
BUILDING & HOME AUTOMATIONS SOLUTIONS, 08/2021

Technical Bulletin

Rated current and switching capacities

Switch/Shutter Actuators (SAH/S)

SAH/S Range



Switch Actuators (SA/S)

SAS/S Range



Supplement and explanation of the generally applicable selection table ([Combi](#), [Standard](#), [Professional](#)) for switch actuators.

In general, the switch actuators are always specified using the so-called rated current. The nominal current is the electrical current with which an actuator channel (output) can be operated or loaded permanently without exceeding the temperature and thereby impairing the service life.

The switching capacity specification specifies the capacity of a special load that can be switched for a short time. The inrush current or the short-term switching capacity is limited by the nature of the switching element or the relay contact itself. If this switching capacity is exceeded, the switching contact can be destroyed. The switching capacity is determined by the switched load and the associated switch-on and switch-off peak currents.

The arrangement of the relay contacts, the interconnection within the device and the compact design influence the maximum electrical load capacity.

Example - Incandescent lamp load of 1200 W at 230V: The actual continuous current at this lamp power is approx. 5 A. Depending on the phase position and the internal cold resistance,

the current at switch-on can be many times greater (factor 10 at 20 ° C). In extreme cases, this can lead to a short circuit.

When switching electronic ballasts, it is essential to pay attention to the I peak inrush current. This inrush current is caused by an RC element (high-frequency interference suppression filter) connected in parallel in the input circuit, which acts like a short circuit for a time x when it is switched on.

Important Note!!

With the same switching relays, the specified switching capacity for switching loads is also the same. The permanent load (rated current) can, however, vary depending on the device design!