

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)	

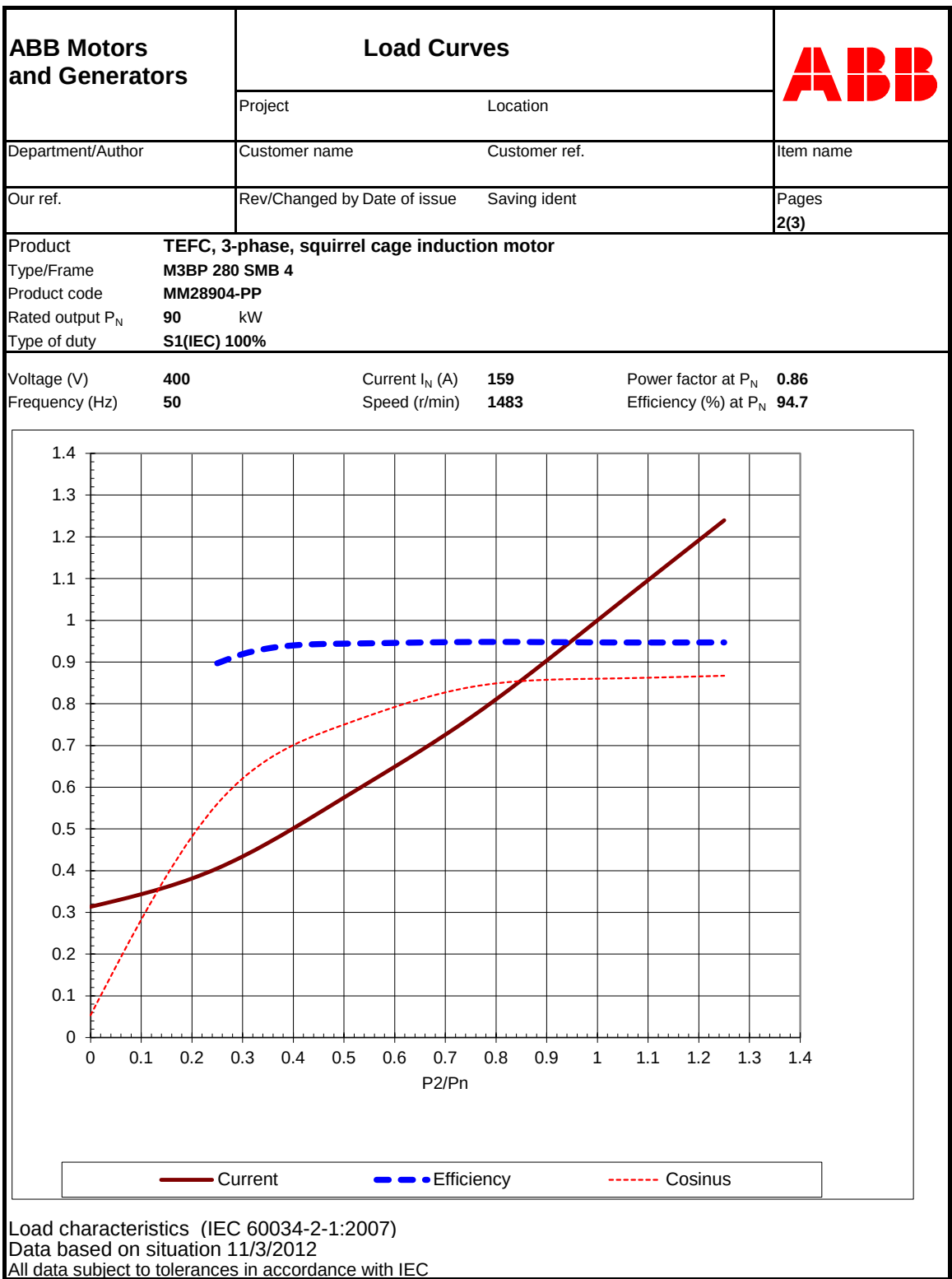
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM28904-PP (3GBP282220-ADG+332+333+531)			
3	Type/Frame	M3BP 280 SMB 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	90	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated 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	1483	r/min		
11	Rated current I _N	159	A		
12	No-load current	50	A		
13	Starting current I _s /I _N	7.2		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	580	Nm		
15	Locked rotor torque T _S /T _N	2.5			
16	Maximum torque T _{max} /T _N	2.7			
17	Minimum torque T _{min} /T _N	2.2			
18	Speed at minimum torque	1200	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	100	159	94.7 / IE2	0.86
21		75	122	94.8	0.84
22		50	91.7	94.4	0.75
23		Start	1148		0.44
24	Maximum starting time from hot	18	s		
25	Maximum starting time from cold	32	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	6316/C3 - 6316/C3			
32	Type of Grease	Lithium based			
33	Sound pressure level (LP dB(A) 1m)	68	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	1.5	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dimens.	2xM63x1.5 + 2xM20x1.5			
39	Number of power terminals	6			
40	Direction of rotation	CW or CCW			
41	Total weight of motor	665	kg		
42					

Variant Codes / Definition

332 = Baldor catalog number
333 = Not for use in the USA
531 = Sea freight packaging

Remarks:

Data based on situation 11/3/2012
All data subject to tolerances in accordance with IEC
Guaranteed values on request



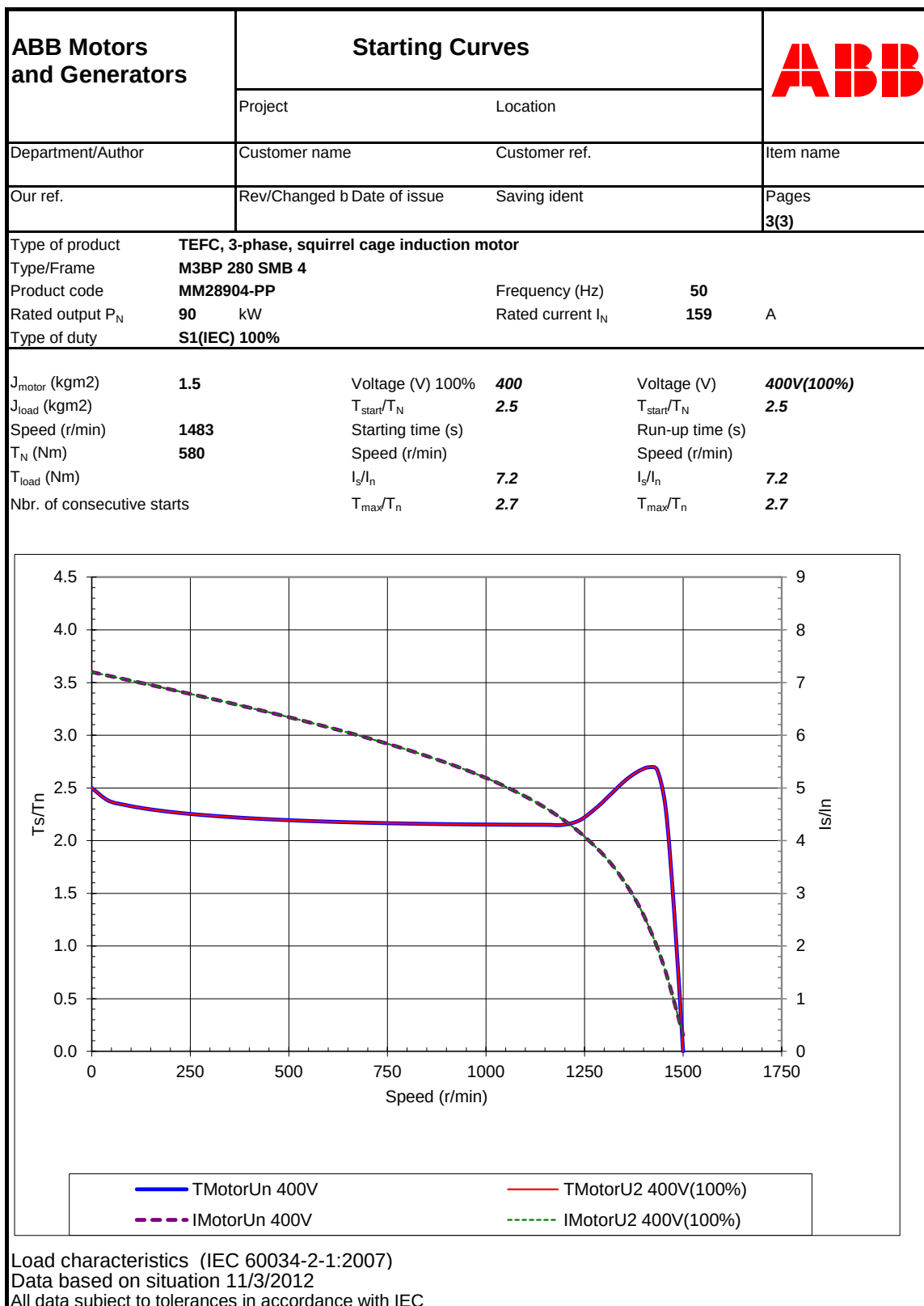


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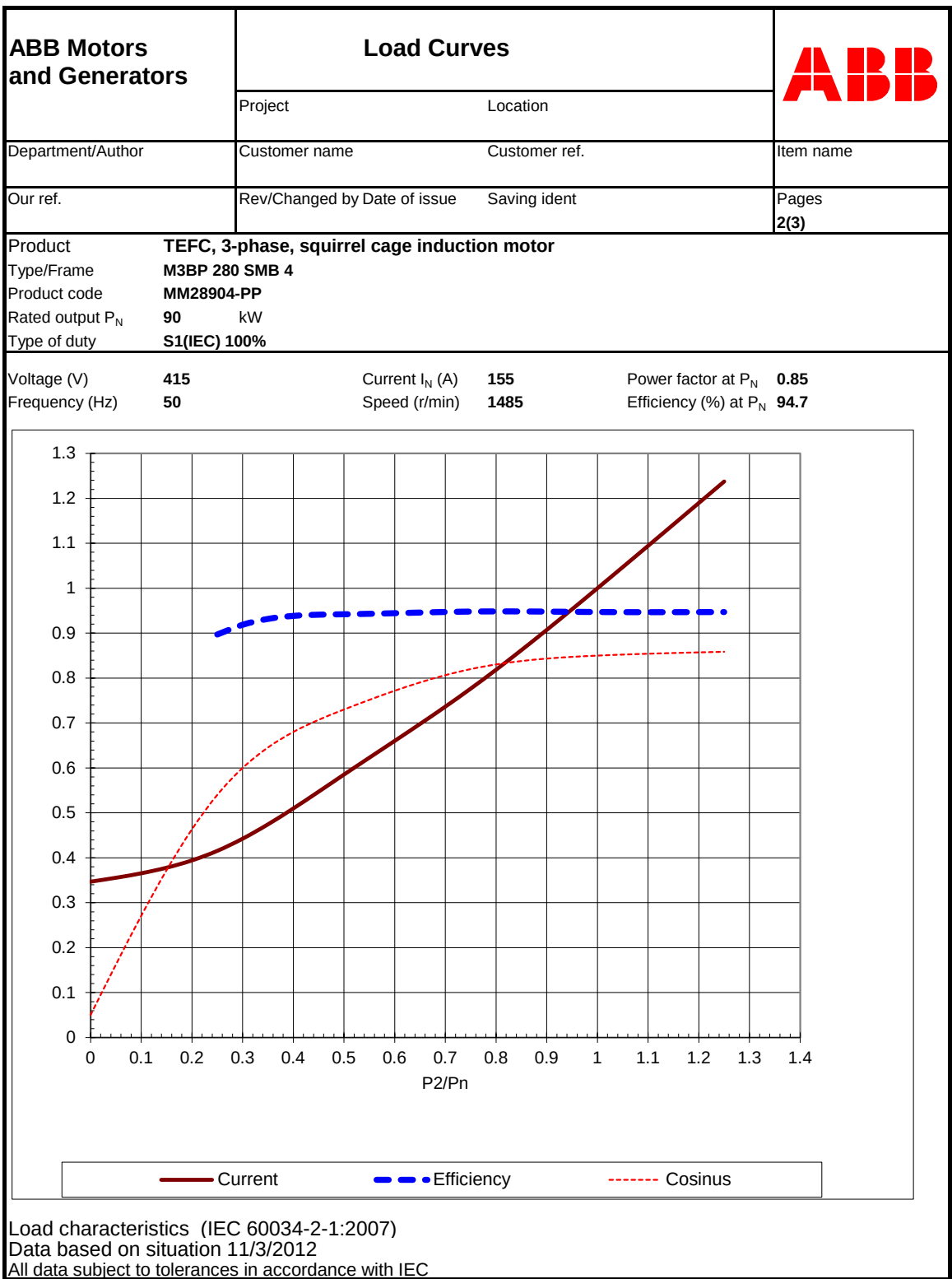
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1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM28904-PP (3GBP282220-ADG+332+333+531)			
3	Type/Frame	M3BP 280 SMB 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	90	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 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	1485	r/min		
11	Rated current I _N	155	A		
12	No-load current	54	A		
13	Starting current I _s /I _N	7.7		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	579	Nm		
15	Locked rotor torque T _S /T _N	2.7			
16	Maximum torque T _{max} /T _N	2.9			
17	Minimum torque T _{min} /T _N	2.3			
18	Speed at minimum torque	1200	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	100	155	94.7 / IE2	0.85
21		75	120	94.8	0.82
22		50	91	94.2	0.73
23		Start	1197		0.44
24	Maximum starting time from hot	18	s		
25	Maximum starting time from cold	36	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	6316/C3 - 6316/C3			
32	Type of Grease	Lithium based			
33	Sound pressure level (LP dB(A) 1m)	68	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	1.5	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dimens.	2xM63x1.5 + 2xM20x1.5			
39	Number of power terminals	6			
40	Direction of rotation	CW or CCW			
41	Total weight of motor	665	kg		
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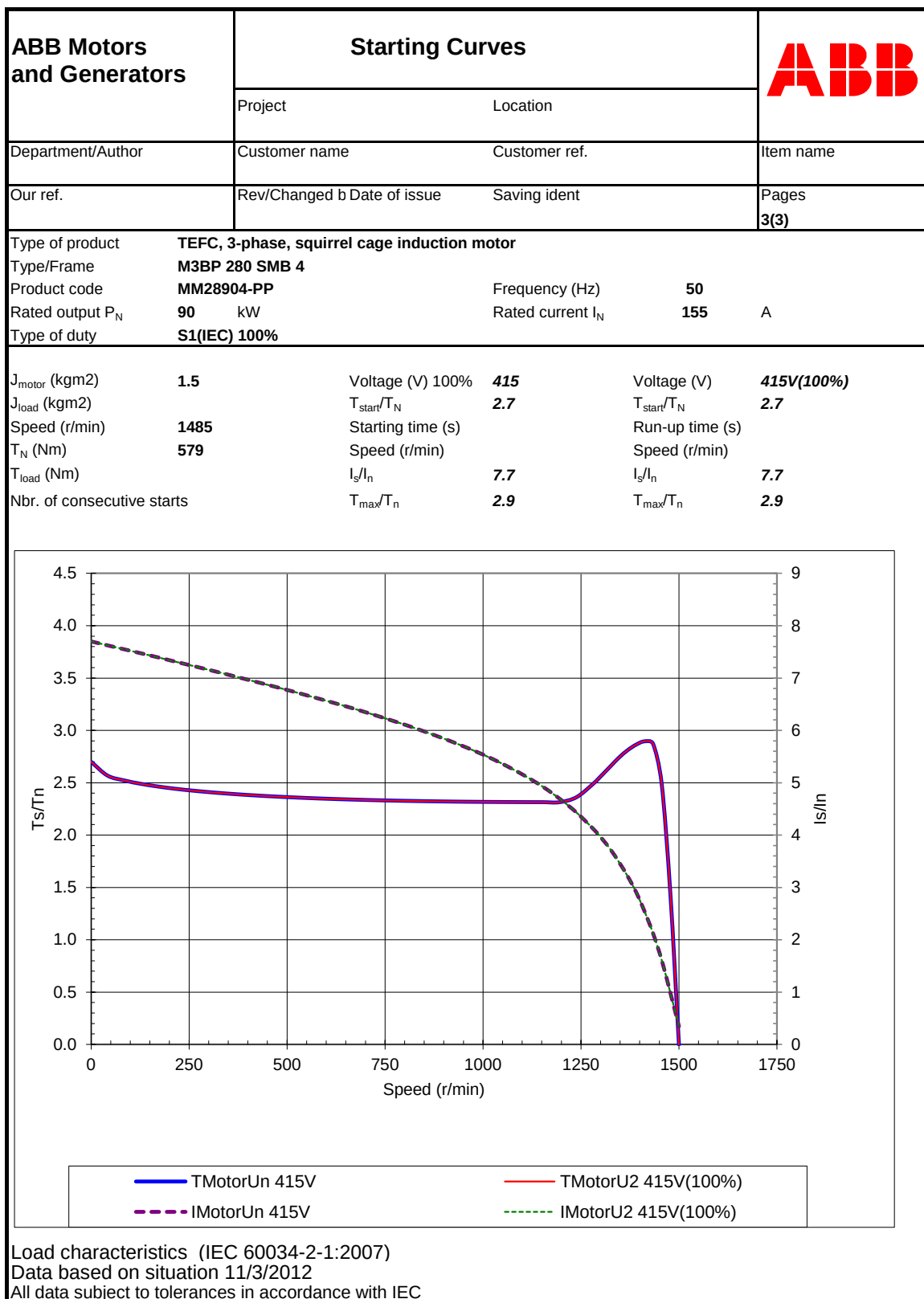


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No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM28904-PP (3GBP282220-ADG+332+333+531)			
3	Type/Frame	M3BP 280 SMB 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	90	kW		
6	Service 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	1483	r/min		
11	Rated current I _N	92.4	A		
12	No-load current	29	A		
13	Starting current I _s /I _N	7.2		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	580	Nm		
15	Locked rotor torque T _S /T _N	2.5			
16	Maximum torque T _{max} /T _N	2.7			
17	Minimum torque T _{min} /T _N	2.2			
18	Speed at minimum torque	1200	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	100	92.4	94.7 / IE2	0.86
21		75	70.9	94.8	0.84
22		50	53.1	94.4	0.75
23		Start	665		0.44
24	Maximum starting time from hot	18	s		
25	Maximum starting time from cold	32	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	6316/C3 - 6316/C3			
32	Type of Grease	Lithium based			
33	Sound pressure level (LP dB(A) 1m)	68	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	1.5	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dimens.	2xM63x1.5 + 2xM20x1.5			
39	Number of power terminals	6			
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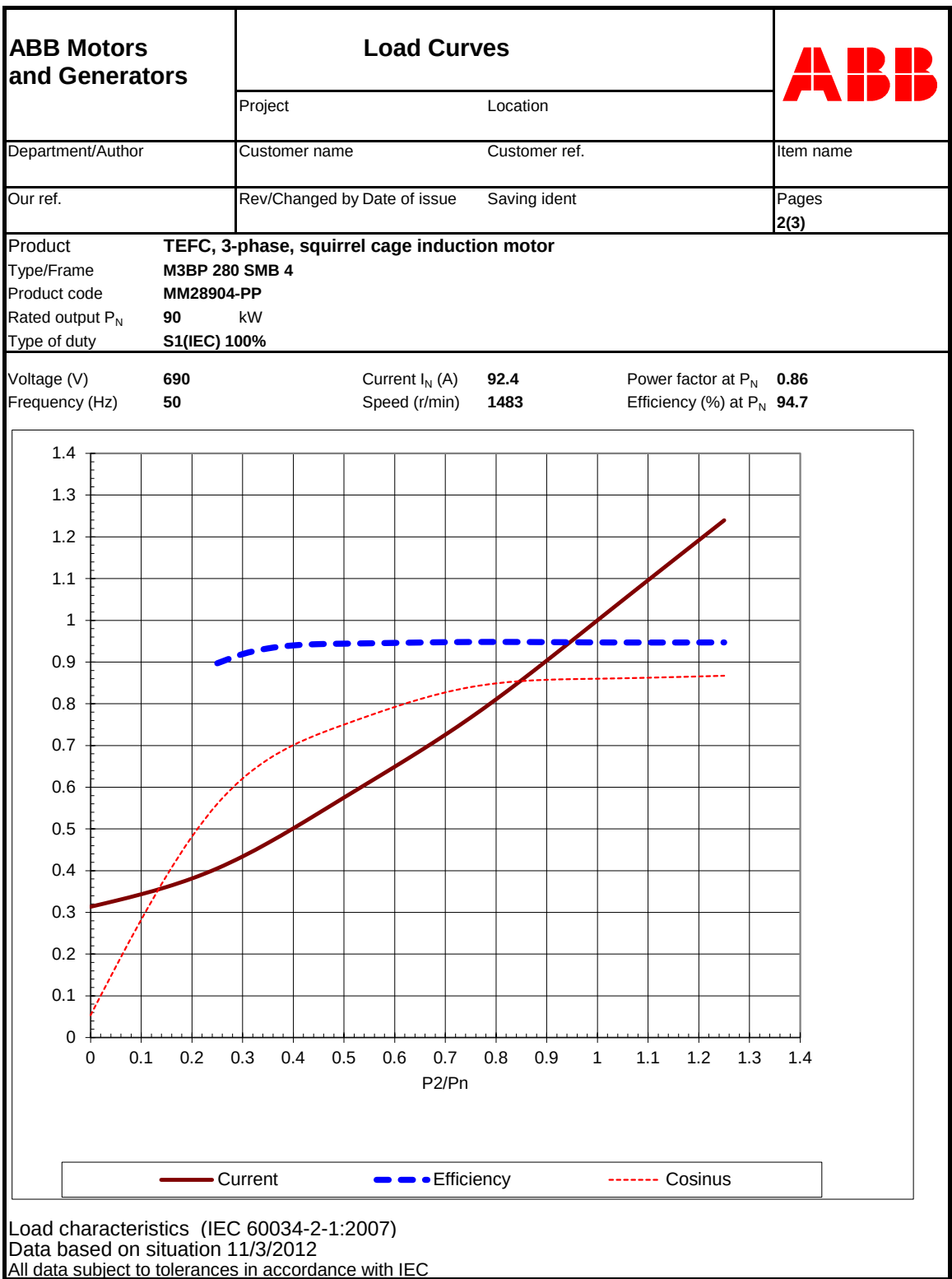
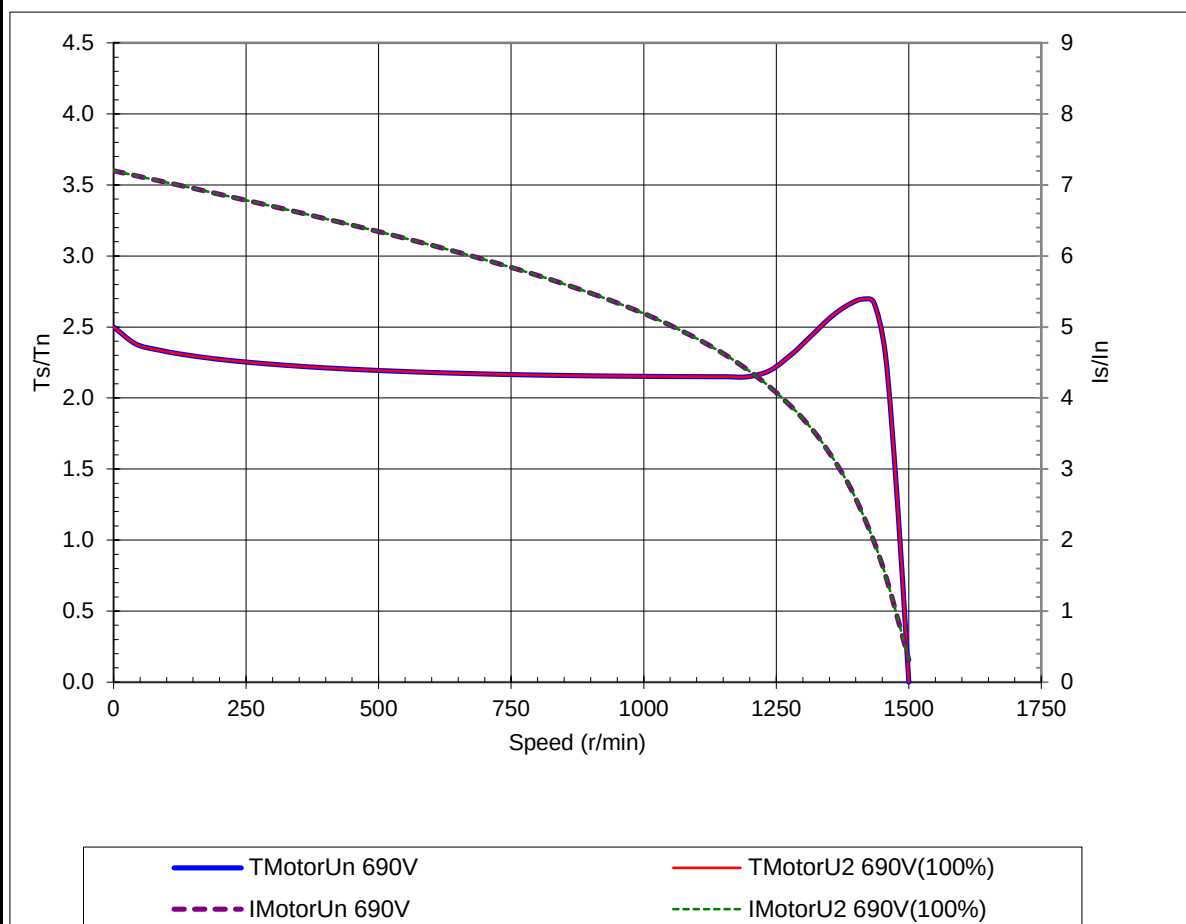


ABB Motors and Generators	Starting Curves		ABB
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed b	Date of issue	Saving ident
			Pages 3(3)

Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M3BP 280 SMB 4		
Product code	MM28904-PP	Frequency (Hz)	50
Rated output P_N	90 kW	Rated current I_N	92.4 A
Type of duty	S1(IEC) 100%		

J_{motor} (kgm ²)	1.5	Voltage (V) 100%	690	Voltage (V)	690V(100%)
J_{load} (kgm ²)		T_{start}/T_N	2.5	T_{start}/T_N	2.5
Speed (r/min)	1483	Starting time (s)		Run-up time (s)	
T_N (Nm)	580	Speed (r/min)		Speed (r/min)	
T_{load} (Nm)		I_s/I_n	7.2	I_s/I_n	7.2
Nbr. of consecutive starts		T_{max}/T_n	2.7	T_{max}/T_n	2.7



Load characteristics (IEC 60034-2-1:2007)
Data based on situation 11/3/2012
All data subject to tolerances in accordance with IEC