

## E-CUMULUS PREMIUM SERIES DATASHEET

INVERTER RATING (KVA)	1KVA	2KVA	3KVA	5KVA	5KVA	7.5KVA	10KVA	15KVA	20KVA	25KVA	30KVA	40KVA	50KVA	
<b>A. BATTERY</b>														
11 Battery type Supported	Li-Ion/Lithium ferro Phosphate													
12 Battery KWH	2.4	3.6	4.8	9.6	9.6	14.4	19.2	28.8	38.4	48	57.6	76.8	96	
13 Peak charging Efficiency (%)	>85													
<b>B. INVERTER</b>														
1 No. of Phases/Connection Type	1-Phased/2 wire													
2 Nominal Battery Voltage (Volts)	48	48	48	48	96	96	120	240	240	240	240	240	240	
3 Battery Ripple	5% for VRLA & LMLA/ 1% for Li-Ion & Li- Ph Battery													
4 Nominal Output Voltage/Frequency (Volts/Hz)	230/50													
5 Nominal KVA Capacity (KVA)	1KVA	2KVA	3KVA	5KVA	5KVA	7.5KVA	10KVA	15KVA	20KVA	25KVA	30KVA	40KVA	50KVA	
6 Output Amps	3.47	6.96	10.43	17.39	17.39	26.09	34.78	52.17	69.57	86.96	104.3	139.1	173.9	
7 Voltage Regulation (in standalore Mode)	± 2%													
8 Freq. Regulation (in Standalone mode)	± 0.5 Hz													
9 THD	< 3%													
10 Load Power Factor	0.8 lag to unity													
11 Efficiency (%): Peak/ 100% Load/25% Load	>89/ >88/ >86	>89/ >88/ >86	>89/ >88/ >86	>90/ >87/ >86	>90/ >87/ >86	>90/ >87/ >86	>89/ >89/ >86	>89/ >89/ >86	>89/ >89/ >86	>89/ >89/ >86	>91/ >89/ >86	>91/ >89/ >86	>91/ >89/ >86	
12	100-110% - 60 sec													
13 Over Loads :	110-125% - 30 sec													
14	125-150% - 5 sec													
15 Max Allowed Phase Imbalance (%)	N/A													
16 Auto Bypass Feature	Provided													
<b>C. GRID CHARGER</b>														
1 Grid Voltage Range (Voltage Sync. Range)	160V-280V (Phase to Neutral)													
2 Grid Frequency Range (Freq. Sync. Range)	50 Hz ±5%													
3 Max Grid Import Power (KVA)	1KVA	2KVA	3KVA	5KVA	5KVA	7.5KVA	10KVA	15KVA	20KVA	25KVA	30KVA	40KVA	50KVA	
4 Max Battery Amps During Grid Charging (Amps)	13	27	40	68	34	51	54	40	54	68	72.5	96.6	120.8	
5 Peak charging Efficiency (%)	>87													
<b>INVERTER (KW)</b>														
	0.8	1.6	2.4	4.0	4.0	6.0	8.0	12.0	16.0	20.0	24.0	32.0	40.0	
1 PV Side	Reverse Polarity , Surg Protection													
2 Battery Side	Reverse Polarity, Over/Under Voltage , Current Limit													
3 Grid Side	Over/Under Voltage , Over/Under Frequency , Anti-Islanding, Surg Protection													
4 Load Side	Overloads, Short circuit													
5 System Protection	Over Temperature, Trip, Breakers at all Inputs, Emergency stop													
<b>D. USER INTERFACE</b>														
1. DISPLAY INTERFACE	LCD NUMERICAL DISPLAY													
<b>2. DISPLAYED PARAMETERS</b>														
1 Battery Parameters	Voltage, Charging Current, Discharging Current, AH-in, AH-out, Cumulative AH-in, Cumulative AH-out, charging state-charging/Discharging.													
2 PV Parameters	Voltage, Current, Power, Cumulative, Today Generation													
3 Grid Parameters	Voltage, Current, Frequency, Import Power, Import Cumulative Energy, Power Factor													
4 Load Parameters	Voltage, Current, Frequency, Power, Cumulative, Power Factor													
5 Data Logging	90 Days PV Generation, Import Energy, Load Energy.													
6 System Level	Faults and warnings													
<b>3. INDICATIONS/PROTECTION</b>														
1 LED Indications:	Power ON, PV Available, PV Charging, Inverter ON, Grid Import Mode, Fault, HYBRID /OFF GRID Mode													
2 User Keypad for Settings Change	Keypad for Settings Input													
3 Breakers at all inputs/Space Heater/Emergency stop Button	Provided													
4 Over shoot due to misbehaviour of BHMS	Provided													
5 Remote monitoring: Optional*	Data monitoring through GPRS (Optional)													
Designed and Manufactured the product as for IEC	Tested as per IEC 61683, IEC 61727, EN 50530 and IEC 60068 (1, 2, 14, 30).													
<b>MISCELLANEOUS</b>														
1 Degree of Protection	IP31													
2 Cooling Method	Temp. Controlled Force Cooling													
3 Operating Temperature	0-55°C ambient operation													
4 Humidity (Non-condensing)	Max. 95% Non-Condensing													
5 Altitude (above sea level)	1000m above sea level													
6 Housing	Sheet Metal, Floor Standing						Floor Standing, Front/Rear Door							
7 Colour Shade	RAL-7035/RAL-7016 (Other Colours also available on request)													
8 Cable Entry	Rear Bottom						Front Bottom							
9 Cable Termination Type	Bus Bar Type with ring type lugs													
10 Terminal Sizes(PV/Battery/Grid/Load)	TERMINAL SCREW TYPE										35-50MM/35-50MM/25MM/25MM			
11 Dimensions in mm (H X W X D)	360X280X530	360X280X560	360X280X665	360X280X665	478X375X675	528X375X775	528X375X775						715X850X750	715X1000X750
12 Approx. Weight (kg)	30	35	60	80	80	130	140	160	215	245	260	300	350	

Note : The specifications are subject to change due to continuous improvements.  
Higher rating systems are available on request