DEEP CYCLE SYSTEMS

DCS 12V 200Ah Slimline Lithium Battery

Lead-Acid, AGM & Gel Battery Replacement Guide

Complete Cross-Reference of All Compatible 12V Batteries
on the Australian Market — Up to 400Ah

For Industry Professionals: Telecommunications, UPS, Solar,
Data Centres, Security & Industrial Standby Applications

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1. Executive Summary

This report provides a comprehensive cross-reference guide for industry professionals seeking to replace existing 12V lead-acid, AGM, and gel batteries with the **DCS 12V 200Ah Slimline LiFePO4 lithium battery** — a high-performance, ultra-long cycle life battery built with laser-welded aluminium construction and DCS's premium cylindrical cell technology.

The DCS 12V 200Ah Slimline delivers its full **200Ah at 100% depth of discharge**, which means it provides the same usable energy as a **400Ah lead-acid battery** (limited to 50% DoD). Combined with 4,000 cycle performance, 250A maximum discharge capability, and IP66-rated weather protection, it is engineered for the most demanding industrial, telecom, and off-grid applications.

> **Key Finding:** The DCS 12V 200Ah Slimline is a direct replacement for approximately **130+ lead-acid, AGM, and gel battery models** across **20+ manufacturers** — covering all standard 12V batteries from 100Ah to 400Ah rated capacity currently deployed across Australian infrastructure. A single 31.5 kg DCS battery replaces lead-acid units weighing up to 120 kg.

2. DCS 12V 200Ah Slimline Specifications

Product	DCS 12V 200Ah Slimline
Case Dimensions (L × W × H)	**512mm × 125mm × 325mm**
Weight	31.5 kg
Nominal Voltage	12.8V (4S LiFePO4)
Nominal Capacity	200Ah (C1 rate)
Nominal Energy	2,560Wh (2.56 kWh)
Usable Capacity	200Ah (100% DoD — no derating required)
Chemistry	DCS 3.2V 20Ah Cylindrical LiFePO4
Cell Pack Design	Laser Welded Aluminium with Thermal Interface Resin
Maximum Discharge Current	250A
Maximum Charge Current	200A
Recommended Charge Current	≤140A
Charge Voltage	14.0–14.6V
Float Voltage	13.5–13.7V
LCA (Lithium Cranking Amps)	1,200
Cycle Performance	**4,000 cycles @ 100% DoD** (≥80% capacity retention @ 25°C)
Self-Discharge	<3% per month
Operating Temperature	-25°C to +80°C
IP Rating	**IP66** (dust-tight, protected against powerful water jets)
Case Material	Aluminium with white pearlescent coating
BMS	DCS internal active cell management

Terminals	Top Mount M8 Stainless Steel 316 / Copper
Parallel Connections	Up to 10 (max 2,000Ah bank)
Certifications	UN 38.3, UL 1642, IEC 62133 & 62619, CE
RRP	$2,299.00

Premium Construction: Unlike consumer-grade lithium batteries, the DCS 200Ah Slimline features laser-welded aluminium cell pack construction with thermal interface resin — delivering superior heat dissipation, vibration resistance, and structural integrity. The IP66 rating makes it suitable for outdoor and exposed installations where standard ABS-cased batteries would fail.

3. Replacement Criteria

A lead-acid battery qualifies as replaceable by the DCS 12V 200Ah Slimline when:

- **Voltage:** 12V nominal system
- **Usable capacity required:** ≤200Ah. Since lead-acid is limited to 50% DoD, this covers lead-acid batteries rated up to **400Ah**
- **Current:** Maximum continuous discharge ≤250A
- **Terminals:** M8 bolt terminals (standard across most industrial batteries; adapters available for other terminal types)

Charging Compatibility: Existing chargers can be used with the DCS 200Ah Slimline provided they can be configured to operate within the recommended voltage windows: **Bulk/Absorb: 14.0–14.6V** and **Float: 13.5–13.7V**. If the charger offers a lithium-specific (LiFePO4) profile, selecting that is best practice. However, any charger that can be set to bulk and float within these ranges is compatible — no charger replacement is required.

Form Factor Note: The DCS 200Ah Slimline has a slim profile (512mm × 125mm × 325mm). While it is physically smaller in volume than most lead-acid batteries it replaces, its shape differs from the standard monobloc form factor. In rack-mounted or tray-based installations, mounting orientation may need to be adjusted. The battery's slim width (125mm) makes it ideal for side-by-side installations in standard 19" and 23" telecom/UPS racks.

4. Cross-Reference — Same-Size & Smaller Lead-Acid Batteries (100–200Ah Rated)

The following batteries are rated 100–200Ah and deliver ≤100Ah usable energy at 50% DoD. The DCS 200Ah at 200Ah usable provides **2× or more** the usable energy of every battery listed.

4.1 Leisure / 4WD / Marine — Deep Cycle

Brand	Model	Type	Rated	Usable @50%	Dimensions (L×W×H mm)	Weight	DCS Replaces?
Century	C12-105XDA	AGM	105Ah	52Ah	307×169×210	29 kg	✓
Century	C12-120XDA	AGM	120Ah	60Ah	330×173×212	33 kg	✓
Century	C12-140XDA	AGM	140Ah	70Ah	345×173×277	40 kg	✓
Century	C12-165XDA	AGM	165Ah	82Ah	485×172×240	48 kg	✓
Supercharge	AT121000D	AGM	105Ah	52Ah	307×169×210	29 kg	✓
Supercharge	AT121000DSP	AGM	120Ah	60Ah	330×173×212	31 kg	✓
Deltec	DEL-12V100D	AGM	100Ah	50Ah	330×171×216	30 kg	✓
Deltec	DEL-12V120D	AGM	120Ah	60Ah	330×171×216	33 kg	✓
Deltec	DEL-12V150D	AGM	150Ah	75Ah	485×172×240	43 kg	✓
Deltec	DEL-12V200D	AGM	200Ah	100Ah	522×240×224	60 kg	✓
Giant Power	GP12-100 / 120 / 200	AGM	100–200Ah	50–100Ah	330–522mm cases	29–58 kg	✓
Projecta	AGM100 / AGM120	AGM	100–120Ah	50–60Ah	330×173×220	29–33 kg	✓
Fullriver	DC105-12 / DC120-12	AGM	105–120Ah	52–60Ah	307–330mm cases	31–36 kg	✓
Optima	D27M / D31M (BlueTop)	AGM	66–75Ah	33–37Ah	306–328×173×238	24–28 kg	✓
Trojan	SCS225 / 27TMX	Flooded	105Ah	52Ah	306×173×225	25 kg	✓
Victron	BAT412101104	AGM	110Ah	55Ah	330×171×220	33 kg	✓
Remco	RM12-100DC / RM12-200	AGM	100–200Ah	50–100Ah	330–522mm cases	29–58 kg	✓

4.2 Industrial / Standby / UPS / Telecom (100–200Ah Rated)

Brand	Model(s)	Type	Rated	Usable @50%	Typical Dimensions	Weight	DCS Replaces?
Ritar	RA12-100/S/H, DC12-100/S, RA12-120, RA12-134, RA12-150, RA12-200	AGM	100–200Ah	50–100Ah	328–522mm cases	30–60 kg	✓ **All**
Yuasa	NP100-12, NPL100-12, NPL130-12, NP150-12, RE100-12	AGM	100–150Ah	50–75Ah	330–483mm cases	32–47 kg	✓ **All**
CSB		AGM					✓ **All**

	GPL121000, EVX12100, GP121000, GPL121500		100–150Ah	50–75Ah	330–483mm cases	32–47 kg	
Vision	6FM100-X, 6FM120-X, 6FM150-X, 6FM200-X, CG12-100X	AGM/ Gel	100–200Ah	50–100Ah	330–522mm cases	32–60 kg	✓ **All**
Leoch	DJM12100/H, LPC12-100, LP12-100, DJM12120, DJM12150, DJM12200	AGM	100–200Ah	50–100Ah	330–522mm cases	31–59 kg	✓ **All**
B.B. Battery	BP100-12, EB100-12, MPL110-12, BP120-12	AGM	100–120Ah	50–60Ah	330–407mm cases	32–37 kg	✓ **All**
EnerSys	NP100-12, NP100-12FR	AGM	100Ah	50Ah	330×171×215	32–33 kg	✓ **All**
FIAMM	12FLB350P, 12FLB400P, FG2A007	AGM	95–105Ah	47–52Ah	302–341mm cases	30–34 kg	✓ **All**
Exide	Marathon M12V105, Sprinter S12V100, Powerfit S312/100F	AGM	100Ah	50Ah	330×171×215	33–35 kg	✓ **All**
Narada	12ICS100, REX-100, 12HTB150F	AGM	100–150Ah	50–75Ah	330–483mm cases	33–46 kg	✓ **All**
Sonnenschein	A512/100A, A412/120A, A512/140A	Gel	100–140Ah	50–70Ah	330–345mm cases	35–45 kg	✓ **All**
Haze / FirstPower / Power-Sonic / NorthStar / Sacred Sun / Shoto / Hoppecke / BAE / Discover	Various 100–200Ah models	AGM/ Gel	100–200Ah	50–100Ah	330–522mm cases	30–60 kg	✓ **All**

5. Large Capacity Replacements — Single DCS 200Ah Replaces Up to 400Ah Lead-Acid

This is the most significant section for industry professionals managing large battery installations. Because lead-acid batteries are limited to **50% depth of discharge** for acceptable cycle life, their usable capacity is half the rated capacity. The DCS 200Ah delivers its full 200Ah at 100% DoD — meaning **one DCS battery replaces lead-acid cells rated up to 400Ah**.

5.1 200–260Ah Lead-Acid Range (100–130Ah usable → DCS provides 200Ah usable)

Brand	Model	Type	Rated Capacity	Usable @50% DoD	Dimensions (L×W×H mm)	Weight	DCS 200Ah Replaces?
Century	C12-270XDA	AGM	270Ah	135Ah	520×268×220	76 kg	✓ (200 > 135)
Ritar	RA12-200	AGM	200Ah	100Ah	522×240×219	60 kg	✓ (200 > 100)
Ritar	RA12-260	AGM	260Ah	130Ah	520×268×220	76 kg	✓ (200 > 130)
Ritar	DC12-200S	AGM Deep Cycle	200Ah	100Ah	522×240×219	61 kg	✓ (200 > 100)
Yuasa	NP200-12	AGM VRLA	200Ah	100Ah	522×240×219	64 kg	✓ (200 > 100)
Yuasa	NPL200-12	AGM Long Life	200Ah	100Ah	522×240×244	68 kg	✓ (200 > 100)
Vision	6FM200-X	AGM VRLA	200Ah	100Ah	522×240×219	60 kg	✓ (200 > 100)
Vision	CG12-200X	Gel	200Ah	100Ah	522×240×219	62 kg	✓ (200 > 100)
Leoch	DJM12200	AGM VRLA	200Ah	100Ah	522×240×219	59 kg	✓ (200 > 100)
Leoch	DJM12250	AGM VRLA	250Ah	125Ah	520×268×220	72 kg	✓ (200 > 125)
CSB	GPL122000	AGM Long Life	200Ah	100Ah	522×240×244	66 kg	✓ (200 > 100)
Deltec	DEL-12V200D	AGM	200Ah	100Ah	522×240×224	60 kg	✓ (200 > 100)
Deltec	DEL-12V260D	AGM	260Ah	130Ah	520×268×220	75 kg	✓ (200 > 130)
Giant Power	GP12-200	AGM	200Ah	100Ah	522×240×224	58 kg	✓ (200 > 100)
Sonnenschein	A512/200A	Gel	200Ah	100Ah	518×274×238	68 kg	✓ (200 > 100)
EnerSys	NP200-12	AGM	200Ah	100Ah	522×240×219	65 kg	✓ (200 > 100)
Exide	Marathon M12V200	AGM	200Ah	100Ah	522×240×219	66 kg	✓ (200 > 100)
Sacred Sun	SP12-200	AGM	200Ah	100Ah	522×240×219	58 kg	✓ (200 > 100)
Narada	REX-200	AGM	200Ah	100Ah	522×240×219	61 kg	✓ (200 > 100)
Haze	HZB12-200	AGM	200Ah	100Ah	522×240×219	60 kg	✓ (200 > 100)
B.B. Battery	BP200-12	AGM	200Ah	100Ah	522×240×244	62 kg	✓ (200 > 100)

5.2 300–400Ah Lead-Acid Range (150–200Ah usable → DCS provides 200Ah usable)

These are the largest monobloc 12V batteries available — typically used in large UPS installations, telecom exchanges, solar farms, and industrial standby systems. They are extremely heavy (80–120+ kg), often requiring two-person lifts or mechanical handling.

Brand	Model	Type	Rated Capacity	Usable @50% DoD	Dimensions (L×W×H mm)	Weight	DCS 200Ah Replaces?
Ritar	RA12-300	AGM Standby	300Ah	150Ah	520×268×220	86 kg	✓ (200 > 150)
Ritar	DC12-300	AGM Deep Cycle	300Ah	150Ah	520×268×220	88 kg	✓ (200 > 150)
Ritar	RA12-400	AGM Standby	400Ah	200Ah	530×209×214	105 kg	✓ (200 = 200)
Vision	6FM300-X	AGM VRLA	300Ah	150Ah	520×268×220	85 kg	✓ (200 > 150)
Vision	6FM400-X	AGM VRLA	400Ah	200Ah	530×209×214	110 kg	✓ (200 = 200)
Leoch	DJM12300	AGM VRLA	300Ah	150Ah	520×268×220	84 kg	✓ (200 > 150)
Leoch	DJM12400	AGM VRLA	400Ah	200Ah	530×209×240	108 kg	✓ (200 = 200)
Yuasa	NP300-12	AGM VRLA	300Ah	150Ah	520×268×220	93 kg	✓ (200 > 150)
Sacred Sun	SP12-300	AGM VRLA	300Ah	150Ah	520×268×220	82 kg	✓ (200 > 150)
Sacred Sun	SP12-400	AGM VRLA	400Ah	200Ah	530×209×240	106 kg	✓ (200 = 200)
Sonnenschein	A512/300A	Gel	300Ah	150Ah	520×268×220	95 kg	✓ (200 > 150)
Sonnenschein	A512/400A	Gel	400Ah	200Ah	530×209×240	120 kg	✓ (200 = 200)
Hoppecke	power.com SB 12V 300	AGM	300Ah	150Ah	520×268×220	90 kg	✓ (200 > 150)
BAE	secura bloc 12V 300	AGM	300Ah	150Ah	520×268×220	92 kg	✓ (200 > 150)
Narada	12HTB300	AGM Telecom	300Ah	150Ah	520×268×220	88 kg	✓ (200 > 150)
Exide	Marathon M12V300	AGM	300Ah	150Ah	520×268×220	92 kg	✓ (200 > 150)
EnerSys	NP300-12 / NP400-12	AGM	300–400Ah	150–200Ah	520–530mm cases	90–115 kg	✓ All
Trojan	30XHS / J305E-AC	Flooded	130–305Ah	65–152Ah	Various tall cases	40–56 kg	✓ All
US Battery	US 305 XC2 / US 250 XC2	Flooded	250–305Ah	125–152Ah	Various tall cases	38–55 kg	✓ All

> **Critical Insight — Weight & OH&S:** A single 31.5 kg DCS 200Ah battery delivers the same usable energy as a 400Ah lead-acid unit weighing 105–120 kg. This eliminates the need for two-person manual handling or mechanical lifts during installation and replacement — a significant **OH&S and labour cost reduction** for fleet-scale deployments.

6. Summary by Application

Application	Typical Lead-Acid Capacity Range	DCS 200Ah Replaces	Weight Saved per Unit
Telecommunications (cell towers, exchanges, NBN)	100–400Ah VRLA/AGM strings	✓ **All up to 400Ah rated**	30–90 kg per battery
UPS / Data Centres	100–300Ah AGM monoblocs	✓ **All up to 400Ah rated**	30–60 kg per battery
Security / Access Control	100–200Ah VRLA	✓ **All up to 400Ah rated**	30–35 kg per battery
Solar / Off-Grid / Hybrid	100–400Ah AGM/Gel banks	✓ **All up to 400Ah rated**	30–90 kg per battery
Emergency Lighting	100–200Ah VRLA	✓ **All up to 400Ah rated**	30–35 kg per battery
Marine / Commercial Vessels	100–300Ah AGM/Gel house banks	✓ **All up to 400Ah rated**	30–60 kg per battery
Medical Equipment	100–200Ah VRLA	✓ **All up to 400Ah rated**	30–35 kg per battery
Mining / Remote Infrastructure	200–400Ah heavy-duty AGM	✓ **All up to 400Ah rated**	30–90 kg per battery

7. Total Replacement Count

Category	Lead-Acid Rated Capacity Range	Models Covered	DCS 200Ah Replaces
Same-size batteries (100–200Ah rated)	100–200Ah	~80+	**All (100%)**
Larger batteries (200–400Ah rated)	200–400Ah	~50+	**All (100%)**
TOTAL	**100–400Ah**	**130+**	**130+ models (100%)**

Result: The DCS 12V 200Ah Slimline replaces **130+ battery models** across **20+ manufacturers** covering rated capacities from 100Ah to 400Ah — spanning every 12V lead-acid, AGM, and gel battery chemistry in the Australian market.

8. Economic Case for Bulk Replacement

Factor	Lead-Acid / AGM (200Ah)	DCS 12V 200Ah Slimline	Advantage
Usable Capacity	100Ah (50% DoD limit)	200Ah (100% DoD)	**2× usable energy**
Cycle Performance	300–500 cycles @ 50% DoD	**4,000 cycles @ 100% DoD**	**8–13× longer cycle life**
Weight	58–120 kg (200–400Ah rated)	31.5 kg	**46–74% lighter**

Self-Discharge	5–8% per month	<3% per month	**Lower maintenance**
IP Rating	Typically none / IP20	**IP66**	**Outdoor/exposed installation capable**
Case Material	ABS plastic	Aluminium (laser welded)	**Superior structural integrity**
Typical Replacement Cycle	Every 3–5 years	Every 10–20+ years	**3–5× fewer replacements**
Disposal / Recycling	Hazardous waste (lead, acid)	Non-toxic, non-hazardous	**Lower disposal costs**
OH&S	Two-person lift / mechanical handling for 300–400Ah units	Single-person install (31.5 kg)	**Reduced labour & injury risk**
Operating Temp Range	Typically 0°C to +50°C	-25°C to +80°C	**Wider deployment range**

> **Total Cost of Ownership:** With 4,000 cycle performance (vs 300–500 for lead-acid), the DCS 200Ah Slimline delivers a projected service life of **10–20+ years** in typical standby/cyclic applications. This translates to 3–5 fewer battery replacement cycles over a 20-year infrastructure period, resulting in an estimated **50–70% lower total cost of ownership** when factoring in labour, disposal, downtime, and OH&S savings.

9. Installation Notes

- **Terminal compatibility:** Top-mount M8 stainless steel/copper terminals — same standard as most industrial VRLA batteries. Existing cables and bus bars can typically be reused.
- **Charging systems:** Existing chargers can continue to be used provided they can be set to bulk/absorb within 14.0–14.6V and float within 13.5–13.7V. If a lithium-specific (LiFePO4) profile is available, select it as best practice. No charger replacement is necessary if the voltage windows can be configured to these ranges.
- **Parallel connections:** Up to 10 DCS 200Ah batteries in parallel (2,000Ah / 25.6 kWh bank). This enables direct replacement of large battery strings.
- **Slim profile:** At 125mm width, two DCS 200Ah batteries fit side-by-side in 250mm of shelf depth — ideal for standard 19"/23" telecom and UPS racks. The slim form factor may require shelf or tray adaptation in installations designed for standard monobloc cases.
- **IP66 rating:** Suitable for outdoor installations, telecom cabinets, and exposed environments without additional enclosure protection. Dust-tight and protected against powerful water jets.
- **Temperature range:** -25°C to +80°C operating range with built-in BMS thermal protection — exceeds the operating envelope of all lead-acid alternatives and suits Australian climate extremes including outdoor desert and tropical installations.
- **No electronics overhead:** The DCS 200Ah is a straightforward drop-in power source with no external electronics required. The built-in BMS handles all cell management internally.
- **Certifications:** UN 38.3 (transport), UL 1642, IEC 62133 & 62619, CE — meeting compliance requirements for commercial, industrial, and telecom installations.

10. Disclaimer

modification may be required in some installations. As a company committed to continuous product improvement, specifications may change without notice.

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