IEC LV MOTORS

Motor data sheet

M3AA 250SMA 2

Definition	Data	Unit	Remarks
Product code	3GAA251210-**K		CalcId: 3GZF021025-668
Voltage code	D		
Type/Frame	M3AA 250SMA 2		
Design	CENELEC		
Efficiency class	IE3		IEC 60034-2-1:2014
Rated output P_N	55	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	2970	r/min	
Rated current I_N	92.1	A	
Starting current I_S/I_N	7.3		
Nominal torque T_N	177	Nm	
Locked rotor torque T_l/T_N	2.5		
Maximum torque T_b/T_N	3.1		
Efficiency - full load 100%	94.3	%	IEC 60034-2-1:2014
Efficiency - 75%	94.1	%	
Efficiency - 50%	93.5	%	
Power factor - full load 100%	0.89		
Bearing DE/NDE	6315-2Z/C3 6213-2Z/C3		
Sound pressure level L_{PA} dB	75.9	dB(A)	+3dB(A)
Moment of inertia J = ¼ GD^2 kgm^2	0.43	kg-m²	
Weight	351	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%	94.0	3160	5.7
VSD Speed 50% Torque 100%	91.9	2424	4.4
VSD Speed 25% Torque 100%	86.2	2201	4.0
VSD Speed 90% Torque 50%	93.2	1806	3.3
VSD Speed 50% Torque 50%	92.7	1083	2.0
VSD Speed 50% Torque 25%	90.5	722	1.3
VSD Speed 25% Torque 25%	87.7	482	0.9