watagen

RD55

5-30kW All-in-One Stacked Energy Storage System

Integrated Inverter and Storage Battery, Built-in MPPT Controller

Modular Design for Good Expansibility Up to 6 Battery Modules in Parallel

Supports Off-grid and UPS Working Modes

Adopting High Cycle Times, LiFePO4 Cells and Intelligent System

RD55
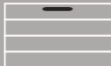
5-30kW All-in-One Stacked Energy Storage System

Model	RD55-5	RD55-10	RD55-15	RD55-20	RD55-25	RD55-30
Stacked Graphic						

Battery Parameters

	RD55-5	RD55-10	RD55-15	RD55-20	RD55-25	RD55-30
Stack Number	1	2	3	4	5	6
Usable Energy	5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh
Rated Capacity	100Ah	200Ah	300Ah	400Ah	500Ah	600Ah
Battery Type	LiFePO4					
Rated Voltage	51.2V					
Max. Operating Current	100A					
Cycle Times	≥6000 Cycles @ 80% DOD, 25 °C, 0.5C					
Charge Voltage	56V					
Discharge Cut-off Voltage	46V					
Charge Temperature	0°C ~ 60°C					
Discharge Temperature	-20°C ~ 60°C					
Storage Temperature	0 °C ~ 45 °C @ 60% ± 25% RH					

Battery Data

Battery Type	Lithium
Nominal Battery Voltage	48V
Max. Continuous Charging Current	80A
Max. Charge Power	4.5kW
Max. Discharge Power	5kW

PV Input Data

Max. Input Power	5.5kW
Max. Input Voltage	500V
MPPT Operating Voltage Range	120 ~ 430V
Start-up Voltage	150V
Nominal Input Voltage	300V
Number of MPPT Trackers	1
Number of String per MPPT	1

AC Output Data

Rated Power	5kW
Nominal Output Current	21.7A
Nominal Output Voltage	220/230/240V
Nominal Output Frequency	50/60Hz
Output THDv (@Linear Load)	<3%

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Stacked Graphic						

Coversion Efficiency

Max. Efficiency	93.6%
MPPT Efficiency	99.9%

Protection

AC Overcurrent Protection	Integrated
AC Short Circuit Portection	Integrated
AC Overvoltage Protection	Integrated
Remote Shutdown	Integrated

Environmental/Ambient Conditions

Operating Temperature Range	0 ~ 50°C
Excess Temperature Behaviour	Excess Temperature Behaviour
Relative Humidity	0 ~95%
Installation Altitude above sea level	Up to 2000m above sea level
Cooling Method	Air Cooling

Mechanical Data

Protection Level	IP20
Installation Type	Floor-standing

Communications

Display	LCD, WLAN + APP
Monitoring Settings	Integrated data logger
Communication with BMS	CAN
Communication with Portal	WiFi

Other Data

Topology	Transformerless
Reliability	Integrated

The above data is from laboratory tests, equipment data may fluctuate due to different factors, for reference only, please refer to the actual situation for details.