

IEC LV MOTORS

# Motor data sheet

## M3BP 450LA 4

Definition	Data	Unit	Remarks
Product code	3GBP452510-***K		CalcId: 3GZF021045-214
Voltage code	D		
Type/Frame	M3BP 450LA 4		
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 $n_N$	1492	r/min	
Rated current $I_N$	1365	A	
Starting current $I_S/I_N$	6.4		
Nominal torque $T_N$	5120	Nm	
Locked rotor torque $T_l/T_N$	1.19		
Maximum torque $T_b/T_N$	3.26		
Efficiency - full load 100%	96.0	%	IEC 60034-2-1:2014
Efficiency - 75%	95.9	%	
Efficiency - 50%	95.3	%	
Power factor - full load 100%	0.84		
Bearing DE/NDE	6326/C3 6322/C3		
Sound pressure level $L_{pA}$ dB	85	dB(A)	+3dB(A)
Moment of inertia $J = \frac{1}{4} GD^2$ kgm <sup>2</sup>	23	kg-m <sup>2</sup>	
Weight	4050	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%	95.7	32351	4.0
VSD Speed 50% Torque 100%	94.9	21496	2.7
VSD Speed 25% Torque 100%	92.0	17391	2.2
VSD Speed 90% Torque 50%	94.3	21760	2.7
VSD Speed 50% Torque 50%	94.4	11864	1.5
VSD Speed 50% Torque 25%	91.6	9170	1.1
VSD Speed 25% Torque 25%	89.2	6054	0.8