

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)	

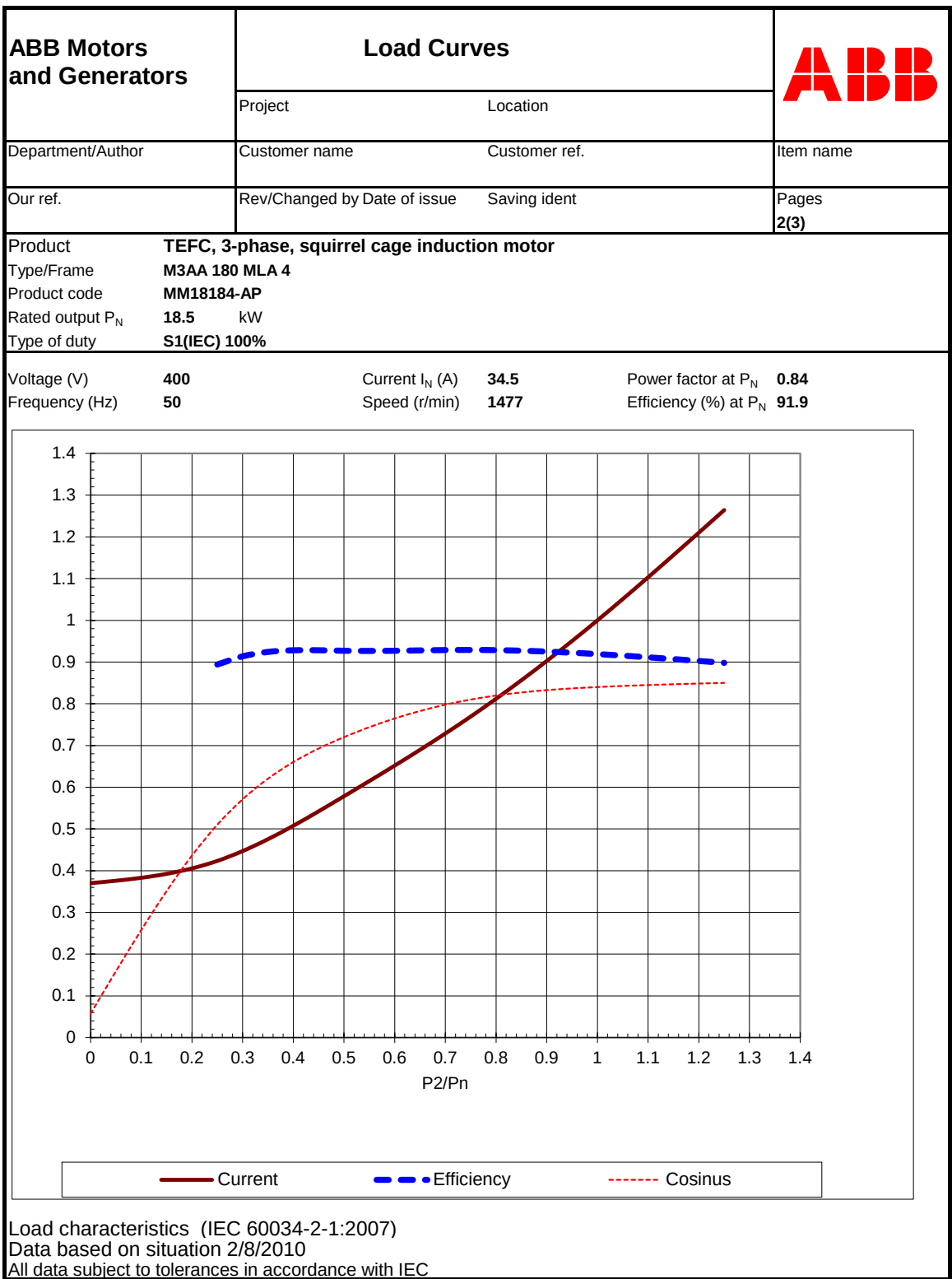
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM18184-AP (3GAA182031-ADG+332+333)			
3	Type/Frame	M3AA 180 MLA 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	18.5	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated voltage U _N	400	VD	± 5 % (IEC 60034-1)	
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n _N	1477	r/min		
11	Rated current I _N	34.5	A		
12	No-load current	12.8	A		
13	Starting current I _s /I _N	7.2		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	120	Nm		
15	Locked rotor torque T _S /T _N	2.6			
16	Maximum torque T _{max} /T _N	2.9			
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 %	Power factor
20	PLL determined from residual loss	100	34.5	91.9 / IE2	0.84
21		75	26.6	92.9	0.81
22		50	20	92.7	0.72
23		Start	249		0.47
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	6310-2Z/C3 - 6209-2Z/C3			
32	Type of Grease	Greased for life			
33	Sound pressure level (LP dB(A) 1m)	62	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	0.166	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dimens.	2xM40 + M16			
39	Number of power terminals	6			
40	Direction of rotation	CW or CCW			
41	Total weight of motor	146	kg		
42					

Variant Codes / Definition

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

Remarks:

Data based on situation 2/8/2010
All data subject to tolerances in accordance with IEC
Guaranteed values on request



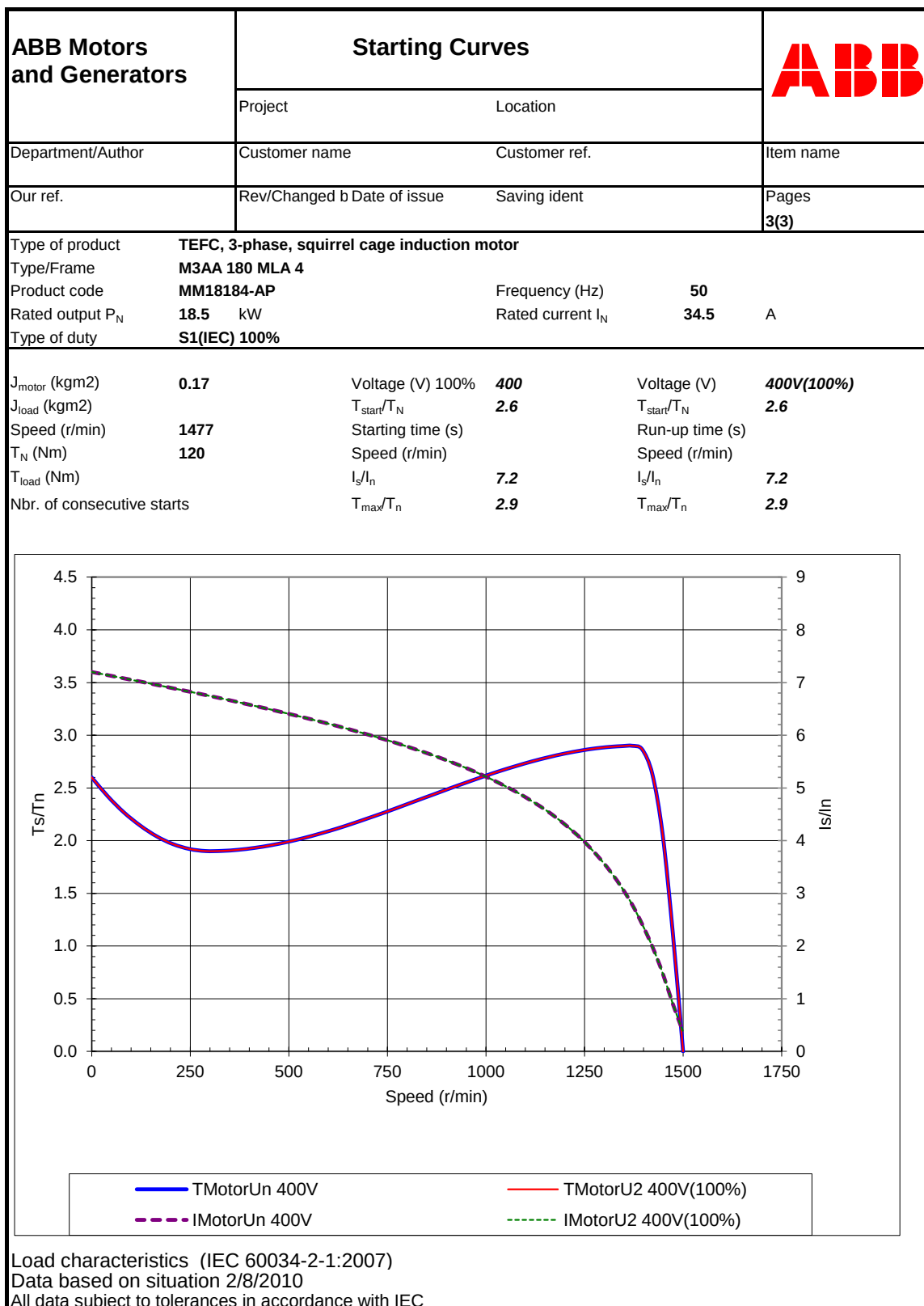


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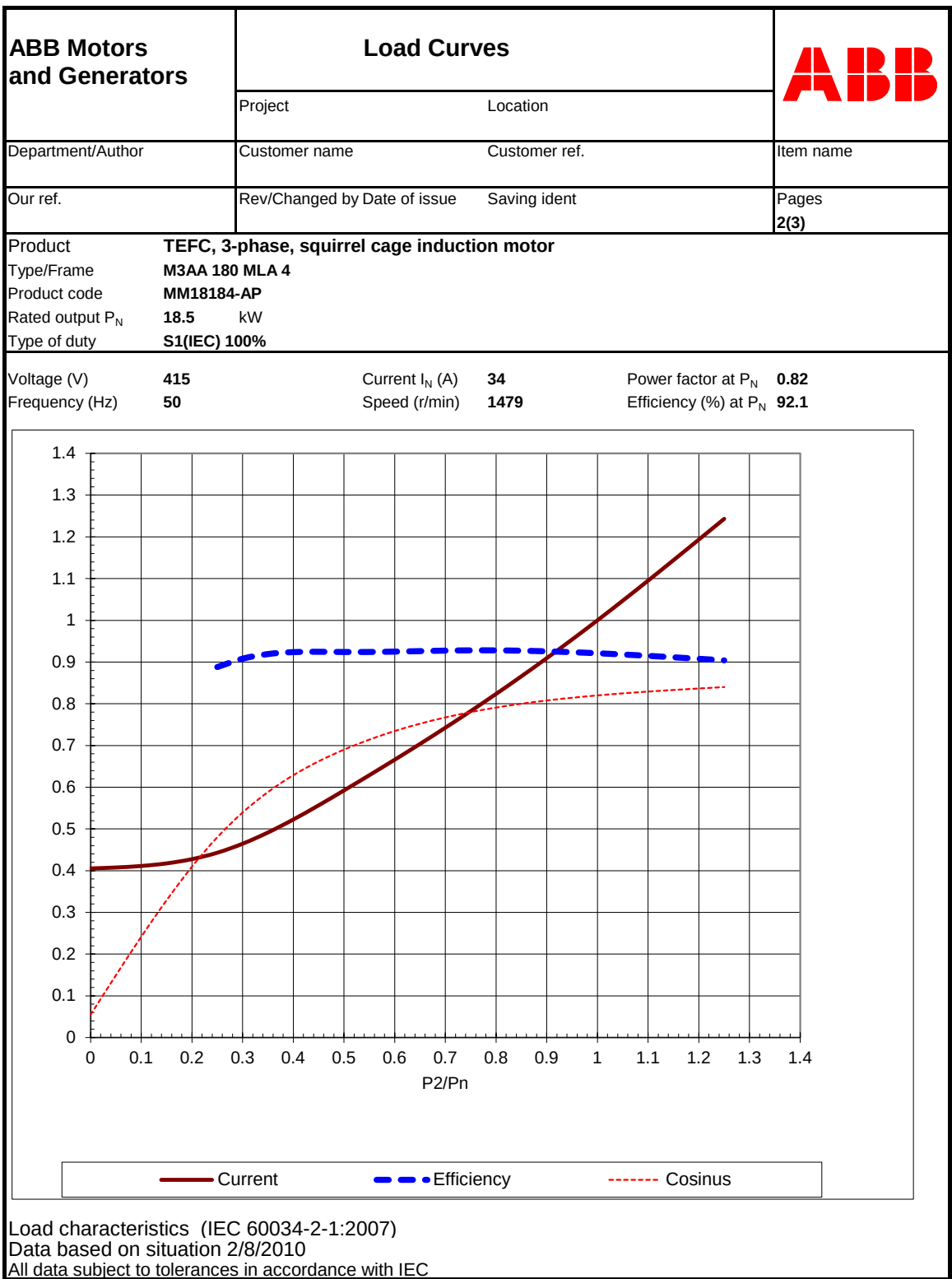
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM18184-AP (3GAA182031-ADG+332+333)			
3	Type/Frame	M3AA 180 MLA 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	18.5	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated voltage U _N	415	VD	± 5 % (IEC 60034-1)	
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n _N	1479	r/min		
11	Rated current I _N	34	A		
12	No-load current	13.8	A		
13	Starting current I _s /I _N	7.7		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	119	Nm		
15	Locked rotor torque T _S /T _N	2.8			
16	Maximum torque T _{max} /T _N	3.1			
17	Minimum torque T _{min} /T _N	2			
18	Speed at minimum torque	300	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	100	34	92.1 / IE2	0.82
21		75	26.6	92.8	0.78
22		50	20.1	92.4	0.69
23		Start	262		0.48
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	6310-2Z/C3 - 6209-2Z/C3			
32	Type of Grease	Greased for life			
33	Sound pressure level (LP dB(A) 1m)	62	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	0.166	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dimens.	2xM40 + M16			
39	Number of power terminals	6			
40	Direction of rotation	CW or CCW			
41	Total weight of motor	146	kg		
42					

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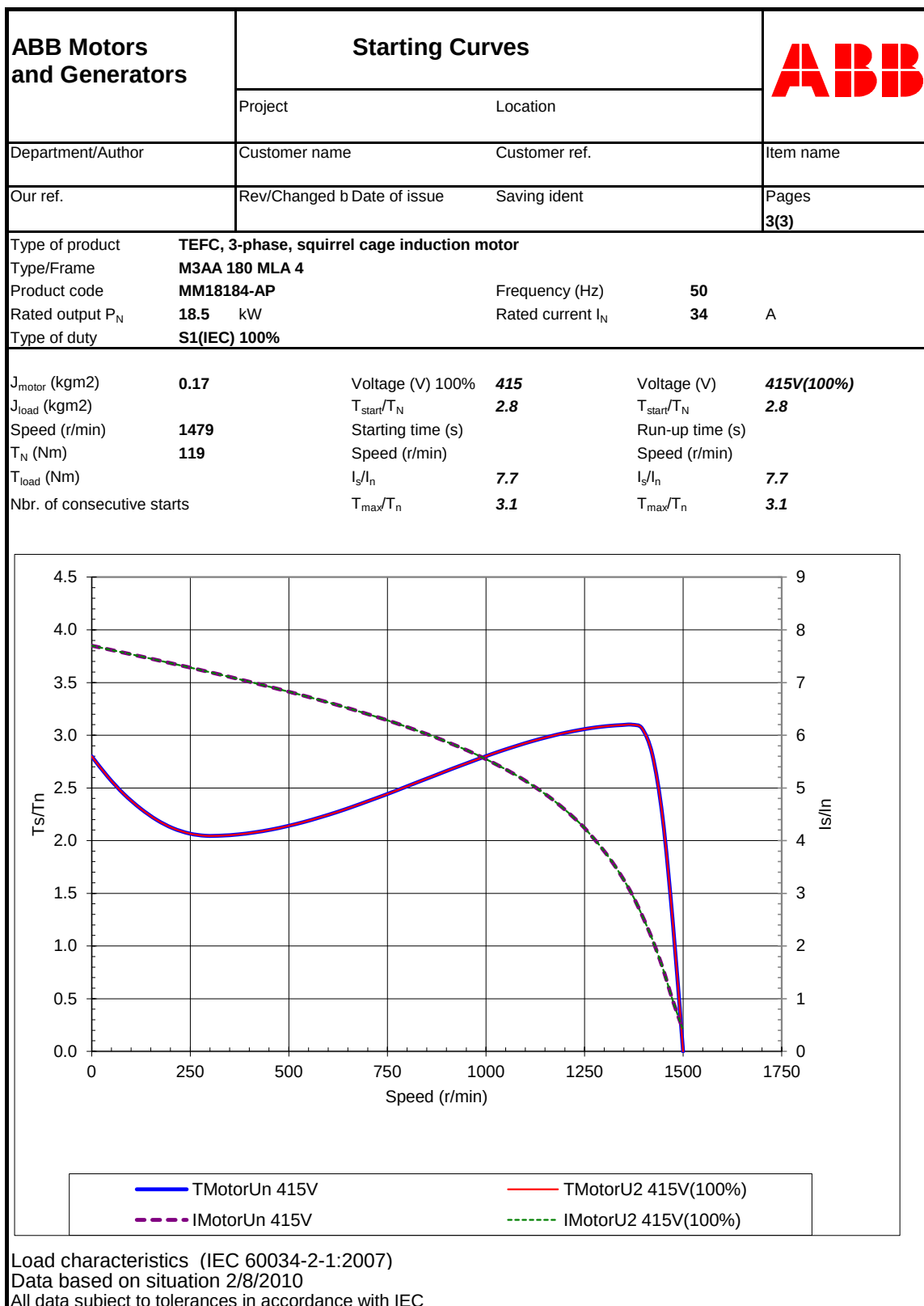


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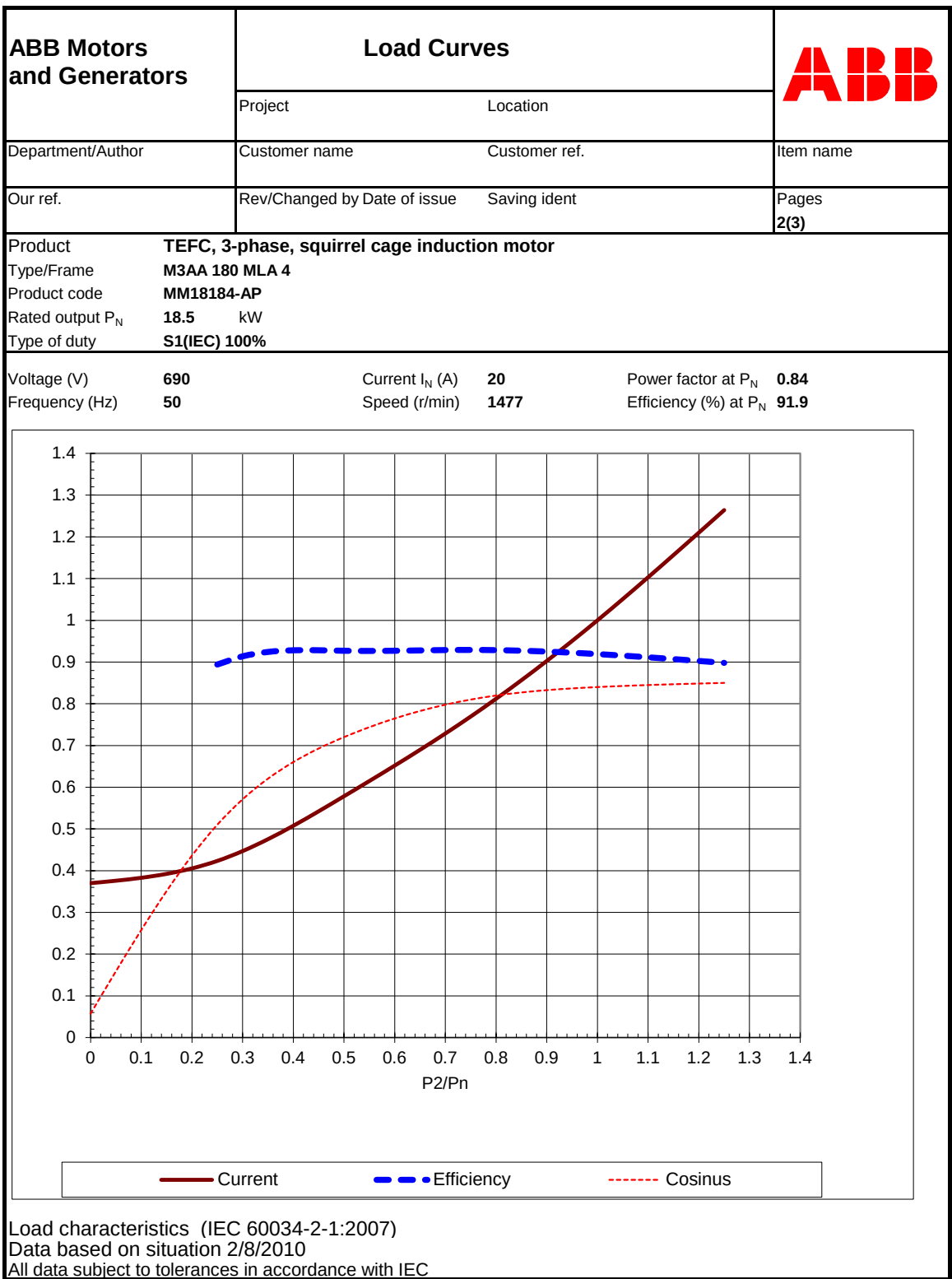
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM18184-AP (3GAA182031-ADG+332+333)			
3	Type/Frame	M3AA 180 MLA 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	18.5	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated voltage U _N	690	VY	± 5 % (IEC 60034-1)	
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n _N	1477	r/min		
11	Rated current I _N	20	A		
12	No-load current	7.4	A		
13	Starting current I _s /I _N	7.2		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	120	Nm		
15	Locked rotor torque T _S /T _N	2.6			
16	Maximum torque T _{max} /T _N	2.9			
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 %	Power factor
20	PLL determined from residual loss	100	20	91.9 / IE2	0.84
21		75	15.4	92.9	0.81
22		50	11.5	92.7	0.72
23		Start	144		0.47
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	6310-2Z/C3 - 6209-2Z/C3			
32	Type of Grease	Greased for life			
33	Sound pressure level (LP dB(A) 1m)	62	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	0.166	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dimens.	2xM40 + M16			
39	Number of power terminals	6			
40	Direction of rotation	CW or CCW			
41	Total weight of motor	146	kg		
42					

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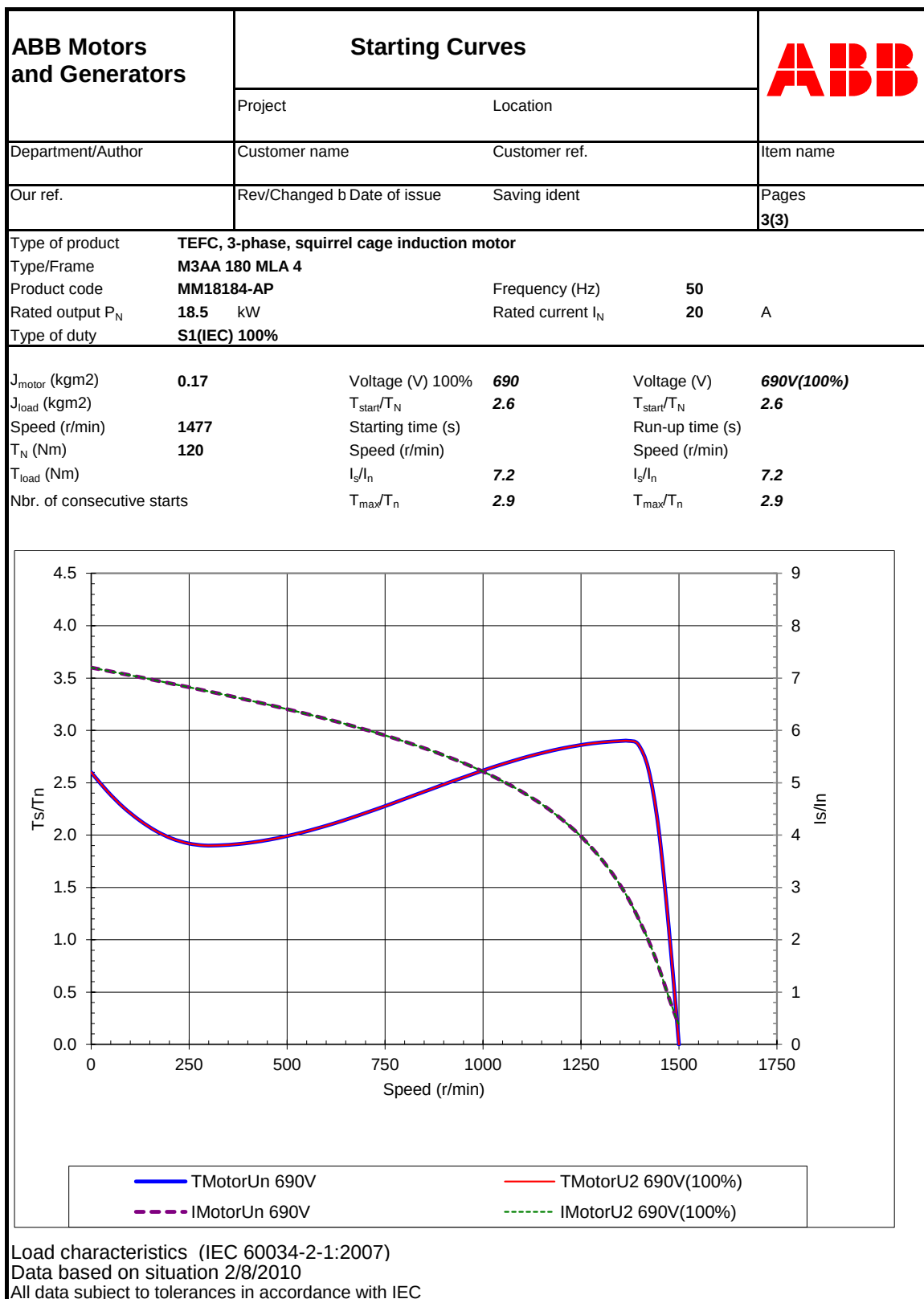


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No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM18184-AP (3GAA182031-ADG+332+333)			
3	Type/Frame	M3AA 180 MLA 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	18.5	kW		
6	Service 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	1781	r/min		
11	Rated current I _N	30.2	A		
12	No-load current	11.5	A		
13	Starting current I _s /I _N	8.2		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	99	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	2.1			
18	Speed at minimum torque	360	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	100	30.2	92.6 / IE2	0.83
21		75	23.4	92.9	0.8
22		50	18	92	0.7
23		Start	247		0.44
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	6310-2Z/C3 - 6209-2Z/C3			
32	Type of Grease	Greased for life			
33	Sound pressure level (LP dB(A) 1m)	70	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	0.166	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dimens.	2xM40 + M16			
39	Number of power terminals	6			
40	Direction of rotation	CW or CCW			
41	Total weight of motor	146	kg		
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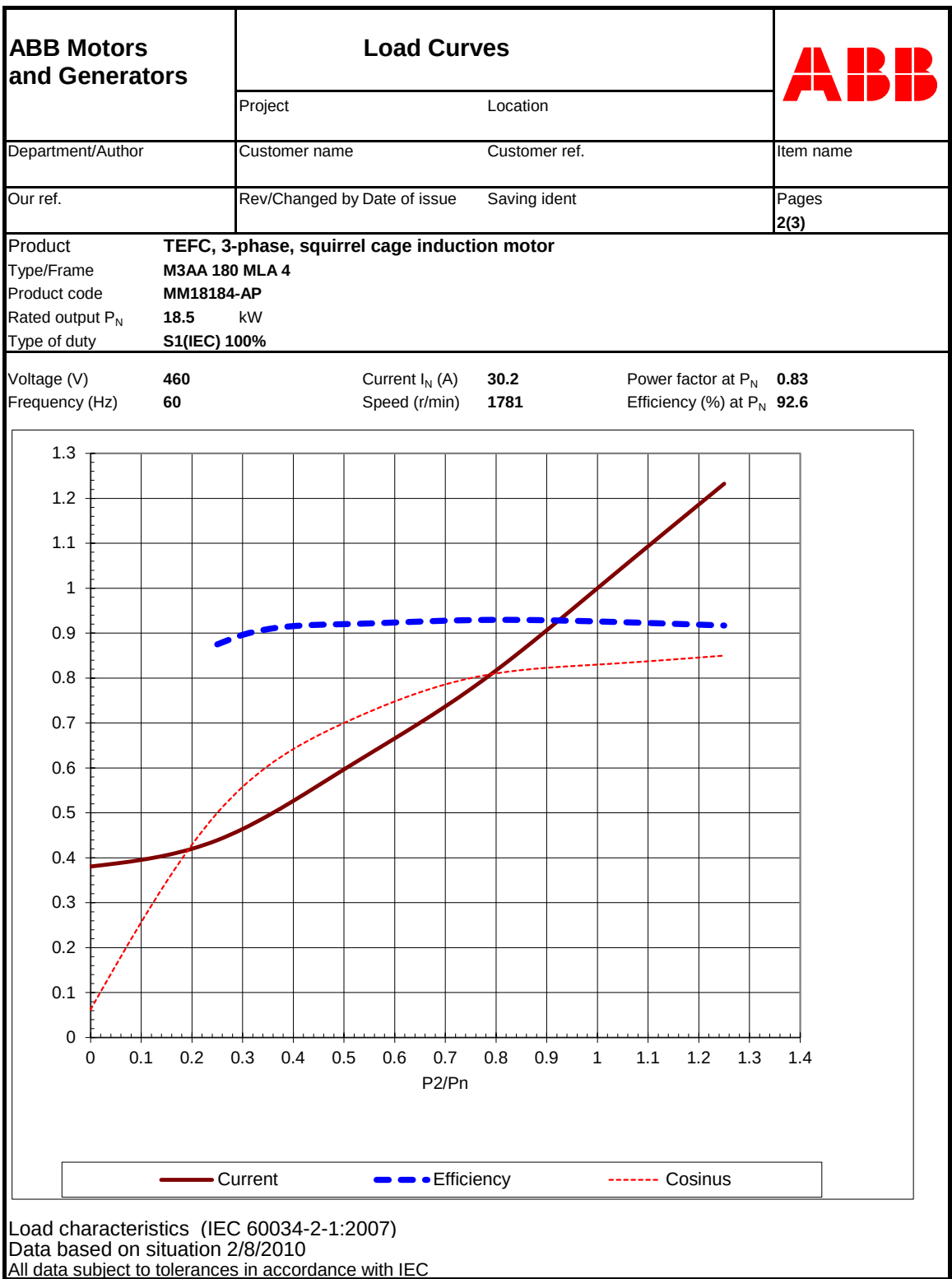
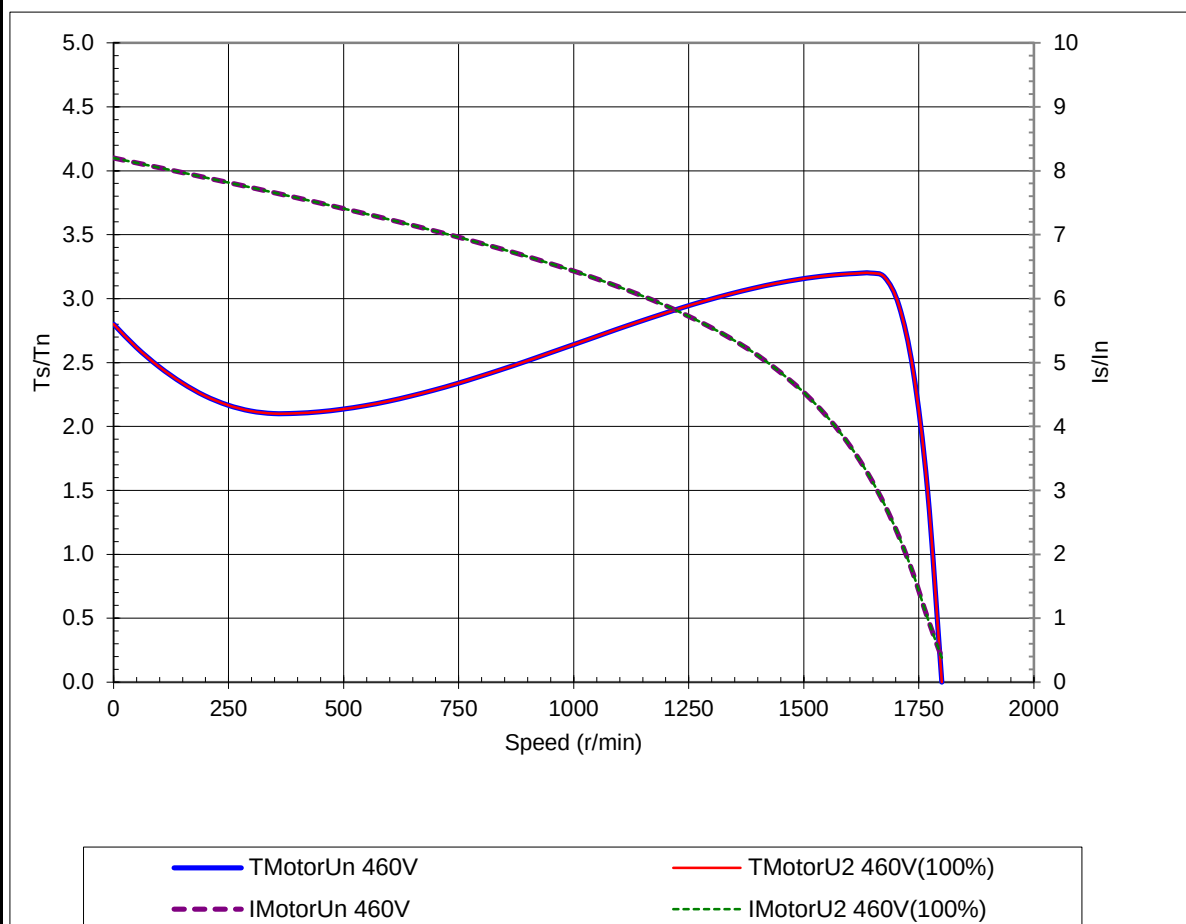


ABB Motors and Generators	Starting Curves		ABB
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed b	Date of issue	Saving ident
			Pages 3(3)

Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M3AA 180 MLA 4		
Product code	MM18184-AP	Frequency (Hz)	60
Rated output P_N	18.5 kW	Rated current I_N	30.2 A
Type of duty	S1(IEC) 100%		

J_{motor} (kgm ²)	0.17	Voltage (V) 100%	460	Voltage (V)	460V(100%)
J_{load} (kgm ²)		T_{start}/T_N	2.8	T_{start}/T_N	2.8
Speed (r/min)	1781	Starting time (s)		Run-up time (s)	
T_N (Nm)	99	Speed (r/min)		Speed (r/min)	
T_{load} (Nm)		I_s/I_n	8.2	I_s/I_n	8.2
Nbr. of consecutive starts		T_{max}/T_n	3.2	T_{max}/T_n	3.2



Load characteristics (IEC 60034-2-1:2007)
 Data based on situation 2/8/2010
 All data subject to tolerances in accordance with IEC