



**SOLAR SYSTEMS**

Solar collectors

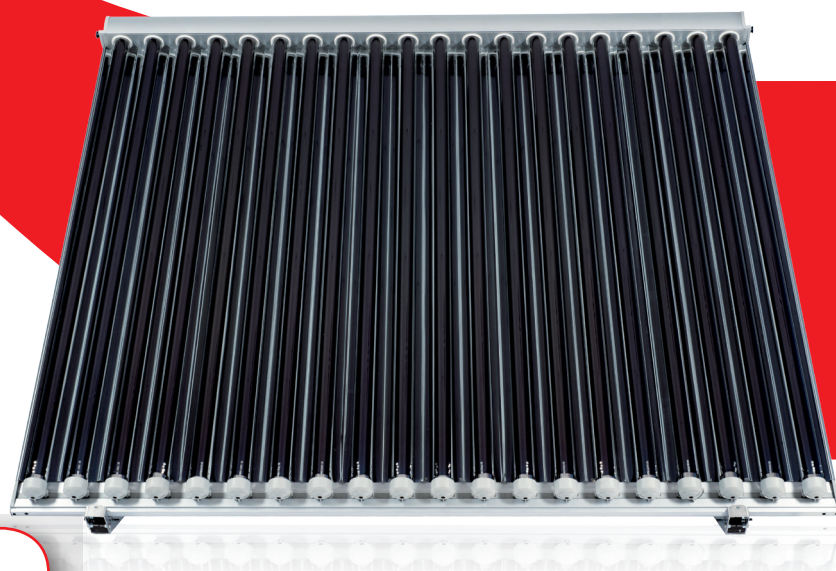
**SKY PRO CPC 58 | SERIES 1800**

10 | 12 | 14 | 16 | 18 | 20

**Kloben**  
Solar Evolution

Kloben SKY PRO CPC 58 1800 solar collectors are the perfect combination between high efficiency and leading edge design.

Fully designed and manufactured in Klobens' Italian facilities, SKY PRO CPC 58 1800 solar collectors undergo extensive checks to guarantee constant and reliable performances. Only top quality materials are used. The glass tube is double-walled and glass welded at the end. A vacuum is induced within the two glass walls. The internal wall is coated with a recycled multi-layer metallic selective material which maximizes the absorption of the sun's electromagnetic radiation.

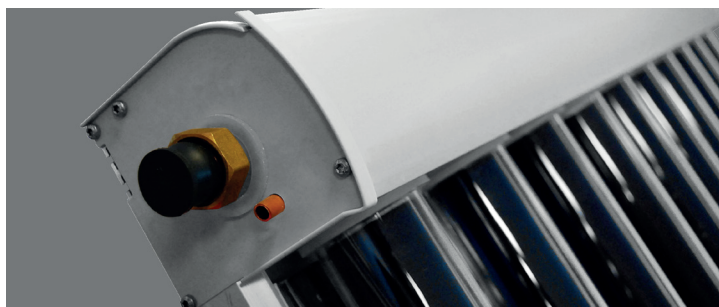


**ADVANTAGES**

- > Designed and dimensioned for large consumers
- > Ø 18 mm collector attachments
- > Simplified pipe removal thanks to the EASY CHANGE system
- > Reduced thermal losses thanks to the vacuum technology
- > Optimal insulation
- > Advanced and appealing design
- > High quality clamping

**RESISTANCE TO IMPACT**

According to SABS 1210:1992 - Test Report n° 08SU34  
**13,6 J max test value**



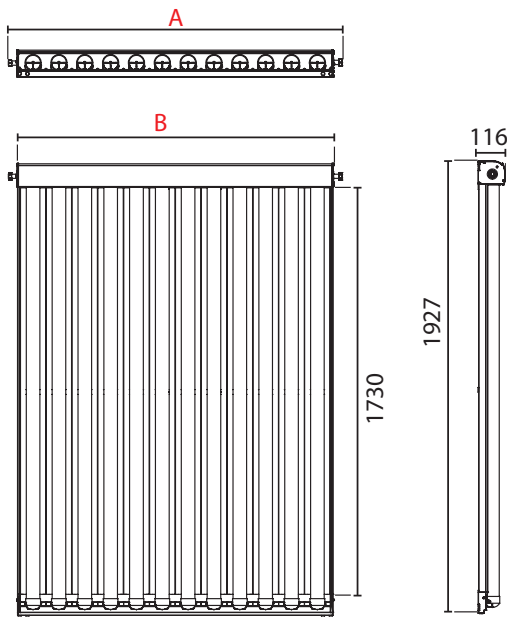
EN 12975-1:2006 | EN 12975-2:2006

REG. NO. 011-751476 R

## Solar collectors

### SKY PRO CPC 58 | **SERIES** 1800

10 | 12 | 14 | 16 | 18 | 20



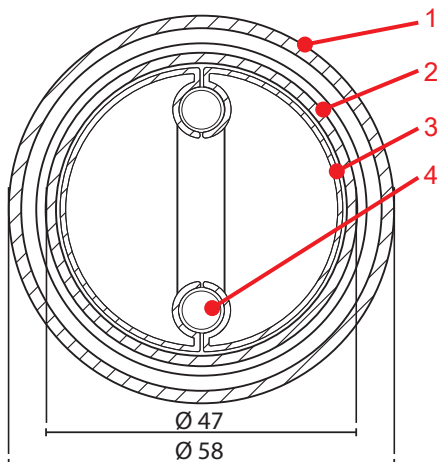
The absorption consists of a "U" shape copper circuit, which is in contact with specific aluminium heat conductors that increase the heat exchange area. Each unit is contained in a glass pipe that is connected in parallel to a collector located at the top of the panel and collects the carrier fluid flowing in each circuit. In compliance with the Regulations, the metal frame is electrostatically painted to prevent saline mist corrosion. The assembly of the individual components, which make up the structure, takes place using special brackets for simplified interlocking assembly. The profile is designed so to allow the complete "interlocking" assembly of the collector.

The protective structure of the copper distribution collector is made of electro-coloured aluminium and has the same features of the frame: it is fully insulated with "ISOPPLUS", water resistant and low bio-persistence class 0 (ISO - DIS 1182.2) fire-proof insulation. Low iridescence rolled section (regulations EN 573/3 - EN 485/2 - EN 485/4 and standard test for anodic oxidation DIN 50943) purposely created to reflect with percentages greater than 90% of the total light, taking advantage of the CPC (Compound Parabolic Concentrator) system.

#### COLLECTORS RANGE

Number of pipes	10	12	14	16	18	20
Gross area (m <sup>2</sup> )	2,17 m <sup>2</sup>	2,59 m <sup>2</sup>	3,01 m <sup>2</sup>	3,43 m <sup>2</sup>	3,86 m <sup>2</sup>	4,28 m <sup>2</sup>

Specifications	SKY PRO 10	SKY PRO 12	SKY PRO 14	SKY PRO 16	SKY PRO 18	SKY PRO 20
A (mm)	1200	1420	1640	1860	2038	2300
B (mm)	1122	1342	1562	1782	2002	2222
Number of pipes	10	12	14	16	18	20
Weight when empty	43 kg	51 kg	60 kg	68 kg	77 kg	85 kg
Liquid content	1,47 litri	1,76 litri	2,06 litri	2,35 litri	2,64 litri	2,93 litri
Gross area	2,17 m <sup>2</sup>	2,59 m <sup>2</sup>	3,01 m <sup>2</sup>	3,43 m <sup>2</sup>	3,86 m <sup>2</sup>	4,28 m <sup>2</sup>
Aperture area	1,90 m <sup>2</sup>	2,28 m <sup>2</sup>	2,66 m <sup>2</sup>	3,04 m <sup>2</sup>	3,43 m <sup>2</sup>	3,81 m <sup>2</sup>
Absorption area	2,59 m <sup>2</sup>	3,11 m <sup>2</sup>	3,62 m <sup>2</sup>	4,14 m <sup>2</sup>	4,65 m <sup>2</sup>	5,17 m <sup>2</sup>



- 1 - Borosilicate glass external pipe
- 2 - Internal pipe with selective coat
- 3 - Aluminium absorber
- 4 - U-type copper circuit

Specifications	SKY PRO 10	SKY PRO 12 -> 20
External diameter of the vacuum pipes	58 mm	
Attacchi collettore	18 mm	
Yield	$\eta_0 = 72,40\%$	$\eta_0 = 71,80\%$
Thermal loss coefficients	$a_1 = 0,986 \text{ W/m}^2\text{K}$ $a_2 = 0,006 \text{ W/m}^2\text{K}^2$	$a_1 = 1,051 \text{ W/m}^2\text{K}$ $a_2 = 0,004 \text{ W/m}^2\text{K}^2$
Maximum working pressure	6,0 bar	
Optimal flow rate	1 l/min m <sup>2</sup>	
IAMT,50°	1,09	
IAML,50°	0,90	

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