

## Technische Daten 2-Achsen-Solartracker MCI V2P

<b>Mechanical Capabilities</b>	
Number of turning axis	100°, software and hardware limit 50°E to 50°W
Elevation angle	15–90°, adjustable start
Type of hour-angle motor	Linear Motor SM4S510M2 with stroke of 510 mm
Hour-angle shaft diameter and length	ø48 mm, L=1400 mm (steel)
Backstructure size	2 pcs of 1000 (H) mm & 4 pcs of 1000 (V) mm
Type of backstructure clamp	Toothed scissors grippers – 8 pcs
Tube diameter for mounting	ø60–68 mm (not included with kit)
Max. dimensions of a solar panel	2 pieces of 0,99 m x 1,65 m in total 3,3 m <sup>2</sup>
Max. weight of a solar panel	2 pcs per 20 kg
Estimated service life	800–1000h of motor operation (DC motor replace on 8 years if each day one cycle), backup battery replace on 3-5 years if battery in, all other 25 years
<b>Positioning System</b>	
Tracking accuracy	< 0.5° (optionally < 0.1° – for additional payment)
Operating Protocol	TdAPS (Time derived Astronomical Positioning System)
Type of Positioning System	Servo driver positioner with TdAPS arc logic function calc.
Type of positioner	Din Rail positioner MICRO and externor cables
Type of timer	GMT clock with EOT and calendar
Type of application program for supervision and setting	Solar tracking system monitor via web site
Setting and changing data via PC	Yes
Monitoring possibility via PC	Yes
Turned on the position sent from PC	Yes, it turn on position sent from PC, also all other setting can be commanded with string sent from PC
Turning time interval	1–15 min.
<b>Communication Data</b>	
Type of communication interface	USB interface
Networking solution for control from centre	RS485
<b>Firmware Software</b>	
Upgrading possibility via PC	Yes, firmware via PC with help of Helios Analytics
<b>Electrical Data</b>	
Motor Power Supply	24 VDC ± 15% (2.5A current capacity) SMPS must have 150% inrush current
Backup battery	CR 2512 coin
Standby consumption (when is not moving)	20 mA ± 25% @ 24VDC
Power supply connection	1 piece of 2 Wire Cable with an Internal Cu Conductor of 1.0 mm <sup>2</sup> (not included with kit)
Junction Box	190 (L) x 140 (W) x 70 (H) mm with connection harness
<b>Environmental Data</b>	
Operating temperature	– 25°C to +70°C (optionally with artic grease for temperatures from –40°C up to +70°C)
Operation at humidity	0% to 100%, relative humidity
Max. safe wind speed	Max 144 km/h
<b>Corrosion, weather and chemical resistance</b>	
Hot-dip galvanizing (HDG, EN ISO 1461)	75–100 µm (equivalent of 50 years)
<b>Packaging</b>	
Dimensions of a packed product	1 box of 166 (L) x 22 (W) x 27 (H) cm
Product weight	37 kg
<b>Quality Certificates</b>	
International Protection Rating (IEC 60529)	IP63
Electromagnetic Compatibility (EMC Directive 89/336/EEC)	Yes
Low Voltage Equipment Directive (EEC Council Directive 73/23/EEC)	Yes
<b>Optional Properties</b>	
Anti-Shadowing Function	Yes, included
Heliostat usage	Yes for additional payment