

The powerhouse.

Boost your fleet and reduce your operating costs with Tensor.



Creating the future - the Exide Technologies way:



Innovation



Reliability



Sustainability



High Performance

GNB Industrial Power becomes
E / a division of Exide Technologies
www.exidegroup.com

TENSOR®

E / **ENERGIZING**
A NEW
WORLD

The world is changing. That's why we are energizing a new world.

For Exide Technologies, now is the time to release new energies to move even further into the future. Our new claim “**Energizing a new world**” is designed to convey this aspiration. We want to bring change to life, face challenges together with our partners, and develop solutions for today and tomorrow. **Let's create the future – the Exide Technologies way:**



Innovation is the engine of technology leadership. That's why we are constantly evolving, remain self-critical, and continue to inspire our customers. We believe that great questions deserve great answers, which is what our innovative R&D is responsible for.



Reliability defines our business. This applies to our products as well as our innovative development work, services, and partnerships. We have a responsibility that doesn't stop with our products, but rather starts there.



Sustainability is an important part of our responsibility. That's why we rely on renewable energies and intelligent recycling concepts.



High performance is the standard we set for our products and services. We want all our solutions to be best in class. This gives our customers the certainty of being optimally equipped for any task.

They call it extreme duty application. We call it daily routine.

Move more goods faster – and leave conventional batteries behind. See all the benefits for yourself:

Setting new standards:

- Breaking the barrier: Electric drive for applications with extreme requirements dominated by internal combustion engines.
- Longer operating life, runtime and investment depreciation.

Reduced operating costs:

- Increased throughput and best-in-class total cost of ownership.

Eco-friendly energy:

- Excellent carbon footprint – sustainable and supported by government programs in most countries.

Tensor.
The
business
booster.

up to
+14%
energy savings

more than
+50%
operating hours

up to
+27%
transshipment



The shift changes.

Tensor just keeps going.

No matter how complex your business is, we are the perfect partner: For us, problems are challenges that we like to take care of. That is why we are able to offer you innovative and reliable best-of-class solutions. Topics such as sustainability and environmental protection are

becoming increasingly important for us, because we want to leave a liveable future for next generations. Our best high-performance battery, which combines all these features, is the Tensor – our solution for extreme duty applications.

Flexible applications.

Fewer battery changes: Depending on the application, Tensor can reduce the number of battery changes or make them obsolete.



Three shifts, one battery:

No need to change batteries during shifts for many applications.



Every 5th battery can be omitted:

Less battery change and full recharge within 4 hours possible.



Opportunity charging during breaks:

Offers longer working time without changing the battery.

It's time for a new standard.

The Tensor battery is the best in its class. Forklifts run significantly more hours per charging cycle. Even for the same cyclic life the total operating hours will be much higher compared to standard batteries. Moreover, thanks to the lower average operating temperature of Tensor, the overall battery lifetime will be increased as well.



Tensor battery

More than
10.000
operating hours



Standard
lead battery

~ **6.000**
operating hours

GNB becomes **E** /

In a world that is constantly evolving, we are entering into a new era: “**E**” will replace “GNB Industrial Power”. From now on, our customers can find all our industrial products, systems and solutions under “**E**/ a division of Exide Technologies”. Or briefly: **E** for the industry.

**Often the strongest
are not also the
smartest.**



Luckily Tensor tells you better.

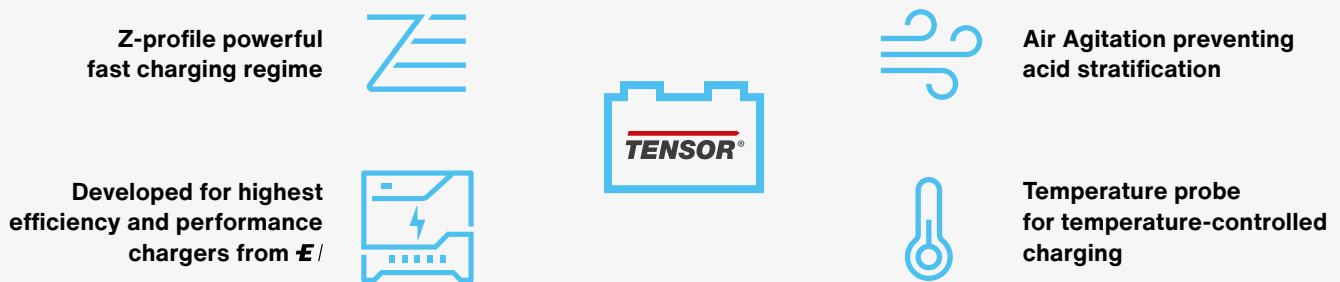


The business is changing fast. That is why Tensor recharges faster.

In just 4 hours, Tensor batteries can be fully recharged from 80% depth of discharge. This is possible due to its unique charge acceptance which leads in addition to lower operating temperatures and less energy loss.

Our fast charging solution.

The components of the fast-charging package are perfectly matched – so that the Tensor charges reliably, efficiently and powerfully.



Z-profile: the smart charging system.

The sophisticated Z-profile together with air agitation and temperature probe enable fast- and intermediate charging during available downtimes of Tensor batteries. The air agitation successfully prevents acid stratification and keeps the battery powerful and healthy.



Motion+ Fleet: Our upgrade for your uptime.

In combination with our Motion+ Fleet management system, your fleet will operate even more efficiently: The digital tool monitors battery and charging history as well as other important parameters. It is used to analyze and control energy consumption, thereby increasing battery life and sending automated alerts to logistics management.



Tensor.
Outperforms
at lower
temperatures.

Most batteries are stressed in the cold. Tensor stays cool.

Batteries operated at low temperature areas are typically affected by capacity loss and performance degradation. Tensor batteries are completely different:

Extended running time at low temperatures.

At freezing temperatures, most batteries show a significant capacity loss. When batteries need to be changed or recharged more frequently, it reduces operating efficiency. Tensor batteries have significantly longer operating times and guarantee your business more productivity, perfect in cold storage or outdoor applications.

Tensor battery

+50 %
running time

Outdoor applications.

Industrial trucks in outdoor applications are exposed to a wide range of temperatures: from high in summer to freezing in winter. Tensor batteries remain powerful even at low temperatures and minimize the effects caused by temperature fluctuations.



standard lead battery

**Tensor is
well thought-
out down to
the tiniest
detail.**

**So you can
focus on more
important
things.**



We are taking on the challenges of today. To embrace the future of tomorrow.

Tensor batteries are based on an innovative lead technology that overcomes the limitations of standard forklift batteries. This makes them ideal for modern forklift trucks (three-phase motors, energy recovery systems) and heavy-duty applications. It features strong and robust performances in all demanding environments.



Tensor.
Eco-friendly
energy.

Heavy-duty applications.

More and more battery-powered heavy-duty forklifts are entering the market and replace internal combustion forklifts. Tensor delivers the power and performance required for these demanding tasks.



VS



Reduce emissions.



By using electric forklift trucks, companies reduce carbon dioxide, nitrogen oxide and soot emissions. Tensor simplifies the switch by offering the performance typically associated with internal combustion engines. This enables to improve conditions for employees, achieve environmental targets and reduce noise pollution. Best of all, electric forklifts save money and are even subsidized by the government, depending on the country.

Environmentally friendly battery.

For any business that want to minimize environmental impact, now there is Tensor: it is fully recyclable and has a longer life than conventional traction batteries. In addition, the charging and discharging processes are tuned for maximum efficiency, so you save significantly on energy costs.





Tensor.
Reduces
operating
costs.

Other batteries have limits. **Limits that Tensor confidently leaves behind.**

Tensor offers outstanding performance in a wide variety of applications – with impressive power, high energy content and low operating temperature. But the Tensor battery is not only strong, but also smart. In short: With Tensor, you are optimally equipped for every challenge.

Our best high-performance battery convinces with the elimination of idle times and the ability to respond to seasonal increases when used optimally. Leasing or rental models are also an option for responding optimally to short-term peaks in seasonal business. If you have any questions, please do not hesitate to contact us.



**High-rack facilities /
Narrow aisle**



**Cold storage /
Outdoor applications**



**Forklift attachments /
Additional electrical
consumers**



**Heavy-duty applications /
Heavy trucks**



24/7 applications



**Seasonal business /
Activity peaks**

Tensor is strong and smart.

So are the numbers that prove it.

Of course, Tensor is no less convincing on paper than it is in its versatile applications. Because behind the hard core are also hard-core numbers that stand up to anything.

Available TENSOR cells:

| Standard EPzS cell type | Cell Dimensions ¹ | | Tensor | | | | |
|-------------------------------|--|--------------------|-------------------|----------------------------------|--------------------------|-------------------------------------|------------------------------------|
| | Height h1 ² [mm] Height h2 ³ [mm] | Length (l) [mm] | TCSM cell type | Cell weight ⁴ [kg] | Nominal capacity [Ah] | Energy content ⁵ [Wh] | Transshipment plus ⁶ |
| 3 EPzS 270 | 463 / 493 | 65 | 585 TCSM | 17.3 | 300 | 585 | +20% |
| 4 EPzS 360 | 463 / 493 | 83 | 730 TCSM | 22.0 | 375 | 730 | +13% |
| 5 EPzS 450 | 463 / 493 | 101 | 1025 TCSM | 27.0 | 525 | 1025 | +27% |
| 6 EPzS 540 | 463 / 493 | 119 | 1170 TCSM | 31.0 | 600 | 1170 | +20% |
| 7 EPzS 630 | 463 / 493 | 137 | 1315 TCSM | 36.1 | 675 | 1315 | +16% |
| 8 EPzS 720 | 463 / 493 | 155 | 1610 TCSM | 41.0 | 825 | 1610 | +24% |
| 9 EPzS 810 | 463 / 493 | 173 | 1755 TCSM | 45.6 | 900 | 1755 | +20% |
| 10 EPzS 900 | 463 / 493 | 191 | 2050 TCSM | 50.3 | 1050 | 2050 | +27% |
| 3 EPzS 375 | 573 / 603 | 65 | 760 TCSM | 20.1 | 390 | 760 | +13% |
| 4 EPzS 500 | 573 / 603 | 83 | 975 TCSM | 25.0 | 500 | 975 | +9% |
| 5 EPzS 625 | 573 / 603 | 101 | 1285 TCSM | 33.1 | 660 | 1285 | +15% |
| 6 EPzS 750 | 573 / 603 | 119 | 1520 TCSM | 38.0 | 780 | 1520 | +13% |
| 7 EPzS 875 | 573 / 603 | 137 | 1715 TCSM | 44.5 | 880 | 1715 | +9% |
| 8 EPzS 1000 | 573 / 603 | 155 | 2030 TCSM | 50.7 | 1040 | 2030 | +14% |
| 9 EPzS 1125 | 573 / 603 | 173 | 2195 TCSM | 56.9 | 1125 | 2195 | +9% |
| 10 EPzS 1250 | 573 / 603 | 191 | 2570 TCSM | 63.0 | 1320 | 2570 | +15% |
| 3 EPzS 465 | 713 / 743 | 65 | 955 TCSM | 25.5 | 495 | 955 | +16% |
| 4 EPzS 620 | 713 / 743 | 83 | 1235 TCSM | 31.7 | 640 | 1235 | +12% |
| 5 EPzS 775 | 713 / 743 | 101 | 1620 TCSM | 41.7 | 840 | 1620 | +18% |
| 6 EPzS 930 | 713 / 743 | 119 | 1910 TCSM | 48.6 | 990 | 1910 | +16% |
| 7 EPzS 1085 | 713 / 743 | 137 | 2190 TCSM | 53.6 | 1135 | 2190 | +13% |
| 8 EPzS 1240 | 713 / 743 | 155 | 2545 TCSM | 63.6 | 1320 | 2545 | +16% |
| 9 EPzS 1395 | 713 / 743 | 173 | 2835 TCSM | 71.3 | 1475 | 2835 | +15% |
| 10 EPzS 1550 | 713 / 743 | 191 | 3240 TCSM | 79.9 | 1680 | 3240 | +18% |

¹ width (w) 198mm
² over cell lid

³ total height incl. connector and screw
⁴ filled and charged // tolerance +/-5%

⁵ average discharge voltage 1.95 Vpc
⁶ according to the GNB driving profile



Energy that goes beyond.

- Transportation plant
- Industrial plant
- R&D facility
- Recycling
- Global HQ
- Principle sales offices
+ sales offices and distribution centers across the world



| | | | | |
|---|--|--|--|---|
| <p>All manufacturing plants ISO 9001 certified</p> | <p>All automotive plants IATF 16949 certified</p> | <p>All manufacturing plants ISO 14001 certified</p> | <p>All manufacturing plants ISO 50001 certified</p> | <p>Most manufacturing plants ISO 45001 certified</p> |
|---|--|--|--|---|