

IEC LV MOTORS

Motor data sheet

M3AA 160MLA 2

Definition	Data	Unit	Remarks
Product code	3GAA161410-**K		CalcId: 3GZF021016-1038
Voltage code	D		
Type/Frame	M3AA 160MLA 2		
Design	CENELEC		
Efficiency class	IE3		IEC 60034-2-1:2014
Rated output P _N	11	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	2946	r/min	
Rated current I _N	18.5	A	
Starting current I _S /I _N	7.7		
Nominal torque T _N	35.52	Nm	
Locked rotor torque T _l /T _N	2.8		
Maximum torque T _b /T _N	3.6		
Efficiency - full load 100%	91.2	%	IEC 60034-2-1:2014
Efficiency - 75%	91.7	%	
Efficiency - 50%	91.3	%	
Power factor - full load 100%	0.9		
Bearing DE/NDE	6309-2Z/C3 6209-2Z/C3		
Sound pressure level L _{pA} dB	69.4	dB(A)	+3dB(A)
Moment of inertia J = ¼ GD ² kgm ²	0.057	kg-m ²	
Weight	106	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%	90.6	1027	9.3
VSD Speed 50% Torque 100%	87.0	822	7.5
VSD Speed 25% Torque 100%	77.1	817	7.4
VSD Speed 90% Torque 50%	89.8	562	5.1
VSD Speed 50% Torque 50%	88.6	354	3.2
VSD Speed 50% Torque 25%	85.5	233	2.1
VSD Speed 25% Torque 25%	80.7	164	1.5