



**530W-545W**

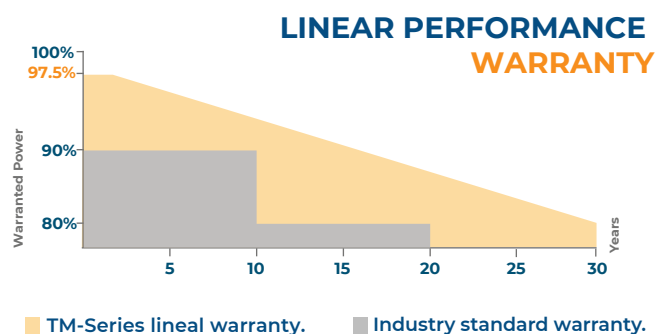
POWER OUTPUT RANGE

**21,09%**

MAXIMUM EFFICIENCY

**0 to 5W**

POSITIVE TOLERANCE



12 YEARS PRODUCT.  
30 YEARS POWER.

## TM Series ©

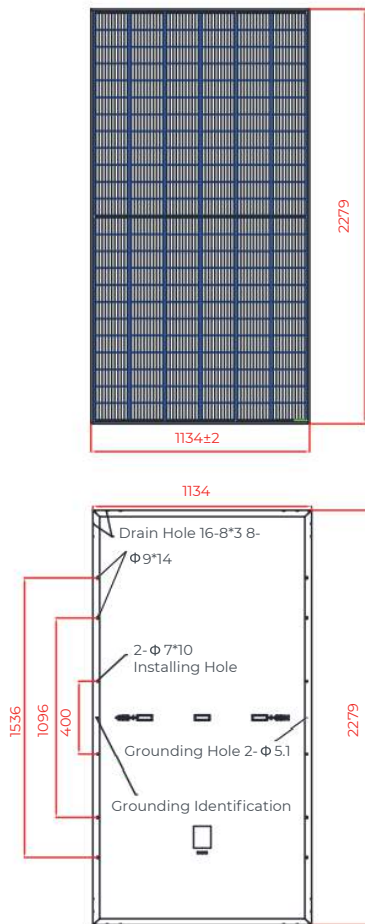
TAMESOL® redefines the high efficiency module range by combining 182mm cells with PERC and half technology. The combination of innovate technology has effectively improved module and power output.

### Main characteristics

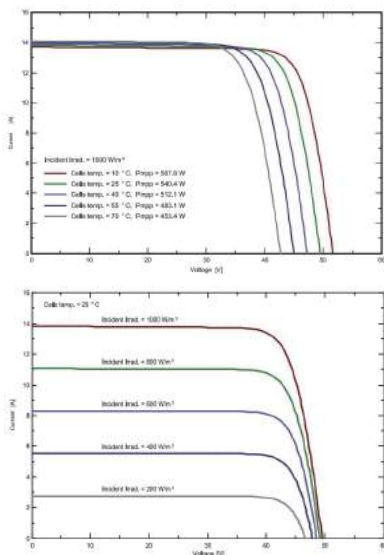
- ★ Mismatch loss reduction for maximum efficiency.
- ★ Reduced power loss by minimising the effect of shadow shading.
- ★ TWO EL test to ensure the best quality.
- ★ Proven reliability through PVEL's rigorous weatherproofing tests.
  - Dust, acid and alkali resistance, hail test.
  - 2400pa wind pressure and 5400pa snow pressure.
  - Anti PID.

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## DIMENSIONS OF PV



## CURVE I-V



## Electrical characteristics

Component model	TM-530M-144HC	TM-535M-144HC	TM-540M-144HC	TM-545M-144HC
Maximum power (PMP)	STC	STC	STC	STC
Optimum Operating Voltage (Vmp)	530	535	540	545
Open circuit voltage (VOC)	49.33	49.4	49.5	49.6
Short circuit current (ISC)	13.6	13.70	13.81	13.92
Maximum power voltage (VMP)	41.03	41.29	41.55	41.81
Maximum power current (IMP)	12.92	12.96	13.00	13.04
Component efficiency (η)	20.74	20.93	21.13	21.33
Power tolerance	(0, +3%)			
Maximum system voltage	1500V DC			
Maximum rated fuse current	20 A			

## Temperature characteristics

Maximum power temperature coefficient	-0.35 %/°C
Temperature coefficient of open circuit voltage	-0.27 %/°C
Temperature coefficient of short circuit current	+0.05 %/°C
Working temperature	-40 ~ +85 °C
Rated operating cell temperature (NOCT)	45 ± 2 °C

## Structural characteristics

Module size	2279x1134x35mm
Weight	26.5kg
Battery	Single crystal PERC1 82x91mm (144pieces)
Glass	3.2mm tempered coated glass, lowiron
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Output lead	4.0mm 2250mm(+) / 350mm (-) or customized
Mechanical load	Front 5400pa / back 2400pa

## Packing Method

	2279x1134x35mm	
Container	20'G P	40'HQ
Quantity per TUO	31+4*	31
Number of TUOs per container	5	20
Quantity per container	175	620

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**TAMESOL**



**320W-340W**

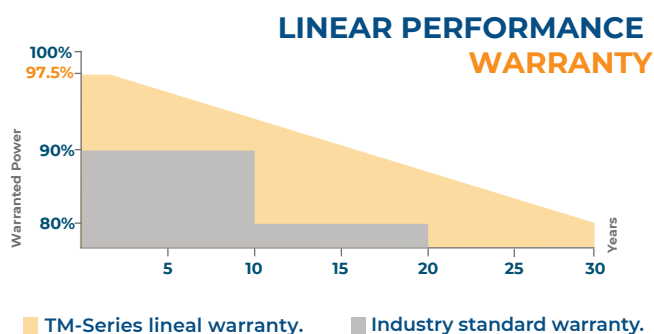
POWER OUTPUT RANGE

**20,1%**

MAXIMUM EFFICIENCY

**0 to 5W**

POSITIVE TOLERANCE



12 YEARS PRODUCT.  
30 YEARS POWER.

## TM Series ©

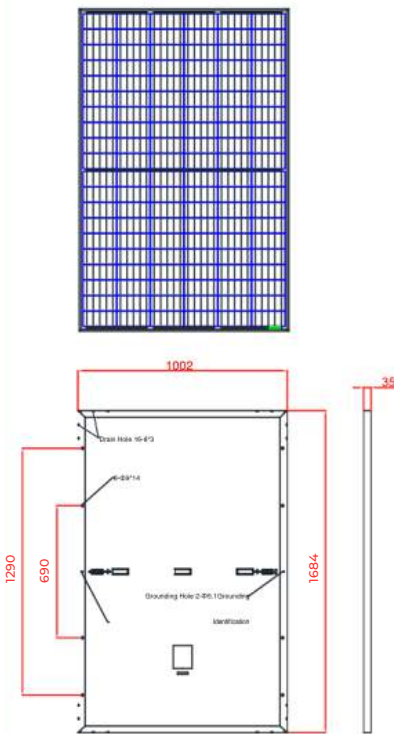
TAMESOL® redefines the high efficiency module range by combining 158,75mm cells with PERC and half technology. The combination of innovate technology has effectively improved module and power output.

### Main characteristics

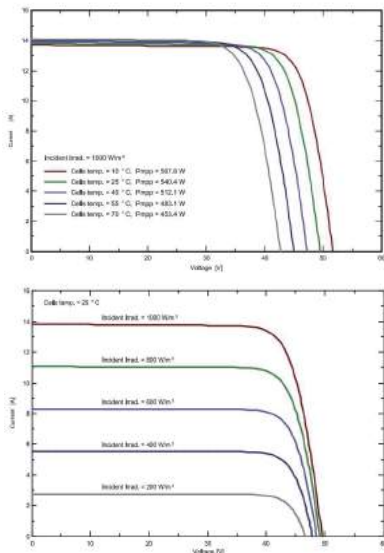
- ★ Mismatch loss reduction for maximum efficiency.
- ★ Reduced power loss by minimising the effect of shadow shading.
- ★ TWO EL test to ensure the best quality.
- ★ Proven reliability through PVEL´s rigorous weatherproofing tests.
  - Dust, acid and alkai resistance, hail test.
  - 2400pa wind pressure and 5400pa snow pressure.
  - Anti PID.

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## DIMENSIONS OF PV



## CURVE I-V



## Electrical characteristics

Component model	TM-320M-120HC	TM-325M-120HC	TM-330M-120HC	TM-335M-120H	TM-335M-120H
	STC	STC	STC	STC	STC
Maximum power (PMP)	320	325	330	335	340
Open circuit voltage (VOC)	40.4	40.6	40.8	41	41.2
Short circuit current (ISC)	9.93	10.02	10.11	10.2	10.29
Maximum power voltage (VMP)	34	34.2	34.4	34.6	34.8
Maximum power current (IMP)	9.42	9.51	9.6	9.69	9.77
Component efficiency (%)	19.9	19.19	19.49	19.78	20.1
Power tolerance	(0, +3%)				
Maximum system voltage	1500V DC				
Maximum rated fuse current	20 A				

## Temperature characteristics

Maximum power temperature coefficient	-0.35 %/°C
Temperature coefficient of open circuit voltage	-0.27 %/°C
Temperature coefficient of short circuit current	+0.05 %/°C
Working temperature	-40 ~ +85 °C
Rated operating cell temperature (NOCT)	45 ± 2 °C

## Structural characteristics

Module size	1684x1002x35mm
Weight	19.0kg
Battery	Single crystal PERC 158.75x79.375mm (120pieces)
Glass	3.2mm tempered coated glass, lowiron
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Output lead	4.0mm 2250mm(+) / 350mm (-) or customized
Mechanical load	Front 5400pa / back 2400pa

## Packing Method

	2279x1134x35mm	
Container	20'G P	40'HQ
Quantity per TUO	31	31
Number of TUOs per container	12	26
Quantity per container	372	806

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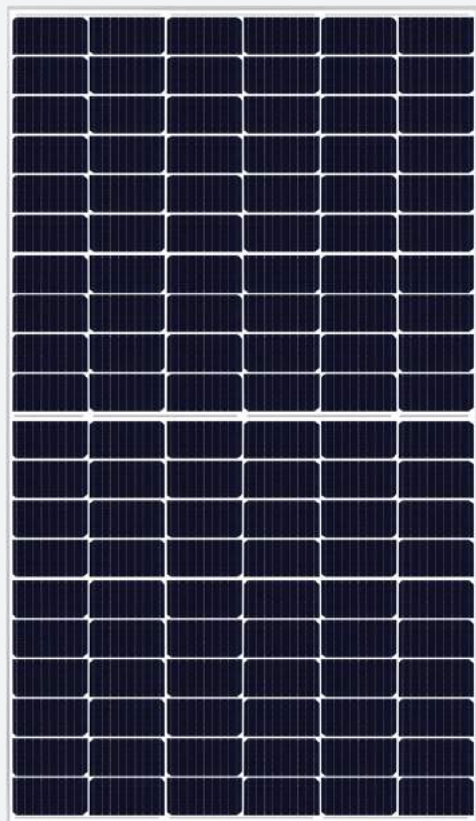
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**360W-375W**

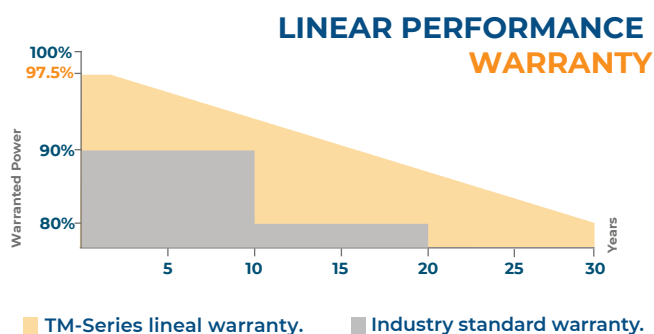
POWER OUTPUT RANGE

**20,59%**

MAXIMUM EFFICIENCY

**0 to 5W**

POSITIVE TOLERANCE



12 YEARS PRODUCT.  
30 YEARS POWER.

## TM Series ©

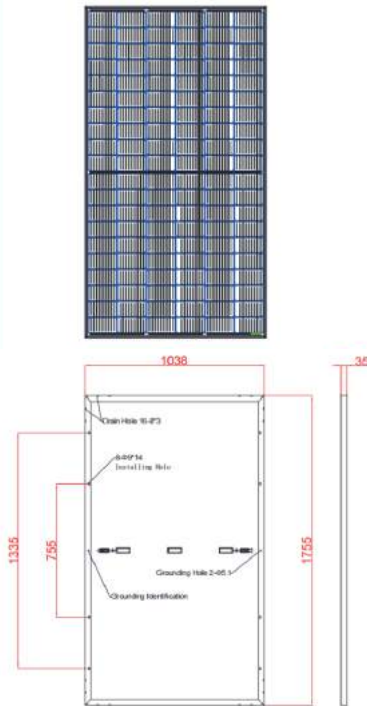
TAMESOL® redefines the high efficiency module range by combining 166mm cells with PERC and half technology. The combination of innovate technology has effectively improved module and power output.

### Main characteristics

- ★ Mismatch loss reduction for maximum efficiency.
- ★ Reduced power loss by minimising the effect of shadow shading.
- ★ TWO EL test to ensure the best quality.
- ★ Proven reliability through PVEL's rigorous weatherproofing tests.
  - Dust, acid and alkali resistance, hail test.
  - 2400pa wind pressure and 5400pa snow pressure.
  - Anti PID.

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## DIMENSIONS OF PV



## Electrical characteristics

Component model	TM-360M-120HC	TM-365M-120HC	TM-370M-120HC	TM-375M-120HC
	STC	STC	STC	STC
Maximum power (PMP)	360	365	370	375
Open circuit voltage (VOC)	41.2	41.4	41.6	41.8
Short circuit current (ISC)	11.16	11.26	11.34	34.8
Maximum power voltage (VMP)	34.2	34.4	34.6	34.8
Maximum power current (IMP)	10.53	10.62	10.70	10.78
Component efficiency (%)	19.76	20.04	20.31	20.59
Power tolerance	(0, +3%)			
Maximum system voltage	1500V DC			
Maximum rated fuse current	20 A			

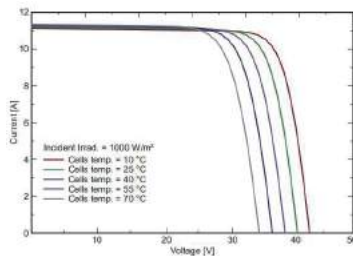
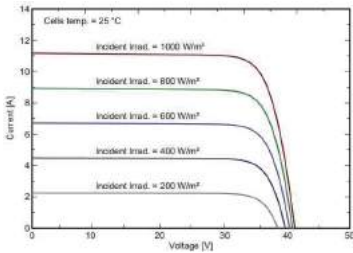
## Temperature characteristics

Maximum power temperature coefficient	-0.35 %/°C
Temperature coefficient of open circuit voltage	-0.27 %/°C
Temperature coefficient of short circuit current	+0.05 %/°C
Working temperature	-40 ~ +85 °C
Rated operating cell temperature (NOCT)	45 ± 2 °C

## Structural characteristics

Module size	1755x1038x35mm
Weight	19.5kg
Battery	Single crystal PERC 166x83mm (120pieces)
Glass	3.2mm tempered coated glass, lowiron
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Output lead	4.0mm 2250mm(+) / 350mm (-) or customized
Mechanical load	Front 5400pa / back 2400pa

## CURVE I-V



## Packing Method

	1755x1038x35mm	
Container	20'G P	40'HQ
Quantity per TUO	31+4*	31+2*
Number of TUOs per container	6	24
Quantity per container	210	792

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**TAMESOL**



**390W-405W**

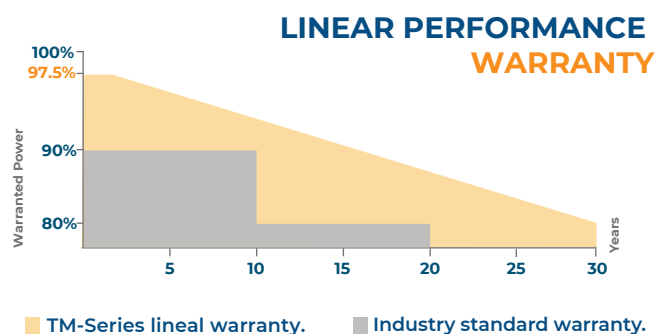
POWER OUTPUT RANGE

**20,70%**

MAXIMUM EFFICIENCY

**0 to 5W**

POSITIVE TOLERANCE



12 year product warranty  
30 years linear power warranty

## TM Series ©

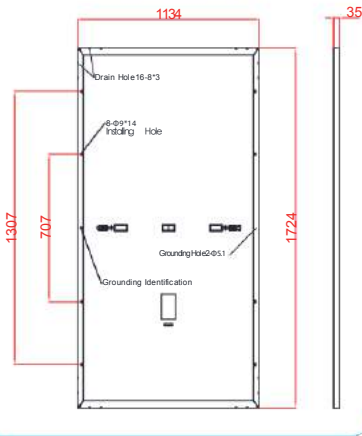
TAMESOL® redefines the high efficiency module range by combining 182mm cells with PERC and half technology. The combination of innovate technology has effectively improved module and power output.

### Main characteristics

- ★ Mismatch loss reduction for maximum efficiency.
- ★ Reduced power loss by minimising the effect of shadow shading.
- ★ TWO EL test to ensure the best quality.
- ★ Proven reliability through PVEL´s rigorous weatherproofing tests.
  - Dust, acid and alkai resistance, hail test.
  - 2400pa wind pressure and 5400pa snow pressure.
  - Anti PID.

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## DIMENSIONS OF PV



## Electrical characteristics

Component model	TM-390M-108HC	TM-395M-108HC	TM-400M-108HC	TM-450M-144HC
	STC	STC	STC	STC
Maximum power (PMP)	390	395	400	405
Open circuit voltage (VOC)	36.9	37.01	37.12	37.22
Short circuit current (ISC)	13.4	13.50	13.60	13.70
Maximum power voltage (VMP)	30.59	30.69	30.81	30.93
Maximum power current (IMP)	12.78	12.88	12.99	13.10
Component efficiency (%)	19.95	20.20	20.46	20.72
Power tolerance	(0, +3%)			
Maximum system voltage	1500V DC			
Maximum rated fuse current	20 A			

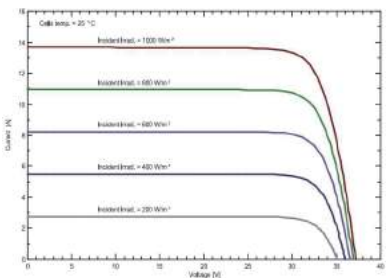
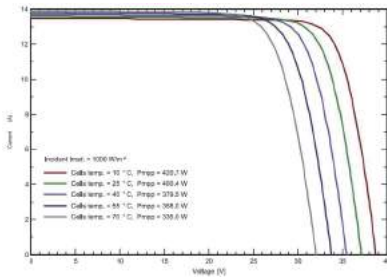
## Temperature characteristics

Maximum power temperature coefficient	-0.35 %/°C
Temperature coefficient of open circuit voltage	-0.27 %/°C
Temperature coefficient of short circuit current	+0.05 %/°C
Working temperature	-40 ~ +85 °C
Rated operating cell temperature (NOCT)	45 ± 2 °C

## Structural characteristics

Module size	1724x1134x35mm
Weight	23.5kg
Battery	Single crystal PERC 182x81mm (108pieces)
Glass	3.2mm tempered coated glass, low iron
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Output lead	4.0mm2250mm (+) / 350mm (-) or customized
Mechanical load	Front 5400pa / back 2400pa

## CURVE I-V



## Packing Method

	1724x1134 x 35 mm	
Container	20'G P	40'HQ
Quantity per TUO	31+4*	31
Number of TUOs per container	6	26
Quantity per container	210	806

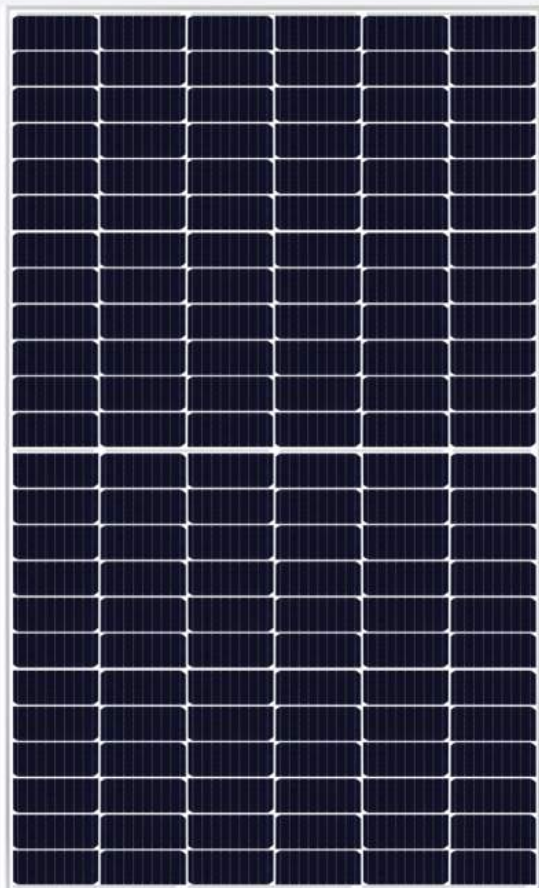
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### 390W-410W

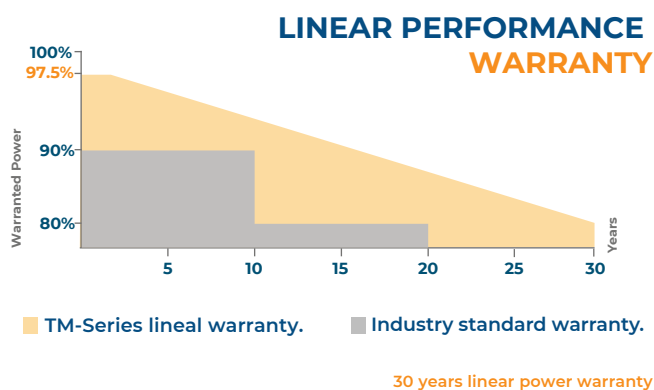
POWER OUTPUT RANGE

### 20,4%

MAXIMUM EFFICIENCY

### 0 to 5W

POSITIVE TOLERANCE



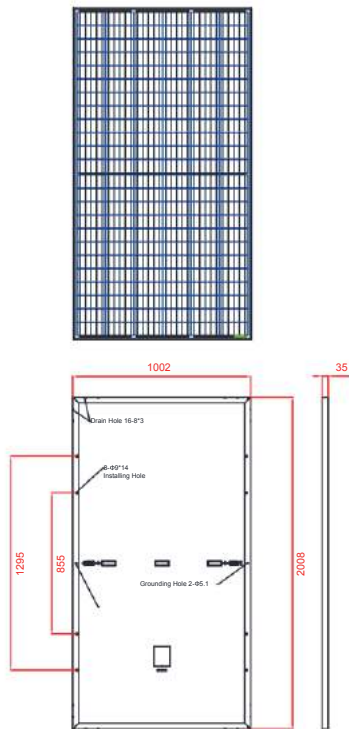
## TM Series ©

TAMESOL® redefines the high efficiency module range by combining 158.75mm cells with PERC and half technology. The combination of innovate technology has effectively improved module and power output.

### Main characteristics

- ★ Mismatch loss reduction for maximum efficiency.
- ★ Reduced power loss by minimising the effect of shadow shading.
- ★ TWO EL test to ensure the best quality.
- ★ Proven reliability through PVEL´s rigorous weatherproofing tests.
  - Dust, acid and alkai resistance, hail test.
  - 2400pa wind pressure and 5400pa snow pressure.
  - Anti PID.

## DIMENSIONS OF PV



## Electrical characteristics

Component model	TM-390M-144HC	TM-395M-144HC	TM-400M-144HC	TM-405M-144H	TM-410M-144HC
	STC	STC	STC	STC	STC
Maximum power (PMP)	390	395	400	405	410
Open circuit voltage (VOC)	48.5	48.8	49.1	49.4	49.6
Short circuit current (ISC)	10.0	10.05	10.1	10.15	10.23
Maximum power voltage (VMP)	41.0	41.3	41.6	41.9	42.1
Maximum power current (IMP)	9.51	9.57	9.62	9.67	9.74
Component efficiency (%)	19.4	19.6	19.9	20.1	20.4
Power tolerance	(0, +3%)				
Maximum system voltage	1500V DC				
Maximum rated fuse current	20 A				

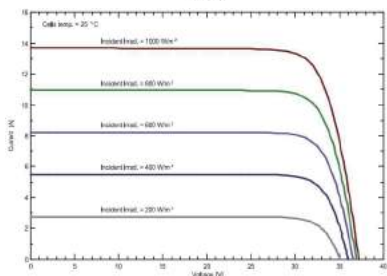
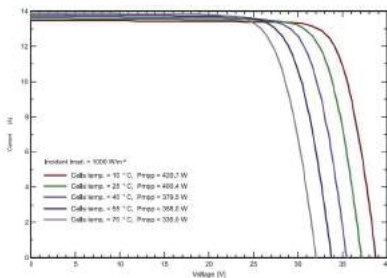
## Temperature characteristics

Maximum power temperature coefficient	-0.35 %/°C
Temperature coefficient of open circuit voltage	-0.27 %/°C
Temperature coefficient of short circuit current	+0.05 %/°C
Working temperature	-40 ~ +85 °C
Rated operating cell temperature (NOCT)	45 ± 2 °C

## Structural characteristics

Module size	2008x1002x35mm
Weight	22.0kg
Battery	Single crystal PERC 158.75x79.375mm (144 pieces)
Glass	3.2mm tempered coated glass, low iron
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Output lead	4.0mm 2250mm (+) / 350mm (-) or customized
Mechanical load	Front 5400pa / back 2400pa

## CURVE I-V



## Packing Method

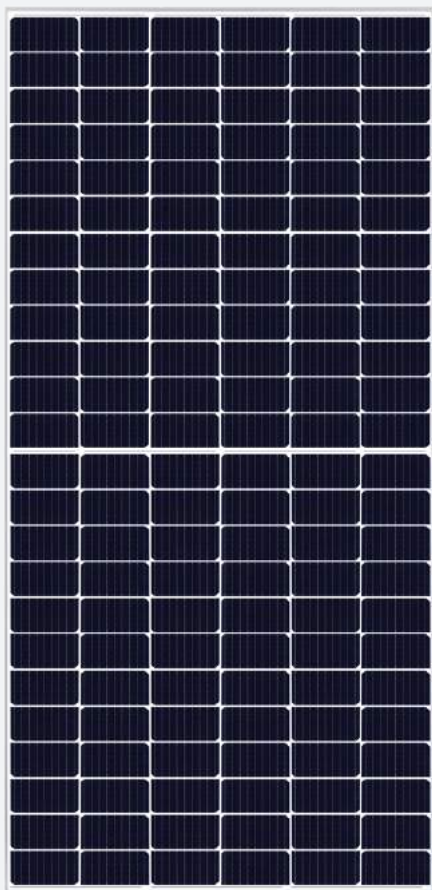
	2008x1002 x 35 mm	
Container	20'G P	40'HQ
Quantity per TUO	31	31+4*
Number of TUOs per container	10	22
Quantity per container	310	726

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### 435W-455W

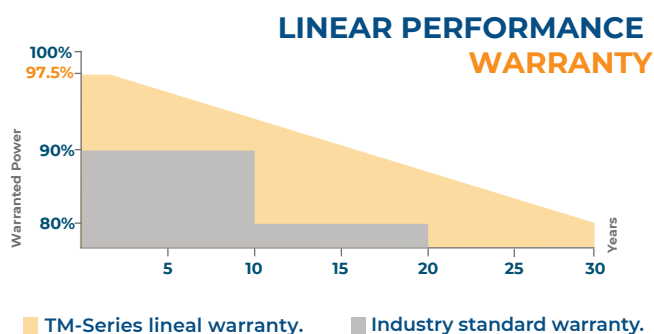
POWER OUTPUT RANGE

### 21,1%

MAXIMUM EFFICIENCY

### 0 to 5W

POSITIVE TOLERANCE



12 year product warranty  
30 years linear power warranty

## TM Series ©

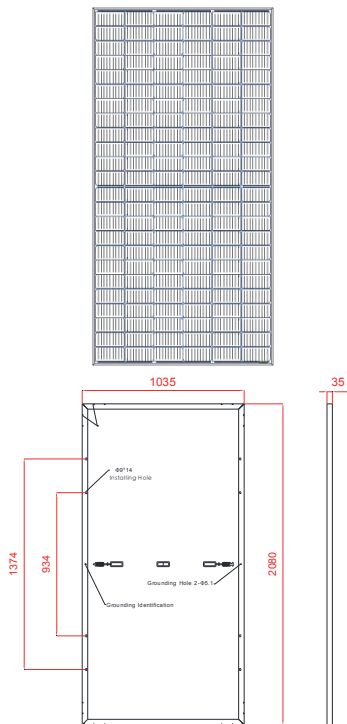
TAMESOL® redefines the high efficiency module range by combining 166mm cells with PERC and half technology. The combination of innovate technology has effectively improved module and power output.

### Main characteristics

- ★ Mismatch loss reduction for maximum efficiency.
- ★ Reduced power loss by minimising the effect of shadow shading.
- ★ TWO EL test to ensure the best quality.
- ★ Proven reliability through PVEL's rigorous weatherproofing tests.
  - Dust, acid and alkali resistance, hail test.
  - 2400pa wind pressure and 5400pa snow pressure.
  - Anti PID.

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## DIMENSIONS OF PV



## Electrical characteristics

Component model	TM-435M-144HC	TM-440M-144HC	TM-445M-144HC	TM-450M-144HC	TM-455M-144HC
	STC	STC	STC	STC	STC
Maximum power (PMP)	435	440	445	450	455
Open circuit voltage (VOC)	49.6	49.7	49.9	50.1	50.2
Short circuit current (ISC)	11.18	11.27	11.34	11.41	11.48
Maximum power voltage (VMP)	41.3	41.4	41.6	41.8	41.9
Maximum power current (IMP)	10.54	10.63	10.70	10.77	10.86
Component efficiency (%)	20.2	20.4	20.7	20.90	21.1
Power tolerance	(0, +3%)				
Maximum system voltage	1500V DC				
Maximum rated fuse current	20 A				

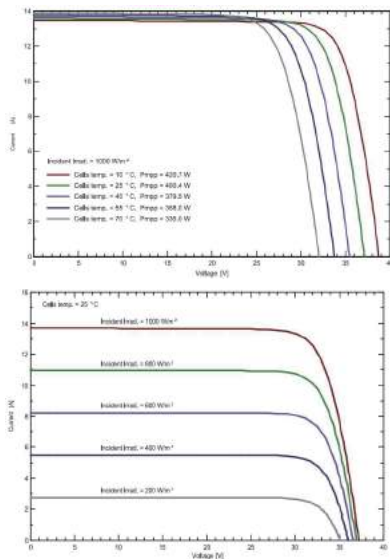
## Temperature characteristics

Maximum power temperature coefficient	-0.35 %/°C
Temperature coefficient of open circuit voltage	-0.27 %/°C
Temperature coefficient of short circuit current	+0.05 %/°C
Working temperature	-40 ~ +85 °C
Rated operating cell temperature (NOCT)	45 ± 2 °C

## Structural characteristics

Module size	2080x1035x35mm
Weight	23.5kg
Battery	Single crystal PERC 166x83mm (144pieces)
Glass	3.2mm tempered coated glass, low iron
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Output lead	4.0mm2250mm (+) / 350mm (-) or customized
Mechanical load	Front 5400pa / back 2400pa

## CURVE I-V



## Packing Method

	20080x1002 x 35 mm	
Container	20'G P	40'HQ
Quantity per TUO	31+4*	31+2*
Number of TUOs per container	5	22
Quantity per container	175	726

### Authorized Partner



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