



SERVICE INFORMATION LETTER
SIL1320
CMM 2778-1 24-30-00 corrections

1. Subject

This service information letter (SIL) is a notification from Saft concerning a correction of the following parameters mentioned in CMM 2778-1 24-30-00.

2. Applicability

Publication affected: CMM 2778-1 24-30-00 rev 01 published on April 24th, 2018 and prior revision.

3. Descriptions

Corrections to be applied in the following pages and sections of the CMM 2778-1 24-30-00:

3.1 Characteristics

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Section 2. Technical data

Section 2-1. Characteristics

Table:

Technical data	Values
Type of cells	VHP270KH-3
Number of cells	20
Nominal voltage	24 V
Rated capacity C ₁ Ah (Ah)	27 Ah
Charge or discharge current 1 C ₁ A	27 A
Charge current 0.5 C ₁ A	13.5 A
Charge current 0.1 C ₁ A	2.7 A
Electrolyte	Solution of KOH
Electrolyte level (mm)	20 mm (0.79 in)
Consumable volume of electrolyte per cell	25 cm ³ (1.54 in ³)
End of charge voltage	1.55 V / per cell
End of life criterion in % of rated capacity	85%
End of life criteria in hour or minutes	51 min
Battery maximum weight	28.2 kg (62.2 lbs)
Battery terminals	MS3509 connector

Corrections to be applied:

- End of charge voltage: **1.50 V / per cell** (instead of 1.55 V / per cell)
- End of life criterion in % of rated capacity: **100%** (instead of 85%)
- End of life criteria in our or minutes: **60 min** (instead of 51 min)

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3.2 Constant current charge

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Section 5. Charge

Section 5-1. Constant current charge

Table 1 – Charge Rates:

Main charge			Final charge (overcharge)	
Current and duration		Minimum voltage	Current and duration	Minimum voltage
2.7 A	time mini 10 h maxi 12 h	1.5 V / per cell	2.7 A for 4 h	1.55 V / per cell
13.5 A	time mini 2 h maxi 2 h 30 min.	1.55 V / per cell	2.7 A for 4 h	1.55 V / per cell
27 A	time mini 1 h maxi 1 h 15 min.	1.57 V / per cell	2.7 A for 4 h	1.55 V / per cell

Table 1 - Charge Rates

Correction to be applied:

- Minimum voltage at the final charge (overcharge) is **1.50 V / per cell** (instead of 1.55 V / per cell (cf. last column on the right in the chart here above))

3.3 Other methods of charging

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Section 5. Charge

Section 5-4. Other methods of charging

5-4. Other methods of charging

In addition to the constant current method of charging, other methods that fully charge the battery can be used. However, in any case, individual cell voltage checks ($U \geq 1.55 \text{ V / per cell}$) and electrolyte adjustments must be carried out using a final overcharge sequence at constant current [2.7 A](#) during 4 hours. If specific instructions are not given in the charger operating manual, you must first contact Saft.

Correction to be applied:

- Individual cell voltage checks shall be $U \geq 1.50 \text{ V / per cell}$ (instead of $U \geq 1.55 \text{ V / per cell}$)

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3.4 Supplementary test

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Section 6-7. Supplementary test



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6-7. Supplementary test

At the end of complete charge, continue to charge for 5 h at [2.7 A](#) (refer to PARA [Charge](#))

Measure the voltage of the individual cell voltages every 30 min. The individual cell voltages:

- must not decrease by more than 0.03V between two consecutive measurements during the 5 h test
- must be more than [1.55 V / per cell](#)
- Adjust the electrolyte level during the last 30 min of the supplementary charge (refer to [Adjust electrolyte level](#)).

Correction to be applied:

- Replace “must be more than 1.55 V / per cell” per “**must be more than 1.50 V / per cell**”.

3.5 Capacity check

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Section 7. Regular check

Section 7.2. Capacity check

7-2. Capacity check

Discharge the battery at [27 A](#), until all cell individual voltages fall below 1.0 V. Record the time when each cell falls below 1.0 V and the battery voltage falls below 20 V.

Note all the cells reaching 1 V before [51 min](#) of discharge. For all these cells, refer to page 1002 para (5)(a).

Correction to be applied:

- Replace the discharge duration 51 min by **60 min**.

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