DNV·GL

Certificate No:
TAE00000HJ

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electric Motor

with type designation(s)
W21 Cast Iron

Issued to
WEG EQUIPAMENTOS ELETRICOS S/A
Jaragua Do Sul Santa Catarina, Brazil

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

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

Enclosure class	**IP55 (IP56, IP65 &IP66)**
Insulation class	**F (H)**
Temp. class (°C)	**155 (180)**
Voltage (V)	**220 - 690**
Power (kW)	**110 - 370**
Frequency (Hz)	**50 or 60**
Speed (RPM)	**Up to 3600**

This Certificate is valid until **2018-12-31**.

Issued at **Høvik** on **2015-10-30**

for **DNV GL**

DNV GL local station: **Rio de Janeiro, SiO**

Approval Engineer: **Andreas Kristoffersen**

Marit Laumann
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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Name and place of manufacturer

WEG EQUIPAMENTOS ELETRICOS
Av. Prefeito Waldemar Grubba, 3000 - Jaraguá do Sul, CEP 89256-900
Santa Catarina – SC, Brazil

WEG NANTONG Electric Motor Manufacturing Co., Ltd
No.128# - Xinkai South Road
226010 Nantong – Jiangsu Province – China

Product description

Type W21 3-phase induction motor:

Rated Voltage:	220V up to 690V
Rated Frequency:	50 or 60Hz
Number of poles:	2, 4, 6, 8 and combinations
Duty type:	S1
Enclosure class:	IP55 and IP56, IP65 & IP66 on request*
Ambient air temp.:	45 deg. C
Material:	Cast Iron frame
Ex rating:	NA
Insulation class:	F, H on request

* IPW can be used for any degree of protection mentioned above.

Product data W21, 50Hz and 60 Hz

Frame Sizes	No of poles	Rated Power (kW) **(MAX.)**
280S/M	2	150
315S/M	2	200
315B	2	370
355M/L	2	330
280S/M	4	150
315S/M	4	200
315B	4	370
355M/L	4	370
315S/M	6	150
315B	6	300
355M/L	6	330
315S/M	8	110
315B	8	260
315M/L	8	260

Type non sparking 3-phase induction motor:

Rated Voltage:	Max 690V
Rated Frequency:	60Hz
Number of poles:	2, 4, 6, 8 and combinations
Duty type:	S1
Enclosure class:	IP55, IP56, IP65 & IP66 on request*
Ambient air temp.:	45 deg. C
Material:	Cast Iron frame
Ex rating:	Ex-n – Zone 2 Group IIA /IIB /IIC – T3 (ABNT/IEC)
Insulation class:	F or H

* IPW can be used for any degree of protection mentioned above.

Product data non sparking, 60 Hz

Frame Sizes	No of poles	Rated Power (kW) **(MAX.)**
280S/M	2	110
315S/M	2	200
355M/L	2	260
280S/M	4	110
315S/M	4	200
355M/L	4	330
315S/M	6	132
355M L	6	315
315S/M	8	110
355M/L	8	220

Application/Limitation

For installation in non-hazardous area and in Zone II areas (ex-n)

Type Approval documentation
Tests carried out

Temperature rise, overload, over-speed, insulation resistance, winding resistance, no load, degree of protection.

Marking of product

WEG – type designation – technical data including rated voltage, RPM, rated power, ambient temperature, rated current, rated frequency, insulation class and degree of protection.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems/components/materials.

The main elements of the periodical assessment are:

- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines.
- Ensuring that systems/components/materials used comply with type approved documents and/or referenced system/component/material specifications.
- Review of possible changes in design of systems/components/materials, software version and performance, and make sure that such changes do not affect the type approval given.
- Ensuring traceability between manufacturer's product type marking and the type approval certificate.
- Ensuring that type approved documentation is available.

Periodical assessment to be performed at least every second year.

END OF CERTIFICATE