

IEC LV MOTORS

Motor data sheet

M3AA 225SMB 4

Definition	Data	Unit	Remarks
Product code	3GAA222220-**K		CalcId: 3GZF021022-1296
Voltage code	D		
Type/Frame	M3AA 225SMB 4		
Design	CENELEC		
Efficiency class	IE3		IEC 60034-2-1:2014
Rated output P_N	45	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	1483	r/min	
Rated current I_N	81	A	
Starting current I_S/I_N	8.6		
Nominal torque T_N	290	Nm	
Locked rotor torque T_l/T_N	3.5		
Maximum torque T_b/T_N	3.75		
Efficiency - full load 100%	94.2	%	IEC 60034-2-1:2014
Efficiency - 75%	94.3	%	
Efficiency - 50%	93.8	%	
Power factor - full load 100%	0.82		
Bearing DE/NDE	6313-2Z/C3 6212-2Z/C3		
Sound pressure level L_{pA} dB	66	dB(A)	+3dB(A)
Moment of inertia $J = \frac{1}{4} GD^2$ kgm ²	0.52	kg-m ²	
Weight	316	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%	93.6	2769	6.2
VSD Speed 50% Torque 100%	91.0	2225	4.9
VSD Speed 25% Torque 100%	84.9	2001	4.4
VSD Speed 90% Torque 50%	92.6	1618	3.6
VSD Speed 50% Torque 50%	91.1	1099	2.4
VSD Speed 50% Torque 25%	87.6	796	1.8
VSD Speed 25% Torque 25%	82.6	592	1.3