



Rivusol
Zonneboilers

Product informatie Vacuümbuis collectoren

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Product **Collectoren RC 58/1800/10T t/m RC 58/1800/30T**
Datum **November 2009**



Collectoren zijn goedgekeurd volgens het Europese kwaliteitskeurmerk "Solar Keymark" (reg. nr. 011-7S305 R).



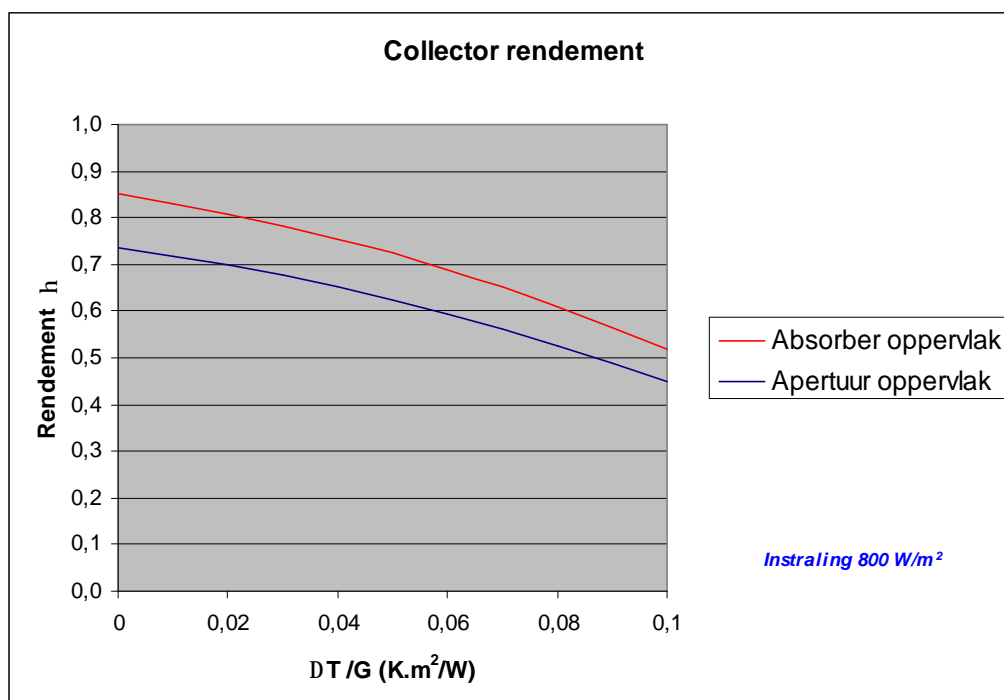
| Collector | | RC58/1800 /10T | RC58/1800 /15T | RC58/1800 /20T | RC58/1800 /25T | RC58/1800 /30T |
|-----------------------|----------------|---|---------------------------|---------------------------|---------------------------|---------------------------|
| Type | | Vacuümbuis met heatpipe, droge koppeling, dubbelwandige buis, "thermosflesprincipe" | | | | |
| Aantal buizen | - | 10 | 15 | 20 | 25 | 30 |
| Steek buizen | mm | 78 | | | | |
| Lengte/breedte/hoogte | mm | 2020 x 950 x 155 | 2020 x 1340 x 155 | 2020 x 1730 x 155 | 2020 x 2120 x 155 | 2020 x 2510 x 155 |
| Gewicht | kg | 39,6 | 53 | 76,5 | 90,5 | 106 |
| Apertuur oppervlak | m ² | 0,94 | 1,41 | 1,88 | 2,35 | 2,8 |
| Absorber oppervlak | m ² | 0,81 | 1,21 | 1,62 | 2,02 | 2,42 |

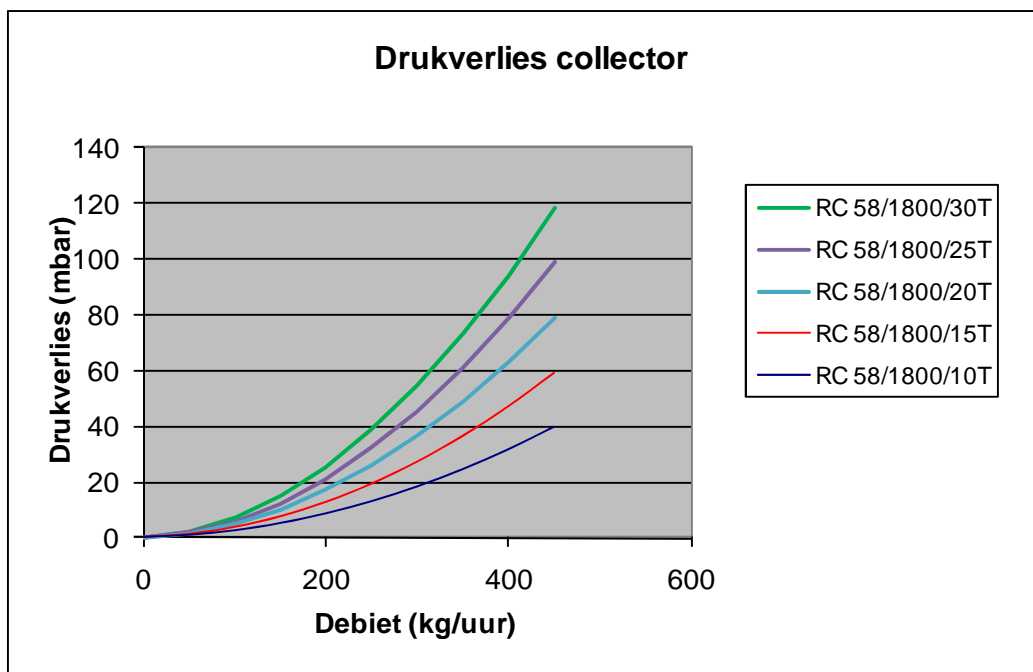


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|--|---------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Rendement | | Op basis van apertuur oppervlak | | | | |
| η_0 | - | 0,734 | | | | |
| α_1 | W/m ² K | 1,529 | | | | |
| α_2 | W/m ² K ² | 0,0166 | | | | |
| Rendement | | Op basis van absorber oppervlak | | | | |
| η_0 | - | 0,850 | | | | |
| α_1 | W/m ² K | 1,771 | | | | |
| α_2 | W/m ² K ² | 0,0192 | | | | |
| Afgegeven vermogen | | | | | | |
| Instraling 400 W/m ² , $\Delta T = 10 / 30 / 50$ K | W | 259 / 218 / 164 | 389 / 327 / 246 | 518 / 436 / 328 | 648 / 545 / 410 | 777 / 654 / 492 |
| Instraling 700 W/m ² , $\Delta T = 10 / 30 / 50$ K | W | 465 / 424 / 371 | 698 / 636 / 557 | 930 / 848 / 742 | 1163 / 1060 / 928 | 1395 / 1272 / 1113 |
| Instraling 1000 W/m ² , $\Delta T = 10 / 30 / 50$ K | W | 671 / 630 / 577 | 1007 / 945 / 866 | 1342 / 1260 / 1154 | 1678 / 1575 / 1443 | 2013 / 1890 / 1731 |
| IAM (incident angle modifier) | | | | | | |
| Transversaal, 0 / 20 / 40 / 60° | - | 1 / 1,03 / 1,25 / 1,36 | | | | |
| Longitudaal, 0 / 20 / 40 / 60° | - | 1 / 1,00 / 0,96 / 0,84 | | | | |
| Vloeistofvolume | L | 0,7 | 1,1 | 1,5 | 1,9 | 2,3 |
| Aansluiting primair circuit | - | G $\frac{3}{4}$ " | | | | |
| Maximum vloeistofdruk | MPa | 1 | | | | |
| Werkdruk vloeistof | MPa | 0,6 | | | | |
| Stagnatie temperatuur (bij 1000 W/m ² , 30 °C) | °C | 200,3 | | | | |
| Aanbevolen debiet | L/m ² /uur | 50 | | | | |
| Mogelijke (aanbevolen) collector hoek | ° | 15-75 (30-60) | | | | |
| Behuizing en frame | - | Aluminium, zwart gelakt | | | | |
| Isolatie | - | Glaswol, PU schuim | | | | |
| Isolatiedikte | mm | 40 | | | | |
| Afdichting | - | Siliconen rubber | | | | |

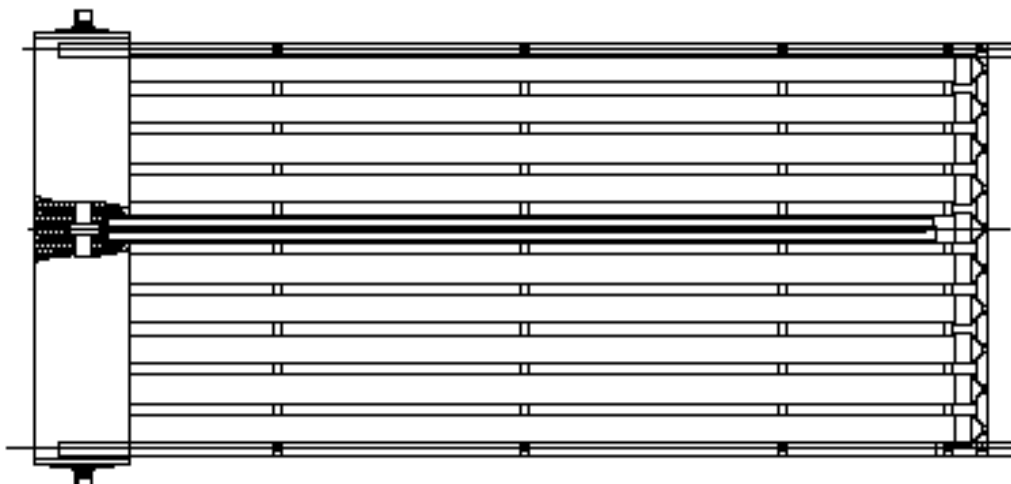


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|--------------------------------|-----|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Vacuümbuis | | | | | | |
| Glas, binnen en buiten buis | - | boorsilicaat | | | | |
| Glasdikte | mm | 1,6 | | | | |
| Transmissie (τ) | % | ≥ 91 | | | | |
| Afmetingen (diameter x lengte) | mm | 58 x1800 | | | | |
| Vacuüm | MPa | $\leq 5 \times 10^{-4}$ | | | | |
| Absorberlaag | | | | | | |
| Spectraal selectief | - | AIN/M-AIN/Cu | | | | |
| Lengte absorberdeel | mm | 1715 | | | | |
| Absorptie (α) | % | > 94 | | | | |
| Emissie (ϵ) | % | < 7 | | | | |
| Contact vin | | | | | | |
| Materiaal | - | Aluminium | | | | |
| Materiaaldikte | mm | 0,3 | | | | |
| Heatpipe | | | | | | |
| Materiaal | - | Koper | | | | |
| Materiaaldikte | mm | 0,6 | | | | |
| Uitwendige diameter verdamper | mm | 8 | | | | |
| Uitwendige diameter condensor | mm | 24 | | | | |
| Minimum temperatuur | °C | -40 | | | | |

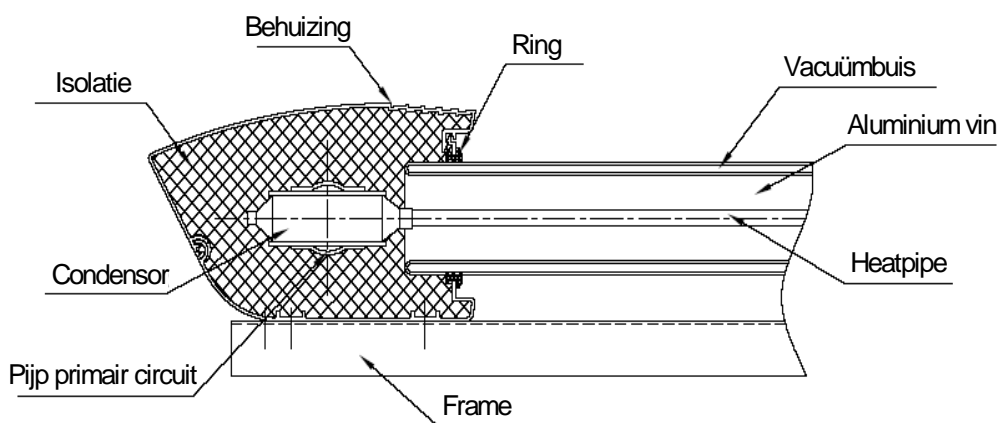




Vacuümbuis met heatpipe en aluminium vin.



Tekening van collector RC 58/1800/10T.



Doorsnede van de behuizing, vacuümbuis en frame.