

# 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

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	Model	RW-F5.3-2H3	RW-F5.3-1H3
<b>AC Technical Specification</b>	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	
	<b>DC Technical Specification</b>	Max. PV Access Power ( W )	7200
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 <sub>4</sub>	
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

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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)	

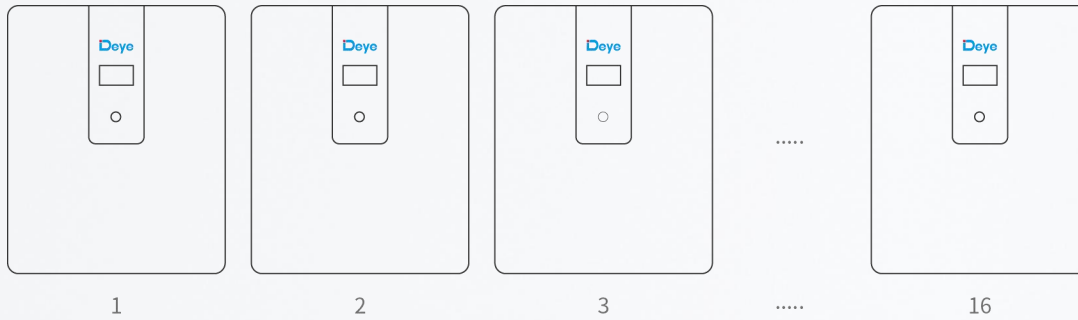
# Residential ESS Solution



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

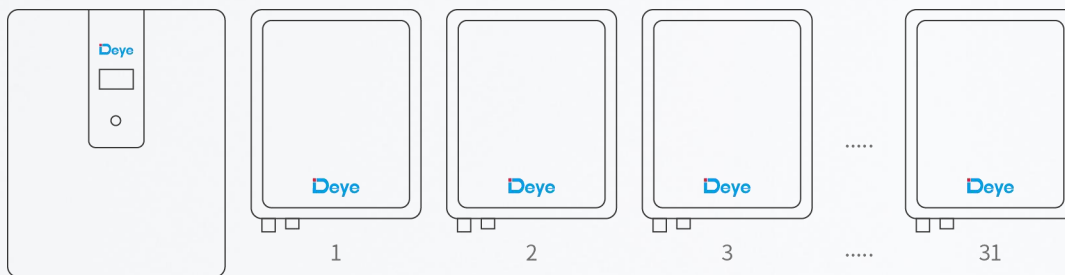
## Maximum support for 16 units in parallel

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
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## System Application Topology Diagram

