



VERTICAL PARTNERS WEST, LLC

53Ah 3.72V NMC Power Cell

53Ah (HE)

Model: 580017 | Date: 3.15.2019



### Battery Features

- High capacity Nickel Manganese Cobalt (NMC) prismatic cell
- High energy density, low cost and long cycle life
- Stable energy for applications requiring frequent cycling
- Low self discharge rate and low maintenance
- Easily configurable for a variety of voltages and capacities
- Available in a wide range of sizes and capacities

## The Vertical Partners West Advantage

Our long history of designing battery and charging systems makes VPW your ideal power management partner for OEM projects. We are a U.S. based supplier with multiple highly vetted mass manufacturing partner facilities in Asia. Working closely with your design team, VPW delivers just the right solution designed to fit your application and budget.

Let our experience with advanced chemistries, sophisticated battery charging & management systems and our expertise with complex assemblies power your project. Leverage our vast buying power, door-to-door import ease and low minimum order quantities for your next premium battery or charger project.

Performance Characteristics	Typical
Capacity	53 Ah
Voltage (Nominal)	3.72V
Discharge Energy	197Wh
Weight	0.94 kg $\pm$ 0.01
Specific Energy	217Wh/kg
Max Cont. Discharge Current @ 25°C	53A
Max Pulse Discharge Current @ 25°C, 60s	159A
DC Resistance	$\leq 0.8$ m $\Omega$
Peak Power	$\geq 985.8$ W
Specific Power	$\geq 1083.3$ W/kg

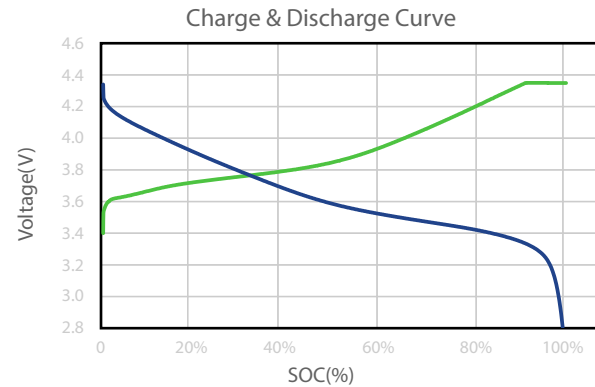
Cycle Life	Typical
100% DOD Cycles @ 25°C, 1C/1C	$\geq 1500$ cycles*
100% DOD Cycles @ 45°C, 1C/1C	$\geq 1200$ cycles*

\*Cycle life to 80% of rated capacity

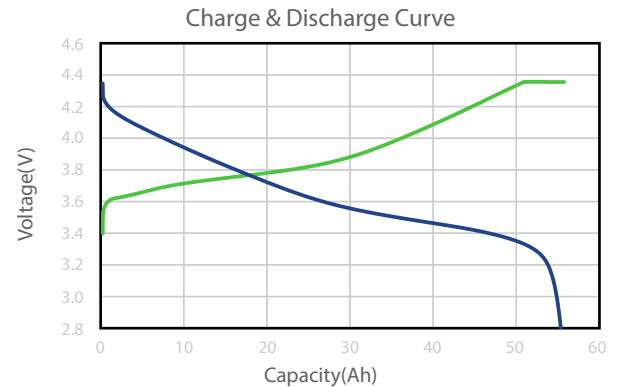
Operational Range	Typical
Upper Voltage Limit	4.35V
Lower Voltage Limit	2.8V
Charge Temperature Range	-15°C ~ 55°C
Discharge Temperature Range	-30°C ~ 55°C

# Battery Characteristics

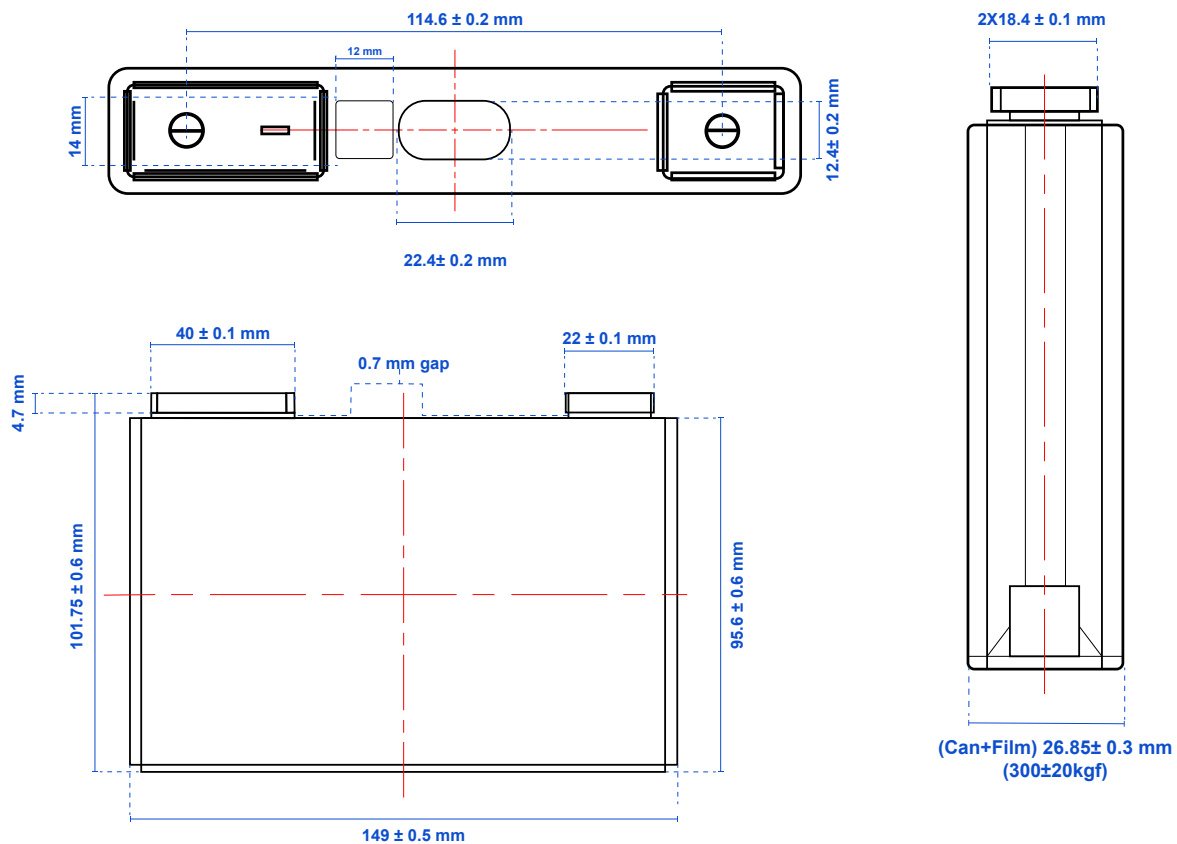
Charge/Discharge Curve - SoC %



Charge/Discharge Curve - Capacity/Ah



## Mechanical Characteristics



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