

Thermal protection (I_r)

► A-15

Overload protection provided by thermal trip units (see this term) using an inverse-time curve (I²t).

Relays and auxiliary contacts**Auxiliary contact**

IEC 60947-1

"Contact included in an auxiliary circuit and mechanically operated by the switching device".

Break contact

IEC 60947-1

► A-84

"Control or auxiliary contact which is open when the main contacts of the mechanical switching device are closed and closed when they are open".

Make contact

IEC 60947-1

► A-84

"Control or auxiliary contact which is closed when the main contacts of the mechanical switching device are closed and open when they are open".

Relay (electrical)

IEC 60947-1

► A-18

"Device designed to produce sudden, predetermined changes in one or more electrical output circuits when certain conditions are fulfilled in the electrical input circuits controlling the device".

Relay module with static output

► A-81

Output of a relay made up of a thyristor or triac electronic component. The low interrupting capacity means that a power relay is required. This is the case for the SDx and SDTAM outputs.

Switchgear**Circuit breaker**

IEC 60947-2



► A-6

"Mechanical switching device, capable of making, carrying and breaking currents under normal circuit conditions and also making, carrying for a specified time and breaking currents under specified abnormal circuit conditions such as those of short circuit". Circuit breakers are the device of choice for protection against overloads and short-circuits. Circuit breakers may, as is the case for Compact NSX, be suitable for isolation.

Circuit-breaker utilisation category

IEC 60947-2

► A-6

The standard defines two utilisation categories, A and B, depending on breaker discrimination with upstream breakers under short-circuit conditions.

■ Category A. Circuit breakers not specifically designed for discrimination applications.

■ Category B. Circuit breakers specifically designed for discrimination, which requires a short time-delay (which may be adjustable) and a rated short-time withstand current in compliance with the standard.

Compact NSX100 to 630 circuit breakers are category A, however, by design, they provide discrimination with downstream devices (see the Complementary technical information guide).

Contactors

IEC 60947-1



► A-36

"Mechanical switching device having only one position of rest, operated otherwise than by hand, capable of making, carrying and breaking currents under normal circuit conditions including operating overload conditions". A contactor is provided for frequent opening and closing of circuits under load or slight overload conditions. It must be combined and coordinated with a protective device against overloads and short-circuits, such as a circuit breaker.

Contactors utilisation categories

IEC 60947-4-1

► A-37

The standard defines four utilisation categories, AC1, AC2, AC3 and AC4 depending on the load and the control functions provided by the contactor. The class depends on the current, voltage and power factor, as well as contactor withstand capacity in terms of frequency of operation and endurance.

Current-limiting circuit breaker

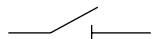
IEC 60947-2

► A-36

"A circuit-breaker with a break-time short enough to prevent the short-circuit current reaching its otherwise attainable peak value".

Disconnecter

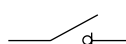
IEC 60947-3



"Mechanical switching device which, in the open position, complies with the requirements specified for the isolating function". A disconnector serves to isolate upstream and downstream circuits. It is used to open or close circuits under no-load conditions or with a negligible current level. It can carry the rated circuit current and, for a specified time, the short-circuit current.

Switch-disconnector

IEC 60947-3



► A-56

"Switch which, in the open position, satisfies the isolating requirements specified for a disconnector". A switch-disconnector serves for switching and isolation. The switch function breaks the circuit under load conditions and the disconnection function isolates the circuit. Protection is not provided. It may be capable of making short-circuit currents if it has the necessary making capacity, but it cannot break short-circuit currents. Compact NSX100 to 630 NA switch-disconnectors have a making capacity.