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NOMENCLATURE

| | |
|--------------------|--|
| a | solar azimuth, rad |
| C | torque, N.m |
| d | distance of the reflector from the projection of the tube on the ground, m |
| h | height of the tube, m |
| i | phase current, A |
| I | Nominal current, A |
| J_p | polar moment of inertia, kg.m ² |
| k | length of the unirradiated tube, m |
| k _e | torque conversion factor, N.m.A ⁻¹ |
| l | length of reflector, m |
| L | phase inductance, H |
| M | mass of reflector, kg |
| N _c | number of pole-pairs |
| r | radius of gear wheel, m |
| R | electrical resistance, Ω |
| s | distance motor-reflector axis, m |
| s _p | depth of reflector, m |
| T _{conc} | temperature of secondary reflector, °C |
| T _{sale} | temperature of molten salt, °C |
| T _{tubo} | temperature of absorber tube, °C |
| T _{vetro} | temperature of glass envelope, °C |
| V | phase voltage, V |
| x, y, z | spatial coordinates, m |

Greek symbols

| | |
|----------------|--|
| α | solar altitude, rad |
| β | tilt angle of mono-axial reflector, rad |
| ΔL | actuator linear displacement, m |
| ΔV | nominal voltage, V |
| θ | rotor angular position, rad |
| θ _a | azimuth angle of the normal to reflector, rad |
| θ _α | angular altitude of the normal to reflector, rad |
| θ _p | angle of primary rotation, degrees |
| θ _q | angle of secondary rotation, degrees |
| ρ | surface density, kg.m ⁻³ |
| ω | rotor angular speed, rad.s ⁻¹ |
| ω _p | reflector angular speed, rad.s ⁻¹ |

Subscripts

| | |
|------|-----------------|
| S | sun |
| a, b | phases of motor |