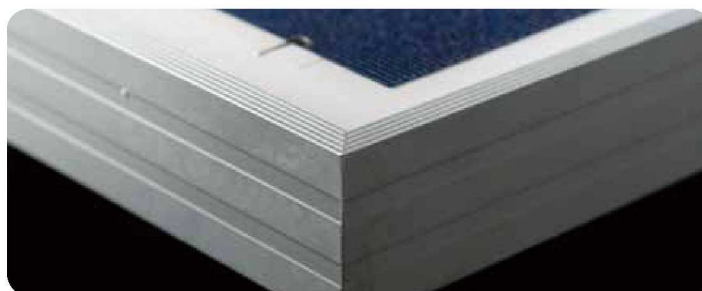




Power Your Life

YL235PT-29b SERIES



WARRANTIES

5-year limited product warranty*
Limited power warranty*: 10 years at 90% of the minimal rated power output, 25 years at 80% of the minimal rated power output

QUALIFICATIONS AND CERTIFICATES

IEC 61215 Ed. 2, IEC 61730 Class A, ISO 9001:2008,
ISO 14001:2004, BS OHSAS 18001:2007, MCS, CE



www.yinglisolar.com

ABOUT YINGLI SOLAR

Yingli Solar is a vertically integrated manufacturer of solar photovoltaic modules. Under one roof we manufacture our ingots, wafers, cells and modules. This ensures that we can tightly control our material and production quality, offering our customers leading product durability and sustainable performance backed by our 25 year limited power warranty*.

PERFORMANCE

- » 3 busbars cells with higher efficiency and better collection of electrons increase module power output.
- » High efficiency, polycrystalline solar cells with high transmission and textured glass delivering a module series efficiency of up to 14.4%, minimising installation costs and maximising the kWh output of your system per unit area.
- » Power tolerance of +/-3% minimising PV system mismatch losses.

QUALITY & RELIABILITY

- » Robust, corrosion resistant aluminium frame independently tested to withstand wind loads of 2.4KPa and snow loads of 5.4KPa ensuring a stable mechanical life for your modules.
- » Take confidence in our modules with a 5 year limited product warranty and a 25 year limited power warranty*.
- » Modules protected by box during transportation and with 20 modules in a box on-site waste is minimised.
- » Modules independently tested to ensure conformance with certification and regulatory standards.
- » Manufacturing facility certified by TÜV Rheinland to ISO 9001:2008, ISO 14001:2004 and BS OHSAS 18001:2007.

* In compliance with our Warranty Terms and Conditions



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YL235PT-29b SERIES

ELECTRICAL PARAMETERS

Electrical parameters at STC (1,000 W/m², 25°C, AM 1.5 according to EN 60904-3)

Module type		YL225PT-29b	YL230PT-29b	YL235PT-29b
Power output	[W]	225.0	230.0	235.0
Power output production tolerances	[%]	+/- 3	+/- 3	+/- 3
Module efficiency	[%]	13.8	14.1	14.4
Voltage at P _{max} , V _{mpp}	[V]	29.5	29.5	29.5
Current at P _{max} , I _{mpp}	[A]	7.63	7.80	7.97
Open circuit voltage V _{oc}	[V]	36.5	37.0	37.0
Short circuit current I _{sc}	[A]	8.28	8.40	8.54
Limiting reverse current I _r	[A]		15	
Max. system voltage	[V]		1,000 VDC	

Electrical parameters at NOCT (800 W/m², AM 1.5, wind velocity 1m/s, Tamb 20°C)

NOCT (Nominal Operating Cell Temperature)	[°C]		46 +/- 2	
Voltage at P _{max} , V _{mpp}	[V]	26.5	26.5	26.5
Current at P _{max} , I _{mpp}	[A]	6.14	6.28	6.41
Open circuit voltage V _{oc}	[V]	33.4	33.8	33.8
Short circuit current I _{sc}	[A]	6.71	6.80	6.92

Thermal characteristics

Temperature coefficient beta of I _{sc}	[%/K]		+ 0.06	
Temperature coefficient alpha of V _{oc}	[%/K]		- 0.37	
Temperature coefficient gamma of P _{mpp}	[%/K]		- 0.45	

MECHANICAL PARAMETERS

Dimensions (length [mm] / width [mm] / thickness [mm])		1,650 / 990 / 50
Frame height [mm]		50
Weight [kg]		19.8
Front cover (material / thickness [mm])		Tempered Glass, 3.2mm
Cell type (quantity / technology / dimensions)		60 / Polycrystalline / 156 x 156
Encapsulation materials		Ethylene Vinyl Acetate (EVA)
Rear cover (material)		Laminated Polymer Plastic
Frame (material)		Robust Anodized Aluminum Alloy

Junction box, cable & connector configurations

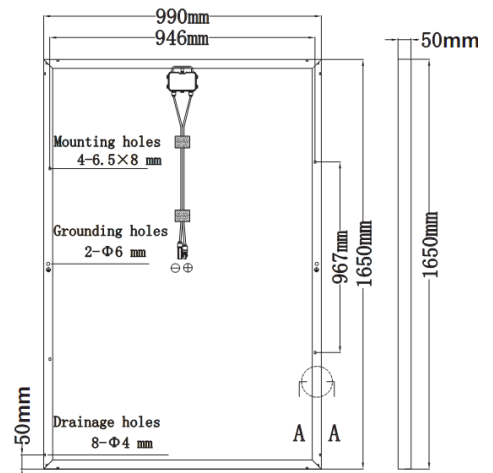
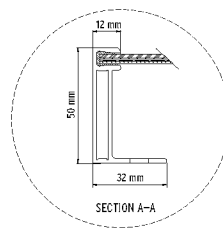
	Each configuration (CIXI/YITONG) is available with 2 different connector types each			
Junction box (manufacturer / protection degree)	CIXI / IP65		YITONG / IP65	
Junction box dimensions (length / width / thickness [mm])	151 / 122 / 25		147 / 137 / 28	
Positive cable & negative cable (manufacturer / length [mm] / cable cross-section [mm ²])	CIXI / 1200(900) / 4.0		XIN HONGYE / 1200(900) / 4.0	
Connector (manufacturer / type / protection degree)	CIXI / CIXI / IP67	MC / MC4 / IP67	YITONG / YT08-1 / IP65	MC / MC4 / IP67

OPERATING CONDITIONS

Operating temperature [°C]	- 40 to + 85
Max. wind load / Max. snow load [Pa]	2.4K / 5.4K
Reduction of efficiency from an irradiance of 1,000 W/m ² to 200 W/m ² (T _{module} = 25 °C) according to EN 60904-1	5%

PACKAGING

Number of modules per box	20
Box size (length / width / depth [mm])	1,710 / 1,150 / 1,190
Box Gross weight in kg	450
Boxes per pallet	1



Electrical equipment, check with your installer

Before installation, please check the installation manual provided with the product.

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