



Nurag 20KL

Specifications



Capacity	20k VA / 20k W
Type	On-line
Phase (IN : OUT)	3:3 / 3:1 / 1:1
Input	
Nominal Voltage	
3:3 or 3:1	3 x 400 VAC (3Ph+N)
1:1	1 x 230 VAC (Ph+N)
Voltage range	
3:3	190-520 VAC (3-phase) @ 50% load 305-478 VAC (3-phase) @ 100% load
3:1 or 1:1	110-300 VAC (1-phase) @ 50% load 176-276 VAC (1-phase) @ 100% load
Frequency Range	46 ~ 54Hz
Power Factor	≥ 0.99 at 100% load
Outlet type	Terminal Block Wiring
Output	
Nominal Voltage	3 x 360*/380/400/415 VAC (3Ph+N) 1 x 208*/220/230/240 VAC (Ph-N)
AC Voltage Regulation (Batt. Mode)	± 1%
Frequency Range (Synchronized Range)	46 ~ 54Hz
Frequency Range (Batt. Mode)	50Hz ± 0.1 Hz
Current Crest Ratio	3:1 (max.)
Harmonic Distortion	≤ 2 % THD (Linear Load) ≤ 5 % THD (Non-linear Load)
Waveform (Batt. Mode)	Pure Sine-wave
Outlet type	Terminal Block Wiring
Transfer Time	
AC Mode to Batt. Mode	Zero
Inverter to Bypass	Zero



3:3 / 3:1 / 1:1
phase



True double
conversion



Parallel operation
up to 3 units

- On-line with double conversion
- Smart battery charger to optimize batteries' performance
- Adjustable batteries design
- Output power factor 1.0
- Optional isolation transformer**
- DSP technology guarantees high performance
- Active power factor correction in all phases
- High Efficiency on AC mode up to 95.5%
- EPO function
- Maintenance bypass
- 5" large touch LCD display
- Power management over SNMP / Modbus / AS 400 card
- ECO mode operation for energy saving
- Dual Input for generators compatibility

*When output voltage is set as 3 x 360VAC or 1 x 208 VAC, the output power of the unit will be derated to 90%.

**Isolation transformer will occupy the internal batteries' space.

Overload

AC Mode	100~110% for 60 min 110~125% for 10 min 125%~150% for 1 min >150% immediately
Battery Mode	100~110% for 60 min 110~125% for 10 min 125%~150% for 1 min >150% immediately

Efficiency

AC Mode	≥ 95.5 % with fully charged batteries
Battery Mode	≥ 94.5 % with fully charged batteries
ECO Mode	≥ 98.5 % with fully charged batteries

Battery

Internal batteries (optional)	32~40 pieces of 12V lead acid 7Ah or 9Ah
External batteries	12V lead acid, (N + N) pcs x 1 string; N=16~20
Charging Voltage	+/- 13.65V*N; N=16~20
Charging Current (max)	1A-12A (adjustable)

Environment

Humidity	< 95 % RH at 0-40°C (non-condensing)
Noise level	Less than 65dB at 1 m
Heat dissipation	up to 3381 BTU/h (line mode) up to 4115 BTU/h (battery mode)



Management

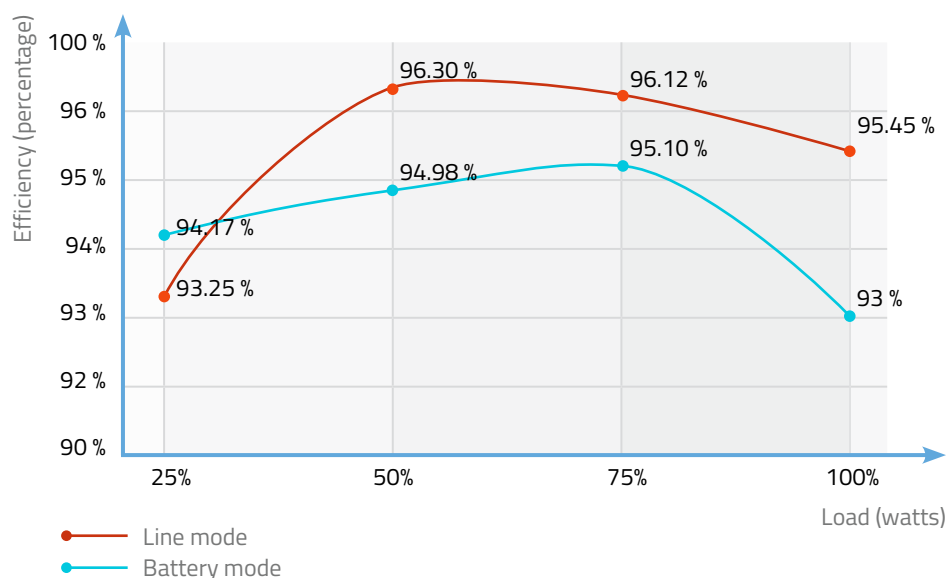
Communication ports	RS232 / USB / EPO / SNMP / Modbus / AS400 (cards optional)
Software compatibility	ViewPower Network Edition and VMWare Shutdown Wizard

Physical

Product dimensions	626 x 250 x 826 mm
Product Net Weight	49.8 kg

Efficiency

Line mode	
Load	Efficiency
100 %	95.45 %
75 %	96.12 %
50 %	96.30 %
25 %	93.25 %
Battery mode	
Load	Efficiency
100 %	93.00 %
75 %	95.10 %
50 %	94.98 %
25 %	94.17 %



Logistics

Carton Box Size (LxWxH)	775 x 370 x 900 mm
Pieces in the Carton Box	1
Net & Gross weight / CTN	N.W.: 49.8 kg / G.W.: 72.5 kg

Certificates

