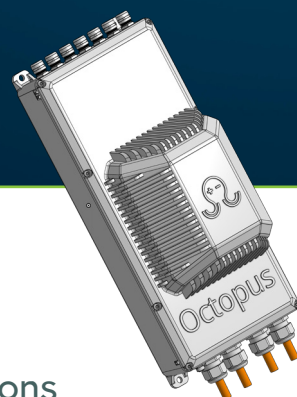




Octopus[®] Series

Next generation energy storage system for maritime applications



Octopus High Energy 10

Chemistry	NMC	
Storage	10 kWh	
Voltage	52 V	
Capacity	192 Ah	
Dimensions	LxWxH = 733 x 574 x 268 (module)	
Weight	86,5 kg (module)	
Ingress Protection	IP65	
	Max. Charge	Max. Discharge
Single cable	240 A (1.25 C)	240 A (1.25 C)
Double cable	290 A (1.5 C)	320 A (1.65 C)

Application High Energy

Long charge- & discharge cycles

Continuous C-rate up to 0.6 C passive cooled and 1.0C Active cooled, depending on load profile and ambient conditions

Octopus battery management platform

- Based on 10+ years knowledge
- Standardized interface
- Proven and robust battery management system
- Individual cell monitoring
- Redundant software and hardware safety
- 24/7 balancing
- Remote monitoring, diagnostics and service
- String controller incl. contactor and fuses
- Pre-charge & black-out start

Application examples

- >> Full electric propulsion
- >> Hybrid propulsion
- >> Peak Shaving
- >> Hotel loads
- >> Back-up power
- >> Spinning reserve

Octopus High Power 5.8

Chemistry	NMC	
Storage	5.8 kWh	
Voltage	52 V	
Capacity	112 Ah	
Dimensions	LxWxH = 733 x 574 x 268 (module)	
Weight	82 kg (module)	
Ingress Protection	IP65	
	Max. Charge	Max. Discharge
Single cable	240 A (2.1 C)	240 A (2.1 C)
Double cable	330 A (3.0 C)	330 A (3.0 C)

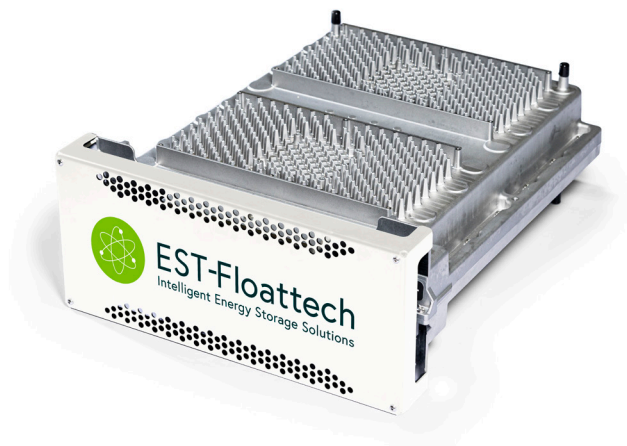
Application High Power

High current charge- & discharge cycles

Continuous C-rate Up to 2.0 C, depending on load profile, ambient conditions, Active / Passive cooling

Product features

- High energy density / high power density
- Low weight & high volumetric density
- Passive cell-to-cell thermal runaway protection
- Scalable up to multiple MWh
- Voltage up to 1000 VDC (nominal)
- Optional forced air cooling
- Unique and flexible rack design
- Gas exhaust system
- Bureau Veritas, DNV, Lloyd's Register type approval
- IACS Class compliant
- 10+ years lifetime*





Example battery room layout



Battery System Setup (4p14s)

- 4 strings in parallel
- 14 modules per string
- 56 modules
- 4 string controllers

Capacity

- High Energy 10: 560 kWh
- High Power 5.8: 324,8 kWh

Voltage

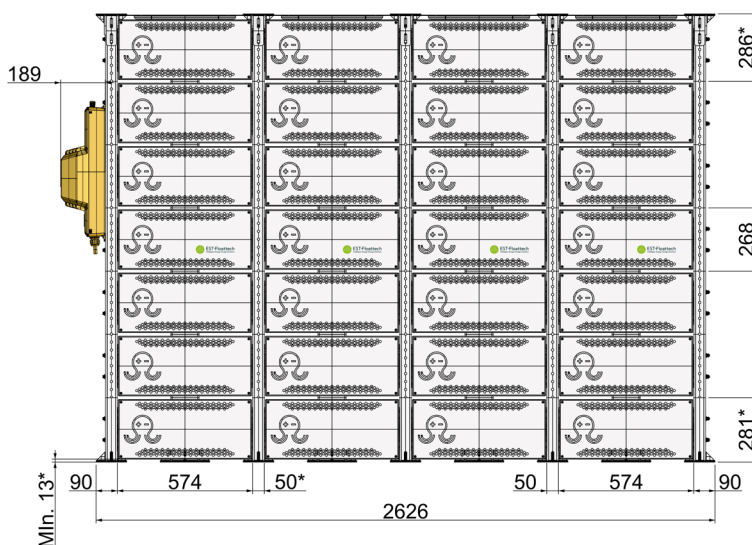
- 14 modules x 52 V = 728 V nominal

Racking

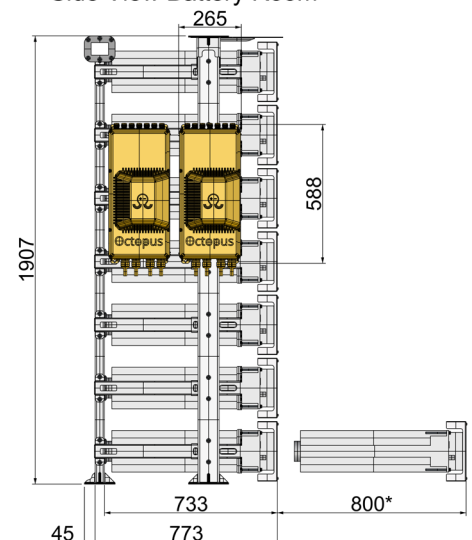
- Example of 7 modules per rack
- Limitation of stacking: Minimum of 1 module high, maximum customizable to your battery room

Dimensions

Front View Battery Room (2p14s)



Side View Battery Room



Details provided are believed to be correct but not guaranteed. (*) Lifetime expectancy depends on use. Lifetime given is an average.
Lifetime expectancy for specific applications to be estimated by EST-Floattech based on load profile.