



**TRANSFLUID®**  
industrial & marine

# BATTERY PACK

Innovative energy system  
for marine applications



**drive with us**

# Transfluid's battery

Tranfluid'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.

Tranfluid'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.

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



**CERTIFICATE N°: TAE00003SJ**



\* data are subject to alteration without notice

## 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 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.

## GENERAL SPECIFICATIONS

Capacity Ah	Contin. discharge A	Pulse discharger A	Continuous charge A	Pulse charge A	Operating Temperature °C	Box Material	Protection class
100	100	200	80	120	-20 / 60	SS316L	IP65
200	200	400	160	240			
300	300	600	240	360			
400	400	800	320	480			
600	600	1200	480	720			
800	800	1600	640	960			

### 48V

Energy kWh	Architecture	Dimension Single Box **	Number Of Modules	Total Weight
10.3	Single Module	620x677 h352 mm	1	130 kg
20.5	2P	620x677 h352 mm	2 + MCR*	267 kg
30.8	3P	620x677 h352 mm	3 + MCR*	397 kg
41.0	4P	620x677 h352 mm	4 + MCR*	527 kg



### 96V

Energy kWh	Architecture	Dimension Single Box **	Number Of Modules	Total Weight
9.6	Single Element	506x876 h293 mm	1	130 kg
19.2	Single Element	619x955 h352 mm	1	230 kg
28.8	3P	506x876 h293 mm	3 + MCR*	394 kg
38.4	2P	619x955 h352 mm	2 + MCR*	467 kg
57.6	3P	619x955 h352 mm	3 + MCR*	697 kg
76.8	4P	619x955 h352 mm	4 + MCR*	927 kg

### 144V

Energy kWh	Architecture	Dimension Single Box **	Number Of Modules	Total Weight
30.8	3S	620x677 h352 mm	3	390 kg
61.4	3S - 2P	620x677 h352 mm	6 + MCR*	787 kg
92.2	3S - 3P	620x677 h352 mm	9 + MCR*	1177 kg
122.9	3S - 4P	620x677 h352 mm	12 + MCR*	1567 kg

### 288V

Energy kWh	Architecture	Dimension Single Box**	Number Of Modules	Total Weight
28.8	3S	506x876 h293 mm	3	390
57.6	3S	619x955 h352 mm	3	690
86.4	3S - 3P	506x876 h293 mm	9 + MCR*	1170
115.2	3S - 2P	619x955 h352 mm	6 + MCR*	1380
172.8	3S - 3P	619x955 h352 mm	9 + MCR*	2070
230.4	3S - 4P	619x955 h352 mm	12 + MCR*	2760



### 384V

Energy kWh	Architecture	Dimension Single Box**	Number Of Modules	Total Weight
38.4	4S	506x876 h293 mm	4	520
76.8	4S	619x955 h352 mm	4	920
115.2	4S - 3P	506x876 h293 mm	12 + MCR*	1560
153.6	4S - 2P	619x955 h352 mm	8 + MCR*	1840
230.4	4S - 3P	619x955 h352 mm	12 + MCR*	2760
307.2	4S - 4P	619x955 h352 mm	16 + MCR*	3680

\* MCR dimensions: 300x350xh160 mm, weight: 7 kg

\*\* Indicative dimensions. Ask for official drawing





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

**TRANSFLUID**  
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#### ITALY HEADQUARTERS

TRANSFLUID S.p.A.  
Via Guido Rossa, 4  
21013 Gallarate (VA)  
Ph. +39.0331.28421  
Fax +39.0331.2842911  
info@transfluid.eu

#### CHINA

TRANSFLUID BEIJING TRADE CO.LTD  
101300 Beijing  
Ph. +86.1060442301-2  
Fax +86.1060442305  
tbtcinfo@transfluid.cn

#### FRANCE

TRANSFLUID FRANCE s.a.r.l.  
38110 Rochetoirin  
Ph. +33.9.75635310  
Fax +33.4.26007959  
tffrance@transfluid.eu

#### THE NETHERLANDS - GERMANY TRANSFLUID NORTH EUROPE B.V.

##### Bellmarine

NL- 3992 AK, Houten  
Ph. +31 (0)85 4868530  
info@bellmarine.nl  
tfnortheurope@transfluid.eu

#### RUSSIA

TRANSFLUID OOO  
143100 Moscow  
Ph. +7.495.7782042  
Mob. +7.926.8167357  
tfrussia@transfluid.eu

#### U.S.A.

TRANSFLUID LLC  
Auburn, GA 30011  
Ph. +1.770.822.1777  
tfusa@transfluid.us

LOCAL DISTRIBUTOR



[www.transfluid.eu](http://www.transfluid.eu)  
[www.buy-transfluid.com](http://www.buy-transfluid.com)

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