

3.1 Manufacturer Inspection Certificate

Delivery address

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

Sales order

SODK-191057

Order account

CDK-001387

Date

03-10-2024

Ref. no.

Z20246107

Main			
Serial number	DK1175620001	Classing society	,
Line no.	5.1	Headline 1	
Ext. item no.	ESI0568	Industrial certification	None

Motor specification			
Type name	HMC2 160M1-2	Color	RAL 9005 / C3L
Mounting	B3	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)	10.6	11	12.8			
Frequency (Hz)	50	50	60			
Voltage - VD / VY	380 / 660	400 / 690	440 /			
Full load current - VD / VY (A)	20.0 / 11.6	19.4 / 11.2	20.6 /			
Speed (rpm)	2930	2930	3520			
Power factor (100%)	0.92	0.92	0.92			
Efficiency 50% / 75% / 100%	87.1 / 88.2 / 89.4	87.1 / 88.2 / 89.4	86.4 / 87.7 / 88.9			
Ist/In	5.75	6.55	6.05			
Full load torque (Nm)	34.5	36.0	34.50			
Tst/Tn	2.00	2.16	1.86			
Tmax/Tn	2.90	3.15	2.70			
Duty	S1	S1	S1			
Ambient temp. (°C)	45	40	45			
Rotor inertia	0.043	0.043	0.043			
Sound pressure level (dBA)	72.0	72.0	77.0			
Winding resist. (ohm)	0.6814	0.6814	0.6814			
Temp. rise winding (K)	66.882	62.8	70.964			
Temp. rise surface (K)	41.8545	39.3	44.409			

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