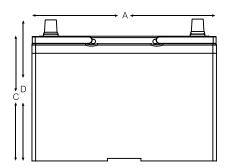


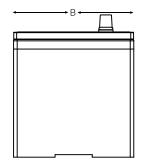
**Semi-Traction Bloc Battery** 

# NM12105T1TG

(12V 108Ah @ 5hr)

Nordmax valve regulated lead-acid batteries for the light traction market. With an innovative Gel-technology and maintenance free design, Nordmax Gel Bloc batteries are compatible with all universal cyclic applications.





#### **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	
123	116	108	102	92	81	

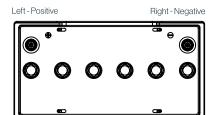
\*\*CAUTION: Depths of discharge, operating voltages and currents, when designing systems for use at maximum temperatures, will vary.

#### **Mechanical Specifications**

Industry Reference	12				
Length (A)	13 in	329 mm			
Width (B)	6.7 in	170 mm			
Height (C)	10.2 in 258 mm				
Height (D)	10.2 in	282 mm			
Weight	93 lbs	42 kgs			
Terminal (Opt'l)*	A-POLE				
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

Compliant with

EN60254-1&2 & IEC254-1/2 ISO 7176-25 & SAE J 1495



# Charging profile

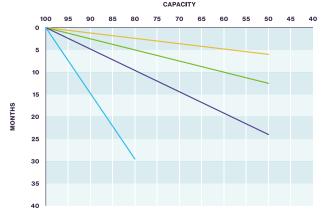
#### **IU Charging**

 $I = min. 12\% C_5 max. 18\% C_5$ U = 2.4 V per cell

#### **IUI Charging**

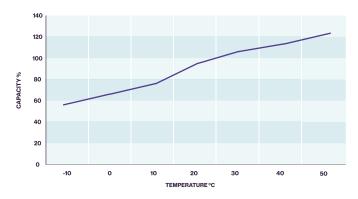
I1 = min. 12%  $C_5$  max. 18%  $C_5$  U = 2.35 V per cell I2 = 1.5 %  $C_5$  for max. 4 hours

#### Self discharge at different temperatures

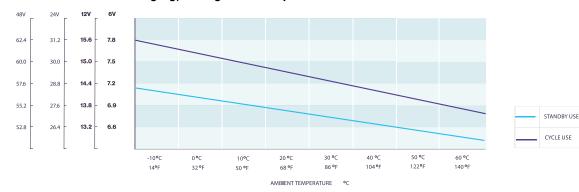


# 20°C 30°C 40°C

### Capacity vs. temperature

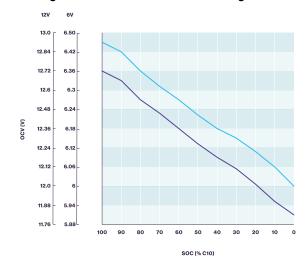


#### Relation between charging, voltage and temperature



OCV max

## Storage: Determine the state of charge







10°C