E-Bike Systems
Panasonic Cycle Technology
We started with a vision and drove

Since Panasonic established the bicycle manufacturing company in 1952, we have concentrated on bicycle research, development, manufacturing and sales. We have combined our bicycle technology with the latest electrical power technology as part of our dedication to provide a more comfortable life. This pushes your experience of cycling to a whole new level.
The GX Power Plus motor unit is also adaptable for bikes equipped with a coaster brake.

**GX Power Plus**

**Specifications**
- **Torque:** 75Nm
- **Weight:** Approx. 3.2kg
- **Voltage:** 36V
- **Output:** 250W

To maximize the pleasure of riding an E-Mountainbike, the best in class motor with 90Nm offers more than enough power at inclines and on rough terrain. Due to the low weight of only about 2.95kg and its slim design, the GX Ultimate is the perfect choice for an E-Mountainbike. Even at low cadence, the motor unit provides strong power delivery constantly. With 90Nm, the GX Ultimate is one of the strongest motor units in its class and supports the cyclist even in the most demanding riding conditions.

**GX Ultimate**

**Specifications**
- **Torque:** 90Nm
- **Weight:** Approx. 2.95kg
- **Voltage:** 36V
- **Output:** 250W

Optimized and compact design for enhanced ground clearance. Also adaptable for S-Pedelecs on bike manufacturers’ request.

Sportive & Trekking

The great power delivery for the rider that needs more support, especially for demanding forest and gravel tracks. The GX Power Plus motor unit offers a perfect package.

**GX Power Plus**

**Specifications**
- **Torque:** 75Nm
- **Weight:** Approx. 3.2kg
- **Voltage:** 36V
- **Output:** 250W

The GX Power Plus motor unit is also adaptable for bikes equipped with a coaster brake.
Comfort & Urban

For effortless riding with Comfort and Urban bikes, the GX Power motor unit supports all needs.

Specifications

- **Torque:** 60Nm
- **Weight:** Approx. 3.2kg
- **Voltage:** 36V
- **Output:** 250W

 GXPower

- 60Nm
- Approx. 3.2kg
- q-factor: 191 mm
- Comfort
- Urban

The GX Power motor unit is also adaptable for bikes equipped with a coaster brake.

Display & Remote

Compact display with various information and functions:

- Detachable display: Clock, Speedmeter, Max. Speed, Average Speed, Odometer, Remaining Riding Distance, Riding Distance, Assist Mode, Assist Power Indication, IPX5, State of Battery Charge, 10 languages selectable.
- A quick diagnosis of the E-Bike via the micro USB interface is possible at the dealer.

In addition to three assist modes HIGH, STANDARD and ECO, there is also AUTO mode. The AUTO mode provides the ideal power assist depending on the rider's input torque.

Assist modes

- **NO ASSIST:** The display shows all relevant data, no motor assist
- **ECO:** Effective assist for long range riding
- **STANDARD:** Default assist for any terrain
- **AUTO:** Optimal motor assist depending on the rider’s input torque
- **HIGH:** Maximum motor assist

Every E-Bike with Panasonic motor unit can provide a walk assist up to 6km/h.

Display & Remote

Compact display with various information and functions:

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- **HIGH:** Maximum motor assist

Every E-Bike with Panasonic motor unit can provide a walk assist up to 6km/h.
Battery Designs

Lithium-ion technology from the very beginning. Panasonic produces the highest quality cells that has no memory effect in a sophisticated E-Bikes design. The integrated battery management system with charge control protects the battery from over voltage, over current, deep discharge and short circuit.

### Curved Upright Battery

This battery technology provides a high capacity as well as the highest quality and safety with an optimal design.

**Specifications**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>36V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>16Ah</td>
</tr>
<tr>
<td>Energy</td>
<td>576Wh</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 4.3kg</td>
</tr>
</tbody>
</table>

### Rear Carrier Battery for Comfort- & Trekkingbikes

Available as spare parts

**Specifications**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>36V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>8.6Ah</td>
</tr>
<tr>
<td>Energy</td>
<td>317Wh</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 3.0kg</td>
</tr>
</tbody>
</table>

### Semi-Integrated Battery Design

Sleek, sporty design for highest frame stability.

**Specifications**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>36V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>8Ah</td>
</tr>
<tr>
<td>Energy</td>
<td>288Wh</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 2.5kg</td>
</tr>
</tbody>
</table>

### Upright Battery

Available as spare parts

**Specifications**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>36V</th>
</tr>
</thead>
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<tr>
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<td>288Wh</td>
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</tr>
</tbody>
</table>

### Battery Designs

- **Curved Upright Battery**
  - Provides a high capacity as well as the highest quality and safety with an optimal design.
- **Rear Carrier Battery for Comfort- & Trekkingbikes**
  - Available as spare parts
- **Semi-Integrated Battery Design**
  - Sleek, sporty design for highest frame stability.

**Battery cell:**

The cell type 20700 was developed for a compact design of the battery. It is the first time that these cells are being used for Semi-Integrated Batteries.

*For longer storage (e.g. over the winter) the system can go into sleep mode to minimize deterioration of battery.*
Lithium-ion Battery

For optimum performance on long journeys: Since 2002, Panasonic has been using continuously enhanced Lithium-ion batteries for E-Bikes. Different versions enable individual usage. All GX E-Bike motor units can be used with a battery from the following battery manufacturers:

**Fully-Integrated**

<table>
<thead>
<tr>
<th>Battery Type</th>
<th>Voltage</th>
<th>Capacity</th>
<th>Energy</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-PCT (Main battery)</td>
<td>36V</td>
<td>11.6Ah</td>
<td>417Wh</td>
<td>Approx. 3.3kg</td>
</tr>
<tr>
<td></td>
<td>36V</td>
<td>14Ah</td>
<td>504Wh</td>
<td>Approx. 3.3kg</td>
</tr>
<tr>
<td></td>
<td>36V</td>
<td>17.5Ah</td>
<td>630Wh</td>
<td>Approx. 3.8kg</td>
</tr>
<tr>
<td></td>
<td>36V</td>
<td>10Ah</td>
<td>360Wh</td>
<td>Approx. 2.3kg</td>
</tr>
</tbody>
</table>

**Range Extender**

<table>
<thead>
<tr>
<th>Battery Type</th>
<th>Voltage</th>
<th>Capacity</th>
<th>Energy</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-PCT (Main battery)</td>
<td>36V</td>
<td>20Ah</td>
<td>726Wh</td>
<td>Approx. 3.9kg</td>
</tr>
</tbody>
</table>

*Available for upcoming MY2022

Specifications

**Battery charger for 36V TRENDPOWER batteries**

<table>
<thead>
<tr>
<th>Charging current</th>
<th>Weight</th>
<th>Dimensions (L x B x H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2A</td>
<td>Approx. 690g</td>
<td>165.5 x 73.5 x 47.5mm</td>
</tr>
<tr>
<td>4A</td>
<td>Approx. 950g</td>
<td>179 x 80 x 37.2mm</td>
</tr>
</tbody>
</table>

**Battery charger for 36V TP-PCT Main battery**

<table>
<thead>
<tr>
<th>Charging current</th>
<th>Weight</th>
<th>Dimensions (L x B x H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5A</td>
<td>Approx. 3.9kg</td>
<td>206 x 94 x 59 mm</td>
</tr>
</tbody>
</table>

**Battery charger for 36V TRENDPOWER**

- **Battery charger for SIB, Upright- and Rear Carrier Batteries**
- **Battery charger for 36V TRENDPOWER batteries**

**Specifications**

- **Battery charger for 36V BMZ V10 battery**
  - **Charging current:** 4.5A
  - **Weight:** Approx. 3.9kg
  - **Dimensions:** 206 x 94 x 59mm
  - **Charging time:** Approx. 3.5h until 75%
  - **Approx. 4.5h until 100%**

- **Battery charger for 36V BMZ V10 battery**
  - **Charging current:** 4A
  - **Weight:** Approx. 820g
  - **Dimensions:** 180 x 90 x 48mm
  - **Charging time (12Ah):**
    - Approx. 3.0h until 80%
    - Approx. 5.5h until 100%

- **Battery charger for TRENDPOWER**
  - **Charging current:** 2A
  - **Weight:** Approx. 690g
  - **Dimensions (L x B x H):** 165.5 x 73.5 x 47.5mm
  - **Charging time (12Ah):** Approx. 4.5h until 80%
  - **Approx. 6.5h until 100%**

- **Battery charger for TRENDPOWER**
  - **Charging current:** 4A
  - **Weight:** Approx. 950g
  - **Dimensions (L x B x H):** 179 x 80 x 37.2mm
  - **Charging time (12Ah):** Approx. 4.5h until 80%
  - **Approx. 6.5h until 100%**

Charger for SIB, Upright- and Rear Carrier Batteries

Specifications

Battery charger for 36V batteries

- **Charging current:** 4A
- **Weight:** Approx. 820g
- **Dimensions (L x B x H):** 180 x 90 x 48mm
- **Charging time (12Ah):**
  - Approx. 3.0h until 80%
  - Approx. 5.5h until 100%

Easy charging

Allows charging while the battery is still attached to the E-Bike.