3.1 Manufacturer Inspection Certificate

Delivery address
PRZEDSIĘBIORSTWO PRODUKCJI SPRĘŻAREK
"AIRPOL" SPÓŁKA Z OGRANICZONĄ
ODPOWIEDZIALNOŚCIĄ
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61-021 Poznan
Poland

Sales order	SODK-198303
Order account	CDK-001387
Date	04-01-2025
Ref. no.	Z20247598

Main

Serial number	DK1197850409	**Classing society**	,
Line no.	1	**Headline 1**	
Ext. item no.	ESI0474	**Industrial certification**	CE, UKCA

Motor specification

Type name	HMC3 160L-2	**Color**	RAL 9005 / C3L
Mounting	B35	**Explosion protection**	No
Efficiency class	IE3	**Rain cap**	No
Poles	2	**Cooling method**	IC411
Ingress protection class	IP55	**Thermal protection main**	PTC 3 x 155°C
Thermal insulation class	F	**Thermal protection secondary**	None
Temperature rise	B	**Anti-condensation heater**	None
Electrical insulation	Standard (1350 V @ 0.8 µs)	**Temperature detector (PT100)**	No (windings)
Bearing type (DE)	DGBB / 6309 / C3 / Closed (2Z)	**Temperature detector (PT100)**	No (bearings)
Bearing type (NDE)	DGBB / 6309 / C3 / Closed (2Z)	**Cable entry (main)**	2x M40x1.5 N/A
IEC vibration class	A	**Cable entry (accessory)**	2x M20x1.5 N/A

Electrical data

Rated power (kW)	18.5	18.5				
Frequency (Hz)	50	60				
Voltage - VD / VY	400 / 690	480 / 830				
Full load current - VD / VY (A)	31.9 / 18.4	27 / 15.6				
Speed (rpm)	2957	3548				
Power factor (100%)	0.91	0.91				
Efficiency 50% / 75% / 100%	91.4 / 92.5 / 92.4	89.5 / 90.5 / 91.7				
Ist/In	10.69	12.6				
Full load torque (Nm)	59.8	49.8				
Tst/Tn	3.22	3.87				
Tmax/Tn	4.32	5.19				
Duty	S1	S1				
Ambient temp. (°C)	40	40				
Rotor inertia	0.082	0				
Sound pressure level (dBA)	70.9	76				
Winding resist. (ohm)	0.337	0.3366				
Temp. rise winding (K)	58.9	0				
Temp. rise surface (K)	38.6	0				

Based on the routine(RT) and type test report (TTR). Hoyer confirms that motors fulfills following requirements acc. To Standard IEC60034-1

High voltage dielectric test	Motor suitable to withstand (1000V + (2xUn)) for 60 seconds	RT
Insulation resistance measurement	Cold insulation of stator winding is above 30 Megaohm	RT
No load test	No load current value is within 10% of the mean value	RT
Winding resistance measurement	Difference between 3-phase resistance value is within 5% of mean values	RT
Over load test(160% for 120 seconds)	Motor suitable to withstand 1.6x rated torque running for 120 seconds	TTR
Over speed test(120% for 120 seconds)	Motor suitable to withstand 1,2x speed motor running for 120 seconds	TTR