

# CERTIFICATE

**Certificate holder**

**Riello S.p.A.**  
**Via Ing. Pilade Riello 7**  
**37045 Legnago VR**  
**ITALY**

**Production facility**

Morbegno

**Product**

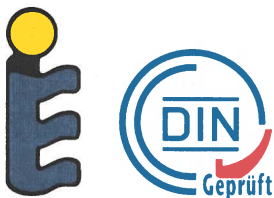
Solar collectors

**Type, Model**

CP20TSS

**Testing basis**

DIN EN 12975-1:2011-01  
DIN EN 12975-2:2006-06  
SOLAR KEYMARK Scheme Rules (2019-03)

**Mark of conformity****Registration No.**

011-7S2400 F

**Valid until**

2024-07-31

**Right of use**

This certificate entitles the holder to use the mark of conformity shown above in conjunction with the specified registration number.

See annex for further information.



Deutsche  
Akkreditierungsstelle  
D-ZE-11125-01-00

2019-08-19

S. S. 1  
Dipl.-Wi.-Ing. (FH) Sören Scholz  
Head of Certification Body



# ANNEX

Page 1 of 1

**Certificate**

011-7S2400 F dated 2019-08-19

**Technical Data**

See data sheet, part of the test report of 2014-07-07

**Note(s):**

- The freeze resistance test according to DIN EN 12975-2, clause 5.8 was not necessary. According to the manufacturer's declaration, the certified solar collectors may be used in frost exposed areas only in combination with appropriate frost protection mixtures or with appropriate frost protection controller.
- The optional impact resistance test according to DIN EN 12975-2, clause 5.10 was not carried out.

**Testing laboratory/  
Inspection body**

Institut für Solartechnik SPF  
Hochschule für Technik  
Rapperswil  
Oberseestraße 10  
8640 Rapperswil  
SWITZERLAND

**Test report(s)**

No. C1631LPEN, No. C1631QPEN dated 2014-07-07





|                                                                                                       |                       |                     |
|-------------------------------------------------------------------------------------------------------|-----------------------|---------------------|
| <b>Annual collector output based on EN 12975 Test Results,<br/>annex to Solar KEYMARK Certificate</b> | <b>Licence Number</b> | <b>011-7S2400 F</b> |
|                                                                                                       | Issued                | 2014-07-22          |

| <b>Annual collector output kWh/module</b> |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|-------------------------------------------|-----------------------------------------------------------|-------|------|-------|------|------|-----------|------|------|----------|------|------|--|
| <b>Collector name</b>                     | <b>Location and collector temperature (T<sub>m</sub>)</b> |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           | Athens                                                    |       |      | Davos |      |      | Stockholm |      |      | Würzburg |      |      |  |
|                                           | 25°C                                                      | 50°C  | 75°C | 25°C  | 50°C | 75°C | 25°C      | 50°C | 75°C | 25°C     | 50°C | 75°C |  |
| CP20TSS                                   | 2'102                                                     | 1'372 | 851  | 1'521 | 994  | 615  | 1'125     | 683  | 404  | 1'226    | 731  | 423  |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |
|                                           |                                                           |       |      |       |      |      |           |      |      |          |      |      |  |

|                                              |                                                              |
|----------------------------------------------|--------------------------------------------------------------|
| <b>Collector mounting: Fixed or tracking</b> | <b>Fixed; slope = latitude - 15° (rounded to nearest 5°)</b> |
|----------------------------------------------|--------------------------------------------------------------|

| <b>Overview of locations</b> |            |                            |                      |                                        |
|------------------------------|------------|----------------------------|----------------------|----------------------------------------|
| Location                     | Latitude ° | G <sub>tot</sub><br>kWh/m² | T <sub>a</sub><br>°C | Collector orientation or tracking mode |
| Athens                       | 38         | 1'765                      | 18.5                 | South, 25°                             |
| Davos                        | 47         | 1'714                      | 3.2                  | South, 30°                             |
| Stockholm                    | 59         | 1'166                      | 7.5                  | South, 45°                             |
| Würzburg                     | 50         | 1'244                      | 9.0                  | South, 35°                             |
|                              |            |                            |                      |                                        |
|                              |            |                            |                      |                                        |
|                              |            |                            |                      |                                        |

|                  |                                                                                |        |
|------------------|--------------------------------------------------------------------------------|--------|
| G <sub>tot</sub> | Annual total irradiation on collector plane                                    | kWh/m² |
| T <sub>a</sub>   | Mean annual ambient air temperature                                            | °C     |
| T <sub>m</sub>   | Constant collector operating temperature (mean of in- and outlet temperatures) | °C     |

The calculation of the annual collector performance is performed with the official Solar Keymark spreadsheet tool ScenoCalc. The collector output is calculated hour by hour according to the efficiency parameters from the Keymark test using constant collector operating temperature (T<sub>m</sub>). A detailed description of the calculations is available at <http://www.sp.se/en/index/services/solar/ScenoCalc/Sidor/default.aspx>.

|                                                                                                                                                                              |                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <b>DIN CERTCO • Alboinstraße 56 • 12103 Berlin, Germany</b><br><b>Tel: +49 30 7562-1131 • Fax: +49 30 7562-1141 • E-Mail: info@dincertco.de •</b><br><b>www.dincertco.de</b> | Datasheet version:                          |
|                                                                                                                                                                              | 4.06, 2014-01-15                            |
|                                                                                                                                                                              | ScenoCalc version:<br>Ver. 4.06 (Jan, 2014) |

RIELLO S.p.A.

Via Risorgimento, 13  
23900 Lecco (LC)  
Tel. +39 0341 277111

RIELLO S.p.A.  
Società con Socio unico soggetta alla  
direzione e coordinamento di Riello Group SPA  
Sede legale e amministrativa  
37045 Legnago (VR) - Via Ing. Pilade Riello 7  
Cap. soc. € 7.117.400.00 I.V.  
Reg. delle Imp. di Verona N. 02641790239  
C.F. e Part. IVA 02641790239

Piombino Dese, 29 Giugno 2015

## DICHIARAZIONE DI CORRISPONDENZA

La società

**Riello SpA Heating Products Direction**  
**Via Ing. Pilade Riello 7**  
**37045 Legnago**  
**ITALIA**

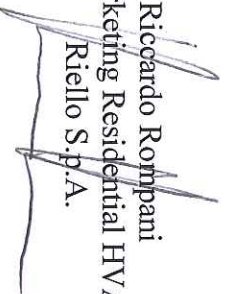
dichiara che i collettori solari serie CP e sistemi a circolazione naturale TSSA dotati di certificazione Solar Keymark e costruiti presso lo stabilimento di Piombino Dese, sono tecnicamente identici ai collettori solari e ai sistemi a marchio Sylber secondo quanto riportato nella tabella allegata.

## DECLARATION OF CORRESPONDENCE

The company

**Riello SpA Heating Products Direction**  
**Via Ing. Pilade Riello 7**  
**37045 Legnago**  
**ITALIA**

declare that the solar collectors type CP and thermosiphon system TSSA certified Solar Keymark and manufactured in the factory located in Piombino Dese, are technically identical to the solar collectors and to the systems with the Sylber brand according to the enclosed table.

  
**Riccardo Rompani**  
Product Marketing Residential HVAC Manager  
Riello S.p.A.



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| Descrizione collettore solare | Marchio / Brand | Certificato n. |
|-------------------------------|-----------------|----------------|
| Solar collector type          | Sylber          | Certificate n. |
|                               |                 |                |
| CP20TSA                       | CF-20N          | 011-7S1765 F   |
| CP25TLA                       | CFI-25N         | 011-7S1951 F   |
| CP25TVA                       | CF-25N          | 011-7S1766 F   |
| CP25VOA                       | CFO-25N         | 011-7S2056 F   |
| TSSA BLACK 200/1              | CNS 200/1       | 111 BN/0       |
| TSSA BLACK 300/2              | CNS 300/2       | 111 BN/0       |

|         |         |              |
|---------|---------|--------------|
| CP20TSS | CFS-20  | 011-7S2400 F |
| CP25TVS | CFS-25  | 011-7S2399 F |
| CP25TOS | CFO-25S | 011-7S2505 F |