# **RW-F10.2**







#### ◆ Safer

Cobalt Free Lithium Iron Phosphate (LFP) Battery, providing safety and a longer lifespan, plus high efficiency and high-power density. Safe Low Voltage connection.

#### High performance

Supports maximum 1C charge and 1.2C discharge. Up to 6000 cycles at 90% DOD, with 10 years standard warranty.

#### ◆ Reliable

Built-in Intelligent BMS, providing complete protection. Features natural cooling, IP65, and wide temp. range: -20°C to 55°C.

#### ◆ Flexible

Modular design makes expansion easy, with up to 32 units in parallel, for a max. capacity of 326kWh. Suited to residential and commercial applications looking to

Suited to residential and commercial applications looking to increase the self-consumption ratio.

#### ◆ Convenient

Battery module auto-networking (No DIP switch code) with easy maintenance, supporting remote monitoring and upgrade.

#### ◆ Eco-Friendly

Uses environmentally friendly materials, with the entire module being non-toxic and pollution-free.

### ◆ Two Mounting Methods

Flat design, with support for wall-mounted with wall bracket, or floor stand with removable base, saving installation space.



Main Parameter	Model		RW-F10.2	
Built-in Circuit Breaker   125A 4P, 60Vdc	Main Parameter			
Nominal Capacity (Ah)         200           Nominal Voltage (V)         51.2           Operating Voltage(V)         43.2 ~ 57.6           Nominal Energy (kWh)         10.2           Usable Energy (kWh)         9.2 (90%DOD)           Scalability         Max. 32 pcs pack (Max. 326kWh) in parallel           Rated DC Power(kW)         6           Max DC Power(kW)         12           Recommend         Charge: 100 / Discharge: 100           Charge, Discharge: 200 / Discharge: 240         Discharge: 198 / Discharge: 240           Other Parameter         Peak         Discharge: 300 (2mins, 25°C)           Other Parameter         Properties         90%           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600°760°200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state(alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1 ~ 55°C / Discharge: -20°C ~ 55°C           Storage Temperature         0°C ~ 35°C           Humidity         5% ~ 95%           Altitude         ≤8000(25°C ± 2°C, 0.5C/0.5C, 90%DOD, 70%EOL)           Installation         Wall-Mounted, Floor-Moun	Battery Chemistry		LiFePO <sub>4</sub>	
Nominal Voltage (V)         51.2           Operating Voltage(V)         43.2 ~ 57.6           Nominal Energy (kWh)         10.2           Usable Energy (kWh)         9.2 (90%DOD)           Scalability         Max. 32 pcs pack (Max. 326kWh) in parallel           Rated DC Power(kW)         6           Max DC Power(kW)         12           Recommend         Charge: 100 / Discharge: 100           Charge, Discharge         Recommend           Charge: 198 / Discharge: 240         Discharge: 198 / Discharge: 240           Diver Parameter         Peak         Discharge: 300 (2mins, 25°C)           Other Parameter           Recommend Depth of Discharge         90%         Discharge: 20°C (2mins, 25°C)           Other Parameter           Recommend Depth of Discharge         90%         Discharge: 300 (2mins, 25°C)           Obter Parameter         SOC state(20% - 100%), work state(alarming, protecting)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% - 100%), work state(alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1 ~ 55°C / Discharge: -20°C ~ 55°C           Storage Temperature         0°C ~ 35°C           Humidity	Built-in Circuit Breaker		125A 4P, 60Vdc	
Operating Voltage(V)         43.2 − 57.6           Nominal Energy (kWh)         10.2           Usable Energy (kWh)         9.2 (90%DOD)           Scalability         Max. 32 pcs pack (Max. 326kWh) in parallel           Rated DC Power(kW)         6           Max DC Power(kW)         12           Charge/Discharge Current (A) I*I         Recommend         Charge: 100 / Discharge: 100           Charge: 198 / Discharge: 240         Discharge: 240           Peak         Discharge: 300 (2mins,25°C)           Other Parameter         Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600°760°200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state(alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         26000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period I	Nominal Capacity (Ah)		200	
Nominal Energy (kWh)         10.2           Usable Energy (kWh)         9.2 (90%DOD)           Scalability         Max. 32 pcs pack (Max.326kWh) in parallel           Rated DC Power(kW)         6           Max DC Power(kW)         12           Recommend         Charge: 100 / Discharge: 100           Charge/Discharge         Max.         Charge: 198 / Discharge: 240           Current (A) [1]         Peak         Discharge: 300 (2mins,25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600*760*200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1 ~ 55°C / Discharge: -20°C ~ 55°C           Storage Temperature         0°C ~ 35°C           Humidity         5% ~ 95%           Altitude         ≤0000(25°C±2°C,0.5C/0.5C,0%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [2]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 0.5C,0.5C, 0.5C,0.5C,0.5C	Nominal Voltage (V)		51.2	
Usable Energy (kWh)         9.2 (90%DOD)           Scalability         Max. 32 pcs pack (Max.326kWh) in parallel           Rated DC Power(kW)         6           Max DC Power(kW)         12           Charge/Discharge Current (A) III         Recommend Max. Peak         Charge: 100 / Discharge: 240           Peak         Discharge: 300 (2mins,25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600°760°200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤8000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Instalation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period III         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 0.5C,0.5C,0.5C,0.5C,0.5C,0.5C,0.5C,0.5C,	Operating Voltage(V)		43.2 ~ 57.6	
Scalability         Max. 32 pcs pack (Max.326kWh) in parallel           Rated DC Power(kW)         6           Max DC Power(kW)         12           Charge: 100 / Discharge: 100         Charge: 100 / Discharge: 100           Charge: 198 / Discharge: 240         Max.           Peak         Discharge: 300 (2mins,25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600°760°200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [2]         10 years           Energy Throughput         32MWhi(25°C, 0.5C/0.5C, 70%EOL)	Nominal Energy (kWh)		10.2	
Rated DC Power(kW)         6           Max DC Power(kW)         12           Charge/Discharge Current (A) [¹]         Recommend Max. Charge: 198 / Discharge: 240           Discharge: 300 (2mins,25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600°760°200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [²]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)	Usable Energy (kWh)		9.2 (90%DOD)	
Max DC Power(kW)         12           Charge/Discharge Current (A) [¹¹]         Recommend Max. Peak Discharge: 100 / Discharge: 240           Discharge: 198 / Discharge: 240           Discharge: 300 (2mins, 25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600°760°200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [²²]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)	Scalability		Max. 32 pcs pack (Max.326kWh) in parallel	
Charge/Discharge Current (A) [¹¹]         Recommend         Charge: 100 / Discharge: 100           Charge (Discharge)         Max.         Charge: 198 / Discharge: 240           Peak         Discharge: 300 (2mins, 25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600°760°200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [²]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)	Rated DC Power(kW)		6	
Charge/Discharge Current (A) [¹¹]         Max. Peak         Charge: 198 / Discharge: 240           Discharge: 300 (2mins,25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600°760°200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [²²]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)	Max DC Power(kW	·)	12	
Current (A) [1]         Max.         Charge: 198 7 Discharge: 240           Peak         Discharge: 300 (2mins, 25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600*760*200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C ~ 55°C           Storage Temperature         0°C ~ 35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C ± 2°C, 0.5C/0.5C, 90%DOD, 70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [2]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)		Recommend	Charge: 100 / Discharge: 100	
Peak         Discharge: 300 (2mins,25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600*760*200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         0°C ~ 35°C           Storage Temperature         0°C ~ 35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C ± 2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [²]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)		Max.	Charge: 198 / Discharge: 240	
Recommend Depth of Discharge         90%           Dimension (W/H/D, mm)         600°760°200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period <sup>[2]</sup> 10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)		Peak	Discharge: 300 (2mins,25°C)	
Dimension (W/H/D, mm)         600*760*200(Without hanging board)           Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period <sup>[2]</sup> 10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)	Other Parameter			
Weight Approximate(kg)         104           Master LED Indicator         SOC state(20% ~ 100%), work state( alarming, protecting)           IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [2]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)	Recommend Depth of Discharge		90%	
Master LED Indicator       SOC state(20% ~ 100%), work state( alarming, protecting)         IP Rating of Enclosure       IP65         Operating Temperature       Charge: 1~55°C / Discharge: -20°C~55°C         Storage Temperature       0°C~35°C         Humidity       5%~95%         Altitude       ≤3000m         Cycle Life       ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)         Installation       Wall-Mounted, Floor-Mounted         Communication Port       CAN2.0, RS485         Warranty Period [2]       10 years         Energy Throughput       32MWh(25°C, 0.5C/0.5C, 70%EOL)	Dimension (W/H/D, mm)		600*760*200(Without hanging board)	
IP Rating of Enclosure         IP65           Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [²]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)	Weight Approximate(kg)		104	
Operating Temperature         Charge: 1~55°C / Discharge: -20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [2]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)	Master LED Indicator		SOC state(20% ~ 100%), work state( alarming, protecting)	
Storage Temperature         0°C~35°C           Humidity         5%~95%           Altitude         ≤3000m           Cycle Life         ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)           Installation         Wall-Mounted, Floor-Mounted           Communication Port         CAN2.0, RS485           Warranty Period [2]         10 years           Energy Throughput         32MWh(25°C, 0.5C/0.5C, 70%EOL)	IP Rating of Enclosure		IP65	
Humidity5%~95%Altitude≤3000mCycle Life≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)InstallationWall-Mounted, Floor-MountedCommunication PortCAN2.0, RS485Warranty Period [2]10 yearsEnergy Throughput32MWh(25°C, 0.5C/0.5C, 70%EOL)	Operating Temperature		Charge: 1∼55°C / Discharge: -20°C∼55°C	
Altitude ≤3000m  Cycle Life ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)  Installation Wall-Mounted, Floor-Mounted  Communication Port CAN2.0, RS485  Warranty Period [2] 10 years  Energy Throughput 32MWh(25°C, 0.5C/0.5C, 70%EOL)	Storage Temperature		0°C∼35°C	
Cycle Life       ≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)         Installation       Wall-Mounted, Floor-Mounted         Communication Port       CAN2.0, RS485         Warranty Period [2]       10 years         Energy Throughput       32MWh(25°C, 0.5C/0.5C, 70%EOL)	Humidity		5%~95%	
Installation Wall-Mounted, Floor-Mounted  Communication Port CAN2.0, RS485  Warranty Period [2] 10 years  Energy Throughput 32MWh(25°C, 0.5C/0.5C, 70%EOL)	Altitude		≤3000m	
Communication PortCAN2.0, RS485Warranty Period [2]10 yearsEnergy Throughput32MWh(25°C, 0.5C/0.5C, 70%EOL)	Cycle Life		≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)	
Warranty Period [2] 10 years  Energy Throughput 32MWh(25°C, 0.5C/0.5C, 70%EOL)	Installation		Wall-Mounted, Floor-Mounted	
Energy Throughput 32MWh(25°C, 0.5C/0.5C, 70%EOL)	Communication Port		CAN2.0, RS485	
	Warranty Period [2]		10 years	
Certification [3] UN38.3, IEC62619, CE, CEI 0-21, VDE2510-50, CEC	Energy Throughput	t	32MWh(25°C, 0.5C/0.5C, 70%EOL)	
	Certification [3]		UN38.3, IEC62619, CE, CEI 0-21, VDE2510-50, CEC	

<sup>[1]</sup> The current is affected by temperature and SOC.

#### Introduction

This series lithium iron phosphate battery is one of new energy storage products developed and produced by Deye, it can be used to support reliable power for various types of equipment and systems.

This series is especially suitable for application scene of high power, limited installation space, restricted load-bearing and long cycle life.

This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging to extend cycle life. Multiple batteries can connect in parallel for larger capacity and longer power supporting.

<sup>[2]</sup> Conditions apply, refer to Deye Warranty Letter.

<sup>[3]</sup> Made in China



## **System Topology Reference**

