



DST2

Technische Dokumentation
Synchronous high torque motors DST2 135-400

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Technical data, motor components,
dimensional sheets and characteristics

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Version 11/2025

1. Synchronous high torque motors DST2



Torque motors from the **DST2** series are permanent magnet multi-pole synchronous liquid cooled motors. Due to the high torque densities in the low and mid speed ranges, this series of energy-efficient motors is suitable for direct drives in general engineering applications.

A combination of high overload capability and extremely good concentricity properties makes the drives ideal for complex, dynamic applications.

The integral stainless-steel water-cooling system dissipates lost heat efficiently and offers a high degree of protection.

1.1 General technical data

Design	IM B14	Size 135 (solid shaft motors)
	IM B34	Size 135/200/260/315/400 (solid shaft motors)
Type of protection	IM B14	Foot on D and N-side, available as an option
	IM B34	Size 135/200/260/315 (hollow shaft motors)
	IM B34	Size 400 (hollow shaft motors)
	IM B34	Size 135/200/260/315/400 (thrust bearing motors)
	IM B34	Complete motors
Connection	Main connection	U V W (terminal box)
	Encoder connection	Socket rotatable 12 - or 17-pole, socket 9-pole for EnDat 2.2 in Speedtec version
Cooling type	Temperature sensor	In main connection
	IC 3W7	Water-cooled
Coolant inlet temperature	10 °C to 25 °C	To prevent the formation of condensate during operation, note the defined climate class
Temperature sensor	PT1000, KTY84-130 optional	For evaluation in the controller
Heating	$\Delta\theta \leq 125 \text{ K}$	Insulation material class H as per EN 60034
Ambient conditions for running	Class 3K3/3Z12 as per DIN EN 60721-3-3, however: temperature range 0-40 °C	Represents 0 to 40 °C at 5 % to 85 % rel. humidity and an absolute humidity of 1 g/m ³ to 25 g/m ³ and an installation height up to approx. 1,400 m.
		(-15 to 40 °C available on request)
Ambient conditions for long-term storage	Class 1K2/1M1 DIN EN 60721-3-1, however: temperature range -15-60 °C	Represents -15 to 60 °C at 5 % to 85 % rel. humidity and an absolute humidity of 1 g/m ³ to 25 g/m ³ ;
		at temperatures below 3 °C you should drain the cooling water
Ambient conditions for transport	Class 2K2/2M1 DIN EN 60721-3-2, however: temperature range -15-60 °C	Represents -15 to 60 °C at 5 % to 85 % rel. humidity and an absolute humidity of 1 g/m ³ to 25 g/m ³ ;
		at temperatures below 3 °C you should drain the cooling water
Terminal box position	NDE side; top	For position options/main connection outlet, see chapter 4.7
Position of water connections	DE side; top	The water connection position options are identical to the main connection position options, i.e., position of water connection = position of terminal box
		As per DIN EN60034-14 (VDE 0530, part 14):2004-09 maintained up to maximum rated speed
Vibration class	A	10-55 Hz as per EN 60068-2-6
Vibration resistance up to	radial 3 g/axial 1 g	

Shaft	Cylindrical	As per DIN 748 without key Centring with internal thread as per DIN 332 form DE side See chapter 4.6 for shaft options
Surface	Black matt	RAL 9005
Encoder	Resolver Sincos encoder, digital encoder	Standard - see chapter 3 Options - see chapter 3; Other encoders on request
Approvals	CE;  UKCA	Standard

*) If increased vibration loads are present, measurements on site are required. Based on this, constructive revisions or evaluations are carried out with the company Baumüller

1.2 General safety instructions

The motors in the standard version are not suitable for operation in salty or aggressive atmospheres, nor for outdoor installation. If the ambient air around ventilated motors is contaminated by dust particles or similar substances that cannot be reliably filtered out by the installed filter elements, the manufacturer must be consulted to find a solution.

Before commissioning the motor, application- and system-specific measures must be taken to reduce bearing currents. In this context, consultation with the motor manufacturer is necessary.

Note:

Assigning a motor to a specific protection class is based on a standardized short-term test procedure. This classification may differ significantly from actual environmental conditions at the place of use. Depending on environmental factors – such as the chemical composition of dust or the type of cooling media used at the site – the protection class may only provide limited information regarding the motor's suitability (e.g., electrically conductive dust, aggressive coolant vapors or liquids). In such cases, the motor must be additionally protected by appropriate mechanical measures.

1.3 Winding insulation

The motors are designed for operation with inverters having a DC link voltage of up to 640V. Operation at higher DC link voltages is possible.

When operating at higher DC link voltages, it must be ensured that voltage peaks exceeding 1200V at the motor terminals are avoided by appropriate measures. This can be achieved, for example, by using suitable filters in the motor supply line. In applications with braking functions, it must also be ensured during the braking process that voltages of 1200V or higher never occur at the motor terminals.

1.4 Definition of power ratings

The power ratings (torques) listed apply to continuous operation S1 at rated speed, provided that the cooling circuit requirements for water-cooled motors are met.

When operating the motors with higher coolant inlet temperatures, the reduction factors shown in the table below must be taken into account.

Coolant inlet temperature	25 °C	30 °C	35 °C	40 °C	45 °C
Percent of listed output (torque)	100 %	97 %	95 %	92 %	89 %

1.5 Liquid cooling

1.5.1 Coolant consistency

Conditions	Unit	Value
Maximum permitted system pressure	bar	6
Temperature of coolant - for motor	°C	10 to 25
pH value (at 20° C)	---	6,5 to 9
Overall hardness	mmol/l	1,43 to 2,5
Chloride - Cl ⁻	mg/l	< 200
Sulfate - SO ₄ ²⁻	mg/l	< 200
Oil	mg/l	< 1
Permitted particle size of solid foreign objects, particles (e. g. sand)	mm	< 0,1

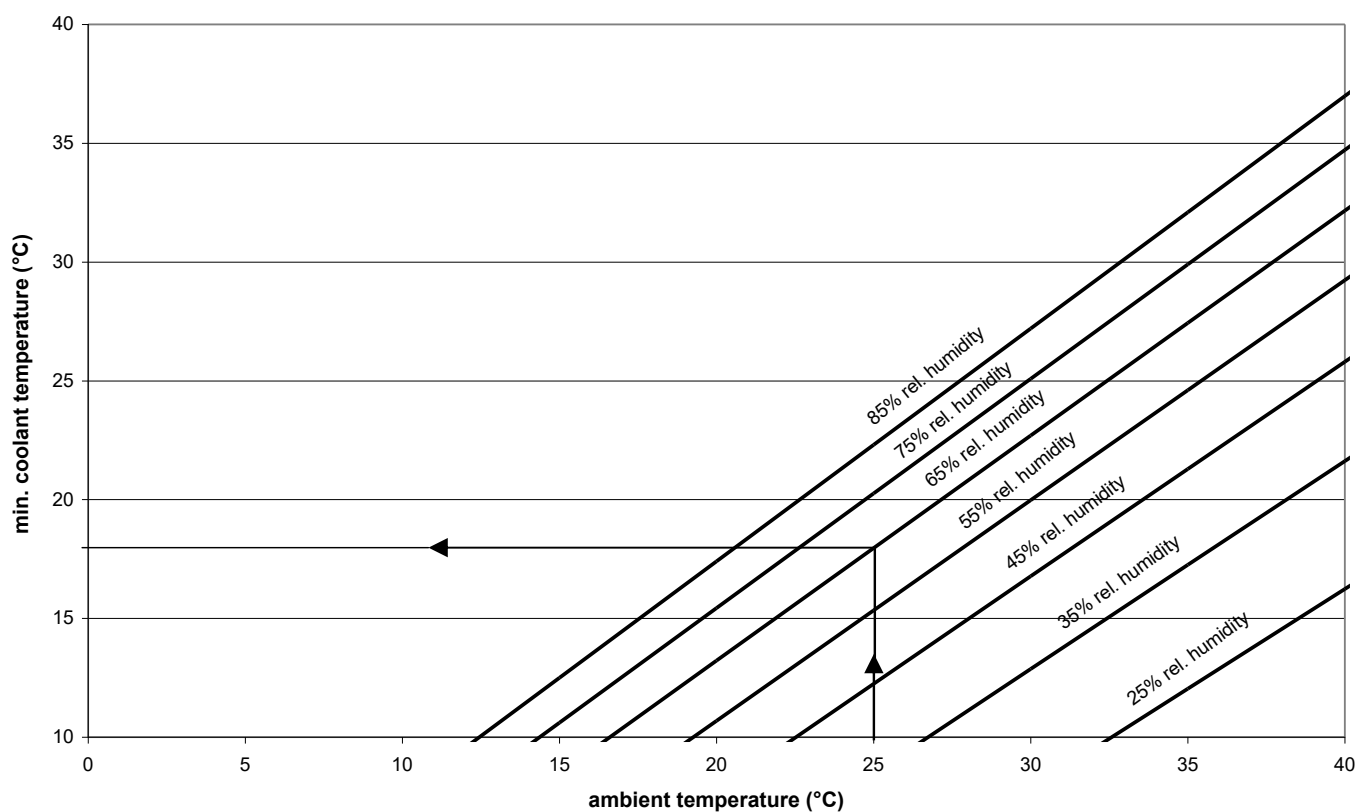
Clear, particle-free, and dirt-free water must be used as the coolant. Sufficient additives for corrosion protection and germ protection must be mixed in. The type and concentration of additives should follow the recommendations of the respective manufacturers and be suited to the specific environmental conditions.

Note:

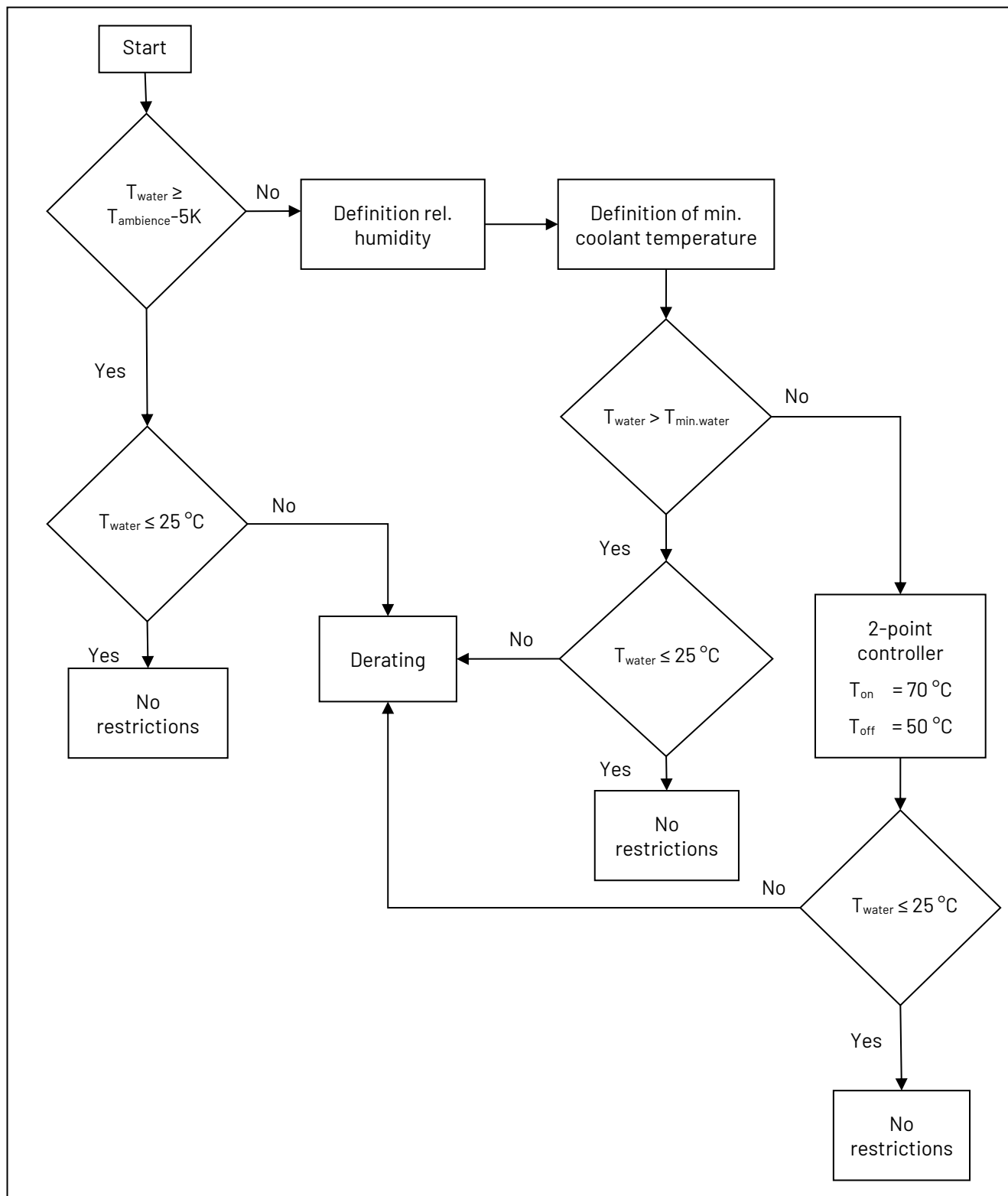
A reduction in specific heat capacity – such as through the addition of glycol – results in a performance reduction depending on the mixing ratio. This should be clarified with the manufacturer.

The exact performance specifications and data sheets for oil-cooled drives are not included in this documentation and are available upon request only.

1.5.2 Coolant temperature



The permissible temperature of the coolant depends on the relative humidity during operation and the ambient temperature. For example, at an ambient temperature of 25°C and a relative humidity of 65%, a minimum coolant inlet temperature of 18°C is permissible. The characteristic curves shown in the diagram represent limit values. Therefore, in this example, a coolant inlet temperature higher than 18°C should be selected. If the minimum permissible coolant inlet temperature is undershot, the 2-point controller of the Baumüller drive electronics must be used to prevent condensation.

**Note:**

In the event of prolonged motor downtime, the coolant supply must be interrupted to prevent condensation. Furthermore, at ambient temperatures below 3°C and during extended periods of motor inactivity, the coolant must be drained to prevent frost damage. If antifreeze agents are used, consultation with the manufacturer is required.

1.5.3 Cooling volume flow rate

Motor	Flow rate [l/min]	Pressure drop ±15% [bar]	Temperature rise [K]	Max. coolant pressure [bar]	Connection (G internal thread)
DST2-135K054W	4	0,2	10	6	2x 1/4"
DST2-135M054W	5	0,4	10	6	2x 1/4"
DST2-135L054W	6	0,7	10	6	2x 1/4"
DST2-135B054W	7	0,9	10	6	2x 1/4"
DST2-135X054W	6	0,8	10	6	2x 1/4"
DST2-135Y054W	7	1,0	10	6	2x 1/4"

Motor	Flow rate [l/min]	Pressure drop ±15% [bar]	Temperature rise [K]	Max. coolant pressure [bar]	Connection (G internal thread)
DST2-200K054W	7	0,5	13	6	2x 3/8"
DST2-200KM54W	7	0,7	13	6	2x 3/8"
DST2-200M054W	8	0,9	13	6	2x 3/8"
DST2-200ML54W	9	1,2	13	6	2x 3/8"
DST2-200L054W	10	1,6	13	6	2x 3/8"
DST2-200B054W	10	1,8	13	6	2x 3/8"
DST2-200X054W	10	2,3	13	6	2x 3/8"
DST2-200XY54W	11	2,8	13	6	2x 3/8"

Motor	Flow rate [l/min]	Pressure drop ±15% [bar]	Temperature rise [K]	Max. coolant pressure [bar]	Connection (G internal thread)
DST2-260K054W	10	0,4	15	6	2x 1/2"
DST2-260KM54W	11	0,6	15	6	2x 1/2"
DST2-260M054W	12	0,8	15	6	2x 1/2"
DST2-260ML54W	13	1,0	15	6	2x 1/2"
DST2-260L054W	15	1,4	15	6	2x 1/2"
DST2-260LB54W	14	1,3	15	6	2x 1/2"
DST2-260B054W	18	2,2	15	6	2x 1/2"
DST2-260X054W	17	2,3	15	6	2x 1/2"

Motor	Flow rate [l/min]	Pressure drop ±15% [bar]	Temperature rise [K]	Max. coolant pressure [bar]	Connection (G internal thread)
DST2-315K054W	11	0,1	18	6	2x 1/2"
DST2-315KM54W	12	0,2	18	6	2x 1/2"
DST2-315M054W	13	0,4	18	6	2x 1/2"
DST2-315ML54W	13	0,5	18	6	2x 1/2"
DST2-315L054W	15	0,8	18	6	2x 1/2"
DST2-315LB54W	15	0,9	18	6	2x 1/2"
DST2-315B054W	15	1,1	18	6	2x 1/2"
DST2-315X054W	18	2,1	18	6	2x 1/2"
DST2-315XY54W	20	2,9	18	6	2x 1/2"
DST2-315Y054W	16	2,0	18	6	2x 1/2"
DST2-315Z054W	17	2,7	18	6	2x 1/2"
DST2-315ZA54W	18	3,4	18	6	2x 1/2"

Motor	Flow rate [l/min]	Pressure drop ±15% [bar]	Temperature rise [K]	Max. coolant pressure [bar]	Connection (G internal thread)
DST2-400K054W	27	1,1	9	6	2x 1"
DST2-400KM54W	27	1,3	10	6	2x 1"
DST2-400M054W	27	1,4	10	6	2x 1"
DST2-400L054W	27	1,7	12	6	2x 1"
DST2-400B054W	27	1,9	13	6	2x 1"
DST2-400XY54W	27	2,3	16	6	2x 1"

Depending on the motor temperature, which is detected via the temperature sensor, individual control of the inlet valve is possible.

Note:

The specified cooling air volume flows refer to the maximum speed of the respective motor lengths.

An individual cooling unit design based on the motor power loss ($P_V = P_N / \eta_N - P_N$) is possible. The cooling unit must be dimensioned in such a way that the cooling capacity corresponds to the motor power loss, ensuring that 100% of the waste heat is dissipated via the cooling medium.

1.5.4 Materials that contact coolant

The following materials that contact the medium are used in the motor:

Motor	Cooling system	Connections	Seals
DST2-135	Stainless steel	brass	Vulcanized fiber
DST2-200			
DST2-260			
DST2-315			
DST2-400			

1.6 Motor data explanation

n_N	Rated speed [min^{-1}]
M_0	Nominal torque [Nm] with speeds $\geq 1 [\text{min}^{-1}]$ without time limit
I_0	nominal current [A] at M_0
$M_{0,\max}$	Maximum static torque [Nm] with maximum current [A] and speed = 0, momentarily
$I_{0,\max}$	Static current [A] at $M_{0,\max}$; $I_{0,\max}$ is the effective value
P_N	Rated output [kW] with M_N and n_N (see Performance definition)
M_N	Rated torque [Nm]
I_N	Rated effective current [A]
$K_{E/KALT}$	Voltage constant (EMF) [$\text{V}/1000 \text{ min}^{-1}$]
f_N	Rated frequency [Hz]
J	Rotor inertia incl. resolver without holding brake [kgcm^2]
m	Motor mass [kg]

When the converter is operating, the specified rated outputs and torques at the rated speed are achieved with a clocking frequency of $\geq 4 \text{ kHz}$ in the power divider. We recommend a cycle frequency of $> 6 \text{ kHz}$. All converters scheduled for use must have the option of field weakening as a mandatory requirement. The field weakening option is pre assumed at the converters which are used.

The drive configurator **sizemaXX** is provided on www.baumueller.com to design the motors as well as the entire drive system.

1.7 Type code

DST2 -XXXXXXXX-XXX-X-X-XX-X-XXX-X-XXX	Type
DST2- XXX XXXXX-XXX-X-X-XX-X-XXX-X-XXX	Size 135 200 260 315 400
DST2-XXX XX XXX-XXX-X-X-XX-X-XXX-X-XXX	Length KO KM MO ML LO LB BO XO XY YO ZO ZA
DST2-XXXXXX XX X-XXX-X-X-XX-X-XXX-X-XXX	Protection class 54 - IP54
DST2-XXXXXXX X -XXX-X-X-XX-X-XXX-X-XXX	Cooling method W - Liquid cooled
DST2-XXXXXXX- XXX -X-X-XX-X-XXX-X-XXX	Rated speed class 010 - 100 min ⁻¹ 015 - 150 min ⁻¹ 017 - 175 min ⁻¹ 020 - 200 min ⁻¹ 025 - 250 min ⁻¹ 030 - 300 min ⁻¹ 035 350 min ⁻¹ 045 450 min ⁻¹ 050 500 min ⁻¹ 055 550 min ⁻¹ 060 600 min ⁻¹ 075 750 min ⁻¹ 100 1000 min ⁻¹ 150 - 1500 min ⁻¹
DST2-XXXXXXX-XXX- X -X-XX-X-XXX-X-XXX	U_{zk} - DC 5 - 540 V

DST2-XXXXXXXX-XXX-X- <u>X</u> -XX-X-XXX-X-XXX	Encoder - O - Without encoder - A - Resolver - D - SRS50 - E - SRM50 - F - ECN1313 - G - EQN1325 - H - ECN1325 - I - EQN1337 - M - Resolver (Safety) - N - SRS50-S (Safety) - Q - SRM50-S (Safety) - X - EQI1331 - Y - ECI1319 5 - ECN1325-S (Safety) 6 - EQN1337-S (Safety) - p - ECI1319-S (Safety) - q - EQI1331-S (Safety)
DST2-XXXXXXXX-XXX-X-X- <u>X</u> X-X-XXX-X-XXX	Shaft type - V - Solid shaft - H - Hollow shaft - D - Thrust bearing
DST2-XXXXXXXX-XXX-X-X- <u>X</u> X-X-XXX-X-XXX	Shaft options - A - Smooth shaft - B - Shaft with key - D - Shaft with internal teeth acc. to DIN5480 - E - Shaft with external teeth acc. to DIN5480 - F - Shaft with external teeth acc. to DIN ISO14 - G - Blind hole with key - H - Blind hole with 2 keys - T - Smooth shaft with certificate 3.2 - V - Shaft with key with certificate 3.2
DST2-XXXXXXXX-XXX-X-X- <u>X</u> -XXX-X-XXX	Design 3 - IM B14 5 - IM B34 - Feet on NDE 6 - IM B34 - Feet on DE and NDE
DST2-XXXXXXXX-XXX-X-X- <u>X</u> XX-X-XXX	Type main connection M - Terminal box (with PT1000)
DST2-XXXXXXXX-XXX-X-X- <u>X</u> X-X-XXX	Outlet encoder connection - T - Top - B - Bottom - L - Left with view direction to the DE-side - R - Right with view direction to the DE-side

DST2-XXXXXXXX-XXX-X-X-XX-X-XX <u>X</u> -X-XXX	Outlet main connection T - Top B - Bottom L - Left with view direction to the DE-side R - Right with view direction to the DE-side
DST2-XXXXXXXX-XXX-X-X-XX-X-XXX- <u>X</u> -XXX	Relubricating O - Without relubricating D - Relubricating on DE N - Relubricating on DE and NDE
DST2-XXXXXXXX-XXX-X-X-XX-X-XXX-X- <u>XXX</u>	Special version 000 - Without special version EA0 - Electric name plate LK1 - Roller bearing XXX - Special version (internal coding) Special coding is alphanumeric

Example:

DST2-200K054W-10-5-A-HA-3-MTR-O-000

Special version:

Motors with multiple extended design features, such as shaft seal and roller bearing, would be designated alphanumerically and appear as follows:

DST2-200K054W-10-5-A-HA-3-MTR-O+DA1

2. Technische Daten

2.1 DST2-135

Mains voltage 3 AC 400V for converters with uncontrolled supply

n_N min ⁻¹	Motor	$M_0^{1)}$ Nm	$I_0^{1)}$ A	P_N kW	M_N Nm	I_N A	K_E / K_{ALT} V/1000min ⁻¹	η_N	f_N Hz	$I_{0,max}$ A	$n_{max}^{12)}$ min ⁻¹	KLK S. 74
175	DST2-135K054W-017-5	145	6,9	2,7	145	6,8	1398	0,69	29,2	18,9	390	10
	DST2-135M054W-017-5	270	12,6	4,9	265	12,4	1442	0,67		27,4	380	10
	DST2-135L054W-017-5	355	16,3	6,4	350	16,1	1468	0,69		35,9	370	10
	DST2-135B054W-017-5	435	19,7	7,8	430	19,3	1511	0,70		43,6	360	10
	DST2-135X054W-017-5	515	23,4	9,3	505	22,9	1509	0,71		52	360	10
	DST2-135Y054W-017-5	590	26,6	11	580	26,1	1515	0,72		61	360	10
350	DST2-135K054W-035-5	145	11,3	5,3	145	11,2	849	0,80	58,3	31,1	640	10
	DST2-135M054W-035-5	270	21	9,5	260	20,4	865	0,80		45,8	630	10
	DST2-135L054W-035-5	355	27,5	12	340	26,6	873	0,81		60	630	10
	DST2-135B054W-035-5	435	33,7	15	420	32,5	881	0,82		75	620	10
	DST2-135X054W-035-5	515	39,6	18	490	38,2	889	0,83		89	620	10
	DST2-135Y054W-035-5	590	44,6	21	565	43	903	0,84		102	610	10
550	DST2-135K054W-055-5	145	17,6	8,2	145	17,3	545	0,85	91,6	48,4	1000	10
	DST2-135M054W-055-5	270	33,1	15	260	31,2	550	0,86		72	1000	10
	DST2-135L054W-055-5	360	41,5	20	340	40,2	558	0,87		95	980	10
	DST2-135B054W-055-5	435	52	24	420	48,5	566	0,88		116	970	10
	DST2-135X054W-055-5	515	61	28	495	56	575	0,89		138	950	10
	DST2-135Y054W-055-5	590	70	33	565	64	572	0,89		160	960	10
750	DST2-135K054W-075-5	145	23,1	11	140	22,7	415	0,88	125,0	63	1300	10
	DST2-135M054W-075-5	270	42,4	20	250	39,8	429	0,88		92	1250	10
	DST2-135L054W-075-5	355	56	26	330	53	425	0,89		124	1250	10
	DST2-135B054W-075-5	435	70	32	405	65	426	0,90		155	1250	10
	DST2-135X054W-075-5	515	82	37	475	76	428	0,90		185	1250	12
	DST2-135Y054W-075-5	590	95	43	545	87	425	0,91		215	1250	12
1000	DST2-135K054W-100-5	145	29,6	15	140	28,9	324	0,89	166,6	81	1650	10
	DST2-135M054W-100-5	270	56	26	245	52	324	0,90		122	1700	10
	DST2-135L054W-100-5	355	75	34	325	69	320	0,91		165	1700	10
	DST2-135B054W-100-5	435	90	42	395	82	330	0,92		200	1650	12
	DST2-135X054W-100-5	515	109	49	465	98	323	0,92		245	1700	12
	DST2-135Y054W-100-5 ³⁾	595	113	57	540	105	340	0,93		270	1600	12
1500	DST2-135K054W-150-5 ³⁾	145	43,3	22	140	42,3	220	0,90	250,0	120	2000	10
	DST2-135M054W-150-5 ³⁾	270	76	37	235	69	235	0,91		170	2000	10
	DST2-135L054W-150-5 ³⁾	355	99	49	315	90	236	0,92		225	2000	12
	DST2-135B054W-150-5 ³⁾	440	118	60	380	107	243	0,93		270	2000	12

Motor	$M_{0,max}$ [Nm]	J solid shaft [kgm ²]	J hollow shaft [kgm ²]	M solid shaft [kg]	M hollow shaft [kg]	M thrust bearing [kg]
DST2-135K0..	325	0,09	0,13	97	82	126
DST2-135M0..	485	0,12	0,15	115	93	144
DST2-135L0..	645	0,15	0,17	132	105	161
DST2-135B0..	800	0,19	0,18	151	119	180
DST2-135X0..	950	0,22	0,20	168	130	197
DST2-135Y0..	1110	0,25	0,22	186	141	214

¹⁾ The max. permitted operating speed for thrust bearing motors is 1000 min⁻¹, from 300 min⁻¹ it's obligatory to use an oil cooler.

²⁾ The max. permitted operating speed for hollow shaft motors is 1000 min⁻¹.

³⁾ The motor type is only available as a solid shaft model.

2.2 DST2-200

Mains voltage 3 AC 400V for converters with uncontrolled supply

n_N min ⁻¹	Motor	$M_0^{1)}$ Nm	$I_0^{1)}$ A	P_N kW	M_N Nm	I_N A	K_E / K_{ALT} V/1000min ⁻¹	η_N	f_N Hz	$I_{0,max}$ A	$n_{max}^{12)}$ min ⁻¹	KLK S. 74
150	DST2-200K054W-015-5	360	13,5	5,5	350	13,5	1840	0,71	37,5	42,3	290	20
	DST2-200KM54W-015-5	550	20	8,4	535	20	1870	0,75		62	290	20
	DST2-200M054W-015-5	735	26,5	11	720	26,5	1880	0,77		83	290	20
	DST2-200ML54W-015-5	925	32,6	14	905	32,6	1915	0,78		102	280	20
	DST2-200L054W-015-5	1110	37,7	17	1070	37,7	1991	0,78		117	270	22
	DST2-200B054W-015-5	1490	52	23	1470	52	1918	0,80		160	280	22
	DST2-200X054W-015-5	1860	65	29	1830	65	1937	0,80		200	280	22
	DST2-200XY54W-015-5	2050	72	32	2030	72	1906	0,81		225	280	22
300	DST2-200K054W-030-5	360	25,7	11	355	25,6	971	0,81	75,0	80	560	20
	DST2-200KM54W-030-5	550	38,7	17	540	38,6	965	0,84		121	570	20
	DST2-200M054W-030-5	735	51	23	725	51	980	0,86		160	560	20
	DST2-200ML54W-030-5	925	63	29	910	63	994	0,87		195	550	20
	DST2-200L054W-030-5	1110	77	35	1100	76	978	0,87		240	560	22
	DST2-200B054W-030-5	1490	103	46	1480	102	977	0,88		320	560	22
	DST2-200X054W-030-5	1860	123	58	1840	123	1017	0,89		385	540	24
	DST2-200XY54W-030-5	2050	137	64	2030	137	1006	0,89		425	540	24
450	DST2-200K054W-045-5	360	36,2	16	345	35,8	689	0,84	112,5	113	800	20
	DST2-200KM54W-045-5	550	54	25	530	53	696	0,87		170	790	20
	DST2-200M054W-045-5	735	72	34	715	71	693	0,89		225	790	20
	DST2-200ML54W-045-5	925	91	43	900	90	687	0,90		285	800	24
	DST2-200L054W-045-5	1110	109	51	1090	108	687	0,90		340	800	24
	DST2-200B054W-045-5	1490	145	69	1460	144	691	0,91		450	790	24
	DST2-200X054W-045-5	1860	185	86	1830	180	684	0,91		570	800	26
	DST2-200XY54W-045-5	2050	200	95	2010	195	696	0,91		615	790	26
600	DST2-200K054W-060-5	360	48,8	21	340	47,9	510	0,85	150,0	155	1050	20
	DST2-200KM54W-060-5	550	72	33	525	71	520	0,89		225	1050	20
	DST2-200M054W-060-5	735	94	44	705	92	529	0,90		295	1000	24
	DST2-200ML54W-060-5	925	120	56	895	118	521	0,91		375	1050	24
	DST2-200L054W-060-5	1110	145	68	1080	142	518	0,92		450	1050	24
	DST2-200B054W-060-5	1490	190	91	1440	185	527	0,92		590	1000	26
	DST2-200X054W-060-5	1860	235	114	1810	230	531	0,93		735	1000	26
	DST2-200XY54W-060-5	2050	260	126	2000	255	527	0,93		810	1000	26
750	DST2-200K054W-075-5	360	60	26	335	58	418	0,86	187,5	185	1300	20
	DST2-200KM54W-075-5	550	91	41	515	88	412	0,89		285	1300	22
	DST2-200M054W-075-5	735	117	54	695	113	427	0,91		365	1250	24
	DST2-200ML54W-075-5	925	145	69	875	141	432	0,92		450	1250	24
	DST2-200L054W-075-5	1110	175	83	1060	170	426	0,92		550	1250	26
	DST2-200B054W-075-5	1490	235	112	1430	230	425	0,93		735	1250	26
	DST2-200X054W-075-5	1860	335	142	1810	335	337	0,94		1120	1450	26
	DST2-200XY54W-075-5	2050	360	145	1850	335	387	0,95		1105	1400	26
1000	DST2-200K054W-100-5	360	72	32	310	68	347	0,85	250	225	1350	20
	DST2-200KM54W-100-5	550	106	50	480	100	351	0,89		335	1350	22
	DST2-200M054W-100-5	735	144	69	655	136	345	0,91		450	1350	24
	DST2-200ML54W-100-5	925	185	88	840	175	342	0,92		570	1350	26
	DST2-200L054W-100-5	1110	215	105	1000	205	349	0,93		670	1350	26
	DST2-200B054W-100-5	1490	335	146	1390	325	302	0,95		1035	1650	26
	DST2-200X054W-100-5	1860	385	181	1730	375	326	0,95		1195	1650	26

Motor	$M_{0\max}$ [Nm]	J solid shaft [kgm ²]	J hollow shaft [kgm ²]	M solid shaft [kg]	M hollow shaft [kg]	M thrust bearing [kg]
DST2-200K0..	790	0,28	0,35	195	169	280
DST2-200KM..	1200	0,38	0,45	220	195	310
DST2-200M0..	1600	0,49	0,55	257	221	341
DST2-200ML..	2010	0,59	0,65	280	248	371
DST2-200LO..	2420	0,70	0,75	316	274	401
DST2-200B0..	3230	0,91	0,95	377	325	460
DST2-200X0..	4050	1,12	1,15	430	376	520
DST2-200XY..	4450	1,22	1,25	468	403	551

¹⁾ The max. permitted operating speed for thrust bearing motors is 1000 min⁻¹, from 300 min⁻¹ it's obligatory to use an oil cooler.

²⁾ The max. permitted operating speed for hollow shaft motors is 1000 min⁻¹.

2.3 DST2-260

Mains voltage 3 AC 400V for converters with uncontrolled supply

n_N min ⁻¹	Motor	$M_0^{1)}$ Nm	$I_0^{1)}$ A	P_N kW	M_N Nm	I_N A	K_E / K_{ALT} V/1000min ⁻¹	η_N	f_N Hz	$I_{0,max}$ A	$n_{max}^{12)}$ min ⁻¹	KLK S. 74
150	DST2-260K054W-015-5	1380	47,1	20	1280	45,5	1973	0,87	50	103	270	30
	DST2-260KM54W-015-5	1840	61	27	1720	59	2024	0,87		155	270	30
	DST2-260M054W-015-5	2310	76	34	2160	74	2031	0,84		195	270	30
	DST2-260ML54W-015-5	2780	91	41	2590	88	2047	0,87		200	260	30
	DST2-260LO54W-015-5	3250	106	48	3030	102	2055	0,87		270	260	33
	DST2-260LB54W-015-5	3770	120	56	3540	117	2037	0,87		280	270	39
	DST2-260B054W-015-5	4180	136	61	3910	131	2057	0,87		350	260	39
	DST2-260X054W-015-5	5100	165	75	4760	160	2085	0,87		420	260	39
300	DST2-260K054W-030-5	1380	89	39	1240	83	1050	0,85	100	195	520	30
	DST2-260KM54W-030-5	1840	116	52	1660	109	1070	0,86		300	510	31
	DST2-260M054W-030-5	2310	144	65	2080	135	1078	0,86		370	510	31
	DST2-260ML54W-030-5	2780	170	79	2510	160	1085	0,86		375	500	33
	DST2-260LO54W-030-5	3250	200	92	2940	190	1084	0,86		515	500	34
	DST2-260LB54W-030-5	3770	230	109	3460	215	1066	0,86		540	510	42
	DST2-260B054W-030-5	4180	260	119	3800	240	1082	0,86		665	500	42
	DST2-260X054W-030-5	5100	315	146	4650	295	1084	0,86		810	500	43
450	DST2-260K054W-045-5	1380	131	57	1200	120	712	0,85	150	285	770	31
	DST2-260KM54W-045-5	1840	170	76	1620	155	724	0,85		440	760	33
	DST2-260M054W-045-5	2280	210	96	2030	195	731	0,86		545	750	34
	DST2-260ML54W-045-5	2750	255	116	2460	235	721	0,85		565	760	34
	DST2-260LO54W-045-5	3210	295	136	2890	275	720	0,85		775	760	36
	DST2-260LB54W-045-5	3730	335	160	3390	315	719	0,86		795	760	43
	DST2-260B054W-045-5	4180	385	175	3710	350	731	0,86		980	750	45
	DST2-260X054W-045-5	5100	450	210	4490	415	751	0,87		1165	730	45
600	DST2-260K054W-060-5	1380	170	73	1160	155	543	0,85	200	375	1000	31
	DST2-260KM54W-060-5	1840	225	99	1570	205	550	0,86		580	1000	34
	DST2-260M054W-060-5	2280	275	124	1980	250	558	0,87		715	980	36
	DST2-260ML54W-060-5	2750	325	149	2380	295	565	0,87		720	970	36
	DST2-260LO54W-060-5	3210	375	175	2780	345	569	0,88		980	960	37
	DST2-260LB54W-060-5	3730	445	210	3340	410	546	0,87		1050	1000	45
	DST2-260B054W-060-5	4180	485	225	3570	435	575	0,88		1245	950	45
750	DST2-260K054W-075-5	1380	220	88	1130	190	426	0,84	250	475	1050	34
	DST2-260KM54W-075-5	1840	290	121	1550	255	429	0,84		745	1050	36
	DST2-260M054W-075-5	2280	360	148	1880	305	428	0,85		930	1050	36
	DST2-260ML54W-075-5	2750	420	178	2270	360	435	0,86		935	1050	37
	DST2-260LO54W-075-5	3210	480	210	2640	410	447	0,87		1245	1050	37

Motor	$M_{0,max}$ [Nm]	J solid shaft [kgm ²]	J hollow shaft [kgm ²]	M solid shaft [kg]	M hollow shaft [kg]	M thrust bearing [kg]
DST2-260K0..	2410	1,3	1,4	377	352	558
DST2-260KM..	3500	1,7	1,8	435	405	616
DST2-260M0..	4390	2,1	2,2	493	457	673
DST2-260ML..	4890	2,5	2,6	549	508	729
DST2-260LO..	6200	2,9	3,0	605	559	785
DST2-260LB..	6900	3,3	3,4	673	623	853
DST2-260B0..	8000	3,6	3,8	741	686	920
DST2-260X0..	9800	4,4	4,5	858	791	1035

¹⁾ The max. permitted operating speed for thrust bearing motors is 600 min⁻¹, from 300 min⁻¹ it's obligatory to use an oil cooler.

²⁾ The max. permitted operating speed for hollow shaft motors is 600 min⁻¹.

2.4 DST2-315

Mains voltage 3 AC 400V for converters with uncontrolled supply

n_N min ⁻¹	Motor	$M_0^{1)}$ Nm	$I_0^{1)}$ A	P_N kW	M_N Nm	I_N A	K_E/K_{ALT} V/1000min ⁻¹	η_N	f_N Hz	$I_{0,max}$ A	$n_{max}^{12)}$ min ⁻¹	KLK S. 74
100	DST2-315K054W-010-5	1650	36,9	16	1520	35,5	3037	0,78	41,7	112	180	50
	DST2-315KM54W-010-5	2200	49,6	22	2060	48,9	2910	0,80		150	180	50
	DST2-315M054W-010-5	2760	62	27	2620	61	2898	0,81		190	190	50
	DST2-315ML54W-010-5	3320	75	33	3170	74	2886	0,82		230	190	50
	DST2-315L054W-010-5	3880	88	39	3710	86	2888	0,83		265	190	52
	DST2-315LB54W-010-5	4440	99	44	4240	98	2906	0,83		300	180	52
	DST2-315B054W-010-5	5000	112	50	4790	111	2894	0,84		340	190	70
	DST2-315X054W-010-5	6100	136	61	5900	134	2911	0,84		415	180	70
	DST2-315XY54W-010-5	6700	149	67	6400	147	2903	0,85		455	190	70
	DST2-315Y054W-010-5	7200	160	73	7000	160	2898	0,85		495	190	72
	DST2-315Z054W-010-5	8300	190	85	8100	190	2832	0,85		580	190	72
	DST2-315ZA54W-010-5	8900	200	90	8600	195	2899	0,85		605	190	72
200	DST2-315K054W-020-5	1650	72	31	1490	69	1500	0,84	83,3	220	360	50
	DST2-315KM54W-020-5	2200	97	43	2030	93	1484	0,87		295	370	52
	DST2-315M054W-020-5	2760	122	54	2570	117	1475	0,88		370	370	56
	DST2-315ML54W-020-5	3320	147	65	3110	141	1474	0,89		445	370	56
	DST2-315L054W-020-5	3880	170	76	3650	165	1481	0,89		520	370	56
	DST2-315LB54W-020-5	4440	195	88	4180	185	1480	0,90		595	370	64
	DST2-315B054W-020-5	5000	225	99	4740	215	1460	0,90		675	370	72
	DST2-315X054W-020-5	6100	265	121	5800	255	1492	0,90		810	360	72
	DST2-315XY54W-020-5	6700	290	132	6300	280	1491	0,90		885	360	74
	DST2-315Y054W-020-5	7200	320	144	6900	305	1467	0,91		975	370	74
	DST2-315Z054W-020-5	8300	370	166	7900	355	1466	0,91		1125	370	78
	DST2-315ZA54W-020-5	8900	385	176	8400	370	1503	0,91		1170	360	78
300	DST2-315K054W-030-5	1640	107	45	1420	99	1010	0,86	125	325	540	52
	DST2-315KM54W-030-5	2200	142	61	1940	131	1013	0,88		435	540	56
	DST2-315M054W-030-5	2760	180	77	2460	165	1001	0,89		550	550	56
	DST2-315ML54W-030-5	3320	215	94	2990	200	996	0,90		660	550	60
	DST2-315L054W-030-5	3880	250	110	3500	230	1003	0,91		765	550	64
	DST2-315LB54W-030-5	4430	290	126	4020	270	994	0,91		885	550	66
	DST2-315B054W-030-5	4990	320	142	4510	295	1016	0,92		975	540	74
	DST2-315X054W-030-5	6100	405	176	5600	370	991	0,94		1220	550	78
	DST2-315XY54W-030-5	6700	435	191	6100	405	990	0,92		1330	550	78
	DST2-315Y054W-030-5	7200	480	210	6600	445	974	0,92		1465	560	78
	DST2-315Z054W-030-5	8300	535	240	7600	495	1010	0,92		1630	540	80
	DST2-315ZA54W-030-5	8900	570	255	8100	525	1017	0,92		1730	540	80
400	DST2-315K054W-040-5	1640	139	55	1310	121	783	0,85	166,7	420	700	54
	DST2-315KM54W-040-5	2200	185	76	1810	160	785	0,88		560	700	58
	DST2-315M054W-040-5	2760	235	97	2310	205	773	0,89		710	710	60
	DST2-315ML54W-040-5	3320	275	116	2780	240	791	0,90		835	690	60
	DST2-315L054W-040-5	3880	320	137	3270	280	790	0,91		975	690	66
	DST2-315LB54W-040-5	4430	370	158	3770	325	782	0,91		1125	700	68
	DST2-315B054W-040-5	4990	420	179	4270	365	777	0,92		1275	700	78
	DST2-315X054W-040-5	6100	520	220	5200	445	783	0,94		1545	700	78
	DST2-315XY54W-040-5	6700	535	235	5700	470	808	0,92		1630	680	80
	DST2-315Y054W-040-5	7200	620	260	6200	535	777	0,92		1840	700	82

¹⁾ The max. permitted operating speed for thrust bearing motors is 500 min⁻¹, from 300 min⁻¹ it's obligatory to use an oil cooler.

²⁾ The max. permitted operating speed for hollow shaft motors is 500 min⁻¹.

n_N min^{-1}	Motor	$M_0^{1)}$ Nm	$I_0^{1)}$ A	P_N kW	M_N Nm	I_N A	K_E/K_{ALT} $V/1000\text{min}^{-1}$	η_N	f_N Hz	$I_{0,max}$ A	$n_{max}^{12)}$ min^{-1}	KLK S. 74
500	DST2-315K054W-050-5	1640	170	63	1200	139	635	0,83	208,3	520	800	54
	DST2-315KM54W-050-5	2200	230	87	1660	185	634	0,86		695	800	58
	DST2-315M054W-050-5	2760	290	112	2130	235	621	0,88		885	800	62
	DST2-315ML54W-050-5	3320	345	136	2590	280	632	0,90		1045	800	62
	DST2-315L054W-050-5	3880	400	160	3050	325	631	0,90		1220	800	68
	DST2-315LB54W-050-5	4430	460	184	3510	375	630	0,91		1395	800	68
	DST2-315B054W-050-5	4990	505	205	3960	415	640	0,92		1545	800	80
	DST2-315X054W-050-5	6100	620	255	4830	495	657	0,95		1840	800	82
	DST2-315XY54W-050-5	6700	690	280	5400	565	626	0,92		2105	800	82
600	DST2-315K054W-060-5	1640	195	66	1050	146	555	0,80	250	595	800	58
	DST2-315KM54W-060-5	2200	265	94	1490	200	543	0,84		810	800	60
	DST2-315M054W-060-5	2760	330	120	1910	250	545	0,87		1005	800	66
	DST2-315ML54W-060-5	3320	400	147	2350	300	541	0,88		1220	800	68
	DST2-315L054W-060-5	3880	460	173	2750	345	551	0,89		1395	800	68
	DST2-315LB54W-060-5	4430	535	200	3190	400	539	0,90		1630	800	68
	DST2-315B054W-060-5	4990	570	225	3550	425	572	0,91		1730	800	80
	DST2-315X054W-060-5	6100	690	285	4510	520	574	0,95		2105	800	82

Motor	$M_{0,max}$ [Nm]	J solid shaft [kgm ²]	J hollow shaft [kgm ²]	M solid shaft [kg]	M hollow shaft [kg]	M thrust bearing [kg]
DST2-315K0..	3330	2,4	2,3	448	438	718
DST2-315KM..	4490	3,1	2,9	495	483	774
DST2-315M0..	5600	3,8	3,6	550	532	830
DST2-315ML..	6800	4,4	4,3	610	589	886
DST2-315L0..	8000	5,0	5,2	665	639	942
DST2-315LB..	9100	5,7	6,1	729	690	998
DST2-315B0..	10300	6,4	7,3	821	779	1088
DST2-315X0..	12600	7,7	8,6	930	882	1163
DST2-315XY..	13700	8,4	9,3	985	926	1238
DST2-315Y0..	14900	9,0	9,9	1045	981	1311
DST2-315Z0..	17200	10,3	11,3	1150	1085	1395
DST2-315ZA..	18400	11,0	11,9	1213	1133	1479

¹⁾ The max. permitted operating speed for thrust bearing motors is 500 min^{-1} , from 300 rpm it's obligatory to use an oil cooler.

²⁾ The max. permitted operating speed for hollow shaft motors is 500 min^{-1} .

2.5 DST2-400

Mains voltage 3 AC 400V for converters with uncontrolled supply

n_N min ⁻¹	Motor	M_0 Nm	I_0 A	P_N kW	M_N Nm	I_N A	K_E/K_{ALT} V/1000min ⁻¹	η_N	f_N Hz	$I_{0,max}$ A	n_{max} min ⁻¹	KLK S. 74
100	DST2-400K054W-010-5	9500	210	92	8800	210	3002	0,88	50	385	180	90
	DST2-400KM54W-010-5	10600	235	104	9900	235	3026	0,89		430	180	92
	DST2-400M054W-010-5	11800	265	115	10900	260	3036	0,88		475	180	94
	DST2-400L054W-010-5	14200	310	136	13000	305	3096	0,88		565	170	94
	DST2-400B054W-010-5	16600	365	160	15300	355	3063	0,88		665	180	96
	DST2-400XY54W-010-5	20200	450	195	18600	435	3053	0,89		815	180	98
150	DST2-400K054W-015-5	9500	320	139	8800	310	1997	0,92	75	580	270	94
	DST2-400KM54W-015-5	10600	355	156	9900	345	2012	0,92		645	270	96
	DST2-400M054W-015-5	11800	390	171	10900	375	2040	0,91		710	270	96
	DST2-400L054W-015-5	14200	465	205	13000	445	2057	0,92		850	260	98
	DST2-400B054W-015-5	16600	550	240	15300	525	2034	0,92		1005	270	100
	DST2-400XY54W-015-5	20200	675	290	18500	635	2026	0,92		1230	270	102
200	DST2-400K054W-020-5	9500	420	182	8700	395	1521	0,94	100	760	300	96
	DST2-400KM54W-020-5	10600	460	205	9700	440	1535	0,94		850	300	96
	DST2-400M054W-020-5	11800	530	225	10800	495	1510	0,93		960	300	100
	DST2-400L054W-020-5	14200	640	270	13000	595	1498	0,93		1165	300	100
	DST2-400B054W-020-5	16600	715	310	14800	660	1566	0,94		1305	300	102
	DST2-400XY54W-020-5	20200	905	380	18200	825	1512	0,94		1650	360	108
250	DST2-400K054W-025-5	9500	530	225	8500	485	1204	0,95	125	960	450	100
	DST2-400KM54W-025-5	10600	580	250	9500	530	1237	0,95		1055	440	100
	DST2-400M054W-025-5	11800	640	275	10400	580	1244	0,94		1165	440	100
	DST2-400L054W-025-5	14200	790	330	12600	705	1218	0,94		1430	450	106
	DST2-400B054W-025-5	16600	940	385	14700	835	1192	0,95		1715	460	108
	DST2-400XY54W-025-5	20200	1115	460	17500	970	1227	0,95		2030	440	112
300	DST2-400K054W-030-5	9500	640	260	8300	565	992	0,95	150	1165	500	100
	DST2-400KM54W-030-5	10600	720	290	9300	630	999	0,95		1305	500	104
	DST2-400M054W-030-5	11800	815	325	10300	705	979	0,95		1480	500	106
	DST2-400L054W-030-5	14200	940	380	12100	805	1019	0,95		1715	500	110
	DST2-400B054W-030-5	16600	1115	440	14100	940	1005	0,95		2030	500	108
	DST2-400XY54W-030-5	20200	1370	530	16800	1130	999	0,95		2495	500	112

Motor	$M_{0,max}$ [Nm]	J solid shaft [kgm ²]	J hollow shaft [kgm ²]	M solid shaft [kg]	M hollow shaft [kg]	M thrust bearing [kg]
DST2-400K0..	14800	20,1	20,6	2135	1760	2230
DST2-400KM..	16600	22,6	23,2	2295	1900	2490
DST2-400M0..	18500	25,1	25,8	2455	2045	2650
DST2-400L0..	22200	30,1	30,9	2775	2325	2970
DST2-400B0..	26000	35,1	36,1	3095	2605	3290
DST2-400XY..	31600	42,6	43,9	3575	3030	3770

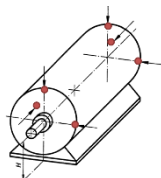
¹⁾ The max. permitted operating speed for thrust bearing motors is 500 min⁻¹, from 300 min⁻¹ it's obligatory to use an oil cooler.

²⁾ The max. permitted operating speed for hollow shaft motors is 300 min⁻¹.

2.6 Vibration load

The vibration behavior of the overall system at the installation site – caused by drive elements, mounting conditions, alignment, and setup, as well as external vibrations – can lead to increased vibration levels on the motor. In some cases, complete balancing of the rotor together with the drive element may be necessary.

To ensure proper operation and service life, the specified vibration values, based on DIN ISO 10816, must not be exceeded at the designated measurement points on the motor.



Measuring points for the vibration measuring

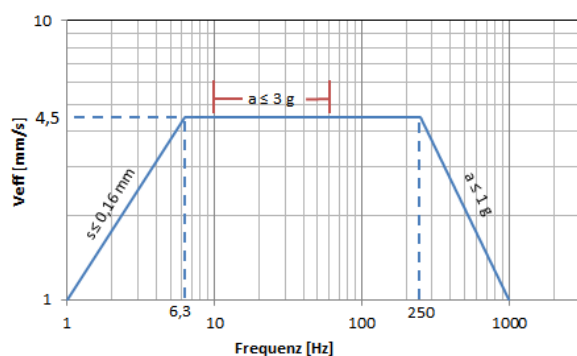
The specified maximum radial and axial vibration values must be observed simultaneously. They apply to substructures that can be classified as flexible. A substructure is considered flexible if the lowest natural frequency of the overall system (machine and foundation) in the measurement direction is at least 25% below the predominant excitation frequency. All other substructures can be considered rigid. In the case of rigid substructures, consultation with the manufacturer is required.

Maximum radial vibration load:

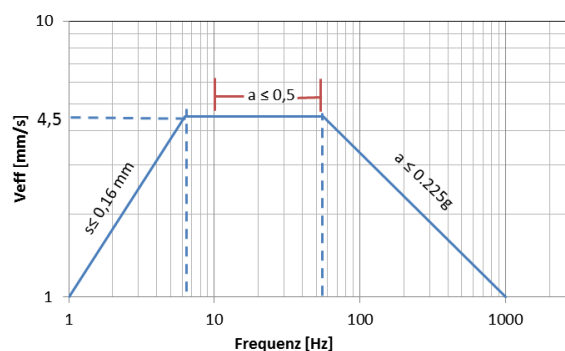
Peak vibration acceleration: $1\text{ g} > 250\text{ Hz}$
 Peak vibration displacement: $\leq 0.16\text{ mm} < 6.3\text{ Hz}$
 RMS vibration velocity: $\leq 4.5\text{ mm/s}$
 in the range of $6.3\text{ Hz} - 250\text{ Hz}$

Maximum axial vibration load:

Peak vibration acceleration: $0.225\text{ g} > 55\text{ Hz}$
 Peak vibration displacement: $\leq 0.16\text{ mm} < 6.3\text{ Hz}$
 RMS vibration velocity: $\leq 4.5\text{ mm/s}$
 in the range of $6.3\text{ Hz} - 55\text{ Hz}$



Measuring points for radial vibratory load



Measuring points for axial vibratory load

Additional vibration resistance:

Vibration acceleration of 3 g radial and 1 g axial in the frequency range from 10 Hz to 55 Hz

These specified vibrations can be additionally tolerated by the motor. However, the service life of wear parts (e.g., bearings) may be reduced.

Shock load:

If increased vibration loads occur in the form of shocks, measurements on the installed machine are required. Based on these results, design modifications or evaluations will be carried out in cooperation with Baumüller.

To assess vibration velocity, the measuring equipment must comply with the requirements of ISO 2954.

Vibration acceleration is evaluated in the time domain within a frequency band of 10 Hz to 2 kHz .

If significant vibration excitations above 2 kHz —such as gear mesh frequencies—are expected, the measurement range must be adjusted accordingly. The permissible maximum values remain unchanged.

2.7 Bearings and shaft load

All machines are fitted with antifriction bearings. On the solid shaft model, the floating bearing is fitted on the drive side and the fixed bearing on the non-drive side. On the hollow shaft model, the floating bearing is fitted on the non-drive side and the fixed bearing on the drive side. On the thrust bearing motors an additional thrust bearing in front of the motor is realized.

All bearings have a service life of 20.000 h L10h. The specified load values may not be exceeded, thereby. The permissible radial forces F_R apply to a horizontally installation of the motor without additional axial forces, only. Furthermore, the indicated medium speeds must be complied with under the following terms to reach the grease service life of 20.000 h (important is that at the roller bearing type, the ball bearing type and at the hollow shaft motors $n_{\text{average}} > n_{\text{Max}}$):

- Low-vibrational applications and a horizontal installation
- Oscillating bearing motion where at least one angle of rotation of 180° is executed
- Medium operating temperature $< 90^\circ$ at the bearings
- The bearing environment must be clean and dry

In general, an axial load at the motor shaft is not permitted (except at the thrust bearing motors). When fitting couplings, pulleys or similar no axial forces may be on the motor shaft, as well!

Ball bearing assignment for solid shafts			Ball bearing assignment for hollow shafts		
Size	DE-side	NDE-side	Size	DE-side	NDE-side
135	6217 2ZR C3	6217 2ZR C3	135	61838	61836
200	6220 2ZR C3	6220 2ZR C3	200	61838	61836
260	6226 2ZR C3	6220 2ZR C3	260	61944	61838
315	6226 2ZR C3	6226 2ZR C3	315	61864	61856
400	6232 M/C3	6226 C3	400	61864	61856

Thrust bearing		Roller bearing	
Size	DE-side	Size	DE-side
135	29415	135	N217E.TVP2
200	29420	200	N220E.TVP2
260	29424	260	NU226E.TVP2
315	29432 (on request 29424 ¹⁾)	315	NU226E.TVP2
400	29432 ²⁾ length KO-MO 29440 length LO-XY	400	NU232E.M1

¹⁾ For the axial spherical roll-up bearing 29424 please use the characteristic curve of the DST2-260 in the axial force diagram.

²⁾ For the axial spherical roll-up bearing 29432 please use the characteristic curve of the DST2-315 in the axial force diagram.

Relubrication

Relubrication for hollow shaft motors is available on request.

Permitted radial forces F_R at the shaft end

The ball bearings are designed for an estimated life of approx. 20,000 operating hours²⁾, whereby the specified load values must not be exceeded. The permitted radial forces F_R specified are only valid for motors installed in a horizontal position and if no additional axial forces are applied.

Axial load on the motor shaft

When pulling couplings, belt pulleys or similar components onto the motor shaft, no axial forces must be applied! The internal thread on the end of the shaft should be used as a mounting aid. In a similar vein, no axial forces should act on the motor shaft during operation.

The use of a thrust bearing will be necessary if axial forces occur. The axial forces must only act as compression forces (from motor DE-side to motor NDE-side).

2.8 Radial force diagrams

All bearings are dimensioned for a service life of 20,000h L_{h10} . The load values specified below must not be exceeded. The specified permissible radial forces F_R apply only for horizontal installation of the motor and without additional axial forces.

In addition, to achieve the grease service life of 20,000h F_{h10} , the specified average speeds must be adhered to under the following conditions:

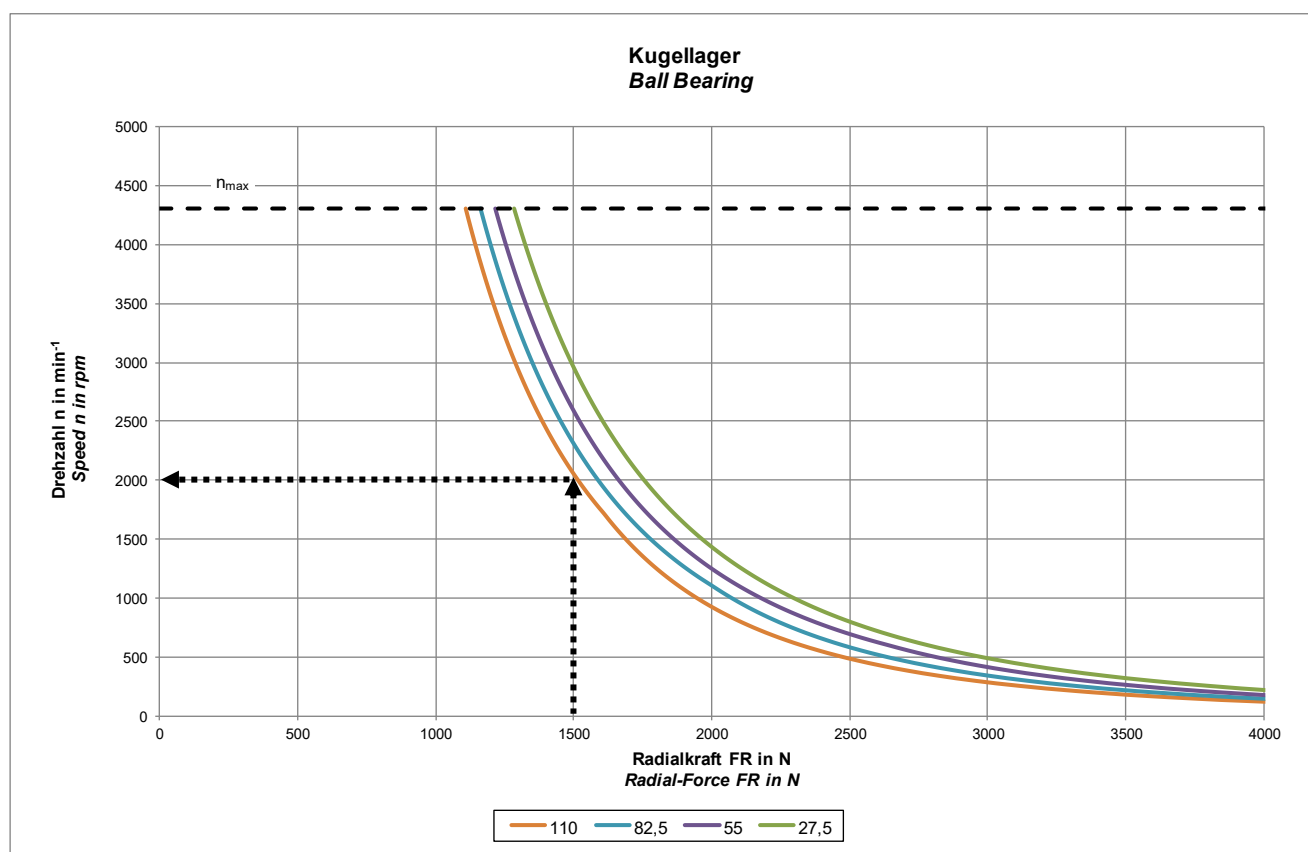
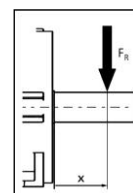
- Low-vibration applications
- Horizontal installation
- Oscillating bearing motion with a minimum pivot angle of 180°
- Average operating temperature $< 90^\circ\text{C}$
- Average operating speed $< 2000 \text{ min}^{-1}$ (Frame size 100-160) – Ball bearing version
- Average operating speed $< 1500 \text{ min}^{-1}$ (Frame size 200) – Ball bearing version
- Average operating speed for roller bearing version: see notes in the characteristic curves

Axial loading of the motor shaft is strictly prohibited. Even when mounting couplings, pulleys, or similar components onto the motor shaft, no axial forces may occur! In such cases, the internal thread at the shaft end should be used as a mounting aid.

Example diagram:

Point of force application: $x = 110 \text{ mm}$ from the shaft shoulder

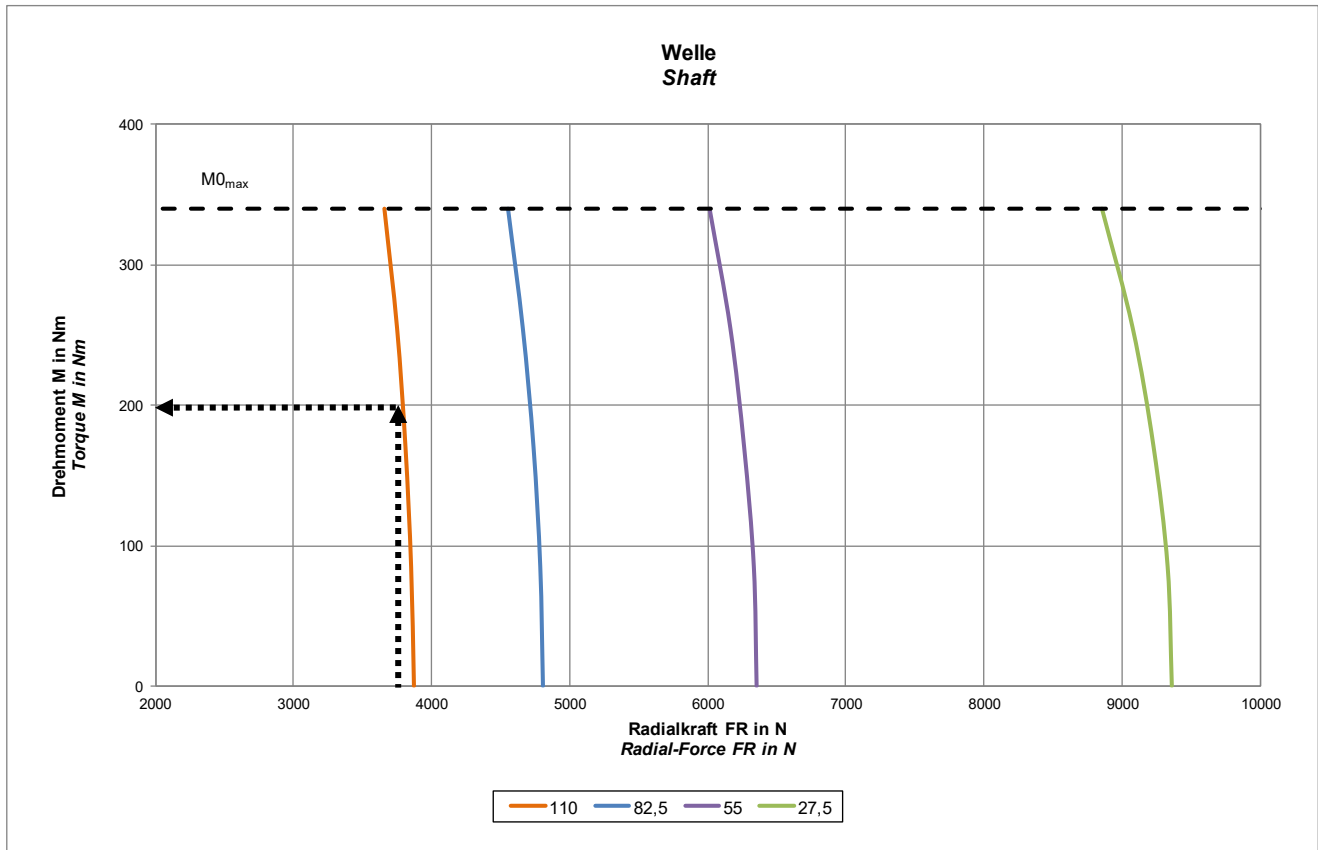
Bearing life: 20.000 h, shaft with keyway



Explanation of the example diagram:

The radial force F_R from the application can be used to determine the maximum permissible rotational speed of the bearing from the "ball bearing" or "roller bearing" characteristic curve.

With a radial force of 1500 N applied at a point $x = 110 \text{ mm}$ from the shaft shoulder, the resulting maximum rotational speed is 2000 min^{-1} .

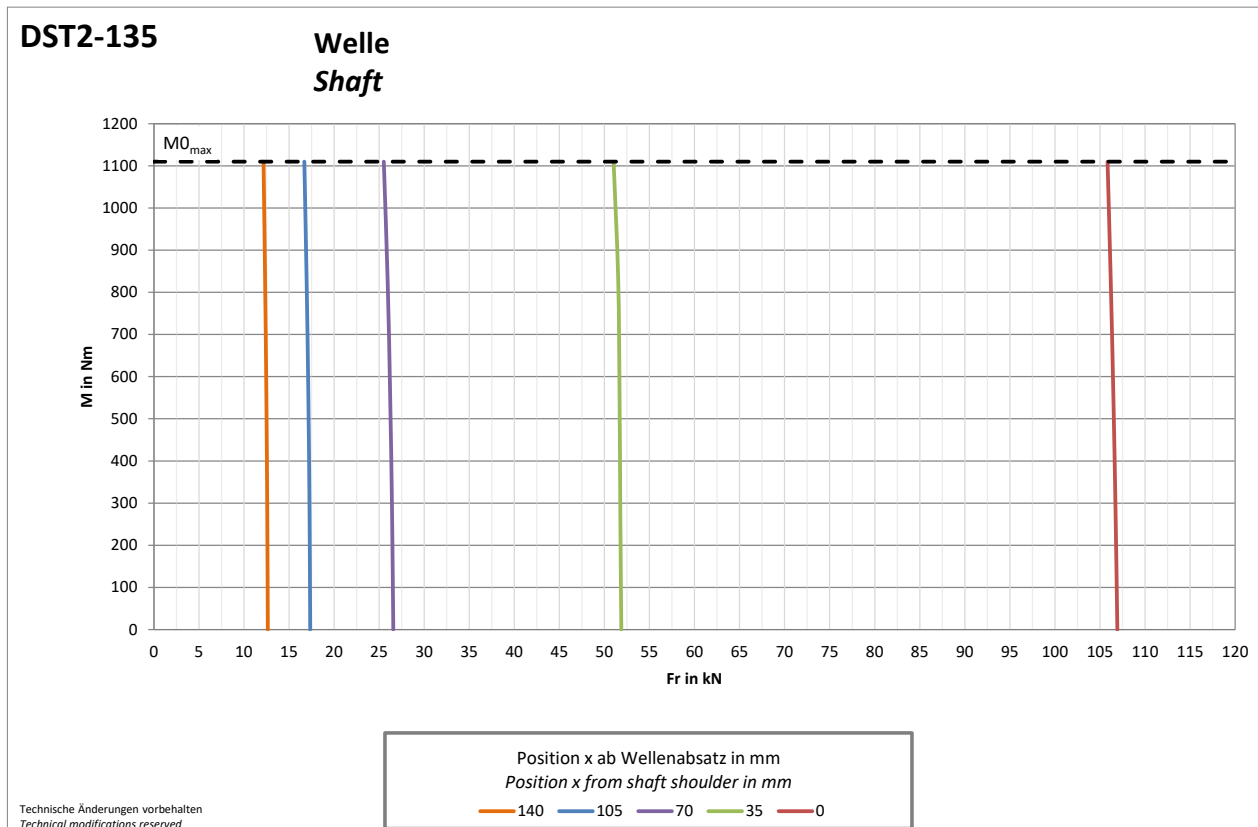
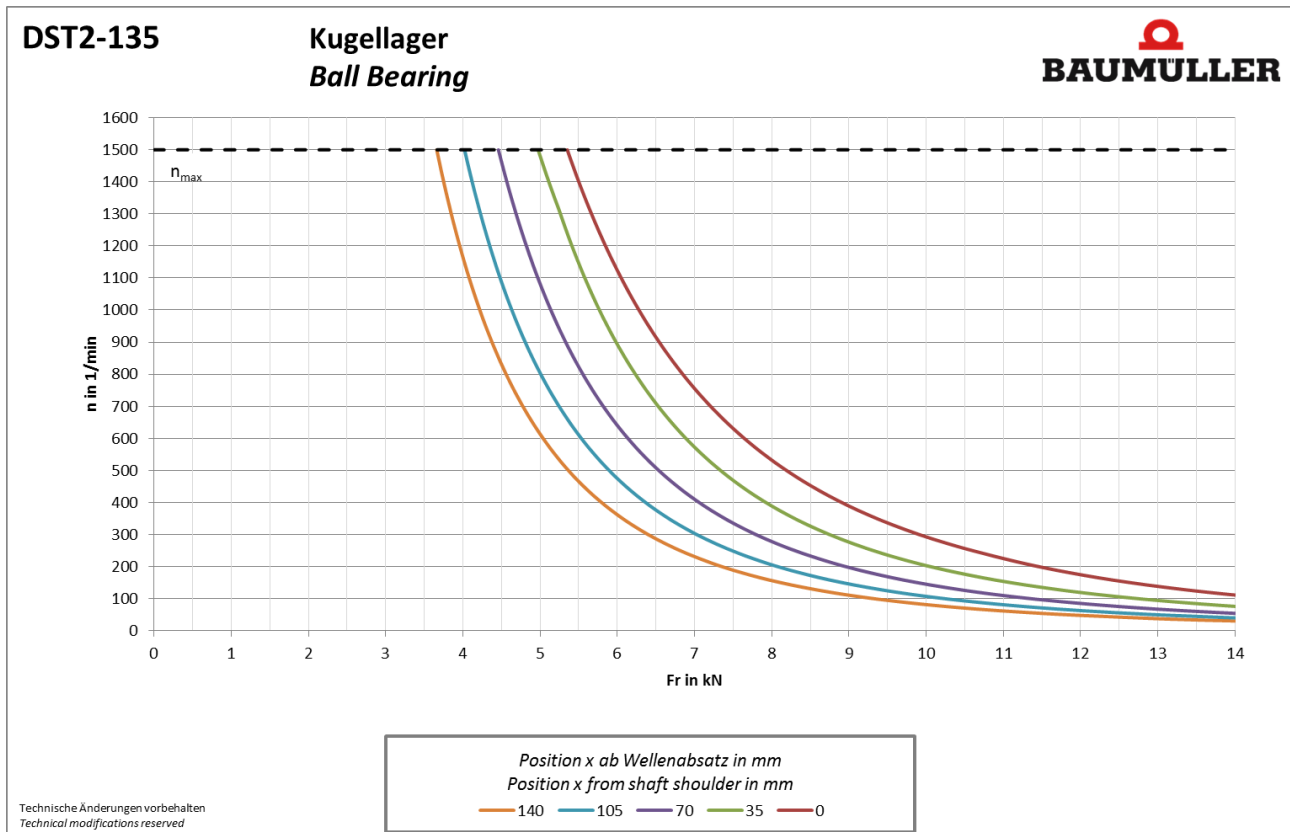


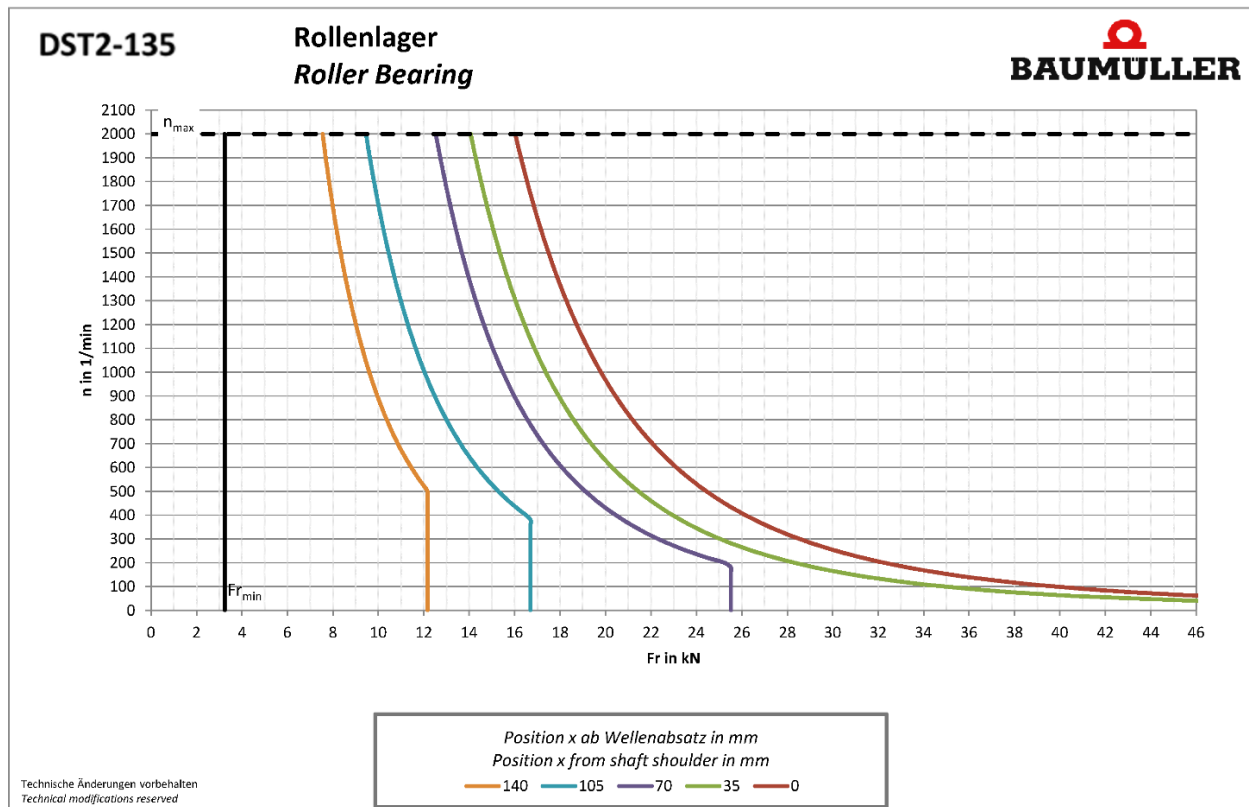
Explanation of the example diagram:

The maximum transferable torque can be determined from the "shaft" characteristic curve.

With a radial force of 3770 N applied at a point $x = 110$ mm from the shaft shoulder, the transferable torque is 200 Nm.

2.8.1 Diagrams DST2-135

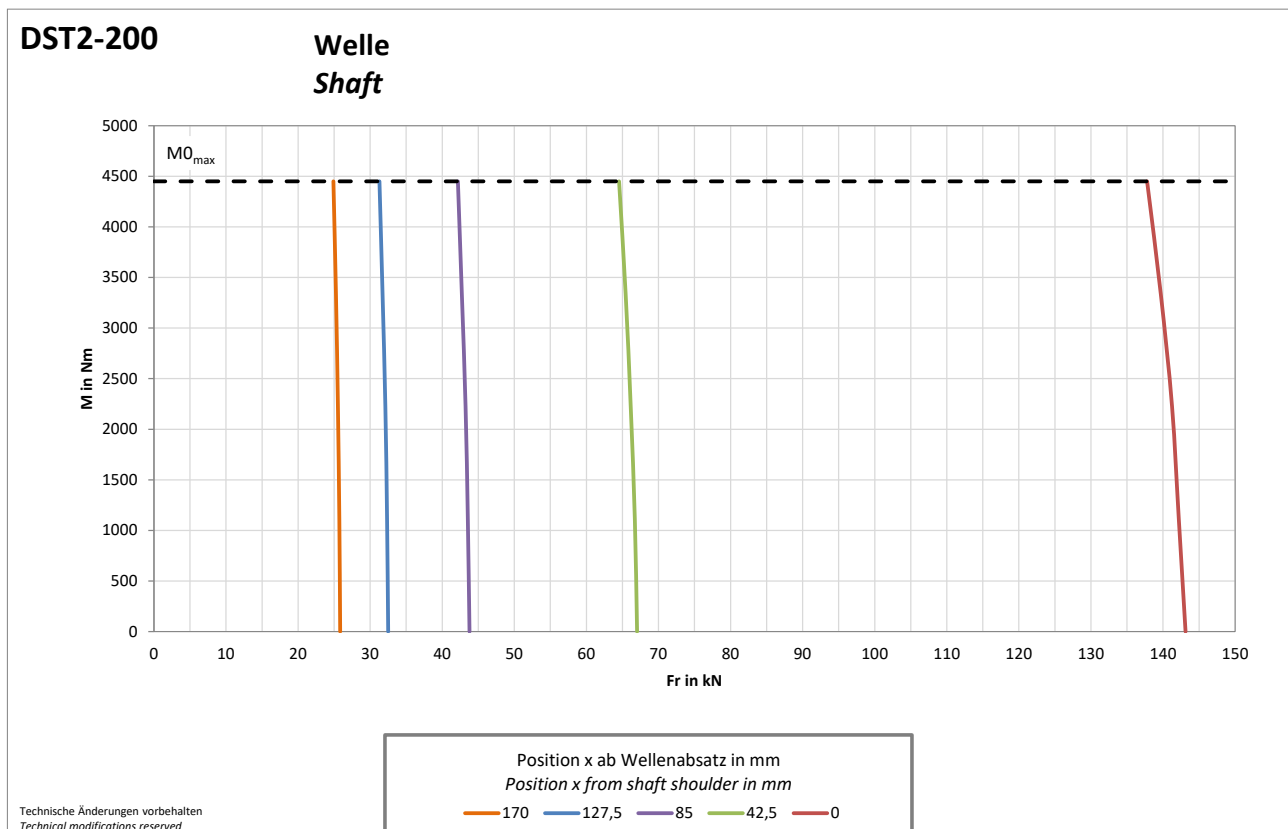
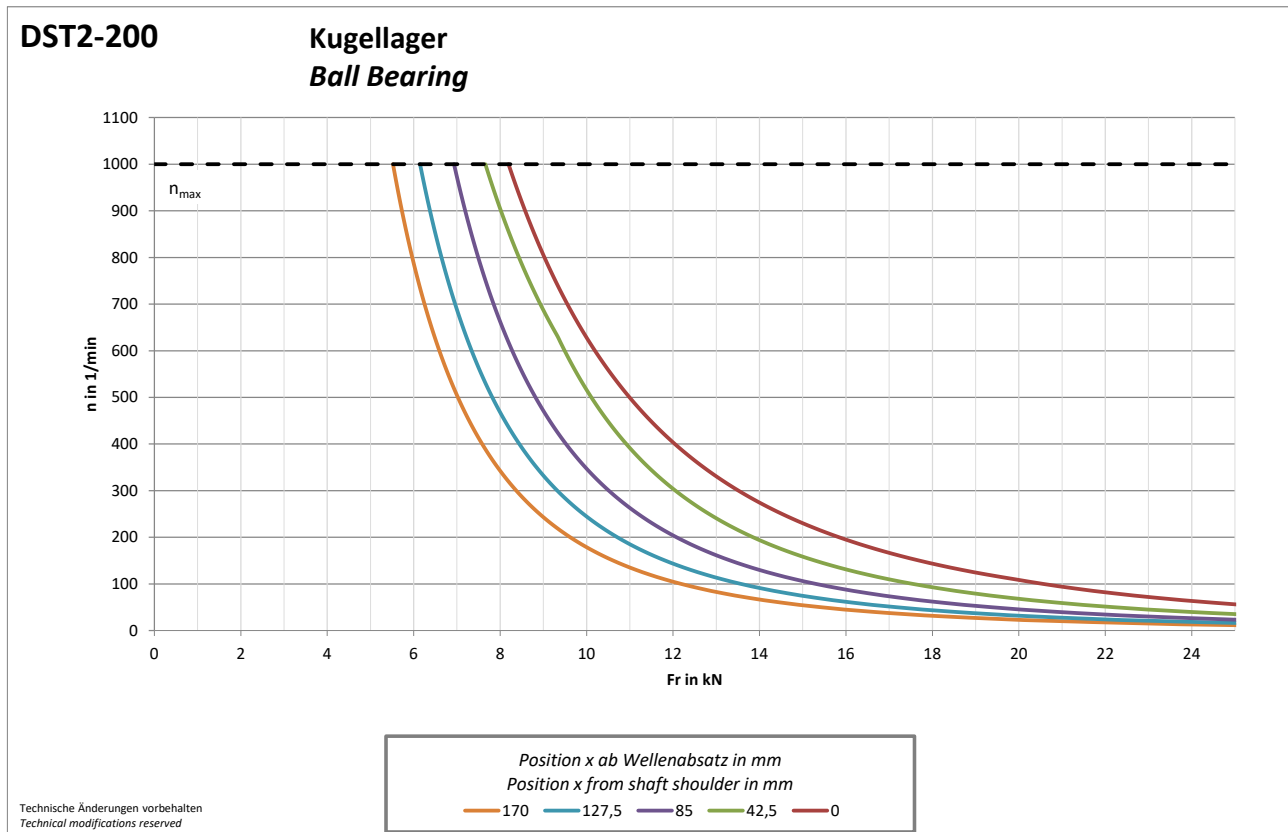




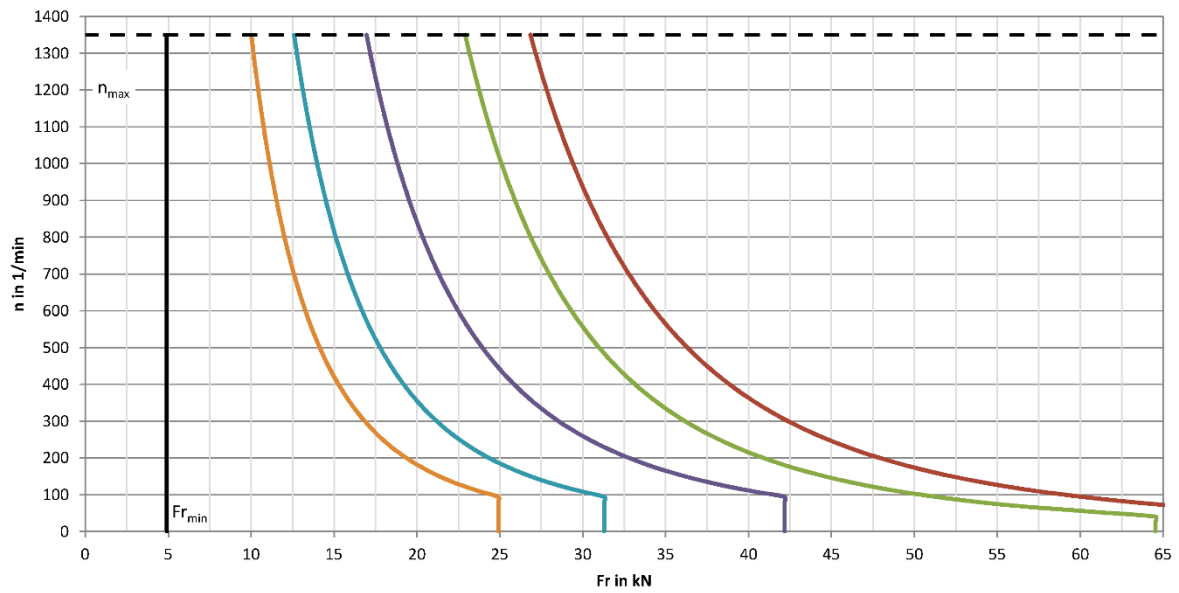
Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 700 \text{ min}^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 700 \text{ rpm}$

2.8.2 Diagrams DST2-200



DST2-200

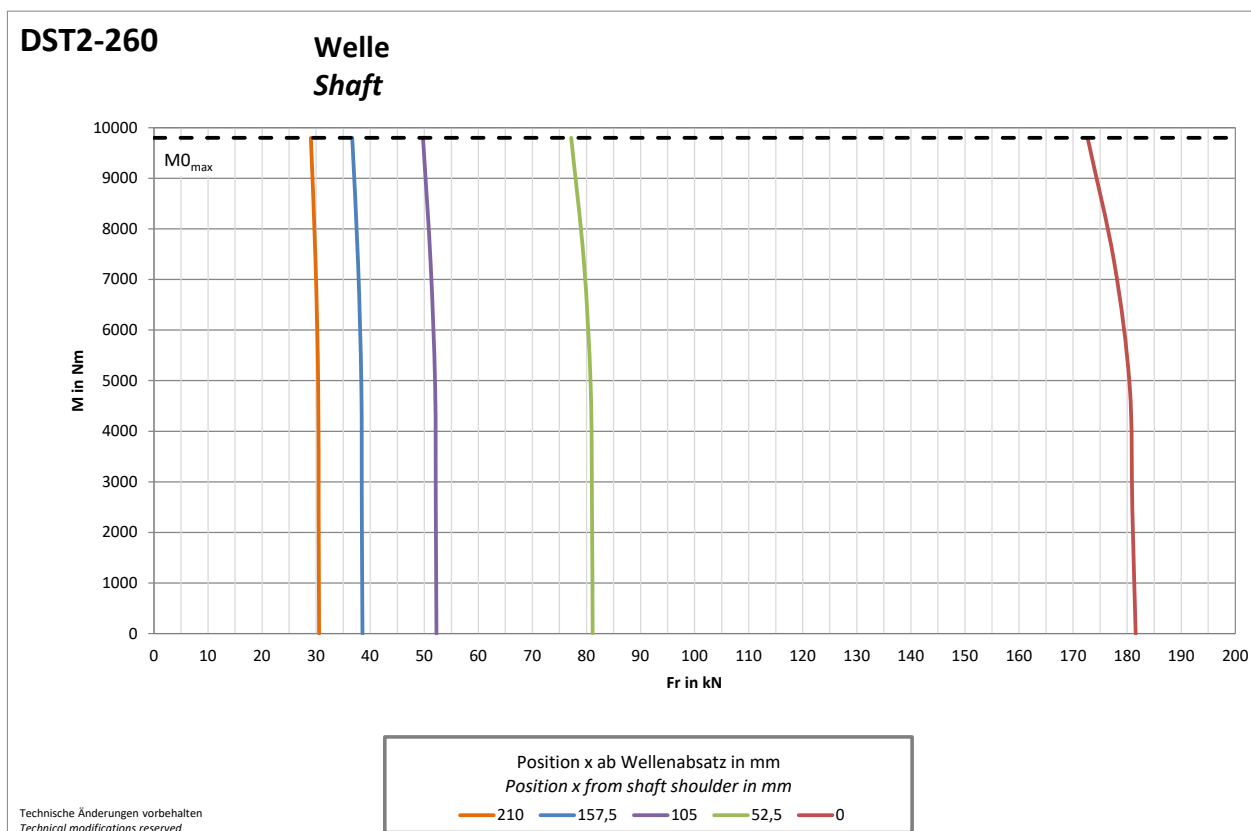
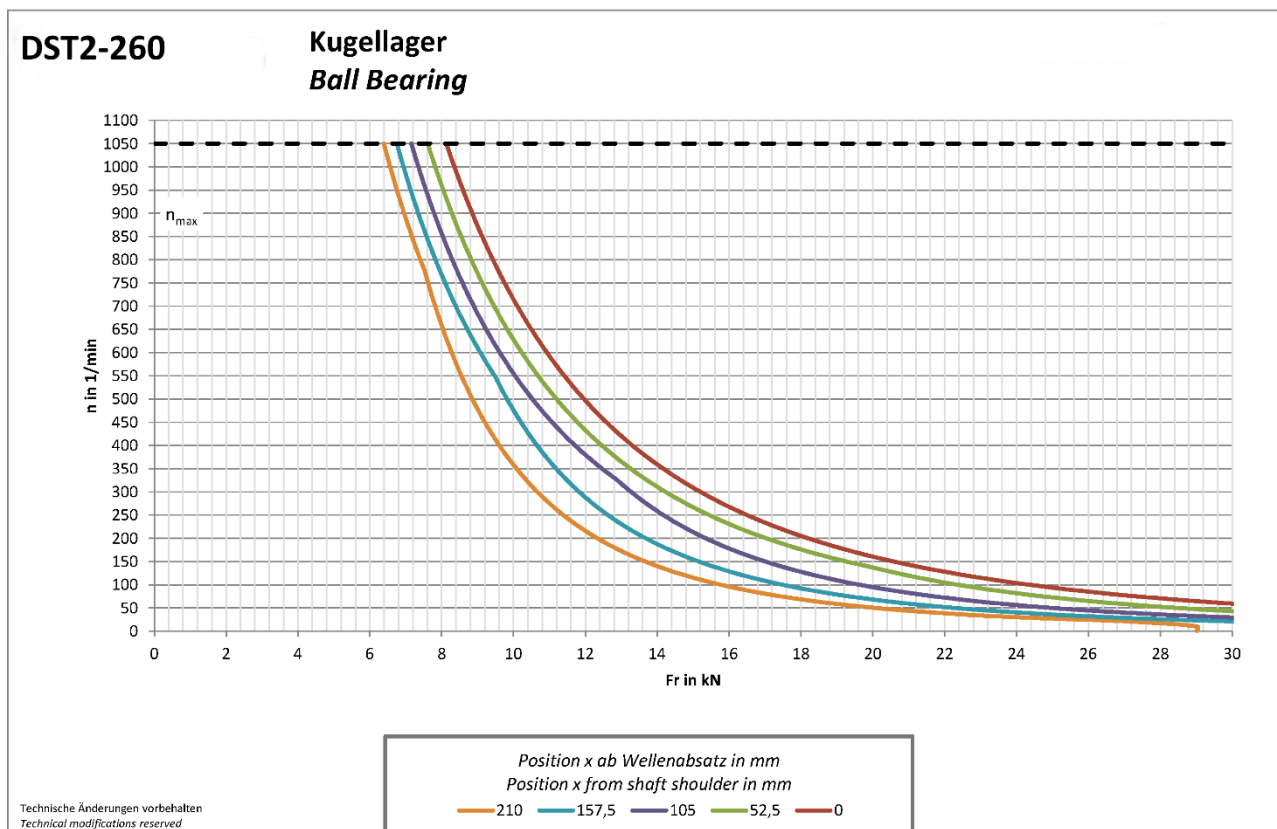
Rollenlager
Roller Bearing


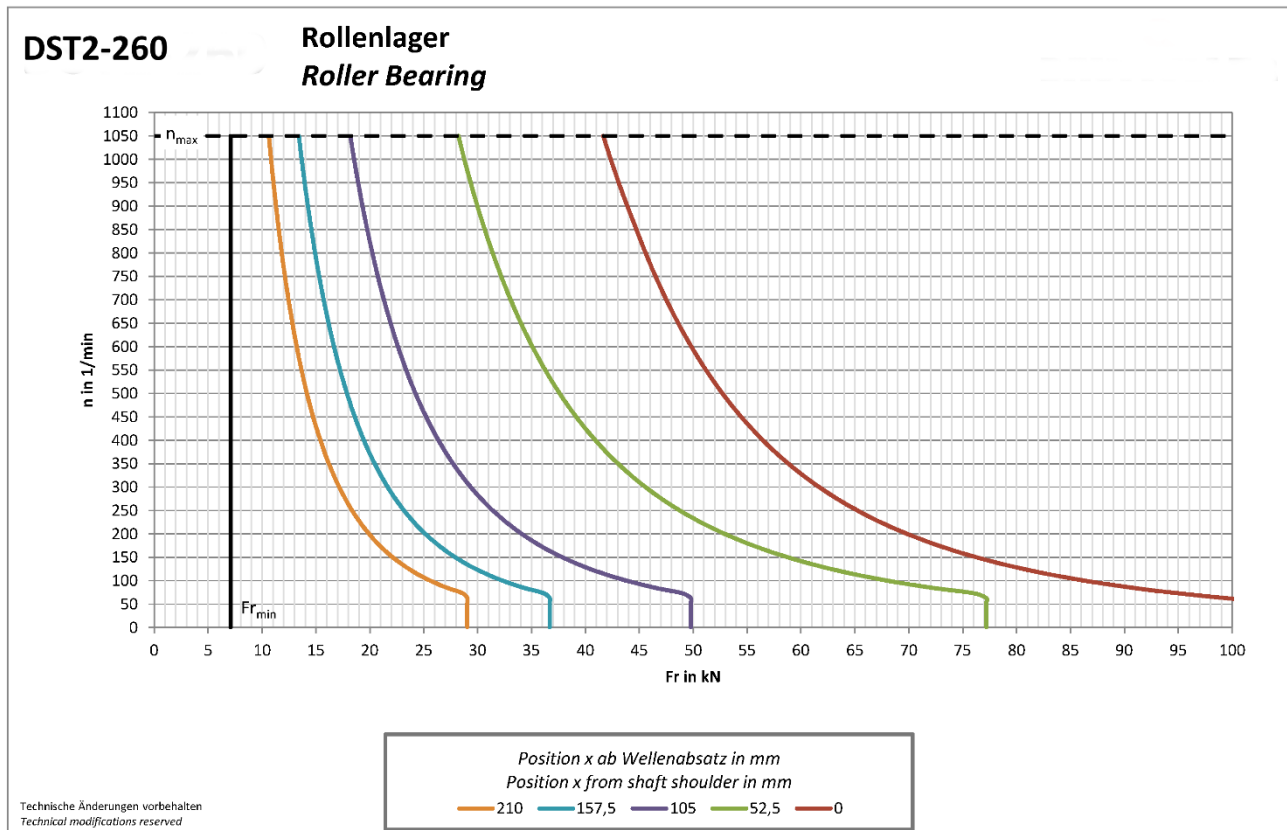
Technische Änderungen vorbehalten
 Technical modifications reserved

Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 600 \text{ min}^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 600 \text{ rpm}$

2.8.3 Diagrams DST2-260

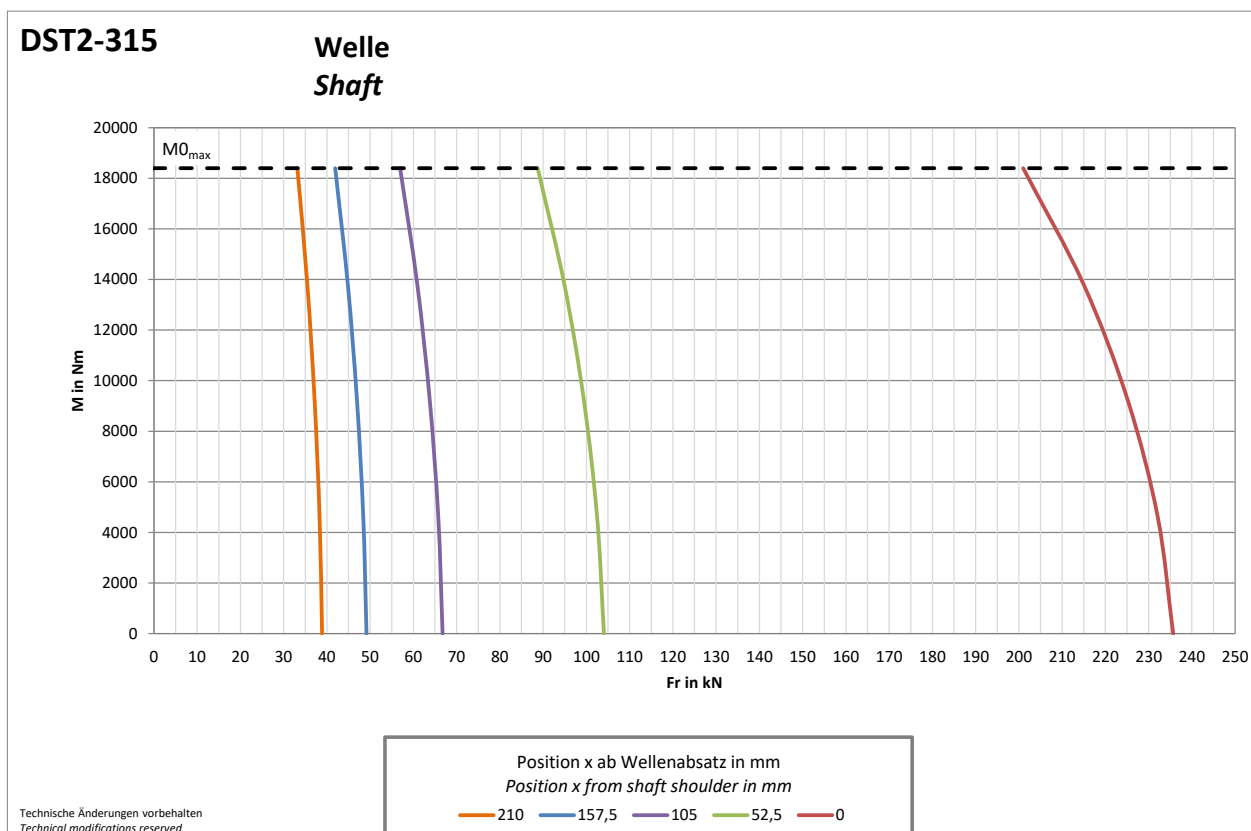
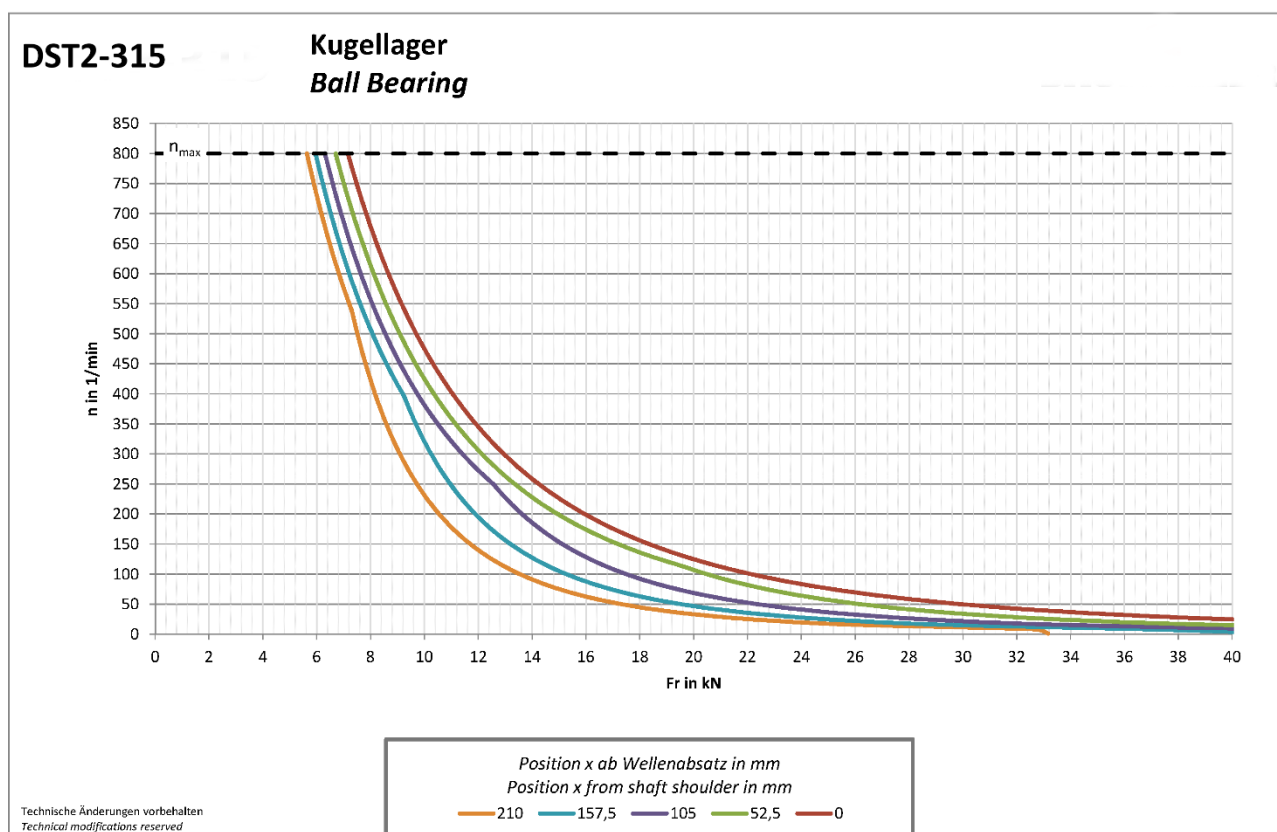




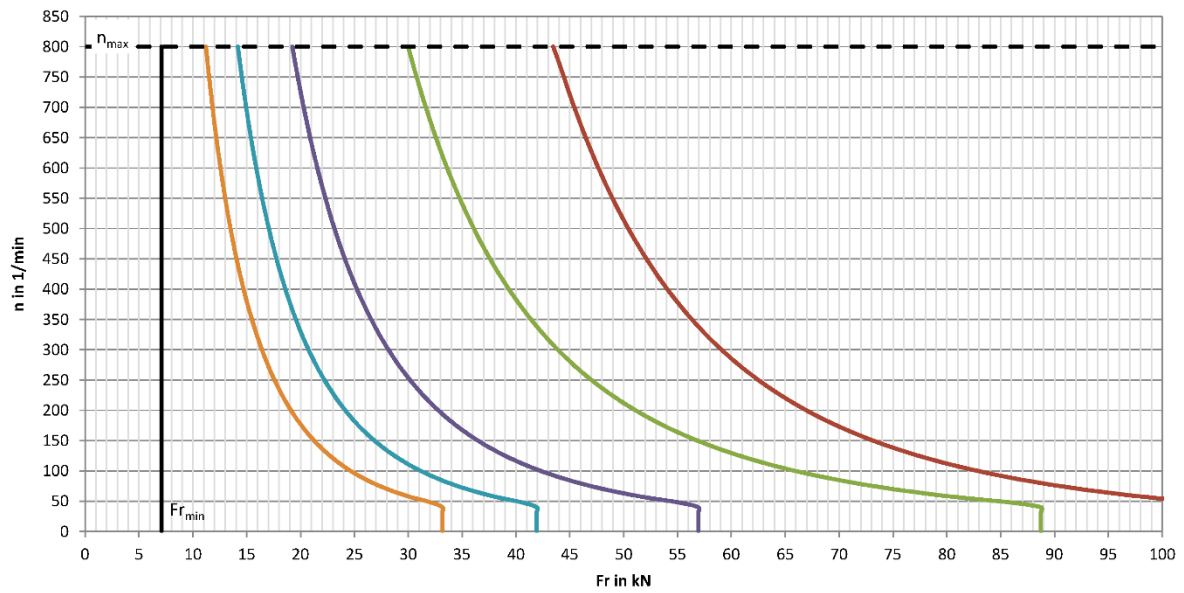
Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 450 \text{ min}^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 450 \text{ rpm}$

2.8.4 Diagrams DST2-315



DST2-315

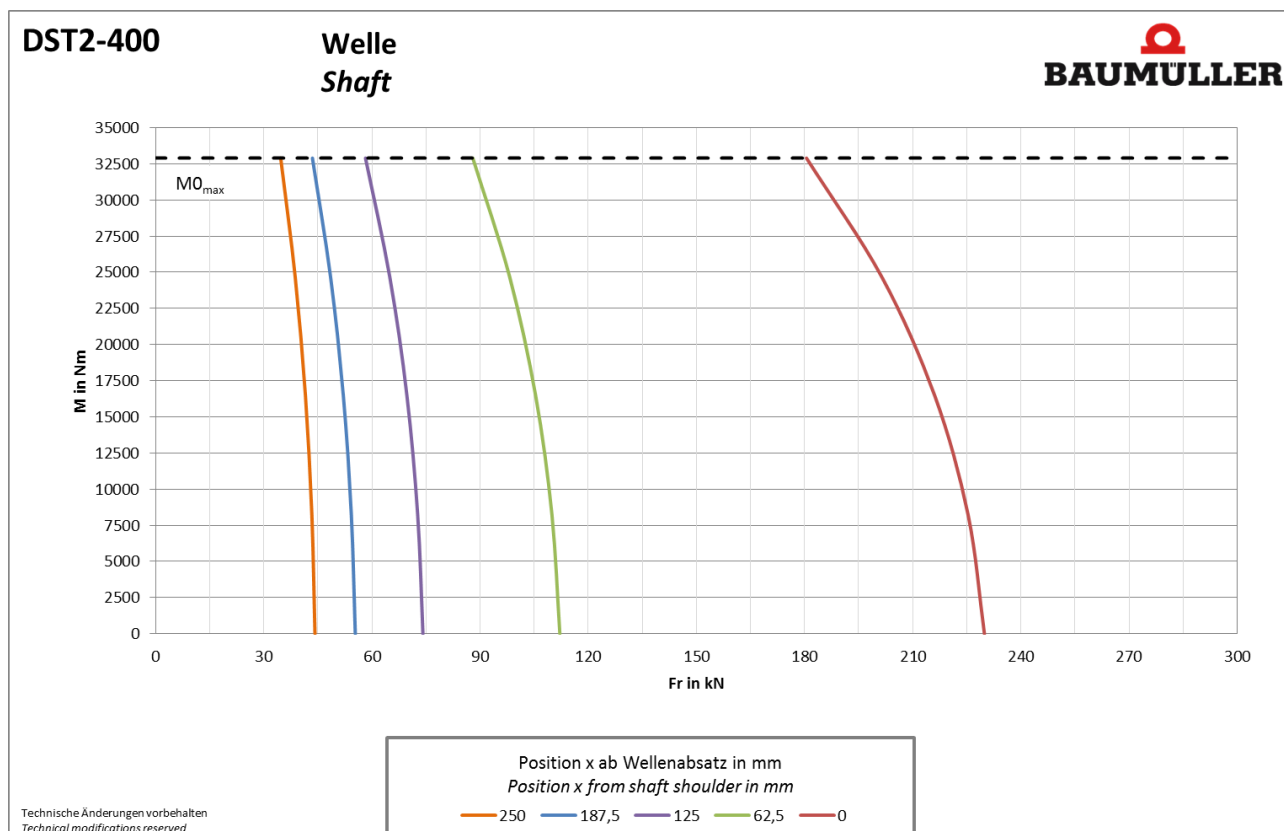
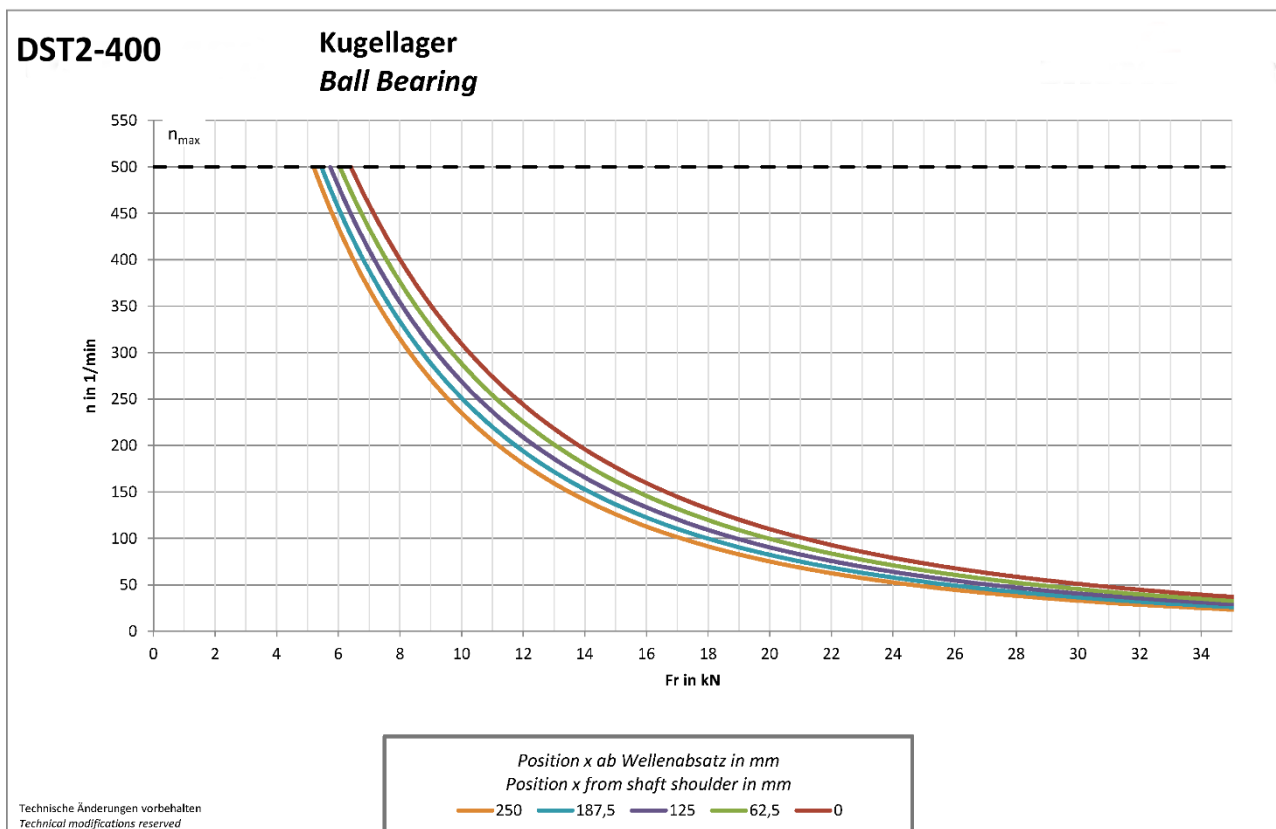
Rollenlager
Roller Bearing


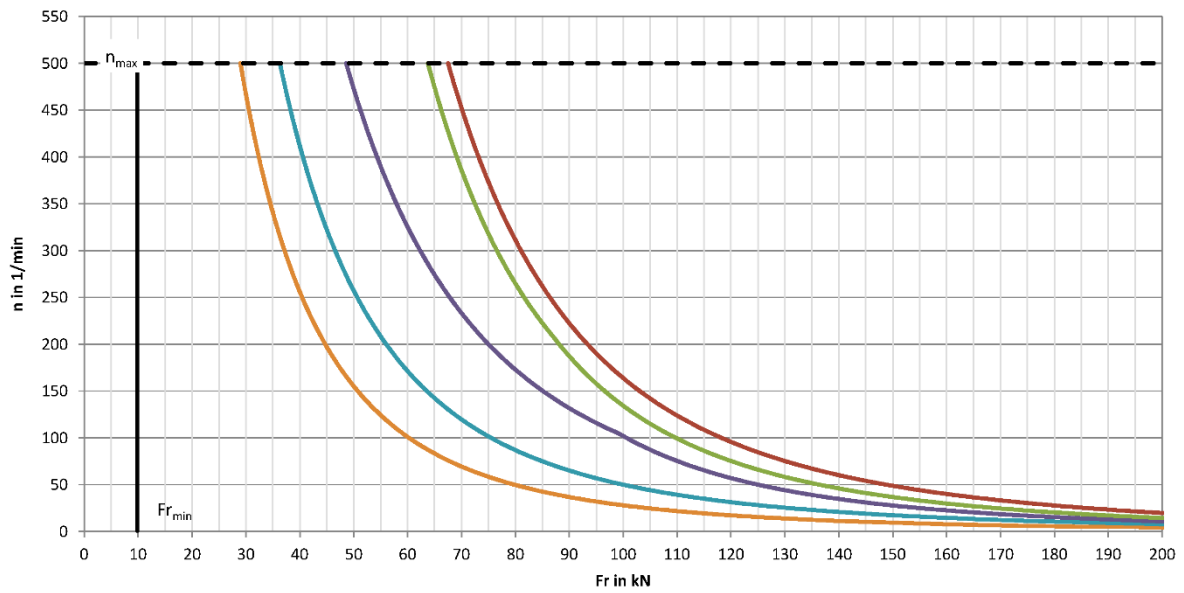
Technische Änderungen vorbehalten
 Technical modifications reserved

Hinweis: 20.000h Fettgebrauchsdauer bei $n_{\text{mittel}} \leq 450 \text{ min}^{-1}$

Note: 20,000h grease service life at $n_{\text{effective}} \leq 450 \text{ rpm}$

2.8.5 Diagrams DST2-400



DST2-400**Rollenlager
Roller Bearing**

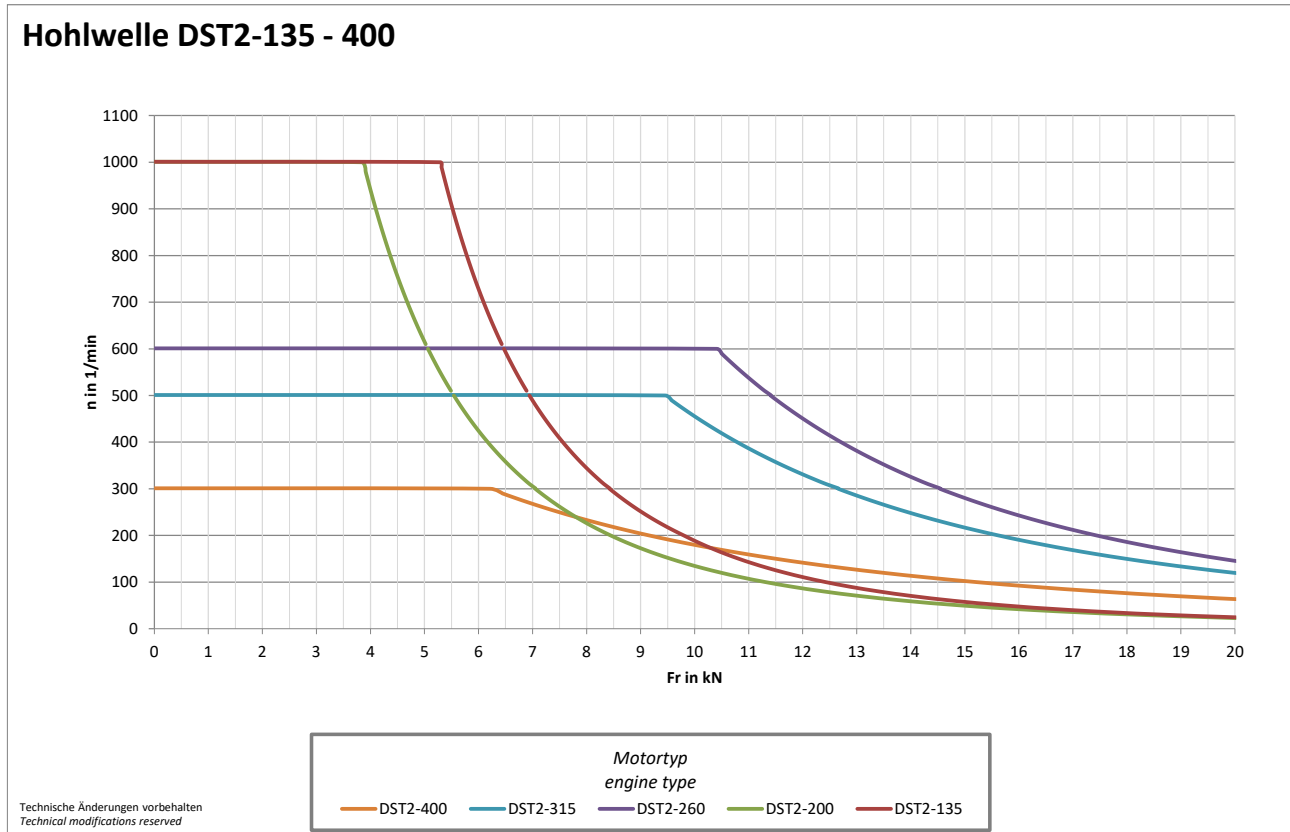
Technische Änderungen vorbehalten
Technical modifications reserved

Position x ab Wellenabsatz in mm
Position x from shaft shoulder in mm
— 250 — 187,5 — 125 — 62,5 — 0

Hinweis: 20.000h Fettgebrauchsdauer bei $n_{\text{mittel}} \leq 350 \text{ min}^{-1}$

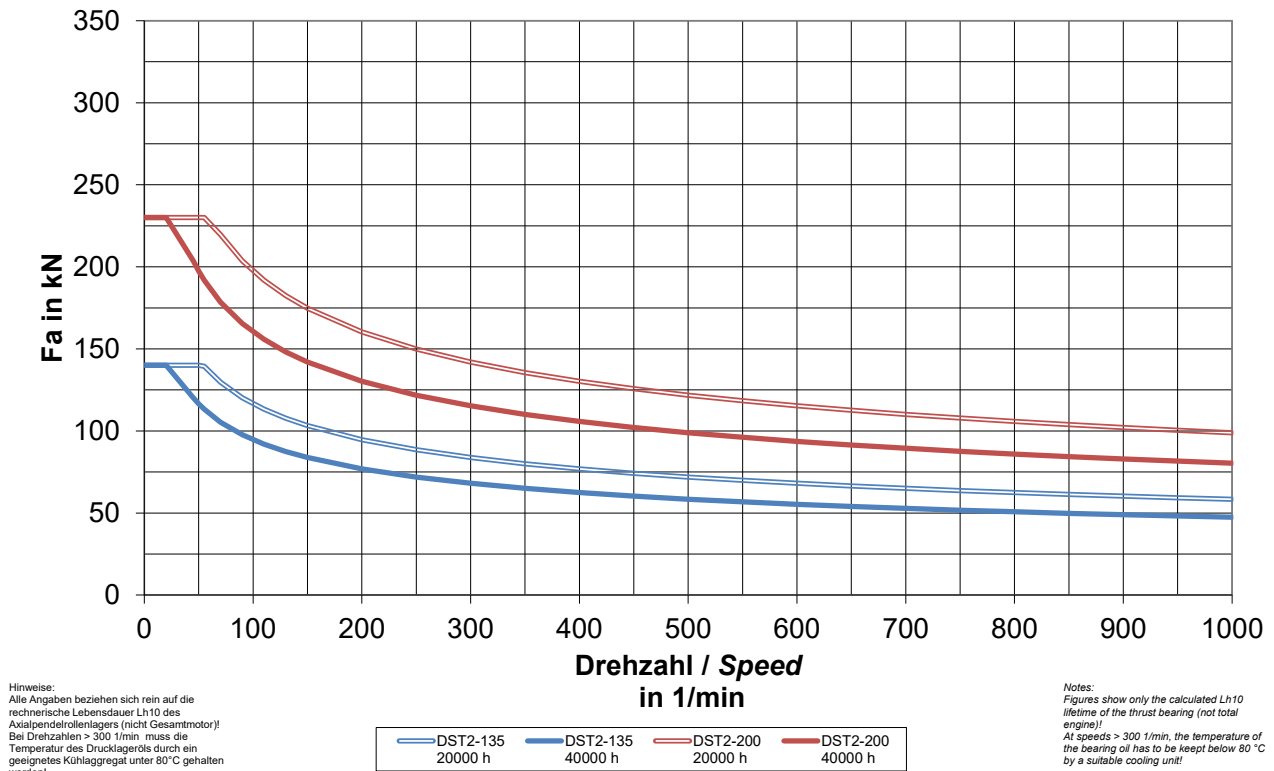
Note: 20,000h grease service life at $n_{\text{effective}} \leq 350 \text{ rpm}$

2.9 Diagrams DST2 hollow shaft

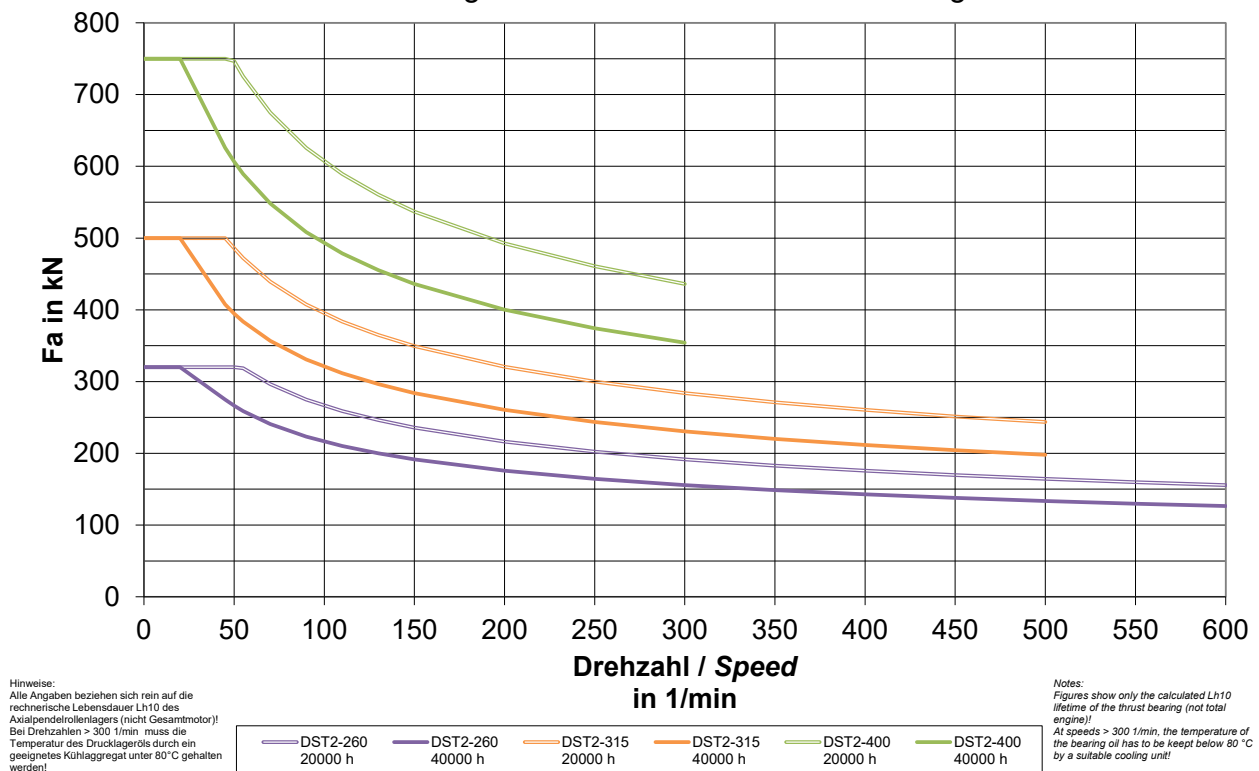


2.10 Axial force diagrams DST2 thrust bearing

Axialkraft-Diagramm DST2-135/200 Drucklager



Axialkraft-Diagramm DST2-260/315/400 Drucklager

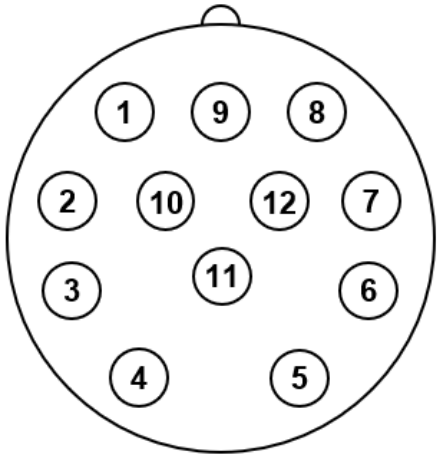


3. Motor components (options)

3.1 Encoder

3.1.1 Resolver

	Resolver
BM type code indication	A
Pole pair count	1
Transmission ratio	$0,5 \pm 0,05$
Frequency	5 kHz
Nominal input voltage	7 Vrms
Effective input power at no-load speed	112 mW
Current consumption at no-load speed	50 mA
Max. output voltage at no-load speed	$3,5 \text{ V} \pm 10\%$
Voltage constant	61 mV/°
Phase shift	$0^\circ \pm 3^\circ$
Zero voltage	30 mV
Angle error in relation to $(\Delta\varphi_{\max} + \Delta\varphi_{\min})/2$	$\pm 6'$
Shock according to DIN EN 60068-2-27 (11ms)	$\leq 101 \text{ g}$
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	$\leq 50 \text{ g}$

Resolver connection	Pin	Signal
	1	cos -
	2	-
	3	-
	4	-
	5	sin -
	6	sin +
	7	-
	8	cos +
	9	-
	10	ref +
	11	-
	12	ref -

View of contact side of the socket

Note:

Use only at low demands on the true running characteristics of the motor. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness.



3.1.2 Resolver Safety

	Resolver Safety
BM type code indication	M
Pole pair count	1
Transmission ratio	$0,5 \pm 0,05$
Frequency	5 kHz
Safety integrity level	SIL 3 (IEC 61508) with b maXX5000
Performance Level	PL e (EN ISO 13849) with b maxx5000
Maximum angular speed	100.000 rad/s ²
Active input power in no-load operation	7 Vrms
Rated input voltage	112 mW
Current consumption in no-load	50 mA
max. output voltage in no-load	$3,5 \text{ V} \pm 10\%$
Voltage constant	61 mV/°
Phase shift	$0^\circ \pm 3^\circ$
Zero voltage	30 mV
Angular error regarding $(\Delta\phi_{\max} + \Delta\phi_{\min})/2$	$\pm 6'$
Shock according to DIN EN 60068-2-27 (11ms)	$\leq 101 \text{ g}$
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	$\leq 50 \text{ g}$

Resolver connection	Pin	Signal
	1	cos -
	2	-
	3	-
	4	-
	5	sin -
	6	sin +
	7	-
	8	cos +
	9	-
	10	ref +
	11	-
	12	ref -

View of contact side of the socket

Note:

Use at low requirements to the concentricity properties of the motor, only. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness. The configuration options of the safety encoders with different motor variants are available on request.

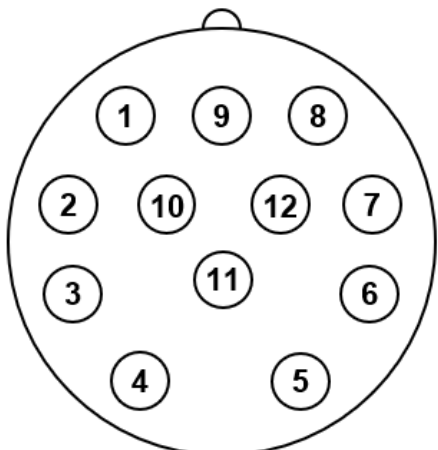
Limitation:

Not available for motors with hollow shaft, thrust bearing, brake or roller bearing.

3.1.3 SRS/SRM50 (SICK)

	SRS50	SRM50
BM type code indication	D	E
Number of sine, cosine periods per revolution	1.024	
Number of increments per revolution	32.768	
Number of absolute resolved revolutions	1	4.096

Code type for the absolute value	binary
Output frequency of the sine and cosine signals	0-200 kHz
Error limits at the evaluation of the sine-, cosine periods; integral non-linearity	+/- 45"
Non-linearity within a sine-, cosine period, differential non-linearity at nominal position +/- 0.1mm	+/- 7"
Operating speed up to which the absolute position can be made	6.000 min ⁻¹
Maximum operating speed	12.000 min ⁻¹
Output signals; 2 x 90° offset sinusoidal signals	1 V _{ss}
Output signal	serial RS 485, asynchronous, half duplex
Operating voltage range	7-12 V
max. operating current without load	80 mA
Shock according to DIN EN 60068-2-27 (10ms)	100 g
Vibration according to EN 60068-2-6 (10-2000 Hz)	20 g

SRS/SRM50 connection	Pin	Signal
	1	cos -
	2	+ 485
	3	-
	4	-
	5	sin +
	6	sin -
	7	- 485
	8	cos +
	9	-
	10	GND
	11	-
	12	+ U

View of contact side of the socket

Note:

This encoder is a component susceptible to ESD. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness.



3.1.4 SRS/SRM50-S (SICK)

	SRS50-S	SRM50-S
BM type code indication	N	Q
Safety integrity level	SIL2 (IEC 61508), SILCL2 (IEC 62061)	
Category	3 (EN ISO 13849)	
Performance Level	PL d (EN ISO 13849)	
Maximum angular acceleration	200.000 rad/s ²	
Number of sine-, cosine periods per revolution	1.024	
Number of steps per revolution	32.768	
Number of the absolutely completed revolutions	1	4.096
Code type of the absolute value	binary	
Output frequency of the sine-, cosine signals	0-200 kHz	
Error limits at the evaluation of the sine-, cosine signals, integral non-linearity	+/- 45"	
Non-linearity within a sine-, cosine period, differential non-linearity	+/- 7"	
Operating speed up to which the absolute position can be made	6.000 min ⁻¹	
Maximum operating speed	12.000 min ⁻¹	
Output signals; 2x90° shifted sine-shaped signals	1 V _{ss}	
Output signal	serial RS 485, asynchronous, half duplex	
Operating voltage range	7-12 V	
max. operating current without load	80 mA	
Shock according to DIN EN 60068-2-27 (10ms)	100 g	
Vibration according to DIN EN 60068-2-6 (10-2000 Hz)	20 g	

SRS/SRM50-S connection	Pin	Signal
	1	cos -
	2	+ 485
	3	-
	4	-
	5	sin +
	6	sin -
	7	- 485
	8	cos +
	9	-
	10	GND
	11	-
	12	+ U

View of contact side of the socket

Note:

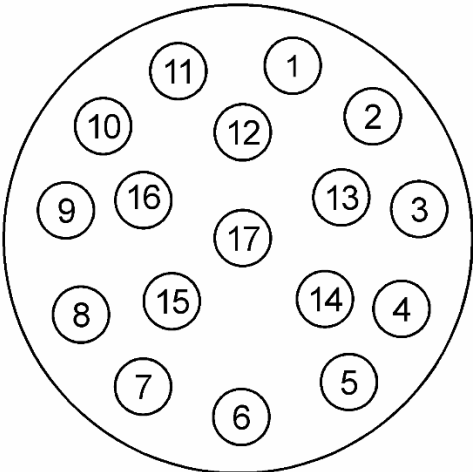
This encoder is a component susceptible to ESD. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness. The configuration options for the safety encoders with various motor variants can be found in the product configurator.

Limitation:

Not available for motors with hollow shaft, thrust bearing, brake, roller bearing or NDE relubrication.

3.1.5 ECN1313/EQN1325 (Heidenhain)

	ECN1313	EQN1325
BM type code indication	F	G
Number of sine and cosine periods per revolution	2.048	
System accuracy	$\pm 20''$	
Number of absolute completed revolutions	1	4.096 (12 bit)
Code type for the absolute value	EnDat 2.1	
Sampling limit frequency or limit frequency	0-200 kHz	
Position values/revolution	8.192 (13 bit)	
Maximum speed at which the absolute position can be defined	12.000 min ⁻¹	
Maximum operating speed	12.000 min ⁻¹	
Operating voltage range	3,6-14 V	
max. operating current without load	≤ 160 mA	
Shock 6ms according to DIN EN 60068-2-27 (6ms)	≤ 204 g	
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	≤ 31 g	

ECN1313/EQN1325 connection	Pin	Signal
	1	U _p
	2	-
	3	-
	4	0V
	5	-
	6	-
	7	U _p
	8	Clock
	9	Clock inv.
	10	0V
	11	-
	12	B +
	13	B -
	14	Data
	15	A +
	16	A -
	17	Data inv.

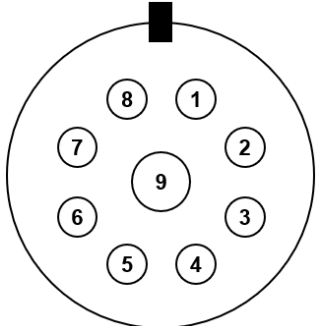
View of contact side of the socket

Note:

This encoder is a component susceptible to ESD. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness.

3.1.6 ECI1319/EQI1331 (Heidenhain)

	ECI1319	EQI1331
BM type code indication	Y	X
Number of lines	-	
System accuracy	$\pm 65''$	
Number of absolute completed revolutions	1	4.096 (12 bit)
Code type for the absolute value	EnDat 2.2	
Position values/revolution	524 288 (19 bit)	
Maximum speed at which the absolute position can be defined	15.000 min ⁻¹	
Maximum operating speed	15.000 min ⁻¹	12.000 min ⁻¹
Operating voltage range	3,6...14 V	
max. operating current without load	95 mA	
Shock according to DIN EN 60068-2-27 (6ms)	≤ 203 g	
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	≤ 40 g	

ECI1319/EQI1331 connection	Pin	Signal
	1	Clock
	2	Clock inv.
	3	U _p
	4	0V
	5	Data
	6	Data inv.
	7	Sensor U _p
	8	Sensor 0V
	9	-

View of contact side of the socket

Note:

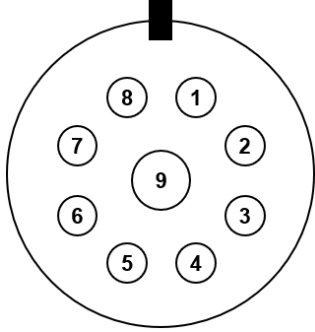
This encoder is a component susceptible to ESD. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness.

Limitation:

Only available for motors with frame size 135 to 315.

3.1.7 ECI1319-S/EQI1331-S (Heidenhain)

	ECI1319-S	EQI1331-S
BM type code indication	p	q
Safety integrity level	SIL 2 nach EN 61508	
Category	3 (EN ISO 13849)	
Performance Level	PL d (EN ISO 13849)	
Maximum angular acceleration	100.000 rad/s ²	
Number of sine-, cosine periods per revolution	-	
System accuracy	± 65"	
Number of absolute completed revolutions	1	4.096 (12 bit)
Code type for the absolute value	EnDat 2.2	
Position values/revolution	524 288 (19 bit)	
Maximum speed at which the absolute position can be defined	15.000 min ⁻¹	
Maximum operating speed	15.000 min ⁻¹	12.000 min ⁻¹
Operating voltage range	3,6...14 V	
max. operating current without load	95 mA	
Shock according to DIN EN 60068-2-27 (10ms)	≤ 203 g	
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	≤ 40 g	

ECI1319-S/EQI1331-S connection	Pin	Signal
	1	Clock
	2	Clock inv.
	3	U _p
	4	0V
	5	Data
	6	Data inv.
	7	Sensor U _p
	8	Sensor 0V
	9	-

View of contact side of the socket

Note:

This encoder is a component susceptible to ESD. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness. The configuration options for the safety encoders with various motor variants can be found in the product configurator.

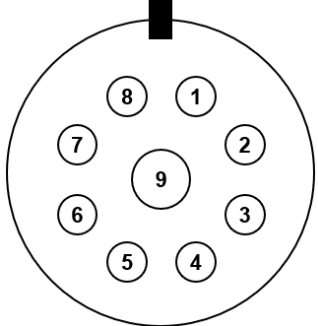
Limitation:

Only available for motors with frame size 135 to 315.

Not available for motors with hollow shaft, thrust bearing, brake, roller bearing or NDE relubrication.

3.1.8 ECN1325/EQN1337 (Heidenhain)

	ECN1325	EQN1337
BM type code indication	H	I
Number of sine and cosine periods per revolution	2.048	
System accuracy	$\pm 20''$	
Number of absolute completed revolutions	1	4.096 (12 bit)
Code type for the absolute value	EnDat 2.2	
Position values/revolution	33.554.432 (25 bit)	
Maximum speed at which the absolute position can be defined	12.000 min ⁻¹	
Maximum operating speed	12.000 min ⁻¹	
Operating voltage range	3,6...14 V	
max. operating current without load	≤ 160 mA	
Shock 6ms according to DIN EN 60068-2-27(6ms)	≤ 203 g	
Vibration according to DIN EN 60068-2-6(55-2000 Hz)	≤ 30 g	

ECN1325/EQN1337 connection	Pin	Signal
	1	Clock
	2	Clock inv.
	3	U _p
	4	0V
	5	Data
	6	Data inv.
	7	Sensor U _p
	8	Sensor 0V
	9	-

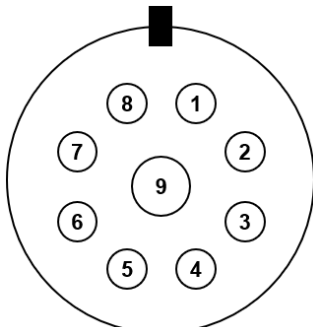
View of contact side of the socket

Note:

This encoder is a component susceptible to ESD. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness.

3.1.9 ECN1325-S/EQN1337-S (Heidenhain)

	ECN1325-S	EQN1337-S
BM type code indication	5	6
Safety integrity level	SIL 2 acc. to EN 61508	
Category	3 (EN ISO 13849)	
Performance level	PL d (EN ISO 13849)	
Maximum angular speed	50.000 rad/s ²	
Number of sine and cosine periods per revolution	2.048	
System accuracy	± 20"	
Number of absolute completed revolutions	1	4.096 (12 bit)
Code type for the absolute value	EnDat 2.2	
Position values/revolution	33.554.432 (25 bit)	
Maximum speed at which the absolute position can be defined	12.000 min ⁻¹	
Maximum operating speed	12.000 min ⁻¹	
Operating voltage range	3,6...14 V	
max. operating current without load	≤ 160 mA	
Shock 6ms according to DIN EN 60068-2-27 (6ms)	≤ 203 g	
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	≤ 30 g	

ECN1325-S/EQN1337-S connection	Pin	Signal
	1	Clock
	2	Clock inv.
	3	U _p
	4	0V
	5	Data
	6	Data inv.
	7	Sensor U _p
	8	Sensor 0V
	9	-

View of contact side of the socket

Note:

This encoder is a component susceptible to ESD. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness. The configuration options for the safety encoders with various motor variants can be found in the product configurator.

Limitation:

Not available for motors with hollow shaft, thrust bearing, brake, roller bearing or NDE relubrication.

3.2 Encoder cable b maXX 4000

General Information

A prefabricated encoder cable is used for all encoder systems. The connection at the motor end consists of a 12-pole circular signal connector on resolvers and Hyperface® – encoders, a 17-pole circular signal connector on ECN1313/EQN1325 and a 9-pole circular signal connector on ECN1325/EQN1337. The connection at the controller side consists of a 15-pole D-Sub connector. Alternatively, the signal connector on the motor side is available for Speed-Tec versions with trailing cables.

The draggable cable is suitable for mobile applications such as drag chains, for example. Unlike non-draggable cables made from PVC, the cable sheath is made from durable PU (suitable for environments where acids and bases are present).

3.2.1 Technical data

Technical description - non-draggable for resolver/ SinCos Hyperface®-interface / SinCos - and TTL - incremental encoder

- LiYCY, 5x(2x0.14mm²) + 2 x 0.5mm² copper strand, twisted pairs
- PVC sheath, grey; inscription with Baumüller logo, black
- 1st side: 12-pole circular signal plug connector with 12 socket contacts
- 2nd side: 15-pole D-Sub plug connector with pin contacts and locking screws 4-40UNC
- Outer diameter 9.0 mm (+/- 0.3mm)
- Bending radius: $r \geq 60$ mm (fixed routing), $r \geq 135$ mm (flexible use)
- Nominal voltage: 250V_{AC}

Technical description - draggable for resolver/ SinCos Hyperface®-interface / SinCos - and TTL - incremental encoder

- Li12YC11Y, 5x(2x0.14mm²) + 2 x 0.5mm² copper strand, twisted pairs
- PU sheath, black; inscription with Baumüller logo, white
- 1st side: 12-pole circular signal plug connector with 12 socket contacts
- 2nd side: 15-pole D-Sub plug connector with pin contacts and locking screws 4-40UNC
- Outer diameter 9.0 mm (+/- 0.3mm)
- Bending radius: $r \geq 70$ mm (fixed routing), $r \geq 100$ mm (flexible use)
- Nominal voltage: 300V_{AC}

Technical description - non-draggable for EnDat® 2.1-interface

- LiYCY, 5x(2x0.14mm²) + 2 x 0.5mm² copper strand, twisted pairs
- PVC sheath, grey; inscription with Baumüller logo, black
- 1st side: 17-pole circular signal plug connector with 17 socket contacts
- 2nd side: 15-pole D-Sub plug connector with pin contacts and locking screws 4-40UNC
- Outer diameter 9.0 mm (+/- 0.3mm)
- Bending radius: $r \geq 60$ mm (fixed routing), $r \geq 135$ mm (flexible use)
- Nominal voltage: 250V_{AC}

Technical description - draggable for EnDat® 2.1-interface

- Li12YC11Y, 5x(2x0.14mm²) + 2 x 0.5mm² copper strand, twisted pairs
- PU sheath, black; inscription with Baumüller logo, white
- 1st side: 17-pole circular signal plug connector with 17 socket contacts
- 2nd side: 15-pole D-Sub plug connector with pin contacts and locking screws 4-40UNC
- Outer diameter 9.0 mm (+/- 0.3mm)
- Bending radius: $r \geq 70$ mm (fixed routing), $r \geq 100$ mm (flexible use)
- Nominal voltage: 300V_{AC}

Technical description - draggable for EnDat® 2.2-interface

- PUR sheath, 1x(4x0.14mm²) + (4x0.34mm²)
- 1 twisted foursome 0.14mm², 4 wires 0.34mm², copper, tin-plated
- Total shield CuSn, inscription Heidenhain
- 1st side: 9-pole circular signal plug connector with 8 socket contacts
- 2nd side: 15-pole D-Sub plug connector with pin contacts and locking screws 4-40UNC
- Outer diameter 6.0 mm
- Bending radius: $r \geq 20$ mm (fixed routing), $r \geq 75$ mm (flexible use)
- Dielectric strength wire/wire and wire/shield: 0.5kV at 50Hz, 1 minute

3.2.2 Application references**Operating temperature of encoder cable resolver/ SinCos Hiperface®-interface / SinCos - and TTL - incremental encoder / EnDat® 2.1**

	Draggable	Non-draggable
Limit temperature	on the surface	on the surface
Static use/minimal movement	- 40 °C bis + 80 °C	- 30 °C bis + 80 °C
Permanent movement	- 30 °C bis + 80 °C	- 5 °C bis + 70 °C

Operating temperature of encoder cable EnDat® 2.2

	Draggable
Limit temperature	on the surface
Static use/minimal movement	- 40 °C bis + 80 °C
Permanent movement	- 10 °C bis + 80 °C

Routing of cable on motor

The cables must not touch the surface of the motor.

3.2.3 Order information for encoder cable

Encoder cables for resolver/ SinCos Hiperface®-interface / SinCos - and TTL - incremental encoder - prefabricated cables with connector

Not draggable, prefabricated		Draggable, prefabricated		
Cable 5 x (2x0.14mm ²) + 2 x 0.5 mm ² with plug connector		Cable 5 x (2x0.14mm ²) + 2 x 0.5 mm ² with plug connector		
Length [m]	Art. No.	Length [m]	Art. No.	Art. No. (Speedtec)
1	243601	3	246658	448944
2	211338	4	243379	448945
3	219333	5	239540	448948
4	231166	6	242954	448946
5	209879	8	239541	448949
6	220197	10	239542	448956
7	216455	15	239543	448962
8	220429	20	239544	448967
10	210052	25	239545	448970
15	215716	30	239546	448971
20	218568	35	239547	448973
25	218569	40	240520	448976
30	217094	45	240521	448978
35	216444	50	240522	448980
40	217095	55	244033	448981
45	217567	60	245484	448982
50	217568			
55	217569			
60	217570			
70	232088			

Encoder cables for EnDat® 2.1- prefabricated cables with plug connector

Not draggable, prefabricated		Draggable, prefabricated		
Cable 5 x (2x0.14mm ²) + 2 x 0.5 mm ² with plug connector		Cable 5 x (2x0.14mm ²) + 2 x 0.5 mm ² with plug connector		
Length [m]	Art. No.	Length [m]	Art. No.	Art. No. (Speedtec)
2	383152	2	393889	448816
3	383923	3	369864	448817
5	393885	5	394014	448818
7	389445	7	389807	448819
8	380138	8	393890	448820
9	389446	9	389808	448821
10	393886	10	393891	448822
15	388505	15	393892	448823
20	388418	17	371494	448824
25	393887	20	393893	448825
30	393888	25	393894	448826
35	387958	30	380358	448827
40	382006	35	391216	448828
50	388419	40	382005	448830
70	384473	50	378022	448832
90	387391			

Encoder cables for EnDat® 2.2 - prefabricated cables with plug connector

Draggable, prefabricated		
cable 1x4x0.14 + 4x0.34 PUR Ø 6mm with plug connector		
<u>Length [m]</u>	<u>Art. No.</u>	<u>Art. No. (Speedtec)</u>
2	434056	459031
3	434057	459032
5	434058	459033
10	434059	459035
15	434060	459036
20	434061	459037
25	434062	459038
50	434063	459042

3.3 Encoder cable b maXX 5000

A prefabricated encoder cable is used for all encoder systems. The connection at the motor end consists of a 12-pole circular signal connector on resolvers and Hyperface® encoder, a 17-pole circular signal connector on ECN1313/EQN1325. The connection at the controller side consists of a 26-pole D-Sub connector. Alternatively, the signal connector on the motor side is available in a Speed-Tec version.

3.3.1 Technical data

Technical description – draggable for resolver

- Li9YC, 1 x (2 x 0,25) + Li9Y, 2 x (2x0,25) + Li9YC11Y, 1 x (2 x 0,34), copper strand, twisted pairs
- PUR sheet, green; inscription with Baumüller Nürnberg and encoder cable Resolver
- 1st side: 12-pole circular signal plug connector with 12 socket contacts
- 2nd side: 26-pole D-Sub plug connector with pin contacts and locking screws 4-40UNC
- Outer diameter 7.3 mm (+/- 0.3mm)
- Bending radius: $r \geq 4 \times D$ (fixed routing), $r > 10 \times D$ (flexible use)

Technical description – draggable for SinCos Hiperface®-interface und SinCos - and TTL - incremental encoder

- Li9YC, 3 x (2 x 0,25) + Li9Y, 3 x (2 x 0,25) + Li9YC11Y, 1 x (2x0,34), copper strand, twisted pairs
- PUR sheet, green; inscription with Baumüller Nürnberg and encoder cable Hyperface or Incremental
- 1st side: 12-pole circular signal plug connector with 12 socket contacts
- 2nd side: 26-pole D-Sub plug connector with pin contacts and locking screws 4-40UNC
- Outer diameter 9.6 mm (+/- 0.3mm)
- Bending radius: $r \geq 4 \times D$ (fixed routing), $r > 10 \times D$ (flexible use)

Technical description – draggable for EnDat® 2.1-interface

- Li9YC, 3 x (2 x 0,25) + Li9Y, 3 x (2 x 0,25) + Li9YC11Y, 1 x (2x0,34), copper strand, twisted pairs
- PUR sheet, green; inscription with Baumüller Nürnberg and encoder cable Endat 2.1
- 1st side: 17-pole circular signal plug connector with 17 socket contacts
- 2nd side: 26-pole D-Sub plug connector with pin contacts and locking screws 4-40UNC
- Outer diameter 9.6 mm (+/- 0.3mm)
- Bending radius: $r \geq 4 \times D$ (fixed routing), $r > 10 \times D$ (flexible use)

Technical description – draggable hybrid cable for Hiperface DSL®

- Hybrid cable
- Shielding braid Copper wires, tinned
- PUR sheath, orange, flame-retardant, self-extinguishing
- 1st side: round metal plug Speedtec M23 hybrid socket 8-pole for wire with 4G1.5 and 4G2.5
metal round plug Speedtec M40 hybrid socket 5+4-pole + 2 -pole insulating body for wire with 4G2.5, 4G4 and 4G6
- 2nd side: Metal 45°-D-Sub plug, 26-pole with electronics
- Ready-for-use cable for bmaXX 5300
- Cable for bmaXX 5500 being prepared

3.3.2 Application references

Operating temperature of encoder cable resolver/ SinCos Hiperface®-interface / SinCos - and TTL - incremental encoder / EnDat® 2.1

Limit temperature	On the surface
Static use/minimal movement	- 40 °C bis + 80 °C
Permanent movement	- 20 °C bis + 60 °C

Routing of cable on motor

The cables must not touch the surface of the motor.

3.3.3 Order information for encoder cable

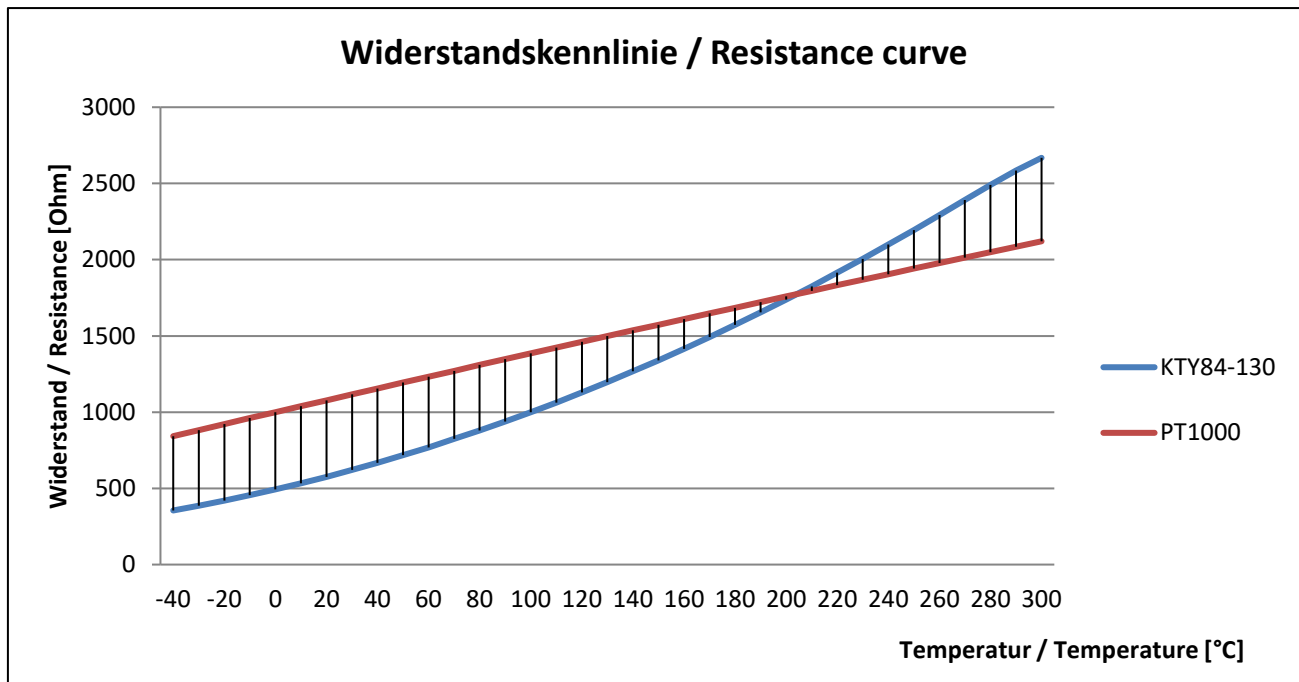
Encoder cable – prefabricated with plug

For resolver			For SinCos Hiperface®-interface		
Length [m]	Art. No.	Art. No. (Speedtec)	Length [m]	Art. No.	Art. No. (Speedtec)
1	429914	448746	1	429958	448761
2	429915	448747	2	429959	448762
3	429916	448748	3	429960	448763
5	429917	448749	5	429961	448764
7	429918	448750	7	429962	448765
10	429919	448751	10	429963	448766
15	429920	448752	15	429964	448767
20	429921	448753	20	429965	448768
25	429922	448754	25	429966	448769
30	429923	448755	30	429967	448770
35	429924	448756	35	429968	448772
40	429925	448757	40	429969	448773
50	429926	448758	50	429970	448774
75	429927	448759	75	429971	448775

For SinCos- and TTL-incremental encoder			For SinCos EnDat® 2.1-interface		
Length [m]	Art. No.	Art. No. (Speedtec)	Length [m]	Art. No.	Art. No. (Speedtec)
1	430015	448777	1	429986	448796
2	430016	448778	2	429987	448797
3	430017	448779	3	429988	448798
5	430018	448780	5	429989	448799
7	430019	448781	7	429990	448800
10	430020	448782	10	429991	448801
15	430021	448783	15	429992	448802
20	430022	448784	20	429993	448803
25	430023	448785	25	429994	448804
30	430024	448786	30	429995	448805
35	430025	448787	35	429996	448806
40	430026	448788	40	429997	448807
50	430027	448789	50	429998	448808
75	430028	448790	75	429999	448809

3.4 Temperature sensor

The motors are equipped as standard with a temperature sensor in the stator winding. This allows for evaluation in the motor controller. The connection is made via the terminal box.

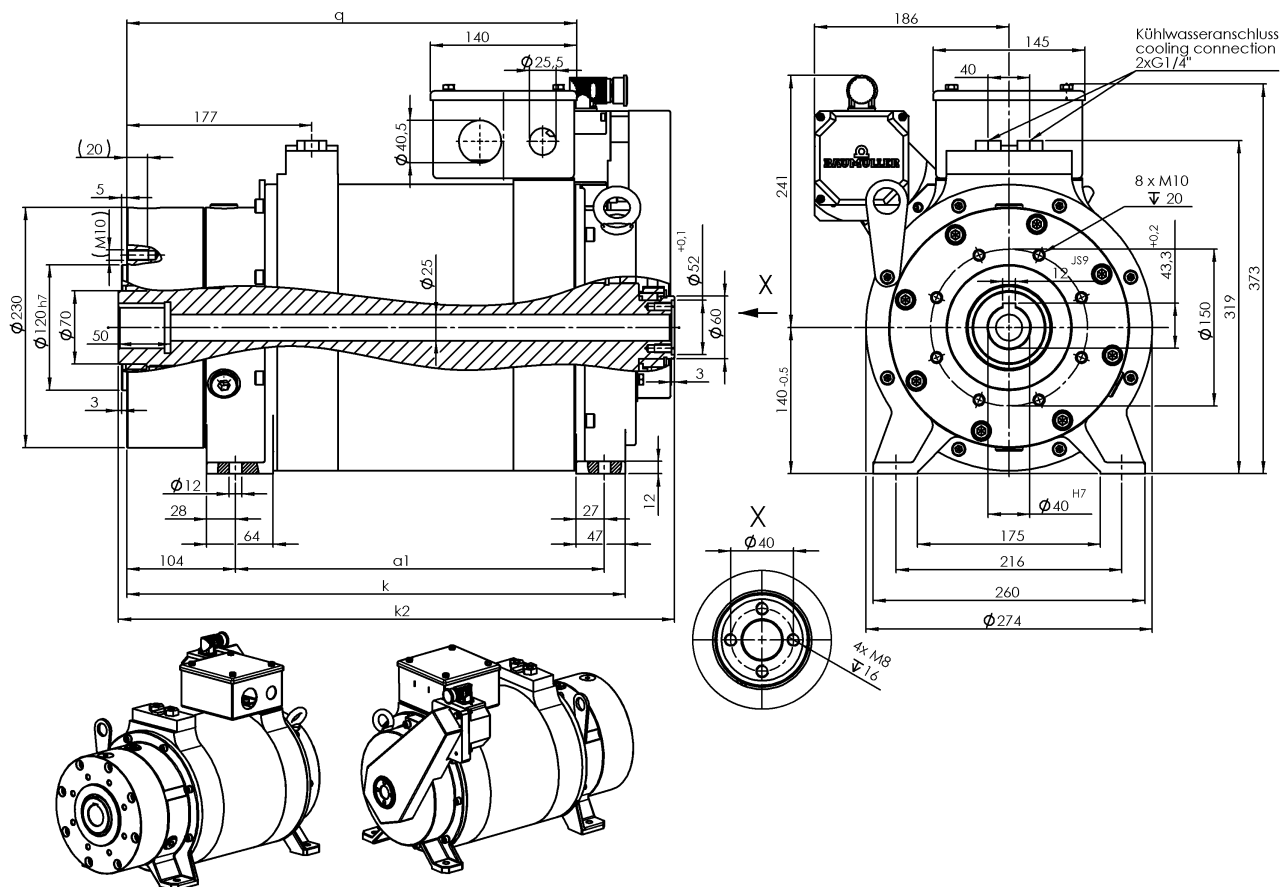


The PT1000 temperature sensor continuously monitors the motor temperature. When the sensor is supplied with a measuring current of 2 mA, the resistance characteristic shown above applies.

Additional PTC thermistors or thermal switches can be installed upon request.

4.1.3 DST2-135..W-...-.-D

IM B34



	k	k2	q	a1
DST2-135K0	393	448	347	269
DST2-135M0	435	490	389	311
DST2-135L0	477	532	431	353
DST2-135B0	519	574	473	395
DST2-135X0	561	616	515	437
DST2-135Y0	603	658	557	479

Hinweis:

Klemmenkastenabmessungen in Kapitel 5

Riemenübersetzung der Geberanbindung = 1:2

Note:

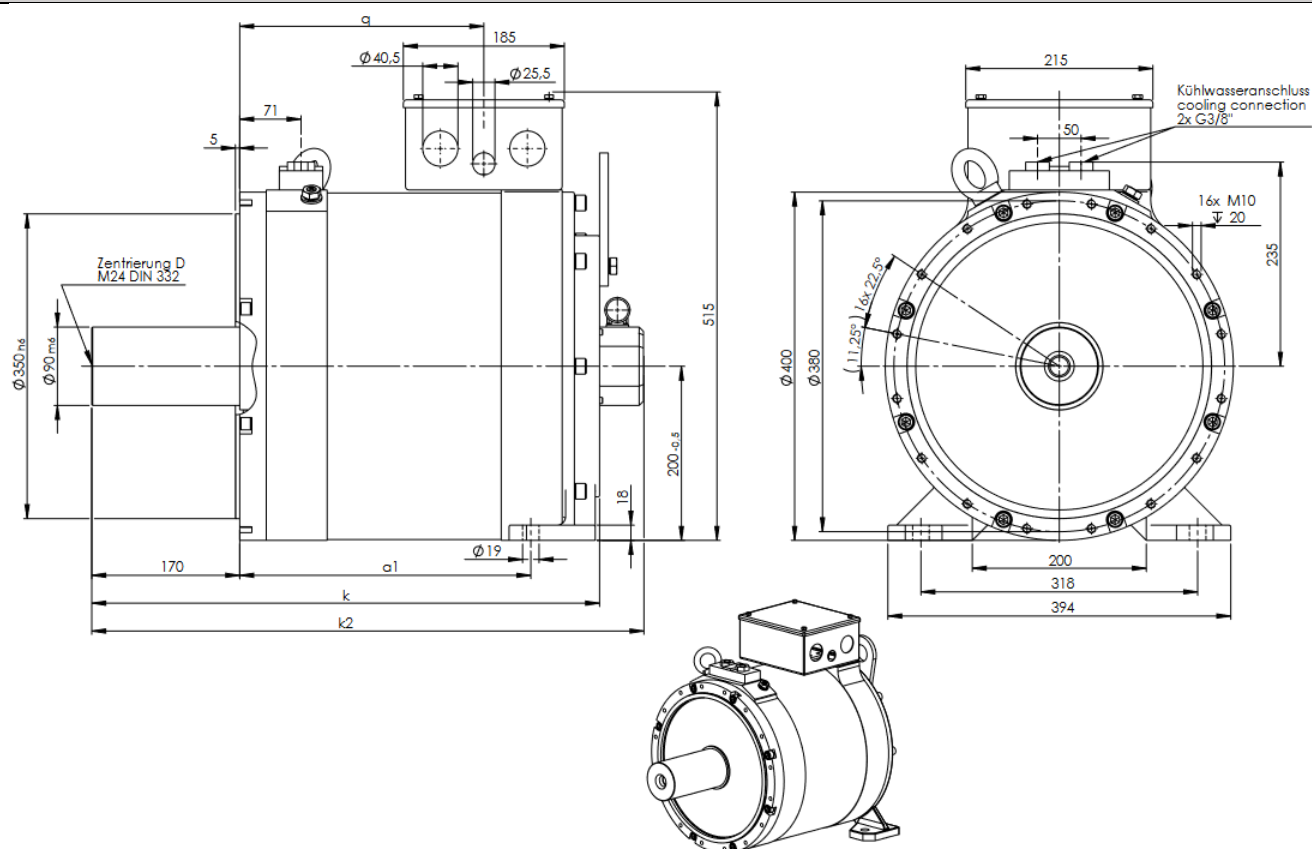
Terminal box dimensions in chapter 5

Belt ratio to encoder = 1:2

4.2 Dimension drawings DST2-200

4.2.1 DST2-200..W-...-.-V

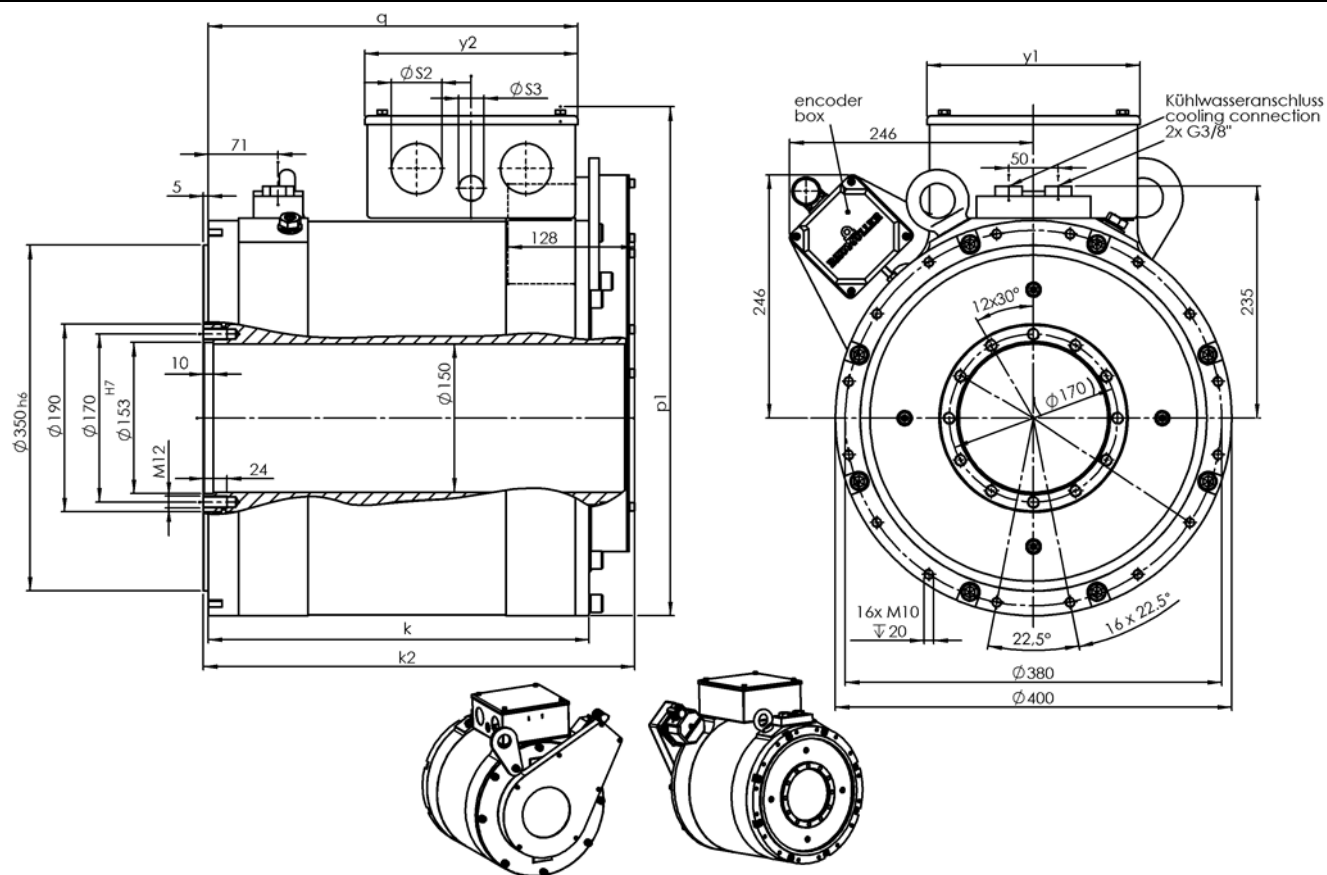
IM B34



	k	k2	q	a1
DST2-200K0	465	515	180	214,5
DST2-200KM	505	555	220	254,5
DST2-200M0	545	595	260	294,5
DST2-200ML	585	635	300	334,5
DST2-200L0	625	675	320	374,5
DST2-200B0	705	755	400	454,5
DST2-200X0	785	835	480	534,5
DST2-200XY	825	875	520	574,5
Hinweis:		Note:		
Klemmenkastenabmessungen in Kapitel 5		Terminal box dimensions in chapter 5		

4.2.2 DST2-200..W-...-.-H

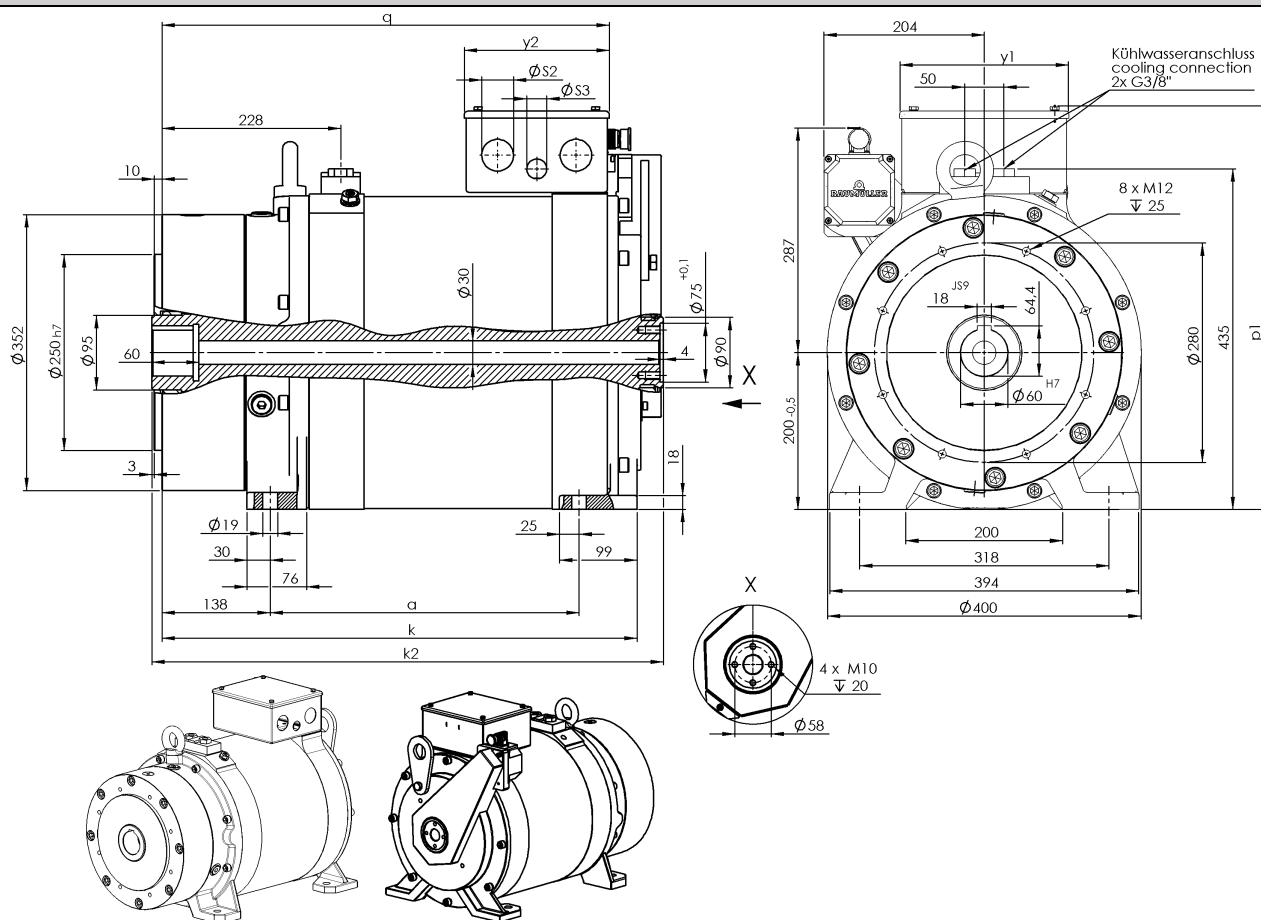
IM B14



	<u>k</u>	<u>k2</u>	<u>q</u>
DST2-200KO	265	316	253
DST2-200KM	305	356	293
DST2-200MO	345	396	333
DST2-200ML	385	436	373
DST2-200LO	425	476	413
DST2-200BO	505	556	493
DST2-200XO	585	636	573
DST2-200XY	625	676	613
Hinweis:		Note:	
Klemmenkastenabmessungen in Kapitel 5		Terminal box dimensions in chapter 5	
Riemenübersetzung der Geberanbindung = 1:5		Belt ratio to encoder = 1:5	

4.2.3 DST2-200..W-...-D

IM B34

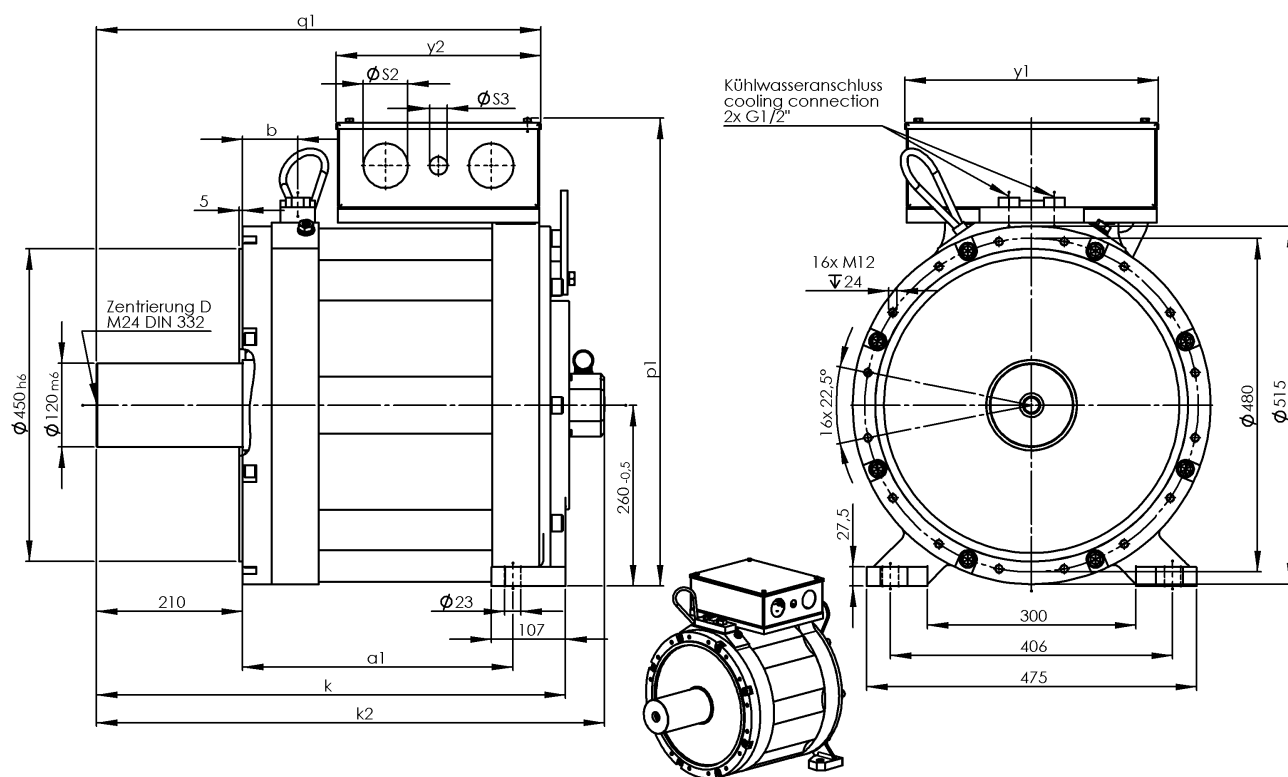


	k	k2	q	a1
DST2-200K0	446	493	411	234
DST2-200KM	486	533	451	274
DST2-200M0	526	573	491	314
DST2-200ML	566	613	531	354
DST2-200L0	606	653	571	394
DST2-200B0	686	733	651	474
DST2-200X0	766	813	731	554
DST2-200XY	806	853	771	594
Hinweis:		Note:		
Klemmenkastenabmessungen in Kapitel 5		Terminal box dimensions in chapter 5		
Riemenübersetzung der Geberanbindung = 1:3		Belt ratio to encoder = 1:3		

4.3 Dimension drawings DST2-260

4.3.1 DST2-260..W-...-.-V

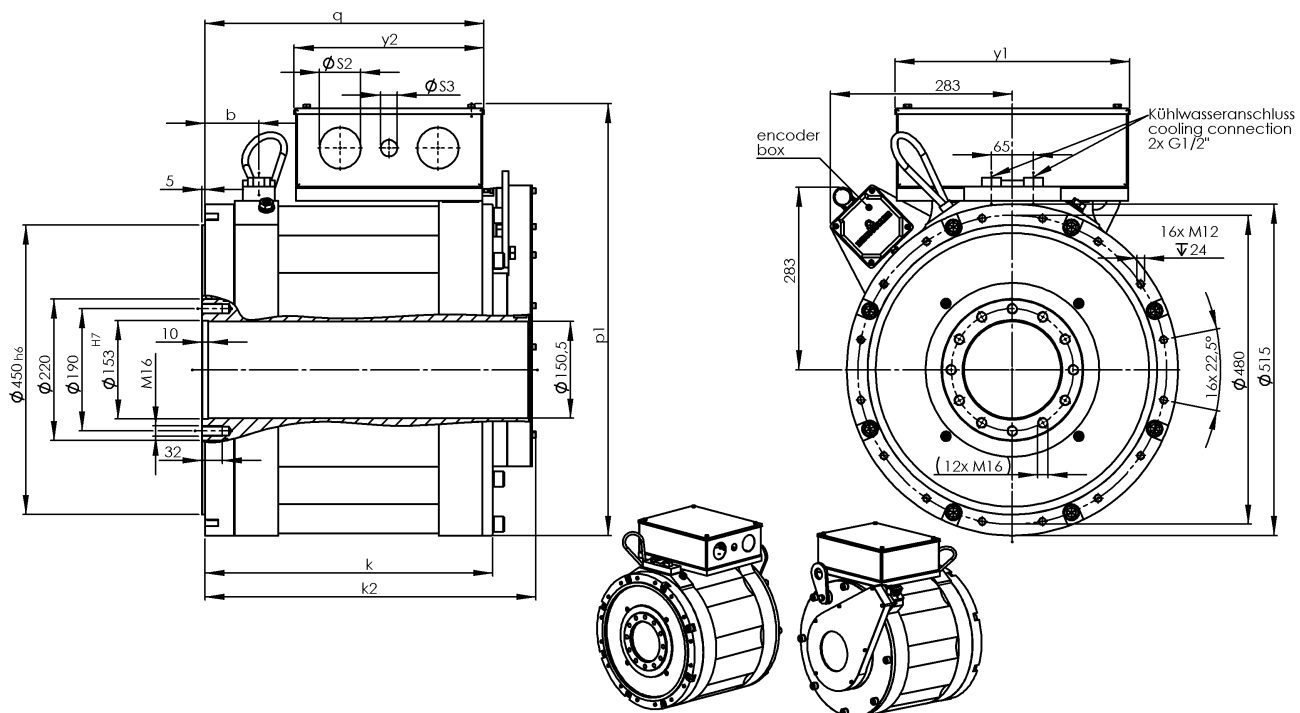
IM B34



	k	k2	q1	a1	b
DST2-260K0	575	631	540	289	80
DST2-260KM	625	681	590	339	80
DST2-260M0	675	731	640	389	80
DST2-260ML	725	781	690	439	80
DST2-260LO	775	831	740	489	80
DST2-260LB	875	926	835	584	102
DST2-260B0	925	976	885	634	102
DST2-200X0	1025	1076	985	734	102
Hinweis:			Note:		
Klemmenkastenabmessungen in Kapitel 5			Terminal box dimensions in chapter 5		

4.3.2 DST2-260..W-...-H

IM B14



	k	k2	q	b
DST2-260K0	347	415	334	84
DST2-260KM	397	465	384	84
DST2-260M0	447	515	434	84
DST2-260ML	497	565	484	84
DST2-260L0	547	615	534	84
DST2-260LB	642	665	629	106
DST2-260B0	692	715	679	106
DST2-260X0	792	860	779	106

Hinweis:

Klemmenkastenabmessungen in Kapitel 5

Riemenübersetzung der Geberanbindung = 1:5

Note:

Terminal box dimensions in chapter 5

Belt ratio to encoder = 1:5

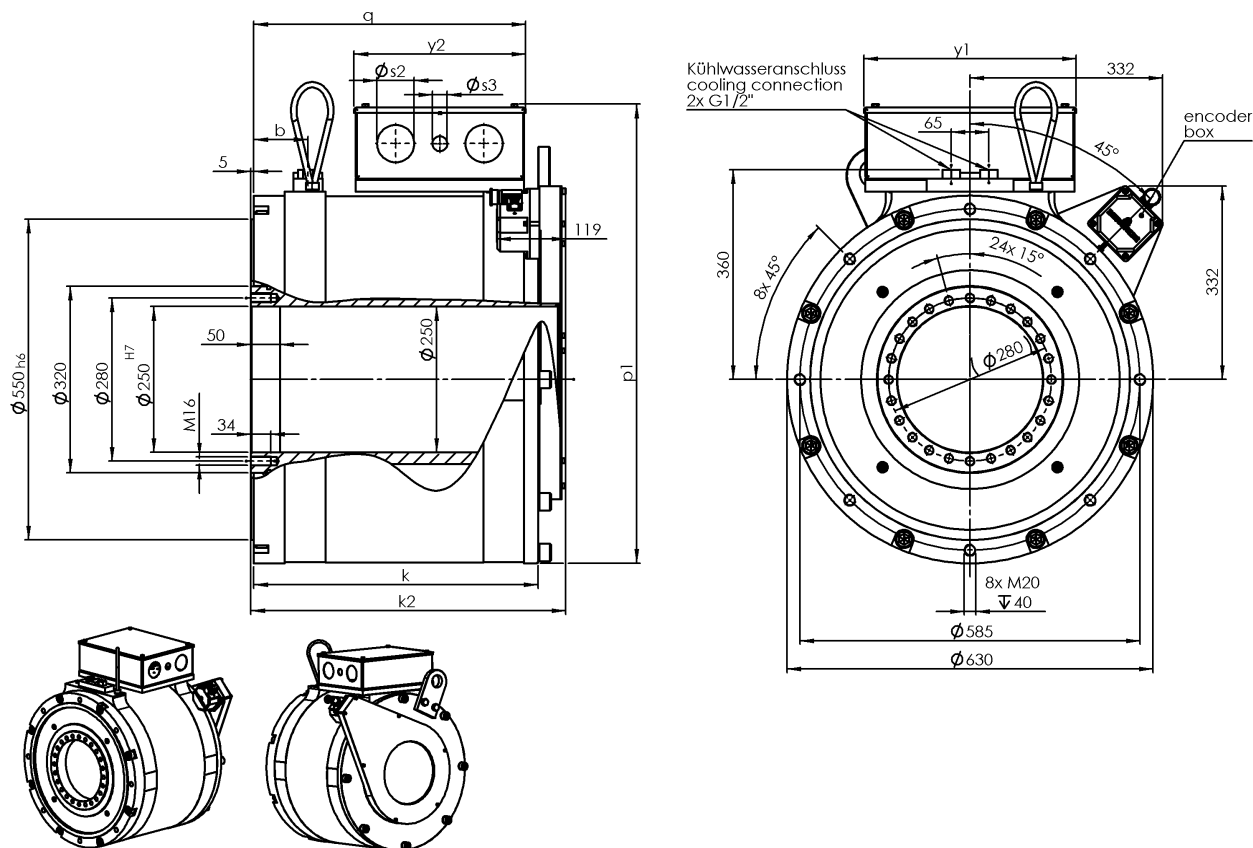
4.4 Dimension drawings DST2-315

4.4.1 DST2-315..W-...-.-V

IM B34				
The drawing includes three views of the motor: a front view on the left, a side view on the right, and an isometric view at the bottom center. Key dimensions labeled include: - Front view: $\phi 550_{h6}$, $\phi 120_{m6}$, 210, $\phi 28$, 97, a_1, k, k_2, q_1, y_2, ϕS_2, ϕS_3, p_1, 315-0.5, 5, b, Zentrierung D M24 DIN 332. - Side view: y_1, $\phi 585$, $\phi 630$, 8x 45°, 33, 8x M20, 400, 508, 590. - Isometric view: Shows the motor's 3D structure with the terminal box and cooling connection.				
	k	k₂	q₁	a₁
DST2-315K0	529	599	508	253
DST2-315KM	563	633	542	287
DST2-315M0	597	667	576	321
DST2-315ML	631	701	610	355
DST2-315L0	665	735	644	389
DST2-315LB	699	769	678	423
DST2-315B0	783	853	762	507
DST2-315X0	851	921	830	575
DST2-315XY	885	955	864	609
DST2-315Y0	919	989	898	643
DST2-315Z0	987	1057	966	711
DST2-315ZA	1021	1091	1000	745
Hinweis:		Note:		
Klemmenkastenabmessungen in Kapitel 5		Terminal box dimensions in chapter 5		

4.4.2 DST2-315..W-...-.-H

IM B14



	k	k2	q	b
DST2-315K0	319	372	295	93
DST2-315KM	353	406	329	93
DST2-315M0	387	440	363	93
DST2-315ML	421	474	397	93
DST2-315L0	455	508	431	93
DST2-315LB	489	542	465	93
DST2-315B0	573	626	549	118
DST2-315X0	641	694	617	118
DST2-315XY	675	728	651	118
DST2-315Y0	709	762	685	118
DST2-315Z0	777	830	753	118
DST2-315ZA	811	864	787	118

Hinweis:

Klemmenkastenabmessungen in Kapitel 5

Riemenübersetzung der Geberanbindung = 1:5

Note:

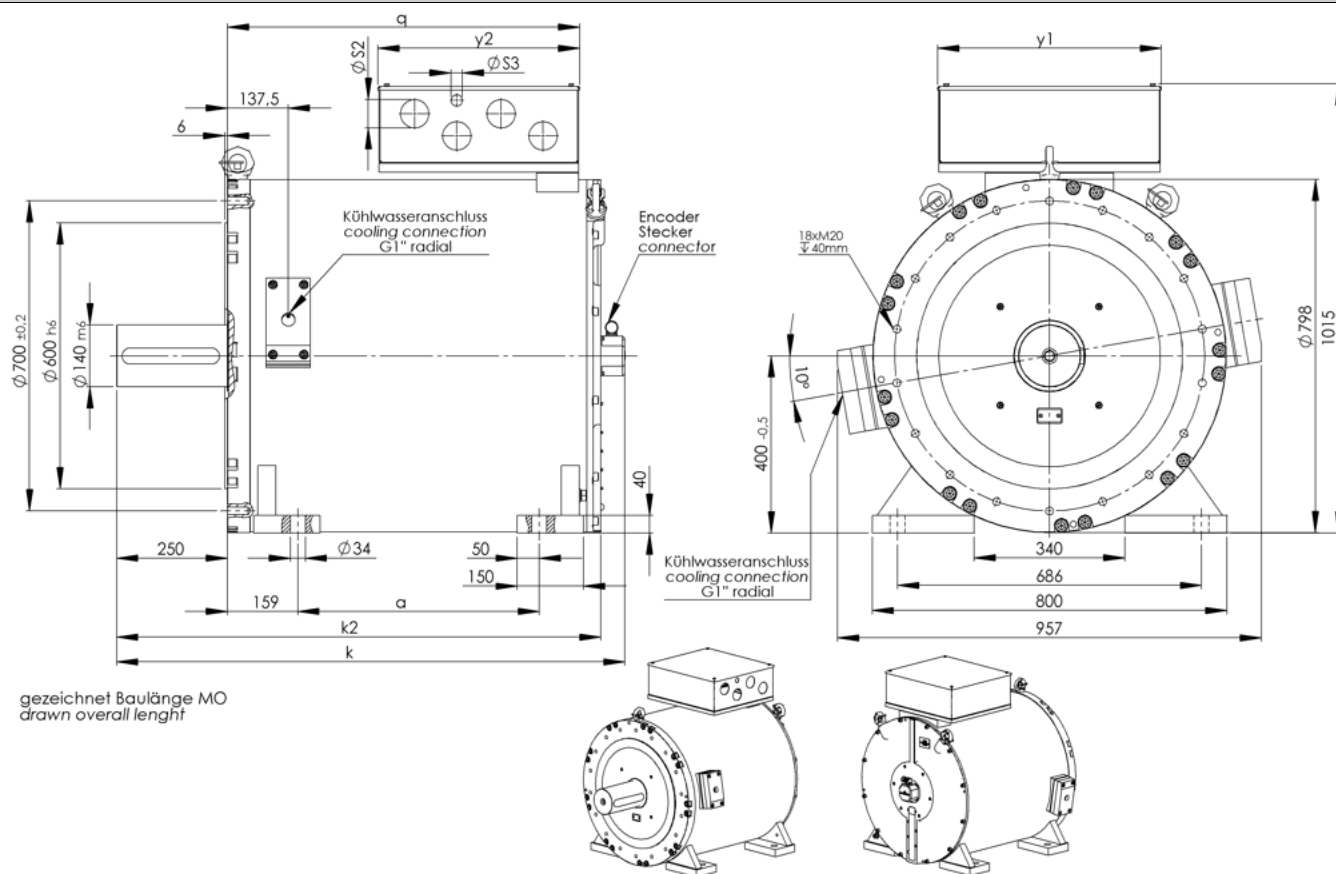
Terminal box dimensions in chapter 5

Belt ratio to encoder = 1:5

4.5 Dimension drawings DST2-400

4.5.1 DST2-400..W-...-.-V

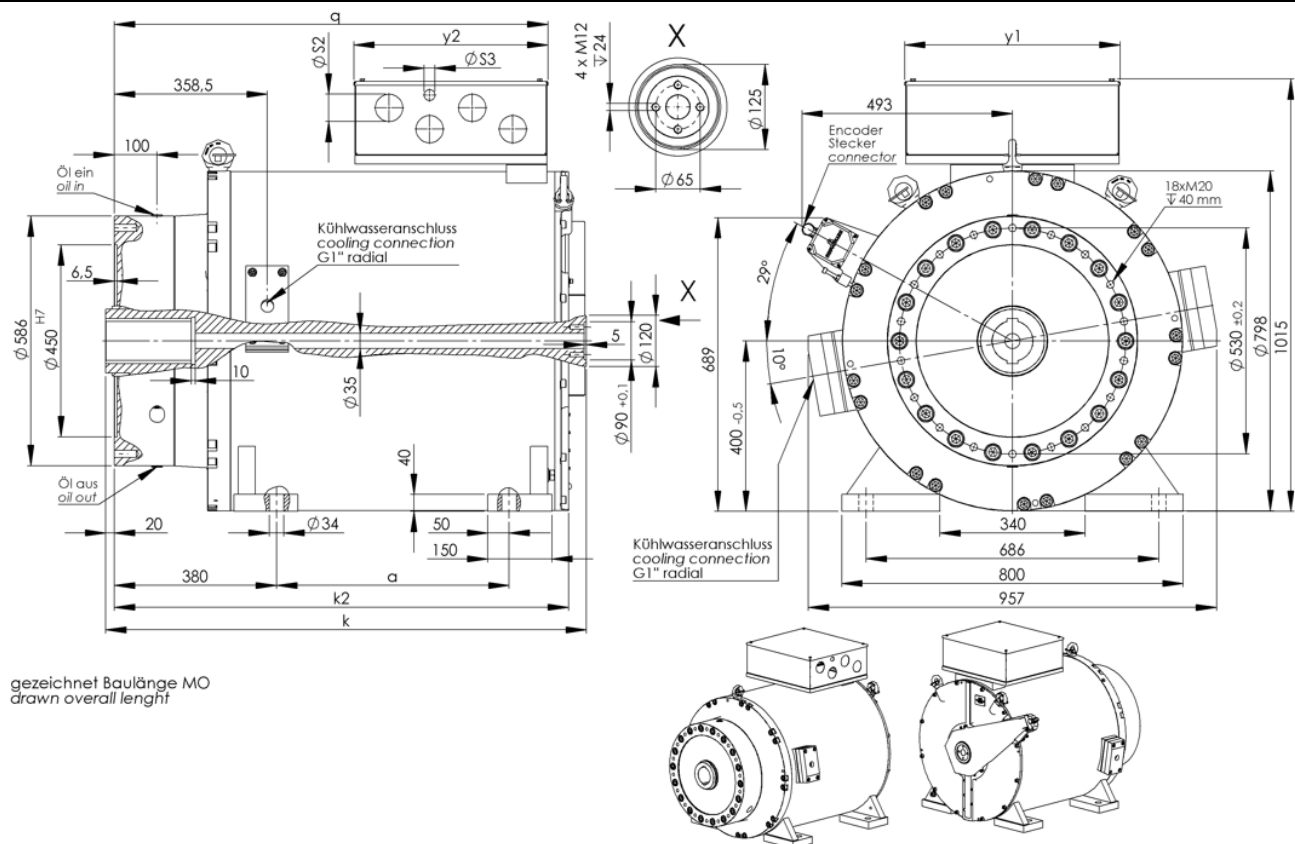
IM B34



	k	k₂	q	a
DST2-400K0	1047,5	743	695	445
DST2-400KM	1097,5	1043	745	495
DST2-400MO	1147,5	1093	795	545
DST2-400LO	1247,5	1193	895	645
DST2-400BO	1347,5	1293	995	745
DST2-400XY	1497,5	1443	1145	895
Hinweis:		Note:		
Klemmenkastenabmessungen in Kapitel 5		Terminal box dimensions in chapter 5		

4.5.3 DST2-400..W-...-.-D

IM B34



	<u>k</u>	<u>k2</u>	<u>q</u>	<u>a</u>
DST2-400K0	1026	964	916	445
DST2-400KM	1076	1014	966	495
DST2-400MO	1126	1064	1016	545
DST2-400LO	1226	1164	1116	645
DST2-400BO	1326	1264	1216	745
DST2-400XY	1476	1414	1366	895

Hinweis:

Klemmenkastenabmessungen in Kapitel 5

Riemenübersetzung der Geberanbindung = 1:5

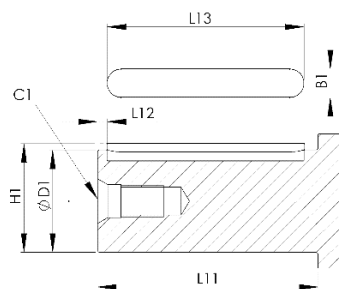
Note:

Terminal box dimensions in chapter 5

Belt ratio to encoder = 1:5

4.6 Shaft options

4.6.1 Shaft with key

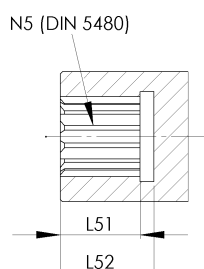


Solid shaft version	Acc. DIN 748-E						
	ØD1	L11	L12	L13	B1	H1	C1
DST2-135	65 m6	140	6	125	18	69	DIN 332 D M20
DST2-200	90 m6	170	10	140	25	95	DIN 332 D M24
DST2-260	120 m6	210	10	180	32	127	DIN 332 D M24
DST2-315	120 m6	210	10	180	32	127	DIN 332 D M24
DST2-400	140 m6	250	10	220	36	148	DIN 332 D M24

Note – Thrust bearing motors with one or two keys:

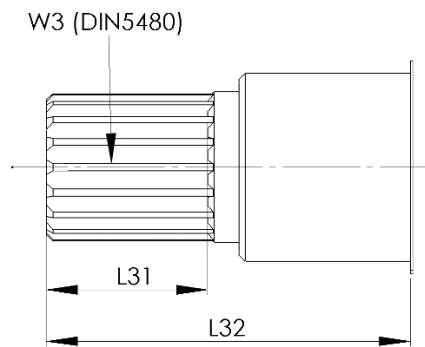
The maximum transferable torque is 1,25 x stall torque [M₀]!

4.6.2 Shaft with internal teeth – Solid shaft version

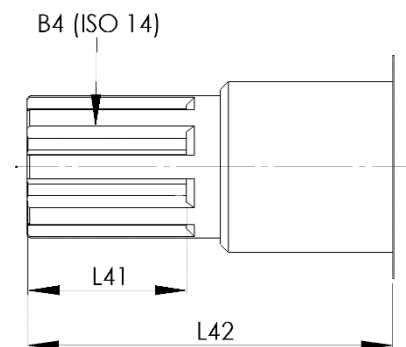


Solid shaft version	Acc. to DIN 5480			
	N5	L51	L52	
DST2-135K0 – YO	N40x3x12x9H	40	47	
DST2-200K0 – B0	N55x3x17x9H	45	53	
DST2-200X0 – XY	N65x3x20x9H	50	60	
DST2-260K0 – B0	N75x3x24x9H	57	67	
DST2-260X0	N85x3x27x9H	75	89	
DST2-315K0 – LB	N85x3x27x9H	75	89	
DST2-315B0 – ZA	N100x3x32x9H	92	110	
DST2-400K0 – M0	N100x3x32x9H	100	110	
DST2-400L0 – XY	N130x3x42x9H	120	130	

4.6.3 Shaft with external teeth

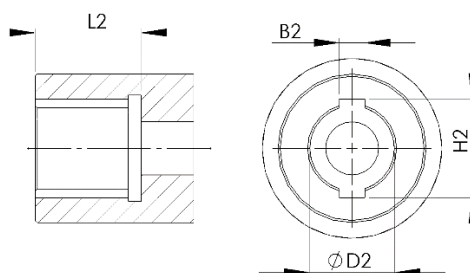


Solid shaft version	Acc. to DIN 5480		
	<u>W3</u>	<u>L31</u>	<u>L32</u>
DST2-135	W48x2x22x8e	48	97
DST2-200	W70x3x22x8e	72	117
DST2-260	W80x3x25x8e	80	132
DST2-315	W110x3x35x8e	144	210
DST2-400	W130x3x42x8e	150	200



Solid shaft version	Acc. to DIN ISO14		
	<u>B4</u>	<u>L41</u>	<u>L42</u>
DST2-135	B8x42x48	48	102
DST2-200	B8x62x72	72	117
DST2-260	B10x72x82	80	146
DST2-315	B10x102x112	144	210
DST2-400	B10x112x125	150	200

4.6.4 Shaft with blind hole and 2 keys – Thrust bearing version

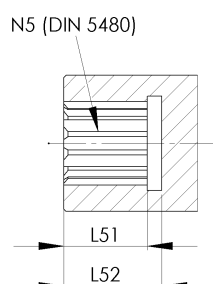


Thrust bearing version	$\varnothing D2$	$L2$	$H2$	$B2$
DST2-135	40H7	50	46,6	12
DST2-200	60H7	60	68,8	18
DST2-260	70H7	130	79,8	20
DST2-315K0 – LB	70H7	130	79,8	20
DST2-315B0 – ZA	85H7	170	95,8	25
DST2-400K0 – M0	95H7	200	105,8	25
DST2-400L0 – XY	120H7	200	134,8	32

Note – Thrust bearing motors with one or two keys:

The maximum transferable torque is 1,25 x stall torque [M_o]!

4.6.5 Shaft with internal teeth – Thrust bearing version



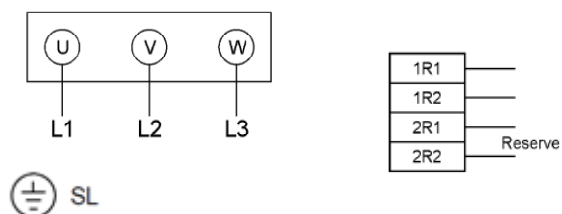
Thrust bearing version	Acc. to DIN 5480		
	<u>N5</u>	<u>L51</u>	<u>L52</u>
DST2-135K0 – YO	N40x3x12x9H	40	47
DST2-200K0 – B0	N55x3x17x9H	45	53
DST2-200X0 – XY	N65x3x20x9H	50	60
DST2-260K0 – B0	N75x3x24x9H	57	67
DST2-260X0	N85x3x27x9H	75	89
DST2-315K0 – ZA ¹⁾	N85x3x27x9H	75	89
DST2-400K0 – M0	N100x3x32x9H	100	110
DST2-400L0 – XY	N130x3x42x9H	120	130

¹⁾ The maximum transferable torque is 1,25 x stall torque [M_o]!

5. Device connection

5.1 Main connection – terminal box

5.1.1 Terminal designation

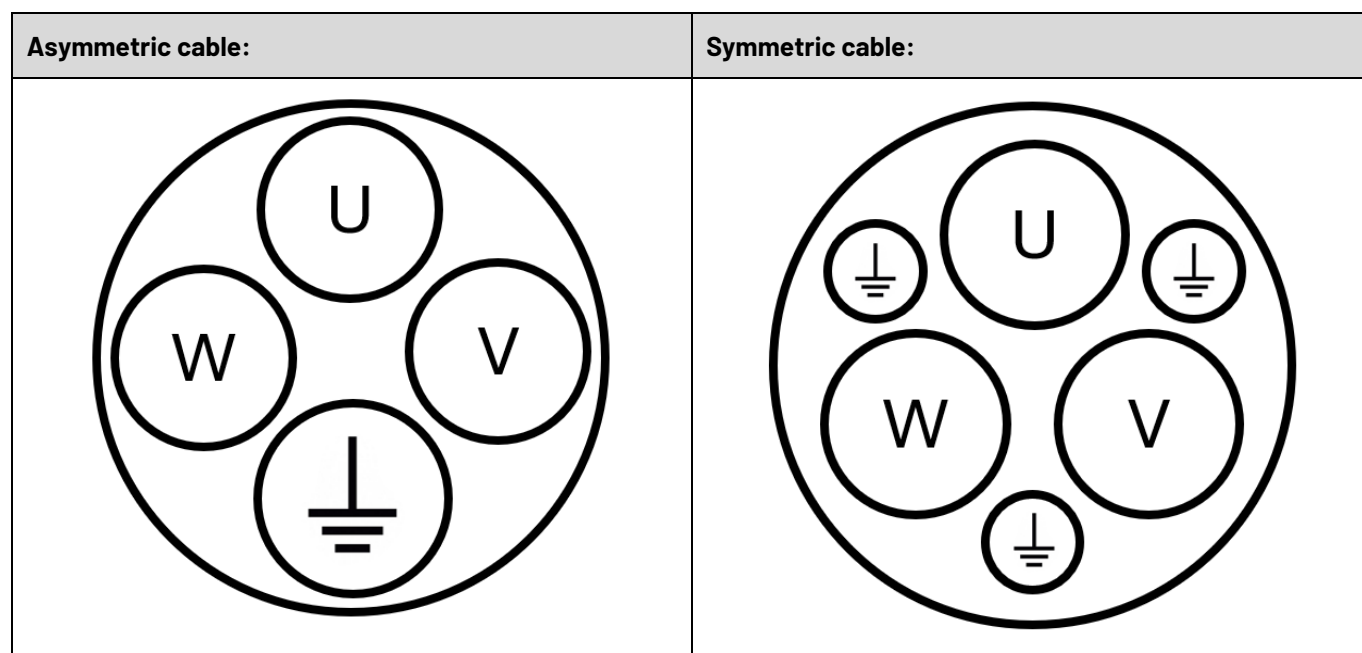


Wiring diagram

U V W	Power connection
1R1/1R2	Temperature sensor (PT1000)
2R1/2R2	Spare temperature sensor (PT1000)
SL	Protective earth (PE)

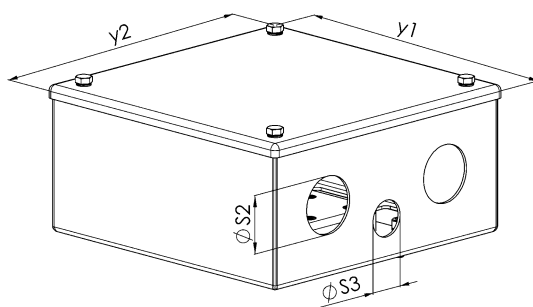
5.1.2 Cables for terminal box connection

The terminal boxes of our motors are designed for use with asymmetrical connection cables.



The use of symmetrical connection cables is available upon request.

5.1.3 Terminal box dimensions



No.	Cable entry fitting			Terminal	Holes	
	y_1 [mm]	y_2 [mm]	p_1 [mm] compare dimensions chapter 4		s_2	s_3
10	145	140	370	3x steckbar	1x Ø40,5	1x Ø25,5
12	215	215	387	3x M6	2x Ø40,5	1x Ø25,5
20	215	145	495	3x steckbar	1x Ø40,5	1x Ø25,5
22	215	185	515	3x M6	2x Ø40,5	1x Ø25,5
24	215	215	515	3x M8	2x Ø51	1x Ø25,5
26	255	255	525	3x M10	2x Ø64	1x Ø25,5
30	255	215	633	3x M6	2x Ø40,5	1x Ø25,5
31	255	215	633	3x M8	2x Ø51	1x Ø25,5
33	255	255	643	3x M8	2x Ø51	1x Ø25,5
34	255	255	643	3x M10	2x Ø64	1x Ø25,5
36	365	295	673	3x M12	2x Ø64	1x Ø25,5
37	365	295	673	3x M16	2x Ø76	1x Ø25,5
39	255	255	643	3x M8	2x Ø51	1x Ø25,5
42	365	365	673	3x M10	2x Ø64	1x Ø25,5
43	365	365	673	3x M12	2x Ø64	1x Ø25,5
45	365	365	673	3x M16	2x Ø76	1x Ø25,5
50	295	165	748	3x M6	1x Ø40,5	1x Ø25,5
52	295	165	748	3x M6	1x Ø51	1x Ø25,5
54	295	165	748	3x M8	1x Ø64	1x Ø25,5
56	295	195	758	3x M8	2x Ø51	1x Ø25,5
58	295	195	758	3x M10	2x Ø51	1x Ø25,5
60	365	230	768	3x M10	2x Ø64	1x Ø25,5
62	365	230	768	3x M12	2x Ø64	1x Ø25,5
64	365	295	788	3x M10	2x Ø64	1x Ø25,5

No.	Cable entry fitting			Terminal	Holes	
	y1[mm]	y2[mm]	p1[mm] compare dimensions chapter 4		y1[mm]	y2[mm]
66	365	295	788	3x M12	2x Ø64	1x Ø25,5
68	365	295	788	3x M16	2x Ø76	1x Ø25,5
70	295	230	758	3x M8	2x Ø51	1x Ø25,5
72	365	365	768	3x M10	2x Ø64	1x Ø25,5
74	365	365	788	3x M12	2x Ø64	1x Ø25,5
78	365	365	788	3x M16	2x Ø76	1x Ø25,5
80	365	365	823	3x M16	2x Ø76	1x Ø25,5
82	365	365	823	3x M16	3x Ø76	1x Ø25,5
90	500	450	1045	3x M12	2x Ø51	1x Ø25,5
92	500	450	1045	3x M12	2x Ø64	1x Ø25,5
94	500	450	1045	3x M16	2x Ø64	1x Ø25,5
96	500	450	1045	3x M20	3x Ø64	1x Ø25,5
98	500	450	1045	3x M20	3x Ø64	1x Ø25,5
100	500	450	1045	3x M20	4x Ø64	1x Ø25,5
102	500	450	1045	6x M20	4x Ø76	1x Ø25,5
104	360	650	985	6x M16	4x Ø64	2x Ø21
106	505	675	1065	6x M20	4x Ø64	2x Ø25,5
108	505	855	1065	6x M20	6x Ø64	2x Ø25,5
110	505	855	1065	9x M16	6x Ø64	2x Ø25,5
112	505	855	1065	9x M20	6x Ø64	2x Ø25,5

5.1.4 Position of terminal box

The terminal box is located on the N-side. For motor sizes 135-315 the terminal box appears in any of the following positions:

- Terminal box at top
- Terminal box at bottom
- Terminal box on left (with D-side facing towards shaft end)
- Terminal box on right (with D-side facing towards shaft end)

Note: The position of the terminal box is identical to the position of the D-side water connections.

The following main connection outlet directions can be configured depending on the position of the terminal box for motor sizes 135 - 315.

Position terminal box	Outlet direction main connection			
	<u>Top</u>	<u>Bottom</u>	<u>Left</u> ¹⁾	<u>Right</u> ¹⁾
<u>Top</u>	-	-	☒	☒ ²⁾
<u>Bottom</u>	-	-	☒	☒
<u>Left</u> ¹⁾	☒ ²⁾	☒	-	-
<u>Right</u> ¹⁾	☒	☒ ²⁾	-	-

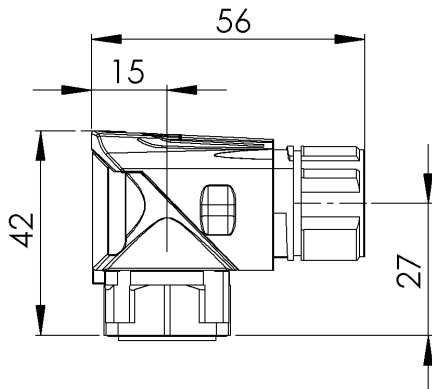
¹⁾ with DE-side facing towards shaft end

²⁾ preferred variant

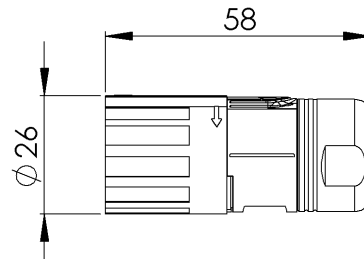
For motor size 400 the terminal box is located on top at NDE-side. The main connection outlet is right with DE-side facing towards shaft end for standard version.

5.2 Encoder connection

Speedtec – angle built-in socket can turn

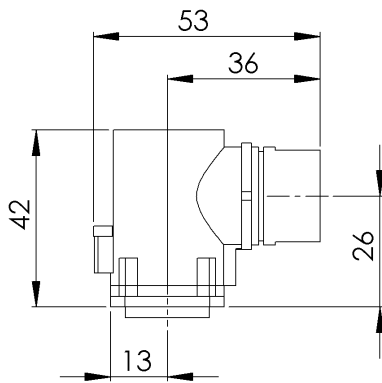


Speedtec – mating connector



Socket can turn for ECN1325/EQN1337

(Mating plug not separately available)



6. Motor characteristics

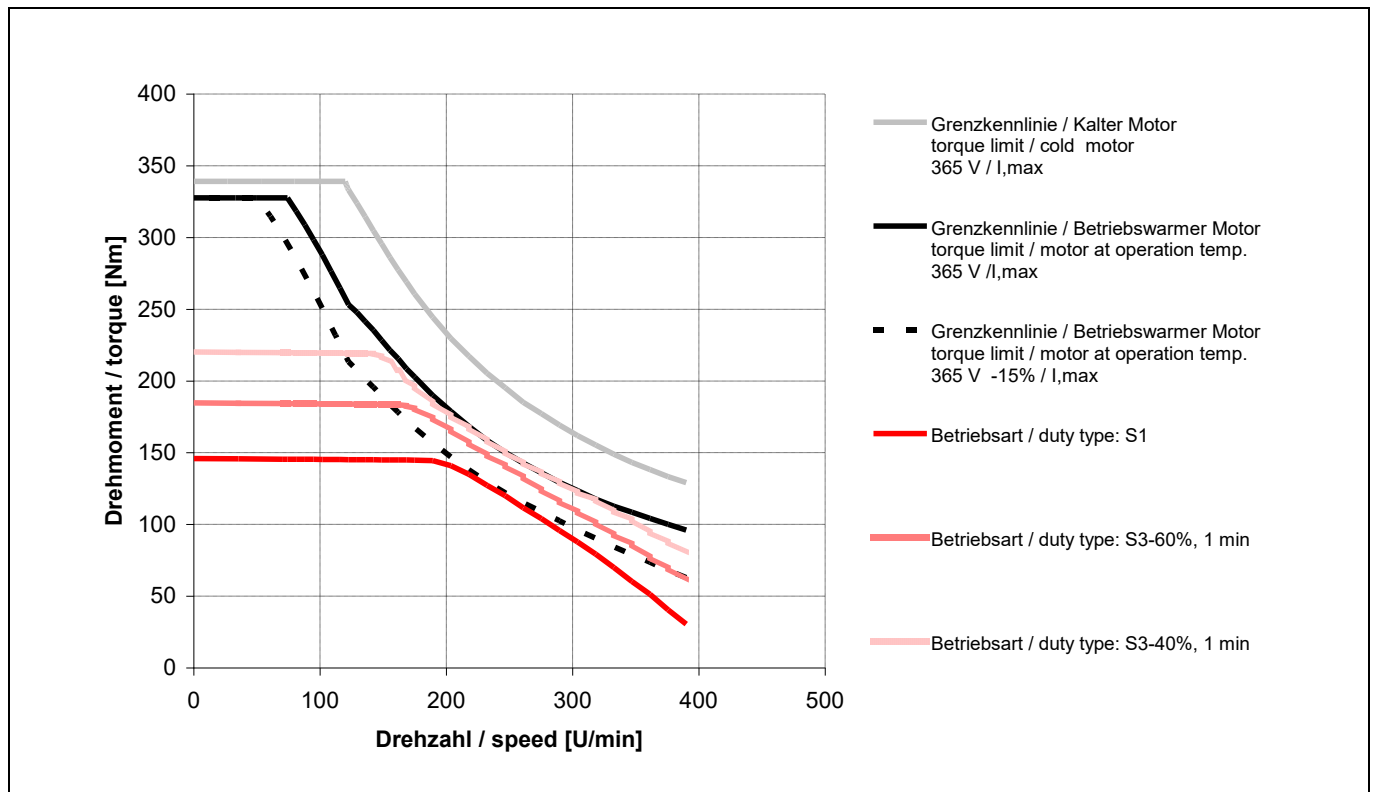
Definition:

Cold motor = Ambient temperature (0°C to 40°C)

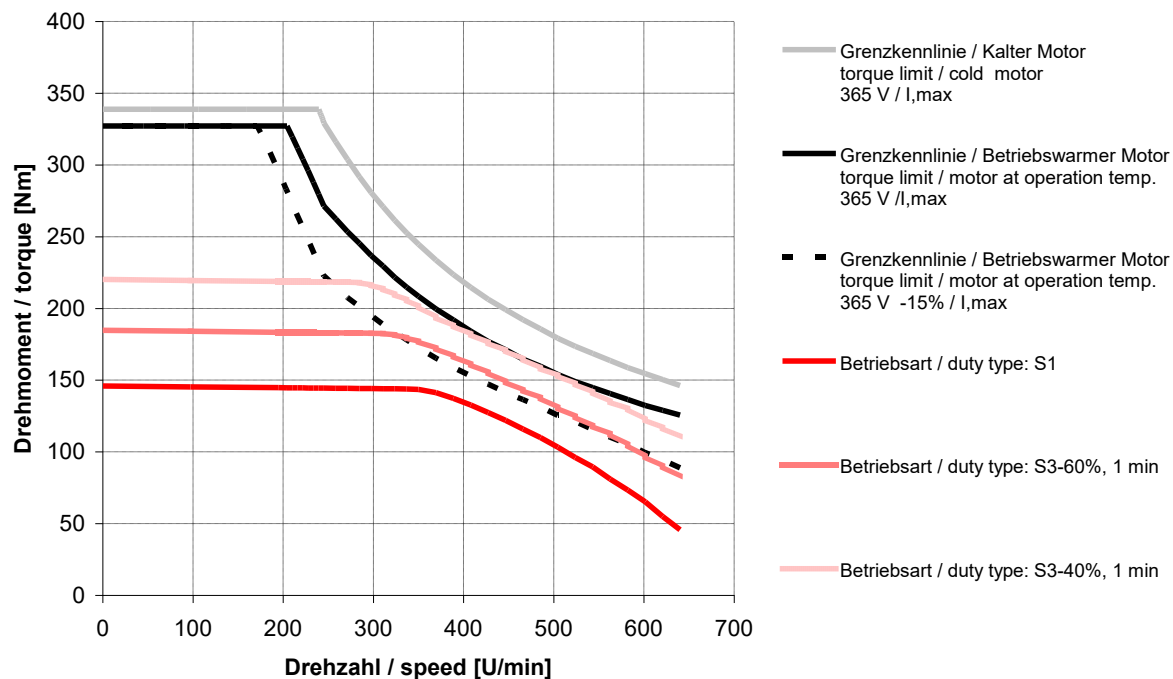
Motor at operating temperature = Continuous operation (S1) with the motor's rated data or cyclic operation with the corresponding effective power
Ambient temperature + delta temperature rise (105K)

6.1 Characteristics DST2-135..54W

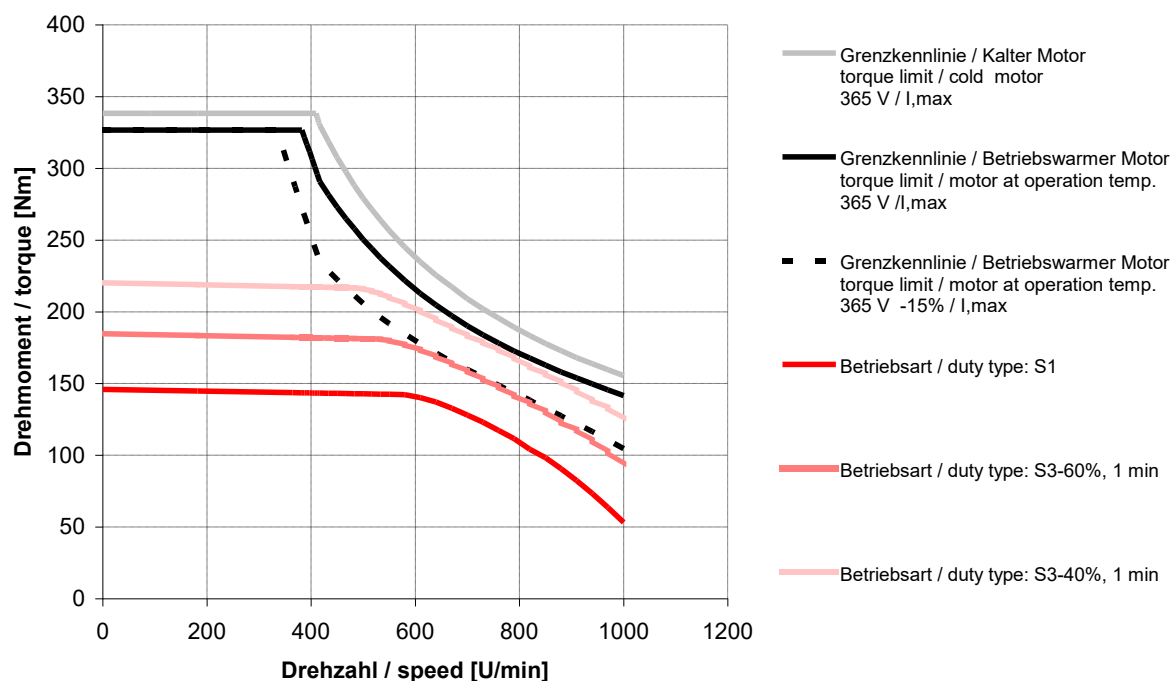
DST2-135K054W-017-5



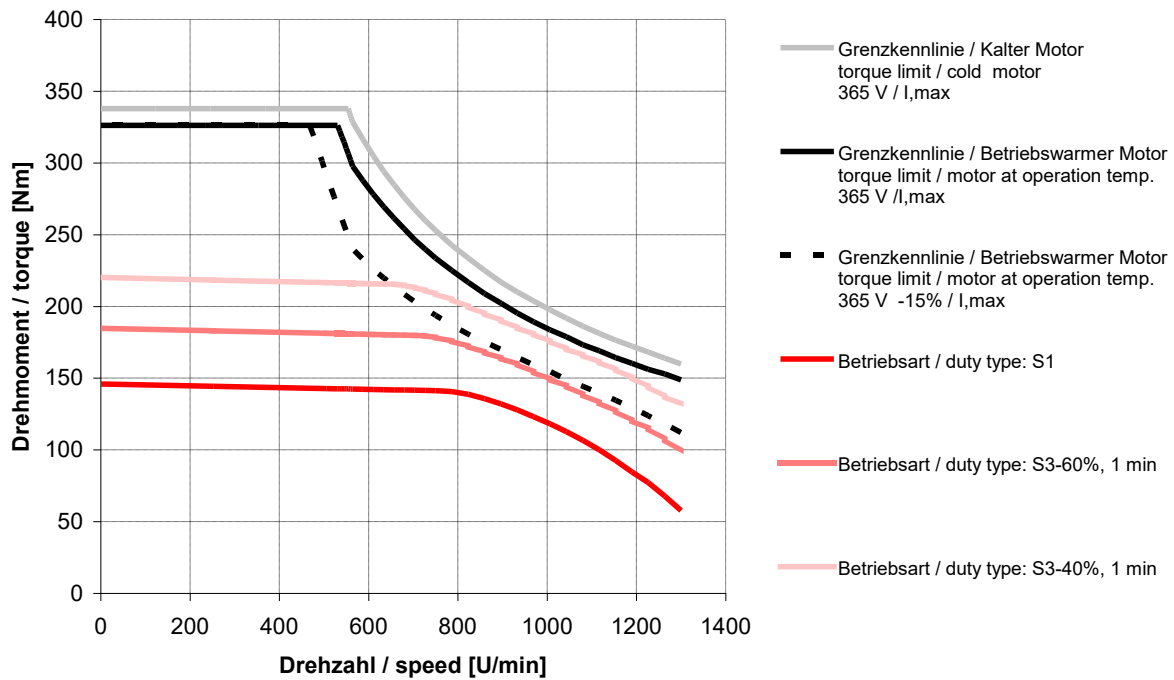
DST2-135K054W-035-5



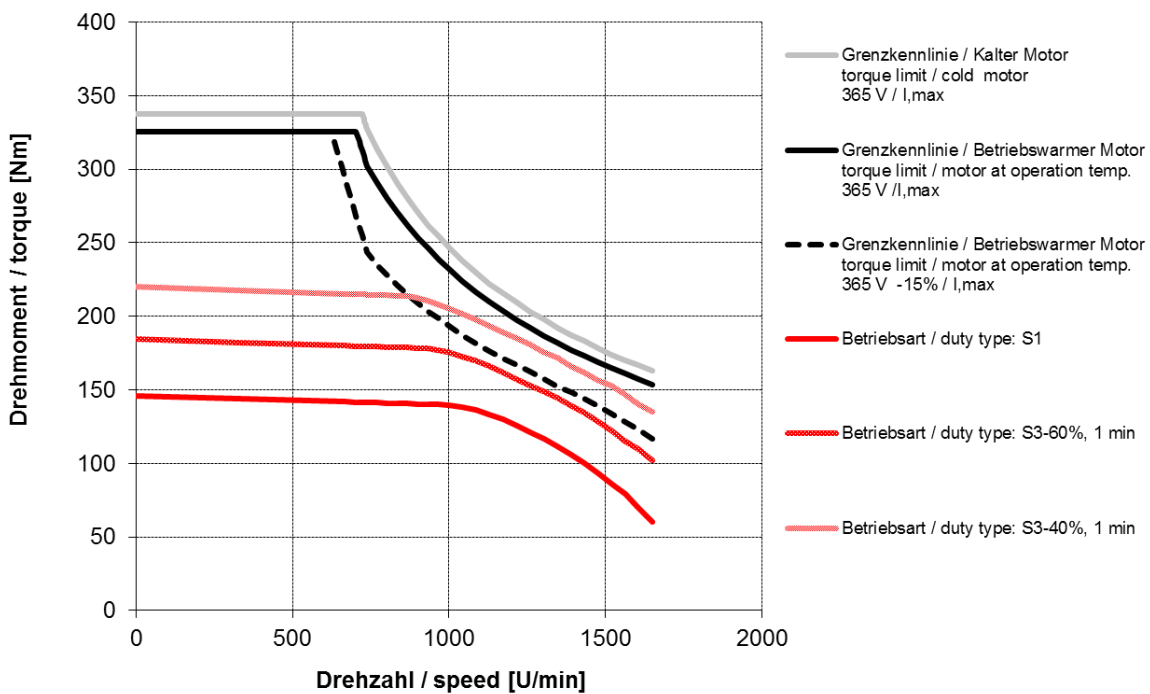
DST2-135K054W-055-5



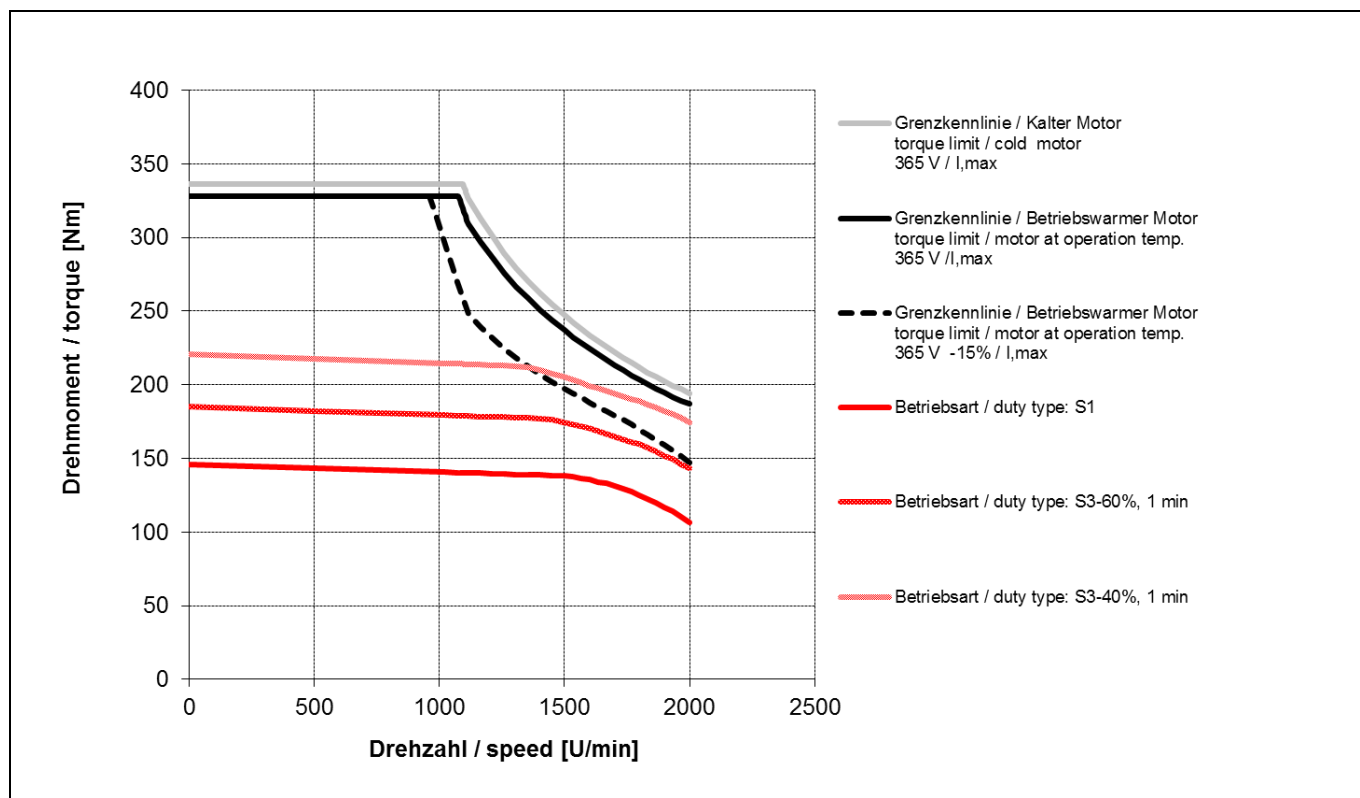
DST2-135K054W-075-5



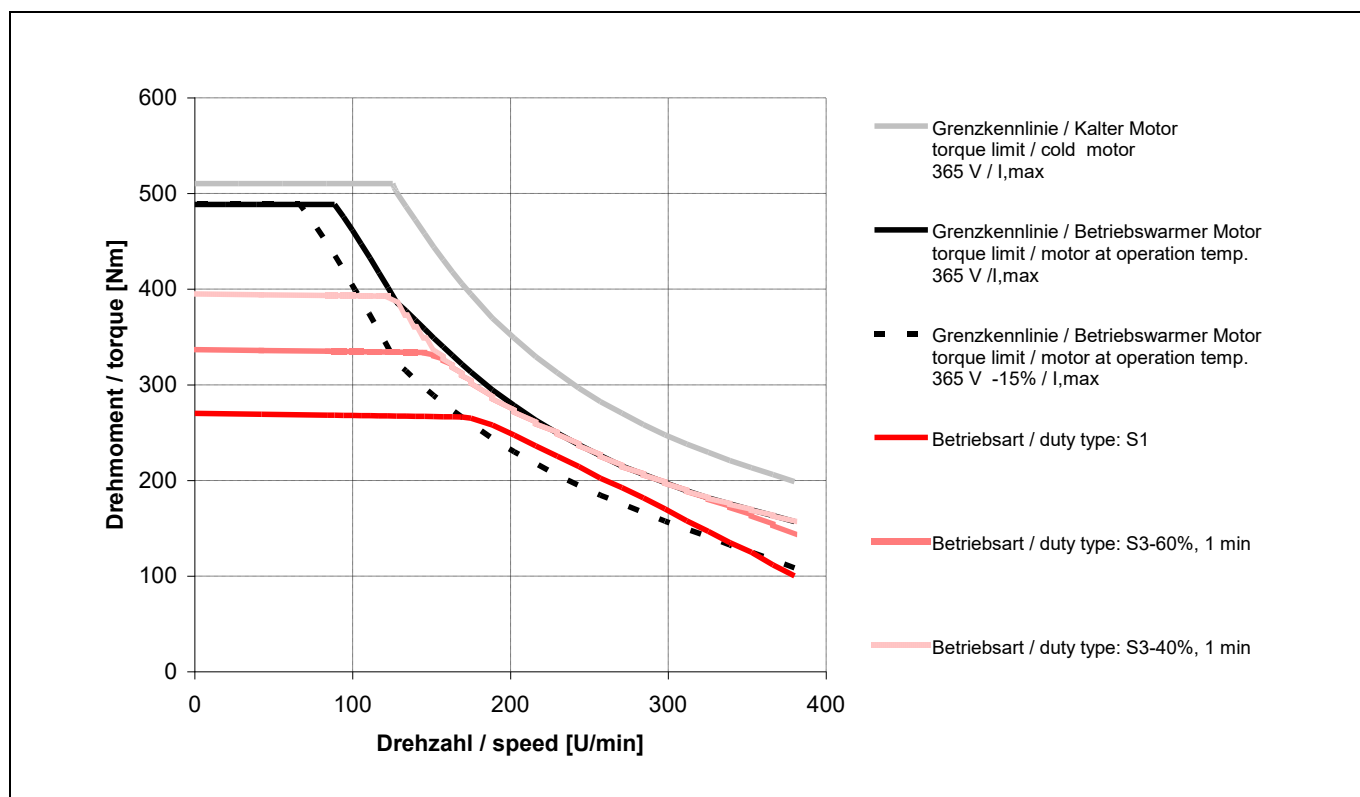
DST2-135K054W-100-5



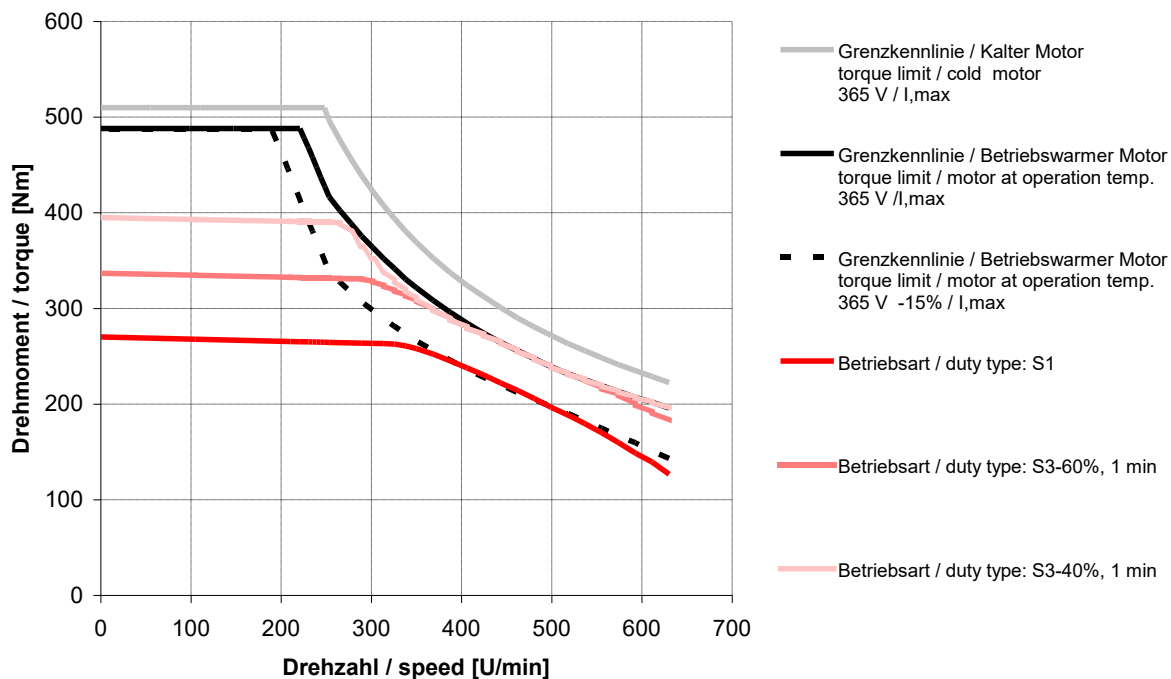
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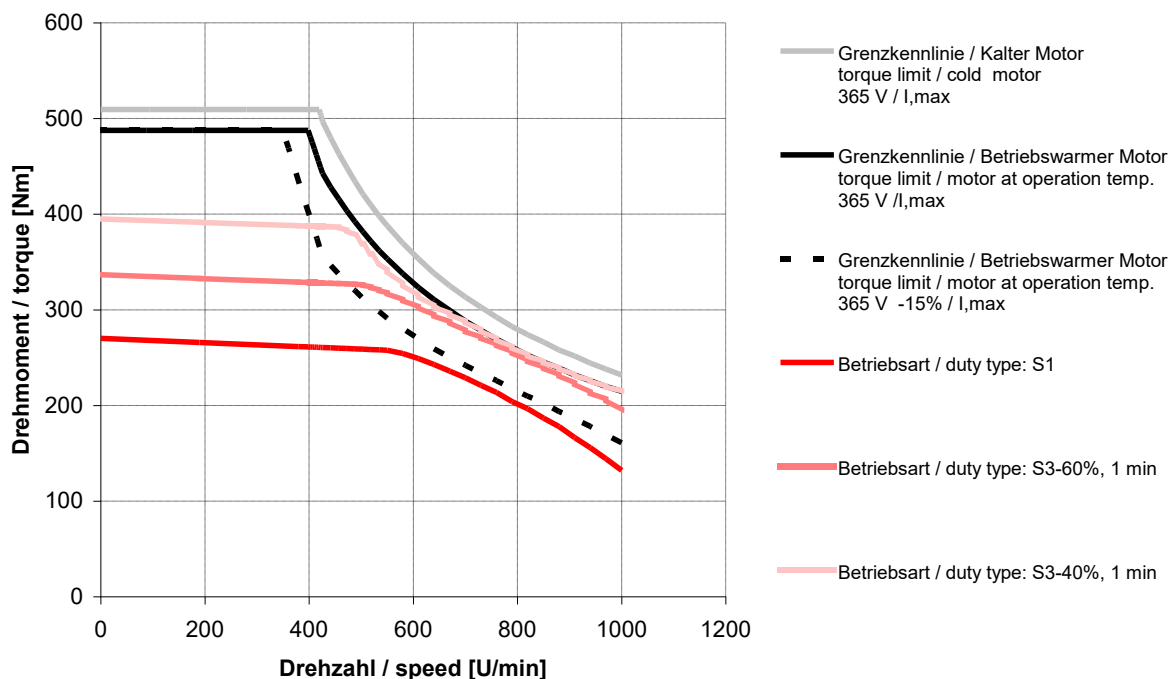
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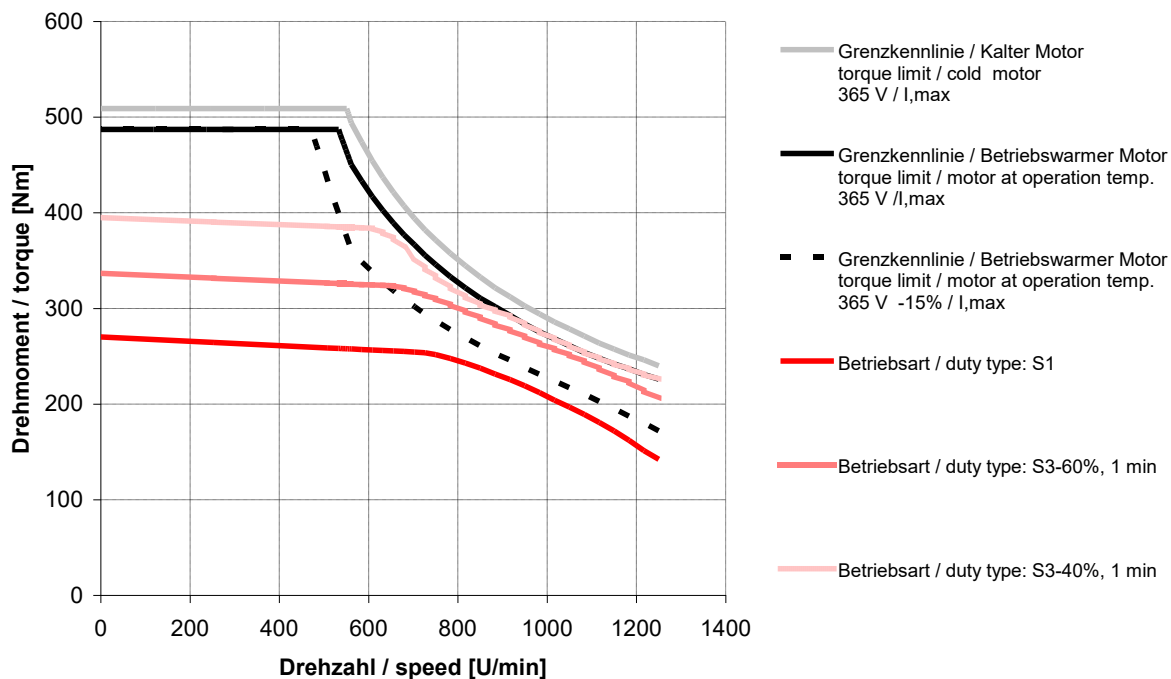
DST2-135M054W-035-5



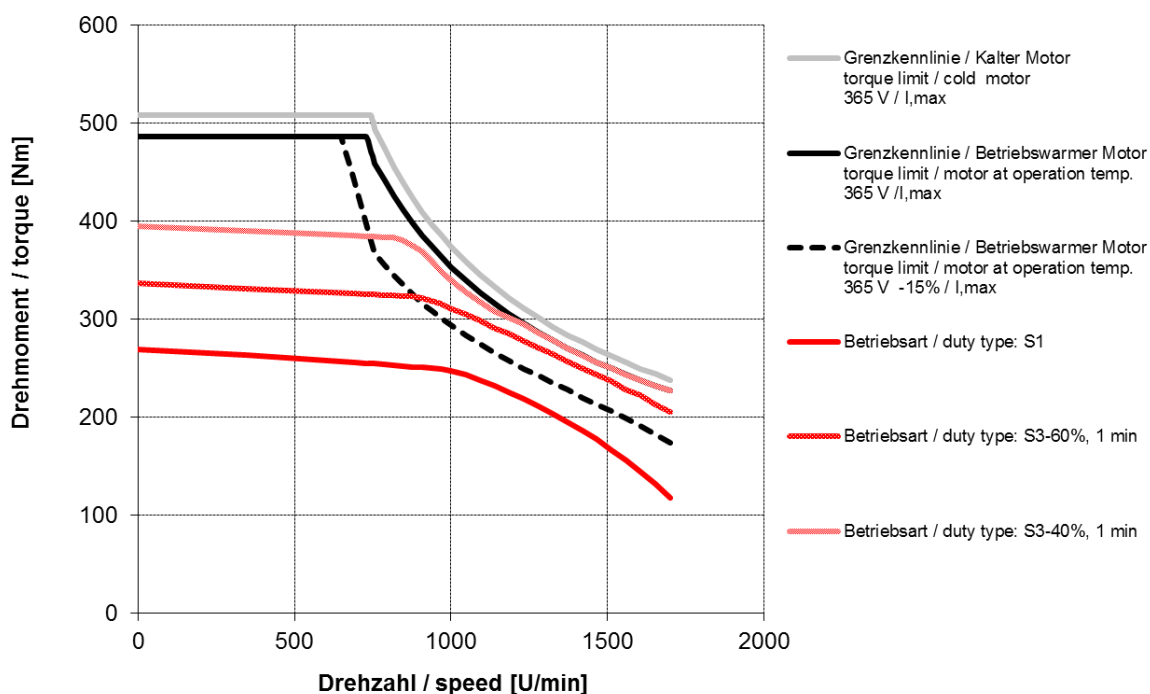
DST2-135M054W-055-5



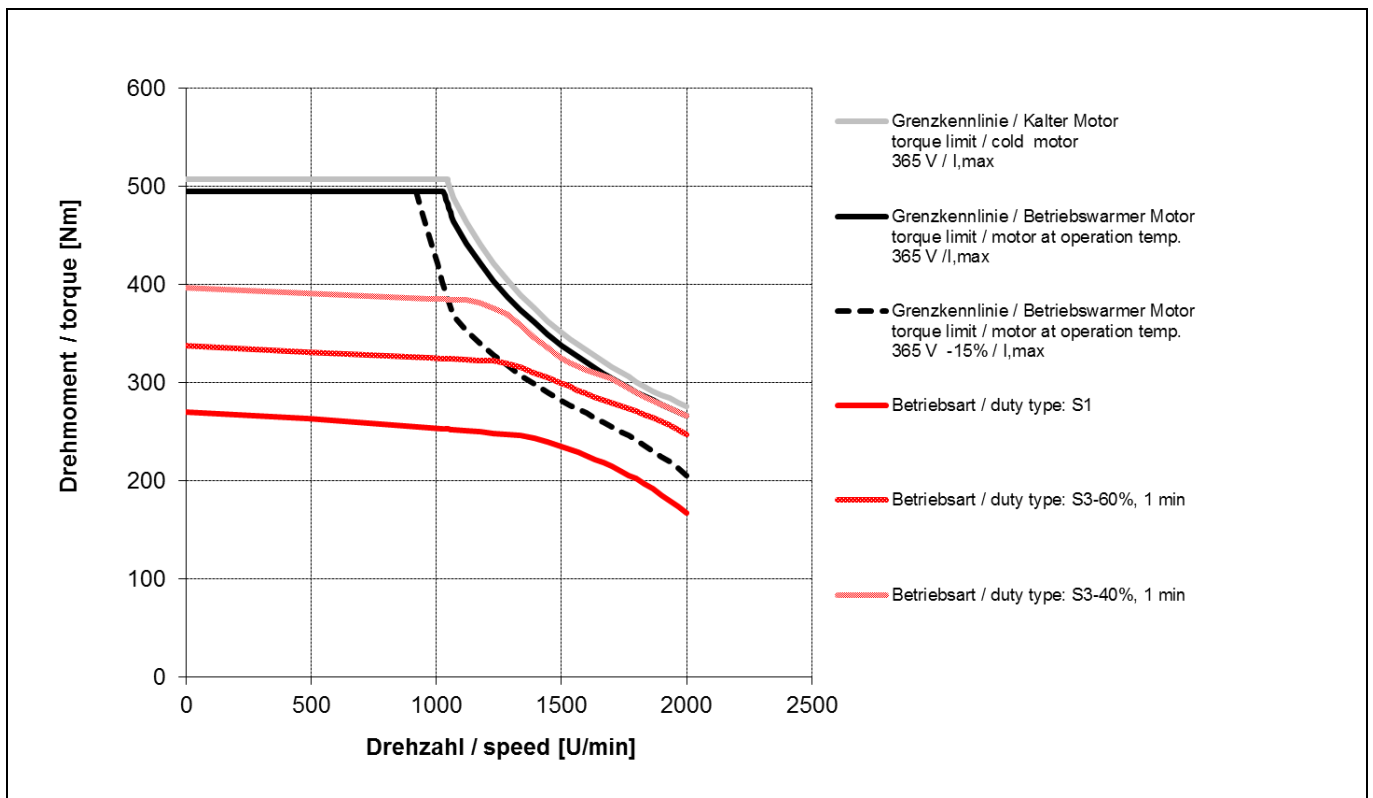
DST2-135M054W-075-5



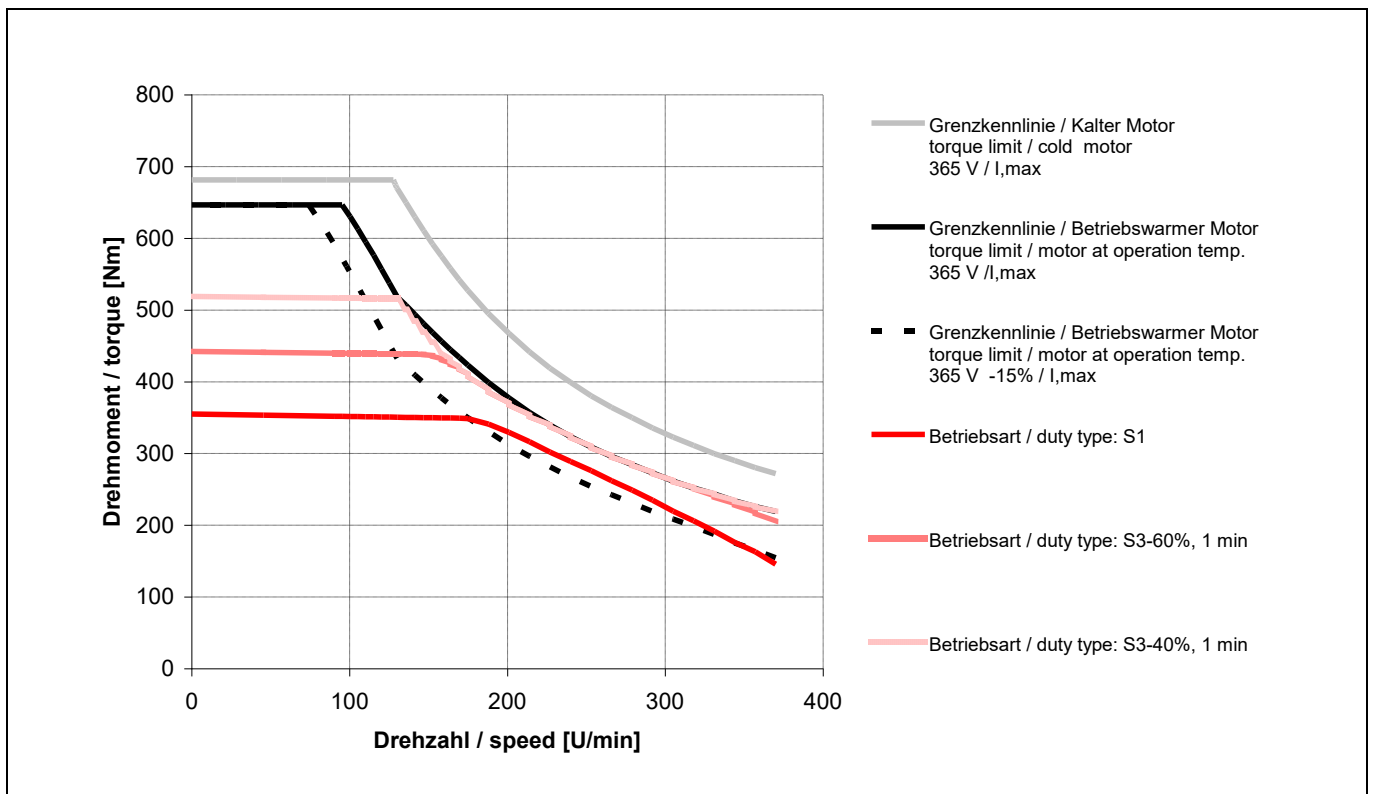
DST2-135M054W-100-5



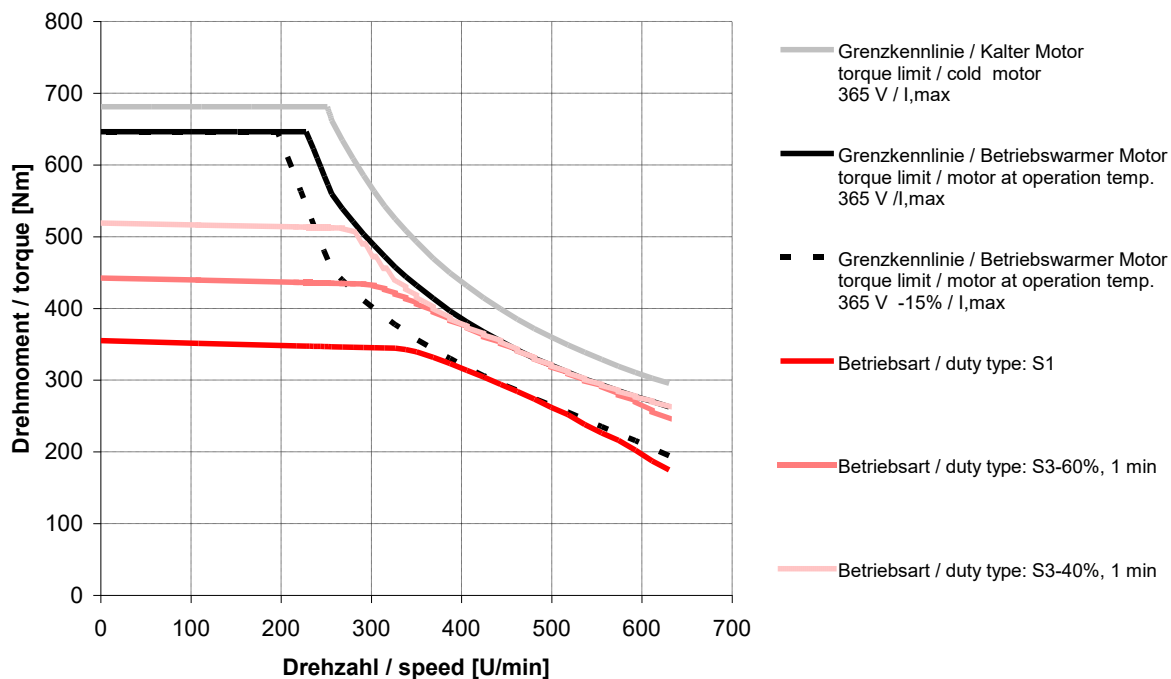
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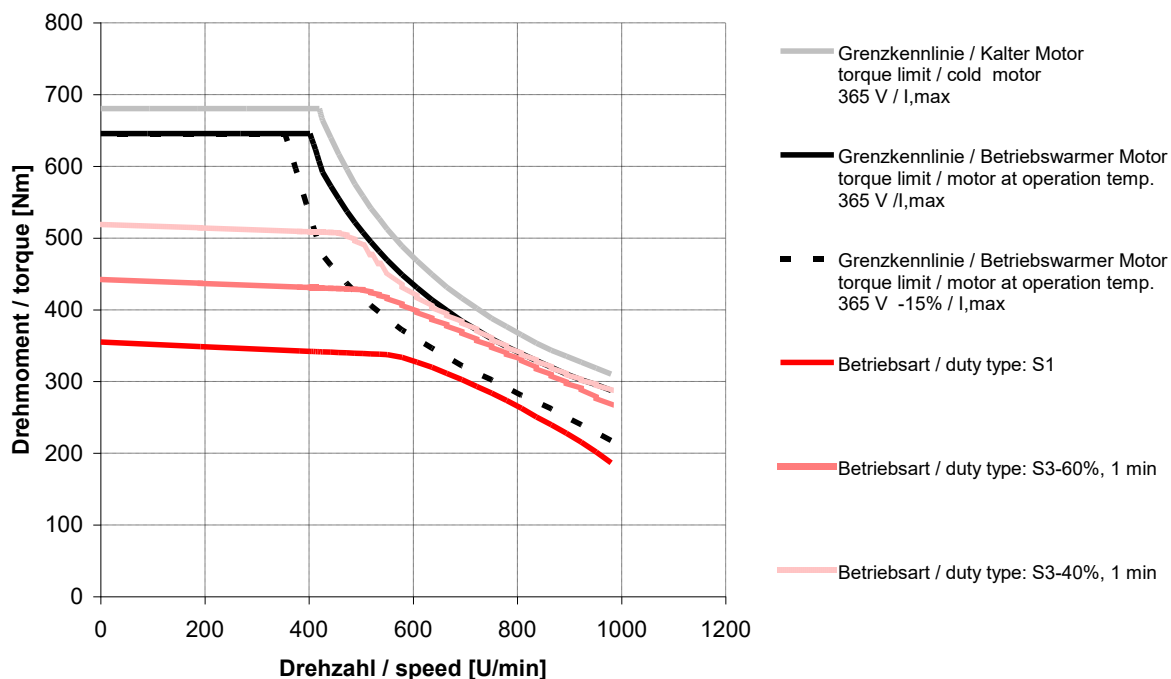
DST2-135L054W-017-5



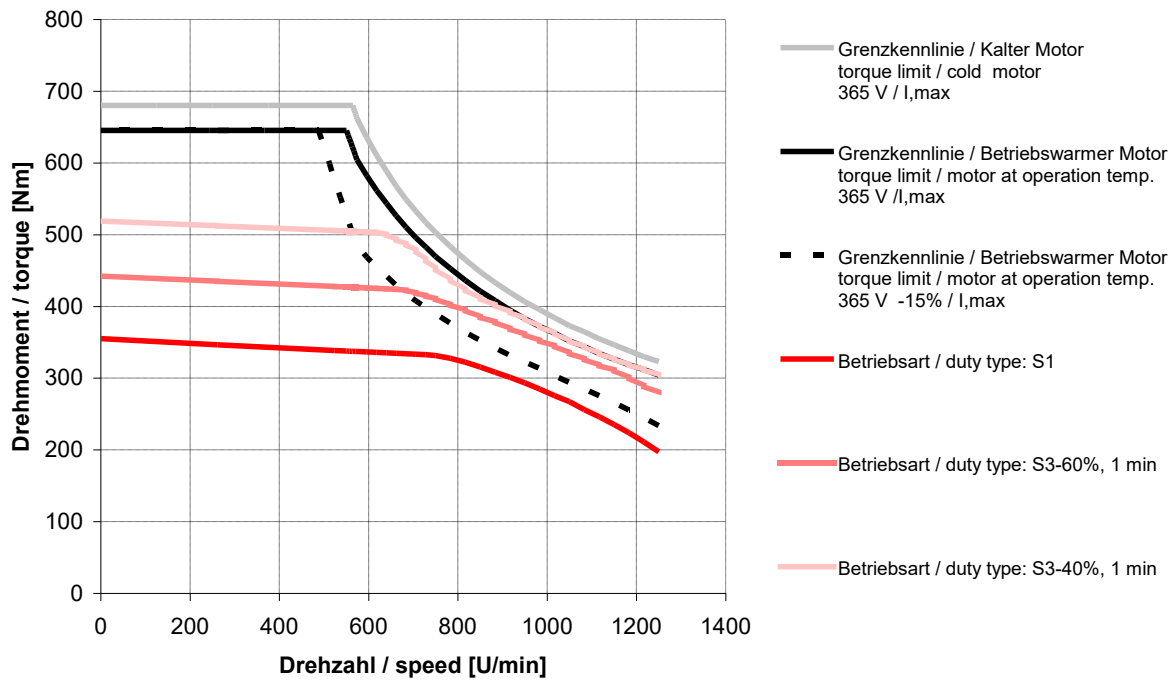
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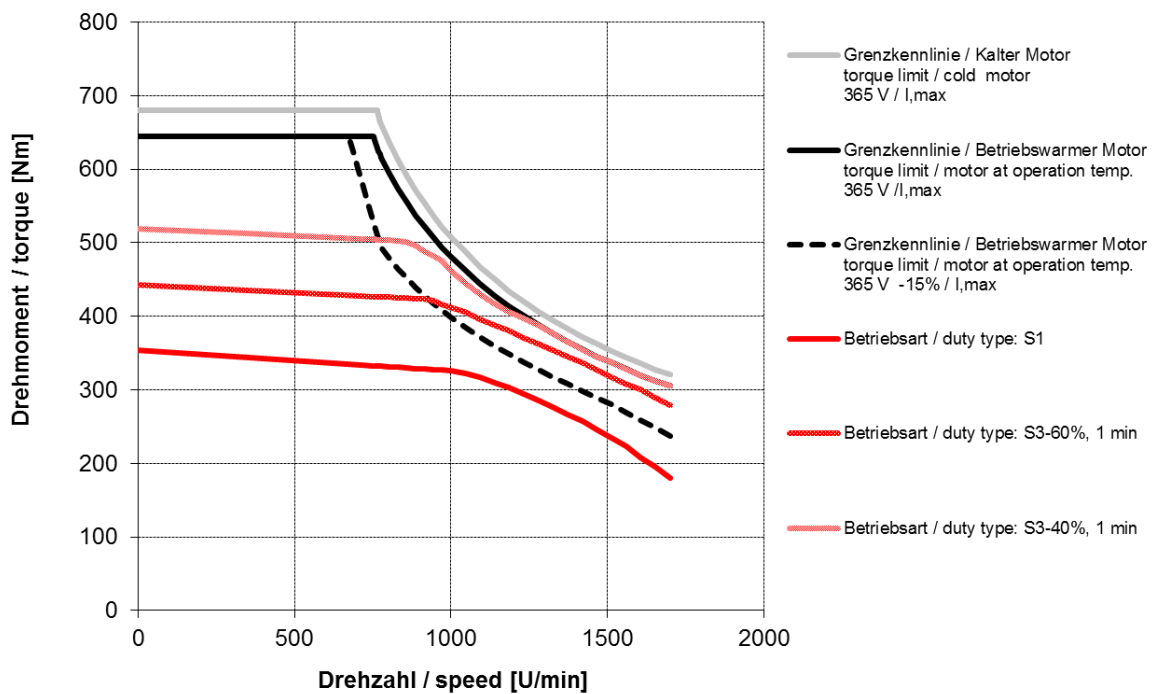
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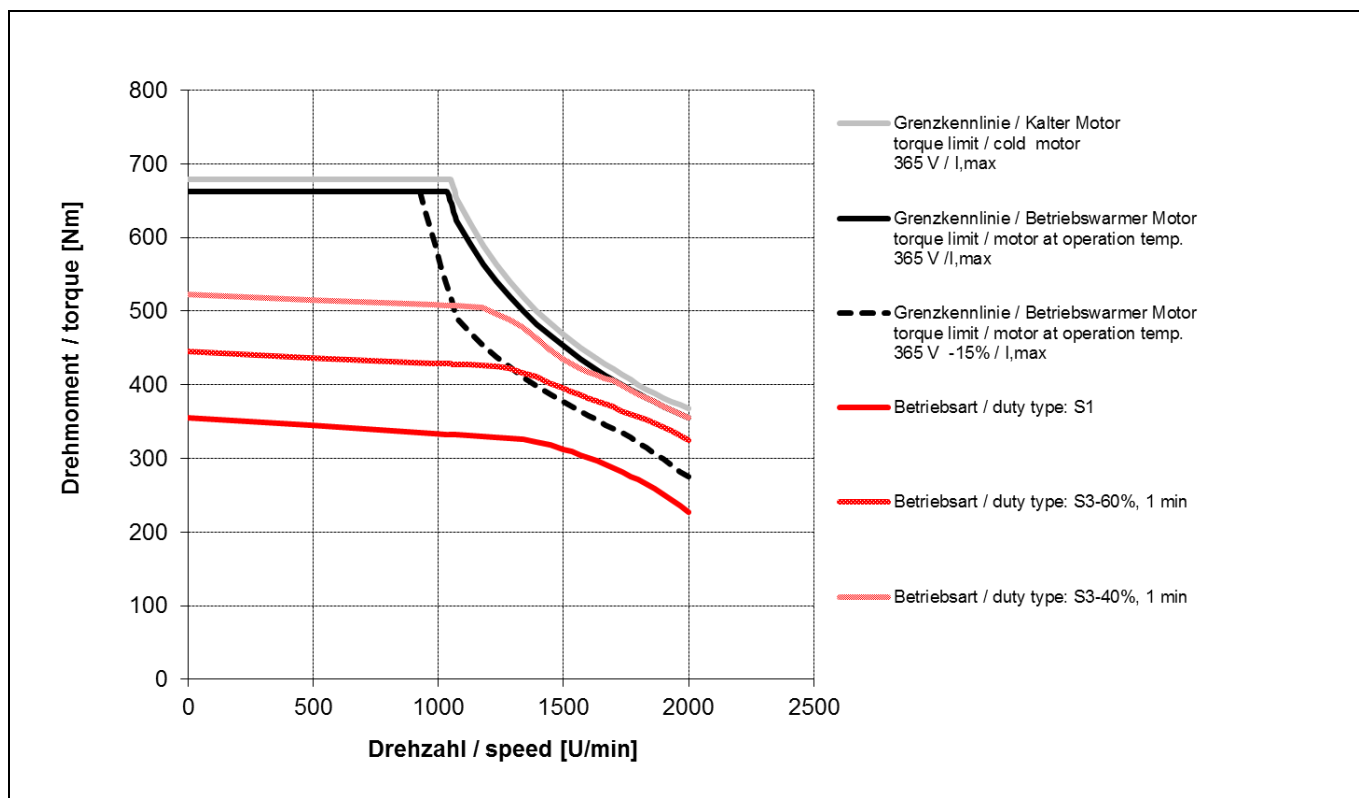
DST2-135L054W-075-5



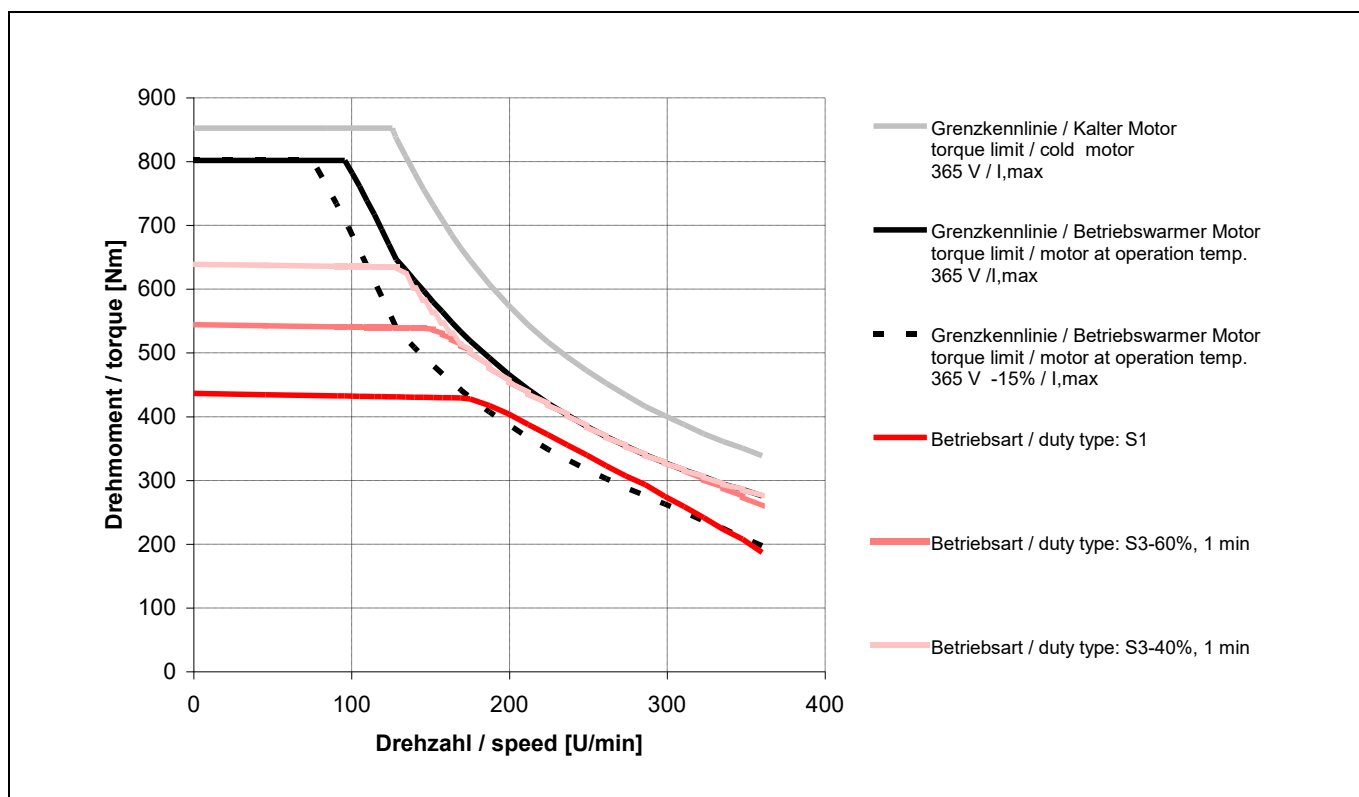
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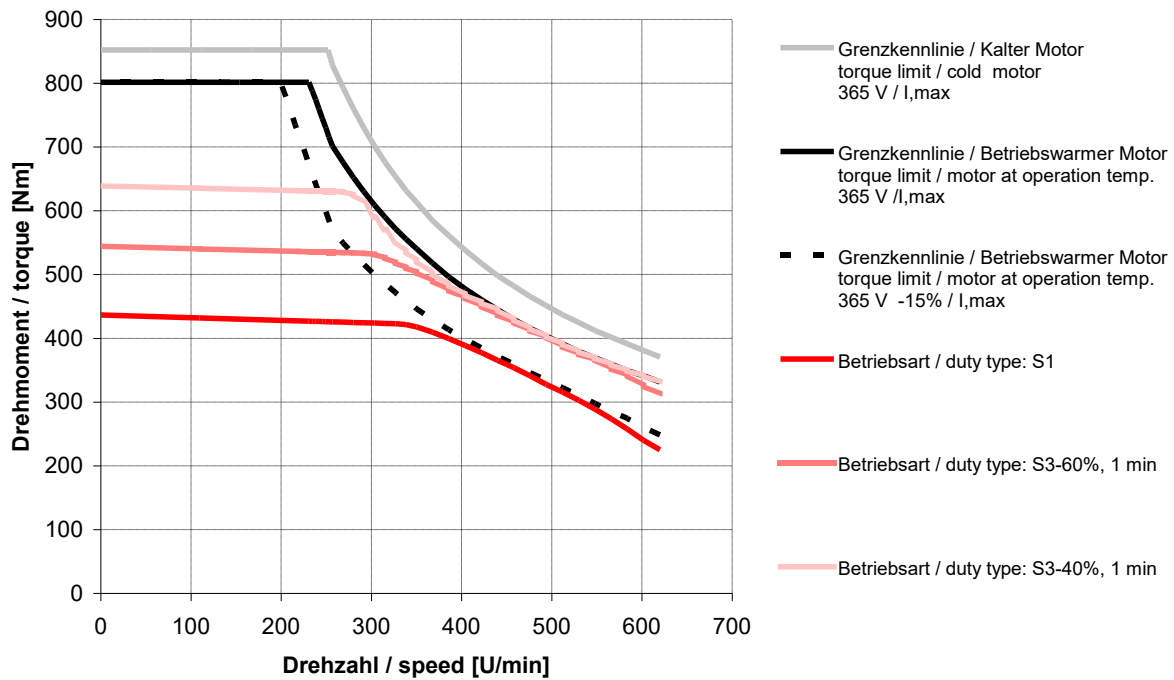
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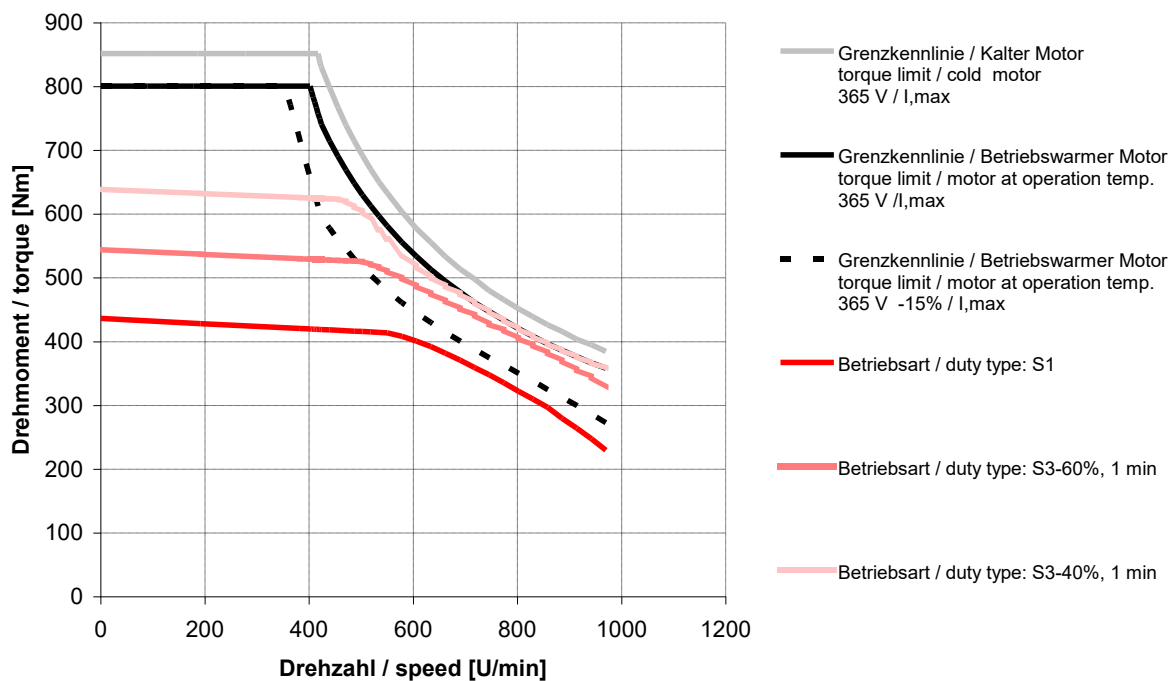
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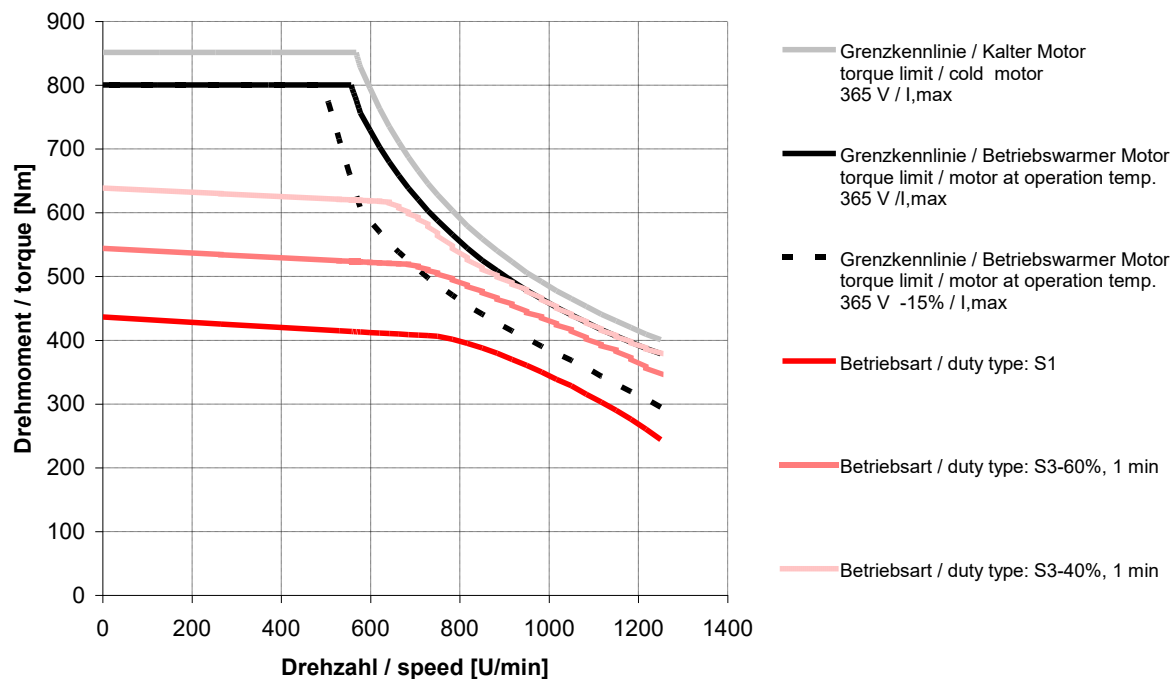
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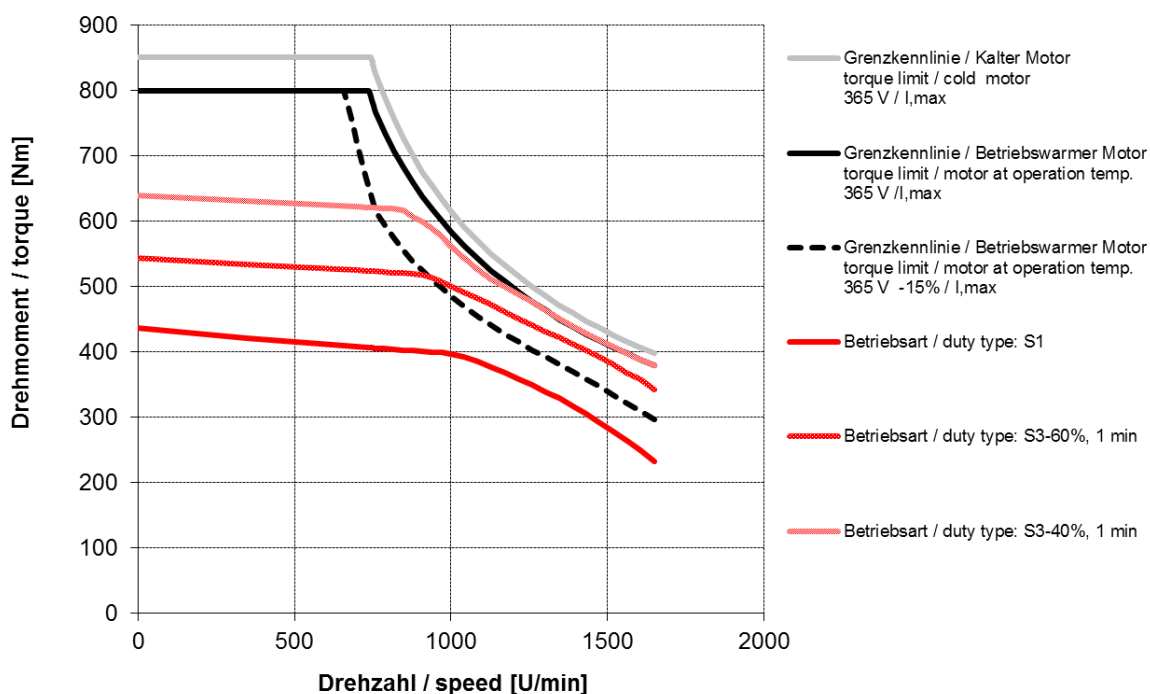
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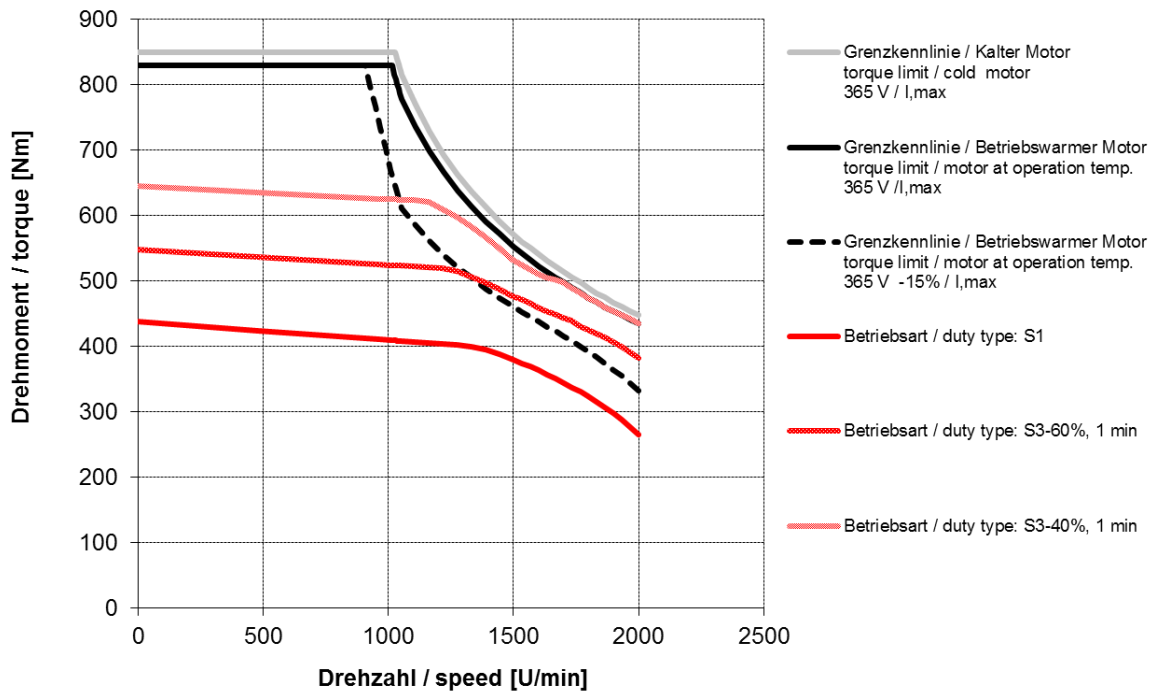
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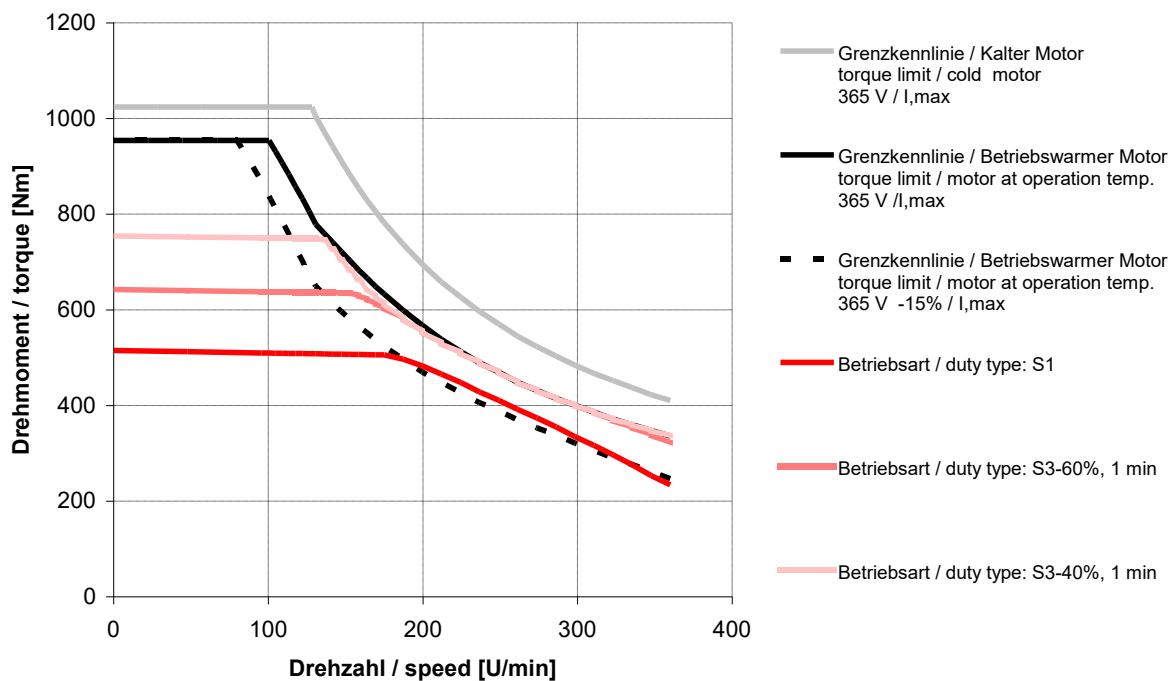
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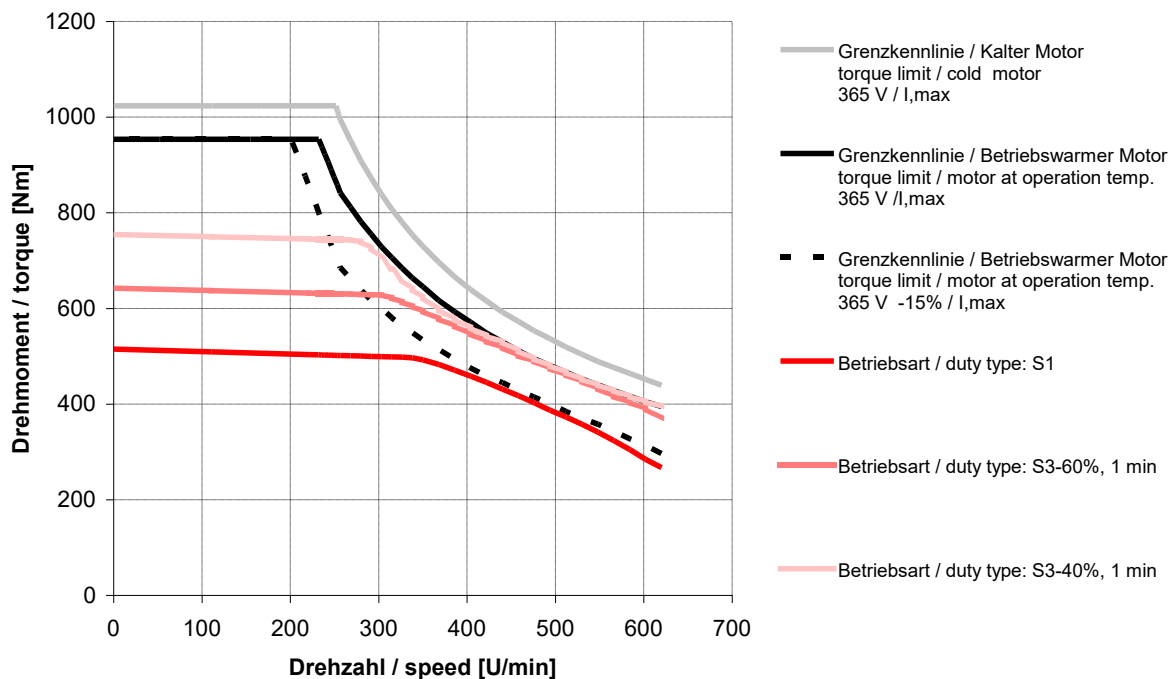
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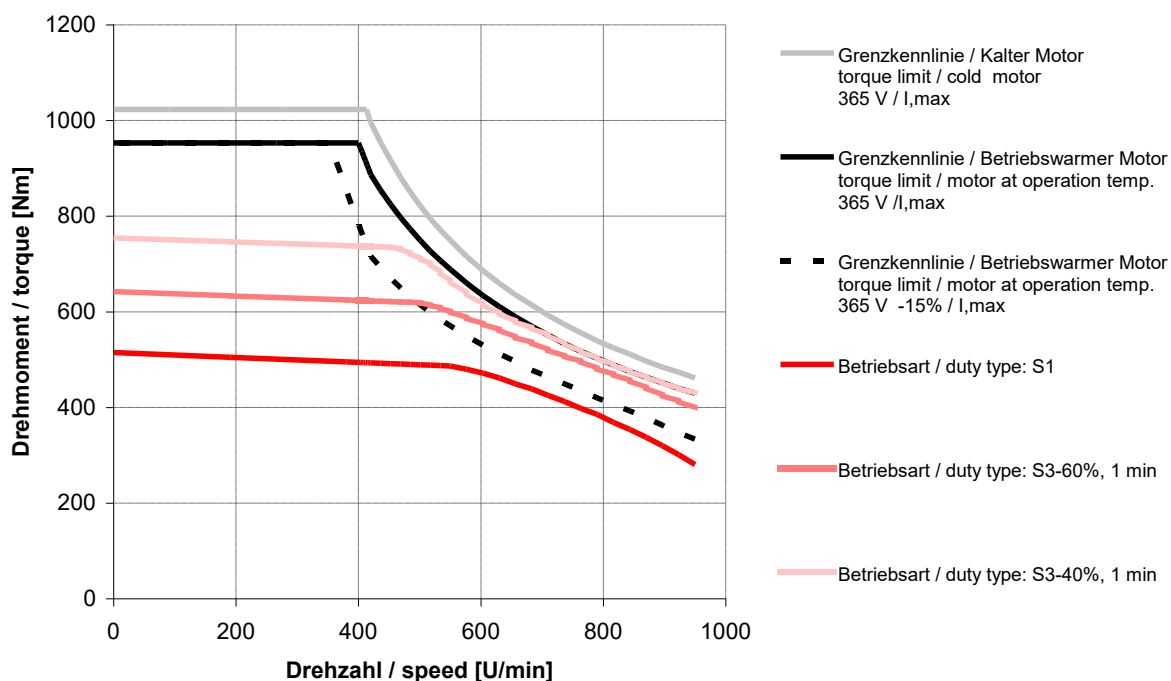
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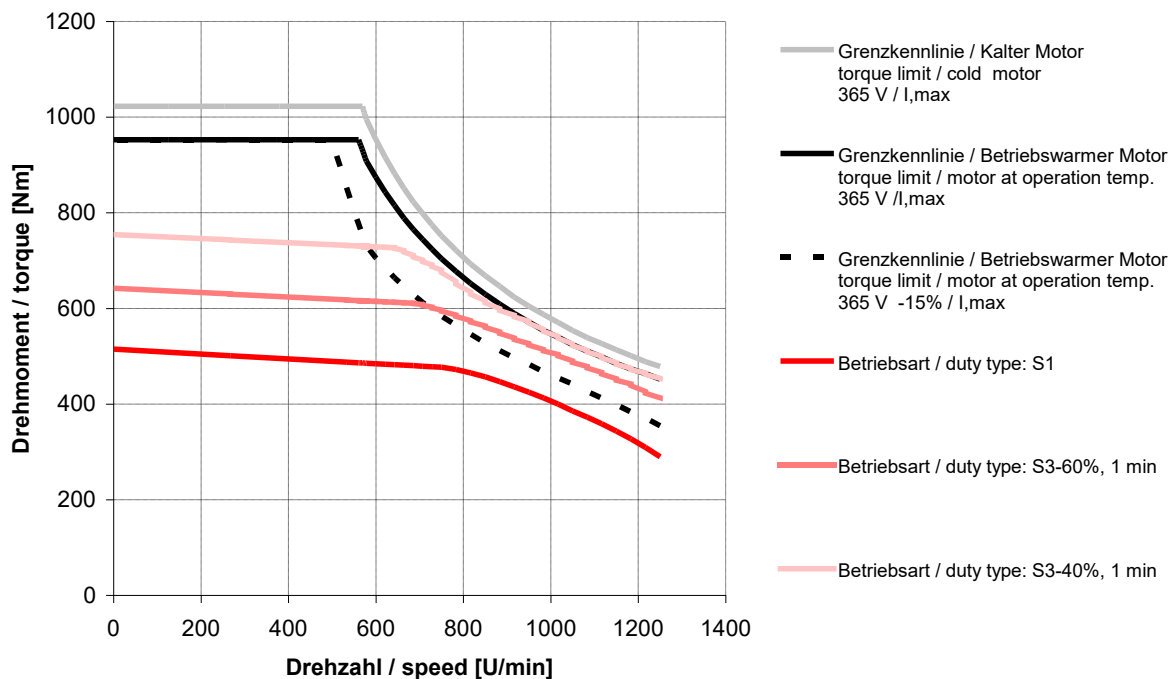
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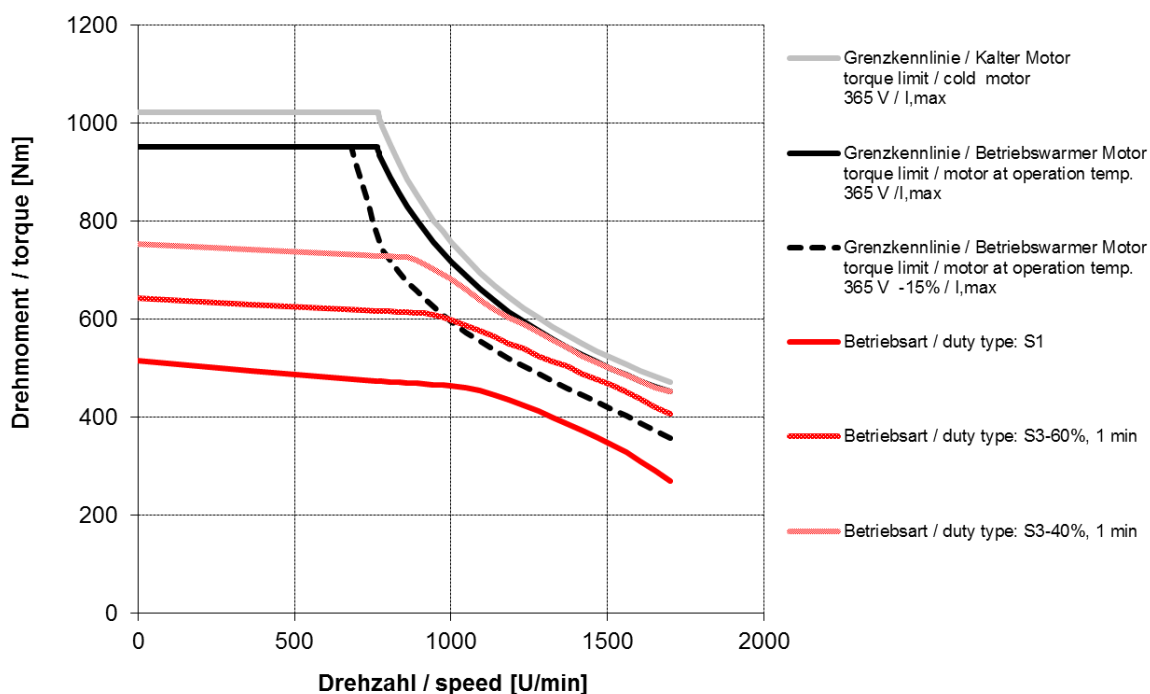
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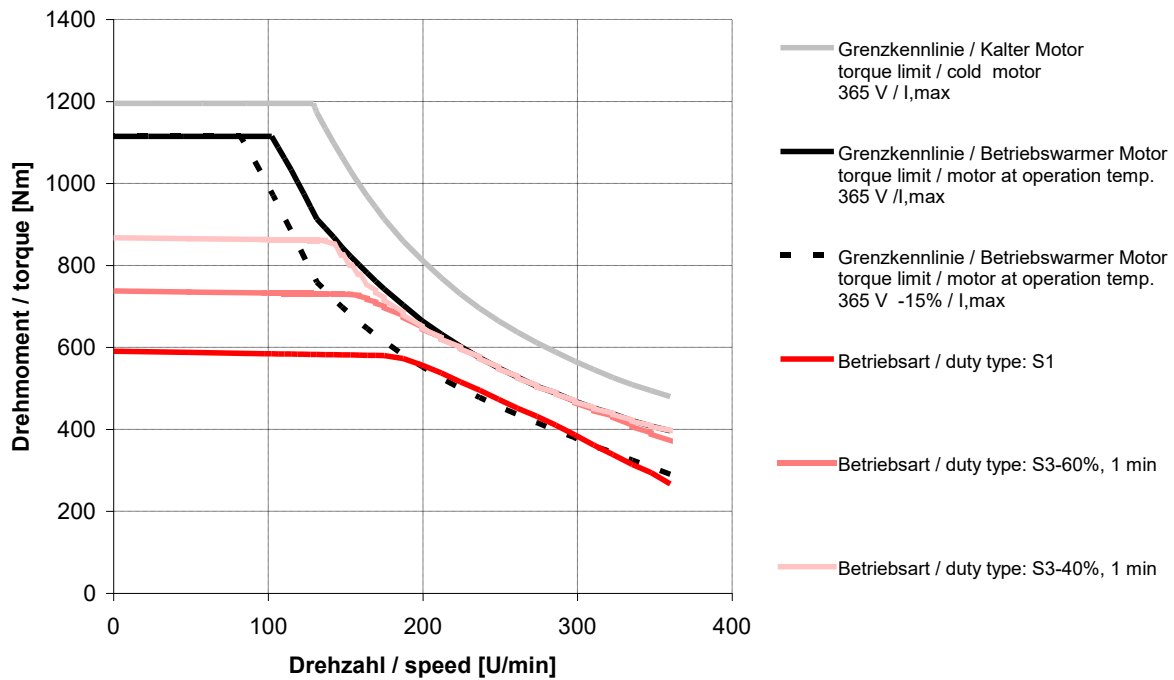
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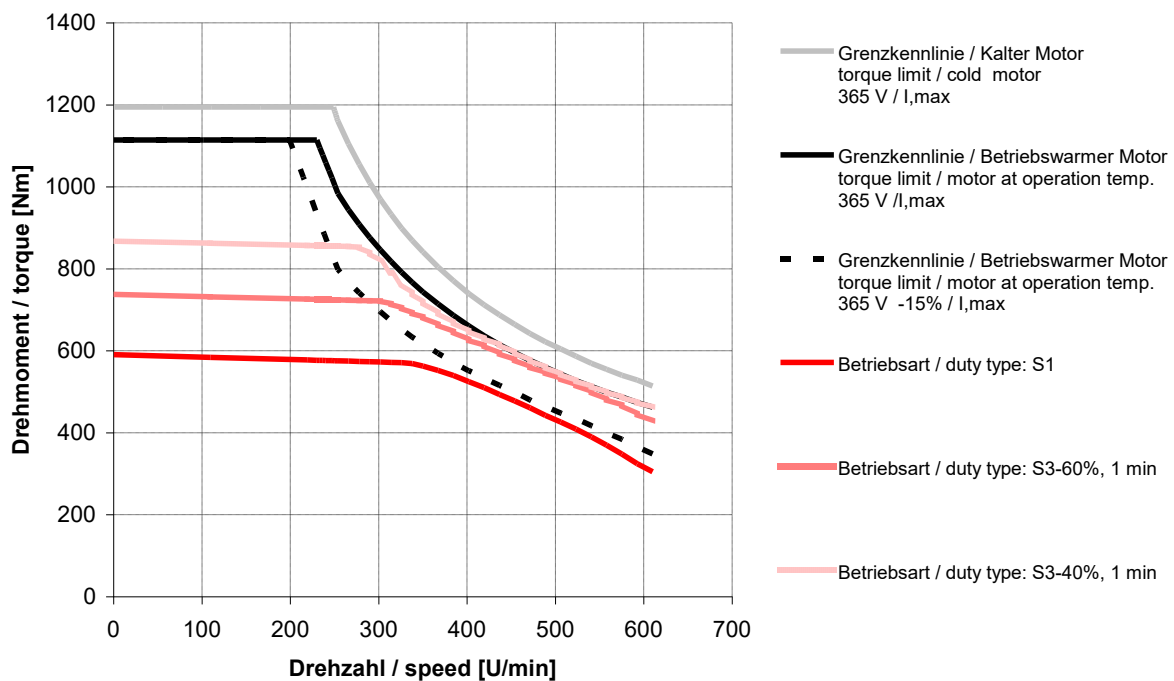
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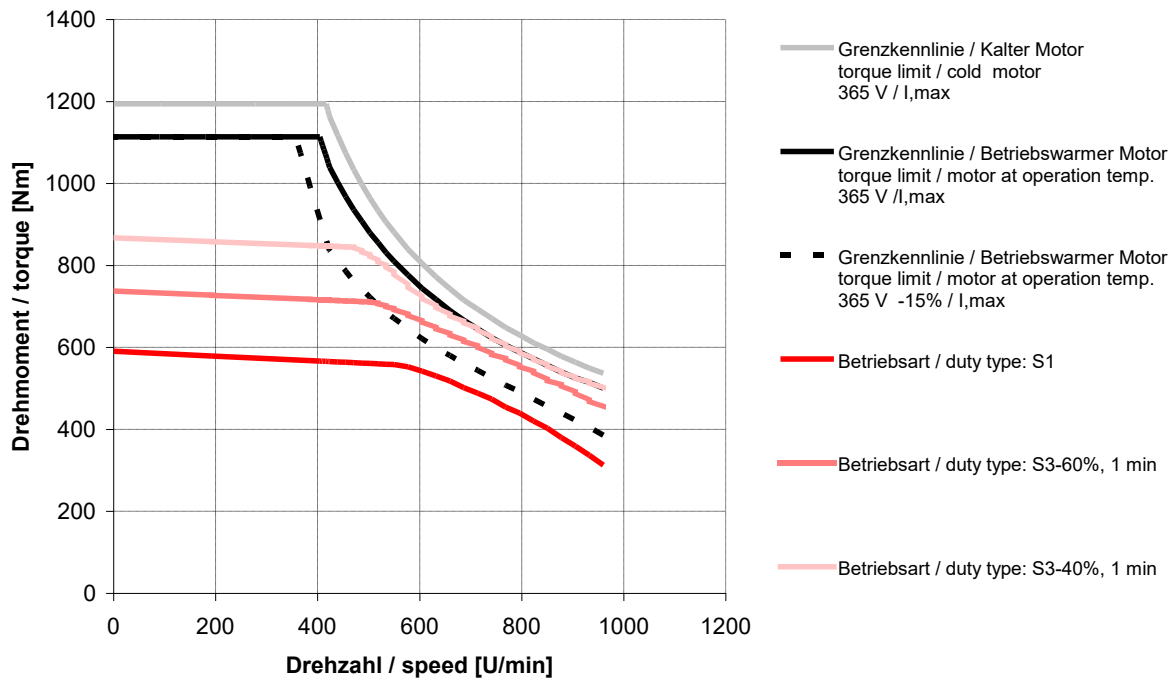
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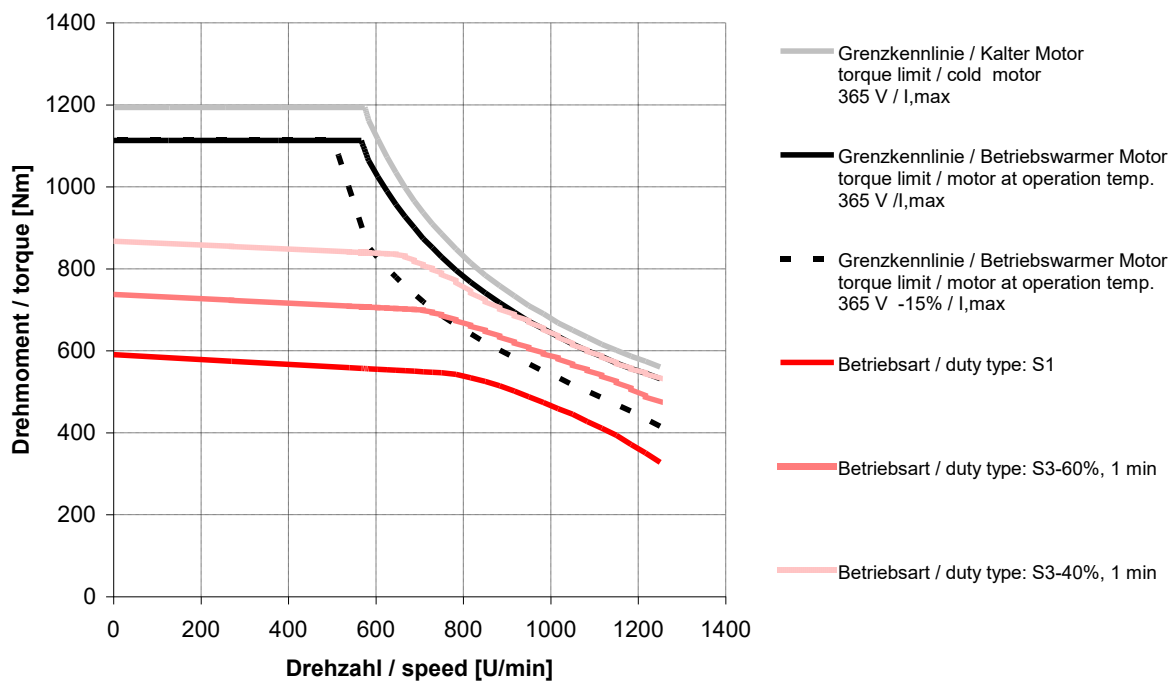
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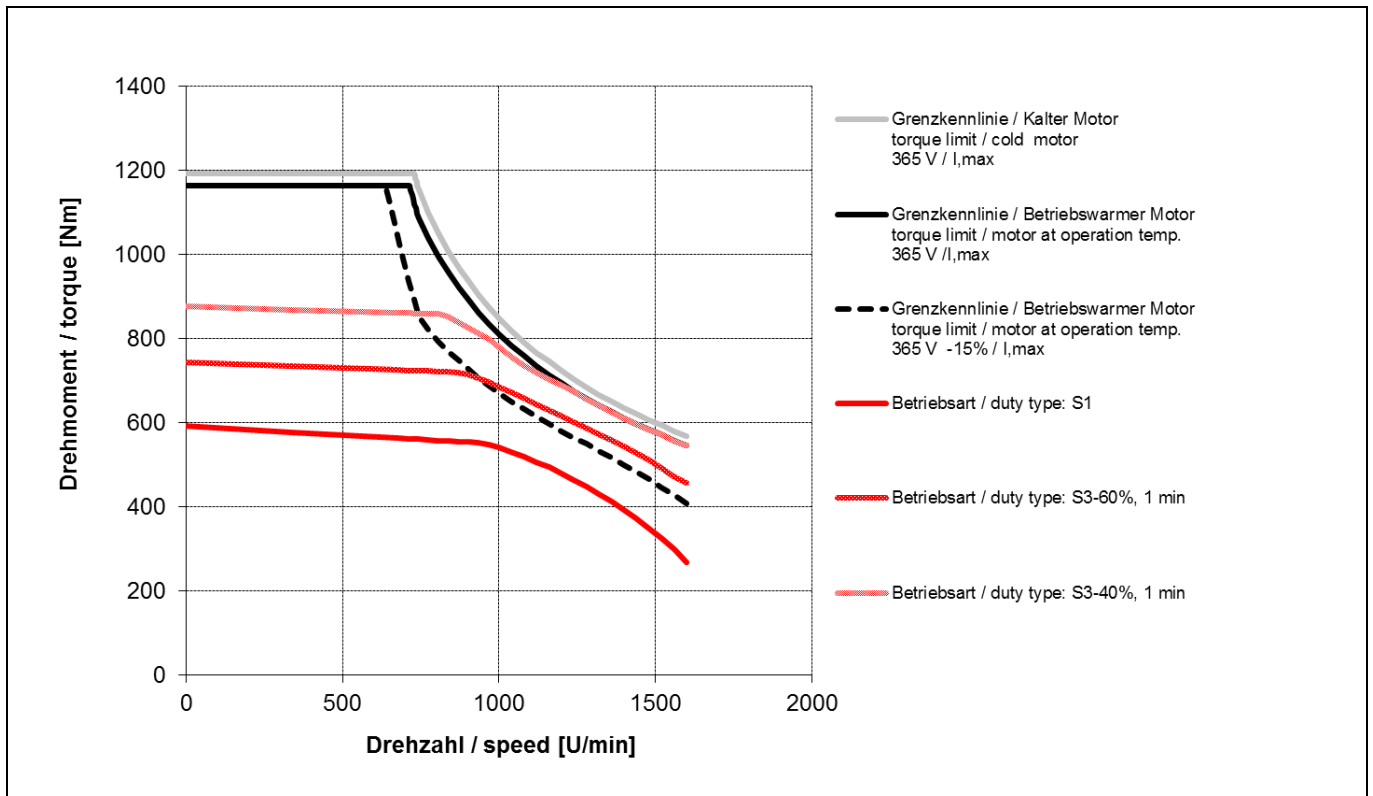
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DST2-135Y054W-075-5

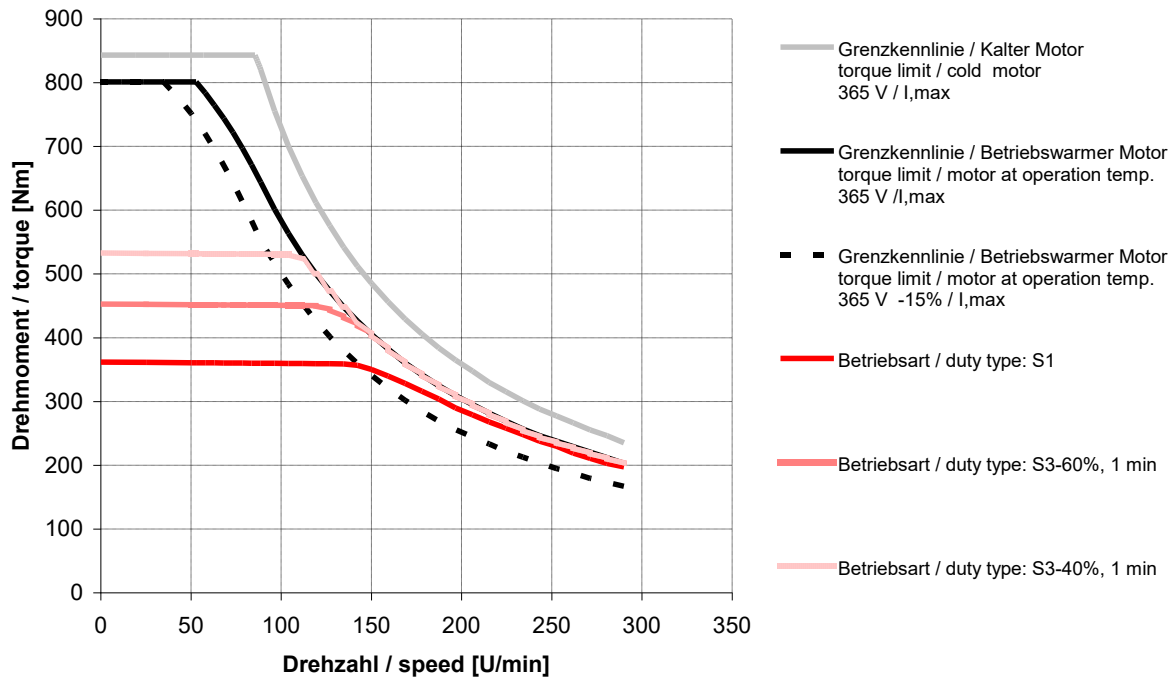


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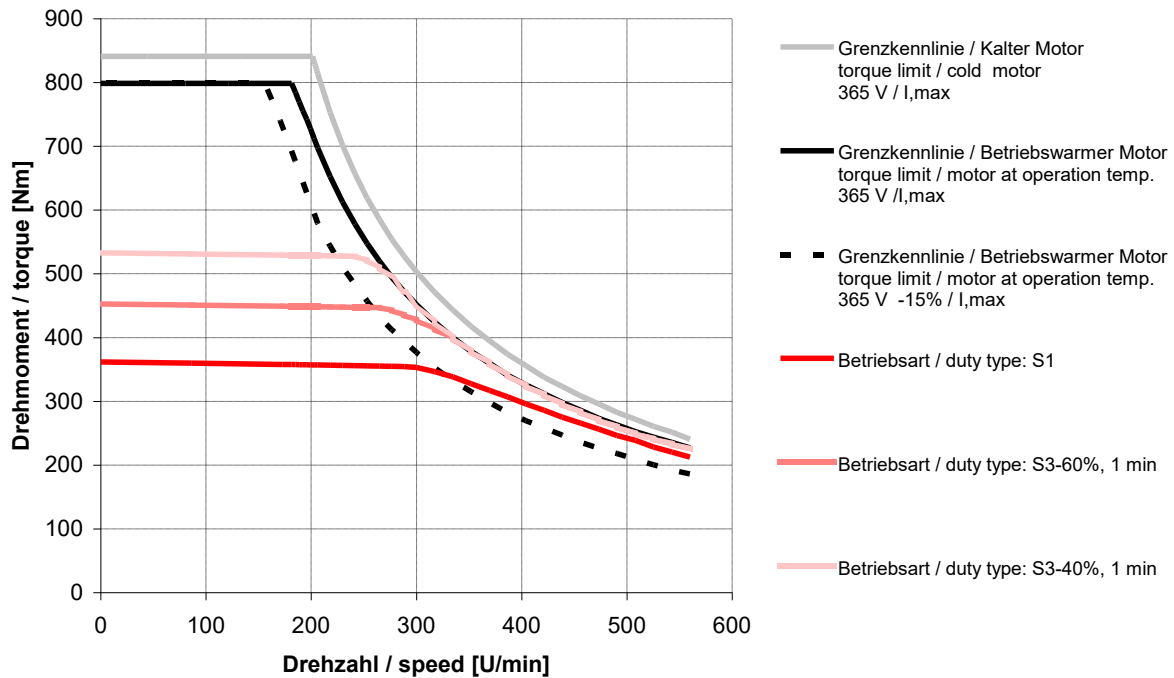


6.2 Characteristics DST2-200..54W

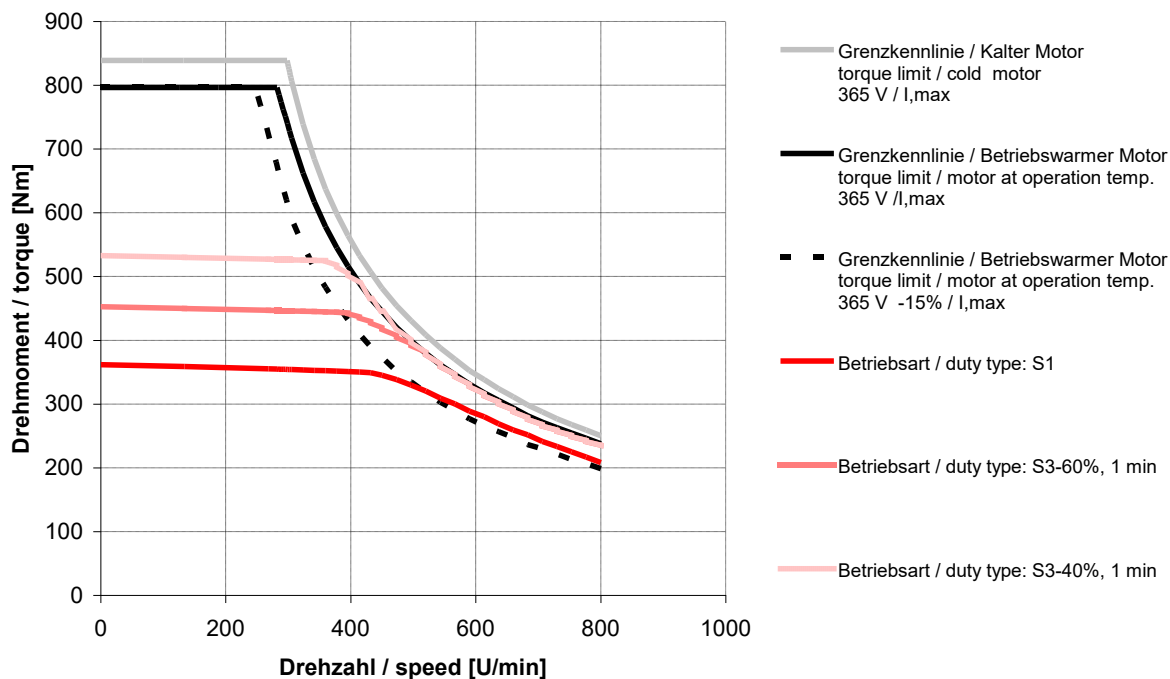
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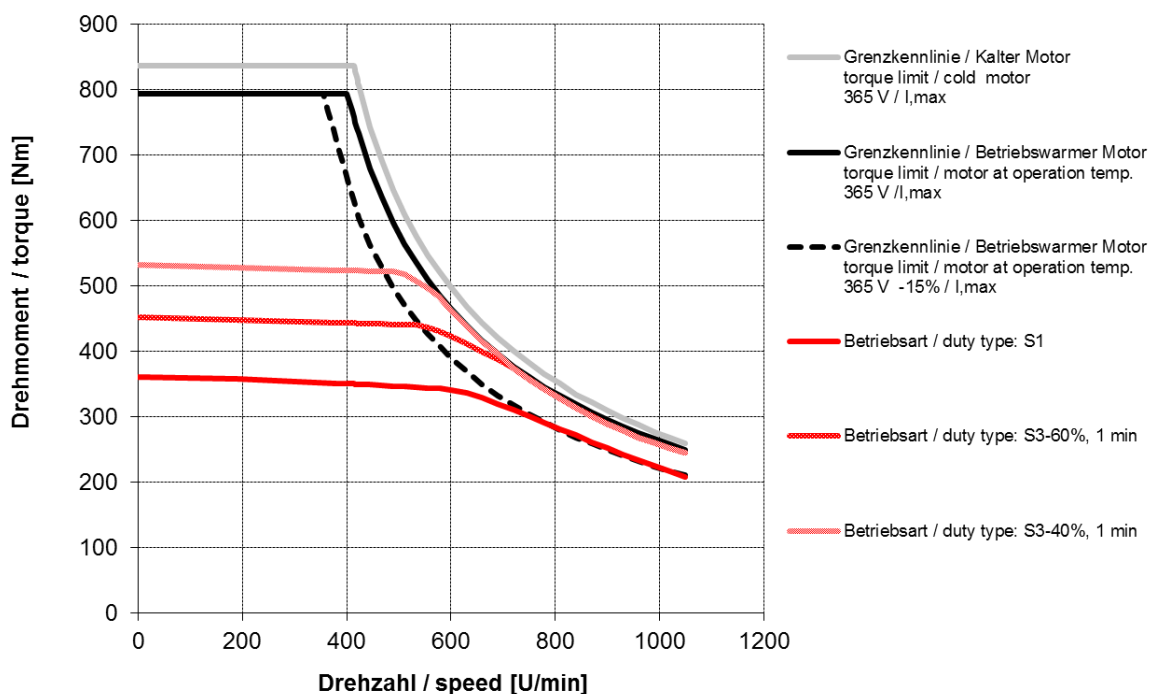
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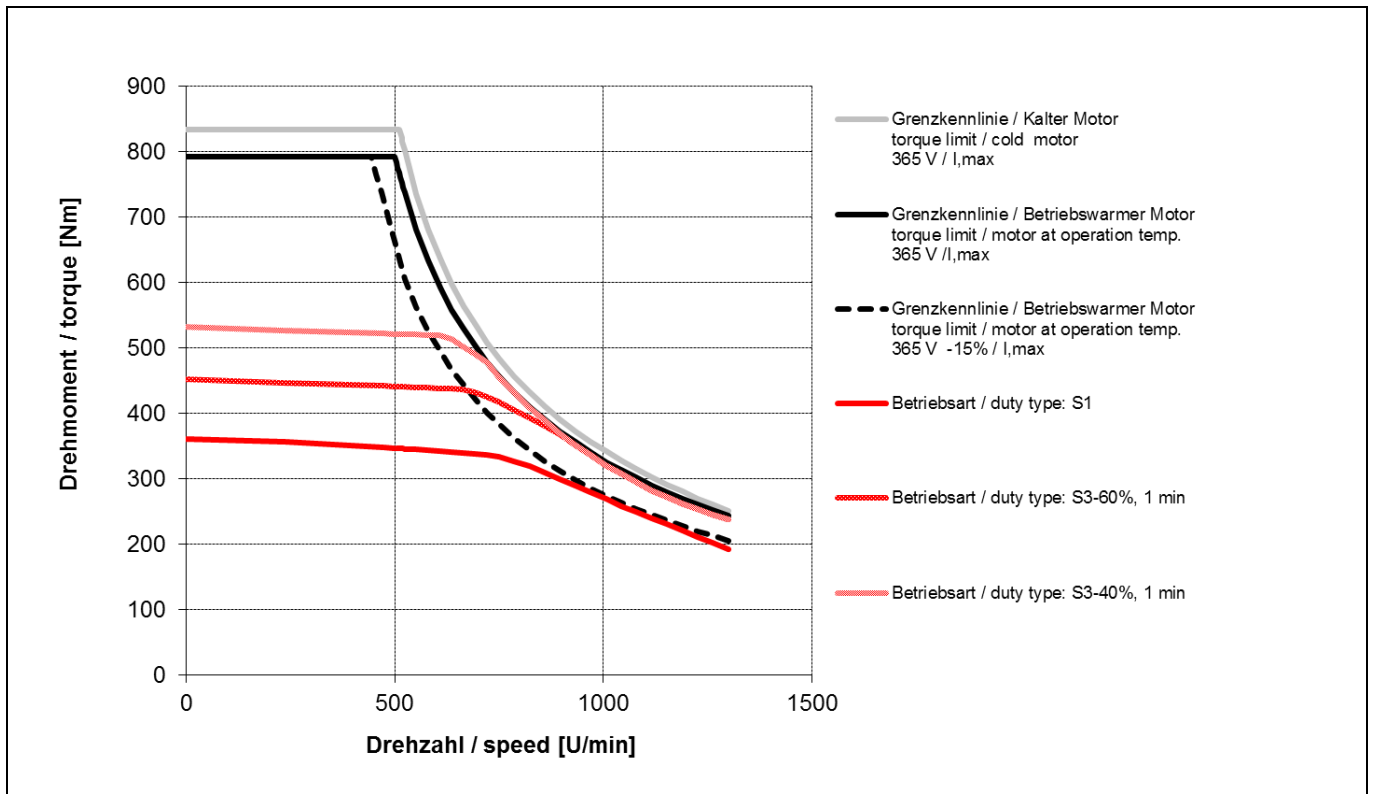
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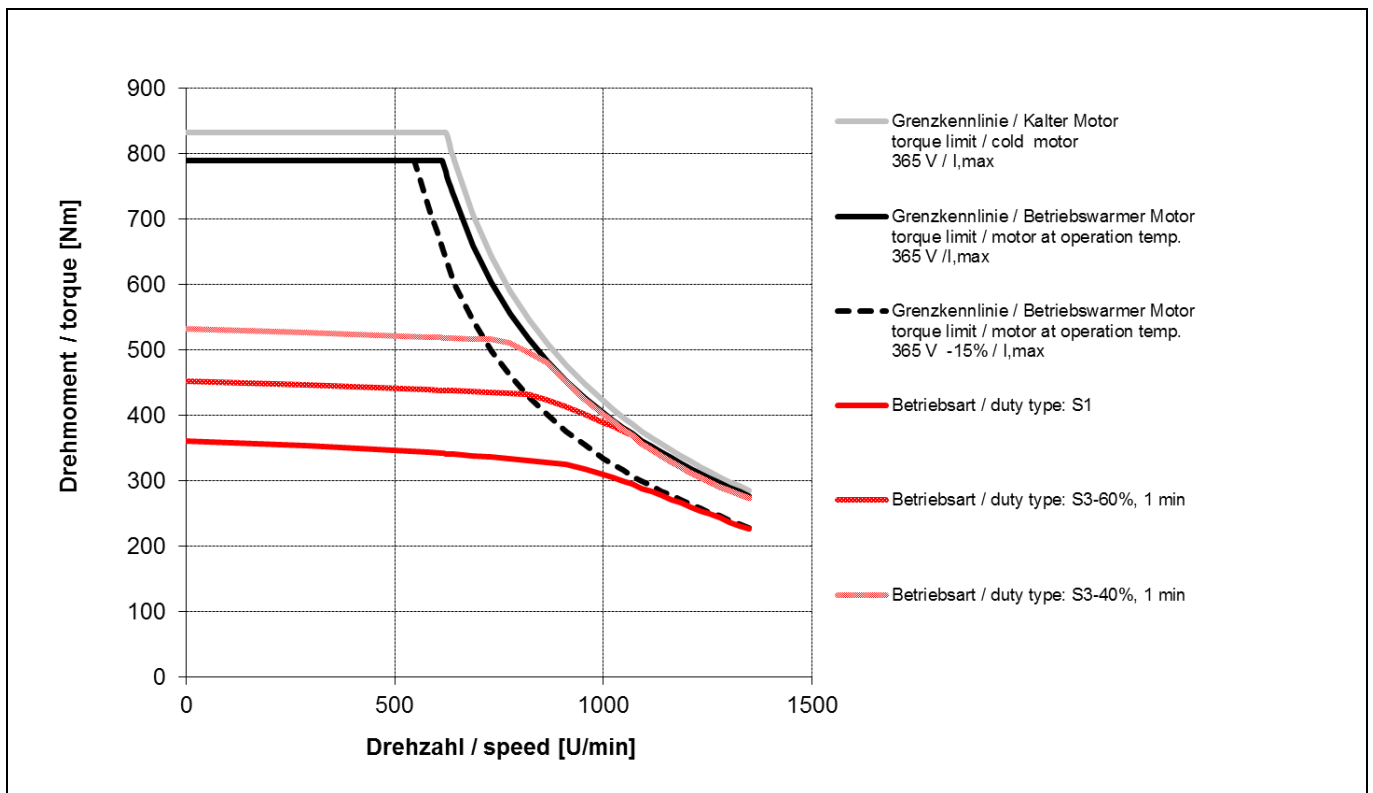
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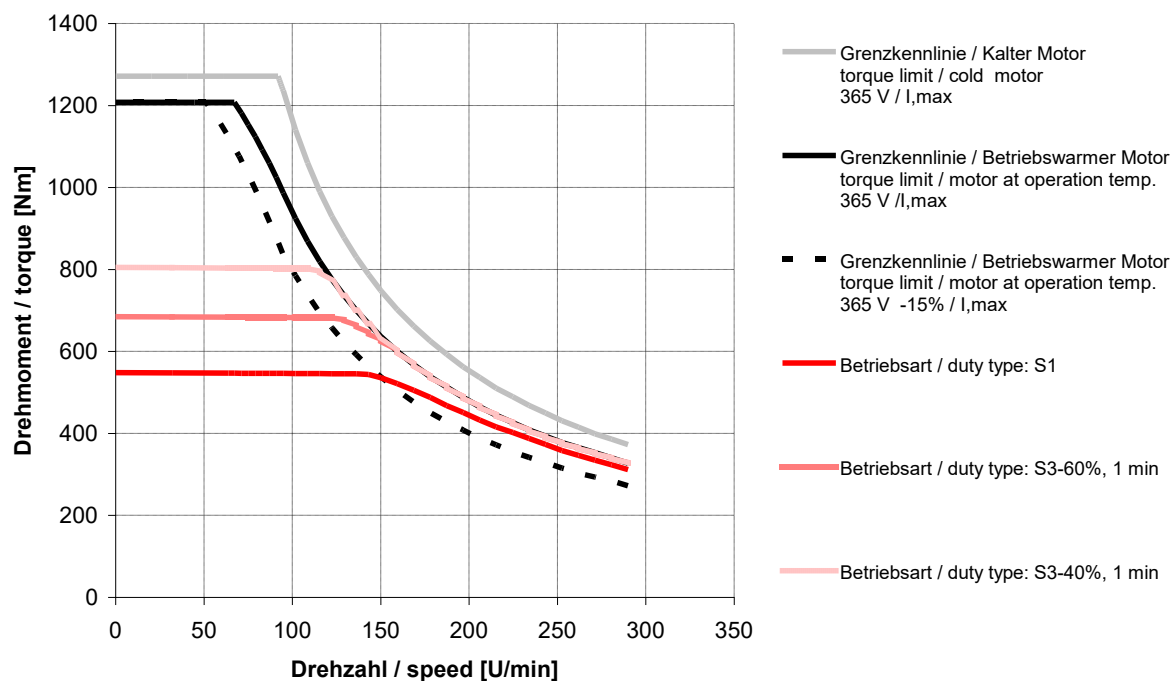
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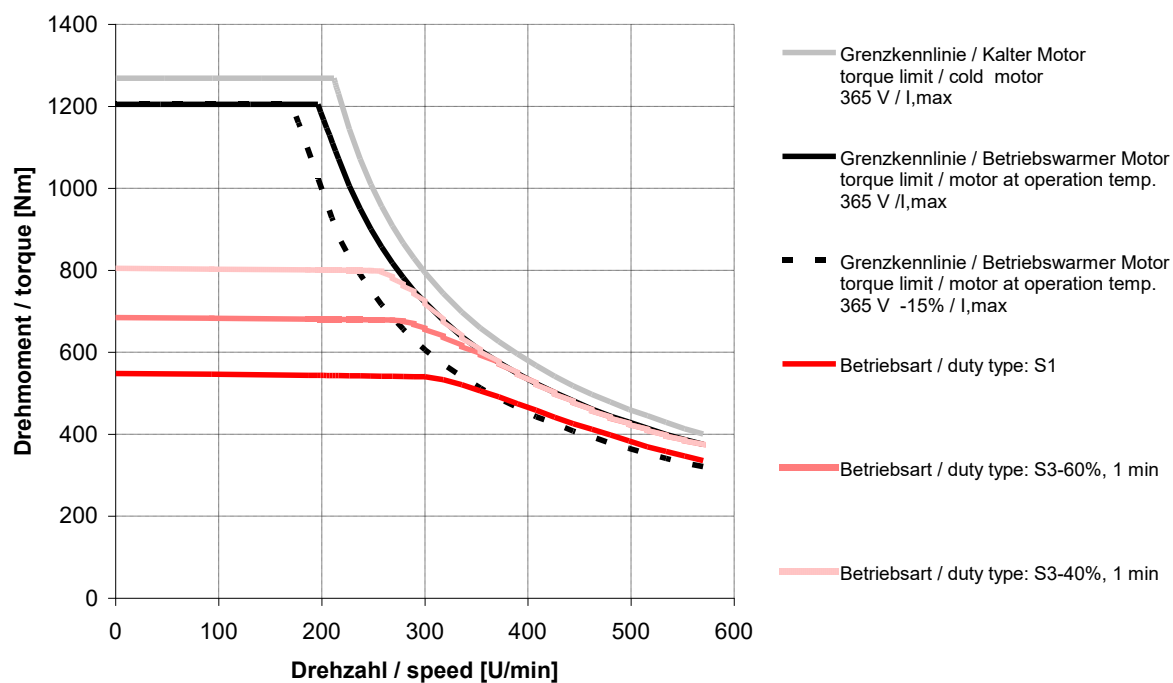
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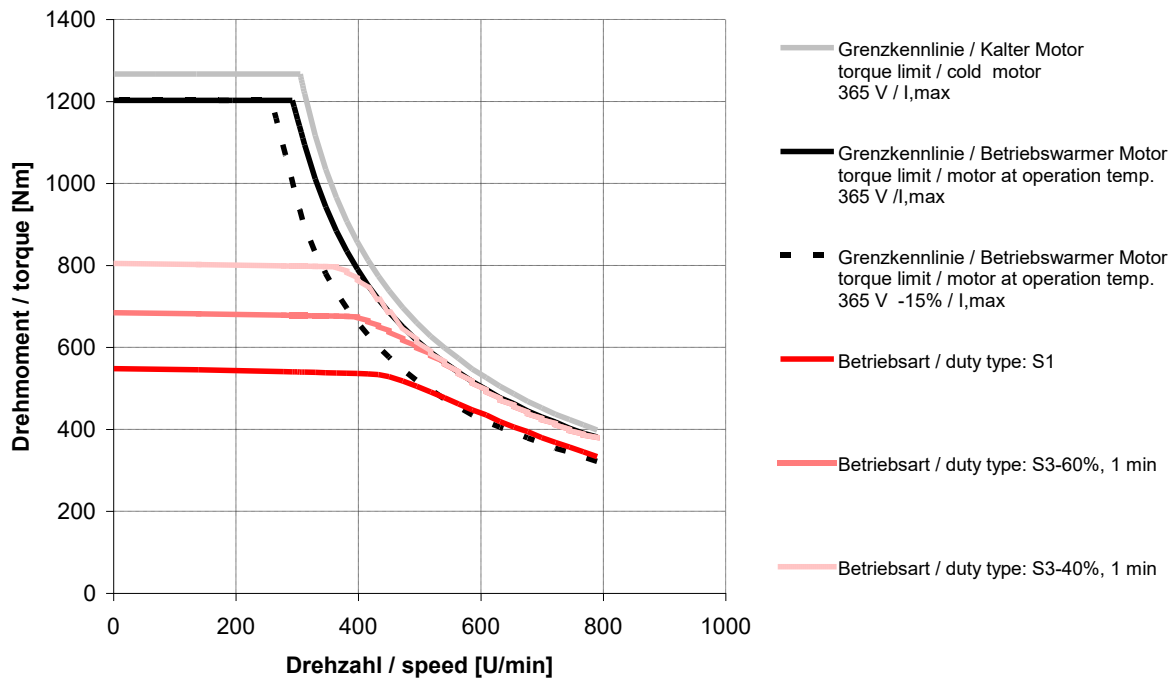
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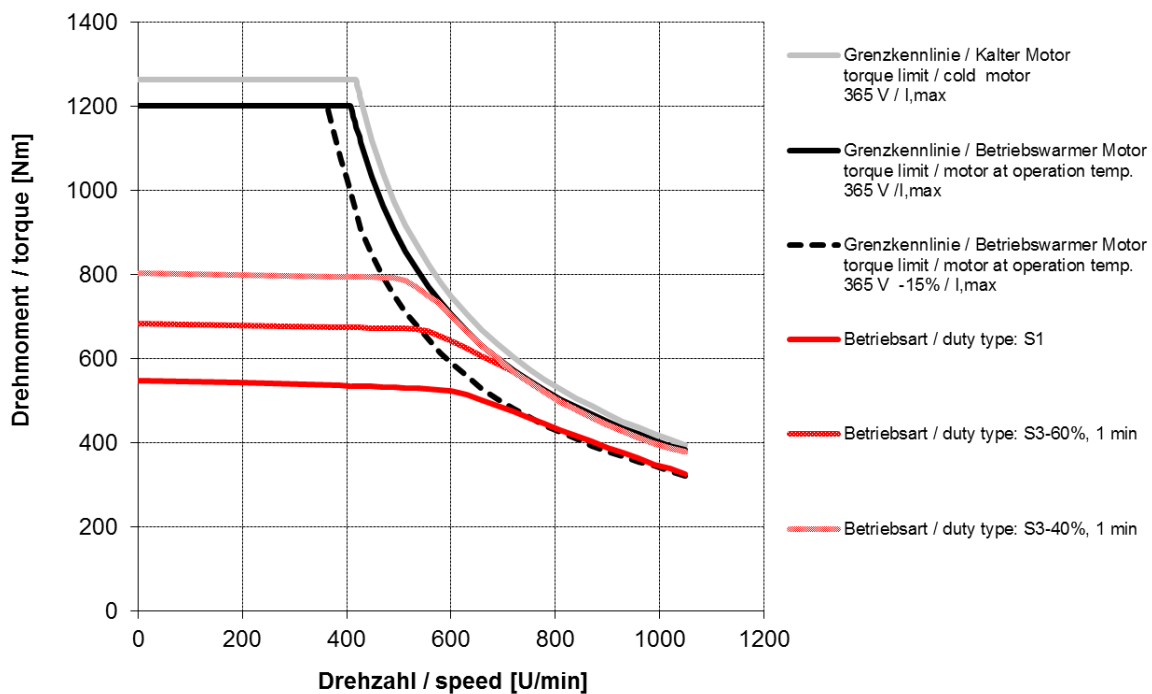
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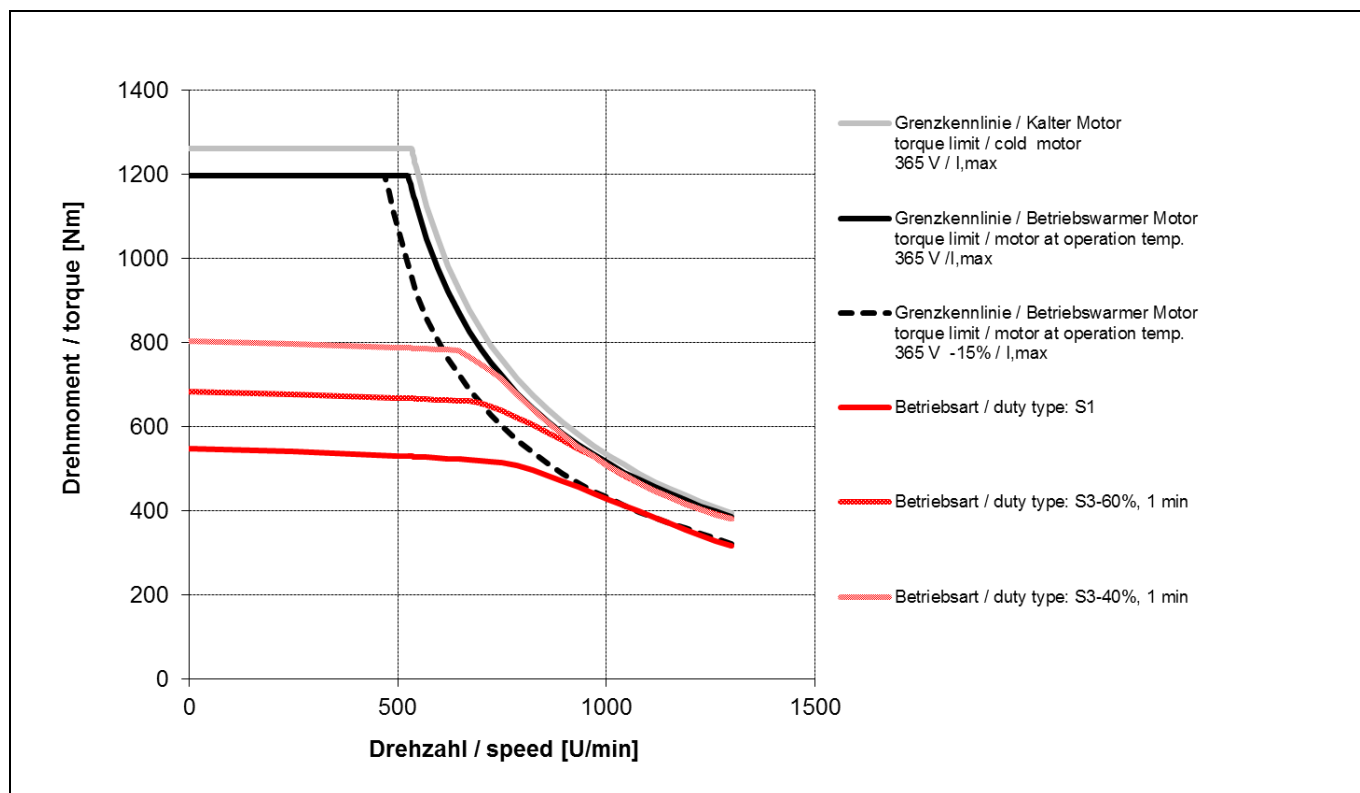
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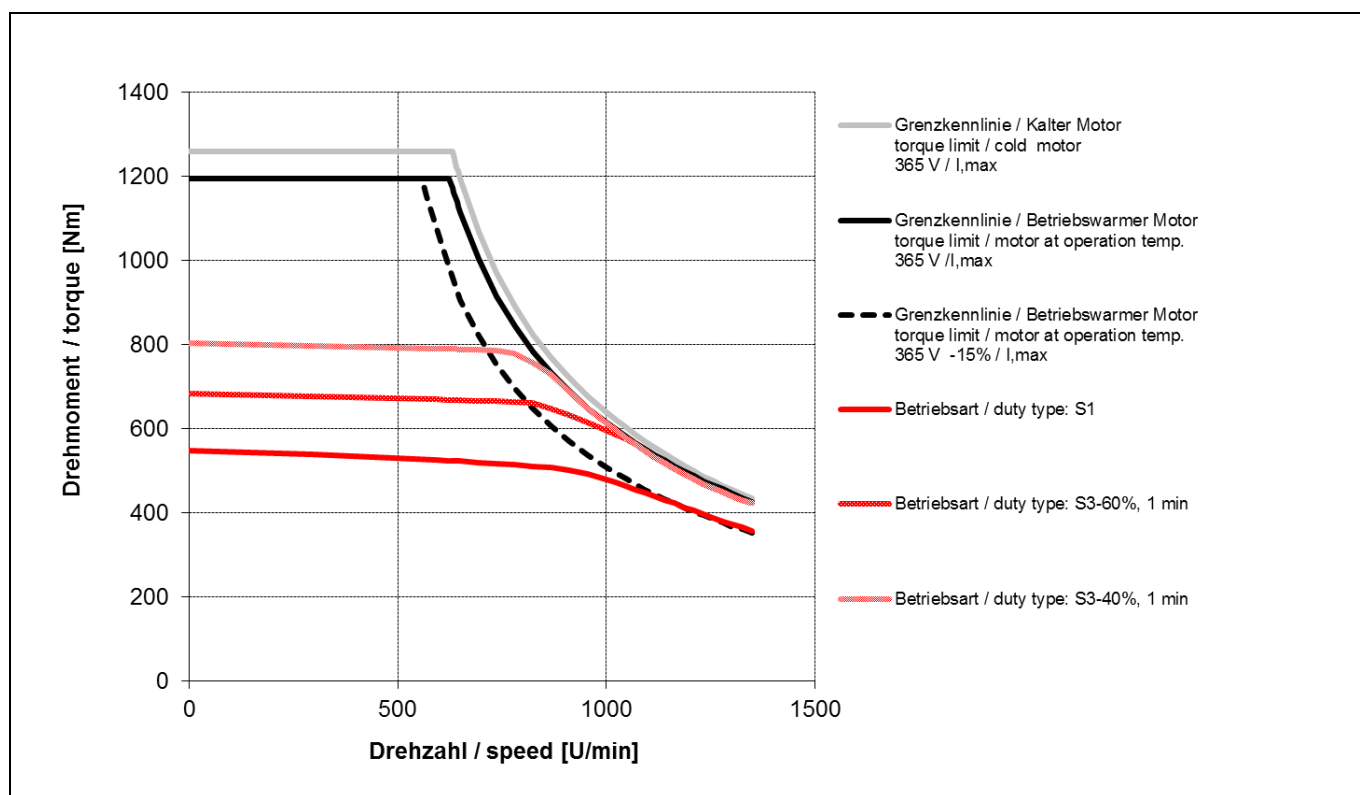
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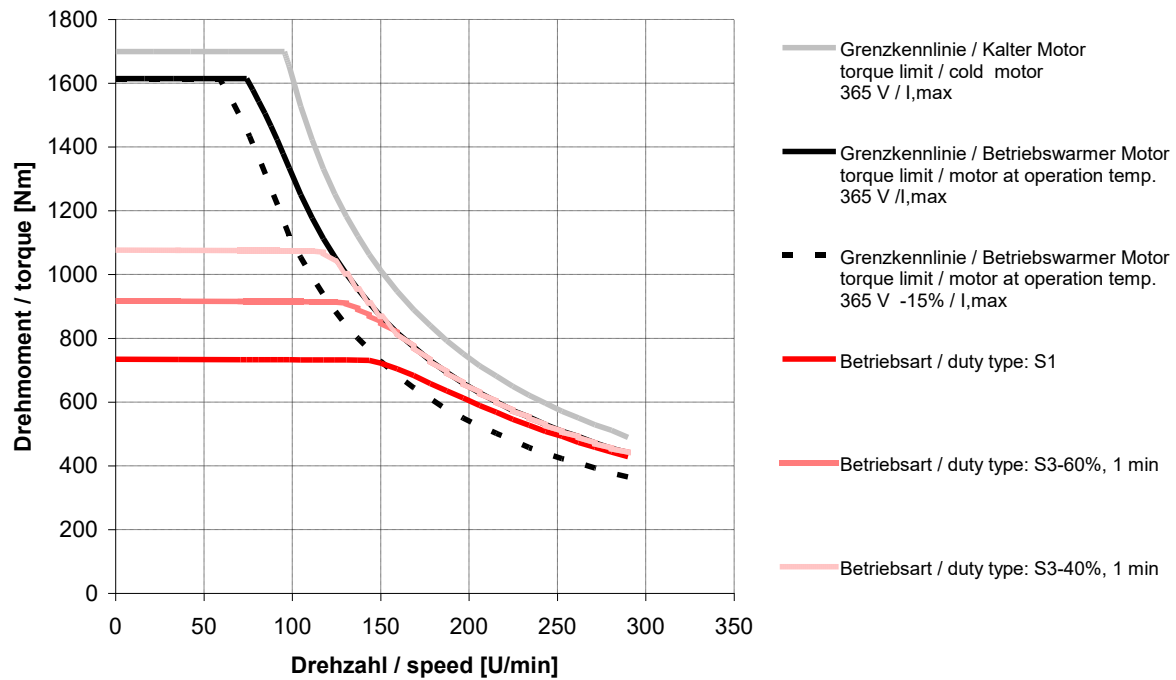
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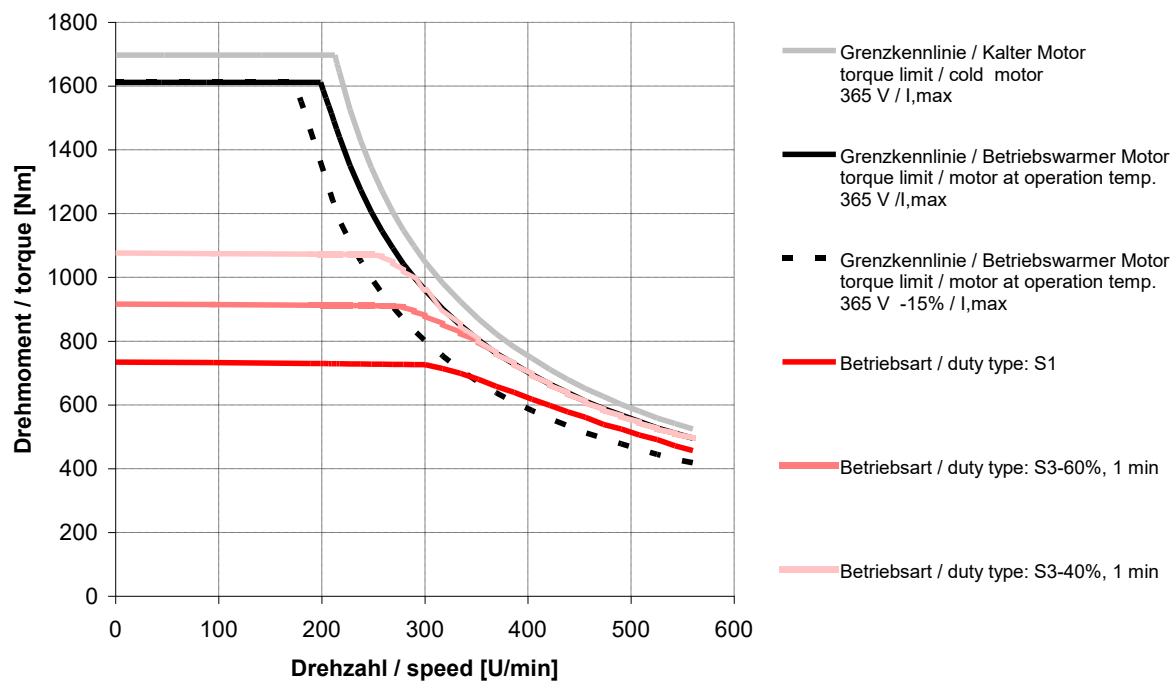
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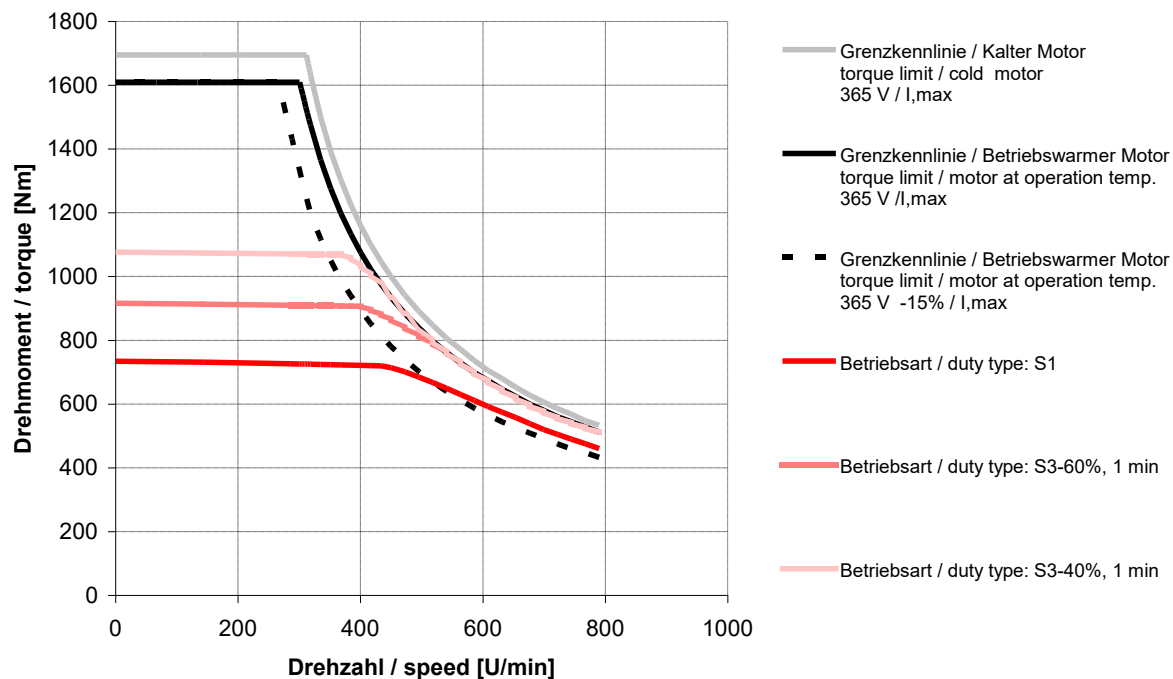
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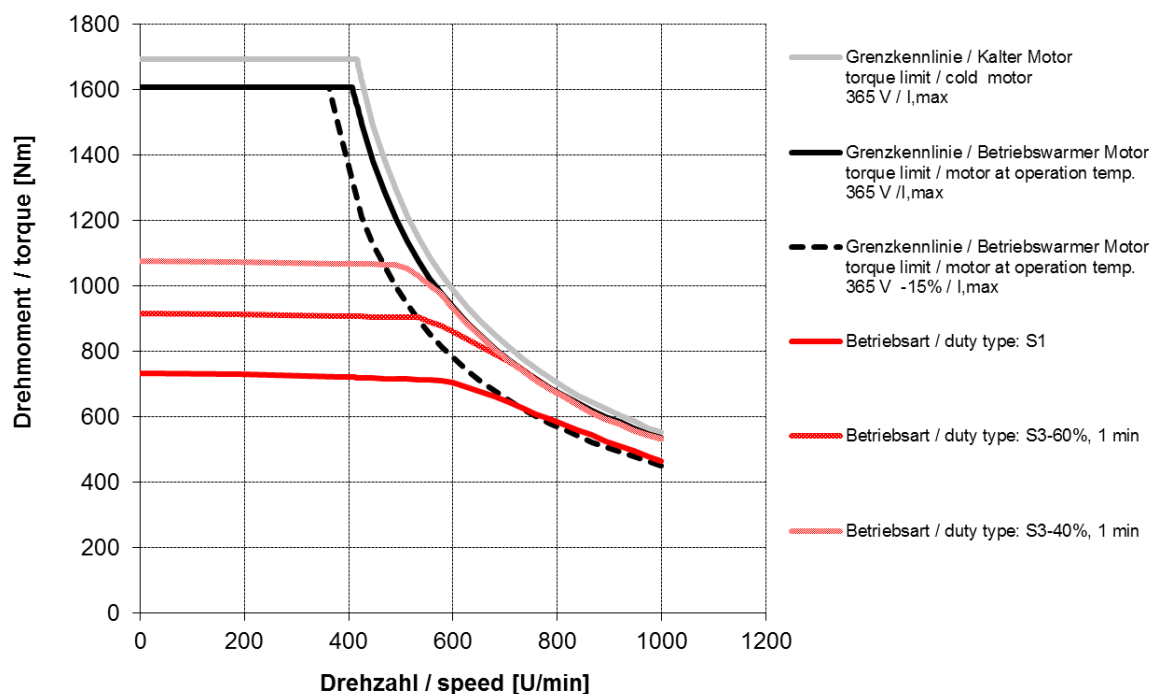
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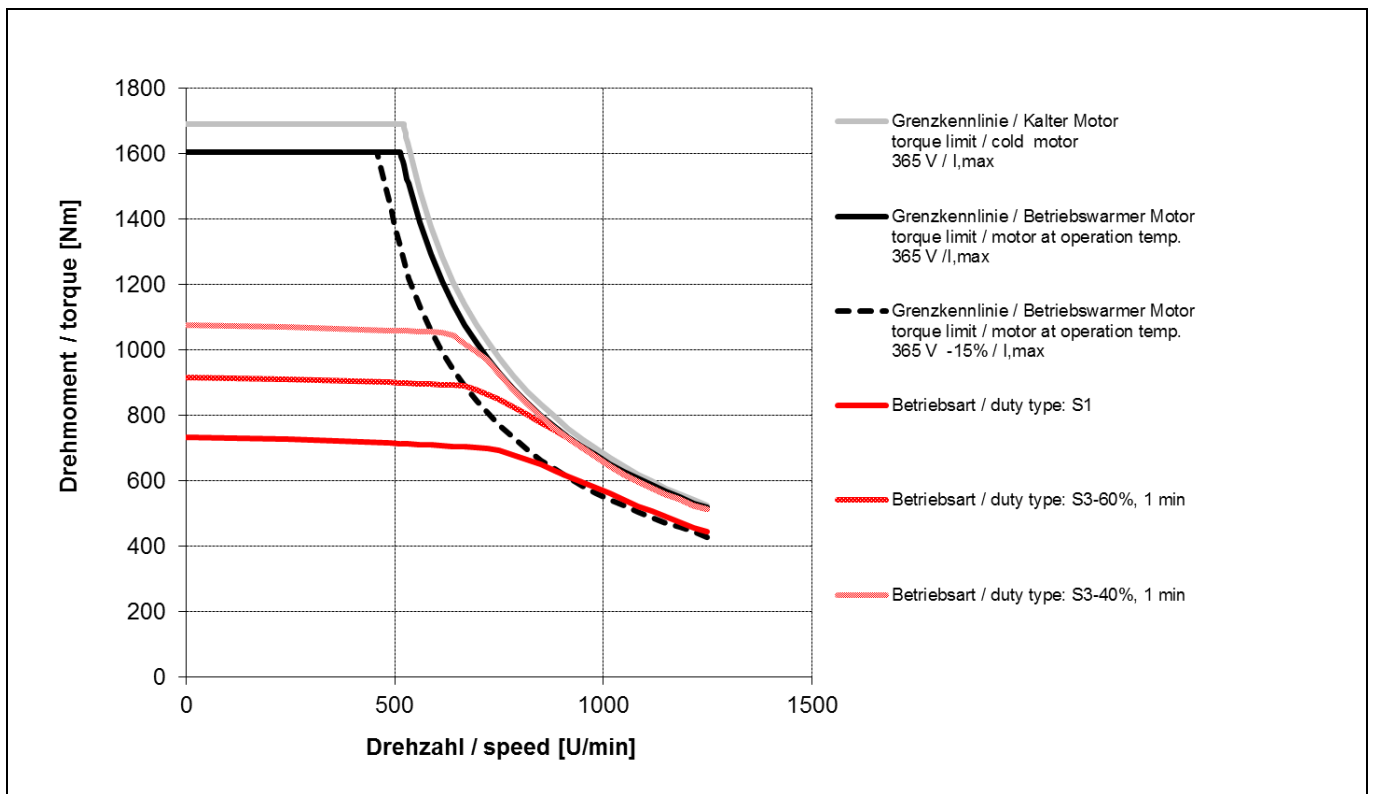
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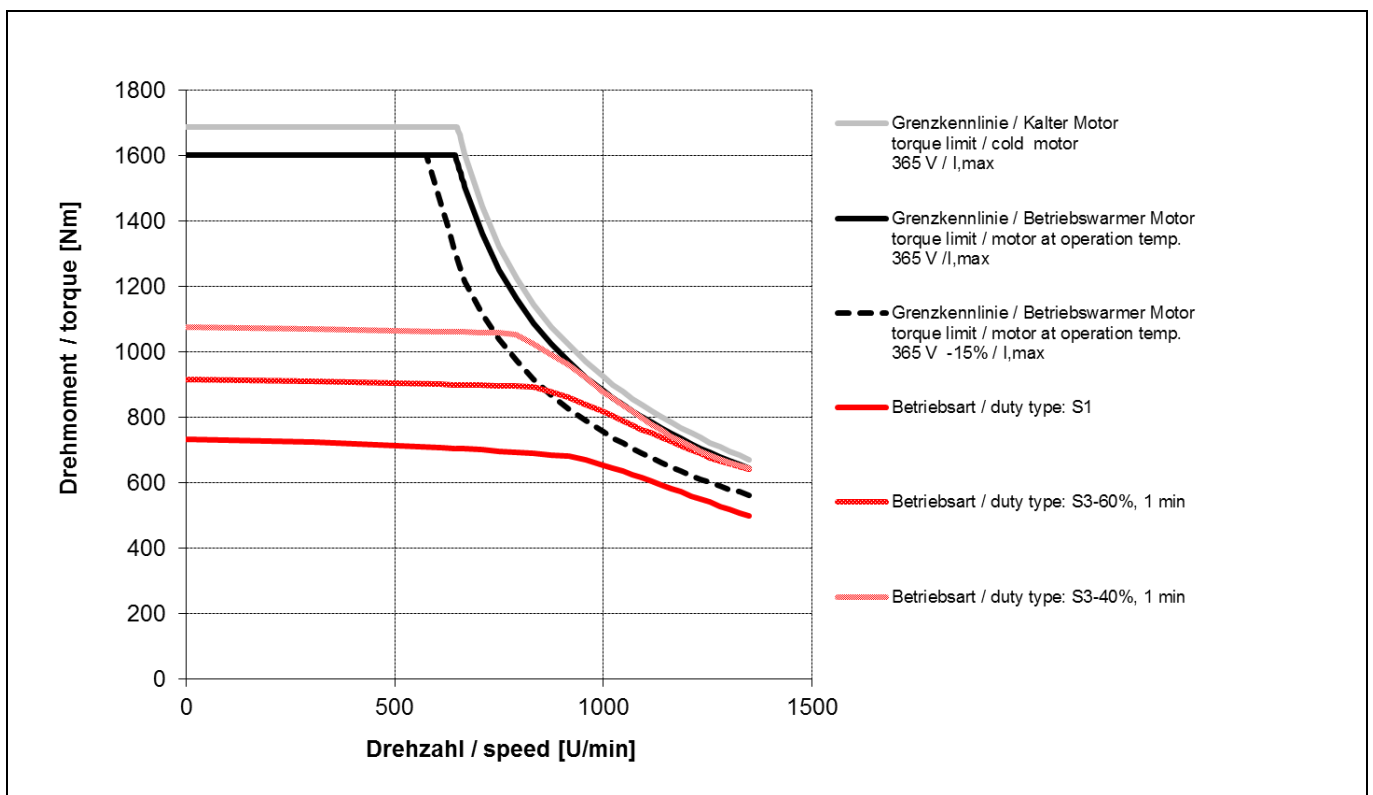
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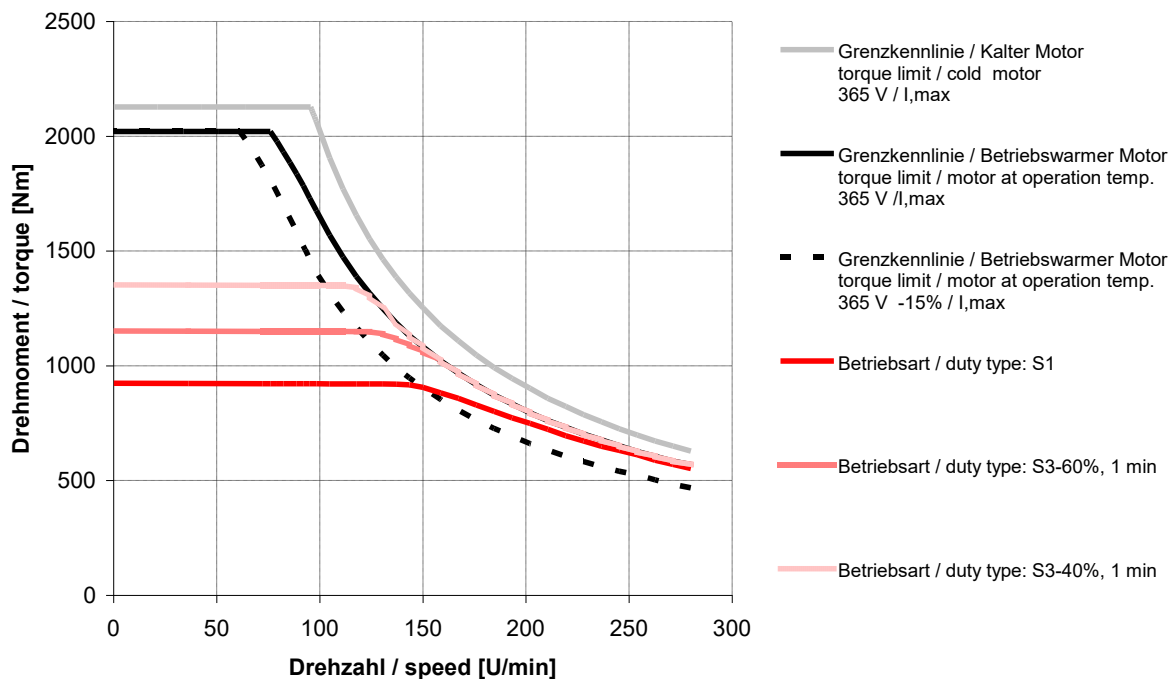
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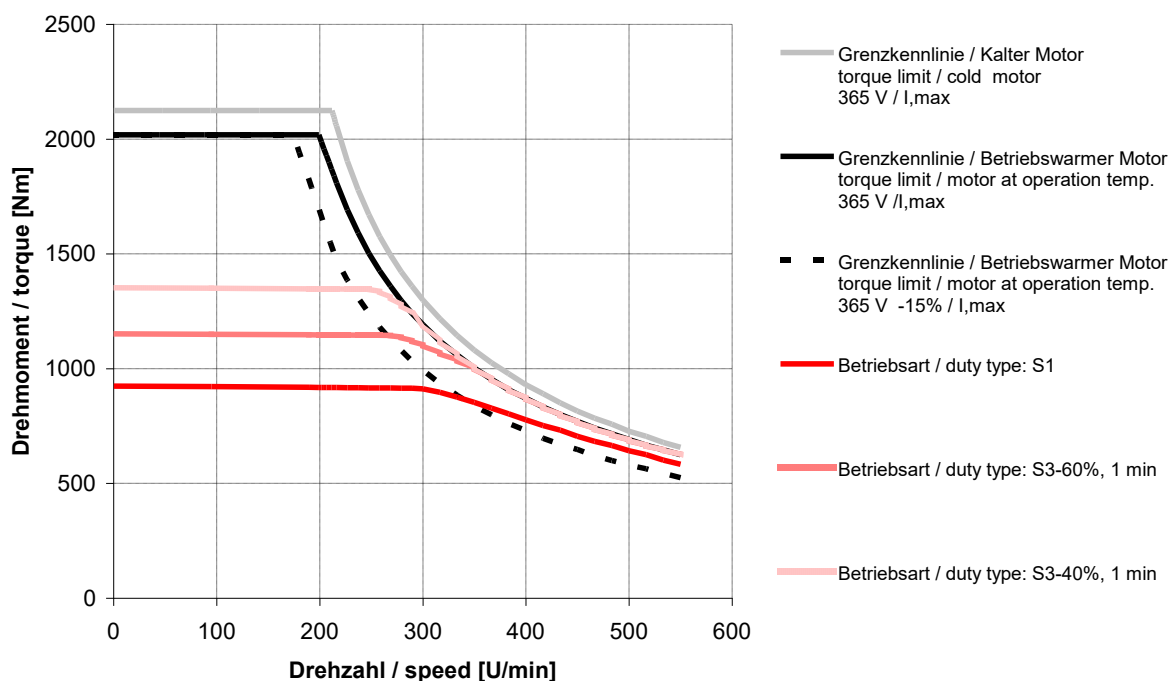
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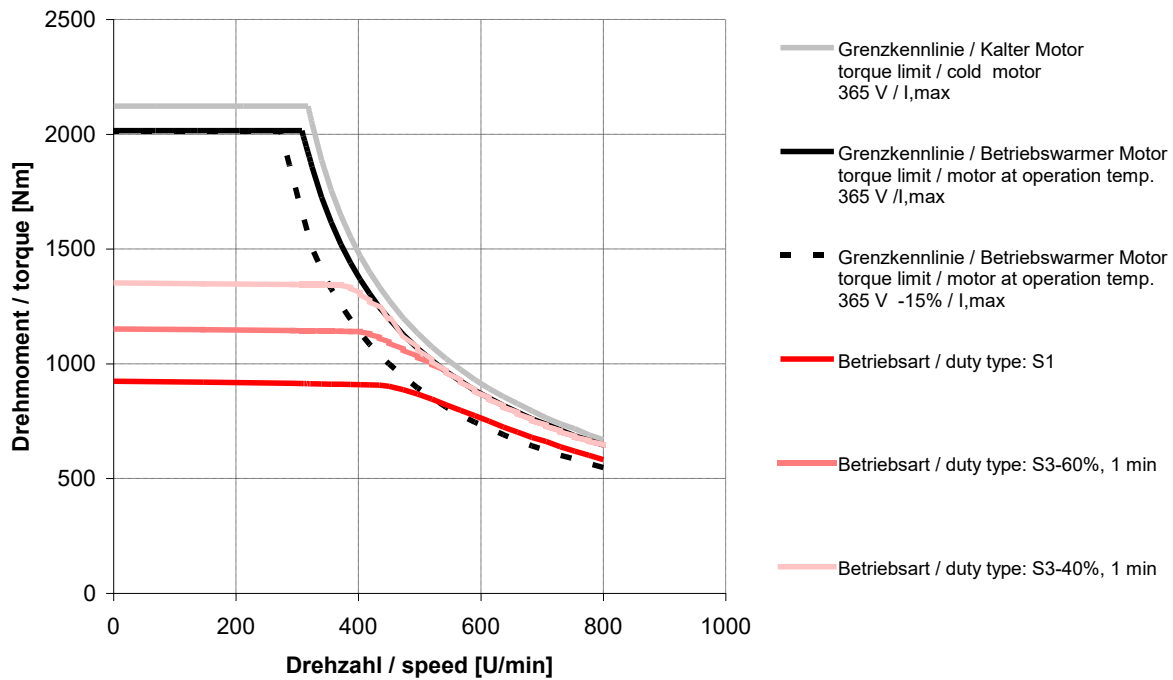
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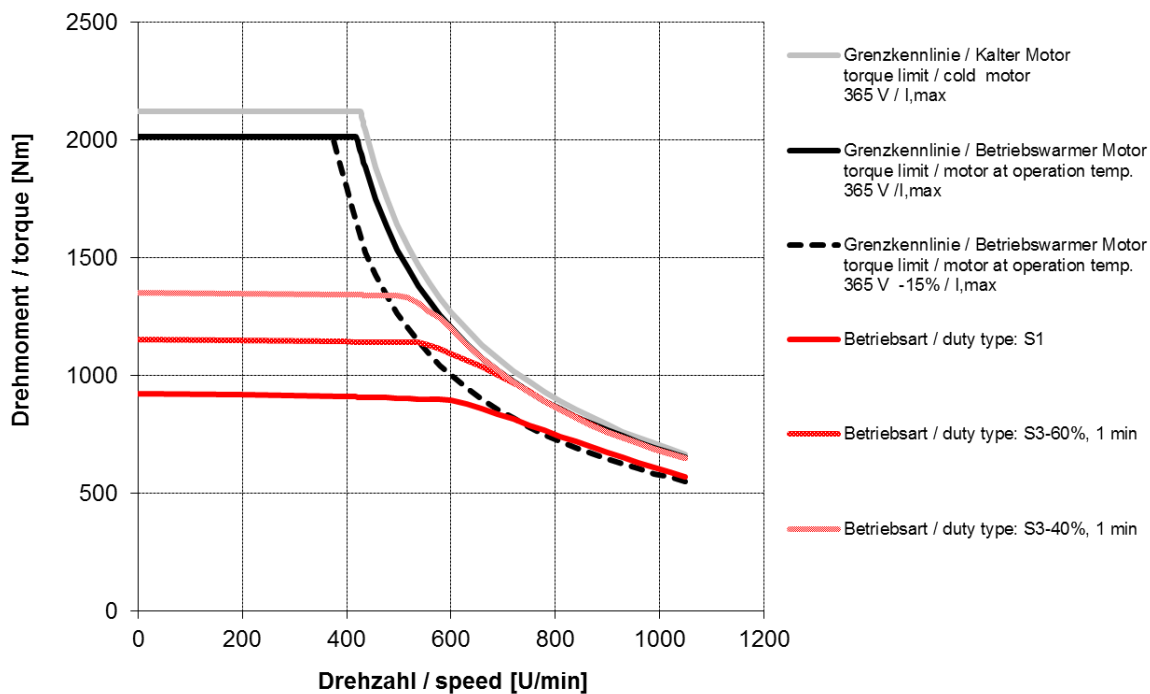
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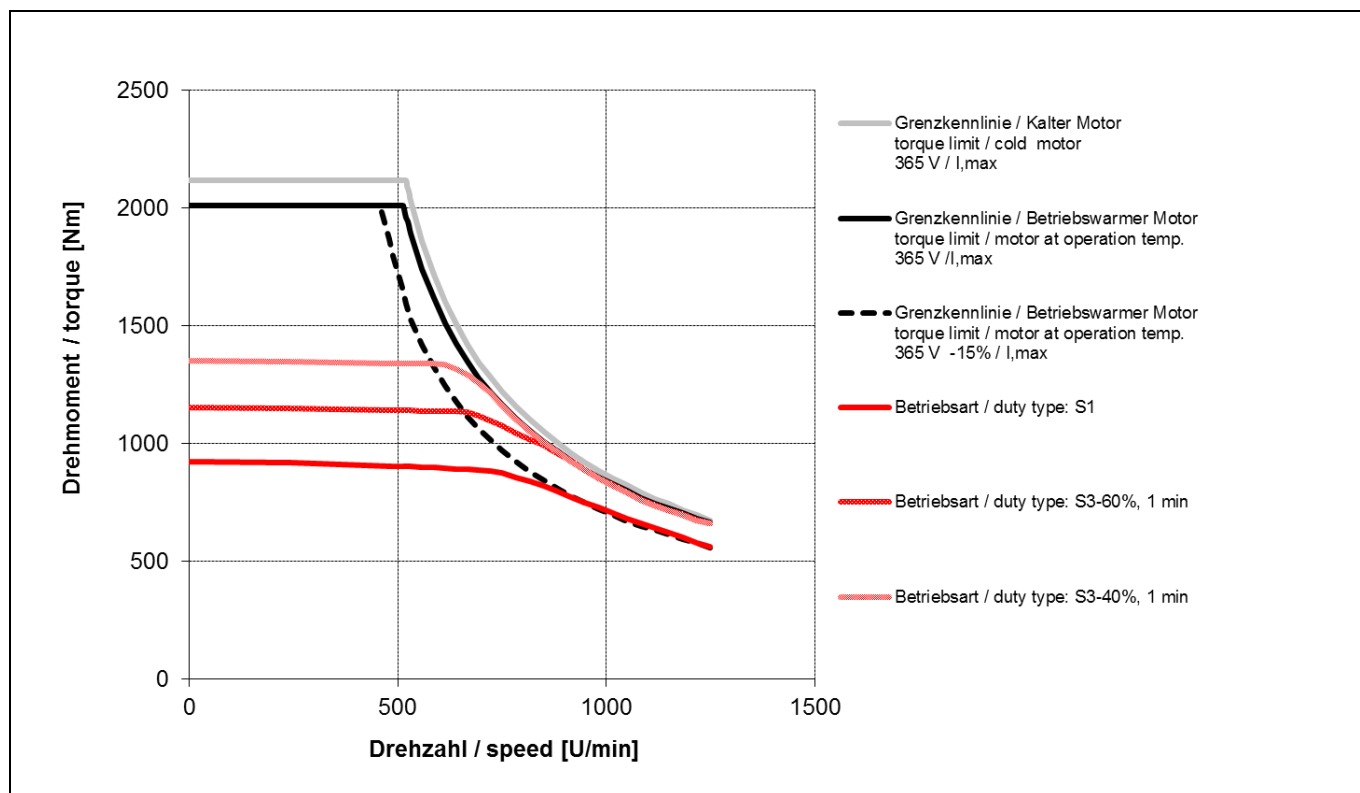
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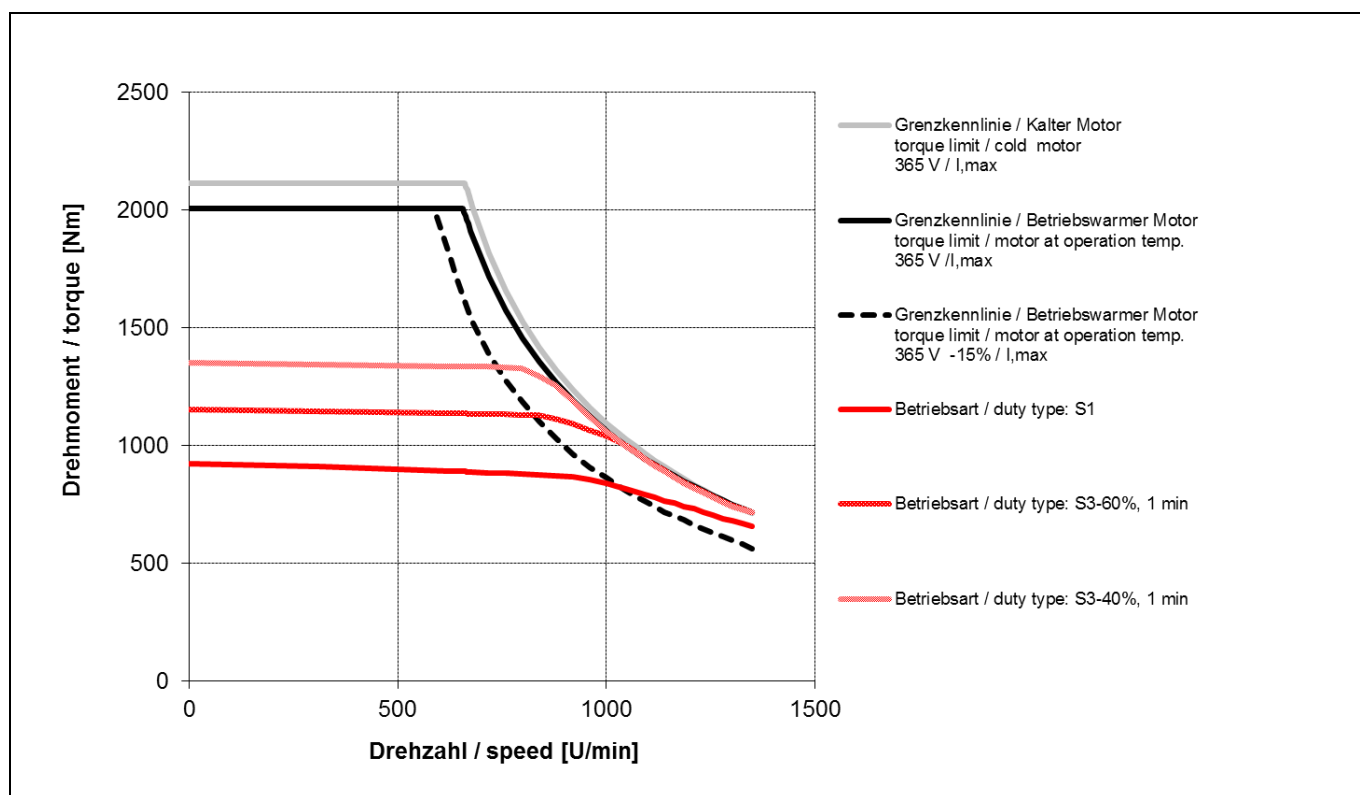
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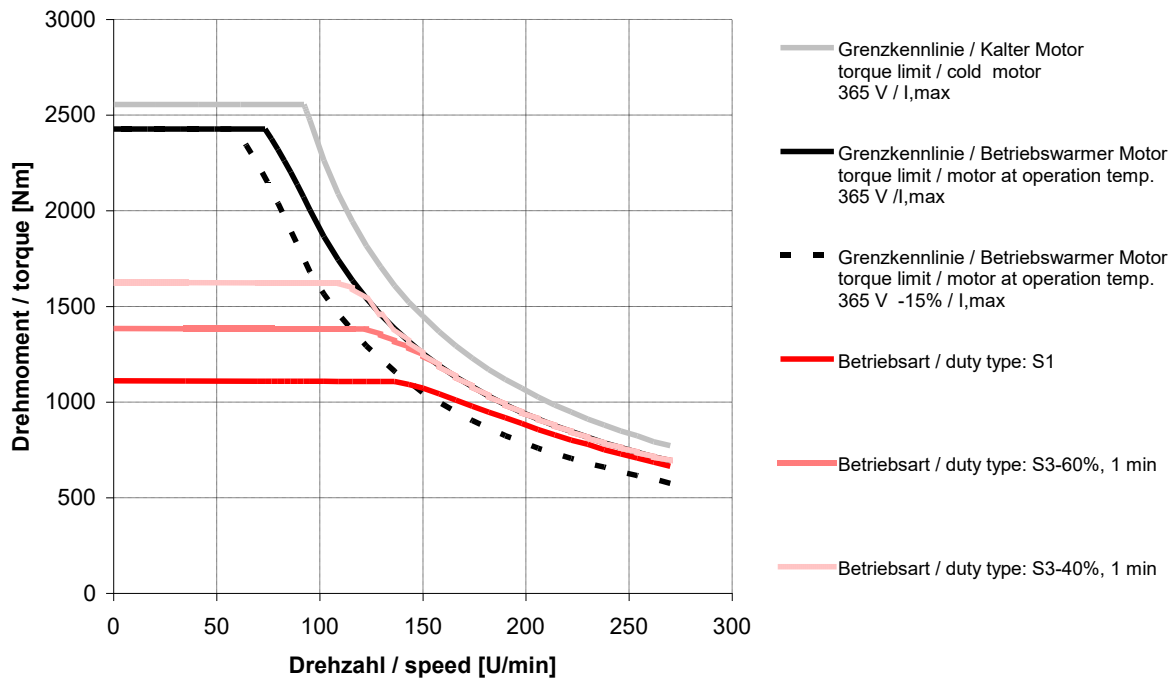
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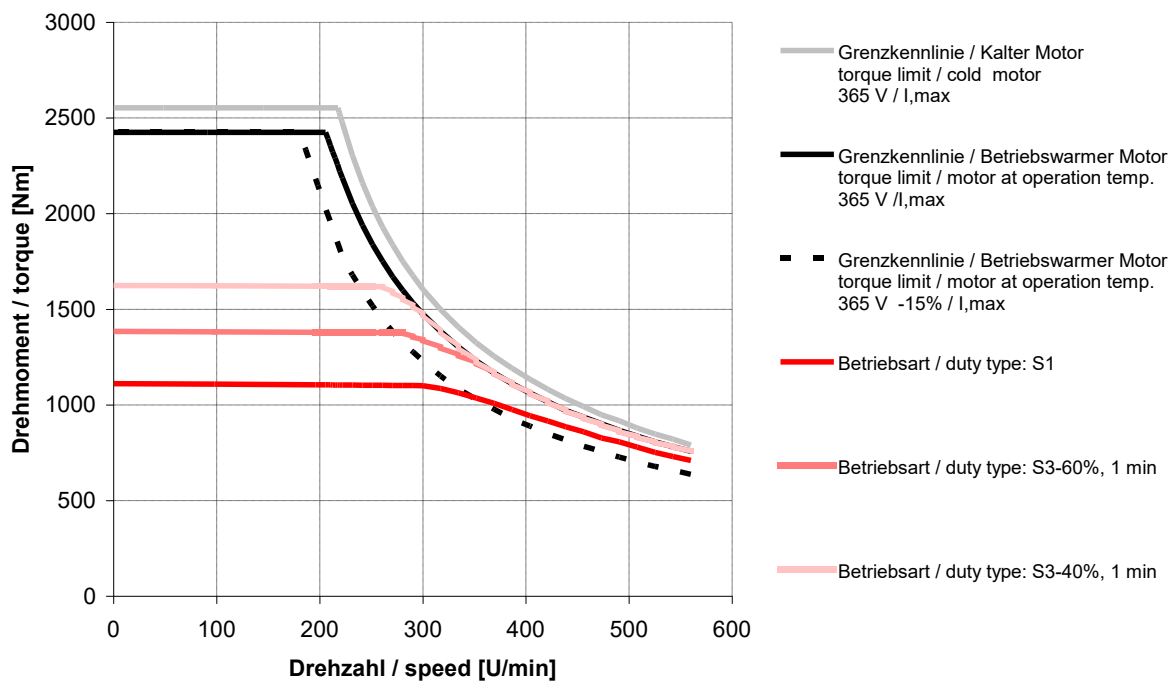
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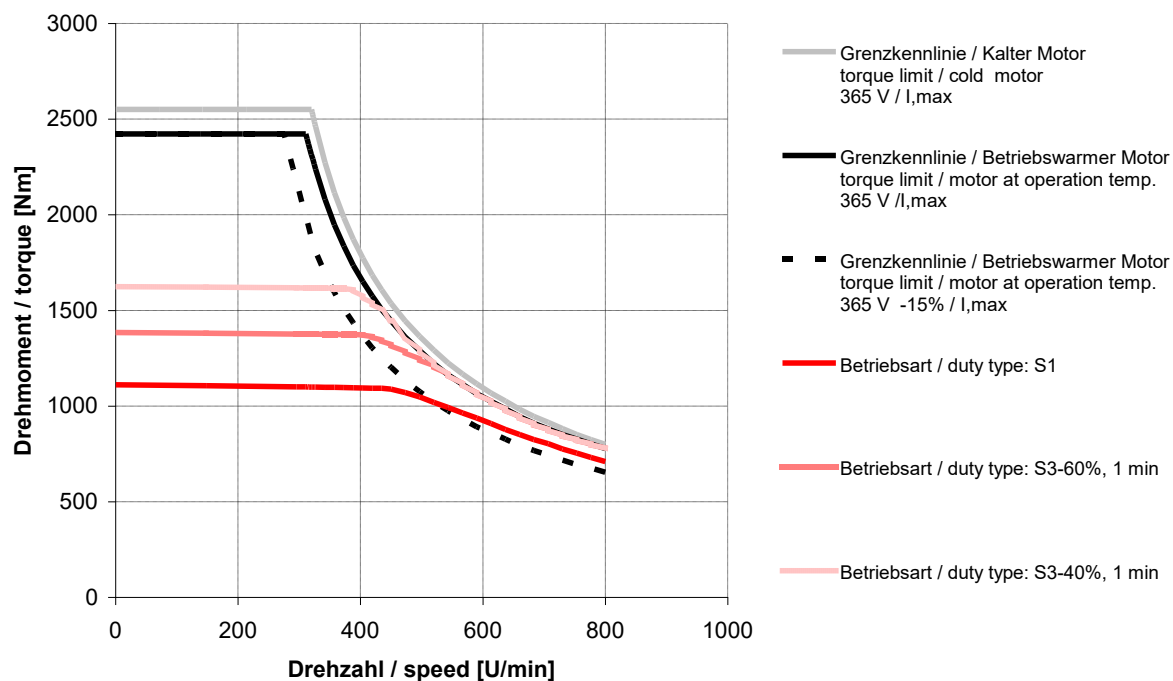
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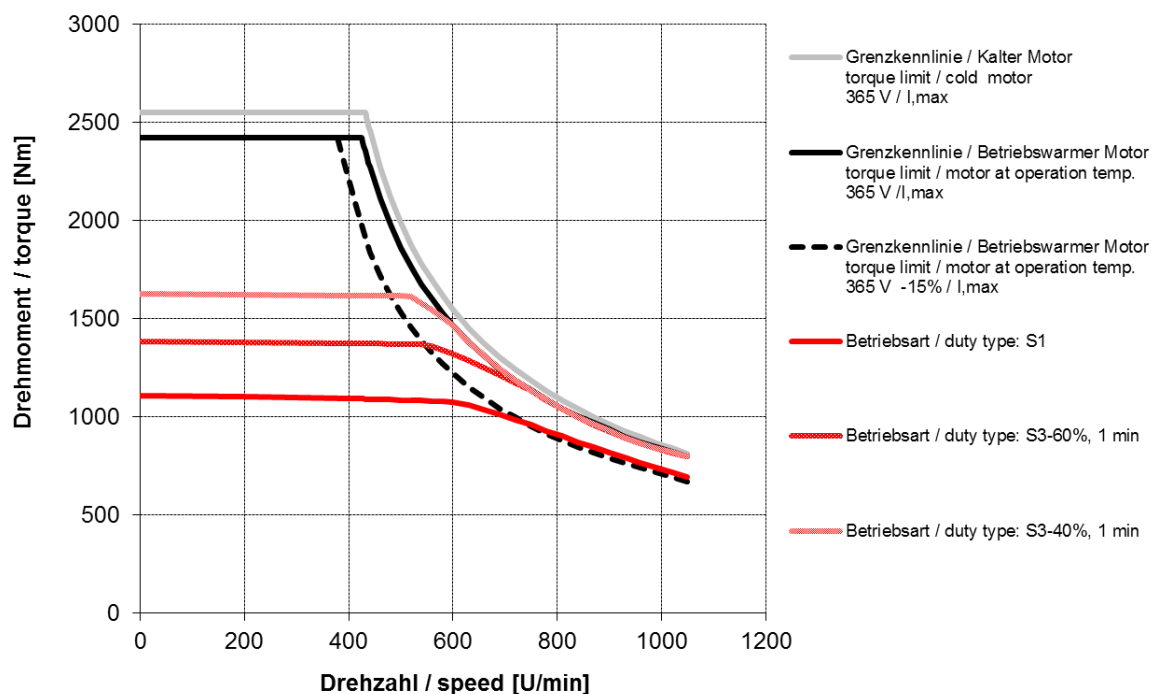
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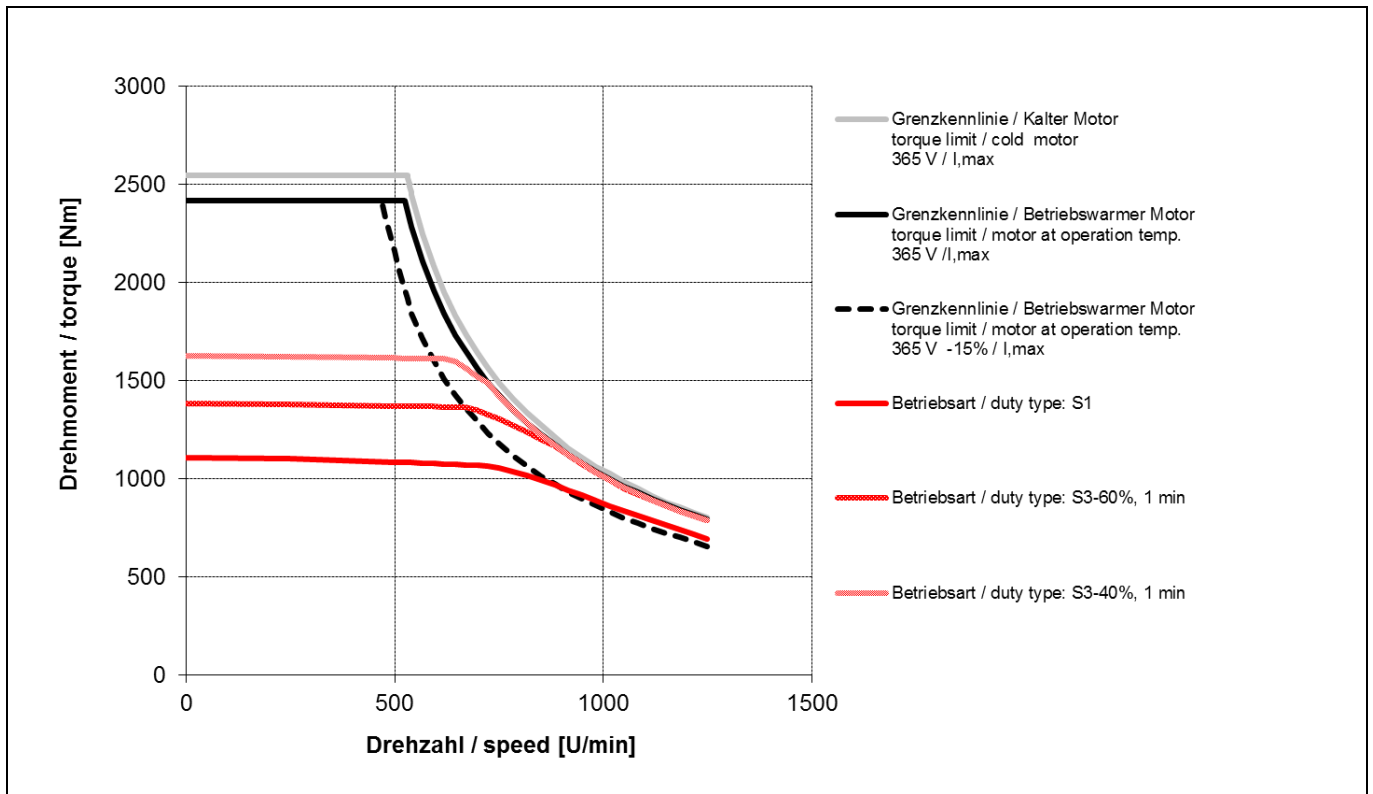
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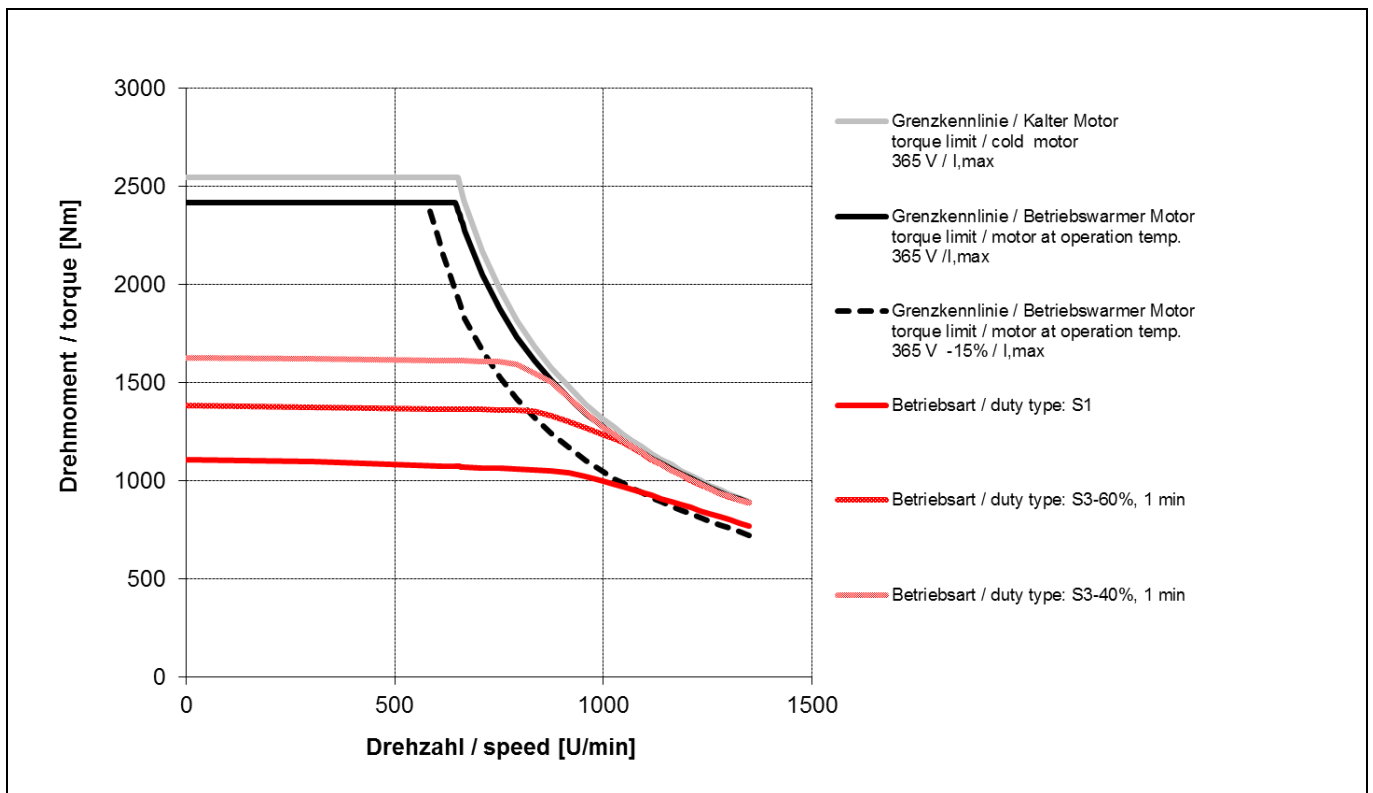
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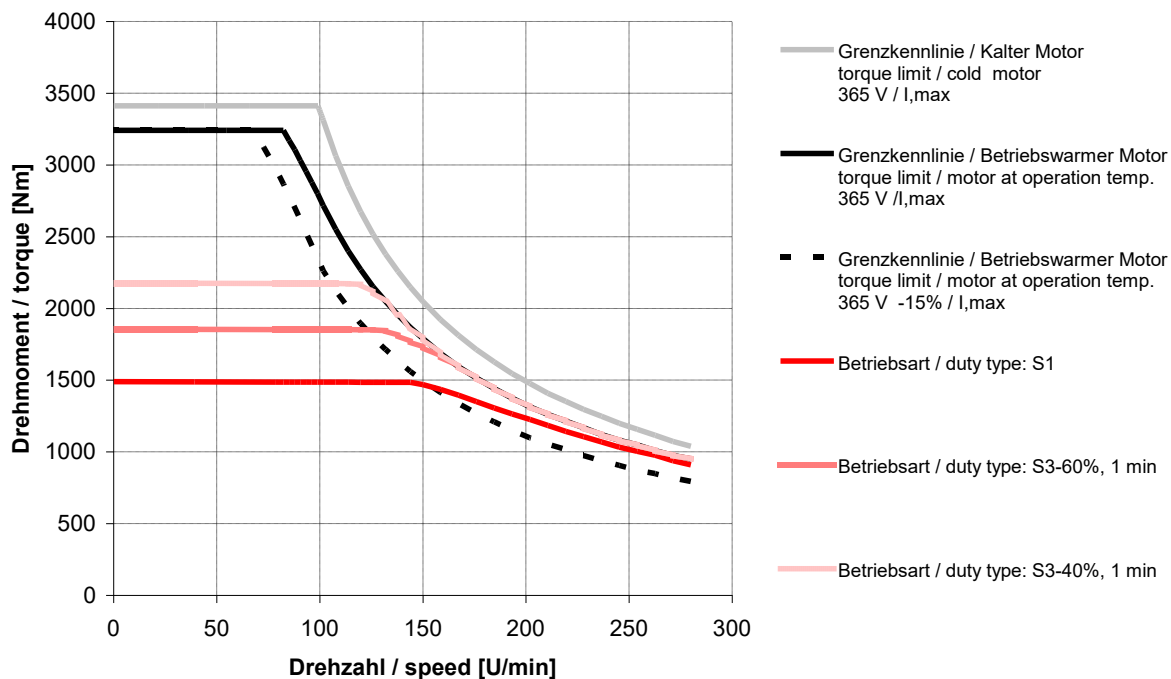
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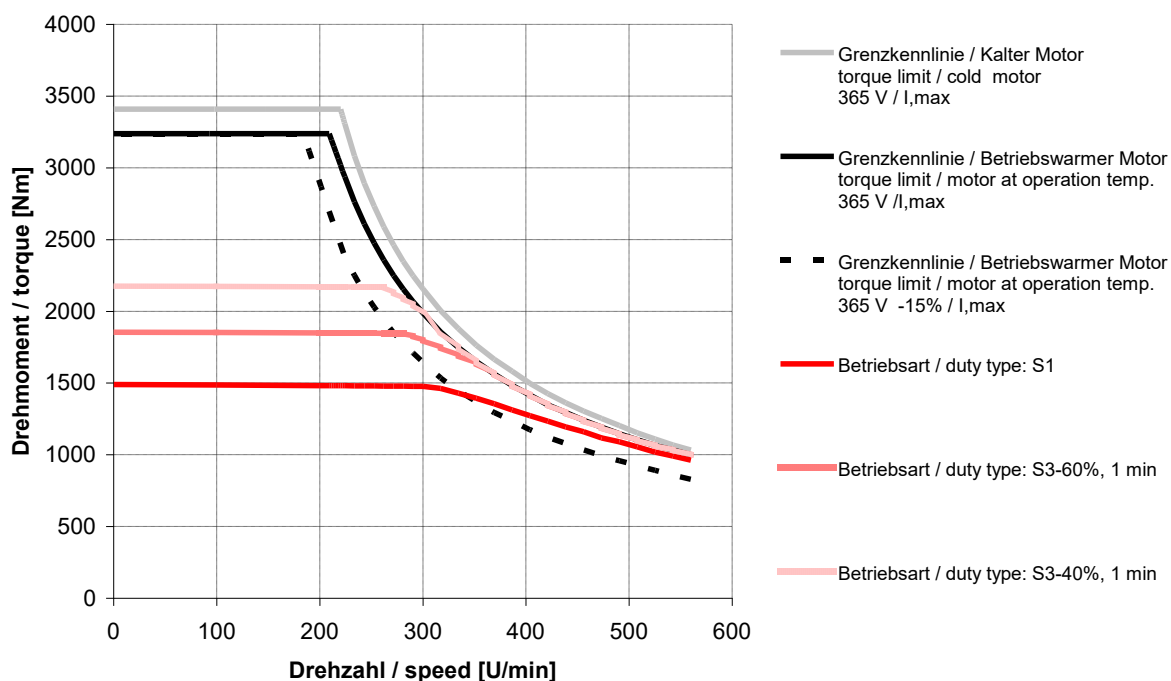
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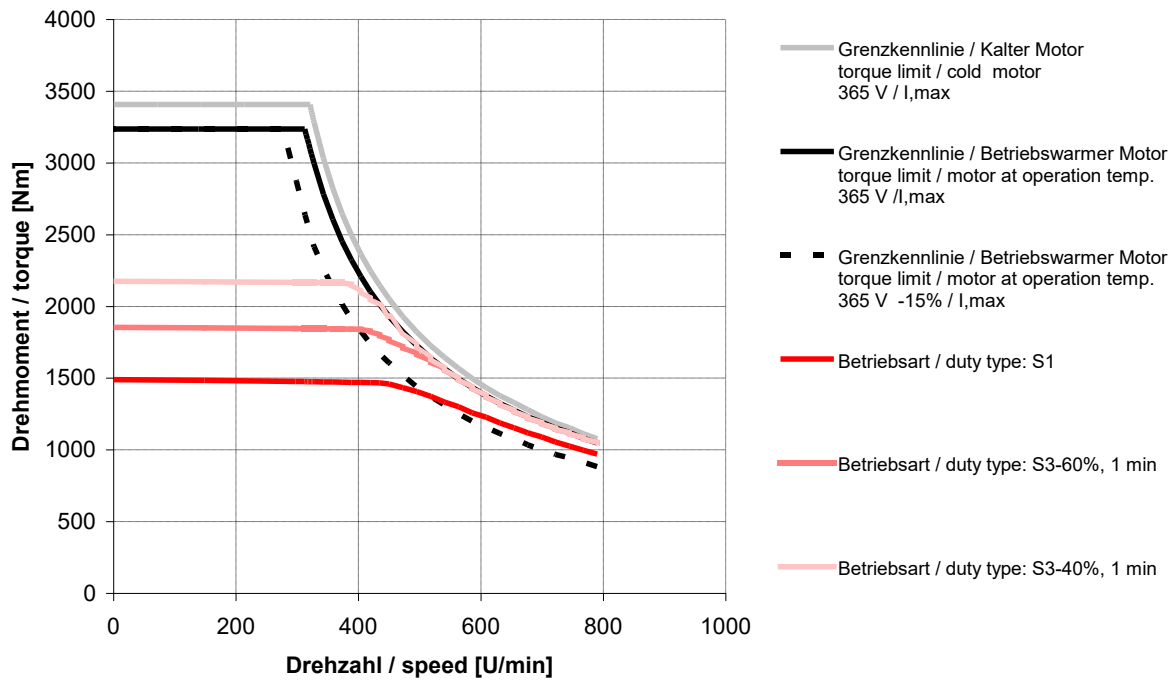
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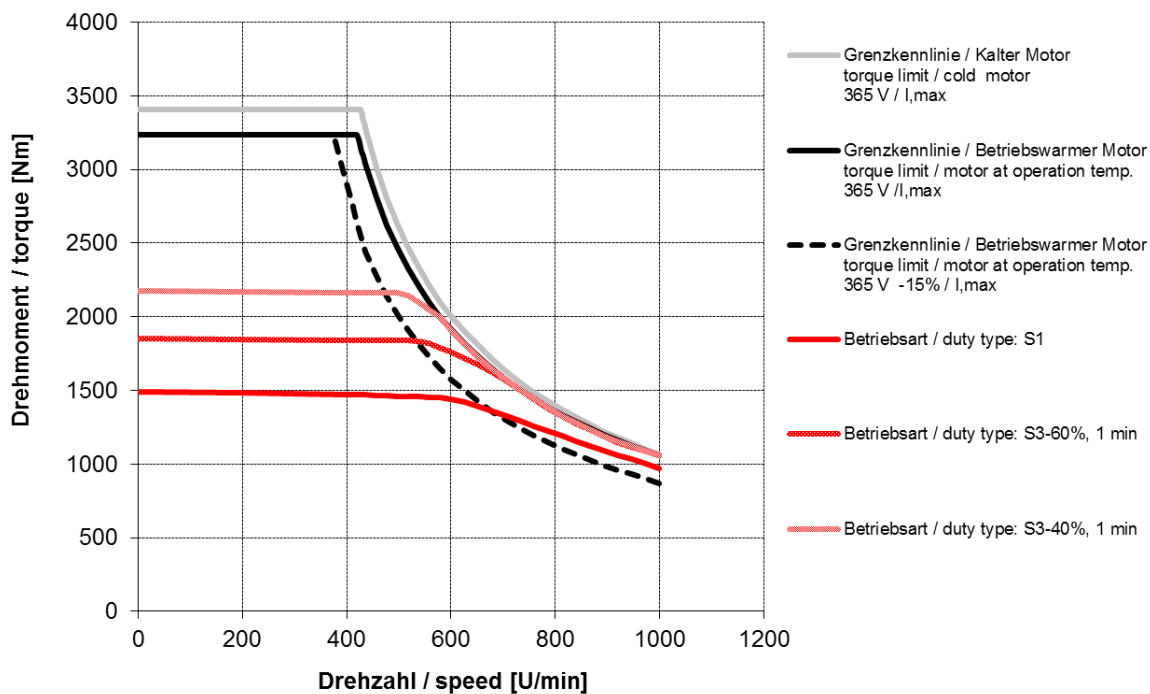
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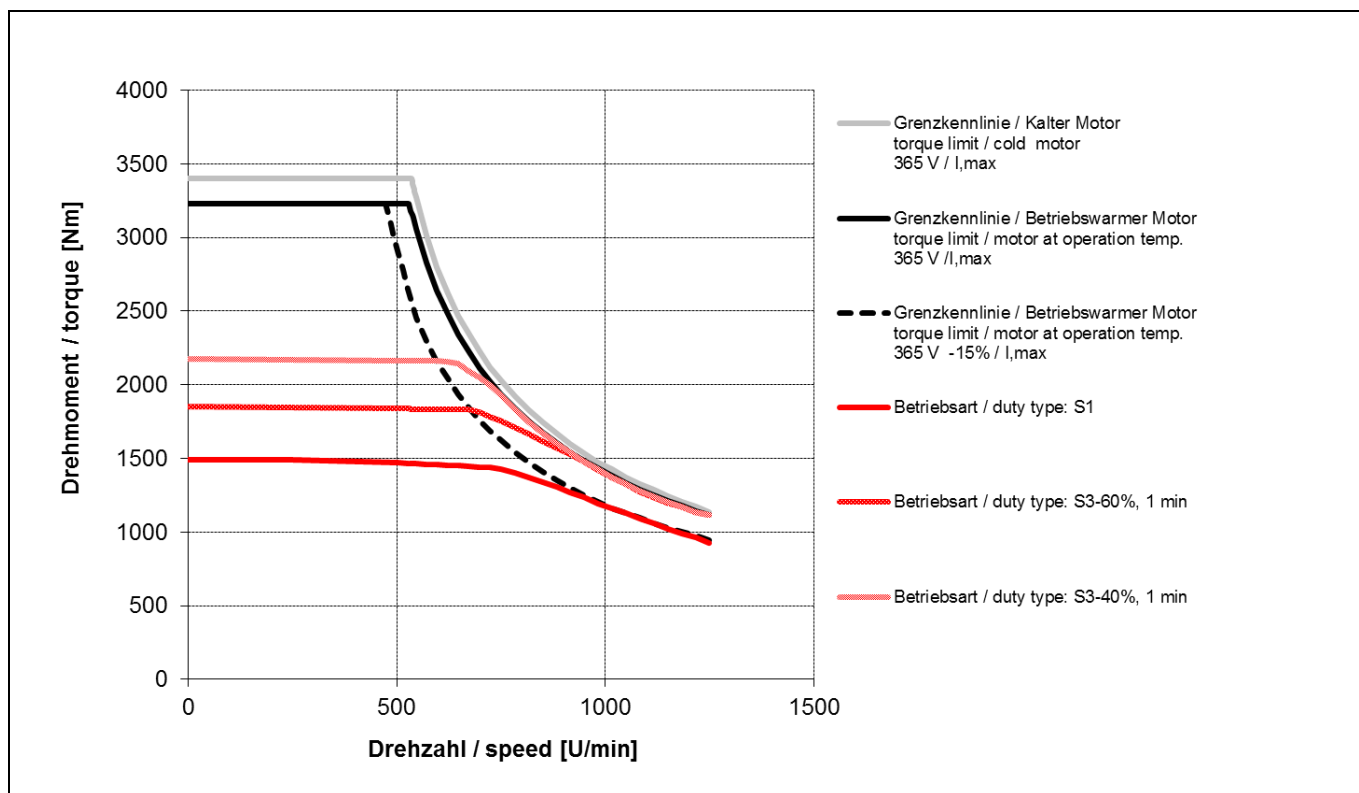
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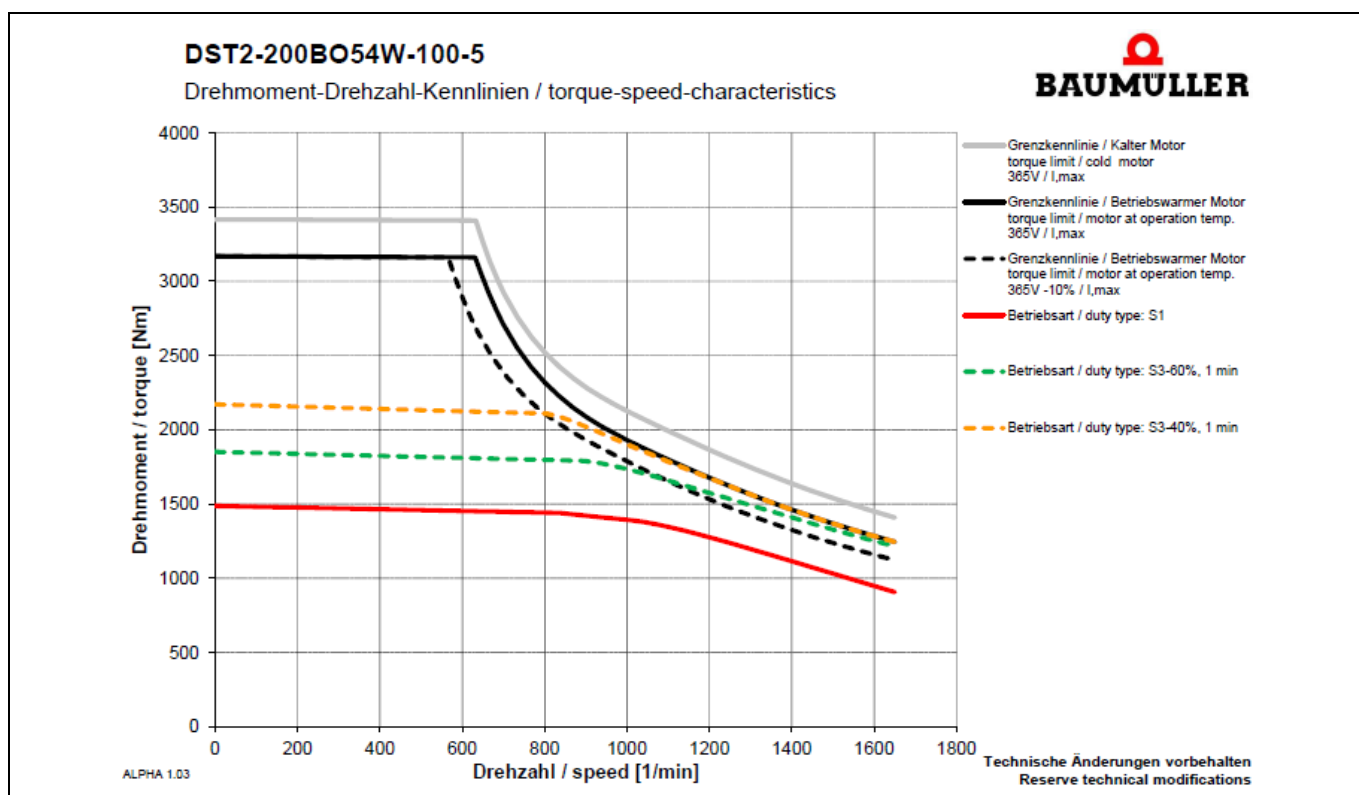
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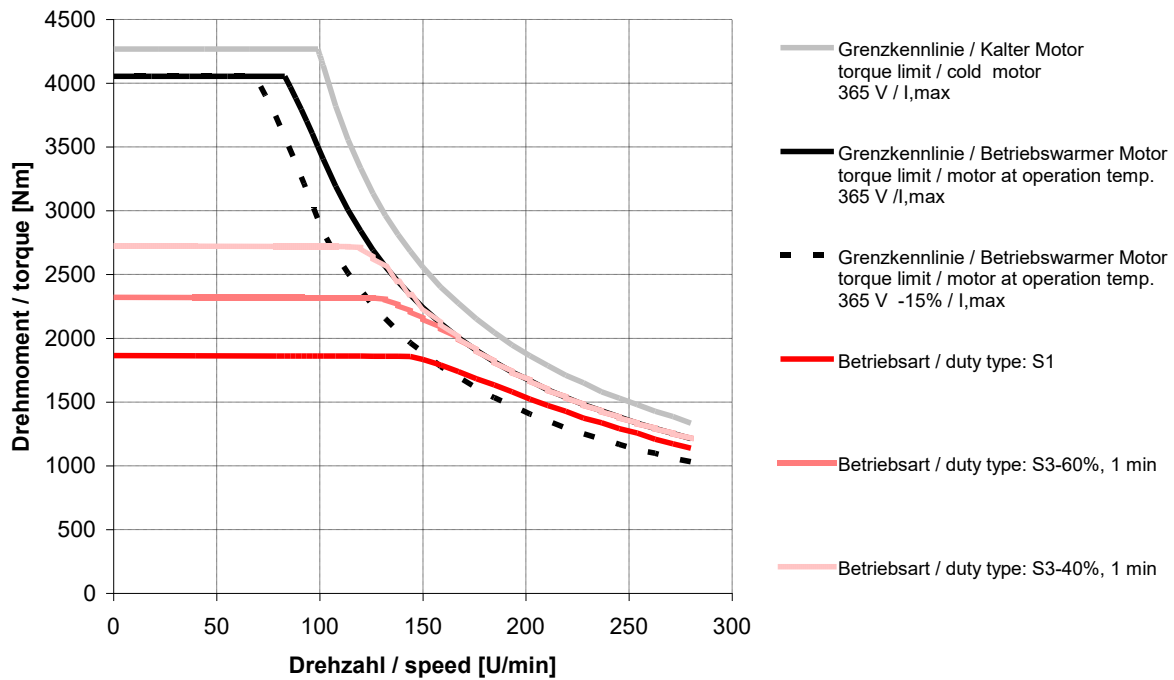
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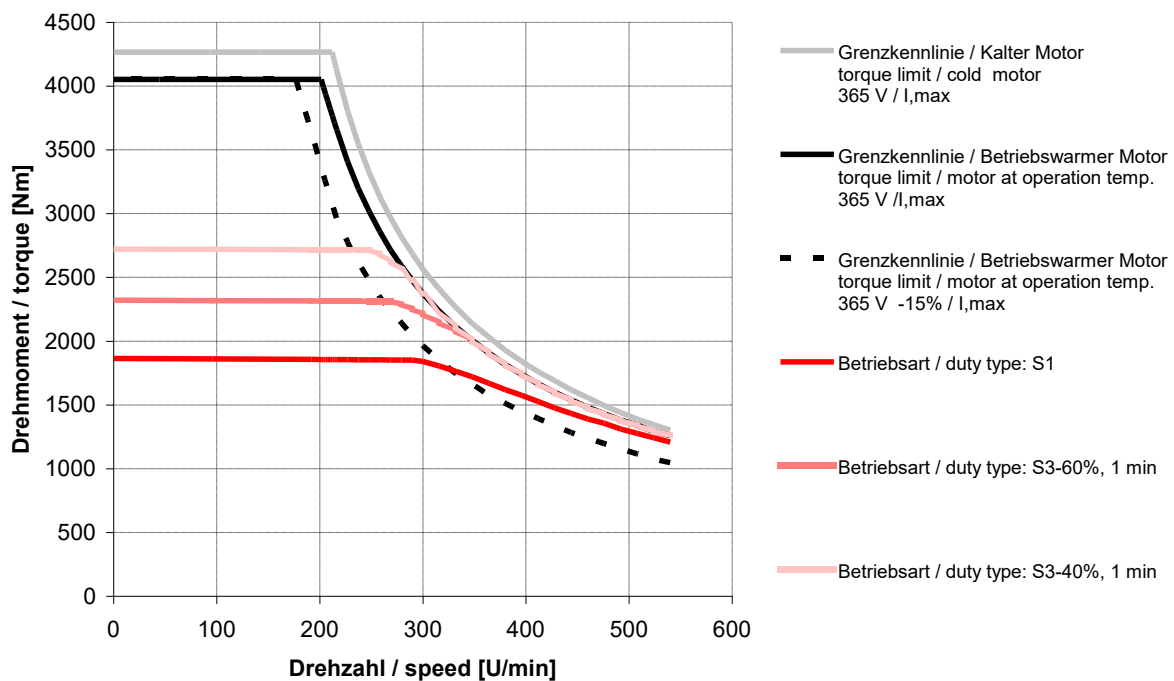
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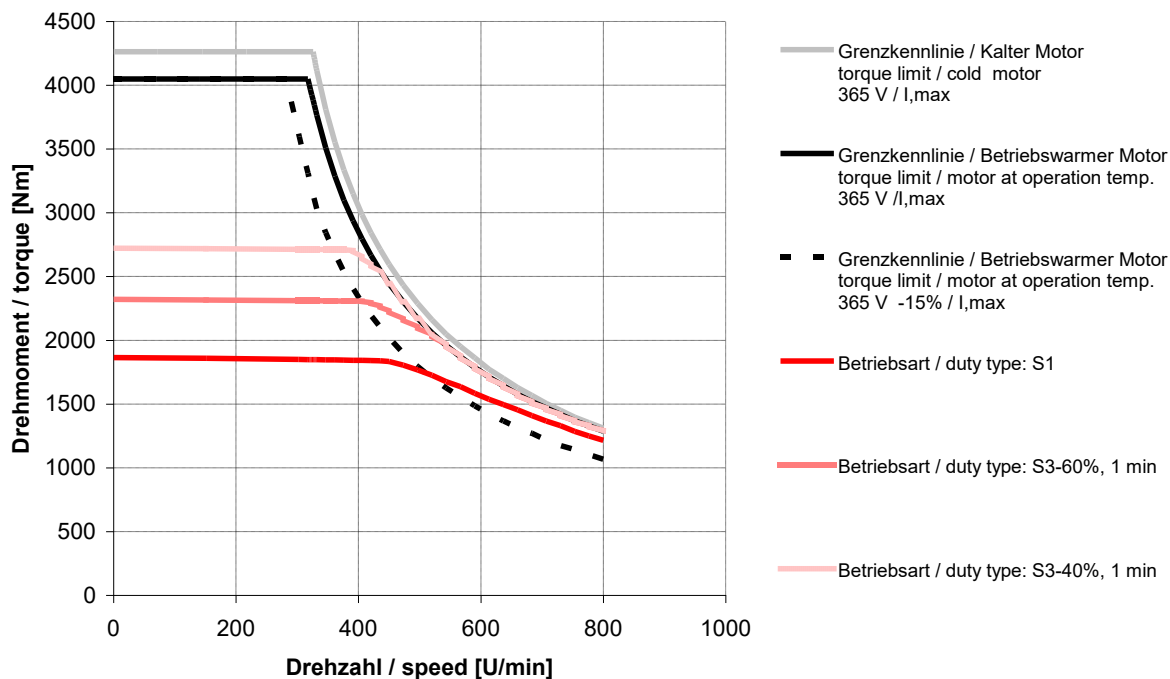
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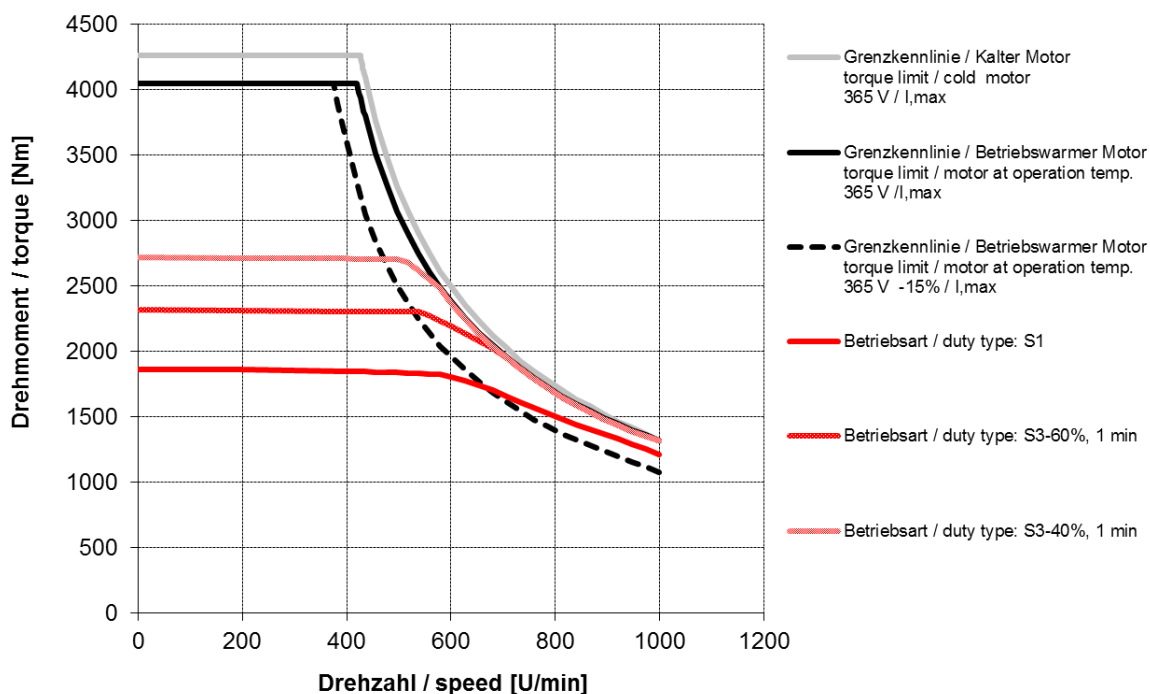
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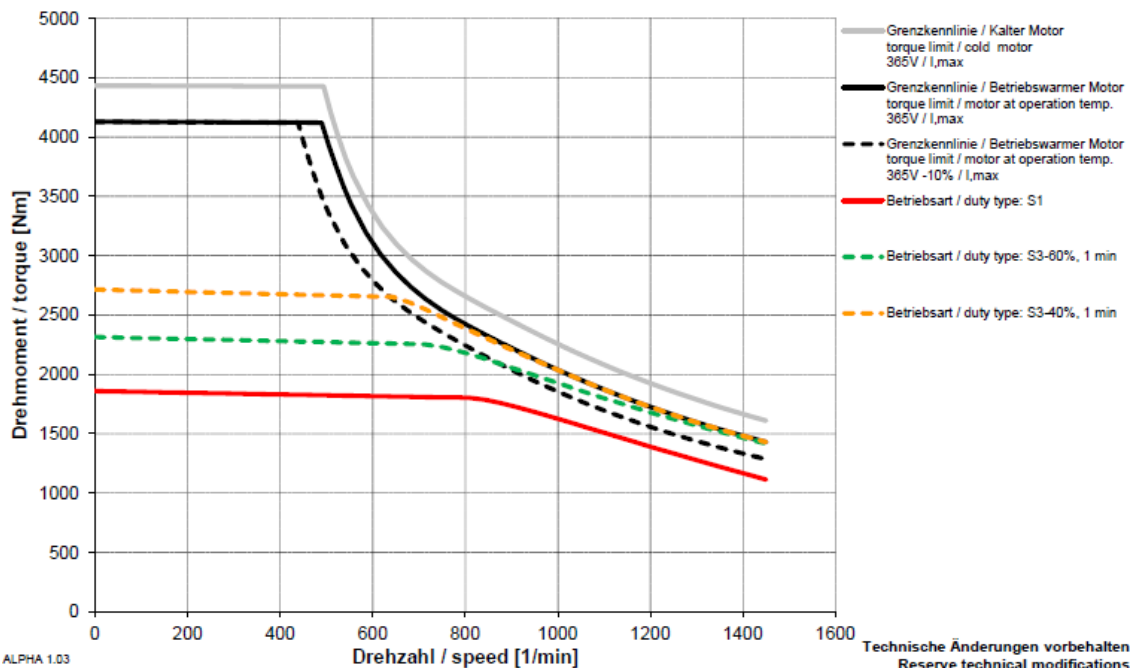
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DST2-200X054W-075-5

DST2-200X054W-075-5

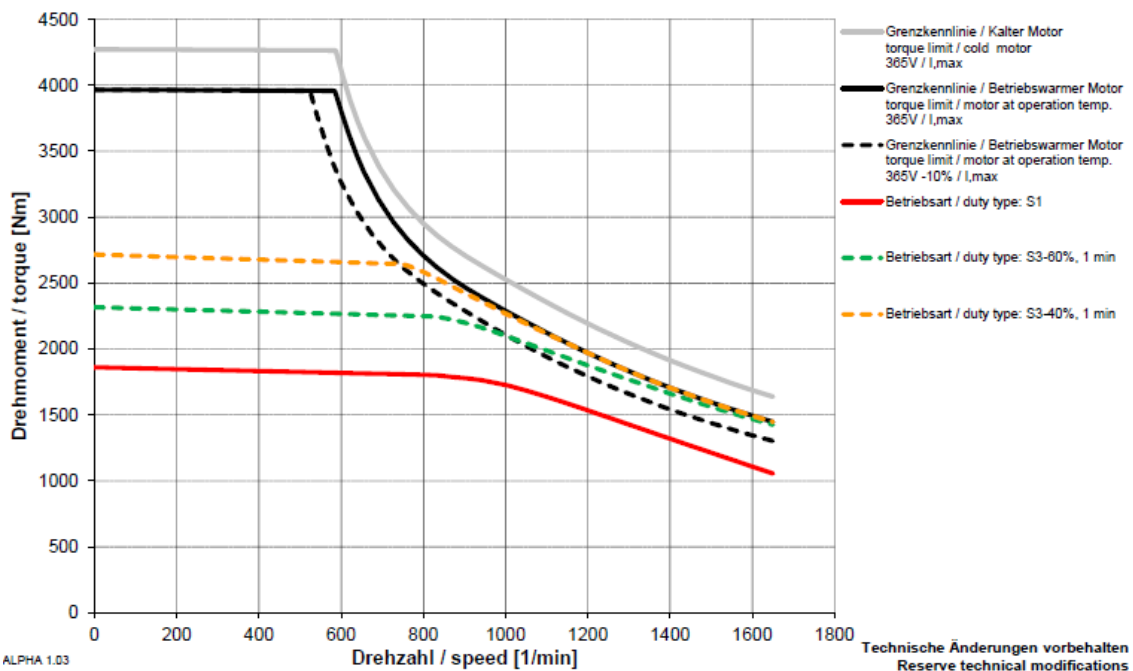
Drehmoment-Drehzahl-Kennlinien / torque-speed-characteristics



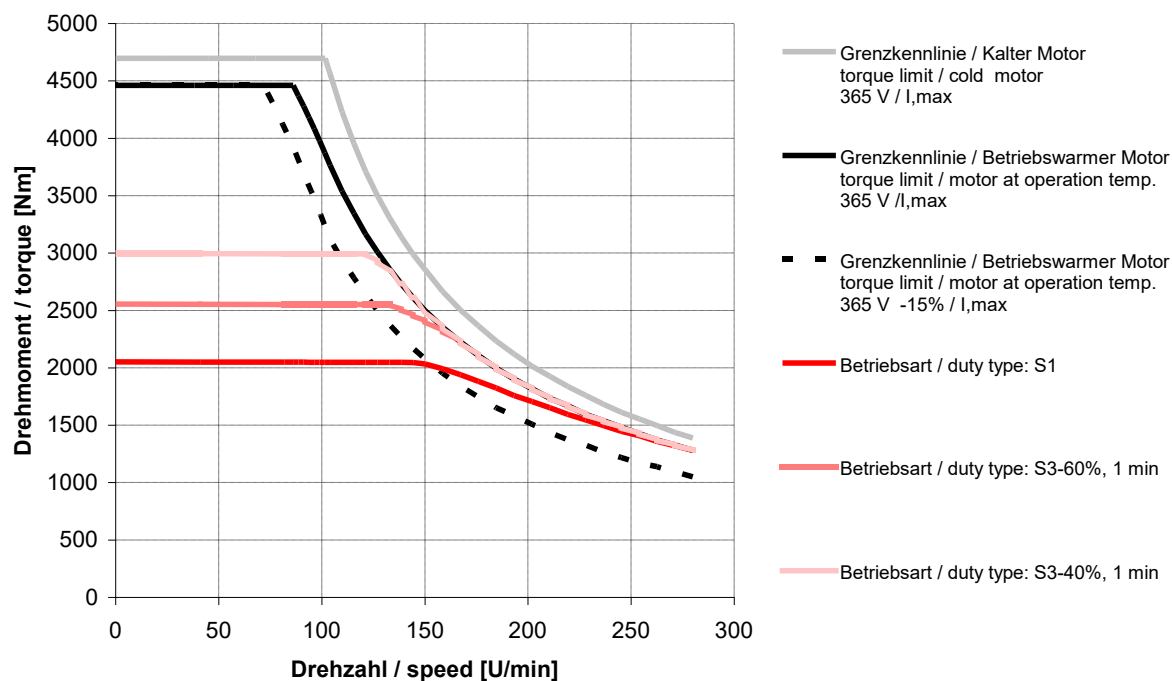
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DST2-200X054W-100-5

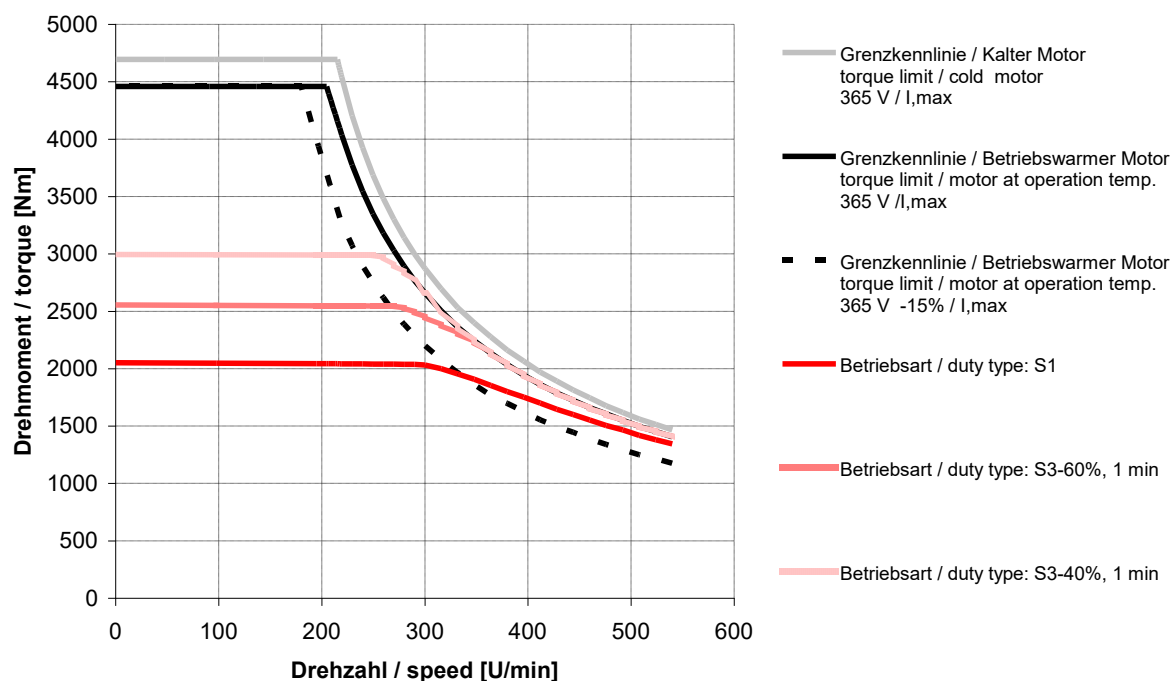
Drehmoment-Drehzahl-Kennlinien / torque-speed-characteristics



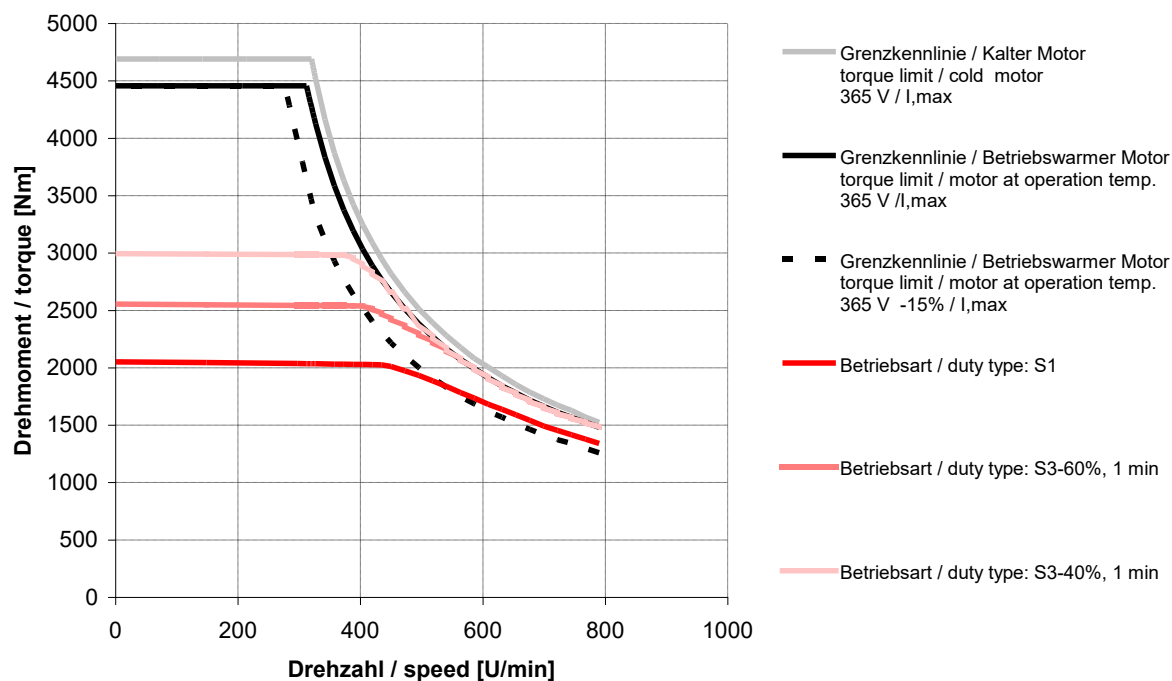
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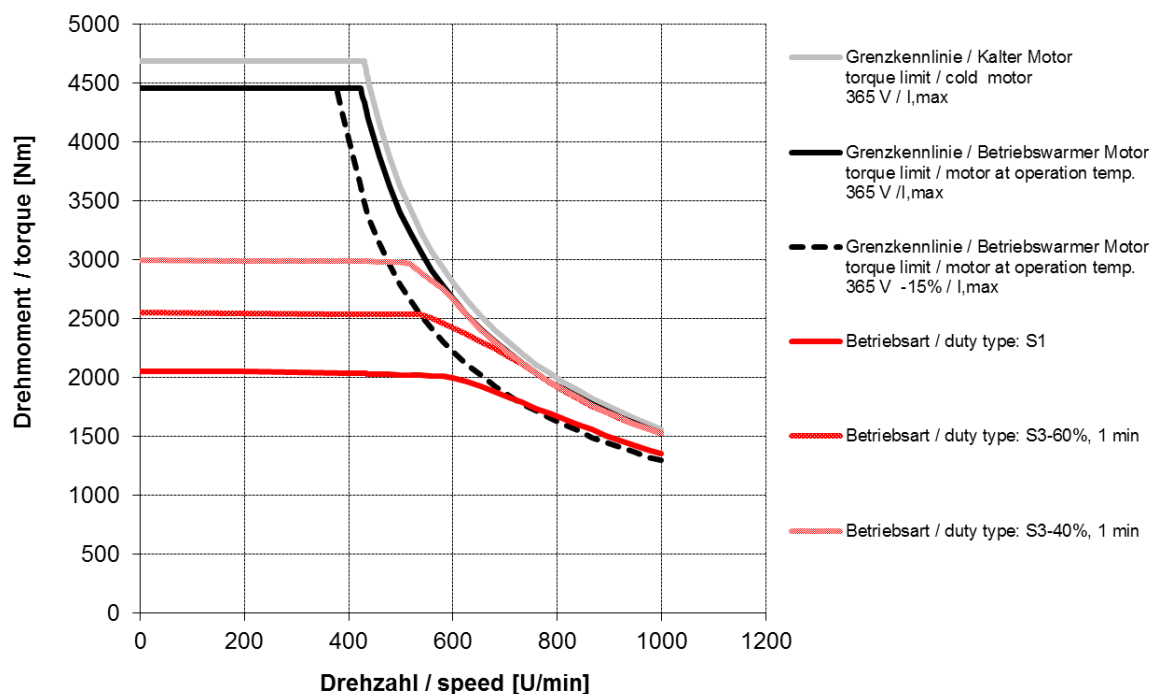
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DST2-200XY54W-045-5



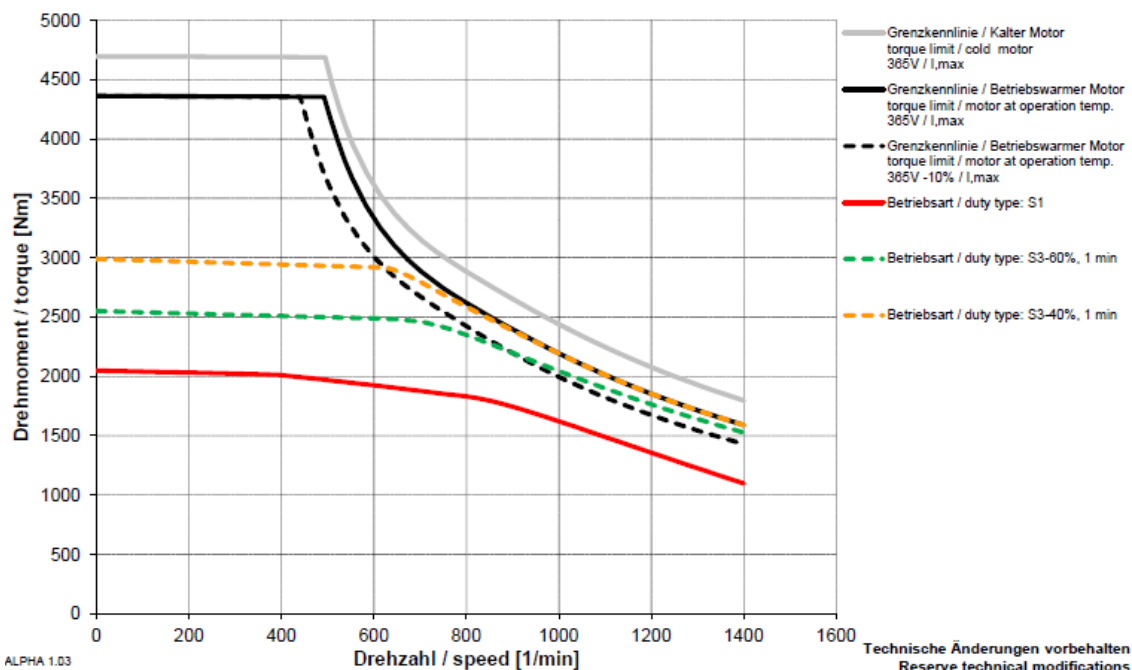
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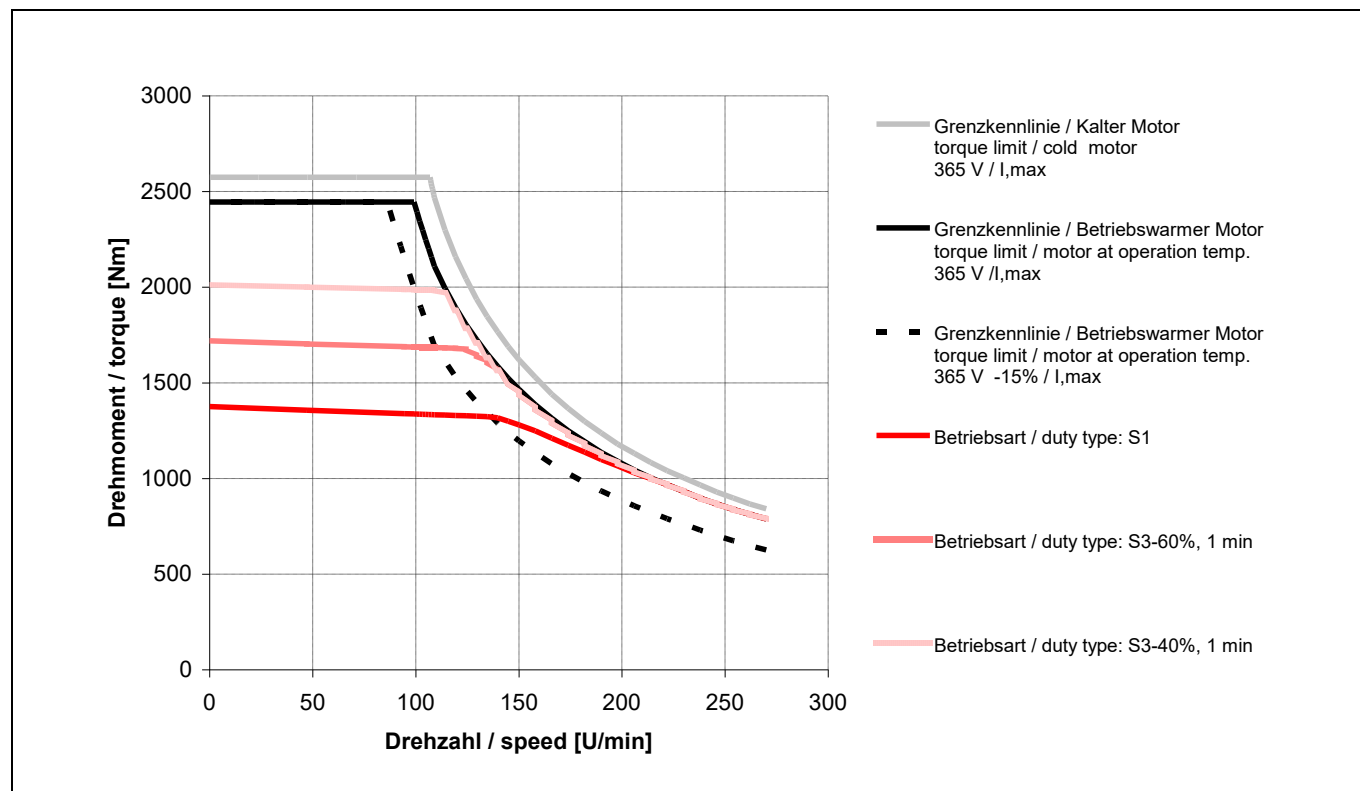
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Drehmoment-Drehzahl-Kennlinien / torque-speed-characteristics

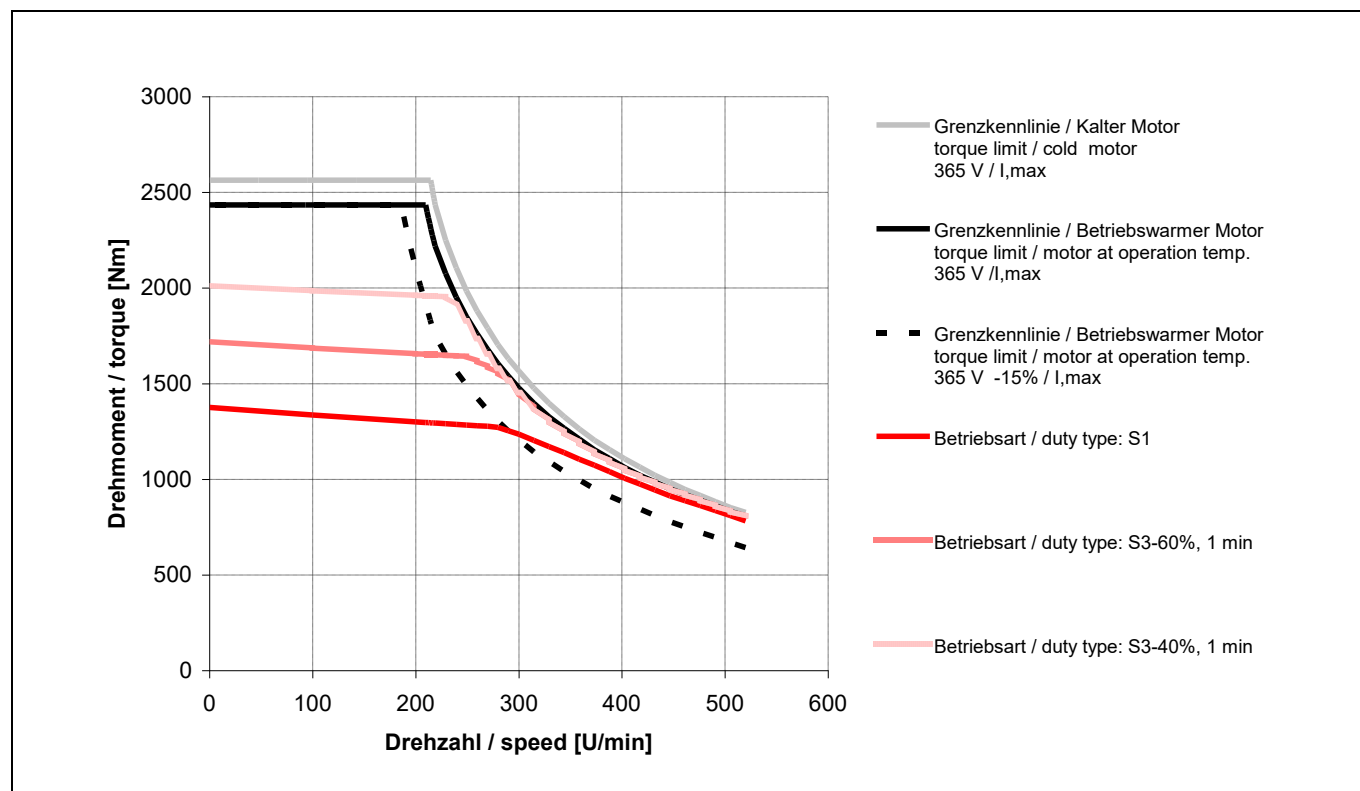


6.3 Characteristics DST2-260..54W

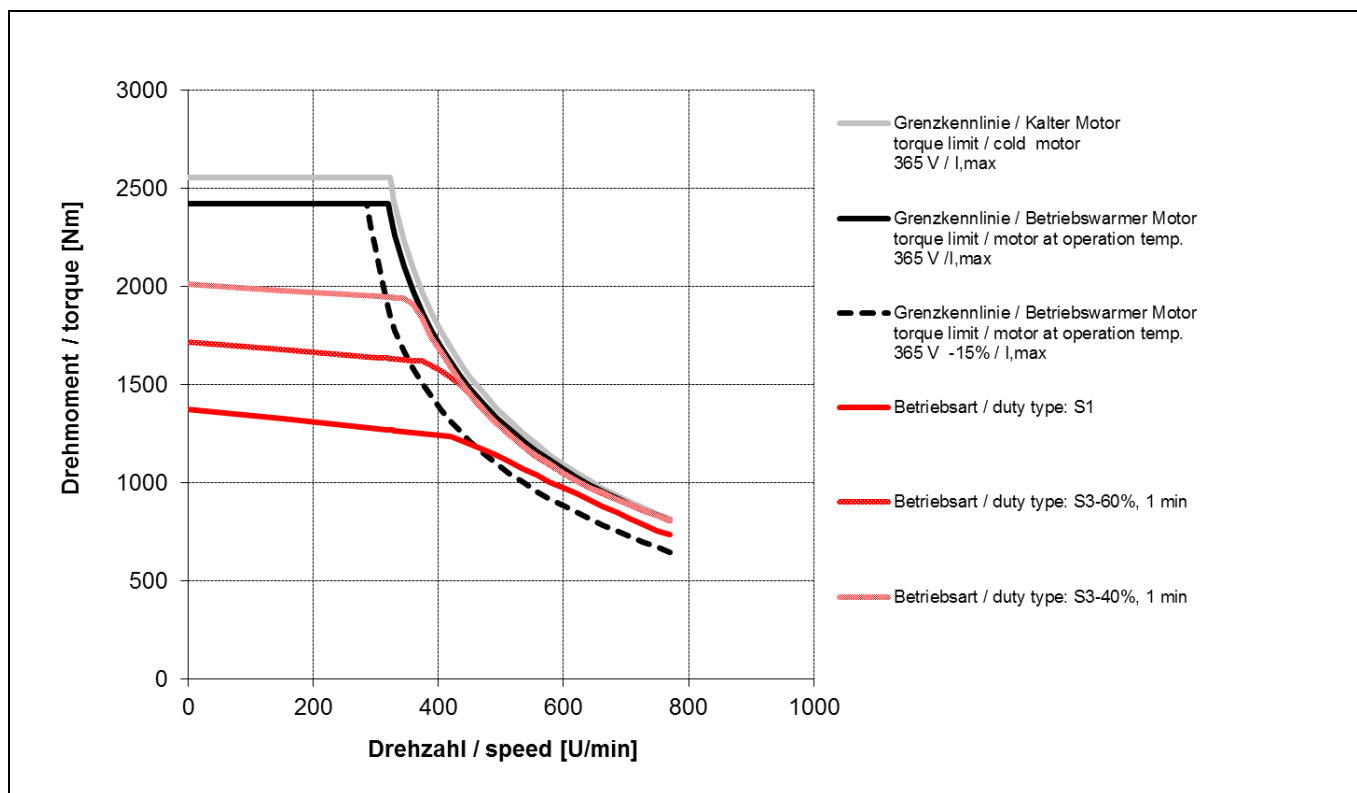
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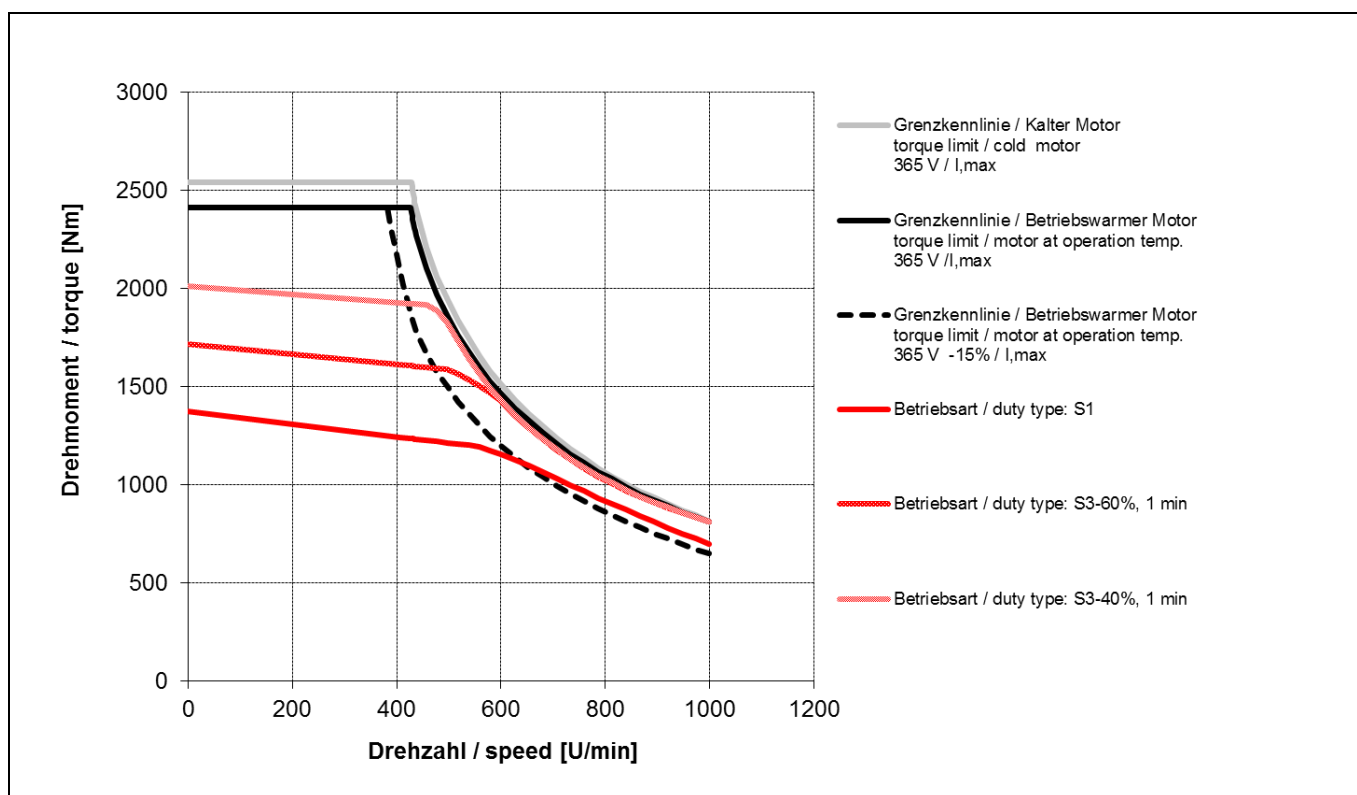
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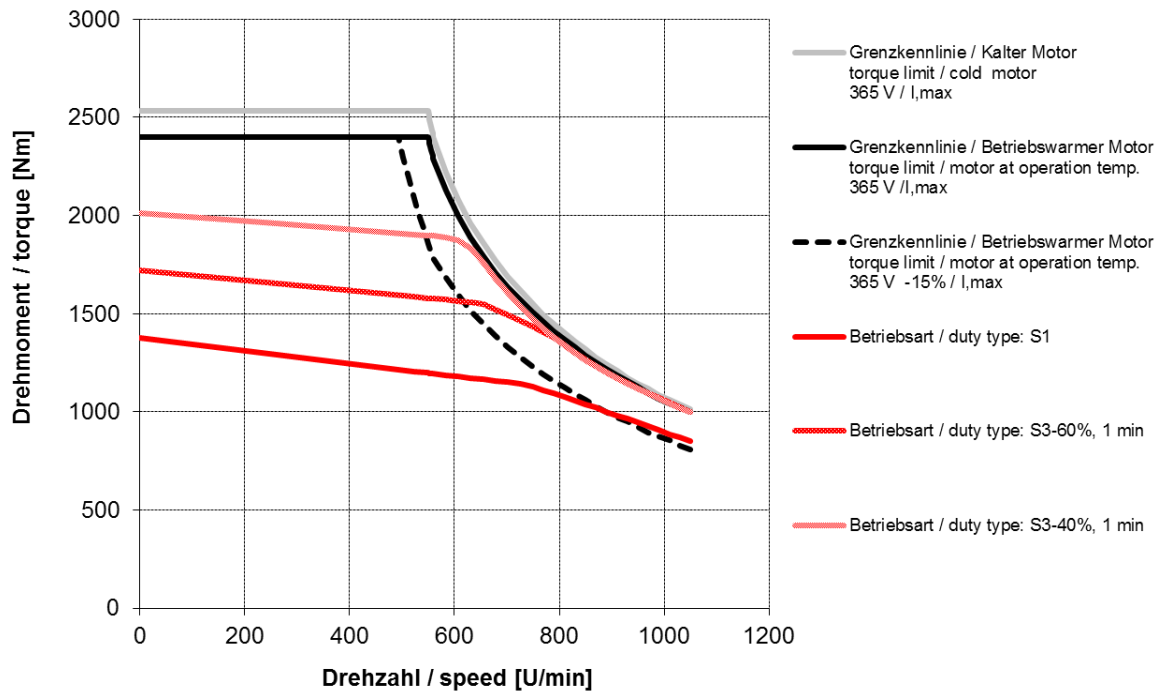
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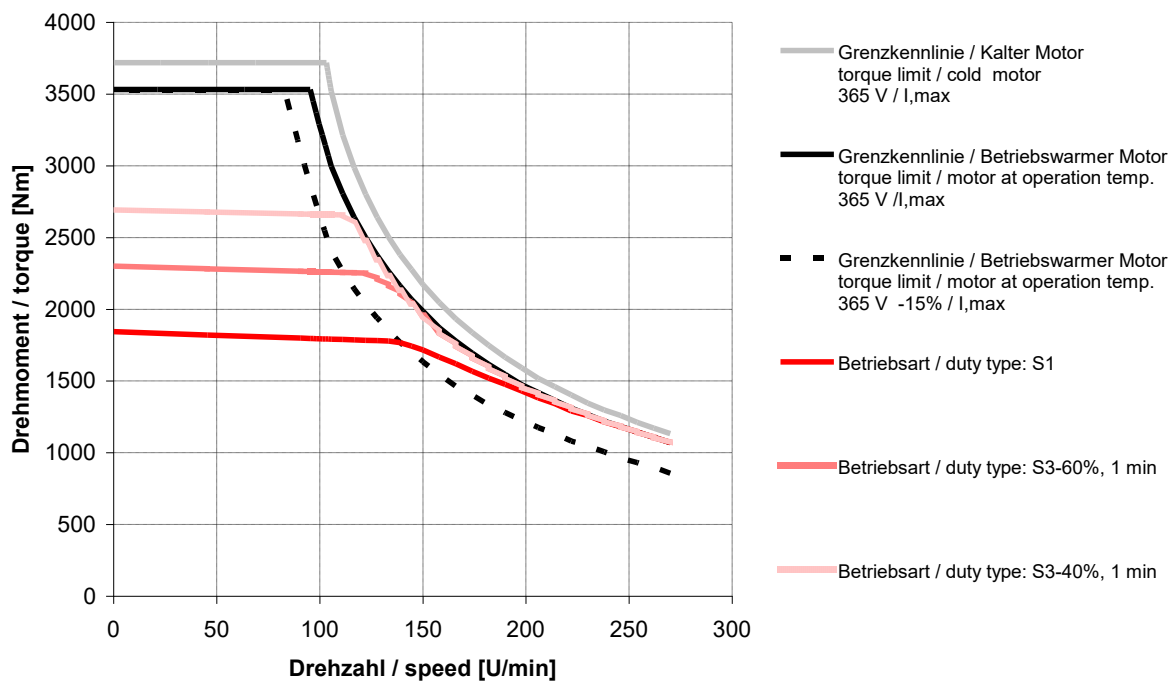
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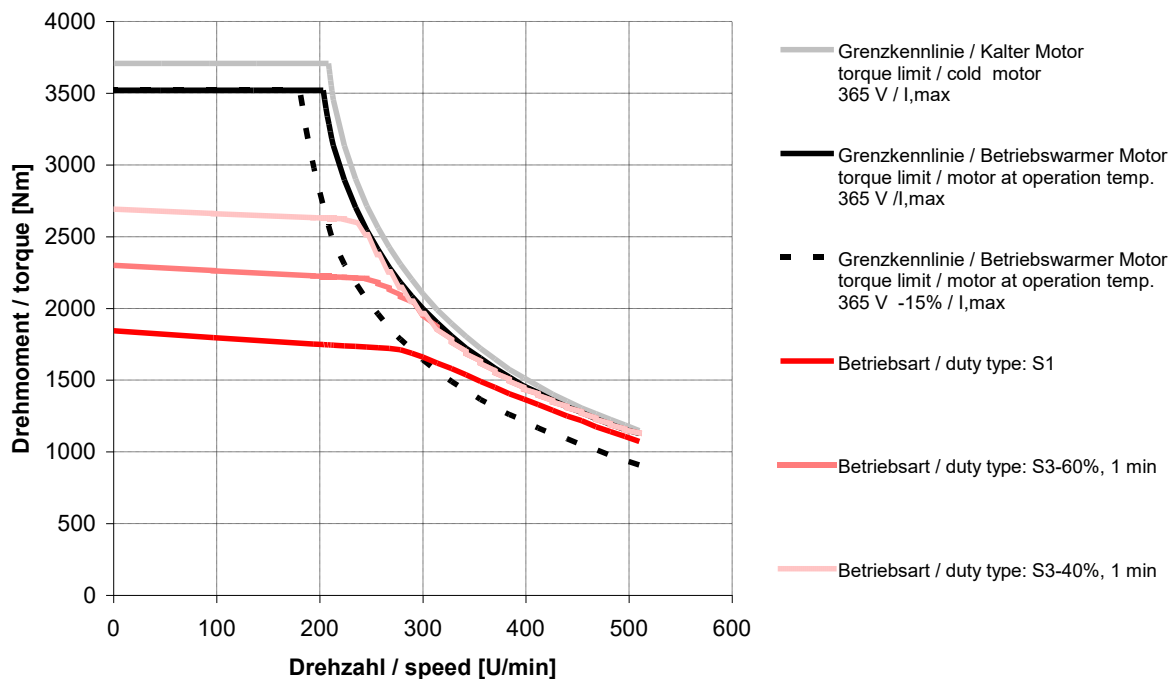
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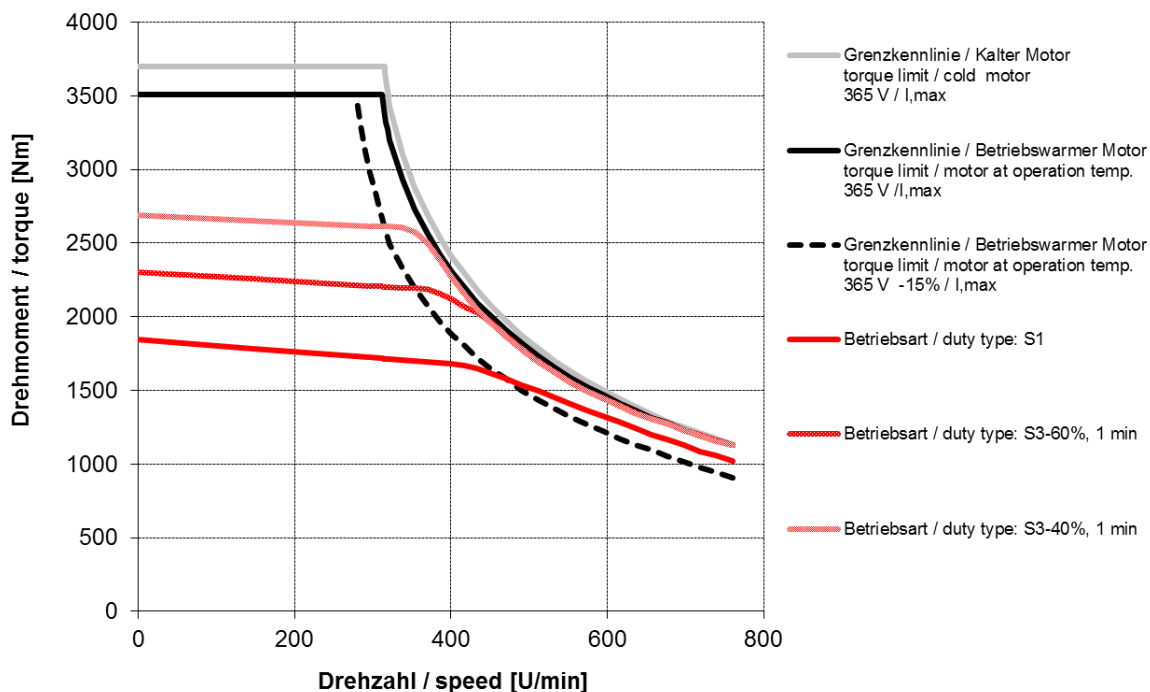
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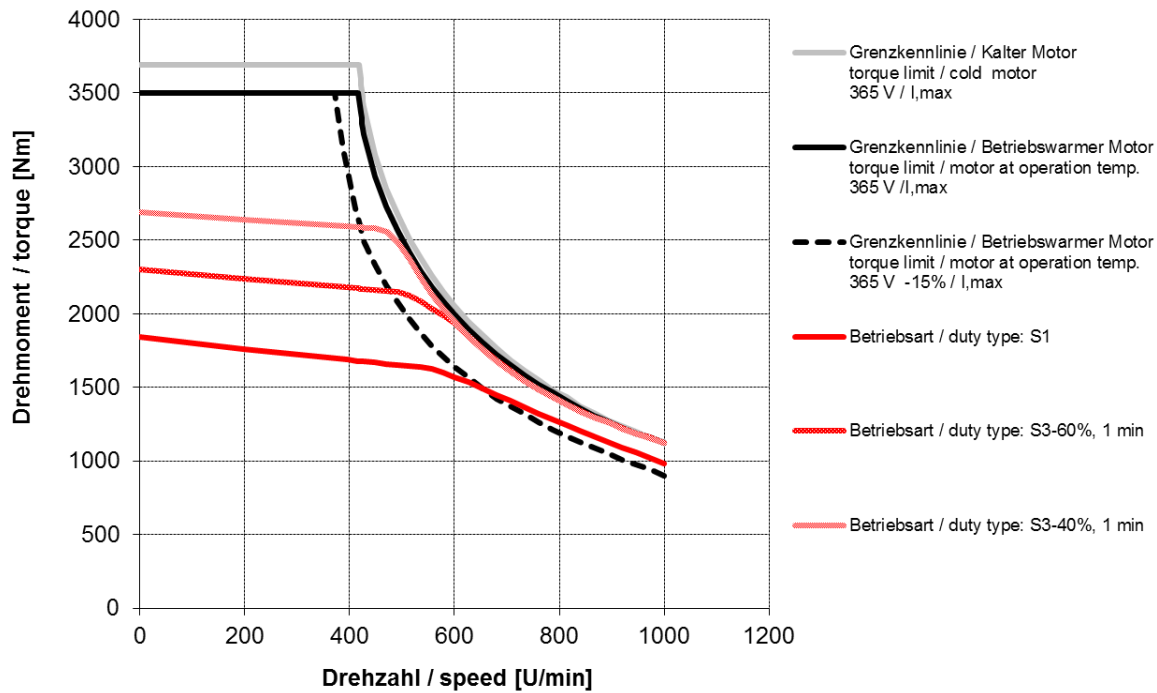
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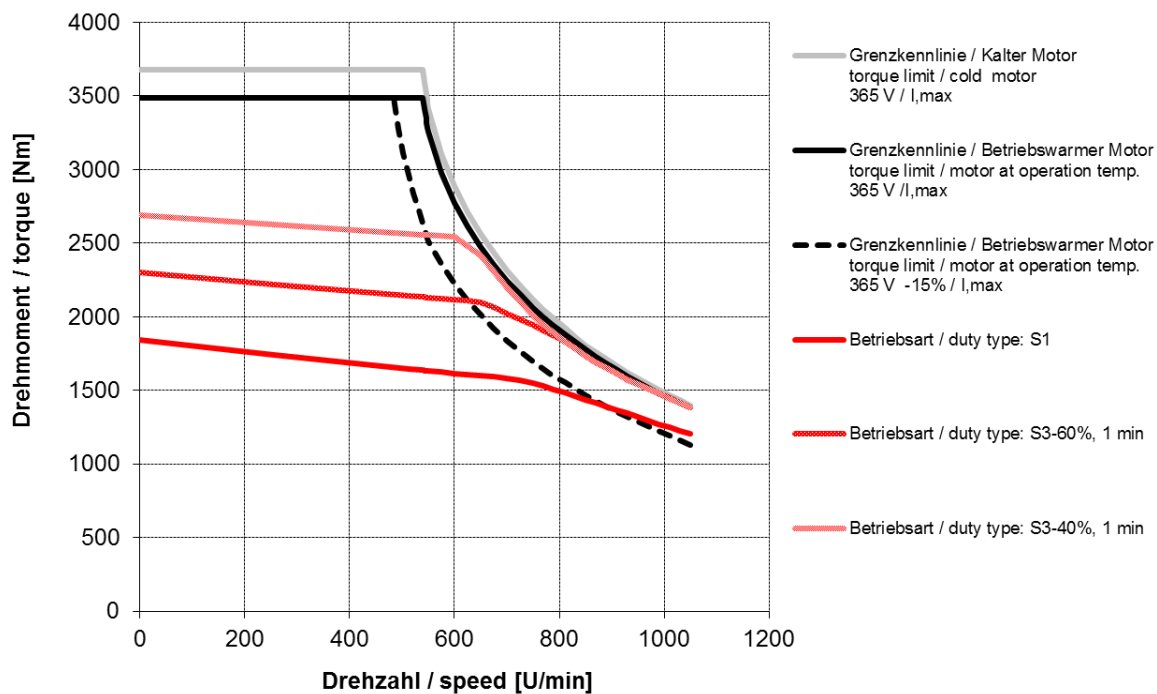
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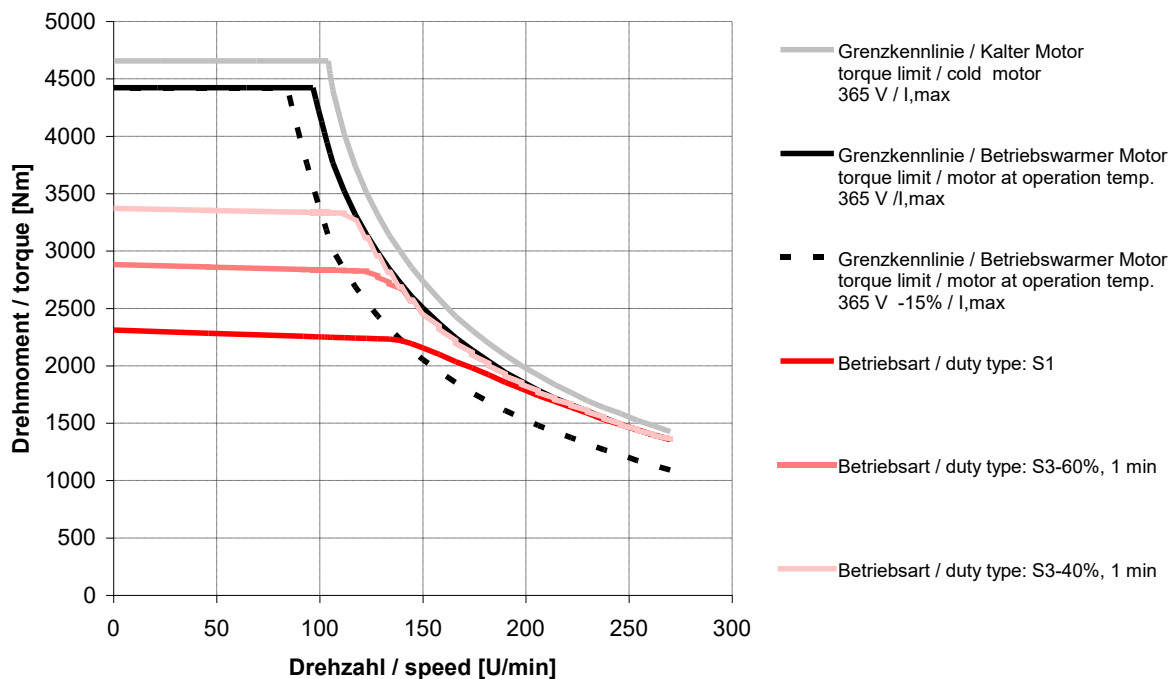
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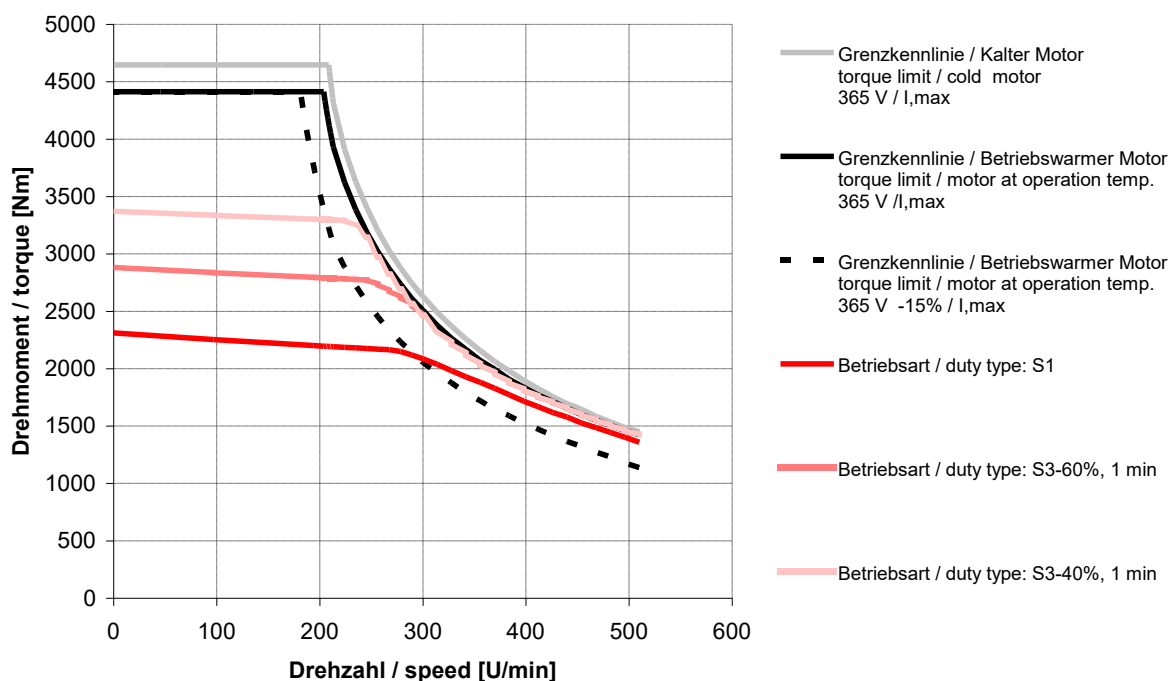
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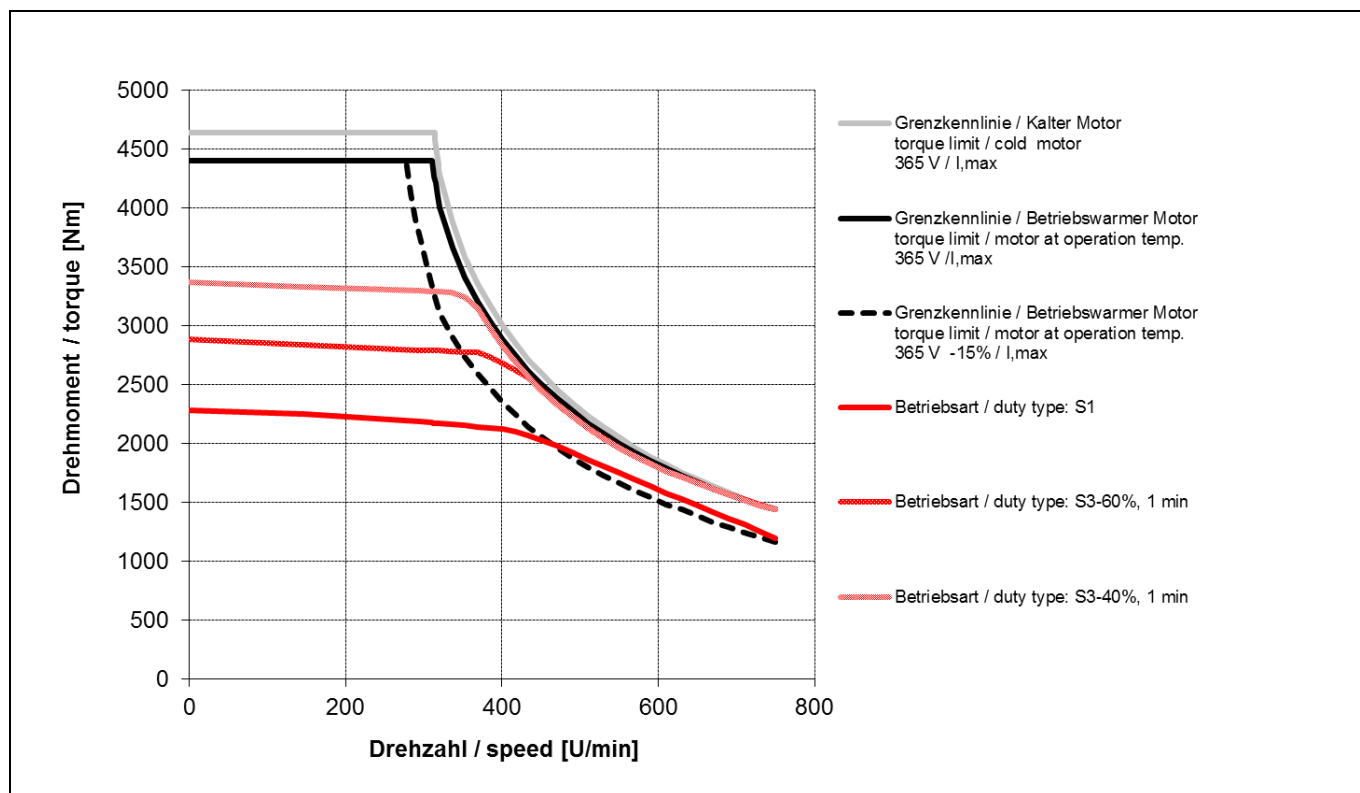
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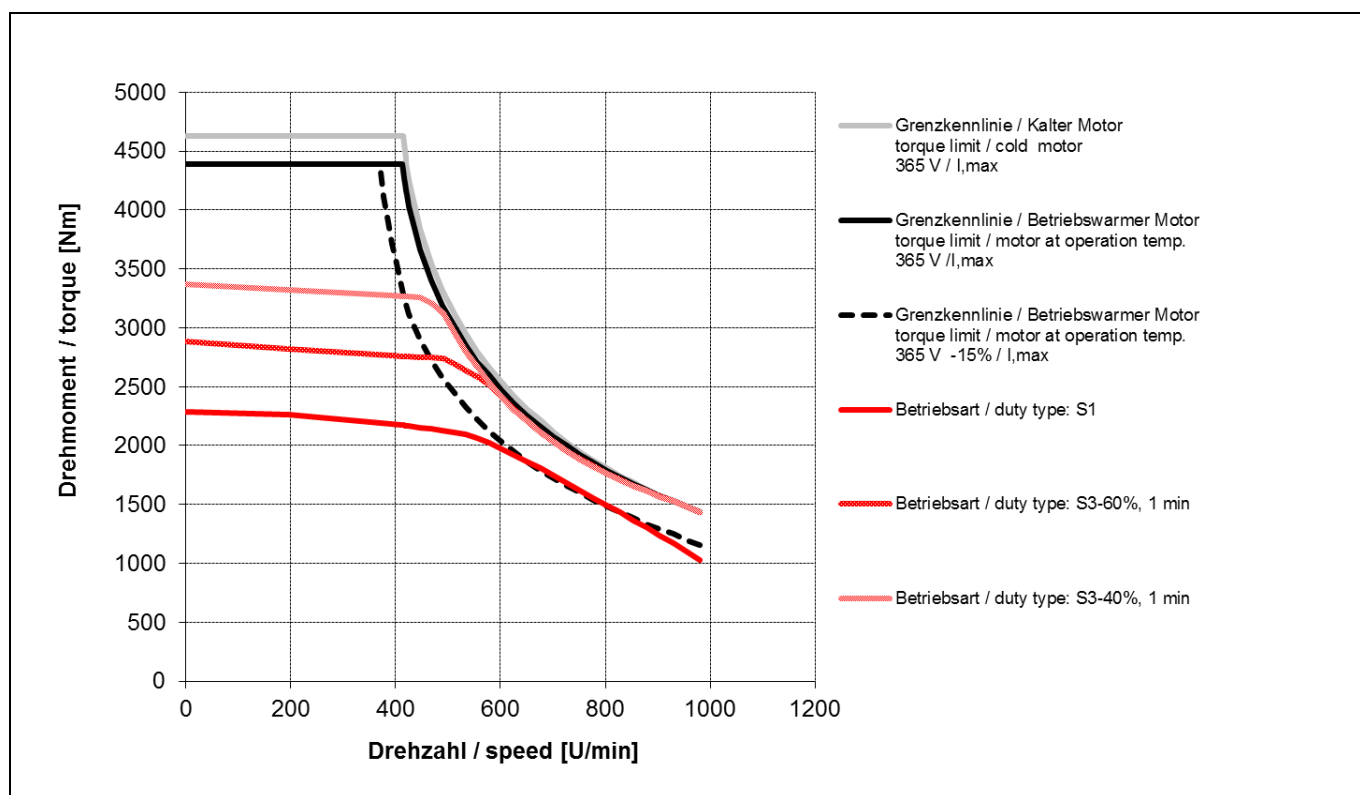
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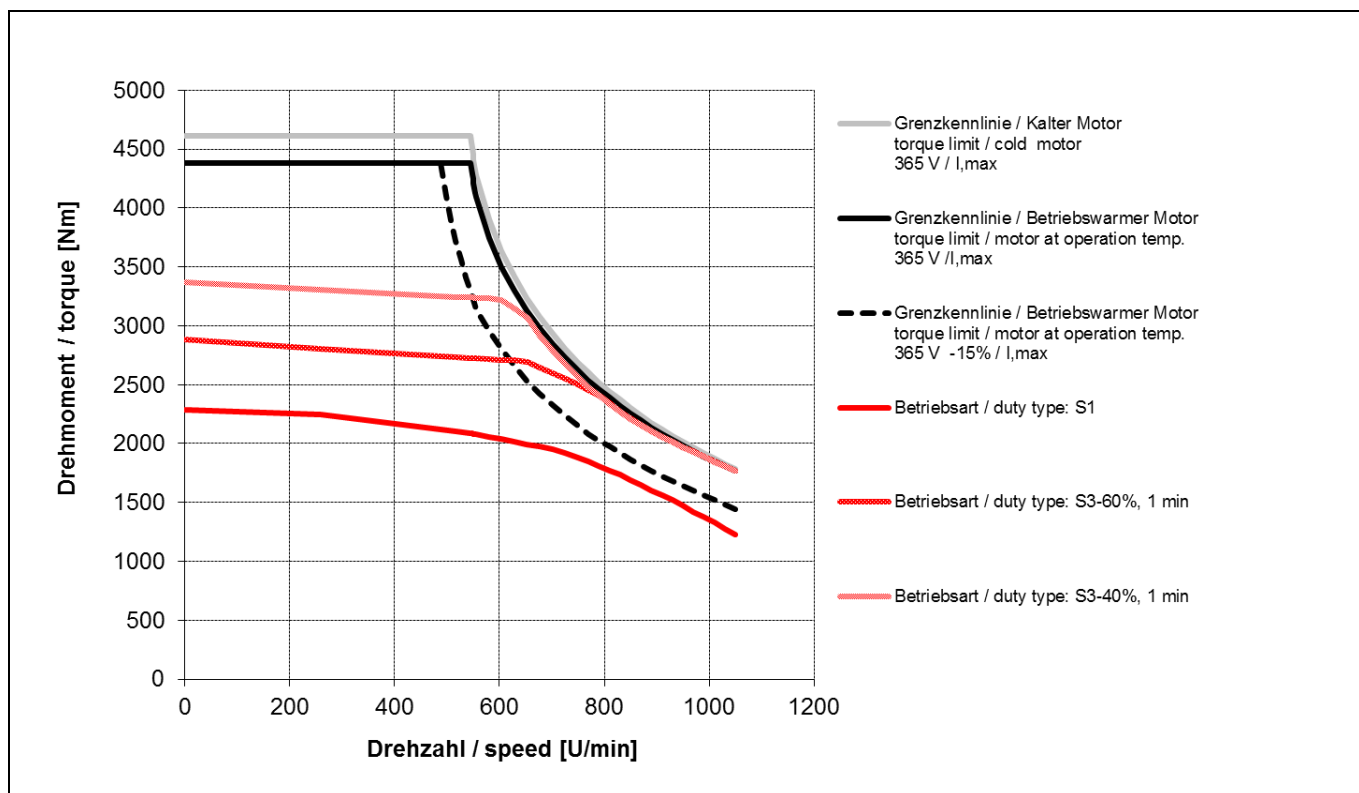
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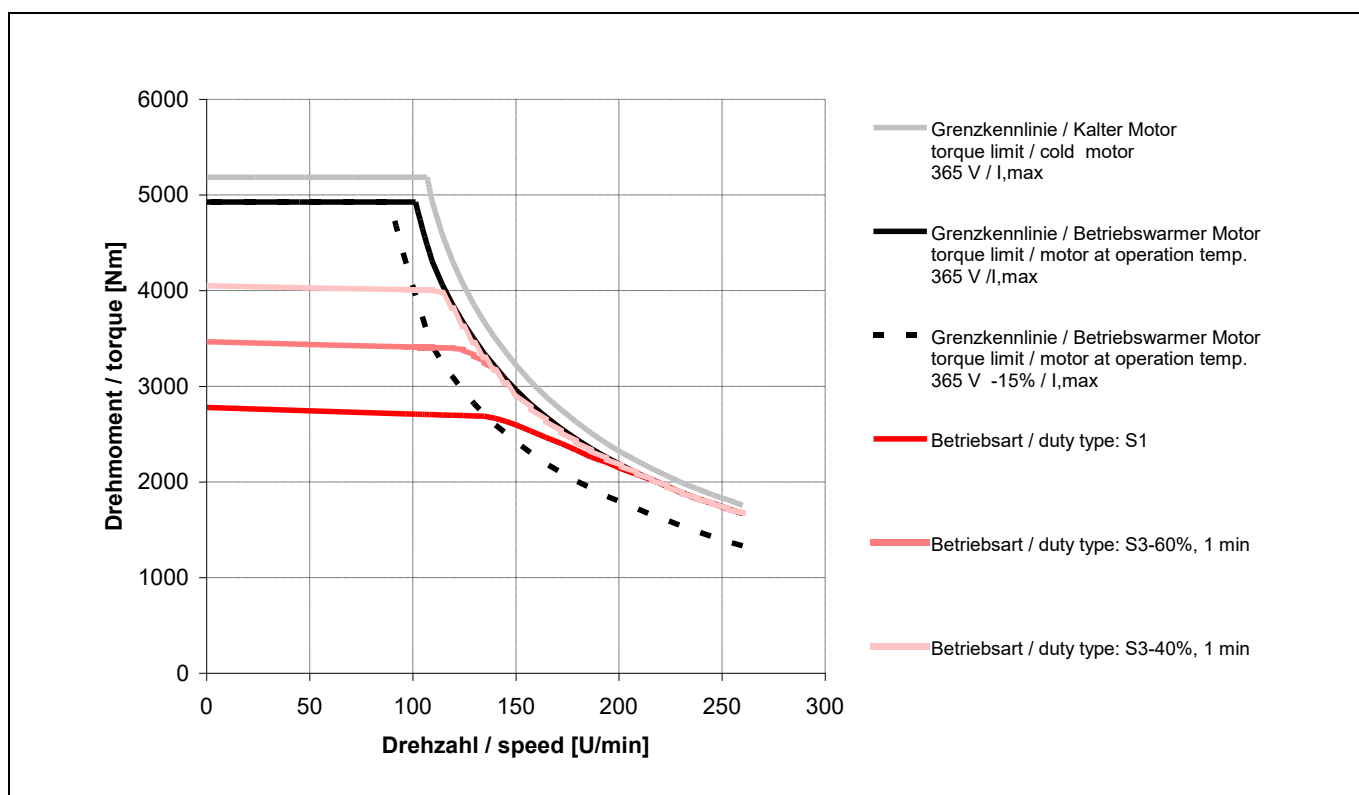
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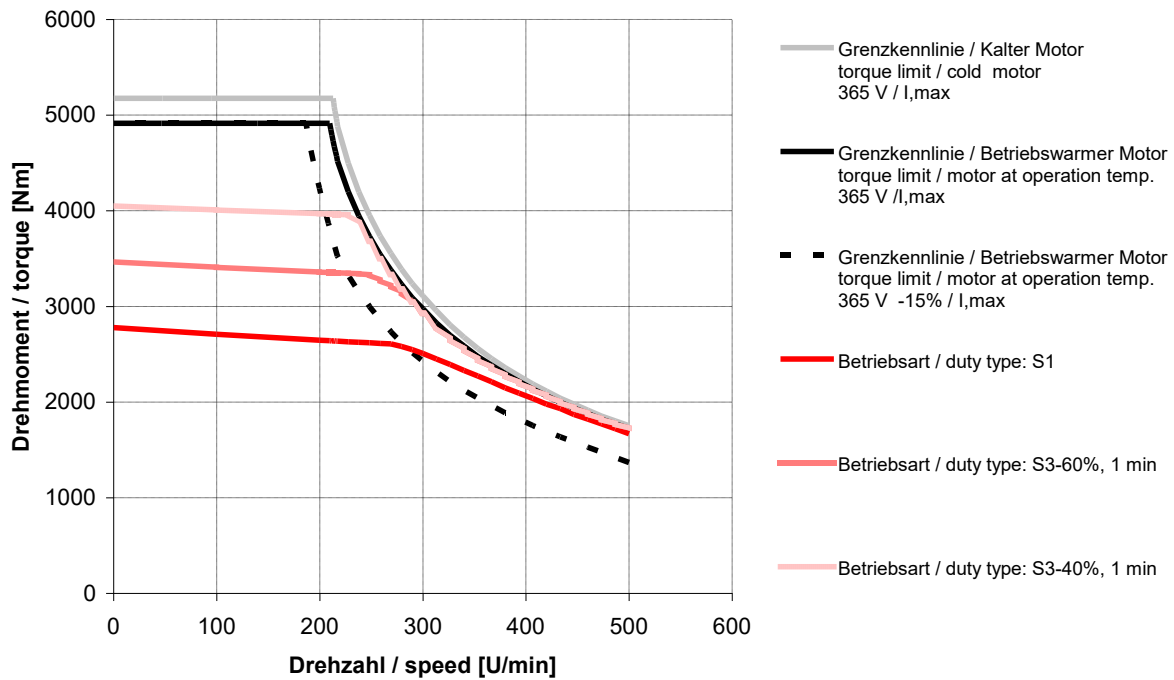
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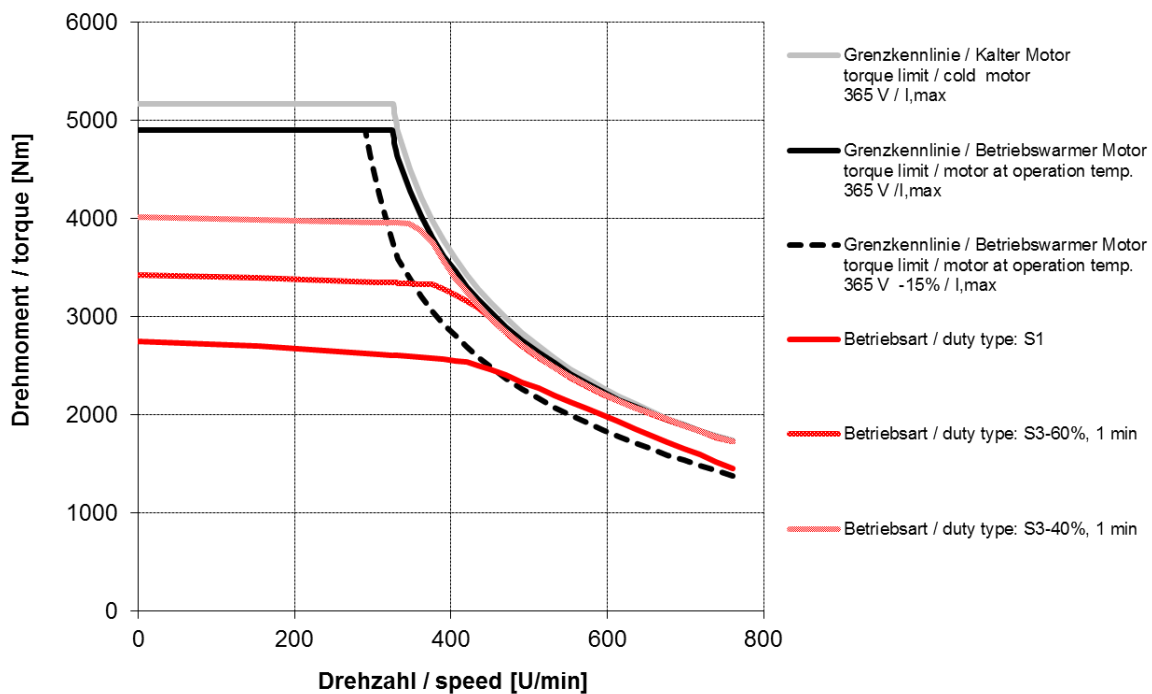
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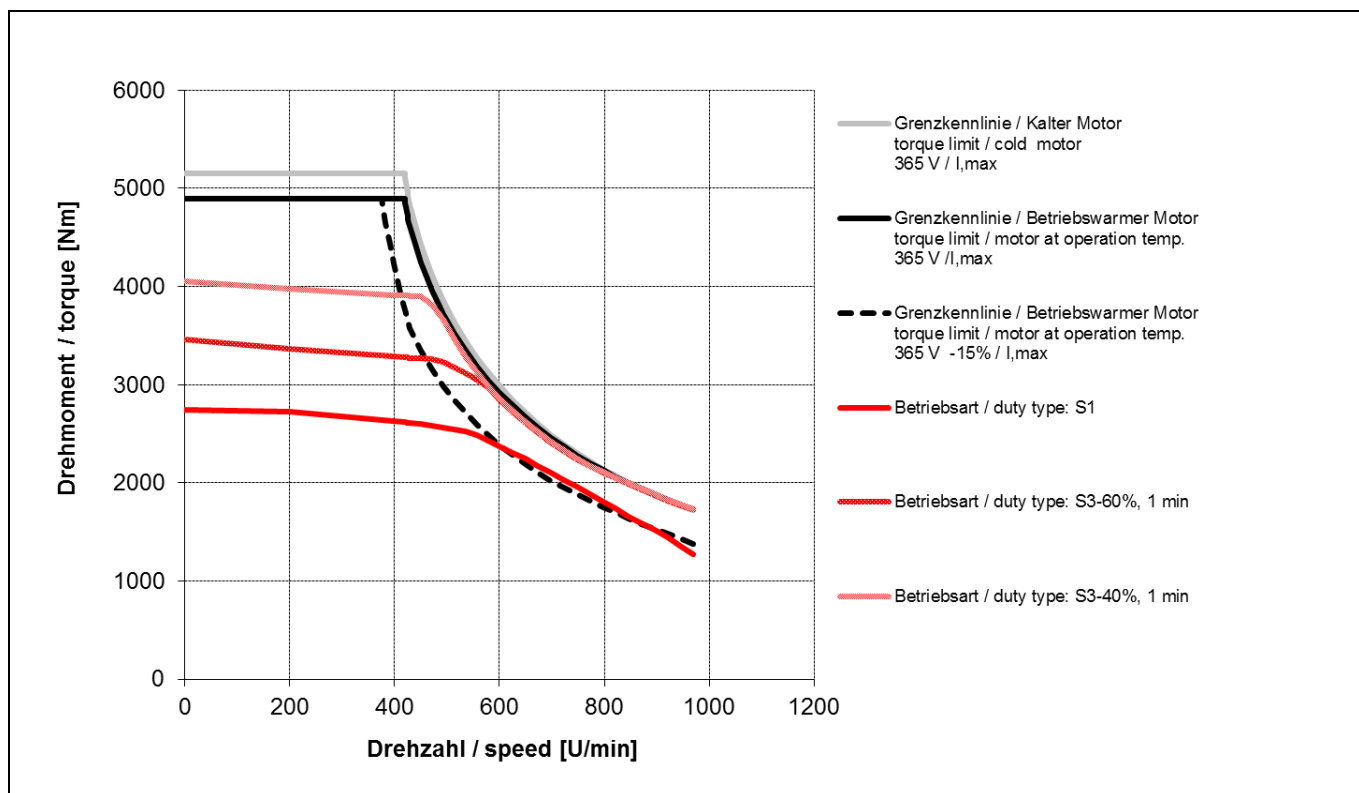
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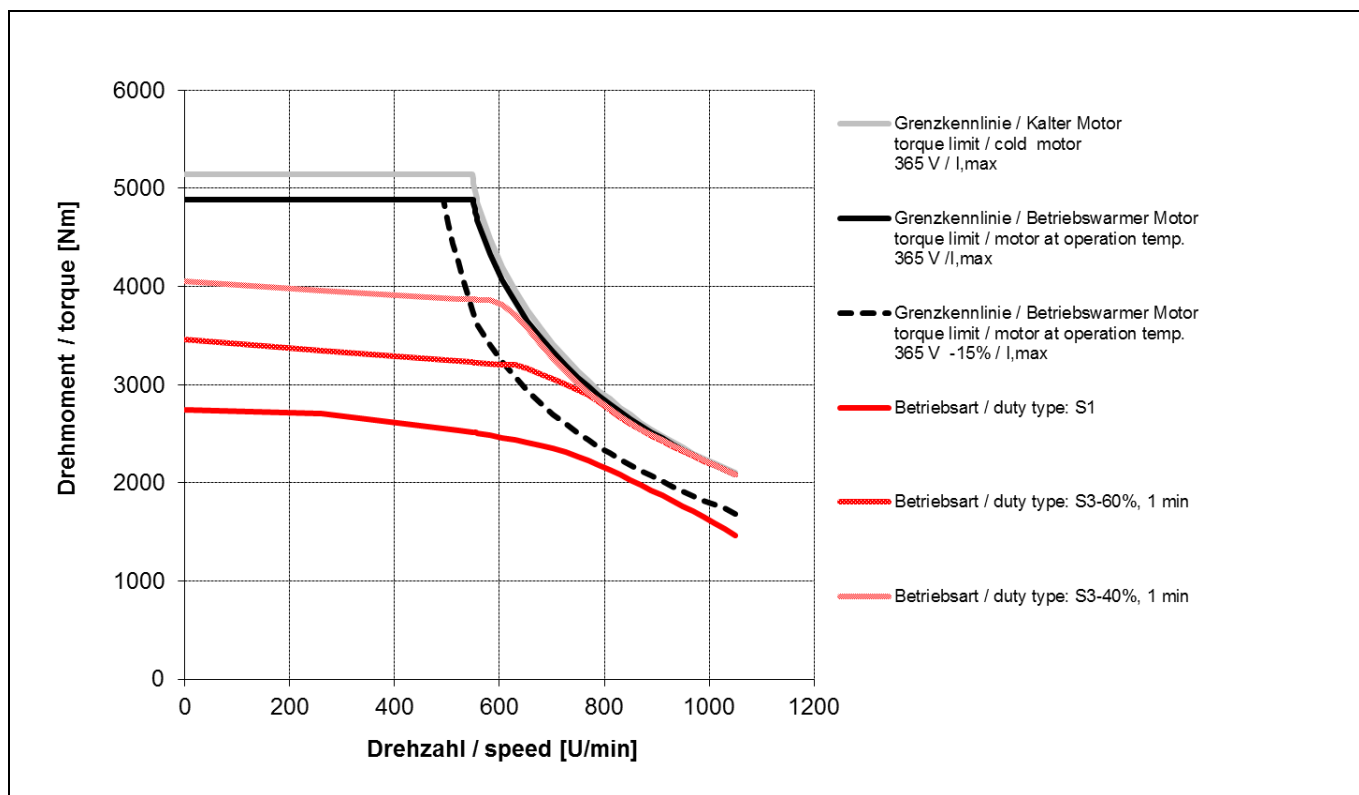
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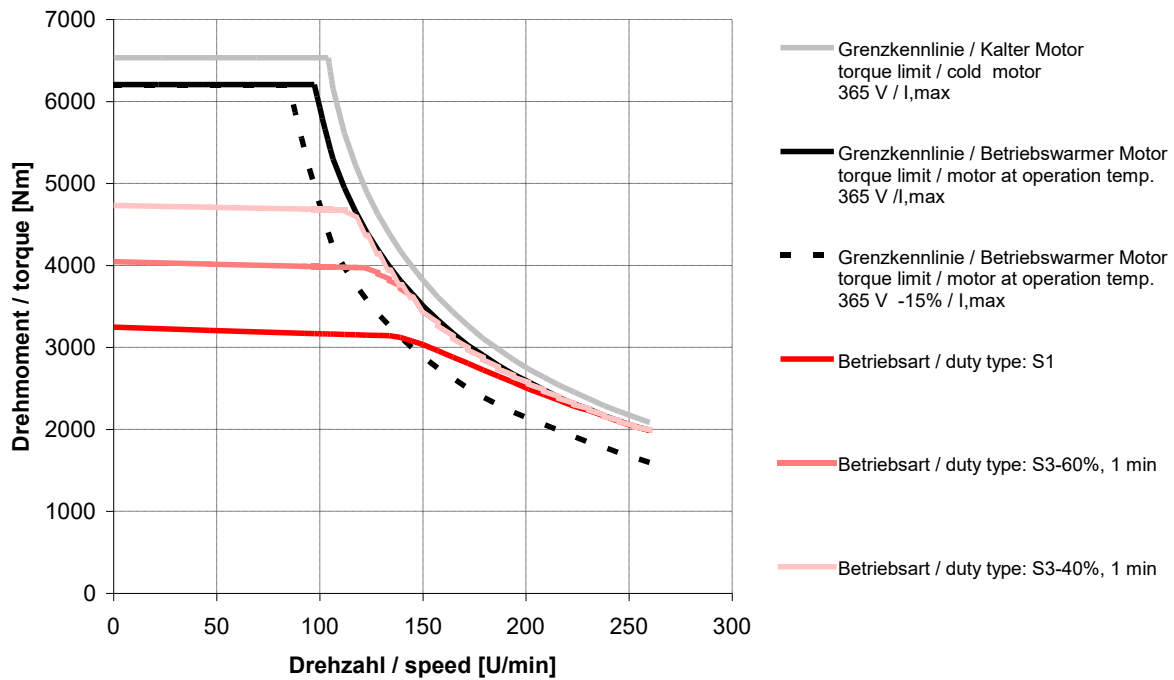
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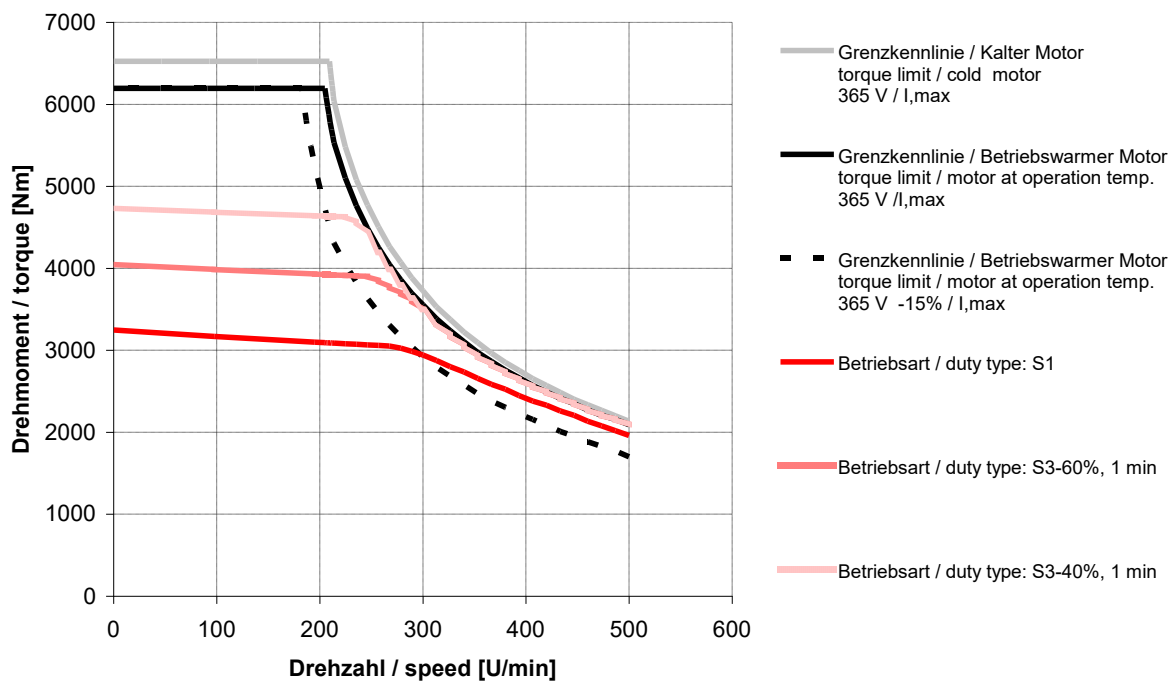
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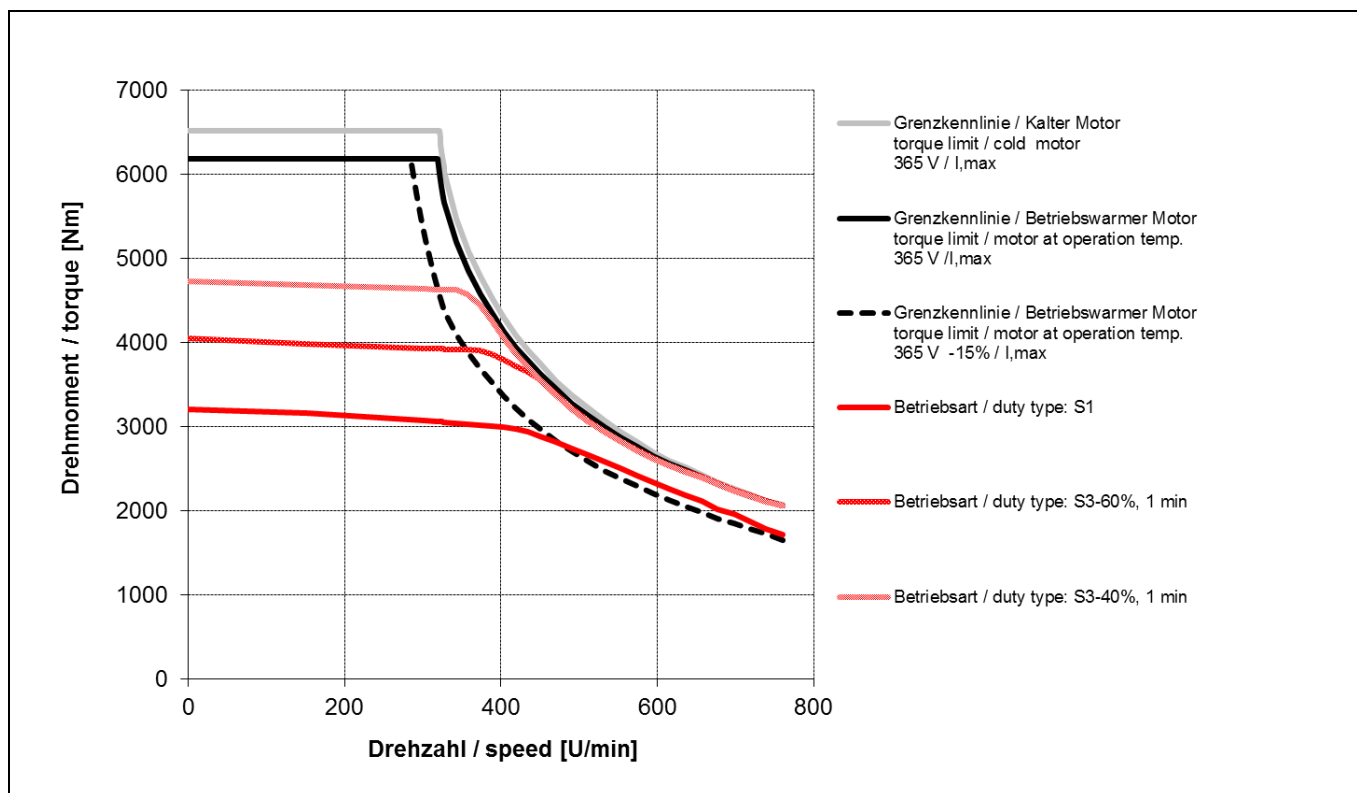
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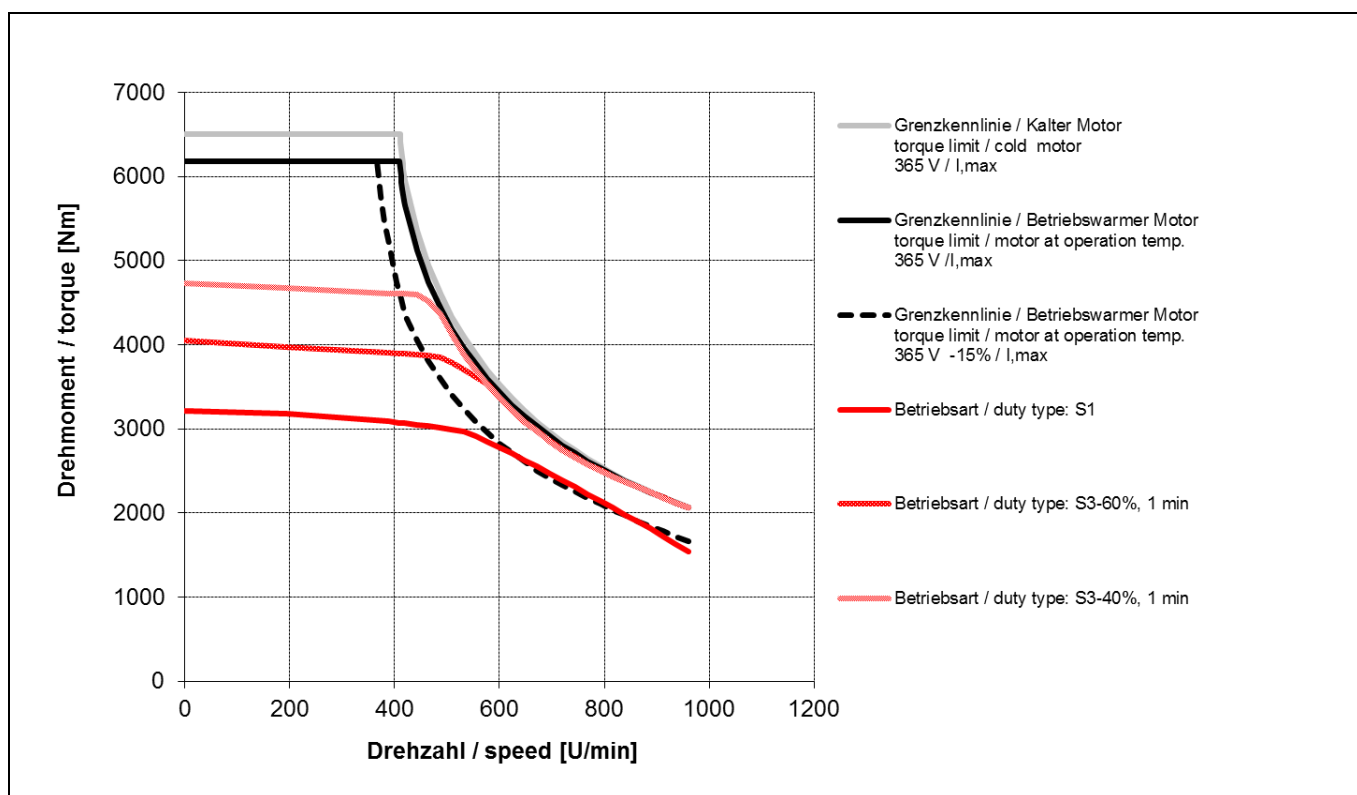
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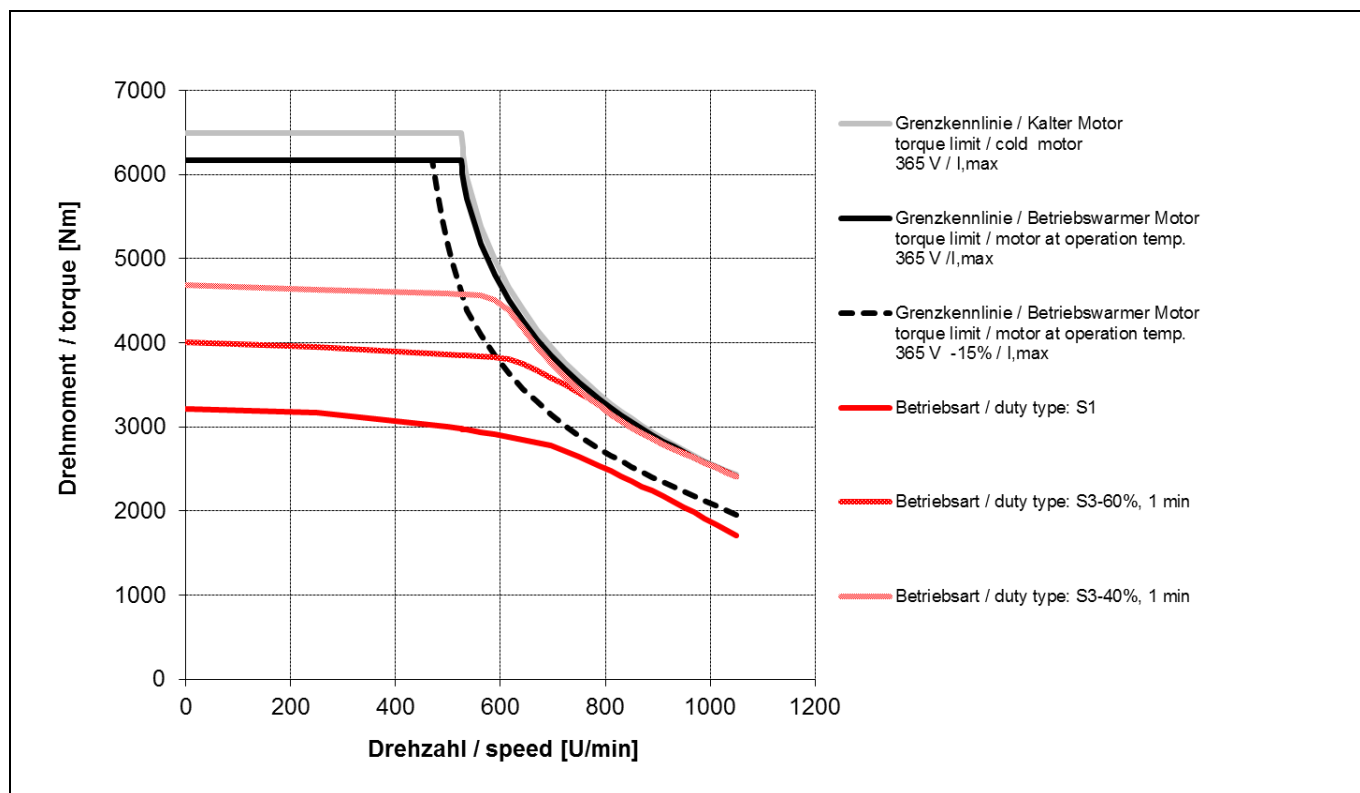
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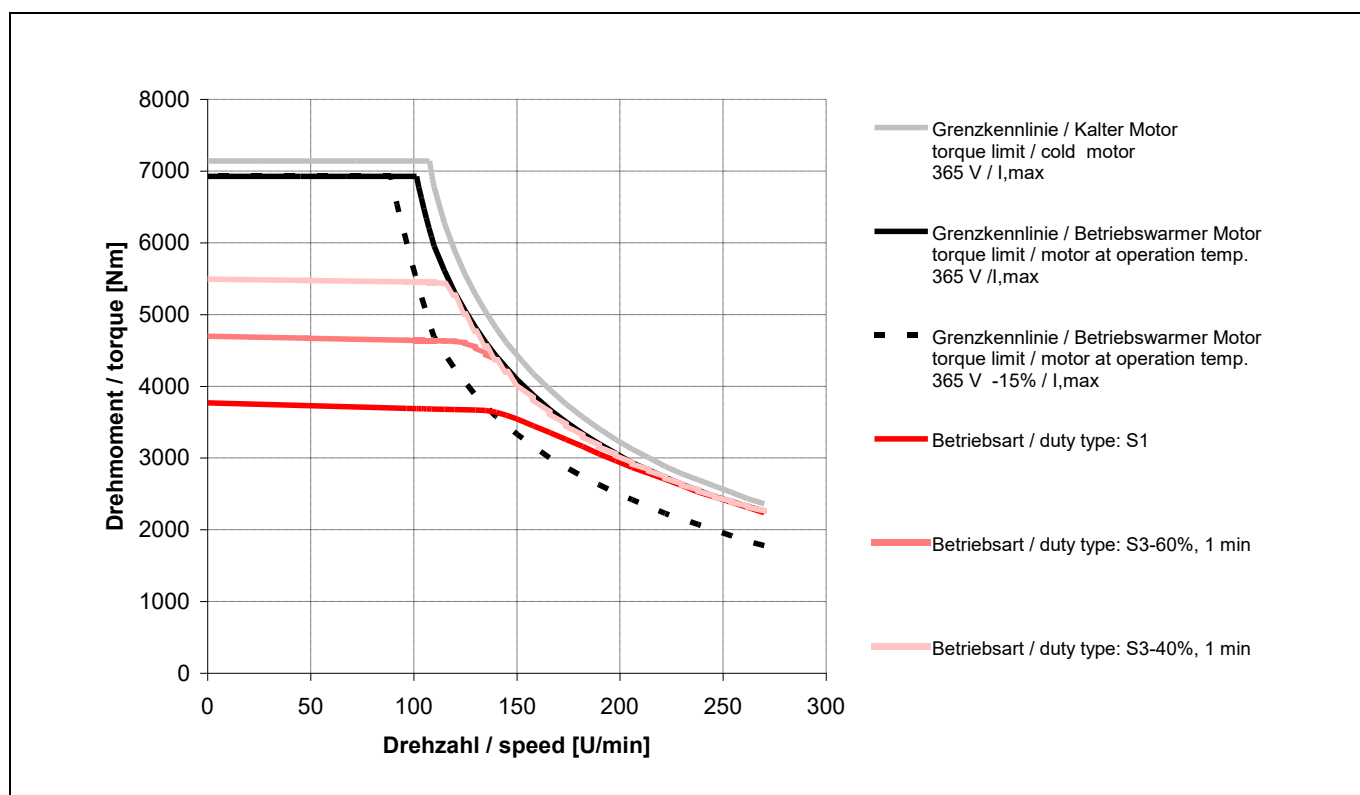
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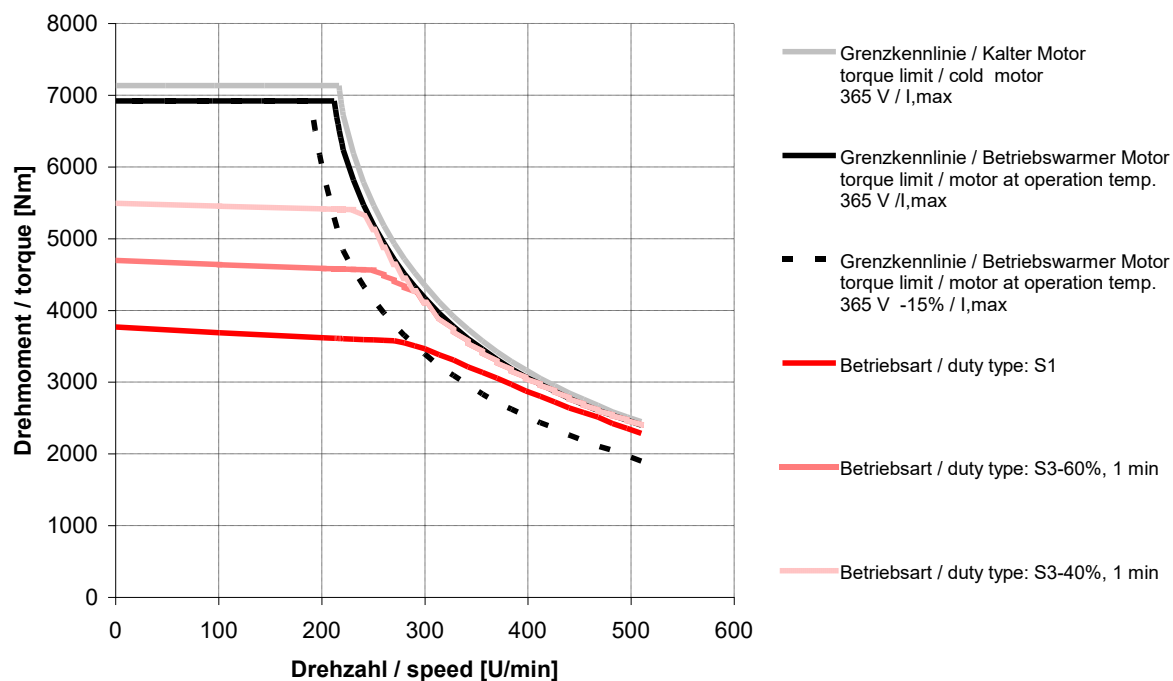
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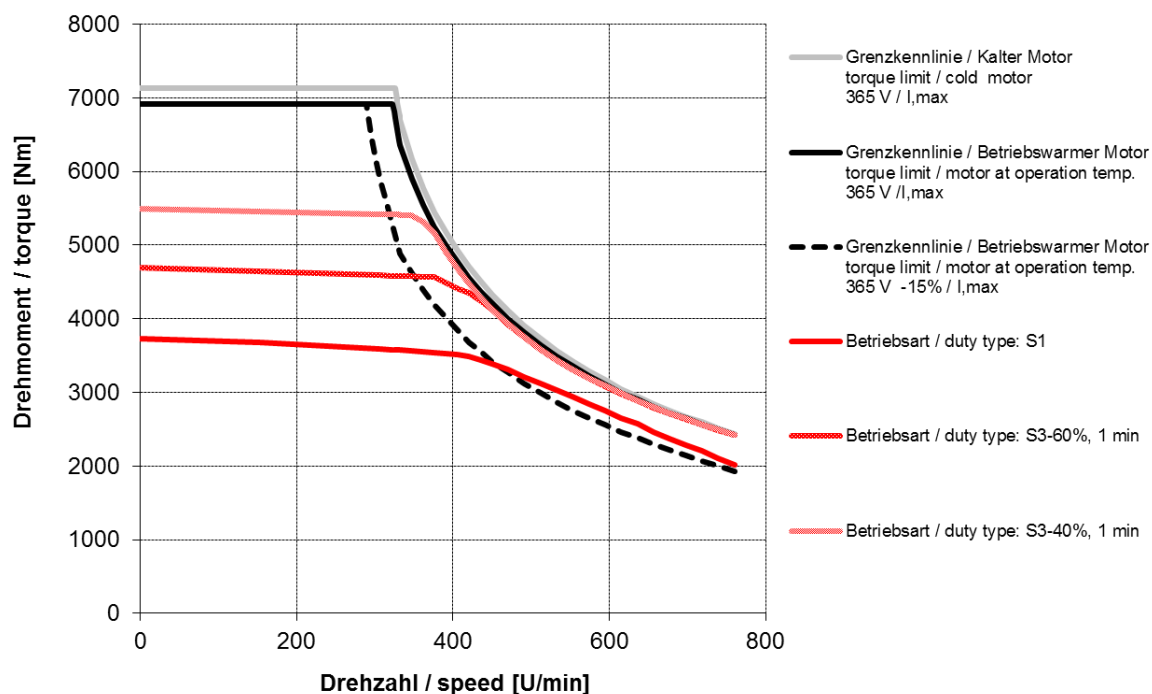
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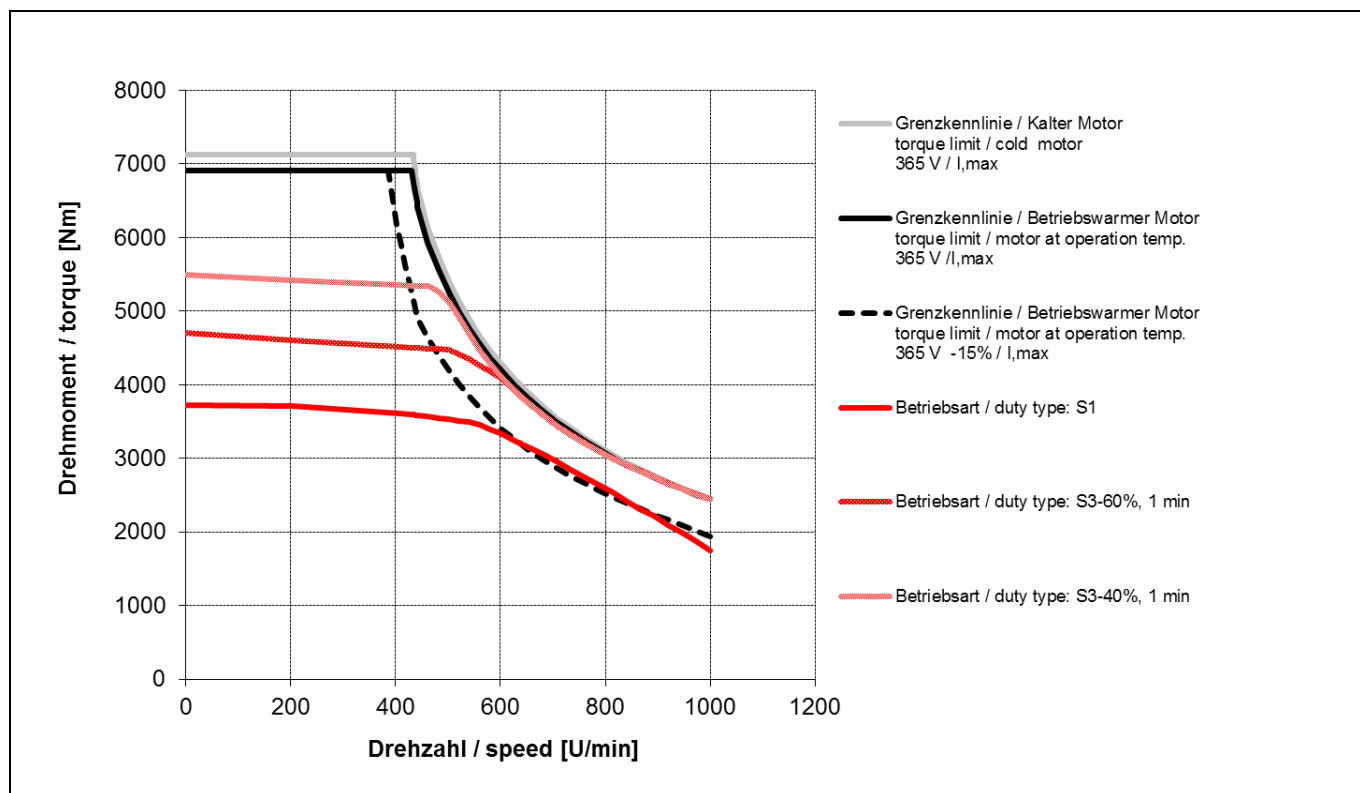
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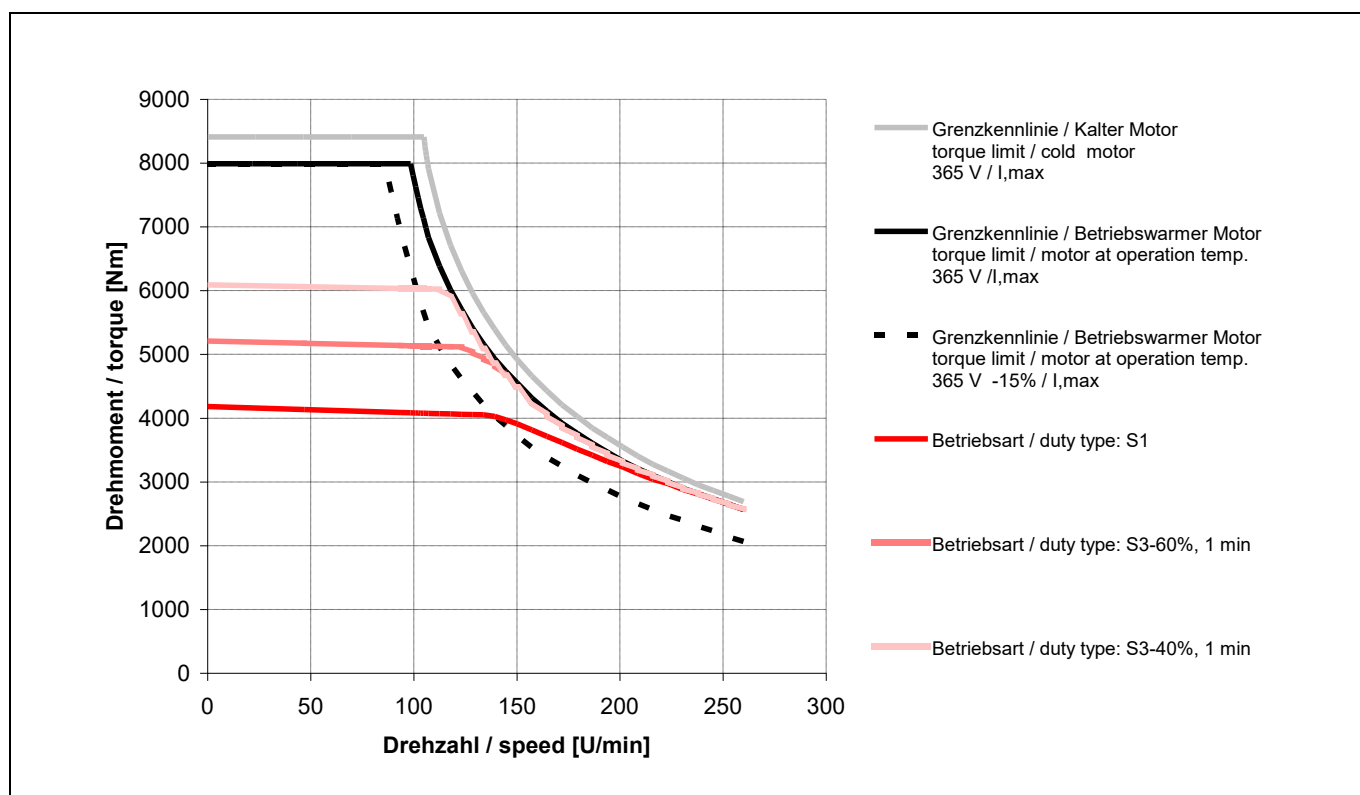
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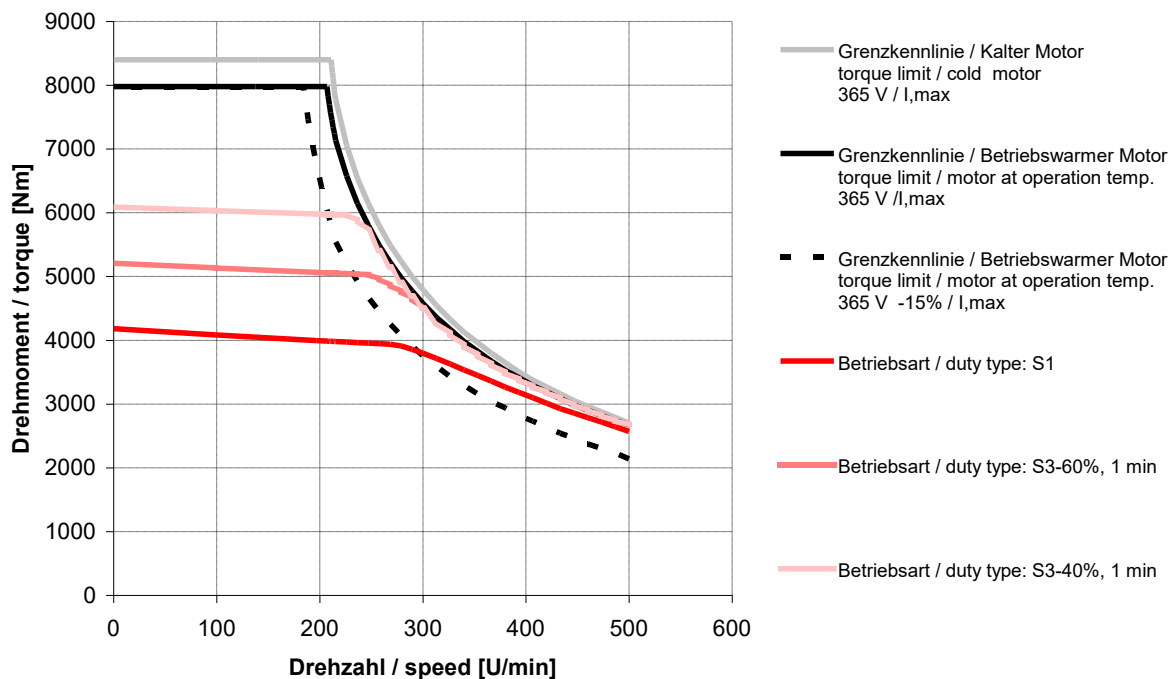
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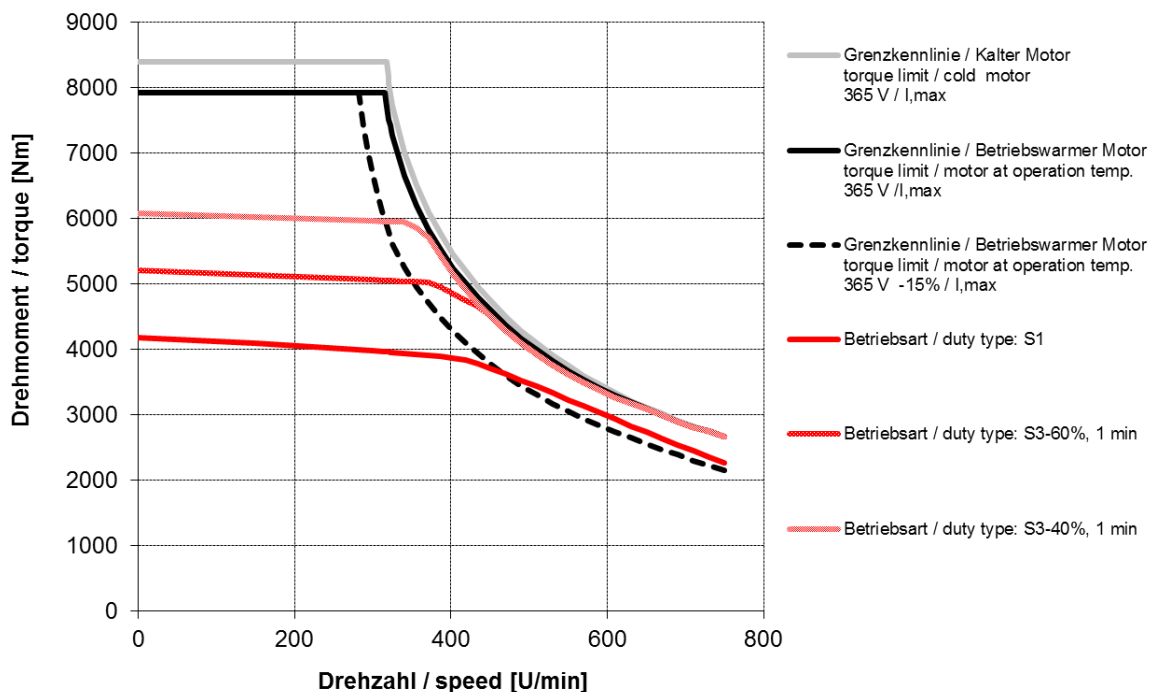
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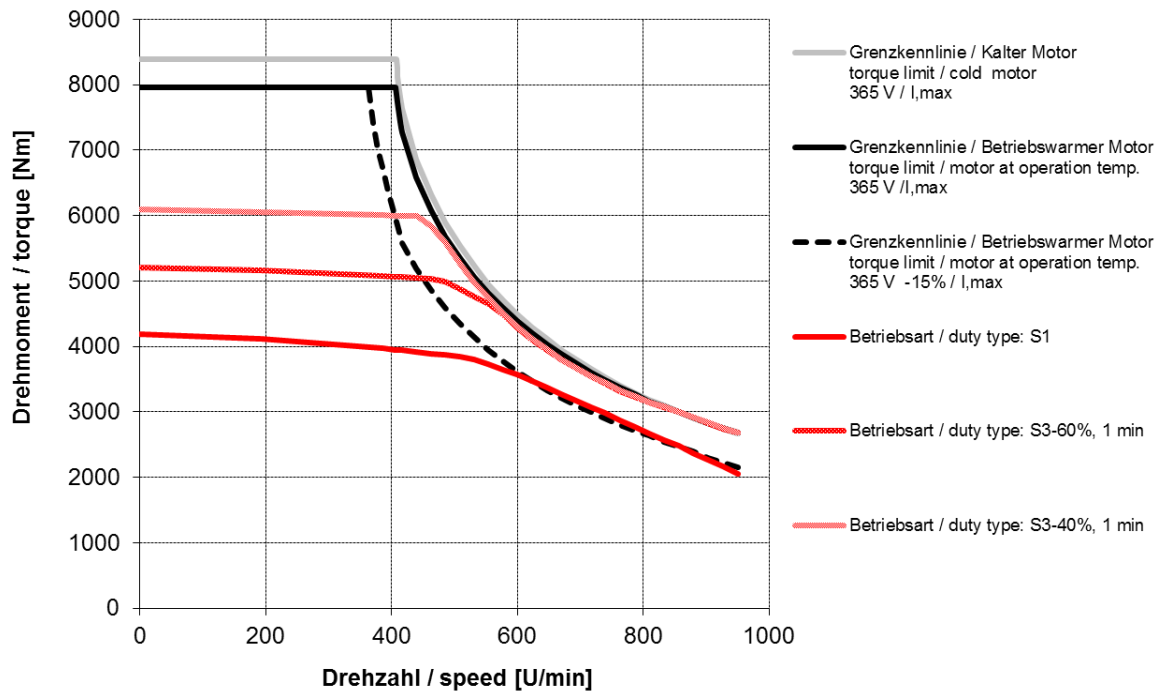
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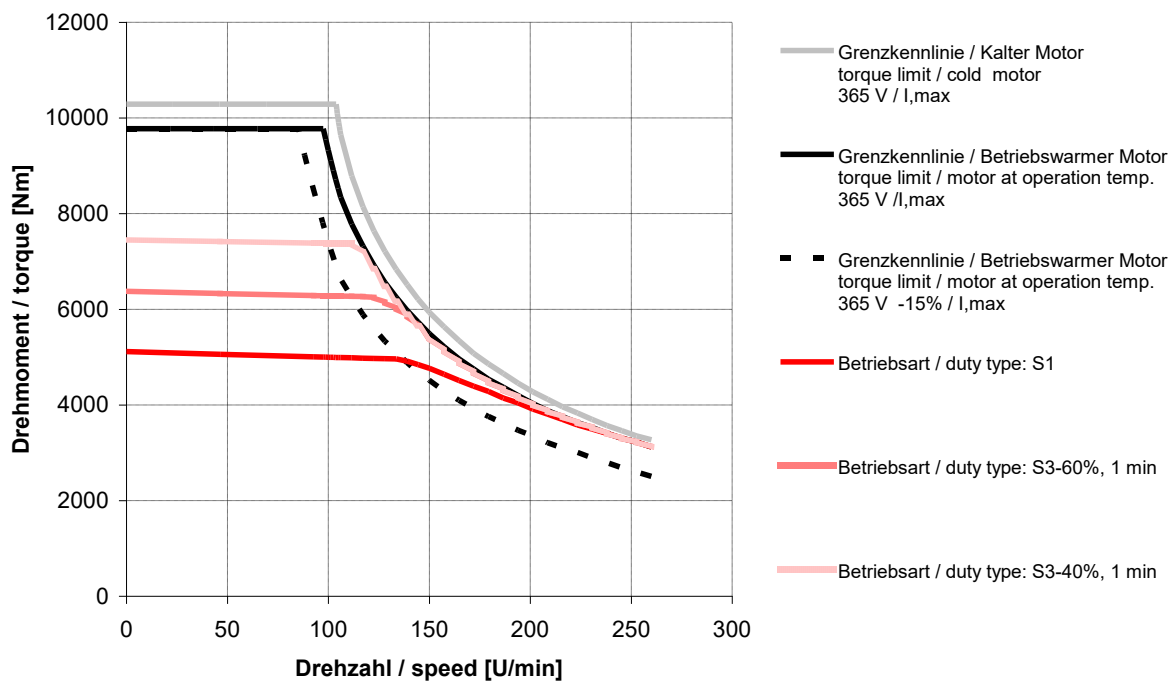
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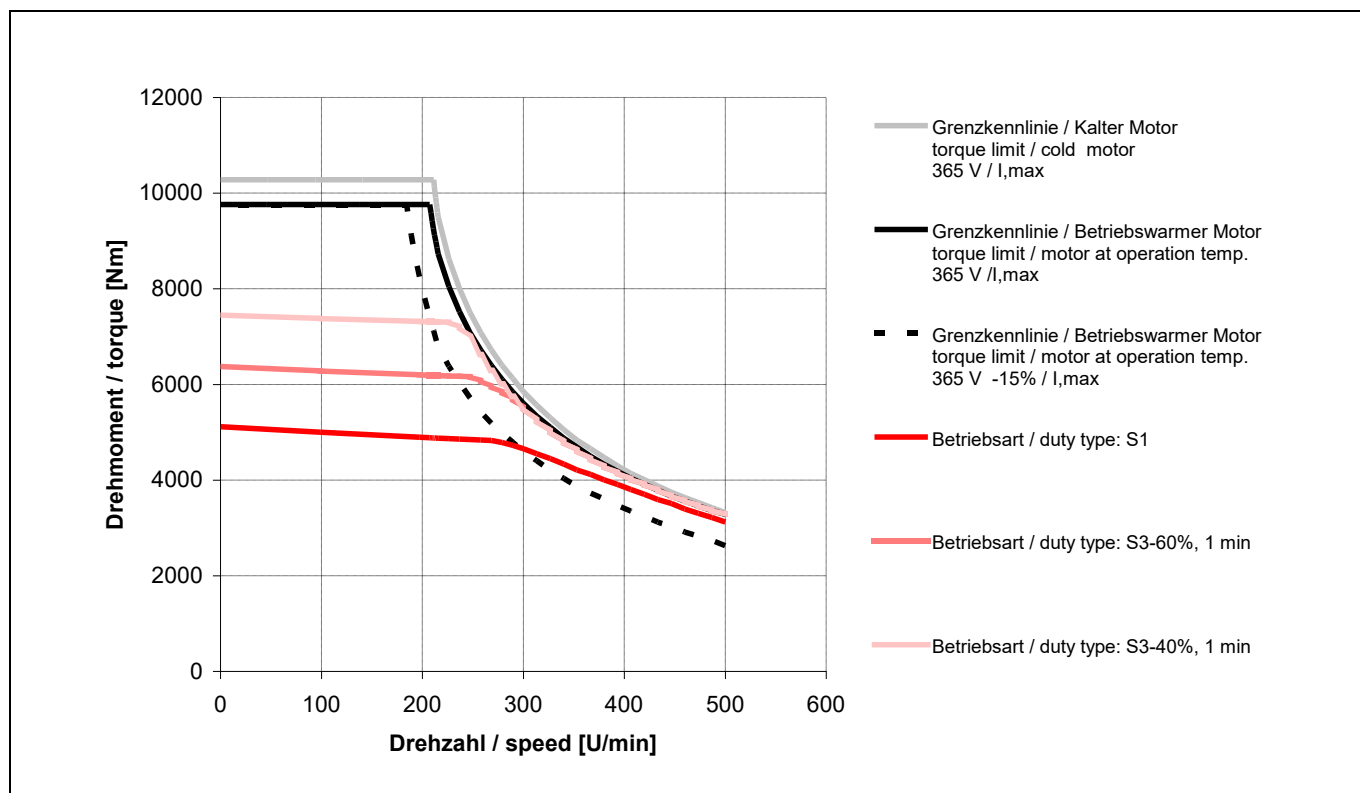
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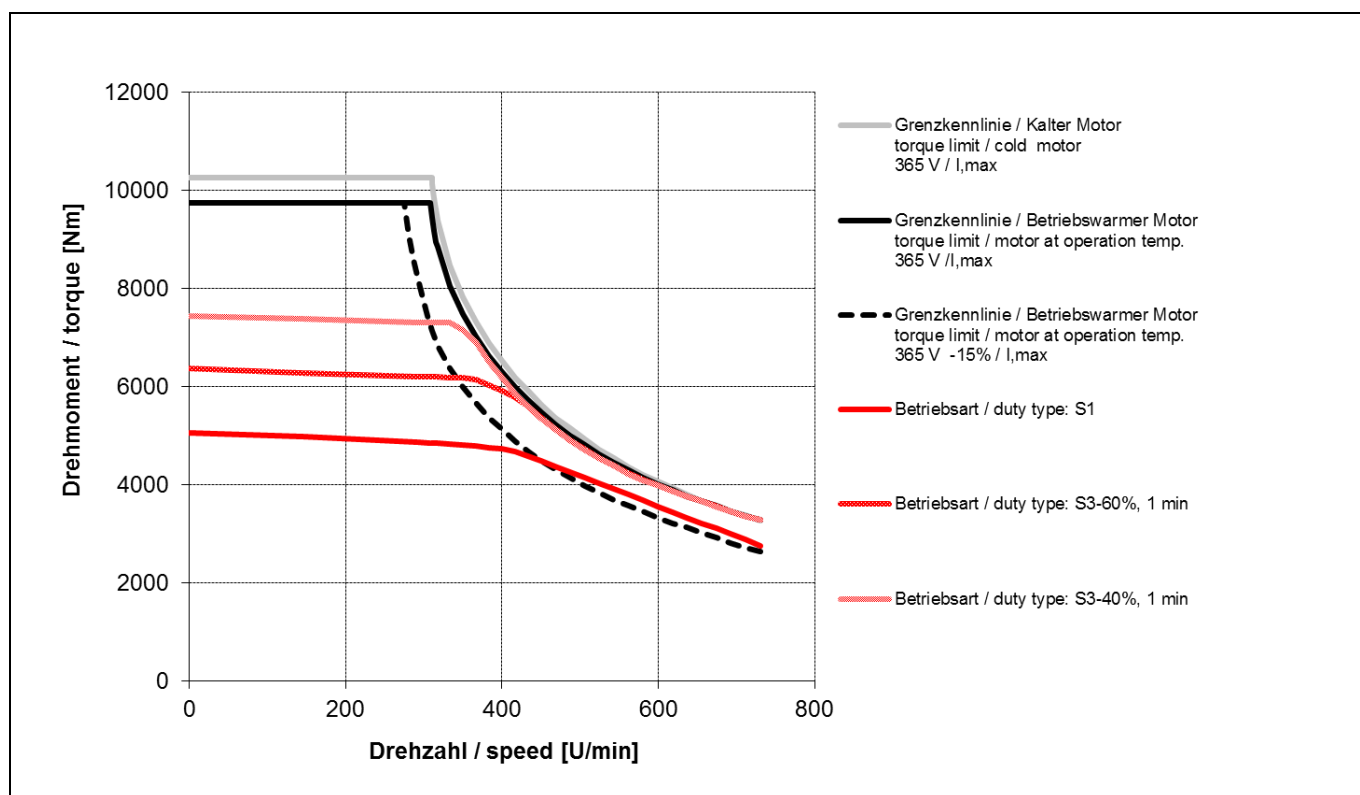
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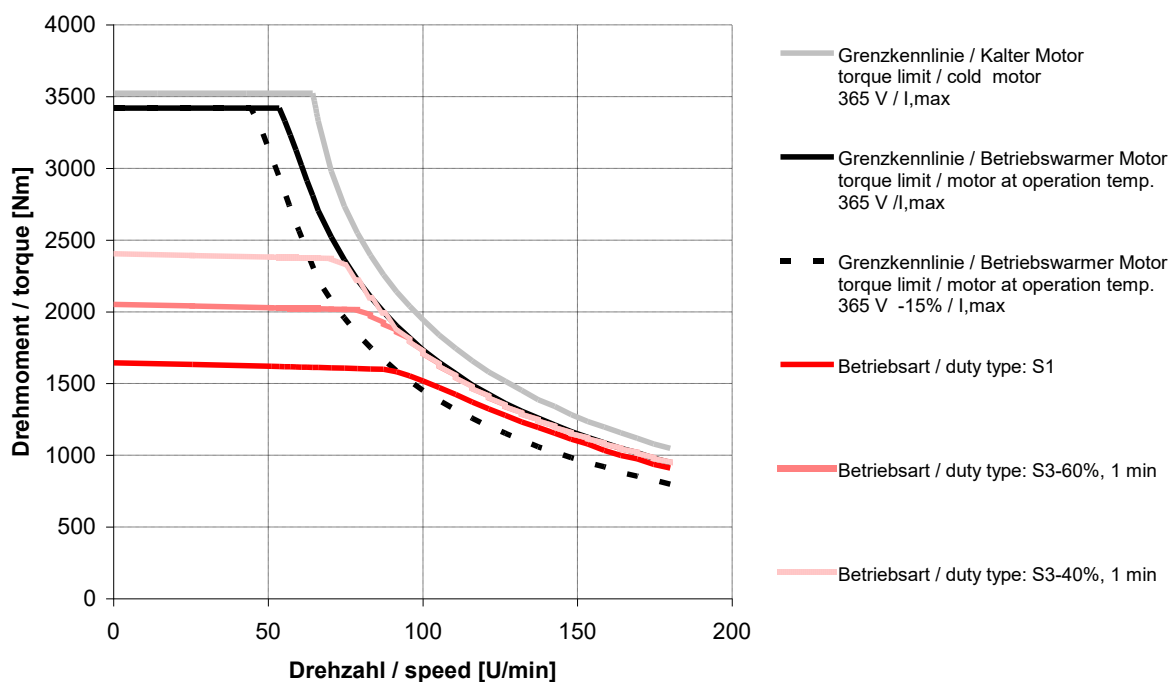


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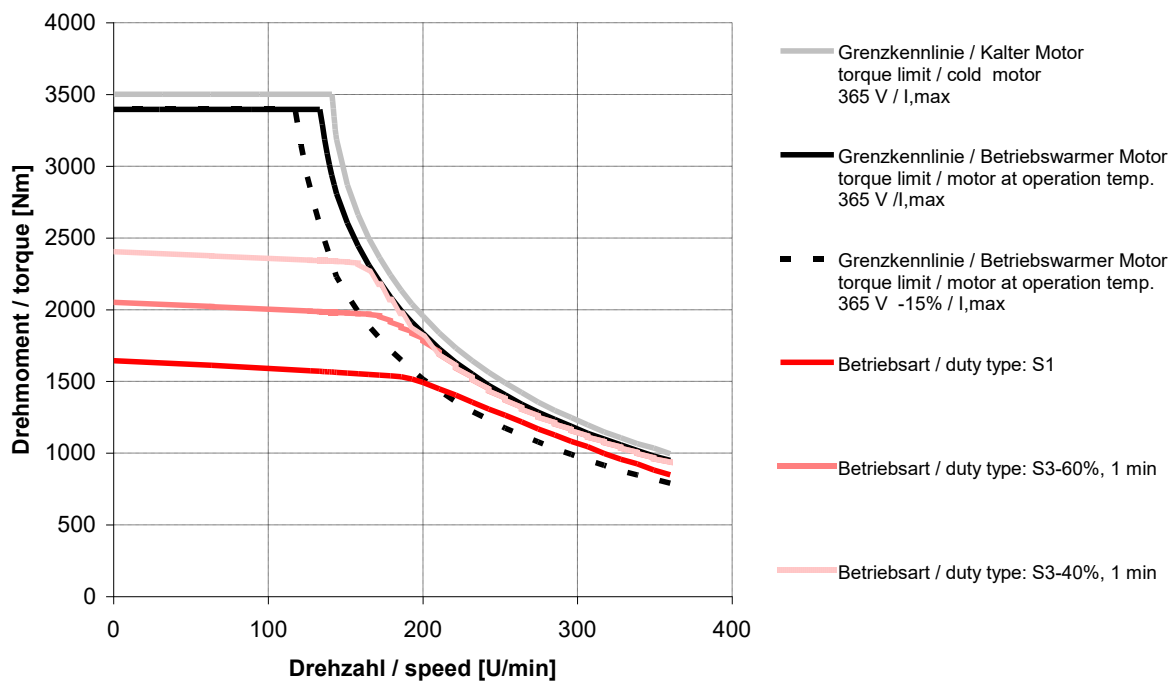


6.4 Characteristics DST2-315..54W

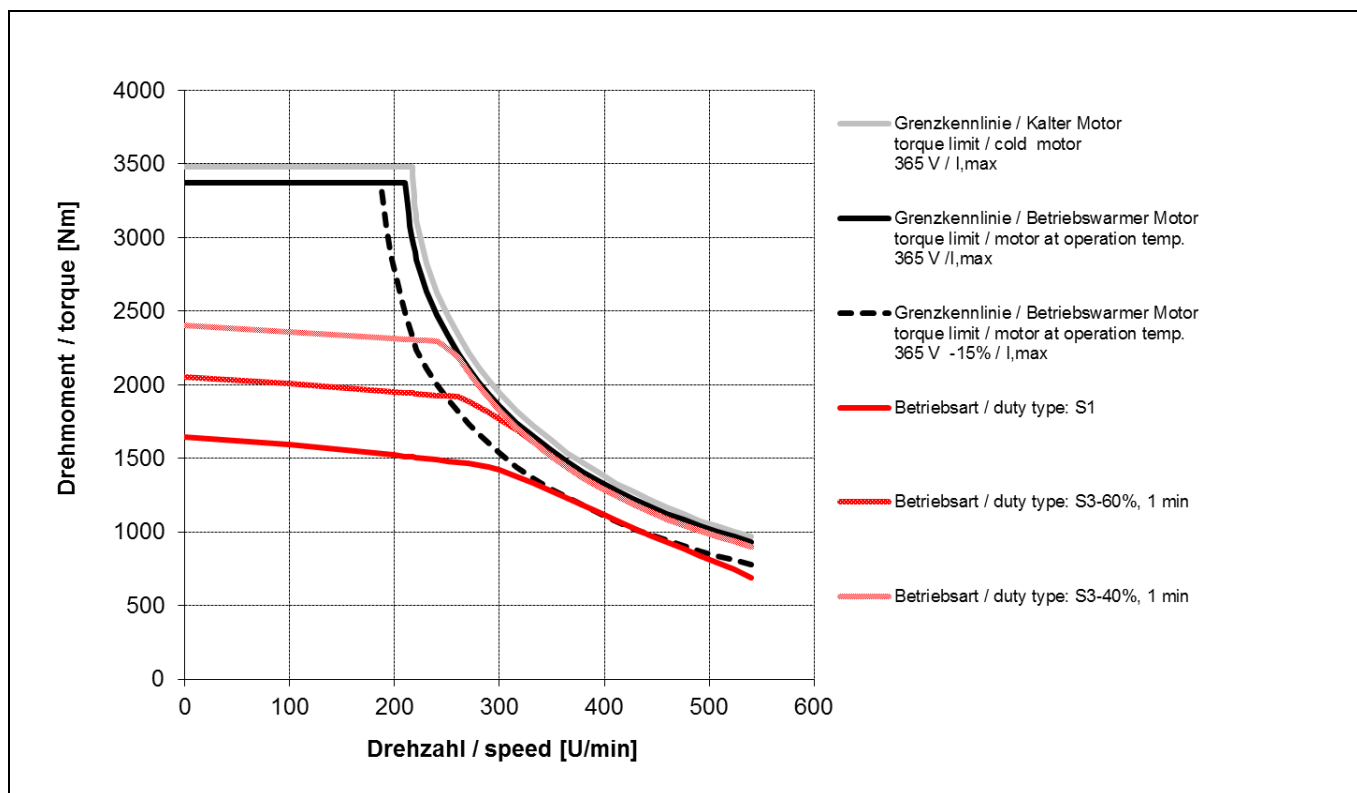
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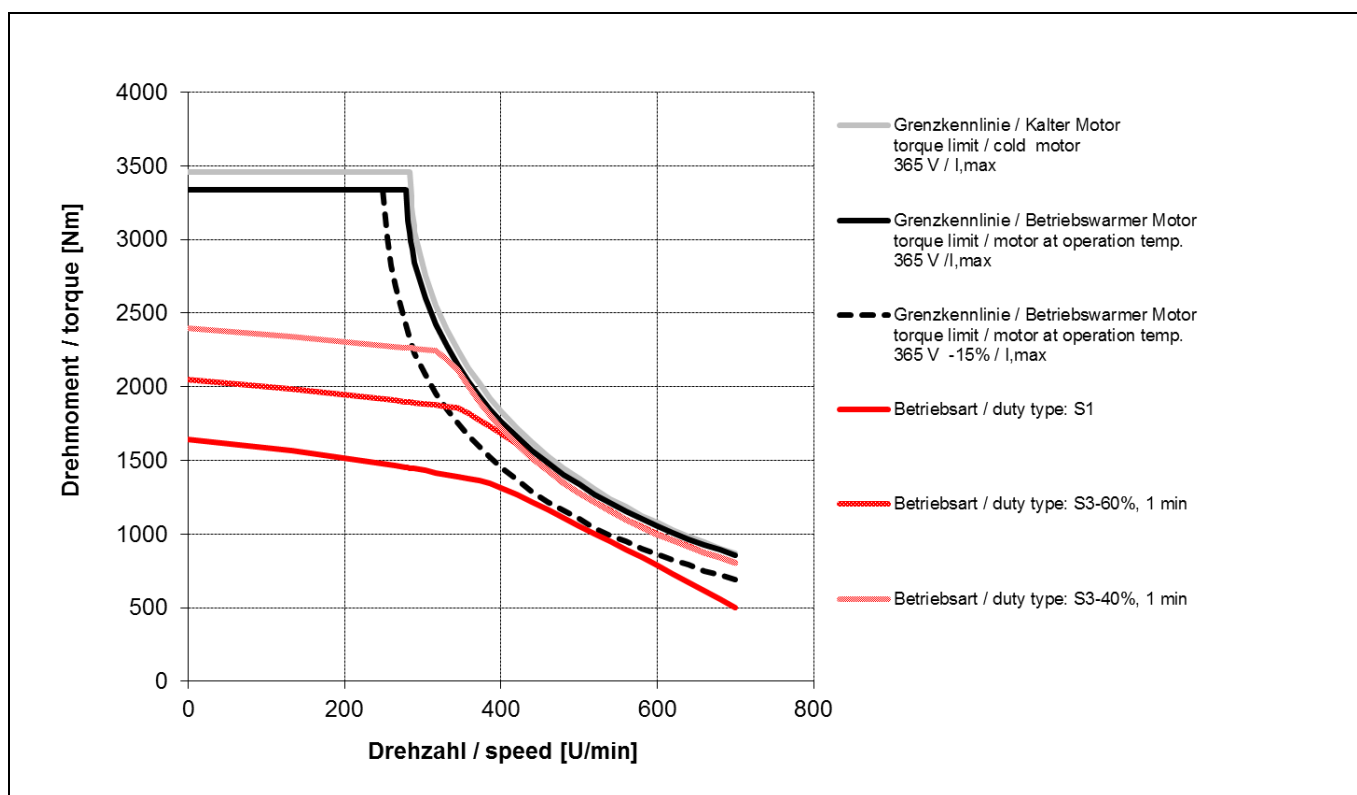
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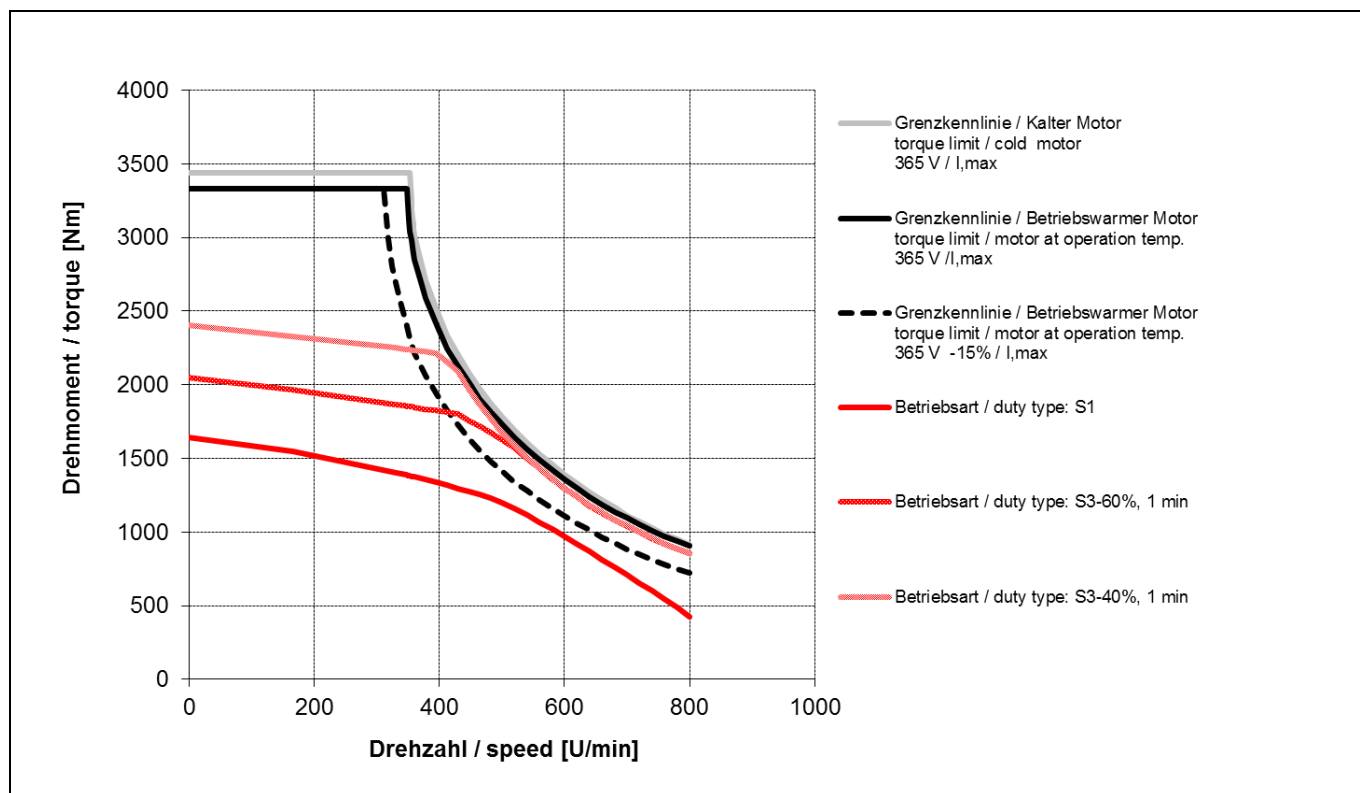
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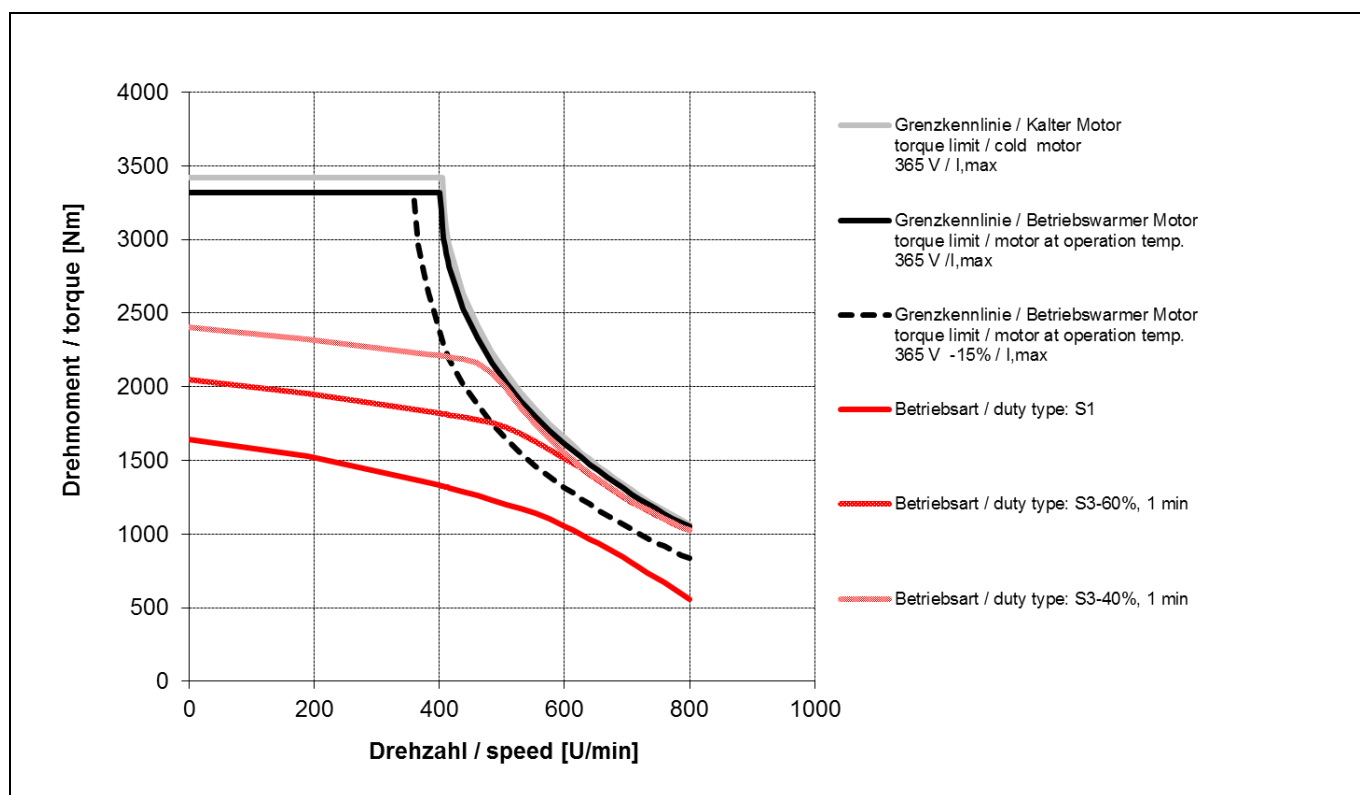
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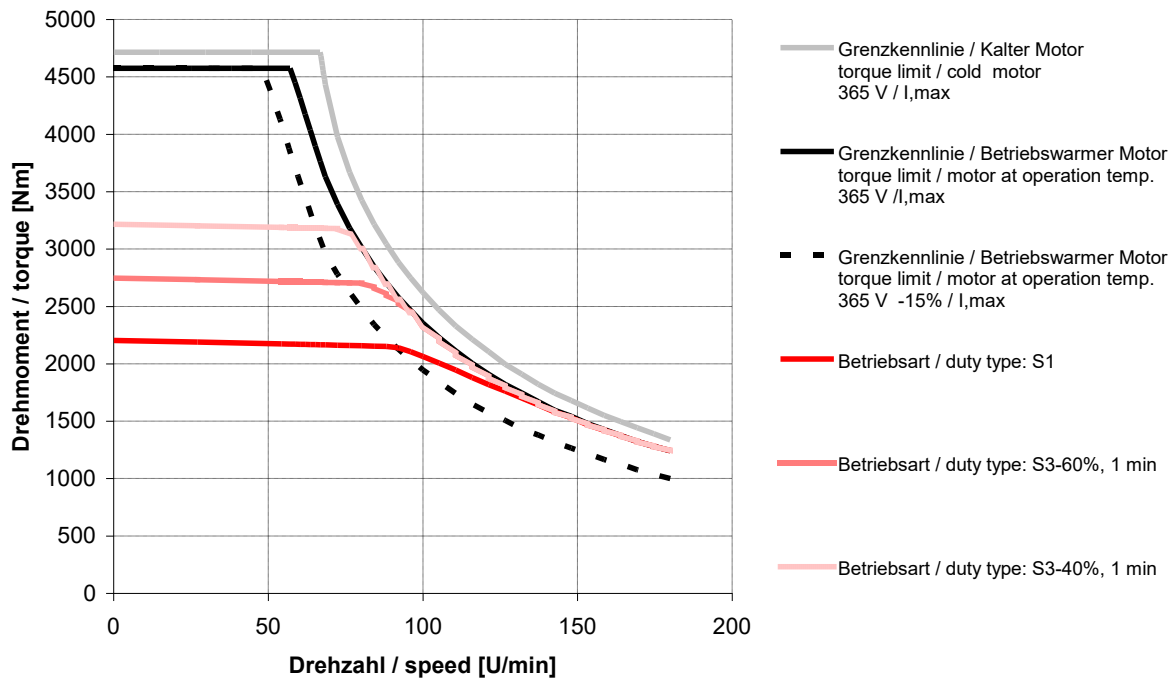
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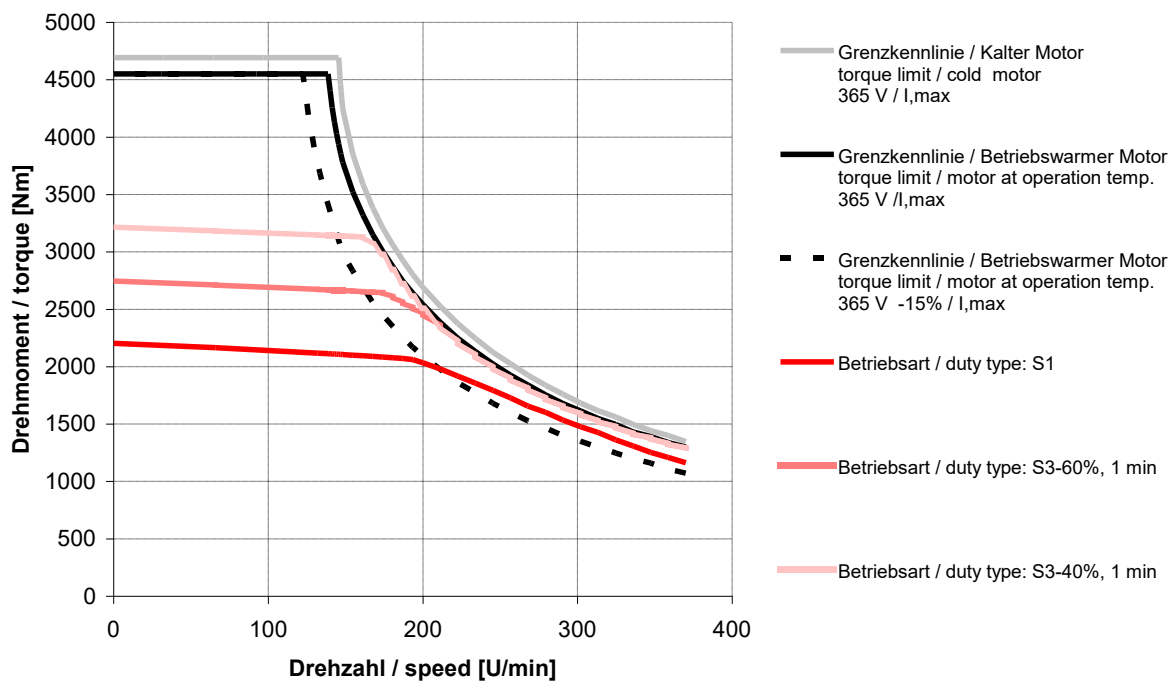
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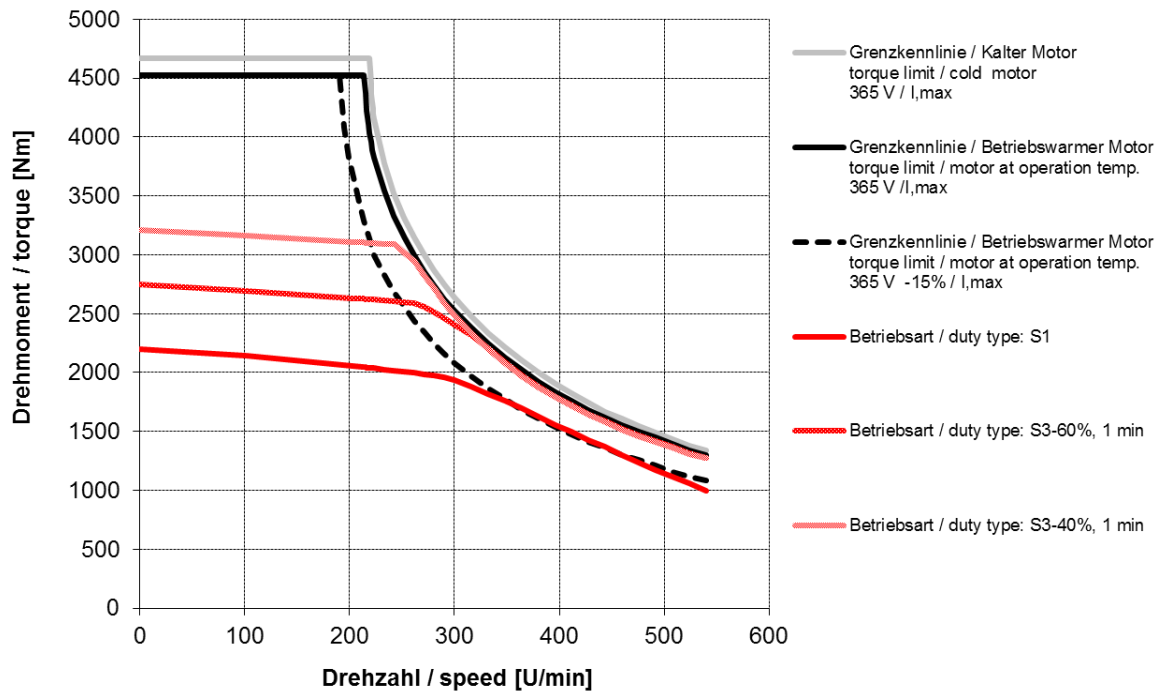
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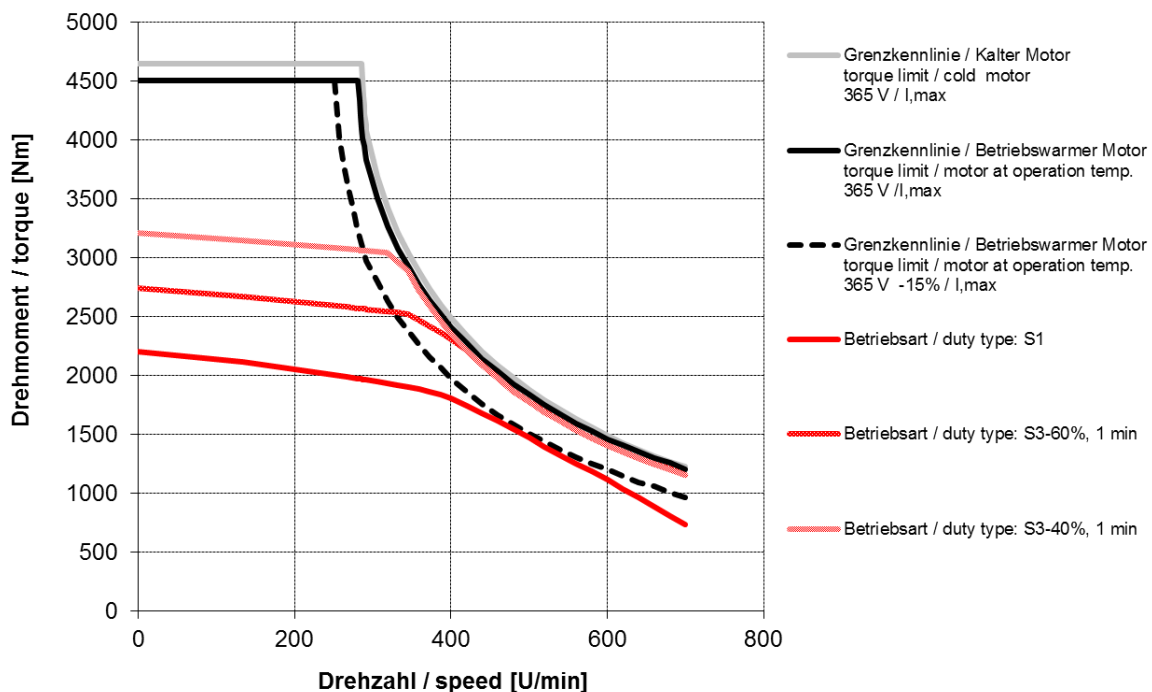
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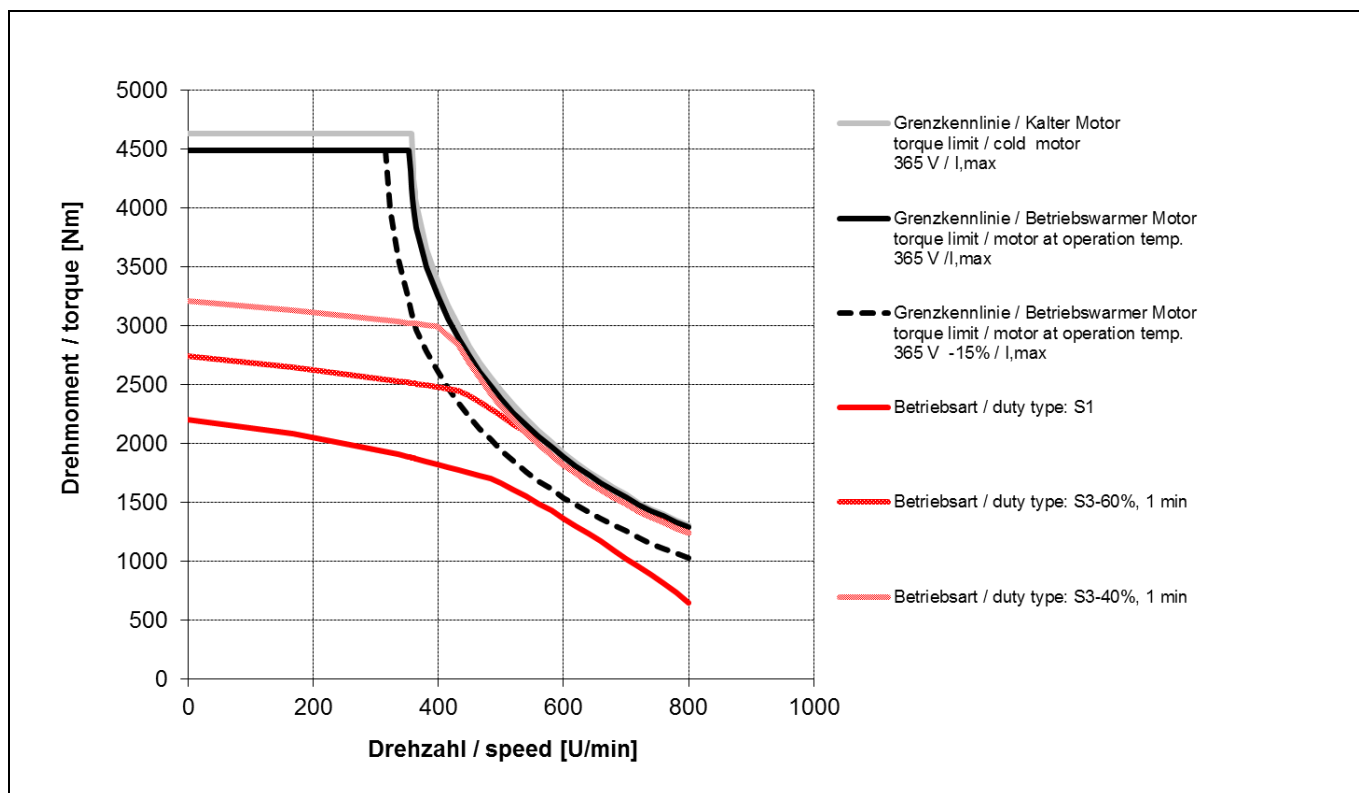
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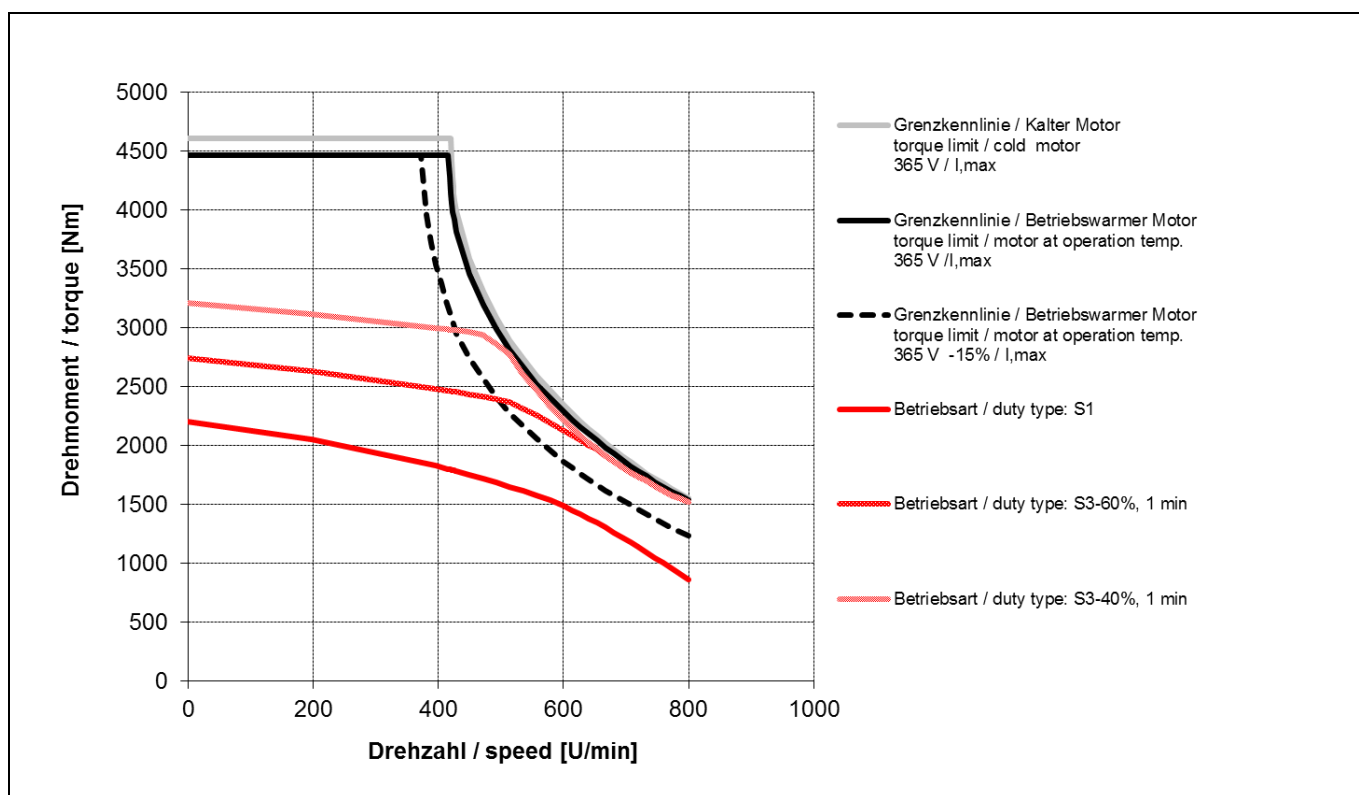
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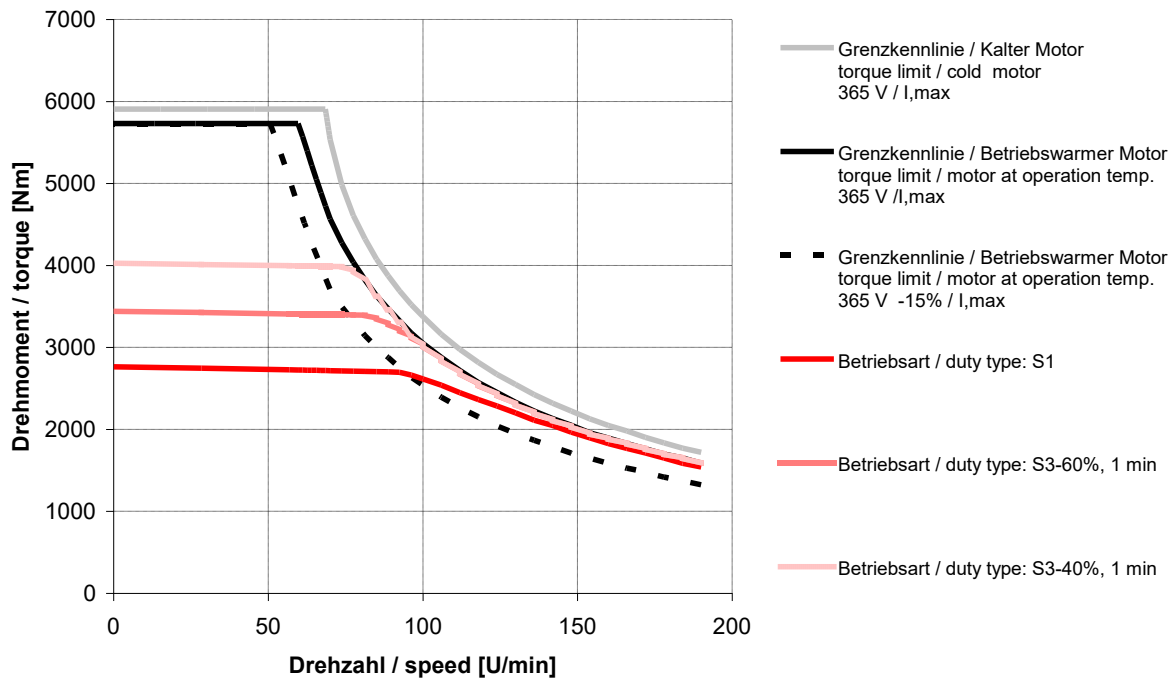
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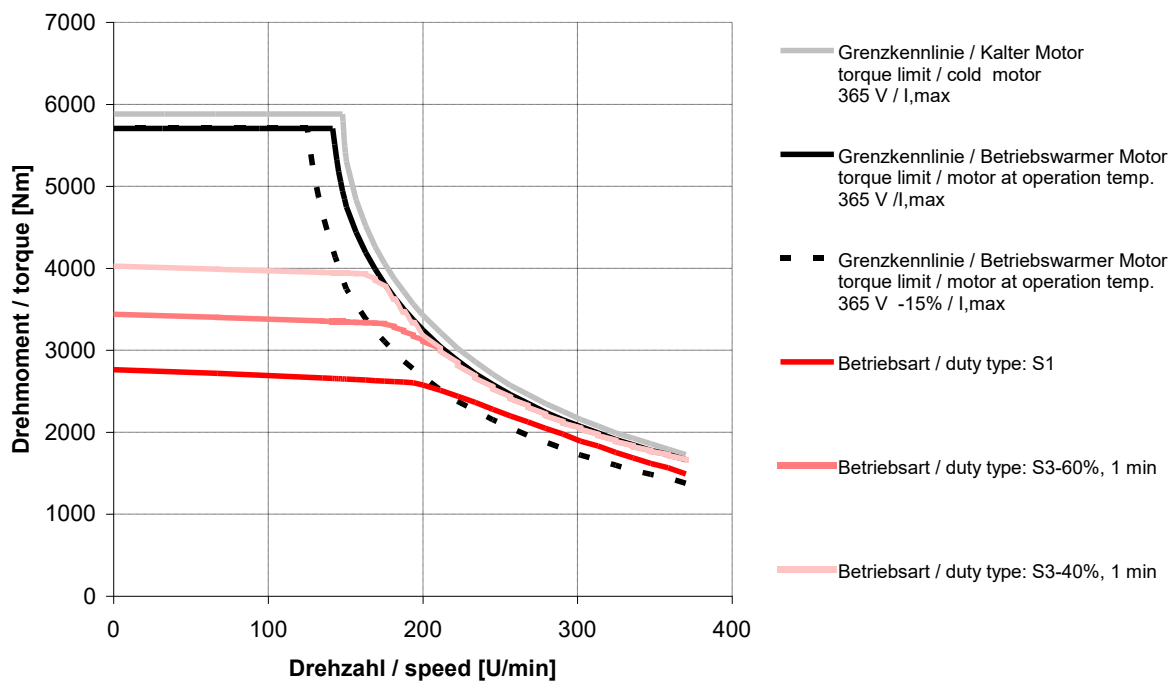
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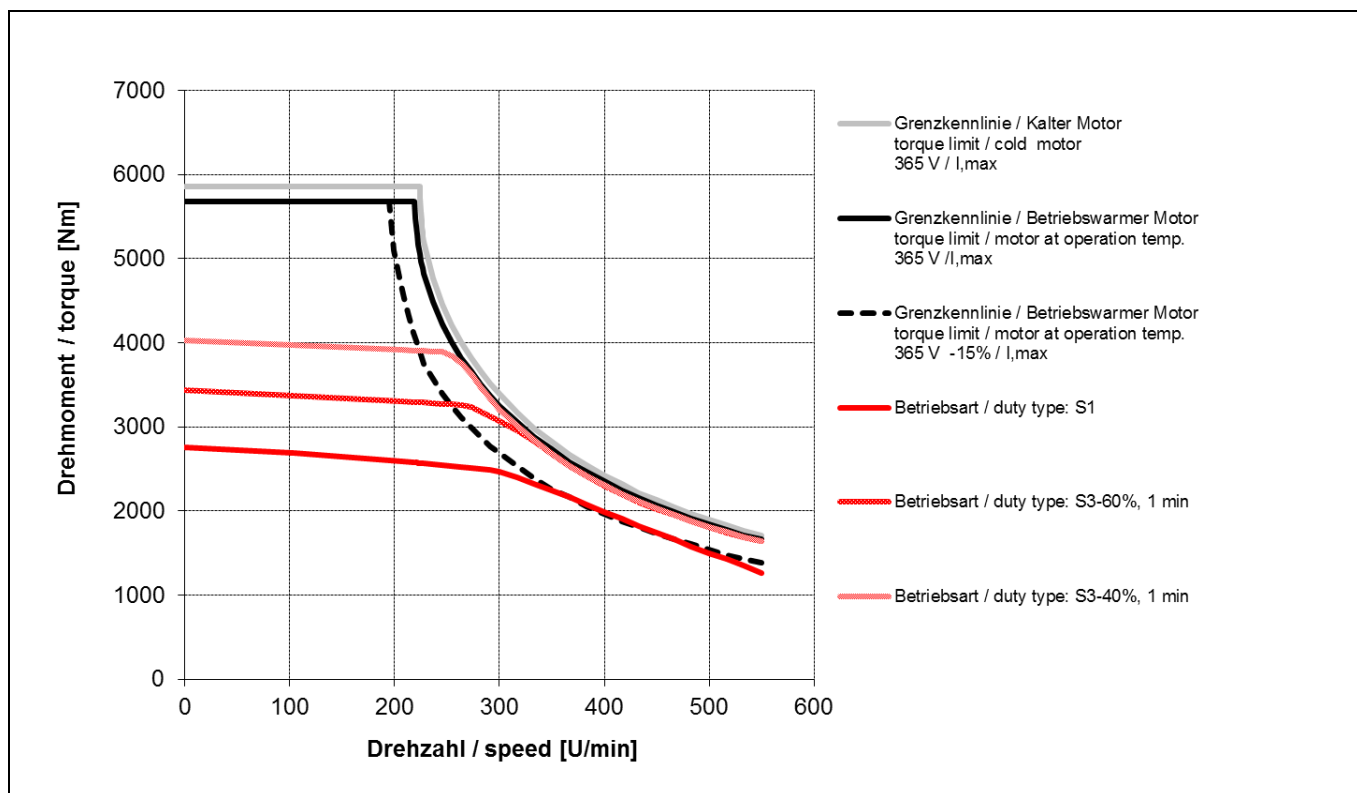
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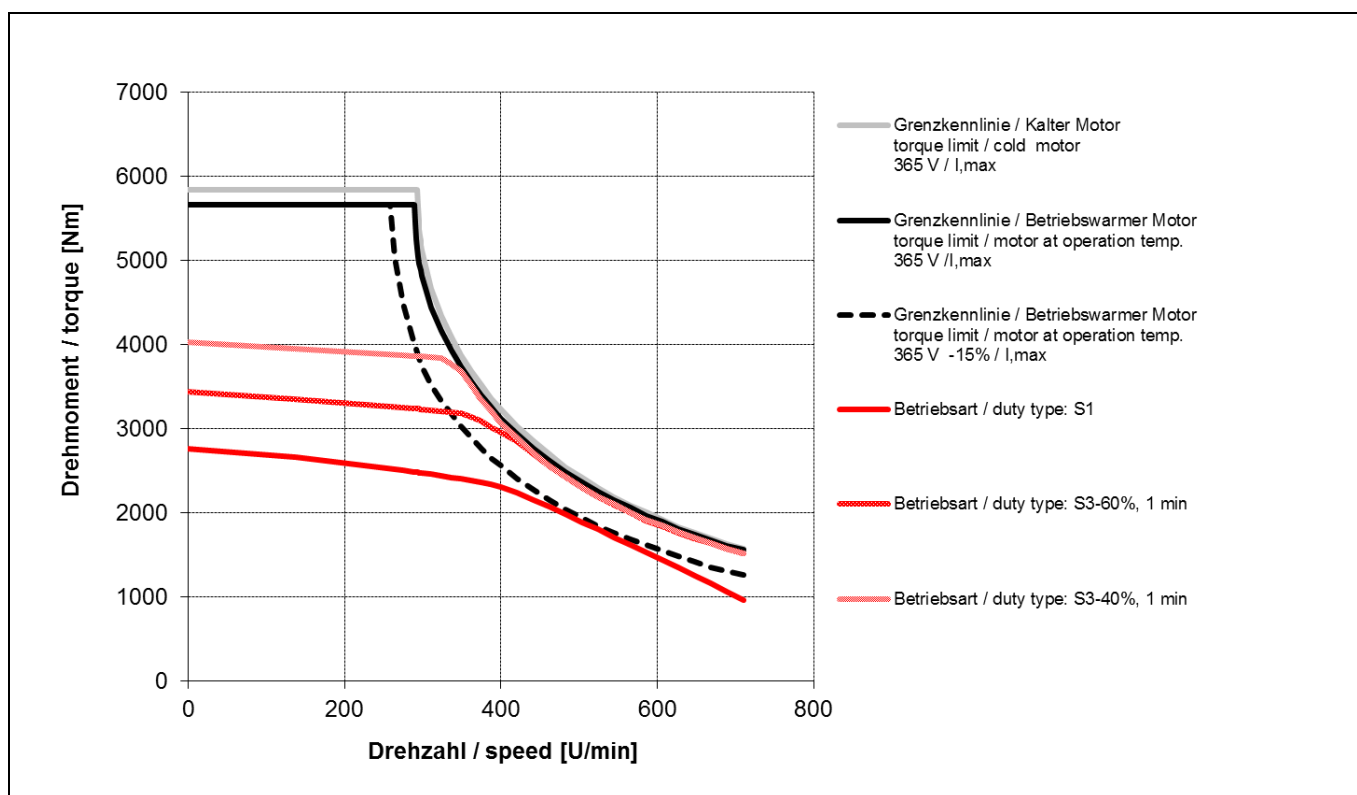
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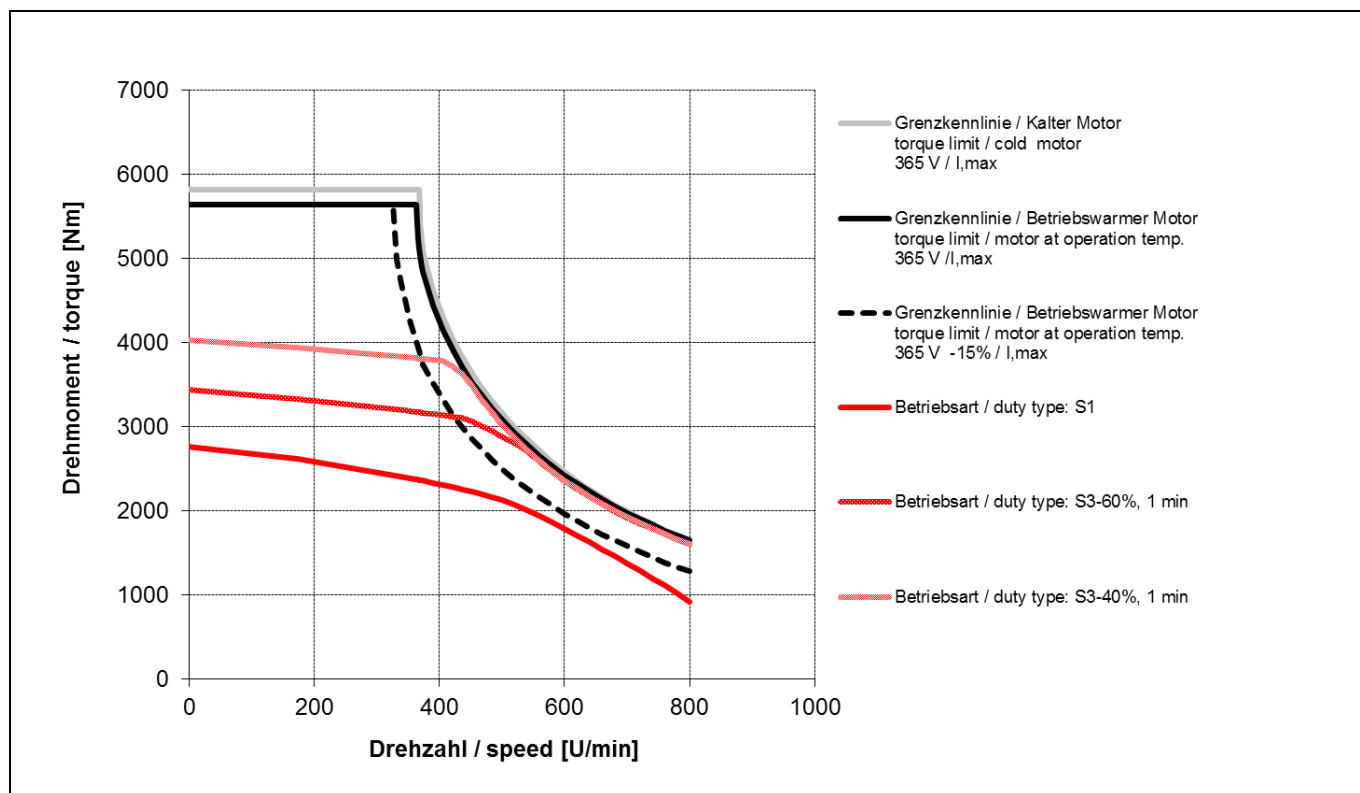
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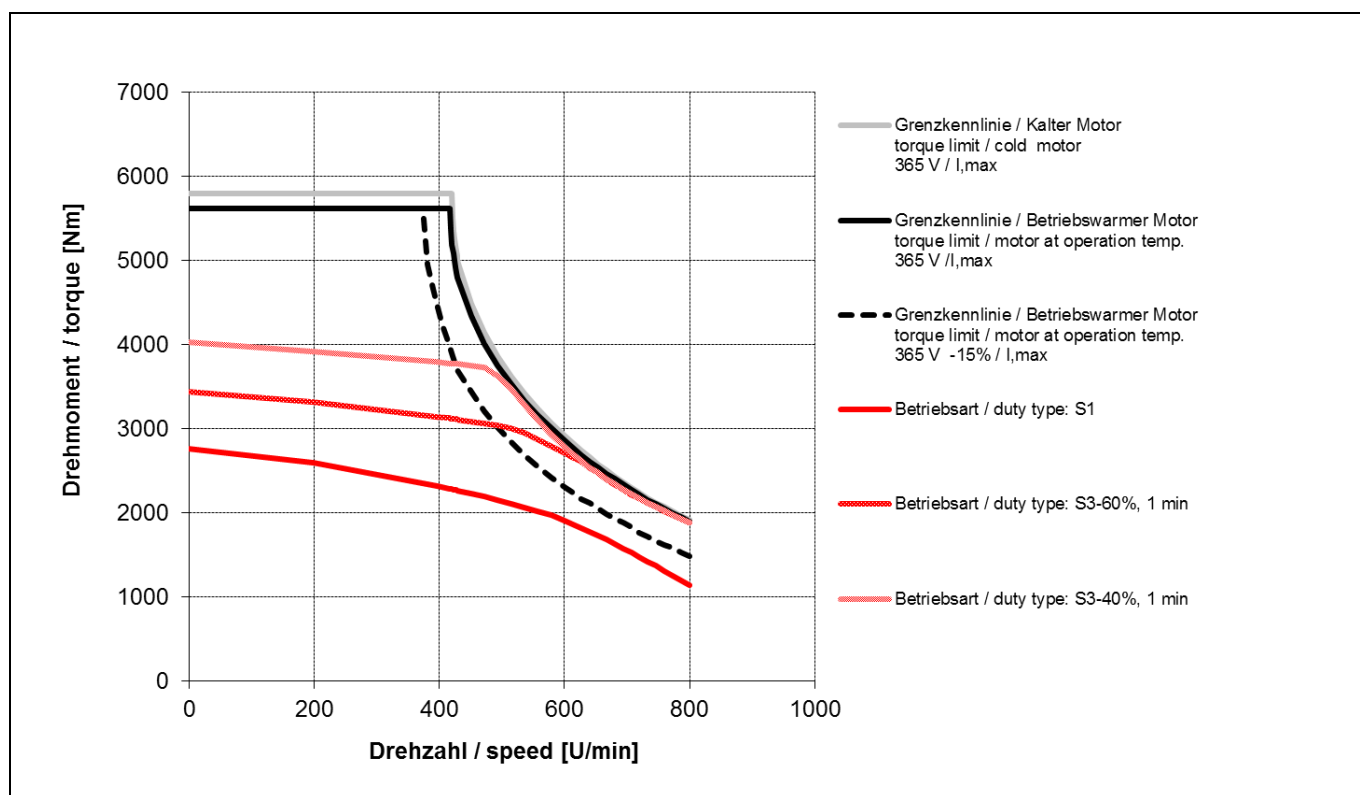
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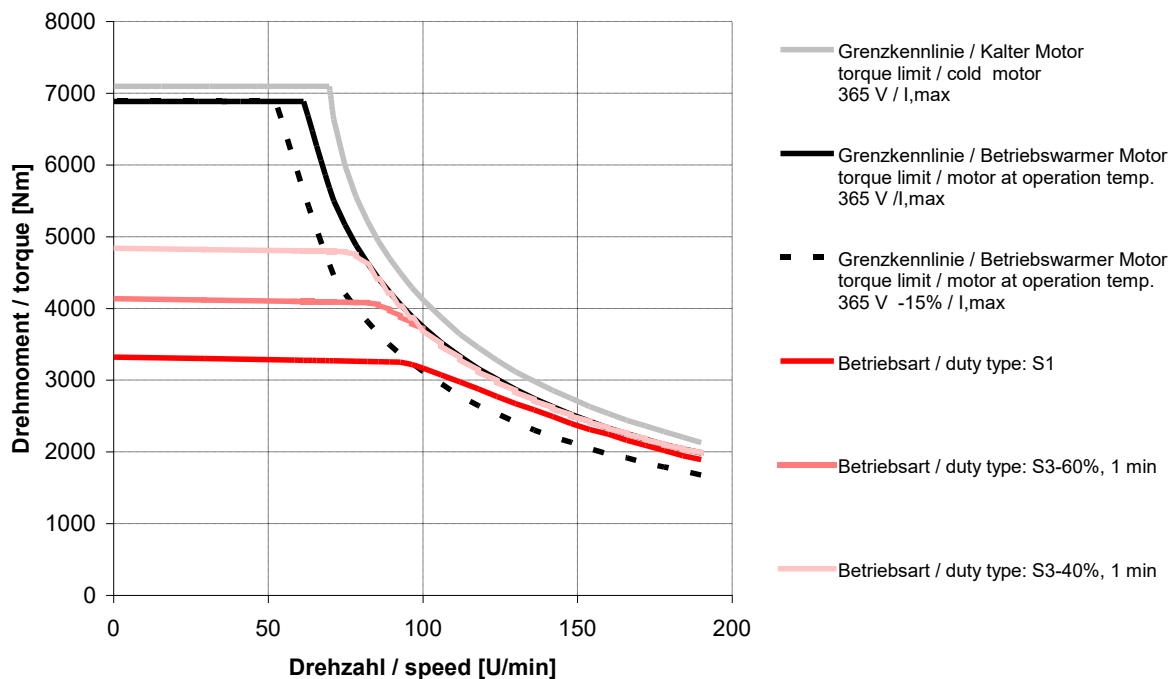
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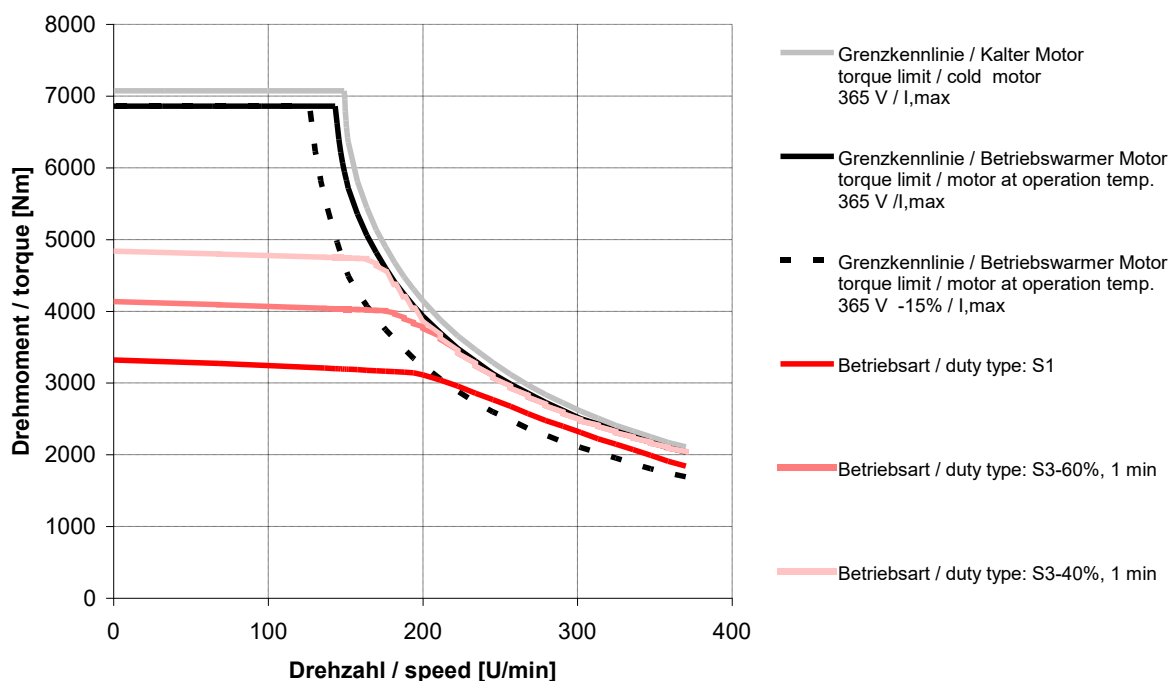
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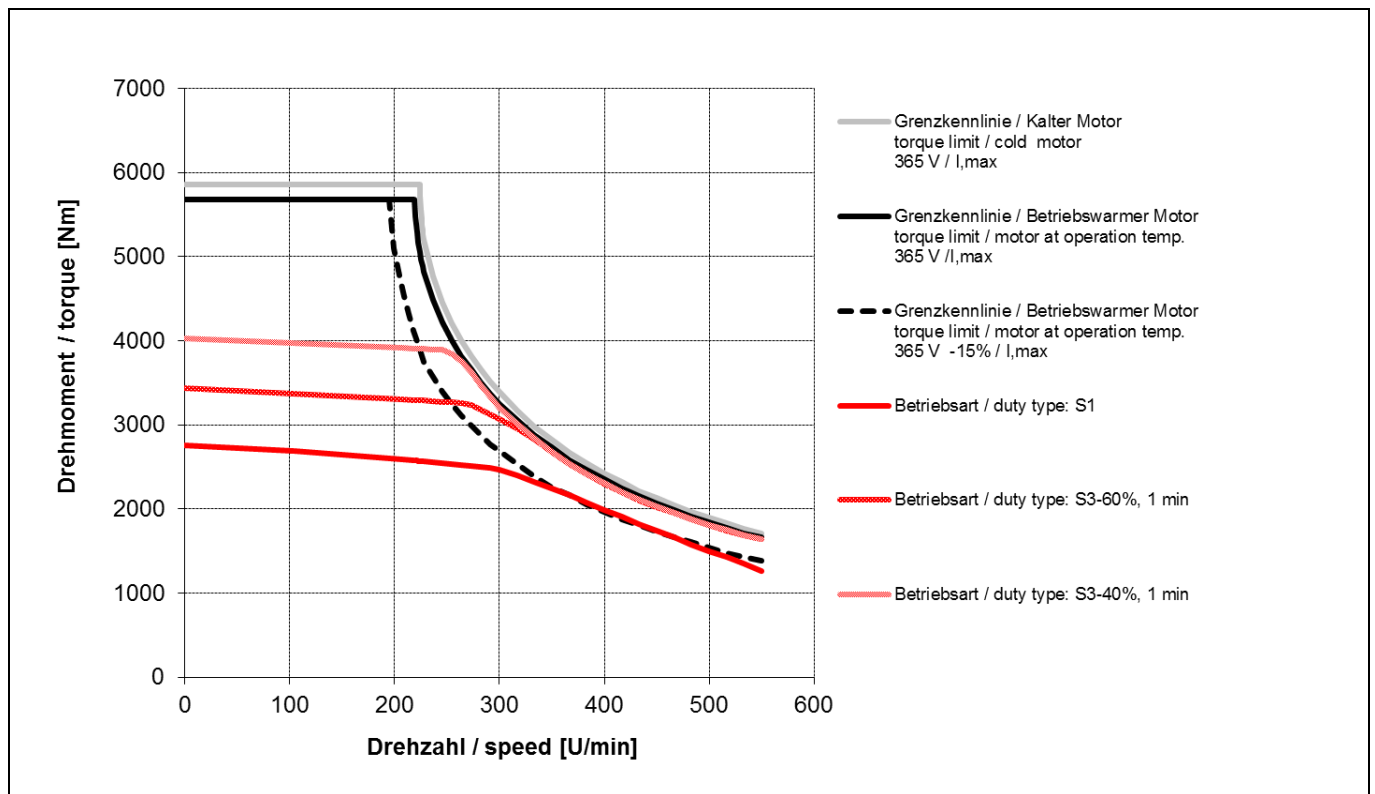
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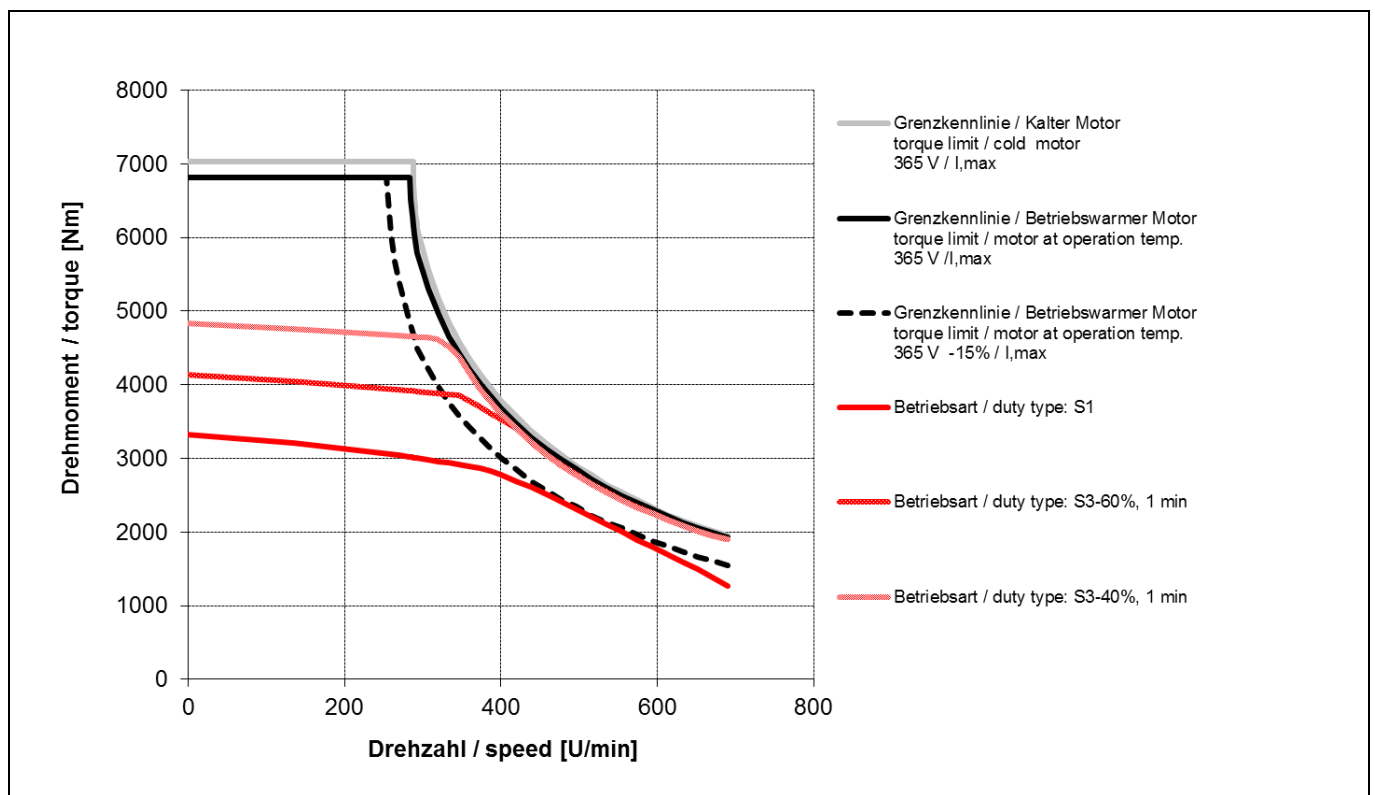
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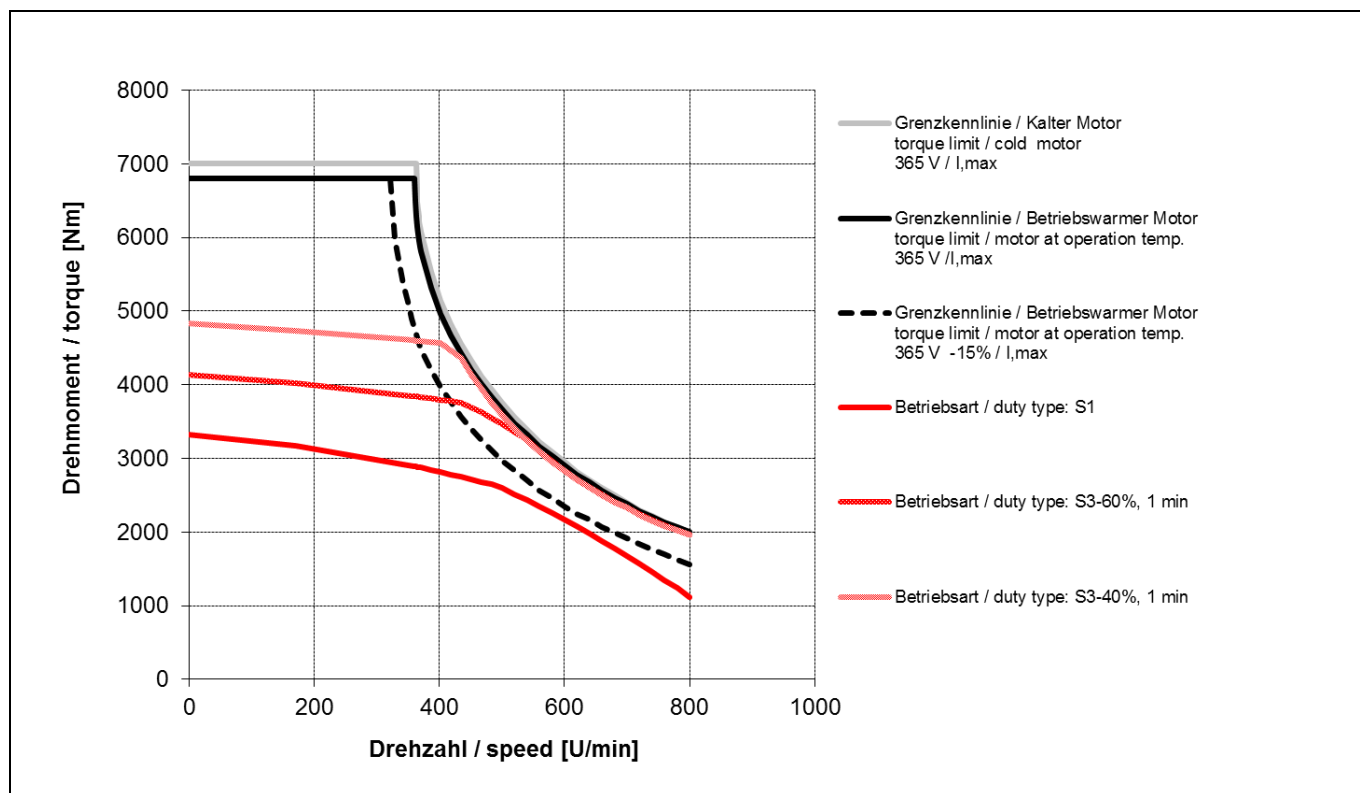
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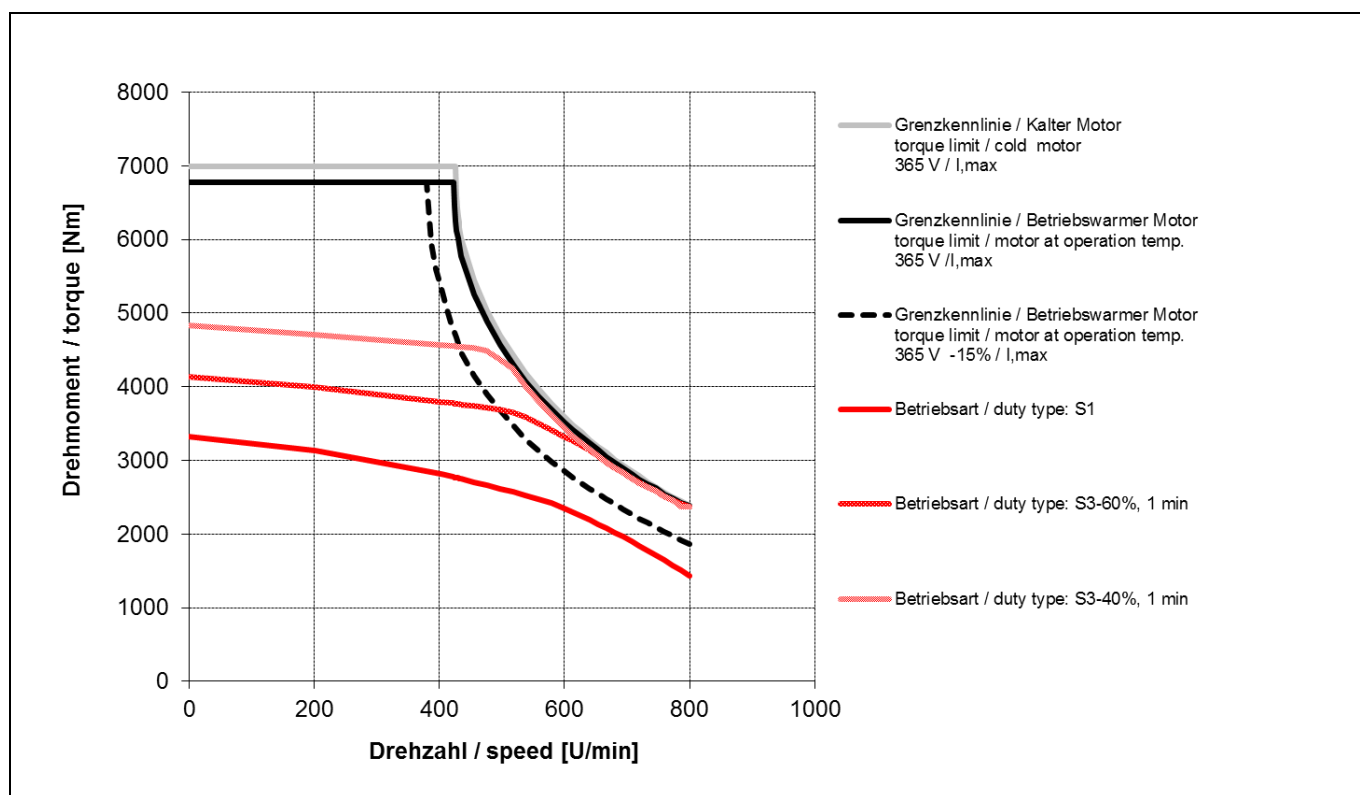
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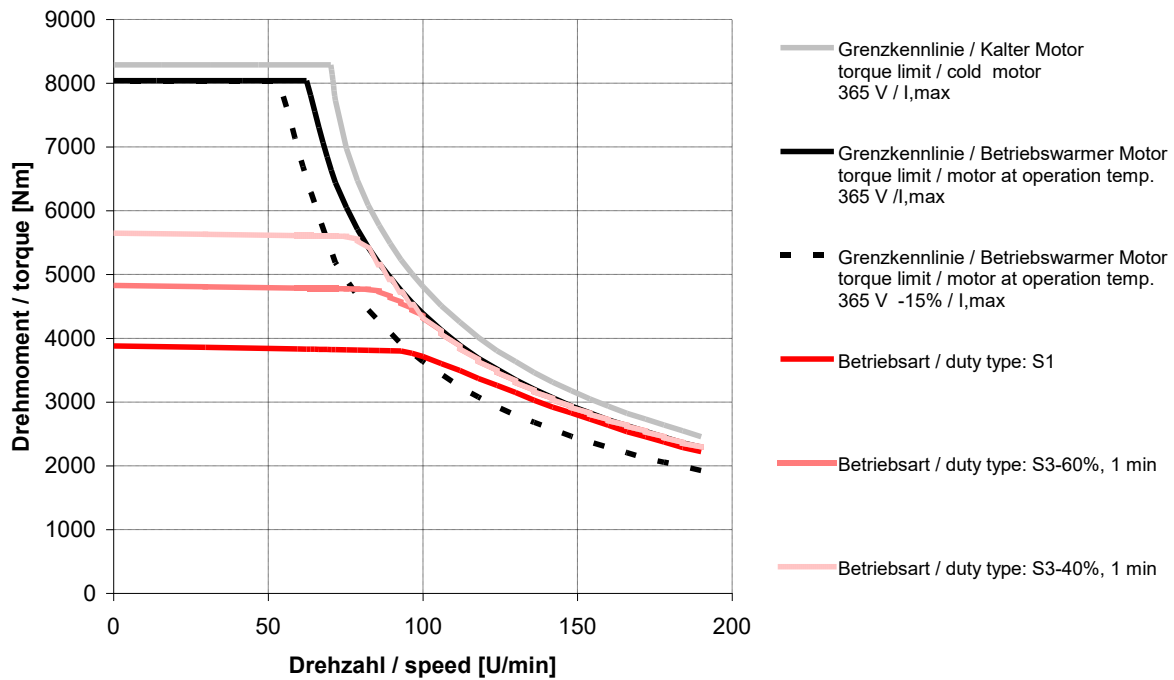
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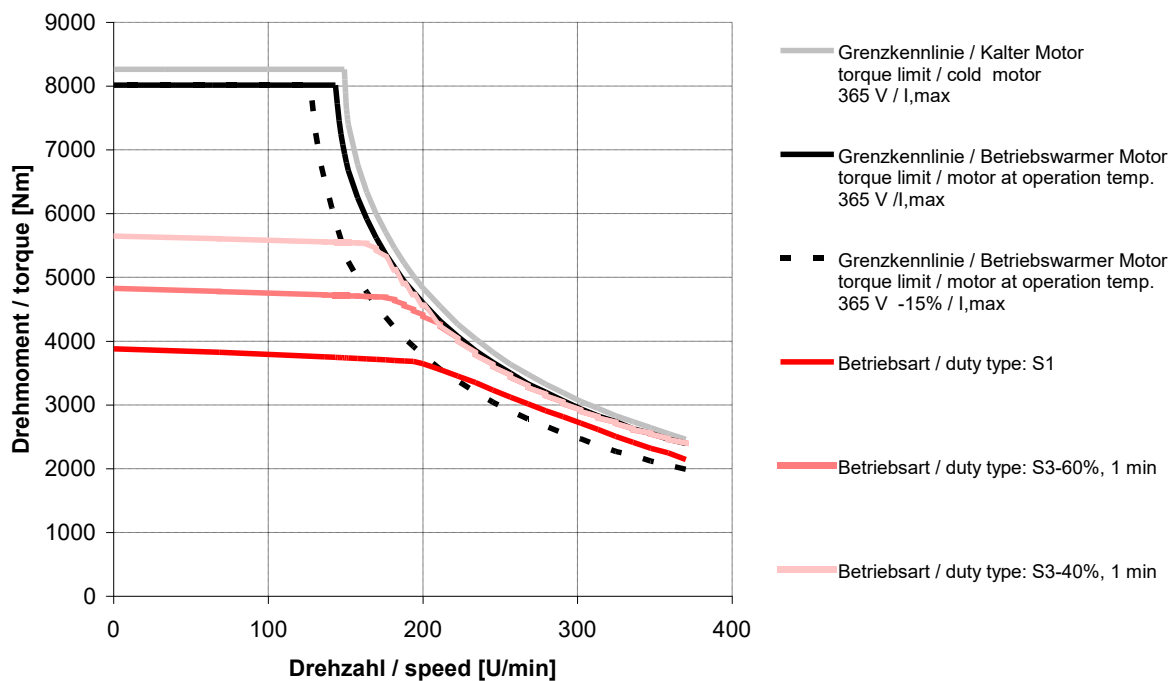
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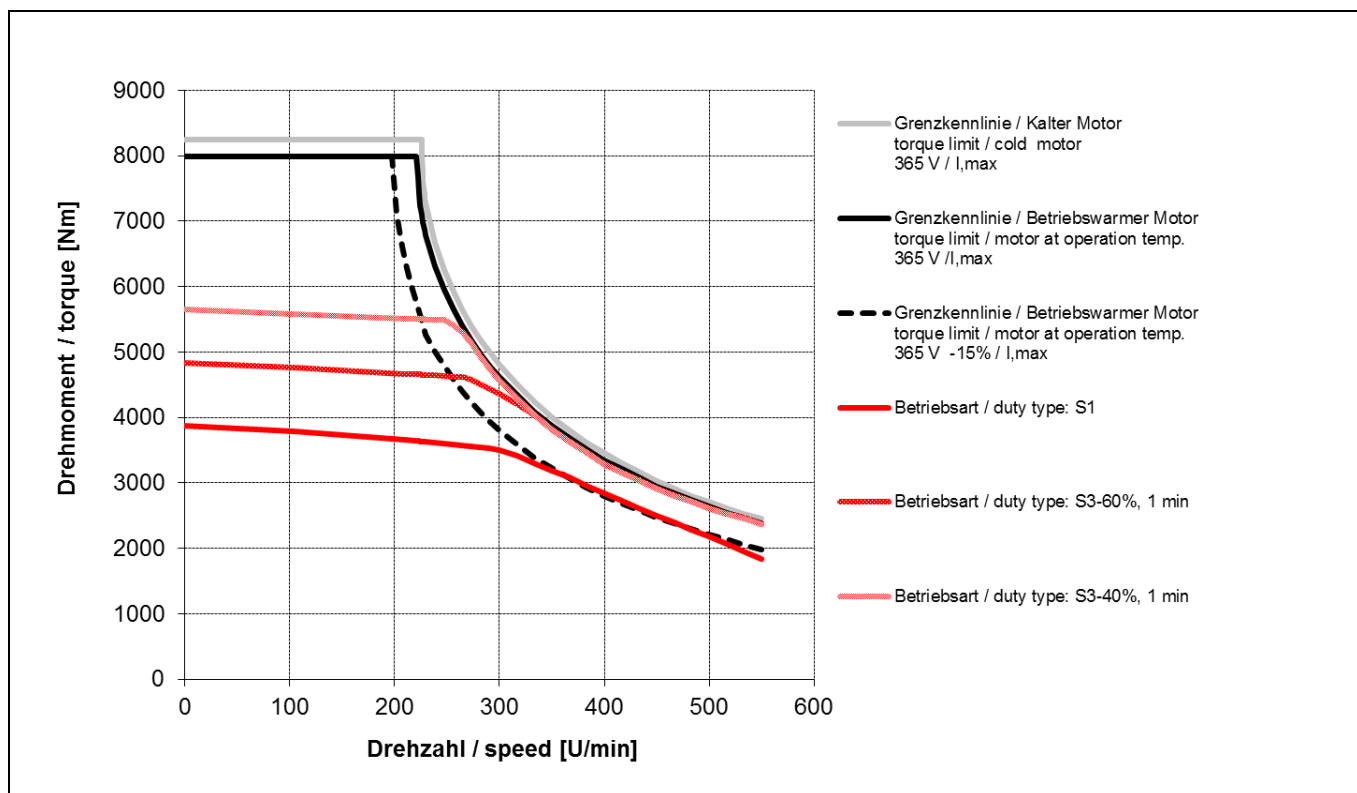
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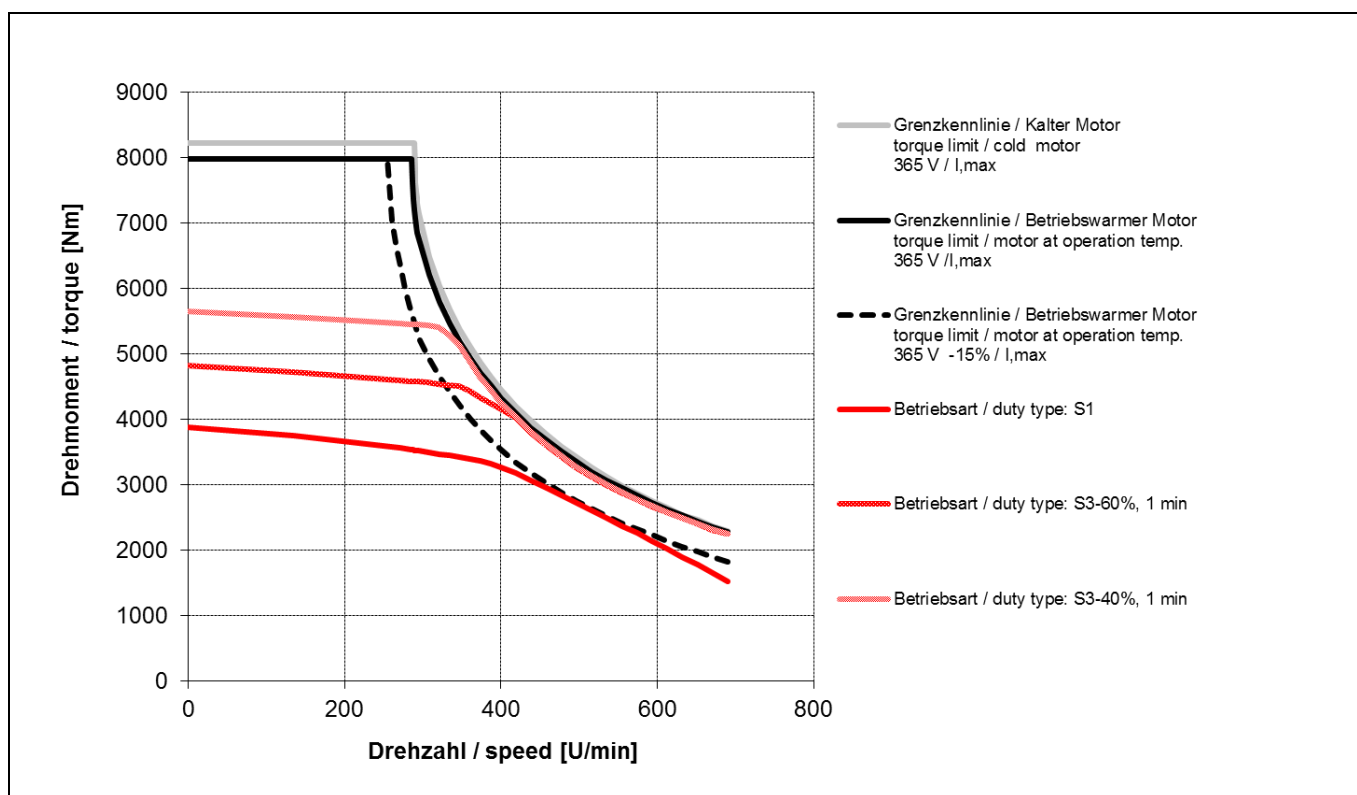
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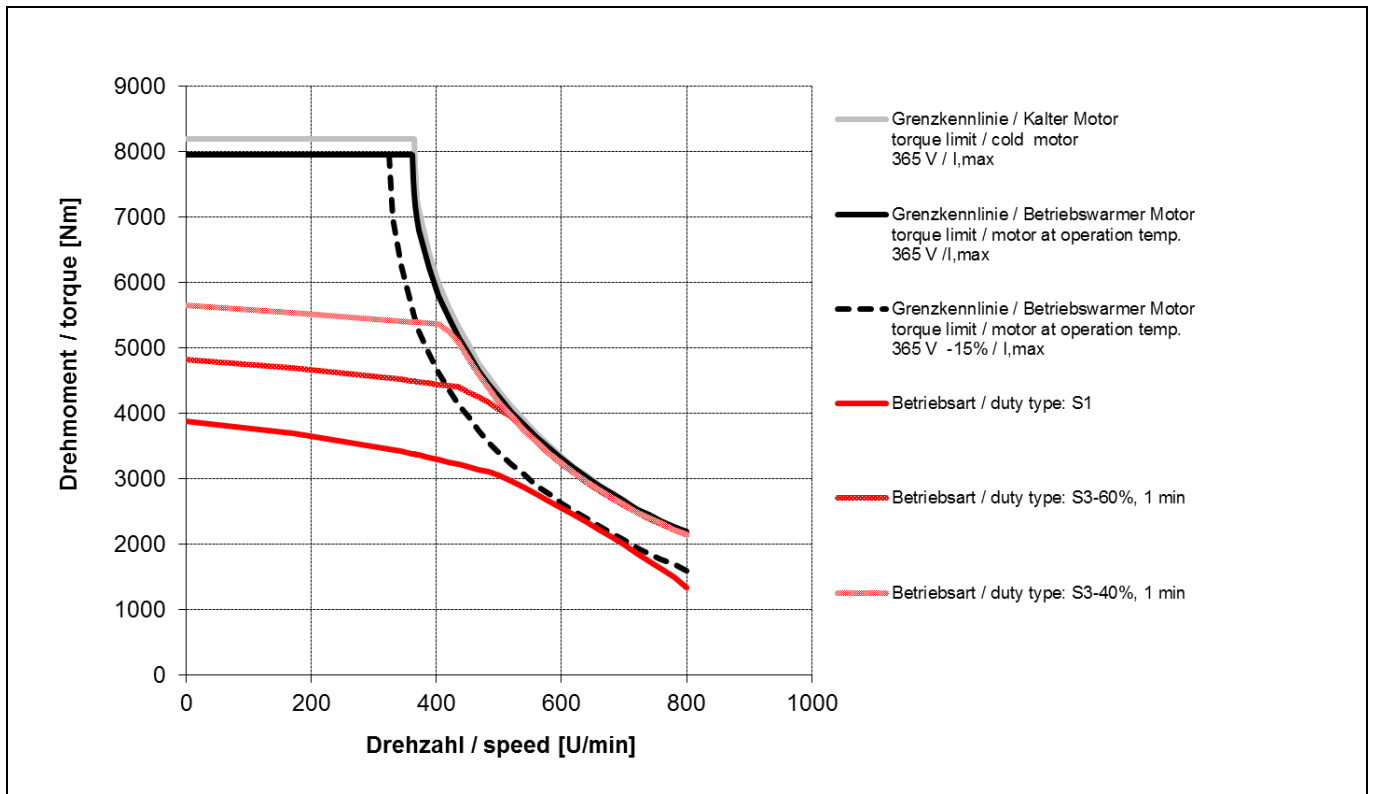
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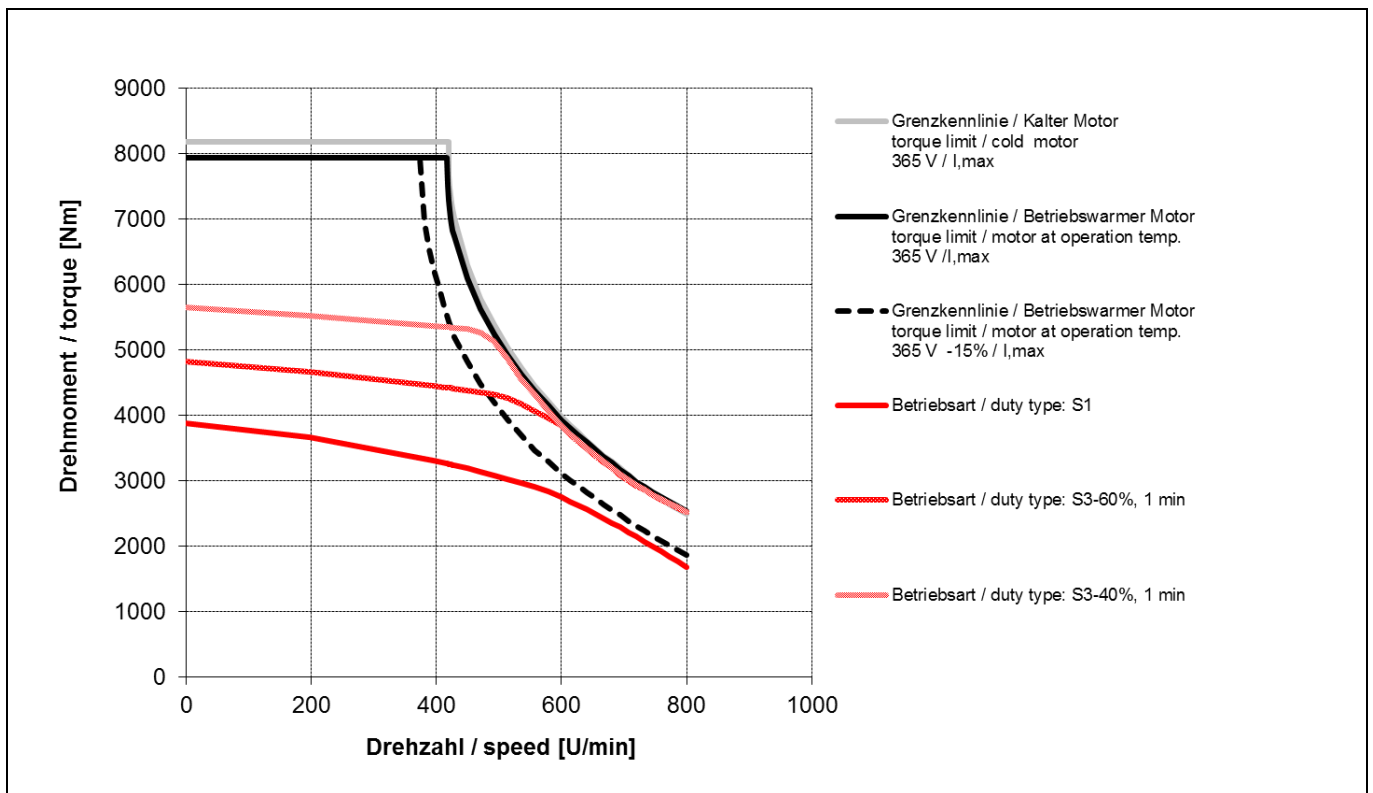
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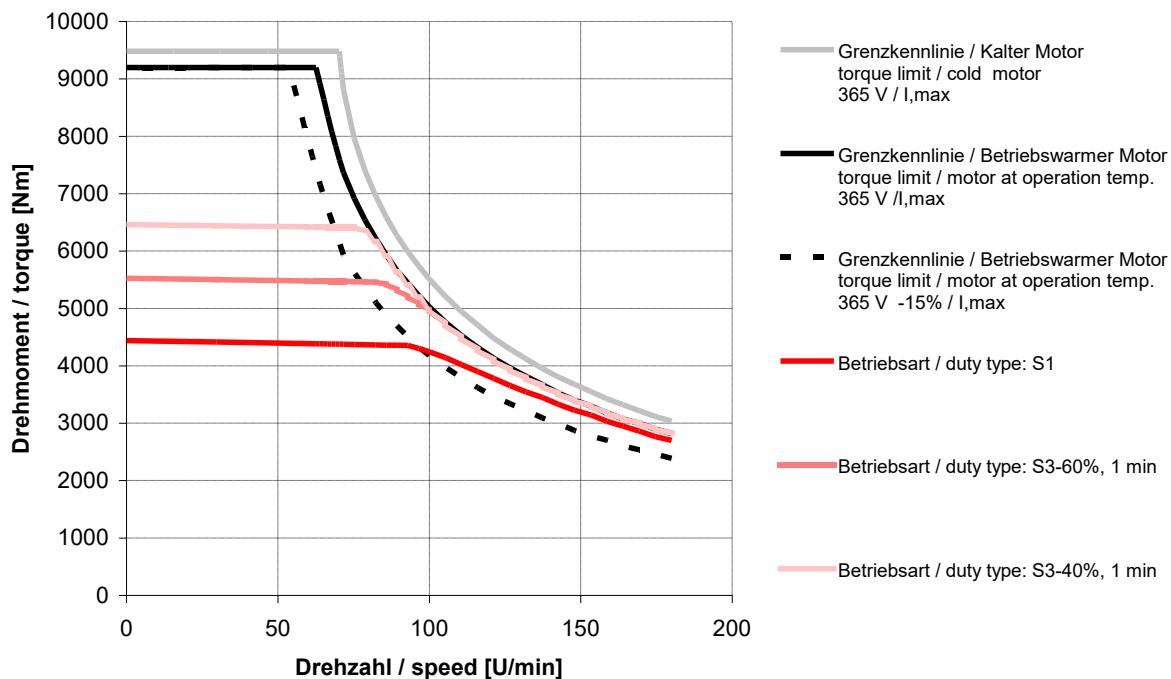
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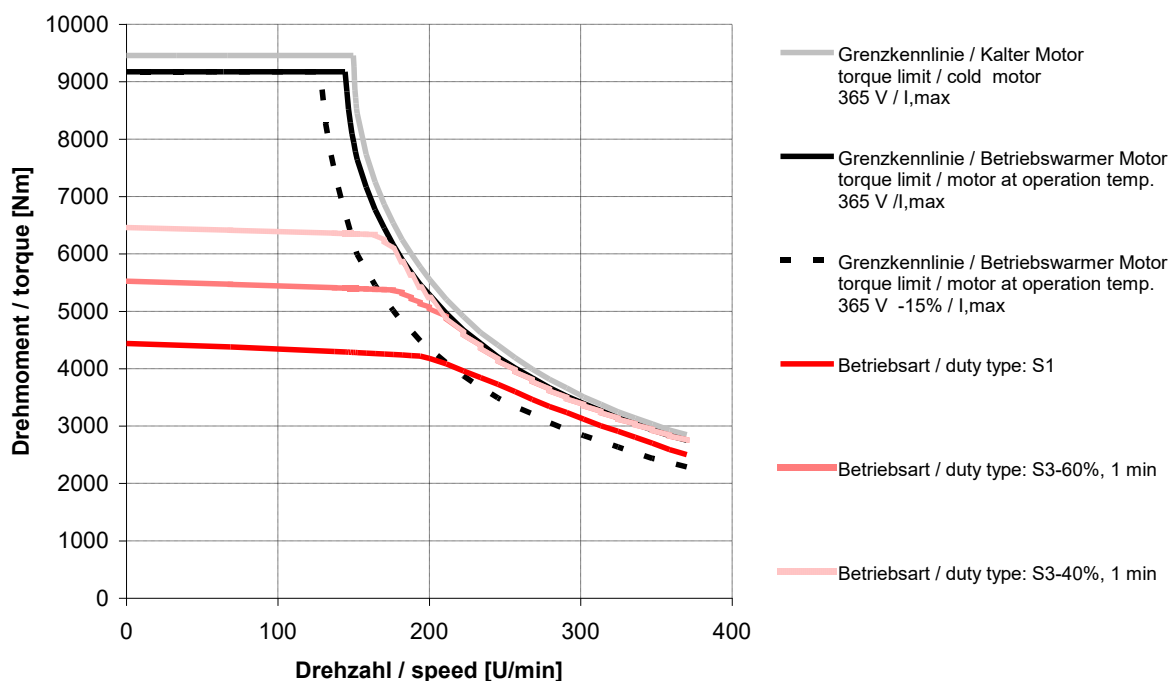
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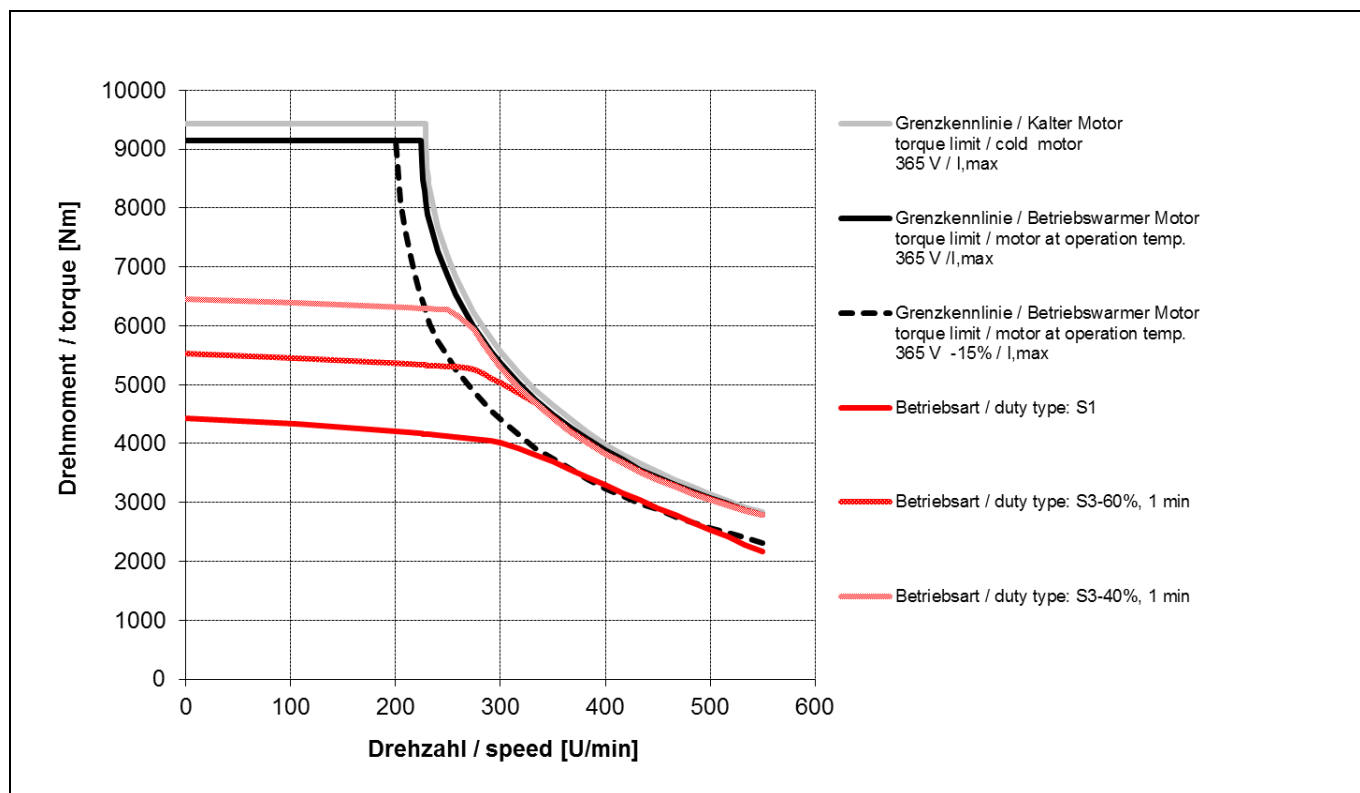
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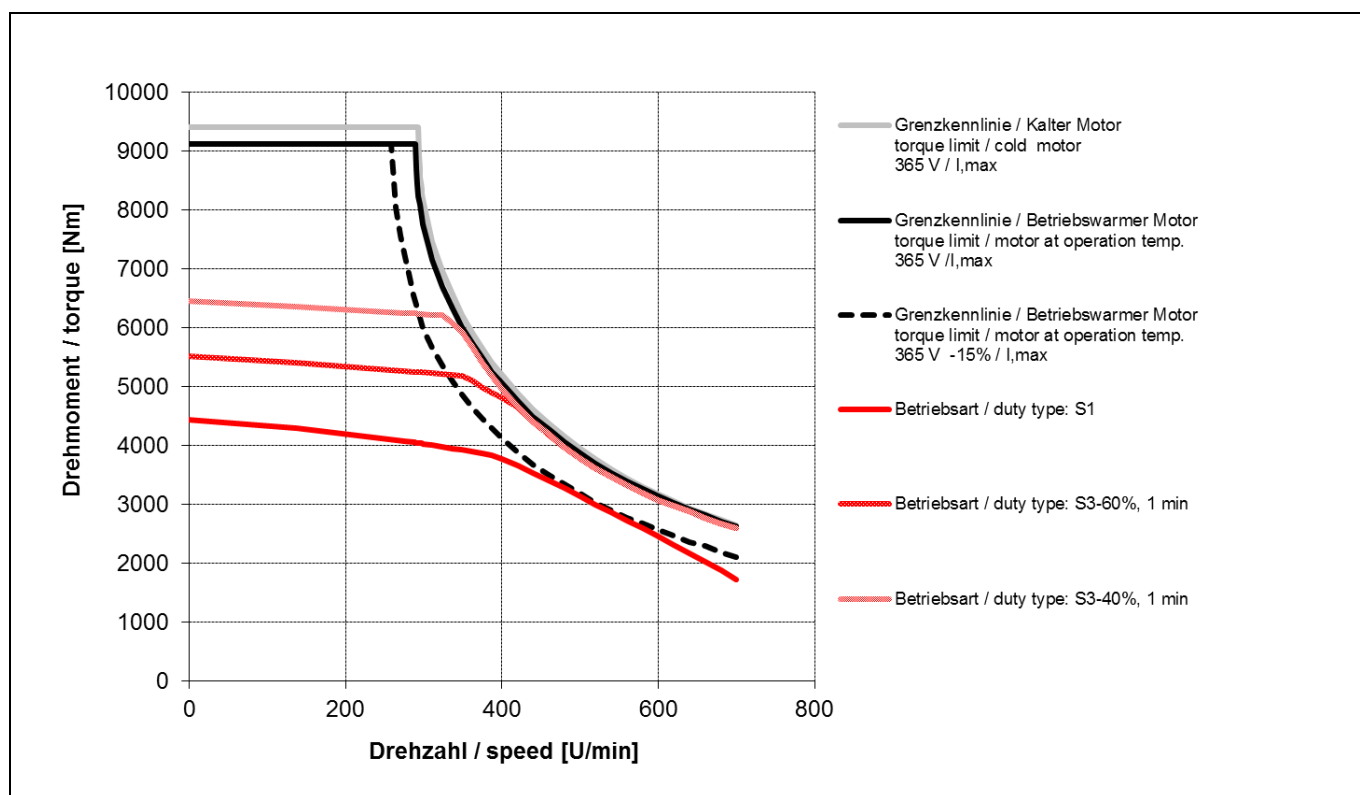
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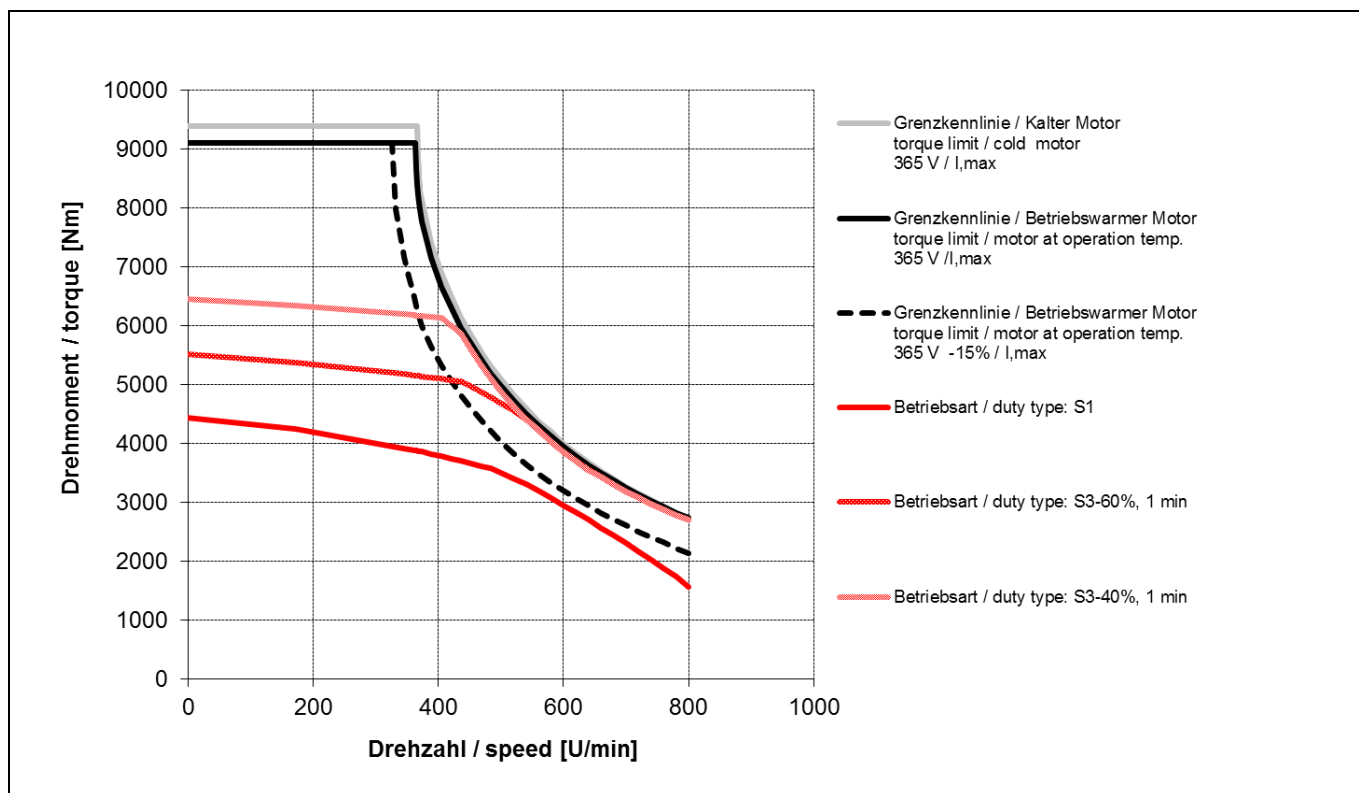
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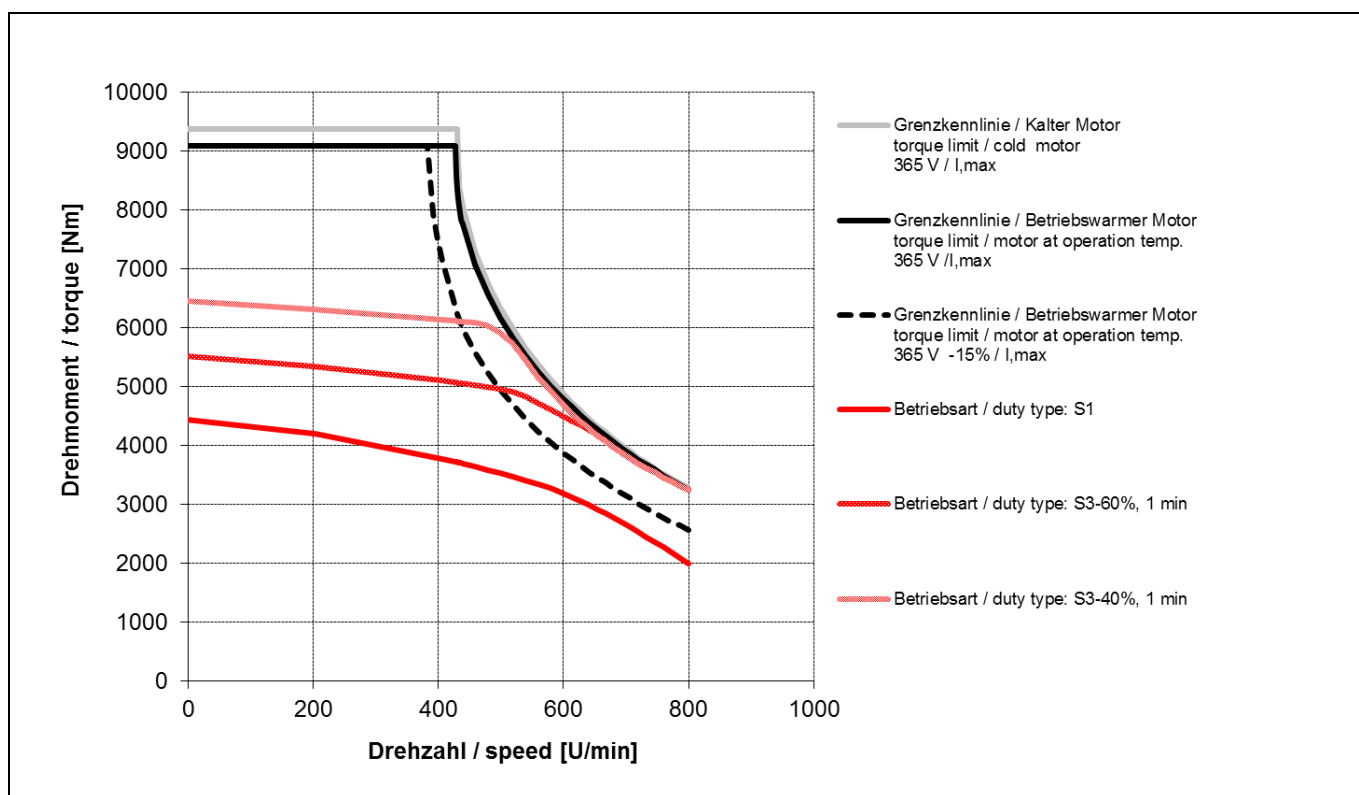
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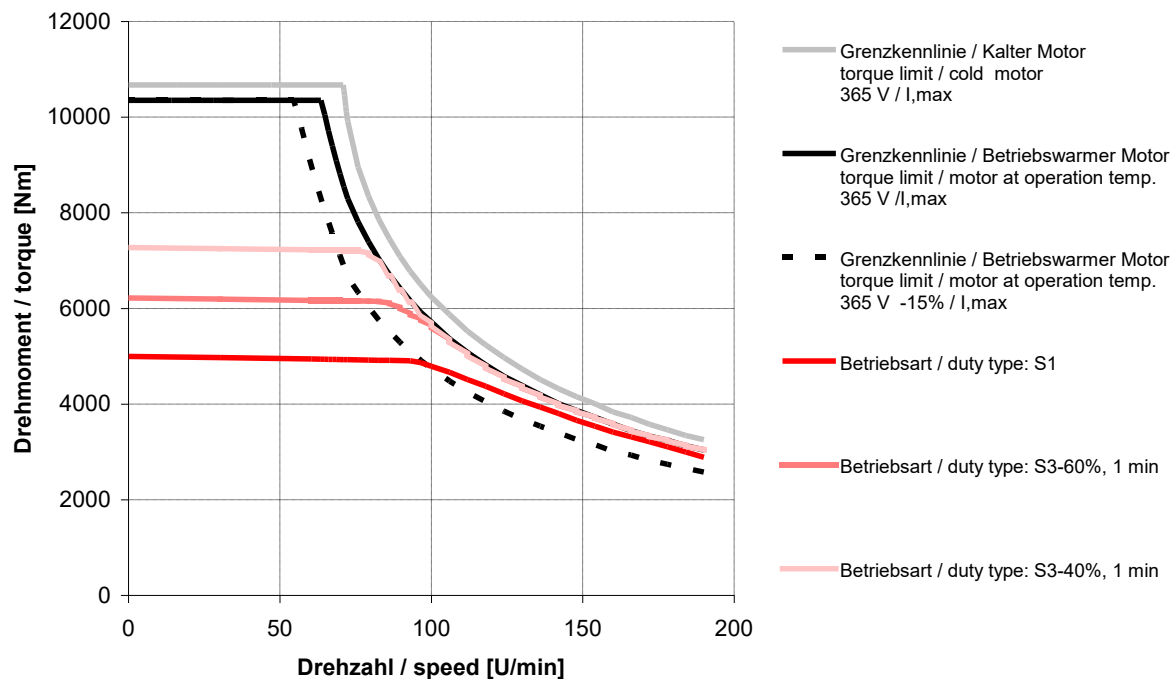
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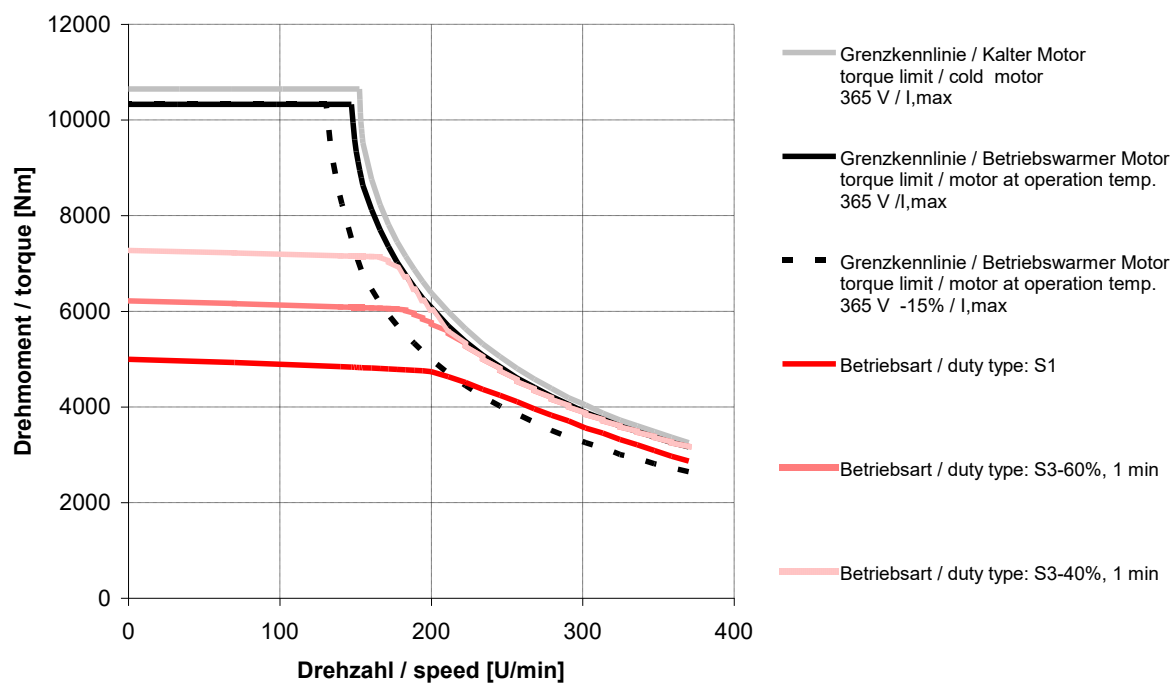
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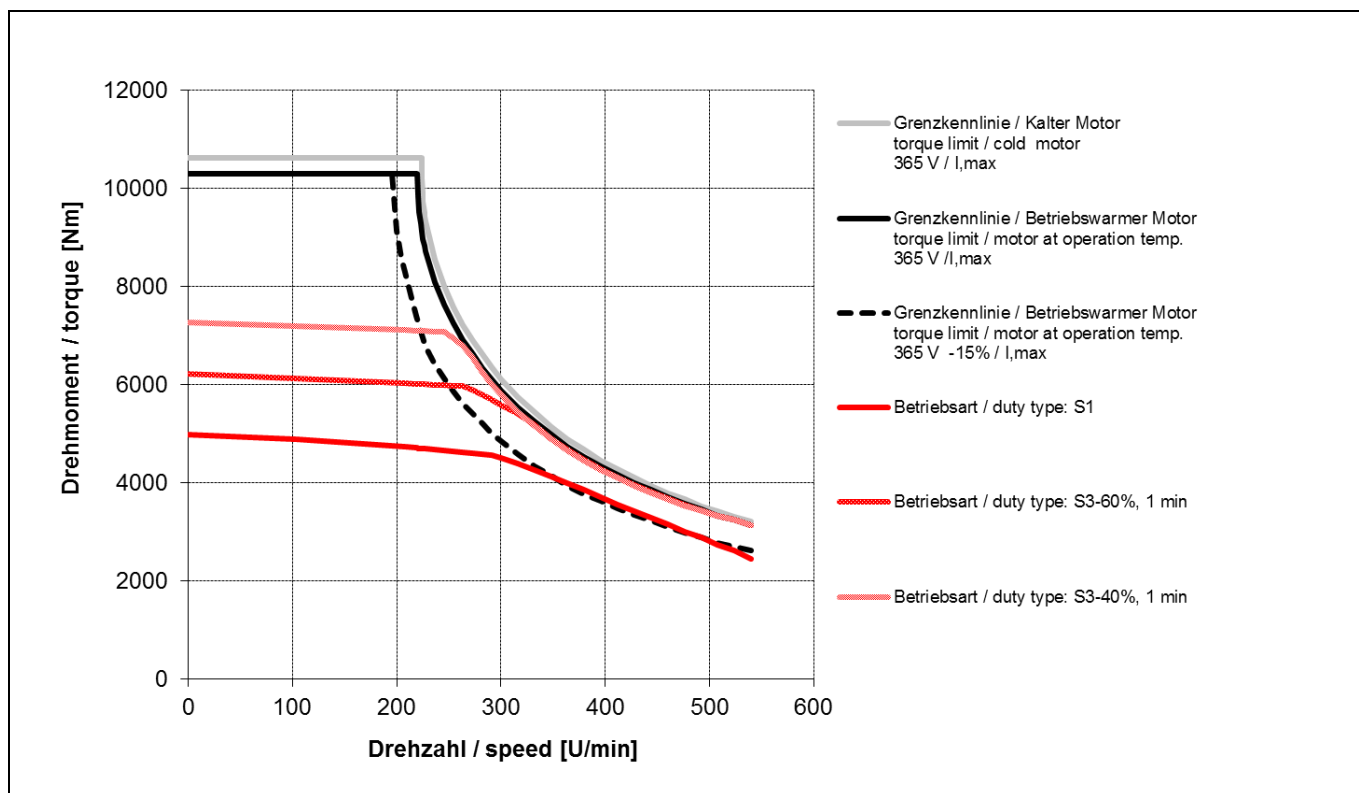
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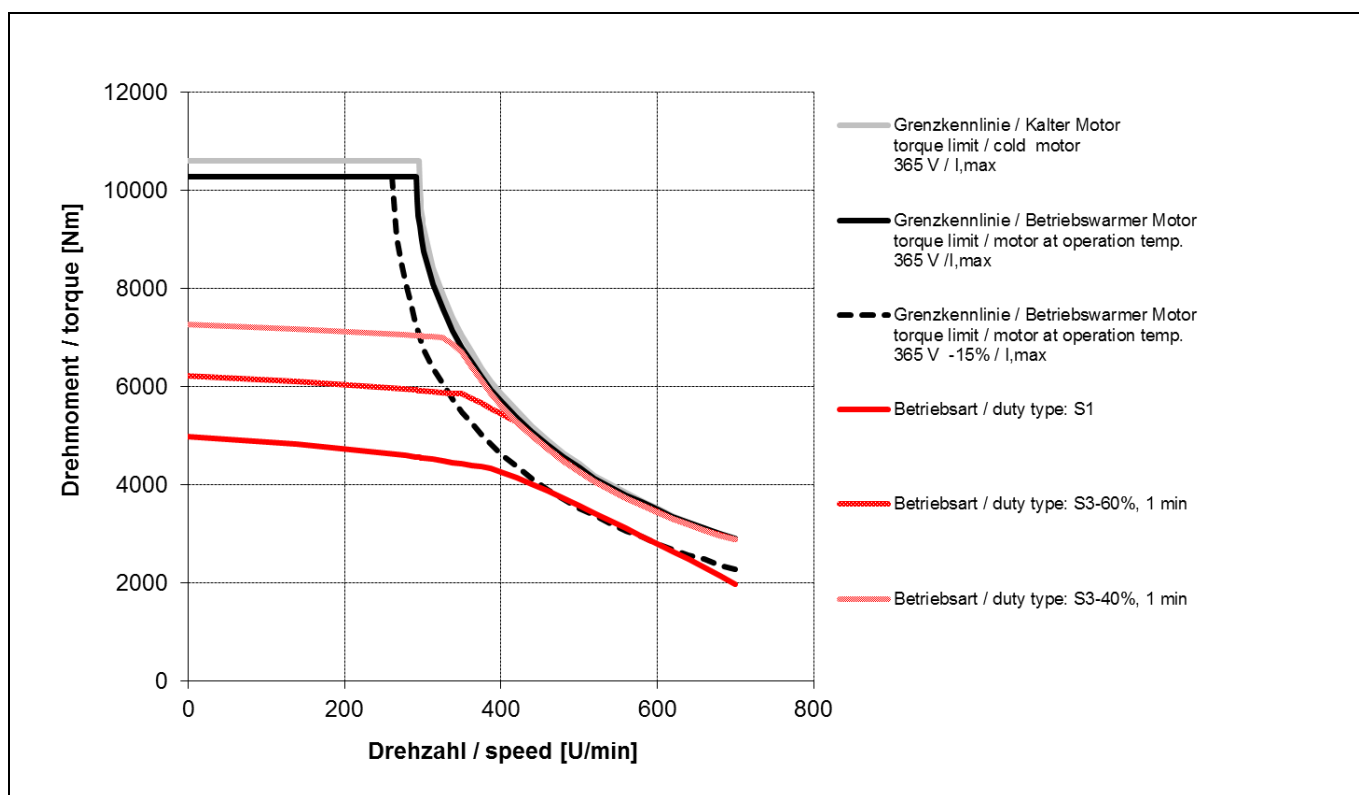
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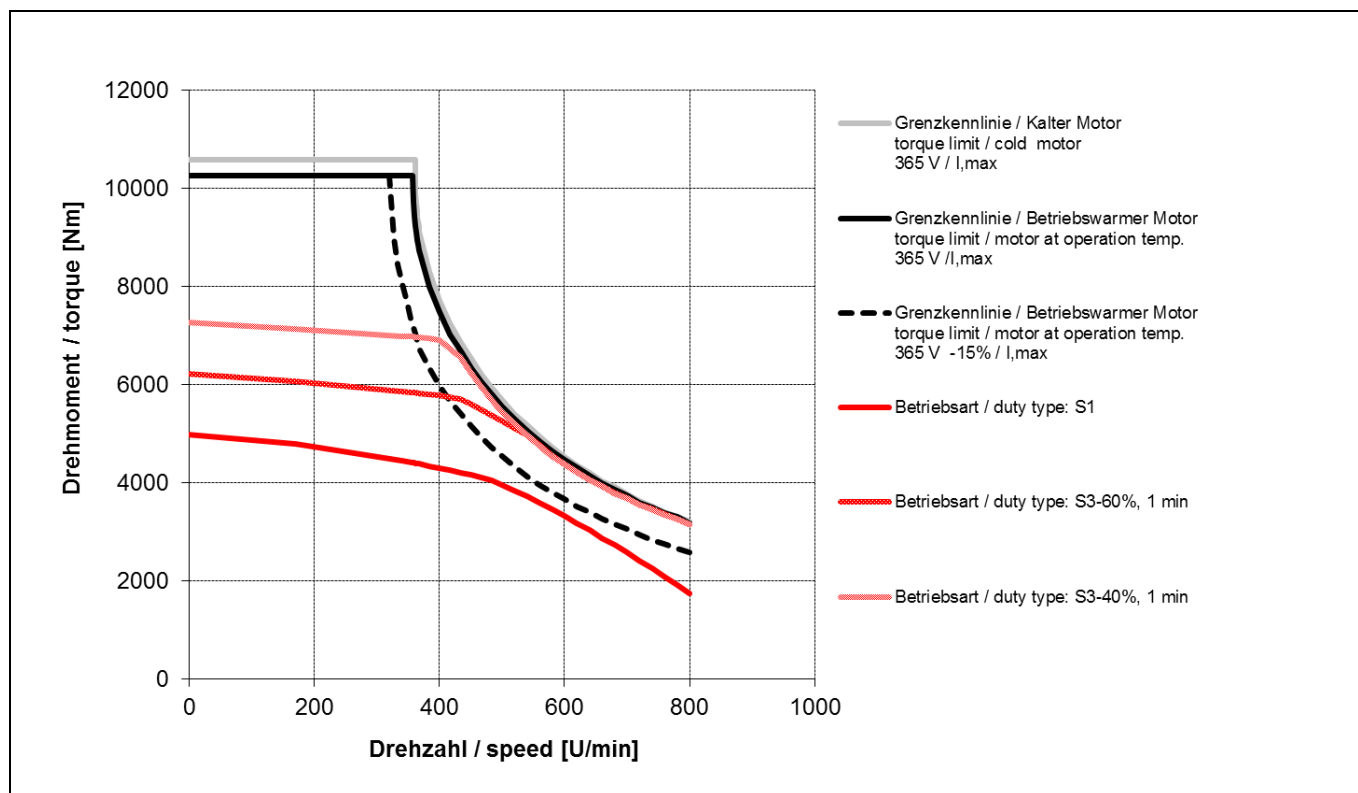
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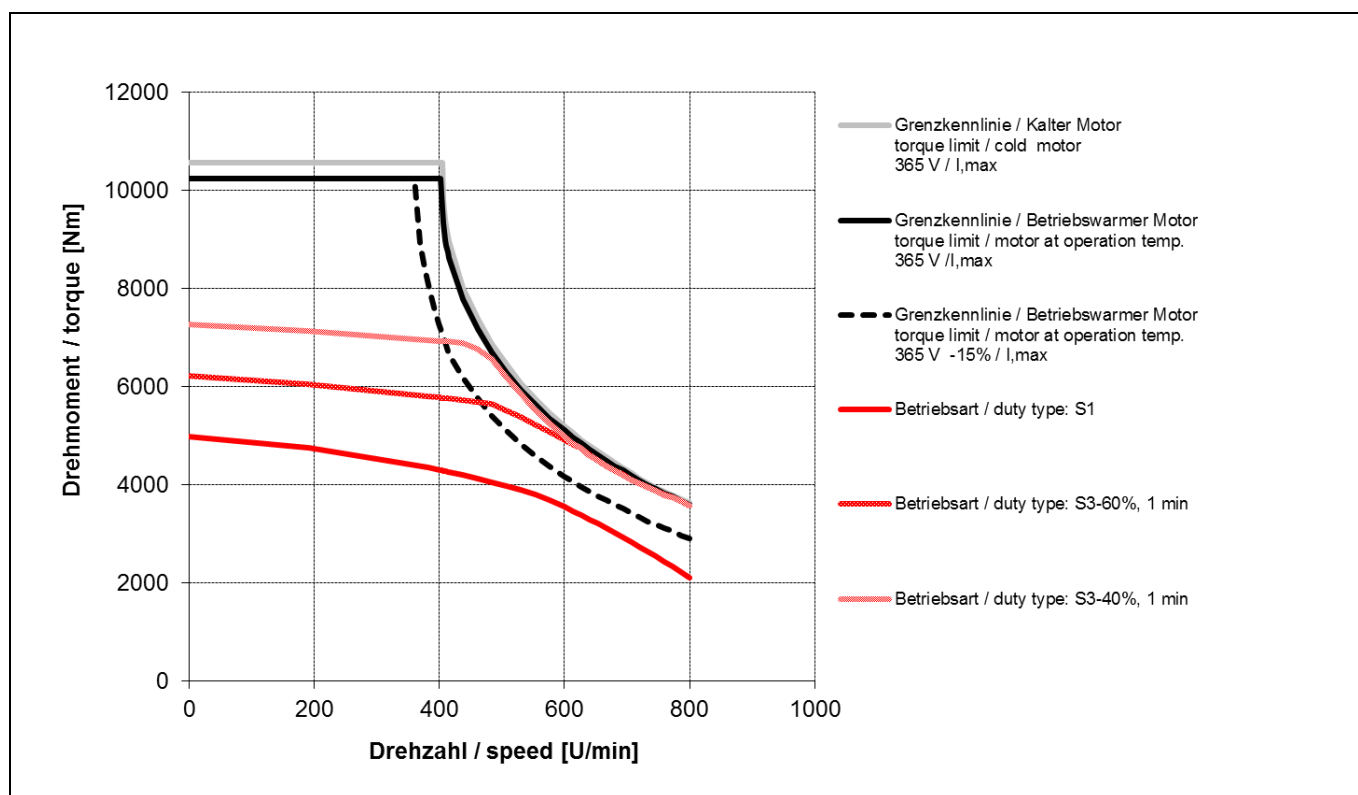
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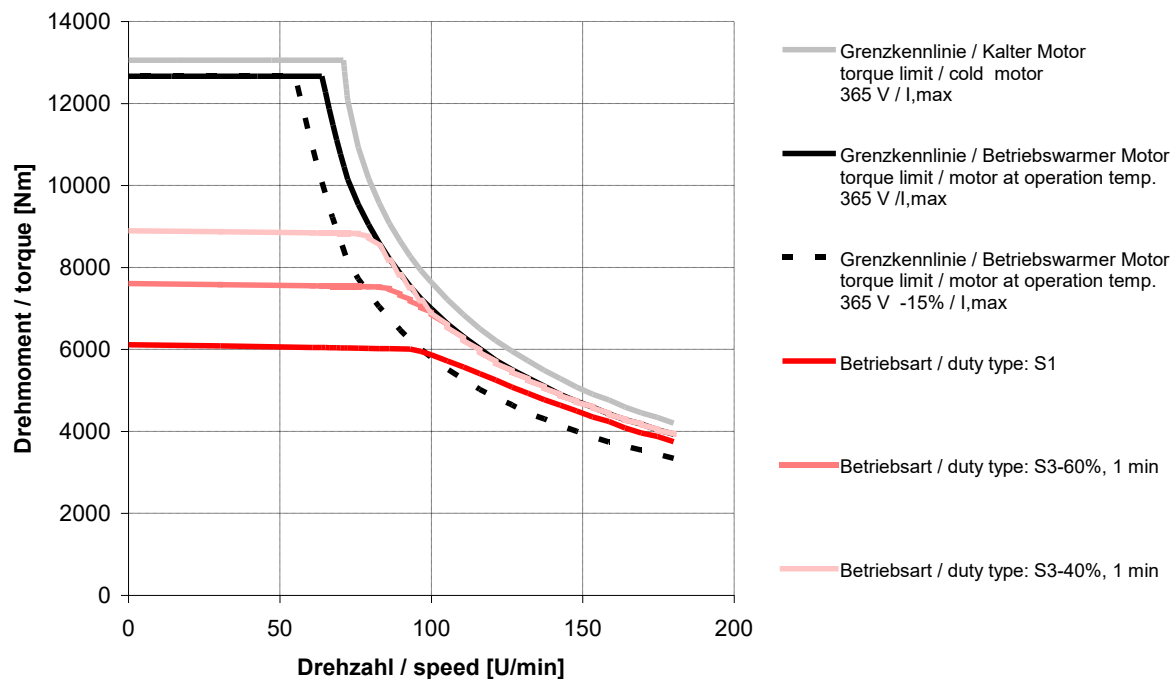
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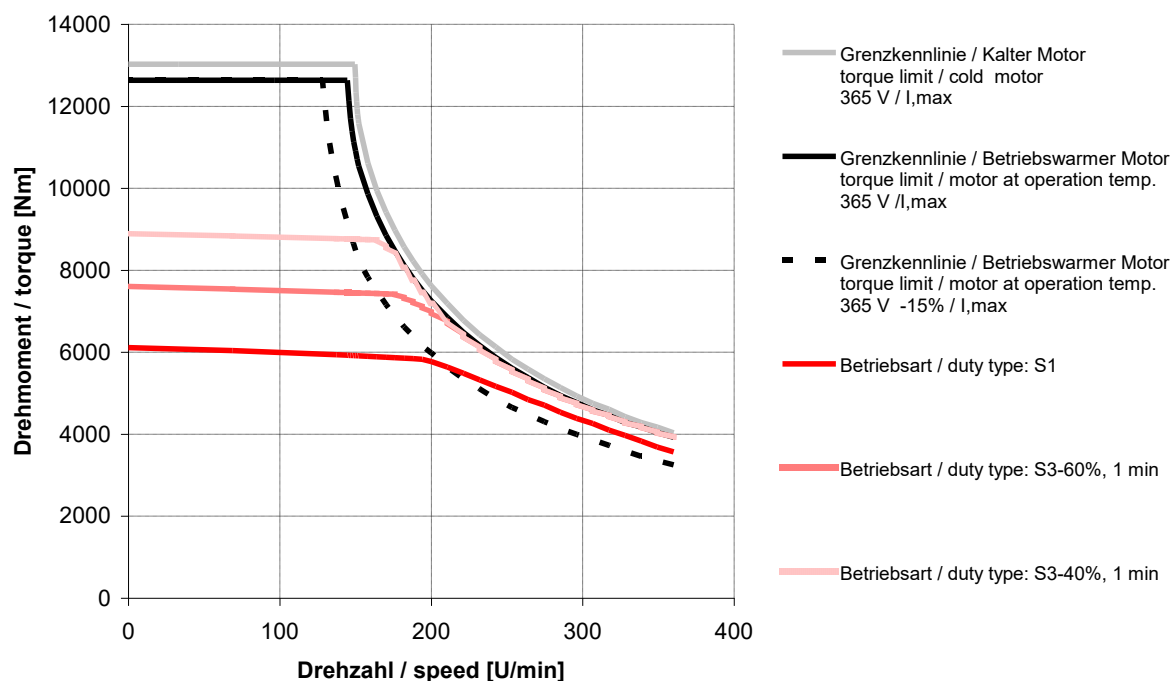
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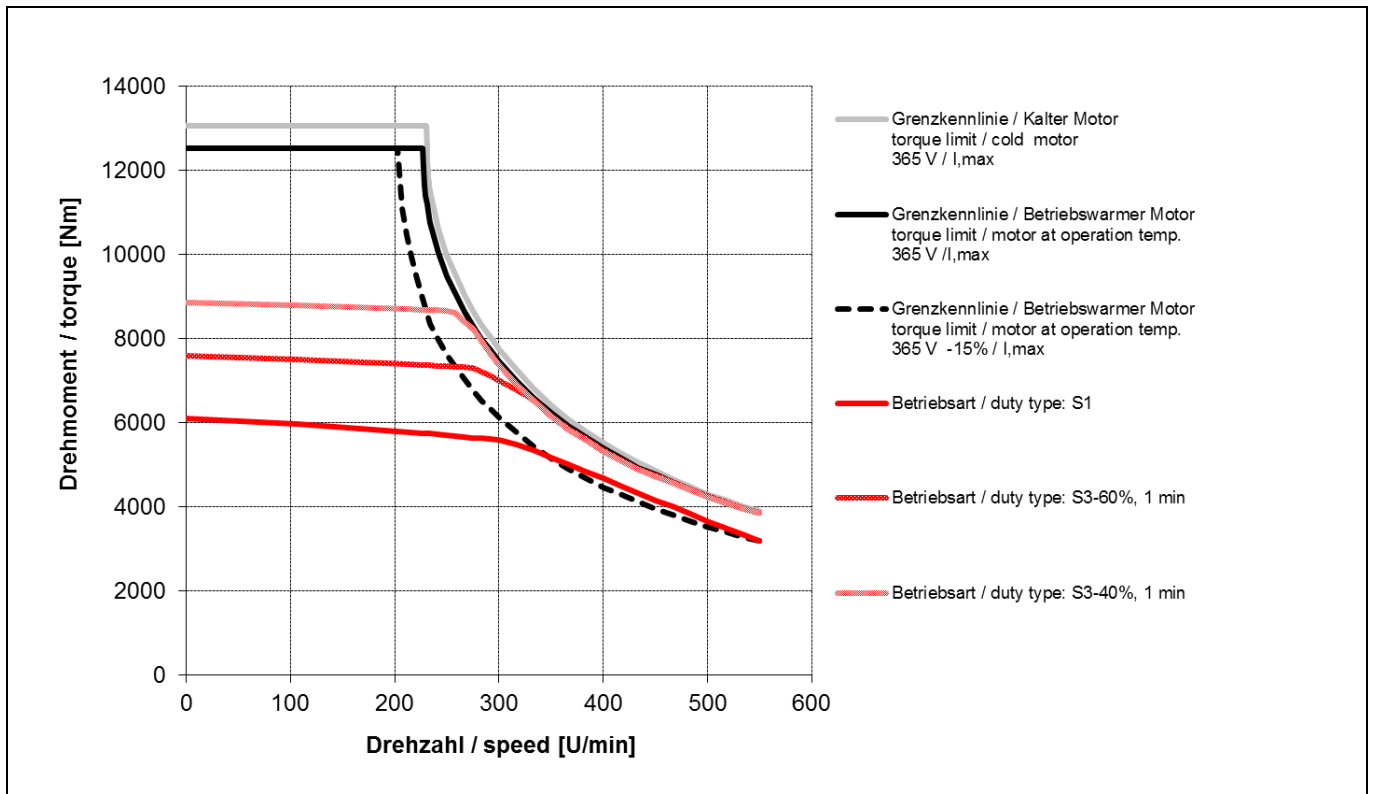
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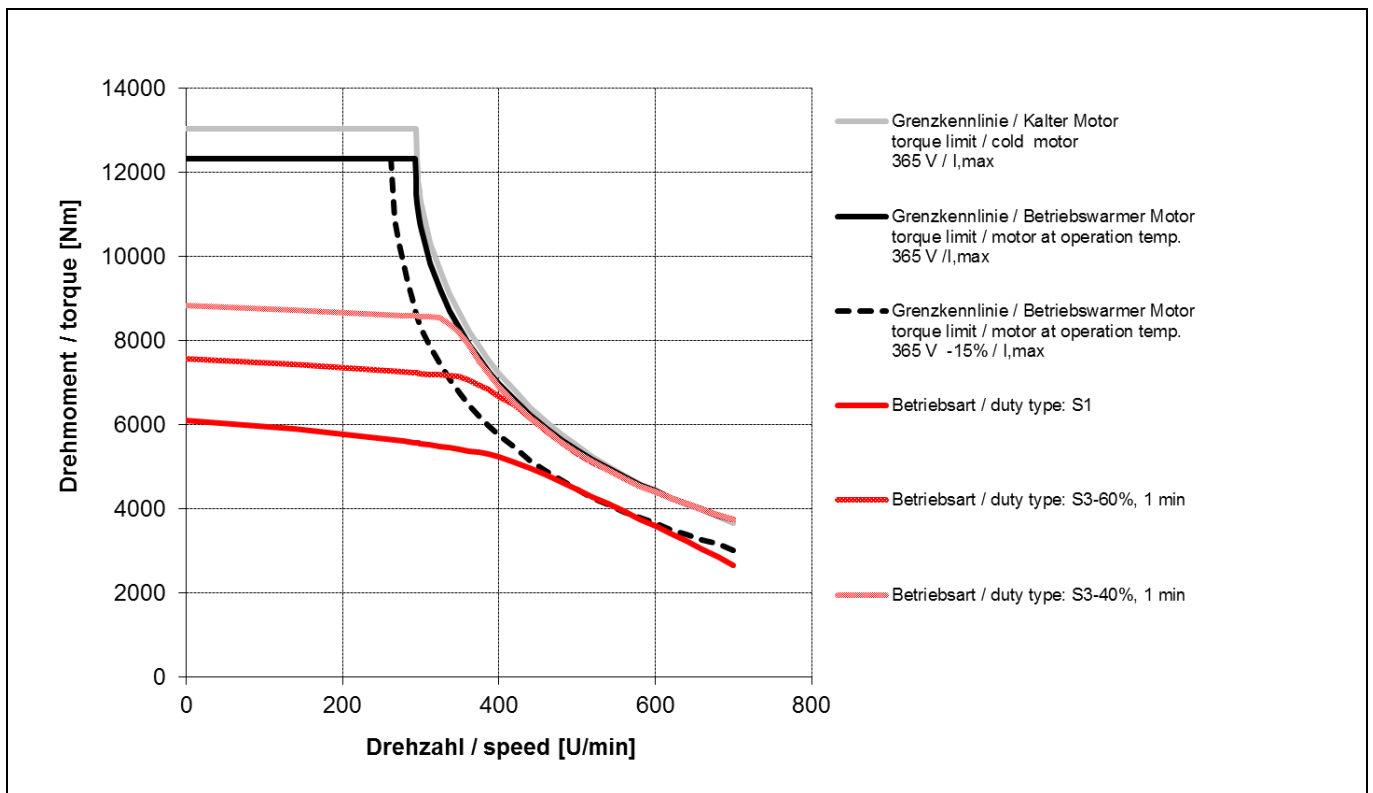
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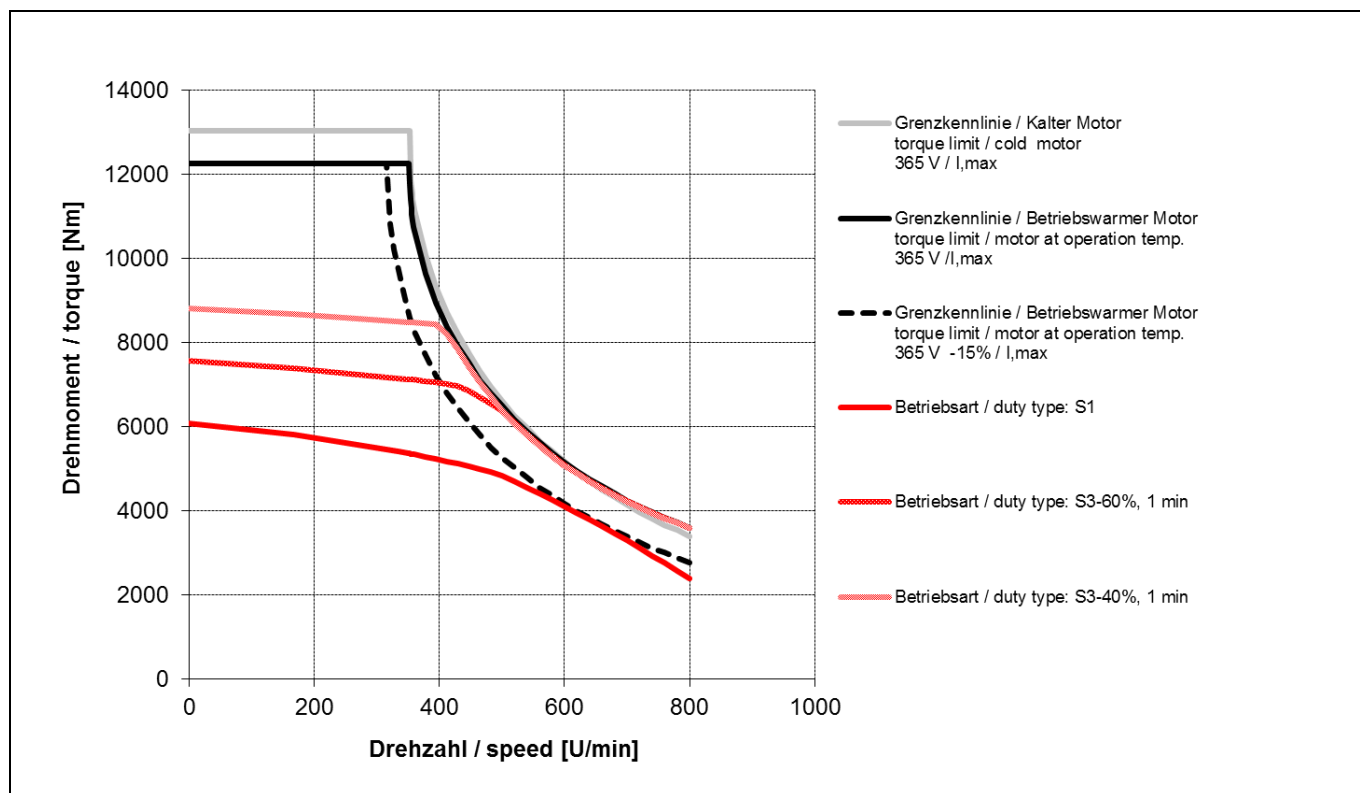
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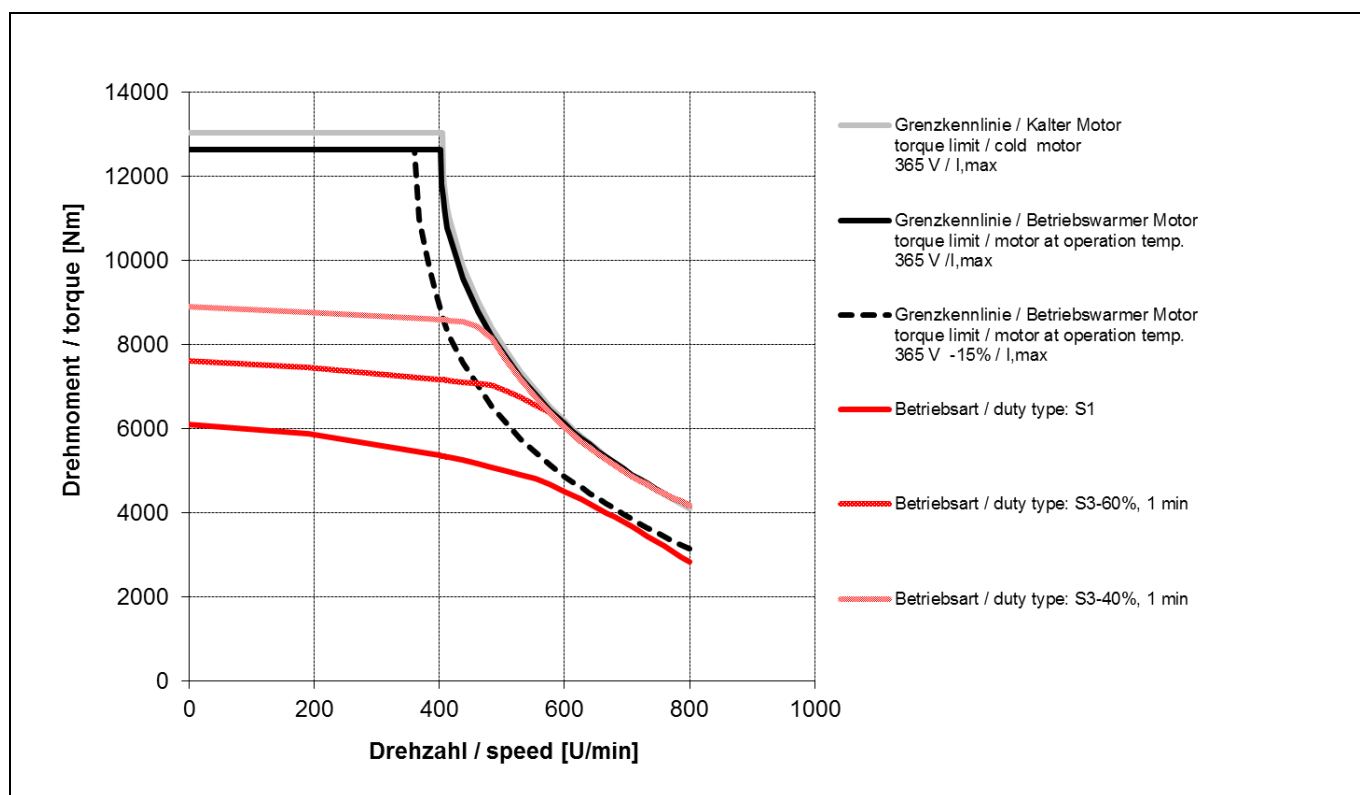
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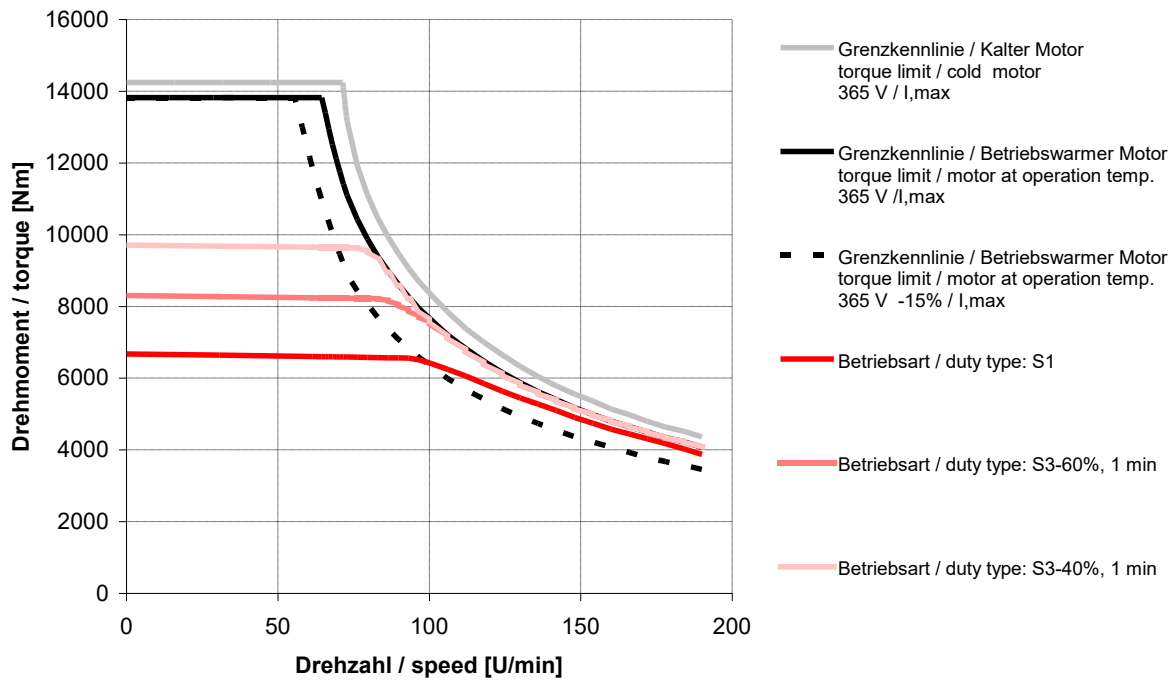
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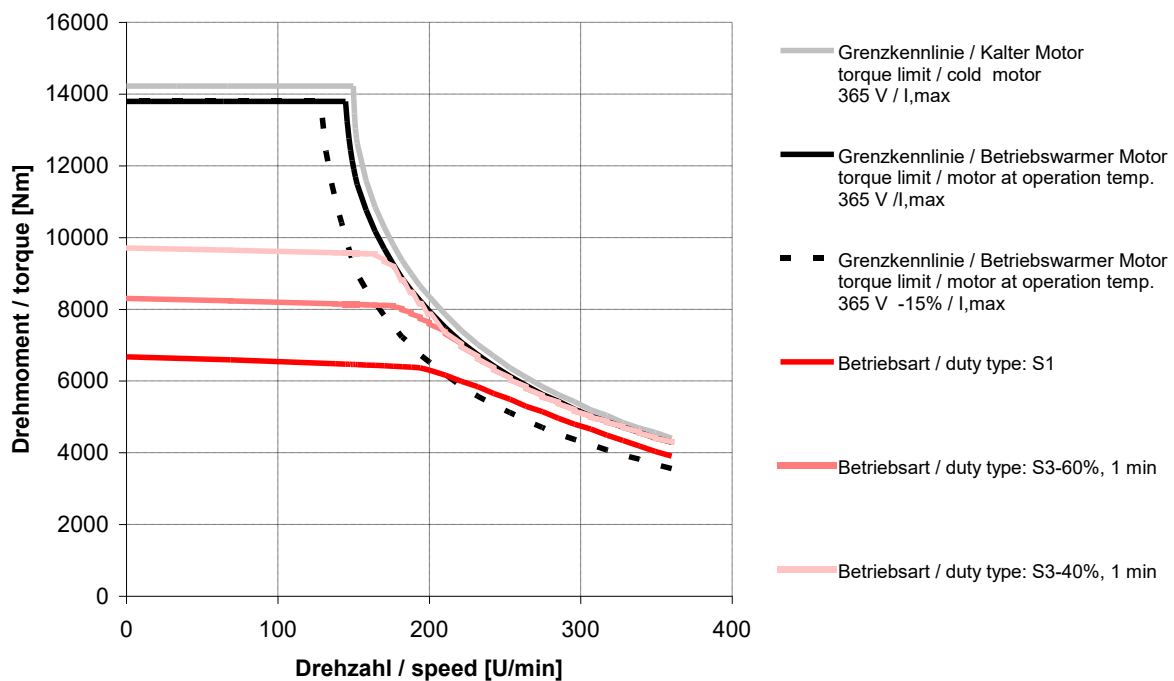
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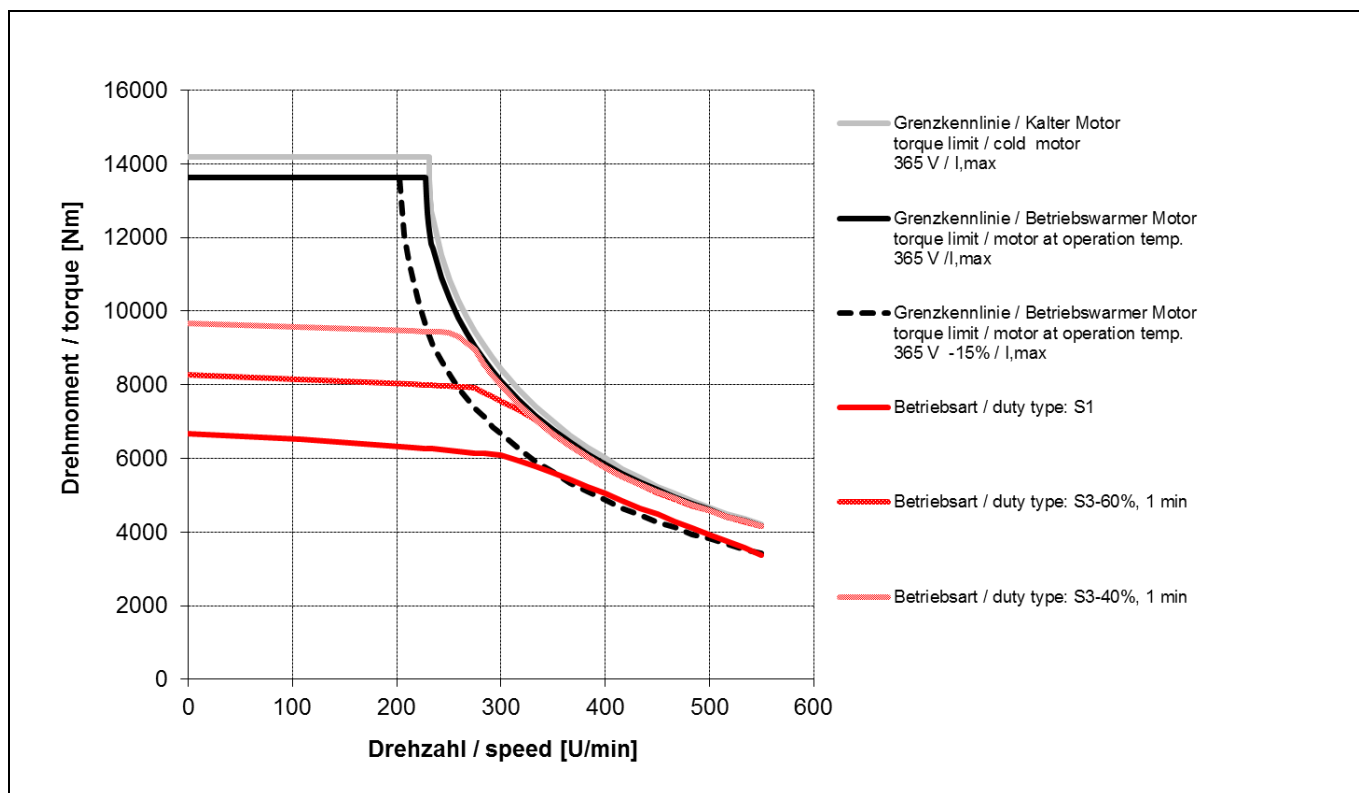
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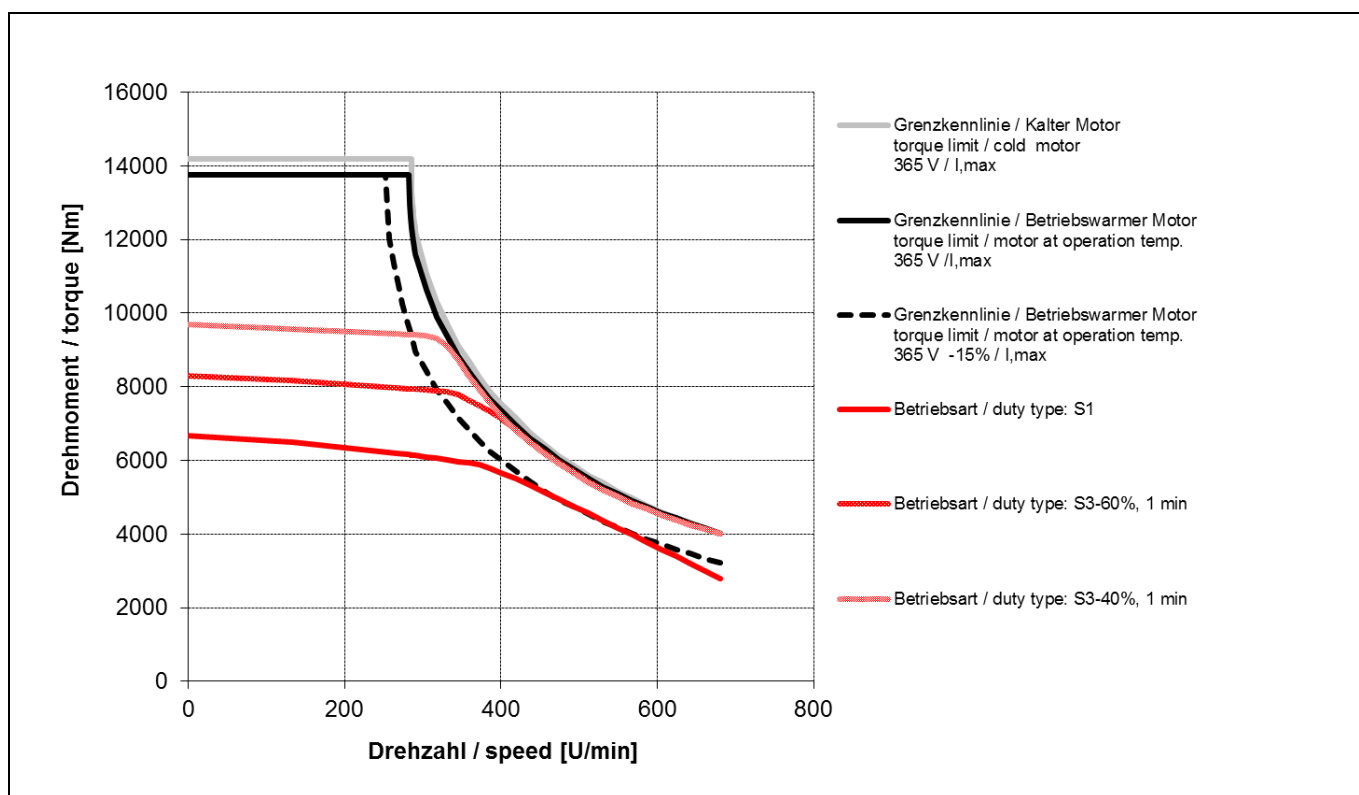
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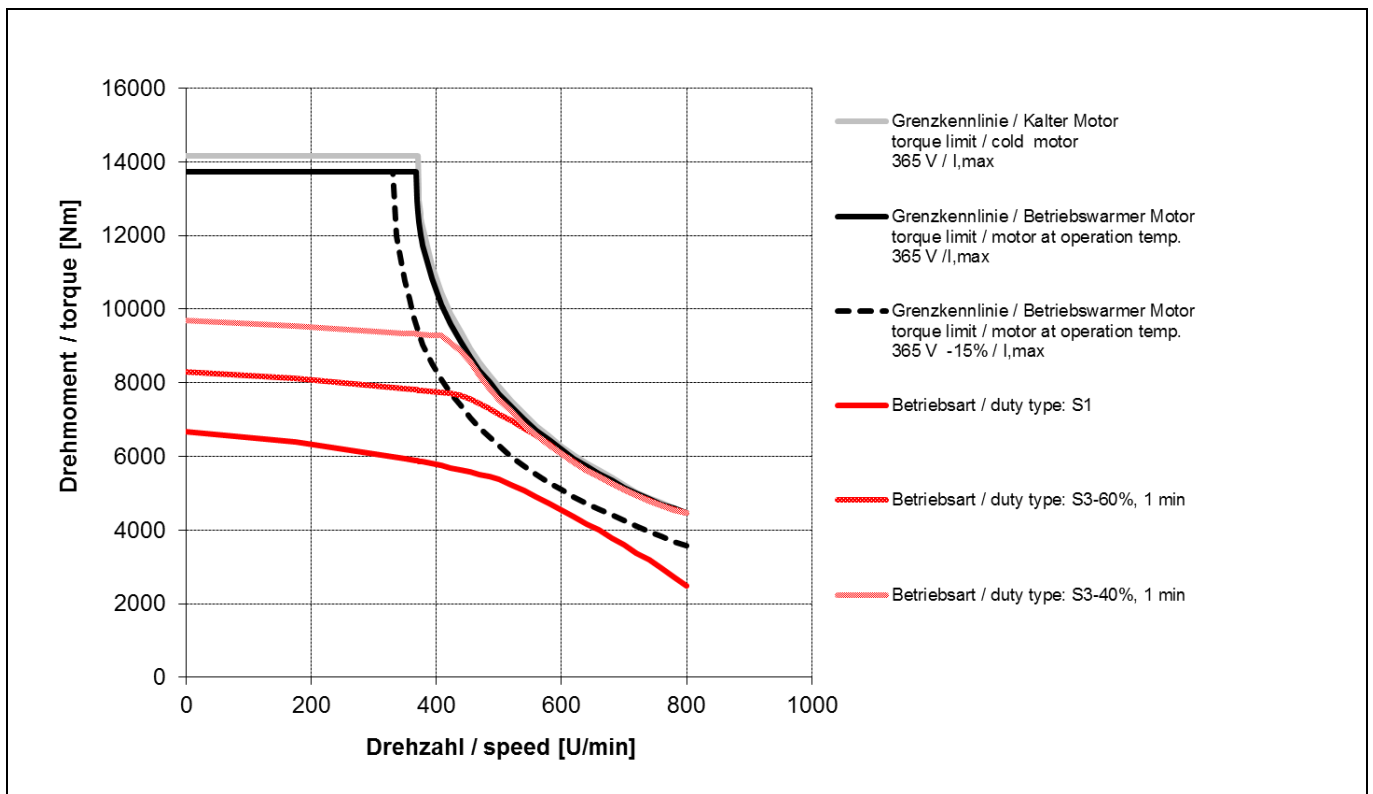
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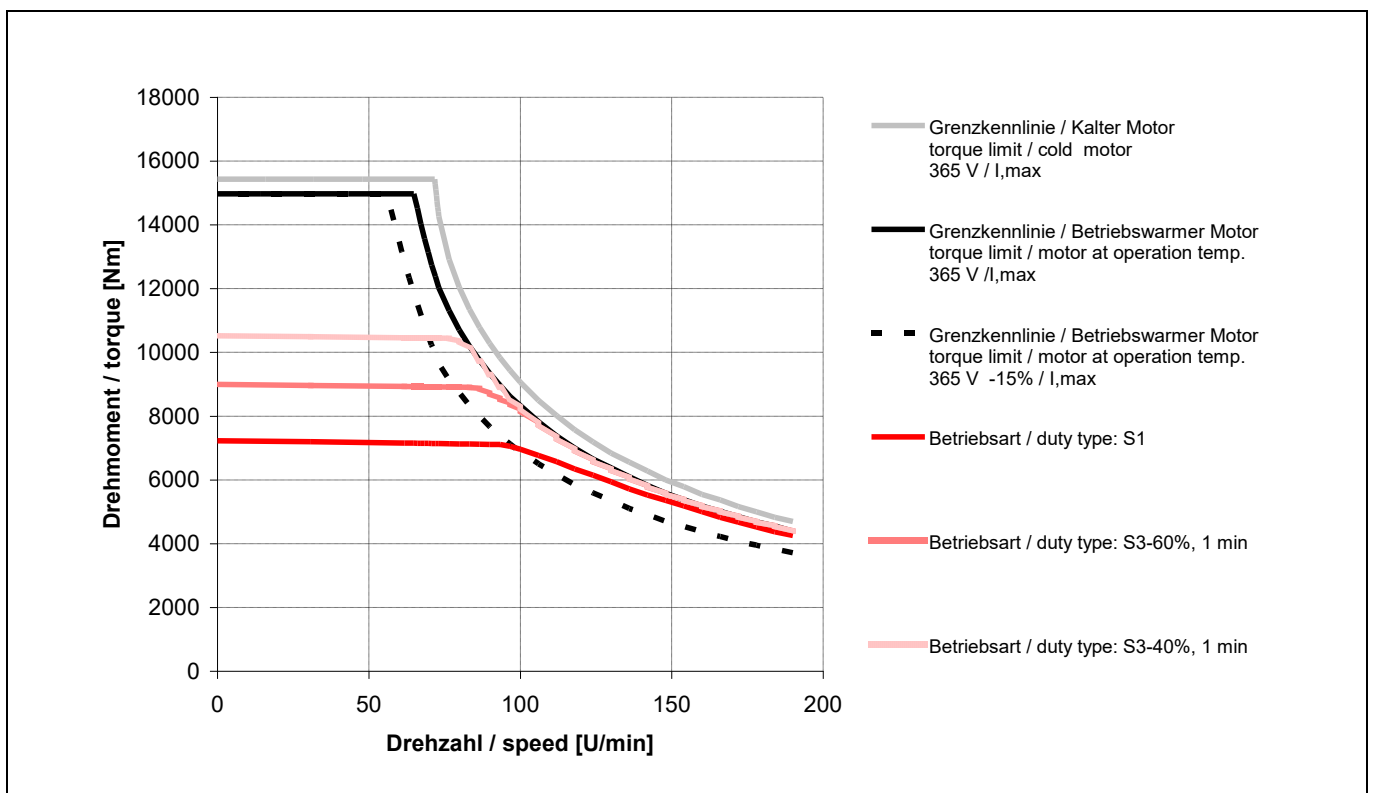
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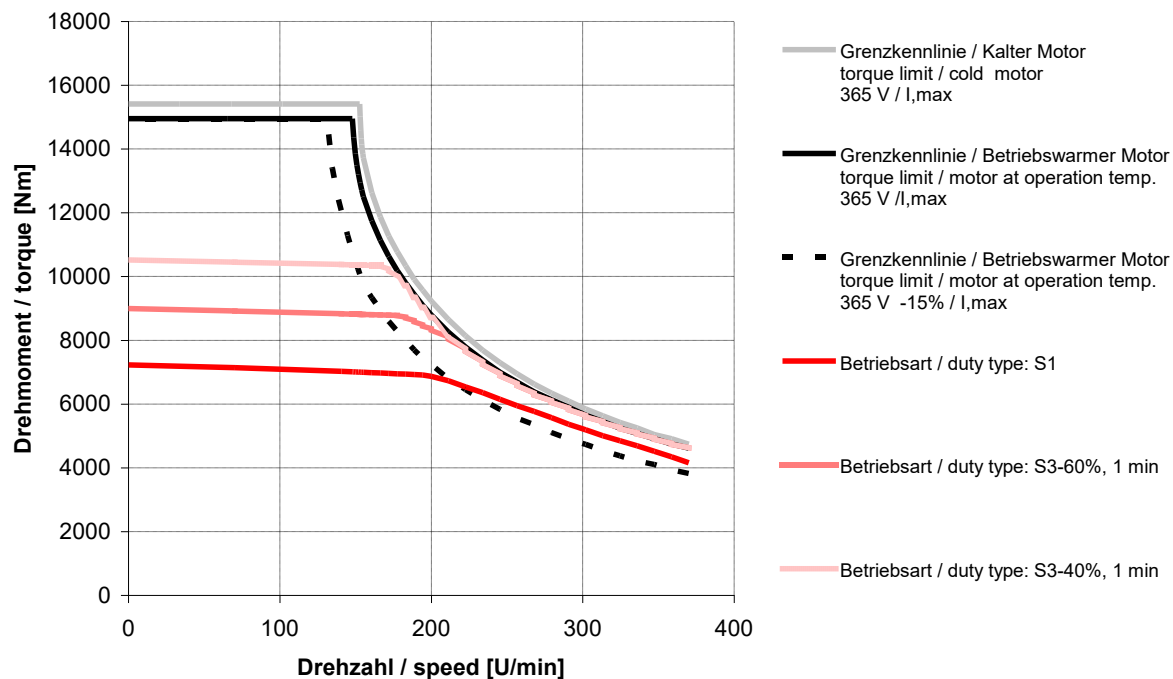
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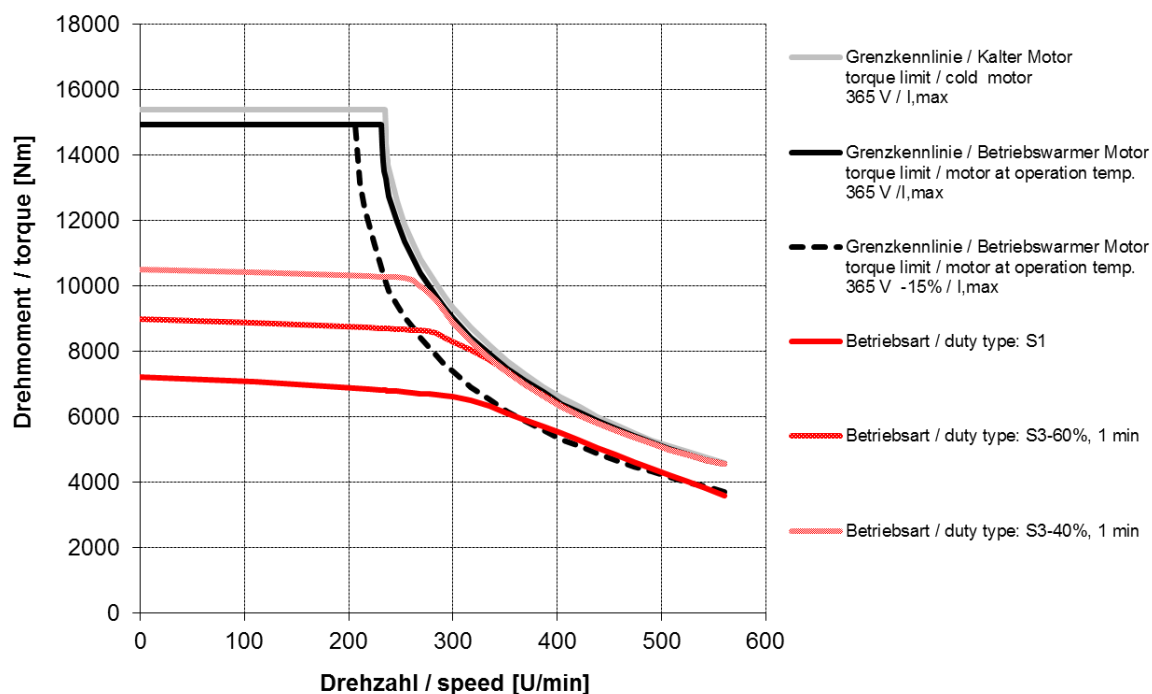
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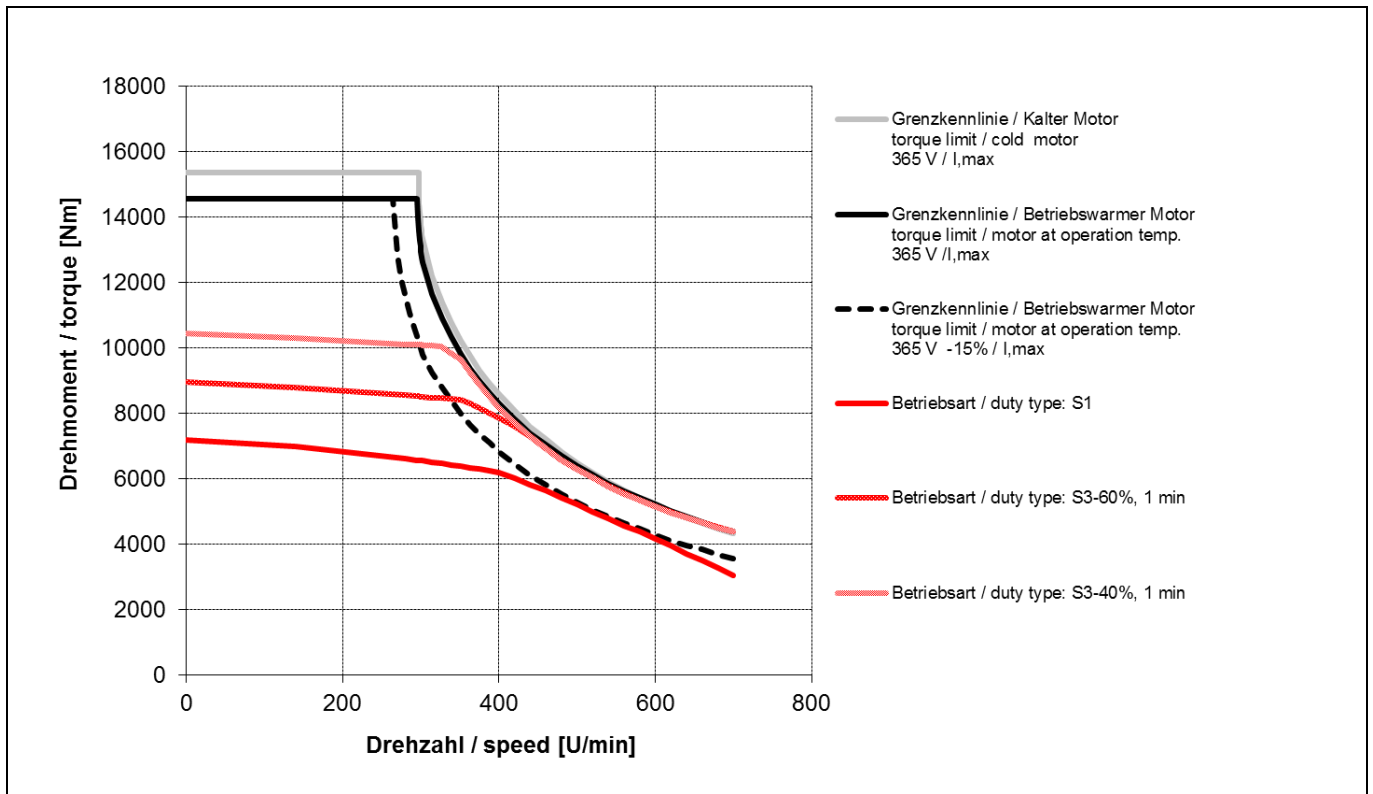
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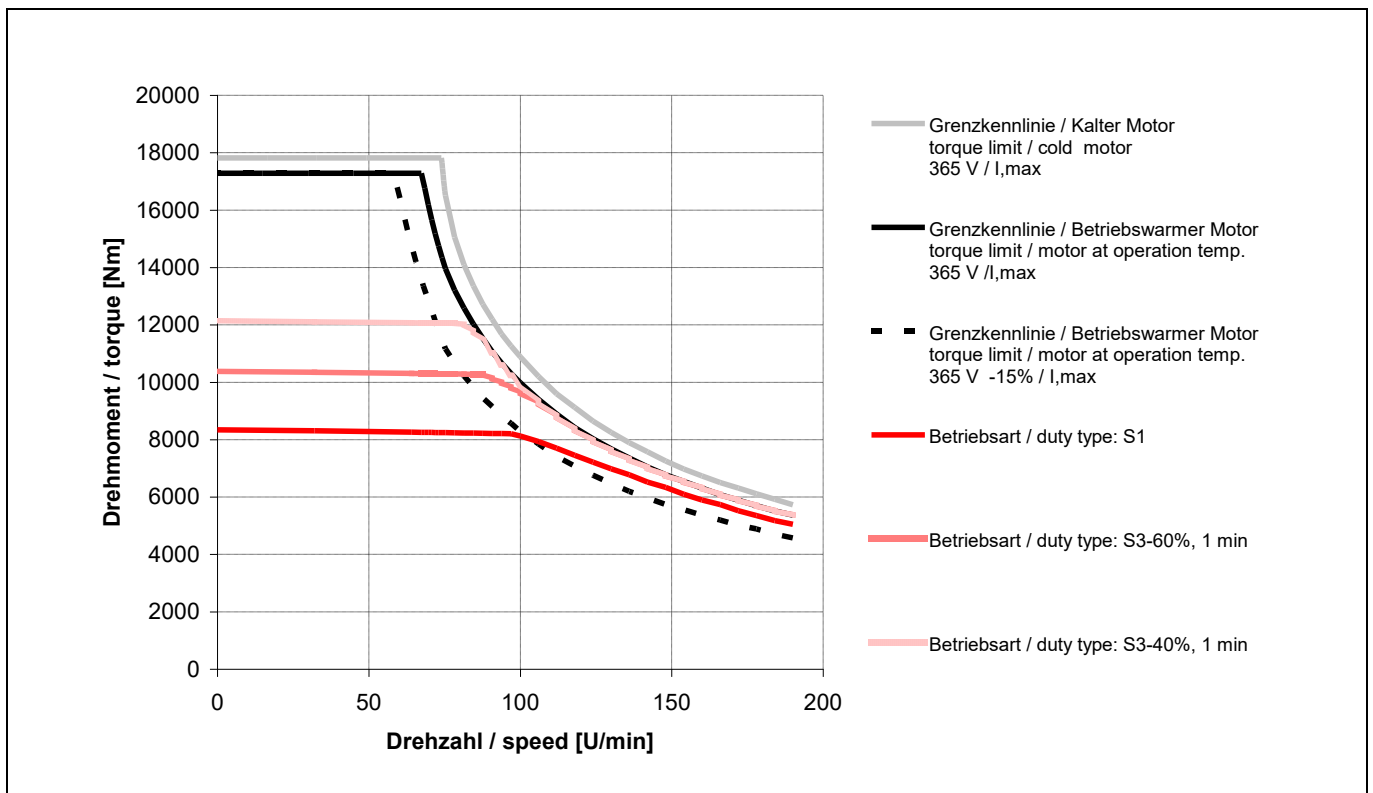
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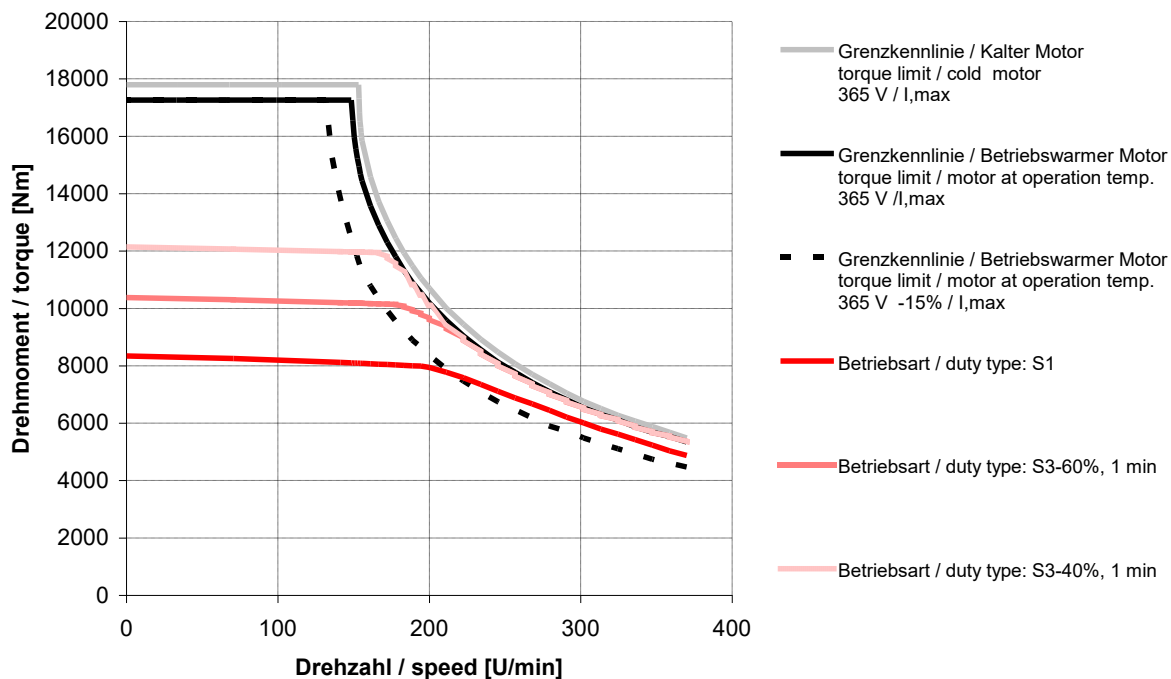
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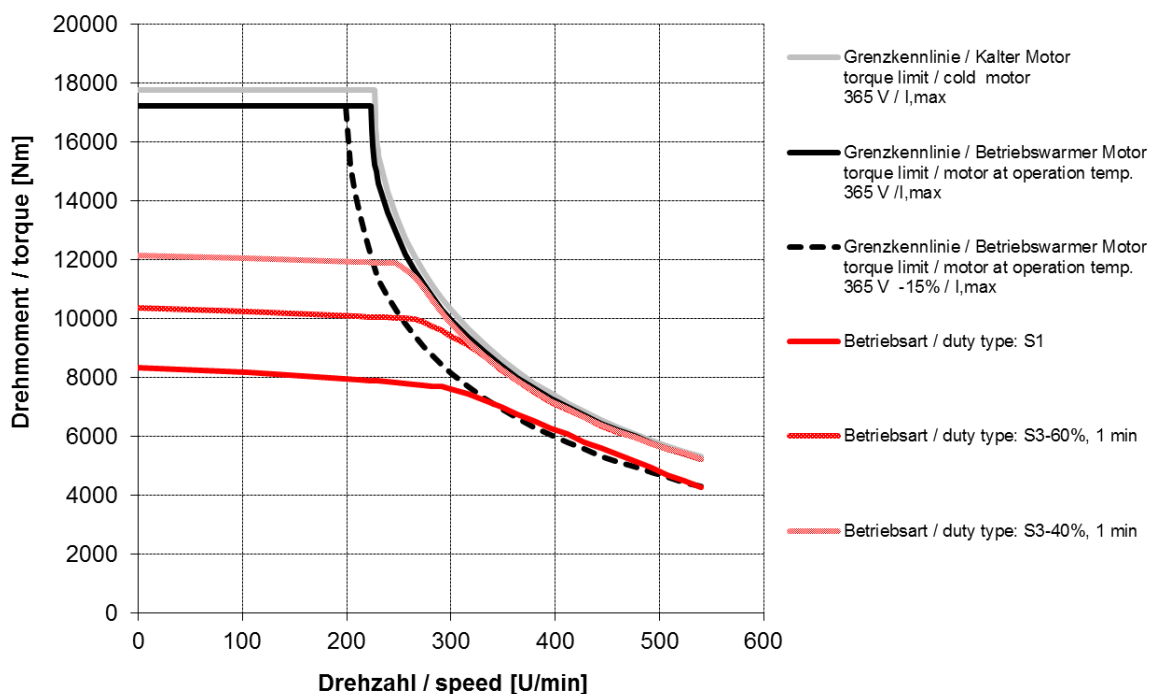
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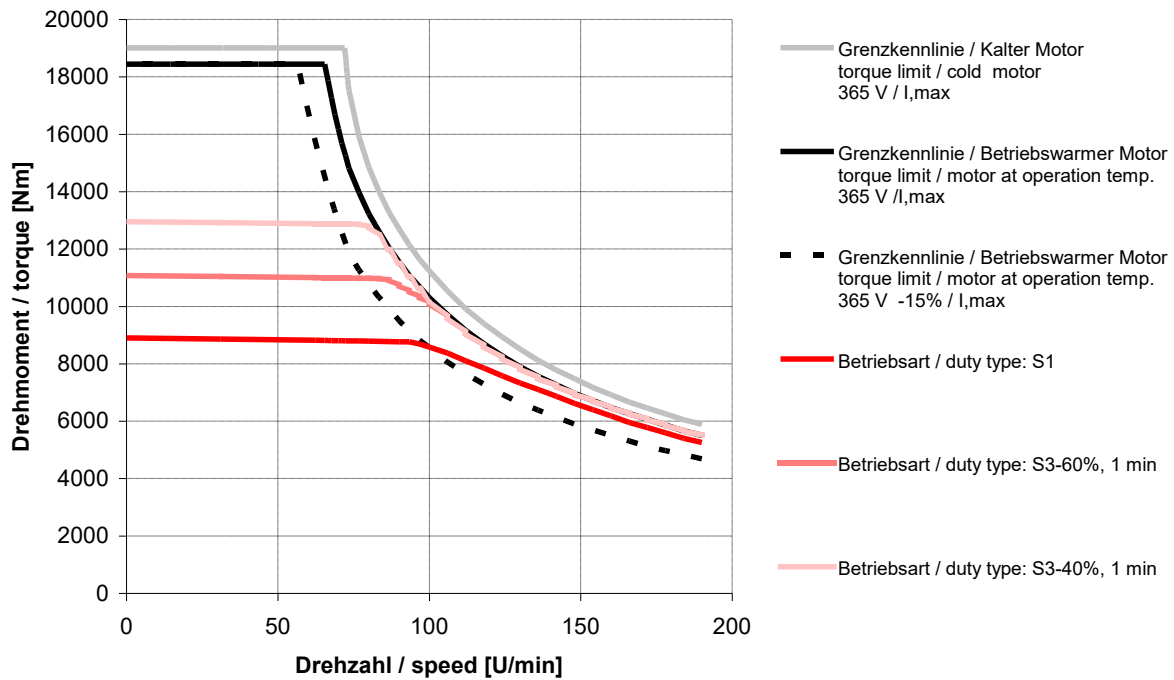
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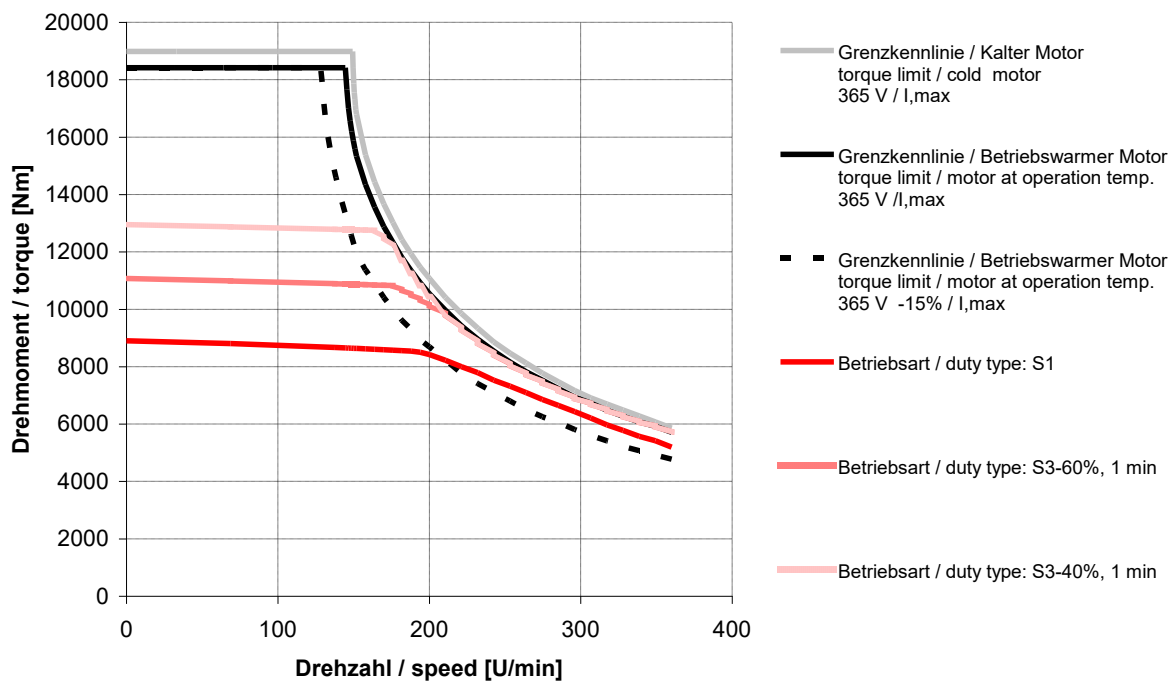
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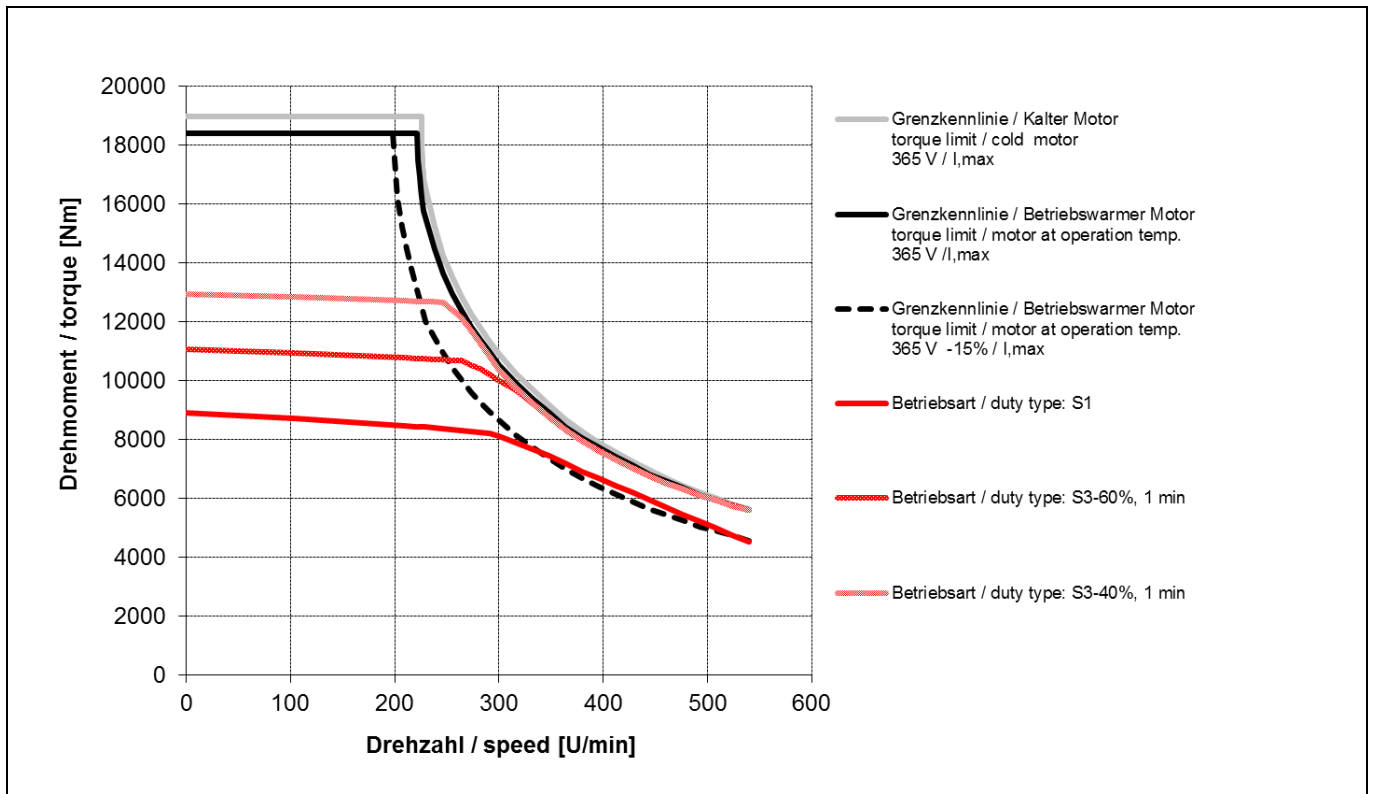
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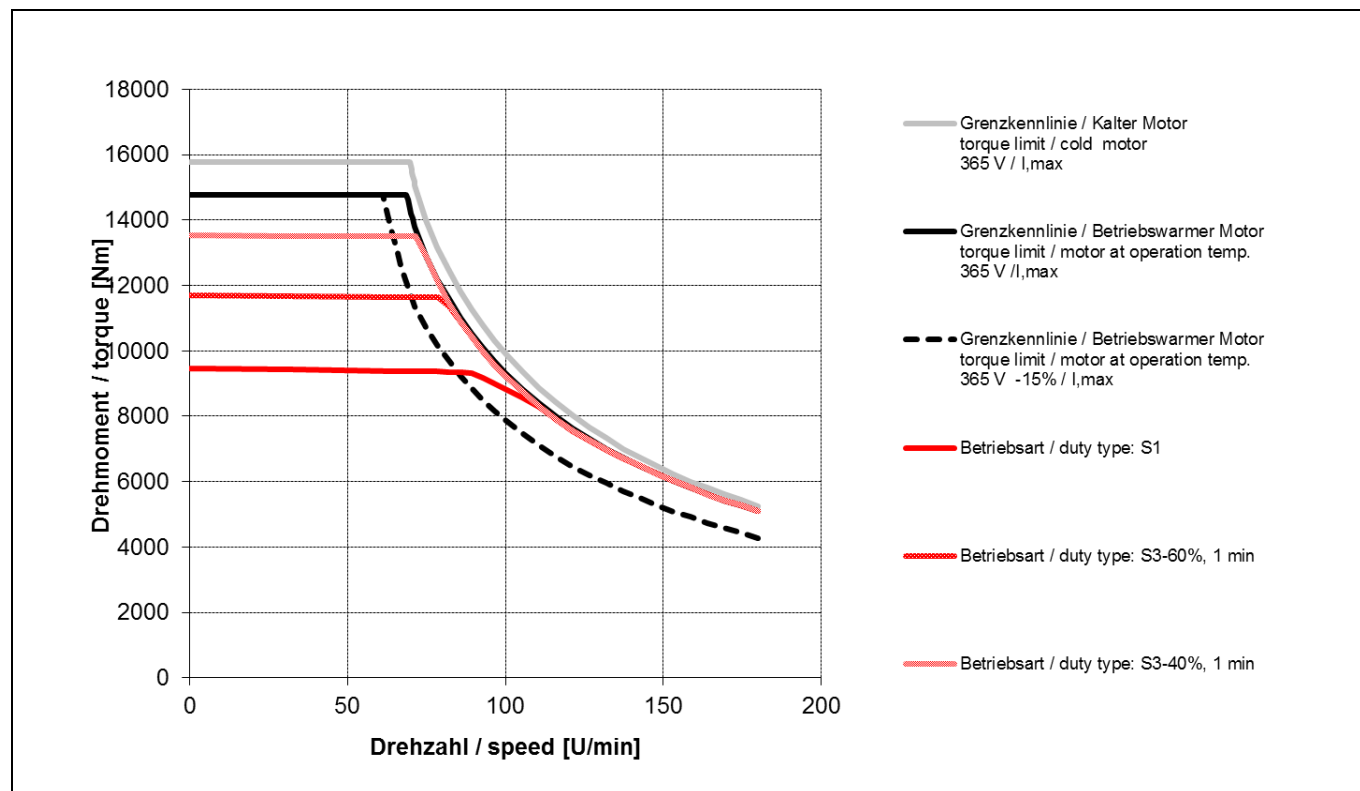


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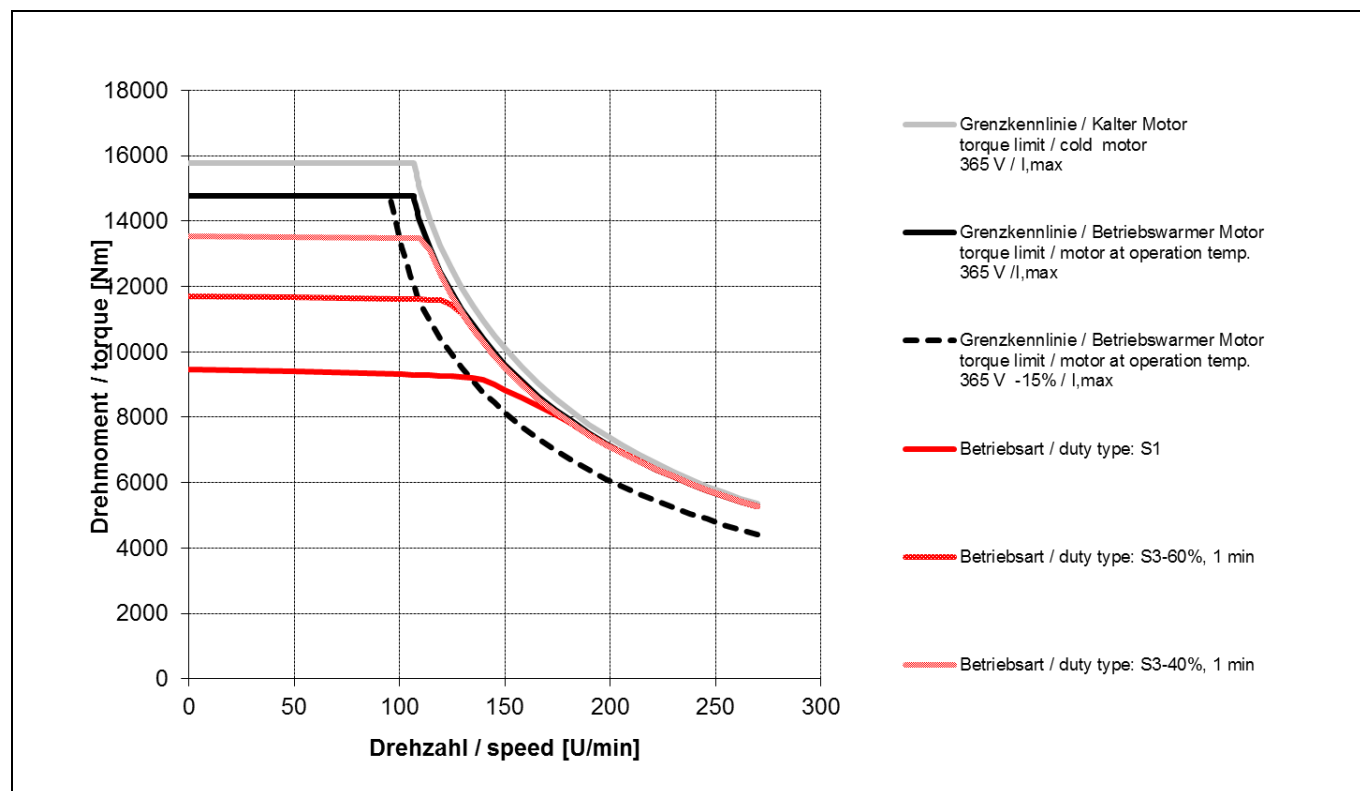


6.5 Characteristics DST2-400..54W

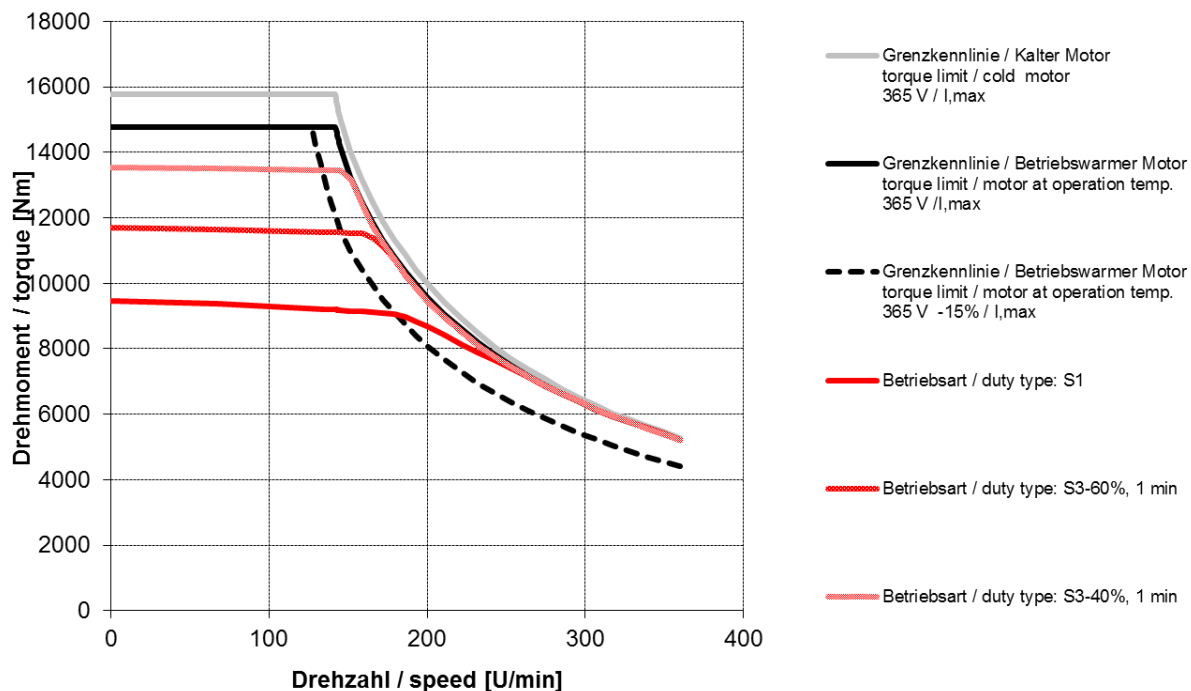
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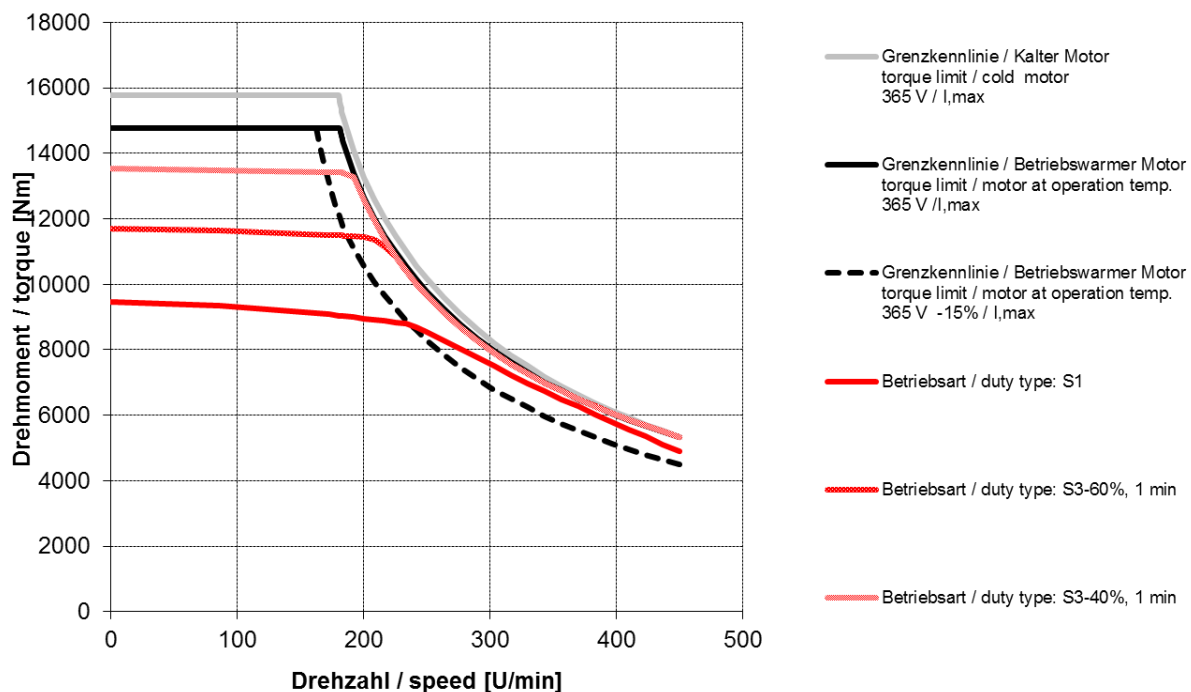
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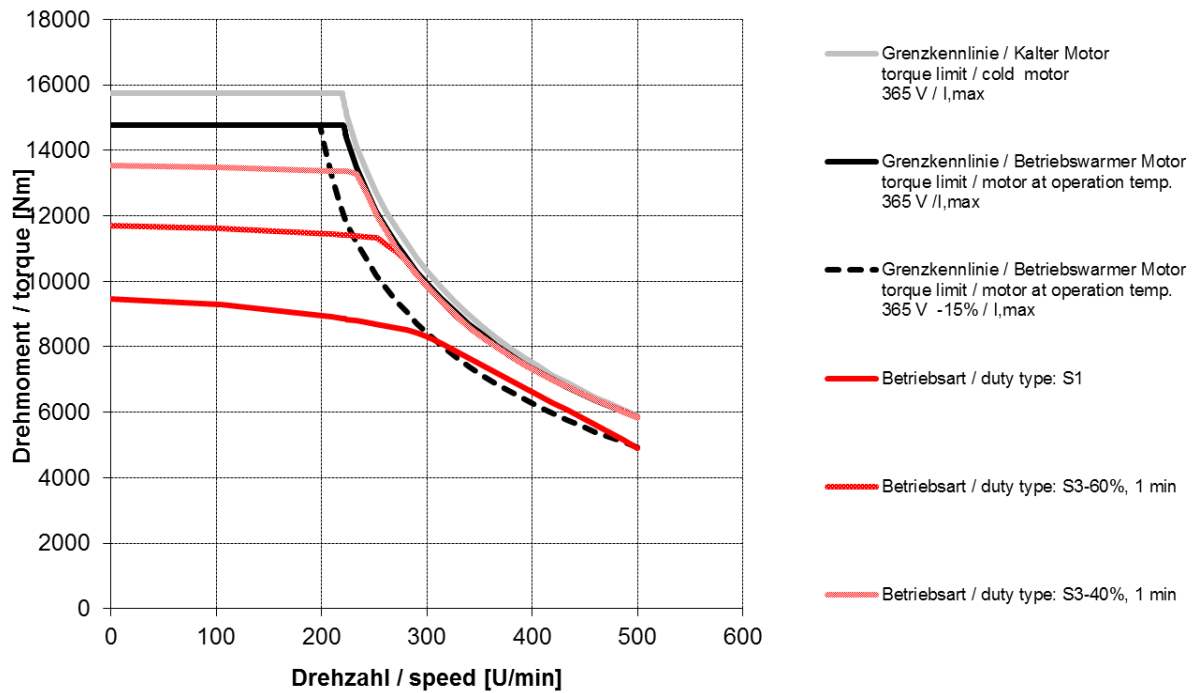
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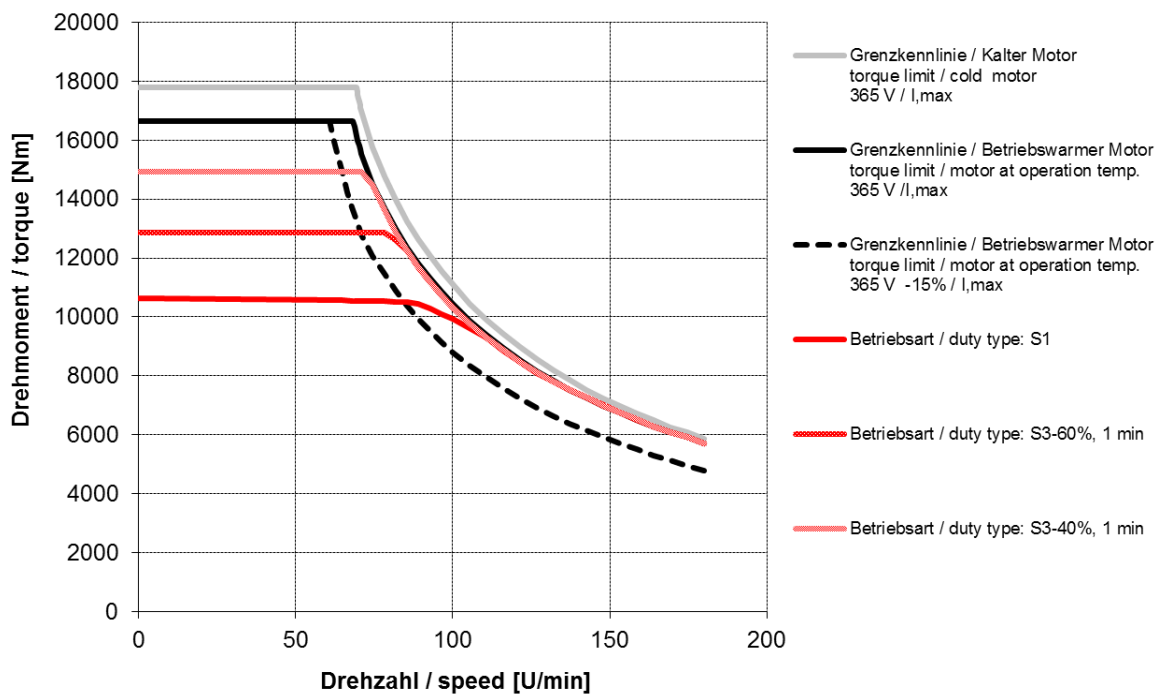
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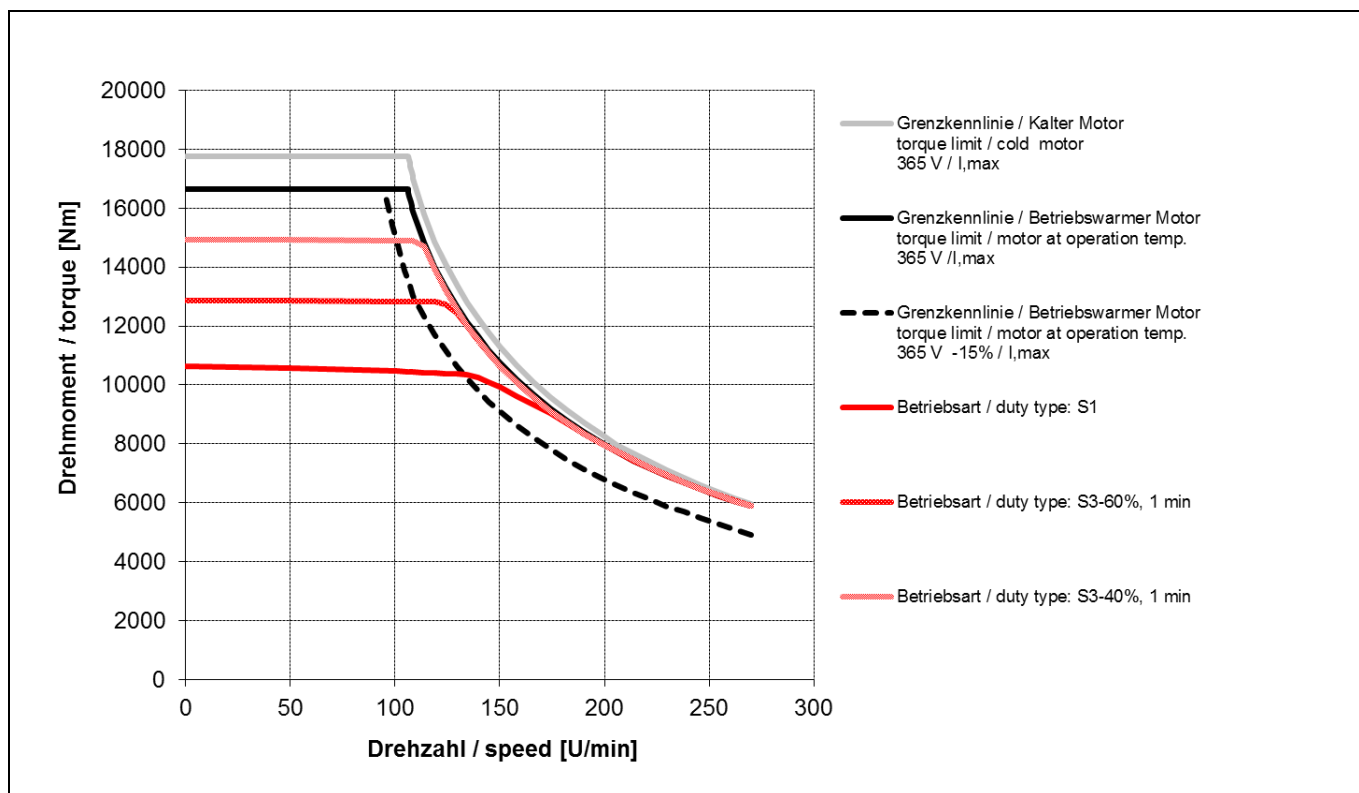
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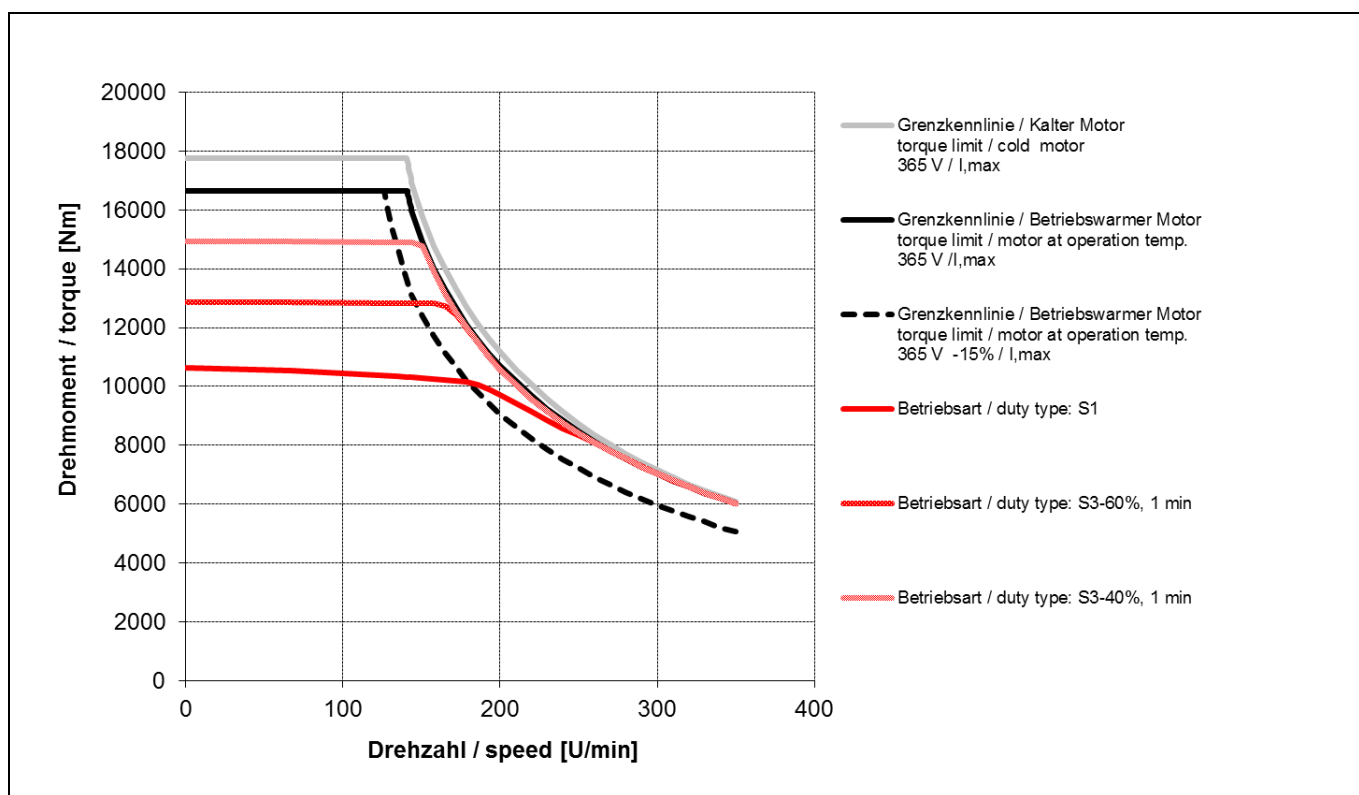
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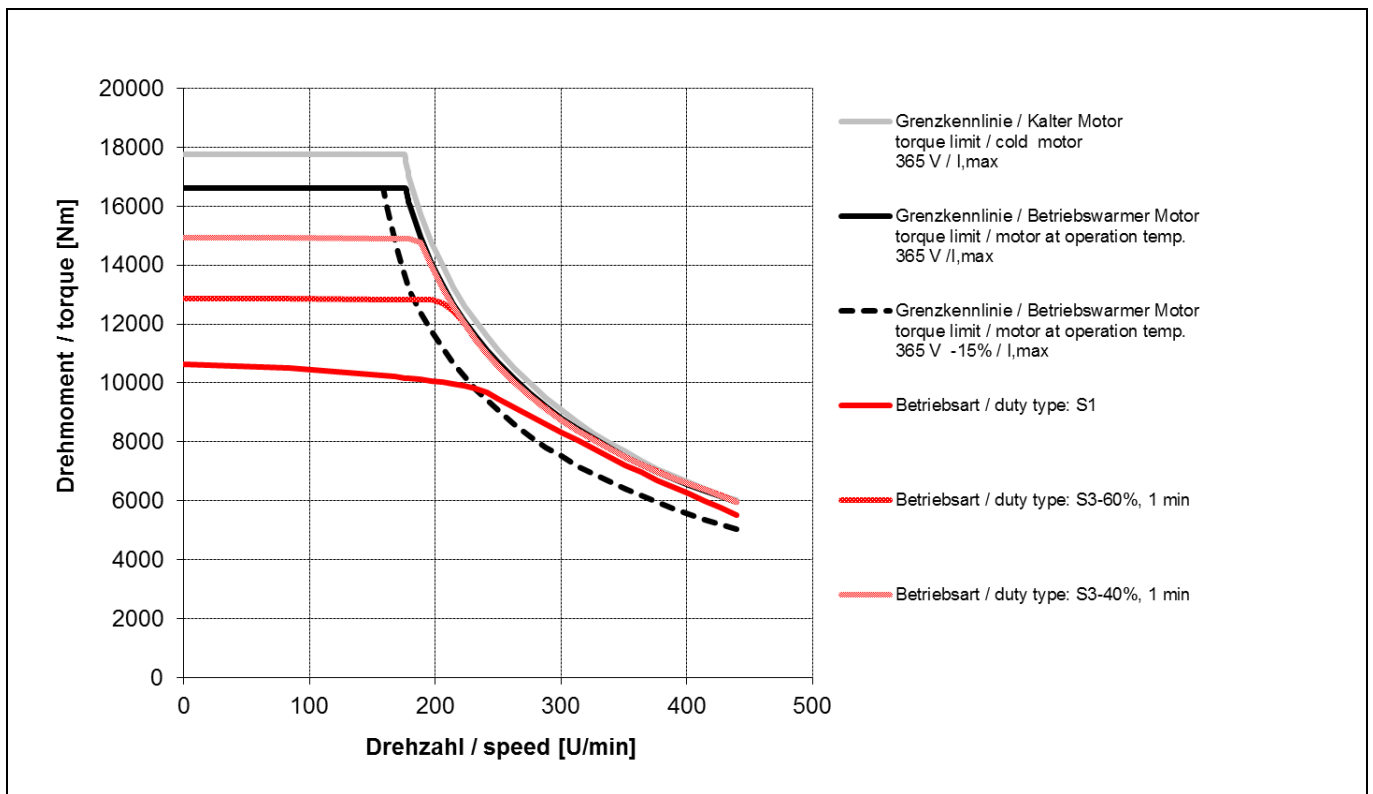
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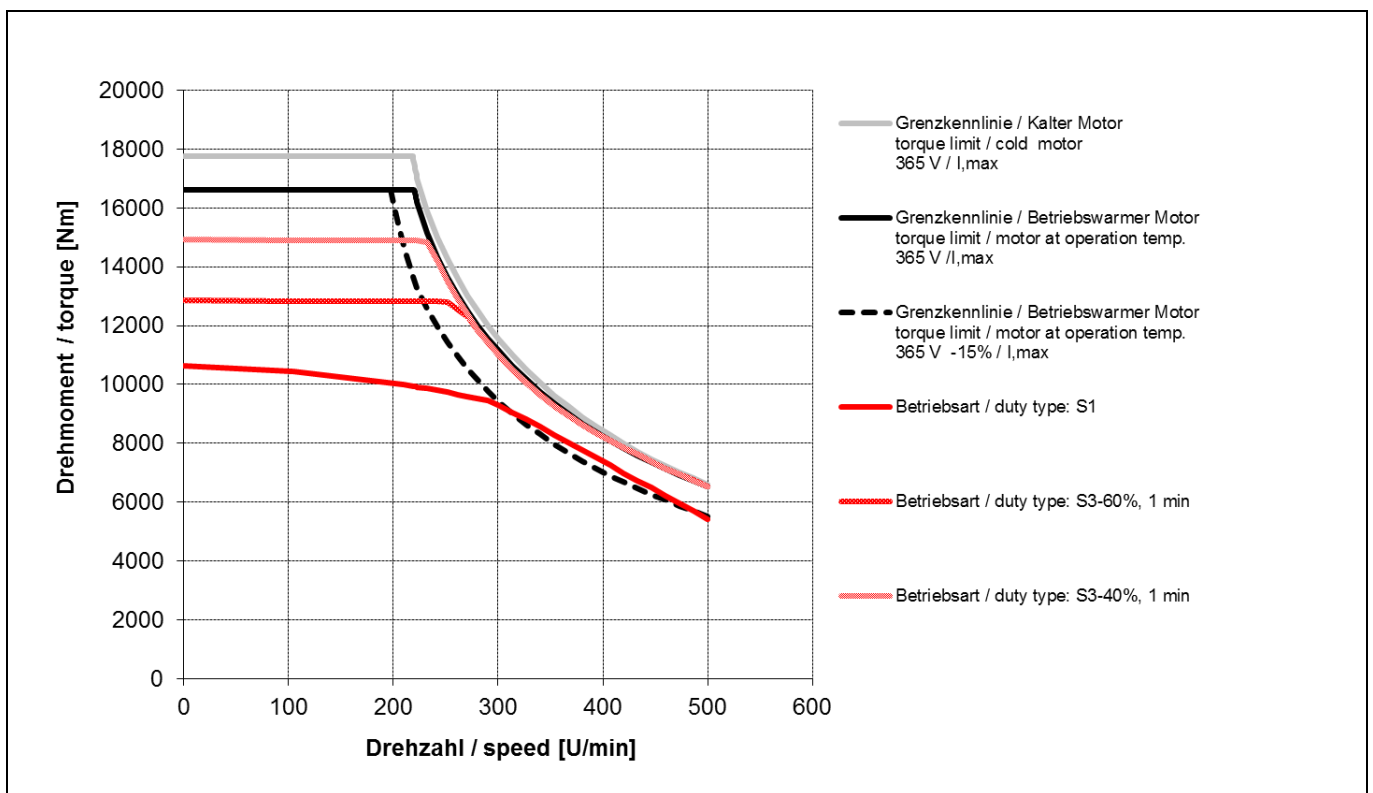
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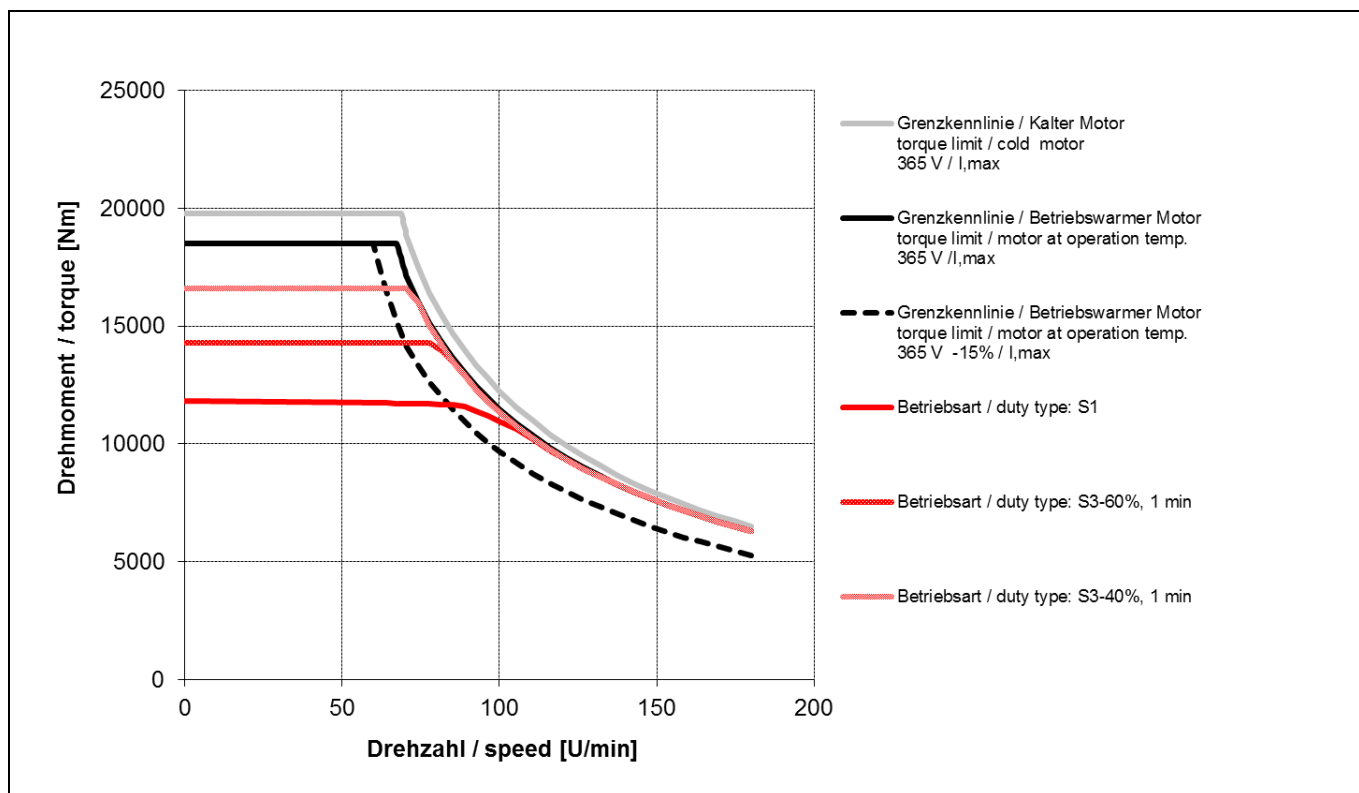
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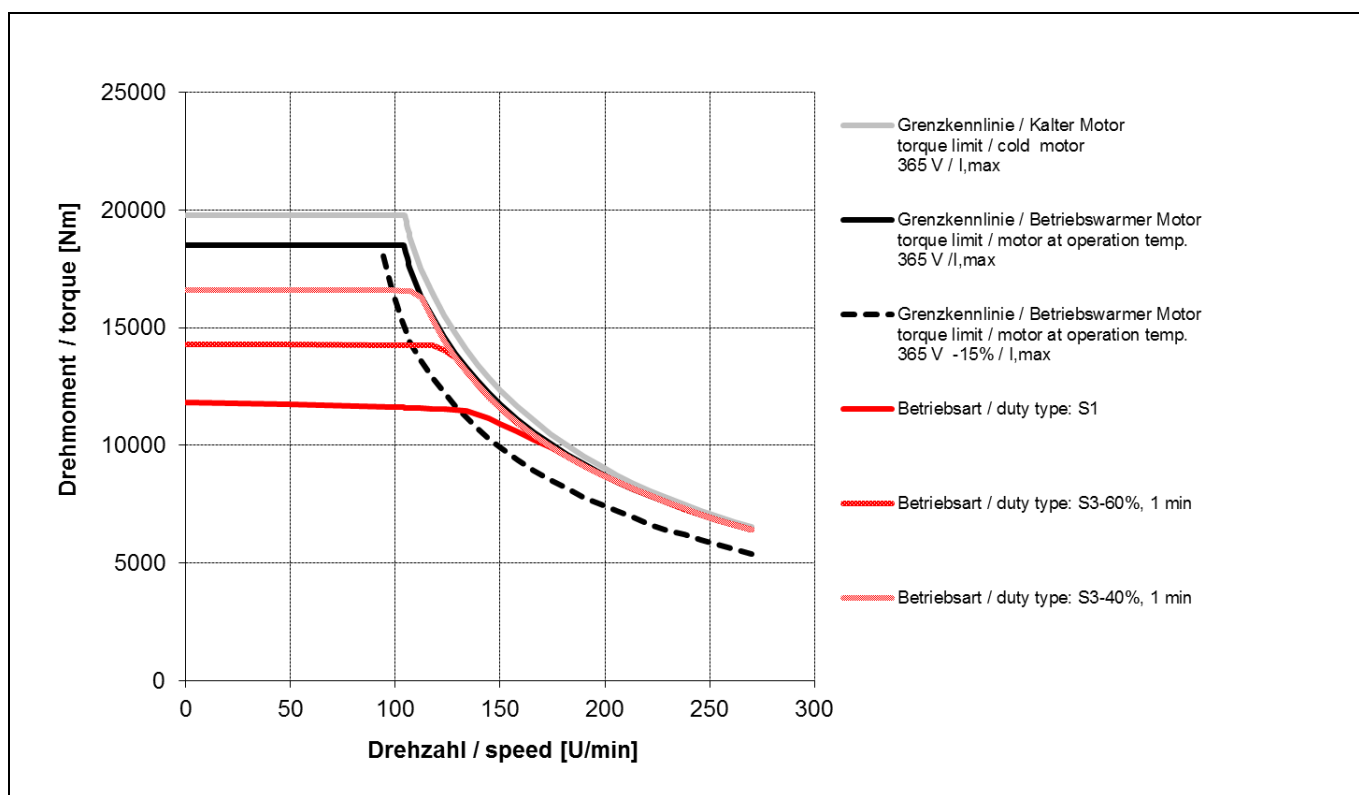
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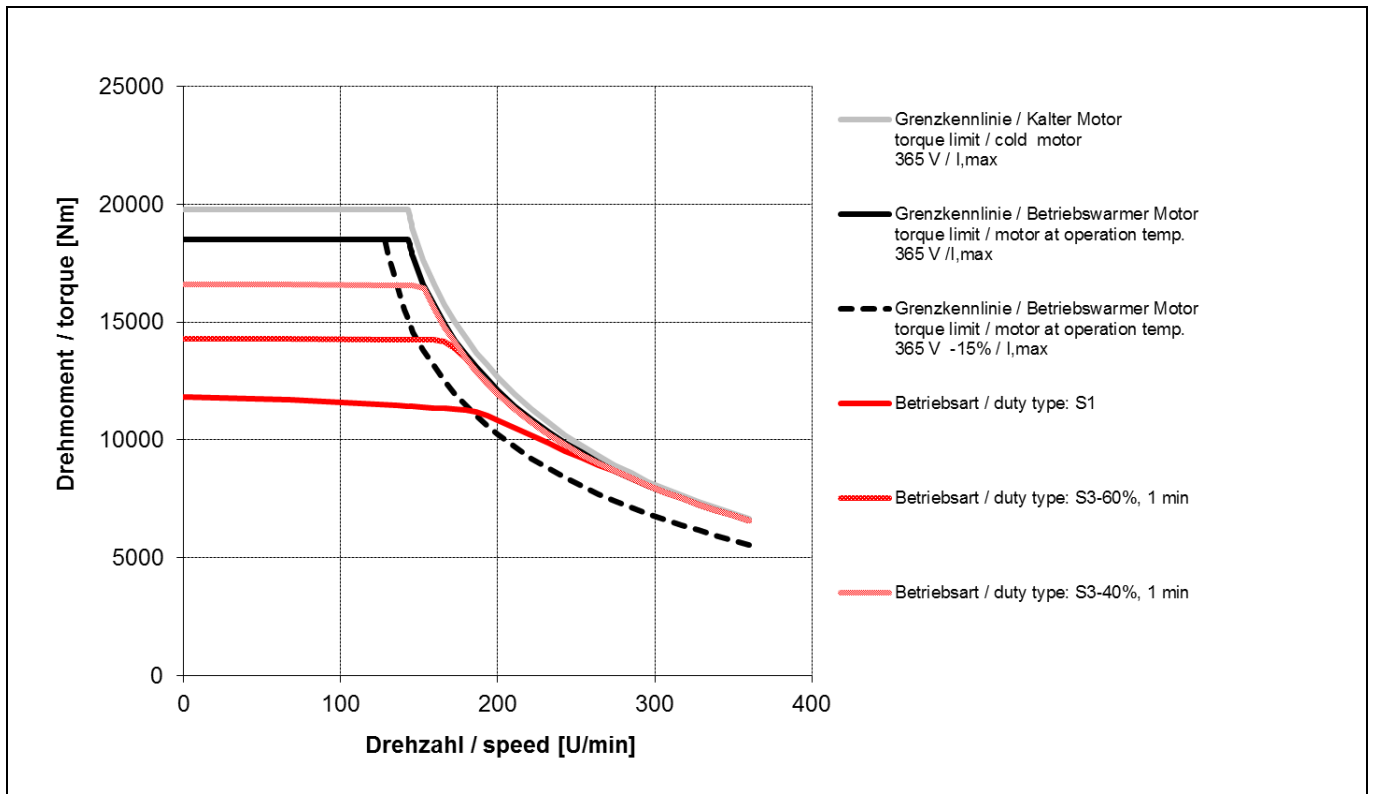
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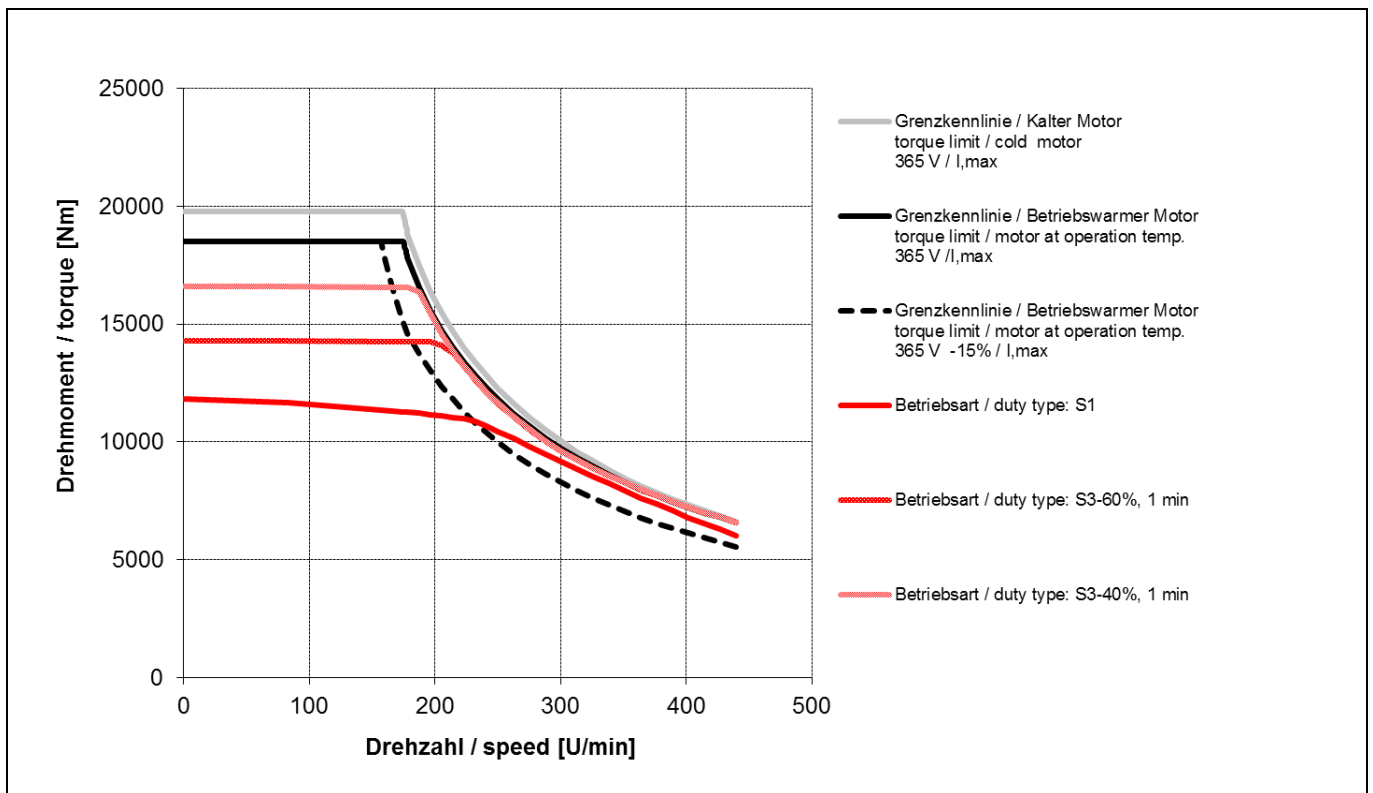
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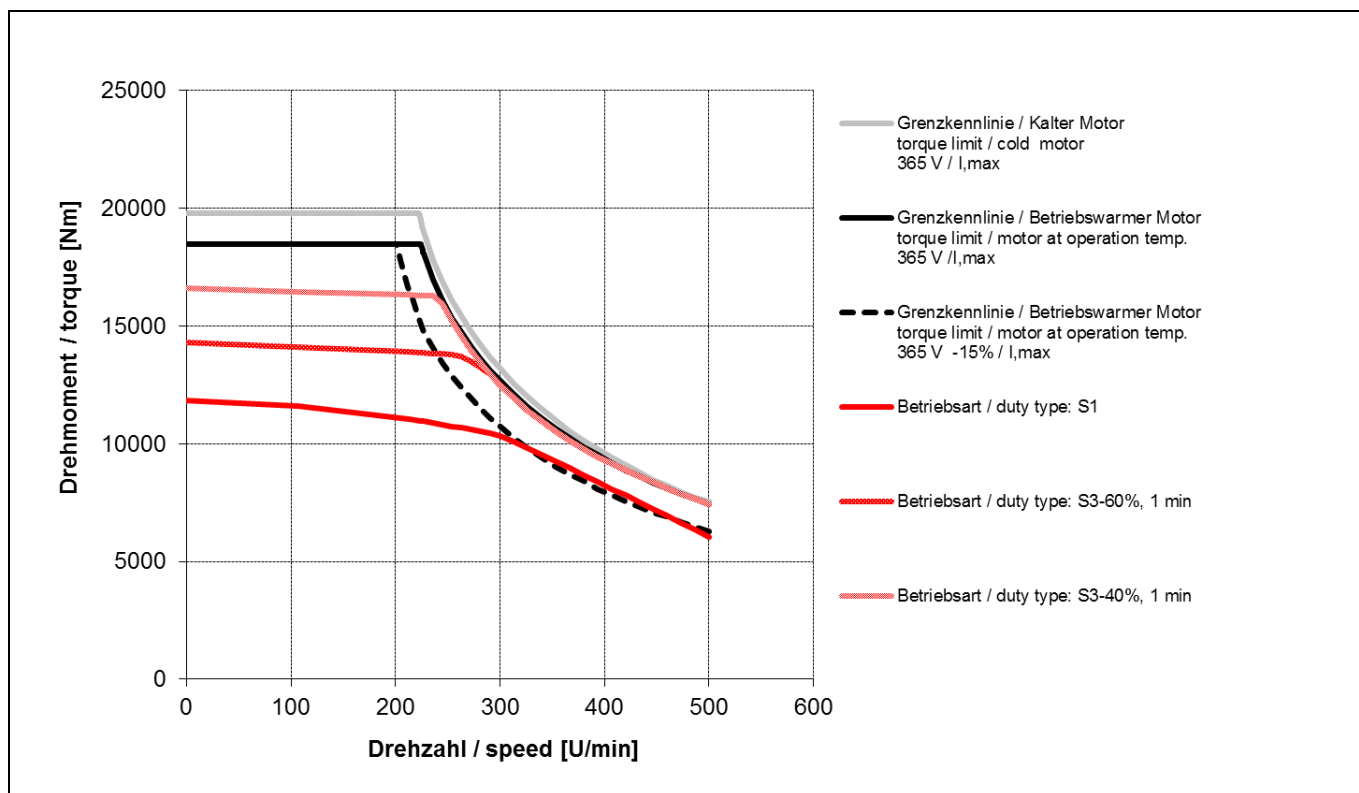
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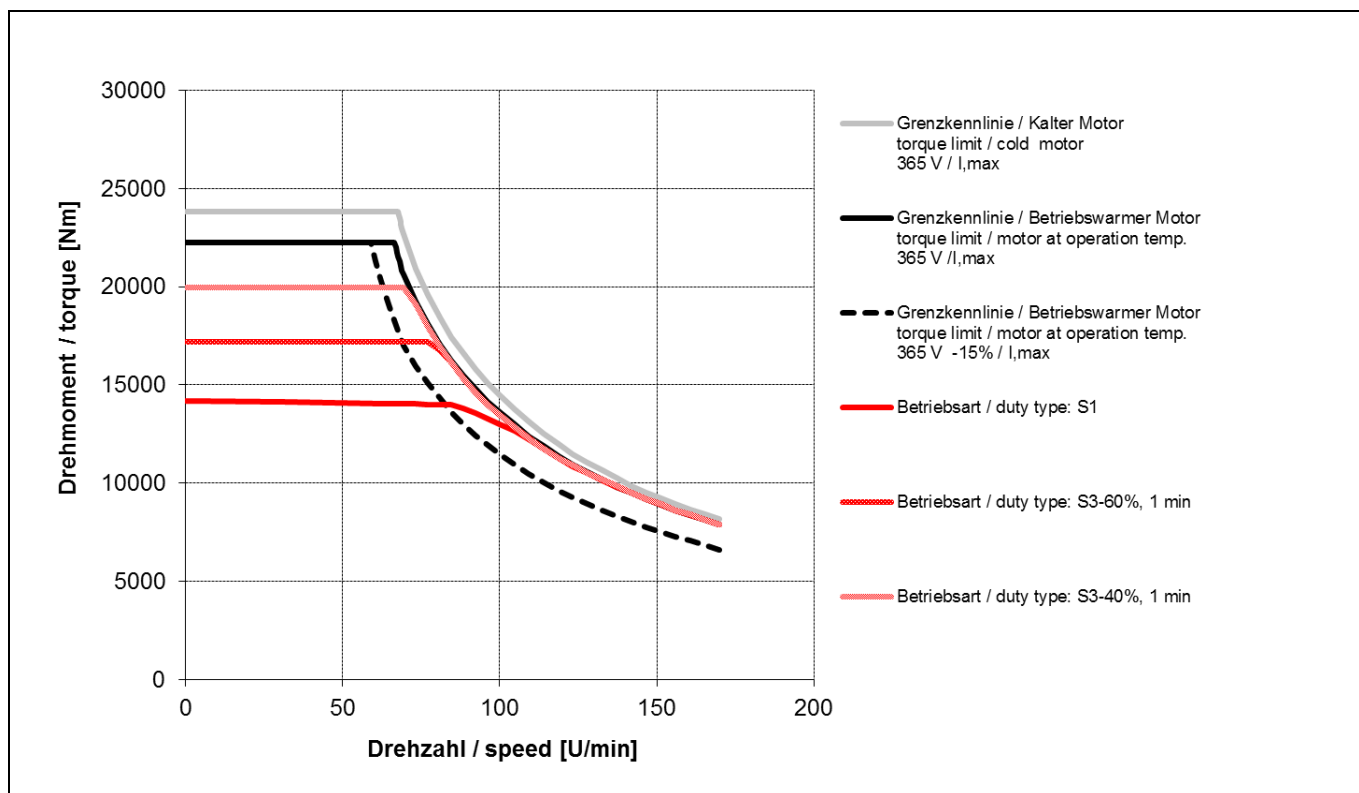
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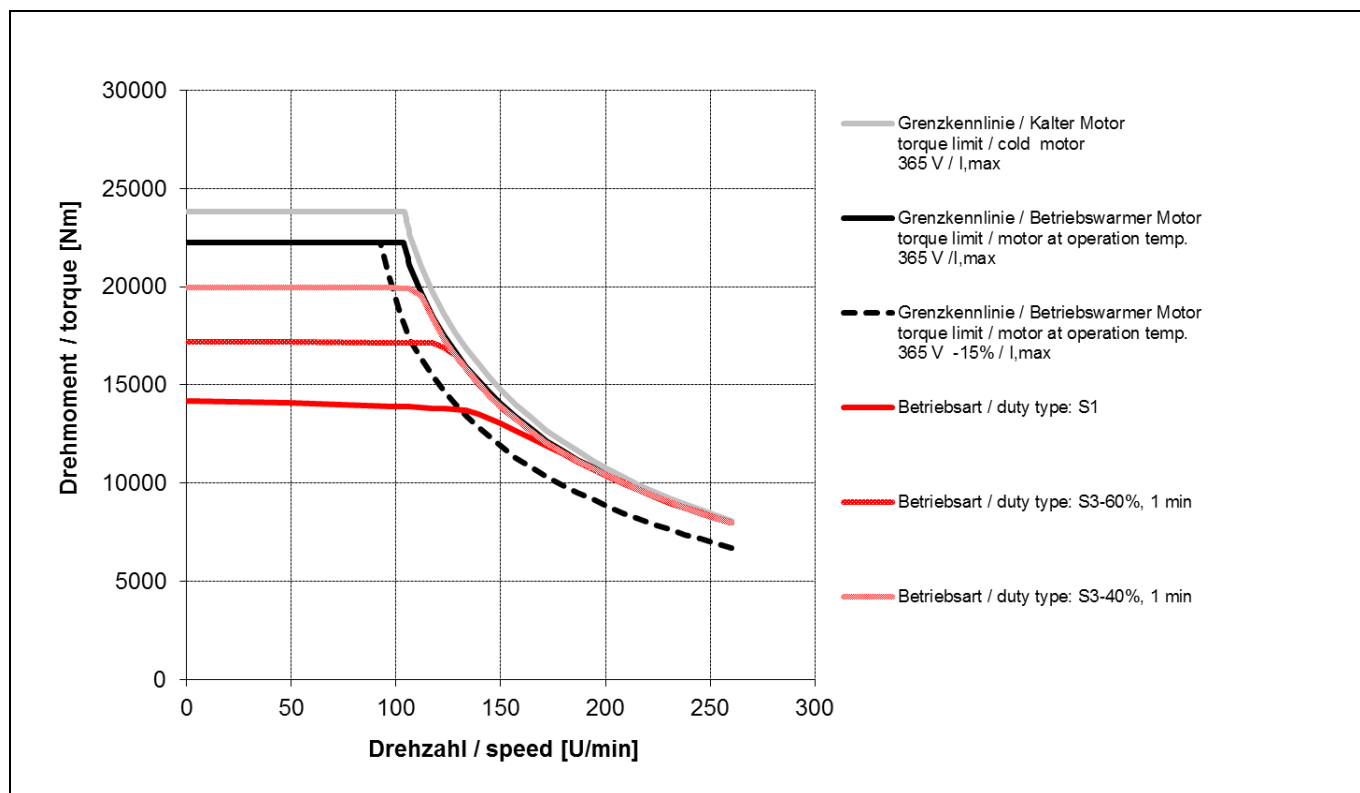
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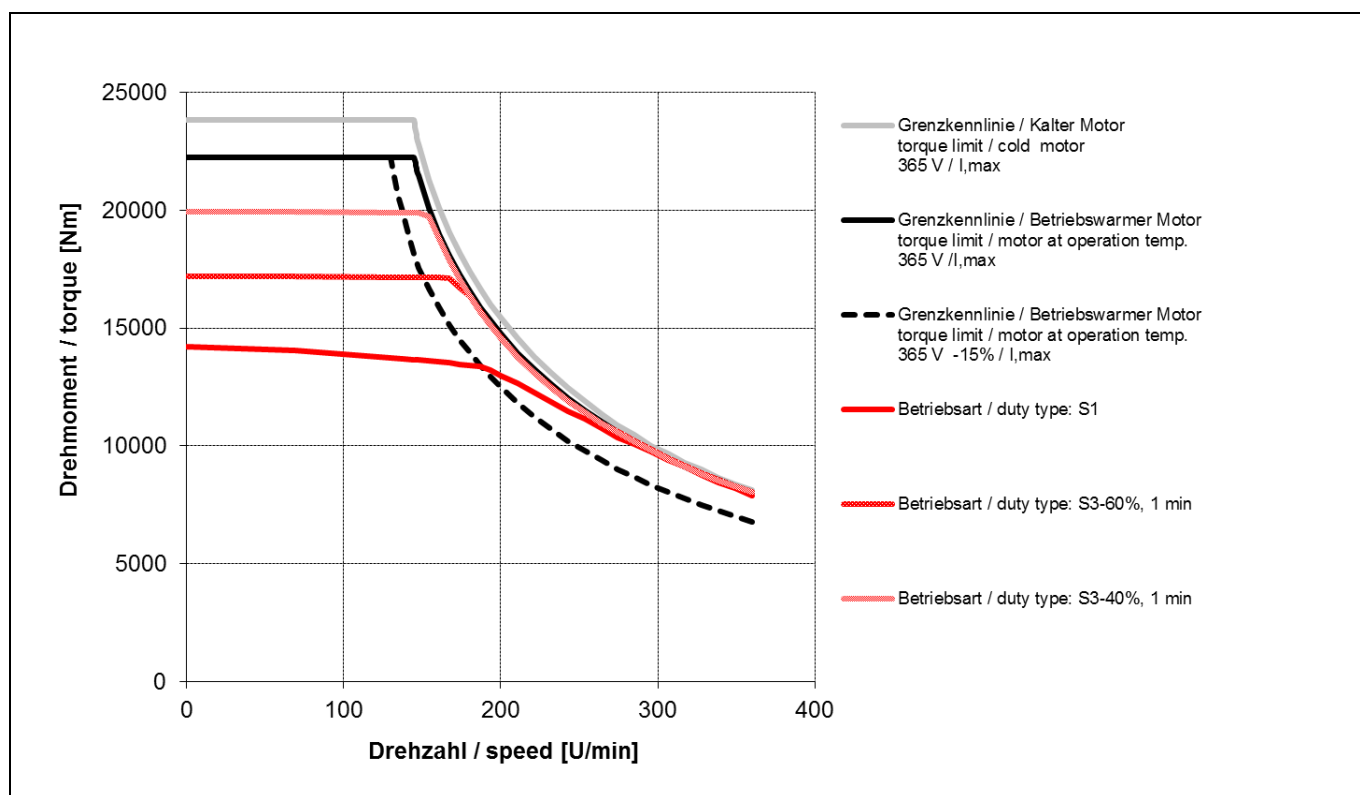
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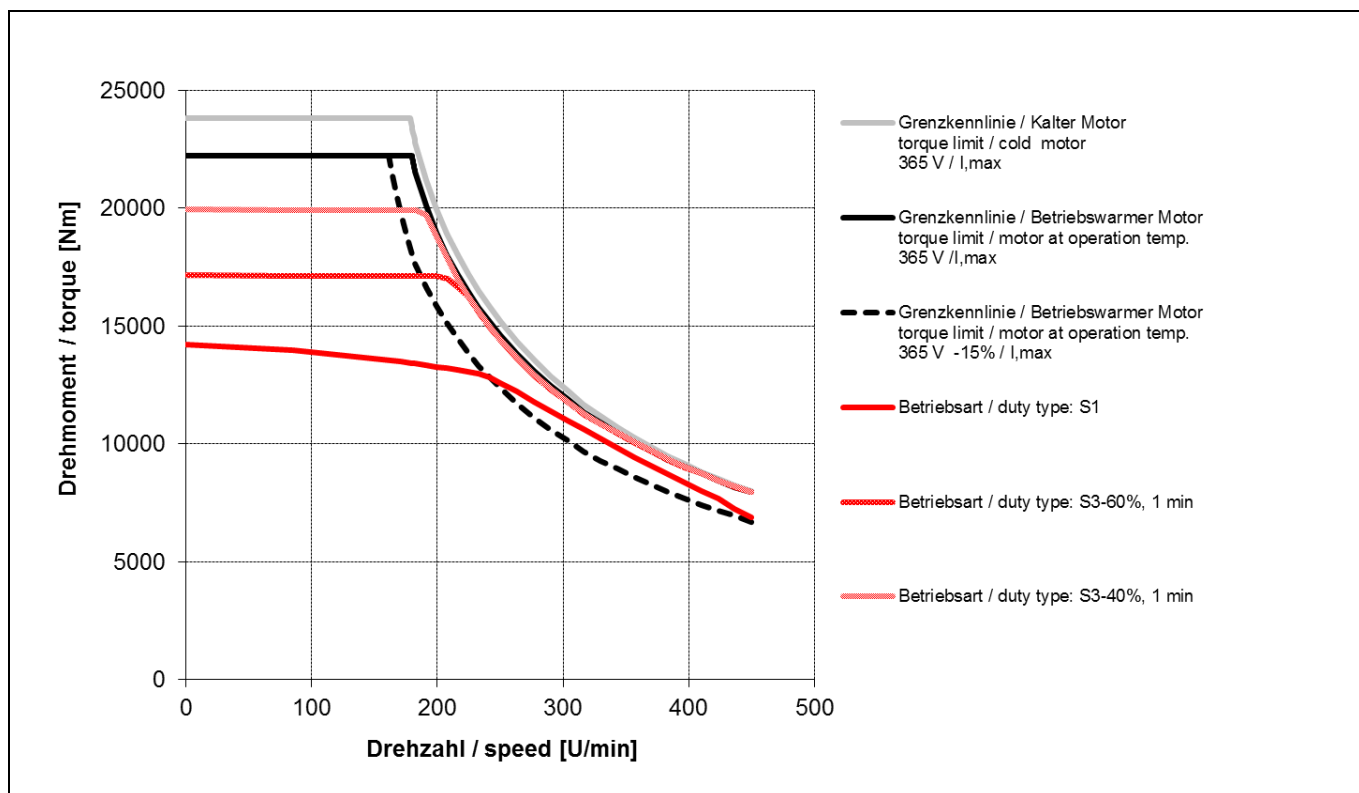
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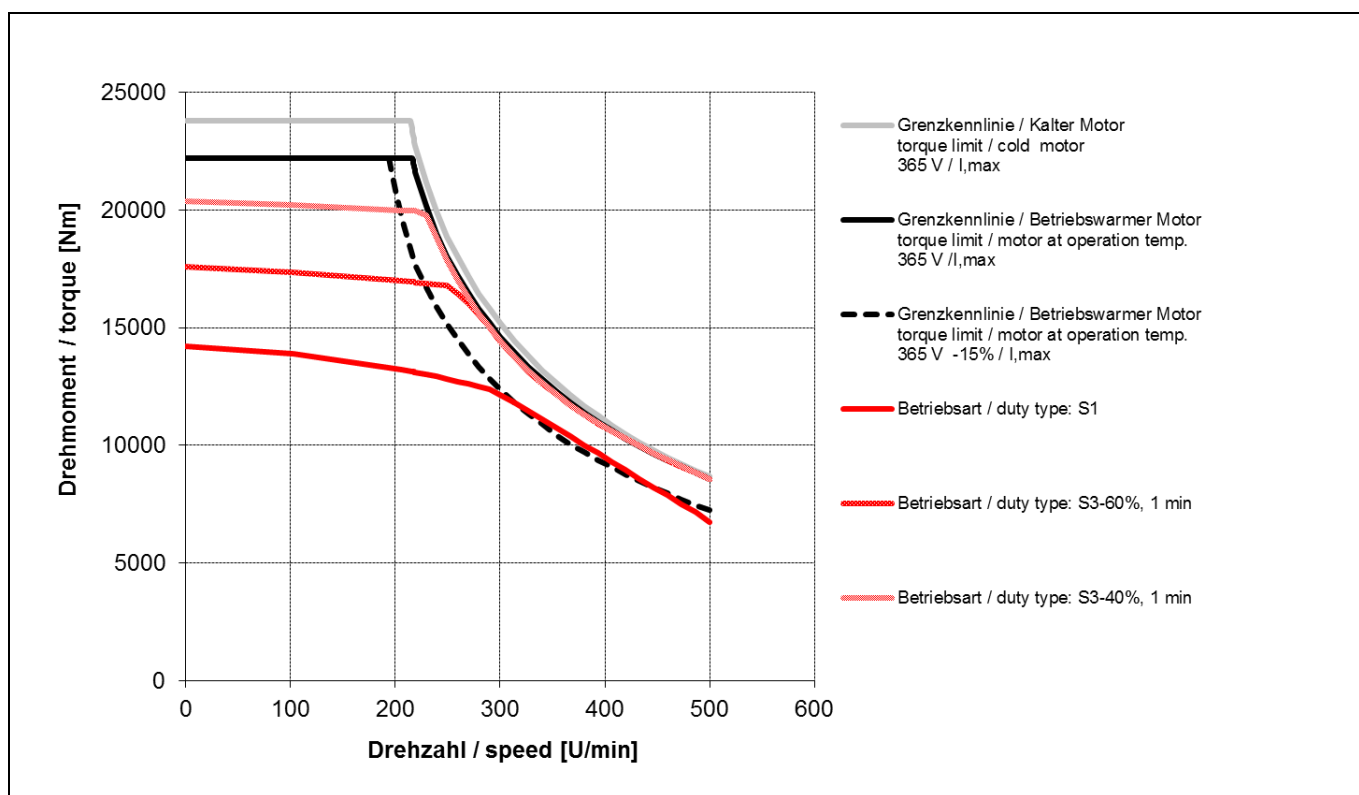
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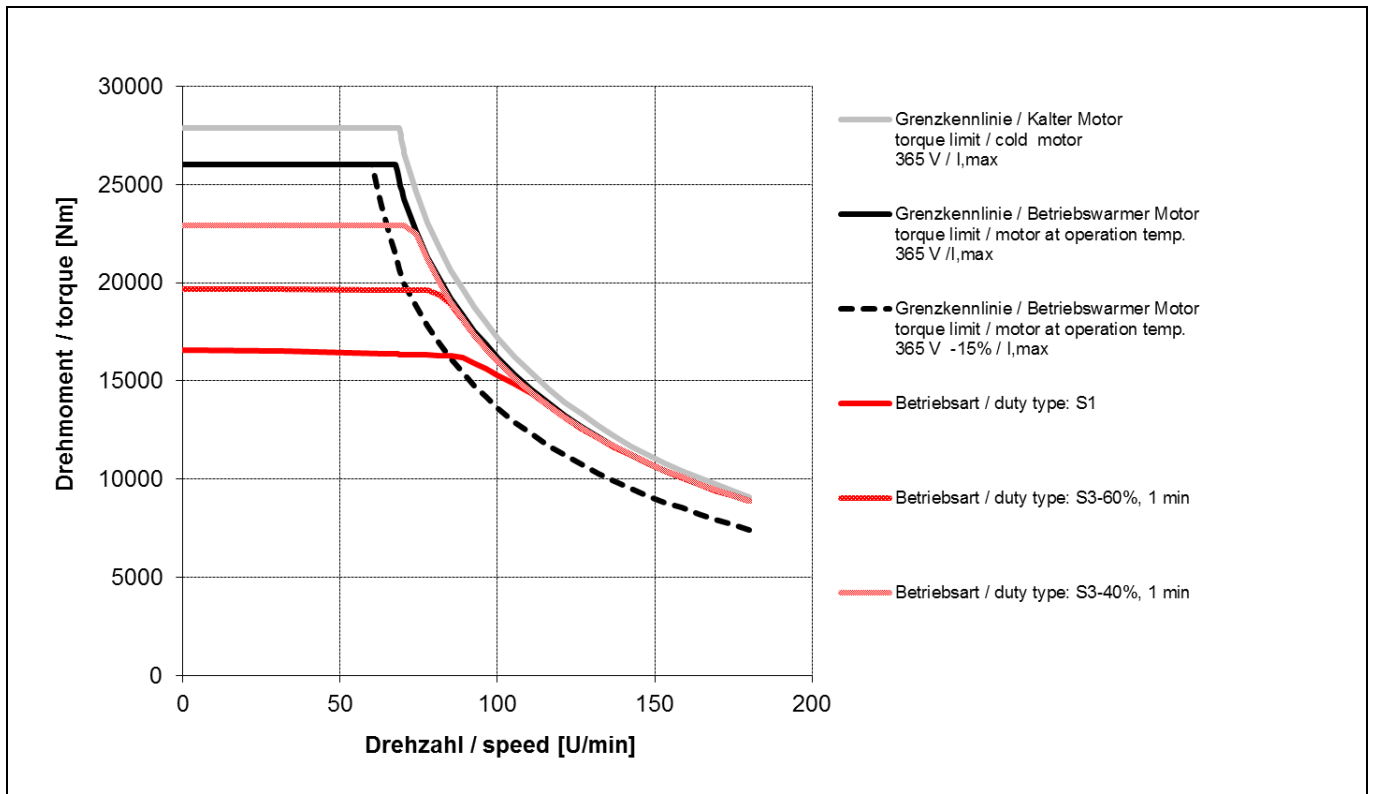
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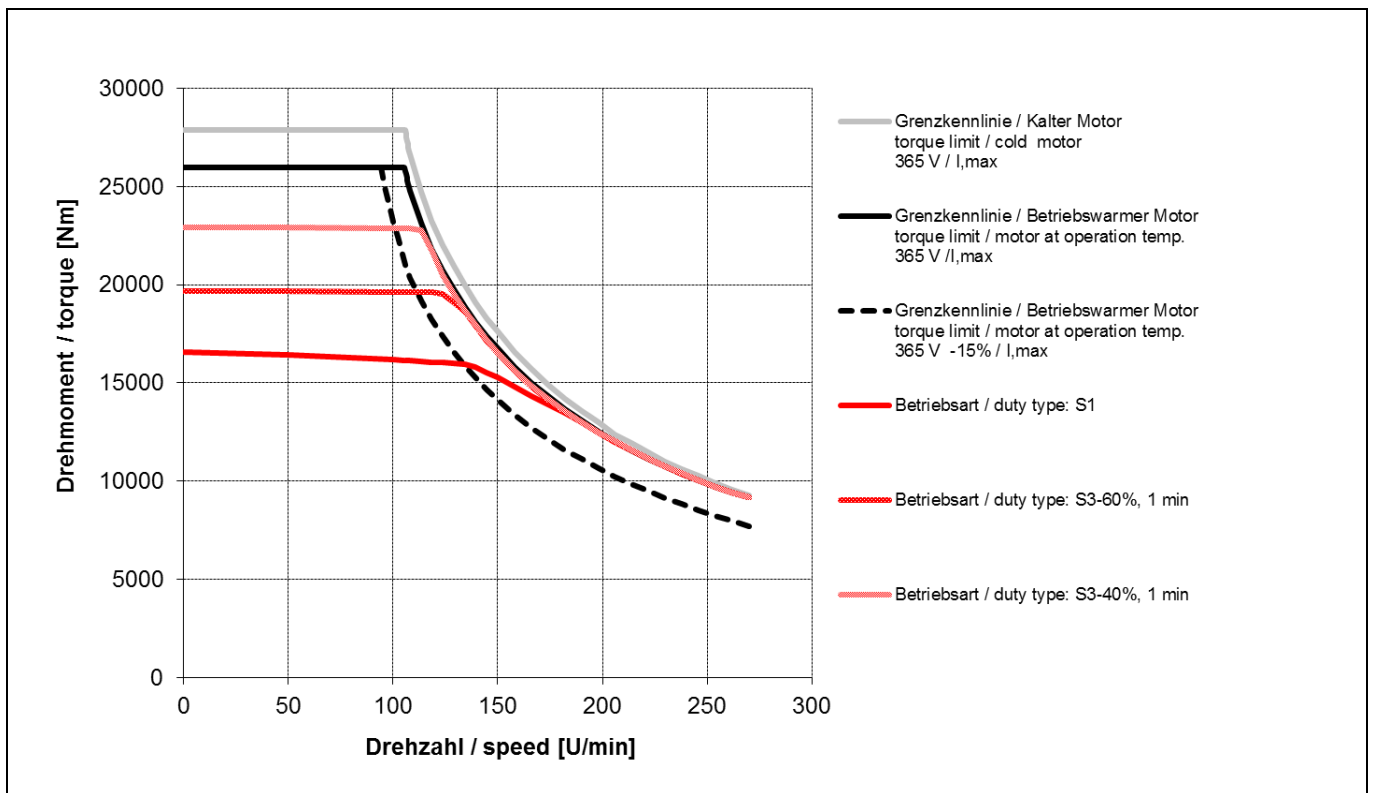
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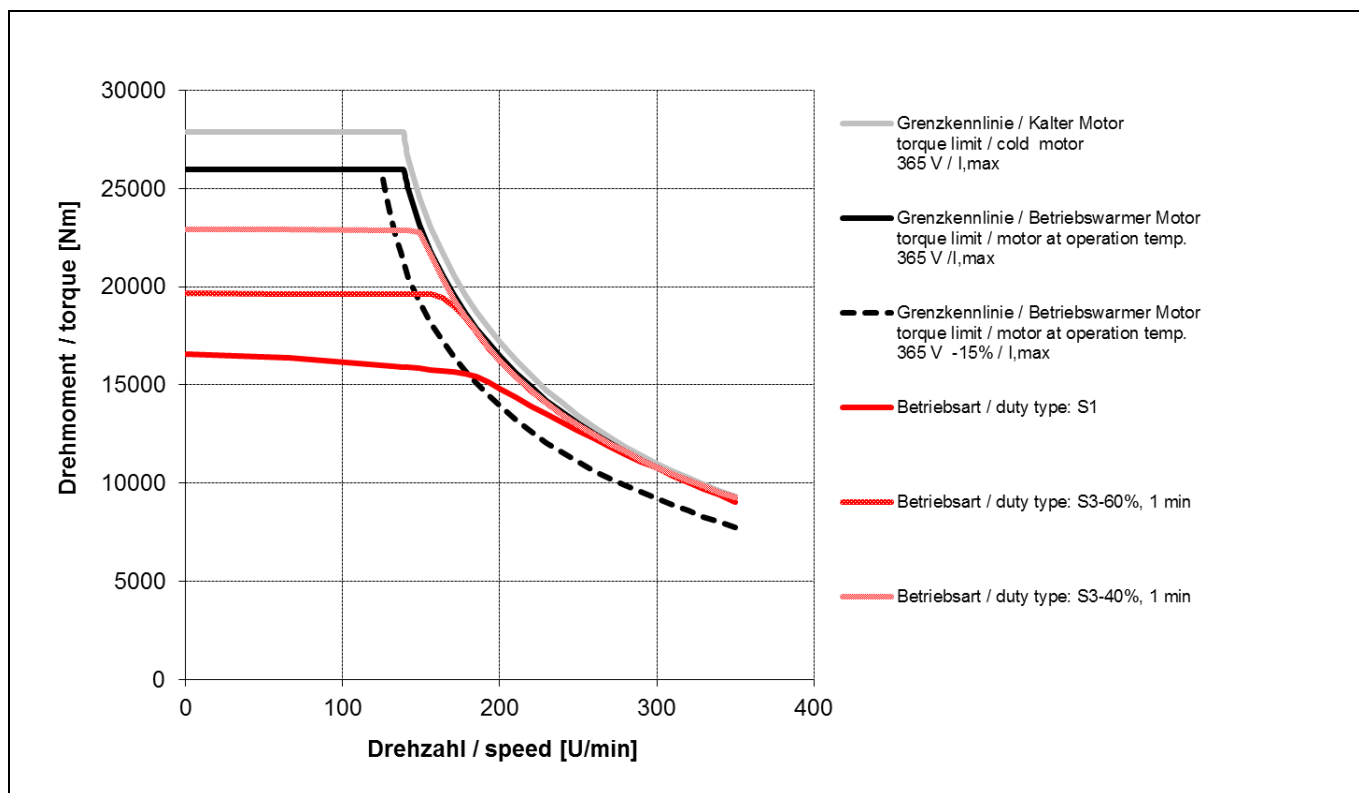
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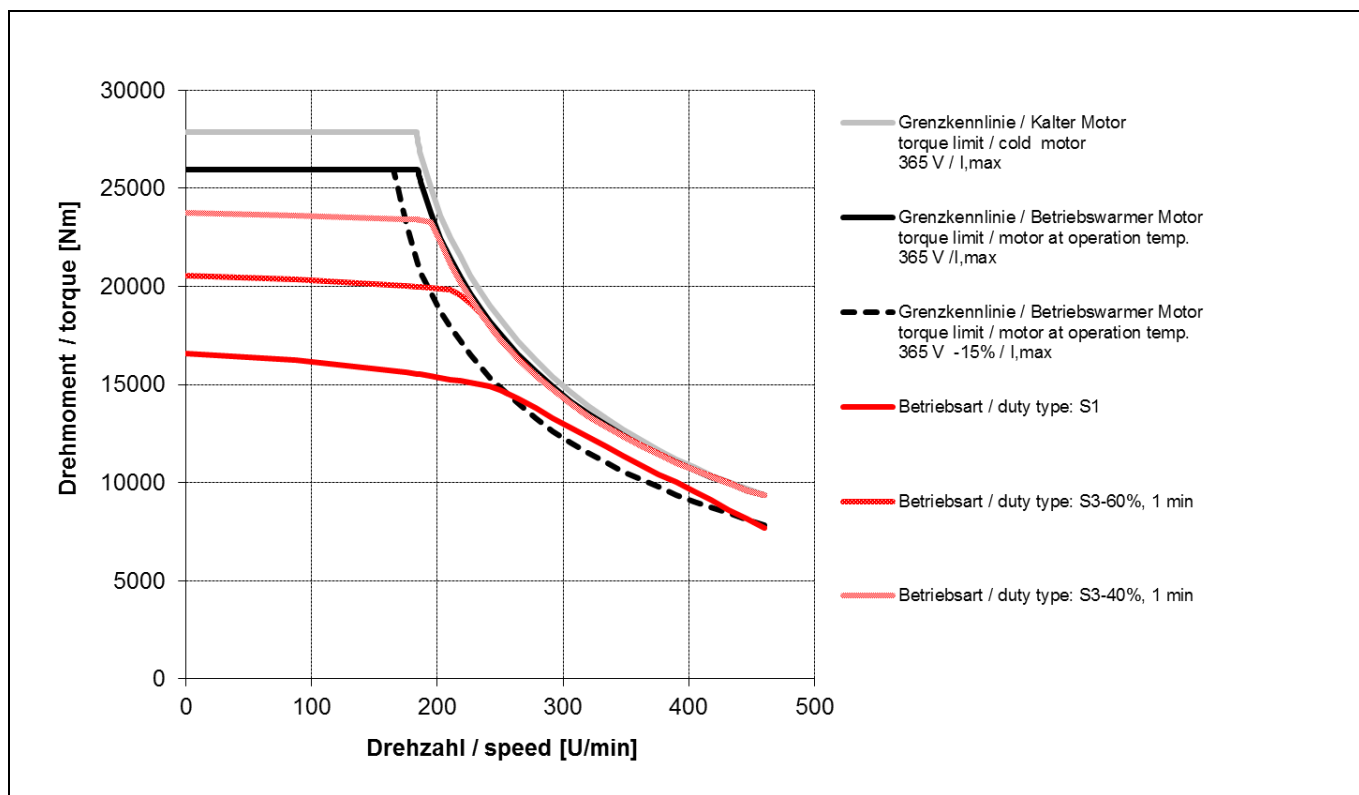
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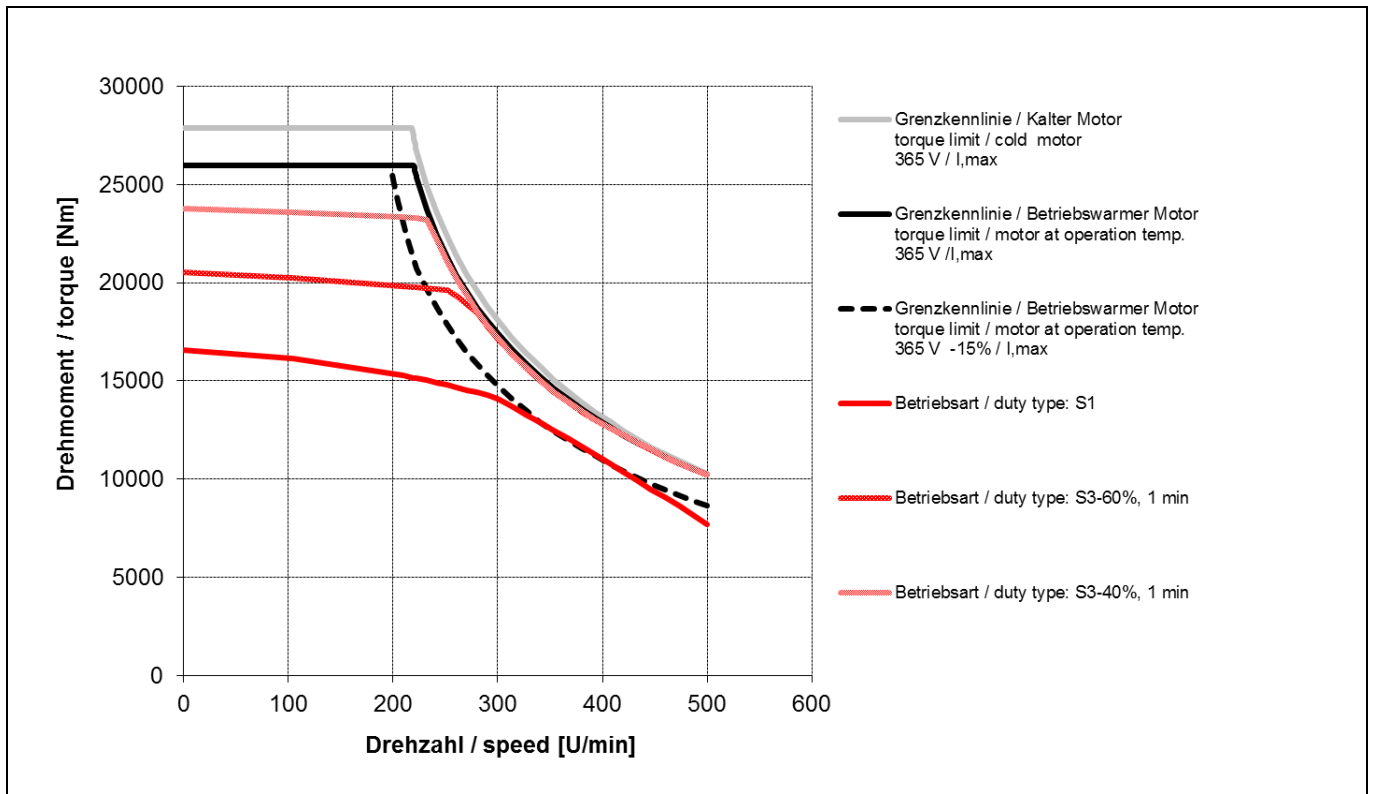
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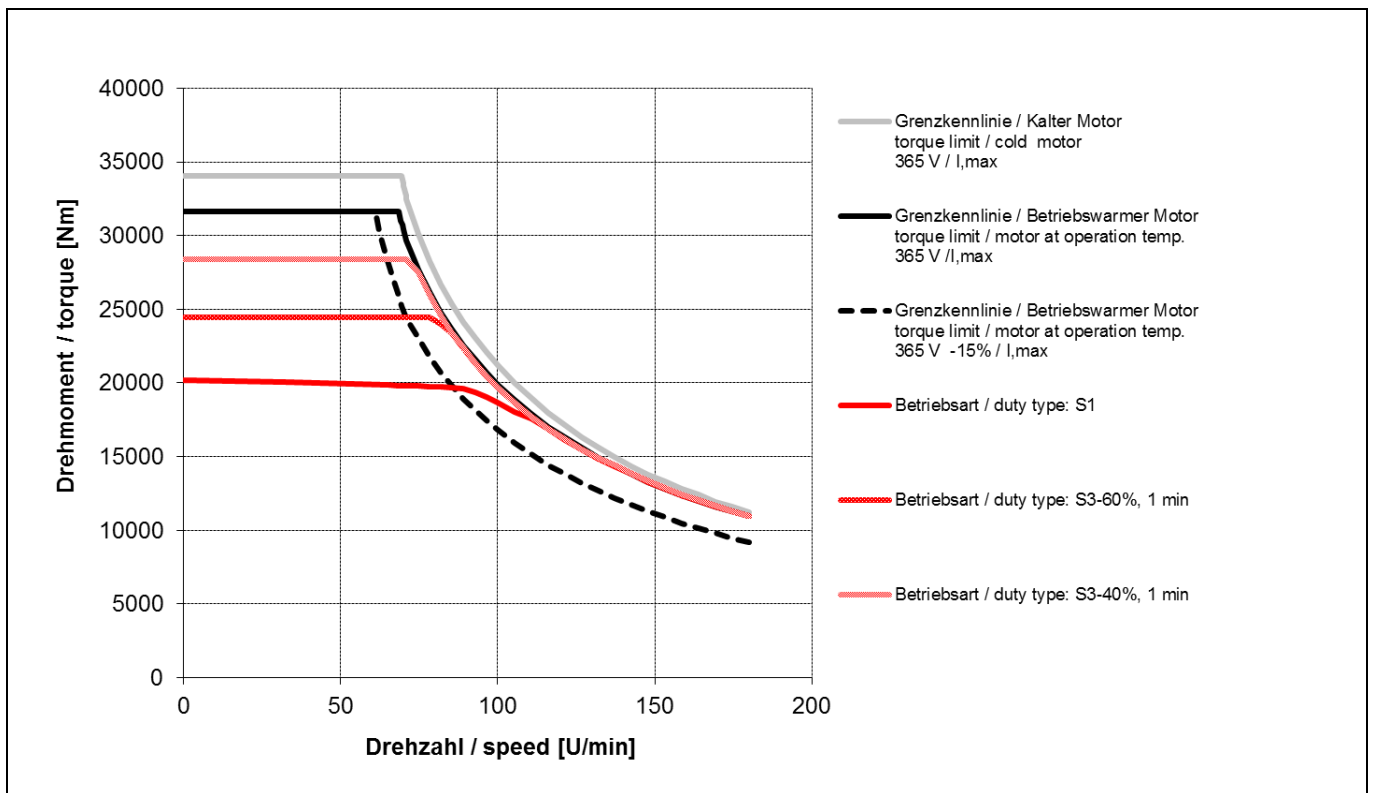
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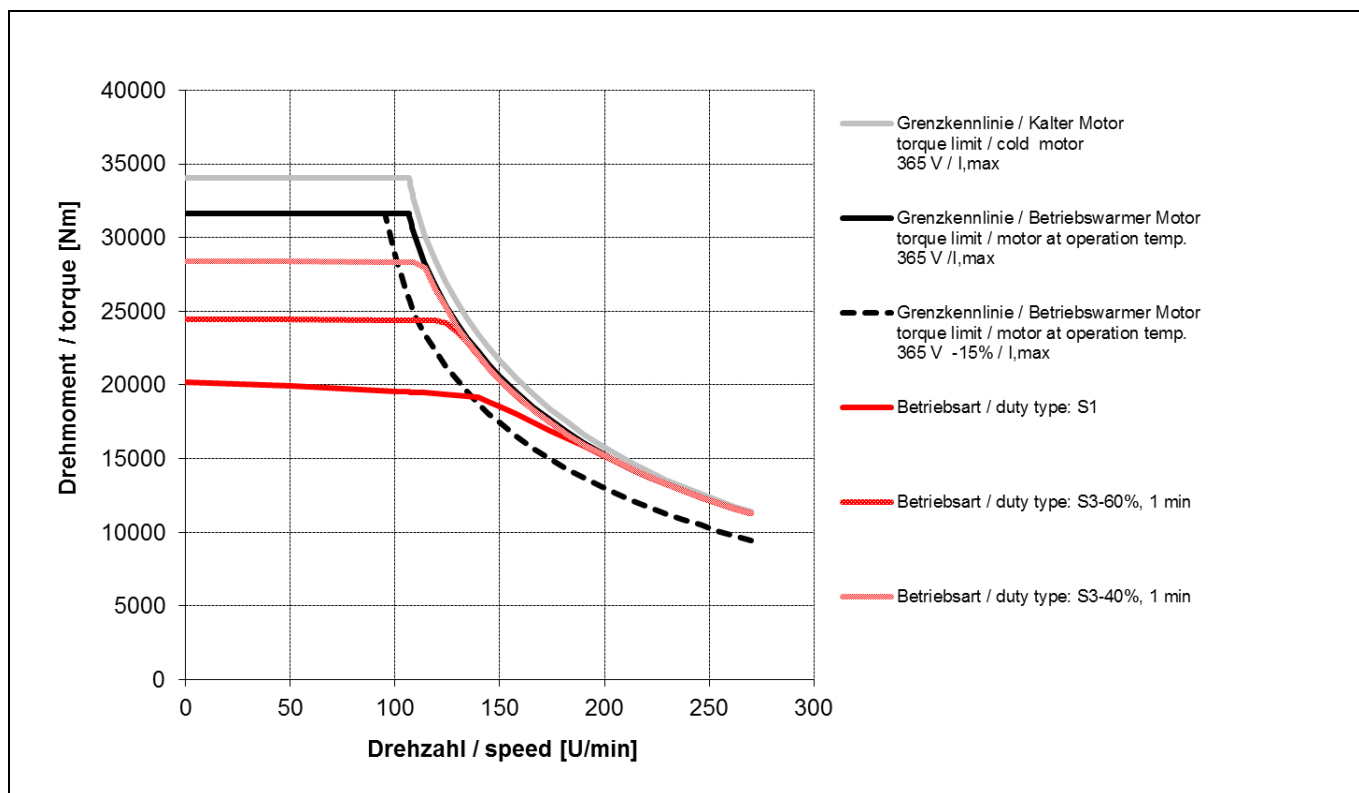
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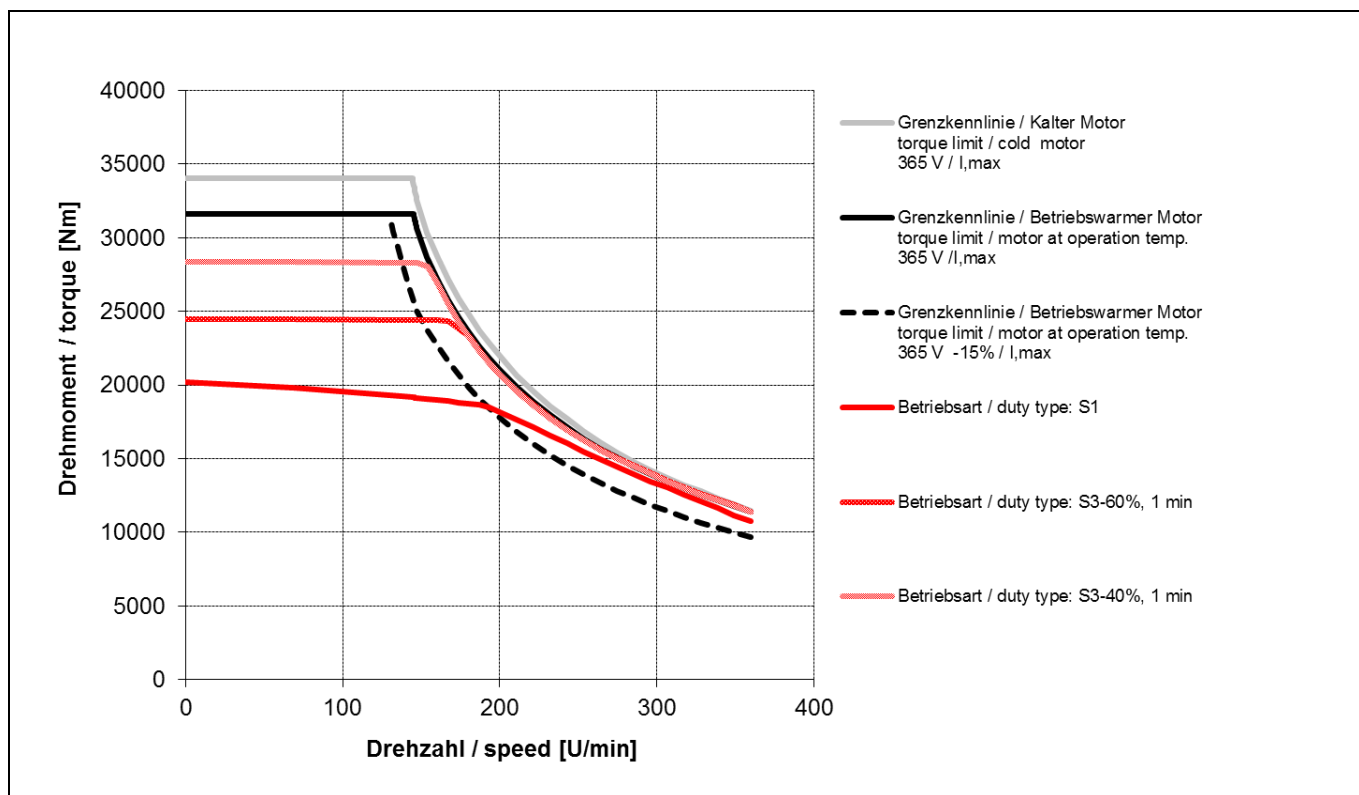
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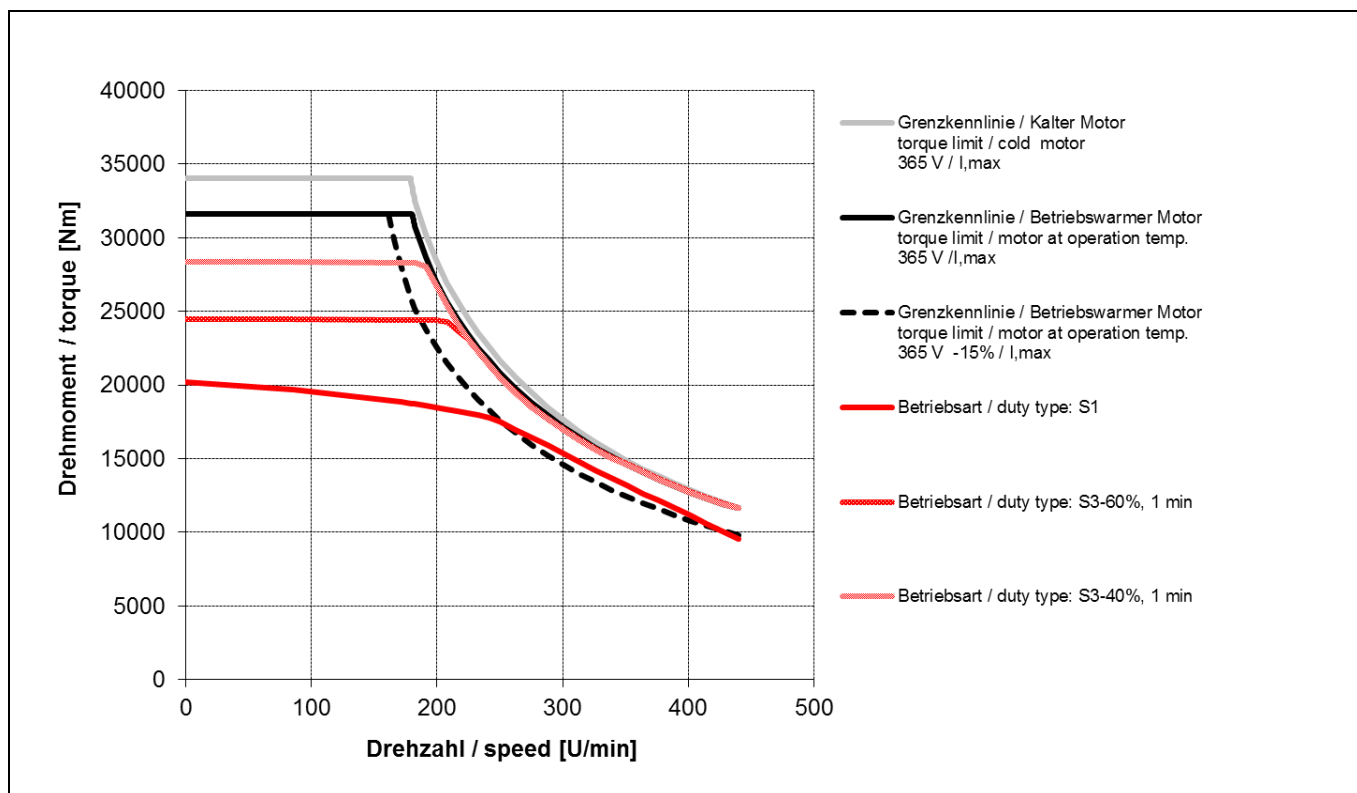
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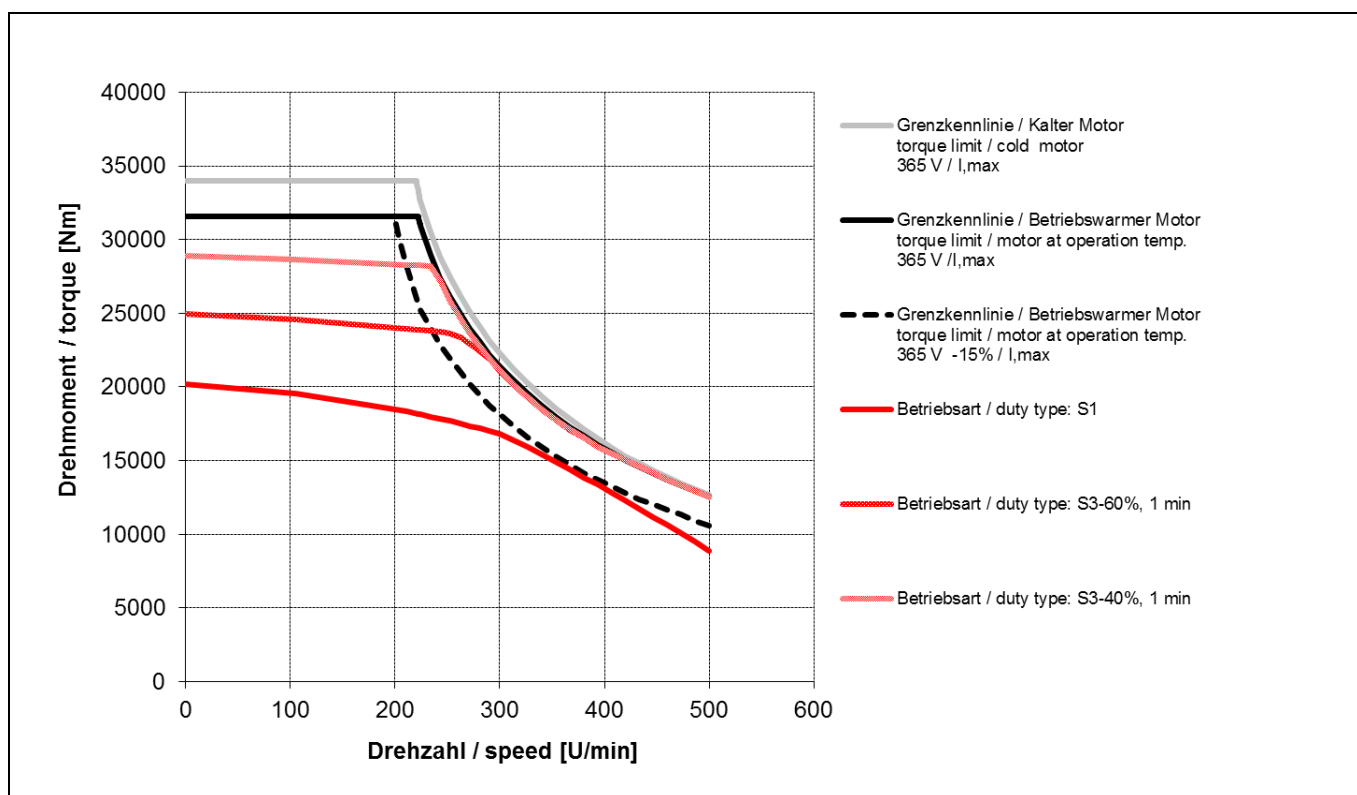
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DST2-400XY54W-025-5



DST2-400XY54W-030-5



7. Commissioning and maintenance instructions

For the commissioning of the motors, please use our corresponding commissioning and maintenance instructions (TAM). These can be found in the download section of our website:

<https://www.baumueller.com/de/download>

Under the document type "Technical Documentation," the TAMs are listed along with the other documentation.

For DST2 motor, this would be TAM 00695.