

IEC LV MOTORS

Motor data sheet

M3BP 450LA 2

Definition	Data	Unit	Remarks
Product code	3GBP451510-***K		CalcId: 3GZF021045-240
Voltage code	D		
Type/Frame	M3BP 450LA 2		
Design	CENELEC		
Efficiency class	IE3		IEC 60034-2-1:2014
Rated output P_N	800	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	2991	r/min	
Rated current I_N	1329	A	
Starting current I_S/I_N	8.3		
Nominal torque T_N	2554	Nm	
Locked rotor torque T_l/T_N	1.37		
Maximum torque T_b/T_N	3.65		
Efficiency - full load 100%	95.8	%	IEC 60034-2-1:2014
Efficiency - 75%	95.5	%	
Efficiency - 50%	94.4	%	
Power factor - full load 100%	0.86		
Bearing DE/NDE	6317M/C3 6317M/C3		
Sound pressure level L_{pA} dB	85	dB(A)	+3dB(A)
Moment of inertia $J = \frac{1}{4} GD^2$ kgm ²	12	kg-m ²	
Weight	4000	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%	95.6	33138	4.1
VSD Speed 50% Torque 100%	95.2	20168	2.5
VSD Speed 25% Torque 100%	93.0	15054	1.9
VSD Speed 90% Torque 50%	93.7	24205	3.0
VSD Speed 50% Torque 50%	94.2	12314	1.5
VSD Speed 50% Torque 25%	91.1	9770	1.2
VSD Speed 25% Torque 25%	89.6	5804	0.7