

IEC LV MOTORS

# Motor data sheet

## M3AA 112MB 2

Definition	Data	Unit	Remarks
Product code	3GAA111320-**K		CalcId: 3GZF021011-337
Voltage code	D		
Type/Frame	M3AA 112MB 2		
Design	CENELEC		
Efficiency class	IE3		IEC 60034-2-1:2014
Rated output $P_N$	4	kW	
Rated voltage $U_N$	415	V	± 5 % (IEC 60034-1)
Rated frequency $f_N$	50	Hz	± 2 % (IEC 60034-1)
Rated speed $n_N$	2897	r/min	
Rated current $I_N$	6.9	A	
Starting current $I_S/I_N$	9		
Nominal torque $T_N$	13.2	Nm	
Locked rotor torque $T_l/T_N$	3.5		
Maximum torque $T_b/T_N$	4.4		
Efficiency - full load 100%	88.1	%	IEC 60034-2-1:2014
Efficiency - 75%	89.5	%	
Efficiency - 50%	89.7	%	
Power factor - full load 100%	0.9		
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 <sup>2</sup>	0.01	kg-m <sup>2</sup>	
Weight	38	kg	
Ambient temperature	40	°C	
<b>Motor losses at VSD operating points</b>	<b>losses in efficiency %</b>	<b>losses in Watt</b>	<b>losses in relative to nom. power %</b>
VSD Speed 90% Torque 100%	87.0	538	13.4
VSD Speed 50% Torque 100%	79.6	513	12.8
VSD Speed 25% Torque 100%	57.8	730	18.3
VSD Speed 90% Torque 50%	88.7	229	5.7
VSD Speed 50% Torque 50%	85.2	174	4.3
VSD Speed 50% Torque 25%	83.6	98	2.5
VSD Speed 25% Torque 25%	75.4	82	2.0