# Chillwind

## **Densepack®** Technical Information

## Immersion cooled battery module

## Our high-performance *Densepack*® -series uses the next generation battery immersion cooling technology

Our next-generation immersion cooling technology from Sweden for battery pack assembly transforms standard lithium battery cells into fire-safe high-performance battery packs, overcoming the key technical challenges of traditional systems. Our *Densepack*® -series offers a safer, greener alternative for marine, industrial and electricity grid applications.

In addition to enhancing the performance and energy efficiency of NMC and LFP batteries, this innovative system provides unparalleled fire safety by preventing overheating, as well as delivering energy-efficient cell heating during colder conditions.

**High voltage and high current** capability for demanding vehicle or marine/ industrial. Current rating up-to 500 A continuous discharge. High voltage up to 1000 V. Multistring / cluster operation possible for large systems up-to MW range.

Standard configurations: 44S9P, 22S18P, 11S36P

### **KEY FEATURES**

- Extremely compact
- Immersion cooled
- High fire safety
- Fast response (charge to discharge)
- High C-rate
- Efficient cell cooling
- Efficient cell heating



#### **Performance data**

| Max power peak                | Up to 10C  |
|-------------------------------|--|
| Max power continuous          | Up to 8C   |
| Capacity                      | Up to 7,13kWh                                    |
| Nominal voltage               | 158,4V   |
| BMS and Breaker               | Internal and External fuse, isolated BMS slave   |
| Communication protocols       | isoSPI   |
| Minimum operating temperature | -10°C  |
| Maximum operating temperature | +60°C  |
| Dimensions (W, D, H)          | 480mm, 470mm, 100mm                              |
| Weight (fully equipped)       | 40kg   |
| Cabinet protection class      | IP67   |
| Environmental management      | Immersion liquid cooled                          |
| Applicable standards          | UN38.3 T1-T4, CE, IEC 62619, ECE R100, ISO 26262 |

System configuration examples:

1. 220-240 VAC emergency power , boost power , UPS. 2. BESS 50kW/35kWh grid. High C-rate 3. BESS 100kW / 140kWh grid. Mult-string / cluster configuration





| PCS  |     | HV box |  |
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