

**LUMINOUS**  
*Khushiyon ka ghar*

30  
YEARS  
OF  
LUMINOUS

# Complete Solar Solutions

————— *Making the World a Better Place with Every Rooftop* —————

 **Solar**

PRODUCT CATALOGUE 2020

**LUMINOUS**



# 30 YEARS OF MAKING HOMES HAPPIER

With a legacy of over 30 years in powering households and empowering India, Luminous continues to challenge itself to exceed customers expectations and its true potential.



7 Factories



28 Sales Offices



60000+  
Channel Network



70+ Mn Happy  
Consumers



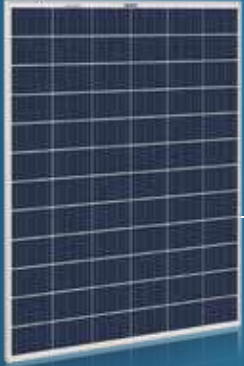
Expert  
Craftsmanship



Top-of-the-line  
Products

YEARS  
OF **30**  
**LUMINOUS**

# LUMINOUS



Mono PERC  
Panel

370W



Polycrystalline  
Panels

40W - 330W

## WIDEST RANGE OF SOLAR PRODUCTS



NXT+ PCU

1.25 kVA - 12.5 kVA



NXG+  
Inverter

400VA - 1100VA



Shine  
Retrofit

12V - 120V



NXi  
Grid Tie  
Inverter

1kW - 60kW



Microinverter

1.5kW



iCruze  
Combo

3KVA - 10KVA



Cruze  
Combo

2KVA - 7.5KVA



Charge  
Controller

12V - 24V



Solar  
C10 Rated  
Batteries

20 Ah - 200 Ah

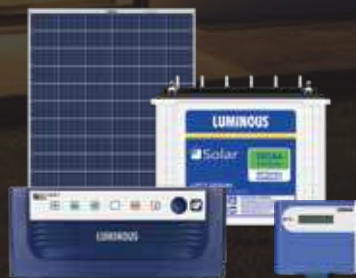
# LUMINOUS

## Home Solutions



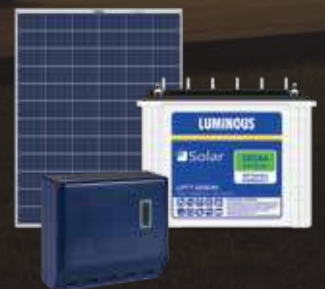
Solar Panel, NXG+  
Inverters & Batteries

## Home Upgrade\* Solutions



Solar Panel, Shine  
Retrofit & Batteries

## DC Solutions



Solar Panel, Charge  
Controller & Batteries

\*For upgrading existing power back up system.

# ONE STOP SOLAR SOLUTIONS

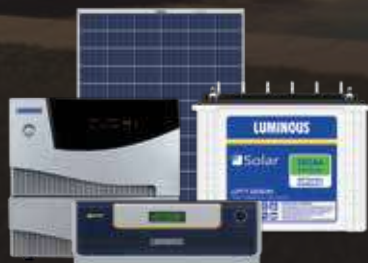
Luminous is a global powerhouse as well as a local favourite in the solar solutions segment. Our best-in-class products and top-of-the-line workmanship, assure you of a hasslefree journey.

## High Capacity Solutions



Solar Panel, NXT+  
PCU & Batteries

## High Capacity Upgrade\* Solutions



Solar Panel, Cruze+Shine  
Combo & Batteries

## Grid-Tie Solutions



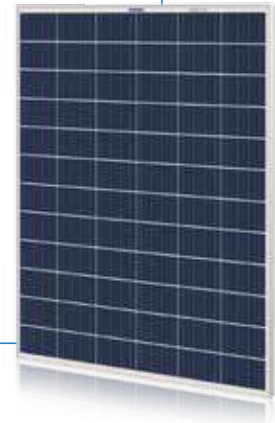
Solar Panel & Solar NXi  
Grid Tie Systems

# LUMINOUS

## PV PANELS

### Designed For High Performance

Luminous offers a range of both Mono PERC and Polycrystalline PV modules. Ranging from 40W to 370W, our panels comply with IEC standards and are suitable for a wide range of applications.



25 Years  
Performance Warranty



5 & 12 Years\*  
Product Warranty



Robust  
Mechanical Design



#### Excellent Low-light Performance

Built with high quality glass and solar cell surface coating, especially for performance in low-light conditions.



#### Resilience to Extreme Weather

The robust waterproof, corrosion and torsion resistant design offers protection against wind and snow.



#### PID Resistance Technology

Designed to eliminate power loss owing to stray currents

#### Advance EVA Encapsulation

Designed with multi layer EVA (ethyl vinyl acetate) encapsulation for better module protection.

#### Best in Class Efficiency

Innovative cell technology ensures optimum solar power generation providing high value for money.

#### IDEAL FOR

- ✓ Large scale utility systems
- ✓ Rooftop residential, commercial and industrial roof top installations
- ✓ Agricultural pumping applications

\*Refer models for respective warranty



## Electrical Parameters @ STC#

Model	LUM 1240	LUM 1260	LUM 1280	LUM 12105	LUM 12165	LUM 24330	LUM 24370MP
Cell Type	Poly	Poly	Poly	Poly	Poly	Poly	Mono PERC
No. of Cells	36	36	36	36	36	72	72
Peak Power P <sub>Max</sub> (Wp)	40	60	80	105	165	330	370
Rated Module Voltage (V)	12	12	12	12	12	24	24
Maximum Power Voltage V <sub>mp</sub> (V)	18	18	18	18.05	18.65	38.03	39.25
Maximum Power Current I <sub>mp</sub> (A)	2.23	3.34	4.4	5.82	8.85	8.68	9.43
Open Circuit Voltage V <sub>oc</sub> (V)	22	22	22	22	22.84	45.53	47.08
Short Circuit Current I <sub>sc</sub> (A)	2.42	3.64	4.8	6.28	9.55	9.22	10.01
Module Efficiency (%)	13.72%	14.10%	15.21%	15.14%	16.64%	16.85%	18.89%
Maximum System Voltage (V)	600V	600V	600V	600V	600V	1000V	1500V
Maximum Series Fuse Rating	12A	12A	12A	12A	20A	20A	20A

\*STC (1000W/m<sup>2</sup>), AM1.5, cell temperature 25°C. Power Tolerance : 0/+5%. Power measurement accuracy:±3%

## Mechanical Data

Module Dimensions (mm)	435x670	635x670	785x670	1035x670	1480x670	1976x991
LxWxT	x34	x34	x34	x34	x34	x35
Module Weight (kgs)	3.30	5.20	6.50	8.20	11.50	22.50
IP Rating	IP 65	IP 65	IP 65	IP 65	IP 65	IP 67
Cable & Connectors	No cable and connectors		1000mm length cables		1000mm length cables, MC4 Compatible/MC4 Connectors	
Frame	Silver Anodized aluminium alloy					
Glass	3.2mm thick high transmission low iron tempered glass, AR coated					
Cell Encapsulant	EVA (Ethylene Vinyl Acetate)					
Back Sheet	Composit Film					
Maximum Surface Load Capacity	5400 Pa (Pascals)					
Application Class	Class A (Safety Class II)					

## Permissible Operating Conditions

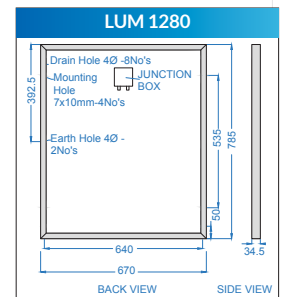
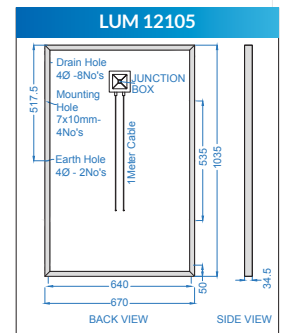
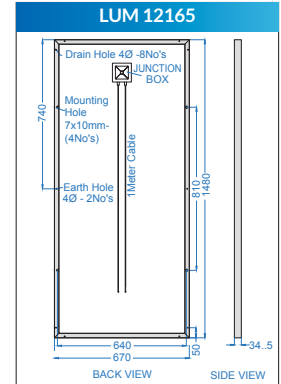
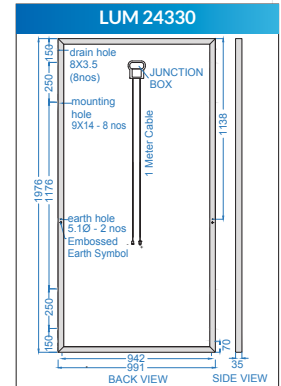
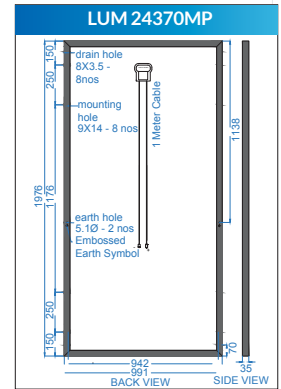
Operating Temperature	- 40°C to + 85°C
Temp coefficient of Open Circuit Voltage	-0.33 %/°C
Temp coefficient of Short Circuit Current	0.03 %/°C
Temp coefficient of Power	-0.41 %/°C

## Warranty and Certifications

Product Warranty**	5 Years	12 Years
Performance Warranty**	Linear Performance Warranty for 25 Years with 3% for 1st year degradation and 0.70% from year 2 to 25	
Approvals and Certificates	IEC 61215 Ed2, IEC 61701, IEC 61730-1, IEC 61730-2	

\*\* Refer to Luminous Warranty document for Terms and conditions. Technical specifications are subject to change without prior notice.

## Solar Module Dimension



# LUMINOUS

## GRID TIE INVERTERS

### Safe and Efficient

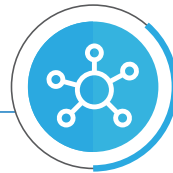
The NXi range from Luminous is available in single and three phase configurations. With best-in-class reliability and compliance to safety standards, the inverters are available in capacities from 1kW to 60 kW.



5 Years  
Warranty



> 97%  
Efficiency



Connectivity  
Options

#### MPPT

#### Maximum Power Point Tracking

MPPTs to extract up to 30% more power from the panels, minimizing impact of shading and increasing efficiency.



#### IP65 Protection

Designed to work in tough weather conditions. Flawless operation despite dust, rain or extreme temperature variations



#### Remote Monitoring

Multiple modes of connectivity (GSM/Wi-fi) for remote monitoring enables proactive maintenance.

#### Anti-Islanding Protection

Disconnects the inverter from grid during power failure preventing any electrical shock to the linemen at work.



#### MNRE & IEC Compliance

Complies with MNRE recommended standards  
IEC - 61683, IEC - 60068,  
IEC - 61000, IEC - 61727,  
IEC - 62116



## Solar Estimation Chart

Solution		No. of MPPT	Panel Connection Combination per MPPT (Series-Parallel)	Approx. Roof Top Area Required (Sq. ft.)
<b>Solar UPS</b>	<b>PV Panel Watt</b>			
NXI 1kW	330Wp x 3 No.s	1	3 (S)	100
NXI 2kW	330Wp x 6 No.s	1	6 (S)	200
NXI 3kW	330Wp x 10 No.s	1	10 (S)	300
NXI 4kW	330Wp x 12 No.s	2	6 (S)	400
NXI 5kW	330Wp x 16 No.s	2	8 (S)	500
NXI 6kW	330Wp x 20 No.s	2	10 (S)	600
NXI 10kW	330Wp x 32 No.s	2	16 (S)	1000
NXI 15kW	330Wp x 48 No.s	2	12 (S) 2 (P)	1500
NXI 20kW	330Wp x 64 No.s	4	16 (S)	2000
NXI 25kW	330Wp x 84 No.s	4	21 (S)	2500
NXI 50kW	330Wp x 168 No.s	4	21 (S) 2 (P)	5000



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## Single Phase

MODEL	Nxi 110	Nxi 120	Nxi 130	Nxi 140	Nxi 150
<b>Input DC</b>					
Max. DC Input Power (kW)	1.2	2.3	3.5	4.6	5.8
Max. DC Input Voltage (V)	600				
Start-up Voltage [V]	60	90		120	
MPPT Voltage range (V)	50-500	80 - 500		100 - 500	
Max input current per MPPT (A)	11A			11A+11A	
Number of MPPT	1			2	
Max Input Strings Number	1			2	
<b>Output (AC)</b>					
Rated output power (kW)	1	2	3	4	5
Max. output power [kW]	1.1	2.2	3.3	4.4	5
Max. output Current [A]	5.2	10.5	15.7	21	25
Grid voltage range (V)	160-285				
Grid Frequency range (Hz)	50/60 Hz				
Power Factor (at rated output power)	0.8 ...1... 0.8				
Total harmonic distortion [THDi]	< 1.5%				
Feed-in phase/connection phase	Single Phase				
<b>Efficiency</b>					
Max. Efficiency	>97.2%		97.5%	> 98.1%	
MPPT Efficiency	>99.5%				
<b>Protection</b>					
Inbuilt Protections	DC Reverse Polarity Protection, Short Circuit Protection, O/P Over Current Protection, O/P Over voltage protection, Insulation resistance monitoring, Residual current detection, surge protection, Islanding Protection, Temperature Protection				
<b>Interface</b>					
DC Connection	MC4 Connectors				
Display	LCD 2X 20 Z				
Datalogger & Communication	RS485/GSM/Wifi* (Optional)				
<b>General Data</b>					
Topology	Transformerless				
Consumption @ night	< 1 W				
Operating Temperature Range	-25°C to 60°C				
Cooling Method	Natural Convention				
Relative Humidity	0 - 100 %				
Max. Operational Altitude	4000m				
Noise [dBA]	<20dBA		<30dba	<30 dba	
Designed Lifetime	> 20 years				
Ingress Protection	IP65				
Dimensions (W*H*D) [mm]	310W*373H*160D(mm)			310W *543H *160D	
Net weight (Kg)	7.4		7.7	11.5	
<b>Standards</b>					
Safety/EMC	IEC62109-1/-2, NB/T 32004, EN61000-6-1, EN61000-6-3				

\* Check availability of GSM or wifi dongle before ordering.

Technical specifications are subject to change without prior notice.

## Three Phase

MODEL	Nxi 305	Nxi 306	Nxi 308	Nxi 310	Nxi 312	Nxi 315
<b>Input DC</b>						
Max. DC Input Power (kW)	6.0	7.2	9.6	12	14.5	18
Max. DC Input Voltage (V)	1000					
Start-up Voltage [V]	180					
MPPT Voltage range (V)	160 - 1000					
Max input current per MPPT (A)	11A + 11A			22A+22A		
Number of MPPT	2					
Max Input Strings Number	2			4		
<b>Output (AC)</b>						
Rated output power (kW)	5	6	8	10	12	15
Max. output power [kW]	5.5	6.6	8.8	11	13.2	16.5
Max. output Current [A]	8.4	10	13.4	16.7	20.1	25.1
Grid voltage range (V)	313 - 470					
Grid Frequency range (Hz)	50/60 Hz					
Power Factor (at rated output power)	0.8 ...1... 0.8					
Total harmonic distortion [THDi]	<2%					
Feed-in phase/connection phase	Three Phase					
<b>Efficiency</b>						
Max. Efficiency	98.30%			98.60%		
MPPT Efficiency	99.5%					
<b>Protection</b>						
Inbuilt Protections	DC Reverse Polarity Protection, Short Circuit Protection, O/P Over Current Protection, O/P Over voltage protection, Insulation resistance monitoring, Residual current detection, surge protection, Islanding Protection, Temperature Protection, Integrated DC Switch (optional)					
<b>Interface</b>						
DC Connection	MC4 Connectors					
Display	LCD 2X 20Z					
Datalogger & Communication	4 pins RS485 connector			4 pins RS485 connector		
<b>General Data</b>						
Topology	Transformerless					
Consumption @ night	< 1 W					
Operating Temperature Range	-25°C to 60°C					
Cooling Method	Natural Convection				Intelligent redundant fan cooling	
Relative Humidity	0 to 100%					
Max. Operational Altitude	4000m					
Noise [dBA]	<30 dBA					
Designed Lifetime	> 20 years					
Ingress Protection	IP65					
Dimensions (W*H*D) [mm]	310W*563H*129D			310W*608H*219D		
Net weight (Kg)	14.1			19.9		
<b>Standards</b>						
Safety/EMC	IEC 62109-1, 62109-2: AS3100					

\* Check availability of GSM or wifi dongle before ordering.

Technical specifications are subject to change without prior notice.

# LUMINOUS

## Three Phase

MODEL	Nxi 320	Nxi 325	Nxi 330	Nxi 350	Nxi 3600
<b>Input DC</b>					
Max. DC Input Power (kW)	24	28	34	55	72
Max. DC Input Voltage (V)	1000			1000	1100
Start-up Voltage [V]	180	350		200	200
MPPT Voltage range (V)	160 - 1000	200 - 800		200 - 1000	200-1000
Max input current per MPPT (A)	22A+22A	18A + 18A + 18A + 18A		28.5A + 28.5A + 28.5A + 28.5A	28.5A + 28.5A + 28.5A + 28.5A
Number of MPPT	2	4		4	4
Max Input Strings Number	4	8		12	12
<b>Output (AC)</b>					
Rated output power (kW)	20	25	30	50	60
Max. output power [kW]	22	27.5	33	55	66
Max. output Current [A]	33.3	41.7	50	83.3	100
Grid voltage range (V)	313 - 470	304-460			
Grid Frequency range (Hz)	50/60 Hz	47-52 or 57-62			
Power Factor (at rated output power)	0.8 ...1... 0.8				
Total harmonic distortion [THDi]	<2%	<3%			<2%
Feed-in phase/connection phase	Three Phase				
<b>Efficiency</b>					
Max. Efficiency	98.60%	98.60%		98.80%	99%
MPPT Efficiency	99.5%	99.90%			99.50%
<b>Protection</b>					
Inbuilt Protections	DC Reverse Polarity Protection, Short Circuit Protection, O/P Over Current Protection, O/P Over voltage protection, Insulation resistance monitoring, Residual current detection, surge protection, Islanding Protection, Temperature Protection, Integrated DC Switch (optional)				
<b>Interface</b>					
DC Connection	MC4 Connectors				
Display	LCD 2X 20Z	7" Color Screen Display		LCD 2X 20Z	
Datalogger & Communication	4 pins RS485 connector	4 pins RS485 connector, 2 RJ45 connector		4 pins RS485 connector, 2 RJ45 connector, 2 Group of terminal block	
<b>General Data</b>					
Topology	Transformerless				
Consumption @ night	< 1 W				
Operating Temperature Range	-25°C to 60°C				
Cooling Method	Natural Convention		Intelligent redundant fan cooling		
Relative Humidity	0 to 100%				
Max. Operational Altitude	4000m				
Noise [dBA]	<30 dBA		<60 dBA		
Designed Lifetime	> 20 years				
Ingress Protection	IP65				
Dimensions (W*H*D) [mm]	310W*608H*219D	530W*700H*356.5D		630W*700H*357D	
Net weight (Kg)	19.9	58.2		63	69
<b>Standards</b>					
Safety/EMC	IEC 62109-1, 62109-2: AS3100	IEC62109-1/-2, AS3100, EN61000-6-1, EN61000-6-3			

\* Check availability of GSM or wifi dongle before ordering.

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For more information



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# LUMINOUS

## MICROINVERTER

### Plug and Play

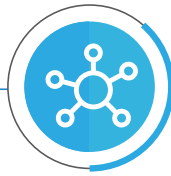
Microinverter connects to four solar modules to convert DC power into grid-compliance AC power. It improves energy harvest, increases reliability and dramatically simplifies design, installation and management of solar power systems.



12 Years  
Warranty



>96%  
Efficiency



Connectivity  
Options



#### Productive

- Maximum Energy Production
- Superior Performance in Shaded Conditions



#### Smart

Quick and sleek design,  
simple installation manage-  
ment



#### Reliable

No single point of failure

#### Safe

- Low Voltage DC
- Reduced fire risk

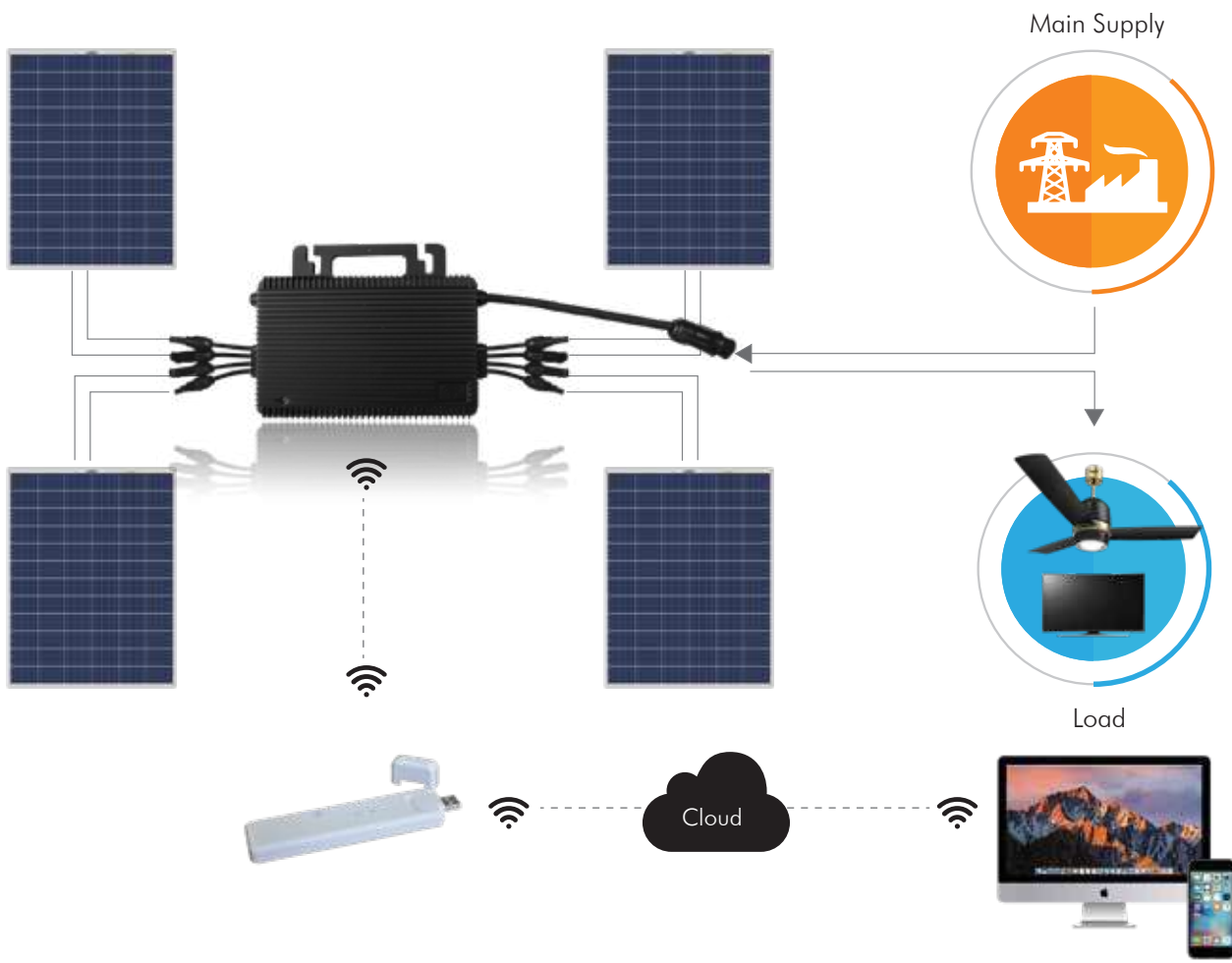


#### Enhanced Monitoring System

- Precise monitoring of each solar panel
- Detailed real time information & guidance for maintenance







Accessory	Function
Data Transfer Unit	Provided to transfer data from microinverter to monitoring server
Male Connector	Provided to make AC end cable
Male End Cap	Provided to seal AC male connector of microinverter
Female Connector	Provided to seal AC end cable
Female End Cap	Provided to seal AC female connector of microinverter

### Microinverter Accessories



Data Transfer Unit



Male Connector



Male End Cap



Female Connector

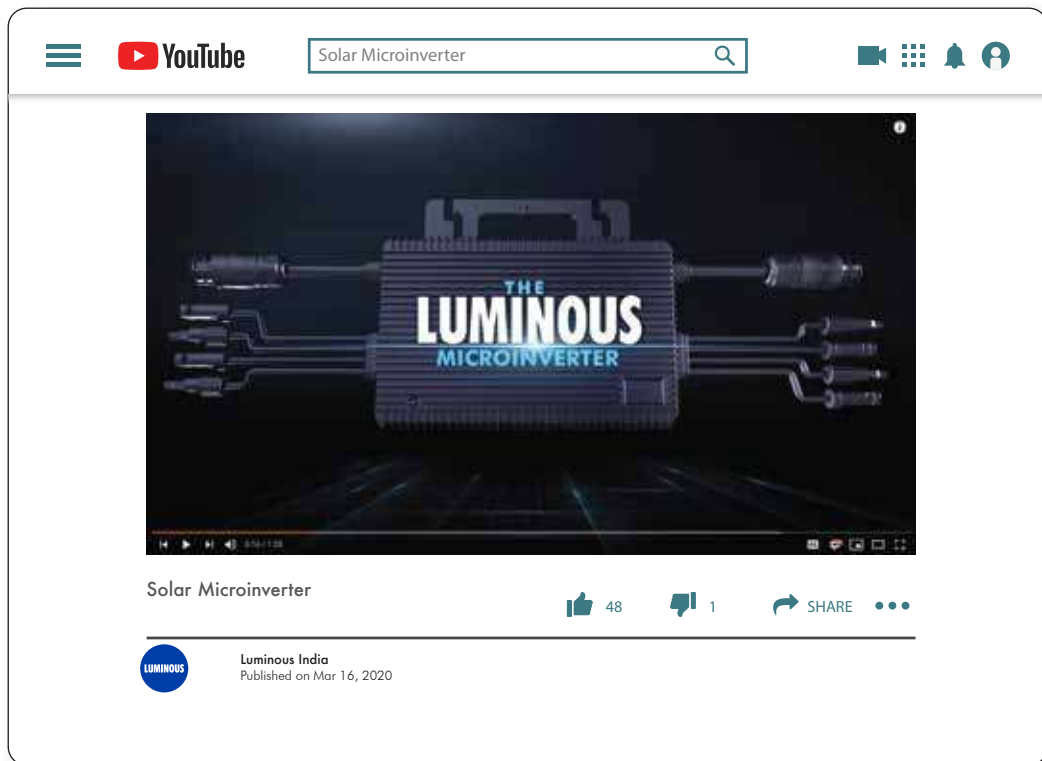


Female End Cap

## Technical Specifications

Model	LMI 1500
<b>Input Data (DC)</b>	
Max. DC Input Power (W)	1880W/ up to 470 Wp per MPPT
Peak Power MPPT Voltage Range (Vmp)	36-48
Start-up voltage (V)	22
operating voltage range (Voc)	16-60
Maximum Input Voltage (V)	60
Maximum Input Current (A)	11.5
<b>Output Data (AC)</b>	
Rated output power (kW)	1.5 kW
Rated output current (A)	6.81
Grid voltage range (V)	208-230
Grid frequency range (Hz)	50/60 Hz
Power factor (at rated output power)	>0.99
Total harmonic distortion (THDi)	<5%
Maximum units per branch	3
<b>Efficiency</b>	
Peak Inverter efficiency	96.60%
CEC weight efficiency	96.50%
Normal MPPT efficiency	99.80%
<b>Protection</b>	
Inbuilt Protection	DC Reverse Polarity Protection, Surge Protection, O/P Over Current Protection, O/P Over Voltage Protection, Ingress protection, Short Circuit Protection, Temperature Protection
<b>Interface</b>	
DC Connection	AC Male, Female Connector; AC Male, Female End Cap
Communication	Wireless
Monitoring	DTU (GSM/ Wi-Fi)
<b>General Data</b>	
Consumption @ Night	<50 mW
Ambient temperature range (°C)	-40~ + 65
Operating temperature range (°C)	-40~ + 85
Ingress Protection	IP67
Cooling	Natural convection - No fans
Design lifetime	>25 years
Dimension (WxHxD mm)	280x176x33
Net Weight (kg)	3.75 (including 1.9m AC cable)

For more information



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## 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 1.25kVA to 12.5kVA.

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+ 1.25 kVA	80 Ah x 4	330Wp x 3 No.s	3 (S)	100
NXT+ 2.5 kVA	150 Ah x 4	330Wp x 6 No.s	3 (S) 2 (P)	200
NXT+ 3.75 kVA	200 Ah x 4	330Wp x 9 No.s	3 (S) 3 (P)	300
NXT+ 7.5 kVA	200 Ah x 8	330Wp x 20 No.s	4 (S) 5 (P)	600
NXT+ 9.5 kVA	200 Ah x 10	330Wp x 24 No.s	6 (S) 4 (P)	750
NXT+ 12.5 kVA	200 Ah x 10	330Wp x 30 No.s	6 (S) 5 (P)	1000



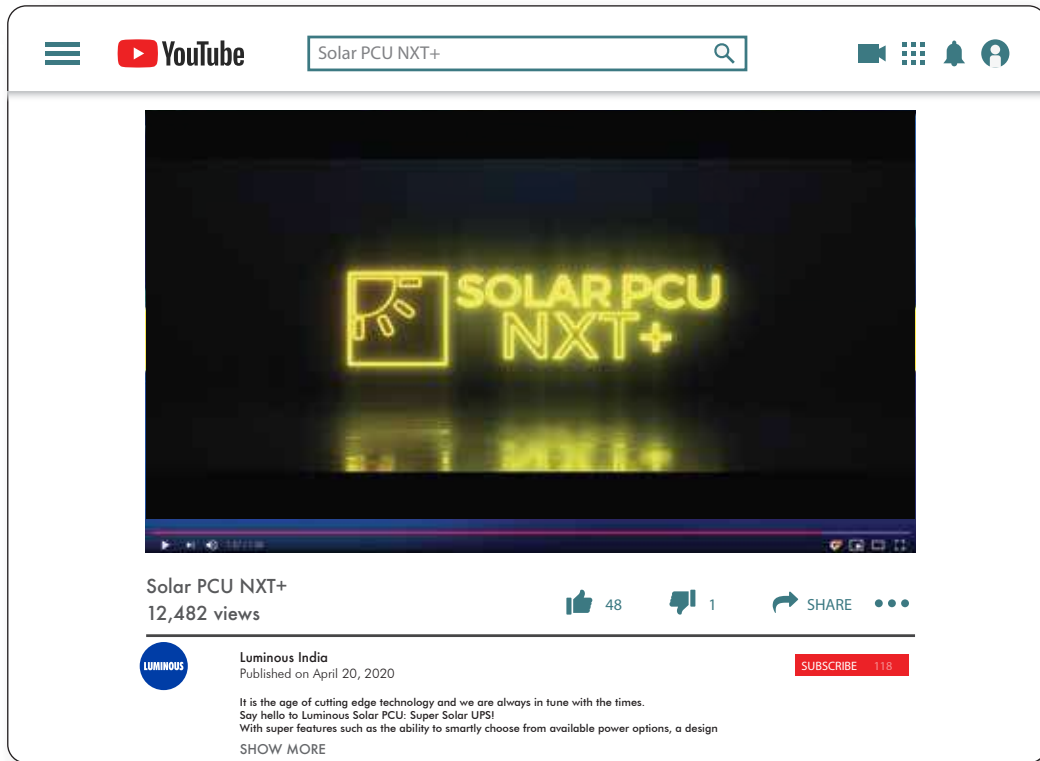
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## Technical Specifications

Model Name	NXT+ 1.25 kVA	NXT+ 2.5 kVA	NXT+ 3.75 kVA	NXT+ 7.5 kVA	NXT+ 9.5 kVA	NXT+ 12.5 kVA
Capacity (kW)	1	2	3	6	7.5	10
Nominal Battery Voltage (Vdc)	48V			96V	120V	
Output Waveform	Sine Wave					
<b>SOLAR PHOTOVOLTAIC INPUT</b>						
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	
<b>GRID INPUT</b>						
Input Supply Phases	Single Phase					
Nominal Voltage & Voltage range	230V AC (185V - 265V)					
Nominal Frequency & Range	50 Hz (±3 Hz)					
<b>BATTERY</b>						
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	
<b>UPS</b>						
Switching Element	MOSFET			IGBT		
Control	32 Bit DSP controlled					
Nominal Output V <sub>AC</sub>	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					
<b>SYSTEM DATA</b>						
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					
<b>ENVIRONMENT</b>						
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					
<b>STANDARD COMPLIANCE</b>						
Certifications	IEC 61683, IEC 60068-2(1,2 14, 30)					
<b>GENERAL</b>						
Dimension (W*D*H) [mm]	300x504x515			350x635x589	400x575x783	
Net Weight (Kg)	30	37	50	76.3	125	150

Technical specifications are subject to change without prior notice.

For more information



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# LUMINOUS

## HIGH CAPACITY COMBO

Solar solutions with tough build

Cruze & Shine combination runs heavy loads with extreme ease and efficiency.

Available from 2 KVA to 7.5 KVA

Warranty: 2 Years



Ideal For  
Heavy Loads



User Friendly  
Display



### Run Heavy Loads

Runs heavy loads like Geyser, Petrol Pumps, Photocopiers, Dental Chairs etc.



### Intuitive Display

Easy to understand display shows the status of mains availability, battery charging, battery level, etc.



### Pure Sine Wave Output

Ensures noiseless operation and safety of connected appliances.

### ABCC Technology

Adaptive Battery Charging Control System (ABCC) ensures faster battery charging and enhances battery life by 70%.



### Guaranteed Safety

Comprehensive protection against short-circuit, reverse polarity, battery over-charge and battery deep-discharge.





## Solar Estimation Chart

Solution			Panel Connection Combination (Series-Parallel)	Approx. Roof Top Area Required (Sq. ft.)
Solar UPS	Solar Battery	PV Panel Watt		
Cruze 2KVA + Shine 3650	150 Ah x 2	330Wp x 5 No.s	1 (S) 5 (P)	170
Cruze 2.5KVA + Shine 3650	150 Ah x 3	165Wp x 15 No.s	3 (S) 5 (P)	260
Cruze 3.5KVA + Shine 4850	150 Ah x 4	330Wp x 8 No.s	2 (S) 4 (P)	280
Cruze 5.5KVA + Shine 9650	150 Ah x 8	330Wp x 12 No.s	4 (S) 3 (P)	560
Cruze 7.5KVA + Shine 12050	150 Ah x 10	330Wp x 20 No.s	5 (S) 4 (P)	700

## Technical Specifications

Model Name	Cruze 2 KVA+Shine 3650	Cruze 2.5 KVA+Shine 3650	Cruze 3.5 KVA+ Shine 4850	Cruze 5.5 KVA+ Shine 9650	Cruze 7.5 KVA+ Shine 12050	
Capacity	2000VA	2500VA	3500VA	5500VA	7500VA	
Nominal Battery Voltage (Vdc)	24V	36V	48V	96V	120V	
Output Waveform	Sine Wave					
<b>SOLAR PHOTOVOLTAIC INPUT</b>						
Charge Controller Type	PWM					
Charge Controller Rating	50 Amp/24V	50 Amp/36V	50 Amp/48V	50 Amp/96V	50 Amp/120V	
Maximum PV Power	Upto 1700Wp	Upto 2500Wp	Upto 2800Wp	Upto 5600Wp	Upto 7000Wp	
Input Voltage range (Voc)	38-55	57-75	70-92	140-185	170-230	
Input Voltage range (Vmp)	34-39	51-57	60-77	119-153	145-191	
<b>GRID INPUT</b>						
Operating Voltage Range	100V-285V	100V-285V	100V-285V	140V-280V	140V-280V	
Max Grid Charging Current	21Amp	21Amp	21 Amp	12Amp	12Amp	
<b>PROTECTIONS</b>						
Protections	Cruze	Overload, Short-circuit, Battery Deep Discharge Protection, & MCB Protection				
	Shine	Reverse polarity , reverse current , Over-voltage, Over-temperature protections				
<b>DISPLAY INDICATIONS</b>						
Indications	Cruze	Mains On, UPS On, UPS Overload, Battery Low, Battery Charging, Level of Battery Charge				
	Shine	PV & Grid status, Charging source, Battery type, Battery voltage, Savings				
<b>GENERAL</b>						
Net Weight (Kg)	Cruze	22.25	22.25	31.9	59.2	64
	Shine	3	3	4.5	5.7	5.7
Dimensions LxWxH (mm)	Cruze	280x305x280	280x305x280	280x305x380	588x341x347	600x350x360
	Shine	280x129x205	280x129x205	375x315x135	375x315x135	375x315x135

Technical specifications are subject to change without prior notice.

# LUMINOUS

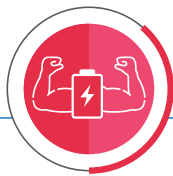
## HIGH CAPACITY COMBO

Solar solutions with tough build

iCruze & Shine combination runs heavy loads with extreme ease and efficiency.

Available from 3kVA to 10kVA

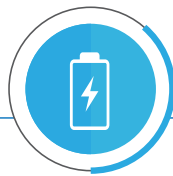
Warranty: 2 Years (iCruze), 1 Year (Shine)



Efficient Heavy Load Handling



Stunning LCD Display



Intelligent Battery Charging



### Efficient Heavy Load Handling

Runs heavy loads like Geyser, Petrol Pumps, Photocopiers, Dental Chairs etc.



### User Friendly LCD Display

Easy to understand display shows the status of mains availability, battery charging, battery level, etc.



### Pure Sine Wave Output

Ensures noiseless operation and safety of connected appliances.

### Intelligent Battery Charging Algorithm

Optimizes the charging current according to the battery capacity



### Guaranteed Safety

Comprehensive protection against short-circuit, reverse polarity, battery over-charge and battery deep-discharge.



## Solar Estimation Chart

Solution			Panel Connection Combination (Series-Parallel)	Approx. Roof Top Area Required (Sq. ft.)
Solar UPS	Solar Battery	PV Panel Watt		
iCruze 3k + Shine 2420	150Ah x 2	330Wp x 2 No.s	2 (P)	80
iCruze 3k + Shine 3650	150Ah x 3	330Wp x 5 No.s	5 (P)	200
iCruze 4.5k + Shine 3650	150Ah x 3	165Wp x 15 No.s	3 (S) 5(P)	300
iCruze 9k + Shine 9650	150Ah x 8	330Wp x 16 No.s	4 (S) 4(P)	600
iCruze 10k + Shine 12050	150Ah x 10	330Wp x 20 No.s	5 (S) 4 (P)	700

## Technical Specifications

Model Name	iCruze 3k + Shine 2420	iCruze 3k + Shine 3650	iCruze 4.5k + Shine 3650	iCruze 9k + Shine 9650	iCruze 10k + Shine 12050	
Capacity	2800VA	2800VA	4000VA	8100VA	9500VA	
Nominal Battery Voltage (Vdc)	24V	24V	36V	96V	120V	
Output Waveform	Sine Wave					
<b>SOLAR PHOTOVOLTAIC INPUT</b>						
Controller Type	PWM					
Charge Controller Rating	20 Amp/24V	50 Amp/24V	50 Amp/36V	50 Amp/96V	50 Amp/120V	
Maximum PV Power	Upto 800Wp	Upto 1700Wp	Upto 2500Wp	Upto 5600Wp	Upto 7000Wp	
Input Voltage range (Voc)	36-50	38-55	57-75	140-185	170-230	
Input Voltage range (Vmp)	31-39	34-39	51-57	119-153	145-191	
<b>GRID INPUT</b>						
Operating Voltage Range	100V-280V	100V-280V	100V-280V	140V-280V	140V-280V	
Max Grid Charging Current	20Amp	20Amp	20 Amp	20Amp	20Amp	
<b>PROTECTIONS</b>						
Protections	iCruze	Overload, Short Circuit, No Load shutdown, Over Temperature, Battery Low, Temperature Sensor Failed				
	Shine	Reverse polarity , reverse current , Over-voltage, Over-temperature protections				
<b>DISPLAY INDICATIONS</b>						
Indications	iCruze	Mains On, mode selector, fault indicator, battery charging/settings, back-up/battery charging time, load percentage, battery low, overload, mains/battery MCB trip, short circuit, no load shutdown (<5% for 11 hrs.)				
	Shine	PV & Grid status, Charging source, Battery type, Battery voltage, Savings				
<b>GENERAL</b>						
Net Weight (Kg)	iCruze	22.25	22.25	30.5	48	71.62
	Shine	1.2	3	3	5.7	5.7
Dimensions LxWxH (mm)	iCruze	300X326X284	300X326X284	300X417X452	300X487X452	300X471X560
	Shine	178x71x159	280x129x205	280x129x205	375x315x135	375x315x135

Technical specifications are subject to change without prior notice.

# LUMINOUS

## SOLAR INVERTERS

### The Solar Ready UPS

NXG+ range is a hybrid UPS range that intelligently uses grid and solar power. With ability to operate in a wide voltage range, NXG+ is the ideal starter solar solution for homes.



2 Years  
Warranty



Maximized Solar  
Usage



User Defined  
Settings



#### ISOT Technology

Intelligent Solar Optimization Technique (ISOT) maximizes solar energy usage in both backup and charging mode of operation.



#### Fast Charging

i-charge technology enables charging of batteries in a short time. This is a user defined setting.



#### ECO and UPS Mode

Choice between Eco mode that conserves battery (Ideal for low voltage areas) and UPS mode (Ideal for computer loads)

#### Safety and Protection

In-built protection against deep discharge, overcharge, excessive current and short-circuit.



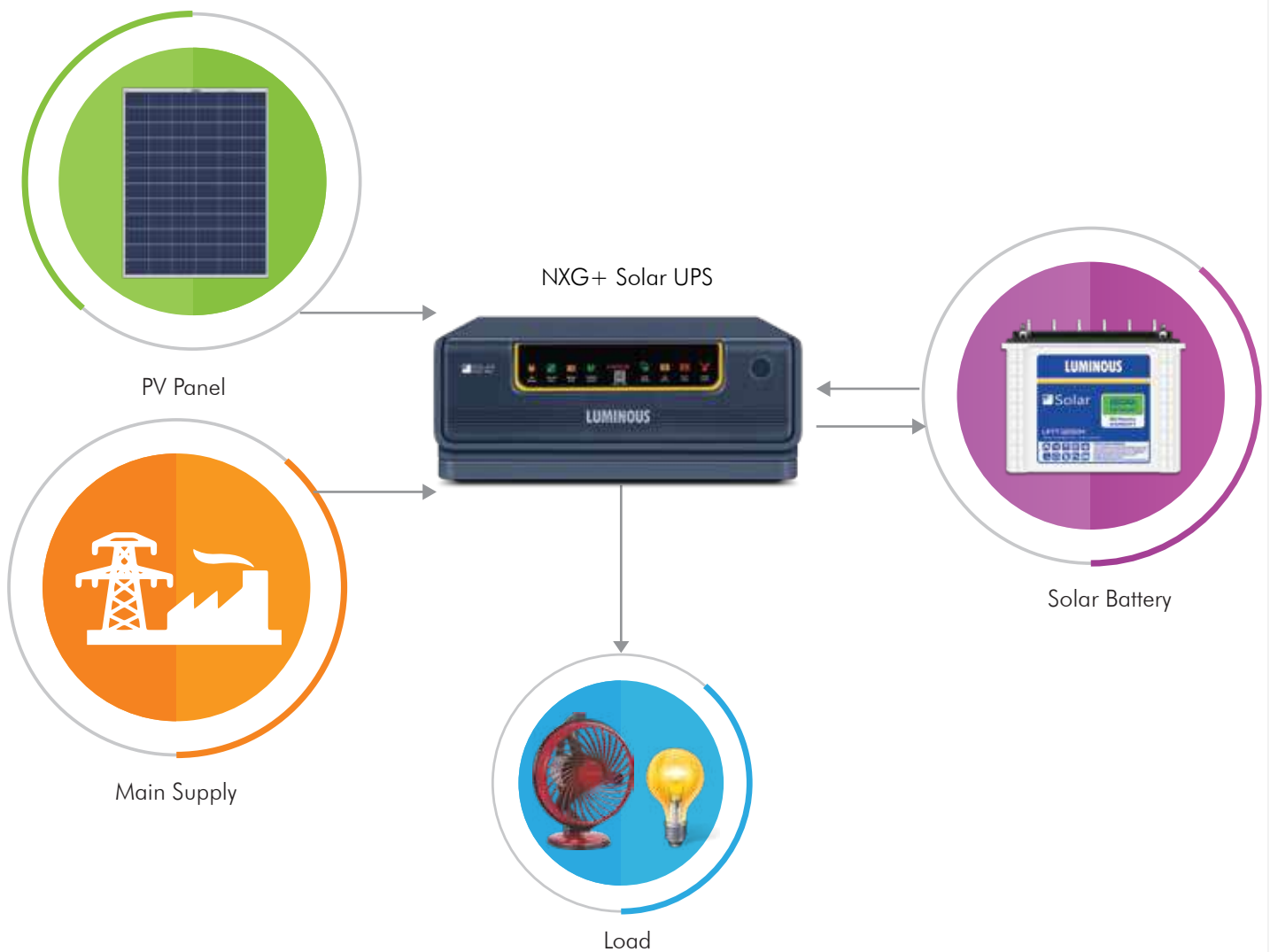
#### Pure Sine Wave Output

Ensures noiseless operation and safety of connected appliances.



## Solar Estimation Chart

Solution			Panel Connection Combination (Series-Parallel)	Approx. Roof Top Area Required (Sq. ft.)
Solar UPS	Solar Battery	PV Panel Watt		
NXG+ 750	120 Ah x 1	165 Wp x 2 No.s	2 (P)	40
NXG+ 1100	150 Ah x 1	165 Wp x 4 No.s	4 (P)	80
NXG+ 1400	150 Ah x 1	165 Wp x 4 No.s	4 (P)	80
NXG+ 1600	150 Ah x 2	330 Wp x 3 No.s	3 (P)	100



# LUMINOUS

## Technical Specifications

Model Name	NXG+ 750	NXG+ 1100	NXG+ 1400	NXG+ 1600
Nominal Battery Voltage (Vdc)	12V	12V	12V	24V
Output Waveform	Sine Wave			
<b>SOLAR PHOTOVOLTAIC INPUT</b>				
Charge Controller Type	PWM			
Charge Controller Rating	20Amp/12V	40Amp/12V	40Amp/12V	20Amp/24V
Maximum PV Power	12V upto 400 Wp	12V upto 800 Wp	12V upto 1000 Wp	24V upto 1000 Wp
Input Voltage range (Voc)	19-25	19-25	19-25	38-50
Input Voltage range (Vmp)	17-19	17-19	17-19	34-39
<b>GRID INPUT</b>				
Operating Voltage Range	100V-290V			
<b>GRID OUTPUT</b>				
No Load Output	230±10V	220±5V		
Output frequency battery mode	50Hz±0.5Hz			
No load current (UPS switch off)	< 65mA			
UPS efficiency	≥ 80%*			≥ 85%*
<b>BATTERY</b>				
Battery charging through Mains	Mains LED steady + Mains charge LED steady			
Battery charging through Mains + Solar	Mains LED steady+Mains charge LED steady+solar CHG LED steady/Blinking			
Battery charging through Solar	Solar CHG LED Blinking + Mains charge LED OFF			
Low battery pre-alarm indication	Battery low LED blinking			
Solar optimization after battery fully charged	ON mains+power save LED on+ON battery LED on+solar charge LED blinking			
<b>PROTECTIONS</b>				
Over load	110% - 150% for 30 Sec.	110% for 4.5 Min.	110% for 30 Sec.	110% for 4.5 Min.
	150%-180% for 10 Sec.	120% for 1 Min	120% for 5 Sec.	120% for 1 Min
	200%- Short circuit	150% for 10 Sec.	200% for 1 Sec.	150% for 10 Sec.
	NA	200% for 1 Sec.		200% for 1 Sec.
Overload shutdown indication in UPS mode	Overload LED steady			
Overload pre-alarm indication in UPS mode	Overload LED slow blinking			
Short circuit indication in UPS mode	Overload LED fast blinking			
Protections	Short circuit, overload, high temperature, battery low cut off			
Indications	Switch on, Battery Charging;mains, solar, mains+solar; Overload, Short circuit, i-charge			
Additional features	NA			
<b>DISPLAY INDICATIONS</b>				
Switch on indication	Switch LED ON			
UPS on indication	Battery LED ON			
Internal fault	NA	Service assistance LED on		
Mains on indication	Mains LED steady			
Mains charging current selection charge	6A (i-Charge Off)/ 10A (i-Charge ON)	10A (i-Chg OFF)/15A (i-Chg ON)		
DC overload indication	NA	(Mains LED+overload) blinking		NA
<b>GENERAL</b>				
Net weight (Kg)	9.3Kg	11.5Kg	14.6Kg	15.66Kg
Gross weight (Kg)	10.7Kg	12.7Kg	16.03Kg	16.90Kg
Dimensions LxWxH (mm)	375X315X135	375X315X135	375X315X150	375X315X150

\*Peak Efficiency

Technical specifications are subject to change without prior notice.

For more information



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# LUMINOUS

## RETROFIT

### Smart upgrade to Solar

Shine Retrofit is a smart upgrade that converts existing inverter into solar inverter without any change in existing wiring. Ideal for small to large systems <10KVA



Solar Optimization



User Friendly Display



#### Solar Optimization Technique

Solar optimization technique extracts maximum power by intelligently prioritizing solar over grid.



#### LCD Display

User friendly displays communicates information like battery Charging Status, Charging Source, Total unit savings etc.



#### Warranty

1 Year warranty

#### Four Stage Charging

4-stage smart charging ensures fast, safe & efficient charging and longer battery life.



#### MCB Protection

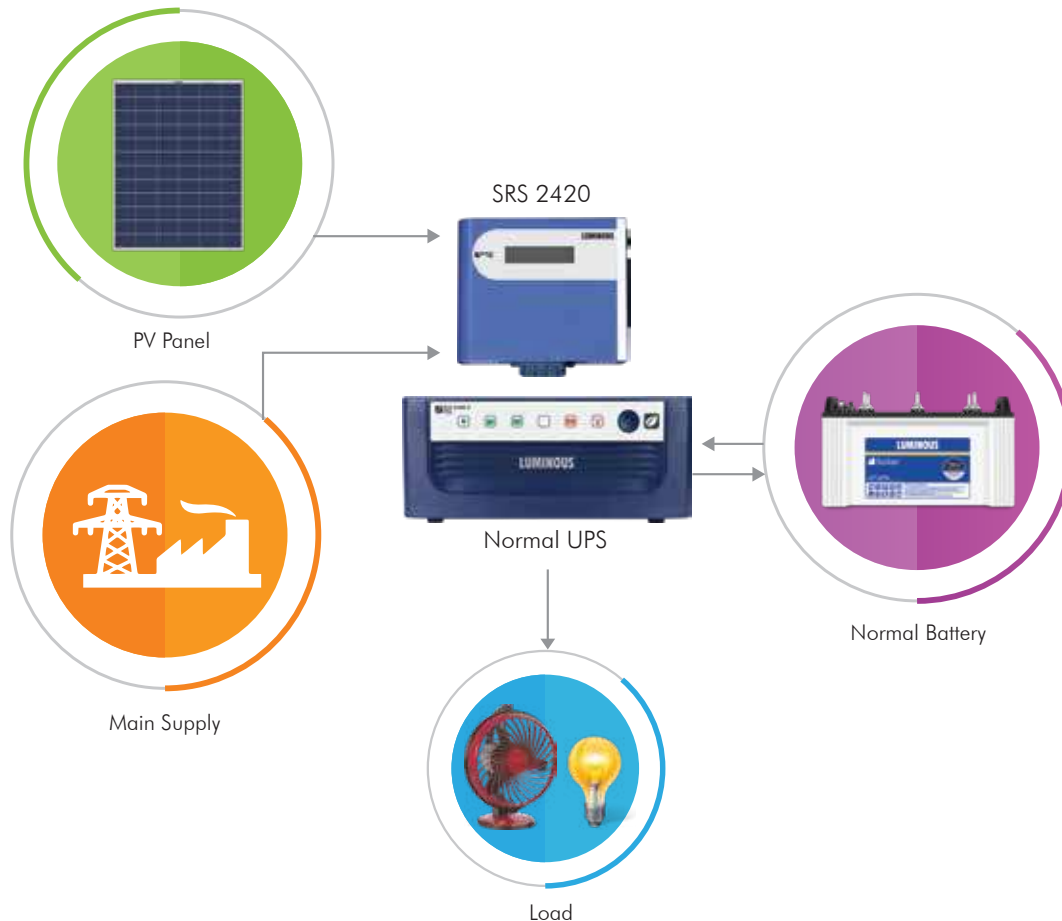
World class MCB ensures your UPS and connected loads stay protected from short circuits.





## Solar Estimation Chart

Solution			Panel Connection Combination (Series-Parallel)	Approx. Roof Top Area Required (Sq. ft.)
<b>Solar UPS</b>	<b>Solar Retrofit</b>	<b>PV Panel Watt</b>		
12VUPS	SHINE 1220	165Wp x 2 No.s	2 (P)	40
24V UPS	SHINE 2420	330Wp x 2 No.s	2 (P)	80
24V UPS	SHINE 3650	330Wp x 5 No.s	5 (P)	200
36V UPS	SHINE 3650	165Wp x 15 No.s	3 (S) 5 (P)	300
48V UPS	SHINE 4850	330Wp x 8 No.s	2 (S) 4 (P)	300
96V UPS	SHINE 9650	330Wp x 16 No.s	4 (S) 4 (P)	600
120V UPS	SHINE 12050	330Wp x 20 No.s	5 (S) 4 (P)	700



## Technical Specifications

Model Name	Shine 1220	Shine 2420	Shine 3650	Shine 4850	Shine 9650	Shine 12050
Charge Controller Type	PWM					
Charge Controller Rating	20A @12V	20A @12V/24V	50A@24V/36V	50A @48V	50A @96V	50A @120V
Maximum PV Power	100Wp-400Wp @ 12V	100Wp-400Wp @ 12V 200Wp-800Wp @24V	250Wp-1700Wp @ 24V 375Wp-2500Wp @36V	Upto 2800 Wp	Upto 5600 Wp	Upto 7000 Wp
Input Voltage range (Voc)	17-25	17-25 @ 12V, 36-50 @ 24V	38-55 @ 24V, 57-75 @ 36V	70-92	140-185	170-230
Input Voltage range (Vmp)	15-21	15-21 @ 12V, 31-39 @ 24V	34-39 @ 24V, 51-57 @ 36V	60-77	119-153	145-191
Operating temperature range	0°C to + 45°C	0°C to + 45°C	0°C to 50°C	0°C to + 45°C	0°C to + 45°C	0°C to + 45°C
Power connection	30A Terminal Block	30A Terminal Block	65A Terminal Block	60A Terminal Block		
Dimension (mm)	178x71x159		280x129x205	375x315x135		
Wire size	6 Sq. mm	6 Sq. mm	10 Sq. mm	16 Sq. mm		
Weight (kg)	1.2	1.2	3	4.5	5.7	5.7

Technical specifications are subject to change without prior notice.

# LUMINOUS

## CHARGE CONTROLLER

### Easy upgrade to Solar

Luminous Charge controllers provide an easy upgrade to solar for existing users of DC loads.



#### Protection Against Over-Charge and Reverse Current

Charges batteries from solar panels without permitting overcharge and also prevent reverse current flow at night.



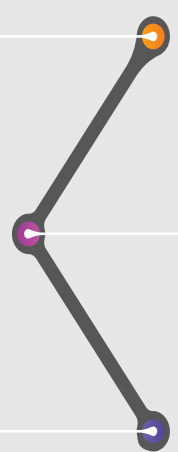
#### Warranty

1 Year Warranty



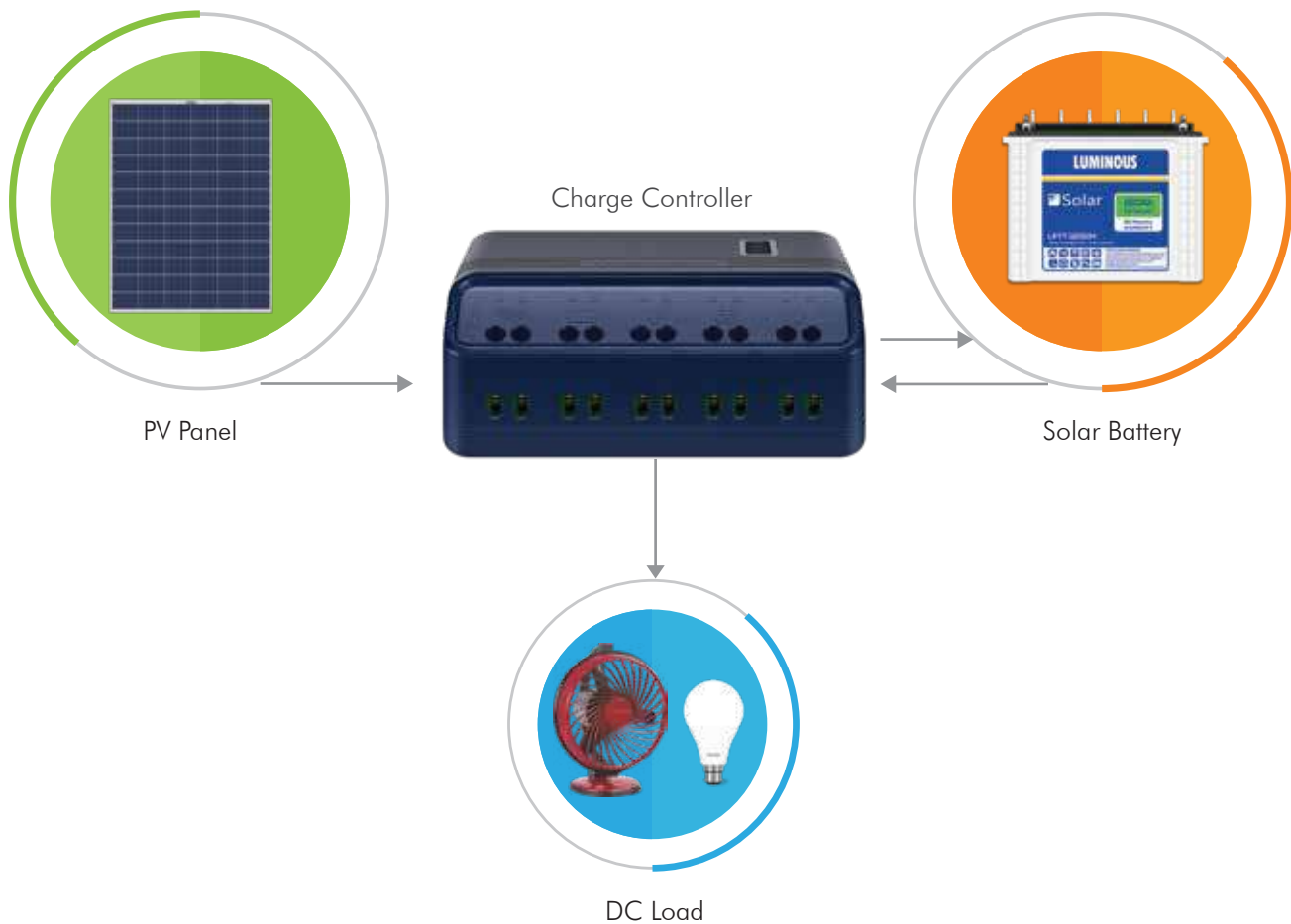
#### USB Port

Charge your DC devices like Mobile, Tablets etc. directly without using adapter.



### Solar Estimation Chart

Solution			Panel Connection Combination (Series-Parallel)	Approx. Roof Top Area Required (Sq. ft.)
<b>Solar Charge Controller</b>	<b>DC Voltage</b>	<b>PV Panel Watt</b>		
SCC 1206	@12V	105Wp x 1 No.s	1 (S)	10
SCC 1210	@12V	165Wp x 1 No.s	1 (S)	20
SCC 1210	@24V	330Wp x 1 No.s	1 (S)	40
SCC 1220	@12V	165Wp x 2 No.s	2 (P)	40
SCC 1220	@24V	330Wp x 2 No.s	2 (P)	80



## Technical Specifications

Model Name	SCC1206NM	SCC1210NM	SCC1220NM
Charge Controller Type	PWM		
Charge Controller Rating	6A @ 12V	10A @ 12V / 24V	20A @ 12V / 24V
Maximum PV Power	125Wp @ 12V	200Wp @ 12V/400Wp @ 24V	400Wp @ 12V/800Wp @ 24V
Input Voltage range (Voc)	17-25	17-25 @ 12V, 36-50 @ 24V	
Input Voltage range (Vmp)	15-21	15-21 @ 12V, 31-39 @ 24V	
Low voltage disconnect			
A) By state of charge	N.A	Available	
B) Controlled by voltage	Available		
Self consumption	Less than 10mA		
Efficiency:			
A) Charging	98.50%		96%
B) Load	98%		96%
Operating temperature range	0°C to 50°C		
Power connections	30 Ampere Terminal		
Battery type selection	Lead Acid & SMF		
Enclosure	ABS Plastic, IP21		
Dimensions (mm)	40 x 60 x 135 (L x W x H)		
Wire size	2.5 sq. mm	4 sq. mm	6 sq. mm
Net weight	275 gms	300 gms	350 gms

Technical specifications are subject to change without prior notice.

# LUMINOUS

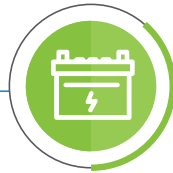
## SOLAR BATTERY

### Power of Performance

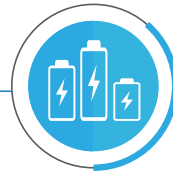
Luminous Solar Batteries are C10 rated deep cycle batteries specially designed for longer back up. Range Available - LMLA Tubular 20Ah to 200 Ah



Upto 5 Years  
Warranty



Tubular Technology  
for longer life



Rugged  
Performance



#### Very Low Maintenance

Topping up frequency :  
Once in 8 to 10 months



#### Long Design Life

Long cycles  
(1500@80% DOD, 5000  
@20% DOD)

#### High Temperature Performance

Can handle extreme  
weather conditions



### Technical Specifications

Model Name	Nominal Voltage	C10 capacity upto 10.5V 27°C	Length ± 3	Width ± 3	Height upto float top ± 3	Dry Weight ± 5%	Filled Weight ± 5%	Electrolyte Volume ± 5%
	V	Ah	mm	mm	mm	Kg	Kg	Litre
LPT1220L	12	20	260	172	248	8.5	13	3.6
LPT1240L	12	40	412	173	267	12	23.5	9.3
LPT1240H	12	40	412	173	267	12	23.5	9.3
LPT1260H	12	60	410	174	305	13.5	27	10.9
LPT1280H	12	80	505	220	277	24.0	37.5	11.7
LPTT12100L	12	100	502	191	440	23	53	22.2
LPTT12100H	12	100	502	191	440	25.5	53	22.2
LPTT12120H	12	120	502	191	440	27	54.5	22.2
LPTT12150L	12	150	502	191	440	34.5	60	20.6
LPTT12150H	12	150	502	191	440	34.5	60	20.6
LPTT12200L	12	200	502	191	440	40.5	67.5	21.8

A man in a blue Luminous uniform and cap is talking to a man in a green shirt. The man in the blue uniform is holding a bundle of black cables. The background is a blurred green landscape.

## UNMATCHED CUSTOMER SERVICE

Prompt and continuous support to keep your solar power generation system running. Our service in 300 cities trained professional 24x7 helpline make us the most powerful brand in India.

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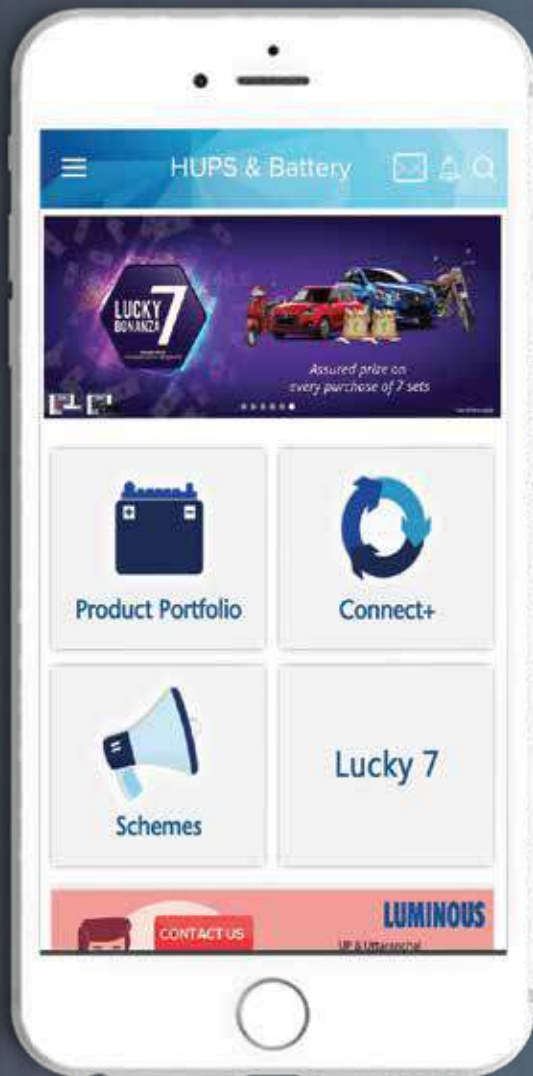
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LUMINOUS





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### Key features



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#### Load Calculator

New tool to calculate load.

Download the Mpartner App



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# Solar *Chalo India Bijli Banao*

**LUMINOUS**

**Luminous Power Technologies Pvt. Ltd.**

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