## LUMINOUS



## Solar Grid Tie System

Luminous NXi Grid Tie systems are high efficiency power systems that can feed power from solar panels directly to grid. They are designed to quickly disconnect from the grid if the utility grid goes down (anti-islanding).

Range available: Single Phase (kW) 1.5/3/4/5
Three Phase (kW) 6/10/15/20/25/30

Features	Benefits
Transformerless design	High efficiency >97%
Dual/Quad MPPT charge controllers	Complete utilization of PV arrays even in partial shading
Wide operating voltage	Extends the day utilization for harnessing maximum power
IP 65 enclosure	Completely dust and water proof so can be installed outside
Wifi communication	For efficient remote monitoring
Compliance to IEC standards IEC 61683, 617274. 61000	Safe, reliable and approved for Govt. subsidies
Anti-Islanding	Ensures safety of line workers
Disconnects from grid if grid goes down	

Technical Specification -	Lumin	ous NXi	Solar C	Brid Tie	System	s (Singl	e/Three	Phase	)	
Model	NXi 115	NXi 130	NXi 150	NXi 306	NXi 310	Nxi 315	NXi 320	NXi 325	NXi 330	
Input (DC)										
Max. DC power [kW]	1.8	3.5	5.8	6.6	11	16.5	22	27.5	33	
Max. DC voltage [V]	450	450 600		1000						
Rated voltage [V]	60 120			600						
Operating MPPT voltage range (Volts)	50-400 100-500			200-800						
Start voltage [V]	60	60 120			330		350			
Max input current per MPPT (Amps)	10	10+10	15+15	15+15	18 + 18	18 + 18	18 x3	18x4	18x4	
Number of MPPT	1	2		2	2	2	4	4	4	
Number of DC Connection Sets per MPPT	1			2	4	4	8	8	8	
Output (AC)										
Rated AC Power [kW]	1.5	3	5	6	10	15	20	25	30	
Max. Transient Response [kW]	1650	3300	5000	6.5	10.8	16.2	21.6	27	32.5	
Max. AC Current [A]	9.2	15.7	23.8	10	16.7	25	33.2	41.7	47.8	
Nominal AC voltage/ range	180-270 313-470 304-460									
Grid frequency/ range	50Hz (47-52)									
Power factor [cos φ]	>0.8 leading 0.8 lagging									
Total harmonic distortion [THDi]				F-15 1-7-1 F-15 - 15	<3%					
Feed-in phase / connection phase	5	Single Phase	9	Three Phase						
Efficiency										
Max. efficiency	96.70	97.50	97.80	98.20%	98.20%	98.30%	98.30%	98.40%	98.50%	
MPPT efficiency	99.90%									
Protection										
Inbuilt Protections	Internal over-voltage, Ground fault monitoring, Grid monitoring, AC short circuit current, Thermal, Anti-islanding protection, Insulation monitoring, Residual Current detection, Surge protection, Over current,, DC Reverse Polarity Protection, Short Circuit Protection, O/P Over Current Protection, O/P Over Voltage Protection, Grid Monitoring, Islanding Protection, Thermal Protection									
Interface										
DC connection	MC4 connectors									
Display	LCD 2 x 20Z 7" Color Display							ΒV		
Datalogger & communication	RS485, WIFI/GPRS (optional)									
General Data					- 1 · 1		<u>.</u>			
Topology	Transformerless									
Consumption at night [W]	<1W									
Operating temperature range	-25°C to 60°C/-13°F to 140°F									
Cooling method	Natural Convection									
Ambient humidity	0-95%									
Altitude	4000m									
Noise [dBA]	< 30 dBA									
Designed lifetime	> 20yrs									
Enclosure type	NEMA 4X									
Dimensions (H*W*D) [mm]	3	339x565x172			430 x 613 x 269			530 x 700 x 356		
Net weight [kg]	5.6	13.8	15.5	29	29	30	57.2	58.2	58.2	
Standards		,								
Safety / EMC	EN1000-6-1:2007;EN1000-6-3:2007									
Contraction Contraction Contraction (Contraction Contraction Contr	IEC 62109-1,62109-2:AS3100									
Utility Monitoring	Islanding protection, VA C FA C in accordance with UL 1741,									
	En50438, G59/3, AS4777, VDE 0126-1-1, VDE 4105, CEI 0-21, CQC									
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