

high efficiency on-roof solar system



Mounting
Angle



Flat Roof
Frame Opt.



Multiple
Mounting



Remote
Controlling



aluminium
frame

2.5 m²
aperture
area

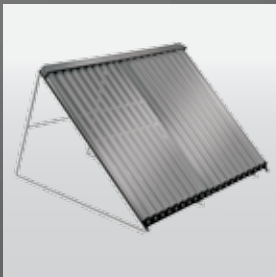


The sleek Joule Navitas on-roof solar system is designed and manufactured to work in Northern European climates. The collector's black finish makes it an attractive addition to any roof. The unique patented ventilation system ensures the collector provides maximum output while reducing heat loss from inside the collector.

- We are so confident of the quality of our solar collectors that we have tested to double and sometimes four times the requirements of EN12975:1-2 and they are Solar Keymark.

- The high efficiency collectors are further tested to determine their maximum impact force resistance levels and the maximum positive and negative loading force that the collectors can resist.
- The Joule Navitas range offers both vertical and horizontal options
- All testings has been carried out by the Building Research Establishment (BRE) in Watford.

Flat Roof Mounting Bracket



Bolt Mounting Bracket



Slate Roof Mounting Bracket

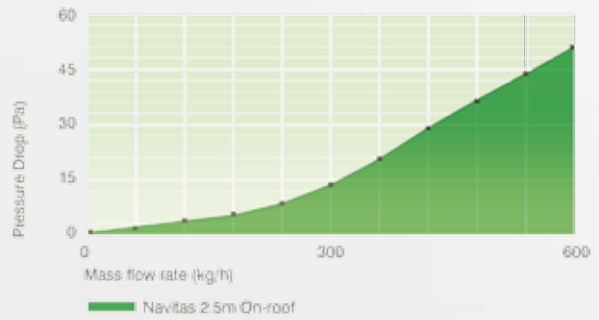


Tile Roof Mounting Bracket

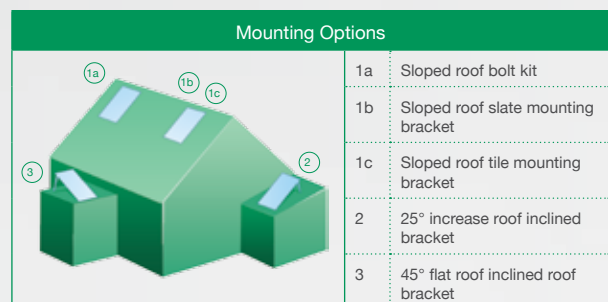
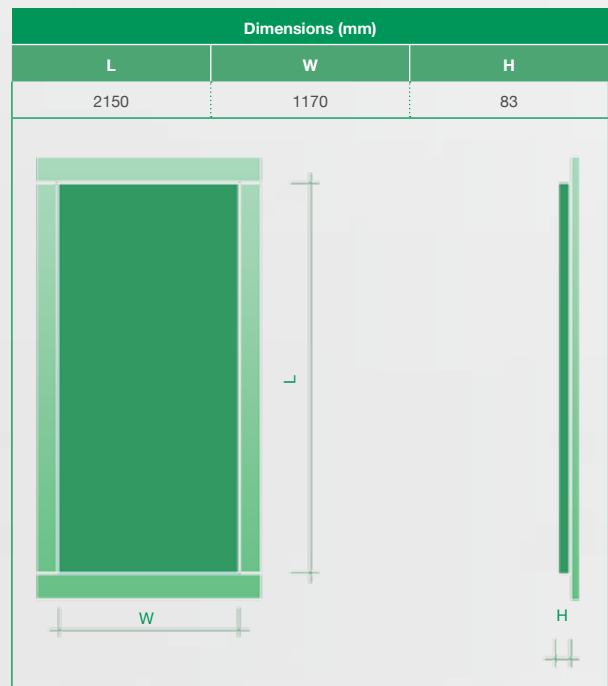




Navitas 2.5m On-roof - Pressure Drop Graph



Technical Data	
Dimensions	
Gross area (m ²)	2.517
Aperture area (m ²)	2.404
Absorber area (m ²)	2.314
Collector height (m)	0.083
Collector width (m)	1.17
Collector length (m)	2.15
Weight (kg)	39
Max operating pressure (bar)	10
Recommended operating pressure (bar)	6
Recommended flow rate (l/h/m ²)	15 - 65
Fluid volume in collector (l)	1.95
Rated heat output (kW)	
Materials	
Absorber (flat plate)	Aluminium
Coating	Highly selective vacuum coated
Absorbance	95%
Emissivity	5%
Casing / Manifold	Extruded Aluminium
Glass	3.2mm Tempered solar safety glass
Mounting inclination	15° - 75°
Inlet outlet dimensions (inch)	3 1/4 threaded connection
Stagnation temperature (°C)	181 °C under test conditions
Insulation material	40mm Mineral wool
Heat transfer fluid	Propylene glycol / water mixture
Efficiency Constants for G=8000W/m ² (Aperture Area)	$\eta_0 = 0.785$ $a_1 = 3.594$ $a_2 = 0.014$ (W/m ² K)



TEST RESULTS				
TYPE	TEST HOUSE	NO.	CERT. NUMBER	RESULT
Hail Impact	TUV Rheinland	EN 12975-1:2006 and EN 12975-2:2006	21215813_JL	✓
Keymark	Fraunhofer Institute	EN12975-1:2 2006	KTB Nr 2007-07-en	✓
MCS	Intertec	MCS 004 ISSUE 2.3	INT ST 21013	✓
NSAI	NSAI IRE	IBR 1997 2009	10/0353	✓
BRE	BRE UK	EN 12975-2	264-584/1	✓