

Deye Residential ESS Solution All-in-One Energy Storage System

iDeye

Deye RW-F5.3-2H3 RW-F5.3-1H3

Enhanced Reliability

Built-in Intelligent BMS, providing complete protection
Natural cooling, IP65, wide temperature
range : -10°C to 55°C

All-in-One Design

Integrated 3.6kW hybrid inverter and 5.3kWh LFP battery, or
5kW hybrid inverter and 5.3kWh LFP battery, safety and long
lifespan

Flexible Expansion

Max.16 units in parallel (57.6kW/84.8kWh or 80kW/84.8kWh)
Support expansion of Deye 5.3kWh LV battery, Max. capacity
of 164.3kWh

Smart Application

Peak-shaving, smart load, AC couple etc.
Fast switching time of 4ms, ensuring your energy security

Easy Installation

Flat design, wall-mounted, saving installation space, quick
and easy installation

Intelligent Control

Comfortable and easy control via App, PC or Touch-Display

Technical Data



Deye RW-F5.3-2H3 RW-F5.3-1H3

AC Technical Specification

Model	RW-F5.3-2H3	RW-F5.3-1H3
Rated AC Input/Output Active Power (W)	3600 / 3600	5000 / 5000
Max AC Input/Output Apparent Power (VA)	3960	5500
Peak Power (off grid)	2 time of rated power, 10s	
AC Output Rated Current (A)	16.4 / 15.7	22.8 / 21.8
Max. AC Current (A)	18/17.3	25/24
Max Continuous AC Passthrough (grid to load) (A)	35	
Rated Input/Output Voltage/Range (V)	220V / 230, 0.85Un-1.1Un	
Rated Input/Output Grid Frequency/Range (Hz)	50Hz / 45Hz - 55Hz, 60Hz / 55Hz - 65Hz	
Grid Connection Form	L+N+PE	
Power Factor	0.8 leading to 0.8 lagging	
Total Harmonic Distortion (THDi)	<3% (of nominal power)	
DC injection current (mA)	<0.5% In	

DC Technical Specification

Max. PV Access Power (W)	7200	10000
Max. PV Input Power (W)	5760	8000
Max. PV Input Voltage (Vdc)	500	
Start Up PV Voltage (Vdc)	125	
MPPT Voltage Range (Vdc)	150 ~ 425	
Full Load MPPT Voltage Range (Vdc)	300 ~ 425	
Rated PV Input Voltage (Vdc)	370	
Max. Operating PV Input Current (A)	18+18	
Max. PV Input Short-circuit Current (A)	27+27	
Number of MPP Trackers	2	
No. of Strings Per MPP Tracker	1 + 1	
Battery Chemistry	LiFePO ₄	
Battery Nominal Voltage (V)	51.2	
Battery Energy Configuration (kWh)	5.32	
Max. Charging/Discharging Current (A)	75	100
Battery Operating Voltage (V)	44.8 ~ 57.6	
Battery Cycle Life	≥6000 (@25°C±2°C, 0.5C / 0.5C, 70%EOL)	

Technical Data



Deye RW-F5.3-2H3 RW-F5.3-1H3

Other Technical Specification

Model	RW-F5.3-2H3	RW-F5.3-1H3
Dimension (W × D × H, mm)	616 × 191 × 690 (Excluding connectors and brackets)	
Weight Appr. (kg)	71	
IP Rating of Enclosure	IP65	
Operating Temperature Range (°C)	-10°C ~ 55°C	
Permissible Ambient Humidity	0~100%	
Inverter Topology	Non-Isolated	
Over Voltage Category	OVC II (DC), OVC III (AC)	
Type Of Cooling	Natural Cooling	
Noise (dB)	<30	
Display	Touch LCD	
Monitor Mode	WIFI, Bluetooth	
Installation Style	Wall-Mounted, Floor-Mounted	
Max. Efficiency	97%	
Max. charging/discharging Efficiency	95.5%	
MPPT Efficiency	>99%	
Safety EMC / Standard	IEC / EN 61000-6-1 / 2 / 3 / 4 , IEC / EN 62109-1, IEC / EN 62109-2	
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105	
Certification	UN38.3, IEC62619	
Warranty	5/10 years (the Warranty Period Depends the Final Installation Site.More Info Please Refer to Warranty Policy)	

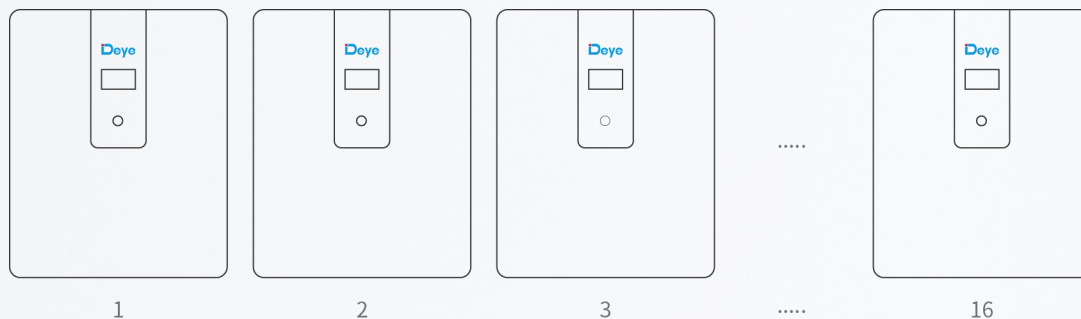
Residential ESS Solution



Deye RW-F5.3-2H3 RW-F5.3-1H3

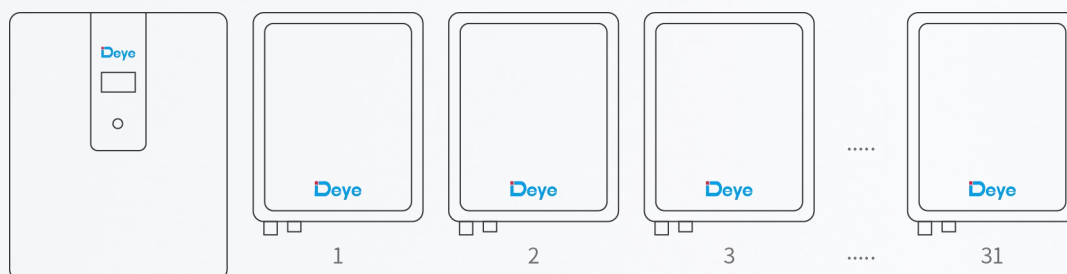
Maximum support for 16 units in parallel

RW-F5.3-2H3	57.6kW/84.8kWh
RW-F5.3-1H3	80kW/84.8kWh



Maximum support for 31 Deye RW-M5.3 Pro in parallel

RW-M5.3 Pro and RW-F5.3-1H3/RW-F5.3-2H3	164.3kWh
---	----------



System Application Topology Diagram

