

3.1 Manufacturer Inspection Certificate

Delivery address

PRZEDSIĘBIORSTWO PRODUKCJI SPRĘŻAREK
"AIRPOL" SPÓŁKA Z OGRANICZONĄ
ODPOWIEDZIALNOŚCIĄ
ul. Nieszawska 15C
61-021 Poznań

Sales order

SODK-208584

Order account

CDK-001387

Date

19-05-2025

Ref. no.

Z20251751

Main Poland			
Serial number	SH3078704-089	Classing society	,
Line no.	1.1	Headline 1	
Ext. item no.	ESI0582	Industrial certification	None

Motor specification			
Type name	HMC2 160L-2	Color	RAL 9005 / C3L
Mounting	B35	Explosion protection	No
Efficiency class	IE2	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	230 V 50 W
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 Ø22-30 mm
IEC vibration class	A	Cable entry (accessory)	2x M20x1.5 N/A

Electrical data						
Rated power (kW)	18.5	17.9	21.3			
Frequency (Hz)	50	50	60			
Voltage - VD / VY	400 / 690	380 / 660	440 / 762			
Full load current - VD / VY (A)	31.9 / 18.4	34.8 / 20.1	33.8 / 19.6			
Speed (rpm)	2947	2947	3537			
Power factor (100%)	0.93	0.93	0.93			
Efficiency 50% / 75% / 100%	89.3 / 90.2 / 89.6	89.3 / 90.2 / 89.6	89.3 / 90.2 / 89.6			
Ist/In	7.5	6.64	7.73			
Full load torque (Nm)	59.9	58.1	58.1			
Tst/Tn	2.65	2.43	2.65			
Tmax/Tn	3.48	3.19	3.48			
Duty	S1	S1	S1			
Ambient temp. (°C)	40	45	45			
Rotor inertia	0	0	0			
Sound pressure level (dBA)	74.9	74.9	79.9			
Winding resist. (ohm)	0.3281	0.3281	0.3281			
Temp. rise winding (K)	68.01	72.43065	76.8513			
Temp. rise surface (K)	54.3	57.8295	61.359			

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