

PRONTO JAL SERIES DATA SHEET (BULTIN LITHIUM BATTERY LFP / ESS)

Smart WI-FI Based IOT Remote Monitoring System 



**SMART WALL
MOUNT DESIGN**

KEY HIGHLIGHT:

- **Integrated Design:** Combines solar inverter, charge controller, and lithium battery in one compact unit.
- **Advanced Battery Technology:** Equipped with high-performance lithium iron fero phosphate (LiFePO₄) battery for safety, long life, & reliability with prismatic cell.
- **Space-Saving:** All-in-one system eliminates the need for external batteries, reducing installation space.
- **High Efficiency:** Optimized power conversion for maximum solar energy utilization.
- **Fast Charging:** Lithium battery allows rapid charging compared to traditional lead-acid batteries.
- **Long Lifespan:** High charge-discharge cycles, ensuring durability.
- **Intelligent Management:** Built-in Battery Management System (BMS) for enhanced protection and performance monitoring.
- **Seamless Operation:** Automatically switches between solar, battery, and grid power for uninterrupted supply.
- **Lightweight and Portable:** Compact and lightweight design for easier transport and installation.
- **Maintenance Free:** Minimal upkeep required compared to conventional systems.
- **Wide Application Range:** Suitable for residential, commercial, and remote off-grid installations.
- **Smart Features:** LCD/LED display, remote monitoring, and configurable settings for user convenience.
- **Eco-Friendly:** Reduces carbon footprint with renewable energy integration.
- **Temperature Resilience:** Operates efficiently across a wide temperature range, ideal for varied climates.



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PRONTO JAL SERIES DATA SHEET (INBUILT LITHIUM BATTERY / ESS)

	INVERTER RATING (KVA)	500VA	700VA	900VA	1100VA	1600VA	2000VA	2500VA	3000VA
	BATTER VOLTAGE	12	12	12	12	24	24	24	24
	LITHIUM BATTERY AH	50	50	100	100	100	100	100	100
A	SOLAR CHARGE CONTROLLER								
1	Charger Type & Topology	PWM & MPPT							
2	PV Total Nominal Capacity (KVA)	1KW	1KW	1KW	1KW	2KW	2KW	3KW	3KW
3	No. Of MPPT Channels	1	1	1	1	1	1	1	1
4	Per Channel PV Capacity (w)(Nominal Peak)	1KW/1.2KW	1KW/1.2KW	1KW/1.2KW	1KW/1.2KW	2KW/2.2KW	2KW/2.2KW	3KW/3.2KW	3KW/3.2KW
5	Max.Open Circuit PV Volts (Voc)	50	50	50	50	100	100	100	100
6	MPPT Voltage Range (Volts)	30-50	30-50	30-50	30-50	40-100	40-100	40-100	40-100
7	PV Minimum Voltage (Volts)	26	26	26	26	40	40	40	40
8	Max.VOC for PWM SCC	45	45	45	45	50	50	50	50
9	Max.O/P Amps per channel (PWM Amps)	40/50	40/50	40/50	40/50	40/50	40/50	50/70	50/70
10	Max.O/P Amps per channel (MPPT Amps)	55	55	55	55	55	55	55	55
11	Max. Battery Charging Amps From PV (Amps)	20-50	20-50	20-50	20-50	20-50	20-50	20-50	20-50
12	Battery type Supported	LEAD ACID / VRLA / UMLA / LiFePo4							
13	Min. Battery AH (Suggested)	50	100	100	100	100	100	150	150
14	Peak charging Efficiency MPPT (%)	>92%							
B	INVERTER/ SOLAR PCU								
1	No. of Phases/Connection Type	1Phase/2Wire							
2	Nominal Output Voltage/Frequency (Volts/Hz)	220/50hz	220/50hz	220/50hz	220/50hz	220/50hz	220/50hz	220/50hz	220/50hz
3	Nominal VA Capacity (VA)	500	700	900	1100	1600	2000	2500	3000
4	Battery Discharging Current (A)	33	46	60	71	53	66	83	100
5	Voltage Regulation (At No Load)	±2%	±2%	±2%	±2%	±2%	±2%	±2%	±2%
6	Freq Regulation (At No Load)	±0.5 Hz	±0.5 Hz	±0.5 Hz	±0.5 Hz	±0.5 Hz	±0.5 Hz	±0.5 Hz	±0.5 Hz
7	THD	>4%	>4%	>4%	>4%	>4%	>4%	>4%	>4%
8	Load Power Factor	0.8 lag to unity							
9	Over Loads :	100-105%-60sec							
105-110%- 30 sec									
110-120%-2 sec									
C	GRID CHARGER								
1	Grid Voltage Range (Voltage Sync. Range)	90V-280V (PHASE TO NEUTRAL)							
2	Grid Frequency Range (Freq.Sync.Range)	50 Hz ±5%							
3	Max Battery Amps During Grid Charging (Amps)	16A	16A	16A	16A	16A	16A	16A	16A
4	INVERTER LOAD Capacity (W) (BULB LOAD)	400W	560W	560W	880W	1.2KW	1.6KW	2KW	2.4KW
D	USER INTERFACE								
1. DISPLAY INTERFACE		LCD NUMERICAL DISPLAY							
2. DISPLAYED PARAMETERS									
1	Battery Parameters	Voltage , Battery Charging Current,							
2	PV Parameters	PV Voltage, PV Current, PV Power							
3	Grid Parameters	Grid Voltage, Grid freq.							
4	Load Parameters	Load %							
5	Data Logging	OPTIONAL							
6	System Level	fault & Warning							
3. INDICATION/PROTECTIONS									
1	LED Indication	OPTIONAL							
2	User Keypad for Settings Change	ON/OFF, UP, DOWN, SETTING							
3	Breakers at all Input	MCB / FUSE / TCB							
4	Remote Monitoring Optional	DATA MONITORING THROUGH WIFI & GPRS							
5	PV Side	Reverse Polarity, High Current							
6	Battery Side	Reverse Polarity							
7	Grid Side	Over/Under Voltage, Over/Under Freq.,Surge Protection ,Reverse Feed Protection							
8	Load Side	Over Load, Short Circuit							
9	System Protection	Over Temperature Trip, Input Short Circuit , Output Input Short							
MISCELLANEOUS									
1	Degree Of Protection	IP 31							
2	Cooling method	Temp. Controlled FAN Force Cooling							
3	Operating Temperature	0-50 Degree Ambient Operation							
4	Humidity (Non Condensing)	Max. 90% Non Condensing							
5	Altitude (above sea level)	1000m Above Sea Level							
6	Housing	Sheet Metal, floor Standing / Wall Hanging							
7	Dimensions In mm (H x W x H)	580X500X280MM	580X500X280MM	580X500X280MM	580X500X280MM	77X590X470MM	77X590X470MM	77X590X470MM	77X590X470MM
8	Approx Weight (kg)	16KG	16KG	24KG	25KG	35KG	37KG	40KG	40KG
Note:- The specifications are subject to change due to continuous improvements.									

*Pronto Renewables Energy offers a 10-year on-site service warranty which includes an 8-year comprehensive product warranty for the inverter, after which components will be charged.