PRO-SPEC
Power with Advanced Charge Technology

Multiple purpose deep cycle batteries

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Introduction

Yuasa are one of the world’s largest battery manufacturers and leaders in the design, manufacture and supply of valve regulated lead-acid batteries, with global manufacturing plants and an extensive marketing and distribution network throughout the UK and Europe.

The Yuasa Pro-Spec range of batteries have been specifically designed for durability and long life in deep discharge use. Unique, state of the art plate barrier prevention and separator systems minimise self discharge and maximise both the out of use storage period and the number of recharge cycles, providing more power and reliability and prolonging the service life of the battery.

Features
- Vibration Resistant
- Maintenance Free
- Deep Cycle
- Extended Service Life

Applications
- Electric Vehicles including:
  - Golf Carts
  - Mobility Vehicles
- Warehouse Equipment including:
  - Fork Lifts
  - Access Platforms
  - Floor Cleaners
Technical Features

1. Case/Lid:
   a. Less weight, shock-resistant and acid-resistant by PP Resin
   b. Special-designed structure to prevent short-circuit from active-material shedding in the bottom

2. Terminal:
   a. Cast with special lead alloy
   b. Special plating to minimize heat generation and electric resistance
c. Designed to vibration resistance
d. Easily detachable with standard & bolt/nut structure

3. Cap:
   a. Engineering structure to vent gas out
   b. Easy to refill and maintain

4. Separator:
   a. Porous Rubber material against acid and corrosion
   b. Excellent physical characteristics and lower electric resistance
c. Using micro-fibre Glass-mat against active-material shedding

5. Plates:
   a. Negative – 99.9% pure lead with hard paste feature, specific additives for deep cycle purpose
   b. Positive corrosion-resistant grid with hard paste feature, specific additives for deep cycle purpose

Terminal Configurations

Embedded Terminal (ET)  Dual Fit Terminal (DT)  Standard Terminal (ST)

PRO-SPEC Batteries

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep Cycle  6V</td>
<td></td>
<td>@25A (Mins)  @75A (Mins) 5HR (Ah) 20HR (Ah)  L  W  H  TH TH A</td>
<td></td>
</tr>
<tr>
<td>DCB 605-6</td>
<td>383 105 175 210</td>
<td>259 179 245 276</td>
<td>27.0</td>
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<tr>
<td>DCB 105-6</td>
<td>447 115 185 225</td>
<td>259 179 245 276</td>
<td>28.6</td>
</tr>
<tr>
<td>DCB 125-6</td>
<td>488 132 195 240</td>
<td>259 179 245 276</td>
<td>30.7</td>
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<tr>
<td>DCB 145-6</td>
<td>530 145 215 260</td>
<td>259 179 264 295</td>
<td>33.0</td>
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<tr>
<td>Deep Cycle  8V</td>
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<td></td>
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<tr>
<td>DCB 875-8</td>
<td>295 75 145 170</td>
<td>262 181 245 276</td>
<td>29.0</td>
</tr>
<tr>
<td>DCB 890-8</td>
<td>340 90 155 190</td>
<td>262 181 245 276</td>
<td>31.6</td>
</tr>
<tr>
<td>DCB 8125-8</td>
<td>425 110 190 240</td>
<td>262 181 283 316</td>
<td>37.6</td>
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<tr>
<td>Deep Cycle  12V</td>
<td></td>
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<td></td>
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<tr>
<td>DCB 1275-12</td>
<td>290 70 125 150</td>
<td>329 181 245 276</td>
<td>37.5</td>
</tr>
</tbody>
</table>

Independent cycle life test

Improved Paste and 4BS (Tetra Basic lead sulphate) application to longer life cycle and capacity maximization

Unified and embedded terminal application to prevent terminal damage in event of high rate discharging

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Recommended Charge Profile

Phase 1 (Constant-current)
constant current charge at 20.5–26.6 amperes until the battery voltage measures between 7.14–7.29V/Battery (25°C) on charge voltage.

Phase 2 (Constant-voltage)
constant voltage charge at 7.14–7.29V/Battery (25°C) until the current measures between 2.05–6.15 amperes.

Phase 3 (Constant-current)
constant current charge at 2.05–6.15 amperes until the battery voltage measures between 7.5–8.1V/Battery (25°C) or until dV/dt reaches to less than 0.035.

*END OF CHARGE at 110–120% of AH returned.
*Note: Charging condition (Voltage, Current, Time) will vary depending on battery size, charger (Charging Type, Output) depth of discharge and temperature.

Specifications
Nominal Voltage 6V
Length 259mm
Width 179mm
Height (Embedded Terminal) 276mm
Weight (With Electrolyte) 27kg
Terminal Options ET, DT and ST

Capacity
20Hr 210Ah
5Hr 175Ah
75A 105mins
25A 383mins

5Hr Capacity by temperature
40°C 105%
30°C 100%
0°C 80%

Material specifications
Cover Style Individual Fitting Structure
Cover vent style Gang style
Container & cover material Black polypropylene plastic
Case to cover seal method Heat sealing
Inner-cell connector type Through the partition weld
Plate lug weld method Automated cast-on process
Positive grid material Antimony lead alloy
Negative grid material Antimony lead alloy
Separator type Microporous rubber with glass mat
### Recommended Charge Profile

**Phase 1 (Constant-current)**
- Constant current charge at 24~31.2 amperes until the battery voltage measures between 7.14~7.29V/Battery (25°C) on charge voltage.

**Phase 2 (Constant-voltage)**
- Constant voltage charge at 7.14~7.29V/Battery (25°C) until the current measures between 2.4~7.2 amperes.

**Phase 3 (Constant-current)**
- Constant current charge at 2.4~7.2 amperes until the battery voltage measures between 7.5~8.1V/Battery (25°C) or until dV/dt reaches to less than 0.035.

*END OF CHARGE at 110~120% of AH returned.

*Note: Charging condition (Voltage, Current, Time) will vary depending on battery size, charger (Charging Type, Output) depth of discharge and temperature.

### Specifications

**Nominal Voltage**: 6V

**Length**: 259mm

**Width**: 179mm

**Height (Embedded Terminal)**: 276mm

**Weight (With Electrolyte)**: 30.7kg

**Terminal Options**: ET, DT and ST

### Capacity

**20Hr**: 240Ah

**5Hr**: 195Ah

**75A**: 132mins

**25A**: 488mins

### 5Hr Capacity by temperature

- **40°C**: 105%
- **30°C**: 100%
- **0°C**: 80%

### Material specifications

- **Cover Style**
  - Gang style

- **Container & cover material**
  - Black polypropylene plastic

- **Case to cover seal method**
  - Heat sealing

- **Inner-cell connector type**
  - Through the partion weld

- **Plate lug weld method**
  - Automated cast-on process

- **Positive grid material**
  - Antimony lead alloy

- **Negative grid material**
  - Antimony lead alloy

- **Separator type**
  - Microporous rubber with glass mat

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### Recommended Charge Profile

**Phase 1 (Constant-current)**
- Constant current charge at 26~33.8 amperes until the battery voltage measures between 7.14~7.29V/Battery (25°C) on charge voltage.

**Phase 2 (Constant-voltage)**
- Constant voltage charge at 7.14~7.29V/Battery (25°C) until the current measures between 2.6~7.8 amperes.

**Phase 3 (Constant-current)**
- Constant current charge at 2.6~7.8 amperes until the battery voltage measures between 7.5~8.1V/Battery (25°C) or until dV/dt reaches to less than 0.035.

*END OF CHARGE at 110~120% of AH returned.

*Note: Charging condition (Voltage, Current, Time) will vary depending on battery size, charger (Charging Type, Output) depth of discharge and temperature.

### Specifications

**Nominal Voltage**: 6V

**Length**: 259mm

**Width**: 179mm

**Height (Embedded Terminal)**: 295mm

**Weight (With Electrolyte)**: 33kg

**Terminal Options**: ET, DT and ST

### Capacity

**20Hr**: 260Ah

**5Hr**: 215Ah

**75A**: 145mins

**25A**: 530mins

### 5Hr Capacity by temperature

- **40°C**: 105%
- **30°C**: 100%
- **0°C**: 80%

### Material specifications

- **Cover Style**
  - Gang style

- **Container & cover material**
  - Black polypropylene plastic

- **Case to cover seal method**
  - Heat sealing

- **Inner-cell connector type**
  - Through the partion weld

- **Plate lug weld method**
  - Automated cast-on process

- **Positive grid material**
  - Antimony lead alloy

- **Negative grid material**
  - Antimony lead alloy

- **Separator type**
  - Microporous rubber with glass mat
Recommended Charge Profile

**Phase 1 (Constant-current)**
constant current charge at 17–22.1 amperes until the battery voltage measures between 9.52–9.72V/Battery (25°C) on charge voltage.

**Phase 2 (Constant-voltage)**
constant voltage charge at 9.52–9.72V/Battery (25°C) until the current measures between 1.7–5.1 amperes.

**Phase 3 (Constant-current)**
constant current charge at 1.7–5.1 amperes until the battery voltage measures between 10–10.8V/Battery (25°C) or until dV/dt reaches to less than 0.035.

*END OF CHARGE at 110–120% of AH returned.

*Note: Charging condition (Voltage, Current, Time) will vary depending on battery size, charger (Charging Type, Output) depth of discharge and temperature.

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**Specifications**

<table>
<thead>
<tr>
<th>Nominal Voltage</th>
<th>8V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>262mm</td>
</tr>
<tr>
<td>Width</td>
<td>181mm</td>
</tr>
<tr>
<td>Height (Embedded Terminal)</td>
<td>276mm</td>
</tr>
<tr>
<td>Weight (With Electrolyte)</td>
<td>29kg</td>
</tr>
<tr>
<td>Terminal Options</td>
<td>ET, DT and ST</td>
</tr>
</tbody>
</table>

**Capacity**

| 20Hr | 170Ah |
| 5Hr  | 145Ah |
| 75A  | 75mins |
| 25A  | 295mins |

**5Hr Capacity by temperature**

| 40°C | 105% |
| 30°C | 100% |
| 0°C  | 80%  |

**Material specifications**

<table>
<thead>
<tr>
<th>Cover Style</th>
<th>Individual Fitting Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover vent style</td>
<td>Gang style</td>
</tr>
<tr>
<td>Container &amp; cover material</td>
<td>Black polypropylene plastic</td>
</tr>
<tr>
<td>Case to cover seal method</td>
<td>Heat sealing</td>
</tr>
<tr>
<td>Inner-cell connector type</td>
<td>Through the partion weld</td>
</tr>
<tr>
<td>Plate lug weld method</td>
<td>Automated cast-on process</td>
</tr>
<tr>
<td>Positive grid material</td>
<td>Antimony lead alloy</td>
</tr>
<tr>
<td>Negative grid material</td>
<td>Antimony lead alloy</td>
</tr>
<tr>
<td>Separator type</td>
<td>Microporous rubber with glass mat</td>
</tr>
</tbody>
</table>
### PRO-SPEC DCB 8125-8

**Recommended Charge Profile**

**Phase 1 (Constant-current)**
constant current charge at 24~31.2 amperes until the battery voltage measures between 9.52~9.72V/Battery (25°C) on charge voltage.

**Phase 2 (Constant-voltage)**
constant voltage charge at 9.52~9.72V/Battery (25°C) until the current measures between 2.4~7.2 amperes.

**Phase 3 (Constant-current)**
constant current charge at 2.4~7.2 amperes until the battery voltage measures between 10~10.8V/Battery (25°C) or until dV/dt reaches to less than 0.035.

*END OF CHARGE at 110~120% of AH returned.

*Note: Charging condition (Voltage, Current, Time) will vary depending on battery size, charger (Charging Type, Output) depth of discharge and temperature.

### Specifications

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<th>Nominal Voltage</th>
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<tbody>
<tr>
<td>Length</td>
<td>262mm</td>
</tr>
<tr>
<td>Width</td>
<td>181mm</td>
</tr>
<tr>
<td>Height (Embedded Terminal)</td>
<td>316mm</td>
</tr>
<tr>
<td>Weight (With Electrolyte)</td>
<td>37.6kg</td>
</tr>
<tr>
<td>Terminal Options</td>
<td>ET, DT and ST</td>
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</tbody>
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### Capacity

<table>
<thead>
<tr>
<th>20Hr</th>
<th>240Ah</th>
</tr>
</thead>
<tbody>
<tr>
<td>5Hr</td>
<td>190Ah</td>
</tr>
<tr>
<td>75A</td>
<td>110mins</td>
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<tr>
<td>25A</td>
<td>415mins</td>
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</table>

### 5Hr Capacity by temperature

<table>
<thead>
<tr>
<th>40°C</th>
<th>105%</th>
</tr>
</thead>
<tbody>
<tr>
<td>30°C</td>
<td>100%</td>
</tr>
<tr>
<td>0°C</td>
<td>80%</td>
</tr>
</tbody>
</table>

### Material specifications

<table>
<thead>
<tr>
<th>Cover Style</th>
<th>Individual Fitting Structure</th>
</tr>
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<tbody>
<tr>
<td>Cover vent style</td>
<td>Gang style</td>
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<tr>
<td>Container &amp; cover material</td>
<td>Black polypropylene plastic</td>
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<tr>
<td>Case to cover seal method</td>
<td>Heat sealing</td>
</tr>
<tr>
<td>Inner-cell connector type</td>
<td>Through the partion weld</td>
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<tr>
<td>Plate lug weld method</td>
<td>Automated cast-on process</td>
</tr>
<tr>
<td>Positive grid material</td>
<td>Antimony lead alloy</td>
</tr>
<tr>
<td>Negative grid material</td>
<td>Antimony lead alloy</td>
</tr>
<tr>
<td>Separator type</td>
<td>Microporous rubber with glass mat</td>
</tr>
</tbody>
</table>

### PRO-SPEC DCB 1275-12

**Recommended Charge Profile**

**Phase 1 (Constant-current)**
constant current charge at 15~19.5 amperes until the battery voltage measures between 14.28~14.58V/Battery (25°C) on charge voltage.

**Phase 2 (Constant-voltage)**
constant voltage charge at 14.28~14.58V/Battery (25°C) until the current measures between 1.5~4.5 amperes.

**Phase 3 (Constant-current)**
constant current charge at 1.5~4.5 amperes until the battery voltage measures between 15~16.2V/Battery (25°C) or until dV/dt reaches to less than 0.035.

*END OF CHARGE at 110~120% of AH returned.

*Note: Charging condition (Voltage, Current, Time) will vary depending on battery size, charger (Charging Type, Output) depth of discharge and temperature.

### Specifications

<table>
<thead>
<tr>
<th>Nominal Voltage</th>
<th>12V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>329mm</td>
</tr>
<tr>
<td>Width</td>
<td>181mm</td>
</tr>
<tr>
<td>Height (Embedded Terminal)</td>
<td>276mm</td>
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<tr>
<td>Weight (With Electrolyte)</td>
<td>37.5kg</td>
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<tr>
<td>Terminal Options</td>
<td>ET</td>
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### Capacity

<table>
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<tr>
<th>20Hr</th>
<th>150Ah</th>
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<tbody>
<tr>
<td>5Hr</td>
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<tr>
<td>75A</td>
<td>70mins</td>
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<tr>
<td>25A</td>
<td>280mins</td>
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### 5Hr Capacity by temperature

<table>
<thead>
<tr>
<th>40°C</th>
<th>105%</th>
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</thead>
<tbody>
<tr>
<td>30°C</td>
<td>100%</td>
</tr>
<tr>
<td>0°C</td>
<td>80%</td>
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### Material specifications

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<td>Inner-cell connector type</td>
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<tr>
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<td>Negative grid material</td>
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<td>Separator type</td>
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