

## Overview

The ROH-F P20 series is an all-in-one energy storage system that combines lithium batteries with off-grid energy storage inverters. This product can accommodate up to 6 lithium battery modules and 1 off-grid energy storage inverter host. Each lithium battery module has a capacity of 5.12 kwh, with a maximum configurable capacity of up to 30.72 kwh.

The off-grid energy storage inverter host integrates grid/oil generator charging, solar charging, utility bypass, inverter output, and smart energy management. Multiple charging and AC output modes are available for users to select configure, allowing flexible utilization of solar energy or grid power, achieving high-efficiency energy utilization.

Simplified installation of the product is achieved through modular stacking, supported by a swivel caster base for easy mobility. Users' demands for high-capacity energy storage power are met through combinations of the main unit with varying numbers of batteries.

## Features

- Stackable installation with swivel wheel design for easy mobility
- High-durability lithium batteries (over 6000 cycles)
- Pure sine wave output
- Main unit supports single-phase and three-phase parallel operation (up to 12 units)
- Dual PV input support enhances PV utilization efficiency
- RS485 communication interface, optional Bluetooth, WiFi, 4G,etc.
- Remote monitoring via App
- Historical data recording function, storage capacity of 25000 records
- Comprehensive electronic protection
- Operating temperature range: -20°C to 50°C



## Technical Specifications

Model	ROH5542F-05X1P20	ROH5542F-10X2P20	ROH5542F-15X3P20	ROH5542F-20X4P20	ROH5542F-25X5P20	ROH5542F-30X6P20
<b>Utility input</b>						
Utility Voltage	176VAC~264VAC (Default), 90VAC~280VAC (Configurable)					
Utility Frequency	45Hz~65Hz					
Maximum Utility Charging Current	100A					
Switch Response Time	Inverter to Utility: 10ms			Utility to Inverter: 20ms		
<b>Inverter output</b>						
Inverter Rated Power (@35°C)	5500W					
3-second Transient Surge Output Power	8500W					
Inverter Output Voltage	220/230VAC					
Inverter Frequency	50/60Hz					
Output Voltage Waveform	Pure sine wave					
Load Power Factor	0.2~1(VA ≤ Rated output power)					
Output Voltage Harmonic Distortion Rate	≤3% (48V resistive load)					
Maximum Load Efficiency	92%					
Maximum Inverter Efficiency	94%					
<b>Solar controller</b>						
PV Maximum Open-circuit Voltage	500V					
MPPT Voltage Range	85~400VDC					
Number of MPPTs	2					
PV Maximum Input Current	15A+15A					
PV Maximum Input Power	6000W					
PV Maximum Charging Current	100A					
MPPT Maximum efficiency	≥99.5%					
<b>Battery</b>						
Battery Type	LiFePO4 lithium battery					
Battery Module	5.12KWH,51.2V/100AH					
Number of Modules	1	2	3	4	5	6
Battery Rated Voltage	51.2VDC					
Energy Capacity	5.12KWH	10.24KWH	15.36KWH	20.48KWH	25.6KWH	30.72KWH
Battery Work Voltage Range	Discharging Mode: 0°C~+50°C, Charging Mode: -20°C~+50°C					
<b>Others</b>						
No-load Losses	<1.0 A					
Standby Current	<0.15A					
Installation	Flat stack					
<b>Environmental parameters</b>						
Work Temperature Range	-20°C~+50°C					
Storage Temperature Range	-25°C~+60°C					
Enclosure	IP20					
Relative Humidity	< 95% (N.C.)					
Altitude	4000m (>2000m Derating)					
<b>Mechanical parameters</b>						
Dimension (L x W x H)	530mm x 500mm x 467mm	530mm x 500mm x 629mm	530mm x 500mm x 791mm	530mm x 500mm x 953mm	530mm x 500mm x 1115mm	530mm x 500mm x 1277mm
N.W of inverter	24.5kg					
N.W of complete package	82.0Kg	129.8Kg	177.6Kg	225.4Kg	273.2Kg	321.0Kg