



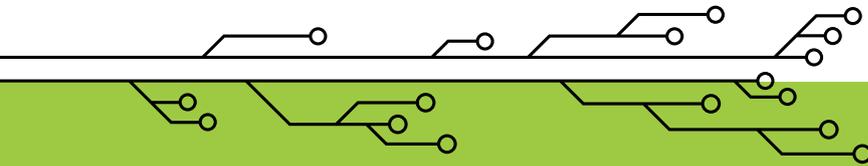
Driving Innovation,
Powering a Sustainable Tomorrow

SCS25TP800 20kW Three-Phase Converter

(Available in both SiC/Si Power Switches)

A perfect solution for industrial motor drives, high-performance AC-DC power conversion and renewable energy solutions.

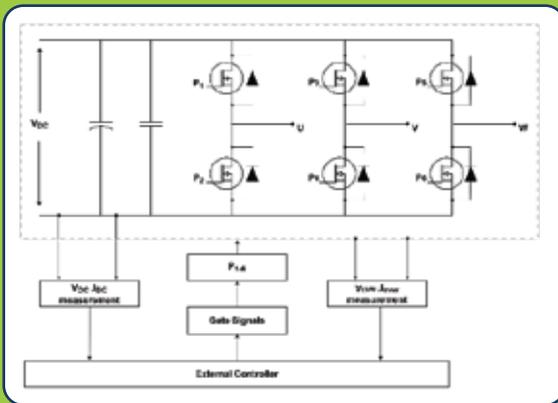
SCS's SCS25TP800 Three-Phase PWM Converter is a complete, easy-to-use, flexible 20 kW power stage designed using advanced SiC/Si power switches for superior efficiency and high-speed switching capability. As demonstrated in the block diagram below, the converter integrates everything required to quickly evaluate system performance out of the box, while also providing expansion flexibility to suit end-application needs. Built on a single, compact PCB, the design incorporates a low-inductance DC bus structure, SCS's high-speed 250 kHz gate drivers, reinforced-isolated voltage & current sensing, and robust thermal management. With an integrated heatsink and cooling fan, the converter offers stable performance during high-load operation. The system is ideal for evaluating or scaling up to industrial AC motor drives, renewable-energy inverters, high-frequency AC power supplies, or as a front-end AC generation stage. A pre-flashed (3-phase Sine-PWM algorithm) microcontroller environment is provided to simplify immediate evaluation.



Customizing it to meet the specific requirements or standards is possible.

SCS25TP800 Ratings

| Symbol | Symbol | Min. | Typ. | Max. | Unit |
|-----------|---------------------|------|------|------|------|
| P_{OUT} | Output Power | - | - | 20 | kW |
| V_{DC} | DC Bus Voltage | - | 650 | 800 | V |
| V_{AUX} | Auxiliary Voltage | 22 | 24 | 25 | V |
| I_{AUX} | Auxiliary Current | - | - | 2 | A |
| I_{OUT} | Output Current | - | - | 25 | A |
| f_s | Switching Frequency | - | - | 250 | kHz |



***Note: For switching frequency above 100kHz, change in snubber components is required for smooth switching voltages**