

Residential ESS Solution All-in-One Energy Storage System



Enhanced Reliability

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

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

Easy Installation

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

Smart Application

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

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

Intelligent Control

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

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	SKU	12276
AC Technical Specification	Model	RW-F5.3-1H3
	Rated AC Input/Output Active Power (W)	5000 / 5000
	Max AC Input/Output Apparent Power (VA)	5500
	Peak Power (off grid)	2 time of rated power, 10s
	AC Output Rated Current (A)	22.8 / 21.8
	Max. AC Current (A)	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)	10000
	Max. PV Input Power (W)	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)	100
	Battery Operating Voltage (V)	44.8 ~ 57.6
	Battery Cycle Life	≥6000 (@25°C±2°C, 0.5C / 0.5C, 70%EOL)

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Other Technical Specification

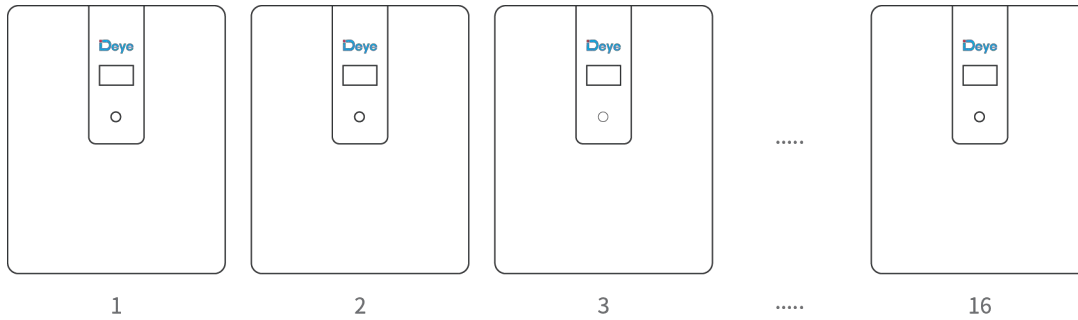
SKU	12276
Model	RW-F5.3-1H3
Dimension (W × D × H, mm)	616 × 191 × 690 (Excluding connectors and brackets)
Weight Appr. (kg)	71
IP Rating of Enclosure	IP65
Operating Temperature Range (°C)	-10°C ~ 55°C
Permissible Ambient Humidity	0~100%
Inverter Topology	Non-Isolated
Over Voltage Category	OVC II (DC), 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	10 years



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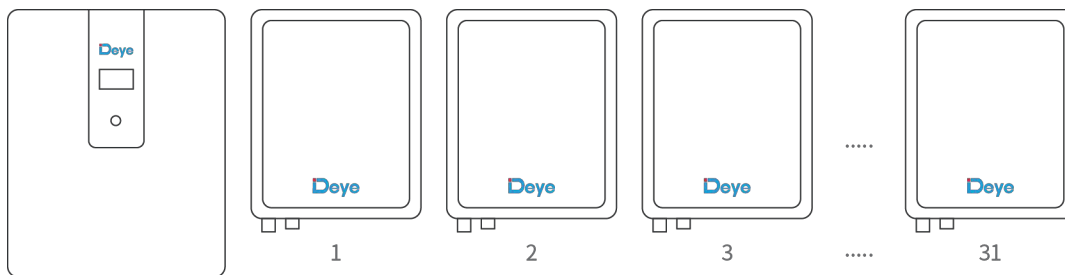
Maximum support for 16 units in parallel

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

