

Technical Data – Evacuated Tube Heat Pipe

Model	47/1500	58/1800
Glass Material	High-quality borosilicate glass	
Outer glass tube diameter	47mm	58mm
Inner glass tube diameter	37mm	47mm
Outer glass tube length	1500mm	1800mm
Glass wall thickness	1.6mm (2mm on request)	
Single tube weight	1.5kg	2.1kg
High vacuum long term stability	$\leq 2 \times 10^{-3}$ Pa	
Absorptive coating	Al - C/CU selective compound	
Absorption coefficient	> 94%	
Emittance	< 6% (80°C)	
Heat loss	< 0.8W/m ² °C	
Heat Pipe type	High efficiency extended lifetime	
Heat Pipe material	High purity copper	
Heat Pipe fluid	Non outgassing water based fluid (non acetone)	
Stagnation Temperature	250°C	
Start-up temperature	25°C	
Start-up time	< 2 min	
Freezing tolerance	-30°C	
Pressure resistance	6 Bar	
Hail resistance	Ø 25mm	
Wind resistance	30m/s	
Heat impact resistance	No damage 3 time alternating impact 25°C and 90°C	
Warranty	10 years	
Life expectancy	>25 years	



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Technical Data – Evacuated Tube Heat Pipe Collectors

Model	ITS-47/1500-12	ITS-47/1500-30		
Evacuated Tube Heat Pipe Type	47/1500			
Number of Tubes	12	30		
Manifold material	High Purity copper			
Connecting Ports	2 x 22mm copper pipe			
Manifold casing	Coated Aluminum Extrusion			
Fitment area (m)	1m x 1.7m	2.3m x 1.7m		
Output Power (yearly average kWh/day for Cape Town)	4	9.6		
Output Power (yearly average kWh/day for Gauteng)	4	9.6		
Output Power (yearly average kWh/day for Windhoek)	4.55	10.9		
Certification	Solar keymark En 12975-2:2006			
Certification test center	TUV Rheinland			
Manufacturing Quality Assurance	ISO9001:2000			

Model	ITS-58/1800-12	ITS-58/1800-18	ITS-58/1800-24	ITS-58/1800-30
Evacuated Tube Heat Pipe Type	58/1800			
Number of Tubes	12	18	24	30
Manifold material	High Purity copper			
Connecting Ports	2 x 22mm copper pipe			
Manifold casing	Coated Aluminum Extrusion			
Fitment area (m)	1m x 2m	1.5m x 2m	2m x 2m	2.6m x 2m
Output Power (yearly average kWh/day for Cape Town)	4.8	7.2	9.6	12
Output Power (yearly average kWh/day for Gauteng)	4.8	7.2	9.6	12
Output Power (yearly average kWh/day for Windhoek)	5.5	8.2	10.9	13.6
Certification	Solar keymark En 12975-2:2006			
Certification test center	TUV Rheinland			
Manufacturing Quality Assurance	ISO9001:2000			



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