



SUNRAY
REVO Residential Energy Storage Inverters

Split-Phase hybrid inverter

Battery low voltage

KEY STRENGTHS

- Support the construction of three-phase systems.
- Capable of supporting 100% unbalanced loads.
- Support 4-channel MPPT
- 200A pass through.
- AC solar to retrofit existing solar system(on-grid & off-grid).
- Grid & generator separately connected, support storing energy from diesel generator.

Model	R12KLNA	R16KLNA
PV input data		
Max. PV input power (kW)	18	24
Max. PV input voltage (V)		500
Min. PV input voltage (V)		120
Start-up voltage (V)		120
MPPT voltage range (without battery)(V)		120~500
MPPT voltage range@full-load (V)		150~430
Rated PV input voltage (V)		310
No. of MPPT trackers		4
No. of strings per MPPT tracker		1/1/1/1
Max. input current per MPPT (A)	16/16/16/16	20/20/20/20
Max. short-circuit current per MPPT (A)	22/22/22/22	25/25/25/25

Battery input data

Battery type	Lithium-ion / Lead-acid	
Max. charge / discharge power (kW)	12	13
Battery voltage range (V)	40~58	
Rated battery voltage (V)	48	
Max. charging / discharging current (A)	250/260	260/280
Rated charge / discharge current (A)	250/260	260/280
Battery charging strategy	Self-adaption to BMS	
BMS communication	CAN	

AC output data (grid side)

Rated output power (kW)	12	16
Max. apparent output power (kVA)	13.2	16
Rated grid voltage (V)	110-127/208-240V split phase, 240V single phase	
Grid voltage range (V)	240	
Rated grid frequency (Hz)	60	
Grid frequency range(Hz)	55~65	
Rated output current (A)	50	66.7
Max. AC output current (A)	55	73.3
Power factor	0.8leading~0.8lagging	
Max. grid passthrough current(A)	200	
THDi	<3%	
Grid type	2L+N+PE	

AC output data (load side)

Rated output power (kW)	12	13
Max. apparent output power (kVA)	13.2	13.2
Rated output voltage (L-N/L1-L2) (V)	120/240	
Rated output frequency (Hz)	60	
Rated output current (A)	50	54
Max. AC output current (A)	55	55
Peak output power	110%,30s / 120%,10s / 150%,0.02s	
Back-up switch time (ms)	<20	
THDu	<2%	

Protection

Supported protection	Arc fault protection, PV reverse polarity protection, Anti-islanding protection, Ground fault protection, Leakage current protection, Insulation resistance detection, Backup output short circuit protection, AC under-voltage protection, AC output over-current protection, AC over-voltage protection
Surge protection	DC Type II / AC Type II
Over voltage category	DC Type II / AC Type III

Certifications and standards

Certificates	FCC Part 15 Class B; UL1741,UL1741SA&SB all options, UL1699B, CSA -C22.2 NO.107.1-01,RSD(NEC690.5,11,12)
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General data

Ingress protection	IP65 / NEMA 3R
Operating temperature range (°C)	-25~+60
Cooling	FAN cooling
Relative humidity	0-95%
Operating altitude (m)	0~4,000(Derating above 2,000 altitude)
Dimensions W*D*H (mm)	495 x 900 x 260
Weight (kg)	55
Topology (solar / battery)	Transformerless / Transformer
Noise emission (dB)	57

Display and communication

Display	Touch panel
Communication	RS485, 4G(optional), Wi-Fi