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Swappable Industrial Batteries

Overview

Designed for mobile, industrial, or medical workstations, the Swappable Industrial Battery (SWIB) from Green Cubes Technology exceeds the highest performance and regulatory requirements for mobile and motive equipment manufacturers. Optimized for operator ergonomics and fast or hot-swapping of workstation batteries, the SWIB suite of products enables the electrification of non-powered mobile workstations. The SWIB displays a highly accurate state-of-charge with a five stage LED for battery status. Its advanced technology includes cell balancing to ensure maximum cycle life and runtime.

The SWIB has a suite of accessories that enable Original Equipment Manufacturers (OEM's) and system integrators to electrify their mobile workstations, including the SWIB battery, receiver, power distribution electronics. Using a combination of these accessories, an OEM or system integrator can employ the SWIB for a mobile power source and stationary charging station. The SWIB batteries can be connected in parallel for charging and discharging. This parallel function enables hot-swapping of multiple batteries when installed with a mobile workstation. In motive applications, multiple SWIB batteries can be used to power products, such as automated mobile robots (AMR), pallet jacks, or motorized sleds.

The SWIB utilizes Lithium Iron Phosphate (LFP) technology, which is the safest and most environmentally friendly cell chemistry available today. In addition, the SWIB provides the longest cycle life over any other Lithium-ion or Lead Acid batteries. Finally, the extensive list of agency approvals ensures your application maintains compliance with existing agency approvals.

Features

- Lithium Iron Phosphate (LFP) Technology
- Exceptional cycle life relative to other lithium-ion or Sealed Lead Acid batteries
- IP 65 Rating ensures watertight operation in outdoor environments
- Cell balancing to maximize runtime and battery cycle life
- Batteries can be employed in parallel with CANBus communication support up to five
- Active and sleep modes minimize capacity loss when not in use
- Five stage LEDs for state of charge indication

SWIB Specification Chart

Model Number	SWIB-4820	SWIB-2440	SWIB-2420
Description	48V 20Ah LFP SWIB	24V 40Ah LFP SWIB	24V 20Ah LFP SWIB
Cell Configuration	16S1P	8S2P	8S1P
Nominal Capacity	20 Ah	40 Ah	20 Ah
	1024 Wh	1024 Wh	512 Wh
Nominal Voltage	51.2 V	25.6 V	
Operating Voltage	44.8 V - 57.6 V	22.4 V - 28.8 V	
Charge Voltage (max)	59.6 V	30.8 V	
Charge Current Continuous (max)	10.0 A (+15 °C to +45 °C) Derated (+5 °C to +15°C)		
Discharge Current Continuous (max)	20.0 A (-10 °C to +45 °C)		
Discharge Current Peak	40.0 A (10 seconds duration)		
Protections	Over and Under Voltage Protection Over and Under Temperature Protection Over Current Protection		
Dimensions (WxLxH)	180 x 160 x 430 mm (incl. handle)		180 x 160 x 282 mm (incl. handle)
	180 x 160 x 386 mm (excl. handle)		180 x 160 x 238 mm (excl. handle)
Weight	13 kg, 28.6 lbs		9.2 kg, 20.2 lbs
Communication	CANBus		
State of Charge Indication	LED 5-stage		
Storage Temperature	0 °C to +25 °C (12 months)		
	0 °C to +45 °C (3 months)		
	-20 °C to +45 °C (1 month)		
Storage Humidity	≤ 70% RH		
Ingress Protection	IP-65		
Case Flammability Rating	UL 94 V-0		
Shipping Classification	Class 9		
Agency Approvals	UN 38.3 IEC 62133 EN 55032 / CISPR32 Class A (Emissions) EN 55035 / CISPR35 (Immunity) FCC Part15B / ICES-003		
Battery Modes	Active, Sleep		
Chemistry	Lithium Iron Phosphate		

ABOUT GREEN CUBES TECHNOLOGY

Green Cubes Technology harnesses over 30 years of industry experience to ensure we design, develop and deliver solutions for the most challenging energy needs. We offer battery technology innovation, application design and performance management to drive productivity, scalability and sustainability.

For more information, email **info@greencubes.com**
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