

Technical Information

Thermal-magnetic circuit breaker type 4220-T

Trailing cables, blocked motors, defective peripherals – these are all unacceptable risks in modern factory automation and process control as they are potential dangers, both to personnel and equipment. Plant designers must be careful to avoid hazardous machinery conditions in accordance with Machinery Directive 98/37/EG and to comply with the requirements of the EN/IEC 60204-1 standard “Safety of Machines, Electrical Equipment of Machines”.

The use of integral selective reliable protection

against overloads and short circuits in electrical systems makes a significant contribution to the reduction of such risks. The E-T-A track-mountable series 4220-T is ideally suited to the task and packs a powerful punch within an ultra-slim housing of just 12.5 mm.

Current ratings in finely graded steps from 0.1 A through 32 A ensure overcurrent protection for loads and their supply lines can be optimised, while 5 sets of trip

characteristics are available to suit different load conditions. An integral busbar design – sophisticated, but easily manageable – serves for power distribution, configures signalling, and greatly facilitates the connection of multipole circuit breakers.

Whether a single pole base unit is required, or a double pole or three pole configuration, the electrical performance and switching capability of the slim yet robust series 4220-T will never fail to impress.

Technical data

Operating voltage	AC 120 V / AC 240 V, 3 AC 415 V, DC 60 V
Current rating range I_N	0.1 A...32 A
Trip characteristics (similar to MCB curves)	F1 F2 M1 T1 T2 A B C D ---)
Number of poles	1-pole protected (double pole and three pole versions under preparation), with different trip curves and current ratings (optional)
Rupture capacity I_{cn}	6,000 A to EN 60934 (under preparation) 5,000 A to UL 489 (under preparation)
Signalling	Integral make or break contact, single or group signalling configurable series or parallel connection configurable
Actuator	toggle with optional lock-out feature
Termination	screw terminals, line entry 16 mm ² , load output 10 mm ² , aux. contact 1 mm ²
Dimensions	12.5 x 90 x 80 mm



5 circuit breakers 4220-T mounted side-by-side and auxiliary contacts connected in parallel = total width of only 62.5 mm!

Features and Benefits

- Professional overcurrent protection reduces spurious disconnections, stoppages and downtime.
- Flexible configuration and connection by means of plug-in type busbars for line entry and busbars/bridges for signalling.
- Enhanced safety during installation, normal operation and maintenance through protection against brush contact and disconnection of the line entry potential.
- The track-mountable design facilitates extension of the safety concept throughout the control cabinet.
- Space-saving installation and narrow profile (12.5 mm) contribute to size and cost savings in control cabinets.
- Screw terminals for all connections and UL 489 approval ensure suitability for international market requirements.



E-T-A Elektrotechnische Apparate GmbH
D-90518 Altdorf · Industriestraße 2-8
Tel. +49 (0 91 87)10-0 · Fax +49 (0 91 87)10-397
E-Mail: info@e-t-a.de · www.e-t-a.com