cell in parallel	1
	Total No. of cell	8
	Cell Type	Prismatic
	Chemistry	LFP
	Maximum cut-off voltage (V)	29.2
	Minimum cut-off voltage (V)	22
	Charging Voltage (V)	28.8
	Recommended charging current (A)	30
Electrical	Maximum charging current (A)	40
Characteristics	Maximum discharging current (A)	50
	Cell Discharging Protection level (V)	2.75
	Cell charging protection level (V)	3.65
	Balancing current (mA)	50
	Cycle Life	3000
	Cell under voltage protection	Yes
		Yes
Donataration	Cell over voltage Protection	
Protection	Over current protection	Yes
	Short circuit protection	Yes
	Temperature protection	Yes
Temperature	Working Temperature (°C)	0 – 55
	Storage Temperature (°C)	0 - 45
	Dimension of Rack (LxWxH)	TDB.
Others	Weight (Kg)	25 Approx.
	Wire	Wire gauge 16 sq.mm
	Model Name	ORIENT256200ESS
	Nominal Voltage (V)	25.6
	Capacity (Ah)	200
General	No. of cell in series	8
Characteristics	No. of cell in parallel	2
	Total No. of cell	16
	Cell Type	Prismatic
	Chemistry	LFP
	Maximum cut-off voltage (V)	29.2
	Minimum cut-off voltage (V)	22
	Charging Voltage (V)	29
	Recommended charging current (A)	10
Electrical	Maximum charging current (A)	20
Characteristics	Maximum discharging current (A)	20
	Cell Discharging Protection level (V)	2.75
	Cell charging protection level (V)	3.65
	Balancing current (mA)	50
		Yes
	Cell over voltage protection	Yes
Duntantinu	Cell over voltage Protection	
Protection	Over current protection	Yes
	Short circuit protection	Yes
	Temperature protection	Yes
Temperature	Working Temperature (°C)	0 - 55
•	Storage Temperature (°C)	0 - 45
	Dimension (mm)	TBD
Others	Weight (Kg)	55 Approx.
	Backup Duration @ 160Watt	1 Day







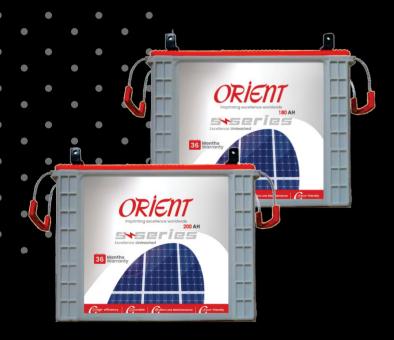


Tubular Batteries: S-Series

Orient Tubular Batteries are manufactured with Heat Sealed Polypropylene Co-Polymer Monobloc casing material. Tubular positive plates are made of highly corrosion-resistant special lead alloy and Pasted Negative Plates with high discharge performance to ensure cycling capabilities and also reduce topping-up frequency. Individual cells are ?tted with Micro Porous aqua-trap ceramic vent plugs with sealed ?oat, which prevent acid mist from coming out from the cells to make it convenient for living room ambiance.

ADM Orient Tubular Plate Batteries are specially designed for inverter applications and are made with ultra-thick charged plates for long life & performance. They are user-friendly batteries with quick initial charging capability, very low internal resistance, and a steady voltage pro?le during short & long-duration discharges. The sealed ?oat and ceramic ?lter plugs help easy maintenance of electrolyte level and ensure no fume emissions. These batteries have great charge acceptance and retention properties even in arduous working conditions.





Features

- Quick charged
- Suitable for frequent power-cuts
- Tubular-designed positive plates provide long life Very low maintenance & long life
- Eco-friendly aqua trap vent plugs to ensure no acid fumes Electrolyte contains special additives to get quick recovery from deep discharge
- Excellent charge acceptance



Tubular Batteries: S-Series



SUPER POWER SUPER BACKUP

SOLAR & INVERTER BATTERY

SPECIFICATIONS

Model	Storage Capacity	Dimensions in mm			Gross Weight	Application	Warranty	
Model	@C20 27°C	Length	Width	Height	+/- 2%	Application	wairanty	
S-Series 17000	150Ah	495	185	410	57Kg	Solar & Inverter	36Months	
S-Series 18000	180Ah	495	185	410	60Kg	Solar & Inverter	36 Months	
S-Series 20000	200Ah	495	185	410	63Kg	Solar & Inverter	36 Months	









EPC Services

EPC Services

Orient is a trusted EPC service provider. With decades of engineering expertise along with a robust solar module infrastructure we are a prime partner for your solar plant engineering, procurement, and construction needs. From the concept stage to the entire plants lifespan including execution, running, and maintenance we will support you at every stage.

Our goal is to create a more renewable society and city infrastructure in a timely and cost effective manner



Engineering



Procurement



Construction

Types of EPC projects we cater to



Residential
Be it an apartment building,
independent home, estate, or farm
house Orient Solar is equipped to
provide EPC services to all of the
above.



Schools and colleges
The requirement for education
institutes to reduce energy costs and
use renewable energy is crucial in
the years to come.



Corporate
A number of corporate buildings and offices are in dire need for trusted and economically conscious EPC Providers. As such, Orient Solar hopes to fill that void.



Commercial / Industrial
Almost all factories, large or small
are considering if they have not
already done it, to use the benefits
of solar energy to improve energy
efficiency, reduce the costs, and
make use of renewable energy in its
business. Orient Solar aims to help
these industrial units achieve those
goals.



Government

Various government projects require a dedicated and compliance friendly, knowledgeable team to execute their solar projects. Orient Solar as a certified module manufacturer and expert in this field, we are able fulfill all of the requirements of government projects



Independent Power Projects (IPP's)
Solar energy supply as an independent power producer is a crucial and fast growing business today. These providers require cost efficient and highly qualified EPC providers. Understanding such a need Orient Solar is a key supplier for various IPP projects.



NOTES

INSTALLATION MANUAL

https://admsolarpower.com/installation-and-manual/ https://www.orientsolar.com/downloads/installation-manual.pdf

SERVICE MAINTENANCE MANUAL

https://admsolarpower.com/service-and-maintenance https://www.orientsolar.com/downloads/service-and-maintenance.pdf

WARRANTY STATEMENT

<u>https://admsolarpower.com/limited-warranty-statement/</u>
<u>https://www.orientsolar.com/downloads/warranty-statement.pdf</u>

GENERAL TERMS AND CONDITION

https://www.orientsolar.com/downloads/general-terms-and-conditions.pdf https://admsolarpower.com/general-terms-and-conditions/









ADM Solar Power & Infrastructure Pvt. Ltd.

Head Office: 10, Scindia house, Connaught place, New Delhi - 110001

Works : 22/1, NH-19, Ballabhgarh, Faridabad, Haryana - 121004

Contact No. : +91 9540853535

E-mail : info@orientsolar.com
Website : www.orientsolar.com