

LUMINOUS

POWER CONDITIONING UNIT

High Capacity & Control

The NXT range of PCUs is the ideal solution for Off-grid applications. Designed to offer control, the PCU intelligently optimizes battery charging and power to load among Solar, Battery and Grid power. Available from 1kW to 10kW.

Warranty: 2 Years



High Efficiency
MPPT



User Controlled
Settings



Long Power
backup



Priority Settings

Priority settings allow the user to choose among reduced grid dependency & energy savings, enhanced backup and autonomy from grid.



User-friendly Display

A user friendly display communicates important parameters like discharge time, grid availability, selected priority setting etc.



Maximum Power Point Tracking

MPPTs extract 30% more power as compared to UPS with PWM charge controllers.



Guaranteed Safety

Comprehensive protection features include short-circuit, reverse polarity, battery over-charge etc.

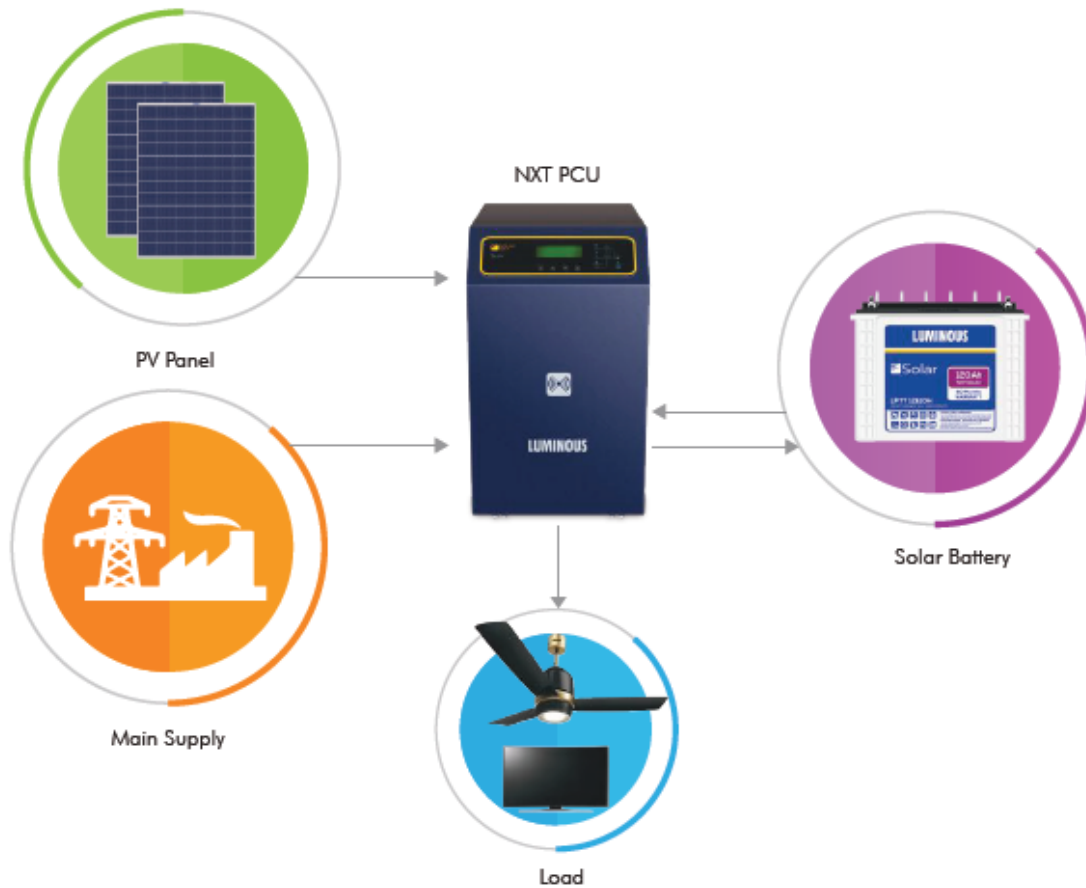


MNRE & IEC Compliance

Complies with MNRE recommended standards IEC – 61683, IEC – 60068 – 1,2,14,30, IEC – 60529

Solar Estimation Chart

Solution			Panel Connection Combination (Series-Parallel)	Approx. Roof Top Area Required (Sq. ft.)
Solar UPS	Solar Battery	PV Panel Watt		
NXT 1kW	75 Ah x 4	325Wp x 3 No.s	3 (S)	100
NXT 2kW	150 Ah x 4	325Wp x 6 No.s	3 (S) 2 (P)	200
NXT 3kW	200 Ah x 4	325Wp x 9 No.s	3 (S) 3 (P)	300
NXT 6kW	200 Ah x 8	325Wp x 20 No.s	4 (S) 5 (P)	600
NXT 7.5kW	200 Ah x 10	325Wp x 24 No.s	6 (S) 4 (P)	750
NXT 10kW	200 Ah x 10	325Wp x 30 No.s	6 (S) 5 (P)	1000



Technical Specifications

Model Name	NXT 1kW	NXT 2kW	NXT 3kW	NXT 6kW	NXT 7.5kW	NXT 10kW
Capacity (kW)	1	2	3	6	7.5	10
Nominal Battery Voltage (Vdc)	48V			96V	120V	
Output Waveform	Sine Wave					
SOLAR PHOTOVOLTAIC INPUT						
Type of Charger	MPPT					
Maximum PV power (kW)	1.1	2.2	3.3	6.6	8.25	11
Input Voltage range (Voc)	80 - 165			160-240	180-300	
Input Voltage range (Vmp)	65 - 130			120-210	150-240	
GRID INPUT						
Input Supply Phases	Single Phase					
Nominal Voltage & Voltage range	230V AC (185V - 265V)					
Nominal Frequency & Range	50 Hz (±3 Hz)					
BATTERY						
Battery recharge current range from Grid Side (A)	0-12	0-24	0-30	0-30	0-35	0-45
Battery recharge current range from Array Side (A)	0-20	0-40	0-60	0-60	0-65	0-80
Charging Stages	Float, Bulk, Boost				Boost, Absorption, Float	
UPS						
Switching Element	MOSFET			IGBT		
Control	32 Bit DSP controlled					
Nominal Output V _{AC}	230V ± 1% , Single Phase					
Output waveform	Pure Sine Wave					
Nominal Frequency	50 Hz (±0.5 Hz)					
Power Factor	0.8 lag to 0.8 lead					
Nominal Output Current (A)	4.3	8.5	13	26	33	44
Overload at nominal output voltage	110% for 10 Minutes, 200% for 5 Secs					
SYSTEM DATA						
Noise @ 1 meter (dBA ± 2dBA)	<58dBA			<62dBA		
Transfer Time	<20 mS					
Protection	Under/Over voltage protection for Input, Output, Battery & Array; Reverse polarity protection for Array & Battery; Protection for Output Overload, Short circuit and Over Temperature; MCB & Surge protection at Grid/DG Input, Battery, Array Path and PCU O/P					
Display Parameters	Voltage/Current: Array, Battery, Grid, Output; Day kWh, Cumulative kWh, Date, Time					
Indications	Battery Charging/ Discharging, Grid ON, Load ON, UPS ON, Array ON, Fault LED Indicator (For Overload, Low Battery, Over Temperature),					
Setting	Battery type, Battery voltage (Boost & Float), Priority (SGB/SBG), Charging Current from Grid					
ENVIRONMENT						
IP Protection Level	IP-21					
Operating Temperature (°C)	0-50 °C without any degradation					
Max. Relative humidity @ 25°C	Up to 95% (non-condensing)					
Max. Altitude above sea level without de-rating (m)	1000 m					
STANDARD COMPLIANCE						
Certifications	IEC 61683, IEC 60068-2(1,2 14, 30)					
GENERAL						
Dimension (W*D*H) [mm]	300x504x515			350x635x589	400x575x783	
Net Weight (Kg)	30	37	50	76.3	125	150