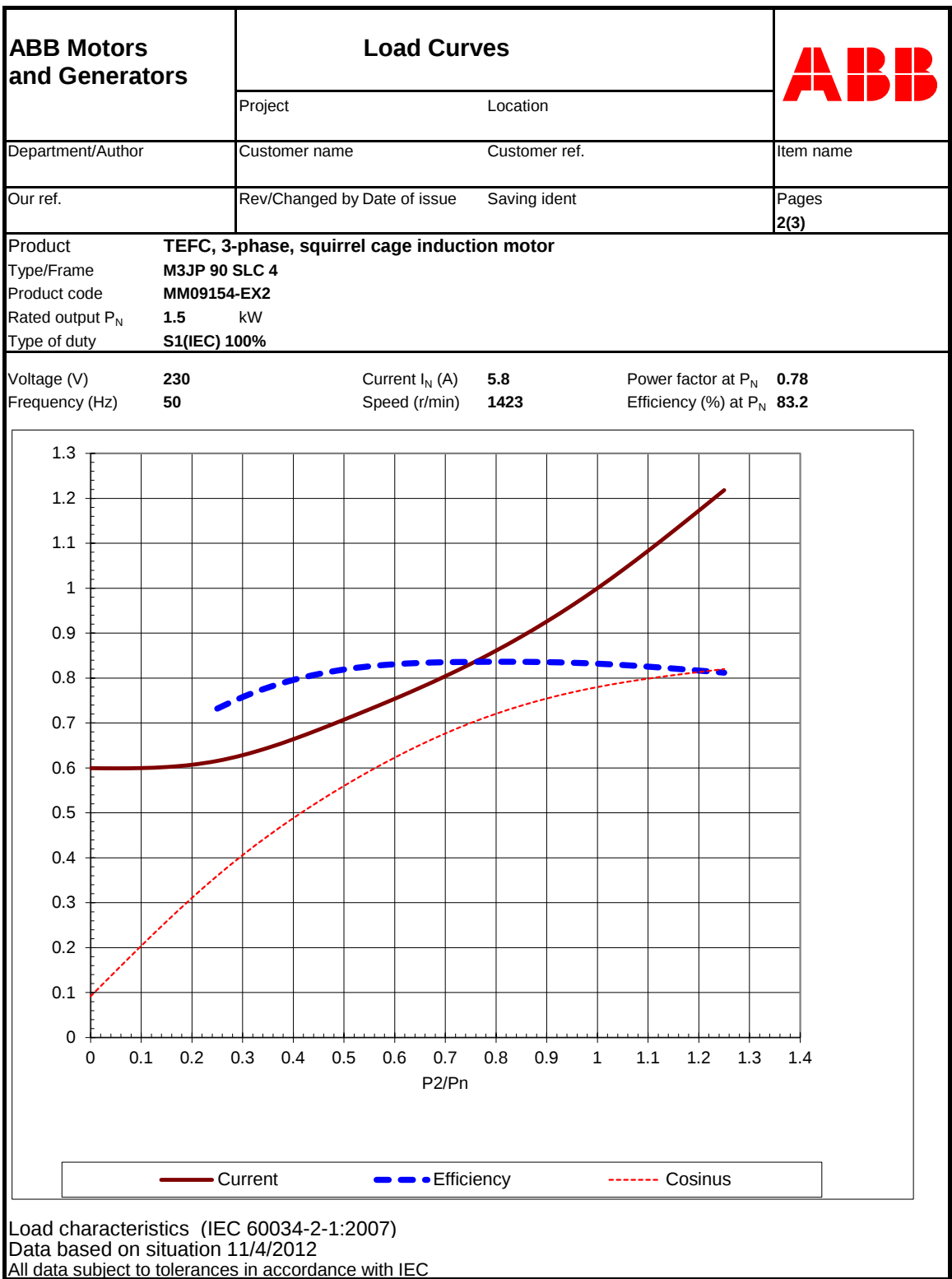


ABB Motors and Generators		Technical Data Sheet - DOL			
		Project	Location		
Department/Author	Customer name		Customer ref.		Item name
Our ref.	Rev/Changed by	Date of issue	Saving ident		Pages 1(3)
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM09154-EX2 (3GJP092030-ASH+332+461)			
3	Type/Frame	M3JP 90 SLC 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	1.5	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated voltage U _N	230	VD	± 5 % (IEC 60034-1)	
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n _N	1423	r/min		
11	Rated current I _N	5.8	A		
12	No-load current	3.5	A		
13	Starting current I _s /I _N	6.6		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	10.1	Nm		
15	Locked rotor torque T _s /T _N	3.3			
16	Maximum torque T _{max} /T _N	3.7			
17	Minimum torque T _{min} /T _N	3.3			
18	Speed at minimum torque	0	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	100	5.8	83.2 / IE2	0.78
21		75	4.8	83.6	0.7
22		50	4.1	81.9	0.56
23		Start	38		0.65
24	Maximum starting time from hot	20	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	6205-2Z/C3 - 6205-2Z/C3			
32	Type of Grease	Greased for life			
33	Sound pressure level (LP dB(A) 1m)	54	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	0.003	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dims.	1xM25x1.5 + 1xM20x1.5			
39	Number of power terminals	6			
40	Direction of rotation	CW or CCW			
41	Weight of rotor	6	kg		
42	Total weight of motor	53	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 11/4/2012					
All data subject to tolerances in accordance with IEC					
Guaranteed values on request					



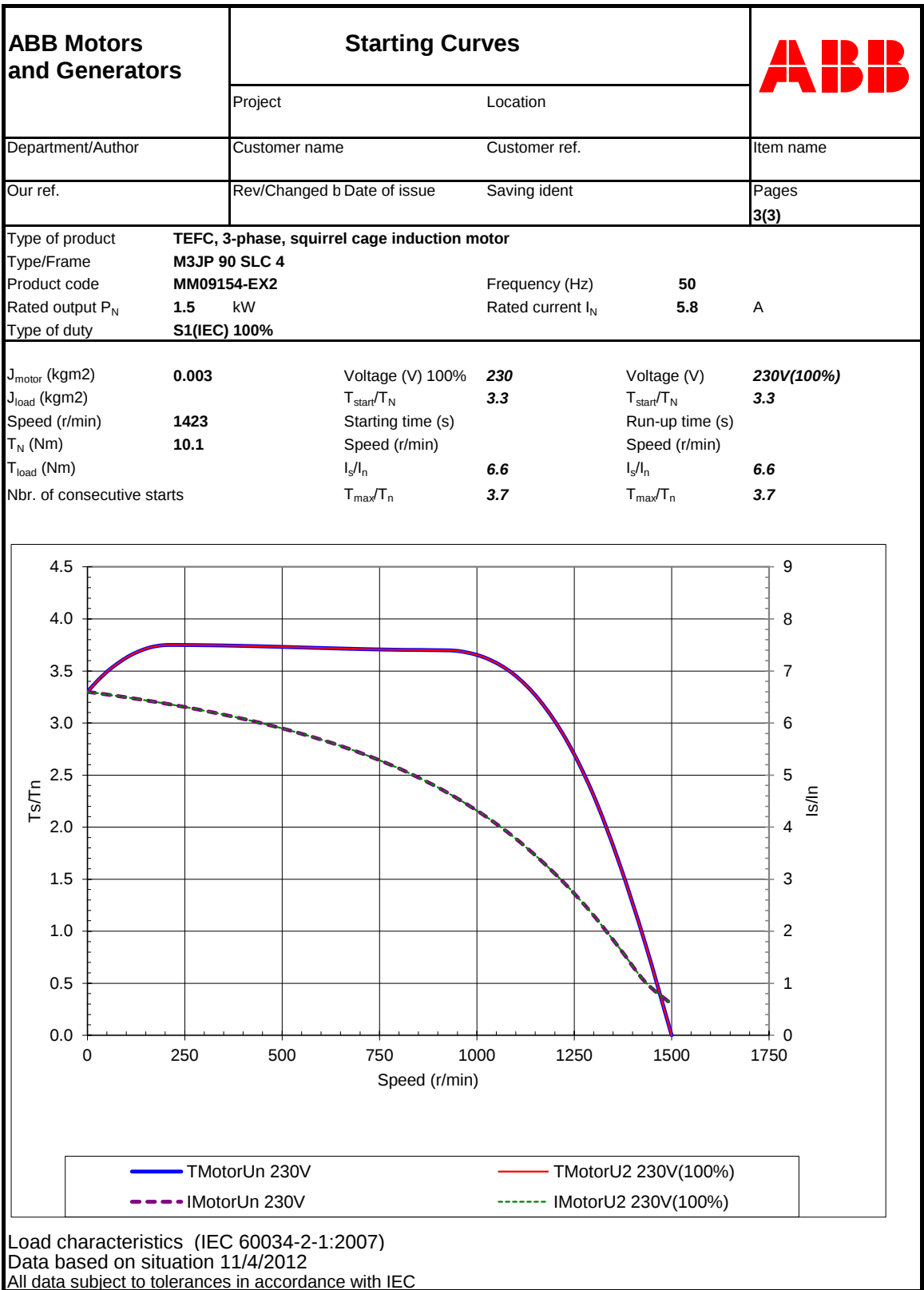
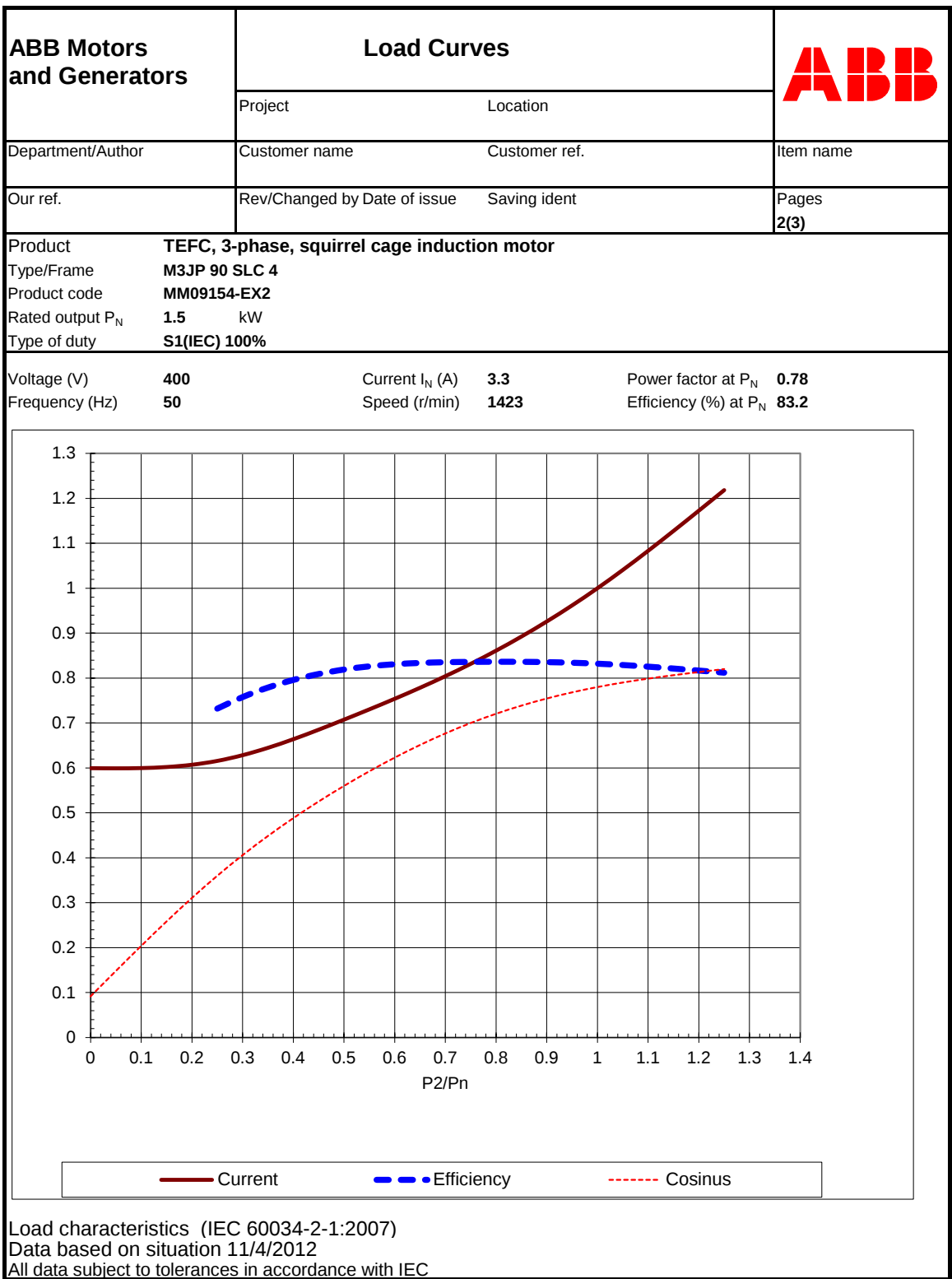


ABB Motors and Generators		Technical Data Sheet - DOL			
		Project	Location		
Department/Author	Customer name		Customer ref.		Item name
Our ref.	Rev/Changed by	Date of issue	Saving ident		Pages 1(3)
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM09154-EX2 (3GJP092030-ASH+332+461)			
3	Type/Frame	M3JP 90 SLC 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	1.5	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated voltage U _N	400	VY	± 5 % (IEC 60034-1)	
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n _N	1423	r/min		
11	Rated current I _N	3.3	A		
12	No-load current	2	A		
13	Starting current I _s /I _N	6.6		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	10.1	Nm		
15	Locked rotor torque T _s /T _N	3.3			
16	Maximum torque T _{max} /T _N	3.7			
17	Minimum torque T _{min} /T _N	3.3			
18	Speed at minimum torque	0	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	100	3.3	83.2 / IE2	0.78
21		75	2.7	83.6	0.7
22		50	2.3	81.9	0.56
23		Start	22		0.65
24	Maximum starting time from hot	20	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	6205-2Z/C3 - 6205-2Z/C3			
32	Type of Grease	Greased for life			
33	Sound pressure level (LP dB(A) 1m)	54	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	0.003	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dims.	1xM25x1.5 + 1xM20x1.5			
39	Number of power terminals	6			
40	Direction of rotation	CW or CCW			
41	Weight of rotor	6	kg		
42	Total weight of motor	53	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 11/4/2012					
All data subject to tolerances in accordance with IEC					
Guaranteed values on request					



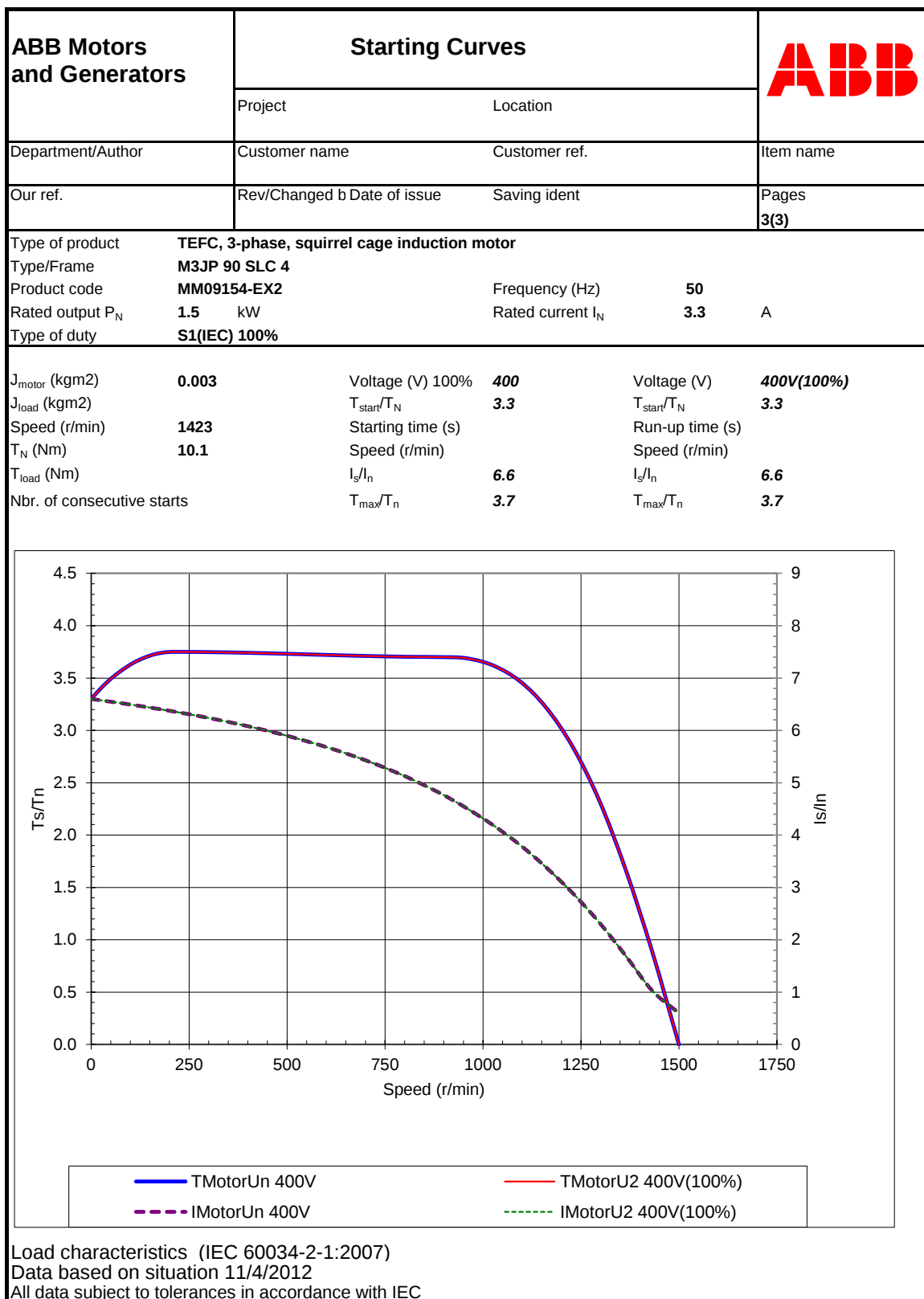
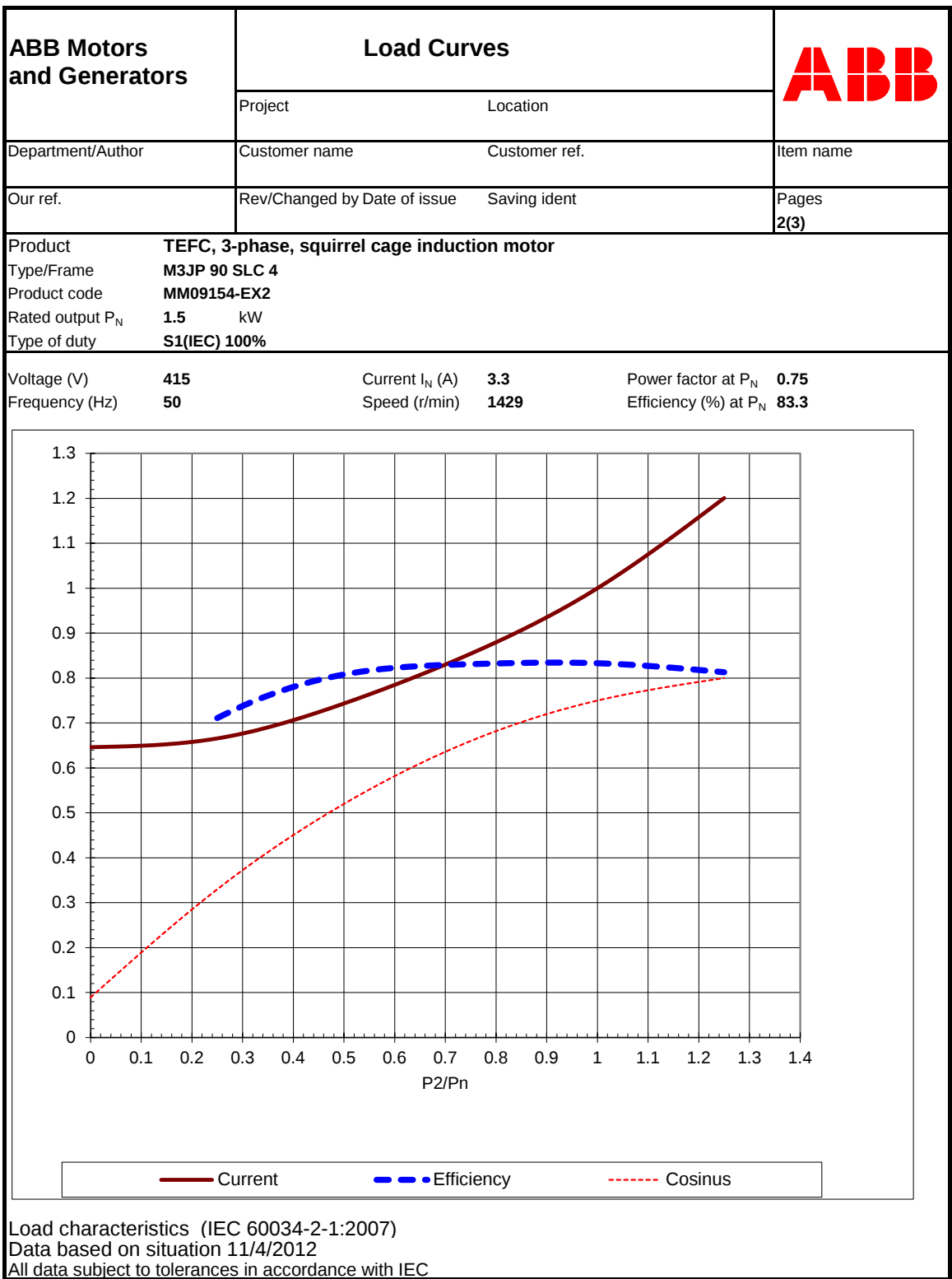
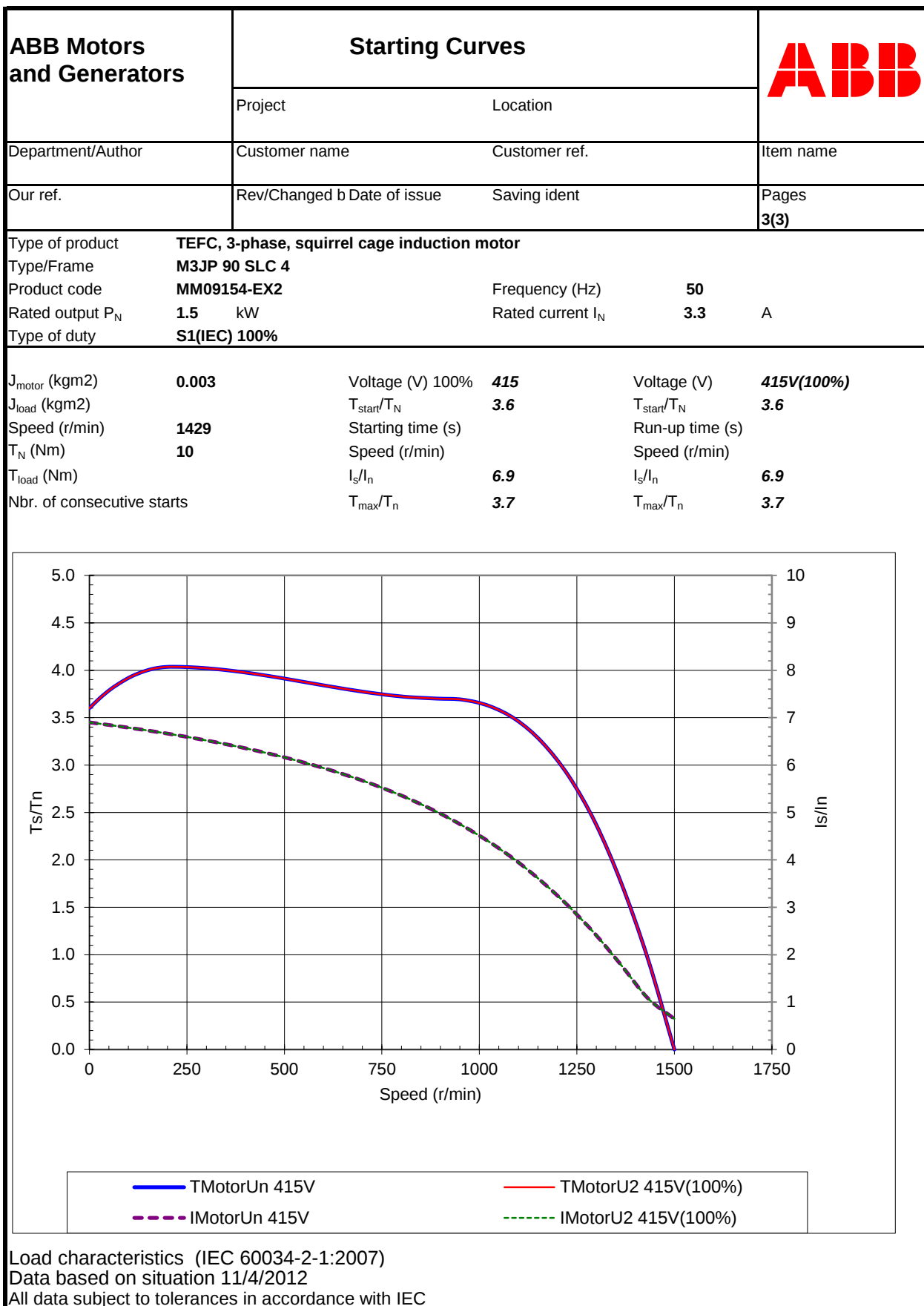


ABB Motors and Generators		Technical Data Sheet - DOL			
		Project	Location		
Department/Author	Customer name		Customer ref.		Item name
Our ref.	Rev/Changed by	Date of issue	Saving ident		Pages 1(3)
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	MM09154-EX2 (3GJP092030-ASH+332+461)			
3	Type/Frame	M3JP 90 SLC 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	1.5	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated voltage U _N	415	VY	± 5 % (IEC 60034-1)	
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n _N	1429	r/min		
11	Rated current I _N	3.3	A		
12	No-load current	2.2	A		
13	Starting current I _s /I _N	6.9		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	10	Nm		
15	Locked rotor torque T _s /T _N	3.6			
16	Maximum torque T _{max} /T _N	3.7			
17	Minimum torque T _{min} /T _N	3.6			
18	Speed at minimum torque	0	r/min		
19	Load characteristics (IEC 60034-2-1:2007)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	100	3.3	83.3 / IE2	0.75
21		75	2.8	83.1	0.66
22		50	2.4	80.8	0.52
23		Start	23		0.66
24	Maximum starting time from hot	20	s		
25	Maximum starting time from cold	40	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	6205-2Z/C3 - 6205-2Z/C3			
32	Type of Grease	Greased for life			
33	Sound pressure level (LP dB(A) 1m)	54	dB(A)	at load	
34	Moment of inertia J = ¼ GD2	0.003	kg-m2		
35	Balancing	Half Key			
36	Vibration class	Grade A			
37	Position of terminal box	Top			
38	Terminal box entries; no, dims.	1xM25x1.5 + 1xM20x1.5			
39	Number of power terminals	6			
40	Direction of rotation	CW or CCW			
41	Weight of rotor	6	kg		
42	Total weight of motor	53	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 11/4/2012					
All data subject to tolerances in accordance with IEC					
Guaranteed values on request					





Load characteristics (IEC 60034-2-1:2007)
Data based on situation 11/4/2012
All data subject to tolerances in accordance with IEC