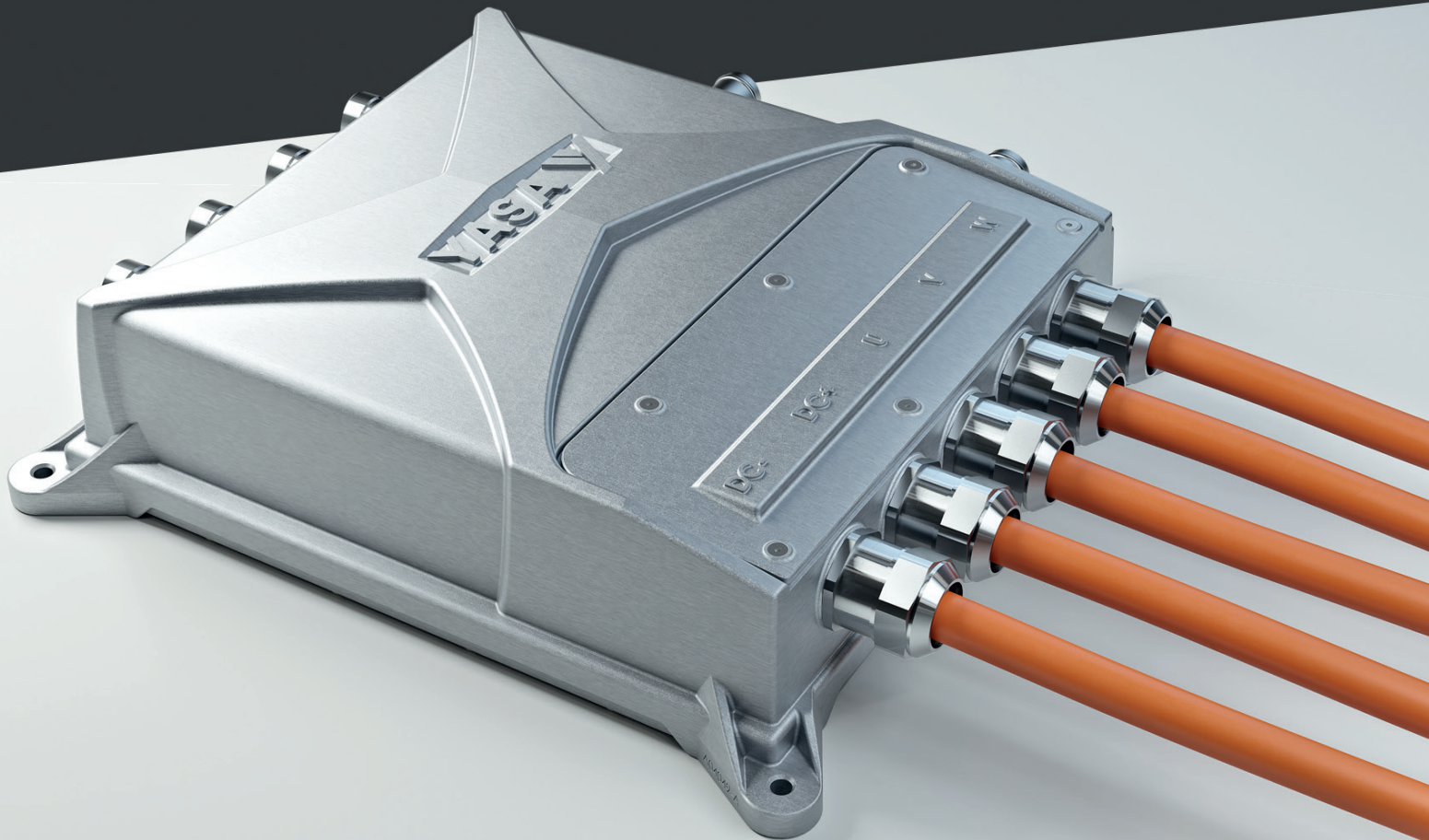




Si400 Motor Controllers

Product Sheet



Overview

YASA's controller series provides powertrain designers with new ways to optimise the performance, range and cost of hybrid and pure electric vehicles.

YASA controllers feature innovative thermal management including dielectric oil cooling and achieve category-leading peak power density. The controllers are suitable for use with induction and permanent-magnet machines and, when coupled with YASA's axial-flux electric motors, offer best-in-class size, weight, efficiency and control dynamics.

The YASA Si400 controller delivers up to 200kVA from a 5 litre package weighing just 5.75kg.

Si400 Motor Controllers



Key Specifications

Peak Current (5 sec)	500 A _{RMS}
Continuous Current ¹	210 A _{RMS}
Input Voltage Range	50 – 400 V _{DC}
Efficiency (peak)	96%

Dimensions ²	84 x 251 x 277 mm
Mass ³	5.75 kg
Volume ⁴	4.8 litres

Technology

- Thermal management innovation and dielectric oil cooling for best in class weight and volume
- Motor flux maps for precise control
- Adaptive and predictive current control
- Optimised voltage utilisation
- Compatible with YASA, PMAC and induction machines
- Silicon IGBT switching up to 16 kHz

Notes

1. Continuous with 60°C coolant @8l/min
2. Case excluding mounting hardware
3. Dry mass excluding cables
4. Active area excluding terminal box

Control

- CAN J1939
- Traction and Speed modes
- Sin-cos and resolver position inputs
- 4 x PT1000, 2 x 0-5V inputs and digital I/O for motor and vehicle interface

Safety & Protection

- Developed to support ISO26262 functional safety up to ASIL C including CAN end-to-end protection
- Passive High Voltage Interlock (HVIL)
- DC input charge interface and internal discharge
- Coolant flow and temperature protection
- Environmental: IP69k

For full product details, please contact sales@yasa.com detailing your motor and controller requirements.

www.yasa.com
+44 (0) 1865 952100

