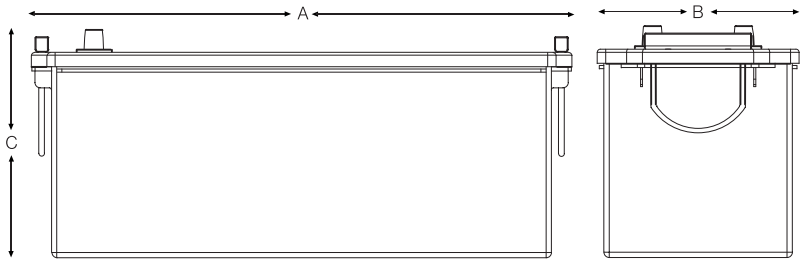
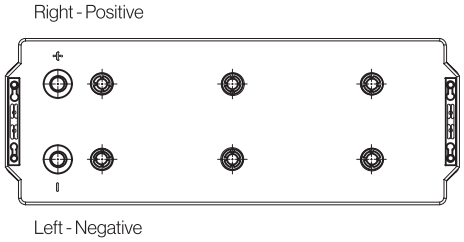
S06-12-130

Gel Solar Bloc Battery





Electrical Specifications

Voltage	12V
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)
Charge Methods	Float Voltage: 2.25 @ 25°C / 77°F Boost Voltage: 2.35 to 2.40VPC @ 25°C / 77°F
Temperature Compensation	±3.5mV/°C/Cell

Cell Type Ue (100%) / VPC Ref Temp	**C120 1.80 25°C**	**C100 1.80 25°C**	**C72 1.80 25°C**	**C20 1.75 25°C**	**C10 1.75 25°C**	**C5 1.70 25°C**
S06 12 130	138	135	129	127	121	114

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

Mechanical Specifications

Industry Reference	DIN A	
Length (A)	20 in	513 mm
Width (B)	7.4 in	189 mm
Height (C)	7.72 in	196 mm
Weight	90 lbs	41 kgs
Terminal (Opt'l)*	A-POLE	
Cell(s)	6	
Electrolyte	Gel	
Terminal Torque Nm	n/a	

NOTE: There is a tolerance of ± 5%

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
- 1200 cycles (IEC 61427 / 60896-21/22)
- Capacity: 12V 55Ah-220Ah(C_{20})
- 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

- Solar
- Home Inverter
- Renewable Energy
- Deep Cycle Applications

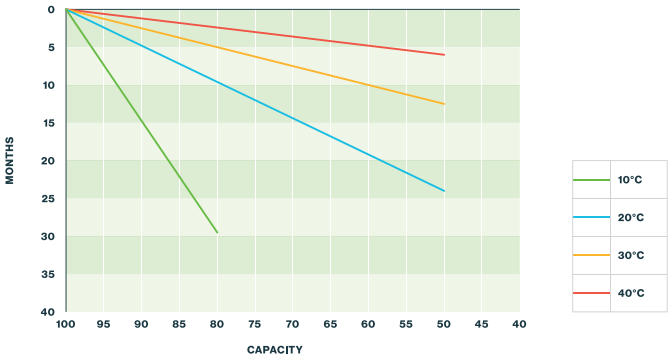
Compliant with IEC 61427 / 60896-21/22

Charging profile

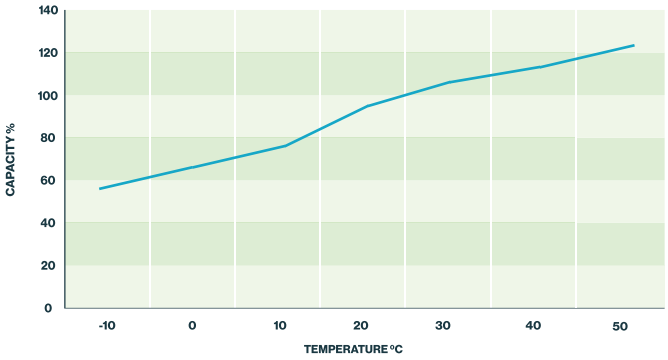
IU Charging
I = min. 12% C_5 max. 18% C_5
U = 2.4 V per cell

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

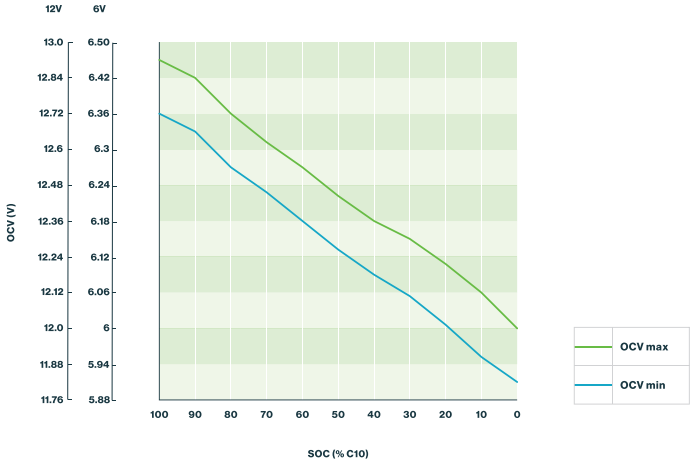
Self discharge at different temperatures



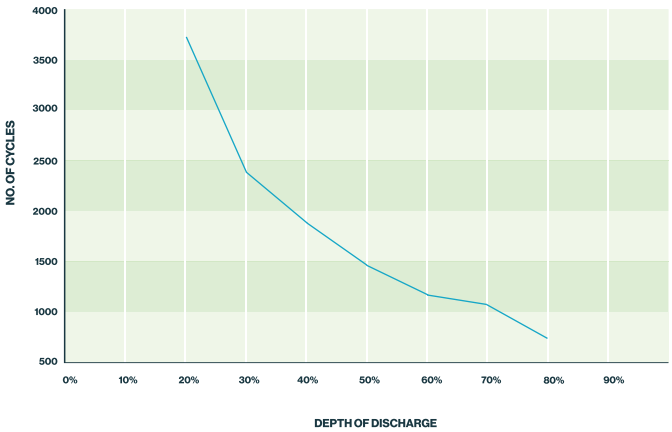
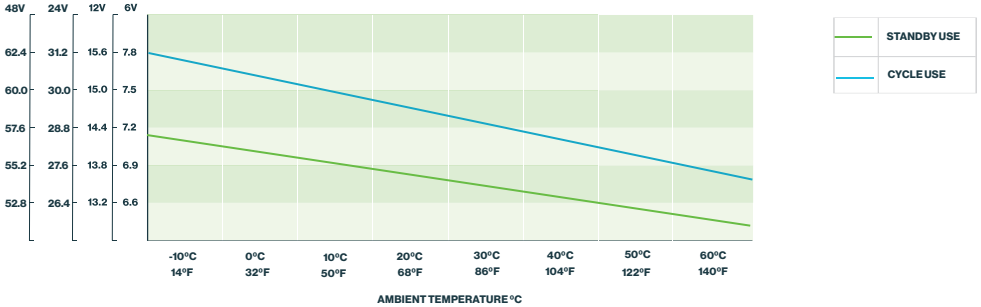
Capacity vs. temperature



Storage: Determine the state of charge



Cycle life vs. depth of discharge (25°C)



Relation between charging, voltage and temperature