aentron | ENERGY SOLUTIONS

E-Maritime

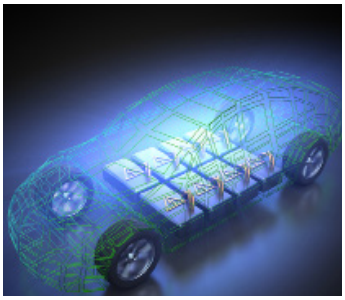
E-Mobility

E-Industry

E-Building

2 kWh LI-ION BATTERY - TYPE R (200 A)

STANDARD ENERGY-MODULE
SCALABLE, SAFE, TURN-KEY READY



- Dust- and Water Protection: IP 66
- Modular and scalable Configuration
- Robust Metal Housing
- Recyle- and Reusable
- Fast Charging Capable
- Safety: Integrated BMS
- Operational Temperature: - 20°C to +60°C
- Plug & Play Communication: CANbus
- 360° Mechanical Integration
- Made in Germany

Technical Data	12 Vdc - R	24 Vdc - R	48 Vdc - R
Type	A12020R	A24020R	A48020R
Module-Capacity (Ah)	139 Ah	81.2 Ah	40.6 Ah
Module-Energy (Wh)	2.004 Wh	2.046 Wh	2.046 Wh
Discharge Constant Power Max. (A) 3C	2.800 W @ 200 A	5.100 W @ 200 A	6.000 W @ 120 A
Charge Constant Power Max. (A) 0,7C	1.300 W @ 97 A	1.400 W @ 56 A	1.400 W @ 28 A
Nominal Voltage (Vdc)	14.4 Vdc	25.2 Vdc	50.4 Vdc
Operational Voltage	12 Vdc <=> 16 Vdc	21 Vdc <=> 28 Vdc	42 Vdc <=> 56 Vdc
Cell Chemistry	Li-NMC		
Dimensions (L x W x H)	422.2 mm x 310 mm x 115 mm		
Housing	3 mm Alu-Die Cast		
Temperature Range	Discharge: -20 °C bis +60 °C / Charge: 0 °C bis +50 °C		
Water / Dust Protection	IP66		
Humidity / Operational Elevation	5 to 95 % / < 4.000 m		
Configuration / Communication	parallel / serial / CANopen		
Safety Detection	Overcharge-/ Deep Discharge- Protection, Temperature monitoring		
Functions	BMS - Module and cell series monitoring, Heating (optional)		
Weight	Ca. 22 kg		
Cycle-Life	Approx 3.000 cycles / 80 % DoD @ 20 °C		
Certificates	CE-2014-30-EU (EMC) EN 61000-62:2005, EN6200-6-3:2007, ISO16315:2006 Small Craft Standard, UN38.3, CB IEC62133, IP66, ECE-R10 (EMC) - Automotive, IEC 60945-(EMC) Marine, DNV-GL Type Approved, IEC62619 - Safety (DNV GL), IEC62620 - Performance (DNV GL), Heater Test IEC600068-2-1		
Standards	CE-93-68-EU, CE-Battery Directive 2006-66-EC, CE-Low Voltage Directive 2014-35-EU, CE-RoHS 201-65-EU, CE-Asbestos Directive 203-18-EU, ISO16315:2006 Small Craft Standard, Outgoing Test VDE 0100 Part 610, Outgoing Test VDE 0701-702, According to IEC61508 SIL2 / ISO26262 ASIL C (Functional Safety E/E)		

aentron Energy Solutions is a developer and manufacturer of lithium-ion energy storage solutions for maritime, industrial, mobility and building applications.

aentron develops and produces in Germany.

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