



# **Discover Optimal Battery Performance**

Battery performance is always a balancing act. Different applications in different sectors such as transportation, industrial and non-road mobile machinery as well as energy storage require different solutions. We enable optimal performance, whether your application calls for a focus on high energy density and long range, fast charging, long life cycle or ruggedness.

Our cells address key market needs with its range of chemistries and multiple form-factors. We also offer tailor-made configurations throughout our portfolio – from cells to modules and packs – to meet your individual requirements. Discover our portfolio and contact us to find the optimal battery solution for your application.



# **Extensive Production Capacities**

We have the flexibility and innovative mindset of a start-up with the distinct advantage of also having the necessary production capacities to meet the demands of leading vehicle manufacturers as well as of other industries. There are currently two state-of-the-art production facilities in Ganzhou and Zhenjiang, China, with further production facilities being built by 2025, thereby increasing total planned capacity to 180 GWh/a.

In Europe, there is a production facility as a joint venture with Togg in Gemlik, Turkey, under the name Siro. Siro will develop the energy storage solutions for Farasis Energy Europe in the future and already produces modules and packs. Thanks to a well-established and reliable global supply chain, we can ensure just-in-time as well as just-in-sequence deliveries.

### **Cells**







Product Name	P32	P53	P55
Chemistry (cathode)	NCM 6 Series	NCM 6 Series	NCM 6 Series
Chemistry (anode)	Graphite	Graphite	Graphite
Dimensions (mm)	161 x 231 x 6.05	161 x 231 x 10	316 x 103 x 10.6
Weight (g)	498 ±15	800 ±15	758 ±15
C/3 Capacity @ 25°C (Ah)	33.3	55.5	57.3
C/3 Energy Density @25°C (Wh/kg)	249	258	283
Voltage Range (Vdc)	2.75 – 4.3	2.75 - 4.3	2.75 - 4.4
10% to 80% Recommended Charge Time (min)*	30 - 35	30 - 35	30 - 35
Status	Production	Production	Production

**Optimum Performance** 

<sup>\*</sup>Charging capability depends on multiple factors such as system limit, temperatures, cooling strategy etc.









P58	P73	<b>P75</b> (3-side sealing)	P84
NCM 6 Series	NCM 8 Series	NCM 8 Series	NCM 9 Series
Graphite	Graphite	Graphite	Si-Graphite
161 x 231 x 10	294 x 104 x 14.2	542 x 102 x 8.2	294 x 104 x 13.9
833 ±15	952 ±15	1030 ±15	960 ±15
60.5	73	74.9	84
275	280	267	315
2.75 - 4.35	2.75 – 4.2	2.8 - 4.2	2.5 – 4.20
30-35	30	18	25
Production	Production	Production	Development
		Ultra High Performance	

Values provided are recommended only. Non-system version can be quicker.

# Modules For Non-Automotive Applications

#### **Modules**





#### Variant 1:

- + 3.5 kWh
- + Max. system voltage: 60 Vdc
- + 168 x 248 x 200 mm

#### **28s1p Configuration**

#### Variant 2:

- + 3.5 kWh
- + Max. system voltage: 120 Vdc
- + 168 x 248 x 200 mm





#### **14s6p Configuration**

- + 10.4 kWh
- + Max. system voltage: 800 Vdc
- + 176 x 256 x 672 mm

#### Cell



#### P32

- + Chemistry (cathode): NCM 6 series
- + Chemistry (anode): Graphite
- + 161 x 231 x 6.05
- + C/3 capacity @25°C (Ah): 33.3
- + C/3 energy density @25°C (Wh/kg): 249
- + Voltage range (Vdc): 2.75 4.3
- + 10% to 80% recommended charge time (min): 30 35





## Modules For Automotive Applications

#### **Modules**





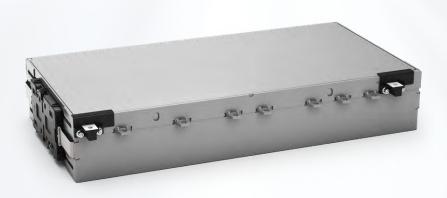
- + 4.8 kWh
- + Max. system voltage: 450 Vdc
- + 355 x 108 x 331 mm



#### **12s2p Configuration**

- + 6.4 kWh
- + Max. system voltage: 450 Vdc
- + 355 x 108 x 430 mm







#### 12s3p Configuration

#### Variant 1:

- + 9.7 kWh
- + Max. system voltage: 450 Vdc
- + 355 x 108 x 626 mm

#### **18s2p Configuration**

#### Variant 2:

- + 9.7 kWh
- + Max. system voltage: 450 Vdc
- + 355 x 108 x 626 mm

#### Cell



#### **P73**

- + Chemistry (cathode): NCM 8 series
- + Chemistry (anode): Graphite
- + 294 x 104 x 14.2 mm
- + C/3 capacity @25°C (Ah): 74.1
- + C/3 energy density @25°C (Wh/kg): 285
- + Voltage range (Vdc): 2.75 4.2
- + 10% to 80% recommended charge time (min): 30 35

## Modules For Automotive Applications

#### Modules



#### 590 VDA Standard

#### Variant 1:

- + 12s2p configuration
- + 6.62 kWh
- + Max. system voltage: 800 Vdc
- + 225 x 108 x 590 mm

#### Variant 2:

- + 8s3p configuration
- + 6.62 kWh
- + Max. system voltage: 450 Vdc
- + 225 x 108 x 590 mm







#### 355 VDA Standard

#### Variant 1:

- + 6s2p configuration
- + 2.3 kWh
- + Max. system voltage: 450 Vdc
- + 152 x 108 x 355 mm

#### Variant 2:

- + 3s4p configuration
- + 2.3 kWh
- + Max. system voltage: 450 Vdc
- + 152 x 108 x 355 mm

#### Cells



#### **P75**

- + Chemistry (cathode): NCM 8 series
- + Chemistry (anode): Graphite
- + 542 x 102 x 8.2 mm
- + C/3 capacity @25°C (Ah): 74.9
- + C/3 energy density @25°C (Wh/kg): 267
- + Voltage range (Vdc): 2.75 4.2
- + 10% to 80% recommended charge time (min): 18

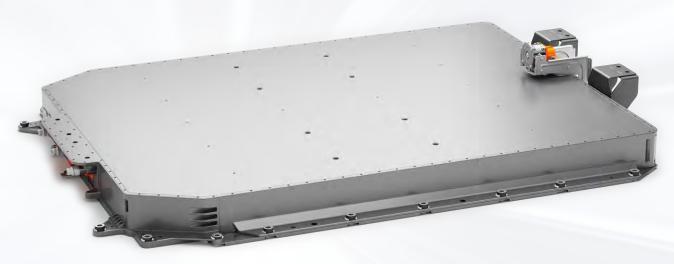
#### P50 → P55

- + Chemistry (cathode): NCM 6 series
- + Chemistry (anode): Graphite
- + 316 x 103 x 10.6 mm
- + C/3 capacity @25°C (Ah):  $52 \rightarrow 55$
- + C/3 energy density @25°C (Wh/kg):  $260 \rightarrow 283$
- + Voltage range (Vdc):  $2.75 4.3 \rightarrow 2.75 4.4$
- + 10% to 80% recommended charge time (min):  $30 \rightarrow 35$



#### **Battery Pack**

Our battery pack impresses with flat design for low profile underfloor or roof mounting and complies with ECE R100, R10, UN38.3 and ISO26262 standards. Packs can be mounted in parallel with external junction box. Superior safety performance goes without saying.





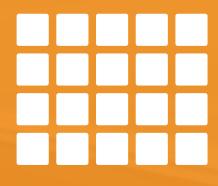
#### **Farasis Battery Pack**

- + 86.4 kWh
- + > 2,500 cycles
- + 394.2 Vdc
- + 1990 x 1440 x 144 mm
- + NCM/Gr
- + ~ 520 kg
- + ~ 166 Wh/kg
- + Liquid cooling and heating

# **Energizing Facts And Figures About Farasis**

R&D centers





145 GWh/a cell production capacity planned by 2025

100% carbon-neutral production

7000+ Soldwide

## Thinking batteries further



## Performance Knows No Borders



Farasis Energy Europe GmbH Benzstrasse 2 72636 Frickenhausen Germany +49 (0)7022 78944-0 info@farasis.com www.farasis-energy.com