

IEC LV MOTORS

Motor data sheet

M3AA 112MB 2

Definition	Data	Unit	Remarks
Product code	3GAA111320-**K		CalcId: 3GZF021011-341
Voltage code	S		
Type/Frame	M3AA 112MB 2		
Design	BASIC		
Efficiency class	IE3		IEC 60034-2-1:2014
Rated output P_N	4	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	2888	r/min	
Rated current I_N	7.1	A	
Starting current I_S/I_N	8.4		
Nominal torque T_N	13.2	Nm	
Locked rotor torque T_l/T_N	3.2		
Maximum torque T_b/T_N	4		
Efficiency - full load 100%	88.1	%	IEC 60034-2-1:2014
Efficiency - 75%	89.4	%	
Efficiency - 50%	89.6	%	
Power factor - full load 100%	0.91		
Bearing DE/NDE	6306-2Z/C3 6205-2Z/C3		
Sound pressure level L_{pA} dB	68	dB(A)	+3dB(A)
Moment of inertia $J = \frac{1}{4} GD^2$ kgm ²	0.01	kg-m ²	
Weight	38	kg	
Ambient temperature	40	°C	
Motor losses at VSD operating points	losses in efficiency %	losses in Watt	losses in relative to nom. power %
VSD Speed 90% Torque 100%	87.0	538	13.4
VSD Speed 50% Torque 100%	79.0	532	13.3
VSD Speed 25% Torque 100%	50.6	976	24.4
VSD Speed 90% Torque 50%	89.2	218	5.4
VSD Speed 50% Torque 50%	85.5	170	4.2
VSD Speed 50% Torque 25%	84.7	90	2.3
VSD Speed 25% Torque 25%	76.7	76	1.9