

# Acapella

by **joule**  
Manufacturing Excellence

## Solar Specification Solar 30 Tube System

System Size	30 Tube Collector
Gross Area	4.901m <sup>2</sup>
Aperture Area	2.791m <sup>2</sup>
Absorber Area	2.411m <sup>2</sup>
Collector Dimensions (L x W x D)	2.01m x 2.42 x 0.189m
Length of Tube	1.8m
Dist. Between Tubes/Panels	0.078m
Weight	106kg
Max Operating Pressure	6bar
Recommended Operating Pressure	2-3bar
Recommended Flow Rate	0.5l/min/m <sup>2</sup>
Fluid Volume in Collector	2.3l
Rated Heat Output	1.81kW

Materials	30 Tube Collector
Absorber	Aluminium
Coating	Aluminium Nitrate
Absorbance	>94%
Emissivity	<7%
Mounting Frame	Aluminium Nitrate
Glass	Borosilicate Glass
Mounting Inclination	15°-75°
Inlet Outlet Dimensions	3 ¼ bracket male
Stagnation Temperature	200.3°C
Insulation Material	Mineral Wool + Polyurethane
Heat Transfer Fluid	Glycol Mix
Efficiency Constants for G=8000W/m <sup>2</sup>	$\eta_0 = 0.734$ $a_1 = 1.529$ $a_2 = 0.0166$ (W/m <sup>2</sup> K)

Type	Test House	Test Results		
		Number	Cert. Number	Result
Hall Impact	TUV Rheinland	EN 12975-1:2006	21215813_JL	✓
		EN 12975-2:2006		
Keymark	Fraunhofer Institute	EN 12975-1:2 2006	KTB Nr 2007-07-en	✓
		MCS 004 ISSUE 2.3		
MCS	Intertec	INT ST 21013		✓
NSAI	NSAI IRE	IBR 1997 2009	10/0353	✓

