

# Motor data sheet

IEC LV MOTORS

## M3AA 112MB 2

Definition	Data	Unit	Remarks
Product code	3GAA111320-***K		
Voltage code	D		
Type/Frame	M3AA 112MB 2		
Design	CENELEC		
Efficiency class	IE3		Acc. to IEC 60034-30-1:2014
Rated output $P_N$	4	kW	
Rated voltage $U_N$	400	V	± 5 % (IEC 60034-1)
Rated frequency $f_N$	50	Hz	± 2 % (IEC 60034-1)
Rated speed $n_N$	2888	r/min	
Rated current $I_N$	7.1	A	
Starting current $I_s/I_N$	8.4		
Nominal torque $T_N$	13.2	Nm	
Locked rotor torque $T_l/T_N$	3.2		
Maximum torque $T_b/T_N$	4		
Efficiency - full load 100%	88.1	%	Acc. to IEC 60034-2-1
Efficiency - 75%	89.4	%	
Efficiency - 50%	89.6	%	
Power factor - full load 100%	0.91		
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	
<b>Motor losses with VSD supply</b>	<b>Efficiency %</b>	<b>Losses in Watts</b>	<b>Relative losses %</b>
Speed 90% Torque 100%	86.9	543	13.6
Speed 50% Torque 100%	79.0	532	13.3
Speed 90% Torque 50%	89.1	220	5.5
Speed 50% Torque 50%	85.5	170	4.2
Speed 25% Torque 100%	51.8	930	23.3
Speed 50% Torque 25%	84.7	90	2.3
Speed 25% Torque 25%	76.8	76	1.9

All data subject to tolerances in accordance with IEC. Data subject to changes.