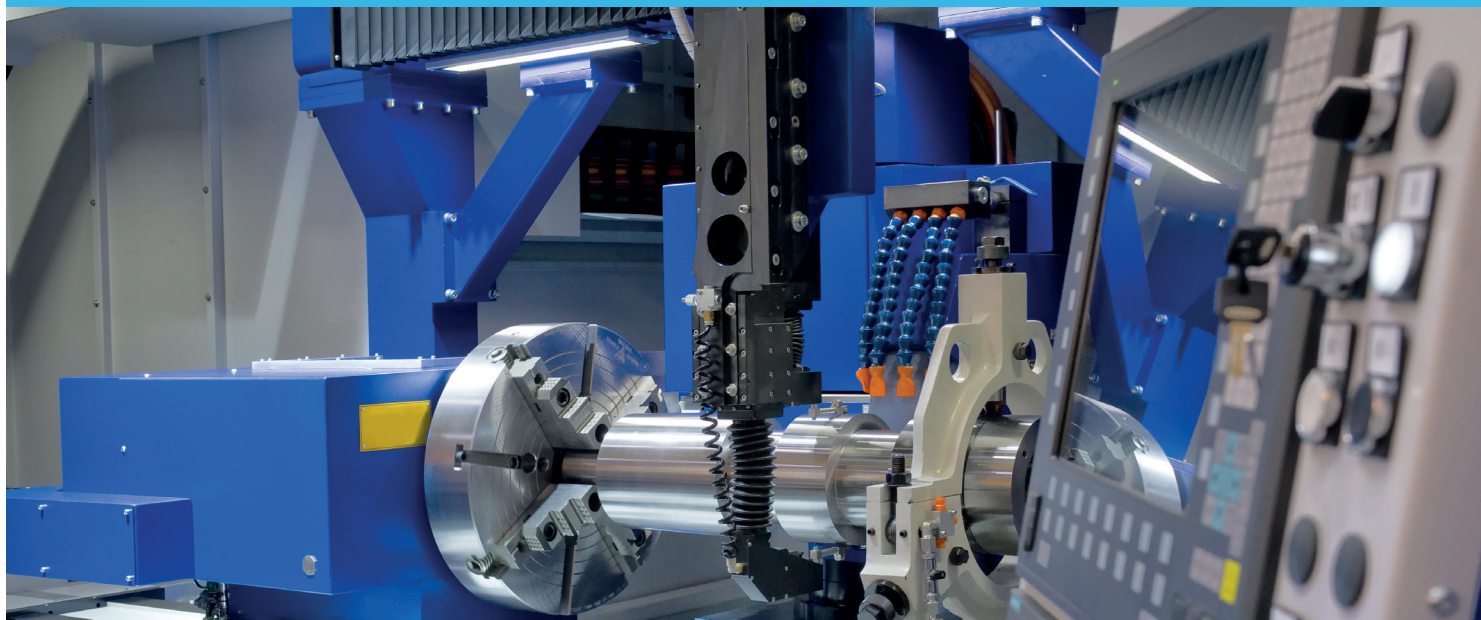


HIGH-TEMPERATURE SCRS

for industrial applications



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

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

In addition, 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.

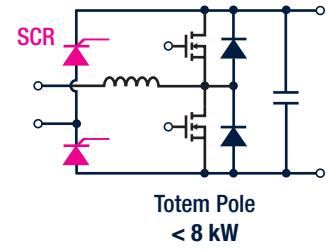
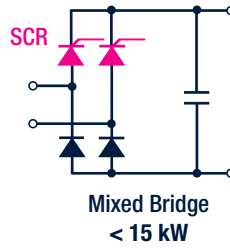
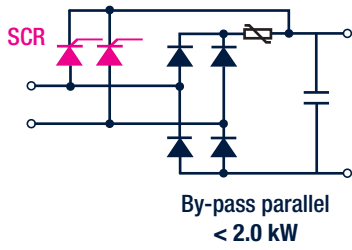
KEY FEATURES & BENEFITS

- T_j : 150 °C (max.)
- On-state RMS current: 12 to 80 A
- Blocking voltages : 600 V, 800 V, 1200 V
- High turn-on robustness: 200 A/ μ s
- High off-state immunity: 1000 V/ μ s
- ECOPACK2 compliant
- Comply with IEC61000-3-3 standard for inrush current management

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
- Over-voltage protection
- Power Bus Discharge

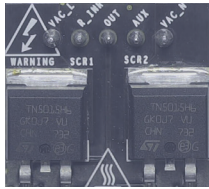
Inrush current limiter demoboards



Standard input full bridge rectifier

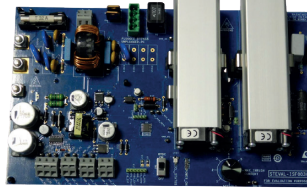
No need of MCU driving

STEVAL-SCR001V1



High efficiency

STEVAL-ISF003V1



Bridgeless - Totem pole PFC

High power & compactness

STEVAL-DPSTPFC1



Device summary

Automotive Grade SCR
AECQ101 qualified
"Y" character is used as the last digit of the Commercial Part

TN3050H-12
30 A, 1200 V

TN6050HP-12
60 A, 1200 V

Medium Power SCR

TN4050-12
50 A, 1200 V

TN5050H-12
*In dev.
50 A, 1200 V

TN6050-12
50 A, 1200 V

TN8050H-8
80 A, 800 V

High Temperature SCR

TN1205H-6
12 A, 600 V

TN1605H-6
TN1610H-6
16 A, 600 V

TN2010H-6
TN2015H-6
20 A, 600 V

TN3015H-6
30 A, 600 V

TN4015H-6
40 A, 600 V

TN5015H-6
50 A, 600 V

12

16

20

30

40

50

60

80



D²PAK

TO-220AB

TO-220FPAB

TO-220AB INS.

TO-247

D³PAK

TO-247LL

TOP3I



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