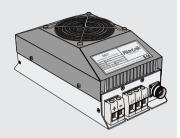


#### Advanced solutions for battery powered vehicles and boats

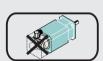


# **SAC1-90A**

### Motor controller for small vehicles and boats

#### MAIN FEATURES

- 48V
- 7.7kVA
- **IP44**











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- 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

Supply voltage 20 V to 60 V DC

Rated output current 90 A

Maximal output current 110 A

Rated power 5.0 kVA

Maximal power 7.7 kVA

## 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)	
F 45	HALL position sensor interface	
Functions		
Control method	Sensorless vector control (or combined with speed/position sensor)  Transport and a set of control.	_
	Torque or speed control	the
Operating functions	Speed mode with analog input, torque mode with analog input, constant speed operation,EV mode, CAN bus operation (speed or torque mode)	g only
Braking functions	Generator braking (at speed limit, with analog input or with brake input)	ndin act.
Protections	Undervoltage, overvoltage, overcurrent, thermal motor protection, overtemperature, protection against battery deep-discharge and over-charge	are bi
	application specific protection functions possible	ures ed b
Motor types	Asynchronous motors, permanent magnet synchronous motors with or without hall sensors	The desired performance features are binding only then if they were expressedly agreed by contract.
Mechanical data		man ssed
IP enclosure rating	IP44	erfor xpre
Ambient temperature	-25°C to +35°C	ed po
Size (D x W x H) in mm	300 x 123 x 153	esire / we
Weight	3.5 kg	he d they
Accessories		⊢
	GD2 display, control and battery monitoring unit	
	C4DR6 wiring harness	
	SAC-USB2 galvanically isolated programming adapter	001
	SACTERM setup, parametrization and diagnostics software	
	1.04 lbs 49,09 V DC-tris. 1.04 lbs 23 dea Battery 1.05 ls	/oltage
	301 To	er temperature roperature
	(a) )	irrent command
	3.05 in 33.13 mm Trope 3.05 in 33.13 mm Trope 3.05 in	command
	2000 W T	Zing current irrent
	CONTRIBUTION OF THE PROPERTY O	neter power
	SACTERM	SACTERM EWALE
	POT-1K	AND MARK
=	SH-300	
Illumination ED		
Dashboard voltage	OC-DC	
1700.0 D	AC Meter	
6 % OD D	AC-Motor	E O
KOP Battery charger		Ä.
351		iron
	CAC1 000	pikt
	SAC1-90A Sample wiring diagram	www.piktronik.com
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