DAKOTA LITHIUM

POWER SPORT 12V 4.5Ah

SKU: 12v4.5bv1a

Nominal Voltage: **12.8 V**
Nominal Capacity: **4.5 Ah**
Nominal Energy: **57.6 Wh**
Chemistry: **LiFePO4**
Applications:

Built for rugged rides and compact machines, the Dakota Lithium 12V 4.5Ah delivers reliable, long-lasting power for high-performance powersports applications. Weighing only 1.5 lbs and IP67-rated for water and dust protection, it's engineered for the demands of dirt bikes, ATVs, UTVs, jet skis, and other small utility vehicles that operate in harsh, high-vibration environments.

Key Features:

- Ultra-lightweight at just 1.5 lbs for max performance
- Custom multi-purpose terminal fits most powersport systems
- IP67 sealed case, fully waterproof and dustproof
- Up to 4 batteries can be linked in series (48V systems) or 4 in parallel
- 2,000+ cycle life at 80% DOD
- Built-in BMS with protection against overcharge, over-discharge, short circuit, and thermal issues
- Drop-in Ready for Powersports - Compatible with BSI Powersports terminal types 4, 5, 7, 8, and 11
- Direct drop-in replacement for YTZ5S and includes spacers for flexible fitment across multiple sizes

Performance & Versatility:

- Maintains steady voltage under demanding acceleration and starts
- Withstands high-shock, high-vibration use in off-road or marine environments
- Simple drop-in replacement for standard 12V lead-acid powersports batteries
- Optimized for cold starts with 150A/380A surge current capability
- Compact, sealed case with flexible spacer system fits most common sizes including BT7ZS, BT7BS, YTZ5S, and more

Warranty & Support:

- Backed by Dakota Lithium's best-in-class 3-year warranty and engineered for extreme durability, the 12V 4.5Ah powersports battery is a compact beast built for power you can count on in any environment.
- ISO 9001 Certified Quality
- U.S. Based Support & Service

Applications:

- **Dirt Bikes & Dual Sports:**
  Ideal for trail, motocross, and enduro bikes needing lightweight power
- **ATVs & UTVs:**
  Reliable starts and long run-time in rough, all-terrain conditions
- **Jet Skis & PWCs:**
  Waterproof power with strong cranking amps for marine environments
- **Snowmobiles & Small Utility Vehicles:**
  Cold-weather ready and designed for vibration resistance
- **Generators, UPS, and Emergency Packs:**
  Compact size makes it suitable for backup and off-grid utility

DAKOTA LITHIUM

POWER SPORT 12V 4.5Ah

SKU: 12v4.5bv1a

Electrical Specifications:

Voltage Range (min, nominal, max)	9 -15.6V
Internal Resistance	<15 mΩ
Cycle Life	2000@80%DoD
Cell Configuration	4s1p
Battery Series/Parallel Compatibility	up to 4 series (48 V total),4 parallel

Charging

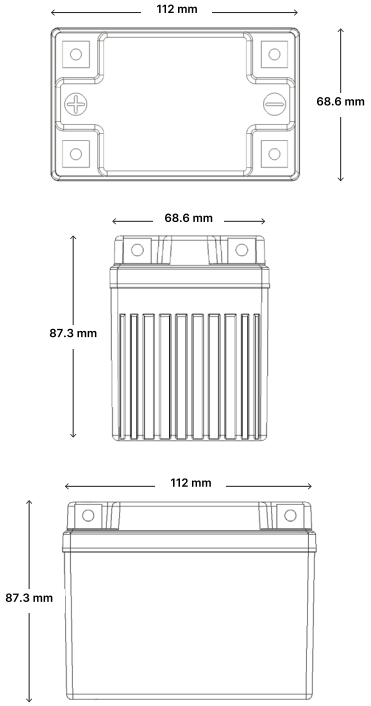
Recommended Charge Profile	CC-CV
Absorption Voltage	14.4 V
Float Voltage	14.1 V
Recommended Charge Current	2.25 A
Max Continuous Charge Current (if protection trips, remove charger to release)	4.5 A

Discharging

*Maxiumum Continuous Discharge	4.5 A
*Surge Discharge Current 1	150 A, 3 sec
*Surge Discharge Current 2	380 A, 1 sec

*(if protection trips, remove charger to release)

Technical Drawing – Battery Outline:



Mechanical Specifications:

Dimensions: LxWxH	112 x 69 x 88 mm (4.41 x 2.72 x 3.46 in)
Weight	0.7 kg (1.5 lbs)
Case Material (flame retardant plastic)	UL94-V0 ABS
Terminal Type Compatible with BSI powersports type 4, 5, 7, 8, and 11 terminals Powersports Group Spec reference from BCI	Custom multi-purpose
Group Spec	BCI, BTZ5S-LFP
Sizing Flexibility with Spacers	BTZ7S,BTZ8V,BTX5L-BS BTX7L-BS,YTZ7S,YTZ8V YTX5L-BS,YTX7L-BS

BMS:

BMS Included	Yes
Protections	overcharge, overdischarge, over temperature, under temperature, cell imbalance, short-circuit
Communications	No
Bluetooth	No
Heating	No
Certifications	UN 38.3

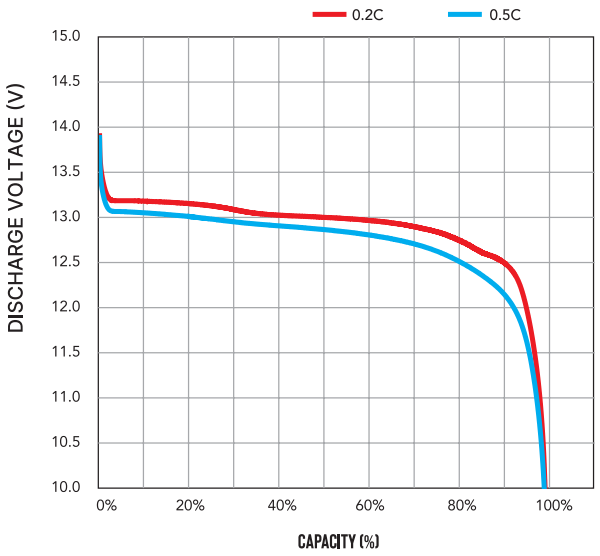
Environmental:

Charge Temperature if protection trips, bring to 3 to 45°C to release	0 to 50°C (32°F to 122°F)
Discharge Temperature if protection trips, bring to -18 to 65°C to release	-20 to 70°C (-4°F to 158°F)
Recommended Storage Temperature	-0 to 60°C (32°F to 140°F)
IP Rating	IP67

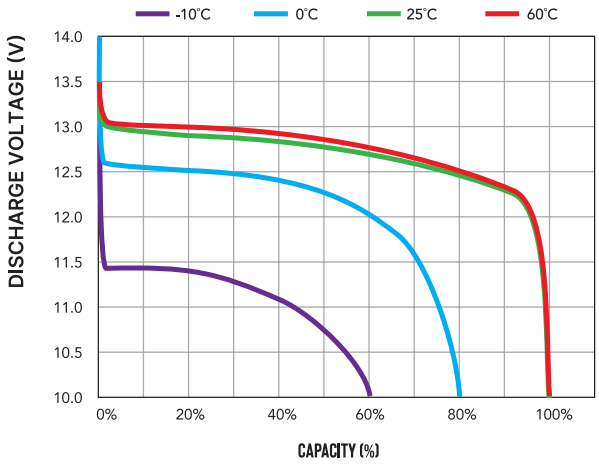
Performed Operation Data

Disclaimer: Performance graphs are based on general LiFePO4 cell chemistry under controlled conditions. Actual results may vary slightly between individual battery packs.

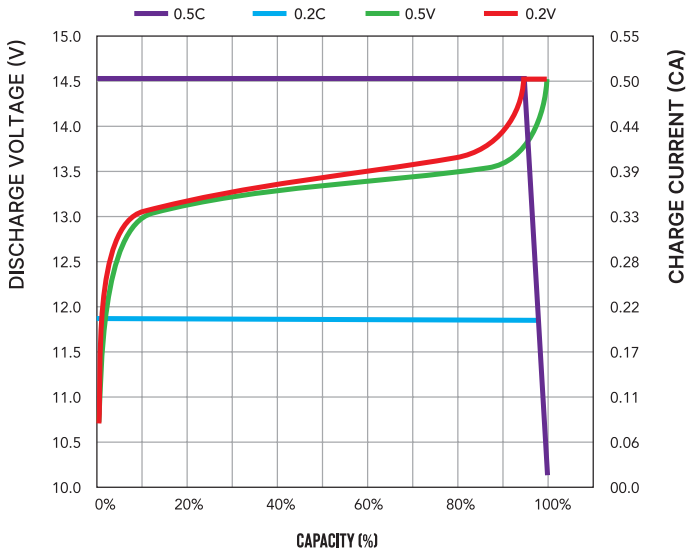
DIFFERENT RATE DISCHARGE CURVE @25°C



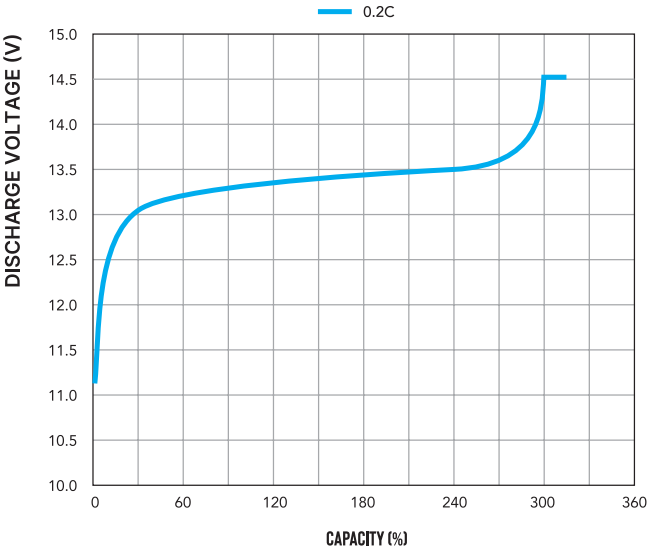
DIFFERENT temperature DISCHARGE CURVE @0.5C,25°C



CHARGE CHARACTERISTICS OF CAPACITY-VOLTAGE @0.2C&5C,25



CHARGE CHARACTERISTICS OF TIME-VOLTAGE @0.2C,25°C



DIFFERENT DOD DISCHARGE CYCLE LIFE CURVE @ 0.2C,25°C