

# TECHNICAL DATASHEET

## NM12V38FTPL

Front terminal AGM VRLA battery  
Pure Lead Series

**NORDMAX**<sup>TM</sup>

## Technical data

### General

|                        |                                                       |
|------------------------|-------------------------------------------------------|
| Nominal voltage        | 12 V (6 cell per unit)                                |
| Nominal capacity (C10) | 38 Ah                                                 |
| Length                 | 299 mm                                                |
| Width                  | 97 mm                                                 |
| Total Height           | 184 mm                                                |
| Approx. Weight         | 12,5 kg                                               |
| Terminal               | M6 thread female, brass                               |
| Short circuit current  | 760 A (IEC 60 896 -21/22)                             |
| Internal resistance    | 6 mΩ                                                  |
| Container material     | Shock resistant ABS FR;<br>flammability class UL94 V0 |
| EUROBAT                | Very long Life 12+ years                              |
| Design Life            | 15+ years                                             |

### Charging

|                      |                 |
|----------------------|-----------------|
| Float charge @ 20 °C | 2,27 V per cell |
|----------------------|-----------------|

### Temperature

|                       |                                        |
|-----------------------|----------------------------------------|
| Operating temperature | -40 to 65 °C (15 to 25 °C recommended) |
| Storage temperature   | -20 to 50 °C                           |
| Self discharge        | Less than 2% per month at 20°C         |

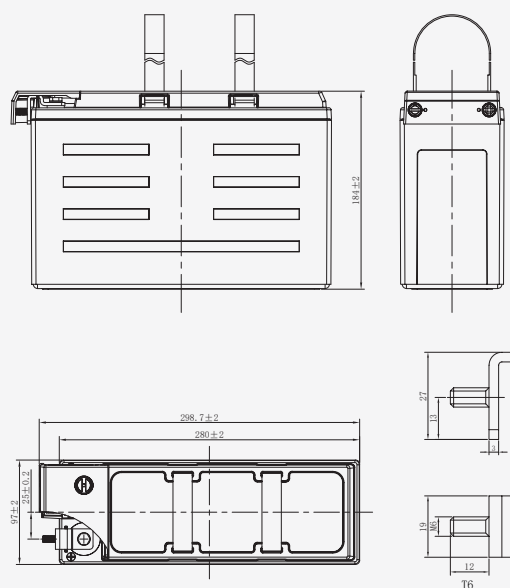
### Capacity affected by temperature

|        |       |
|--------|-------|
| 40 °C  | 103 % |
| 25 °C  | 100 % |
| 0 °C   | 86 %  |
| -15 °C | 65 %  |



- Extremely long float life performance
- Stationary and reserve power applications
- 15+ years Design Life
- Fully recyclable product

### Dimensions



**NORDMAX**

## Performance characteristics

### Discharge performance at constant current discharge (A) at 25°C

| Uf, Vpc | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|---------|-------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|
| 1,60    | 117,8 | 110,6  | 85,1   | 69,0   | 50,0   | 35,7   | 27,4 | 16,6 | 11,1 | 8,69 | 7,31 | 4,93 | 3,97 | 2,26 |
| 1,67    | 111,9 | 104,9  | 81,6   | 66,5   | 48,8   | 35,1   | 27,2 | 16,5 | 11,0 | 8,65 | 7,2  | 4,86 | 3,94 | 2,18 |
| 1,70    | 103,5 | 96,7   | 76,8   | 63,5   | 47,5   | 34,5   | 26,8 | 16,4 | 10,9 | 8,63 | 7,09 | 4,8  | 3,86 | 2,17 |
| 1,75    | 98,5  | 91,9   | 73,7   | 61,6   | 46,2   | 33,8   | 26,3 | 16,2 | 10,8 | 8,59 | 6,96 | 4,75 | 3,86 | 2,15 |
| 1,80    | 93,2  | 86,7   | 70,5   | 59,0   | 44,8   | 32,9   | 25,6 | 16,1 | 10,7 | 8,56 | 6,8  | 4,66 | 3,8  | 2,12 |
| 1,85    | 83,8  | 77,7   | 64,2   | 55,1   | 42,7   | 31,7   | 24,7 | 15,9 | 10,6 | 8,5  | 6,63 | 4,57 | 3,72 | 2,08 |

### Discharge performance at constant power discharge (W per cell) at 25°C

| Uf, Vpc | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|---------|-------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|
| 1,60    | 207,3 | 194,0  | 152,4  | 126,0  | 93,5   | 68,2   | 52,7 | 32,4 | 21,8 | 17,2 | 14,5 | 9,82 | 7,94 | 4,57 |
| 1,67    | 202,1 | 189,0  | 149,2  | 123,4  | 92,4   | 67,8   | 52,8 | 32,4 | 21,7 | 17,2 | 14,4 | 9,76 | 7,92 | 4,41 |
| 1,70    | 188,9 | 176,0  | 141,9  | 118,0  | 90,4   | 66,9   | 52,2 | 32,3 | 21,7 | 17,2 | 14,2 | 9,66 | 7,79 | 4,4  |
| 1,75    | 182,5 | 169,8  | 137,8  | 116,4  | 88,6   | 65,9   | 51,6 | 32,0 | 21,5 | 17,2 | 13,9 | 9,57 | 7,8  | 4,36 |
| 1,80    | 174,4 | 161,9  | 133,1  | 112,4  | 86,6   | 64,7   | 50,4 | 32,0 | 21,4 | 17,1 | 13,7 | 9,4  | 7,72 | 4,32 |
| 1,85    | 159,1 | 147,4  | 122,8  | 106,0  | 83,1   | 62,6   | 49,0 | 31,8 | 21,2 | 17,1 | 13,4 | 9,26 | 7,58 | 4,25 |

### Temperature correction factor of capacity at constant current discharge

| Discharge time       | -10 °C | 0 °C | 10 °C | 15 °C | 20 °C | 25 °C | 30 °C | 35 °C | 40 °C | 45 °C |
|----------------------|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| From 5 to 59 minutes | 0,70   | 0,80 | 0,90  | 0,95  | 1,00  | 1,05  | 1,10  | 1,13  | 1,15  | 1,16  |
| From 1 to 20 hours   | 0,82   | 0,88 | 0,94  | 0,97  | 1,00  | 1,03  | 1,05  | 1,07  | 1,08  | 1,10  |

## Battery charge conditions at 20°C constant voltage and limited current (IU)

| Charge current limit                                   | Float charge voltage                                                | Equalization charge voltage                                                                                             | Boost charge voltage                                                |
|--------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 0,1 – 0,25C10 A<br>Recommended: 0,20C10 A              | 2,27 V per cell at 20°C;<br>Temperature correction:-3mV / cell / °C | "2,32 V per cell at 20 °C<br>Recommended: every 3 months for 24h during<br>long time float operation"                   | 2,40 V per cell at 20°C;<br>Temperature correction:-4mV / cell / °C |
| Float application: 0,20C10 A / 2,27 V per cell at 20°C |                                                                     | Cycling applications: 0,20C10 A / 2,40 V per cell at 20°C<br>Recharge Ah input at least 105% from previous discharge Ah |                                                                     |