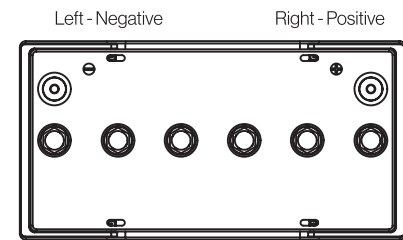
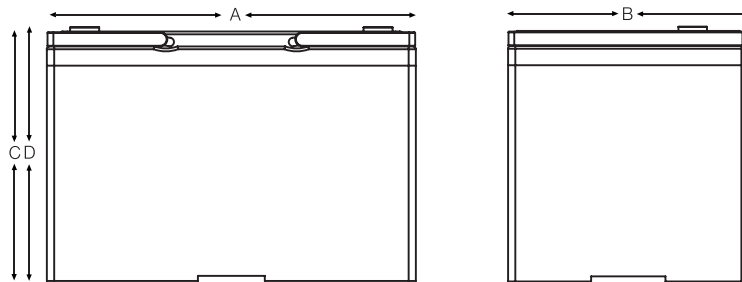


G06-12-076

Semi-Traction Bloc Battery



Electrical Specifications

Voltage	12V
80% DOD Voltage Cutoff	11.2V
Self Discharge	Less than 3% per month (20°C/68°F)
Charge Temperature	Min: -10°C (14°F) / Max: 50°C (122°F)
Discharge Temperature**	Min: -40°C (-40°F) / Max: 50°C (122°F)
Storage	Min: -20°C (-4°F) / Max: 60°C (140°F)

Amp Hours (AH)					
20 HR	10 HR	5 HR	3 HR	2 HR	1 HR
90	84	76	70	66	53

** CAUTION: Depths of discharge, operating voltages and currents, when designing systems for use at maximum temperatures, will vary.

Mechanical Specifications

Industry Reference	31	
Length (A)	13 in	329 mm
Width (B)	6.7 in	170 mm
Height (C)	8.1 in	205 mm
Height (D)	8.1 in	207 mm
Weight	71 lb	32 kg
Terminal (Opt'l)*	M8	
Cell(s)	6	
Electrolyte	Gel	
Terminal Torque Nm	8	

NOTE: There is a tolerance of +/-2%.

* Including A-Terminal

Features

Maintenance-free bloc batteries in Gel technology (no topping up during lifetime)

Good high current performance for extreme operating conditions

High-class patented safety valve

700 cycles (DIN EN 60254-1) (IEC 254-1)

Valve-regulated lead-acid battery

Recyclable

Long cycle life

Low self discharge rate allows for up to 2 years shelf life

Classified as a non-spillable battery is not restricted for transportation by:

- Air (IATA/ICAO provision 67)
- Ground (STB, DOT-CFR-HMR49)
- Water (IMDG amendment 27)

Applications

Electric vehicles

Wheelchairs

Cleaning machines

Electric working platforms

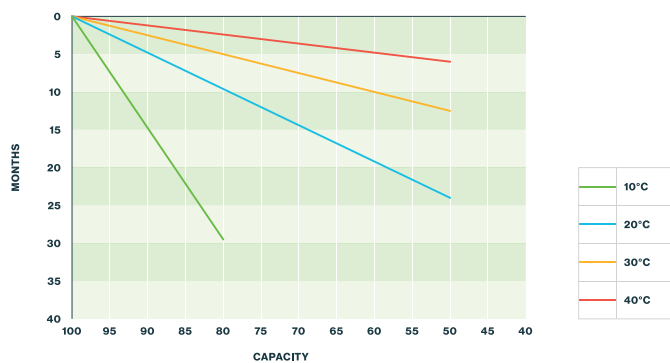
Universal for multiple cyclic applications

Charging profile

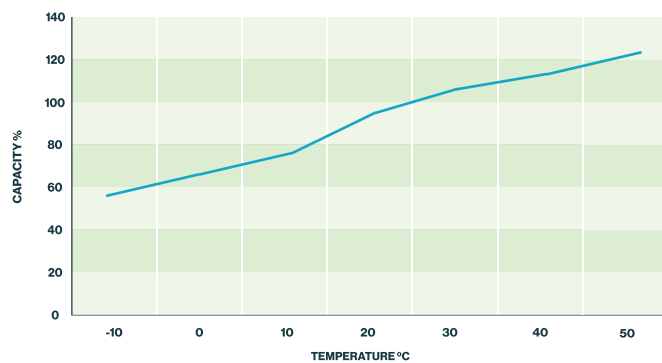
IU Charging $I = \text{min. } 12\% C_5 \text{ max. } 18\% C_5$
 $U = 2.4 \text{ V per cell}$

IUI Charging $I_1 = \text{min. } 12\% C_5 \text{ max. } 18\% C_5$
 $U = 2.35 \text{ V per cell}$
 $I_2 = 1.5\% C_5 \text{ for max. 4 hours}$

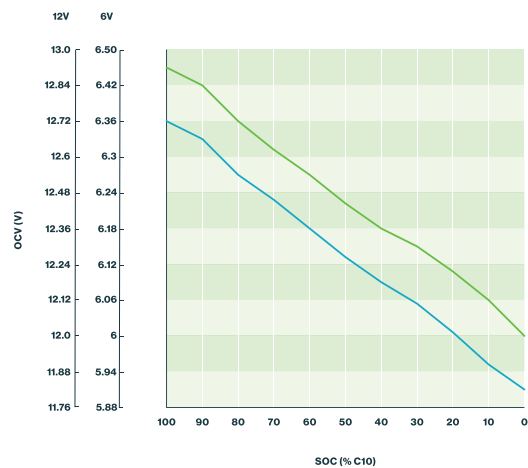
Self discharge at different temperatures



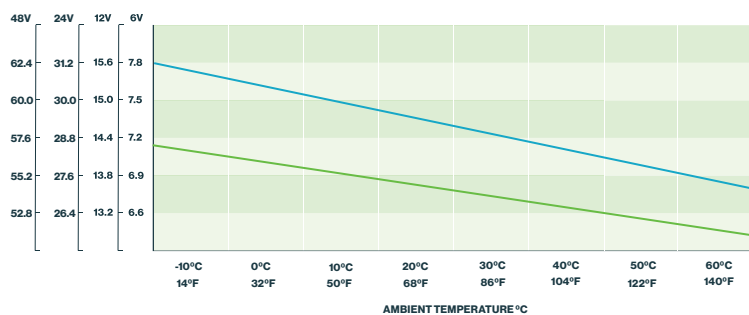
Capacity vs. temperature



Storage: Determine the state of charge



Relation between charging, voltage and temperature



—	STANDBY USE
—	CYCLE USE