

IEC LV MOTORS

Motor data sheet

M3AA 90LB 2

Definition	Data	Unit	Remarks
Product code	3GAA091520-**K		CalcId: 3GZF021009-482
Voltage code	S		
Type/Frame	M3AA 90LB 2		
Design	CENELEC		
Efficiency class	IE3		IEC 60034-2-1:2014
Rated output P_N	1.5	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	2914	r/min	
Rated current I_N	2.7	A	
Starting current I_S/I_N	8.5		
Nominal torque T_N	4.9	Nm	
Locked rotor torque T_l/T_N	3.3		
Maximum torque T_b/T_N	4		
Efficiency - full load 100%	84.2	%	IEC 60034-2-1:2014
Efficiency - 75%	84.7	%	
Efficiency - 50%	84.2	%	
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	0.0027	kg-m ²	
Weight	17	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%	83.1	274	18.3
VSD Speed 50% Torque 100%	76.2	234	15.6
VSD Speed 25% Torque 100%	47.8	410	27.3
VSD Speed 90% Torque 50%	82.9	139	9.3
VSD Speed 50% Torque 50%	80.2	93	6.2
VSD Speed 50% Torque 25%	75.2	62	4.1
VSD Speed 25% Torque 25%	66.3	48	3.2