

EP-400-415-BMD-HV



SIV SERIES

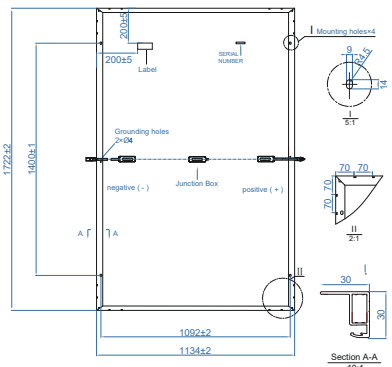
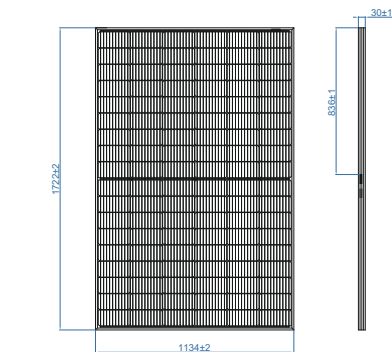
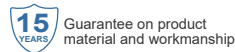
Small Changes, Big Accomplishments

400-415W



- Less mismatch to get more power
- Less power loss by minimizing the shading impact
- Competitive low light performance
- 3 times EL test to ensure best quality
- Ideal choice for utility and commercial scale projects by reduced BoS and improved ROI

- Outstanding reliability proven by PVEL for stringent environment condition:
 - Sand, acid, salt, and hail stones
 - 2400 Pa wind load and 5400 Pa snow load
 - Anti-PID

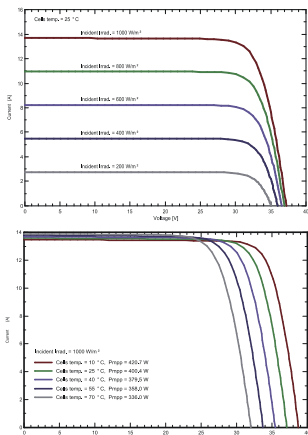


Electrical Characteristics

Module Type	EP-400-BMD		EP-405-BMD		EP-410-BMD		EP-415-BMD	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power at STC (Pmp)	400	301	405	304	410	308	415	311
Open Circuit Voltage (Voc)	37.12	34.64	37.22	34.73	37.32	34.81	37.42	34.90
Short Circuit Current (Isc)	13.60	10.99	13.70	11.07	13.80	11.15	13.90	11.23
Maximum Power Voltage (Vmp)	30.81	28.82	30.93	28.91	31.05	29.05	31.16	29.19
Maximum Power Current (Imp)	12.99	10.44	13.10	10.51	13.21	10.59	13.32	10.66
Module Efficiency at STC(ηm)	20.48		20.74		21.00		21.25	
Power Tolerance	(0, +4.99)							
Maximum System Voltage	1500V DC							
Maximum Series Fuse Rating	25 A							

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5
 Power measurement tolerance: +/-3%

I-V Curve



Temperature Characteristics

Pmax Temperature Coefficient	-0.34%/°C
Voc Temperature Coefficient	-0.26%/°C
Isc Temperature Coefficient	+0.05%/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature (NOCT)	45±2°C

Mechanical Specifications

External Dimensions	1722 x 1134 x 30 mm
Weight	19.0kg
Solar Cells	PERC Mono(108pcs)
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cable	4mm ² , 250mm(+)/350mm(-) or Customized Length
Mechanical Load	Front side 5400Pa/ Back side 2400Pa

Packing Configuration

Container	40'HQ
Pieces per Pallet	36
Pallets per Container	26
Pieces per Container	936

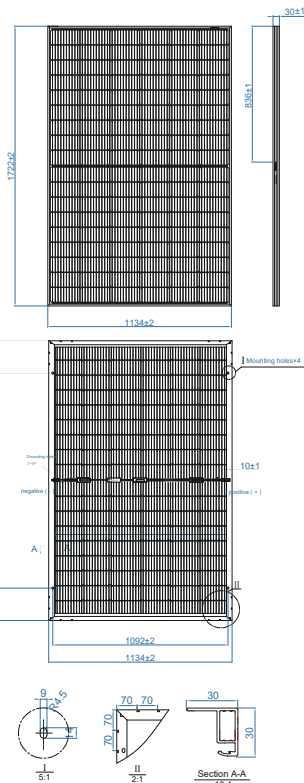
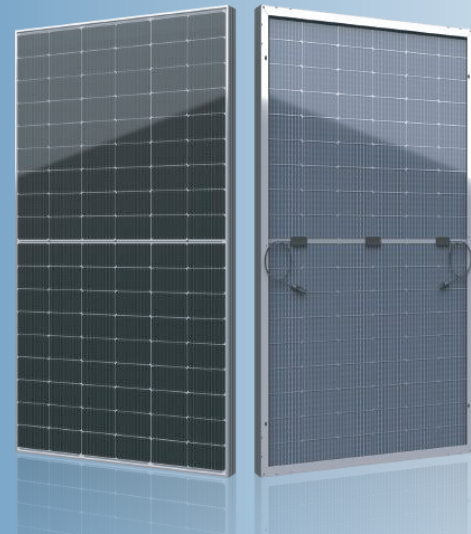
EP-400-415-BMD-BG



SIV SERIES

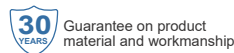
Small Changes, Big Accomplishments

400-415W



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- 3 times EL test to ensure best quality
- Ideal choice for utility and commercial scale projects by reduced BoS and improved ROI

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 - Sand, acid, salt, and hail stones
 - 2400 Pa wind load and 5400 Pa snow load
 - Anti-PID



Electrical Characteristics

	EP-400-BMD-BG			EP-405-BMD-BG			EP-410-BMD-BG			EP-415-BMD-BG		
	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC
Maximum Power at STC (Pmp)	400	301	280	405	304	284	410	308	287	415	311	291
Open Circuit Voltage (Voc)	37.12	34.64	37.10	37.22	34.73	37.2	37.32	34.81	37.30	37.42	34.90	37.40
Short Circuit Current (Isc)	13.60	10.99	9.59	13.70	11.07	9.66	13.80	11.15	9.73	13.90	11.23	9.80
Maximum Power Voltage (Vmp)	30.81	28.82	30.80	30.93	28.91	30.98	31.05	29.05	31.03	31.16	29.19	31.17
Maximum Power Current (Imp)	12.99	10.44	9.10	13.10	10.51	9.17	13.21	10.59	9.25	13.32	10.66	9.34
Module Efficiency at STC(ηm)	20.48			20.74			21.00			21.25		
Power Tolerance	(0, +4.99)											
Maximum System Voltage	1500V DC											
Maximum Series Fuse Rating	25 A											

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5

Power measurement tolerance: +/-3%

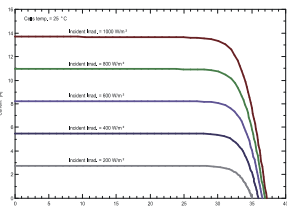
Rear Side Power Gain(EP-410-BMD-BG)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -Pmp (W)	451	472	492	513	533
Open Circuit Voltage -Voc (V)	37.2	37.2	37.2	37.2	37.2
Short Circuit Current -Isc (A)	15.18	15.87	16.56	17.25	17.94
Maximum Power Voltage -Vmp (V)	31.1	31.1	31.1	31.1	31.1
Maximum Power Current -Imp (A)	14.53	15.19	15.85	16.51	17.17

Temperature Characteristics

Pmax Temperature Coefficient	-0.34%/°C
Voc Temperature Coefficient	-0.26%/°C
Isc Temperature Coefficient	+0.05%/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature (NOCT)	45±2 C

I-V Curve

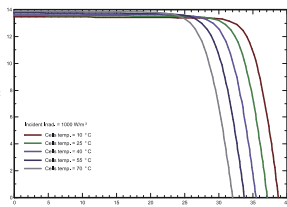


Mechanical Specifications

External Dimensions	1722 x 1134 x 30 mm
Weight	18.5kg
Solar Cells	PERC Mono(108pcs)
Front Glass	1.6mm AR coating semi-tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cable	4.0mm ² , 250mm(+)/350mm(-) or Customized Length
Mechanical Load	Front side 5400Pa/ Back side 2400Pa

Packing Configuration

Container	40'HQ
Pieces per Pallet	39
Pallets per Container	26
Pieces per Container	1014



EP-445-460-BMA-HV



SIII SERIES

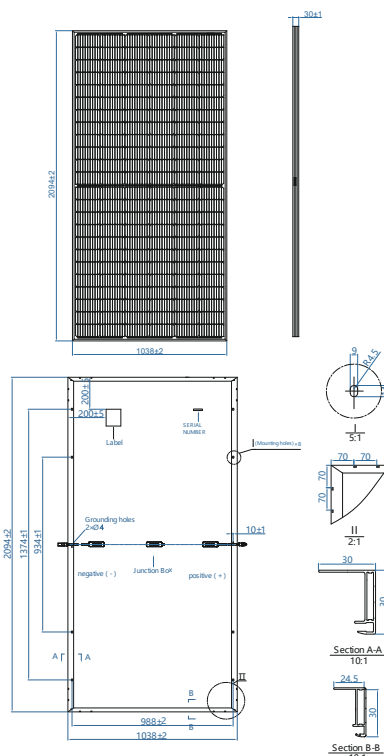
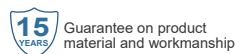
Multiple upgrades were forged into one

445-460W



- Less mismatch to get more power
- Less power loss by minimizing the shading impact
- Competitive low light performance
- 3 times EL test to ensure best quality
- Ideal choice for utility and commercial scale projects by reduced BoS and improved ROI

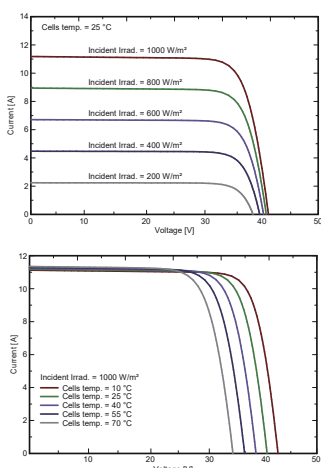
- Outstanding reliability proven by PVEL for stringent environment condition:
 - Sand, acid, salt, and hail stones
 - 2400 Pa wind load and 5400 Pa snow load
 - Anti-PID



Electrical Characteristics

Module Type	EP-445-BMA-HV		EP-450-BMA-HV		EP-455-BMA-HV		EP-460-BMA-HV	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power at STC (Pmp)	445	334	450	338	455	342	460	346
Open Circuit Voltage (Voc)	49.9	46.6	50.1	46.8	50.3	47.0	50.5	47.2
Short Circuit Current (Isc)	11.34	9.17	11.41	9.22	11.48	9.28	11.55	9.34
Maximum Power Voltage (Vmp)	41.6	38.5	41.8	38.7	42.0	38.9	42.2	39.1
Maximum Power Current (Imp)	10.70	8.68	10.77	8.73	10.84	8.80	10.91	8.87
Module Efficiency at STC(ηm)	20.47		20.70		20.93		21.16	
Power Tolerance	(0, +4.99)							
Maximum System Voltage	1500V DC							
Maximum Series Fuse Rating	20 A							

I-V Curve



STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5
Power measurement tolerance: +/-3%

Temperature Characteristics

Pmax Temperature Coefficient	-0.34%/°C
Voc Temperature Coefficient	-0.26%/°C
Isc Temperature Coefficient	+0.05%/°C
Operating Temperature	-40~+85% °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

Mechanical Specifications

External Dimensions	2094 x 1038 x 30 mm
Weight	23.5kg
Solar Cells	PERC Mono166x83mm(144 pcs)
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cable	4mm ² , 250mm(+)/350mm(-) or Customized Length
Mechanical Load	Front side 5400Pa/ Back side 2400Pa

Packing Configuration

Container	40'HQ
Pieces per Pallet	(36+36)+2
Pallets per Container	22
Pieces per Container	814

EP-540-555-BMA-HV



SIV SERIES

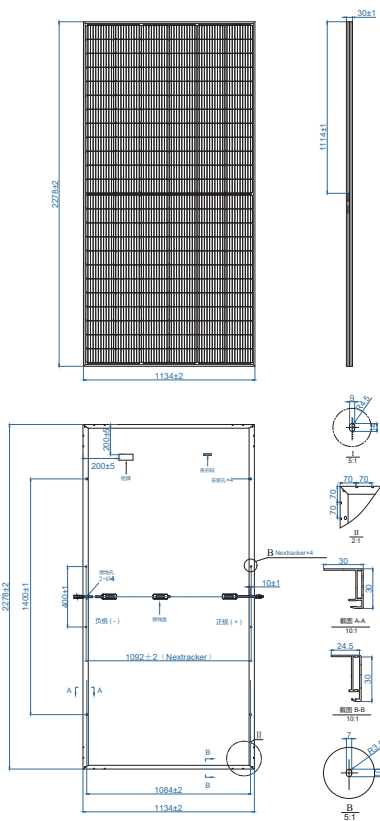
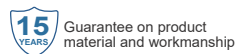
Small Changes, Big Accomplishments

540-555W



- Less mismatch to get more power
- Less power loss by minimizing the shading impact
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 - 2400 Pa wind load and 5400 Pa snow load
 - Anti-PID

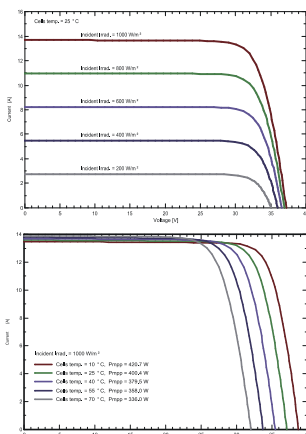


Electrical Characteristics

Module Type	EP-540-BMA-HV		EP-545-BMA-HV		EP-550-BMA-HV		EP-555-BMA-HV	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power at STC (Pmp)	540	406	545	409	550	414	555	418
Open Circuit Voltage (Voc)	49.50	46.18	49.60	46.32	49.70	46.40	49.80	46.50
Short Circuit Current (Isc)	13.81	11.16	13.90	11.23	14.00	11.32	14.10	11.41
Maximum Power Voltage (Vmp)	41.55	38.39	41.80	38.41	42.05	38.58	42.31	38.68
Maximum Power Current (Imp)	13.00	10.59	13.04	10.65	13.08	10.73	13.12	10.81
Module Efficiency at STC(ηm)	20.90		21.10		21.29		21.48	
Power Tolerance	(0, +4.99)							
Maximum System Voltage	1500V DC							
Maximum Series Fuse Rating	25 A							

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5
 Power measurement tolerance: +/-3%

I-V Curve



Temperature Characteristics

Pmax Temperature Coefficient	-0.34%/°C
Voc Temperature Coefficient	-0.26%/°C
Isc Temperature Coefficient	+0.05%/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature (NOCT)	45±2°C

Mechanical Specifications

External Dimensions	2278 x 1134 x 30 mm
Weight	27.0kg
Solar Cells	PERC Mono(144pcs)
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cable	4mm ² , 250mm(+)/350mm(-) or Customized Length
Mechanical Load	Front side 5400Pa/ Back side 2400Pa

Packing Configuration

Container	40'HQ
Pieces per Pallet	36
Pallets per Container	20
Pieces per Container	720

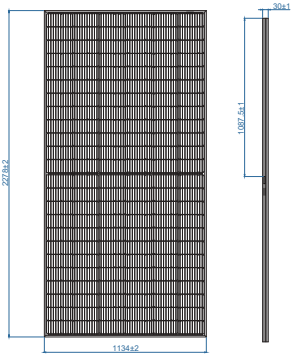
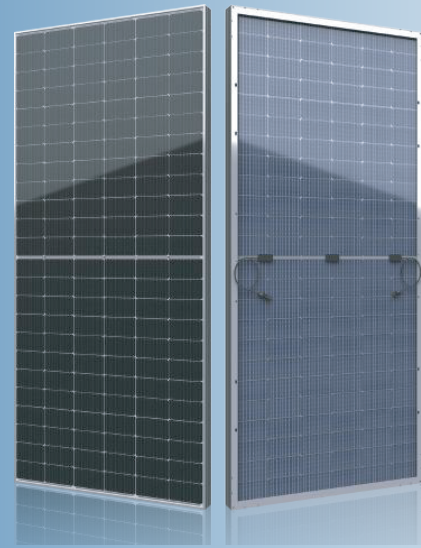
EP-540-555-BMA-BG



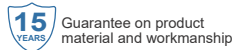
SIV SERIES

Small Changes, Big Accomplishments

540-555W

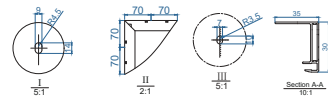
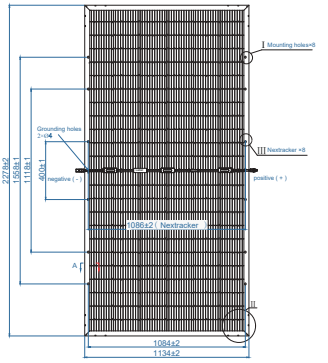


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 - 2400 Pa wind load and 5400 Pa snow load
 - Anti-PID



Electrical Characteristics

	EP-540-BMA-BG			EP-545-BMA-BG			EP-550-BMA-BG			EP-555-BMA-BG		
	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC
Maximum Power at STC (Pmp)	540	406	378	545	409	382	550	414	385	555	418	389
Open Circuit Voltage (Voc)	49.50	46.18	49.48	49.60	46.32	49.58	49.70	46.40	49.68	49.80	46.50	49.78
Short Circuit Current (Isc)	13.81	11.16	9.74	13.90	11.23	9.80	14.00	11.32	9.87	14.10	11.41	9.94
Maximum Power Voltage (Vmp)	41.55	38.39	41.61	41.80	38.41	41.86	42.05	38.58	42.10	42.31	38.68	42.34
Maximum Power Current (Imp)	13.00	10.59	9.09	13.04	10.65	9.13	13.08	10.73	9.15	13.12	10.81	9.19
Module Efficiency at STC(ηm)	20.90			21.10			21.29			21.48		
Power Tolerance	(0, +4.99)											
Maximum System Voltage	1500V DC											
Maximum Series Fuse Rating	25 A											



STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5
Power measurement tolerance: +/-3%

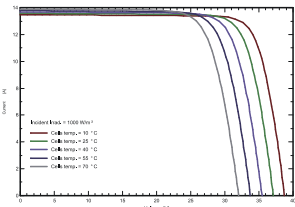
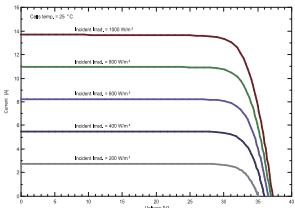
Rear Side Power Gain(EP-540-BMA-BG)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -Pmp (W)	594	621	648	675	702
Open Circuit Voltage -Voc (V)	49.5	49.5	49.5	49.5	49.5
Short Circuit Current -Isc (A)	15.19	15.88	16.57	17.26	17.95
Maximum Power Voltage -Vmp (V)	41.6	41.6	41.6	41.6	41.6
Maximum Power Current -Imp (A)	14.30	14.95	15.60	16.25	16.90

Temperature Characteristics

Pmax Temperature Coefficient	-0.34%/°C
Voc Temperature Coefficient	-0.26%/°C
Isc Temperature Coefficient	+0.05%/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature (NOCT)	45±2 C

I-V Curve



Mechanical Specifications

External Dimensions	2278 x 1134 x 30 mm
Weight	32.0kg
Solar Cells	PERC Mono(144pcs)
Front Glass	2.0mm AR coating semi-tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cable	4.0mm ² , 250mm(+)/350mm(-) or Customized Length
Mechanical Load	Front side 5400Pa/ Back side 2400Pa

Packing Configuration

Container	40'HQ
Pieces per Pallet	36
Pallets per Container	20
Pieces per Container	720

EP-595-610-BMB-HV



SV SERIES

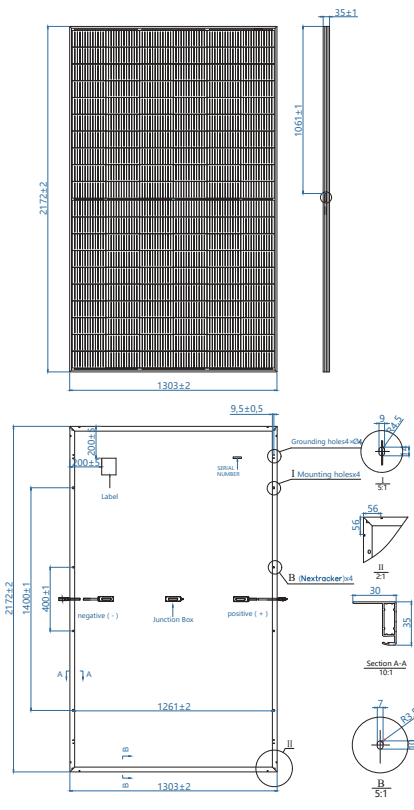
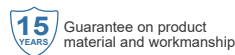
Seize the Moment, Leading the Efficiency

595-610W



- Less mismatch to get more power
- Less power loss by minimizing the shading impact
- Competitive low light performance
- 3 times EL test to ensure best quality
- Ideal choice for utility and commercial scale projects by reduced BoS and improved ROI

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 - Anti-PID

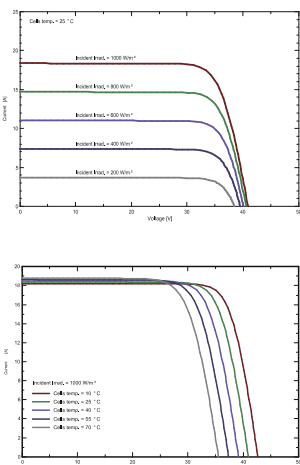


Electrical Characteristics

Module Type	EP-595-BMB-HV		EP-600-BMB-HV		EP-605-BMB-HV		EP-610-BMB-HV	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power at STC (Pmp)	595	446	600	450	605	454	610	458
Open Circuit Voltage (Voc)	41.3	38.6	41.5	38.8	41.7	39.0	41.9	39.2
Short Circuit Current (Isc)	18.49	14.94	18.54	14.98	18.59	15.02	18.64	15.06
Maximum Power Voltage (Vmp)	34.12	31.54	34.33	31.71	34.54	31.88	34.74	32.06
Maximum Power Current (Imp)	17.44	14.15	17.48	14.20	17.52	14.25	17.56	14.29
Module Efficiency at STC(ηm)	21.02		21.20		21.38		21.55	
Power Tolerance	(0, +4.99)							
Maximum System Voltage	1500V DC							
Maximum Series Fuse Rating	30 A							

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5
Power measurement tolerance: +/-3%

I-V Curve



Temperature Characteristics

Pmax Temperature Coefficient	-0.34%/C
Voc Temperature Coefficient	-0.26%/C
Isc Temperature Coefficient	+0.05%/C
Operating Temperature	-40~+85% C
Nominal Operating Cell Temperature (NOCT)	45±2 C

Mechanical Specifications

External Dimensions	2172x 1303 x 35 mm
Weight	31.0kg
Solar Cells	PERC Mono(120pcs)
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cable	4mm ² , 250mm(+)/350mm(-) or Customized Length
Mechanical Load	Front side 5400Pa/ Back side 2400Pa

Packing Configuration

Container	40'HQ
Pieces per Pallet	31
Pallets per Container	17
Pieces per Container	527

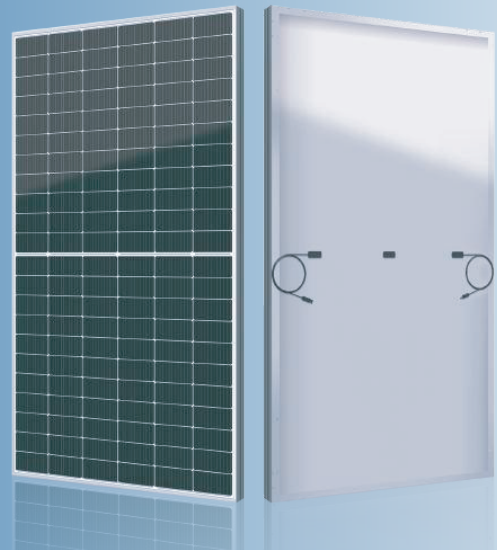
EP-655-670-BMC-HV



SV SERIES

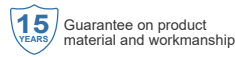
Seize the Moment, Leading the Efficiency

655-670W



- Less mismatch to get more power
- Less power loss by minimizing the shading impact
- Competitive low light performance
- 3 times EL test to ensure best quality
- Ideal choice for utility and commercial scale projects by reduced BoS and improved ROI

- Outstanding reliability proven by PVEL for stringent environment condition:
 - Sand, acid, salt, and hail stones
 - 2400 Pa wind load and 5400 Pa snow load
 - Anti-PID

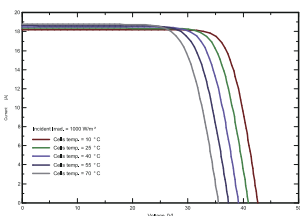
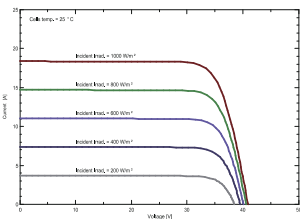


Electrical Characteristics

Module Type	EP-655-BMC-HV		EP-660-BMC-HV		EP-665-BMC-HV		EP-670-BMC-HV	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power at STC (Pmp)	655	492	660	496	665	500	670	504
Open Circuit Voltage (Voc)	43.7	40.8	43.9	41.0	44.1	41.19	44.3	41.38
Short Circuit Current (Isc)	19.09	15.43	19.14	15.47	19.19	15.51	19.24	15.55
Maximum Power Voltage (Vmp)	36.62	33.59	36.82	33.81	37.02	33.98	37.22	34.15
Maximum Power Current (Imp)	17.89	14.65	17.93	14.69	17.97	14.72	18.01	14.76
Module Efficiency at STC(ηm)	21.09		21.25		21.41		21.57	
Power Tolerance	(0, +4.99)							
Maximum System Voltage	1500V DC							
Maximum Series Fuse Rating	30 A							

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5
Power measurement tolerance: +/-3%

I-V Curve



Temperature Characteristics

Pmax Temperature Coefficient	-0.34%/C
Voc Temperature Coefficient	-0.26%/C
Isc Temperature Coefficient	+0.05%/C
Operating Temperature	-40~+85% C
Nominal Operating Cell Temperature (NOCT)	45±2 C

Mechanical Specifications

External Dimensions	2384x 1303 x 35 mm
Weight	34.0kg
Solar Cells	PERC Mono(132pcs)
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cable	4mm ² , 250mm(+)/350mm(-) or Customized Length
Mechanical Load	Front side 5400Pa/ Back side 2400Pa

Packing Configuration

Container	40'HQ
Pieces per Pallet	31
Pallets per Container	17
Pieces per Container	527