Parabolic Trough Solar Technology

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Glossary

Aperture width

Straight distance between mirror edges across the PTC

Absorber tube

Dark tube positioned in the focal line, typically from steel with coating and with evacuated glass envelope to minimize heat loss, converting solar radiation energy into thermal energy in the fluid, see receiver

Collector loop (PTC)

Unit of several PTC connected in series to heat the fluid from inlet to outlet header temperature

Direct normal irradiance, beam irradiance

Direct part of the sunlight, coming from within the sun disk as almost parallel light onto a surface, measured as power density in kW/m²

Drive (PTC)

Unit consisting of motor and gear or hydraulic drive with valves and cylinders, and the controller to turn the PTC into the correct operational tracking angle

Efficiency
Ratio of useful energy and total energy input

Efficiency (PTC)

Ratio of thermal energy output from the PTC and total solar radiation received on the aperture area

Heat transfer fluid ("HTF")

Fluid receiving the...

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