ABB Motors and Generators	Technical Data Sheet - DOL			
	Project		Location	
Department/Author	Customer name		Customer ref.	Item name
Our ref.	Rev/Changed by	Date of issue	Saving ident	Pages **1(3)**

No.	Definition	Data	Unit	Remarks	
1	Product	***TEFC, 3-phase, squirrel cage induction motor***			
2	Product code	***MM16154-EX2 (3GJP162450-ADH+332+461)***			
3	Type/Frame	***M3JP 160 MLE 4***			
4	Mounting	***IM1001, B3(foot)***			
5	Rated output P_N	***15***	kW		
6	Service factor	***1***			
7	Type of duty	***S1(IEC) 100%***			
8	Rated voltage U_N	***400***	VD	± 5 % (IEC 60034-1)	
9	Rated frequency f_N	***50***	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n_N	***1467***	r/min		
11	Rated current I_N	***28***	A		
12	No-load current	***11.2***	A		
13	Starting current I_s/I_N	***7.8***		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T_N	***98***	Nm		
15	Locked rotor torque T_S/T_N	***3***			
16	Maximum torque T_{max}/T_N	***3.5***			
17	Minimum torque T_{min}/T_N	***2.3***			
18	Speed at minimum torque	***255***	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	*100*	**28**	**92.0 / IE2**	**0.84**
21		*75*	**22.2**	**92.4**	**0.79**
22		*50*	**16.7**	**92.1**	**0.7**
23		*Start*	**218**		**0.55**
24	Maximum starting time from hot	***15***	s		
25	Maximum starting time from cold	***27***	s		
26	Insulation class / Temperature class	***F / B***			
27	Ambient temperature	***40***	°C		
28	Altitude	***1000***	m.a.s.l.		
29	Enclosure	***IP55***			
30	Cooling system	***IC411 self ventilated***			
31	Bearing DE/NDE	***6309/C3 - 6309/C3***			
32	Type of Grease	***Lithium based***			
33	Sound pressure level (LP dB(A) 1m)	***61***	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	***0.13***	kg-m2		
35	Balancing	***Half Key***			
36	Vibration class	***Grade A***			
37	Position of terminal box	***Top***			
38	Terminal box entries; no, dimens.	***2xM40x1.5 + 2xM20x1.5***			
39	Number of power terminals	***6***			
40	Direction of rotation	***CW or CCW***			
41	Weight of rotor	***46***	kg		
42	Total weight of motor	***255***	kg		
43					
Ex-motors					
44	Type of protection	****Ex d IIC T4***			
45					

Variant Codes / Definition

332 = Baldor catalog number
461 = Exd design, group IIC

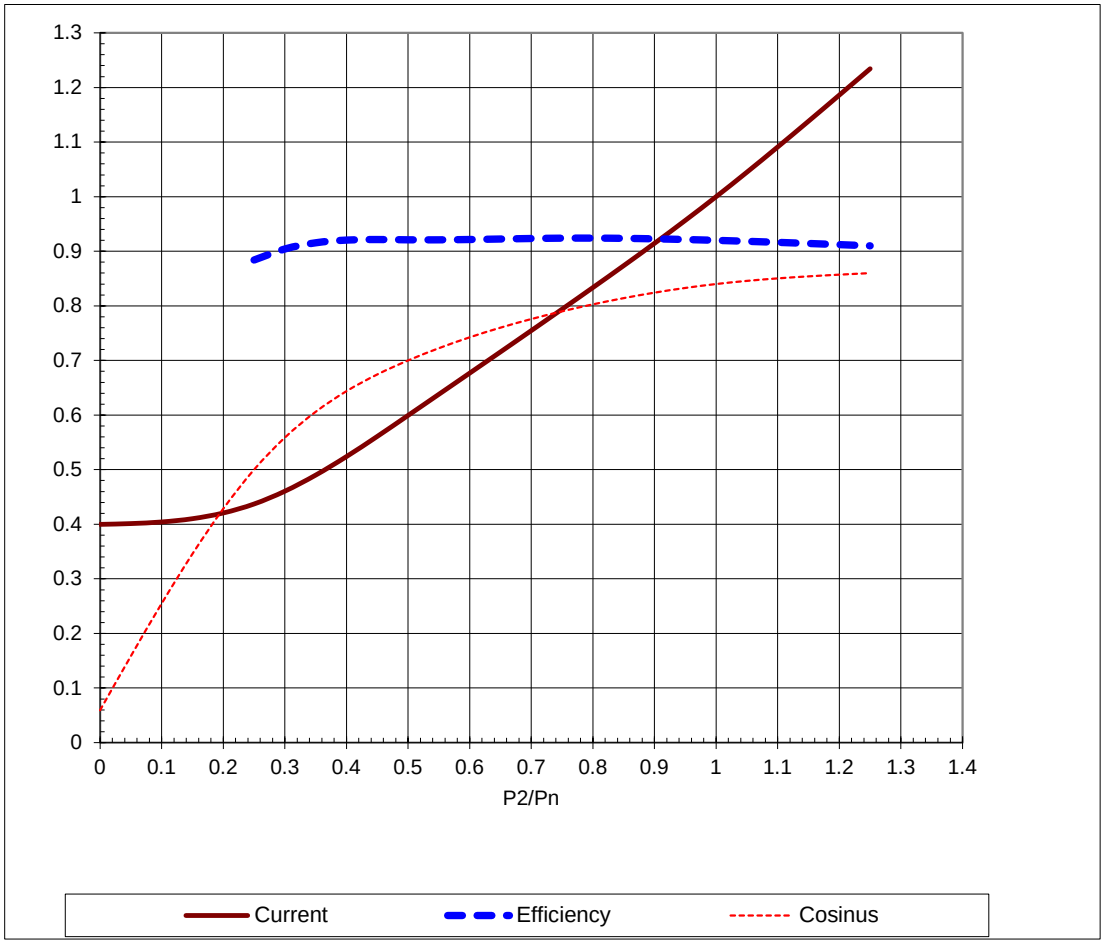
Remarks:

Data based on situation 8/17/2012
All data subject to tolerances in accordance with IEC
Guaranteed values on request
* For more information on the Atex/IECEx rating, please contact your local Baldor representative.

ABB Motors and Generators	Load Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed by Date of issue	Saving ident	Pages **2(3)**

Product	**TEFC, 3-phase, squirrel cage induction motor**		
Type/Frame	**M3JP 160 MLE 4**	Calc. ref.	**79945**
Product code	**MM16154-EX2**		
Rated output P_N	**15** kW		
Type of duty	**S1(IEC) 100%**		

Voltage (V)	**400**	Current I_N (A)	**28**	Power factor at P_N	**0.84**
Frequency (Hz)	**50**	Speed (r/min)	**1467**	Efficiency (%) at P_N	**92**

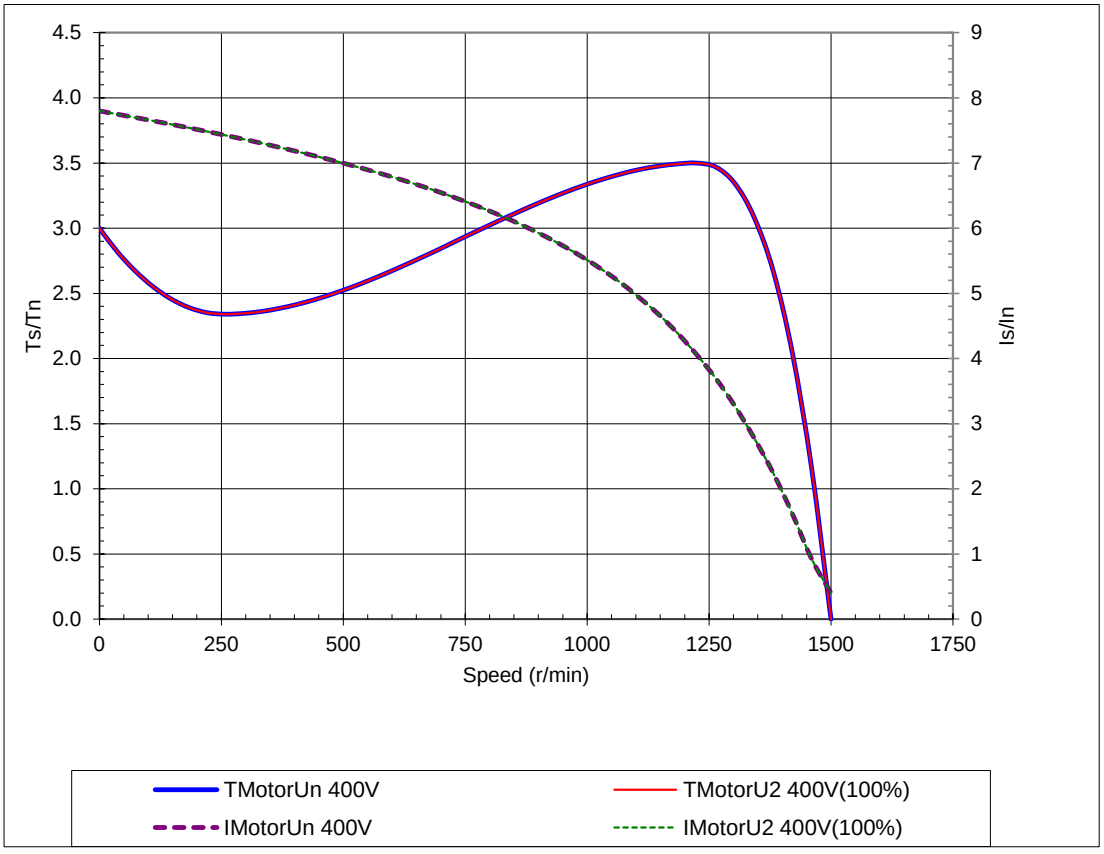


Load characteristics (IEC 60034-2-1:2007)
Data based on situation 8/17/2012
All data subject to tolerances in accordance with IEC

ABB Motors and Generators	Starting Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed b Date of issue	Saving ident	Pages **3(3)**

Type of product	**TEFC, 3-phase, squirrel cage induction motor**			
Type/Frame	**M3JP 160 MLE 4**	Calc. ref.	79945	
Product code	**MM16154-EX2**	Frequency (Hz)	**50**	
Rated output P_N	**15** kW	Rated current I_N	**28**	A
Type of duty	**S1(IEC) 100%**			

J_{motor} (kgm2)	**0.13**	Voltage (V) 100%	***400***	Voltage (V)	***400V(100%)***
J_{load} (kgm2)		T_{start}/T_N	***3***	T_{start}/T_N	***3***
Speed (r/min)	**1467**	Starting time (s)		Run-up time (s)	
T_N (Nm)	**98**	Speed (r/min)		Speed (r/min)	
T_{load} (Nm)		I_s/I_n	***7.8***	I_s/I_n	***7.8***
Nbr. of consecutive starts		T_{max}/T_n	***3.5***	T_{max}/T_n	***3.5***



Load characteristics (IEC 60034-2-1:2007)
Data based on situation 8/17/2012
All data subject to tolerances in accordance with IEC

ABB Motors and Generators	Technical Data Sheet - DOL			
	Project		Location	
Department/Author	Customer name		Customer ref.	Item name
Our ref.	Rev/Changed by	Date of issue	Saving ident	Pages **1(3)**

No.	Definition	Data	Unit	Remarks	
1	Product	***TEFC, 3-phase, squirrel cage induction motor***			
2	Product code	***MM16154-EX2 (3GJP162450-ADH+332+461)***			
3	Type/Frame	***M3JP 160 MLE 4***			
4	Mounting	***IM1001, B3(foot)***			
5	Rated output P_N	***15***	kW		
6	Service factor	***1***			
7	Type of duty	***S1(IEC) 100%***			
8	Rated voltage U_N	***415***	VD	± 5 % (IEC 60034-1)	
9	Rated frequency f_N	***50***	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n_N	***1471***	r/min		
11	Rated current I_N	***27.6***	A		
12	No-load current	***12.1***	A		
13	Starting current I_s/I_N	***8.4***		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T_N	***97***	Nm		
15	Locked rotor torque T_S/T_N	***3.2***			
16	Maximum torque T_{max}/T_N	***3.7***			
17	Minimum torque T_{min}/T_N	***2.5***			
18	Speed at minimum torque	***255***	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	*100*	**27.6**	**92.0 / IE2**	**0.82**
21		*75*	**22**	**92.2**	**0.77**
22		*50*	**17.2**	**91.6**	**0.66**
23		*Start*	**232**		**0.56**
24	Maximum starting time from hot	***15***	s		
25	Maximum starting time from cold	***30***	s		
26	Insulation class / Temperature class	***F / B***			
27	Ambient temperature	***40***	°C		
28	Altitude	***1000***	m.a.s.l.		
29	Enclosure	***IP55***			
30	Cooling system	***IC411 self ventilated***			
31	Bearing DE/NDE	***6309/C3 - 6309/C3***			
32	Type of Grease	***Lithium based***			
33	Sound pressure level (LP dB(A) 1m)	***61***	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	***0.13***	kg-m2		
35	Balancing	***Half Key***			
36	Vibration class	***Grade A***			
37	Position of terminal box	***Top***			
38	Terminal box entries; no, dimens.	***2xM40x1.5 + 2xM20x1.5***			
39	Number of power terminals	***6***			
40	Direction of rotation	***CW or CCW***			
41	Weight of rotor	***46***	kg		
42	Total weight of motor	***255***	kg		
43					
Ex-motors					
44	Type of protection	****Ex d IIC T4***			
45					

Variant Codes / Definition

332 = Baldor catalog number
461 = Exd design, group IIC

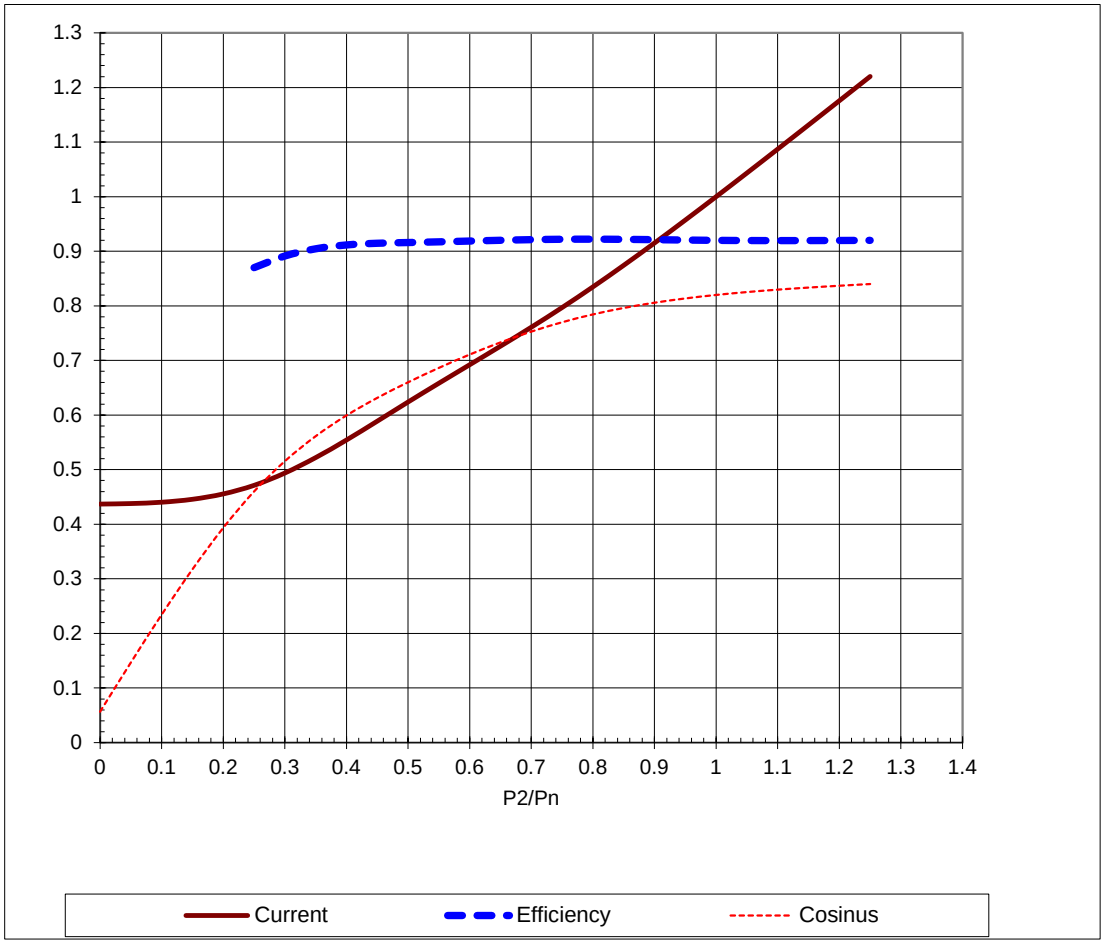
Remarks:

Data based on situation 8/17/2012
All data subject to tolerances in accordance with IEC
Guaranteed values on request
* For more information on the Atex/IECEx rating, please contact your local Baldor representative.

ABB Motors and Generators	Load Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed by Date of issue	Saving ident	Pages **2(3)**

Product	**TEFC, 3-phase, squirrel cage induction motor**		
Type/Frame	**M3JP 160 MLE 4**	Calc. ref.	**79945**
Product code	**MM16154-EX2**		
Rated output P_N	**15** kW		
Type of duty	**S1(IEC) 100%**		

Voltage (V)	**415**	Current I_N (A)	**27.6**	Power factor at P_N	**0.82**
Frequency (Hz)	**50**	Speed (r/min)	**1471**	Efficiency (%) at P_N	**92**

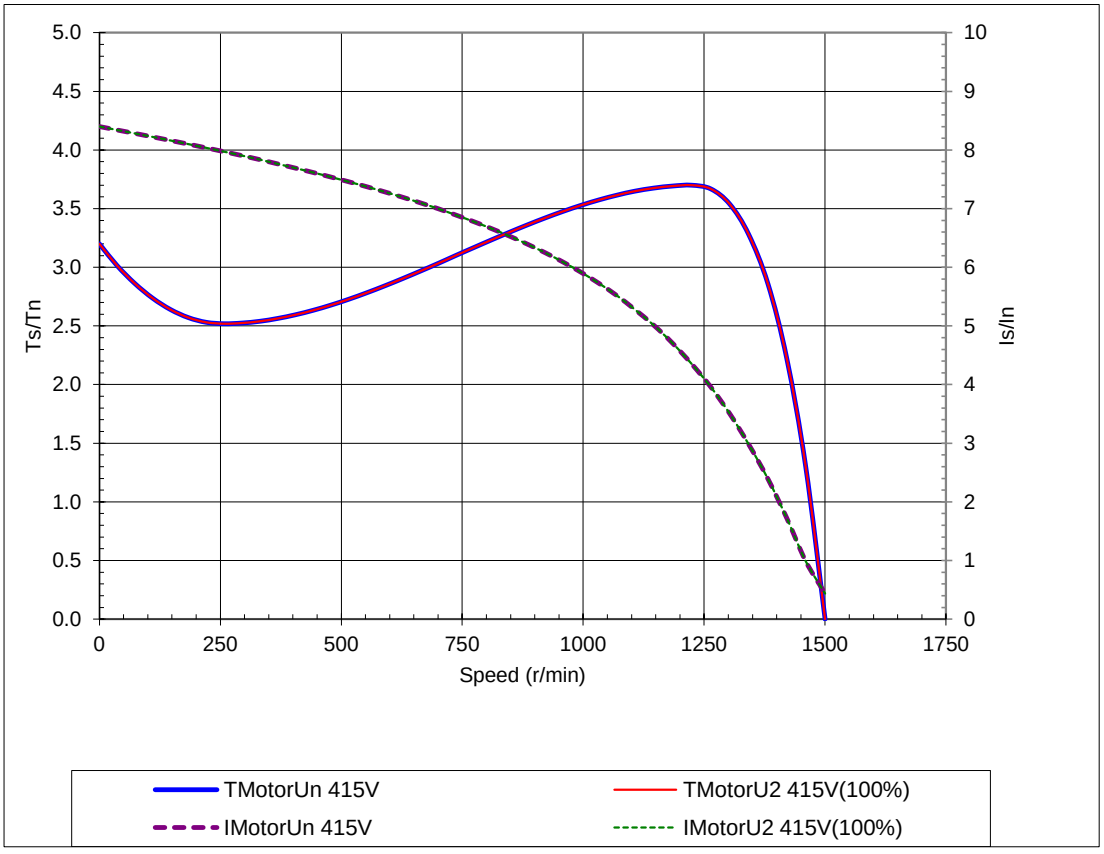


Load characteristics (IEC 60034-2-1:2007)
Data based on situation 8/17/2012
All data subject to tolerances in accordance with IEC

ABB Motors and Generators	Starting Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed b Date of issue	Saving ident	Pages **3(3)**

Type of product	**TEFC, 3-phase, squirrel cage induction motor**			
Type/Frame	**M3JP 160 MLE 4**	Calc. ref.	79945	
Product code	**MM16154-EX2**	Frequency (Hz)	**50**	
Rated output P_N	**15** kW	Rated current I_N	**27.6**	A
Type of duty	**S1(IEC) 100%**			

J_{motor} (kgm2)	**0.13**	Voltage (V) 100%	***415***	Voltage (V)	***415V(100%)***
J_{load} (kgm2)		T_{start}/T_N	***3.2***	T_{start}/T_N	***3.2***
Speed (r/min)	**1471**	Starting time (s)		Run-up time (s)	
T_N (Nm)	**97**	Speed (r/min)		Speed (r/min)	
T_{load} (Nm)		I_s/I_n	***8.4***	I_s/I_n	***8.4***
Nbr. of consecutive starts		T_{max}/T_n	***3.7***	T_{max}/T_n	***3.7***



Load characteristics (IEC 60034-2-1:2007)
Data based on situation 8/17/2012
All data subject to tolerances in accordance with IEC

ABB Motors and Generators	Technical Data Sheet - DOL			
	Project		Location	
Department/Author	Customer name		Customer ref.	Item name
Our ref.	Rev/Changed by	Date of issue	Saving ident	Pages **1(3)**

No.	Definition	Data	Unit	Remarks	
1	Product	***TEFC, 3-phase, squirrel cage induction motor***			
2	Product code	***MM16154-EX2 (3GJP162450-ADH+332+461)***			
3	Type/Frame	***M3JP 160 MLE 4***			
4	Mounting	***IM1001, B3(foot)***			
5	Rated output P_N	***15***	kW		
6	Service factor	***1***			
7	Type of duty	***S1(IEC) 100%***			
8	Rated voltage U_N	***690***	VY	± 5 % (IEC 60034-1)	
9	Rated frequency f_N	***50***	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n_N	***1467***	r/min		
11	Rated current I_N	***16.2***	A		
12	No-load current	***6.5***	A		
13	Starting current I_s/I_N	***7.8***		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T_N	***98***	Nm		
15	Locked rotor torque T_S/T_N	***3***			
16	Maximum torque T_{max}/T_N	***3.5***			
17	Minimum torque T_{min}/T_N	***2.3***			
18	Speed at minimum torque	***255***	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	*100*	**16.2**	**92.0 / IE2**	**0.84**
21		*75*	**12.8**	**92.4**	**0.79**
22		*50*	**9.7**	**92.1**	**0.7**
23		*Start*	**126**		**0.55**
24	Maximum starting time from hot	***15***	s		
25	Maximum starting time from cold	***27***	s		
26	Insulation class / Temperature class	***F / B***			
27	Ambient temperature	***40***	°C		
28	Altitude	***1000***	m.a.s.l.		
29	Enclosure	***IP55***			
30	Cooling system	***IC411 self ventilated***			
31	Bearing DE/NDE	***6309/C3 - 6309/C3***			
32	Type of Grease	***Lithium based***			
33	Sound pressure level (LP dB(A) 1m)	***61***	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	***0.13***	kg-m2		
35	Balancing	***Half Key***			
36	Vibration class	***Grade A***			
37	Position of terminal box	***Top***			
38	Terminal box entries; no, dimens.	***2xM40x1.5 + 2xM20x1.5***			
39	Number of power terminals	***6***			
40	Direction of rotation	***CW or CCW***			
41	Weight of rotor	***46***	kg		
42	Total weight of motor	***255***	kg		
43					
Ex-motors					
44	Type of protection	****Ex d IIC T4***			
45					

Variant Codes / Definition

332 = Baldor catalog number
461 = Exd design, group IIC

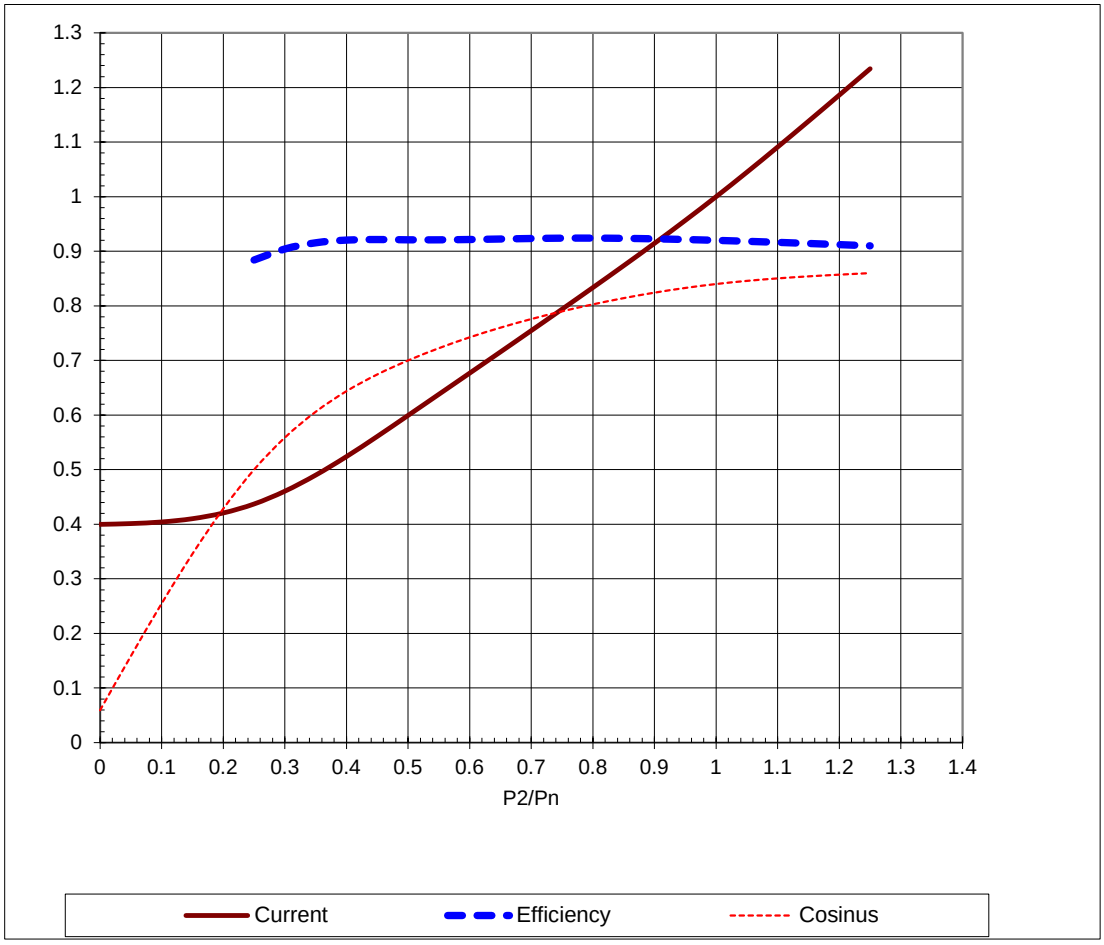
Remarks:

Data based on situation 8/17/2012
All data subject to tolerances in accordance with IEC
Guaranteed values on request
* For more information on the Atex/IECEx rating, please contact your local Baldor representative.

ABB Motors and Generators	Load Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed by Date of issue	Saving ident	Pages **2(3)**

Product	**TEFC, 3-phase, squirrel cage induction motor**		
Type/Frame	**M3JP 160 MLE 4**	Calc. ref.	**79945**
Product code	**MM16154-EX2**		
Rated output P_N	**15** kW		
Type of duty	**S1(IEC) 100%**		

Voltage (V)	**690**	Current I_N (A)	**16.2**	Power factor at P_N	**0.84**
Frequency (Hz)	**50**	Speed (r/min)	**1467**	Efficiency (%) at P_N	**92**

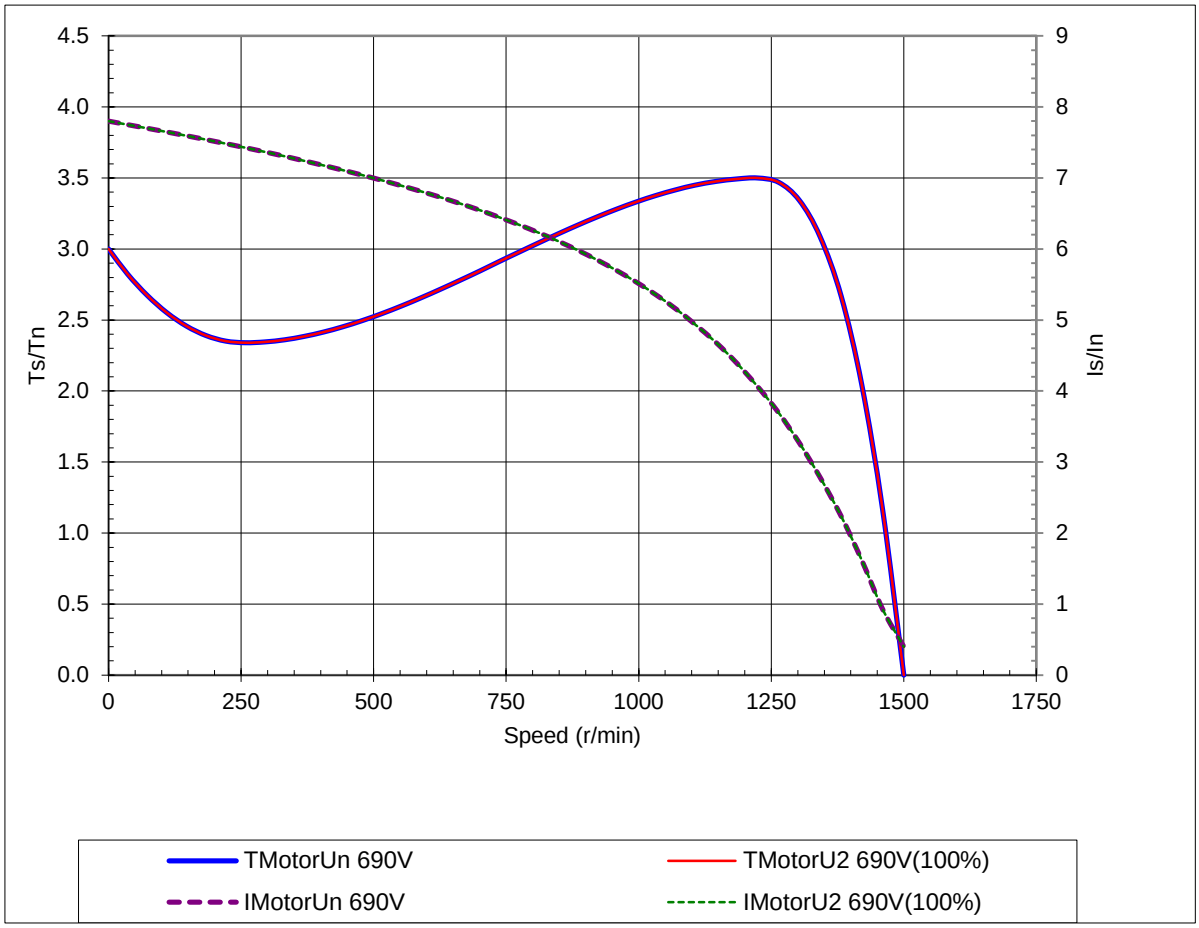


Load characteristics (IEC 60034-2-1:2007)
Data based on situation 8/17/2012
All data subject to tolerances in accordance with IEC

ABB Motors and Generators	Starting Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed b Date of issue	Saving ident	Pages **3(3)**

Type of product	**TEFC, 3-phase, squirrel cage induction motor**			
Type/Frame	**M3JP 160 MLE 4**	Calc. ref.	79945	
Product code	**MM16154-EX2**	Frequency (Hz)	**50**	
Rated output P_N	**15** kW	Rated current I_N	**16.2**	A
Type of duty	**S1(IEC) 100%**			

J_{motor} (kgm2)	**0.13**	Voltage (V) 100%	***690***	Voltage (V)	***690V(100%)***
J_{load} (kgm2)		T_{start}/T_N	***3***	T_{start}/T_N	***3***
Speed (r/min)	**1467**	Starting time (s)		Run-up time (s)	
T_N (Nm)	**98**	Speed (r/min)		Speed (r/min)	
T_{load} (Nm)		I_s/I_n	***7.8***	I_s/I_n	***7.8***
Nbr. of consecutive starts		T_{max}/T_n	***3.5***	T_{max}/T_n	***3.5***



Load characteristics (IEC 60034-2-1:2007)
Data based on situation 8/17/2012
All data subject to tolerances in accordance with IEC