

**SEMI
TRACTION**
PHYSICAL CHARACTERISTICS

	SI Units	US Units
Length	513 mm	20.2 inch
Width	223 mm	8.4 inch
Height	223 mm	8.7 inch
Typical weight	48,40 kg	106,70 lbs

96351 - 12V 180 Ah (C₂₀)

Specifications:

- Nominal voltage: 12 V
- Rated capacity: 180 Ah (at C₂₀ and 25 °C)
- CCA (EN): 1260 A
- Plate technology: Antimony / Antimony
- Separator: Polyethylene + Glass mat
- Electrolyte: Sulphuric acid; analytical grade
- Standards: IEC 60254; IEC 61427
- Case / Lid material: Polypropylene
- Lid type: Flat
- Terminal type: Top / Automotive
- Carrying Handles: Available
- Cycles at 50% DoD: up to 400 cycles
- PVES applications: up to 800 cycles

Performance characteristics:
BATTERY DISCHARGE PERFORMANCE AT 25°C

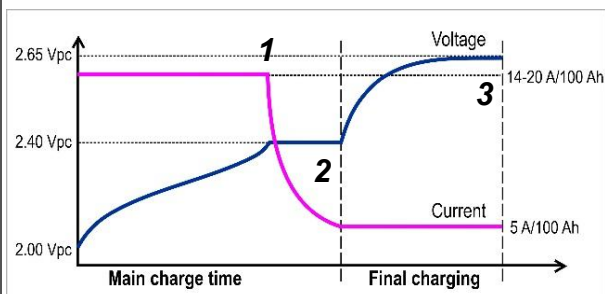
Discharge rate	C ₅ (5 h)	C ₂₀ (20 h)	C ₁₀₀ (100 h)	Capacity at 25 A
End of discharge voltage	10.20 V	10.50 V	10.80 V	10.50 V
Discharge capacity	155 Ah	180 Ah	198 Ah	365 min

Temperature correction factor of discharge C₅ (5 h) capacity

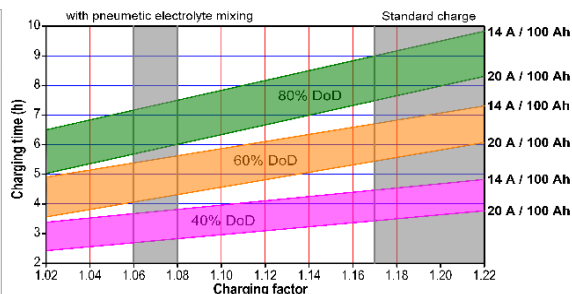
Temperature	-10 °C	0 °C	20 °C	25 °C	30 °C	35 °C	40 °C
Correction factor	0.80	0.88	0.98	1.00	1.03	1.05	1.07

BATTERY CHARGE CONDITIONS AT 25°C
Charging profile:
Charge factor: 1.10 – 1.20

IUla –characteristics for flooded batteries

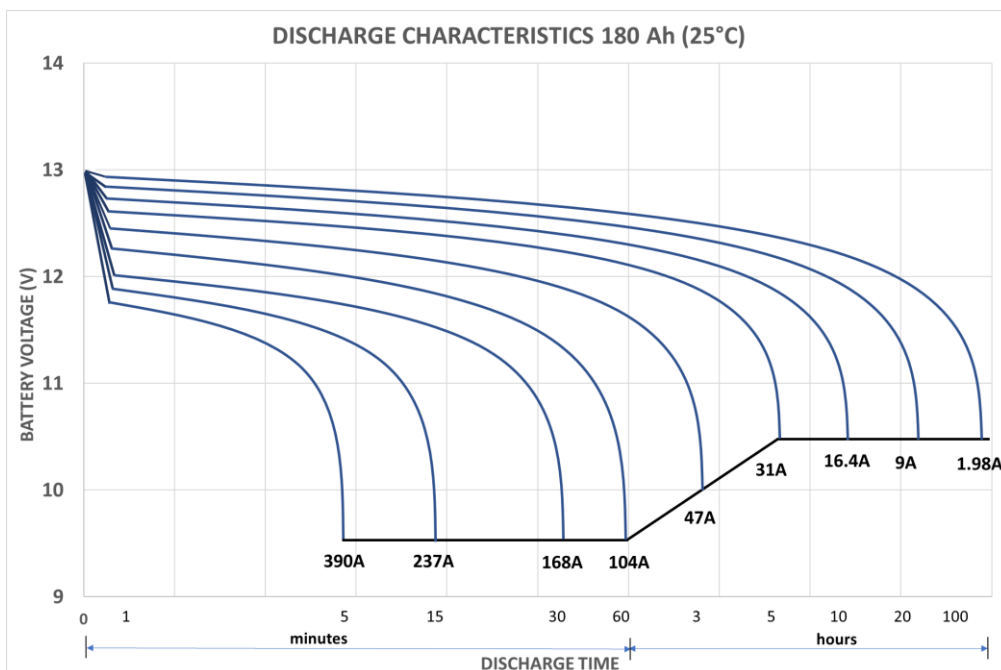

Stage1: Constant current **Stage 2:** Constant voltage **Stage 3:** Constant current

Charging times with IUla-characteristics in hours at 25 °C

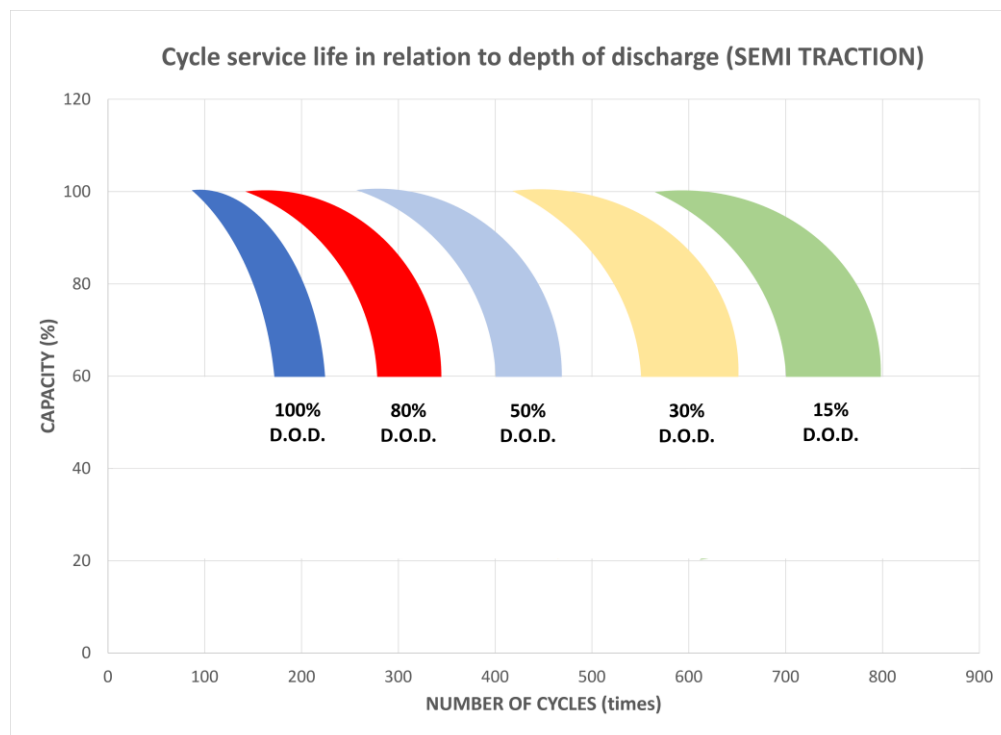

It is mandatory to check the electrolyte level every 3 months and top up with deionized water to the markings.

BATTERY DISCHARGE CURVES AT 25°C

DISCHARGE PERFORMANCE AT CONSTANT CURRENT DISCHARGE (A)



Cycle service life in relation to depth of discharge (SEMI TRACTION)



It is mandatory to check the electrolyte level every 3 months and top up with deionized water to the markings.

Battery Technical Datasheet Annex
according to REGULATION (EU) 2023/1542/ANNEX 4
ELECTROCHEMICAL PERFORMANCE AND DURABILITY REQUIREMENTS FOR LMT BATTERIES,
INDUSTRIAL BATTERIES WITH A CAPACITY GREATER THAN 2 KWH AND ELECTRIC VEHICLE
BATTERIES

Battery model	96351	Semi Traction
Rated Capacity, Ah	198	C100 at 25 °C to Uf=1.8Vpc; IEC 61427
Power fade %	80	
Power, W	238	I100 19.8A to Uf=1.8Vpc
Energy round trip efficiency %	>90	IEC 61427, 75% SoC
Energy round trip efficiency fade %	72	IEC 61427, 75% SoC
Charge rate	0.2C10	
W/Wh ratio	0.1	
Power capability in Ah at 80% SoC	158	
Power capability in Ah at 20% SoC	40	