

Walara-585G4P

Mechanical Characteristics

Cells per Panel	144 Half Cells
Cell Type	TOPCon N-Type Cells
Panel Dimension	2277 x 1133 x 35 mm
Panel Weight	28.5 Kg
Front Glass	3.2mm Fully tempered double ARC glass
Frame	Anodized aluminum alloy (T6) / Black
Junction Box	3 bypass diodes / IP68 rated
Cable	1200 mm(+/-), 4mm ² or Customised Length
Connector Type	Staubli-MC4-EVO2 / KST4-EVO2(M), KBT4-EVO 2(F)

Thermal Characteristics

RATING	UNIT	VALUE
Operating Temperature	°C	-40 ~ +70
Maximum System Voltage (IEC)	VDC	1500
Maximum Series Fuse Rating	A	30
Nominal Module Operating Temperature	°C	45 ± 2
Temperature Coefficient	Isc	%/°C 0.045
	Voc	%/°C -0.25
	Pmax	%/°C -0.3

Qualification Test

Thermal Cycling Test	- 40°C to 85°C for 200 cycles
Damp Heat Test	85°C and 85% relative humidity for 1000 hr
Mechanical Load Test	5400Pa (Front) / 2400Pa (Rear)
PID Test	1500 VDC, 96h, 85% RH, 85°C
Hail Impact Test	25mm hail at 23 m/s from 1m distance

Cyclone tested by Structural Engineering Consultants Australia (SECA) Pty Ltd - certificate available on request

Safety factor of *static load test: 1.5 (Test load = Design load x Safety factor)
NexTracker installation : Front load 1800 Pa / Back Load 1800 Pa

Safety Ratings & Warranties

Safety Application Class	Class II
Fire Safety Classification	Class C
Certifications	IEC 61215 , IEC 61730
Warranty	25 years limited product warranty
Performance Guarantee	25 years limited warranty 87.4% power

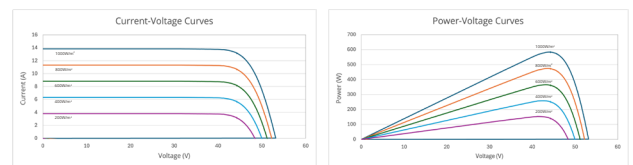
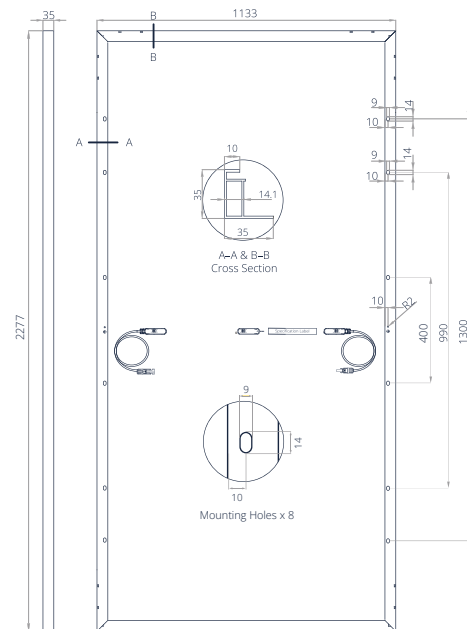
Electrical Characteristics

144HC Cell Module		Walara-585G4P	
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	585	445.8
Max. Power Voltage (Vmp)	V	44.32	41.79
Max. Power Current (Imp)	A	13.20	10.67
Open Circuit Voltage (Voc)	V	53.20	50.56
Short Circuit Current (Isc)	A	13.88	11.19
Module Efficiency	%	22.7	
Positive Power Tolerance	W	0 ~ + 5	

*STC (Standard Test Condition): 1,000 W/m² , AM 1.5, 25°C

**NMOT(Nominal Module Operating Temperature) : Irradiance at 800W/m, Ambient Temperature 20°C, Wind Speed 1m/s, air mass of AM1.5

Tolerance of Measuring Pmax, Voc & Isc ± 3% within each watt class at STC



Graphs for Current-Voltage and Power-Voltage based on 585W

Packaging

Stacking Method	Horizontal	Vertical (Optional)
Panels per Pallet	30	30
Loading Capacity (40HQ)	600	600

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• The electrical data given here is for reference purpose only.
• Manufactured in Australia by Tindo Operations Co Pty Ltd

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Cable	1200 mm(+/-), 4mm ² or Customised Length
Connector Type	Staubli-MC4-EVO2 / KST4-EVO2(M), KBT4-EVO 2(F)

Thermal Characteristics

RATING	UNIT	VALUE
Operating Temperature	°C	-40 ~ +70
Maximum System Voltage (IEC)	VDC	1500
Maximum Series Fuse Rating	A	30
Nominal Module Operating Temperature	°C	45 ± 2
Temperature Coefficient	Isc	%/°C 0.045
	Voc	%/°C -0.25
	Pmax	%/°C -0.3

Qualification Test

Thermal Cycling Test	- 40°C to 85°C for 200 cycles
Damp Heat Test	85°C and 85% relative humidity for 1000 hr
Mechanical Load Test	5400Pa (Front) / 2400Pa (Rear)
PID Test	1500 VDC, 96h, 85% RH, 85°C
Hail Impact Test	25mm hail at 23 m/s from 1m distance

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Safety factor of *static load test: 1.5 (Test load = Design load x Safety factor)
NexTracker installation : Front load 1800 Pa / Back Load 1800 Pa

Safety Ratings & Warranties

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Fire Safety Classification	Class C
Certifications	IEC 61215 , IEC 61730
Warranty	25 years limited product warranty
Performance Guarantee	25 years limited warranty 87.4% power

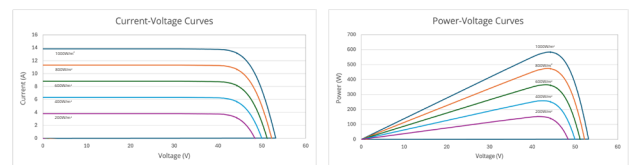
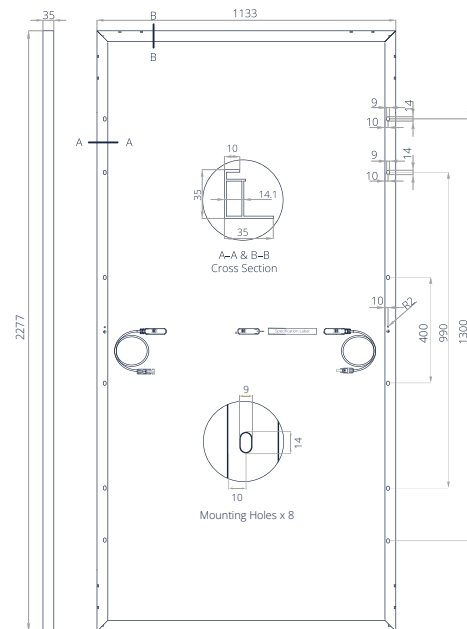
Electrical Characteristics

144HC Cell Module	Walara-590G4P		
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	590	449.6
Max. Power Voltage (Vmp)	V	44.46	41.92
Max. Power Current (Imp)	A	13.27	10.73
Open Circuit Voltage (Voc)	V	53.35	50.70
Short Circuit Current (Isc)	A	13.96	11.25
Module Efficiency	%	22.9	
Positive Power Tolerance	W	0 ~ + 5	

*STC (Standard Test Condition): 1,000 W/m² , AM 1.5, 25°C

**NMOT(Nominal Module Operating Temperature) : Irradiance at 800W/m, Ambient Temperature 20°C, Wind Speed 1m/s, air mass of AM1.5

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Graphs for Current-Voltage and Power-Voltage based on 585W

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Panel Weight	28.5 Kg
Front Glass	3.2mm Fully tempered double ARC glass
Frame	Anodized aluminum alloy (T6) / Black
Junction Box	3 bypass diodes / IP68 rated
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Thermal Characteristics

RATING	UNIT	VALUE
Operating Temperature	°C	-40 ~ +70
Maximum System Voltage (IEC)	VDC	1500
Maximum Series Fuse Rating	A	30
Nominal Module Operating Temperature	°C	45 ± 2
Temperature Coefficient	Isc	%/°C 0.045
	Voc	%/°C -0.25
	Pmax	%/°C -0.3

Qualification Test

Thermal Cycling Test	- 40°C to 85°C for 200 cycles
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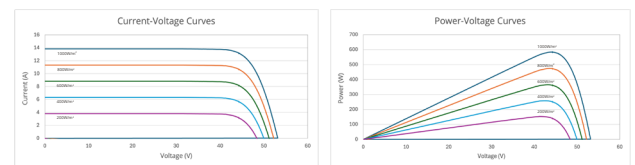
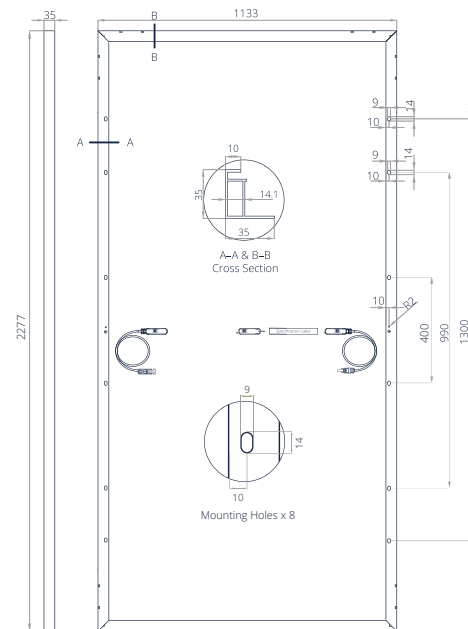
Electrical Characteristics

144HC Cell Module	Walara-595G4P		
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	595	453.4
Max. Power Voltage (Vmp)	V	44.60	42.05
Max. Power Current (Imp)	A	13.34	10.78
Open Circuit Voltage (Voc)	V	53.50	50.85
Short Circuit Current (Isc)	A	14.04	11.32
Module Efficiency	%	23.1	
Positive Power Tolerance	W	0 ~ + 5	

*STC (Standard Test Condition): 1,000 W/m² , AM 1.5, 25°C

**NMOT(Nominal Module Operating Temperature) : Irradiance at 800W/m, Ambient Temperature 20°C, Wind Speed 1m/s, air mass of AM1.5

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