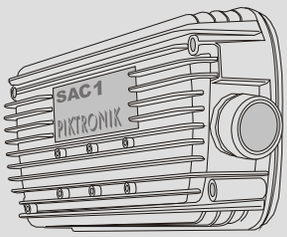
PIKTRONIK

Advanced solutions for battery powered vehicles and boats



SAC1

Motor controller for small vehicles and boats

48V

MAX 6.5kVA

IP54

CAN

PC SACTERM

4Q

MAIN FEATURES

- State of the art technology
- Compact design
- Easy setup
- Sensorless vector control
- Speed or torque control
- Set-point value analog or via CAN bus
- Autotuning and self-test functions
- Battery management

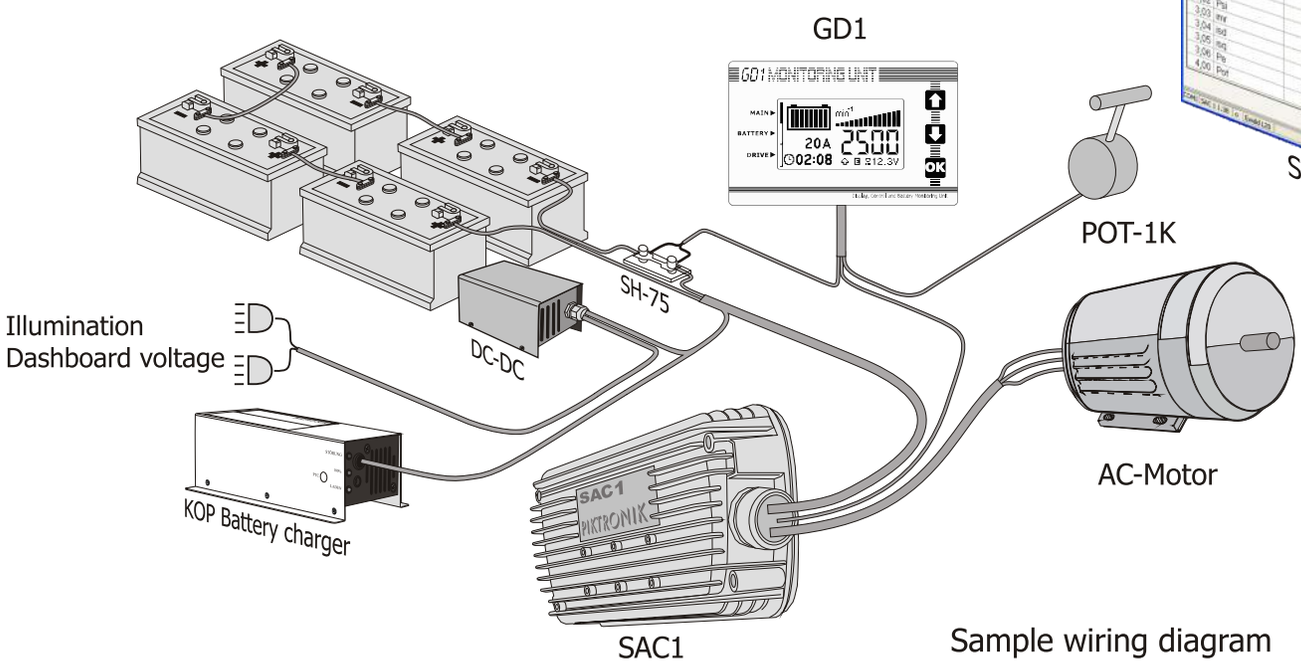
TECHNICAL CHARACTERISTICS

Battery voltage	24 V to 48 V DC
Rated output current	50 A (75 A Option)
Maximal output current	110 A
Rated power	2.8 kVA (4.2 kVA Option)
Maximal power	6.5 kVA

www.piktronik.com

Technical specifications

Electrical data	
Supply voltage	24 V to 60 V DC
Output frequency	0 Hz to 400 Hz (optionally up to 600Hz)
Interfaces	• CAN • RS232 interface for setup with the PC Software • Motor temperature monitoring (PTC) • HALL position sensor interface
Functions	
Control method	• Sensorless vector control (or combined with speed/position sensor) • Torque or speed control
Operating functions	Speed mode with analog input, torque mode with analog input, constant speed operation,EV mode, CAN bus operation (speed or torque mode)
Braking functions	Generator braking (at speed limit, with analog input or with brake input)
Protections	Undervoltage, overvoltage, overcurrent, thermal motor protection, overtemperature, protection against battery deep-discharge and over-charge
Motor types	Asynchronous motors, permanent magnet synchronous motors with or without hall sensors
Mechanical data	
IP enclosure rating	IP54
Ambient temperature	-25°C to +35°C
Size (L x W x H) in mm	300 x 140 x 65
Weight	2,4 kg
Optional accessories	
	• SACTERM setup, parametrization and diagnostics software • GD1 display, control and battery monitoring unit



Sample wiring diagram

Piktronik d.o.o.
Cesta k Tamu 17, SI-2000 Maribor, Slovenia
E-mail: info@piktronik.com