

Garun 20KL

PN: UP33TOP120KGAAZ02B
EAN: 6422956011888

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

*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.



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



True double
conversion



Parallel operation
up to 4 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

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 $\geq 95.5\%$ with fully charged batteries

Battery Mode $\geq 94.5\%$ with fully charged batteries

ECO Mode $\geq 98.5\%$ 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)

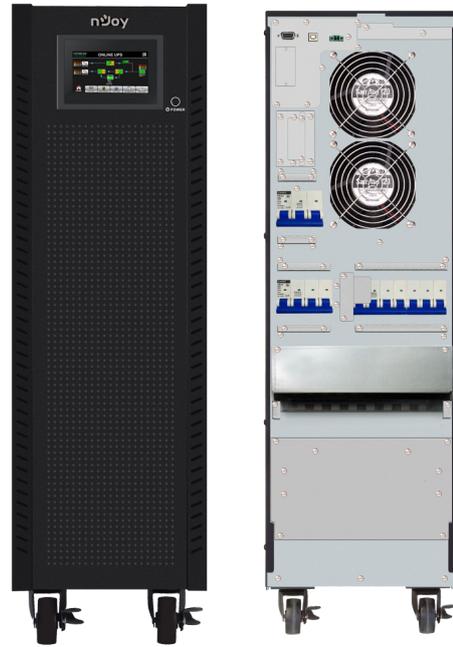
Environment

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)

IP Rating IP20



Management

Communication ports RS232 / USB / EPO / Intelligent Port for installation of SNMP or Modbus (Protocol 38) Card

Software compatibility ViewPower Network Edition and VMWare Shutdown Wizard

Physical

Product dimensions 626 x 250 x 826 mm

Product Net Weight 49.8 kg

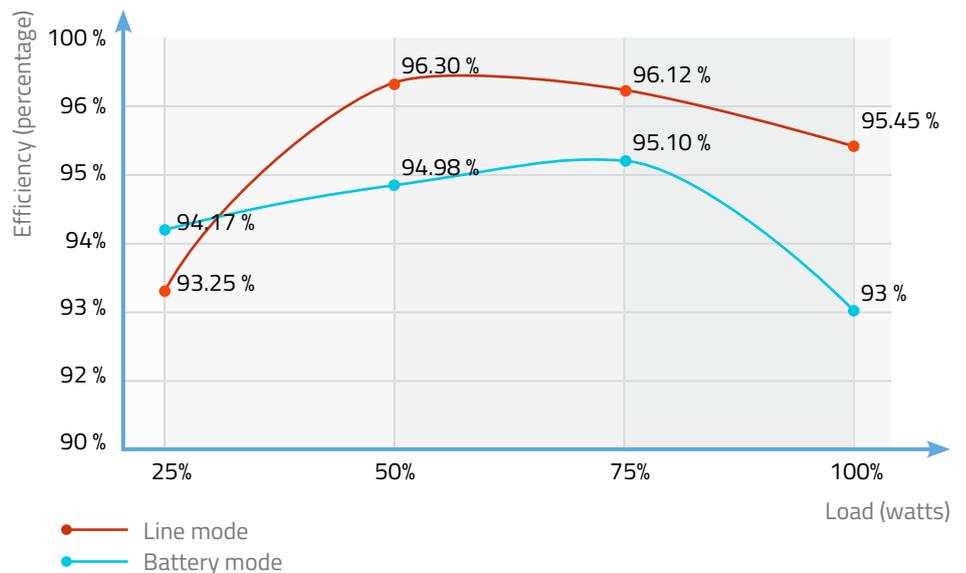
Efficiency

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

RoHS 2011/65/EU



EN62040-1:2008+A1:2013
EN62040-2:2006+AC:2006
EN IEC 62040-3
EN 61000-3-2:2014
EN61000-4-2:2009
EN61000-4-3:2006+A2:2010

EN61000-4-4:2012
EN61000-4-5:2016
EN61000-4-6:2014
EN61000-4-8:2010
EN61000-2-2:2012
IEC 60529

