

Motor data sheet

M3AA 160MLB 4

Definition	Data	Unit	Remarks
Product code	3GAA162420-**K		
Voltage code	D		
Type/Frame	M3AA 160MLB 4		
Design	CENELEC		
Efficiency class	IE3		
Rated output P_N	15	kW	
Rated voltage U_N	400	V	± 5 % (IEC 60034-1)
Rated frequency f_N	50	Hz	± 2 % (IEC 60034-1)
Rated speed n_N	1474	r/min	
Rated current I_N	29.01	A	
Starting current I_s/I_N	7.8		
Nominal torque T_N	97.15	Nm	
Locked rotor torque T_l/T_N	3.01		
Maximum torque T_b/T_N	3.65		
Efficiency - full load 100%	92.1	%	Acc. to IEC 60034-2-1
Efficiency - 75%	92.21	%	
Efficiency - 50%	91.27	%	
Power factor - full load 100%	0.81		
Bearing DE/NDE	6309-2Z/C3 6209-2Z/C3		
Sound pressure level L_{pA} dB	60.8	dB(A)	+3dB(A)
Moment of inertia $J = \frac{1}{4} GD^2$ kgm ²	0.14	kg-m ²	
Weight	140	kg	
Motor losses at VSD operating points	losses in efficiency %	losses in Watt	losses in relative to nom. power %
Speed 90% Torque 100%	91	1335.2	8.9
Speed 90% Torque 50%	84	1285.7	8.6
Speed 50% Torque 100%	87	1120.7	7.5
Speed 50% Torque 50%	78	1057.7	7.1
Speed 25% Torque 100%	81	879.6	5.9
Speed 25% Torque 25%	51	900.7	6
Speed 50% Torque 25%	63	1101.2	7.3