

SP.../3P-S


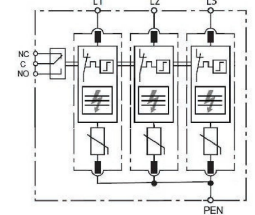
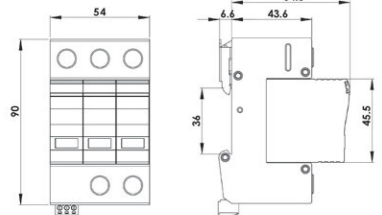

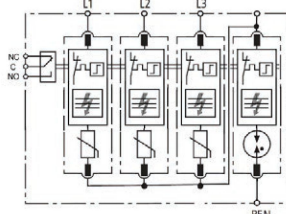
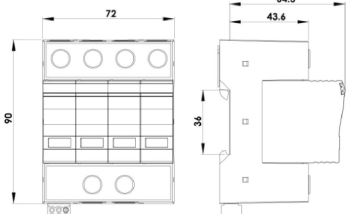
▪ MOV+GDT Technology ▪ I<sub>max</sub> 40kA



- Pluggable T2 SPD with high energy MOV technology for wind turbine
- High reliability due to global patented thermally protected with special arc-extinguish device (TPAE technology)
- High surge current discharge capacity up to 40kA 8/20µs
- Pluggable module for easy replacement
- Degradation indication & optional remote signal contact.
- Prewired for three phase 3W+G network systems such as TN-C etc
- Comply with IEC/EN 61643-11, UL 1449 4<sup>th</sup>, IEEE C62.41, CSA C22.2



Model		SP440/3P-S	SP760/3P-S	SP860/3PT-S
Compliance		EN/IEC 61643-11, UL 1449th		
Category EN/IEC/UL		T2/ Class II /Type 1ca		
Nominal Voltage	U <sub>n</sub>	400/690Vac		
Max. Continuous Operating Voltage (AC)	U <sub>c</sub>	440V	760V	860V
Technology		High energy MOV technology; TPAE technology (patented)		High energy MOV & GDT technology; TPAE technology (patented)
Ports/Protection Mode		1 / L-PEN		
Nominal Discharge Current (8/20µs)	I <sub>n</sub>	20kA		
Max. Discharge Current (8/20µs)	I <sub>max</sub>	40kA		
Voltage Protection Level	U <sub>p</sub>	≤2.4kV	≤3.0kV	≤4.0kV
Voltage Protection Level @ 5kA	U <sub>res</sub>	<2.0kV	<2.0kV	<2.5kV
Temporary Overvoltage TOV —Withstand Mode	U <sub>tov</sub>	582V/5s	900V/5s	1200V/5s
Residual Current	I <sub>PE</sub>	<0.1mA	<0.1mA	No
Follow Current	I <sub>f</sub>	No		
Short Circuit Current Rating per UL 1449	I <sub>sccr</sub>	200kArms		
Response Time	t <sub>A</sub>	≤25ns		
Backup Fuse (only required if not already provided in mains)		125A gL/gG		
Environment		Temperature Range: -40°C ~ +80°C; Humidity: ≤95%; Altitude: ≤3000m		
Cross-Section of Connection Wire		Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup>		
Mounting		35mm DIN-rail in accordance with EN 50022/DIN46277-3		
Enclosure Material		thermoplastic; extinguishing degree UL94 V-0		
Degree of Protection		IP20		
Installation Width		3 modules, DIN 43880	4 modules, DIN 43880	
Failure Indication /Status		RED- Failure		
Remote Alarm Contact		Yes		
Approvals, certification		CE		
Diagram		1	1	2
Additional Data for Remote Alarm Contacts				
Remote Alarm Contact Type		Isolated Form C		
Switching Capability U <sub>v</sub> /I <sub>n</sub>		AC: 250V/0.5A; DC: 250V/0.1A; 125V/0.2A; 75V/0.5A		
Max. Size of Connecting Wire		Max. 1.5mm <sup>2</sup> (or # 16AWG)		

Diagram	Basic Circuit diagram	Dimension Drawing
<p>1)</p> 		
<p>2)</p> 		

Note: SP860/3PT-S is specifically designed for protecting the rotor winding of the generator and the supply line of the inverter. An additional spark gap module is used for potential isolation and to prevent that the MOV based modules operate prematurely due to high voltage tolerances and voltage fluctuations.