SPF Solartechnik Prüfung Forschung

C1549

Solar Collector Factsheet
NEP PolyTrough 1800

Model	**PolyTrough 1800**
Type	Tracking concentrating collector
Manufacturer	NEP SOLAR AG
Address	Technoparkstr. 1
	CH-8005 Zürich
Telephone	+41 44 445 1695
Fax	+41 43 411 9008
Email	contact@nep-solar.com
Internet	**www.nep-solar.com**
Test date	12.2012

☑ Performance test EN12975:2006
☐ Quality test EN12975:2006

Dimensions

Total length	11.085 m
Total width	1.965 m
Gross area	21.782 m^2
Aperture area	18.450 m^2
Absorber area	1.079 m^2
Weight empty	700 kg

Technical data

Minimum flowrate	900 l/h
Nominal flowrate	1800 l/h
Maximum flowrate	3600 l/h
Fluid content	9.8 l
Maximum operating pressure	40 bar
Stagnation temperature	-- °C

Types of mounting

☐ Construction for sloping roof
☐ Integration into sloping roof
☑ On flat roof with stand
☐ Facade

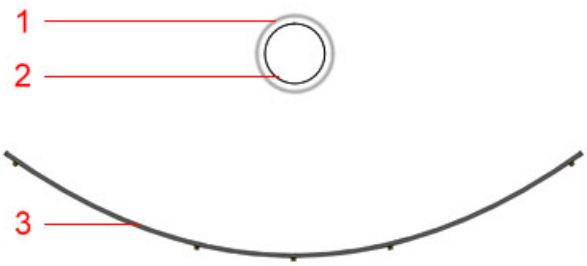
Further information

☑ Units in different sizes available
☐ Glazing replaceable

Hydraulic connection

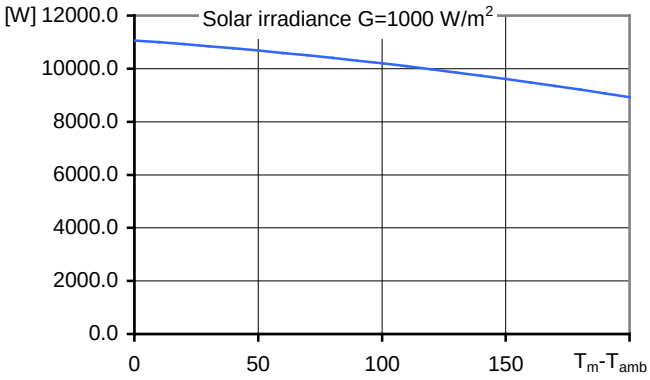
Flange DN25 PN40

Construction

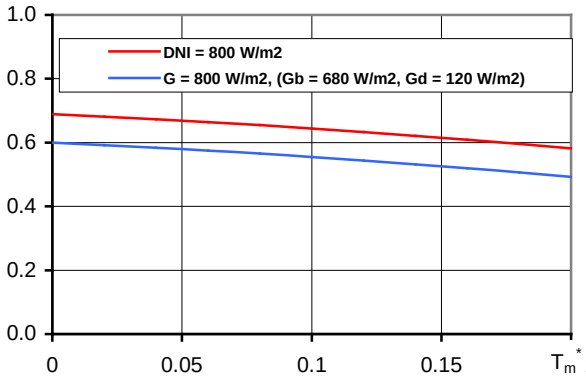


1 Glazing
2 Absorber
3 Mirror

Peak Power per collector unit W_{peak}



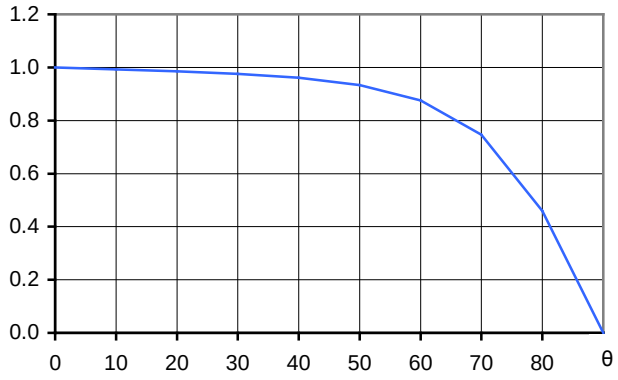
Efficiency η



Peak Power W_{peak}	11065 W	**Reference**	**Aperture, G**	**Aperture, G_{DNI}**
Thermal capacity*	7.2 kJ/K	**η_0**	0.600	0.689
Flowrate during test	1400 l/h	**a_1 [$WK^{-1}m^{-2}$]**	0.36	0.36
Fluid for test	Water	**a_2 [$WK^{-2}m^{-2}$]**	0.0011	0.0011

*) Specific thermal capacity C of the collector without fluid, determined according to 6.1.6.2 of EN12975-2:2006

Incident angle modifier IAM



K1, transversal IAM at 50° 0.93

Collector yield at fixed average collector temperature* (kWh/unit)

T_m	Athens	Davos	Stockholm	Würzburg
50°C	17662	16958	11075	10739
100°C	16192	15440	9862	9549
150°C	14551	13806	8588	8347

* Calculated with Solar Keymark Energy Output Calculator v3.10.
Assumption: North-South-axis tracking