



**PRECISION GEAR UNITS FOR HELIOSTATS AND PV TRACKERS** Individual drive solutions





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Drives for trackers in solar power plants require robust drive systems with high accuracy, efficiency and virtually maintenance-free long-term operation showing a high degree of reliability. There are many reasons why worm gear units are particularly suited for adjusting heliostats or solar trackers. They allow the transmission of extremely high ratios in very slow single gear movements. Virtually backlash-free splines are the basis for superior positioning accuracy and consequently ensuring high energy efficiency within the plant. The self-locking property makes sure that the tracking systems maintain their orientation to the sun without additional brake or energy. The distortion of our heliostat gear unit DRW100 is less than 0,045 degrees. This corresponds to a beam accuracy of ±350 millimetres at the receiver located at a distance of 1 kilometre. The lifetime of DRW100 is more than 25 years. DRW100 is maintenance-free. The corrosion protection meets the requirements of category C4-L. The self-locking effect makes sure that DRW100 preserves its position without additional energy or brake, even during wind impact. Utmost rigidity ensures overall axial precision.

Centre distance a Transmission ratio i Self-locking Circumferential backlash Efficiency ratio Nominal output torque T2 (tracking operation) Maximum output drive/static holding torque T<sub>2max</sub> Maximum stall torque M<sub>kmax</sub> Surface corrosion protection/painting Ambient conditions/temperature Maintenance Option



AUMA Drives develops and produces individual drive solutions and looks back on decades of experience. Our know-how is integrated in all project steps: From the initial ideas, research & development, production of sample actuators and verification tests right through to industrialisation and final series production. With our high vertical range of manufacture, in-process quality control and automated assembly, we offer competitive drive solutions and high availability. By target-oriented selection of defined materials, required parameters such as perfect wear behaviour, high fatigue strength and long-term corrosion protection are achieved and implemented.

100 mm
60
Yes
< 0.7 mrad
35%
350 Nm
2,500 Nm
5,000 Nm
3-layer wet paint (2K) – Powder coating as an option
Outdoor installation; –10 °C to +55 °C
Maintenance-free > 25 years
Integrated planetary gearing i=211.6

Ten thousands of our solar gear units work in heliostats all around the globe:

- Rotem Field
- Coalinga
- Ivanpah
- Delingha





**AUMA Drives GmbH** 

Drives

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