

Product name and description

Vacuum tube solar thermal collectors.
For technical information see Appendix (2 pages).

Models: SZ58/1800-10H5 SZ58/1800-15H5 SZ58/1800-20H5
SZ58/1800-25H5 SZ58/1800-30H5

Performance specification

The product is found to comply with the requirements in EN 12975-1:2006+A1:2010 Solar collectors, Part 1: General requirements and the Specific CEN Keymark Scheme Rules for Solar Thermal Products, and are based on test results according EN 12975-2:2006 Solar collectors Part 2: Test methods.

Marking

Products conforming to this certificate shall be marked in accordance with the requirements in the Specific CEN Keymark Scheme Rules for Solar Thermal Products. The marking shall, together with the Keymark logo, show the identification code of the empowered certification body (RISE Research Institutes of Sweden AB, No. 012), also see CEN-CENELEC Internal Regulations Part 4 Certification, Annex A.

Validity

This certificate is valid until 2021-11-29 provided that the conditions in the Solar Keymark Rules are fulfilled and the standard or rules are not modified significantly. The validity of the certificate can be checked in the database, see Solar Keymark website <http://www.solarkeymark.org>.

Miscellaneous

The manufacturer's factory production control procedures are under surveillance by the responsibility of RISE. This certificate was first issued 2015-06-24. RISE certification rules SPCR 402 for Keymark – Solar Thermal Products applies.



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Certificate No. SC0417-15 | issue 2 | 2017-08-24

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2017-08-08



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Annex to Solar Keymark Certificate - Summary of EN ISO 9806:2013 Test Results

Licence Number	SP SC0417-15
Date issued	2017-08-24
Issued by	RISE

Licence holder	Country
Brand (optional)	Web
Street, Number	E-mail
Postcode, City	Tel

Collector Type Evacuated tubular collector

Collector name	Gross area (A _G) m ²	Gross length mm	Gross width mm	Gross height mm	Power output per collector G _b = 850 W/m ² ; G _d = 150 W/m ² θ _m - θ _a					
					0 K	10 K	30 K	50 K	70 K	49 K
					W	W	W	W	W	W
SZ58/1800-10H5	1,64	1978	828	110	629	606	545	465	365	469
SZ58/1800-15H5	2,41	1978	1218	110	925	891	802	684	537	690
SZ58/1800-20H5	3,18	1978	1608	110	1221	1177	1059	903	709	910
SZ58/1800-25H5	3,95	1978	1998	110	1518	1462	1316	1122	880	1131
SZ58/1800-30H5	4,72	1978	2388	110	1814	1748	1572	1341	1052	1352
Power output per m² gross area					384	370	333	284	223	286

Performance parameters test method		Steady state - outdoor								
Performance parameters (related to AG)		η _{0,hem}	a1	a2						
Units		-	W/(m ² K)	W/(m ² K ²)						
Test results		0,384	1,253	0,015						

Incidence angle modifier test method		Steady state - outdoor									
Bi-directional incidence angle modifiers		Yes									
Incidence angle modifier		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
Transversal		K _{θT, coll}	1,04	1,08	1,14	1,20	1,42	1,64	1,09	0,55	0,00
Longitudinal		K _{θL, coll}	0,99	0,98	0,96	0,95	0,94	0,71	0,47	0,24	0,00

Heat transfer medium for testing		Water									
Flow rate for testing (per gross area, A_G)		dm/dt	0,012	kg/(sm ²)							
Maximum temperature difference for thermal performance calculations		(θ _m - θ _a) _{max}	49,13	K							
Standard stagnation temperature (G = 1000 W/m²; θ_s = 30 °C)		θ _{stg}	230	°C							
Effective thermal capacity, incl. fluid (per gross area, A_G)		C/m ²	24,95	kJ/(Km ²)							
Maximum operating temperature		θ _{max op}	-	°C							
Maximum operating pressure		p _{max,op}	600	kPa							

Testing laboratory	Intertek Testing Services Shenzhen Ltd. Guangzhou	http://www.intertek.com
Test report(s)	150513057GZU-001	Dated 2015-06-02

Comments of testing laboratory Datasheet version: 5.01, 2016-03-01

The negative test was not performed as it is an evacuated tube collector type not application for this item according to EN12975-2:2006.

ITW Test reports No. 10COL919, 10COL920 and 10COL920Q dated 2011-05-10 are also used for evaluation of the certified product.



