

R10KLNA

Split-phase hybrid inverter

Battery low voltage

5-10kW
REVO residential energy storage series



KEY STRENGTHS

- Compatible with three-phase applications.
- Supports 100% unbalanced loads.
- Supports 4 MPPT channels.
- 100A grid pass-through capability.
- AC solar to retrofit existing solar system(on-grid & off-grid).
- Grid & generator separately connected, supports storing energy from diesel generator.

Model	R5KLNA	R6KLNA	R7K6LNA	R8KLNA	R10KLNA
PV input data					
Max. PV input power (kW)	7.5	9	12	12	15
No. of MPPT trackers	4				
MPPT voltage range (V)	120~500				
Max. PV input voltage (V)	500				
Full power operating voltage range (V)	120~430				
Max. input current per MPPT (A)	14 / 14 / 14 / 14				
Max. short-circuit current per MPPT (A)	22 / 22 / 22 / 22				

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Battery input data

Rated battery voltage (Vdc)	48				
Max. charging / discharging current (A)	120 / 120	135 / 135	190 / 190	190 / 190	190 / 210
Battery voltage range (V)	40~60				
Battery recommended voltage range (V)	40~58				
Battery type	Lithium-ion / Lead-acid				
Battery charging strategy	Self-adaption to BMS				

AC output data (on-grid)

Rated output power to grid (kVA)	5	6	7.6	8	10
Max. apparent power output to grid (kVA)	5.5	6.6	8.4	8.8	11
Output voltage range (V)	110-120 / 220-240V split phase, 1Ø, 230 1 phase				
Output frequency (Hz)	50/60 (45 ~ 54.9 / 55 ~ 65)				
Rated AC current output to grid (A)	20.8	25	31.7	33.3	41.7
Max. AC current output to grid (A)	22.9	27.5	35	36.7	45.8
Power factor	0.8leading~0.8lagging				
THDi	<2%				
Max. grid pass-through current (A)	100				

AC output data (back-up)

Rated power output (kW)	5	6	7.6	8	10
Max. apparent power output (kVA)	5.5	6.6	8.4	8.8	11
Rated output voltage (L-N / L1-L2) (V)	120 / 240				
Rated output frequency (Hz)	60				
THDu	<2%				

Protection

Supported protection	Grounding detection, Arc fault protection, Island protection, Insulation resistor detection, Residual current monitoring unit, Output over current protection, Back-up output short protection, Output over voltage protection, Output under voltage protection
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Certifications and standards

Safety	UL1741SA all options, UL1699B, CSA 22.2
EMC	FCC part 15 class
Grid connection standards	IEEE 1547, IEEE 2030.5, Hawaii rule 14H, Rule 21 phase I, II, III

General data

CEC efficiency	97.3%	97.2%	97.2%	97.3%	97.2%
Max. battery to load efficiency	≥ 97.2%				
Ingress protection	IP65 / Type 3R				
Operating temperature range (°C)	-25 ~ +60 (>45 power derating)				
Cooling	Forced air cooling				
Relative humidity	0-95%				
Operating altitude (m)	0~4,000(>2,000 power derating)				
Dimensions W*D*H (mm)	450 x 240 x 820				
Weight (kg)	48				
Noise emission (dB)	<48				
Self-consumption (W)	<25				

Display and communication

Display	LCD touch panel
Communication with BMS / meter / EMS	RS485, CAN
Supported communication interface	RS485, WLAN, 4G(optional)



KEY STRENGTHS

- Compatible with three-phase applications.
- Supports 100% unbalanced loads.
- Supports 4 MPPT channels.
- 200A grid pass-through capability.
- AC solar to retrofit existing solar system(on-grid & off-grid).
- Grid & generator separately connected, supports storing energy from diesel generator.

Model	R12KLNA	R16KLNA
PV input data		
Max. PV input power (kW)	18	24
No. of MPPT trackers	4	
MPPT voltage range (without battery)(V)	120~500	
MPPT voltage range (with battery) (V)	120~430	
Max. PV input voltage (V)	500	
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

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Battery input data

Rated battery voltage (V)	48	
Max. charging / discharging current (A)	250 / 260	260 / 280
Battery voltage range (V)	40~58	
Battery type	Lithium-ion / Lead-acid	
Battery charging strategy	3-Stage with equalization	

AC output data (on-grid)

Rated output power output to grid (kW)	12	16
Max. apparent power output to grid (kVA)	13.2	17.6
Rated AC voltage (L-N / L1-L2) (V)	(110~120) / (220~240V) split phase, 240V single phase	
Rated AC frequency (Hz)	60 (55 ~ 65)	
Rated AC current (A)	50	66.7
Max. AC current (A)	55	73.3
Max. grid pass-through current (A)	200	
THDi	<3%	

AC output data (back up)

Rated output power (kW)	12	13
Max. apparent output power (kVA)	12(No PV) / 13.2(With PV)	13.2
Rated output voltage (V)	120 / 240	
Rated output frequency (Hz)	60	
Power factor	0.8leading~0.8lagging	
THDu	<2%	

Protection

Supported protection	Grounding detection, Arc fault protection, Island protection, Insulation resistor detection, Residual current monitoring unit, Output over current protection, Back-up output short protection, Output over voltage protection, Output under voltage protection
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Certifications and standards

Safety	UL1741, UL1741SA&SB all options, UL1699B, CSA -C22.2 NO.107.1-01, RSD (NEC690.5, 11, 12)
EMC	FCC Part 15 Class B
Grid connection standards	IEEE 1547, IEEE 2030.5, HECO Rule 14H, CA Rule 21 Phase I, II, III, CEC, CSIP, SRD2.0, SGIP, OGPe, NOM, California Prob65

General data

MPPT efficiency	99.9%
CEC efficiency (PV)	96.2%
Max. PV to grid efficiency (PV)	96.5%
Max. battery to load efficiency	94.6%
Max. PV to battery charging efficiency	95.8%
Max. grid to battery charging efficiency	94.5%
Ingress protection	IP65 / NEMA 3R
Operating temperature range (°C)	-25~+60
Cooling	Forced air cooling
Relative humidity	0-95%
Operating altitude (m)	0~4,000(>2,000 power derating)
Dimensions W*D*H (mm)	495 x 260 x 900
Weight (with breaker) (kg)	56
Noise emission (approximately)(dB)	57
Self-consumption (W)	<25

Display and communication

Display	Touch panel
Communication with BMS / meter / EMS	RS485, CAN
Supported communication interface	RS485, 4G(optional), Wi-Fi