



Residential Energy Storage Inverters

# Split-Phase hybrid inverter

Battery low voltage

## Key strengths

- ▮ Plug & Play.
- ▮ Capable of supporting 100% unbalanced loads.
- ▮ 3 phase 208Vac & parallel function available.
- ▮ 200A pass through.
- ▮ AC couple to retrofit existing solar system(on-grid & off-grid).
- ▮ Grid & diesel generator separately connected, support storing energy from diesel generator.

### PV input

Model	RA12KLNA	RA16KLNA
Max.DC input power (kW)	18	24
No. of MPPT trackers	4	
MPPT voltage range (without battery)(V)	120~500 / 120~430	
MAX.DC input voltage (V)	500	
MAX. input current per MPPT (A)	16/16/16/16	20/26/20/26
MAX. short current per MPPT (A)	22	22A/34A/22A/34A

### Battery input

Nominal voltage (V)	48
MAX.charging/discharging current (A)	250/260
Battery voltage range (V)	40-58
Battery type	Lithium /Lead-acid
Charging controller	3-Stage with equalization

**AC output(on-grid)**

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

**AC output(back-up)**

Nominal. apparent power (kVA)	12
Max. apparent power (no PV) (kVA)	12
Max. apparent power (with PV) (kVA)	13.2
Nominal output voltage(V)	120/240
Nominal output frequency (Hz)	60
Automatic switchover time (ms)	<20
Output power factor	0.8leading~0.8lagging
Output THDu	<2%

**Protection**

Grounding detection	Yes
Arc fault protection	Yes
Island protection	Yes
Insulation resistor detection	Yes
Residual current monitoring unit	Yes
Output over current protection	Yes
Back-up output short protection	Yes
Output over voltage protection	Yes
Output under voltage protection	Yes

**General data**

Mppt efficiency	99.9%
Europe 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%
Operating temperature range (°C)	-25~+60
Relative humidity	0-95%
Operating altitude	0~4,000m(Derating above 2,000m altitude)
Ingress protection	IP65/NEMA 3R
Built-in breaker	Optional
Weight (kg)	53kg(56kg with breaker)
Dimensions W*H*D (mm)	495 x 900 x 260
Cooling	FAN cooling
Noise emission (dB)	38
Display	Touch panel
Communication with BMS/Meter/EMS	RS485, CAN
Supported communication interface	RS485, 4G (optional), Wi-Fi
Self-consumption	<25W
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

**Other data**

Peak power (off grid)	110%,30s / 120%,10s / 200%,5s
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