

TPV190-MO Photovoltaic panel family

Module family		TPV 190-MO / XXX Wp				
Module Type		TPV 190-MO 180W	TPV 190-MO 185W	TPV 190-MO 190W	TPV 190-MO 195W	TPV 190-MO 200W
Ellectrical parameter 1000W/m² (STC)						
Maximum Power (P Max)	[W]	180	185	190	195	200
Maximum system Voltage (V)	[V]			1000		
Maximum Power Voltage (Vmp)	[V]	36	36,2	36,4	36,8	36,9
Maximum Power Current (Imp)	[A]	5	5,11	5,2	5,3	5,42
Open Circuit Voltage (Voc)	[V]	44,8	44,8	44,8	45,4	45,6
Short Circuit Current (Isc)	[A]	5,48	5,51	5,62	5,67	5,8
Module Efficiency	%	14,10%	14,49%	14,88%	15,27%	15,67%
NOCT	°C			45±2		
Short-circuit Current temperature coefficient	% / °C			0,09		
Open-circuit Voltage temperature coefficient	% / °C			-0,38		
Peak power temperature coefficient	% / °C			-0,47		
Electrical protection				Class II		
Diodes				3 by-pass		
Junction box				1000V / IP65 TÜV		
IP safety				IP65		
Cable				4 mm ² / 1000mm / 1000V TÜV		
Connector				Solar-3 or Solar-4		
Cells						
Cell technology				Monocrystalline silicon cells		
Quantity of cells	db			72 (6x12)		
Dimension of cells	[mm]			125 x 125		
Cells connection				copper conductor		
Cell efficiency	%	16,8-17	17-17,2	17,2-17,4	17,6-17,8	17,8-18
Dimensions of module						
Lenght	[mm]			1580		
Width	[mm]			808		
Thickness	[mm]			35 / 45 / 50		
Thickness of glass	[mm]			High Transmiss, Low Iron, tempered glass 3,2mm		
Weight	[kg]			<15,5		
Common data						
Power tolerance	%			±3		
Operating temperature	°C			-40...+85		
Hail protection				227g steel ball fall down from 1m height and 60m/s wind		
Wind load	m/sec			60 (5400 Pascal)		
Performance warranty	% / year			Pm is not less than 90% in 10years and 80% in 25years		
Warranty	year			5		