

33.3 V 135 Ah Lithium Battery Module

TWS-9S1P-135-NCM is a compact standard cell-stack module with built-in low leakage & intrinsic safety which target for e-Mobility (EV/MH/AGV/Forklift) & ESS applications.



Specifications

Configuration	9S1P
Nominal capacity	135 Ah @ 0.33 C
Nominal voltage	33.3 V @ 0.33 C
Charge cut-off voltage	38.7 V
Discharge cut-off voltage	25.2 V
Energy	4,496 Wh @ 0.33 C
Module weight	23.5 ± 0.5 kg
Module size	L 490.3 mm W 178.1 mm H 143.3 mm
Energy density	191 Wh/kg 360 Wh/L
Charge current	Continuous: Max. 67.5 A Peak: 270 A @ 30 s
Discharge current	Continuous: Max. 135 A Peak: 400 A @ 30 s
Battery cell	NCM, 135 Ah, Prismatic

Common specifications

Charge temperature	-20 °C ~ 55 °C
Discharge temperature	-30 °C ~ 55 °C
Best storage temperature	-10 °C ~ 35 °C
Dielectric strength	2,700V DC
Factory test of insulation resistance	> 100 MΩ
Voltage difference of sets	≤ 20 mV

Main features

- No memory effect
- Following protections are needed externally to ensure normal & safe operations :
 - **Over current**
 - **Over/Under voltage**
 - **Over/Under temperature**
 - **Short circuit**
- Cell balancing is recommended
- Flame retardant material
- Interface
 - B+, B-
 - Cell voltage sensing
 - Temperature sensing (NTC)