

## Phase GDT based Technology Lightning and Overvoltage Protection with Integrated Fuse

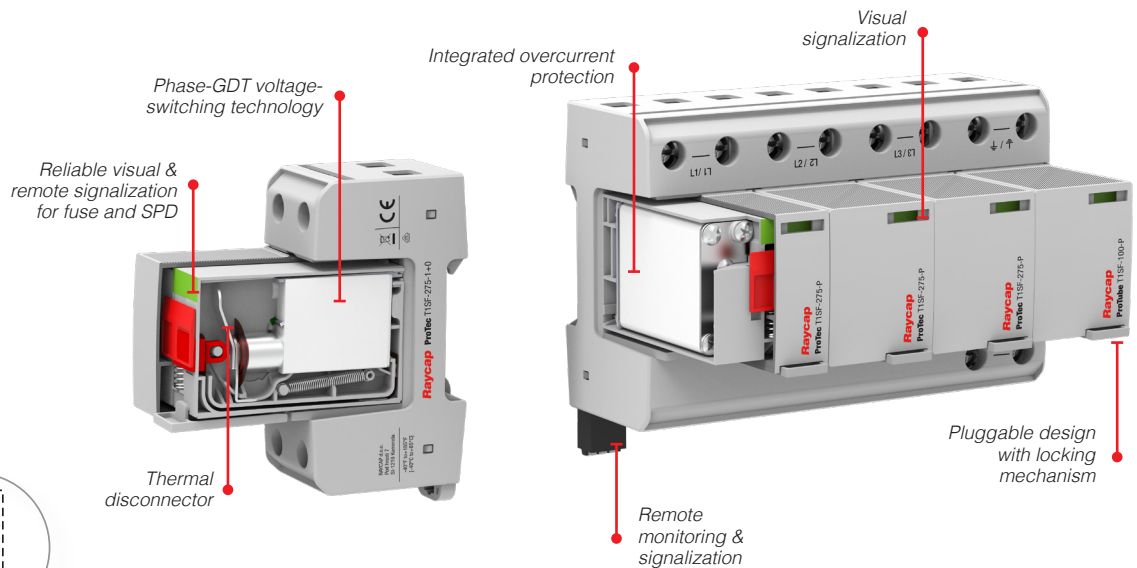
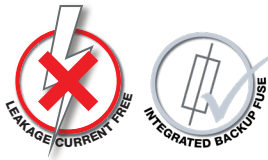
Raycap's technology with back up fuse combines the protection of a separate fuse into one unit, saving space in the control cabinet. On networks with high prospective short circuit currents, SPDs with integrated fuses provide enhanced safety and fault-current protection due to the coordinated tripping characteristics of the thermal disconnect and the integrated fuse.

### Main features:

- 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

### ProTec T1SF Series

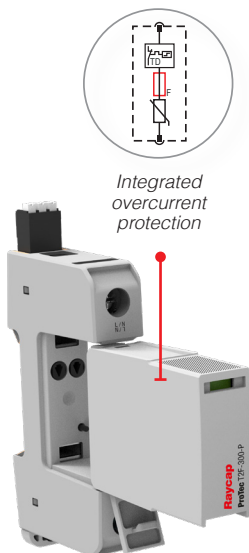
Raycap's new ProTec T1SF Series is based on Phase Gas Discharge Tube (PGDT) technology, and a new integrated fuse technology. The products ensure safe thermal and fault-current disconnection on networks with prospective short circuit currents as low as 300 A and as high as 75,000 A. A coordinated thermal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



### 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 Type 2 arrester has an integrated back-up 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 Selector

Multiple product options are available depending upon the installation need.

	Combinations	Network Systems	Product Name	Order Code
TYPE 1+2	Single pole	TN-S, TN-C TT*	ProTec T1SF-275-1+0	59.A500
			ProTec T1SF-275-1+0-R	59.A501
	3 pole	TN-C	ProTec T1SF-275-3+0	59.C170
			ProTec T1SF-275-3+0-R	59.C171
	4 pole	TT & TN	ProTec T1SF-275-3+1	59.C172
			ProTec T1SF-275-3+1-R	59.C173
TYPE 2+3	Single pole	TN-S, TN-C TT*	ProTec T2F-300-1+0	59.A250
			ProTec T2F-300-1+0-R	59.A251
	2 pole	TN-S	ProTec T2F-300-2+0	59.A252
			ProTec T2F-300-2+0-R	59.A253
	3 pole	TN-C	ProTec T2F-300-3+0	59.A254
			ProTec T2F-300-3+0-R	59.A255
	4 pole	TN-S	ProTec T2F-300-4+0	59.A256
			ProTec T2F-300-4+0-R	59.A257
	2 pole	TT & TN-S	ProTec T2F-300-1+1	59.A259
			ProTec T2F-300-1+1-R	59.A260
	4 pole	TT & TN-S	ProTec T2F-300-3+1	59.A261
			ProTec T2F-300-3+1-R	59.A262
TYPE 2+3	Single pole	IT**	ProTec T2F-440-1+0	59.A942
			ProTec T2F-440-1+0-R	59.A943
	2 pole		ProTec T2F-440-2+0	59.A944
			ProTec T2F-440-2+0-R	59.A945
	3 pole		ProTec T2F-440-3+0	59.A946
			ProTec T2F-440-3+0-R	59.A947
	4 pole		ProTec T2F-440-4+0	59.A948
			ProTec T2F-440-4+0-R	59.A949

\* Only L-N, \*\* Only 440V.

