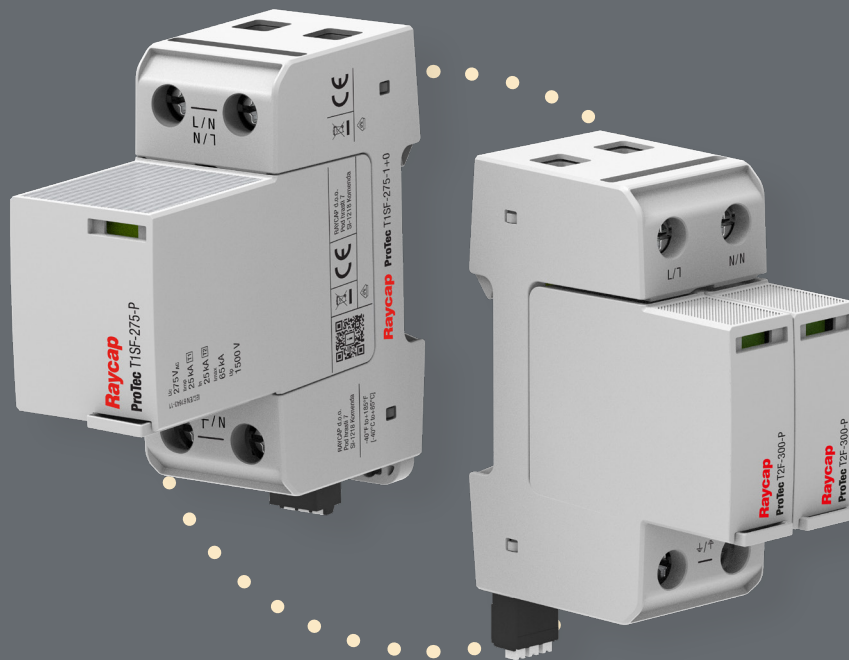


# Overvoltage Protection Technology with Integrated Fuse



**Raycap**

# Surge Protection with Integrated Fuse

Raycap's technology with back up fuse combines the protection of a separate fuse into one unit, saving space in the control cabinet.

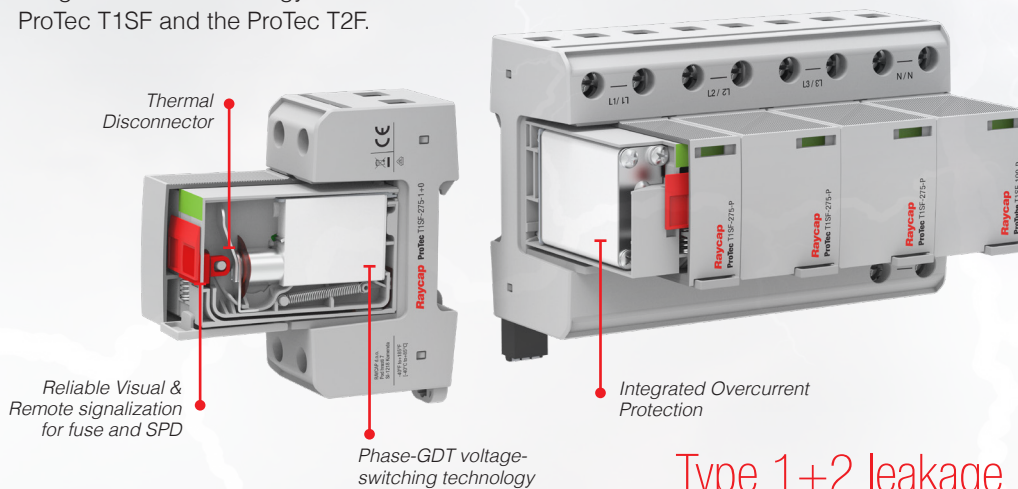
## Integrated Fuse Product Family: Type 1 and Type 2

- The coordinated tripping characteristics of the thermal disconnection mechanism and integrated backup fuse provide full-range fault current protection and end-of-life disconnection for enhanced safety
- Reduced installation space requirements, installation costs, wiring time and complexity
- Shorter connecting cables improve voltage protection level across installation points
- Enables installation on networks with low prospective short circuit currents
- Visual and remote signalization of fuse and SPD status
- Integrated fuse technology is available in the ProTec T1SF and the ProTec T2F.

## Integrated Overcurrent Protection



On networks with high prospective short circuit currents, SPDs with integrated fuses provide enhanced safety and fault-current protection due to the coordinated tripping characteristics of the thermal disconnect and the integrated fuse.



## ProTec T1SF Series

Raycap's new ProTec T1SF Series is based on Phase Gas Discharge Tube (PGDT) technology, and a new integrated fuse technology. The products ensure safe thermal and fault-current disconnection on networks with prospective short circuit currents as low as 300A and as high as 75,000A. A coordinated thermal disconnect provides disconnection at low fault currents (<300A), extending a continuous fault-tripping characteristic down to 1A.

Type 1+2 leakage current free product for installation in the pre-metering area

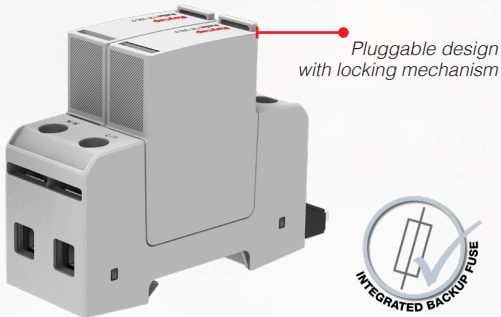
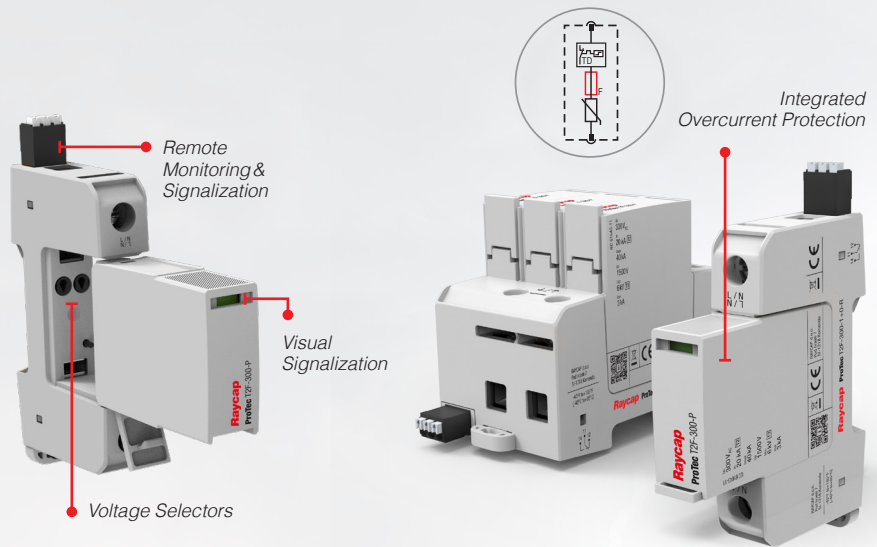
PRODUCT SERIES		$I_{imp}$	$I_n$	$I_{max}$	COMBINATION	$U_c = 275V$
TYPE 1+2	<b>ProTec T1SF</b>	25 kA	25 kA	65 kA		✓
	Phase GDT Technology • EN T1+T2	Order Code	Configuration			
	ProTec T1SF-275-1+0	59.A500	Basic Version			
	ProTec T1SF-275-1+0-R	59.A501	Remote Monitoring		1+0	
	ProTec T1SF-275-3+0	59.C170	Basic Version			
	ProTec T1SF-275-3+0-R	59.C171	Remote Monitoring		3+0	
	ProTec T1SF-275-3+1	59.C172	Basic Version			
	ProTec T1SF-275-3+1-R	59.C173	Remote Monitoring		3+1	

# Type 2+3 DIN Rail mounted surge protection device with integrated fuse

## ProTec T2F Series

The practical 2-in-1 device simplifies planning, installation, and maintenance. For example, the need to dimension a backup fuse is not applicable with the ProTec T2F product series as this is already integrated and matched to its performance parameters.

The new Type 2 arrester has an integrated backup fuse, a protection level of 1,500V, a maximum discharge capacity of 40kA 8/20µs and a rated discharge current of 20kA 8/20µs. In addition to the proven Raycap ProTec T2 technology developed for use in systems with a rated current of up to 315A without backup fuse, the T2F Series with integrated backup fuse offers protection independent of installed fuses found in equipment inside large industrial installations.



PRODUCT SERIES		$I_n$	$I_{max}$	$U_{oc} / I_{oc}$	COMBINATION	$U_c = 300V$
<b>ProTec T2F Series</b>		20kA	40kA	6kV/3kA		✓
MOV Technology • EN T2+T3		Order Code	Configuration			
TYPE 2+3	ProTec T2F-300-1+0	59.A250	Basic Version			
	ProTec T2F-300-1+0-R	59.A251	Remote Monitoring	1+0		
	ProTec T2F-300-2+0	59.A252	Basic Version			
	ProTec T2F-300-2+0-R	59.A253	Remote Monitoring	2+0		
	ProTec T2F-300-3+0	59.A254	Basic Version			
	ProTec T2F-300-3+0-R	59.A255	Remote Monitoring	3+0		
	ProTec T2F-300-4+0	59.A256	Basic Version			
	ProTec T2F-300-4+0-R	59.A257	Remote Monitoring	4+0		
	ProTec T2F-300-1+1	59.A259	Basic Version			
	ProTec T2F-300-1+1-R	59.A260	Remote Monitoring	1+1		
	ProTec T2F-300-3+1	59.A261	Basic Version			
	ProTec T2F-300-3+1-R	59.A262	Remote Monitoring	3+1		

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