

Overview

The ROH-F P30 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
- Features separate airflow channels and a compartmentalized design for enhanced protection
- 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-05X1P30	ROH5542F-10X2P30	ROH5542F-15X3P30	ROH5542F-20X4P30	ROH5542F-25X5P30	ROH5542F-30X6P30
Utility input						
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		
Inverter output						
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%					
Solar controller						
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%					
Battery						
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					
Others						
No-load Losses	<1.0 A					
Standby Current	<0.15A					
Installation	Flat stack					
Environmental parameters						
Work Temperature Range	-20°C~+50°C					
Storage Temperature Range	-25°C~+60°C					
Enclosure	IP30					
Relative Humidity	< 95% (N.C.)					
Altitude	<4000m (>2000m Derating)					
Mechanical parameters						
Dimension (L x W x H)	530mm x 500mm x 556mm	530mm x 500mm x 718mm	530mm x 500mm x 880mm	530mm x 500mm x 1042mm	530mm x 500mm x 1205mm	530mm x 500mm x 1367mm
N.W of inverter	37.8Kg					
N.W of complete package	95.3Kg	143.1Kg	190.9Kg	238.7Kg	286.5Kg	334.3Kg