



IONPACK Ltd

MAXIMUM
HIGH TORQUE
12V

MAXium 12/30/650 Specification 4IP41713G75S12ALB7B

12V 405Wh 650A Lithium Titanate Oxide (LTO)

OPERATING CONDITIONS

Nominal Voltage	13.8 V
Nominal Capacity	30 Ah
Total Energy	360 Wh
Impedance	50 mΩ
Self-Discharge	2% per month
Cycle Life at 100% DoD@ 0.2C	20,000 cycles
Series connection	1
Parallel Connection	10

DISCHARGE

Standard Continuous discharge	650 A (20+ min)
Maximum Continuous Discharge Current	1000 A (10 sec)
Peak Discharge Current	1500 A (3 sec)
PCM Discharge Current Cut-off	2000 A (3 seconds)
Max Solar Recommended Low Voltage Disconnect	13 V
Short Circuit Protection	200-500μs

CHARGE

Charge/discharge efficiency	>97% @ 0.5C
Recommended Charge Current	300 A
Peak Charge Current	500 A
PCM Charge Current Cut-Off	600 A
Fully Charged Voltage	13.5 V

TEMPERATURE

Storage Temperature	-20 to 60°C
Discharge Temperature Range	-40 to 65°C
Charge Temperature Range	-10 to 35°C

MECHANICAL

Chemistry	Prismatic- LTO
Case Dimensions	L345 x W170 x H175 (mm)
Weight	9.5 kg
Terminal Type	M8 brass threaded insert
Terminal Torque	≤5 Nm
Casing Type	Aluminium Case
Casing IP	IP67
Communication	RS485 via CANBUS

BATTERY MANAGEMENT SUMMARY(see detail)

BMS Type	Passive
BMS Location	Internal
Balance Current per Cell	50 mA
Overcharge / Discharge Current	2000 A

SAFETY

Transportation	UN3480, Class 9
Battery Certification	CE, UN38.3, RoHS, IEC62619
UN Certification (Cells)	UN38.3

EXPECTED LIFE

Warranty

Pleasure Propulsion	15 years	7 years
Pleasure Standard Use	20 years	10 years
Commercial Propulsion Use	10 years	5 years
Commercial Standard	15 years	7 years

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DISCHARGE SPECIFICATIONS - Detail	
Nominal Voltage	13.5 V
3 second rate constant power at 20°C	1500 A
15 sec rate constant power at 20°C	1000 A
3 min rate constant power at 20°C	600 A
10 + min rate constant power at 20°C	600 A
Short circuit current	+2000A - BMS regulated
10 hr rate capacity to 27 V	30 Ah

CHARGE SPECIFICATIONS - Detail	
Bulk Charge Voltage	13-15 V
Float charge Voltage*	13-15 V
Cyclic (or boost charge) at 20°C	N/A
Charge current	300 A recommended)
Charge current peak	500 A max
Charge time at 35 A Bulk charge to 13.5	20 minutes
Charge time at 120A Bulk charge to 13.5 V	7 minutes

BATTERY MANAGEMENT SYSTEMS (B.M.S.) SPECIFICATION -DETAIL	
Balance mode	Passive equilibrium
Equalizing current	0.6A
Coulomb meter	YES
Number of temperature sensors	3
Number of voltage sensors	4
Bluetooth function	Support Android and IOS

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Awaiting Line drawing

