



**TRANSFLUID**<sup>®</sup>  
industrial & marine

# BATTERY PACK

Innovative energy system  
for marine applications



**drive with us**

# Transfluid's battery

Transfluid's battery is the next-generation accumulator for marine and industrial applications.

It is based on lithium iron phosphate cells (LiFePO<sub>4</sub>), a technology that is safe and has the best performance/cost ratio, with integrated BMS to maintain the cells always equalized and efficient.

Transfluid's battery gives great usage flexibility and **reduces the total ownership costs**, thanks to its 4000 cycles lifespan, being maintenance-free and allowing opportunity fast charging to increase the daily available energy.

The absence of emissions and the extended operating temperature range make Transfluid's battery perfectly suited for every workplace.

It is available in various sizes and capacities, and it has been **equipped with special features** for the best integration with Transfluid transmission system.

## CERTIFICATES:

*Our battery System successfully passed all the DNV and BV tests including the new 2018 forced thermal runaway and this makes it compliant with Norwegian Maritime Authority (NMA) Propagation Test 1*



## Interfacing

Transfluid's battery can work as a standalone accumulator, or it can interface through CAN-bus or Ethernet to other electronic devices such as MPCB, display, PLC, in order to show the data of the battery on a dashboard, or to implement an advanced management of the available energy.

### Suited for every application

Having no gas emissions, these batteries are suited also for marine and many industrial applications.

## Battery LiFePO<sub>4</sub>

It's based on lithium iron phosphate cells (LiFePO<sub>4</sub>), a technology that is safe and has the best performance/cost ratio, with integrated BMS to maintain the cells always equalized and efficient. Box is stainless steel IP65.

### Long lifespan

- More than 4000 cycles

The lifespan is 3 times longer than traditional batteries, making the cost per cycle lower than any other technology. Thanks to their high efficiency, up to +25% than lead acid batteries, energy costs and CO<sub>2</sub> emissions are reduced.

### Rapid charge, whenever you want

- +50% charge level in only 30 minutes
- Complete charge in 2 hours
- Accepts partial charge and discharge
- No memory effect

### Charger and discharger

- Continuous charging (A) 0.8 C
- Pulse charging (A) SOC < 80% 1.2 C
- Continuous Discharging (A) 1 C
- Pulse Discharging (A) 2C

### Maintenance-free / Remote control system

Every Transfluid battery has an integrated remote monitor system that permits to download a daily log of all the internal parameters. This control reports precise health status of every battery pack of the fleet. Transfluid batteries are maintenance-free allowing service on-site through the integrated diagnosis system.

### Wide Temperature Range

Transfluid battery are certified for working in an operating temperature range between -20°C to +60°C that means that the batteries can be installed in ambient temperature from -30°C to +45°C, for the most severe conditions automatic heater keeps the battery in max efficiency condition.

### No emissions

No gas emissions during charge and discharge, so no special charging rooms are required. They may be charged at any place with maximum safety.

Capacity Ah	Contin. discharge A	Pulse discharger A	Max charging current A	Pulse charge A	Operating Temperature °C	Box Material	Protection class
105	105	210	70	120	-10 / 45	SS316L	IP65 (No cooling required)
210	210	420	160	240			
315	315	630	210	360			
420	420	840	320	480			
630	630	1260	480	720			
840	840	1680	640	960			

### 51V

Energy kWh	Architecture	Dimension Single Box **	Number Of Modules	Total Weight
10.7	Single Module	605x630 h281 mm	1	112 kg
21.5	2P		2 + MCR*	224 kg
32.3	3P		3 + MCR*	336 kg
43.0	4P		4 + MCR*	448 kg

### 140V

Energy kWh	Architecture	Dimension Single Box **	Number Of Modules	Total Weight
29.5	3S	605x630 h281 mm	3	336 kg
59.1	3S - 2P		6 + MCR*	672 kg
88.7	3S - 3P		9 + MCR*	1008 kg
118.2	3S - 4P		12 + MCR*	1344 kg

### 48V Easy (without Type Approval)

Energy kWh	Architecture	Dimension Single Box **	Number Of Modules	Total Weight
10.7	Single Module	420x750 h275 mm	1	101 kg



### 307V

Energy kWh	Architecture	Dimension Single Box**	Number Of Modules	Total Weight
32.2	3S	605x630 h281 mm	3	336 kg
64.5	3S	955x630 h281 mm	3	561 kg
96.7	3S - 3P	605x630 h281 mm	9 + MCR*	1008kg
129.0	3S - 2P	955x630 h281 mm	6 + MCR*	1122 kg
193.5	3S - 3P		9 + MCR*	1683 kg
258.0	3S - 4P		12 + MCR*	2244kg

### 102V

Energy kWh	Architecture	Dimension Single Box **	Number Of Modules	Total Weight
10.7	Single Element	605x630 h281 mm	1	112 kg
21.5	Single Element	955x630 h281 mm	1	187 kg
32.2	3P	605x630 h281 mm	3 + MCR*	336 kg
43.0	2P	955x630 h281 mm	2 + MCR*	374 kg
64.5	3P		3 + MCR*	561 kg
86.0	4P		4 + MCR*	748 kg

### 409V

Energy kWh	Architecture	Dimension Single Box**	Number Of Modules	Total Weight
43	4S	605x630 h281 mm	4	448 kg
86	4S	955x630 h281 mm	4	748 kg
129	4S - 3P	605x630 h281 mm	12 + MCR*	1344 kg
172	4S - 2P	955x630 h281 mm	8 + MCR*	1496 kg
258	4S - 3P		12 + MCR*	2244 kg
344	4S - 4P		16 + MCR*	2992 kg



\* MCR dimensions: 400x350xh167 mm, weight: 11 kg

\* Collector box included \*\*

\*\* Indicative dimensions. Ask for official drawing





(Examples of different applications of Transfluid's batteries technology)

# TRANSFLUID<sup>®</sup>

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