

CUSTOMER STADT
PROJECT NUMBER 170172
PROJECT REFERENCE LEAN DRIVE; P.17.002

TYPE
NPI
SERIAL Nº

MDH-06308B-J048N
 170172A0
 17.017.201 17.017.202

REV. 04
DATE
 12/04/2019

Squirrel cage electric motor, built in accordance with IEC-60034 standards

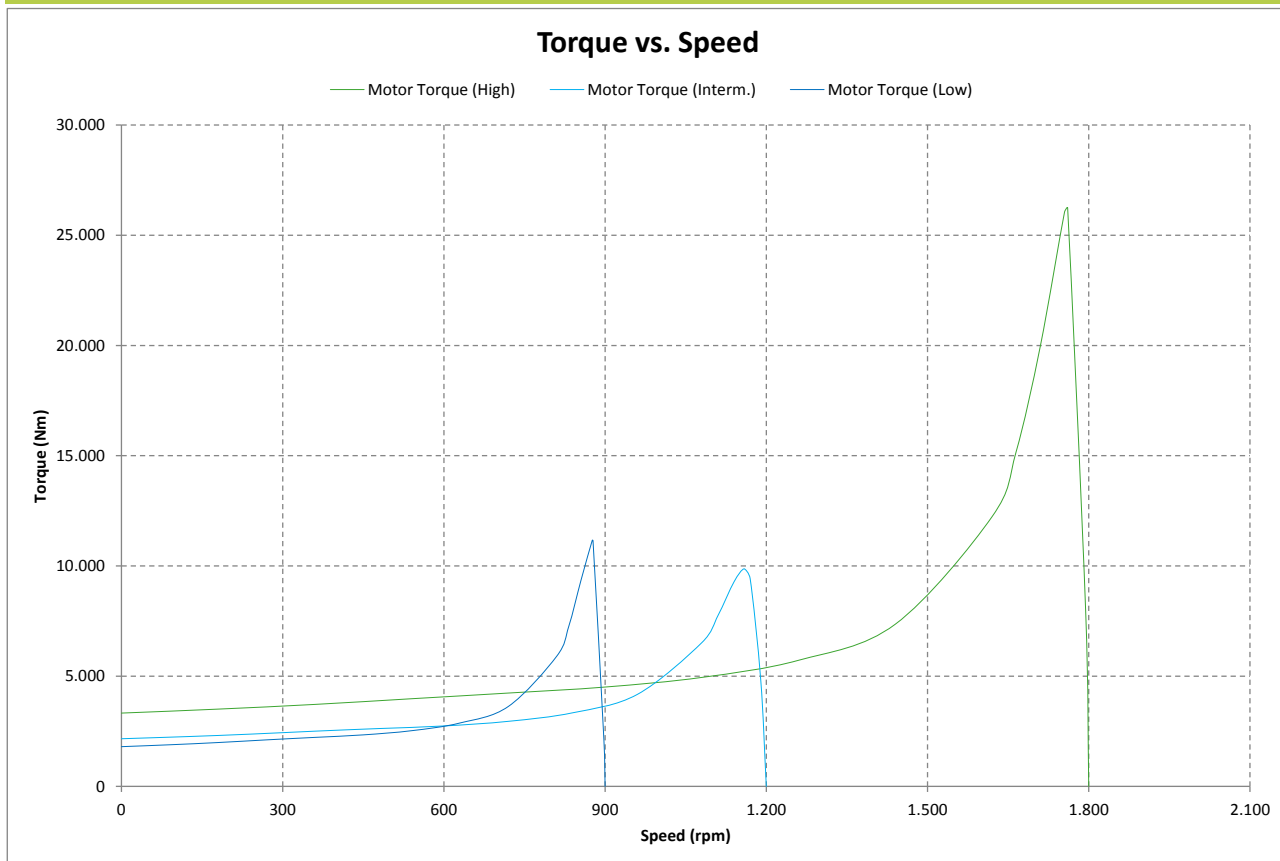
GENERAL DATA

Outline Drawing Nº	944.0630.067	Water temperature [°C]	35
Standards	IEC-60034	Te [sec]	NA
Degree of protection (IEC 60034-5)	IP-55	Resistant torque	CPP
Method of cooling (IEC 60034-6)	IC81W	Insulation class	F
Mounting arrangement (IEC 60034-7)	IM1001	Temperature rise	F
Certification	DNV-GL	Sense of rotation	BOTH
Altitude	<1000 m.a.s.l.	Weight	10.600kg
Ambient temperature [°C]	45	Application	Main Propulsion

TECHNICAL DATA

Data	Units	High speed	Intermediate speed	Low speed
Duty		S-1 (continuous)	S-1 (continuous)	S-1 (continuous)
Power output	kW	1.500	600	200
Rated voltage	V	690	690	690
Rated frequency	Hz	60,0	60,0	60,0
Rated current	A	1.425	588	313
Rated speed	1/min	1.794	1.190	898
Rated Power factor		0,91	0,91	0,58
Rated Efficiency	%	96,30	94,30	91,70
Rated torque	Nm	7.984	4.815	2.127
Inertia	kgm ²	152		
Overspeed	1/min		2153 [120% during 2 min.]	
Number of poles		4	6	8
Connection		YY / D / Y		

TORQUE & CURRENT VS. SPEED CURVES



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COOLING DATA

Data	Units	Value
Manufacturer	VDL KLIMA	
Type	16KDLD-153-1400-2-1,8	
Type of water	Fresh water (20% Glicol)	
Water inlet T°	°C	35
Water outlet T°	°C	39,0
Water flow	m ³ /h	15,7
Water ΔP	Bar	0,30
Max. Heat dissipation	Kw	70,0
Max. Heat radiation	Kw	2,2
Cooling fans	NA	
Water leak detector	Yes	

OTHER DATA

Bearings	Antifriction
D.E	N.D.E
Manufacturer	SKF
Type	2x7234BCBM
Grease Type	NLG2
Nominal life L10h [hours]	>40.000
Regreasing intervals [hours]	1.100
SPM provisions	Yes
Isolated	Yes

Space heaters with thermostat

Units	Value
Power	W
Voltage	V (Single phase)
Frequency	Hz

Temperature detectors

In stator winding	2 × Pt 100 (3 wires) each phase
In bearings	1 × Pt 100 (3 wires) each bearing
In cooling air	NA

Encoder

Manufacturer	NA
Type	
Pulse N°	

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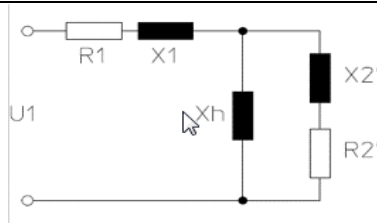
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EQUIVALENT CIRCUIT

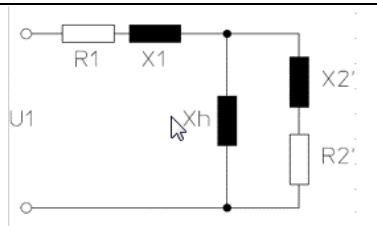
Dahlander winding (4 poles operation)

REACTANCES	Ohm/phase
Stator reactance X1	0,0320
Rotor reactance X2' (referred to stator)	0,0100
Xh (Airgap)	0,9750
Stator resistance R1	0,0041
Rotor resistance R2' (referred to stator)	0,0009



Dahlander winding (8 poles operation)

REACTANCES	Ohm/phase
Stator reactance X1	0,1323
Rotor reactance X2' (referred to stator)	0,0587
Xh (Airgap)	1,5354
Stator resistance R1	0,0117
Rotor resistance R2' (referred to stator)	0,0048



Separate winding (6 poles operation)

REACTANCES	Ohm/phase
Stator reactance X1	0,2743
Rotor reactance X2' (referred to stator)	0,2243
Xh (Airgap)	9,2997
Stator resistance R1	0,0478
Rotor resistance R2' (referred to stator)	0,0170

