

IEC LV MOTORS

Motor data sheet

M3AA 90LC 2

Definition	Data	Unit	Remarks
Product code	3GAA091530-**K		CalcId: 3GZF021009-485
Voltage code	S		
Type/Frame	M3AA 90LC 2		
Design	CENELEC		
Efficiency class	IE3		IEC 60034-2-1:2014
Rated output P_N	2.2	kW	
Rated voltage U_N	415	V	± 5 % (IEC 60034-1)
Rated frequency f_N	50	Hz	± 2 % (IEC 60034-1)
Rated speed n_N	2910	r/min	
Rated current I_N	3.9	A	
Starting current I_S/I_N	8.9		
Nominal torque T_N	7.2	Nm	
Locked rotor torque T_l/T_N	3.15		
Maximum torque T_b/T_N	3.8		
Efficiency - full load 100%	85.9	%	IEC 60034-2-1:2014
Efficiency - 75%	87.1	%	
Efficiency - 50%	86.9	%	
Power factor - full load 100%	0.88		
Bearing DE/NDE	6205-2Z/C3 6204-2Z/C3		
Sound pressure level L_{pA} dB	60	dB(A)	+3dB(A)
Moment of inertia $J = \frac{1}{4} GD^2$ kgm ²	0.0032	kg-m ²	
Weight	20	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%	84.9	352	16.0
VSD Speed 50% Torque 100%	78.7	298	13.5
VSD Speed 25% Torque 100%	57.6	405	18.4
VSD Speed 90% Torque 50%	84.7	179	8.1
VSD Speed 50% Torque 50%	82.2	119	5.4
VSD Speed 50% Torque 25%	77.6	79	3.6
VSD Speed 25% Torque 25%	69.6	60	2.7