

PART-TURN GEAR UNITS FOR SINGLE-AXIS PV TRACKING SYSTEMS

PVS.1 type range

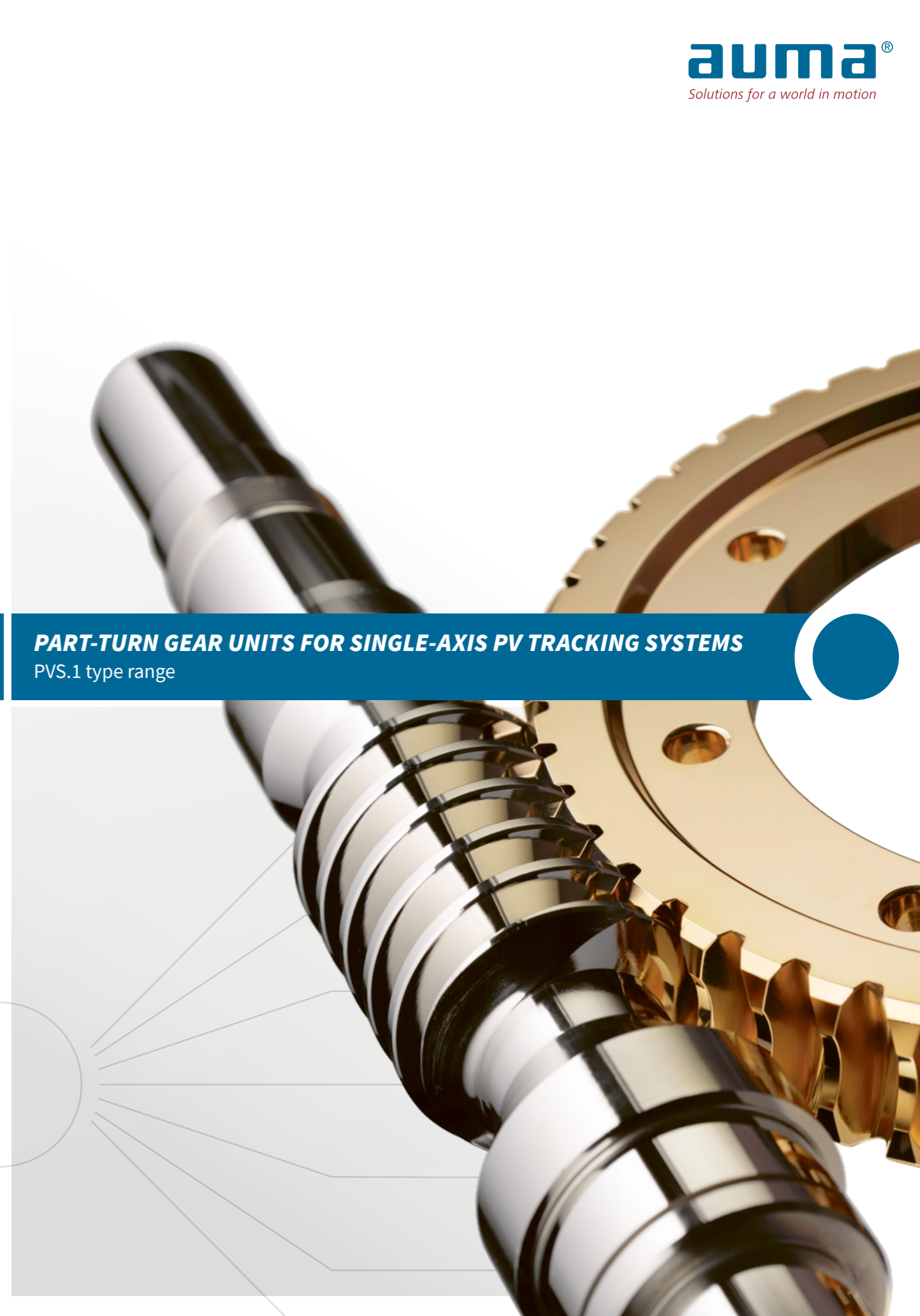


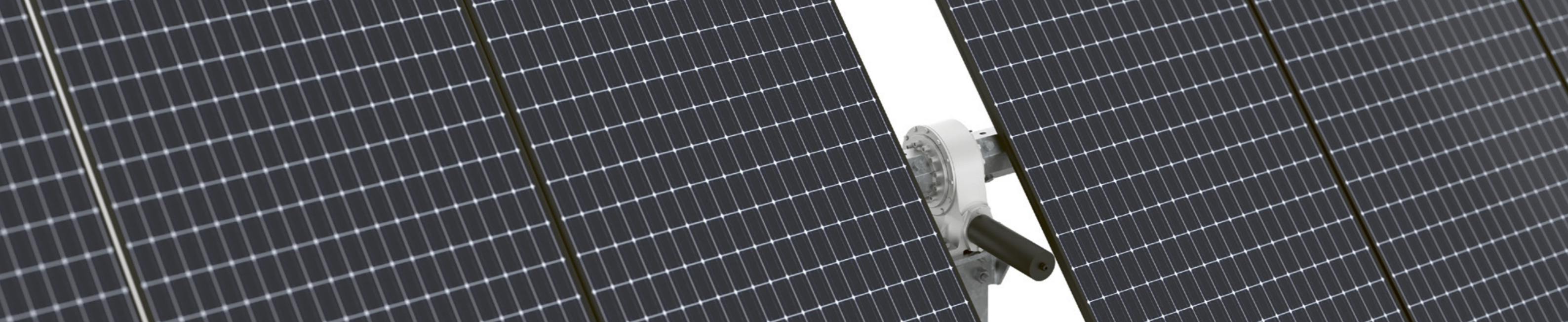
AUMA Drives GmbH
Grenzstraße 5
01640 Coswig
Tel. +49 3523 94 60
info.drives@auma.com
www.auma-drives.com

AUMA subsidiaries and representatives are
implanted in more than 70 countries.

Imprint

Editor AUMA Drives GmbH
Photo credits: Jürgen Jeibmann
Subject to changes without notice. The product features and technical data provided do not express or imply any warranty.
Y050.158_BRO_PV_DE_01.2024





PART-TURN GEAR UNITS FOR SINGLE-AXIS PV TRACKING SYSTEMS

Why AUMA Drives?

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 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.

Engineered in Germany.

To increase the power output of PV solar power plants, the PV modules track the sun position. The PVS.1 type range was specifically developed for single-axis solar tracking systems. The single-stage worm gear unit is equipped with self-locking gearing. The drive will keep its position or the orientation of the module surface when exposed to wind and without power supply – no additional energy or brake needed. The globoid worm shaft and the selected materials of the gearing cater for highest maximum torques.

The rugged cast iron housing is fixed via a base and has integral end stops which prevent exceeding the maximum swing angle. Radial seals with dust protection lips protect against ingress of dirt and ensure many years of maintenance-free operation when used with a top grade lubricant. The PVS.1 type range is available as wet painting version in any desired colour. For premium corrosion protection requirements, powder coating is also available as an option.



PV part-turn gear units, size PVS 125.1

PVS 125.1	
Nominal torque	6000 Nm
Maximum nominal torque	9800 Nm
Self-locking	Yes
Static axial load-bearing capacity	110 kN
Static radial load-bearing capacity	60 kN
Dynamic axial load-bearing capacity	100 kN
Dynamic radial load-bearing capacity	55 kN
Stall torque	8 kN
Holding torque	39 kN
Gear unit reduction ratio	i=60
Surface corrosivity class	C3 (wet painting) C4 (powder coating)
End stops	± 60°
Distortion at output drive	≤ 0.2°

Your customised drive

On request, AUMA Drives supplies the complete drive including primary reduction gearing (planetary gear), motor (24 V DC) and flanges for direct connection to the tracker structure. The flange connection dimensions will be tailored to your needs on request.



PV part-turn gear unit PVS 125.1 with output drive flanges and motor

Possible primary reduction gearing motor	
Nominal speed	1.5 rpm
Nominal torque	300 Nm
Torque	max. 400 Nm
Nominal voltage	24 VDC
Nominal current	< 6.5 A
Enclosure protection	IP65