

ELECTRICAL CHARACTERISTICS		
Type of module		TSM- 160D
Nominal power	Watt(Peak)	160W.
Power tolerance	%	±3 %.
Maximum power voltage	U_{mpp}	34.9V.
Maximum power current	I_{mpp}	4.60A.
Open circuit voltage	V_{OC}	42.8V.
Short circuit current	I_{SC}	5.15A.
Maximum system voltage		700 V or 1000 V
Cell efficiency	η_c	14.2%
Module efficiency	η_m	12.5%.
Number, Type and arrangement of cells		72pcs. Mono-crystalline Silicom (6 x 12)
Size of cells (wide and high)		125 mm x 125 mm
Cable type, diameter and length		Copper core cable, 4mm²(12AWG), 900mm
Type of connector		Type III or IV
No. of bypass diodes		3 pcs.
Max. Series Fuse		7A.
Temperature coefficient of P_{mpp}		-0.45% / °C
Temperature coefficient of I_{sc}		0.05% / °C
Temperature coefficient of U_{oc}		-0.35% / °C
NOCT (Nominal operating cell temperature)		47°C
MECHANICAL CHARACTERISTICS		
Dimension (AxBxC)		1581x809x40mm.
Weight of module		15.6kg.
Number of Draining Holes in Frame		4
Front glass, type and thickness		Low Iron Tempered Glass 3.2 mm.
Packing Configuration		2 pcs per carton or 24 in 1 bulk package
Quantity/Pallet		36 pcs/pallet
Loading Capacity		532 pcs/40ft or 674pcs/4'ft
ABSOLUTE RATINGS		
Operational Temperature		-40~+85°C
Package Temperature		-40~+85°C
Dielectric Insulation Voltage		2400 VDC max.
* STC Conditions (1000W/m²; 1,5 AM and 25°C Cell temperature)		

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ELECTRICAL CHARACTERISTICS		
Type of module		TSM- 165D
Nominal power	Watt(Peak)	165W.
Power tolerance	%	±3 %.
Maximum power voltage	U_{mpp}	35.6V.
Maximum power current	I_{mpp}	4.65A.
Open circuit voltage	V_{OC}	43.2V.
Short circuit current	I_{SC}	5.20A.
Maximum system voltage		700 V or 1000 V
Cell efficiency	η_c	14.7%
Module efficiency	η_m	12.9%.
Number, Type and arrangement of cells		72pcs. Mono-crystalline Silicom (6 x 12)
Size of cells (wide and high)		125 mm x 125 mm
Cable type, diameter and length		Copper core cable, 4mm ² (12AWG), 900mm
Type of connector		Type III or IV
No. of bypass diodes		3 pcs.
Max. Series Fuse		7A.
Temperature coefficient of P_{mpp}		-0.45% / °C
Temperature coefficient of I_{sc}		0.05% / °C
Temperature coefficient of U_{oc}		-0.35% / °C
NOCT (Nominal operating cell temperature)		47°C
MECHANICAL CHARACTERISTICS		
Dimension (AxBxC)		1581x809x40mm.
Weight of module		15.6kg.
Number of Draining Holes in Frame		4
Front glass, type and thickness		Low Iron Tempered Glass 3.2 mm.
Packing Configuration		2 pcs per carton or 24 in 1 bulk package
Quantity/Pallet		36 pcs/pallet
Loading Capacity		532 pcs/40ft or 674pcs/4'ft
ABSOLUTE RATINGS		
Operational Temperature		-40~+85°C
Package Temperature		-40~+85°C
Dielectric Insulation Voltage		2400 VDC max.
* STC Conditions (1000W/m ² ; 1,5 AM and 25°C Cell temperature)		

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ELECTRICAL CHARACTERISTICS		
Type of module		TSM- 170D
Nominal power	Watt(Peak)	170W.
Power tolerance	%	±3 %.
Maximum power voltage	U_{mpp}	35.8V.
Maximum power current	I_{mpp}	4.76A.
Open circuit voltage	V_{OC}	43.6V.
Short circuit current	I_{SC}	5.25A.
Maximum system voltage		700 V or 1000 V
Cell efficiency	η_c	15.1%
Module efficiency	η_m	13.3%.
Number, Type and arrangement of cells		72pcs. Mono-crystalline Silicom (6 x 12)
Size of cells (wide and high)		125 mm x 125 mm
Cable type, diameter and length		Copper core cable, 4mm ² (12AWG), 900mm
Type of connector		Type III or IV
No. of bypass diodes		3 pcs.
Max. Series Fuse		7A.
Temperature coefficient of P_{mpp}		-0.45% / °C
Temperature coefficient of I_{sc}		0.05% / °C
Temperature coefficient of U_{oc}		-0.35% / °C
NOCT (Nominal operating cell temperature)		47°C
MECHANICAL CHARACTERISTICS		
Dimension (AxBxC)		1581x809x40mm.
Weight of module		15.6kg.
Number of Draining Holes in Frame		4
Front glass, type and thickness		Low Iron Tempered Glass 3.2 mm.
Packing Configuration		2 pcs per carton or 24 in 1 bulk package
Quantity/Pallet		36 pcs/pallet
Loading Capacity		532 pcs/40ft or 674pcs/4'ft
ABSOLUTE RATINGS		
Operational Temperature		-40~+85°C
Package Temperature		-40~+85°C
Dielectric Insulation Voltage		2400 VDC max.
* STC Conditions (1000W/m ² ; 1,5 AM and 25°C Cell temperature)		

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ELECTRICAL CHARACTERISTICS.		
Type of module		TSM- 175D
Nominal power	Watt(Peak)	175W.
Power tolerance	%	±3 %.
Maximum power voltage	U_{mpp}	36.2V.
Maximum power current	I_{mpp}	4.85A.
Open circuit voltage	V_{OC}	43.9V.
Short circuit current	I_{SC}	5.30A.
Maximum system voltage		700 V or 1000 V
Cell efficiency	η_c	15.5%
Module efficiency	η_m	13.7%.
Number, Type and arrangement of cells		72pcs. Mono-crystalline Silicom (6 x 12)
Size of cells (wide and high)		125 mm x 125 mm
Cable type, diameter and length		Copper core cable, 4mm ² (12AWG), 900mm
Type of connector		Type III or IV
No. of bypass diodes		3 pcs.
Max. Series Fuse		7A.
Temperature coefficient of P_{mpp}		-0.45% / °C
Temperature coefficient of I_{sc}		0.05% / °C
Temperature coefficient of U_{oc}		-0.35% / °C
NOCT (Nominal operating cell temperature)		47°C
MECHANICAL CHARACTERISTICS.		
Dimension (AxBxC)		1581x809x40mm.
Weight of module		15.6kg.
Number of Draining Holes in Frame		4
Front glass, type and thickness		Low Iron Tempered Glass 3.2 mm.
Packing Configuration		2 pcs per carton or 24 in 1 bulk package
Quantity/Pallet		36 pcs/pallet
Loading Capacity		532 pcs/40ft or 674pcs/4'ft
ABSOLUTE RATINGS		
Operational Temperature		-40~+85°C
Package Temperature		-40~+85°C
Dielectric Insulation Voltage		2400 VDC max.
* STC Conditions (1000W/m ² ; 1,5 AM and 25°C Cell temperature)		

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ELECTRICAL CHARACTERISTICS.		
Type of module		TSM- 180D
Nominal power	Watt(Peak)	180W.
Power tolerance	%	±3 %.
Maximum power voltage	U _{mpp}	36.8V.
Maximum power current	I _{mpp}	4.90A.
Open circuit voltage	V _{OC}	44.2V.
Short circuit current	I _{SC}	5.35A.
Maximum system voltage		700 V or 1000 V
Cell efficiency	η _c	16%
Module efficiency	η _m	14.1%.
Number, Type and arrangement of cells		72pcs. Mono-crystalline Silicom (6 x 12)
Size of cells (wide and high)		125 mm x 125 mm
Cable type, diameter and length		Copper core cable, 4mm ² (12AWG), 900mm
Type of connector		Type III or IV
No. of bypass diodes		3 pcs.
Max. Series Fuse		7A.
Temperature coefficient of P _{mpp}		-0.45% / °C
Temperature coefficient of I _{sc}		0.05% / °C
Temperature coefficient of U _{oc}		-0.35% / °C
NOCT (Nominal operating cell temperature)		47°C
MECHANICAL CHARACTERISTICS.		
Dimension (AxBxC)		1581x809x40mm.
Weight of module		15.6kg.
Number of Draining Holes in Frame		4
Front glass, type and thickness		Low Iron Tempered Glass 3.2 mm.
Packing Configuration		2 pcs per carton or 24 in 1 bulk package
Quantity/Pallet		36 pcs/pallet
Loading Capacity		532 pcs/40ft or 674pcs/4'ft
ABSOLUTE RATINGS		
Operational Temperature		-40~+85°C
Package Temperature		-40~+85°C
Dielectric Insulation Voltage		2400 VDC max.
* STC Conditions (1000W/m ² ; 1,5 AM and 25°C Cell temperature)		

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ELECTRICAL CHARACTERISTICS		
Type of module		TSM- 185D
Nominal power	Watt(Peak)	185W.
Power tolerance	%	±3 %.
Maximum power voltage	U_{mpp}	37.5V.
Maximum power current	I_{mpp}	4.95A.
Open circuit voltage	V_{OC}	44.5V.
Short circuit current	I_{SC}	5.40A.
Maximum system voltage		700 V or 1000 V
Cell efficiency	η_c	16.4%
Module efficiency	η_m	14.5%.
Number, Type and arrangement of cells		72pcs. Mono-crystalline Silicom (6 x 12)
Size of cells (wide and high)		125 mm x 125 mm
Cable type, diameter and length		Copper core cable, 4mm ² (12AWG), 900mm
Type of connector		Type III or IV
No. of bypass diodes		3 pcs.
Max. Series Fuse		7A.
Temperature coefficient of P_{mpp}		-0.45% / °C
Temperature coefficient of I_{sc}		0.05% / °C
Temperature coefficient of U_{oc}		-0.35% / °C
NOCT (Nominal operating cell temperature)		47°C
MECHANICAL CHARACTERISTICS		
Dimension (AxBxC)		1581x809x40mm.
Weight of module		15.6kg.
Number of Draining Holes in Frame		4
Front glass, type and thickness		Low Iron Tempered Glass 3.2 mm.
Packing Configuration		2 pcs per carton or 24 in 1 bulk package
Quantity/Pallet		36 pcs/pallet
Loading Capacity		532 pcs/40ft or 674pcs/4'ft
ABSOLUTE RATINGS		
Operational Temperature		-40~+85°C
Package Temperature		-40~+85°C
Dielectric Insulation Voltage		2400 VDC max.
* STC Conditions (1000W/m ² ; 1,5 AM and 25°C Cell temperature)		

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