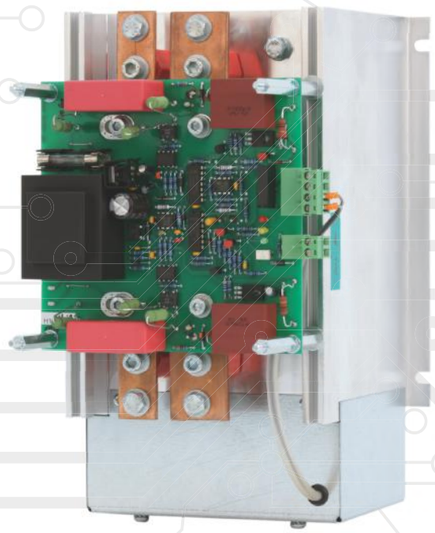
BEL-TS

A powerhouse with high speed and many options.

BELUK thyristor switches are known for their robust design and long service life. Since the response time to the trigger signal is in the millisecond range, thyristor switches are the ideal choice for applications with fast load changes. In contrast to contactors, the switching operations of thyristor controllers are fast and wear-free. The minimization of transients protects the connected capacitors and prolongs their service life.

The BEL-TS is available in two different series. The classic BEL-TS devices are exclusively for switching capacitive loads. The new series consists of microprocessor-controlled devices, that can switch either inductors or capacitors. This series covers a range from 50 to 200 kvar.



Smooth switching
No matter whether an inductive or capacitive load is connected, the control electronics of the BEL-TS always switches in the best moment. This limits wear and tear and causes practically no feedback effects in the grid.

Fast
The BEL-TS typically switches 10 ms after the trigger signal is received from the controller. This is ideal for rapidly fluctuating loads, such as cranes, lifts, welding equipment, but also for wind turbines, drilling rigs or in the automotive industry.

Robust
All thyristor modules have a blocking voltage of 1800 V or higher and are designed for a long lifetime. A permanent overload of 30 % is possible at an ambient temperature of 25 °C.

Protected
As soon as the temperature value of the heat sink exceeds 85 °C, the BEL-TS switches off the load in order to prevent overheating damage. Therefore, external influences have no lasting effect on the switchgear. Even if a cabinet fan fails or the temperature in the cabinet is too high, your investment remains undamaged.

Smart
The microprocessor-controlled thyristor controllers enable the user to read measured values and write parameters via Modbus RTU.

Low maintenance
Thyristor switches of the BEL-TS series only require a check for contamination of the cooling fins and, if necessary, the fan. Further maintenance is not necessary. The thyristor switch indicates the current operating status via LEDs.

Compact
The BEL-TS thyristor switches are very compact in their dimensions. This results in a larger number of arrangement variants in the cabinet in which the thyristor controllers have little or no thermal interference.

Nominal Voltage/ Losses	25 kvar	50 kvar	65 kvar	75 kvar	100 kvar	125 kvar	130 kvar	200 kvar
400 V	36 A / 68 W	72 A / 122 W		109 A / 205 W	144 A / 250 W			289 A / ca. 520 W
440 V	33 A / 61 W	66 A / 111 W		99 A / 184 W	131 A / 244 W			262 A / ca. 460 W
480 V	30 A / 52 W	60 A / 104 W		90 A / 172 W	120 A / 224 W	150 A / 261 W		241 A / ca. 420 W
525 V			72 A / 122 W				144 A / 250 W	
690 V		42 A / 75 W			84 A / 145 W			

Technical Data	
Recovery time	Typically after 1 period
Controlled Phases	2, semi-controlled
Supply Voltage	Direct from the power connection (separate power supply optional available)
Consumption of supply	Max. 9 VA
Voltage Trigger- signal	8 - 30 V DC
Consumption Trigger signal	2 mA at 12 V DC
Auto shut-off temperature	85 °C