

KL-ESW



ASSESSMENTS



PRODUCT DESCRIPTION

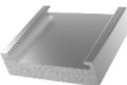
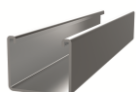
Kit made up of aluminium profiles, for ballasted system east-west orientation.

CHARACTERISTICS

- Assembly kit that brings together all the necessary components for the installation of a given number of photovoltaic modules.
- Installation according to **SL-ESW** for mounting ballasted systems.
- Includes quick-fixing clamps for modules ref. **KFRSC3050**. *(Only for A y B1 components)*
- Includes **GM-A** macro gauges, available at height of 30, 35 or 40mm. *(Only for A y B1 components)*
- Includes aluminium profiles with wings and EPDM for **PSA-AE** ballasted systems.
- Includes quick-fixing nut **TU-RX A2** for fixing PSA-AE profiles with wings to the lower ballasted profile PLI.
- Includes different elements to fix the profiles such as screws **DIN-6921 A2**, stainless steel bushing **CA-RI**, nut **DIN-6923 A2** and washers **DIN-125 A2**.
- Includes **PSA-UN** union profiles and self-drilling screws **DIN-7504-K A2** with hexagonal head in A2 stainless steel to fix them. *(Only for B1 component)*



COMPONENTS

Quick-fixing clamp	Aluminium gauge for macro	Quick-fixing guide nut A2	Aluminium profile with wings and EPDM	Stainless steel solar bushing	Stainless steel screw DIN-6921 A2	Union for aluminium profiles
						
KFR-SC	GM-A	TU-RX A2	PSA-AE	CA-RI	DIN-6921 A2	PSA-UN
Upper ballasted profile	Lower ballasted profile	Base ballasted profile	Nut DIN-6923 A2	Washer DIN-125 A2	Self-drilling screw	Middle narrow clamp
						
PLS	PLI	PLA	DIN-6923 A2	DIN-125 A2	DIN-7504-K A2	PGS-E

APPLICATIONS

- Mounting solar panels in an inclined position with respect to the roof surface, on flat roof.
- Installation in all types of flat roof, on triangles fixed with ballasted at an inclination of 10° o 15°.
- For plates with 30, 35 or 40mm frame high.
- Modules up to 1150 mm wide.
- Horizontal orientation of the mounting plates.
- Ballasted system over the roof, consult the specifications on the assembly manual **FTA_GS_M_SL-ESW**.

1.RANGE

ITEM	COMPONENT	CODE	PHOTO	DESCRIPTION	MATERIAL		
1	A	KLAEW		Kit for ballasted system type A east-west orientation	 Aluminium	 AISI-304	 EPDM
2	B	KLBEW		Kit for ballasted system type B east-west orientation	 Aluminium	 AISI-304	 EPDM
3	B1	KLBEW1		Kit for ballasted system type B1 east-west orientation	 Aluminium	 AISI-304	 EPDM

2. INSTALLATION DATA

2.1 KLAEW

Ballasted kit with aluminium profiles. Component A (2 modules)



 2 modules Reference	Kit Components										
	Quick-fixing clamp	Aluminum gauge for macro	Quick-fixing guide nut A2	Aluminium profile with wings and EPDM	Stainless steel solar bushing	Stainless steel screw DIN-6921 A2	Upper ballasted profile	Lower ballasted profile	Base ballasted profile	Nut DIN-6923 A2	Washer DIN-125 A2
KLAEW1030 (H=30mm) (β=10°)	KFRSC3050 8 units	GMA030 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI101300 2 units	PLA100232 4 units	D6923IM08 12 units	D125IM08 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units					
KLAEW1035 (H=35mm) (β=10°)	KFRSC3050 8 units	GMA035 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI101300 2 units	PLA100232 4 units	D6923IM08 12 units	D125IM08 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units					
KLAEW1040 (H=40mm) (β=10°)	KFRSC3050 8 units	GMA040 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI101300 2 units	PLA100232 4 units	D6923IM08 12 units	D125IM08 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units					
KLAEW1530 (H=30mm) (β=15°)	KFRSC3050 8 units	GMA030 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI151277 2 units	PLA150334 4 units	D6923IM08 12 units	D125IM08 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units					
KLAEW1535 (H=35mm) (β=15°)	KFRSC3050 8 units	GMA035 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI151277 2 units	PLA150334 4 units	D6923IM08 12 units	D125IM08 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units					
KLAEW1540 (H=40mm) (β=15°)	KFRSC3050 8 units	GMA040 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI151277 2 units	PLA150334 4 units	D6923IM08 12 units	D125IM08 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units					

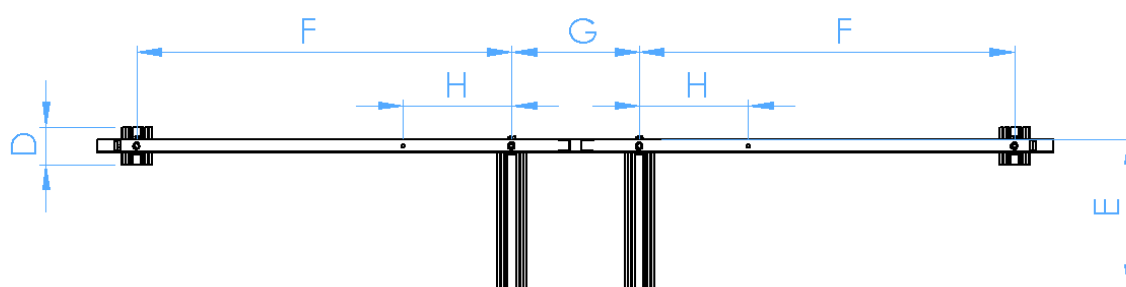
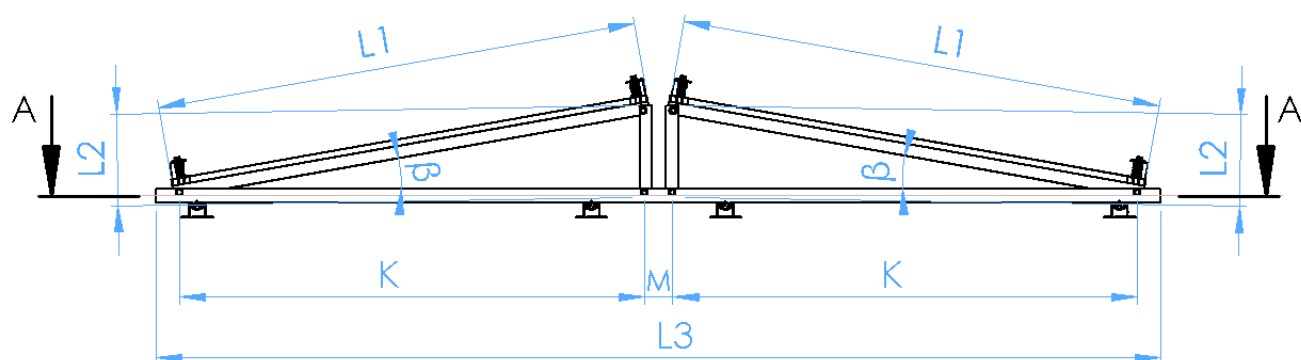
Roof

Consult technical data sheet corresponding to the FTA_GS_M_SL-ESW assembly system.

Measurement table

Code	β (°)	L1 (mm)	L2 (mm)	L3 (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	K (mm)	M (mm)
KLAEW1030	10	1225	232	2550	100	400	1000	340	290	1180	70
KLAEW1035	10	1225	232	2550	100	400	1000	340	290	1180	70
KLAEW1040	10	1225	232	2550	100	400	1000	340	290	1180	70
KLAEW1530	15	1225	334	2550	100	400	1000	340	290	1157	70
KLAEW1535	15	1225	334	2550	100	400	1000	340	290	1157	70
KLAEW1540	15	1225	334	2550	100	400	1000	340	290	1157	70

Drawing



SECCIÓN A-A

2.2 KLB EW

Ballasted kit with aluminium profiles. Component B (4 modules)



4 modules

Reference

Kit Components

	Upper ballasted profile	Lower ballasted profile	Base ballasted profile	Aluminium profile with wings and EPDM	Stainless steel solar bushing	Stainless screw DIN-6921 A2	Quick-fixing guide nut A2	Middle narrow clamp	Nut DIN-6923 A2	Washer DIN-125 A2
KLB EW010	PLS001225 2 units	PLI102550 1 unit	PLA100232 2 units	PSAAE0100 2 units	CARI0825 2 units	6921I08020 4 units	TURXA208 8 units	PGSE14 4 units	D6923IM08 6 units	D125IM08 4 units
				PSAAE0400 2 units	CARI0823 4 units	6921I08050 6 units				
KLB EW015	PLS001225 2 units	PLI152550 1 unit	PLA150334 2 units	PSAAE0100 2 units	CARI0825 2 units	6921I08020 4 units	TURXA208 8 units	PGSE14 4 units	D6923IM08 6 units	D125IM08 4 units
				PSAAE0400 2 units	CARI0823 4 units	6921I08050 6 units				

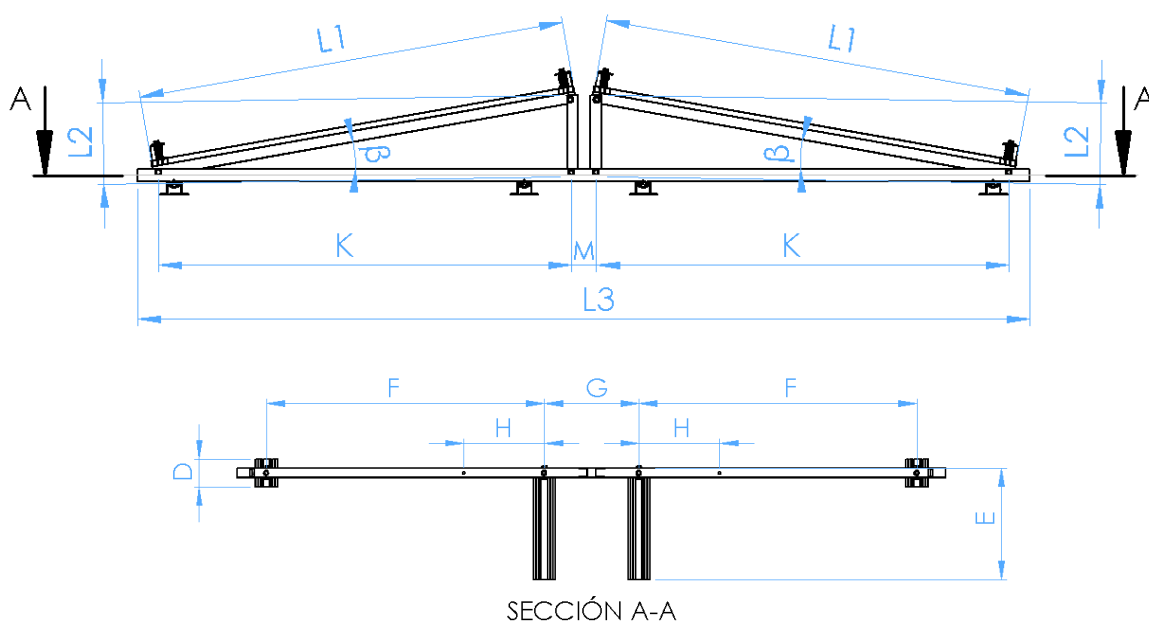
Roof

Consult technical data sheet corresponding to the FTA_GS_M_SL-ESW assembly system.

Measurement table

Code	β (°)	L1 (mm)	L2 (mm)	L3 (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	K (mm)	M (mm)
KLB EW010	10	1225	232	2550	100	400	1000	340	290	1180	70
KLB EW015	15	1225	334	2550	100	400	1000	340	290	1180	70

Drawing



2.3 KLBW1

Ballasted kit with aluminum profiles. Component B1



	Componentes Kit												
	Quick-fixing clamp	Aluminium gauge for macro	Quick-fixing guide nut A2	Aluminium profile with wings and EPDM	Stainless steel solar bushing	Stainless screw DIN-6921 A2	Upper ballasted profile	Lower ballasted profile	Base ballasted profile	Nut DIN-6923 A2	Washer DIN-125 A2	Union for aluminium profiles	Self-drilling screw
Reference													
KLBW1030 (H=30mm) (β=10°)	KFRSC3050 8 units	GMA030 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI102550 2 units	PLA100232 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
KLBW1035 (H=35mm) (β=10°)	KFRSC3050 8 units	GMA035 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI102550 2 units	PLA100232 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
KLBW1040 (H=40mm) (β=10°)	KFRSC3050 8 units	GMA040 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI102550 2 units	PLA100232 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
KLBW1530 (H=30mm) (β=15°)	KFRSC3050 8 units	GMA030 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI152550 2 units	PLA150334 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
KLBW1535 (H=35mm) (β=15°)	KFRSC3050 8 units	GMA035 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI152550 2 units	PLA150334 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
KLBW1540 (H=40mm) (β=15°)	KFRSC3050 8 units	GMA040 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI152550 2 units	PLA150334 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
Roof													
Consult technical data sheet corresponding to the FTA_GS_M_SL-ESW assembly system.													

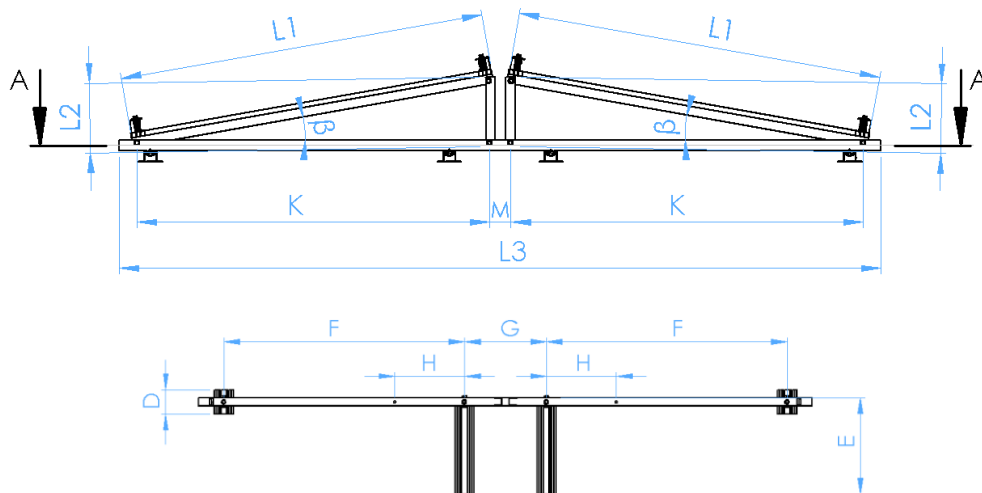
TECHNICAL DATA SHEET:

Solar range / Solar panel installation kits

Measurement table

Code	β (°)	L1 (mm)	L2 (mm)	L3 (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	K (mm)	M (mm)
KLBEW1030	10	1225	232	2550	100	400	1000	340	290	1180	70
KLBEW1035	10	1225	232	2550	100	400	1000	340	290	1180	70
KLBEW1040	10	1225	232	2550	100	400	1000	340	290	1180	70
KLBEW1530	15	1225	334	2550	100	400	1000	340	290	1157	70
KLBEW1535	15	1225	334	2550	100	400	1000	340	290	1157	70
KLBEW1540	15	1225	334	2550	100	400	1000	340	290	1157	70

Drawing



SECCIÓN A-A

Componentes Kit

Reference	Quick-fixing clamp	Aluminium gauge for macro	Quick-fixing guide nut A2	Aluminium profile with wings and EPDM	Stainless steel solar bushing	Stainless screw DIN-6921 A2	Upper ballasted profile	Lower ballasted profile	Base ballasted profile	Nut DIN-6923 A2	Washer DIN-125 A2	Union for aluminium profiles	Self-drilling screw
KLBEW1030 (H=30mm) ($\beta=10^\circ$)	KFRSC3050 8 units	GMA030 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI102550 2 units	PLA100232 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
KLBEW1035 (H=35mm) ($\beta=10^\circ$)	KFRSC3050 8 units	GMA035 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI102550 2 units	PLA100232 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
KLBEW1040 (H=40mm) ($\beta=10^\circ$)	KFRSC3050 8 units	GMA040 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI102550 2 units	PLA100232 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
KLBEW1530 (H=30mm) ($\beta=15^\circ$)	KFRSC3050 8 units	GMA030 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI152550 2 units	PLA150334 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							

TECHNICAL DATA SHEET:

Solar range / Solar panel installation kits

KLBW1535 (H=35mm) (β=15°)	KFRSC3050 8 units	GMA035 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI152550 2 units	PLA150334 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							
KLBW1540 (H=40mm) (β=15°)	KFRSC3050 8 units	GMA040 8 units	TURXA208 8 units	PSAAE0100 4 units	CARI0825 4 units	6921I08020 8 units	PLS001225 4 units	PLI152550 2 units	PLA150334 4 units	D6923IM08 12 units	DIN125IM08 8 units	PSAUN200 2 units	ABEI5519 8 units
				PSAAE0400 4 units	CARI0823 8 units	6921I08050 12 units							

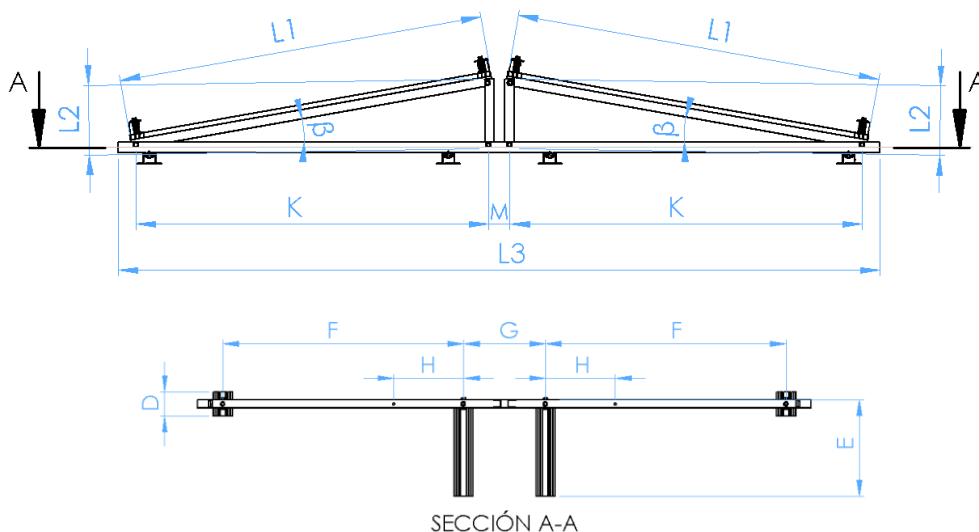
Roof

Consult technical data sheet corresponding to the FTA_GS_M_SL-ESW assembly system.

Measurement table

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KLBW1035	10	1225	232	2550	100	400	1000	340	290	1180	70
KLBW1040	10	1225	232	2550	100	400	1000	340	290	1180	70
KLBW1530	15	1225	334	2550	100	400	1000	340	290	1157	70
KLBW1535	15	1225	334	2550	100	400	1000	340	290	1157	70
KLBW1540	15	1225	334	2550	100	400	1000	340	290	1157	70

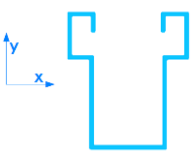
Drawing



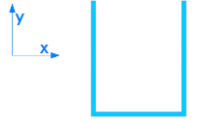
Mechanical properties of the material

	Yield strength F _{y0,2} (N/mm ²)	Breaking load F _u (N/mm ²)	Elastic modulus E (N/mm ²)	Transverse elastic modulus G (N/mm ²)	Linear coef. of expansion α _L (μ m / C°)	Specific Weight ρ (Kg/m ³)
Aluminium EN AW-6063-T6	170	215	69.500	26.100	23,5	2.700

Mechanical properties of the profile.

	Area S (cm ²)	Moment of inertia I _x (cm ⁴)	Moment of inertia I _y (cm ⁴)	Linear weight W (kg/m)
 Upper ballasted profile	2,38	3,93	7,78	0,64 (plano)

TECHNICAL DATA SHEET:
Solar range / Solar panel installation kits

 Lower ballasted profile	2,11	3,71	3,51	0,59
 Base ballasted profile	1,81	2,02	4,01	0,48