## **Datasheet** Walara-430G4P-BL

Mechanical Characteristics		
Cells per Panel	108 Half Cells	
Cell Type	TOPCon N-Type Cells	
Panel Dimension	1722 x 1133 x 35 mm	
Panel Weight	21 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 <sup>2</sup>	
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		А	30
Nominal Module Operating Temperature		°C	45 ± 2
Temperature	Isc	%/°C	0.045
Coefficient	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

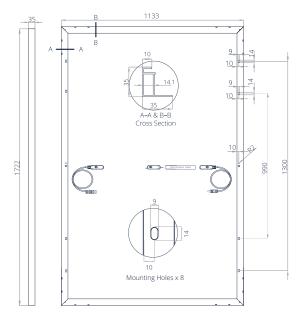
# Safety factor of \*static load test: 1.5 (Test load = Design load x Safety factor) # NexTracker installation : Front load 1800 Pa / Back Load 1800 Pa

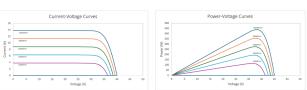
Safety Ratings & Warranties		
Safety Application Class	Class II	
Fire Safety Classification	Class C	
Certifications	IEC 61215 , IEC 61730	
Warranty	25 years limited product warranty	
Performance Guarantee	25 years limited warranty 87.4% power	

Electrical Characteristics			
108HC Cell Module Walara-430G4P-BL			130G4P-BL
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	430	327.7
Max. Power Voltage (Vmp)	V	33	31.11
Max. Power Current (Imp)	А	13.03	10.53
Open Circuit Voltage (Voc)	V	39.63	37.67
Short Circuit Current (Isc)	А	13.74	11.08
Module Efficiency	%	_	22
Positive Power Tolerance	W	0 ~	+ 5

<sup>\*</sup>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







Graphs for Current-Voltage and Power-Voltage based on 440W

Packaging		
Stacking Method	Horizontal	Vertical (Optional)
Panels per Pallet	30	31
Loading Capacity (40HQ)	600	806

<sup>The specifications included in this datasheet are subject to change without notice.
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Manufactured in Australia by Tindo Operations Co Pty Ltd</sup> 



## **Datasheet** Walara-433G4P-BL

Mechanical Characteristics		
Cells per Panel	108 Half Cells	
Cell Type	TOPCon N-Type Cells	
Panel Dimension	1722 x 1133 x 40 mm	
Panel Weight	21.5 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 <sup>2</sup>	
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		А	30
Nominal Module Operating Temperature		°C	45 ± 2
Temperature Coefficient	Isc	%/°C	0.045
Coefficient	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

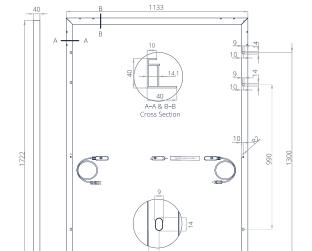
Cyclone tested by Structural Engineering Consultants Australia (SECA) Pty Ltd certificate available on request

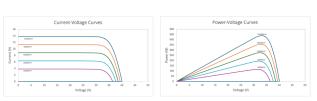
# Safety factor of \*static load test: 1.5 (Test load = Design load x Safety factor) # NexTracker installation : Front load 1800 Pa / Back Load 1800 Pa

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			
108HC Cell Module Walara-433G4P-BL			133G4P-BL
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	433	330
Max. Power Voltage (Vmp)	V	33.11	31.21
Max. Power Current (Imp)	А	13.08	10.57
Open Circuit Voltage (Voc)	V	39.74	37.77
Short Circuit Current (Isc)	А	13.79	11.11
Module Efficiency	%	2	2.2
Positive Power Tolerance	W	0 ~	+ 5

<sup>\*</sup>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  $\pm$  3% within each watt class at STC





Mounting Holes x 8

Graphs for Current-Voltage and Power-Voltage based on 440W

Packaging		
Stacking Method	Horizontal	Vertical (Optional)
Panels per Pallet	25	
Loading Capacity (40HQ)	450	

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Manufactured in Australia by Tindo Operations Co Pty Ltd</sup> 



## **Datasheet** Walara-440G4P-BL

Mechanical Characteristics		
Cells per Panel	108 Half Cells	
Cell Type	TOPCon N-Type Cells	
Panel Dimension	1722 x 1133 x 35 mm	
Panel Weight	21 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 <sup>2</sup>	
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		А	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

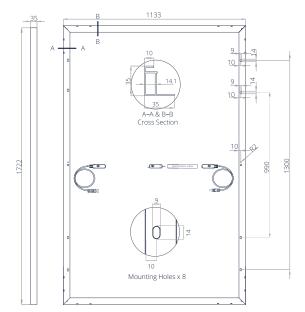
Cyclone tested by Structural Engineering Consultants Australia (SECA) Pty Ltd certificate available on request

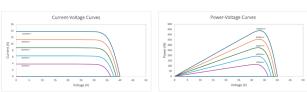
# Safety factor of \*static load test: 1.5 (Test load = Design load x Safety factor) # NexTracker installation : Front load 1800 Pa / Back Load 1800 Pa

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			
108HC Cell Module	l Module Walara-440G4P-BL		
ITEM	UNIT	STC*	NMOT**
Max. Power (Pmax)	Wp	440	335.3
Max. Power Voltage (Vmp)	V	33.36	31.45
Max. Power Current (Imp)	А	13.19	10.66
Open Circuit Voltage (Voc)	V	39.99	38.01
Short Circuit Current (Isc)	А	13.9	11.2
Module Efficiency	%	2	2.6
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  $\pm$  3% within each watt class at STC





Graphs for Current-Voltage and Power-Voltage based on 440W

Packaging		
Stacking Method	Horizontal	Vertical (Optional)
Panels per Pallet	30	31
Loading Capacity (40HQ)	600	806

- The specifications included in this datasheet are subject to change without notice.
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