YUASA

PRO-SPEC

Power with Advanced Charge Technology

Multiple purpose deep cycle batteries

www.yuasaeurope.com

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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

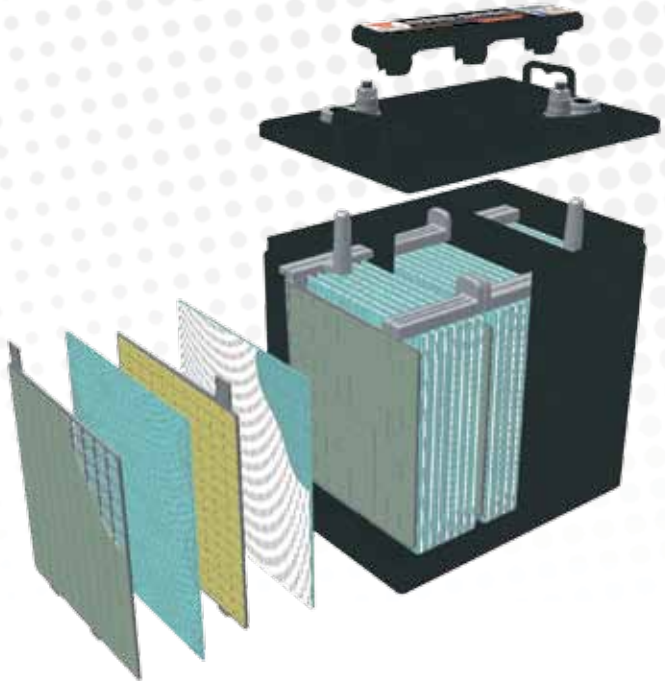
Applications

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)

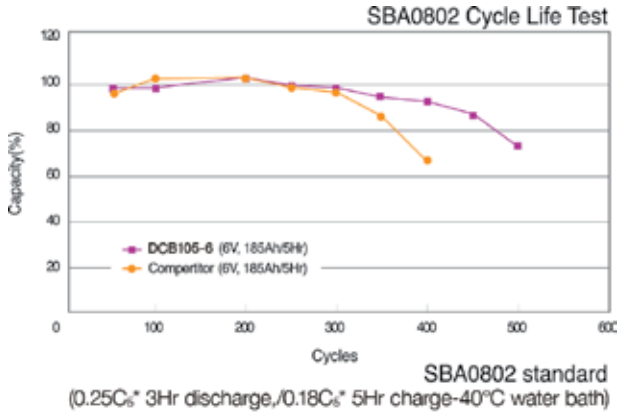
PRO-SPEC Batteries

Type		Capacity				Dimensions (mm)				Weight
		@25A (Mins)	@75A (Mins)	5HR (Ah)	20HR (Ah)	L	W	H	TH[A]	(kg)
Deep Cycle 6V	DCB 605-6	383	105	175	210	264	181	245	276	27.0
	DCB 105-6	447	115	185	225	264	181	245	276	28.6
	DCB 125-6	488	132	195	240	264	181	245	276	30.7
	DCB 145-6	530	145	215	260	264	181	245	295	33.0
Deep Cycle 8V	DCB 875-8	295	75	145	170	264	181	245	276	29.0
	DCB 890-8	340	90	155	190	264	181	245	276	31.6
	DCB 8125-8	425	110	190	240	264	181	283	314	37.6
Deep Cycle 12V	DCB 1275-12	290	70	125	150	329	181	245	276	37.5

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



SBA0802 standard
(0.25C_5* 3Hr discharge,/0.18C_5* 5Hr charge-40°C water bath)

PRO-SPEC DCB 605-6

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	261mm
Width	181mm
Height (Embedded Terminal)	279mm
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 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

PRO-SPEC DCB 105-6

Recommended Charge Profile

Phase 1 (Constant-current)
constant current charge at 22.5~29.3 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 2.25~6.75 amperes.

Phase 3 (Constant-current)
constant current charge at 2.25~6.75 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	261mm
Width	181mm
Height (Embedded Terminal)	279mm
Weight (With Electrolyte)	29kg
Terminal Options	ET, DT and ST

Capacity	
20Hr	225Ah
5Hr	185Ah
75A	115mins
25A	447mins

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 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

PRO-SPEC DCB 125-6

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	261mm
Width	181mm
Height (Embedded Terminal)	279mm
Weight (With Electrolyte)	31kg
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	**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 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

PRO-SPEC DCB 145-6

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	261mm
Width	181mm
Height (Embedded Terminal)	298mm
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	**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 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

PRO-SPEC DCB 875-8

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.

Specifications	
Nominal Voltage	8V
Length	264mm
Width	183mm
Height (Embedded Terminal)	279mm
Weight (With Electrolyte)	29kg
Terminal Options	ET, DT and ST

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

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 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

PRO-SPEC DCB 890-8

Recommended Charge Profile

Phase 1 (Constant-current)
constant current charge at 19~24.7 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 1.9~5.7 amperes.

Phase 3 (Constant-current)
constant current charge at 1.9~5.7 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	
Nominal Voltage	8V
Length	264mm
Width	183mm
Height (Embedded Terminal)	279mm
Weight (With Electrolyte)	32kg
Terminal Options	ET, DT and ST

Capacity	
20Hr	190Ah
5Hr	155Ah
75A	90mins
25A	340mins

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 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

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	
Nominal Voltage	8V
Length	264mm
Width	183mm
Height (Embedded Terminal)	319mm
Weight (With Electrolyte)	37kg
Terminal Options	ET, DT and ST

Capacity	
20Hr	240Ah
5Hr	190Ah
75A	110mins
25A	415mins

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 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

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	
Nominal Voltage	12V
Length	331mm
Width	183mm
Height (Embedded Terminal)	281mm
Weight (With Electrolyte)	38kg
Terminal Options	ET

Capacity	
20Hr	150Ah
5Hr	120Ah
75A	70mins
25A	280mins

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 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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