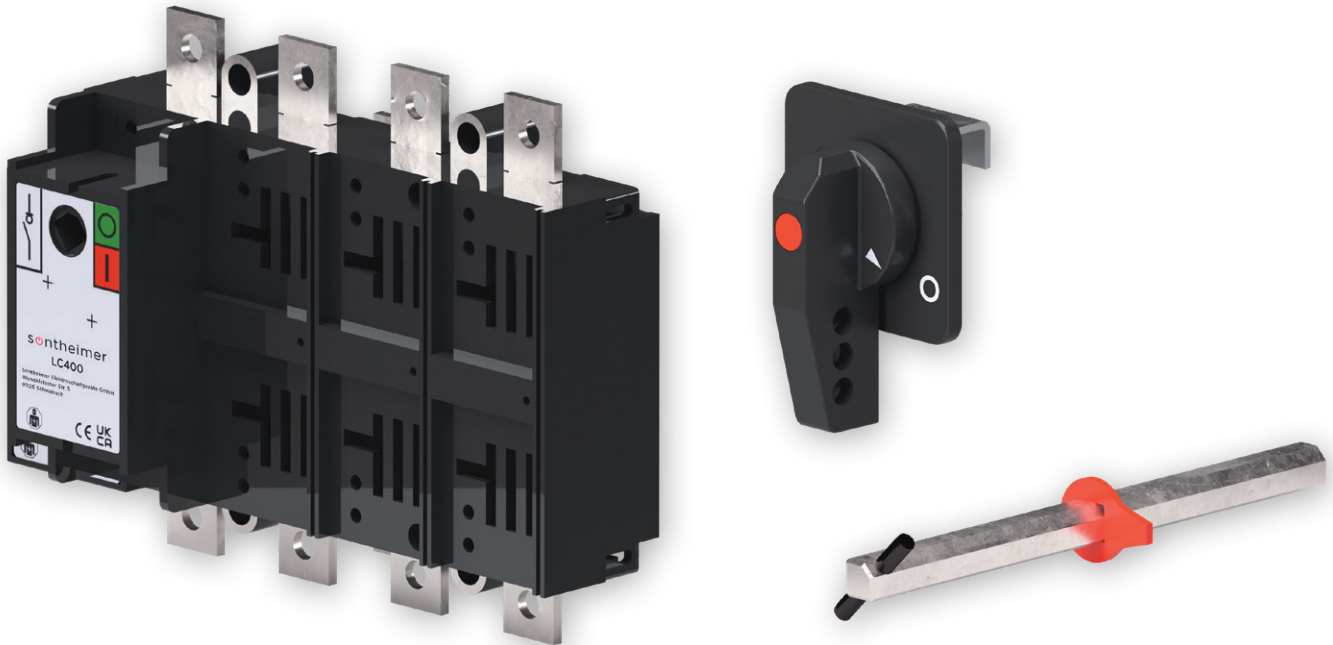


On-load switches for high currents: LC series 400-3150 A



Our switches in the LC series can be used to safely switch higher currents of up to 3150 A. These 3- and 4-pole main switches are very low-loss with reduced cooling requirements. This ensures low energy consumption in operation and enables a fast ROI.

Advantages:

- very low power dissipation per pole
- requires minimal cooling capacity
- enables long maintenance intervals for the switch-cabinet coolers
- high resistance to short-circuits
- fully electrical continuity testing
- ring cable connection
- innovative contact system
- extensive range of accessories, including handles and universal signal contacts

FAQ

How much energy can I potentially save with the switches in the LC series?

Our switches feature up to 60 % lower power dissipation than comparable on-load switches from other manufacturers. This advantage increases with the number of poles and adds up significantly in long-term operation. A 4-pole LC400, for example, has total power dissipation of just 329.38 kW/h per year.

How fast does a switch in the LC series pay for itself?

Because power dissipation from the contact system is much lower than in competitor products, you can quickly achieve significant cost savings. On average, electricity consumption can be reduced by several hundred kWh per year with the LC series. The savings will therefore exceed your investment costs in just a few years of operation. In addition, the reduced heat generation of the contact paths has a positive impact on the overall cooling effort. You can use a smaller cooling system and operate it with longer maintenance intervals. This might also allow you to scale down the switch-cabinet. All this adds to the savings potential of the LC series.

Technical data for the LC series

Main switches and emergency stop switches

IEC 60947/VDE 0660	LC400	LC630	LC1000	LC1250	LC1600	LC2000	LC2500	LC3150
Insulation voltage U_i (rated value)	1500 V	1500 V	1500 V	1500 V	1500 V	1500 V	1500 V	1500 V
Surge voltage strength U_{imp} (rated value)	12 kV	12 kV	12 kV	12 kV	12 kV	8 kV	8 kV	8 kV
Sustained thermal current I_{th}	400 A	630 A	1000 A	1250 A	1600 A	2000 A	2500 A	3150 A
Conditional short-circuit current at 400 V (rated value)	26 kA	53 kA	73.5 kA	73.5 kA	105 kA	105 kA	105 kA	105 kA
Short-circuit fuse in the main circuit (max.)	400 A	630 A	1000 A	1250 A	-	-	-	-
RMS value	50 kA	50 kA	100 kA	100 kA	-	-	-	-
Short-circuit current (peak value)	30 kA	40 kA	60 kA	70 kA	-	-	-	-
Frequency (rated value)	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Operating current (rated value)								
AC-21A (400 V)	400 A	630 A	1000 A	1250 A	1600 A	2000 A	2500 A	3150 A
AC-21A (500 V)	400 A	630 A	1000 A	1250 A	1600 A	2000 A	2500 A	3150 A
AC-21A (690 V)	400 A	630 A	1000 A	1250 A	1250 A	1250 A	1250 A	1250 A
AC-22A (400 V)	400 A	630 A	1000 A	1250 A	1600 A	2000 A	2500 A	1600 A
AC-22A (500 V)	400 A	630 A	1000 A	1250 A	1250 A	1250 A	1250 A	-
AC-22A (690 V)	400 A	630 A	1000 A	400 A	400 A	800 A	-	-
AC-23A (400 V)	400 A	630 A	1000 A	1250 A	1250 A	1250 A	-	-
AC-23A (500 V)	315 A	630 A	800 A	800 A	800 A	800 A	-	-
AC-23A (690 V)	250 A	630 A	400 A	400 A	400 A	400 A	-	-
Switching capacity (rated value)								
AC-23A (400 V)	210 kW	330 kW	525 kW	630 kW	630 kW	630 kW	-	-
Connections (Cu conductors only)								
IEC								
Tightening torque	18 Nm	34 Nm	45 Nm	45 Nm	70 Nm	70 Nm	70 Nm	70 Nm
Max. cable diameter, stranded (class 2)	2x 120 mm ²	2x 185 mm ²	-	-	-	-	-	-
Other								
Mechanical lifespan (switching cycles)	8000 n	8000 n	7000 n	7000 n	2500 n	2500 n	2500 n	2500 n
Electrical lifespan (switching cycles)	1500 n	1500 n	1000 n	1000 n	500 n	500 n	500 n	500 n
Power dissipation per track	9.4 W	15.6 W	27.3 W	42 W	47.8 W	74.7 W	85.4 W	118.1 W

