

Walara-475G4P

Mechanical Characteristics

Cells per Panel	120 Half Cells
Cell Type	TOPCon N-Type Cells
Panel Dimension	1910 x 1133 x 35 mm
Panel Weight	23.5 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

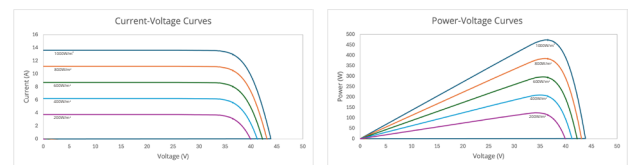
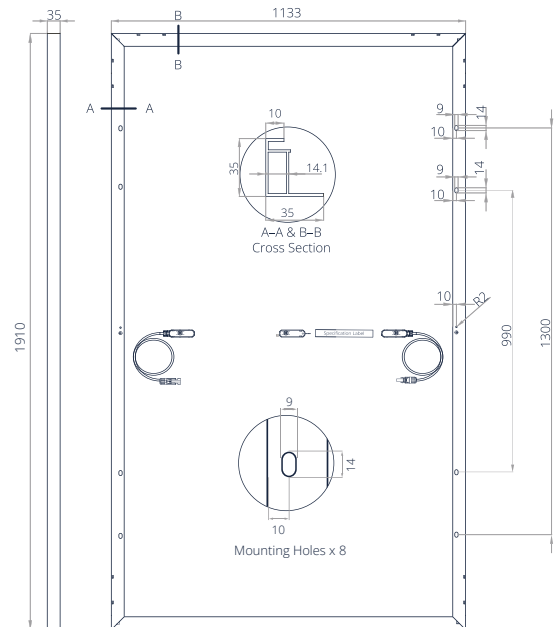
Electrical Characteristics

120HC Cell Module	Walara-475G4P		
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	475	362.1
Max. Power Voltage (Vmp)	V	36.55	34.46
Max. Power Current (Imp)	A	13	10.51
Open Circuit Voltage (Voc)	V	43.92	41.74
Short Circuit Current (Isc)	A	13.68	11.03
Module Efficiency	%	21.9	
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

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



Graphs for Current-Voltage and Power-Voltage based on 475W

Packaging

Stacking Method	Horizontal	Vertical (Optional)
Panels per Pallet	30	31
Loading Capacity (40HQ)	600	744

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

Walara-480G4P

Mechanical Characteristics

Cells per Panel	120 Half Cells
Cell Type	TOPCon N-Type Cells
Panel Dimension	1910 x 1133 x 35 mm
Panel Weight	23.5 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

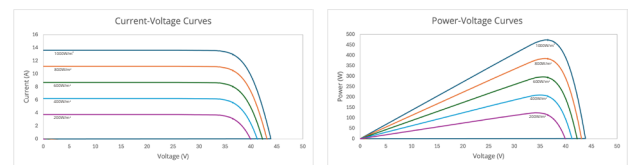
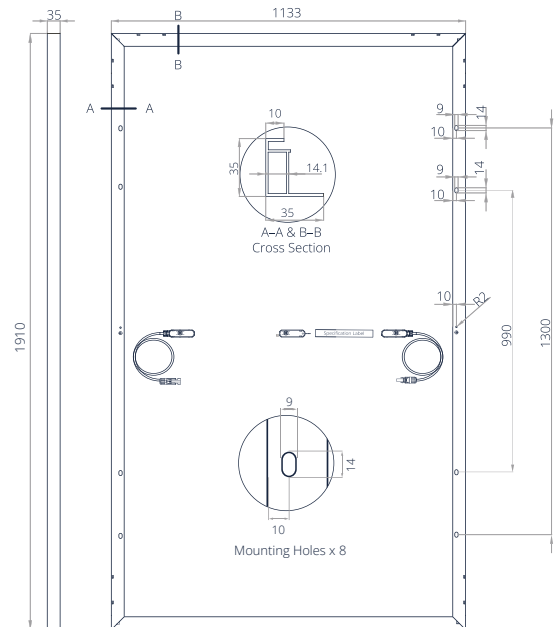
Electrical Characteristics

120HC Cell Module	Walara-480G4P		
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	480	365.8
Max. Power Voltage (Vmp)	V	36.72	34.62
Max. Power Current (Imp)	A	13.07	10.57
Open Circuit Voltage (Voc)	V	44.09	41.9
Short Circuit Current (Isc)	A	13.76	11.09
Module Efficiency	%	22.2	
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 475W

Packaging

Stacking Method	Horizontal	Vertical (Optional)
Panels per Pallet	30	31
Loading Capacity (40HQ)	600	744

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Walara-485G4P

Mechanical Characteristics

Cells per Panel	120 Half Cells
Cell Type	TOPCon N-Type Cells
Panel Dimension	1910 x 1133 x 35 mm
Panel Weight	23.5 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

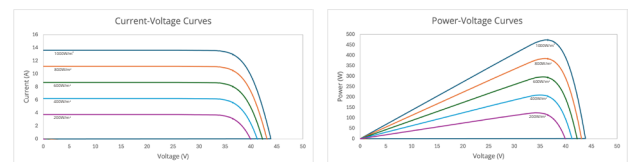
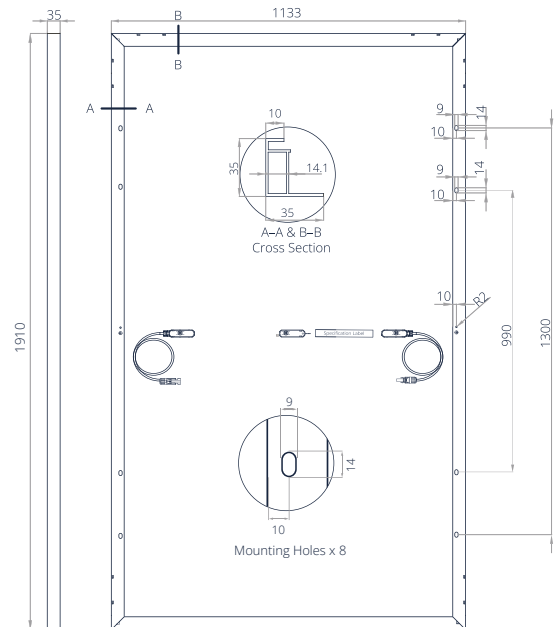
Electrical Characteristics

120HC Cell Module		Walara-485G4P	
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	485	369.6
Max. Power Voltage (Vmp)	V	36.89	34.78
Max. Power Current (Imp)	A	13.15	10.63
Open Circuit Voltage (Voc)	V	44.26	42.06
Short Circuit Current (Isc)	A	13.84	11.16
Module Efficiency	%	22.4	
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 475W

Packaging

Stacking Method	Horizontal	Vertical (Optional)
Panels per Pallet	30	31
Loading Capacity (40HQ)	600	744

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Walara-490G4P

Mechanical Characteristics

Cells per Panel	120 Half Cells
Cell Type	TOPCon N-Type Cells
Panel Dimension	1910 x 1133 x 35 mm
Panel Weight	23.5 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

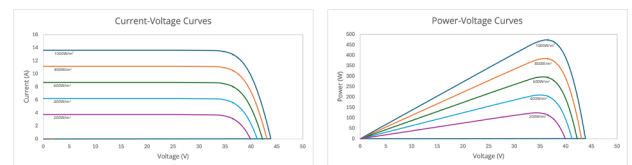
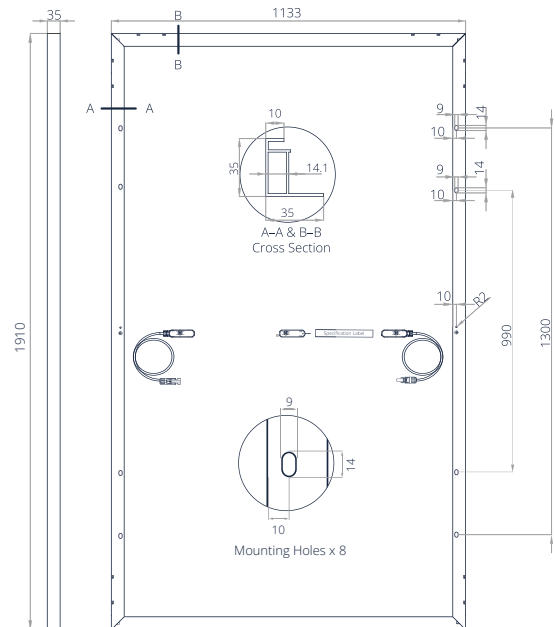
Electrical Characteristics

120HC Cell Module	Walara-490G4P		
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	490	373.4
Max. Power Voltage (Vmp)	V	37.06	34.94
Max. Power Current (Imp)	A	13.22	10.69
Open Circuit Voltage (Voc)	V	44.43	42.23
Short Circuit Current (Isc)	A	13.92	11.22
Module Efficiency	%	22.6	
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 475W

Packaging

Stacking Method	Horizontal	Vertical (Optional)
Panels per Pallet	30	31
Loading Capacity (40HQ)	600	744

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Walara-495G4P

Mechanical Characteristics

Cells per Panel	120 Half Cells
Cell Type	TOPCon N-Type Cells
Panel Dimension	1910 x 1133 x 35 mm
Panel Weight	23.5 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

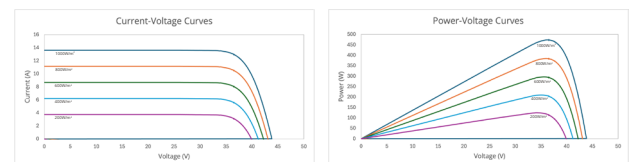
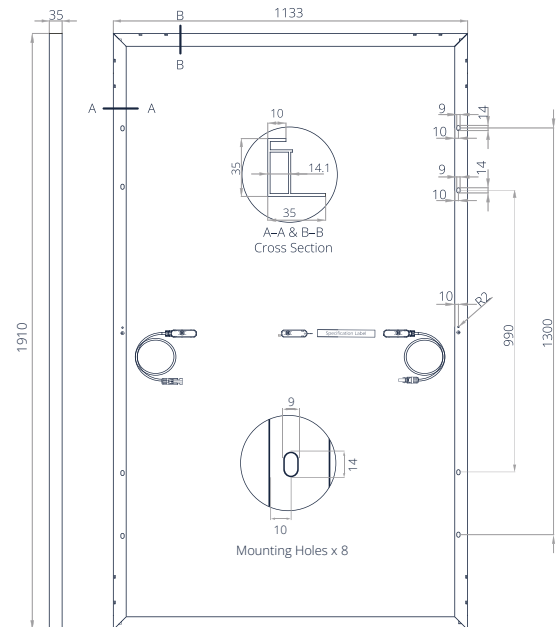
Electrical Characteristics

120HC Cell Module	Walara-495G4P		
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	495	377.2
Max. Power Voltage (Vmp)	V	37.23	35.1
Max. Power Current (Imp)	A	13.3	10.75
Open Circuit Voltage (Voc)	V	44.6	42.39
Short Circuit Current (Isc)	A	14	11.29
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

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



Graphs for Current-Voltage and Power-Voltage based on 475W

Packaging

Stacking Method	Horizontal	Vertical (Optional)
Panels per Pallet	30	31
Loading Capacity (40HQ)	600	744

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