DNV·GL

Certificate No:
TAE000041E

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electric Motor

with type designation(s)
HMC3 80 to HMC3 355

Issued to
Svend Hoyer A/ S
Hadsten, Midtjylland, Denmark

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/ are accepted for installation on all vessels classed by DNV GL.

Degree of protection	**IP 55, IP 56, IP 65, IP 66**
Insulation class	**130 (B), 155 (F), 180 (H) on request**
Temp. class (°C)	**45° C, 50 °C with power reduction**
Voltage (V)	**220 V up to 690 V**
Power (kW)	**0,75 kW up to 378 kW**
Frequency (Hz)	**50 Hz, 60 Hz**
Speed (RPM)	**750 1/ min up to 3600 1/ min**

Issued at **Hamburg** on **2020-08-04**

This Certificate is valid until **2025-08-03**.
DNV GL local station: **Denmark CMC**

Approval Engineer: **Andreas Andrecht**

for **DNV GL**
Digitally Signed By: Hartmann, Thomas
Location: DNV GL SE Hamburg, Germany
Signing Date: 2020-08-10 , on behalf of

Arne Schaarmann
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.

Job Id: **262.1-033833-1**
Certificate No: **TAE000041E**

Product description

Sizes:	S, S1, S2, M, M1, M2, M3, MB, L, L1, L2, L3
Rated voltage:	220 V up to 690 V
Rated power:	S1 0,75 kW up to 378 kW
Duty Type:	S1 to S9
Synchronous speed:	750 1/min up to 3600 1/min
Rated frequency:	50 Hz, 60 Hz
Ambient temperature:	45° C, 50 °C with power reduction
Thermal class:	130 (B), 155 (F), 180 (H) on request
Degree of protection:	IP 55, IP 56, IP 65, IP 66
No. Of poles:	2, 4, 6, 8
Spec. Model:	For marine / offshore environments. On request optional with built-in units e.g. brakes, external fans, encoders

Tests carried out

IEC 60034-1:2010-02, IEC 92-301-3rd ed. 1980
Class Programme DNVGL-CP-0393 Edition 2015 Rotating Machines

Place of manufacturing

PR China, Ningde
(acc. to Svend Hoyer statement dated 27.07.2015)

Marking of product

Manufacture, decnical data and type desigantion etc.

Periodical assessment

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

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to 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.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE