

# Walara-535G4P

## Mechanical Characteristics

|                 |                                                     |
|-----------------|-----------------------------------------------------|
| Cells per Panel | 132 Half Cells                                      |
| Cell Type       | TOPCon N-Type Cells                                 |
| Panel Dimension | 2095 x 1133 x 35 mm                                 |
| Panel Weight    | 26.0 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> 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 |

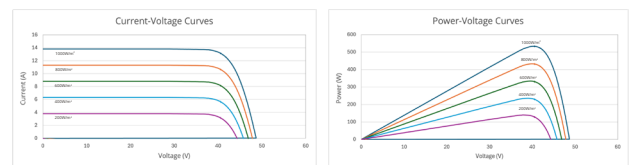
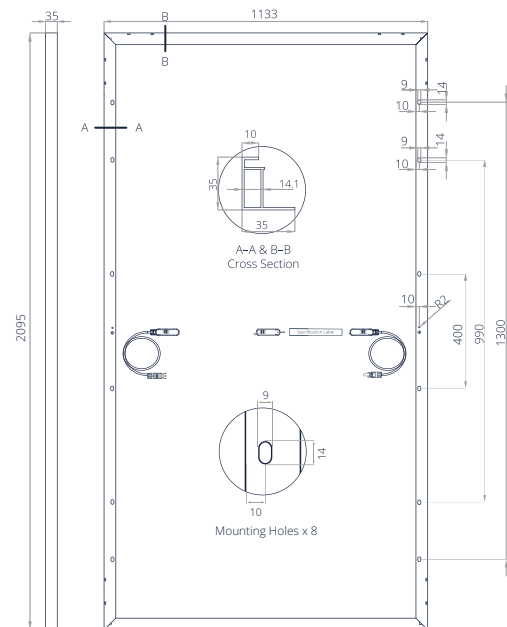
## Electrical Characteristics

| 132HC Cell Module           |      | Walara-535G4P |        |
|-----------------------------|------|---------------|--------|
| ITEM                        | UNIT | STC*          | NMOT** |
| Max. Power (Pmax)           | Wp   | 535           | 407.7  |
| Max. Power Voltage (Vmp)    | V    | 40.59         | 38.27  |
| Max. Power Current (Imp)    | A    | 13.18         | 10.65  |
| Open Circuit Voltage (Voc)  | V    | 48.70         | 46.28  |
| Short Circuit Current (Isc) | A    | 13.86         | 11.17  |
| Module Efficiency           | %    | 22.5          |        |
| Positive Power Tolerance    | W    | 0 ~ + 5       |        |

\*STC (Standard Test Condition): 1,000 W/m<sup>2</sup> , 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 535W

## Packaging

|                         |            |                     |
|-------------------------|------------|---------------------|
| Stacking Method         | Horizontal | Vertical (Optional) |
| Panels per Pallet       | 30         | 30                  |
| Loading Capacity (40HQ) | 600        | 660                 |

• The specifications included in this datasheet are subject to change without notice.  
• The electrical data given here is for reference purpose only.  
• Manufactured in Australia by Tindo Operations Co Pty Ltd

# Walara-540G4P

## Mechanical Characteristics

|                 |                                                     |
|-----------------|-----------------------------------------------------|
| Cells per Panel | 132 Half Cells                                      |
| Cell Type       | TOPCon N-Type Cells                                 |
| Panel Dimension | 2095 x 1133 x 35 mm                                 |
| Panel Weight    | 26.0 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> 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

|                            |                                       |
|----------------------------|---------------------------------------|
| 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 |

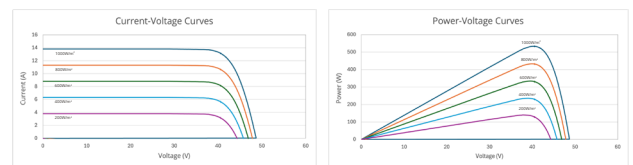
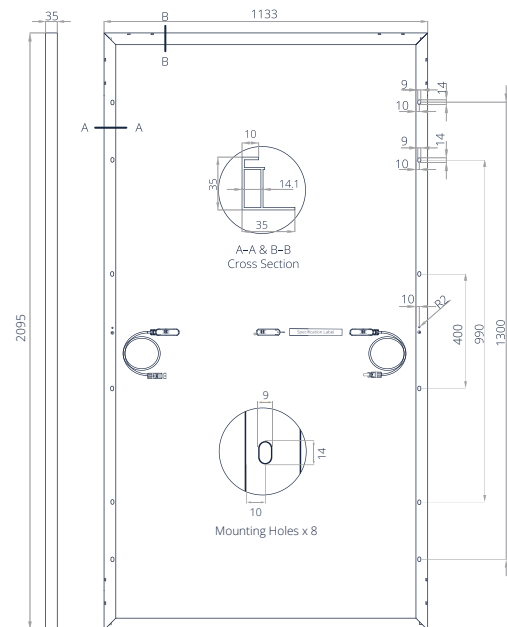
## Electrical Characteristics

| 132HC Cell Module           | Walara-540G4P |         |        |
|-----------------------------|---------------|---------|--------|
| ITEM                        | UNIT          | STC*    | NMOT** |
| Max. Power (Pmax)           | Wp            | 540     | 411.5  |
| Max. Power Voltage (Vmp)    | V             | 40.75   | 38.42  |
| Max. Power Current (Imp)    | A             | 13.25   | 10.71  |
| Open Circuit Voltage (Voc)  | V             | 48.86   | 46.44  |
| Short Circuit Current (Isc) | A             | 13.94   | 11.24  |
| Module Efficiency           | %             | 22.7    |        |
| Positive Power Tolerance    | W             | 0 ~ + 5 |        |

\*STC (Standard Test Condition): 1,000 W/m<sup>2</sup> , 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 535W

## Packaging

|                         |            |                     |
|-------------------------|------------|---------------------|
| Stacking Method         | Horizontal | Vertical (Optional) |
| Panels per Pallet       | 30         | 30                  |
| Loading Capacity (40HQ) | 600        | 660                 |

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# Walara-545G4P

## Mechanical Characteristics

|                 |                                                     |
|-----------------|-----------------------------------------------------|
| Cells per Panel | 132 Half Cells                                      |
| Cell Type       | TOPCon N-Type Cells                                 |
| Panel Dimension | 2095 x 1133 x 35 mm                                 |
| Panel Weight    | 26.0 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> 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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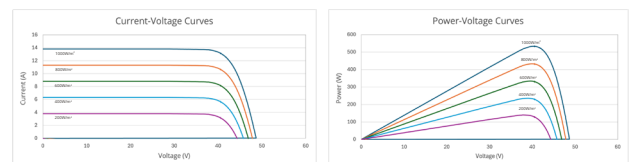
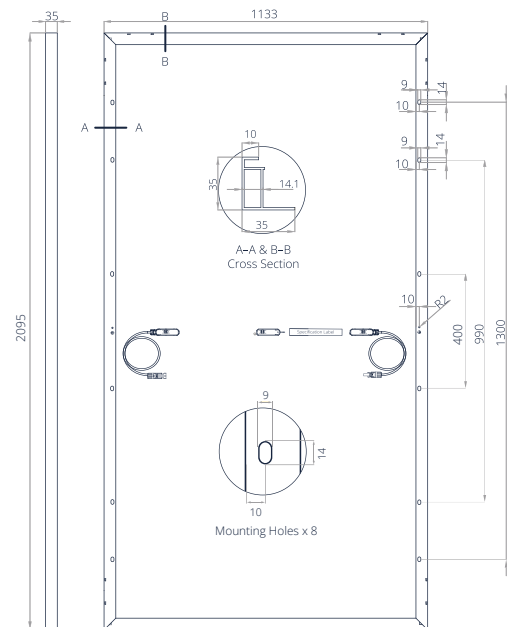
## Electrical Characteristics

| 132HC Cell Module           |      | Walara-545G4P |        |
|-----------------------------|------|---------------|--------|
| ITEM                        | UNIT | STC*          | NMOT** |
| Max. Power (Pmax)           | Wp   | 545           | 415.3  |
| Max. Power Voltage (Vmp)    | V    | 40.91         | 38.57  |
| Max. Power Current (Imp)    | A    | 13.32         | 10.77  |
| Open Circuit Voltage (Voc)  | V    | 49.02         | 46.59  |
| Short Circuit Current (Isc) | A    | 14.02         | 11.30  |
| Module Efficiency           | %    | 23.0          |        |
| Positive Power Tolerance    | W    | 0 ~ + 5       |        |

\*STC (Standard Test Condition): 1,000 W/m<sup>2</sup> , 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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