



Project		Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed by	Date of issue	Saving ident
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No.	Definition	Data	Unit	Remarks
1	Product	TEFC, 3-phase, squirrel cage induction motor		
2	Product code	MM16154-PP (3GBP162032-ADG+332+333)		
3	Type/Frame	M3BP 160 MLB 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	1470	r/min	
11	Rated current I _N	28.5	A	
12	No-load current	11	A	
13	Starting current I _s /I _N	7.1		Fullfilled IEC 60034-12 design N,H
14	Nominal torque T _N	97	Nm	
15	Locked rotor torque T _S /T _N	2.6		
16	Maximum torque T _{max} /T _N	3		
17	Minimum torque T _{min} /T _N	1.8		
18	Speed at minimum torque	300	r/min	
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %
20	PLL determined from residual loss	100	28.5	91.4 / IE2
21		75	21.9	92.4
22		50	16.7	92.2
23		Start	202	0.46
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 - 6209/C3		
32	Type of Grease	Lithium based		
33	Sound pressure level (LP dB(A) 1m)	62	dB(A)	at load
34	Moment of inertia J = ¼ GD2	0.099	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 + 1xM16x1.5		
39	Number of power terminals	6		
40	Direction of rotation	CW or CCW		
41	Total weight of motor	165	kg	
42				

Variant Codes / Definition

332 = Baldor catalog number
333 = Not for use in the USA

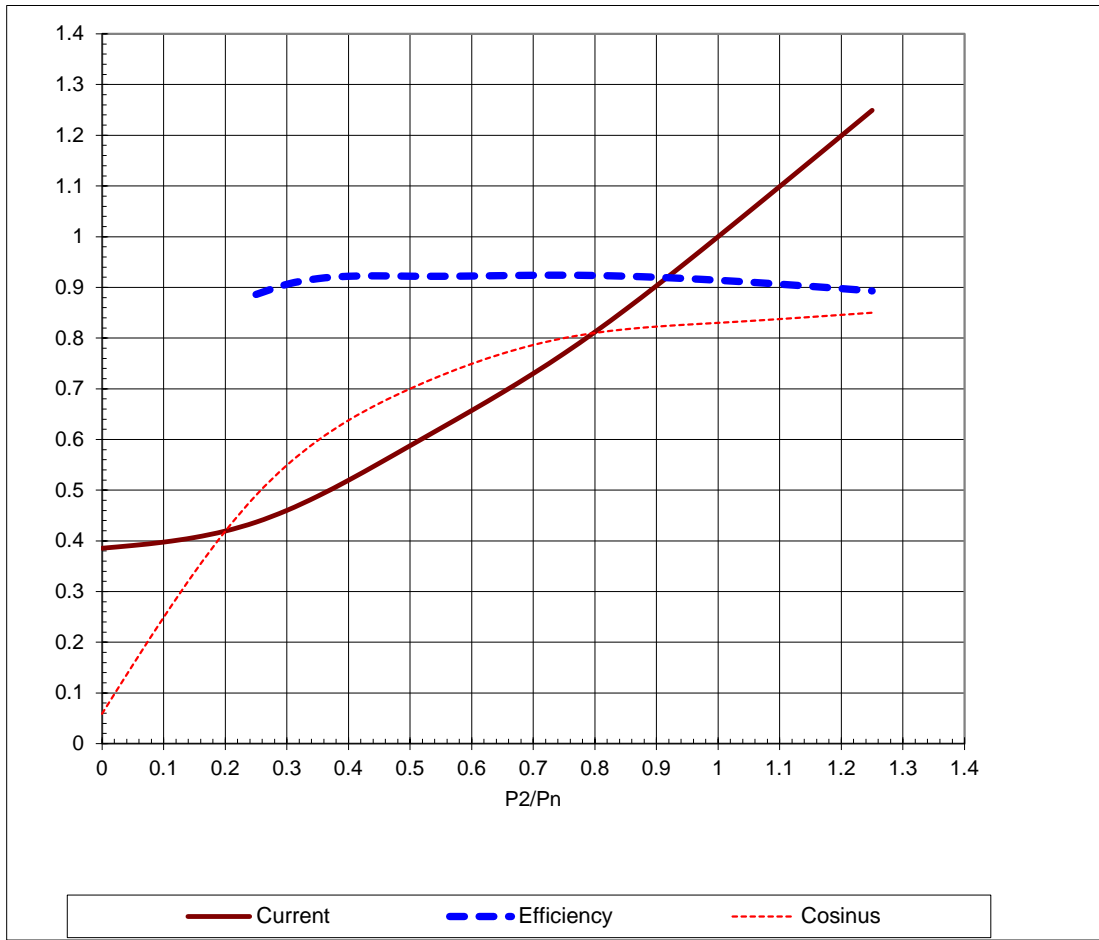
Remarks:

Data based on situation 8/16/2012
All data subject to tolerances in accordance with IEC
Guaranteed values on request


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
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Product TEFC, 3-phase, squirrel cage induction motor
Type/Frame M3BP 160 MLB 4
Product code MM16154-PP
Rated output P_N 15 kW
Type of duty S1(IEC) 100%

Voltage (V) 400 **Current I_N (A)** 28.5 **Power factor at P_N** 0.83
Frequency (Hz) 50 **Speed (r/min)** 1470 **Efficiency (%) at P_N** 91.4

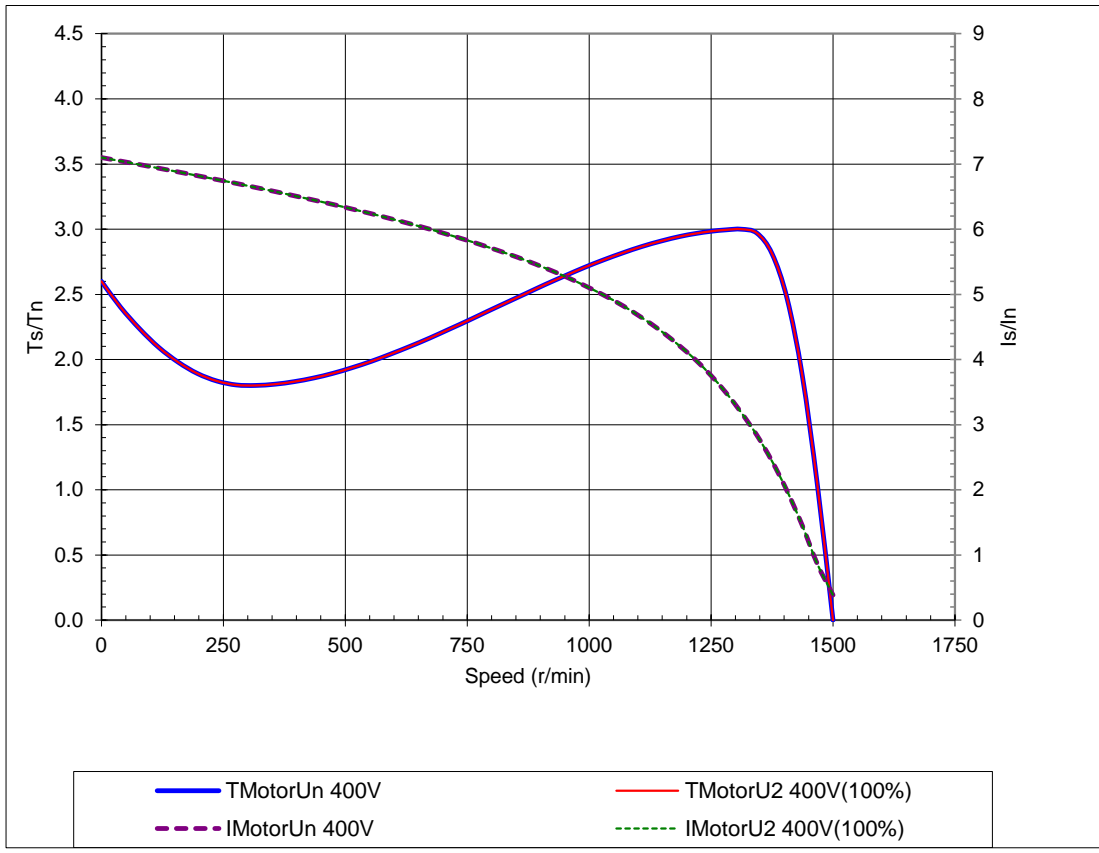


Load characteristics (IEC 60034-2-1:2007)
 Data based on situation 8/16/2012
 All data subject to tolerances in accordance with IEC

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	M3BP 160 MLB 4		
Product code	MM16154-PP	Frequency (Hz)	50
Rated output P _N	15 kW	Rated current I _N	28.5 A
Type of duty	S1(IEC) 100%		

J _{motor} (kgm ²)	0.099	Voltage (V) 100%	400	Voltage (V)	400V(100%)
J _{load} (kgm ²)		T _{start} /T _N	2.6	T _{start} /T _N	2.6
Speed (r/min)	1470	Starting time (s)		Run-up time (s)	
T _N (Nm)	97	Speed (r/min)		Speed (r/min)	
T _{load} (Nm)		I _s /I _n	7.1	I _s /I _n	7.1
Nbr. of consecutive starts		T _{max} /T _n	3	T _{max} /T _n	3



Load characteristics (IEC 60034-2-1:2007)
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No.	Definition	Data	Unit	Remarks
1	Product	TEFC, 3-phase, squirrel cage induction motor		
2	Product code	MM16154-PP (3GBP162032-ADG+332+333)		
3	Type/Frame	M3BP 160 MLB 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	1473	r/min	
11	Rated current I _N	27.7	A	
12	No-load current	11.9	A	
13	Starting current I _s /I _N	7.5		Fullfilled IEC 60034-12 design N,H
14	Nominal torque T _N	97	Nm	
15	Locked rotor torque T _S /T _N	2.8		
16	Maximum torque T _{max} /T _N	3.2		
17	Minimum torque T _{min} /T _N	1.9		
18	Speed at minimum torque	300	r/min	
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %
20	PLL determined from residual loss	100	27.7	91.6 / IE2
21		75	22	92.3
22		50	16.9	91.9
23		Start	208	0.47
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 - 6209/C3		
32	Type of Grease	Lithium based		
33	Sound pressure level (LP dB(A) 1m)	62	dB(A)	at load
34	Moment of inertia J = ¼ GD2	0.099	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 + 1xM16x1.5		
39	Number of power terminals	6		
40	Direction of rotation	CW or CCW		
41	Total weight of motor	165	kg	
42				

Variant Codes / Definition

332 = Baldor catalog number
333 = Not for use in the USA

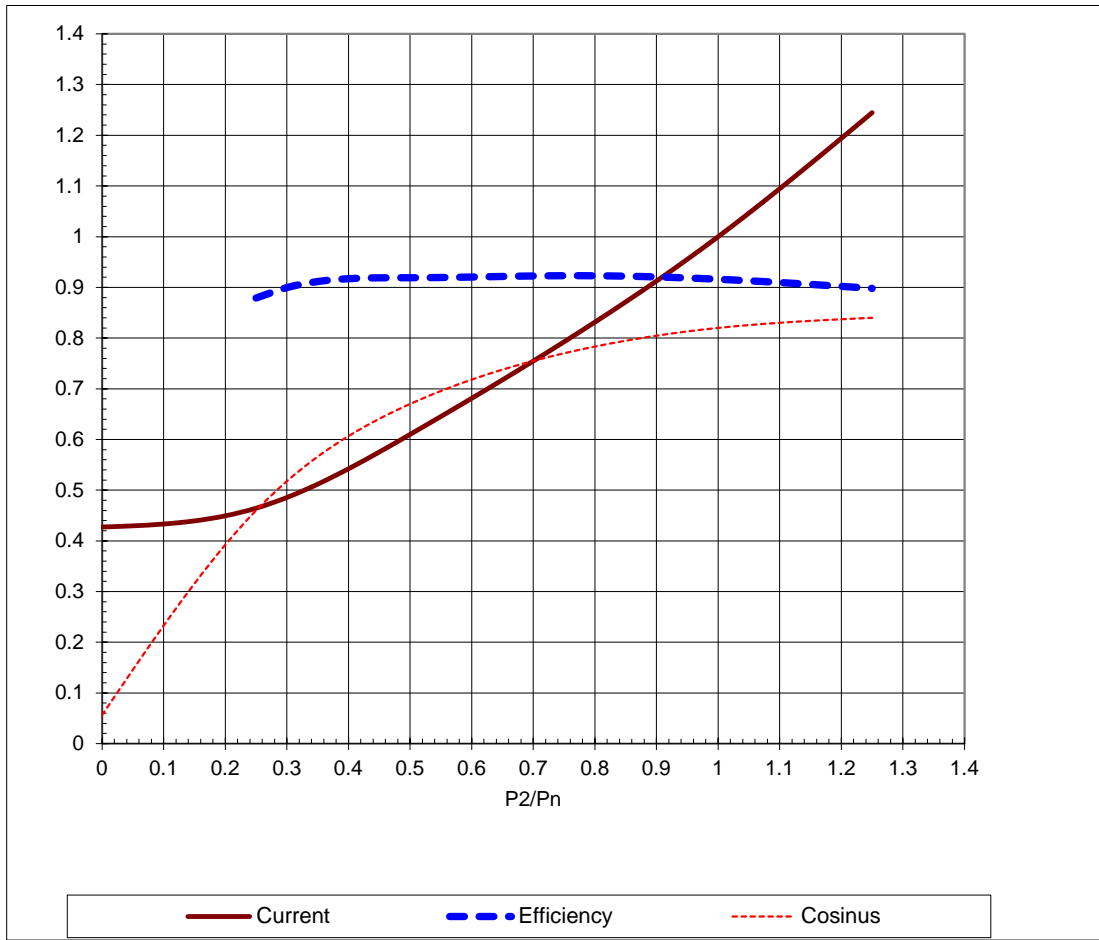
Remarks:

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Guaranteed values on request


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
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Product TEFC, 3-phase, squirrel cage induction motor
Type/Frame M3BP 160 MLB 4
Product code MM16154-PP
Rated output P_N 15 kW
Type of duty S1(IEC) 100%

Voltage (V) 415 **Current I_N (A)** 27.7 **Power factor at P_N** 0.82
Frequency (Hz) 50 **Speed (r/min)** 1473 **Efficiency (%) at P_N** 91.6

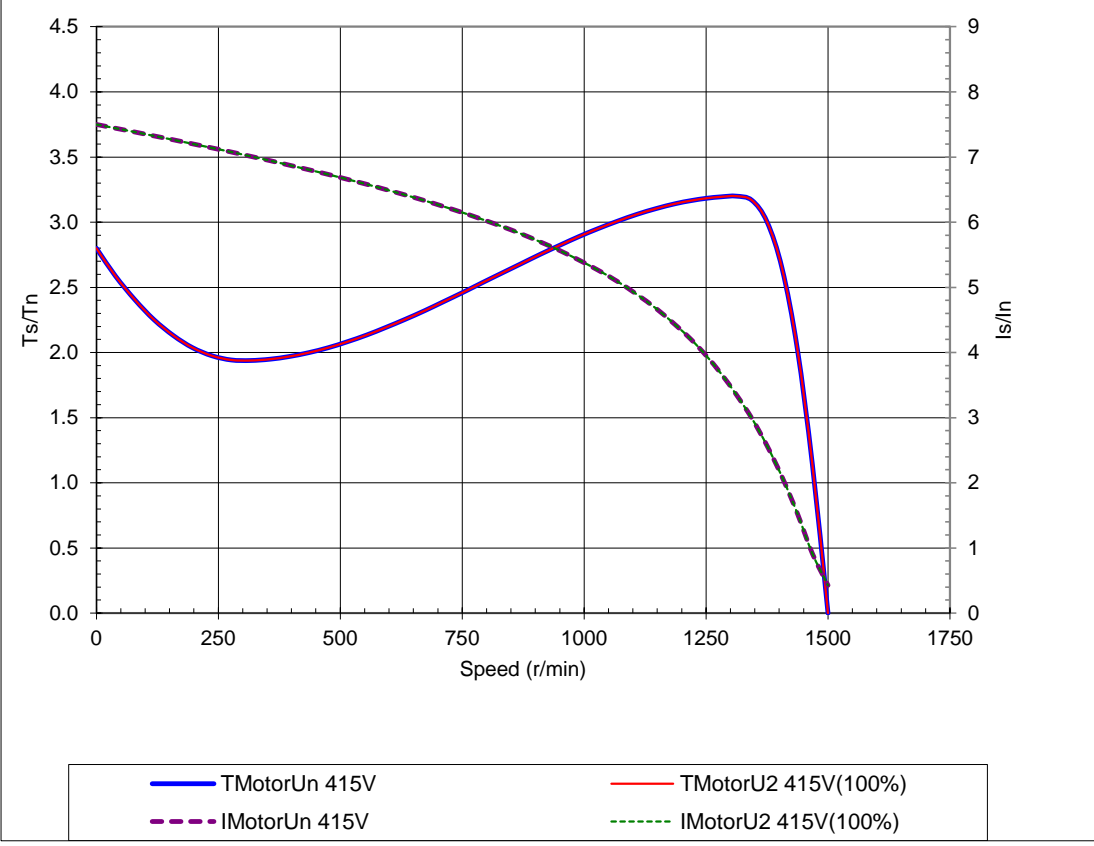


Load characteristics (IEC 60034-2-1:2007)
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ABB Motors and Generators	Starting Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
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Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M3BP 160 MLB 4		
Product code	MM16154-PP	Frequency (Hz)	50
Rated output P _N	15 kW	Rated current I _N	27.7 A
Type of duty	S1(IEC) 100%		

J _{motor} (kgm ²)	0.099	Voltage (V) 100%	415	Voltage (V)	415V(100%)
J _{load} (kgm ²)		T _{start} /T _N	2.8	T _{start} /T _N	2.8
Speed (r/min)	1473	Starting time (s)		Run-up time (s)	
T _N (Nm)	97	Speed (r/min)		Speed (r/min)	
T _{load} (Nm)		I _s /I _n	7.5	I _s /I _n	7.5
Nbr. of consecutive starts		T _{max} /T _n	3.2	T _{max} /T _n	3.2



Load characteristics (IEC 60034-2-1:2007)
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No.	Definition	Data	Unit	Remarks
1	Product	TEFC, 3-phase, squirrel cage induction motor		
2	Product code	MM16154-PP (3GBP162032-ADG+332+333)		
3	Type/Frame	M3BP 160 MLB 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	1470	r/min	
11	Rated current I _N	16.5	A	
12	No-load current	6.4	A	
13	Starting current I _s /I _N	7.1		Fullfilled IEC 60034-12 design N,H
14	Nominal torque T _N	97	Nm	
15	Locked rotor torque T _S /T _N	2.6		
16	Maximum torque T _{max} /T _N	3		
17	Minimum torque T _{min} /T _N	1.8		
18	Speed at minimum torque	300	r/min	
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %
20	PLL determined from residual loss	100	16.5	91.4 / IE2
21		75	12.7	92.4
22		50	9.7	92.2
23		Start	117	0.46
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 - 6209/C3		
32	Type of Grease	Lithium based		
33	Sound pressure level (LP dB(A) 1m)	62	dB(A)	at load
34	Moment of inertia J = ¼ GD2	0.099	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 + 1xM16x1.5		
39	Number of power terminals	6		
40	Direction of rotation	CW or CCW		
41	Total weight of motor	165	kg	
42				

Variant Codes / Definition

332 = Baldor catalog number
333 = Not for use in the USA

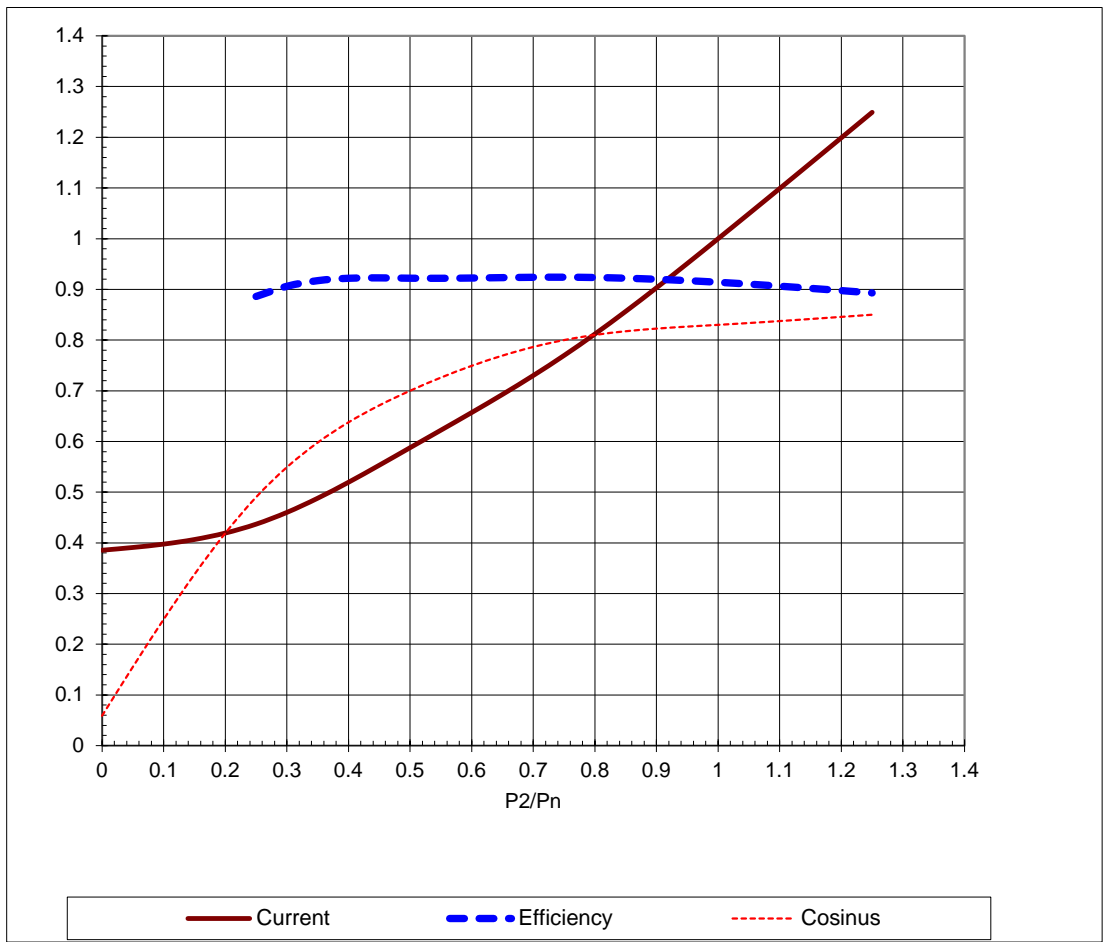
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ABB Motors and Generators	Load Curves		
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Product TEFC, 3-phase, squirrel cage induction motor
Type/Frame M3BP 160 MLB 4
Product code MM16154-PP
Rated output P_N 15 kW
Type of duty S1(IEC) 100%

Voltage (V) 690 **Current I_N (A)** 16.5 **Power factor at P_N** 0.83
Frequency (Hz) 50 **Speed (r/min)** 1470 **Efficiency (%) at P_N** 91.4

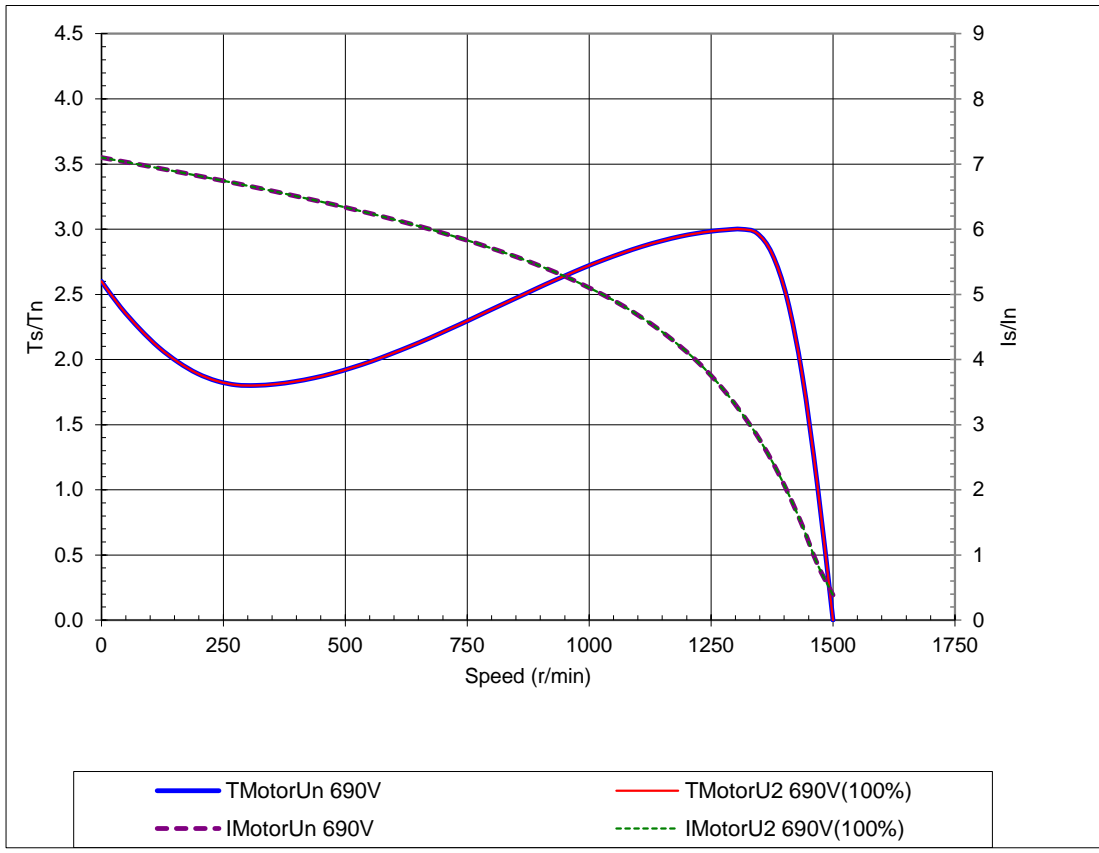


Load characteristics (IEC 60034-2-1:2007)
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ABB Motors and Generators	Starting Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
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Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M3BP 160 MLB 4		
Product code	MM16154-PP	Frequency (Hz)	50
Rated output P _N	15 kW	Rated current I _N	16.5 A
Type of duty	S1(IEC) 100%		

J _{motor} (kgm ²)	0.099	Voltage (V) 100%	690	Voltage (V)	690V(100%)
J _{load} (kgm ²)		T _{start} /T _N	2.6	T _{start} /T _N	2.6
Speed (r/min)	1470	Starting time (s)		Run-up time (s)	
T _N (Nm)	97	Speed (r/min)		Speed (r/min)	
T _{load} (Nm)		I _s /I _n	7.1	I _s /I _n	7.1
Nbr. of consecutive starts		T _{max} /T _n	3	T _{max} /T _n	3



Load characteristics (IEC 60034-2-1:2007)
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No.	Definition	Data	Unit	Remarks
1	Product	TEFC, 3-phase, squirrel cage induction motor		
2	Product code	MM16154-PP (3GBP162032-ADG+332+333)		
3	Type/Frame	M3BP 160 MLB 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	460	VD	± 5 % (IEC 60034-1)
9	Rated frequency f _N	60	Hz	± 2 % (IEC 60034-1)
10	Rated speed n _N	1775	r/min	
11	Rated current I _N	24.6	A	
12	No-load current	9.1	A	
13	Starting current I _s /I _N	8		Fullfilled IEC 60034-12 design N,H
14	Nominal torque T _N	81	Nm	
15	Locked rotor torque T _S /T _N	2.7		
16	Maximum torque T _{max} /T _N	3.3		
17	Minimum torque T _{min} /T _N	1.9		
18	Speed at minimum torque	360	r/min	
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %
20	PLL determined from residual loss	100	24.6	92.2 / IE2
21		75	19.3	92.4
22		50	14.9	91.5
23		Start	196	0.43
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 - 6209/C3		
32	Type of Grease	Lithium based		
33	Sound pressure level (LP dB(A) 1m)	70	dB(A)	at load
34	Moment of inertia J = ¼ GD2	0.099	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 + 1xM16x1.5		
39	Number of power terminals	6		
40	Direction of rotation	CW or CCW		
41	Total weight of motor	165	kg	
42				

Variant Codes / Definition

332 = Baldor catalog number
333 = Not for use in the USA

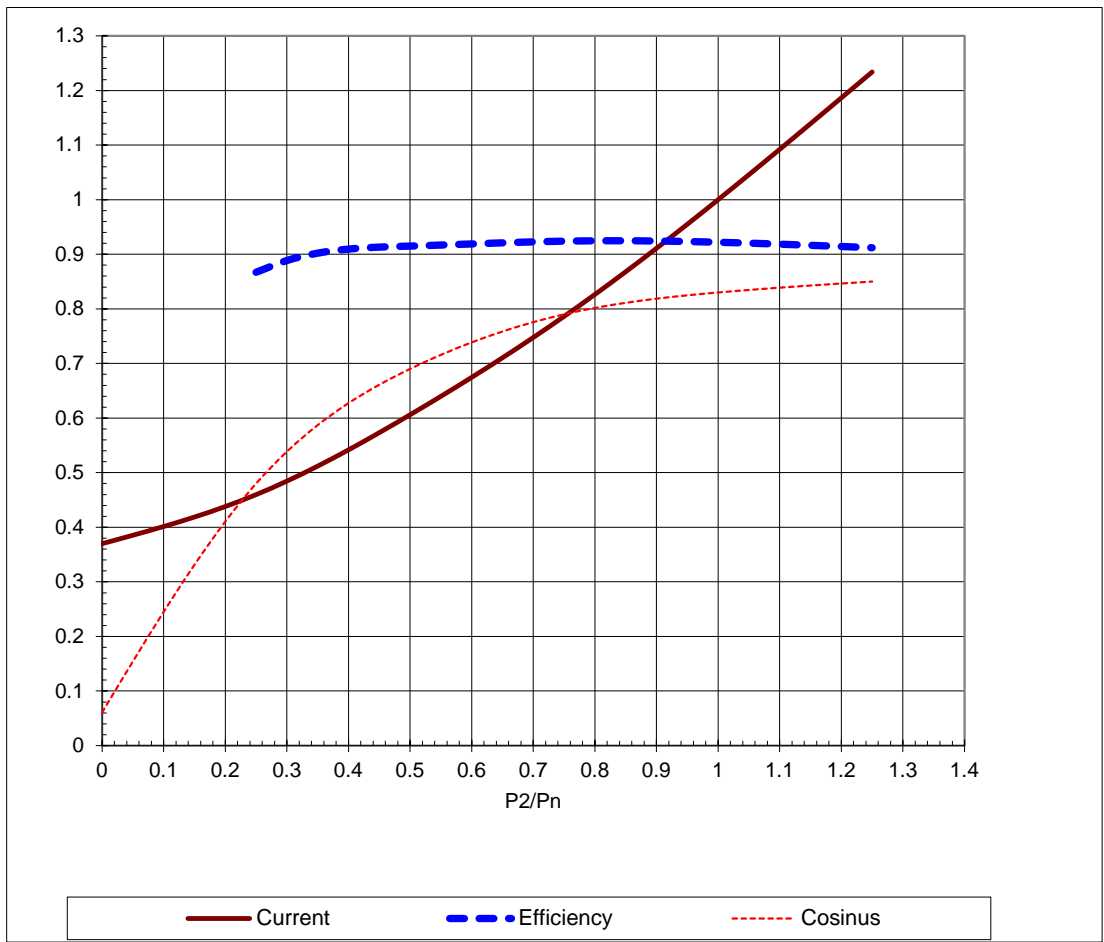
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ABB Motors and Generators	Load Curves		
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Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed by	Date of issue	Saving ident
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Product TEFC, 3-phase, squirrel cage induction motor
Type/Frame M3BP 160 MLB 4
Product code MM16154-PP
Rated output P_N 15 kW
Type of duty S1(IEC) 100%

Voltage (V) 460 **Current I_N (A)** 24.6 **Power factor at P_N** 0.83
Frequency (Hz) 60 **Speed (r/min)** 1775 **Efficiency (%) at P_N** 92.2

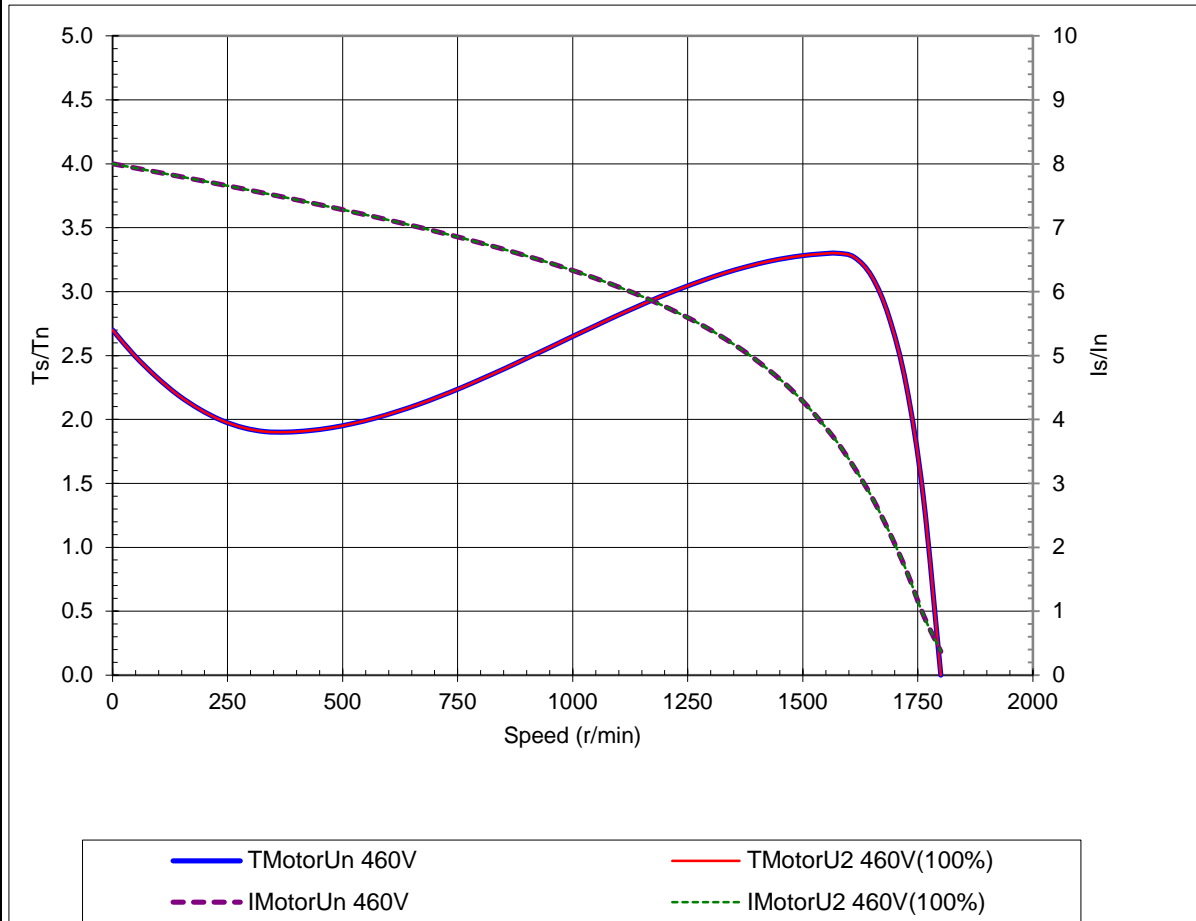


Load characteristics (IEC 60034-2-1:2007)
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ABB Motors and Generators	Starting Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
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Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M3BP 160 MLB 4		
Product code	MM16154-PP	Frequency (Hz)	60
Rated output P _N	15 kW	Rated current I _N	24.6 A
Type of duty	S1(IEC) 100%		

J _{motor} (kgm ²)	0.099	Voltage (V) 100%	460	Voltage (V)	460V(100%)
J _{load} (kgm ²)		T _{start} /T _N	2.7	T _{start} /T _N	2.7
Speed (r/min)	1775	Starting time (s)		Run-up time (s)	
T _N (Nm)	81	Speed (r/min)		Speed (r/min)	
T _{load} (Nm)		I _s /I _n	8	I _s /I _n	8
Nbr. of consecutive starts		T _{max} /T _n	3.3	T _{max} /T _n	3.3



Load characteristics (IEC 60034-2-1:2007)
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