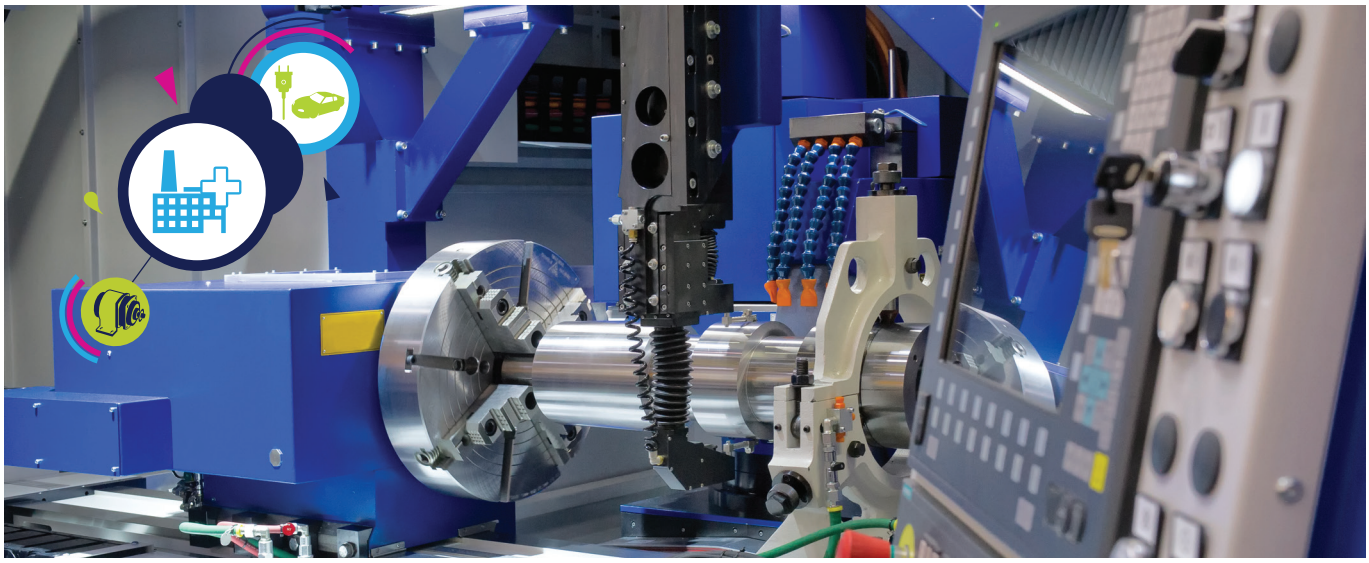
High-temperature SCRs for industrial applications



The high-temperature silicon-controlled rectifiers (SCR) are the best answer for AC powerline switching solutions

Available in through-hole and surface-mount packages, ST's silicon-controlled rectifiers provide designers with a component with temperature headroom for heatsink reduction or more compactness.

The voltage surge immunity is fully specified at 150 °C, ensuring designs are precise and secure.

These 12 to 80 A SCRs are ideal for use in charging stations, solid-state relays, inrush current limiters, motor starters, SMPS, UPS, and renewable-energy junction boxes.

KEY FEATURES

- T_J: 150 °C (max.)
- On-state RMS current: 12 to 80 A
- Blocking voltages : 600 V, 800V, 1200V
- High turn-on robustness: 200 A/µs
- High off-state immunity: 1000 V/µs
- ECOPACK2 compliant

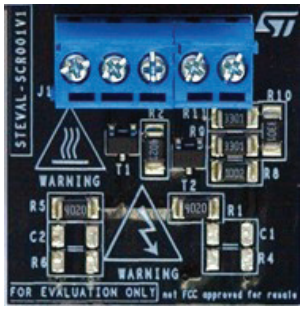
KEY BENEFITS

- Compact circuit with high immunity
- Easy design with maximum temperature parameters
- Bounce-free and low-leakage static switching

KEY APPLICATIONS

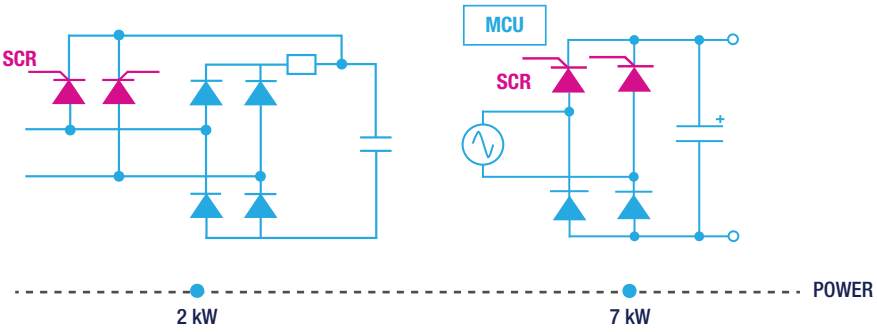
- Industrial or electric vehicle (EV) charging stations
- Solid-state relays
- Inrush current limiters
- Bypass switches in uninterruptible power supplies
- Starters and inrush control circuits for motor drives

INRUSH CURRENT LIMITER DEMOBOARDS



STEVAL-SCR001V1
Our low-cost evaluation board for testing inrush current limitation solutions.

STEVAL-ISF003V1
Power front-end designed to limit inrush current for compliance with IEC 61000-3-3 specifications. Also reduces steady-state and standby losses.



UP TO 300W

TN5015H-6G

UP TO 800W

TN2010H-6G

Product type	Description	Order code
High-temperature SCRs	600V H series SCR	TNxx10H-6FP TNxx15H-6I
High-voltage SCRs	1200V / 150°C SCR	TNxx50H-12WY

DEVICE SUMMARY

TN1205H	TN1610H-6FP	TN2010H-6T	TN3050H-12WY	TN5015H-6G	TM8050H-8D3
TN1605H-6FP	TN1610H-6T	TN2015H-6FP	TN4015H-6G	TN5015H-6I	TM8050H-8W
TN1605H-6G	TN2010H-6FP	TN2015H-6T	TN4015H-6I	TN5015H-6T	
TN1605H-6T	TN2010H-6G	TN3050H-12GY-TR	TN4015H-6T	TN5050H-12WY	

TN	50	15	H	-	6	G
Thyristors	Current	Sensitivity	Junction		Voltage	Package