

Technical Specification

Position 554kW_replica_NXR

Power 554 kW
Voltage & frequency 6.000 V / 3 ph / 50 Hz
Pole number 2
Rated speed 2976 RPM
Synchronous speed 3000 RPM

General Information of Position

Type AXR 400MG2
Description AC Induction Machine
Quantity of identical units 1
Manufacturing location Helsinki, Finland
SCIP ID 6335982D-0400-4730-8FF4-EAFC024EF6A4
Quality assurance ISO 9001 and ISO 14001

Standards and Site Conditions

Standards IEC
Marine Standard No
Potentially Hazardous Atmosphere No
Max. Ambient Temperature 45 °C
Min. Ambient Temperature 0 °C
Max. Altitude 1.000 m a.s.l.

Main Electrical Data

Supply Type Fixed speed
Duty Type S1
Machine used as Motor

Main Mechanical Data

Mounting IM 1001
Protection IP 55
Cooling IC 411
Insulation Class F, vacuum pressure impregnated
Temperature Rise Class B-class (RES)
Direction of Rotation Counter-clockwise
Vibration level Standard vibration

Cooling System

Cooler type NOT APPLICABLE

Shaft

Shaft Extension DE Cylindrical with key
Shaft Extension NDE No
Shaft Material Structural Steel

Bearings

Bearing Type Standard ball bearings
Bearing Insulation Insulated NDE only
- Insulated antifriction bearing construction, NDE only

Main Terminal Boxes and Related Accessories

Terminal Box Type Standard air insulated IEC main terminal box

Terminal Box Location Right at DE

- Main terminal box located right hand side at DE
- Standard air insulated IEC main terminal box

Monitoring and Protection Accessories

- RTD's (Pt-100) in stator windings, 6 pcs, 3-wire, unshielded, safe and hazardous areas
- Space heater for stator winding, 1 ph (230 V)
- SPM nipple for shock pulse measuring in each antifriction bearing

Auxiliary terminal boxes and related accessories

- Location of ATB for instrumentation: Right
- Terminal box for accessories 1

Foundation and installation

Not included in the current scope of supply

Customized design and accessories

- Fabricated aluminium rotor
- Low noise cooling fan

Tests and Certificates

- Routine test according to ABB standard procedure

Preliminary final test program (version 1.05)

- Air gap measurement
- Direction of rotation, phase sequence
- High voltage test
- Insulation resistance measurement before tests
- Insulation resistance measurement after tests
- No-load point
- Resistance measurement of windings and elements
- Short-circuit point
- Vibration measurement from bearing housing at no-load
- Visual Inspection

Painting and Corrosion Protection

Color Standard blue Munsell 8B 4.5/3,25

- Surface treatment C3 - Standard industrial environment

Packing and transportation

Seaworthy slide packing

Documentation

- Connection diagram (main and auxiliaries)
- Dimension drawing or machine (one covering all identical units)
- Documentation in English language
- Maintenance and instruction manual (one covering all identical units)
- Only final version of documents in defined language
- Order acknowledgement (OA) (one covering all identical units)
- Rating and Lubrication plates in English
- Safety instructions and warning labels in English
- Technical specification
- Test report

Spare parts

Not included in the current scope of supply

Terms and Conditions

- DAP - Europe
- Warranty 18 months from start-up or 24 months from readiness of delivery, whichever occurs first

Other accessories

- No additional specifications
- Test program

Notes, comments and deviations:

Driven equipment: Compressor

Motor type code	AXR 400MG2			
Motor type	Squirrel cage motor			
Mounting designation	IM 1001			
Protected by enclosure	IP 55			
Method of cooling	IC 411			
Insulation	Class F			
Standards	IEC			
Ambient temperature, min/max.	0/45 °C			
Altitude, max.	1000 m.a.s.l.			
Duty type	S1			
Temp. rise	Class B (RES)			
Connection of stator winding	Star			
Rated output	554 kW			
Voltage	6000 V ±5 %			
Current	60 A			
Frequency	50 Hz			
Speed	2976 rpm			
Relat. starting current	5,6			
Relat. starting torque	0,74			
Relat. maximum torque	2,1			
No load current	10 A			
Rated torque	1777 Nm			
Load characteristics	Load %	Current A	Efficiency %	Power Factor
	100	60	96,3	0,92
	75	45	96,4	0,92
	50	31	96,1	0,90
Sound pressure level: (sinus supply, no load)	81 dB(A), tol. + 3 dB(A), 1 m			
Weight of rotor	580 kg			
Total weight of motor (Preliminary)	3280 kg			
Inertia rotor / load	Approx. 8 kgm _r / 0 kgm _r			
Maximum stalling time	24,3 s (warm)			
Starting time	0,0 s (U=100%)			
	0,0 s (U=0 %)			
Number of consec. starts	0 / 0 (cold/hot)			
Maximum number of starts	1000 / year			
Warm-up time constant	70 min			
Cool-down time constant	315 min			

All motor data is subject to tolerances in accordance with IEC.

Efficiency based on typical additional load losses acc. measurements.

Motor type code: AXR 400MG2

Rated output	554 kW	Power Factor	0,92
Voltage	6000 V ± 5 %	Rated torque	1777 Nm
Current	60 A	Relat. starting current	5,6
Frequency	50 Hz	Relat. starting torque	0,74
Speed	2976 rpm	Relat. maximum torque	2,1

