DNV·GL

Certificate No:
TAE000039D

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Battery (Accumulator)

with type designation(s)
SNL, SNM and SNH

Issued to
SAFT AB
OSKARSHAMN, Sweden

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft
IEC 60623 (2017-01)
IEC 60092-305 (1980)

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Issued at **Høvik** on **2018-12-21**
This Certificate is valid until **2023-06-30**.
DNV GL local station: **Stockholm**

Approval Engineer: **Nicolay Horn**

for **DNV GL**

Marta Alonso Pontes
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Job Id: **262.1-019210-7**
Certificate No: **TAE000039D**

Product description

Industrial pocket plate Ni-Cd batteries with the following type designation are covered by this certificate:

SAFT	
Type	Reference Drwg. No.
SNL 10	31-04471
SNL 15	31-04472
SNL 21	31-04473
SNL 30	31-04474
SNL 38	31-04475
SNL 45	31-04476
SNL 59	31-04477
SNL 70	31-04478
SNL 85	31-04479
SNL 105	31-04480
SNL 135	31-04481
SNL 170	31-04482
SNL 205	31-04483
SNL 220	31-04484
SNL 260	31-04485
SNL 310	31-04486
SNL 355	31-04487

SAFT	
Type	Reference Drwg. No.
SNM 9	31-04488
SNM 14	31-04489
SNM 22	31-04490
SNM 31	31-04491
SNM 39	31-04492
SNM 47	31-04493
SNM 55	31-04494
SNM 70	31-04495
SNM 90	31-04496
SNM 110	31-04497
SNM 130	31-04498
SNM 145	31-04499
SNM 165	31-04500
SNM 185	31-04501
SNM 215	31-04502
SNM 240	31-04503
SNM 285	31-04504
SNM 310	31-04505
SNM 335	31-04506

SAFT	
Type	Reference Drwg. No.
SNH 9	31-04507
SNH 12	31-04508
SNH 17	31-04509
SNH 21	31-04510
SNH 25	31-04511
SNH 29	31-04512
SNH 34	31-04513
SNH 40	31-04514
SNH 50	31-04515
SNH 60	31-04516
SNH 70	31-04517
SNH 80	31-04518
SNH 90	31-04519
SNH 100	31-04520
SNH 110	31-04521
SNH 120	31-04522
SNH 130	31-04523
SNH 145	31-04524
SNH 155	31-04525
SNH 185	31-04526
SNH 210	31-04527

Application/Limitation

Industrial Nickel-Cadmium batteries for mobile and stationary applications and for use in ship and Offshore Units.

Installation and maintenance to be done in accordance with Installation and Operating Instructions and/or the Technical Manual.

Type Approval documentation

Tests carried out

Type tests in accordance with IEC 60623 (Fourth edition 2001– 09)

item 4.2 - Discharge performance
- sub-clauses
- 4.2.1 - Discharge performance at 20°C
- 4.2.3 - Discharge performance at -18°C
- 4.2.4 - High rate current test

item 4.3 - Charge retention

item 4.4 - Endurance

- sub-clauses
- 4.4.1 - Endurance in cycles
- 4.4.2 - Permanent charge endurance

item 4.5 - Charge acceptance at constant voltage

item 4.8 - Electrolyte retention

item 4.9 - Storage

Vibration test

Marking of product

The product to be marked in accordance with section 2 in IEC 60623: Manufacturers name, IEC 60623, type and manufacturing date.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the survey are:
- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at 2 and 3.5 year and at renewal.

END OF CERTIFICATE