CERTIFICATE

MCS Product Certificate

Date Issued	*7th August 2024*	**Annual review date**	*29th September*
Issue number	*4 – erratum correction*	**Orignal/Amendment**	*Original*
Certificate number	*KIWA00037*	**Page**	*1 of 5*

MCS Product Certification Certificate

Issued by Kiwa Ltd

MCS Product Certification Scheme Standards – MCS010, MCS011, MCS012
Model designations – see Appendix

Producer:

Van der Valk Solar Systems B.V

Zwartendijk 73
Monster
2681 LP
The Netherlands

Manufacturer:

As Above

Kiwa Ltd declares that the products detailed in the Appendices have been assessed by Kiwa and meet the requirements of the above MCS Product Certification Standards.

Signed on behalf of Kiwa Ltd

Mark Crowther
MCS Certification Director
Kiwa Ltd

This certificate is subject to the producer continuing to comply with the Kiwa MCS Product Scheme Rules and ongoing Annual Surveillance

UKAS PRODUCT CERTIFICATION 0217

MCS CERTIFIED

CERTIFICATE

The following products have been assessed and registered by Kiwa Ltd against the provisions of: MCS 010, MCS 011, MCS 012

Product Name	Model Name	MCS Certificate Number
ValkPitched	ValkPitched Clamp for tiled roofs	KIWA00037/002 IK

Type	*Above Roof:* *System*	
System components	*Components for this system are listed in ANNEX I – only those listed are included in the scope of the certification.*	
System/Component Description	*Roof hook based system with rails attached by bolts. Range of screw locations for mounting the hooks. Hooks are adjustable vertically and horizontally. PV modules fixed with aluminium clamps.*	
Compatible Roof Coverings	• *Discontinuous* o *Profile concrete/clay tile* o *Plain concrete/clay tile*	
Tests Undertaken (strikethrough inapplicable)	*Resistance to wind uplift*	*Yes / ~~No~~*
	Fire performance	*~~Yes~~ / No*
	Weather tightness	*Yes / ~~No~~*

Resistance to Wind Uplift			
If attached to sub-structure: Compatible substructures	*Timber*		
Test Preparation	*2 Solar PV modules mounted onto 2 horizontally positioned mounting rails. 2 end clamps applied on the outside edge of each panel and 2 middle clamps between the adjacent edges of the panels. The mounting rails each attached to 3 standard Strongline roof hooks onto the wooden substructure of the test rig. Rig slope of 45° with uplift loading system attached to the PV modules, each with 8 suction cups. Cyclic loading, unloading applied to determine failure load. 3 tests with new fittings and the Characteristic Wind Uplift Resistance calculated from the results.*		
Maximum Design Wind Uplift Resistance	*3.6 kPa*	Partial (safety) factor(s)	*1.0*
Failure Mode	*Serviceability Limit State*		
If attached to timber sub-structure: For certified wind uplift resistance in sound timber - dimensions	*width 55 mm X depth 150 mm*		

Weathertightness						
If discontinuous roof covering						
Reference Roof Covering	Type:	*Tiles*	Pitch:	*30 °*	Head-lap	*Not determined*
	Maximum unprotected gap in reference roof covering (+/- 1mm)					*Not determined*
Maximum unprotected gap with mounting system/component installed (+/- 1mm)						*Not determined*
Minimum Permissible roof Pitch (°)						*30 °*
Test B (if applicable)	Applied suction at leakage rate 10g/m2/5min					*0.06 kPa*
Test D (if applicable)	Leakage observed after 2 min					*0 g*

Fire Performance		
Fire Classification	BS 476-3: 2004	*Not determined*
	CEN TS 1187:2012 Test 4	*Not determined*
	Not required	*The fire performance of this above roof mounting system is not currently required for MCS 012. Research is ongoing into any influence above roof solar panels could have on the fire classification of the roof mounting system.*

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The following products have been assessed and registered by Kiwa Ltd against the provisions of: MCS 010, MCS 011, MCS 012

Product Name	Model Name	MCS Certificate Number
ValkAce	ValkAce for tiled roofs	KIWA00037/003 IK

Type	*Above Roof:* *System*					
System components	*Components for this system are listed in ANNEX I – only those listed are included in the scope of the certification.*					
System/Component Description	*SS Roof hook based system with rails attached aluminium clip arrangement. Range of screw locations for mounting the hooks. Hooks are height adjustable. PV modules fixed with aluminium clamps.*					
Compatible Roof Coverings	• *Discontinuous* o *Profile concrete/clay tile* o *Plain concrete/clay tile*					
Tests Undertaken	*Resistance to wind uplift*	*Yes / ~~No~~*				
	Fire performance	*~~Yes~~ / No*				
	Weather tightness	*Yes / ~~No~~*				
Resistance to Wind Uplift						
If attached to sub-structure: Compatible substructures	*Timber*					
Test Preparation	*2 Solar PV modules mounted onto 2 horizontally positioned mounting rails. 2 end clamps applied on the outside edge of each panel and 2 middle clamps between the adjacent edges of the panels. The mounting rails each attached to 3 Strongline roof hooks onto the wooden substructure of the test rig. Rig slope of 45° with uplift loading system attached to the PV modules, each with 8 suction cups. Cyclic loading, unloading applied to determine failure load. 3 tests with new fittings and the Characteristic Wind Uplift Resistance calculated from the results.*					
Maximum Design Wind Uplift Resistance	*1.716 kPa*	Partial (safety) factor(s)	*1.0*			
Failure Mode	*Serviceability Limit State*					
If attached to timber sub-structure: For certified wind uplift resistance in sound timber - dimensions	*width 55 mm X depth 150 mm*					
Weathertightness						
If discontinuous roof covering						
Reference Roof Covering	Type:	*Tiles*	Pitch:	*30 °*	Head-lap	*Not determined*
	Maximum unprotected gap in reference roof covering (+/- 1mm)					*Not determined*
Maximum unprotected gap with mounting system/component installed (+/- 1mm)						*Not determined*
Minimum Permissible roof Pitch (°)						*30 °*
Test B (if applicable)	Applied suction at leakage rate 10g/m2/5min					*0.06 kPa*
Test D (if applicable)	Leakage observed after 2 min					*0 g*
Fire Performance						
Fire Classification	BS 476-3: 2004	*Not determined*				
	CEN TS 1187:2012 Test 4	*Not determined*				
	Not required	*The fire performance of this above roof mounting system is not currently required for MCS 012. Research is ongoing into any influence above roof solar panels could have on the fire classification of the roof mounting system.*				

CERTIFICATE

The following products have been assessed and registered by Kiwa Ltd against the provisions of: MCS 010, MCS 011, MCS 012

Product Name	Model Name	MCS Certificate Number
ValkPitched	ValkPitched Clamp Trapezoidal	KIWA00037/004 IK

Type	*Above Roof:* *System*			
System components	*Components for this system are listed in ANNEX I – only those listed are included in the scope of the certification.*			
System/Component Description	*Mini rail based customizable installation kit for attachment to trapezoidal profiled continuous metal roof coverings.*			
Compatible Roof Coverings	*• Continuous:* *o Sheet or profiled metal*			
Tests Undertaken	*Resistance to wind uplift*	*Yes / ~~No~~*		
	Fire performance	*~~Yes~~ / No*		
	Weather tightness	*Yes / ~~No~~*		
Resistance to Wind Uplift				
If attached to roof covering: Compatible roof covering	*Profiled metal (Trapezoidal)*			
Test Preparation	*2 Solar PV modules mounted onto Falk 1100 TR 3+ 40/70, 0,50/0,40 / 37 sandwich panels using the mounting system according to manufacturer's instructions. Sandwich panels mounted on standard testing rig, slope 45° and the uplift loading system attached to the PV modules, each with 8 suction cups. Cyclic loading, unloading applied to determine failure load. 3 tests with new fittings and the Characteristic Wind Uplift Resistance calculated from the results.*			
Maximum Design Wind Uplift Resistance	*1.23 kPa*	Partial (safety) factor(s)	*1.0*	
Failure Mode	*Serviceability Limit State*			
If attached to timber sub-structure: For certified wind uplift resistance in sound timber - dimensions	*NOT APPLICABLE*			
Weathertightness				
If continuous roof covering				
Reference Roof Covering	Type:	Trapezoidal metal sheet	Pitch:	*0 °*
Impermeability test (if applicable)	Leakage observed at end of test			*0 g*
Test D (if applicable)	Leakage observed after 2 min			*Not applicable*
Fire Performance				
Fire Classification	BS 476-3: 2004	*Not determined*		
	CEN TS 1187:2012 Test 4	*Not determined*		
	Not required	*The fire performance of this above roof mounting system is not currently required for MCS 012. Research is ongoing into any influence above roof solar panels could have on the fire classification of the roof mounting system.*		

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The following components are common for the product systems that have been assessed and registered by Kiwa Ltd against the provisions of:

MCS 010, MCS 011, MCS 012

Mounting frame installation components
ValkPitched Clamp for tiled roofs
Customisable kit comprising variable numbers of the following parts:
Ss Strongline roof hook (747844)
Ss Torx Screw 5.5x58mm (773360)
Alu. Side++ profile (7017xxxxx) (various lengths)
Alu. Coupling for Side++ profile (724863)
Mid panel clamp for alu profile – T30 – clamping range 28-50mm (721550)
End panel clamp for alu profile – T30 – clamping range 28-50mm (721552)
ValkAce for tiled roofs
Customisable kit comprising variable numbers of the following parts:
Ss Strongline roof hook – ValkAce (747506)
Ss Strongline Heavy Duty roof hook – ValkAce (747504)
Ss Torx Screw 5.5x58mm (773360)
Alu. Profile ValkAce (701900000) (various lengths)
Coupling piece ValkAce profile (749502)
Alu. Mid clamp ValkAce (721410)
Alu. End clamp ValkAce (721412)
ValkPitched Clamp Trapezoidal
Alu. trapezoidal profile L=120mm + EPDM (7269120)
Ss. thin sheet screw M6x25mm (773225)
Alu. mid panel clamp alu profile 28-50mm
Alu. end panel clamp alu profile 28-50mm