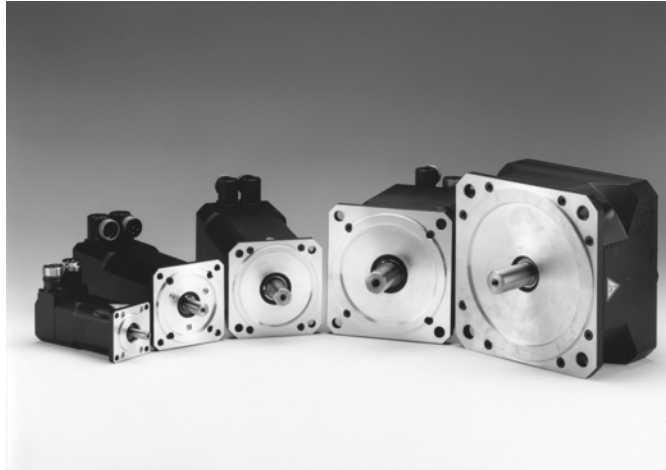


Synchronous Servo Motors DBL/DBK

The synchronous servomotors of the series DBL/DBK are brushless three-phase motors for high quality servo applications. The servomotors have Neodymium permanent magnets in the rotor. Because of standardised flange and shaft measurements the gear fitting is no problem.



Feedback

The motors are equipped with two-pole hollow-shaft resolvers. As an alternative these motors are available with high-resolution encoders. Retrofitting is not possible. The length of the motor depends on the feedback type.

Holding Brake

The motor can be delivered with or without a built-in holding brake. Retrofitting is not possible. The motor length will increase with an installed brake.

Safety

Coil temperature is supervised by temperature sensors and reported by potential free contacts.

Short motors

The motors of the series DBK are very suitable for room restricted installation areas.

Compatibility

The DBL motors are compatible with the proven 6SMx7 motor series.

Features

- neodymium magnets for highly dynamic function
- flange dimensions to IEC standard, fit j6, accuracy according to DIN 42955, tolerance class R
- vibration class N according to DIN ISO 2373
- insulation for 480V rated mains voltage (DBL1 : 230V)
- insulation material class F according to DIN 57530
- basic style IM B5 according to DIN 42950
- shaft end without a fitted-keyway
- Protection class IP 64
- Long life by virtue of brushless design
- Built-in Resolver

Options

- holding break
- shaft with keyway
- radial shaft-sealing ring
- vertical mounting sockets for resolver and power connections
- built-in high resolution EnDat encoder
- second thermal protection contact
- forced ventilation

Technical Data Summary (performance curves on following pages)

Standard Series (DBL)

Type	cont. torque at stall	cont. current at stall	rated mains voltage	rated speed	Motor inertia	Connection	
	Mo[Nm]	Io[A]	Un[VAC]	n[rpm]	J[kgcm ²]	Feedback	Power
DBL1X00010	0,1	0,60	230	6000	0,06	Cable	Cable
DBL1X00020	0,2	0,97	230	6000	0,12	Cable	Cable
DBL2H00040	0,4	0,91	230/400	4500/6000	0,08	Plug	Plug
DBL2H00060	0,6	1,40	230/400	4500/6000	0,11	Plug	Plug
DBL2M00080	0,8	0,85	400	4500	0,13	Plug	Plug
DBL2H00080	0,8	1,49	230/400	4500/6000	0,13	Plug	Plug
DBL3N00065	0,65	0,65	400/480	3000/3600	0,5	Plug	Plug
DBL3H00065	0,65	1,06	230/400	3000/6000	0,5	Plug	Plug
DBL3N00130	1,3	1,00	400/480	3000/3600	0,8	Plug	Plug
DBL3H00130	1,3	1,67	230/400	3000/6000	0,8	Plug	Plug
DBL3M00190	1,9	1,42	400/480	3000/3600	1,0	Plug	Plug
DBL3H00250	2,5	3,00	230/400	3000/6000	1,4	Plug	Plug
DBL3N00300	3,0	2,08	400/480	3000/3600	1,7	Plug	Plug
DBL4N00260	2,6	1,9	400/480	3000/3600	2,1	Plug	Plug
DBL4H00260	2,6	3,0	230	3000	2,1	Plug	Plug
DBL4N00530	5,3	3,4	400/480	3000/3600	2,8	Plug	Plug
DBL4H00530	5,3	6,5	230	3000	2,8	Plug	Plug
DBL4N00750	7,5	4,0	400/480	3000/3600	4,3	Plug	Plug
DBL4H00750	7,5	9,3	230	3000	4,3	Plug	Plug
DBL4N00950	9,5	6,1	400/480	3000/3600	6,5	Plug	Plug
DBL5N01050	10,5	6,5	400/480	3000/3600	8,1	Plug	Plug
DBL5H01050	10,5	14,1	230	3000	8,1	Plug	Plug
DBL5N01350	13,5	8,7	400/480	3000/3600	9,1	Plug	Plug
DBL5H01350	13,5	17,4	230	3000	9,1	Plug	Plug
DBL5N01700	17	9,9	400/480	3000/3600	11,3	Plug	Plug
DBL5H01700	17	19,4	230	3000	11,3	Plug	Plug
DBL5N02200	22	12,8	400/480	3000/3600	13,1	Plug	Plug
DBL6N02200	22	15,0	400/480	3000/3600	25,1	Plug	Plug
DBL6N02900	29	16,2	400/480	3000/3600	38,2	Plug	Plug
DBL7N02600	26	17,0	400/480	3000/3600	97,4	Plug	Terminal box
DBL7N03200	32	20,0	400/480	3000/3600	114,1	Plug	Terminal box
DBL7N04000	40	23,9	400/480	3000/3600	139,4	Plug	Terminal box
DBL8N04000	40	21,8	400/480	3000/3600	71,1	Plug	Terminal box
DBL8N06800	68	35,8	400/480	3000/3600	113,6	Plug	Terminal box
DBL8L09300	93	33,1	400	2000	153	Plug	Terminal box
DBL8L11500	115	42,1	400	2000	190	Plug	Terminal box

Short motors (DBK)

Type	cont. torque at stall	cont. current at stall	rated mains voltage	rated speed	Motor inertia	Connection	
	Mo[Nm]	Io[A]	Un[VAC]	n[rpm]	J[kgcm ²]	Feedback	Power
DBK4N00100	1	1,1	400/480	3000/3600	0,79	Plug	Plug
DBK4H00100	1	1,8	230	3000	0,79	Plug	Plug
DBK4N00160	1,6	1,1	400/480	3000/3600	1,28	Plug	Plug
DBK4H00160	1,6	2,1	230	3000	1,28	Plug	Plug
DBK5N00210	2,1	1,6	400/480	3000/3600	4,13	Plug	Plug
DBK5H00210	2,1	4,0	230	3000	4,13	Plug	Plug
DBK5N00430	4,3	3,0	400/480	3000/3600	5,78	Plug	Plug
DBK5H00430	4,3	5,2	230	3000	5,78	Plug	Plug
DBK6N00350	3,5	3,0	400/480	3000/3600	8	Plug	Plug
DBK6N00700	7	4,7	400/480	3000/3600	11,35	Plug	Plug
DBK7N00650	6,5	4,5	400/480	3000/3600	32,36	Plug	Plug
DBK7N01200	12	7,5	400/480	3000/3600	53,11	Plug	Plug
DBK7N01950	19,5	11,9	400/480	3000/3600	69,16	Plug	Plug

To view full technical and installation details, press here to go to the 72 page motor manual.

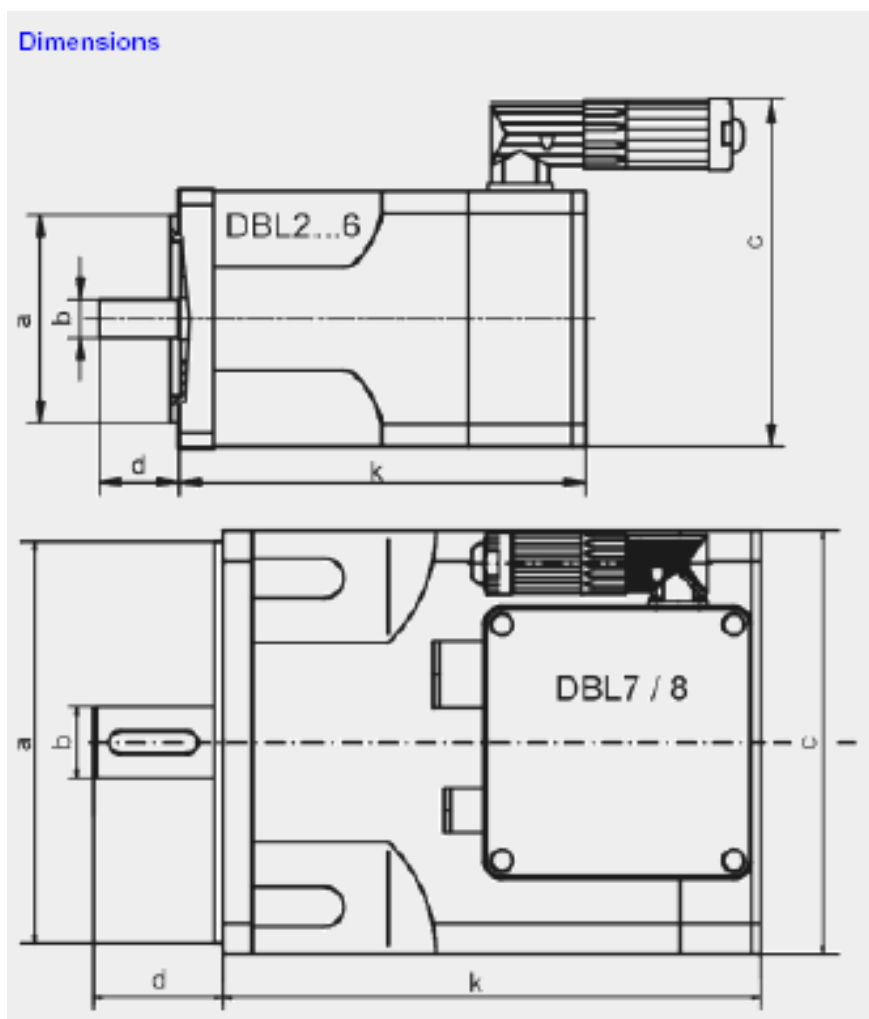
DIMENSIONS

Standard Motors DBL (mm)

	Mo/Nm	a	b	c	d	k	Weight kg Without brake
DBL1	0,1...0,2	25	6	70	16	83...99	0.007...0.8
DBL2	0,4...0,8	40	9	90	20	122...152	1.1...1.5
DBL3	0,65...1,9	60	11	110	23	116...152	1.9...2.5
DBL3	2,5...3	60	14	110	30	170...188	3.3...4.4
DBL4	2,6...9,5	95	19	135	40	155...286	4.5...8.7
DBL5	10,5...22	130	24	155	50	220...305	9.8...17.0
DBL6	22...29	180	24	190	50	243...306	2.5...27.0
DBL7	26...40	180	32	190	58	240...298	28.0...40.0
DBL8	40...115	230	42	240	82	311...515	43.0...93.0

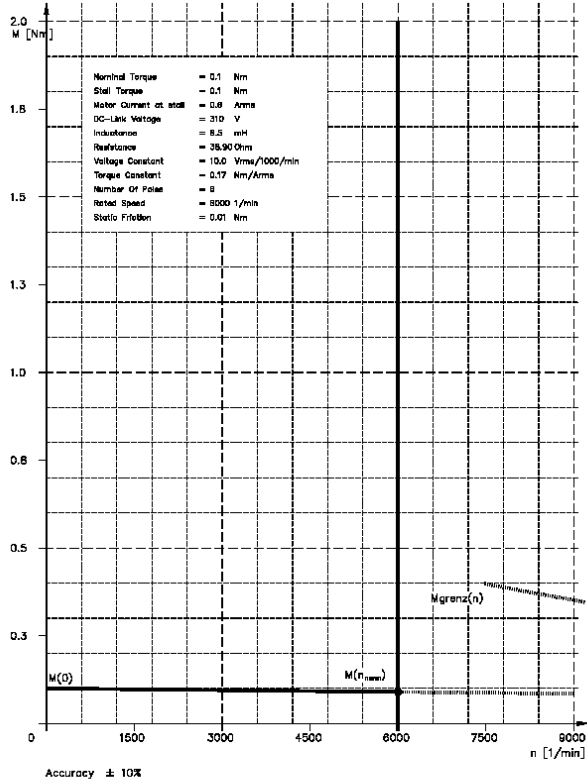
Short motors (DBK)

DBK4	1...1,6	95	14	135	30	90...105	310
DBK5	2,1...4,3	130	19	155	40	121...138	3.9...6.8
DBK6	3,5...7	180	19	190	40	126...143	5.5...8.7
DBK7	6,5...19,5	180	24	190	50	137...198	10.0...19.0



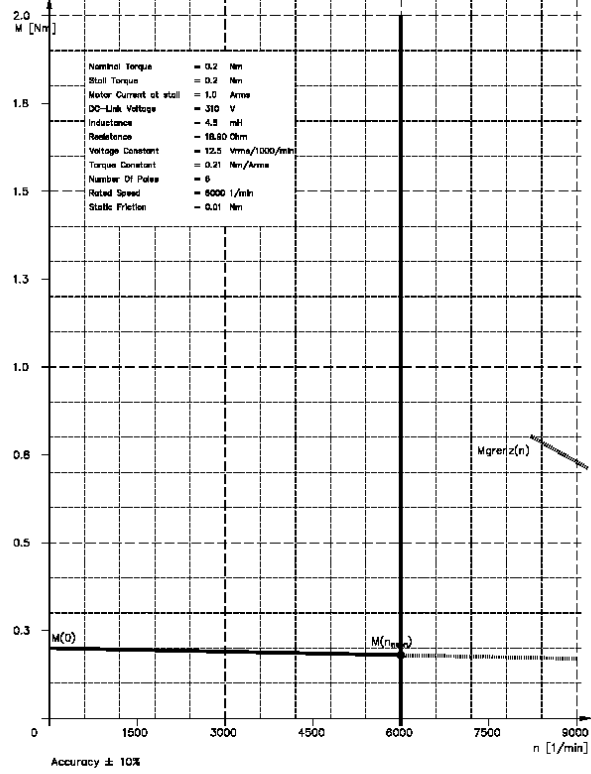
To view full technical and installation details, press here to go to the 72 page motor manual.

DBL1X00010



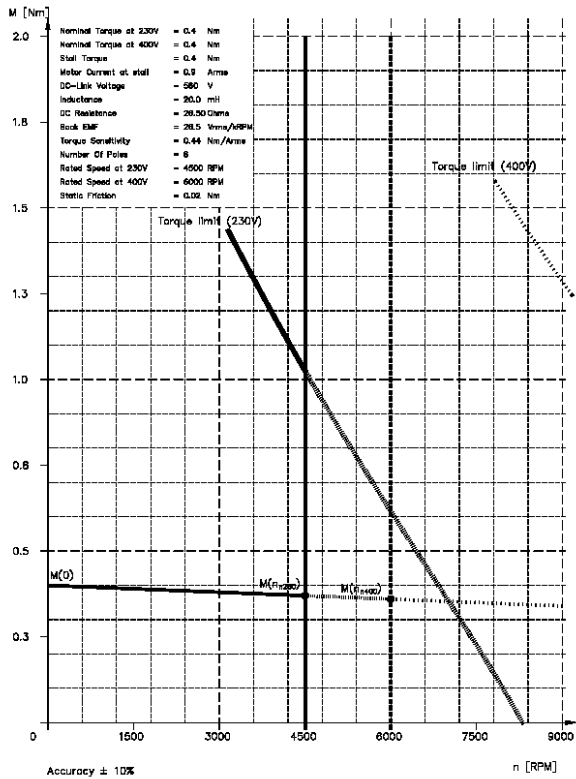
	performance curve DBL1X00010		A.4.044.3/01	
	Drawn	03.04.2001	MPG	Rev.:
	Checked		Changes:	18.02.2002/1 SBE

DBL1X00020



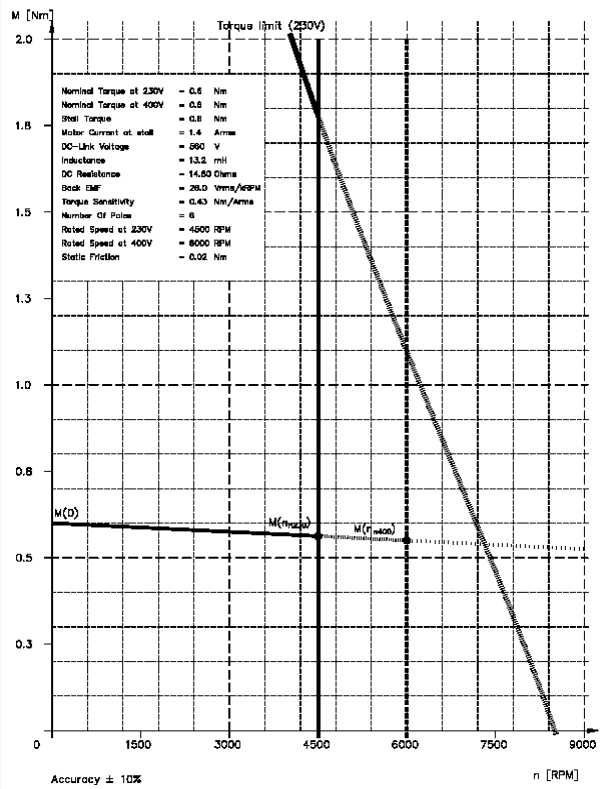
	Performance curve DBL1X00020		A.4.044.3/42	
	Drawn	03.04.2001	MPG	Rev.:
	Checked		Changes:	20.02.2002/1 SBE

DBL2H00040



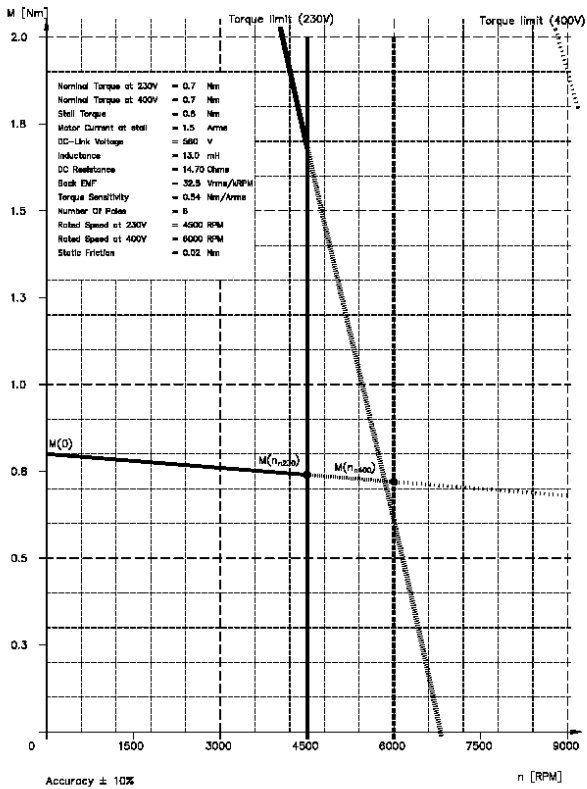
KOLLMORGEN 	Performance Curve DBL2H00040	A.4.044.3/02
	Drawn 03.04.2001 MPG	Rem.: Checked: 22.02.2002/1 SBE

DBL2H00050



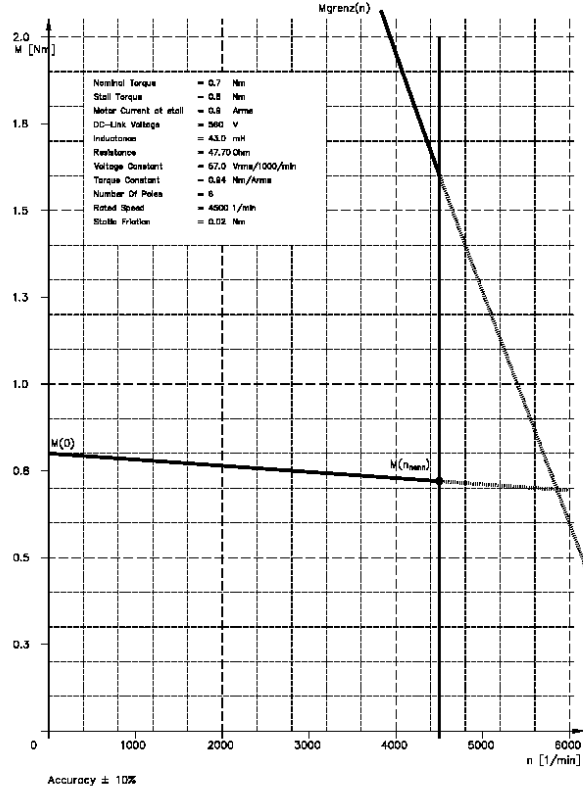
KOLLMORGEN 	Performance Curve DBL2H00050	A.4.044.3/43
	Drawn 03.04.2001 MPG	Rem.: Checked: 22.02.2002/1 SBE

DBL2H00080



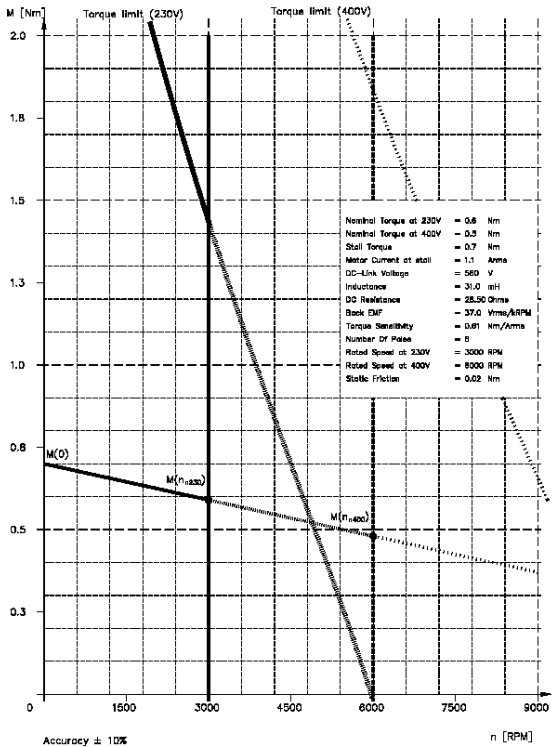
KOLLMORGEN 	Performance curve DBL2H00080	A.4.044.3/03
	Drawn 03.04.2001 MPG	Rem.: Checked: 22.02.2002/1 SBE

DBL2M00080



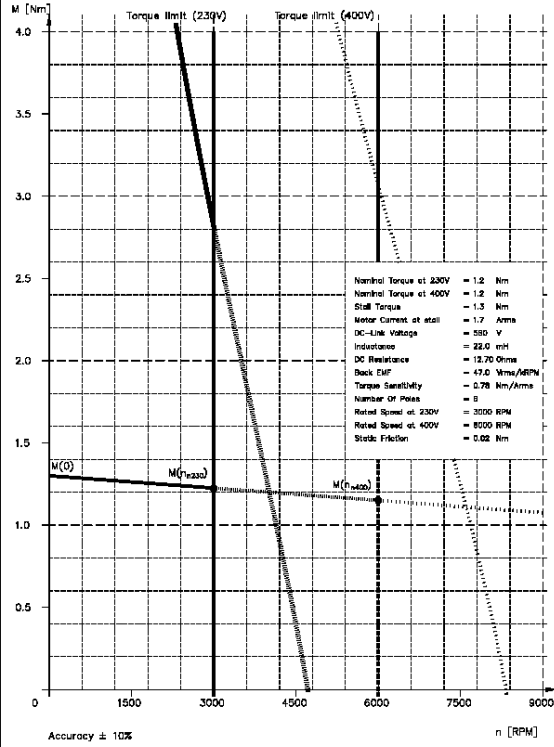
KOLLMORGEN 	Performance curve DBL2M00080	A.4.044.3/04
	Drawn 03.04.2001 MPG	Rem.: Checked: 18.02.2002/1 SBE

DBL3H00065



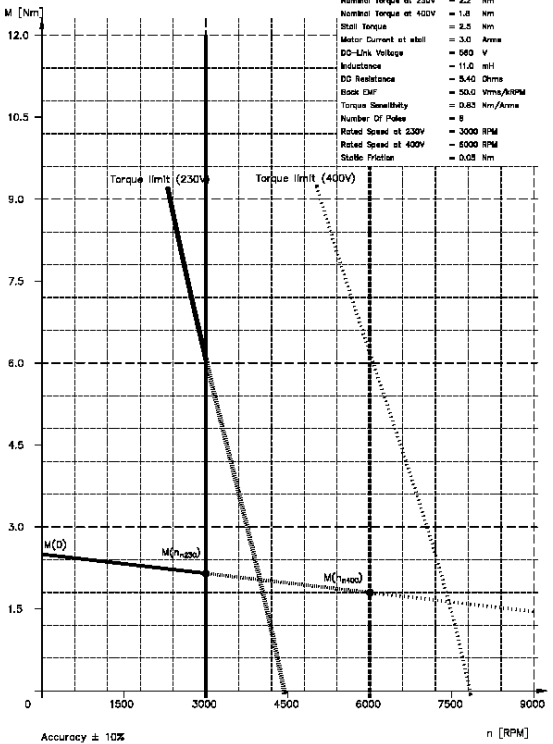
KOLLMORGEN	Performance Curve DBL3H00065	A.4.044.3/05
Seda	Drawn: 03.04.2001 MPG	Rem.: Checked: 22.02.2002/1 SBE

DBL3H00130



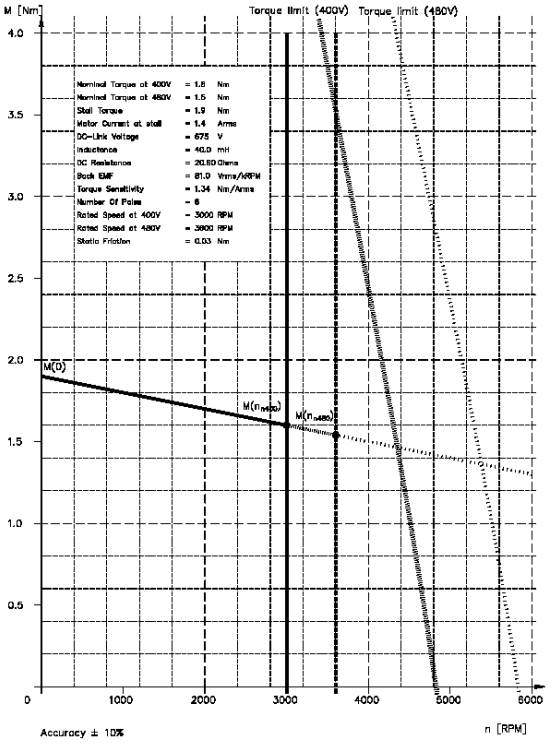
KOLLMORGEN	Performance Curve DBL3H00130	A.4.044.3/06
Seda	Drawn: 03.04.2001 MPG	Rem.: Checked: 22.02.2002/1 SBE

DBL3H00250



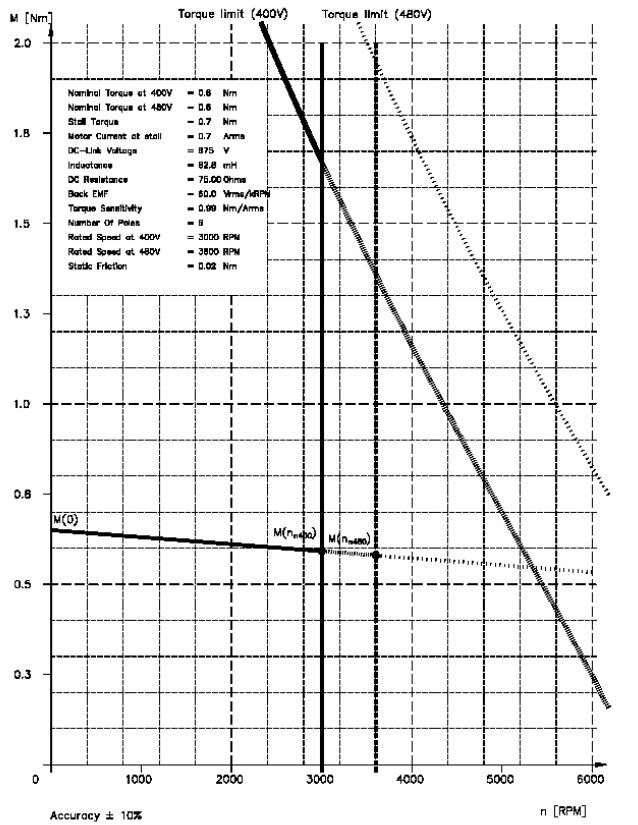
KOLLMORGEN	Performance Curve DBL3H00250	A.4.044.3/07
Seda	Drawn: 03.04.2001 MPG	Rem.: Checked: 22.02.2002/1 SBE

DBL3M00190



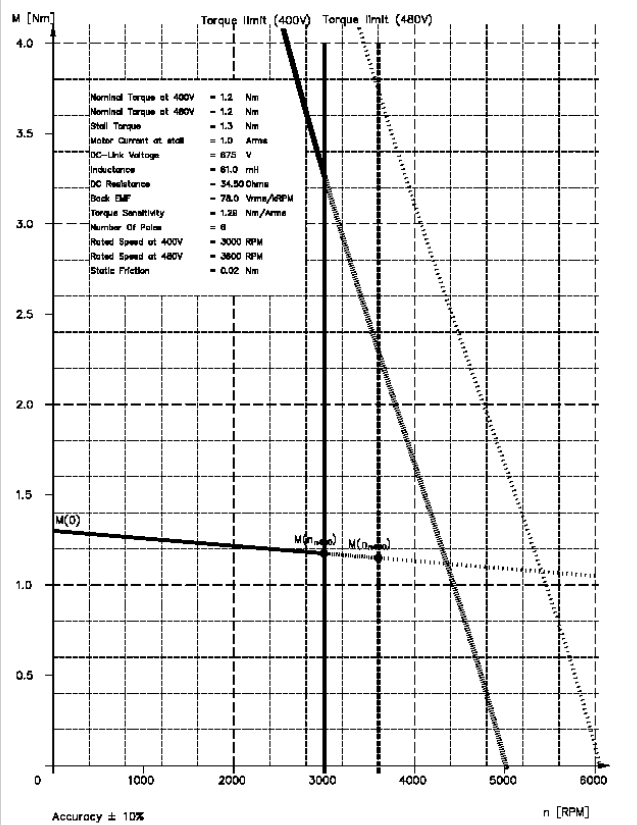
KOLLMORGEN	Performance Curve DBL3M00190	A.4.044.3/08
Seda	Drawn: 03.04.2001 MPG	Rem.: Checked: 20.02.2002/1 SBE

DBL3N00065



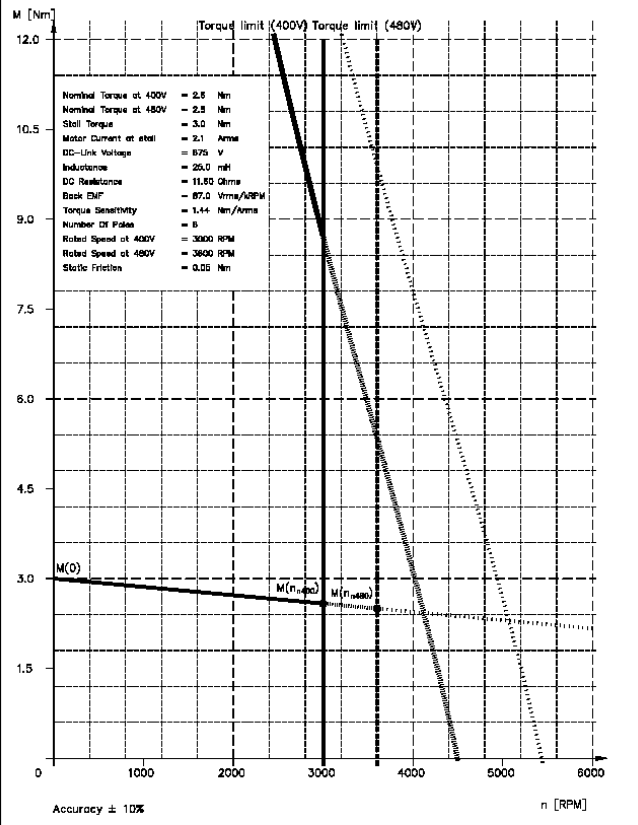
KOLLMORGEN	Performance Curve DBL3N00065	A.4.044.3/09
Seda	Drawn 03.04.2001 MPG	Rem.: Checked Changes: 20.02.2002/1 SRS

DBL3N00130



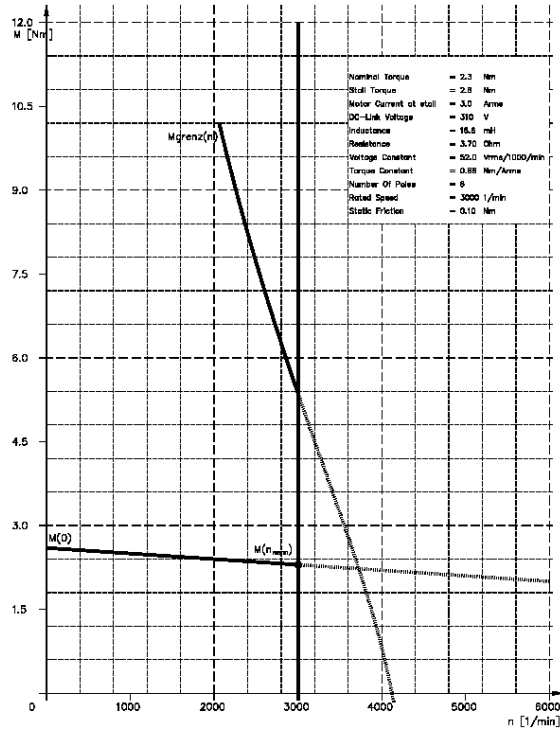
KOLLMORGEN	Performance Curve DBL3N00130	A.4.044.3/10
Seda	Drawn 03.04.2001 MPG	Rem.: Checked Changes: 20.02.2002/1 SRS

DBL3N00300



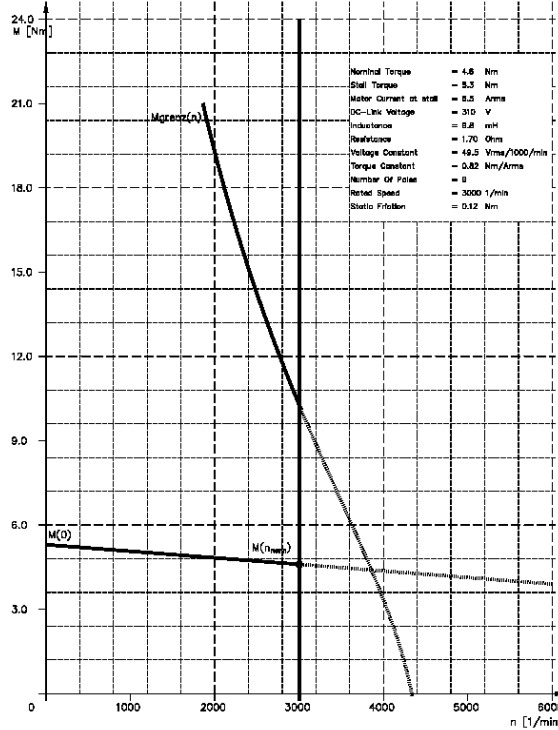
KOLLMORGEN	Performance Curve DBL3N00300	A.4.044.3/11
Seda	Drawn 03.04.2001 MPG	Rem.: Checked Changes: 20.02.2002/1 SRS

DBL4H0250



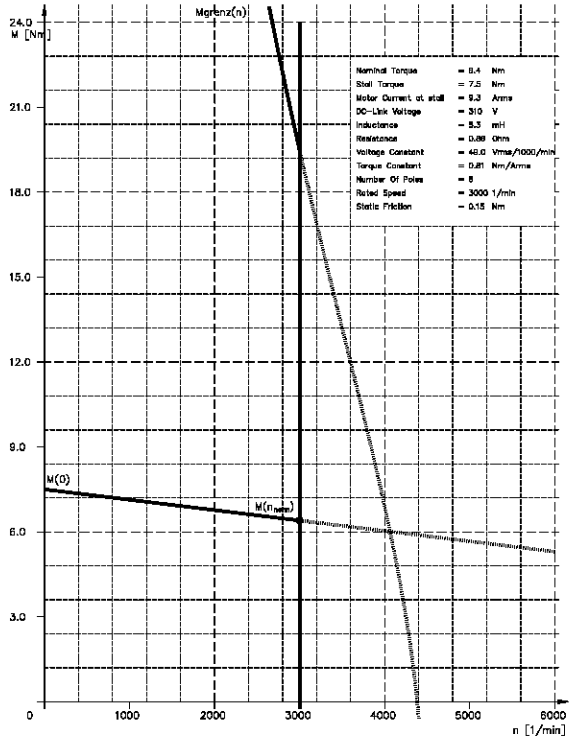
KOLLMORGEN <i>Seda</i>	Performance curve DBL4H0250	A.4.044.3/12
	Drawn: 03.04.2001 MPG	Rem.: Checked: 18.02.2002/1 SBE

DBL4H00530



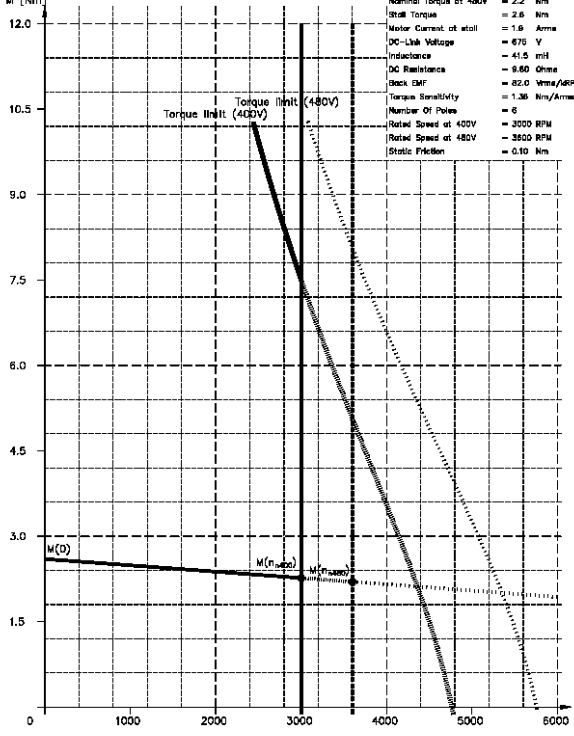
KOLLMORGEN <i>Seda</i>	Performance curve DBL4H00530	A.4.044.3/13
	Drawn: 03.04.2001 MPG	Rem.: Checked: 18.02.2002/1 SBE

DBL4H00750



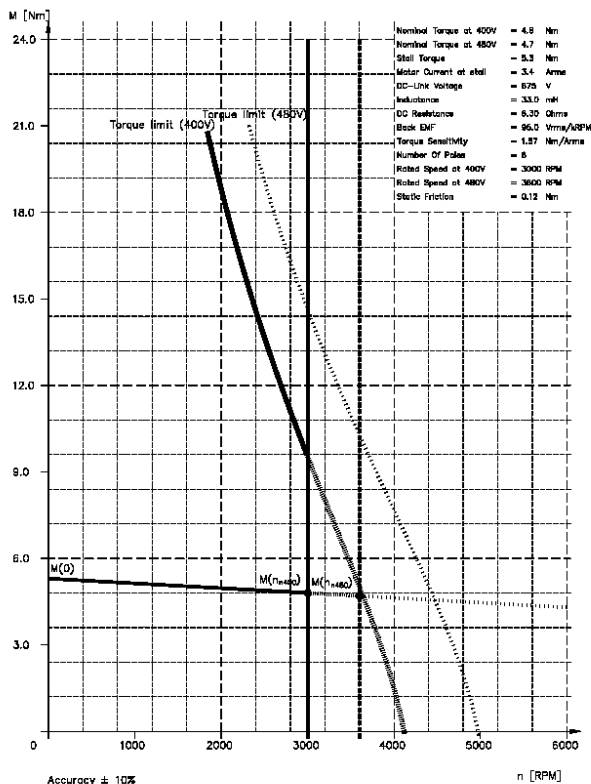
KOLLMORGEN <i>Seda</i>	Performance curve DBL4H00750	A.4.044.3/14
	Drawn: 03.04.2001 MPG	Rem.: Checked: 18.02.2002/1 SBE

DBL4N00250



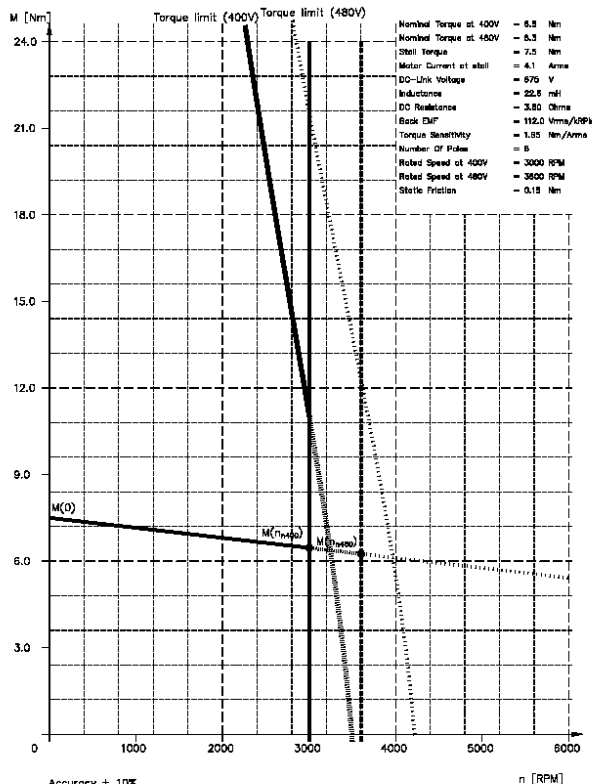
KOLLMORGEN <i>Seda</i>	Performance Curve DBL4N00250	A.4.044.3/15
	Drawn: 03.04.2001 MPG	Rem.: Checked: 20.02.2002/1 SBE

DBL4N00530



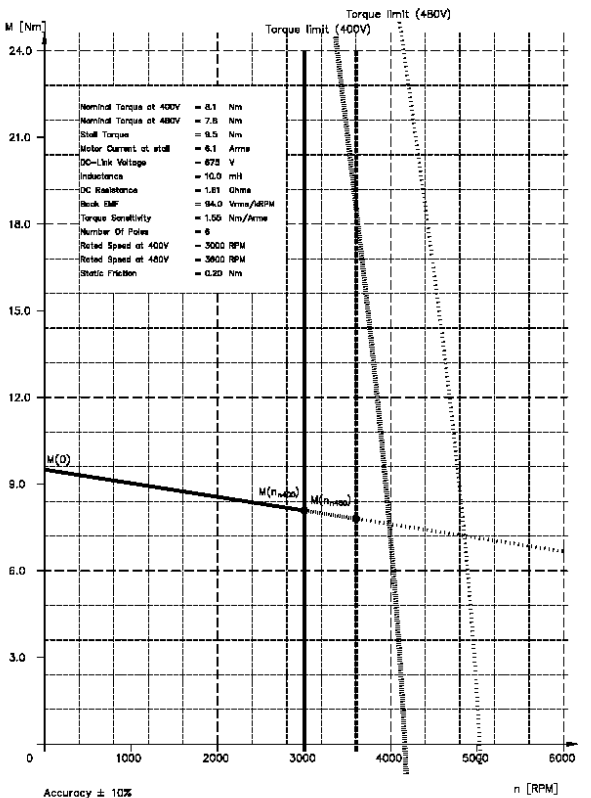
KOLLMORGEN	Performance Curve DBL4N00530		A.4.044.3/16
	Drawn	03.04.2001 MPG	Rev.:
	Checked		Changes: 26.02.2002/1 SBE

DBL4N00750



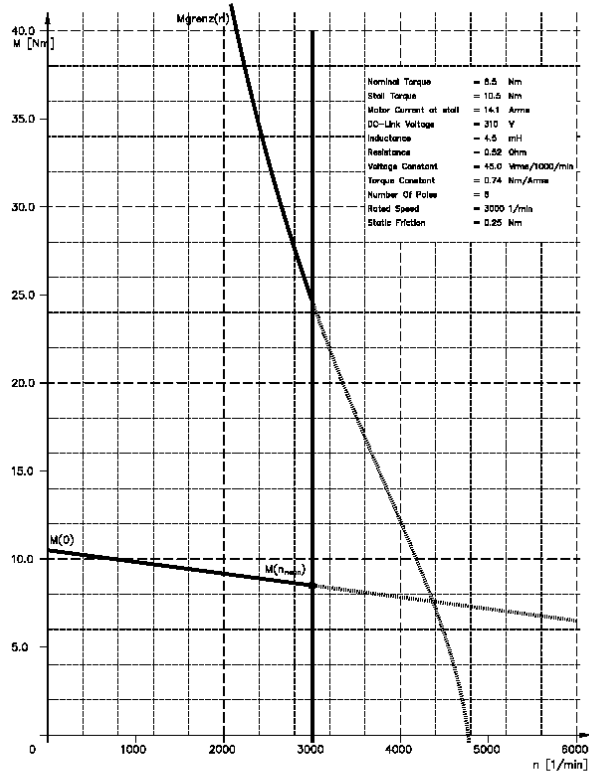
KOLLMORGEN	Performance Curve DBL4N00750		A.4.044.3/17
	Drawn	03.04.2001 MPG	Rev.:
	Checked		Changes: 26.02.2002/1 SBE

DBL4N00950



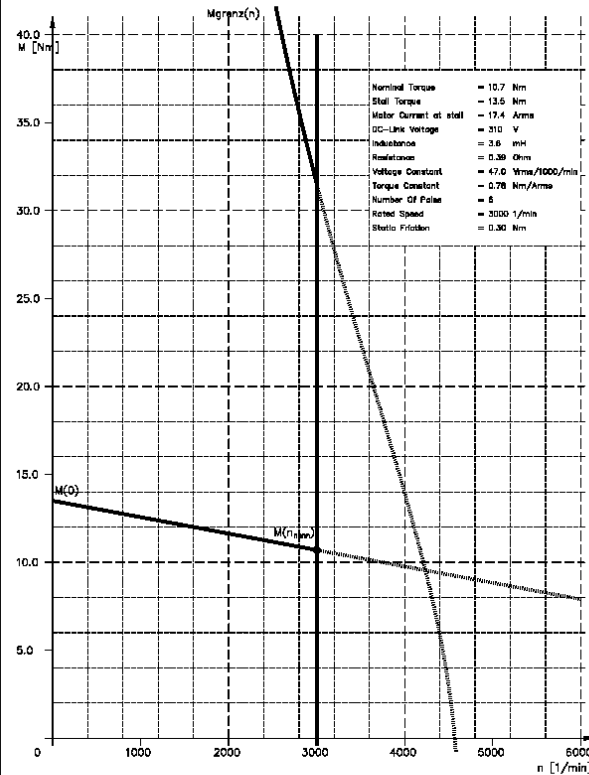
KOLLMORGEN	Performance Curve DBL4N00950		A.4.044.3/18
	Drawn	03.04.2001 MPG	Rev.:
	Checked		Changes: 26.02.2002/1 SBE

DBL5H01050



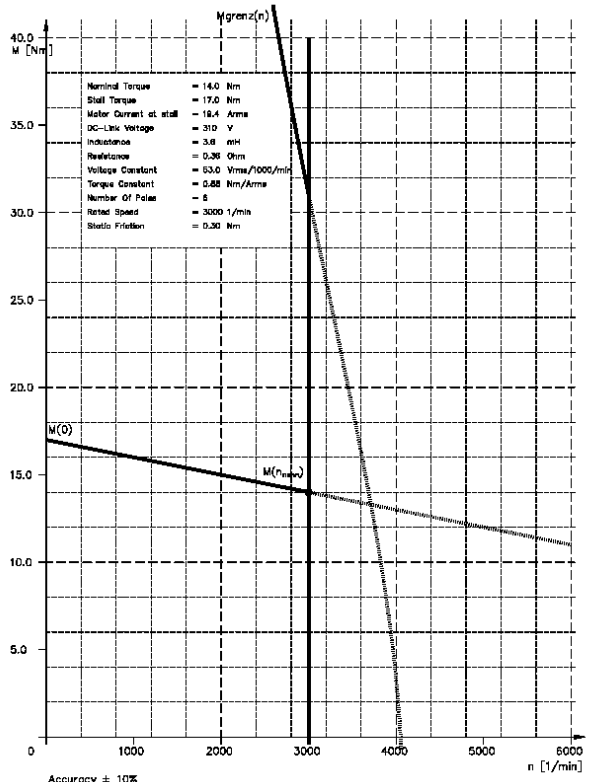
KOLLMORGEN 	Performance curve DBL5H01050	A.4.044.3/19
	Drawn: 03.04.2001 MPG	Rev.: Checked: Changes: 18.02.2002/1 SBE

DBL5H01350



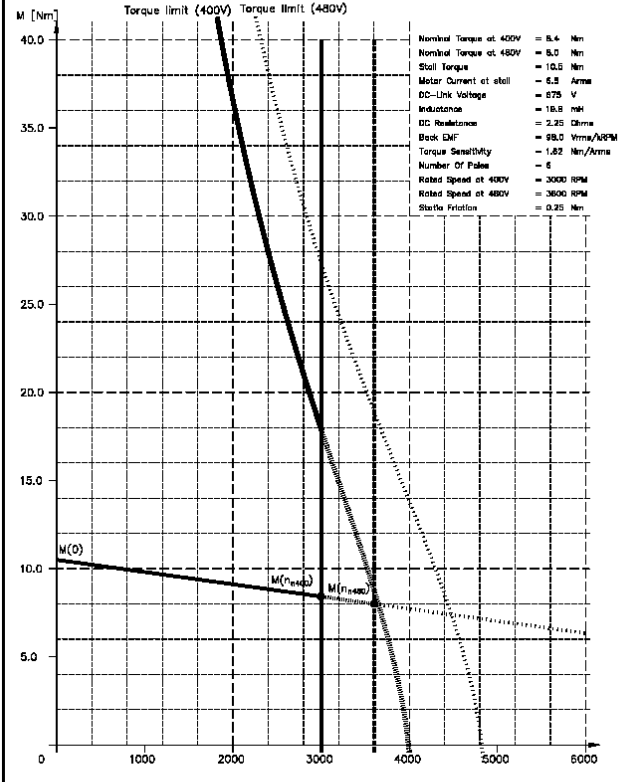
KOLLMORGEN 	Performance curve DBL5H01350	A.4.044.3/20
	Drawn: 03.04.2001 MPG	Rev.: Checked: Changes: 20.02.2002/1 SBE

DBL5H01700



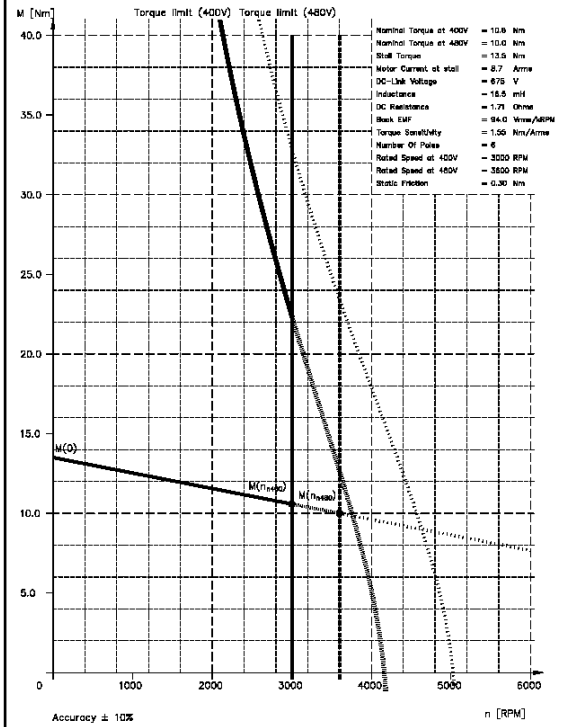
KOLLMORGEN 	Performance curve DBL5H01700	A.4.044.3/21
	Drawn: 03.04.2001 MPG	Rev.: Checked: Changes: 20.02.2002/1 SBE

DBL5N01050



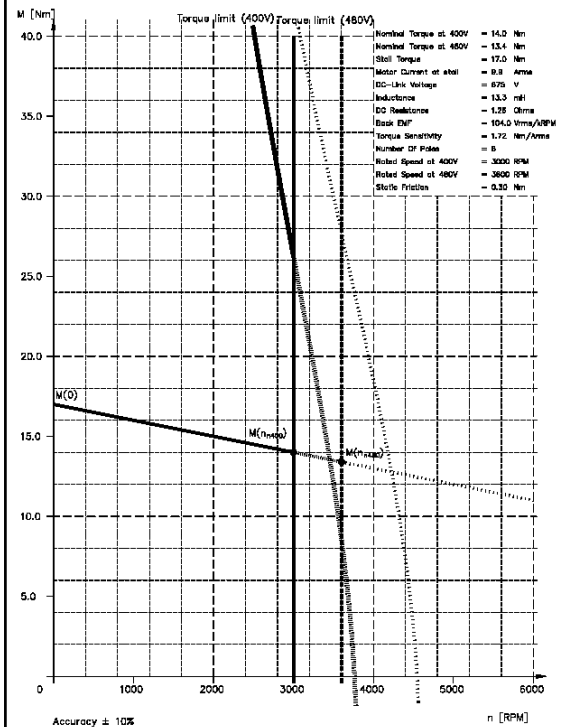
KOLLMORGEN 	Performance Curve DBL5N01050	A.4.044.3/22
	Drawn: 03.04.2001 MPG	Rev.: Checked: Changes: 21.02.2002/1 SBE

DBL5N01350



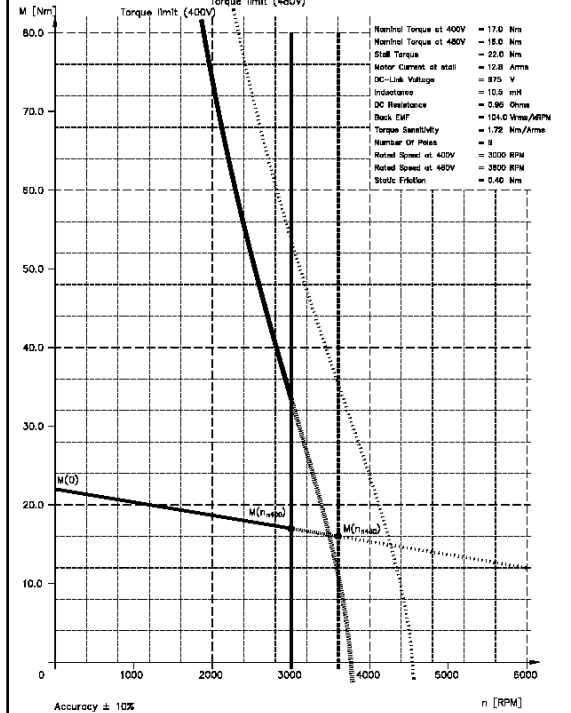
KOLLMORGEN 	Performance Curve DBL5N01350		A.4.044.3/23
	Drawn Checked	03.04.2007 MPG	Rev.: Changes: 21.02.2009 /1 SBE

DBL5N01700



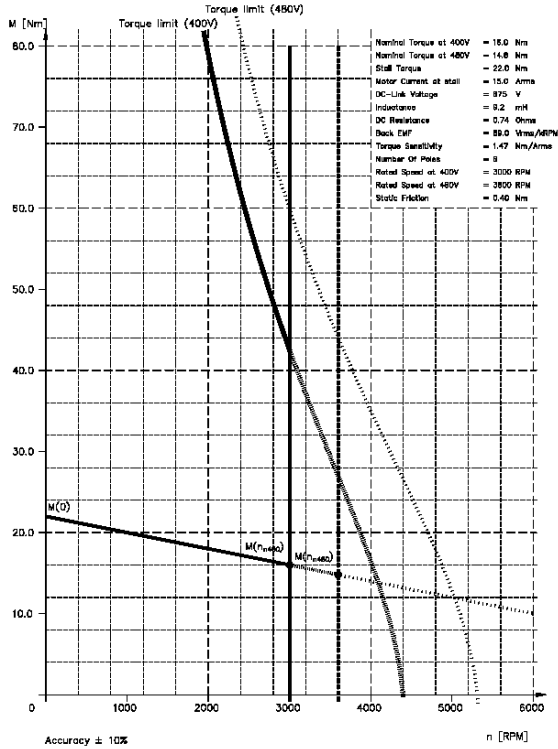
KOLLMORGEN 	Performance Curve DBL5N01700		A.4.044.3/24
	Drawn Checked	03.04.2007 MPG	Rev.: Changes: 21.02.2009 /1 SBE

DBL5N02200



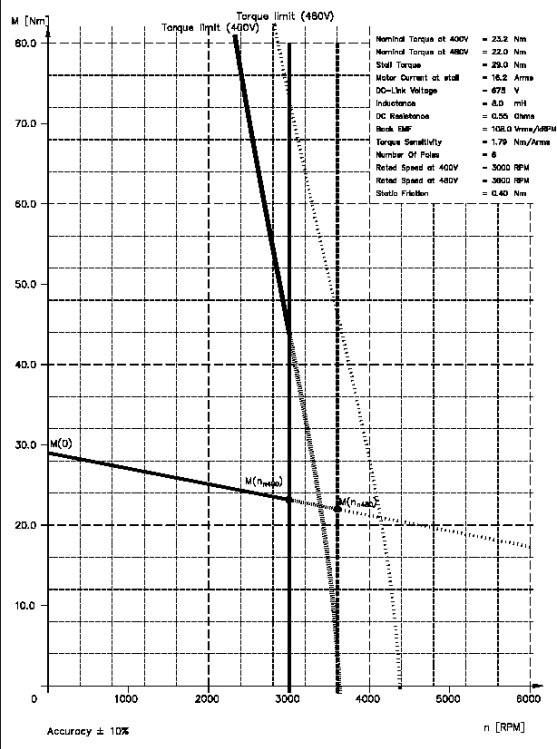
KOLLMORGEN 	Performance Curve DBL5N02200		A.4.044.3/25
	Drawn Checked	03.04.2007 MPG	Rev.: Changes: 21.02.2009 /1 SBE

DBL6N02200



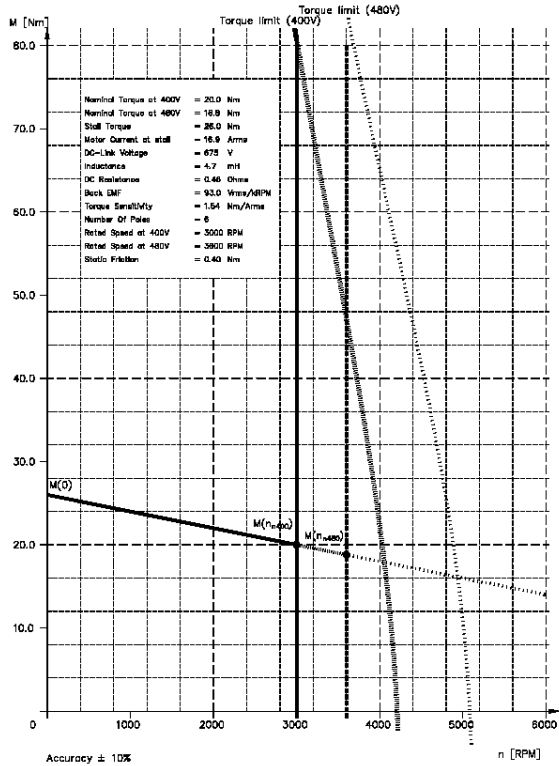
KOLLMORGEN 	Performance Curve DBL6N02200		A.4.044.3/26	
	Drawn	03.04.2001	MPG	Rem.: Changes: 21.02.2002/1
	Checked			SBE

DBL6N02900



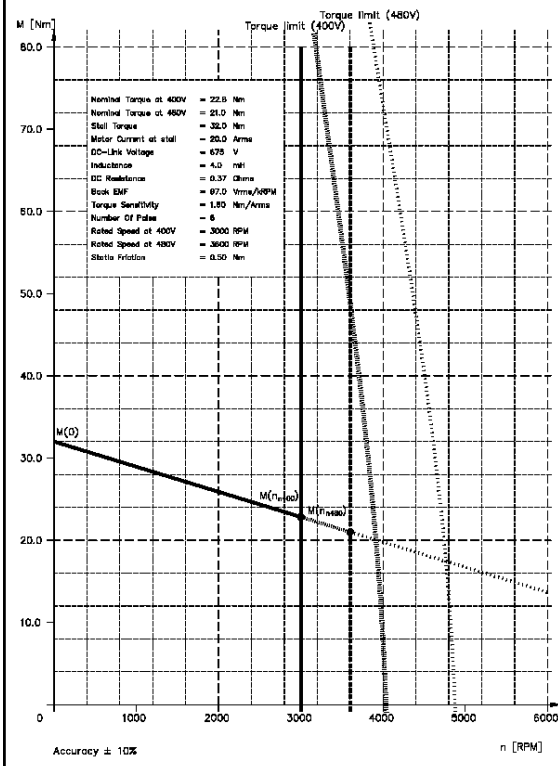
KOLLMORGEN 	Performance Curve DBL6N02900		A.4.044.3/27	
	Drawn	03.04.2001	MPG	Rem.: Changes: 21.02.2002/1
	Checked			SBE

DBL7N02600



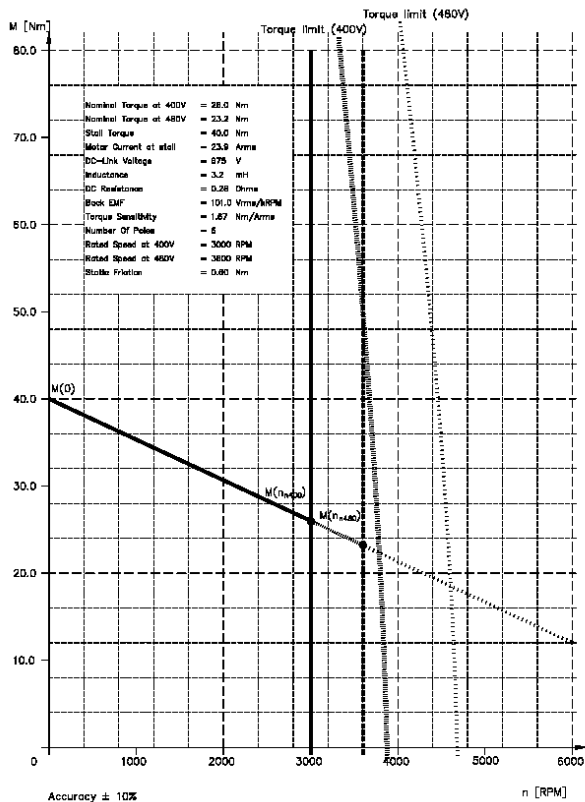
KOLLMORGEN 	Performance Curve DBL7N02600		A.4.044.3/28
	Drawn	03.04.2001 MPG	Rev.: _____
	Checked		Changes: 21.02.2002/1 SBC

DBL7N03200



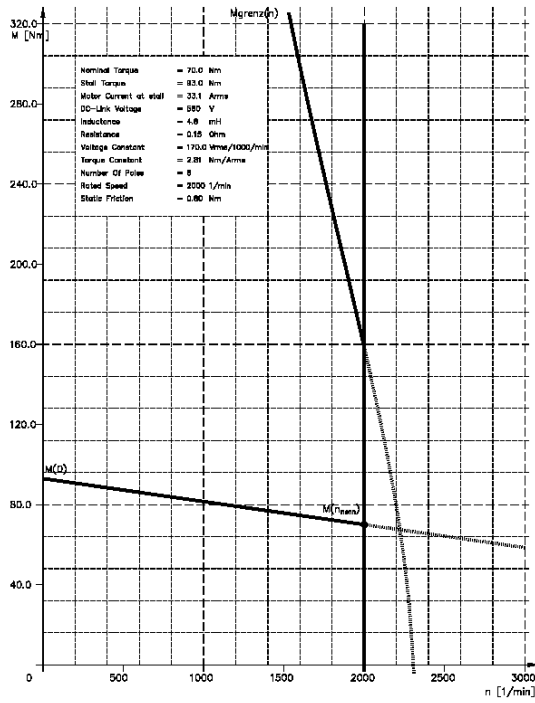
KOLLMORGEN 	Performance Curve DBL7N03200		A.4.044.3/29
	Drawn	03.04.2001 MPG	Rev.: _____
	Checked		Changes: 21.02.2002/1 SBC

DBL7N04000



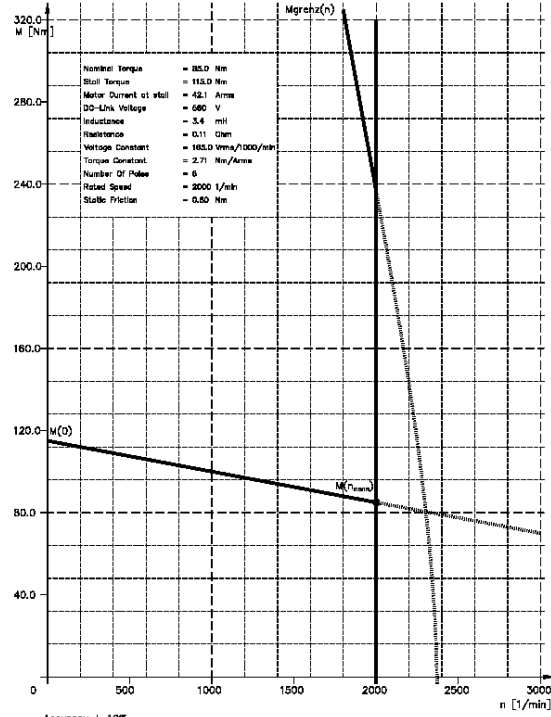
KOLLMORGEN 	Performance Curve DBL7N04000		A.4.044.3/30
	Drawn	03.04.2001 MPG	Rev.: _____
	Checked		Changes: 21.02.2002/1 SBC

DBL8L09300



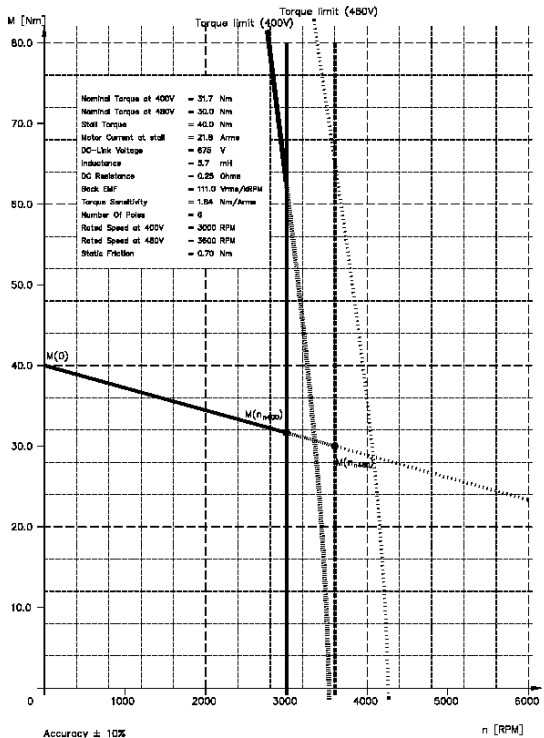
KOLLMORGEN	Performance curve DBL8L09300	A.4.044.3/31
Seda	Drawn: 03.04.2007 MPG	Rev.: Changes: 20.02.2002/1 SBE

DBL8L11500



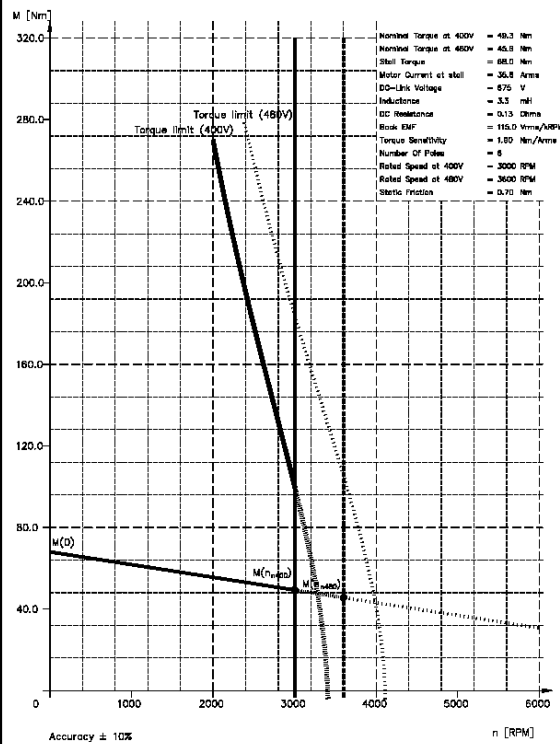
KOLLMORGEN	Performance curve DBL8L11500	A.4.044.3/32
Seda	Drawn: 03.04.2007 MPG	Rev.: Changes: 20.02.2002/1 SBE

DBL8N06800



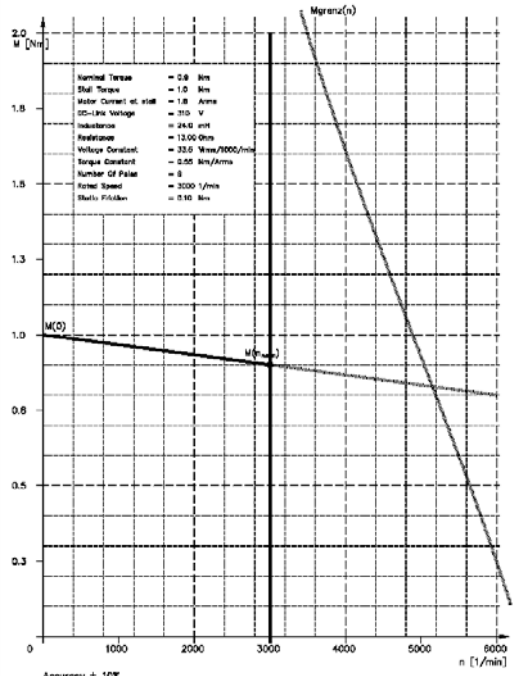
KOLLMORGEN	Performance Curve DBL8N06800	A.4.044.3/33
Seda	Drawn: 03.04.2007 MPG	Rev.: Changes: 21.02.2002/1 SBE

DBL8N04000



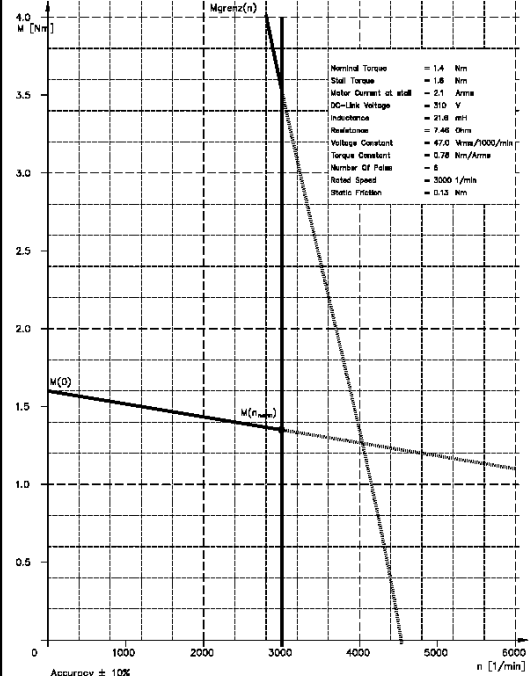
KOLLMORGEN	Performance Curve DBL8N04000	A.4.044.3/34
Seda	Drawn: 03.04.2007 MPG	Rev.: Changes: 21.02.2002/1 SBE

DBK4H100



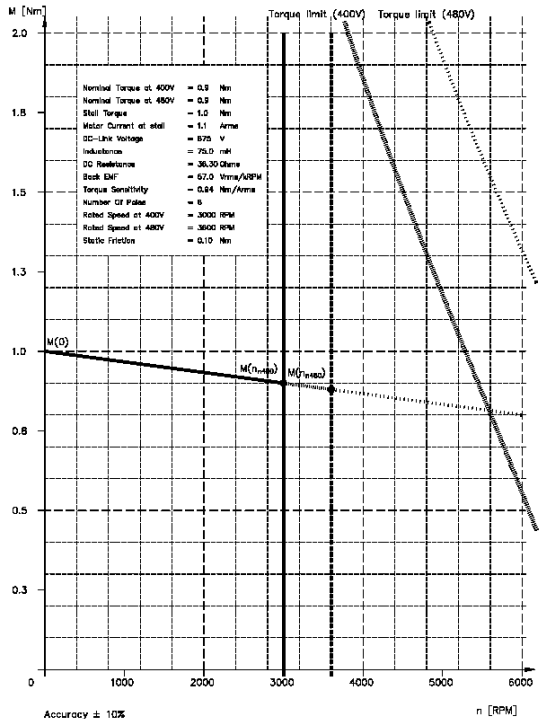
KOLLMORGEN	Performance curve DBK4H00100	A.4.044.3/44
Drawn	03.04.2001 MPG	Rev.: _____
Checked	_____	Changes: 20.02.2002/1 SBE

DBK4H00160



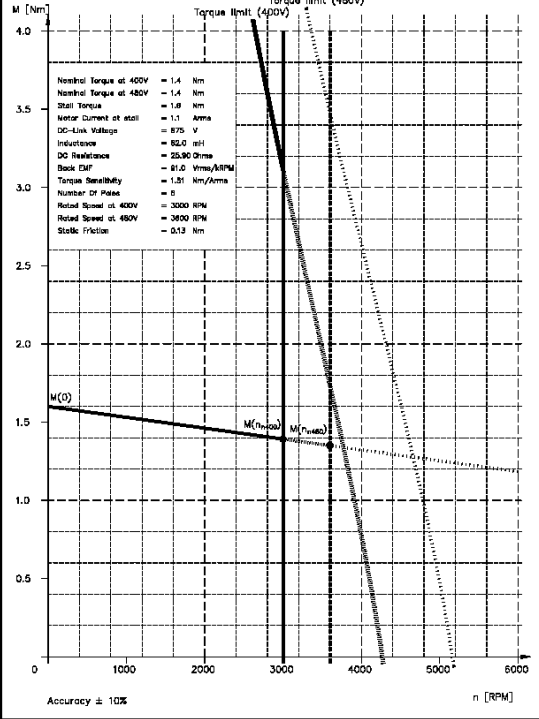
KOLLMORGEN	Performance curve DBK4H00160	A.4.044.3/45
Drawn	03.04.2001 MPG	Rev.: _____
Checked	_____	Changes: 20.02.2002/1 SBE

DBK4N00100



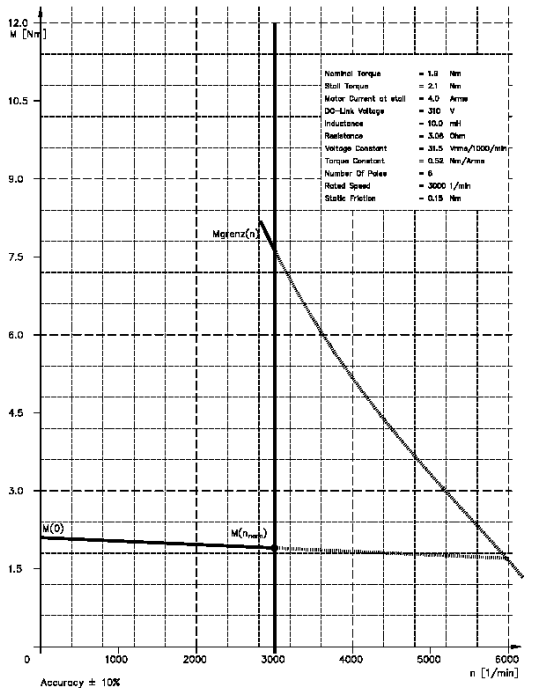
KOLLMORGEN	Performance Curve DBK4N00100	A.4.044.3/35
Drawn	03.04.2001 MPG	Rev.: _____
Checked	_____	Changes: 21.02.2002/1 SBE

DBK4N00160



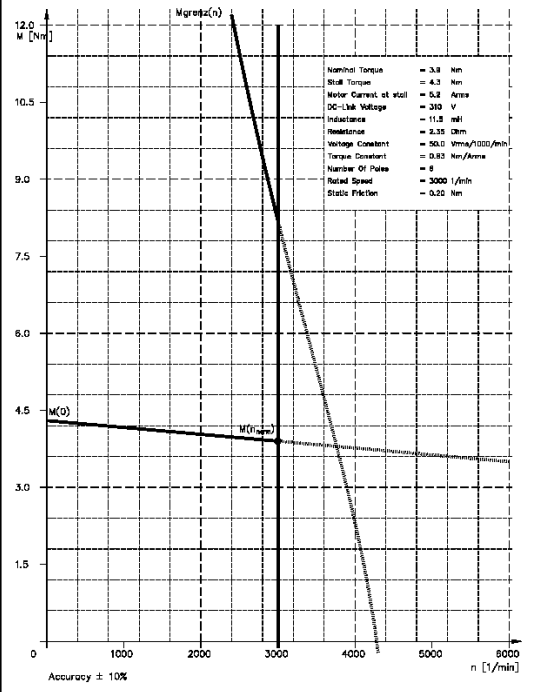
KOLLMORGEN	Performance Curve DBK4N00160	A.4.044.3/46
Drawn	03.04.2001 MPG	Rev.: _____
Checked	_____	Changes: 21.02.2002/1 SBE

DBK5H00210



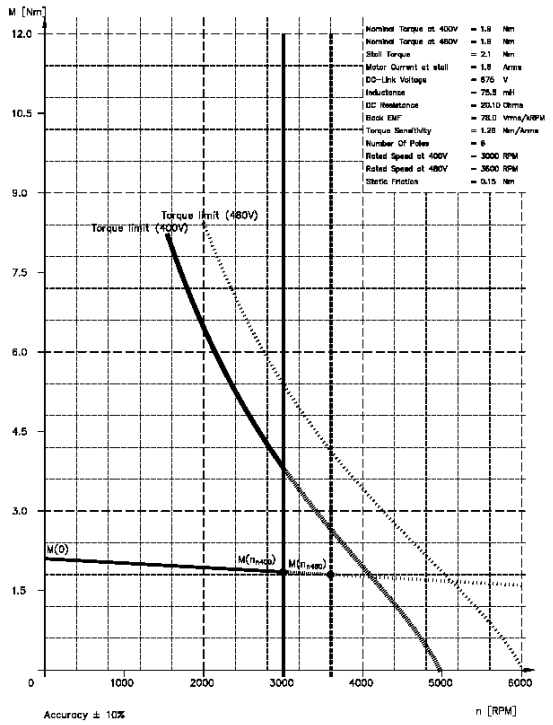
KOLLMORGEN	Performance curve DBK5H00210	A.4.044.3/47
	Drawn: 03.04.2001 MPG	Rem.: 20.02.2002/1 SBE
	Checked:	Changes:

DBK5H00430



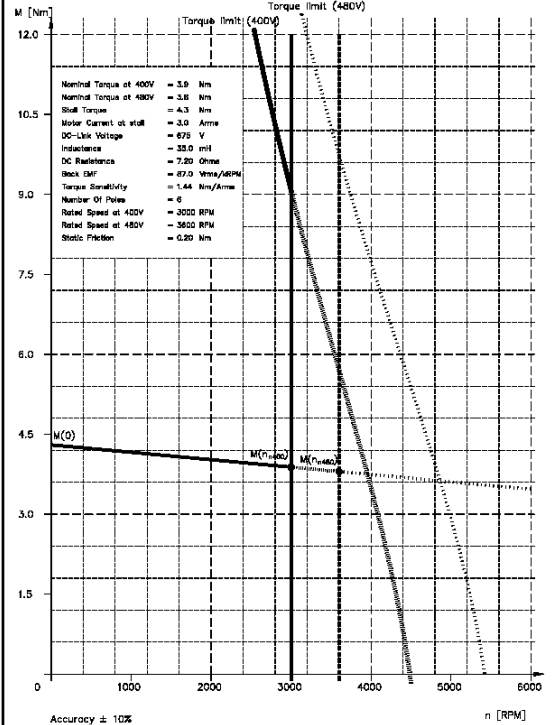
KOLLMORGEN	Performance curve DBK5H00430	A.4.044.3/48
	Drawn: 03.04.2001 MPG	Rem.: 20.02.2002/1 SBE
	Checked:	Changes:

DBK5N00210



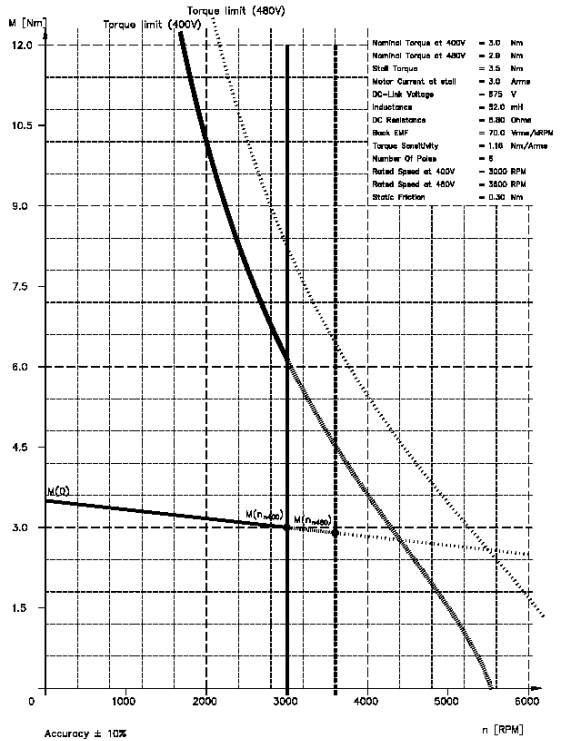
KOLLMORGEN	Performance Curve DBK5N00210	A.4.044.3/36
	Drawn: 03.04.2001 MPG	Rem.: 21.02.2002/1 SBE
	Checked:	Changes:

DBK5N00430



KOLLMORGEN	Performance Curve DBK5N00430	A.4.044.3/37
	Drawn: 03.04.2001 MPG	Rem.: 21.02.2002/1 SBE
	Checked:	Changes:

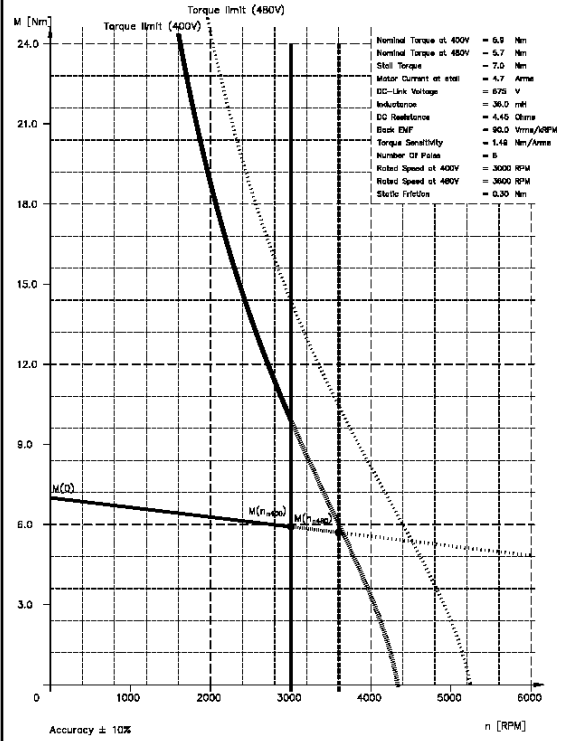
DBK6N00350



Accuracy ± 10%

KOLLMORGEN	Performance Curve DBK6N00350	A.4.044.3/38
Drawn	03.04.2001 MPG	Rem.:
Checked		Changes: 21.02.2002/1 SBE

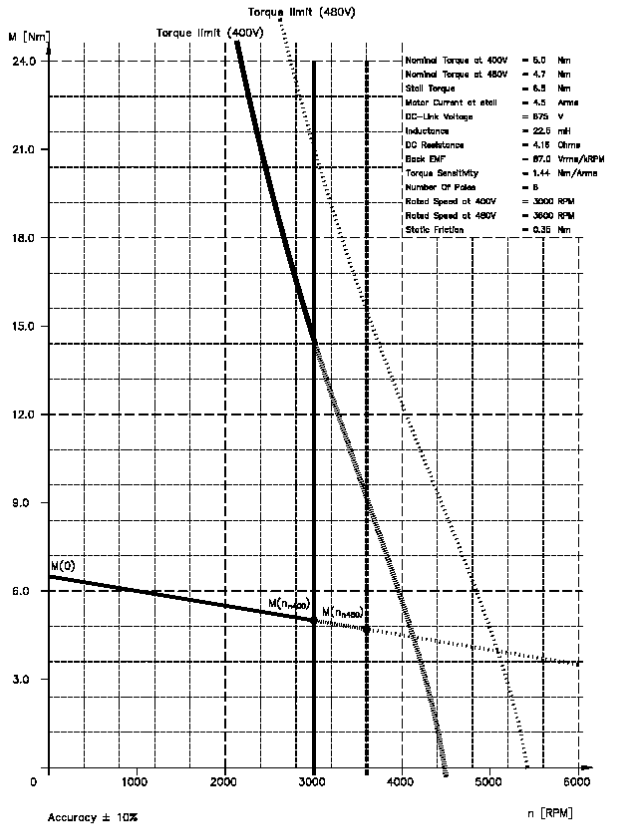
DBK6N00700



Accuracy ± 10%

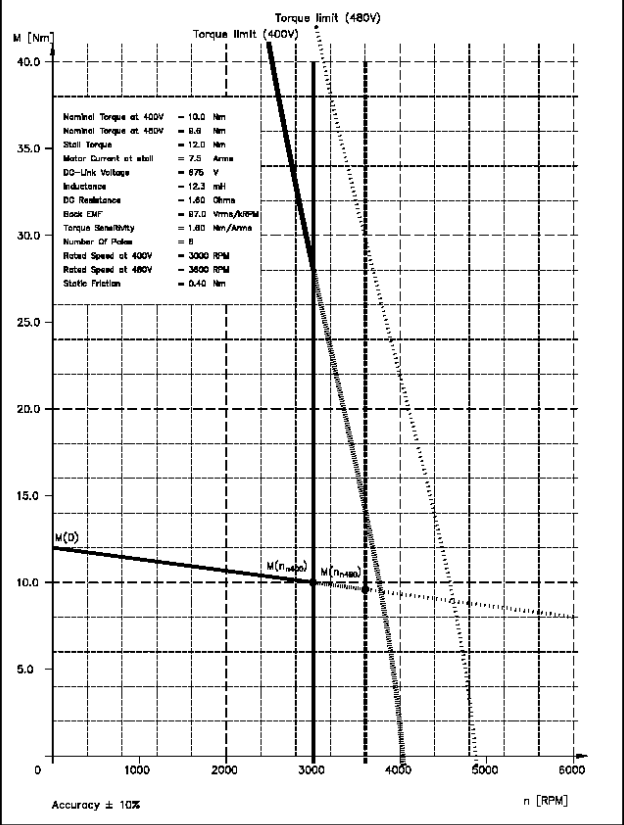
KOLLMORGEN	Performance Curve DBK6N00700	A.4.044.3/39
Drawn	03.04.2001 MPG	Rem.:
Checked		Changes: 21.02.2002/1 SBE

DBK7N00650



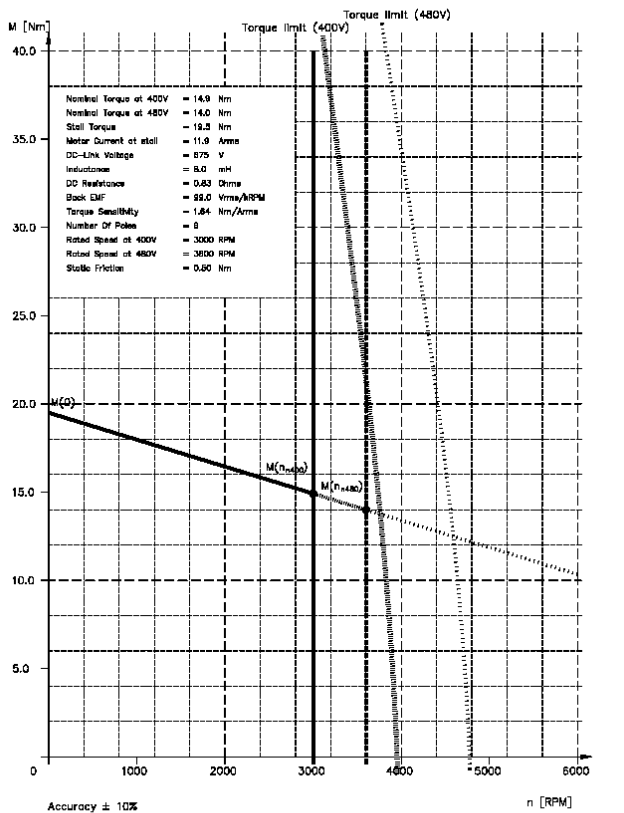
KOLLMORGEN	Performance Curve DBK7N00650		A. 4.044.3/49
	Drawn: 03.04.2001	MPG	Rem.: Checked: 21.02.2002 /1 SBE

DBK7N1200



KOLLMORGEN	Performance Curve DBK7N1200		A. 4.044.3/40
	Drawn: 03.04.2001	MPG	Rem.: Checked: 21.02.2002 /1 SBE

DBK7N01950



KOLLMORGEN	Performance Curve DBK7N01950		A. 4.044.3/41
	Drawn: 03.04.2001	MPG	Rem.: Checked: 21.02.2002 /1 SBE