# telergon info

# **New S7 series High performance switch-disconnector**



The **photovoltaic market** has experienced a constant growth in the past years, and the forecasts suggest that this trend will continue with even greater intensity. Solar energy in large plants has a **lower cost** than other generation alternatives, which eases its consolidation. It also must be considered that the sun is a **clean**, **flexible and everlasting source**, something essential to address some of the challenges that we have to face as a society, such as the climate change or the sustainable management of natural resources.

Given this approach, there is a need for the industry to support this growth with new, more competitive and efficient technologies. This is what we understand in Telergon, and that is why we have developed a new **high performance switch-disconnector** capable of reaching **500 A - 1500 Vdc** (750 Vdc per pole): **the new S7**.

Based on the innovative **Magic patented technology**, S7 is the result of years of research of our R&D team and the expertise provided by our successful experience being the preferred DC switch-disconnector supplier for solar plants since 2007.



#### MAIN BENEFITS



## Maximized electrical performance

Effective breakdown: rotary, double per pole and at high-speed.

Contact resistance is kept unchanged throughout operations thanks to a ful optimized rotary break that restricts contact weal Thermal performance and power losses are therefore stable over time.



#### High safety level

Fast breaking is ensured by a powerful spring mechanism.

Movable magnets improve arc extinction, creating a rotating magnetic field.



### Suitable for extreme environments

Designed for having an excellent performance even in severe conditions.

High temperature withstand, g up to 70 °C.





#### **Compact design**

Up to 500A - 1500 Vdc in a 2 pole device with a small footprint.



#### Longer life

Fast breaking capacity helps to reduce the contact wear and, consequently, ensures a longer life.



#### Easy to install

A reduced footprint, multiple mounting configurations and a non-polarized wiring all help to reduce installation time and space.

All mounting orientations are possible.

Electrical spacings are thoughtfully over engineered, resulting in an upgraded wiring space.

Bridging links are not required, avoiding potential hot spots and simplifying the installation in cost and time.

#### RANGE

Standard	Amperage	Connection	Code	
IEC60947-3 (DC-21B)	400 A 500 A	30 mm 35 mm	S7-04002PS0 S7-05002PS0	
UL98B	400 A	30 mm	S7-04002PS00L	

<sup>\*</sup> Patented technology US 10,269,512 B2

#### **ACCESSORIES**

ltem	Description	Code		
	Direct handle	DS-SI11		
	External handle (with shaft included)	DS-SA11		
SS-01GLT 7N EMANUE LAMPY (B	Auxiliary contacts 1NO+1NC (one or two auxiliary contacts)	DM-AU11 DM-AU12		
	Captive nut* M10 M12	DM-PT11 DM-PT12		

<sup>\*</sup> IEC only



#### ▶ TECHNICAL DATA

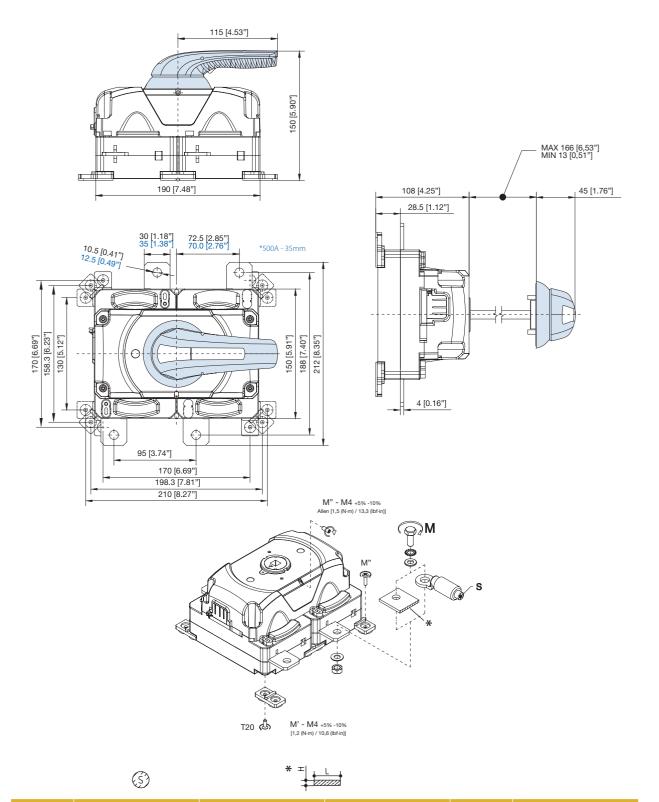
IEC 60947-3 (DC-21B)		Туре			400 A	500 A
Electrical characteristics	Rated thermal current HR 50%	lth		40 °C 50 °C 60 °C 70 °C	400 A	500 A
	Rated insulation voltage (DC)	Ui		1500 Vdc		
	Rated dielectric strength	50 Hz., 1 min.		5000 V		
	Rated impulse withstand voltage		Uimp		12 kV	
	Rated operational current (DC)	le (A)	1500V	DC21B	400	500
Short circuit behaviour	Rated short-circuit making capacity (peak value)	lcm kA (peak)		10		
	Rated short-time withstand current (1s)	lcw kA rms		10		
Power losses	Power losses	W loss/ pole			10,51	16,53
Mechanical data	Maximum number of operations without load	Cycles			1000	
	Maximum weight	Kg			≈2,7	
Connection capacity	Rigid cable min / max	mm²		240 / 300	300 / 300	
	Min. usbar (thickness/width)	mm			2 x (4/30)	2 x (5/32)
	Max. connecting copper bar	mm		2 x (5/35)	2 x (5/35)	
	Tightening torque (+5% / -10%)	Nxm			18	24

	UL98B*	Ту	400 A	
Electrical characteristics	Rated thermal current (-20 °C to +50 °C) HR 50%	lth		400 A
	Rated operational current (DC)	le (A)		400
Short circuit behaviour	Rated short-time withstand current (0.05s)	lcw	kA rms	10
Power losses	Power losses	W loss	10,51	
Mechanical data	Minimum number of mechanical operations	Cycles Kg		400
	Maximum number of electrical operations			400
	Maximum weight			Kg ≈2,7
Connection capacity	Busbar (thickness/width)	mm		2 x 4/32
	Max. connecting copper bar	mm		32
	Tightening torque (+5% / -10%)	Nxm		18

<sup>\*</sup> Under certification process



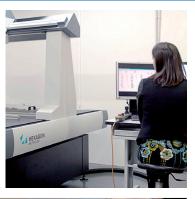
#### **DIMENSIONS**



lth	S min		H min/max		L max		T	M +5% -10%	
	mm²	MCM	mm	in	mm	in	U	Nxm	lbf∙in
400 A	240	400	min. 4 max. 5	min 2x4/30 max 2x5/35	32	1-1/4	M10	18	159
500 A	300	500	min. 5 max. 5	min 2x5/32 max 2x5/35		1 1/4	M12	24	212













As the switch specialist, we design and manufacture low voltage switchgear solutions. We anticipate our customers' needs and offer electromechanical products for industrial applications, utilities, railway and green energy sector.

Telergon is an innovative, **customer orientated f**irm and we are strongly committed to R&D as a tool to boost the future of the industry. Due to this attitude, the company offers a wide range of **standard** products but also the possibility to **customize** them according to special requirements.

Our knowledge, acquired through an experience of **more than 65 years**, together with the involvement of its highly qualified professionals, has allowed Telergon to be present in **more than100 countries**, always providing the best service and working under the strictest **quality** standards.

#### **Product range**

- Cam switches
- Manual & motorized load break switches
- Fuse switches
- Manual & motorized changeover switches
- DC switch-disconnectors

#### **Quality Telergon**



#### **General standards\***







\* Please, consult.

#### Other independent standards











#### Test in independent laboratories









