



DEEP CYCLE
PROFESSIONAL

GR31 12V DC-110 Ah (C₂₀)



PHYSICAL CHARACTERISTICS		
	SI Units	US Units
Length	336 mm	13.2 inch
Width	173 mm	6.8 inch
Height	235 mm	9.2 inch
Typical weight	28,0 kg	61.73 lbs

Specifications:

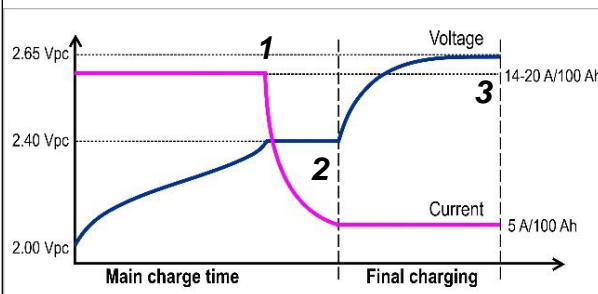
- Nominal voltage: 12 V
- Rated capacity: 110 Ah (at C₂₀ and 25 °C)
- Plate technology: Antimony / Calcium
- Separator: Polyethylene + glass mat
- Electrolyte: Sulphuric acid; analytical grade
- Standards: IEC 60254; IEC 61427
- Case / Lid material: Polypropylene
- Lid type: Flat
- Terminal type: Dual/Bolted
- Carrying Handles: Available
- Cycles at 50% DoD: up to 400 cycles
- PVES applications: up to 900 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	10,5 V	10,80 V	10,5 V			
Discharge capacity	90 Ah	110 Ah	120 Ah	200 min			
Temperature correction factor of discharge C ₅ (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

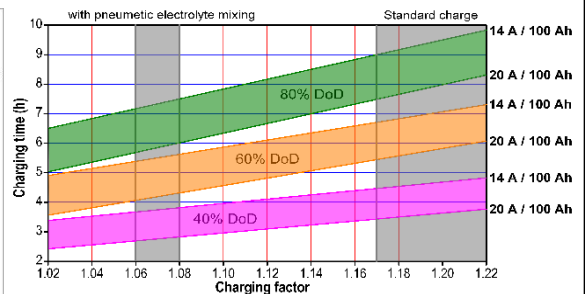
BATTERY CHARGE CONDITIONS AT 25°C	
Charging profile:	Charge factor: 1.10 – 1.20

IUIa –characteristics for flooded batteries



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

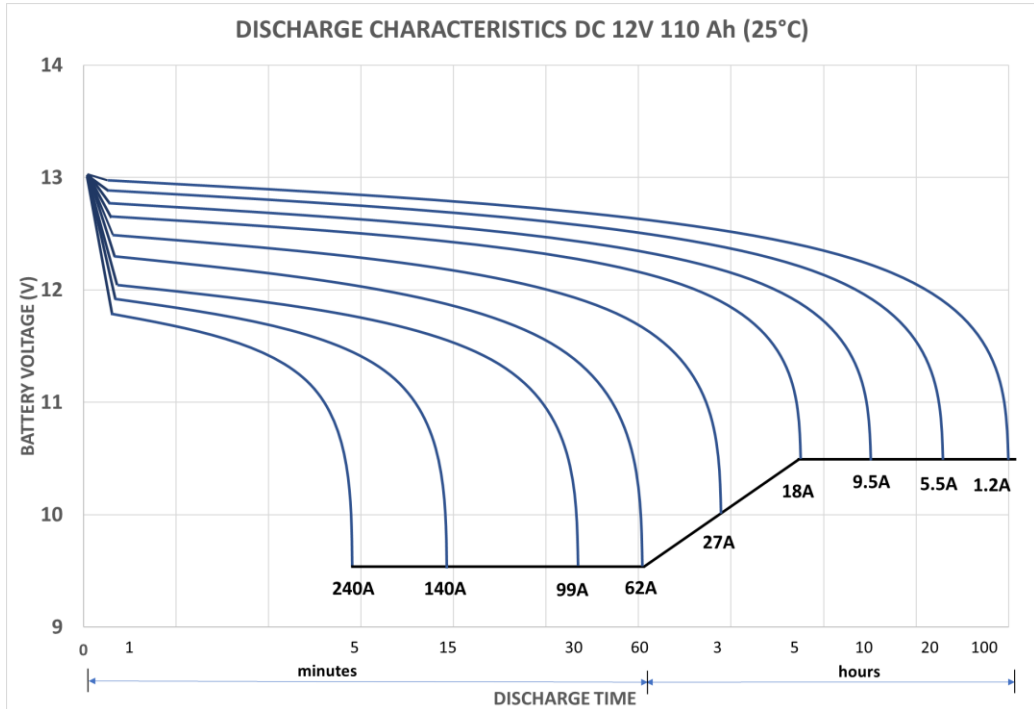
Charging times with IUIa-characteristics in hours at 25 °C



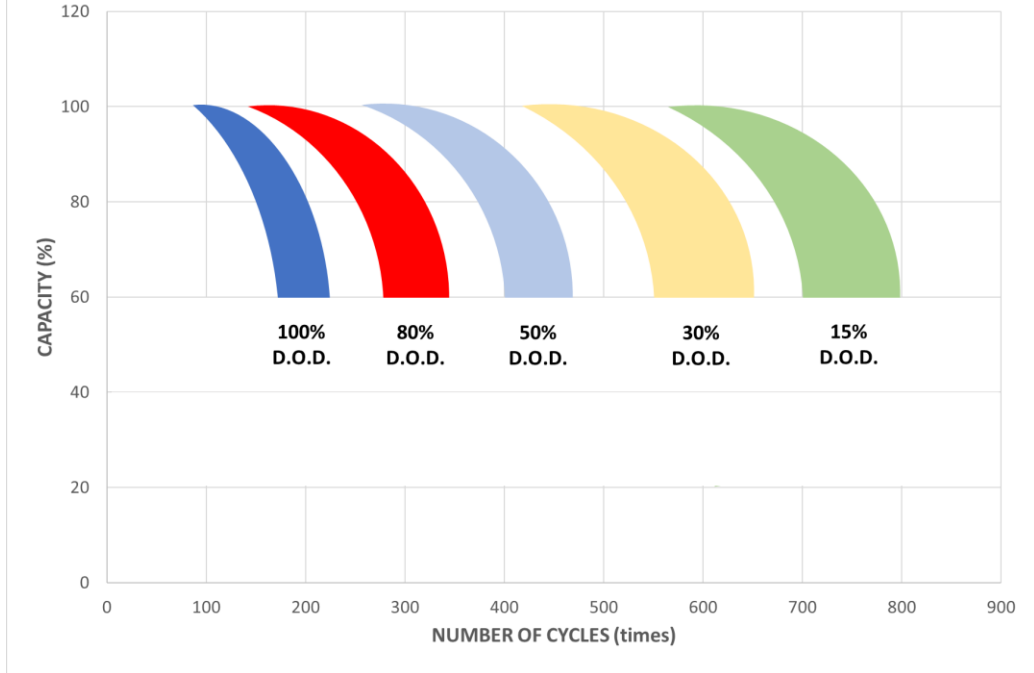
It is mandatory to check the electrolyte level every 3 months and top up with deionized water to the markings.

BATTERY DISCHARGE CURVES AT 25°C

DISCHARGE PERFORMANCE AT CONSTANT CURRENT DISCHARGE (A)



Cycle service life in relation to depth of discharge (DC 12V)



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