BAUMÜLLER

DSD2

Technical documentation
Three-phase synchronous motors DSD2 28-132

E	5.23020.01

Technical data, motor components, dimensional sheets and characteristics

Language	**English** (Translation)
Document no.	5.23020.01
Stand	11/2025

Table of contents

1. Three-phase synchronous motors DSD2-028-132 5

1.1 General technical data 5
1.2 General safety instructions 6
1.3 Winding insulation 6
1.4 Definitions of power ratings 7
1.4.1 Definitions of power ratings for fan cooled motors 7
1.4.2 Definitions of power ratings for liquid cooled motors 7
1.5 Liquid cooling 7
1.5.1 Coolant consistency 7
1.5.2 Coolant temperature 8
1.5.3 Cooling volume flow rate 10
1.5.4 Materials that contact coolant 11
1.6 Motor data explanation 11
1.7 Type code DSD2-028-100 12
1.8 Type code DSD2-132 15

2. Technical data 18

2.1 DSD2-028 18
2.2 DSD2-036 19
2.3 DSD2-045 20
2.4 DSD2-056 21
2.5 DSD2-071 23
2.6 DSD2-100 25
2.7 DSD2-132 28
2.8 Vibration load DSD2-028-100 30
2.9 Vibration load DSD2-132 31
2.10 Radial load with pulleys 32
2.11 Radial force diagrams 33
2.11.1 Diagrams DSD2-028 35
2.11.2 Diagrams DSD2-036 36
2.11.3 Diagrams DSD2-045 37
2.11.4 Diagrams DSD2-056 39
2.11.5 Diagrams DSD2-071 41
2.11.6 Diagrams DSD2-100 43
2.11.7 Diagrams DSD2-132A/I/R 45
2.11.8 Diagrams DSD2-132W 47

3. Motor components (options) 49

3.1 Holding brake DSD2-028 bis 100 49
3.2 Holding brake DSD2-132 50
3.2.1 Brake supply 51
3.2.2 Brake connection 51
3.3 Fan data DSD2-056-100 52
3.4 Fan data DSD2-132 53
3.4.1 Filter 54
3.4.2 Fan connection 54
3.5 Encoder 55
3.5.1 Resolver DSD2-028 und 036 55
3.5.2 Resolver Safety DSD2-028 und 036 56
3.5.3 Resolver 57
3.5.4 Resolver Safety 58
3.5.5 SEK/SEL37 (SICK) 58
3.5.6 SKS/SKM36 (SICK) 60
3.5.7 SRS/SRM50 (SICK) 61
3.5.8 SKS/SKM36-S (SICK) 62
3.5.9 SRS/SRM50-S (SICK) 63
3.5.10 EKS/EKM36 Hiperface DSL® (SICK) 64

3.5.11 EES/EEM37 Hiperface DSL® (SICK) 65
3.5.12 EDS/EDM35 Hiperface DSL® (SICK) 66
3.5.13 EFS/EFM50 Hiperface DSL® (SICK) 67
3.5.14 ECN1313/EQN1325 (Heidenhain) 68
3.5.15 ECI1319/EQI1331 (Heidenhain) 69
3.5.16 ECI1319-S/EQI1331-S (Heidenhain) 70
3.5.17 ECN1325/EQN1337 (Heidenhain) 71
3.5.18 ECN1325-S/EQN1337-S (Heidenhain) 72
3.6 Encoder cable b maXX 4000 73
3.6.1 Technical data 73
3.6.2 Application references 74
3.6.3 Order information for encoder cable 75
3.7 Encoder cable b maXX 5000 77
3.7.1 Technical data 77
3.7.2 Application references 78
3.7.3 Order information for encoder cable 78
3.7.4 Order information for hybrid cable 79
3.8 Motor cables 80
3.8.1 Technical data 80
3.8.2 Main connection via connector 81
3.8.3 Application references 82
3.8.4 Ordering information for motor cables 83
3.9 Dimensional drawings for equipment socket 84
3.9.1 Main connection 84
3.9.2 Encoder connection 84
3.9.3 Combined angled flange socket 85
3.10 Main connection via terminal box 85
3.10.1 Terminal designation 85
3.10.2 Terminal box DSD2-028 and 036 86
3.11 Main connection via terminal box DSD2-071 and 100 87
3.12 Main connection via terminal box DSD2-132 88
3.12.1 Position of terminal box 89
3.13 Temperature sensor 90

4. Dimensional drawings 91

4.1 Dimensional drawings DSD2-028 91
4.2 Dimensional drawings DSD2-036 92
4.3 Dimensional drawings DSD2-045 93
4.4 Dimensional drawings DSD2-056 95
4.5 Dimensional drawings DSD2-071 99
4.6 Dimensional drawings DSD2-100 102
4.7 Dimensional drawings DSD2-132 106

5. Motor characteristics 109

5.1 Characteristics DSD2-028 109
5.1.1 DSD2-028..44U-..-31 109
5.1.2 DSD2-028..44U-..-54 112
5.2 Characteristics DSD2-036 114
5.2.1 DSD2-036..44U-..-31 114
5.2.2 DSD2-036..44U-..-54 117
5.3 Characteristics DSD2-045 120
5.3.1 DSD2-045..64U-.. 120
5.3.2 DSD2-045..64W- 125
5.4 Characteristics DSD2-056 130
5.4.1 DSD2-056..64U- 130
5.4.2 DSD2-056..64O- 136
5.4.3 DSD2-056..64W- 142
5.5 Characteristics DSD2-071 148
5.5.1 DSD2-071..64U-.. 148
5.5.2 DSD2-071..64O-.. 154

5.5.3 DSD2-071..64W 160
5.6 Characteristics DSD2-100 166
5.6.1 DSD2-100..64U-.. 166
5.6.2 DSD2-100..64O-.. 177
5.6.3 DSD2-100..64W-.. 190
5.7 Characteristics DSD2-132 204
5.7.1 DSD2-132..64A/I/R-.. 204
5.7.2 DSD2-132..64W-.. 222
6. Commissioning and maintenance instructions 240

All information in this document is non-binding customer information, subject to continuous development, and is regularly updated through our ongoing revision service. Please note that the data, figures, and information reflect the status as of the print date. These details are not legally binding for dimensioning, calculation, or costing purposes. Before using the information contained in this brochure as a basis for your own calculations and/or applications, please verify that you are in possession of the most current version of the information. Technical changes reserved.

No liability is assumed for the accuracy of the information provided!

Version 11/2025

1. Three-phase synchronous motors DSD2-028-132

The servo motors of the DSD2 family are three-phase synchronous motors that are uncooled, surface-cooled, or water-cooled. Their low rotor inertia and optimized power output give the 8-pole motors excellent acceleration capabilities.

This motor series covers a speed range of up to 6,000 min^{-1}. These motors are highly dynamic, very well controllable in speed and position, making them ideal for applications in machine tools, production machinery (e.g., printing, packaging, textiles, plastics), handling equipment, and the medical field.

1.1 General technical data

Version	IM B5	Horizontal installation position acc. to EN 60034-7
	IM V1	Vertical installation position, shaft end down, acc. to EN 60034-7
	IM V3	Vertical installation position, shaft end up, acc. to EN 60034-7 The shaft opening must be protected against water and dirt at protection class IP64
	IMB35	Size 132 **Note**: Sizes V1 and V3 are not available for DSD2-132.
Protection class	IP44	Size 028 and 036, without shaft sealing ring
	IP54	Size 132
	IP64	Size 045-100; Standard: without shaft seal ring, with opposing plugs fitted and fully enclosed terminal boxes
	IP65	Size 045-100,Option: with shaft seal ring, with opposing plugs fitted and fully enclosed terminal boxes.
	IP65	Size 045-100; Without consideration of shaft bushing with opposing plugs fitted and fully enclosed terminal boxes
	IP67	Size 045-100; Without consideration of the shaft bushing for IC410 and IC 3W7, fitted with mating connectors, not for motors with terminal box
Connection	Main connection	See Chapter 3.9
	Encoder connection	See Chapter 3.6
		The main, encoder and fan connector can optionally be obtained in the Speedtec version
	Brake	Connection in the main connection, separate connection at the DSD2-132
	Temperature sensor	Standard in the main connection and optional in the encoder socket
Temperature sensor	PT1000.	linear temperature sensor for the analysis in the controller
Cooling type	IC 410	Size 028-100 surface-cooled without fan
	IC 416	Size 056-132 surface-cooled with fan
	IC 3W7	Size 045-132 water-cooled machine
Temperature rise	$\Delta\vartheta$ = 105 K	Insulation material class F according to EN 60034
Environmental conditions for operating	Class 3K3/3Z12 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)
Environmental 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
Environmental conditions for transport	Class 2K2/2M1 DINEN 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
Surface	Black matt	RAL 9005 for Size 045+
	Without treatment	Size 028 and 036

Bearing	DE-side	Standard = ball bearing; option = roller bearing (only frame size 056+)
	NDE-side	Ball bearing, locating bearing
Bearing service life	L_{10h} 20.000h	Approximate value, rolling-contact bearings with long-term grease lubrication
Balance quality	A	Acc. to DIN EN 60034-14 (VDE 0530 Part 14): 2004-09
	B	On request (for ball bearing only)
True running	N	Standard: Normal acc. to DIN SPEC 42955 issued 1981*
	R	Option: Reduced according to DIN SPEC 42955 issued 1981 (only at ball bearings)
Vibration-resistant up to	Radial 3g / axial 0,5g**	10 Hz to 100 Hz acc. to EN 60068-2-6
Flange	As per standard IEC standard	Centralization diameter: tolerance j6
Shaft end	Cylindrical	Smooth acc. to DIN 748 (also available with key DIN 6885)
		Centralization with female thread as per DIN 332 Form D
Holding brake	Option	Zero play permanent magnet brake for DSD2-028-100
		Spring brake with clearance for DSD2-132
Actual speed encoder	Resolver	Standard, see Chapter 3.6
	Encoder option	See Chapter 3.6
Approvals	CE; c UL us; UKCA; CEL	Standard

*) Here DIN EN 50347:2003-09 is not applicable, as applicable for standard AC motors, only
**) If increased vibration loads are present, measurements on-site are required.

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

DSD2-028 and 036:

The motors are designed for operation with inverters having DC link voltages up to 540 V +10%.

DSD2-045+:

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 Definitions of power ratings

1.4.1 Definitions of power ratings for fan cooled motors

The performance values (torques) listed apply to continuous operation (S1) at rated speed with a maximum ambient temperature of 40 °C, and when the machines are installed at an altitude below 1000 m above sea level. If the motors are to be used in ambient temperatures above 40 °C or at altitudes higher than 1000 m above sea level, the required listed output power $\mathbf{P_L}$ (listed torque $\mathbf{M_n}$) is determined by multiplying the required power **P** (torque **M**) by the correction factors $\mathbf{k_1}$ and $\mathbf{k_2}$ specified in the table below.

Ambient temperature	40 °C	45 °C	50 °C	55 °C	60 °C
Correction factor k_1	1	1,06	1,13	1,22	1,34
Altitude above sea level up to	1000 m	2000 m	3000 m	4000 m	5000 m
Correction factor k_2	1	1,07	1,16	1,27	1,55

At ambient temperatures above 40 °C and when motors are installed in enclosed housings, it is necessary to consult the manufacturer due to potentially required design measures for cooling.

If the ambient temperature decreases by approximately 10 °C for every 1000 m of altitude above 1000 m, no power correction is required (note the minimum operating temperature).

1.4.2 Definitions of power ratings for liquid cooled motors

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.

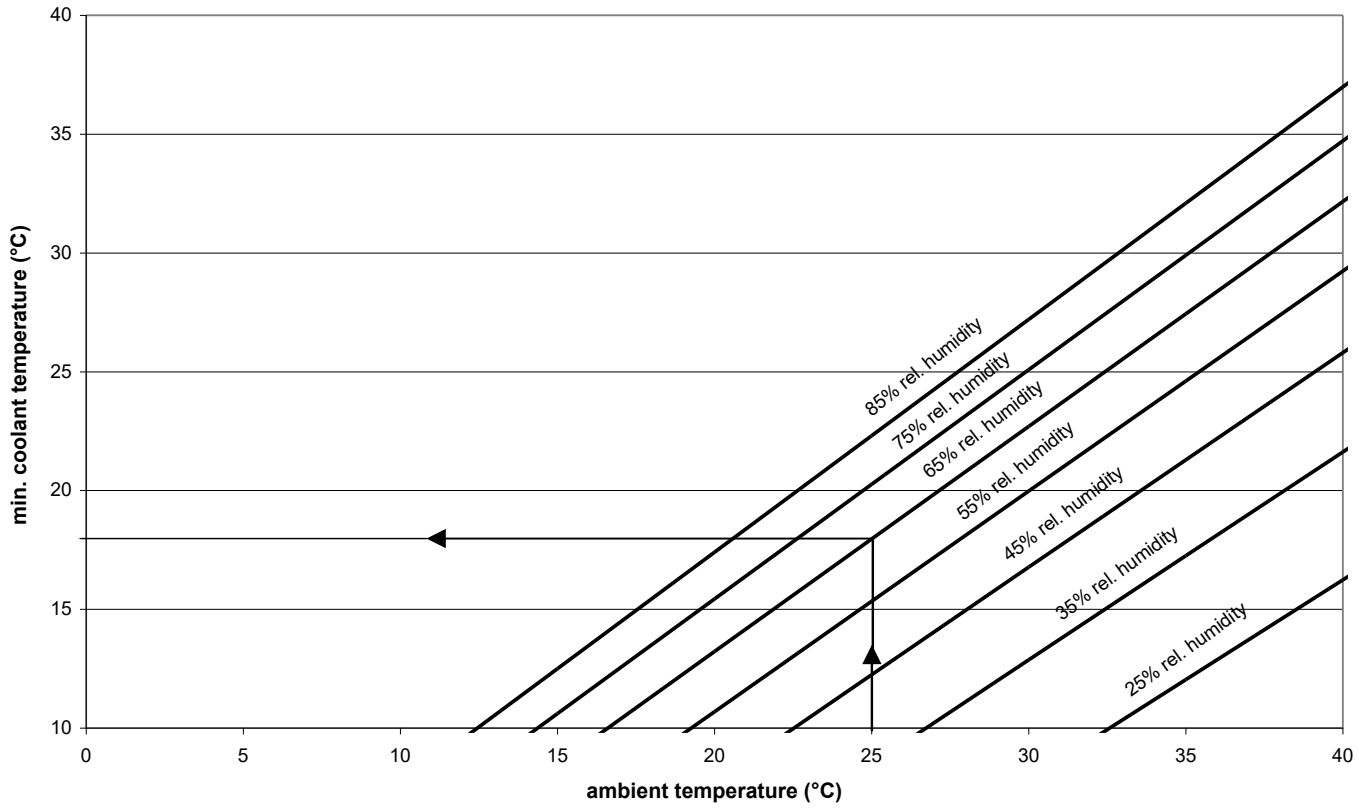
When using hydraulic oil (HLP 46), a nominal power reduction of 20 to 25% occurs compared to water cooling, depending on the motor's length and speed. This comparison assumes an inlet temperature of 35°C for both cooling media and an identical flow rate. The pressure drop is higher when using hydraulic oil. If the HLP 46 inlet temperature exceeds 35°C, additional derating applies for oil-cooled drives:

Oil cooled motors:

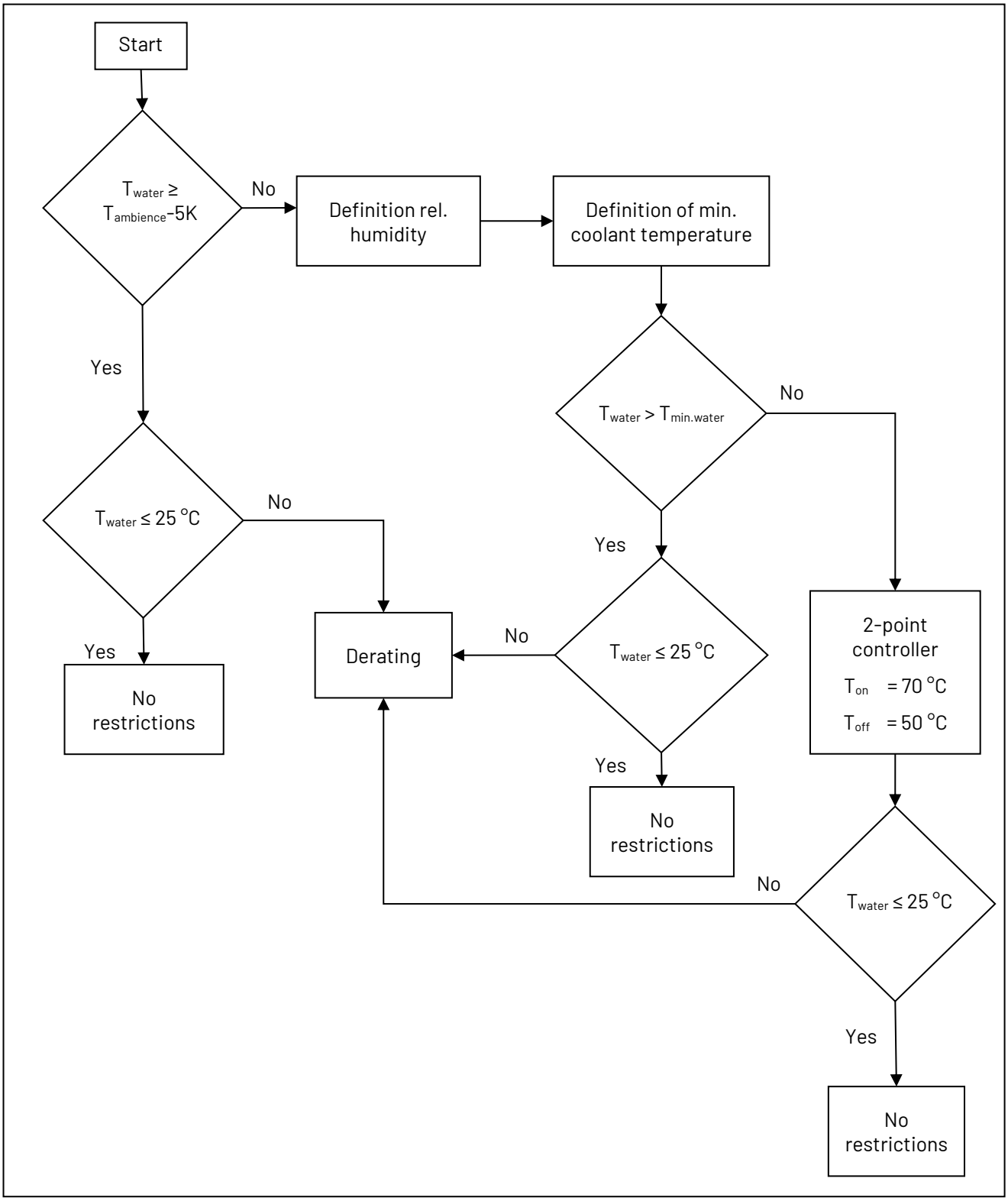
HLP46 inlet temperature	35 °C	40 °C	45 °C	50 °C
Percentage of listed output (torque)	100%	93%	88%	82%

These adjustment factors are valid for all motors up to a speed of 3,000 min^{-1}. For higher speeds, the operating point and the corresponding derating must be evaluated separately.

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 (2x) [mm]
DSD2-045SO..W	5	1,0	2	6	Quick coupling for the hose connection (Ø8 mm)
DSD2-045MO..W	5	1,2	2,5	6	Quick coupling for the hose connection (Ø8 mm)
DSD2-045LO..W	5	1,3	3	6	Quick coupling for the hose connection (Ø8 mm)

Motor	Flow rate [l/min]	Pressure drop ±15% [bar]	Temperature rise [K]	Max. coolant pressure [bar]	Connection (2x) [mm]
DSD2-056SO..W	5	0,94	3	6	Quick coupling for the hose connection (Ø8 mm)
DSD2-056MO..W	5	0,96	4	6	Quick coupling for the hose connection (Ø8 mm)
DSD2-056LO..W	5	0,98	5	6	Quick coupling for the hose connection (Ø8 mm)

Motor	Flow rate [l/min]	Pressure drop ±15% [bar]	Temperature rise [K]	Max. coolant pressure [bar]	Connection (2x) [mm]
DSD2-071SO..W	5	0,5	6	6	Stainless steel tube Ø8x1
DSD2-071MO..W	5	0,65	7	6	Stainless steel tube Ø8x1
DSD2-071LO..W	5	0,8	8	6	Stainless steel tube Ø8x1

Motor	Flow rate [l/min]	Pressure drop ±15% [bar]	Temperature rise [K]	Max. coolant pressure [bar]	Connection (2x) [mm]
DSD2-100SO..W	5	0,55	8	6	Stainless steel tube Ø8x1
DSD2-100MO..W	5	0,65	9	6	Stainless steel tube Ø8x1
DSD2-100LO..W	5	0,85	10	6	Stainless steel tube Ø8x1
DSD2-100BO..W	5	1,0	12	6	Stainless steel tube Ø8x1
DSD2-100XO..W	5	1,55	15	6	Stainless steel tube Ø8x1

Motor	Flow rate [l/min]	Pressure drop ±15% [bar]	Temperature rise [K]	Max. coolant pressure [bar]	Connection (G internal thread)
DSD2-132KO..W	15	0,35	3	6	2 x G ½"
DSD2-132MO..W	15	0,35	4	6	2 x G ½"
DSD2-132LO..W	15	0,35	4	6	2 x G ½"
DSD2-132BO..W	15	0,35	5	6	2 x G ½"
DSD2-132XO..W	15	0,35	5	6	2 x G ½"
DSD2-132YO..W	15	0,35	6	6	2 x G ½"
DSD2-132YZ..W	15	0,35	6	6	2 x G ½"

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 (PV = PN / ηN – PN) 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
DSD2-045	Cathodic dip painted aluminum	Quick coupling for a hose connection (Ø8 mm) in brass.	FPM
DSD2-056			
DSD2-071	Stainless steel	According to standard, the motors are supplied with a stainless-steel tube Ø8x1 without additional connection technology. The water connection with the John Guest - quick connector SM 040 808 S can be optionally provided (dia 8 by dia 8) or equipped by a compression fitting Ø8L x G1/4“. Please include this option including the order code when ordering.	-
DSD2-100			
DSD2-132	Cathodic dip painted aluminum	Galvanized steel, internal thread G1/2“	NBR

1.6 Motor data explanation

n_N	Rated speed [min^{-1}]
M_0	Nominal torque [Nm] with speeds ≥ 1 [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) [V/1000 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 ≥ 4 kHz in the power divider. We recommend a cycle frequency of > 6 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.de* to design the motors as well as the entire drive system.

1.7 Type code DSD2-028-100

DSD2-XXXXXXXX-XX-XX-XXX-XXX-X-XX-X-XXX	**Type**
DSD2-**XXX**XXXXX-XX-XX-XXX-XXX-X-XX-X-XXX	**Size** 028 036 045 056 071 100
DSD2-XXX**XX**XXX-XX-XX-XXX-XXX-X-XX-X-XXX	**Lengths** SO MO LO BO XO
DSD2-XXXXX**XX**X-XX-XX-XXX-XXX-X-XX-X-XXX	**Protection class** 44 - IP44 64 - IP64 65 - IP65
DSD2-XXXXXXX**X**-XX-XX-XXX-XXX-X-XX-X-XXX	**Cooling type** U - Without fan O - With fan, 230 VAC W - Liquid cooled
DSD2-XXXXXXXX-**XX**-XX-XXX-XXX-X-XX-X-XXX	**Rated speed class** 12 - 1200 min^{-1} 20 - 2000 min^{-1} 25 - 2500 min^{-1} 30 - 3000 min^{-1} 40 - 4000 min^{-1} 45 - 4500 min^{-1} 60 - 6000 min^{-1}
DSD2-XXXXXXXX-XX-**XX**-XXX-XXX-X-XX-X-XXX	**U_{zk} – DC** 31 - 310 V 54 - 540 V
DSD2-XXXXXXXX-XX-XX-**X**XX-XXX-X-XX-X-XXX	**Encoder** O - Without encoder * A - Resolver D - SRS50 E - SRM50 F - ECN1313 G - EQN1325 H - ECN1325 I - EQN1337 J - SEK37 (size 028/036) K - SEL37 (size 028/036)

	M - Resolver (Safety) N - SRS50-S (Safety) Q - SRM50-S (Safety) R - SKS36 S - SKS36-S (Safety) T - SKM36 U - SKM36-S (Safety) X - EQI1331 Y - ECI1319 5 - ECN1325-S (Safety) 6 - EQN1337-S (Safety) a - EKS36 Hiperface DSL b - EKM36 Hiperface DSL g - EFS50 Hiperface DSL h - EFM50 Hiperface DSL p - ECI1319-S (Safety) q - EQI1331-S (Safety) r - EES37 Hiperface DSL s - EEM37 Hiperface DSL t - SEK37 u - SEL37 *On request
DSD2-XXXXXXXX-XX-XX-X**X**X-XXX-X-XX-X-XXX	**Bremse** 0 - Without brake B - With brake
DSD2-XXXXXXXX-XX-XX-XX**X**-XXX-X-XX-X-XXX	**Wellenoptionen** A - Smooth shaft B - Shaft with key
DSD2-XXXXXXXX-XX-XX-XXX-**X**XX-X-XX-X-XXX	**Type main connection** B - Connector socket speedtec (PT1000 on main connection) D - Connector socket speedtec (PT1000 on encoder) M - Terminal box (with PT1000) N - Terminal box (with PT1000 on encoder) U - Angled socket (PT1000 on main connection) X - Angled socket (PT1000 on encoder)
DSD2-XXXXXXXX-XX-XX-XXX-X**X**X-X-XX-X-XXX	**Main connection exit** T - Top L - Left with view direction to the DE-side on WE R - Right with view direction to the DE-side on WE D - DE (A-side) N - NDE (B-side) P - Pivoted

DSD2-XXXXXXXX-XX-XX-XXX-XX**X**-X-XX-X-XXX	**Encoder connection exit** 0 - Without encoder T - Top L - Left with view direction to the DE-side on WE R - Right with view direction to the DE-side on WE D - DE (A-side) N - NDE (B-side) P - Pivoted
DSD2-XXXXXXXX-XX-XX-XXX-XXX-**X**-XX-X-XXX	**Bearing** K - Ball bearing DE-side R - Roller bearing DE-side
DSD2-XXXXXXXX-XX-XX-XXX-XXX-X-**X**X-X-XXX	**Concentricity** A - Class A B - Class B
DSD2-XXXXXXXX-XX-XX-XXX-XXX-X-X**X**-X-XXX	**Rundlauf** N - Normal R - Reduced
DSD2-XXXXXXXX-XX-XX-XXX-XXX-X-XX-**X**-XXX	**Gearbox or pump mounting** 0 - without gearbox and pump mounting A - BPE - gearbox B - BPEF - gearbox C - BPEA - gearbox D - BPN - gearbox E - BPNA - gearbox F - BPNF - gearbox G - BPV - gearbox H - BPVF - gearbox
DSD2-XXXXXXXX-XX-XX-XXX-XXX-X-XX-X-**XXX**	**Special version** 000 - Without special version AJ1 - Water connection with a John-Guest-connector AP1 - Water connection with cutting ring fitting DA1 - Radial shaft seal ring EA0 - Electric name plate OS1 - Fan with 115 VAC supply voltage OS2 - Fan with 24 VDC supply voltage XXX - Special version (internal coding) Special coding is alphanumeric

Example configuration:

DSD2-071SO64W-20-54-A0B-BPP-K-AN-0-000

Special version:

Motors with multiple extended design features, such as a shaft sealing ring and a fan with 24 VDC supply voltage, are designated alphanumerically and would appear as follows.

DSD2-071SO640-10-54-A0A-BPP-K-AN-0+DA1

1.8 Type code DSD2-132

DSD2-132XXXXX-XX-X-XXX-X-XXX-XXX-XXX-XXX	**Type**
DSD2-**132**XXXXX-XX-X-XXX-X-XXX-XXX-XXX-XXX	**Size** 132
DSD2-132**XX**XXX-XX-X-XXX-X-XXX-XXX-XXX-XXX	**Lengths** KO SO MO LO BO XO YO YZ
DSD2-132XX**XX**X-XX-X-XXX-X-XXX-XXX-XXX-XXX	**Schutzart** 54 - IP54
DSD2-132XXXX**X**-XX-X-XXX-X-XXX-XXX-XXX-XXX	**Cooling type** A - Axially fitted external fan I - Axially integrated external fan R - Radially fitted external fan W - Liquid cooled
DSD2-132XXXXX-**XX**-X-XXX-X-XXX-XXX-XXX-XXX	**Rated speed class** 10 - 1000 min^{-1} 15 - 1500 min^{-1} 20 - 2000 min^{-1} 25 - 2500 min^{-1} 30 - 3000 min^{-1} 40 - 4000 min^{-1} 60 - 6000 min^{-1}
DSD2-132XXXXX-XX-**X**-XXX-X-XXX-XXX-XXX-XXX	**U_{zk} – DC** 5 - 540 V
DSD2-132XXXXX-XX-X-**X**XX-X-XXX-XXX-XXX-XXX	**Encoder** 0 - 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) g - EFS50 Hiperface DSL h - EFM50 Hiperface DSL p - ECI1319-S (Safety) q - EQI1331-S (Safety) r - EES37 Hiperface DSL s - EEM37 Hiperface DSL t - SEK37 u - SEL37 *On Request
DSD2-132XXXXX-XX-X-X**X**X-X-XXX-XXX-XXX-XXX	**Brake** 0 - Without brake B - With brake
DSD2-132XXXXX-XX-X-XX**X**-X-XXX-XXX-XXX-XXX	**Wellenoptionen** A - Smooth shaft B - Shaft with key
DSD2-132XXXXX-XX-X-XXX-**X**-XXX-XXX-XXX-XXX	**Design** 1 - IM B3 2 - IM B5 7 - IM B35 8 - IM B35 flange 400 mm
DSD2-132XXXXX-XX-X-XXX-X-**X**XX-XXX-XXX-XXX	**Type main connection** M - Terminal box (with PT1000)
DSD2-132XXXXX-XX-X-XXX-X-X**X**X-XXX-XXX-XXX	**Position of main connection** T - Top L - Left with view direction to the DE-side on WE R - Right with view direction to the DE-side on WE D - DE (A-side) N - NDE (B-side)
DSD2-132XXXXX-XX-X-XXX-X-XX**X**-XXX-XXX-XXX	**Main connection exit** T - Top L - Left with view direction to the DE-side on WE R - Right with view direction to the DE-side on WE D - DE (A-side) N - NDE (B-side)
DSD2-132XXXXX-XX-X-XXX-X-XXX-**X**XX-XXX-XXX	**Bearing** K - Ball bearing DE-side R - Roller bearing DE-side
DSD2-132XXXXX-XX-X-XXX-X-XXX-X**X**X-XXX-XXX	**Vibration class** A - Class A B - Class B
DSD2-132XXXXX-XX-X-XXX-X-XXX-XX**X**-XXX-XXX	**Concentricity** N - Normal R - Reduced

DSD2-132XXXXX-XX-X-XXX-X-XXX-XXX-**X**XX-XXX	**Cooling position** T - Top B - Bottom L - Left with view direction to the DE-side on WE R - Right with view direction to the DE-side on WE A - Axial fan
DSD2-132XXXXX-XX-X-XXX-X-XXX-XXX-X**X**X-XXX	**Cooling option** 0 - Without cooling option (for water cooling) J - Flat filter with filter mat rough M - Rectangular filter with filter mat rough Q - Without filter version Δ/Y 265-345V / 460-600V S - Flat filter with filter mat rough version Δ/Y 265-345V / 460-600V U - Rectangular filter with filter mat fine version Δ/Y 265-345V / 460-600V
DSD2-132XXXXX-XX-X-XXX-X-XXX-XXX-XX**X**-XXX	**Gearbox or pump mounting** 0 - without gearbox and pump mounting
DSD2-132XXXXX-XX-X-XXX-X-XXX-XXX-XXX-**XXX**	**Special version** 000 - Without special version DA1 - Radial shaft seal ring EA0 - Electric name plate XXX - Special version (internal coding) Sondercodierung erfolgt alphanumerisch

Example configuration:

DSD2-071SO64W-20-54-A0B-BPP-K-AN-0-000

Special version:

Motors with multiple extended design features, such as a shaft sealing ring and a fan with 24 VDC supply voltage, are designated alphanumerically and would appear as follows.

DSD2-132LO54W-15-5-A0A-2-MTR-KAN-R00+AP1

2. Technical data

2.1 DSD2-028

DSD2-028..44U-.. (without fan)

Mains voltage 1 AC 230V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\ min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-028SO44U-45-31	4500	0,7	1,55	2	6,1	0,28	0,6	1,4	31	300	0,13	1,5
DSD2-028MO44U-45-31		1,2	2,6	3,9	11,9	0,47	1	2,3	28,5		0,2	2
DSD2-028SO44U-60-31	6000	0,7	1,9	2	7,5	0,35	0,55	1,65	22,5	400	0,13	1,5
DSD2-028MO44U-60-31		1,2	3	3,9	13,7	0,57	0,9	2,4	24,7		0,2	2

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\ min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-028SO44U-45-54	4500	0,7	1	2	4	0,28	0,6	0,9	42,4	300	0,13	1,5
DSD2-028MO44U-45-54		1,2	1,7	3,9	7,8	0,47	1	1,5	43,5		0,2	2
DSD2-028SO44U-60-54	6000	0,7	1	2	4	0,35	0,55	0,85	42,4	400	0,13	1,5
DSD2-028MO44U-60-54		1,2	1,7	3,9	7,8	0,57	0,9	1,35	43,5		0,2	2

[1] Coil overtemperature $\Delta\vartheta < 105$ K; direct flange mounting (mounting plate 250 mm × 250 mm x 10 mm)

[2] Rotor inertia with PE brake: + 0,068 $kgcm^2$

[3] Weight with PE brake: + 0,7 kg

2.2 DSD2-036

DSD2-036..44U-.. (without fan)

Mains voltage 1 AC 230V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\ min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-036SO44U-40-31	4000	1,2	2,4	2,8	7,9	0,44	1,05	2,2	31,3	267	0,18	2,5
DSD2-036MO44U-40-31		2	3,6	5,7	15,1	0,67	1,6	2,9	34,3		0,3	3,3
DSD2-036LO44U-45-31	4500	2,8	5	8,4	22	0,85	1,8	3,45	33,6	300	0,42	4,1
DSD2-036SO44U-60-31	6000	1,2	3,55	2,8	12	0,57	0,9	2,7	21,3	400	0,18	2,5
DSD2-036MO44U-60-31		2	5	5,7	21	0,82	1,3	3,35	24,9		0,3	3,3
DSD2-036LO44U-60-31		2,8	6,15	8,4	27,2	0,9	1,45	3,45	27,3		0,42	4,1

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\ min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-036SO44U-40-54	4000	1,2	1,45	2,8	4,7	0,44	1,05	1,35	52,7	267	0,18	2,5
DSD2-036MO44U-45-54	4500	2	2,55	5,7	10,7	0,71	1,5	1,95	48,6	300	0,3	3,3
DSD2-036LO44U-45-54		2,8	3,45	8,4	15,3	0,85	1,8	2,3	49,3		0,42	4,1
DSD2-036SO44U-60-54	6000	1,2	2,05	2,8	7	0,57	0,9	1,5	37,4	400	0,18	2,5
DSD2-036MO44U-60-54		2	2,95	5,7	12	0,82	1,3	2	42,1		0,3	3,3
DSD2-036LO44U-60-54		2,8	3,85	8,4	17	0,9	1,45	2,15	43,8		0,42	4,1

[1] Coil overtemperature $\Delta\vartheta$ < 105 K; direct flange mounting (mounting plate 250 mm × 250 mm x 10 mm)

[2] Rotor inertia with PE brake: + 0,18 $kgcm^2$

[3] Weight with PE brake: + 0,9 kg

2.3 DSD2-045

DSD2-045..64U-.. (without fan)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-045SO64U-30-54	3000	2,7	1,75	12	8,9	0,73	2,3	1,56	102	200	1,0	4,2
DSD2-045MO64U-30-54		4,3	2,7	20	14,1	1,2	3,8	2,5	105		1,5	5,3
DSD2-045LO64U-30-54		5,8	3,7	28	19,6	1,65	5,2	3,3	105		1,9	6,4
DSD2-045SO64U-45-54	4500	2,7	2,5	12	12,7	0,98	2,1	2	71,3	300	1,0	4,2
DSD2-045MO64U-45-54		4,3	3,9	20	20,4	1,6	3,4	3,2	73		1,5	5,3
DSD2-045LO64U-45-54		5,8	5,3	28	28,3	2,2	4,6	4,3	73		1,9	6,4
DSD2-045SO64U-60-54	6000[4]	2,7	3,3	12	16,7	1,13	1,8	2,3	54,3	400	1,0	4,2
DSD2-045MO64U-60-54		4,3	5,2	20	26,8	1,8	2,9	3,6	55,5		1,5	5,3
DSD2-045LO64U-60-54		5,8	6,9	28	36,4	2,4	3,8	4,7	56,8		1,9	6,4

DSD2-045..64W-.. (liquid cooled)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-045SO64W-30-54	3000	5,6	4,4	12,2	10,7	1,58	5	4,3	84,6	200	1,0	5
DSD2-045MO64W-30-54		9,5	7	20	16,7	2,9	9,3	6,9	89		1,5	6,3
DSD2-045LO64W-30-54		13	9,4	26	22,1	4	13,3	9,3	89,5		1,9	7,5
DSD2-045SO64W-45-54	4500	5,6	6,2	12,1	15,3	2,2	4,8	6,1	59,2	300	1,0	5
DSD2-045MO64W-45-54		9,5	10	20	24	4,3	9,3	9,8	62		1,5	6,3
DSD2-045LO64W-45-54		13	13,5	26	31,8	5,8	13	13,4	62,2		1,9	7,5
DSD2-045SO64W-60-54	6000[4]	5,6	8,3	12	20,4	2,8	4,4	8	44,5	400	1,0	5
DSD2-045MO64W-60-54		9,5	13	20	31,3	5,6	8,9	12,7	47,4		1,5	6,3
DSD2-045LO64W-60-54		13	18	26	42,4	7,6	12,8	17,7	46,7		1,9	7,5

[1] Coil overtemperature $\Delta\vartheta < 105$ K; direct flange mounting (mounting plate 250 mm × 250 mm x 10 mm)

[2] Rotor inertia with PE brake: + 1,0 $kgcm^2$

[3] Weight with PE brake: + 1,0 kg

[4] In combination with Heidenhain absolute encoder only on request

2.4 DSD2-056

DSD2-056..64U-.. (without fan)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-056SO64U-20-54	2000	7	3,5	25	13,7	1,28	6,1	3,1	134	133,3	3,6	8,3
DSD2-056MO64U-20-54		11	5	41	21	1,95	9,3	4,3	144		5,1	10,6
DSD2-056LO64U-20-54		14	6,4	57	28,9	2,3	11	5,2	146		6,6	13,0
DSD2-056SO64U-30-54	3000	7	4,9	25	19,1	1,77	5,6	4	96,2	200	3,6	8,3
DSD2-056MO64U-30-54		11	7,2	41	30,3	2,7	8,4	5,7	100		5,1	10,6
DSD2-056LO64U-30-54		14	9,3	57	42	3	9,6	6,5	100		6,6	13,0
DSD2-056SO64U-45-54	4500	7	7,2	25	28,3	2,3	5	5,2	65	300	3,6	8,3
DSD2-056MO64U-45-54		11	10,6	41	44,9	3,3	7	7	67,4		5,1	10,6
DSD2-056LO64U-45-54		14	13,2	56	59	3,3	6,9	6,9	71,2		6,6	13,0
DSD2-056SO64U-60-54	6000[4]	7	9,2	25	36,1	2,7	4,3	5,9	50,9	400	3,6	8,3
DSD2-056MO64U-60-54		11	13,7	41	58	3,4	5,4	7	52,3		5,1	10,6
DSD2-056LO64U-60-54		14	17	56	77	2,5	4	5,6	55		6,6	13,0

DSD2-056..64O-.. (fan cooled)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-056SO64O-20-54	2000	10	5	25	13,7	1,97	9,4	4,7	134	133,3	3,6	10,9
DSD2-056MO64O-20-54		15	7,1	41	21	3	14	6,5	144		5,1	13,3
DSD2-056LO64O-20-54		20	9,1	57	28,9	3,8	18	8,3	146		6,6	15,8
DSD2-056SO64O-30-54	3000	10	6,9	25	19,1	2,9	9,1	6,3	96,2	200	3,6	10,9
DSD2-056MO64O-30-54		15	10,2	41	30,3	4,3	14	9	100		5,1	13,3
DSD2-056LO64O-30-54		20	13,2	57	42	5,3	17	11,3	100		6,6	15,8
DSD2-056SO64O-45-54	4500	10	10,2	25	28,3	4	8,5	8,8	65	300	3,6	10,9
DSD2-056MO64O-45-54		15	15,2	41	44,9	5,9	13	12,4	67,4		5,1	13,3
DSD2-056LO64O-45-54		20	18,6	56	59	7	15	14,1	71,2		6,6	15,8
DSD2-056SO64O-60-54	6000[4]	10	13,1	25	36,1	5	8	10,6	50,9	400	3,6	10,9
DSD2-056MO64O-60-54		15	19,5	41	58	7,2	11	14,7	52,3		5,1	13,3
DSD2-056LO64O-60-54		20	24	56	77	7,8	12	15,5	55		6,6	15,8

[1] Coil overtemperature $\Delta\vartheta < 105$ K; direct flange mounting (mounting plate 450 mm × 400 mm x 30 mm)

[2] Rotor inertia with PE brake: + 2,9 $kgcm^2$

[3] Weight with PE brake: + 2,0 kg

[4] In combination with Heidenhain absolute encoder only on request

DSD2-056..64W-.. (liquid cooled)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-056SO64W-20-54	2000	14	7,9	25	15,8	2,8	13	7,6	117	133,3	3,6	9,9
DSD2-056MO64W-20-54		22	12,1	41	24,8	4,4	21	11,4	122		5,1	13,1
DSD2-056LO64W-20-54		30	15,9	57	33,4	5,9	28	14,8	126		6,6	16,3
DSD2-056SO64W-30-54	3000	14	11,2	25	22,2	4	13	10,4	82,7	200	3,6	9,9
DSD2-056MO64W-30-54		22	17,4	41	35,6	6,4	20	15,8	84,9		5,1	13,1
DSD2-056LO64W-30-54		30	22,9	57	48,2	8,3	26	20,2	87,4		6,6	16,3
DSD2-056SO64W-45-54	4500	14	15,9	25	31,7	5,8	12	14,4	58	300	3,6	9,9
DSD2-056MO64W-45-54		22	24,4	41	50	8,8	19	20,5	60,4		5,1	13,1
DSD2-056LO64W-45-54		30	32,6	56	68	11	23	25,2	61,5		6,6	16,3
DSD2-056SO64W-60-54	6000	14	21,1	25	42	7,5	12	18,3	43,8	400	3,6	9,9
DSD2-056MO64W-60-54		22	31,8	41	65	11	17	24,1	46,5		5,1	13,1
DSD2-056LO64W-60-54		30	39,9	56	84	12	19	25,5	50,2		6,6	16,3

[1] Coil overtemperature $\Delta\vartheta$ < 105 K; direct flange mounting (mounting plate 450 mm × 400 mm x 30 mm)

[2] Rotor inertia with PE brake: + 2,9 $kgcm^2$

[3] Weight with PE brake: + 2,0 kg

2.5 DSD2-071

DSD2-071..64U-.. (without fan)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-071S064U-20-54	2000	17	7,8	53	28,3	3	14	6,7	143	133,3	11,7	15,8
DSD2-071M064U-20-54		22	10,2	79	41,3	3,8	18	8,4	146		15,3	20,0
DSD2-071L064U-20-54		26	11,7	105	54	4,2	20	9,1	149		18,9	24,1
DSD2-071S064U-30-54	3000	17	11,4	53	41,3	4,1	13	9	97,8	200	11,7	15,8
DSD2-071M064U-30-54		22	14,7	79	60	5,1	16	10,9	101		15,3	20,0
DSD2-071L064U-30-54		26	17,1	105	79	5,4	17	11,3	102		18,9	24,1
DSD2-071S064U-45-54	4500	17	17,1	53	62	5,3	11	11,6	65,2	300	11,7	15,8
DSD2-071M064U-45-54		22	21,4	79	87	6,2	13	13	69		15,3	20,0
DSD2-071L064U-45-54		26	25,1	105	115	5,9	13	12,4	69,6		18,9	24,1
DSD2-071S064U-60-54	6000[4]	17	22,3	53	81	5,8	9,2	12,6	50,2	400	11,7	15,8
DSD2-071M064U-60-54		22	28,3	79	115	6,3	10	13,3	52,2		15,3	20,0
DSD2-071L064U-60-54		26	31,9	105	147	5,1	8,1	10,5	54,7		18,9	24,1

DSD2-071..640-.. (fan cooled)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-071S064O-20-54	2000	24	11,2	53	28,3	4,7	22	10,5	143	133,3	11,7	18,6
DSD2-071M064O-20-54		34	15,7	79	41,3	6,6	31	14,3	146		15,3	22,6
DSD2-071L064O-20-54		44	19,6	105	54	8,1	39	17,5	149		18,9	26,9
DSD2-071S064O-30-54	3000	24	16,4	53	41,3	6,8	22	14,8	97,8	200	11,7	18,6
DSD2-071M064O-30-54		34	22,6	79	60	9,4	30	19,7	101		15,3	22,6
DSD2-071L064O-30-54		44	28,7	105	79	11	36	24	102		18,9	26,9
DSD2-071S064O-45-54	4500	24	24,6	53	62	9,7	21	21	65,2	300	11,7	18,6
DSD2-071M064O-45-54		34	33	79	87	13	28	26,7	69		15,3	22,6
DSD2-071L064O-45-54		44	42	105	115	15	32	31,3	69,6		18,9	26,9
DSD2-071S064O-60-54	6000[4]	24	32	53	81	12	19	26	50,2	400	11,7	18,6
DSD2-071M064O-60-54		34	43,6	79	115	16	25	32,6	52,2		15,3	22,6
DSD2-071L064O-60-54		44	53	105	147	18	28	34,6	54,7		18,9	26,9

[1] Coil overtemperature $\Delta\vartheta < 105$ K; direct flange mounting (mounting plate 450 mm × 400 mm x 30 mm)

[2] Rotor inertia with PE brake: + 7,9 $kgcm^2$

[3] Weight with PE brake: + 3,0 kg

[4] In combination with Heidenhain absolute encoder only on request

DSD2-071..64W-.. (liquid cooled)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-071S064W-20-54	2000	35	19,8	53	33,6	6,8	33	18,3	121	133,3	11,7	19
DSD2-071M064W-20-54		54	29,6	78	48,9	10	49	26,7	124		15,3	23
DSD2-071L064W-20-54		73	40,2	105	64	14	65	35,5	124		18,9	27
DSD2-071S064W-30-54	3000	35	28,4	53	48,1	9,7	31	24,9	84,3	200	11,7	19
DSD2-071M064W-30-54		54	42,5	78	70	14	46	35,9	86,1		15,3	23
DSD2-071L064W-30-54		73	57	105	92	19	60	46,7	87		18,9	27
DSD2-071S064W-45-54	4500	35	41,4	53	70	13	28	33	57,9	300	11,7	19
DSD2-071M064W-45-54		54	61	78	101	19	40	45,6	59,9		15,3	23
DSD2-071L064W-45-54		73	80	105	129	24	52	56	62,2		18,9	27
DSD2-071S064W-60-54	6000	35	53	53	90	16	25	37,3	45,3	400	11,7	19
DSD2-071M064W-60-54		54	78	78	129	22	34	49,5	46,8		15,3	23
DSD2-071L064W-60-54		69	95	105	160	25	40	55	49,7		18,9	27

[1] Coil overtemperature $\Delta\vartheta$ < 105 K; direct flange mounting (mounting plate 450 mm × 400 mm x 30 mm)

[2] Rotor inertia with PE brake: + 7,9 $kgcm^2$

[3] Weight with PE brake: + 3,0 kg

2.6 DSD2-100

DSD2-100..64U-.. (without fan)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-100SO64U-12-54	1200	42	11,8	105	35	4,2	33	9,4	240	80	52	36
DSD2-100MO64U-12-54		60	16,5	160	51	5,8	46	12,8	245		70	46
DSD2-100LO64U-12-54		76	20,5	210	66	7,1	57	15,3	251		88	56
DSD2-100BO64U-12-54		90	24,4	265	83	8,1	65	17,6	250		105	66
DSD2-100XO64U-12-54		95	25,3	380	143	8,7	69	18,7	258		139	73,2
DSD2-100SO64U-20-54	2000	42	19,1	105	57	5,9	28	13	148	133,3	52	36
DSD2-100MO64U-20-54		60	26,2	160	81	7,9	38	16,7	154		70	46
DSD2-100LO64U-20-54		76	33,2	210	108	9,4	45	19,8	155		88	56
DSD2-100BO64U-20-54		90	39,1	265	133	10	49	21,5	156		105	66
DSD2-100XO64U-20-54		95	38	380	215	10	48	19,7	172		139	73,2
DSD2-100SO64U-30-54	3000	42	26,8	105	80	6,9	22	14,3	105	200	52	36
DSD2-100MO64U-30-54		60	37,8	160	117	8,8	28	18,1	107		70	46
DSD2-100LO64U-30-54		76	47,2	210	155	9,8	31	19,8	109		88	56
DSD2-100BO64U-30-54		90	56	265	190	9,8	31	19,8	109		105	66
DSD2-100XO64U-30-54		95	53	375	300	5,1	16,3	10,1	123		139	73,2
DSD2-100SO64U-45-54	4500	42	39,4	105	117	6,5	14	13,5	71,7	300	52	36
DSD2-100MO64U-45-54		60	56	160	175	7,2	15	15	72,3		70	46
DSD2-100LO64U-45-54		76	68	210	220	6,3	13	12,8	75,2		88	56
DSD2-100BO64U-45-54		90	84	265	285	3,8	8,1	8,5	72,9		105	66
DSD2-100SO64U-60-54	6000[4]	42	54,8	105	155	4,2	6,7	9,2	54,8	400	52	36
DSD2-100MO64U-60-54		60	71	160	220	2,8	4,5	6,5	56,6		70	46
DSD2-100LO64U-60-54[5]		76	94	210	305	1,87	3,2	5,3	54,3		88	56

[1] Coil overtemperature $\Delta\vartheta < 105$ K; direct flange mounting (mounting plate 450 mm × 400 mm x 30 mm)

[2] Rotor inertia with PE brake: + 17,6 $kgcm^2$

[3] Weight with PE brake: + 6,0 kg

[4] In combination with Heidenhain absolute encoder only on request

[5] Technical data are related to rated speed of 5500 min^{-1}

DSD2-100..640-.. (fan cooled)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg
DSD2-100SO640-12-54	1200	55	15,3	110	35	6	48	13,3	240	80	52	41
DSD2-100MO640-12-54		77	21,2	160	51	8,5	67	18,6	245		70	51
DSD2-100LO640-12-54		97	26,1	210	66	11	85	23	251		88	61
DSD2-100BO640-12-54		110	30,9	260	83	12	99	27,4	250		105	71
DSD2-100XO640-12-54		130	35,6	380	143	15	115	31,3	258		139	77,8
DSD2-100SO640-20-54	2000	55	24,9	110	57	9	43	19,6	148	133,3	52	41
DSD2-100MO640-20-54		77	33,8	160	81	13	61	26,8	154		70	51
DSD2-100LO640-20-54		97	42,4	210	108	16	77	33,9	155		88	61
DSD2-100BO640-20-54		110	49,4	260	133	19	90	39,9	156		105	71
DSD2-100XO640-20-54		130	53	380	215	22	105	42,8	172		139	77,8
DSD2-100SO640-30-54	3000	55	34,8	110	80	12	37	23,9	105	200	52	41
DSD2-100MO640-30-54		77	48,7	160	117	17	53	33,7	107		70	51
DSD2-100LO640-30-54		97	60	210	155	21	67	42,2	109		88	61
DSD2-100BO640-30-54		110	71	260	190	25	79	49,9	109		105	71
DSD2-100XO640-30-54		130	75	380	300	29	91	53	123		139	77,8
DSD2-100SO640-45-54	4500	55	51	110	117	14	29	27,6	71,7	300	52	41
DSD2-100MO640-45-54		77	72	160	175	19	41	39	72,3		70	51
DSD2-100LO640-45-54		97	87	210	220	25	52	47,4	75,2		88	61
DSD2-100BO640-45-54		100	95	260	285	29	61	58	72,9		105	71
DSD2-100XO640-45-54		130	93	375	375	31	66	52	98,3		139	77,8
DSD2-100SO640-60-54	6000[4]	55	67	110	155	13	21	26,6	54,8	400	52	41
DSD2-100MO640-60-54		77	92	160	220	18	29	36,2	56,6		70	51
DSD2-100LO640-60-54		76	95	210	305	18	29	37	54,3		88	61
DSD2-100BO640-60-54		79	95	260	365	24	38	46,7	57,3		105	71
DSD2-100XO640-60-54		130	124	375	500	9,4	16	17,8	73,7		139	77,8

[1] Coil overtemperature $\Delta\vartheta < 105$ K; direct flange mounting (mounting plate 450 mm × 400 mm x 30 mm)

[2] Rotor inertia with PE brake: + 17,6 $kgcm^2$

[3] Weight with PE brake: + 6,0 kg

[4] In combination with Heidenhain absolute encoder only on request

DSD2-100..64W-.. (liquid cooled)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	V/$_{1000\ min^{-1}}$	Hz	kgcm^2	kg
DSD2-100SO64W-12-54	1200	89	32,2	110	44,3	10	82	29,1	189	80	52	41
DSD2-100MO64W-12-54		130	46,6	165	65	15	120	42,8	191		70	51
DSD2-100LO64W-12-54		170	58	220	85	20	160	55	196		88	62
DSD2-100BO64W-12-54		210	71	280	105	25	205	67	197		105	72
DSD2-100XO64W-12-54		240	96	400	215	29	235	93	172		139	86,5
DSD2-100SO64W-20-54	2000	89	52	110	71	16	77	43,3	118	133,3	52	41
DSD2-100MO64W-20-54		130	75	165	105	23	110	63	119		70	51
DSD2-100LO64W-20-54		170	94	220	138	31	150	82	121		88	62
DSD2-100BO64W-20-54		185	95	280	165	37	180	93	125		105	72
DSD2-100XO64W-20-54		240	141	400	315	48	225	135	117		139	86,5
DSD2-100SO64W-25-54	2500	89	63	110	87	19	73	49,8	96,6	166,6	52	41
DSD2-100MO64W-25-54		130	89	165	125	27	105	70	100		70	51
DSD2-100LO64W-25-54		145	95	220	165	35	135	88	99,9		88	62
DSD2-100BO64W-25-54		160	95	280	190	42	160	94	109		105	72
DSD2-100XO64W-25-54		240	180	400	400	59	225	170	92,1		139	86,5
DSD2-100SO64W-30-54	3000	89	72	110	100	22	69	54	84	200	52	41
DSD2-100MO64W-30-54		120	95	165	148	31	99	78	84,5		70	51
DSD2-100LO64W-30-54		130	95	210	180	37	120	88	91,9		88	62
DSD2-100BO64W-30-54		130	95	280	235	41	130	95	88,2		105	72
DSD2-100XO64W-30-54		240	205	400	460	69	220	190	79,8		139	86,5
DSD2-100SO64W-45-54	4500	86	95	110	138	26	55	60	60,9	300	52	41
DSD2-100MO64W-45-54		89	95	165	200	32	69	73	62,6		70	51
DSD2-100LO64W-45-54		98	95	220	250	46	97	79	66,6		88	62
DSD2-100XO64W-45-54		240	225	395	500	86	180	200	73,7		139	86,5
DSD2-100SO64W-60-54	6000	73	95	110	165	25	40	52	50,4	400	52	41
DSD2-100MO64W-60-54		70	95	165	265	21	34	47,9	47		70	51
DSD2-100XO64W-60-54		240	225	395	500	88	140	190	73,7		139	86,5

[1] Coil overtemperature $\Delta\vartheta$ < 105 K; direct flange mounting (mounting plate 450 mm × 400 mm x 30 mm)

[2] Rotor inertia with PE brake: + 17,6 kgcm^2

[3] Weight with PE brake: + 6,0 kg

2.7 DSD2-132

DSD2-132..54A/I/R-.. (surface fan cooled)*

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]	KLK
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\ min^{-1}}$	Hz	$kgcm^2$	kg	s.82
DSD2-132KO54.-10-5		175	34,2	380	89	16	155	30,6	351		0,029	127	20
DSD2-132MO54.-10-5		235	45,3	505	118	22	210	41,1	353		0,038	142	22
DSD2-132LO54.-10-5		290	57	630	149	27	265	52	350		0,046	157	22
DSD2-132BO54.-10-5	1000	345	67	750	175	33	320	62	358	66,6	0,055	172	22
DSD2-132XO54.-10-5		405	77	875	200	39	375	73	362		0,063	187	22
DSD2-132YO54.-10-5		460	91	995	240	48	430	87	351		0,072	203	22
DSD2-132YZ54.-10-5		485	97	1060	255	48	460	93	351		0,076	210	24
DSD2-132KO54.-15-5		175	49,8	375	130	22	140	41,5	241		0,029	127	22
DSD2-132MO54.-15-5		235	67	500	175	30	190	57	238		0,038	142	22
DSD2-132LO54.-15-5		290	81	625	210	38	245	70	246		0,046	157	22
DSD2-132BO54.-15-5	1500	345	103	745	270	47	295	91	232	100	0,055	172	22
DSD2-132XO54.-15-5		405	120	870	310	55	350	107	234		0,063	187	24
DSD2-132YO54.-15-5		460	130	990	340	64	410	117	247		0,072	203	24
DSD2-132YZ54.-15-5		485	142	1050	370	69	440	129	240		0,076	210	24
DSD2-132KO54.-20-5		175	64	375	170	27	130	49,5	187		0,029	127	22
DSD2-132MO54.-20-5		230	86	495	225	37	175	68	186		0,038	142	22
DSD2-132LO54.-20-5		290	111	620	290	47	225	89	181		0,046	157	22
DSD2-132BO54.-20-5	2000	345	130	745	340	58	275	106	185	133,3	0,055	172	24
DSD2-132XO54.-20-5		405	155	865	405	68	325	130	180		0,063	187	26
DSD2-132YO54.-20-5		460	175	985	455	80	380	147	184		0,072	203	26
DSD2-132YZ54.-20-5		485	195	1050	510	85	410	170	174		0,076	210	26
DSD2-132KO54.-25-5		175	77	370	200	30	115	54	155		0,029	127	22
DSD2-132MO54.-25-5		235	103	495	270	41	160	74	155		0,038	142	22
DSD2-132LO54.-25-5		290	130	615	340	53	205	95	154		0,046	157	24
DSD2-132BO54.-25-5	2500	345	155	740	405	65	250	116	154	166,6	0,055	172	26
DSD2-132XO54.-25-5		405	195	860	510	78	295	149	143		0,063	187	26
DSD2-132YO54.-25-5		460	225	980	585	91	345	175	143		0,072	203	26
DSD2-132YZ54.-25-5		485	225	1040	585	98	375	175	152		0,076	210	26
DSD2-132KO54.-30-5		175	91	370	240	32	100	57	132		0,029	127	22
DSD2-132MO54.-30-5		235	130	490	340	44	140	83	124		0,038	142	24
DSD2-132LO54.-30-5		290	155	610	405	56	180	102	128		0,046	157	26
DSD2-132BO54.-30-5	3000	345	195	735	510	69	220	130	123	200	0,055	172	26
DSD2-132XO54.-30-5		405	225	855	585	83	265	150	125		0,063	187	26
DSD2-132YO54.-30-5		460	225	980	585	94	300	155	143		0,072	202	26
DSD2-132YZ54.-30-5		485	225	1040	585	95	305	155	152		0,076	210	26

[1] Coil overtemperature $\Delta\vartheta < 105$ K; direct flange mounting (mounting plate 450 mm × 400 mm x 30 mm)

[2] Rotor inertia with brake: + 0,004 kgm^2

[3] Weight with brake: + 13,0 kg

DSD2-132..54W-.. (liquid cooled)

Mains voltage 3 AC 400V for converters with uncontrolled supply

Motor	n_N	M_0 [1]	I_0 [1]	$M_{0,max}$	$I_{0,max}$	P_N [1]	M_N [1]	I_N [1]	$k_{E/kalt}$	f_N	J [2]	m [3]	KLK
	min^{-1}	Nm	A	Nm	A	kW	Nm	A	$V/_{1000\,min^{-1}}$	Hz	$kgcm^2$	kg	s.82
DSD2-132K054W-10-5		240	49,9	400	98	23	220	46,2	321		0,029	95	22
DSD2-132M054W-10-5		330	69	525	129	32	305	65	324		0,038	115	24
DSD2-132L054W-10-5		420	97	640	165	41	390	88	313		0,046	135	24
DSD2-132B054W-10-5	1000	515	111	770	190	50	480	104	329	66,6	0,055	155	24
DSD2-132X054W-10-5		615	132	890	220	60	570	125	329		0,063	170	24
DSD2-132Y054W-10-5		715	165	1020	265	70	665	155	313		0,072	190	24
DSD2-132YZ54W-10-5		770	175	1080	285	75	715	165	311		0,076	200	26
DSD2-132K054W-15-5		240	73	400	143	33	210	65	219		0,029	95	22
DSD2-132M054W-15-5		330	103	525	190	46	295	92	219		0,038	115	24
DSD2-132L054W-15-5		420	141	635	250	59	375	128	209		0,046	135	24
DSD2-132B054W-15-5	1500	515	165	765	285	72	460	150	219	100	0,055	155	24
DSD2-132X054W-15-5		615	200	885	335	86	545	180	219		0,063	170	26
DSD2-132Y054W-15-5		715	220	1010	365	100	635	205	230		0,072	190	26
DSD2-132YZ54W-15-5		770	225	1070	365	105	670	205	244		0,076	200	26
DSD2-132K054W-20-5		240	93	395	180	42	200	79	172		0,029	95	22
DSD2-132M054W-20-5		330	135	520	250	59	280	116	167		0,038	115	24
DSD2-132L054W-20-5		420	175	635	310	75	360	150	170		0,046	135	26
DSD2-132B054W-20-5	2000	515	210	755	365	93	440	185	172	133,3	0,055	155	26
DSD2-132X054W-20-5		615	240	875	400	108	515	210	183		0,063	170	26
DSD2-132Y054W-20-5		715	305	995	500	128	615	270	167		0,072	190	28
DSD2-132YZ54W-20-5		770	310	1060	500	137	655	275	177		0,076	200	28
DSD2-132K054W-25-5		240	114	395	220	49	190	92	141		0,029	95	24
DSD2-132M054W-25-5		330	165	520	310	70	270	137	136		0,038	115	26
DSD2-132L054W-25-5		420	205	630	365	90	345	175	144		0,046	135	26
DSD2-132B054W-25-5	2500	515	230	755	400	108	410	195	157	166,6	0,055	153	26
DSD2-132X054W-25-5		615	300	870	500	130	500	255	146		0,063	170	28
DSD2-132Y054W-25-5		715	305	995	500	144	550	260	167		0,072	190	28
DSD2-132YZ54W-25-5		770	310	1060	500	150	570	265	177		0,076	200	28
DSD2-132K054W-30-5		240	128	395	250	55	175	98	125		0,029	95	24
DSD2-132M054W-30-5	3000	330	195	515	365	80	255	155	115	200	0,038	115	26
DSD2-132L054W-30-5		420	225	625	400	101	320	185	131		0,046	135	26
DSD2-132B054W-30-5		515	290	750	500	126	400	240	240		0,055	153	28
DSD2-132K054W-40-5		240	170	390	335	65	155	115	94		0,029	95	26
DSD2-132M054W-40-5	4000	330	215	515	400	91	215	155	104	266,6	0,038	115	26
DSD2-132L054W-40-5		390	310	615	600	125	300	255	87		0,046	135	28
DSD2-132K054W-60-5	6000	240	225	385	445	64	100	108	70,5	400	0,029	95	26

[1] Coil overtemperature $\Delta\vartheta < 105$ K; direct flange mounting (mounting plate 450 mm × 400 mm x 30 mm)

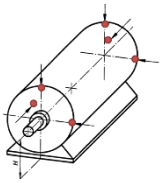
[2] Rotor inertia with brake: + 0,004 kgm^2

[3] Weight with brake: + 13,0 kg

2.8 Vibration load DSD2-028-100

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.

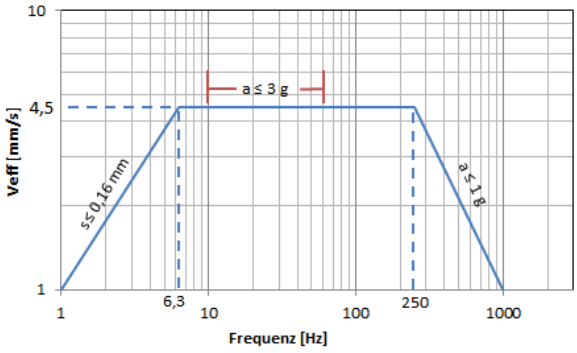


Measuring points for the vibration measuring

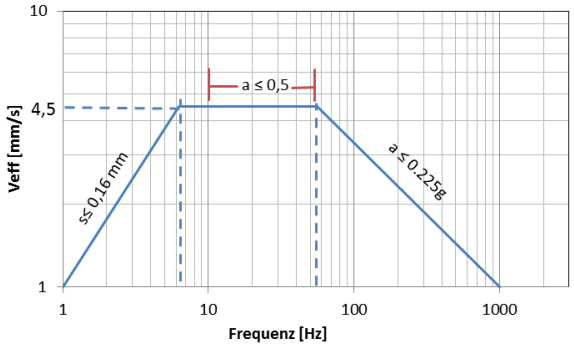
The specified maximum radial and axial vibration values must be observed simultaneously. They apply to substructures that can be classified as flexible. A substructure is considered flexible if the lowest natural frequency of the overall system (machine and foundation) in the measurement direction is 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 g > 250 Hz
Peak vibration displacement: ≤ 0.16 mm < 6.3 Hz
RMS vibration velocity: ≤ 4.5 mm/s
in the range of 6.3 Hz – 250 Hz

Maximum axial vibration load:
Peak vibration acceleration: 0.225 g > 55 Hz
Peak vibration displacement: ≤ 0.16 mm < 6.3 Hz
RMS vibration velocity: ≤ 4.5 mm/s
in the range of 6.3 Hz – 55 Hz



Measuring points for radial vibratory load



Measuring points for axial vibratory load

Additional vibration resistance:

Vibration acceleration of 3 g radial and 0.5 g axial in the frequency range from 10 Hz to 100 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.

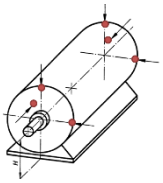
If significant vibration excitations above 2 kHz—such as gear mesh frequencies — are expected, the measurement range must be adjusted accordingly. The permissible maximum values remain unchanged.

Note:
Vibration acceleration of DSD2-028 and 036 is possible up to 1g axial without brake.

2.9 Vibration load DSD2-132

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.

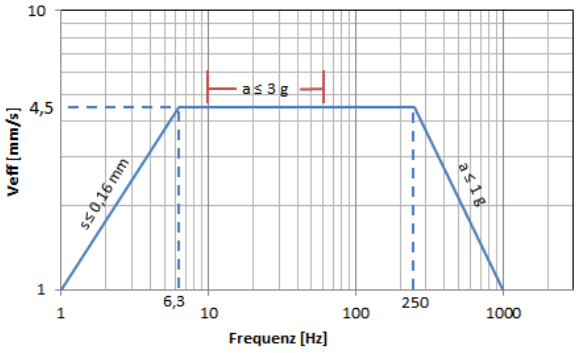


Measuring points for the vibration measuring

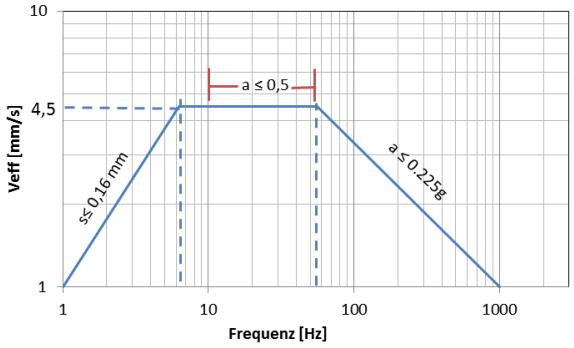
The specified maximum radial and axial vibration values must be observed simultaneously. They apply to substructures that can be classified as flexible. A substructure is considered flexible if the lowest natural frequency of the overall system (machine and foundation) in the measurement direction is 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 g > 250 Hz
Peak vibration displacement: ≤ 0.16 mm < 6.3 Hz
RMS vibration velocity: ≤ 4.5 mm/s
in the range of 6.3 Hz – 250 Hz

Maximum axial vibration load:
Peak vibration acceleration: 0.225 g > 55 Hz
Peak vibration displacement: ≤ 0.16 mm < 6.3 Hz
RMS vibration velocity: ≤ 4.5 mm/s
in the range of 6.3 Hz – 55 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.

2.10 Radial load with pulleys

Determination of radial forces F_R

When using pulleys, the radial load is calculated according to the following formula:

$$F_R = k \frac{2 \cdot 10^7 \cdot P_N}{n \cdot D} [N]$$

P_N = nominal power in kW
n = rated speed in min^{-1}
D = pulley diameter in mm

The belt tightening factor k is approximately:
k = 1.8...2.5 for V-belt
k = 2.2...3.5 for flat belt
k = 1,1 ... 1,5 for timing belt

(Observe specifications of the belt manufacturer)

To ensure reliable torque transmission, it is essential to utilize the full supporting length of the key. Failure to do so may result in excessive surface pressure on the key, which can lead to motor damage. The pulley must be mounted up to the shaft shoulder and may only be axially clamped using the following maximum tightening torques.

Gland	M5	M6	M8	M10	M12	M16	M20
Tightening torque	2,2 Nm	4 Nm	10 Nm	19 Nm	33 Nm	80 Nm	160 Nm

2.11 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 FR 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:

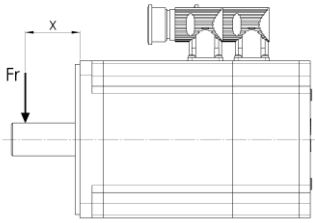
- Low-vibration applications
- Horizontal installation
- Oscillating bearing motion with a minimum pivot angle of 180°
- Average operating temperature < 90°C

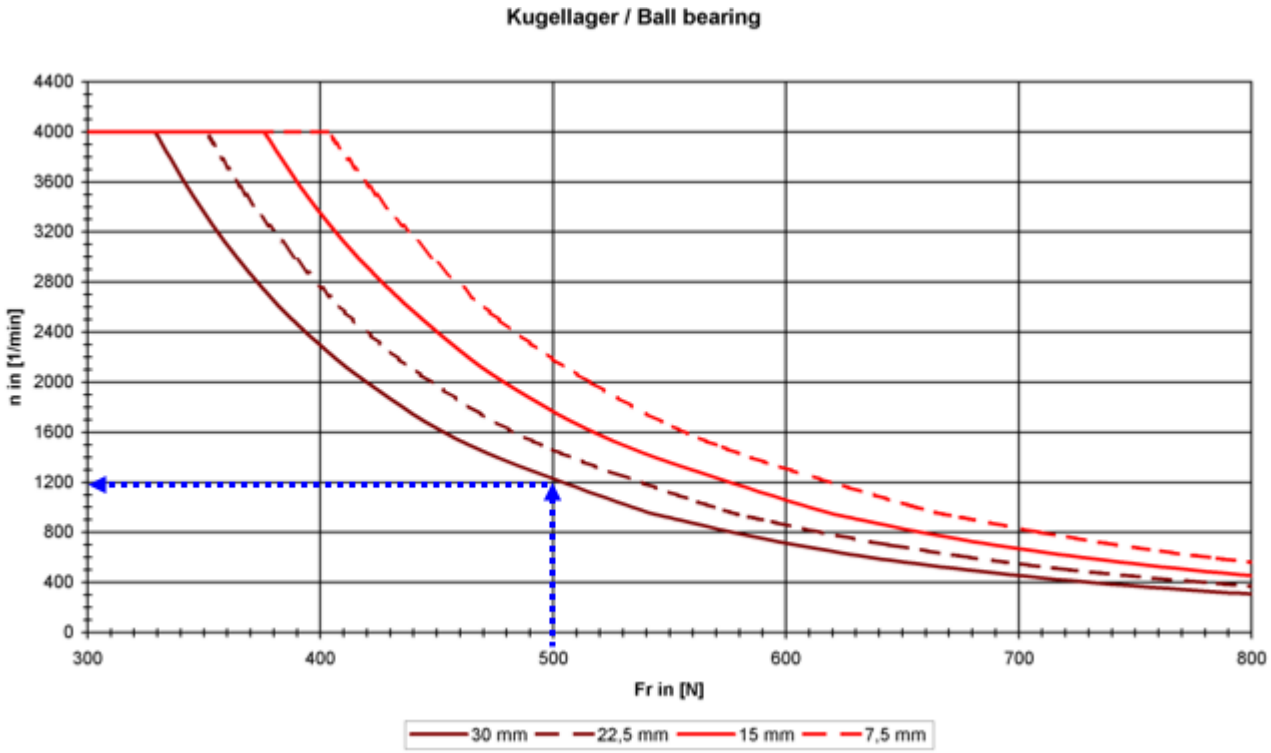
Axial loading of the motor shaft is strictly prohibited. Even when mounting couplings, pulleys, or similar components onto the motor shaft, no axial forces may occur! In such cases, the internal thread at the shaft end should be used as a mounting aid.

Example diagram:

Point of force application: x = 30 mm from the shaft shoulder

Bearing life: 20.000 h, shaft with keyway

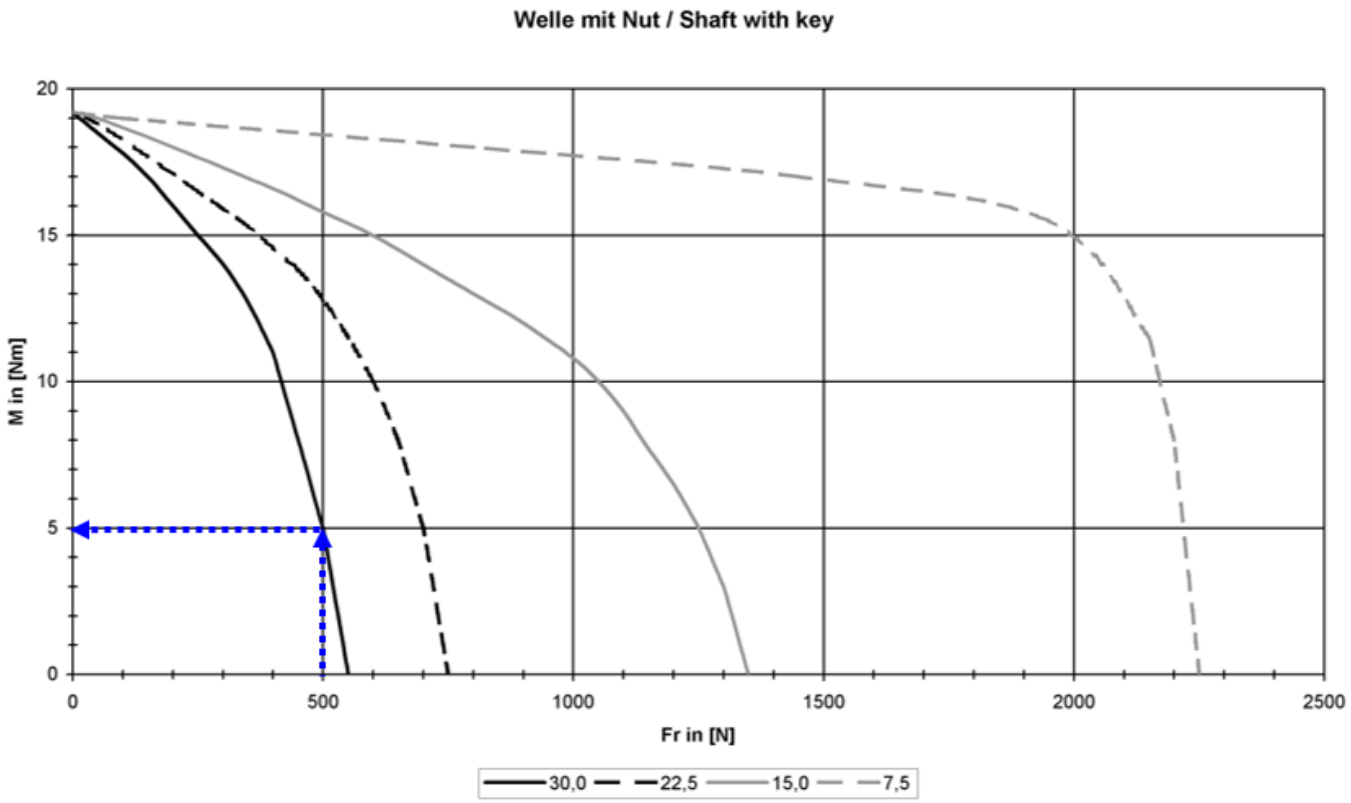




Explanation of the example diagram:

The radial force FR 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 500 N applied at a point x = 30 mm from the shaft shoulder, the resulting maximum rotational speed is 1200 min^{-1}.

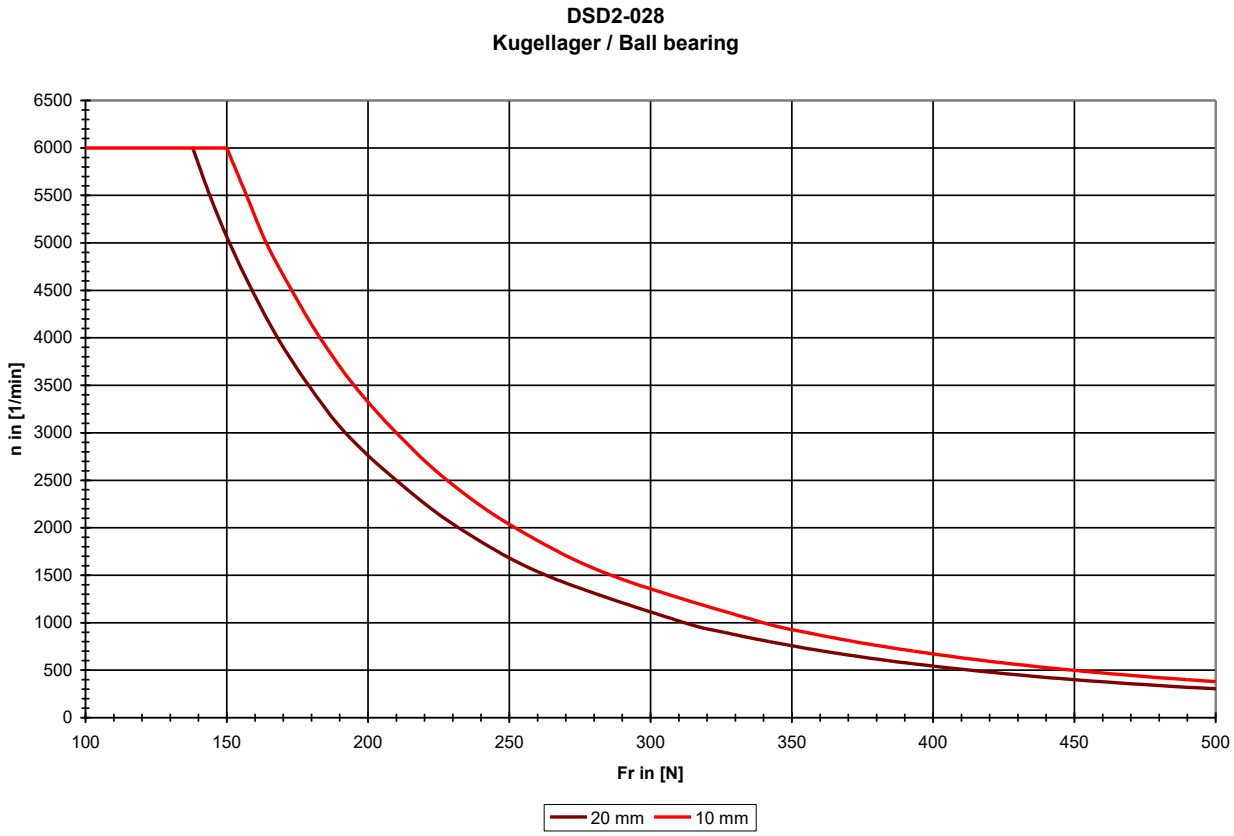


Explanation of the example diagram:

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

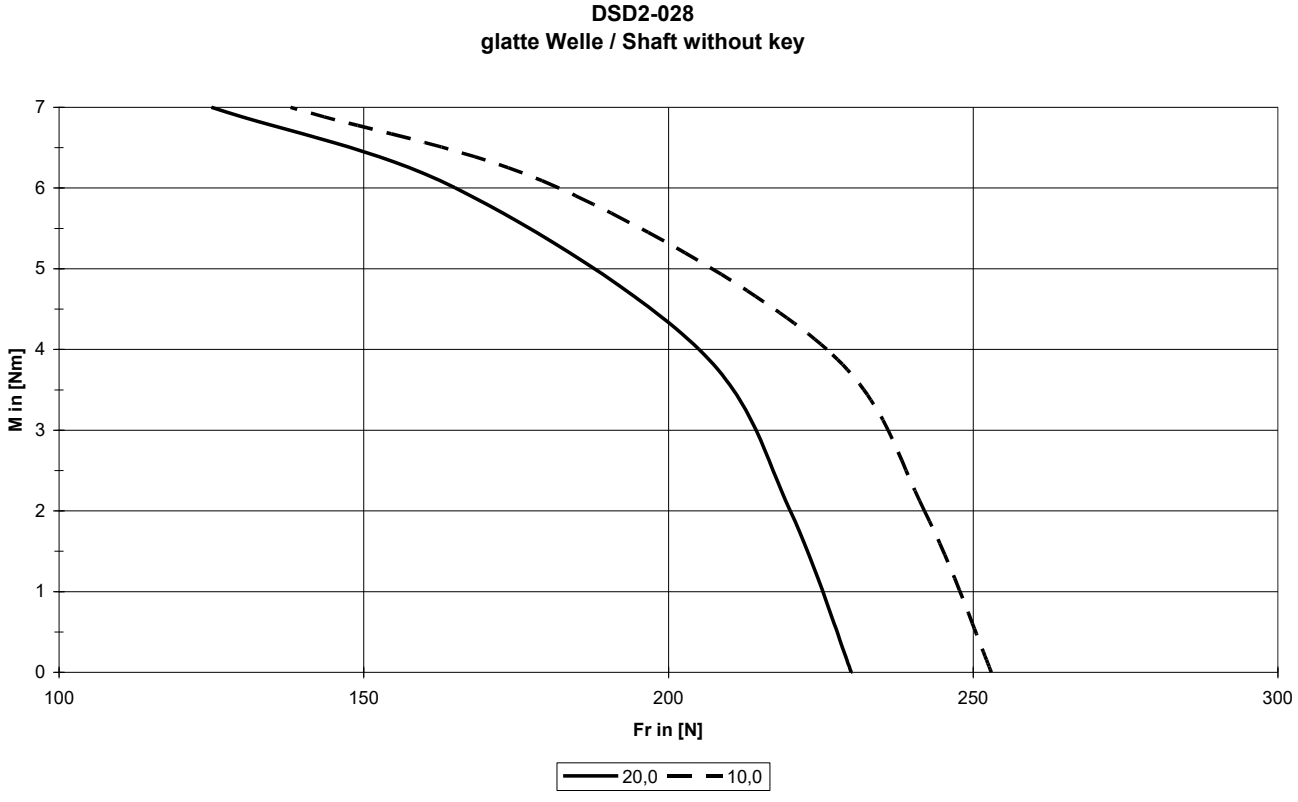
With a radial force of 500 N applied at a point x = 30 mm from the shaft shoulder, the transferable torque is 5 Nm.

2.11.1 Diagrams DSD2-028

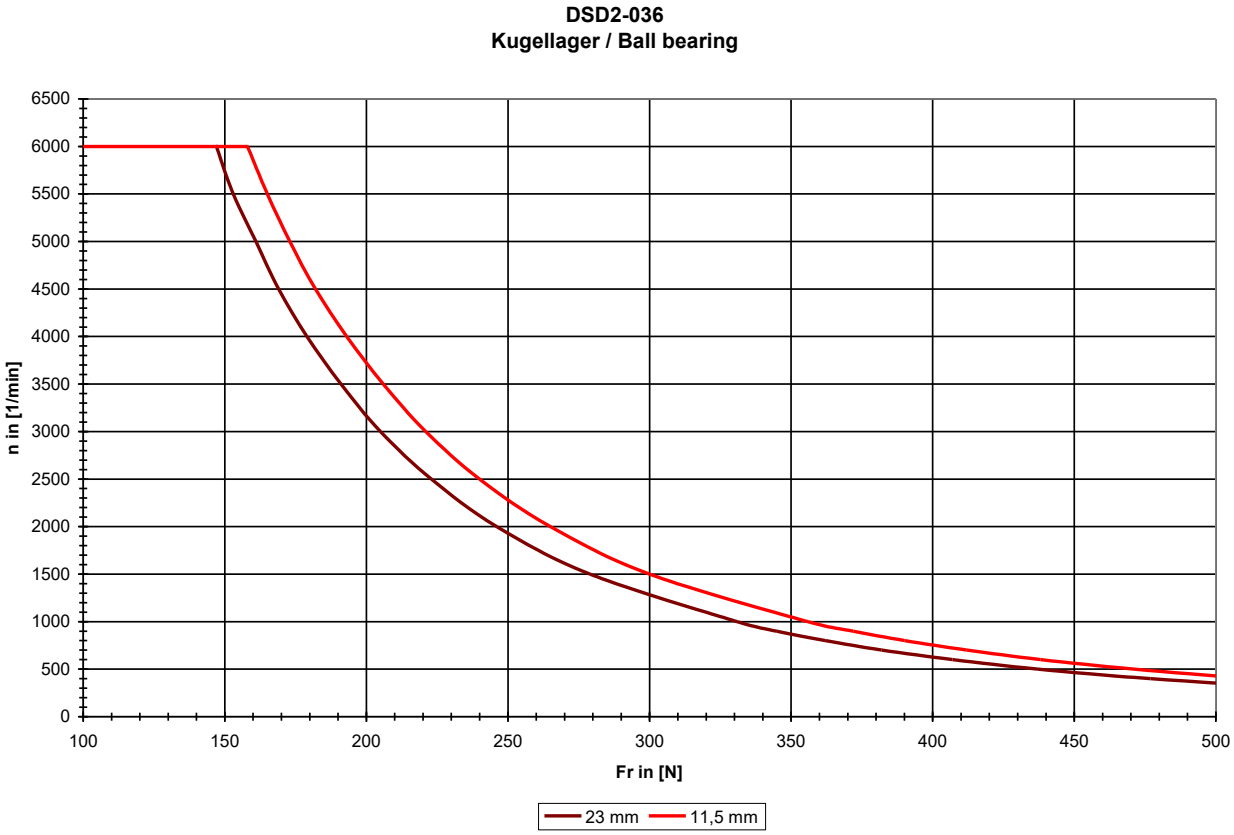


Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 6.000\ min^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 6,000$ rpm

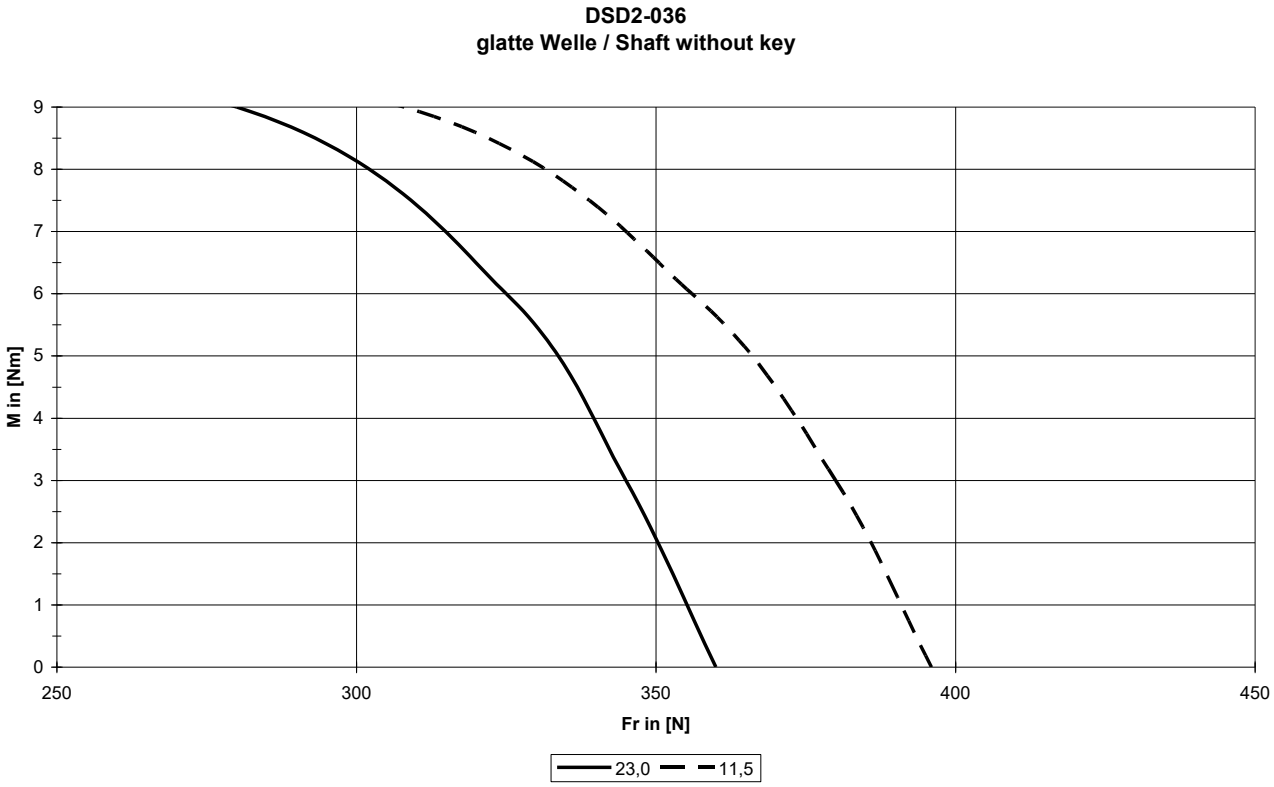


2.11.2 Diagrams DSD2-036

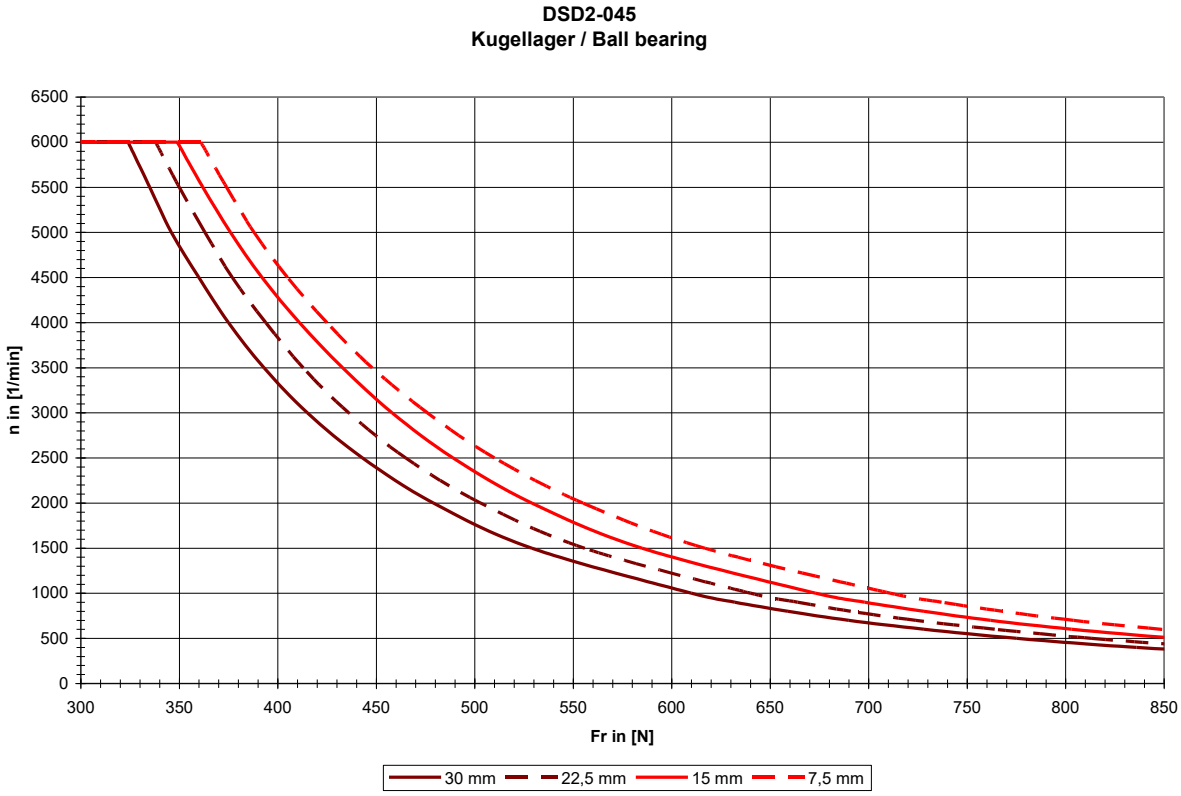


Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 6.000\ min^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 6,000$ rpm

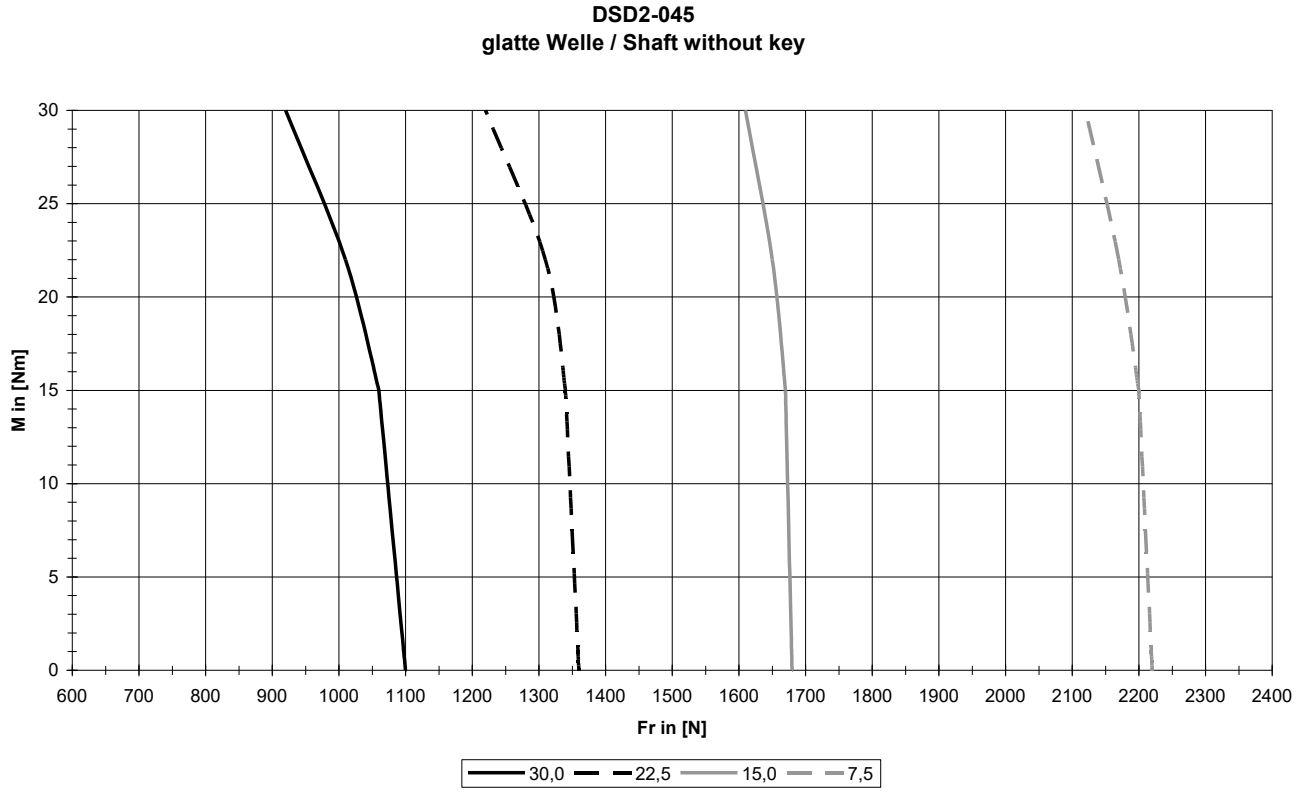


2.11.3 Diagrams DSD2-045

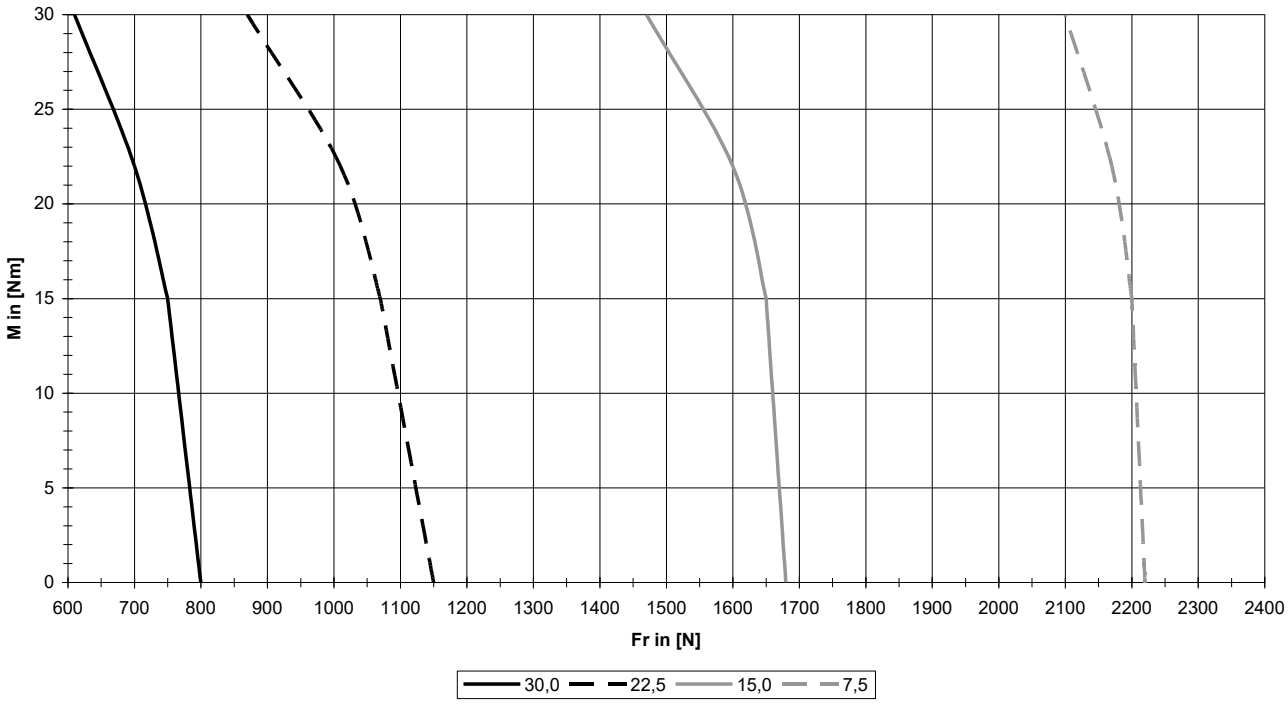


Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 6.000\ min^{-1}$

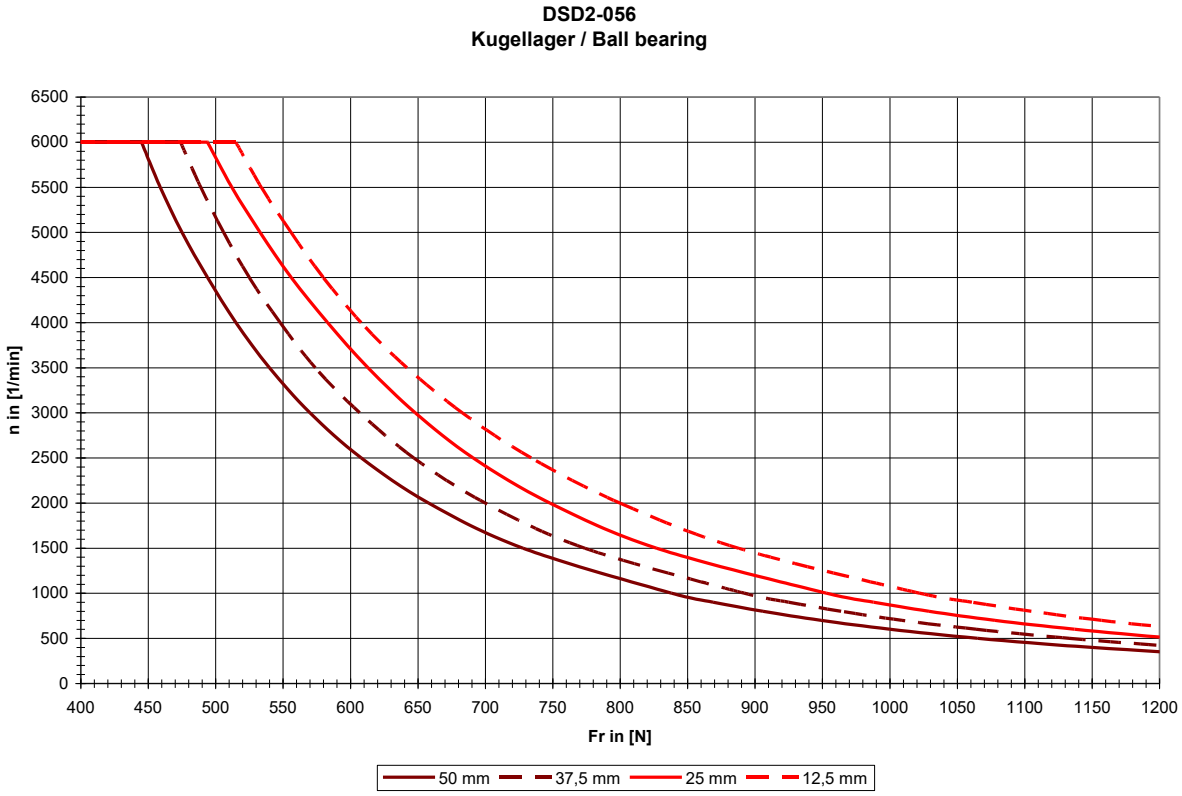
Note: 20,000h grease service life at $n_{effective} \leq 6,000$ rpm



DSD2-045
Welle mit Nut / Shaft with key

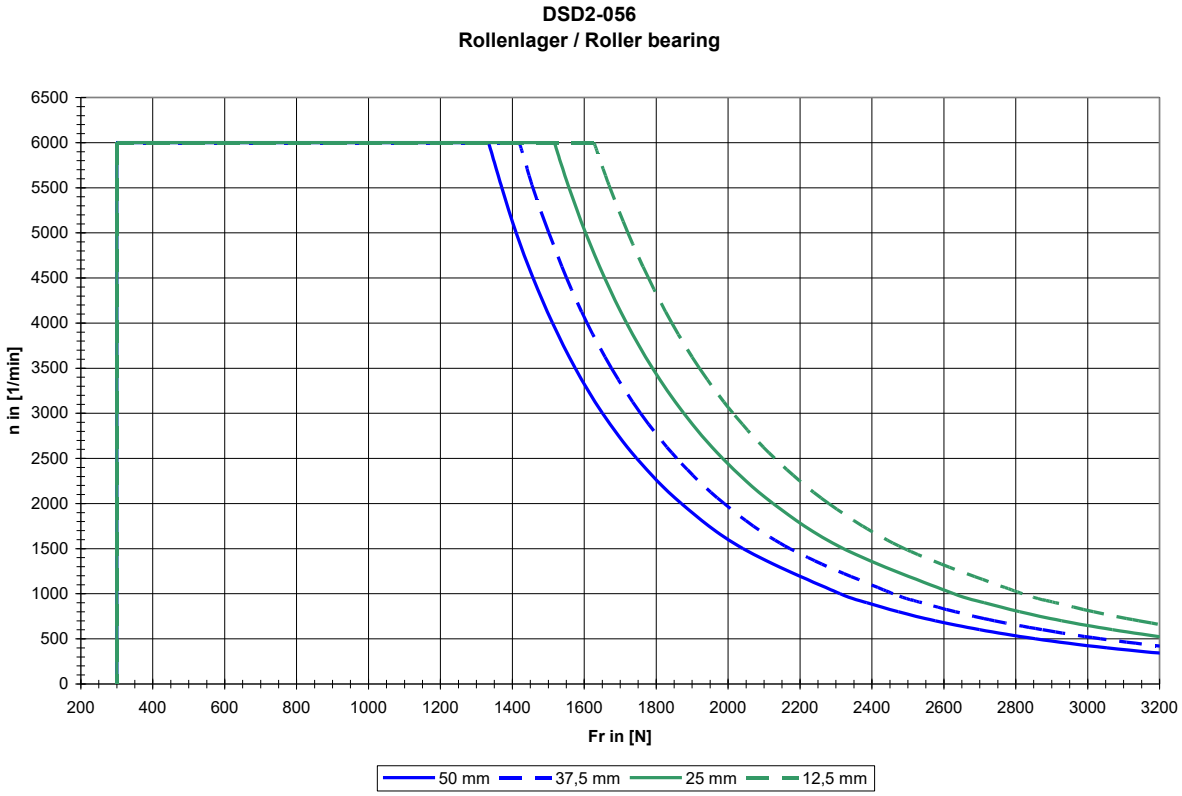


2.11.4 Diagrams DSD2-056



Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 6.000\ min^{-1}$

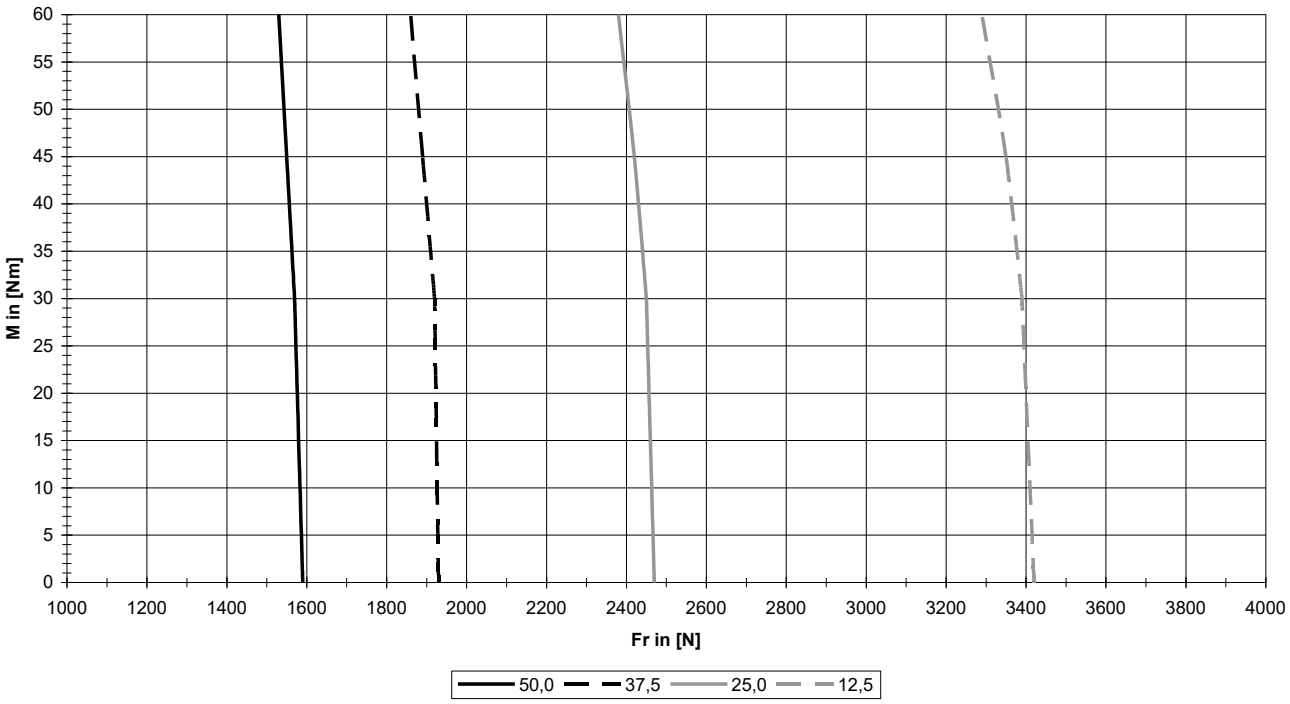
Note: 20,000h grease service life at $n_{effective} \leq 6,000$ rpm



Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 2.000\ min^{-1}$

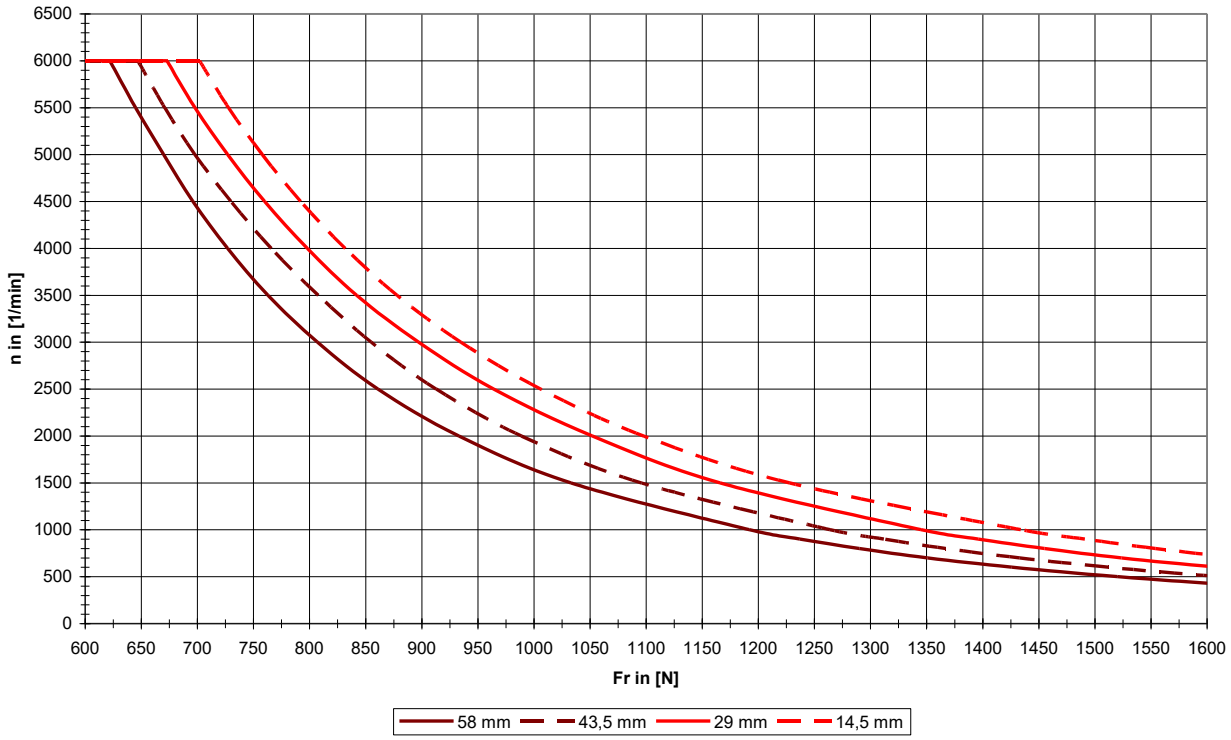
Note: 20,000h grease service life at $n_{effective} \leq 2,000$ rpm

DSD2-056
Welle / Shaft



2.11.5 Diagrams DSD2-071

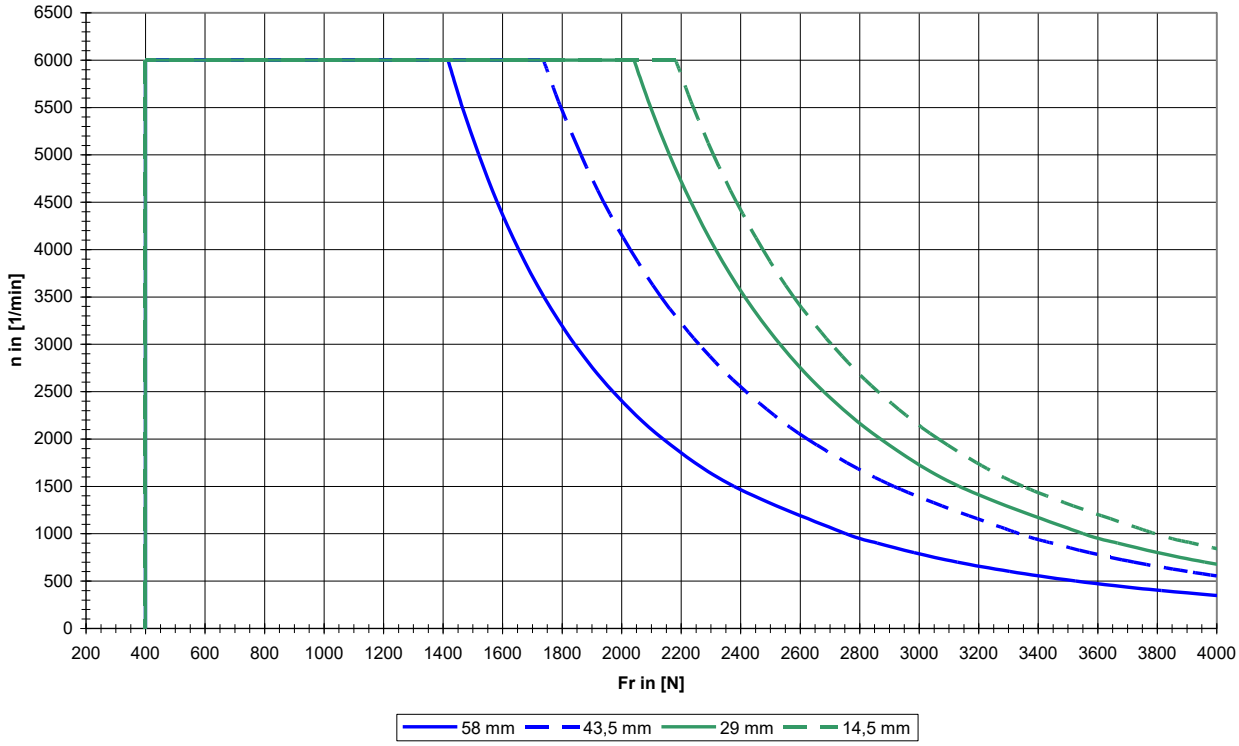
DSD2-071
Kugellager / Ball bearing



Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 6.000\ min^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 6,000$ rpm

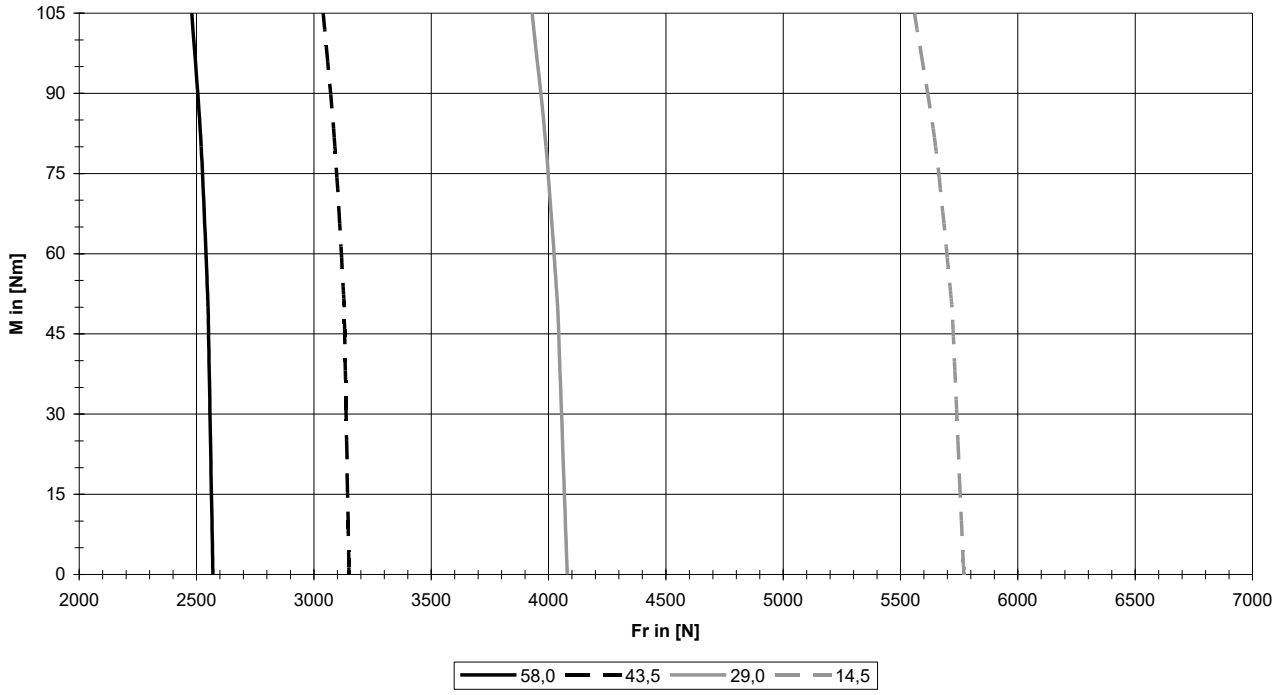
DSD2-071
Rollenlager / Roller bearing



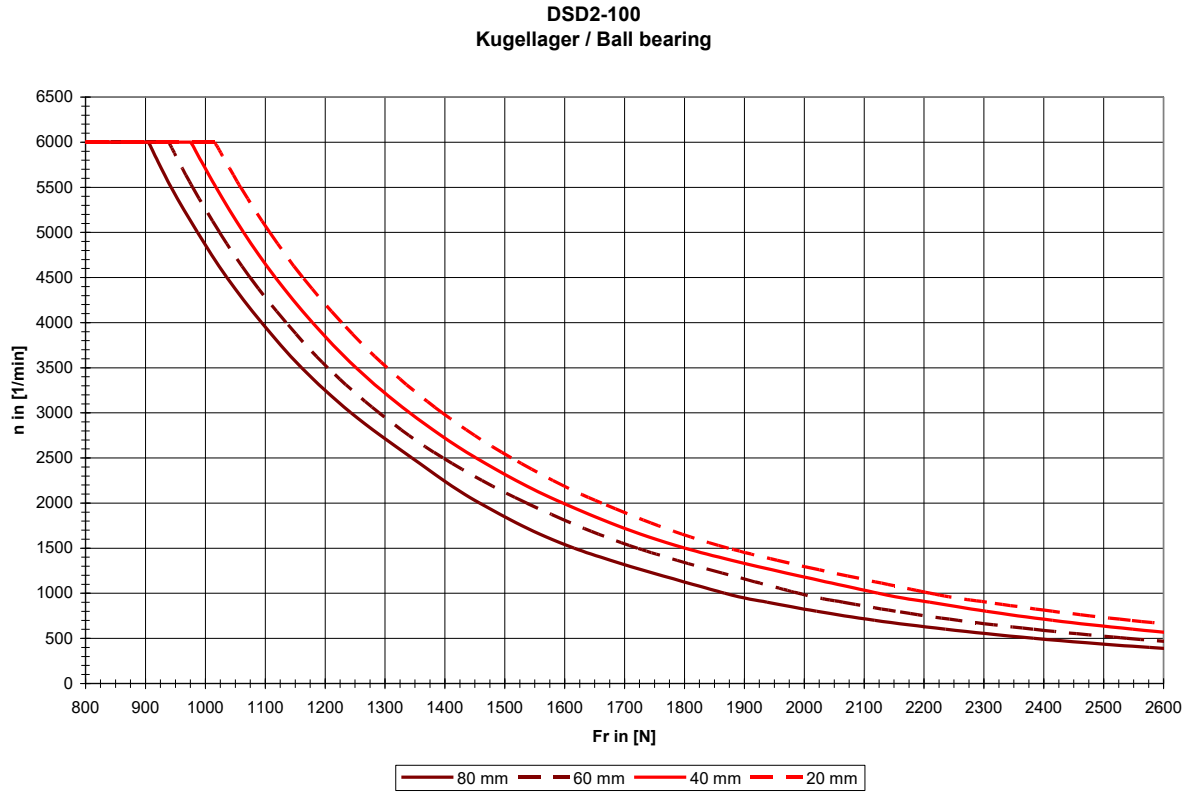
Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 1.600\ min^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 1,600$ rpm

DSD2-071
Welle / Shaft

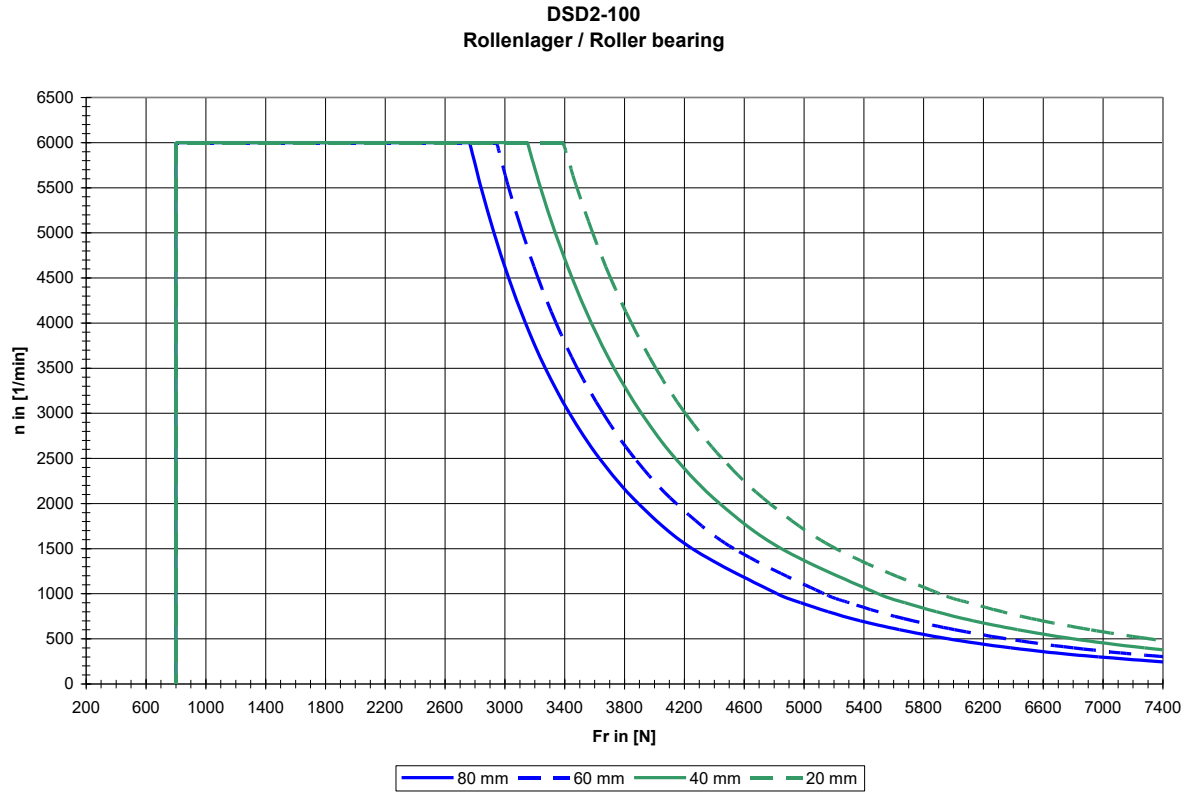


2.11.6 Diagrams DSD2-100



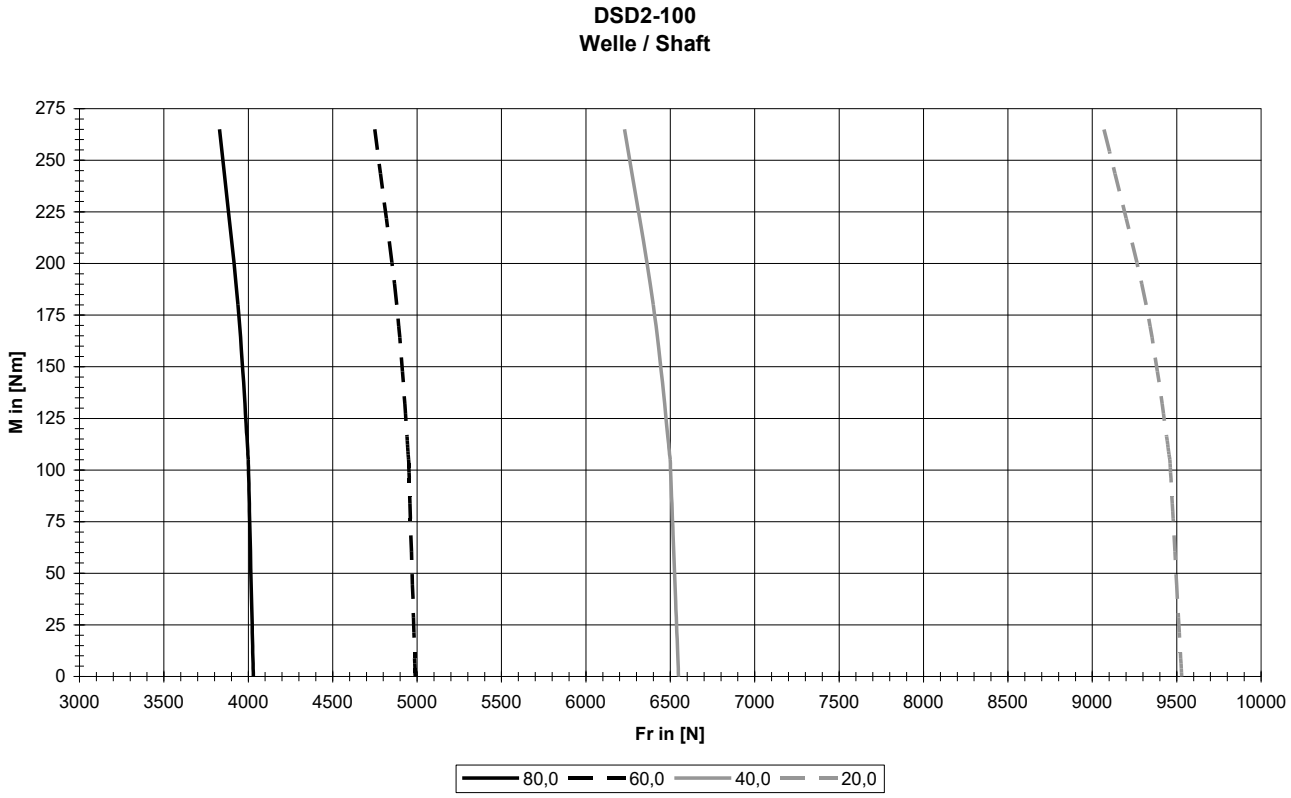
Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 4.100\ min^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 4,100$ rpm

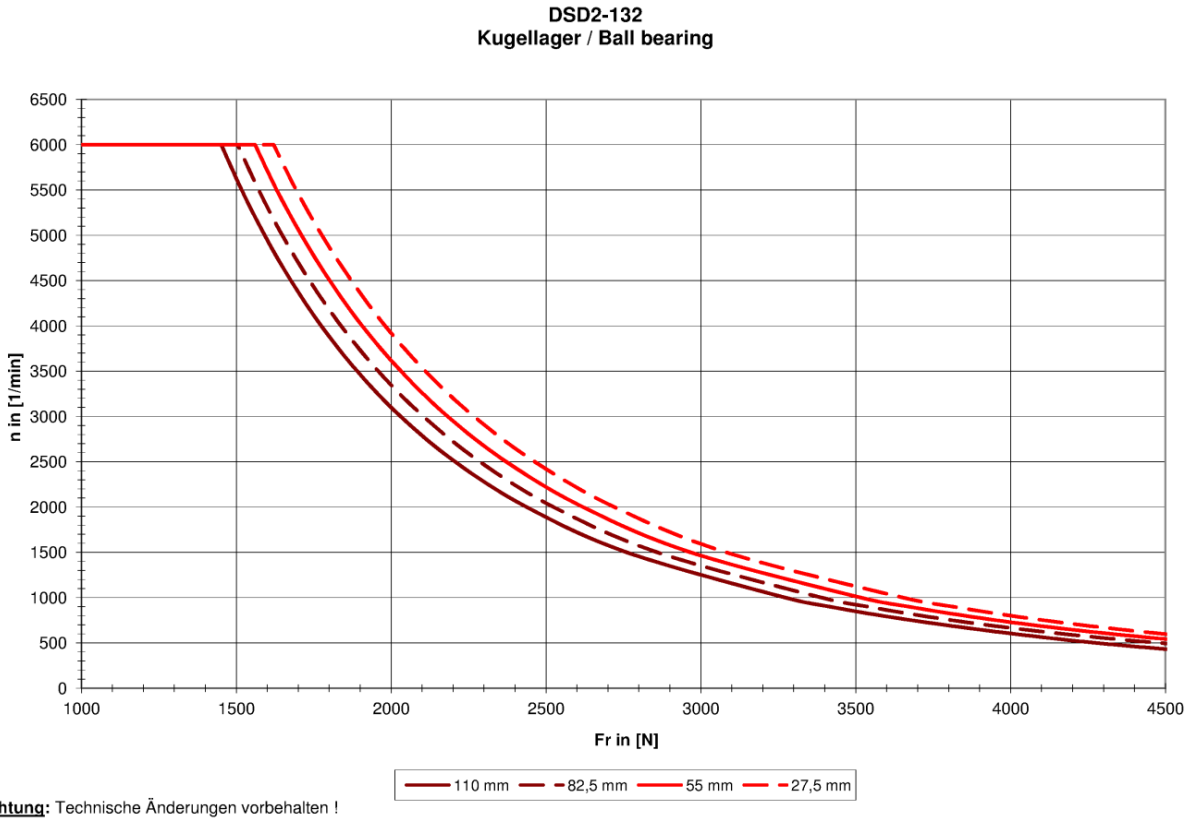


Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 1.100\ min^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 1,100$ rpm


DSD2-100
Welle / Shaft
M in [Nm]
275
250
225
200
175
150
125
100
75
50
25
0
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
8000
8500
9000
9500
10000
Fr in [N]
80,0
60,0
40,0
20,0

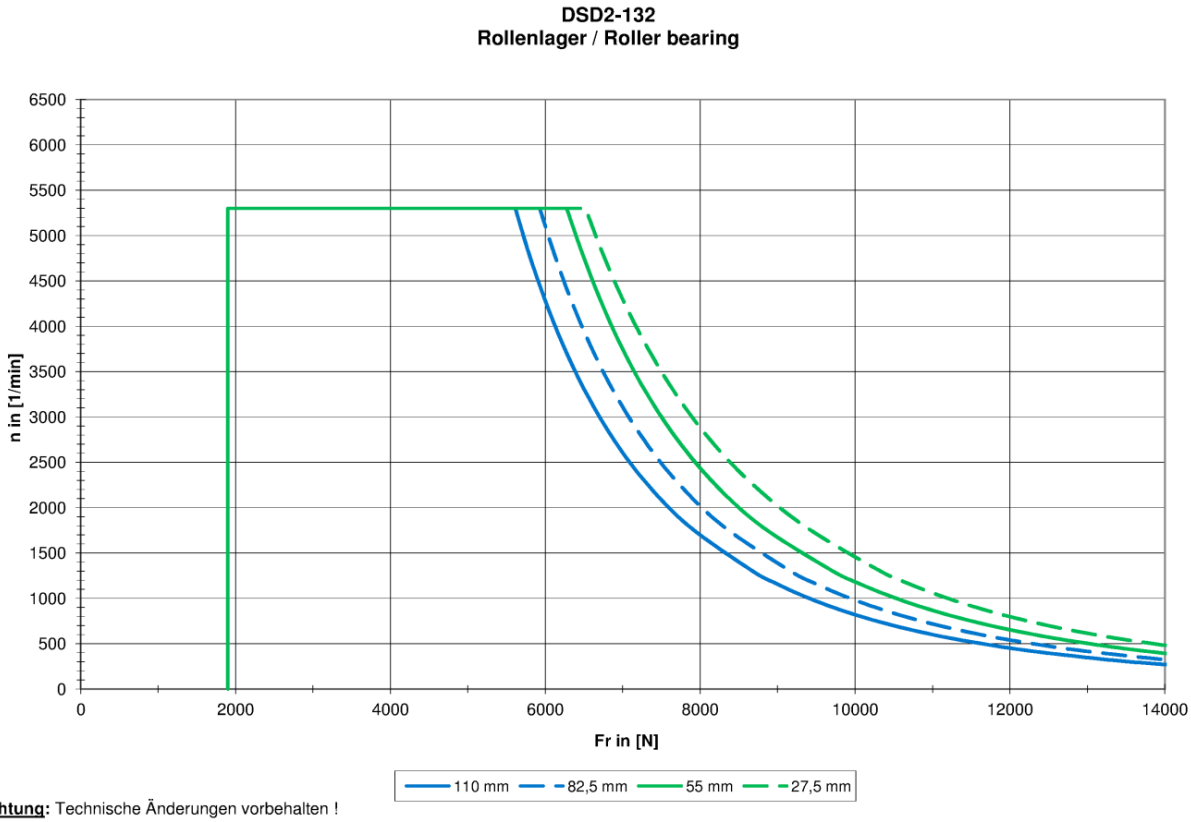
2.11.7 Diagrams DSD2-132A/I/R



Achtung: Technische Änderungen vorbehalten !

Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 3.500\ min^{-1}$

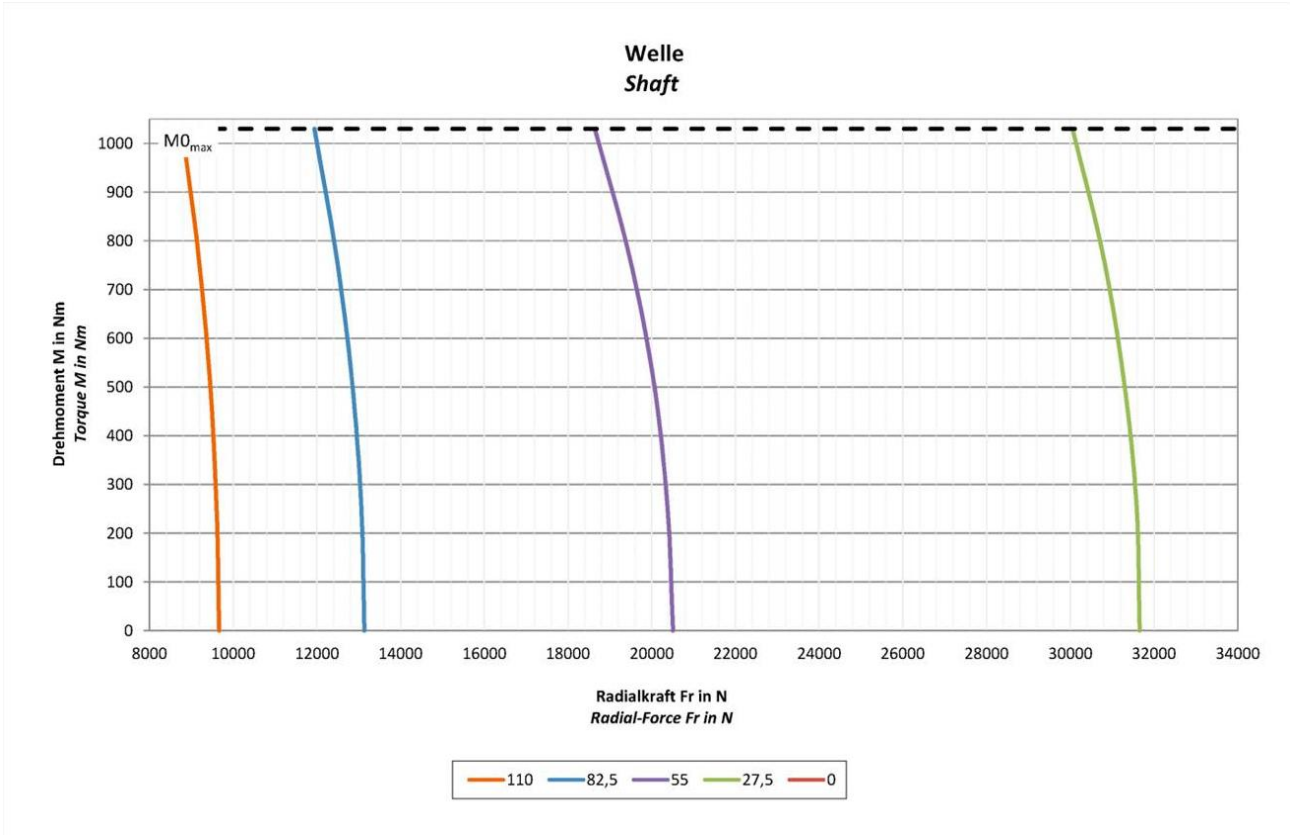
Note: 20,000h grease service life at $n_{effective} \leq 3,500$ rpm



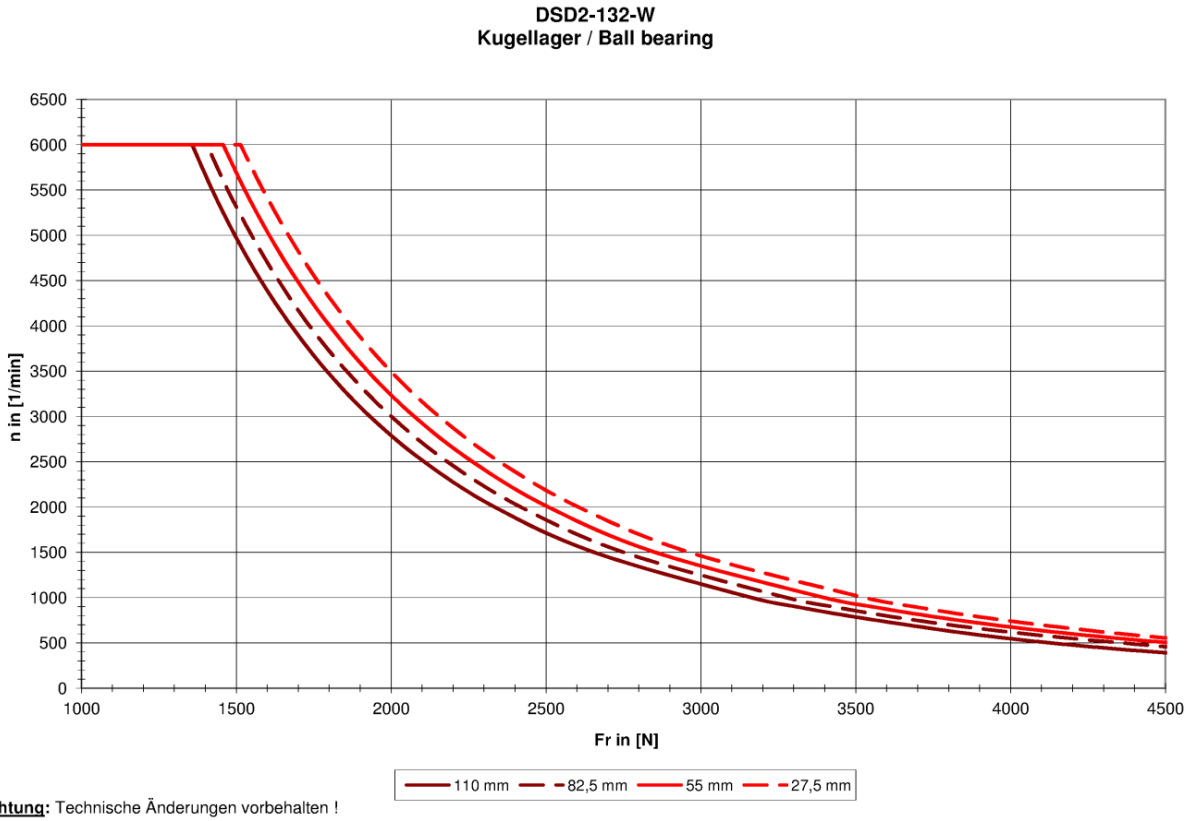
Achtung: Technische Änderungen vorbehalten !

Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 1.000\ min^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 1,000$ rpm


Welle
Shaft
M0max
1000
900
800
700
600
500
400
300
200
100
0
Drehmoment M in Nm
Torque M in Nm
8000
10000
12000
14000
16000
18000
20000
22000
24000
26000
28000
30000
32000
34000
Radialkraft Fr in N
Radial-Force Fr in N
110
82,5
55
27,5
0

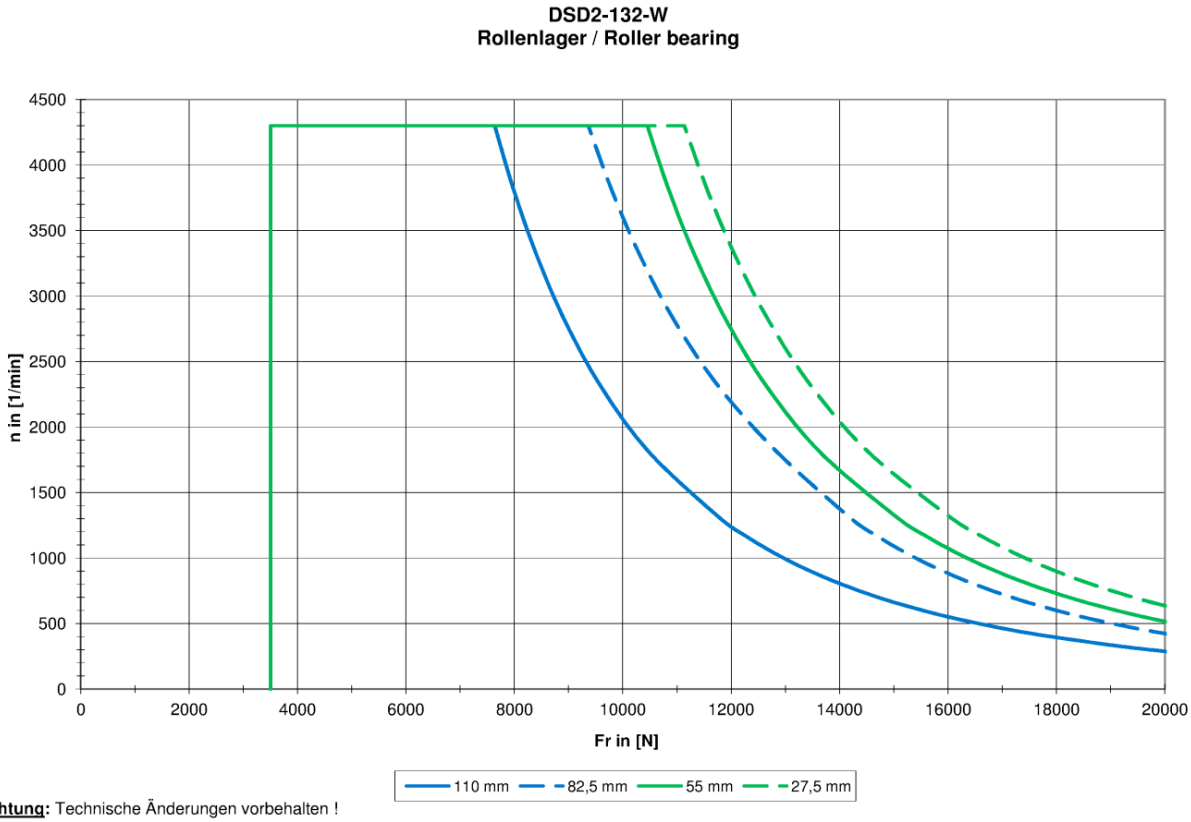
2.11.8 Diagrams DSD2-132W



Achtung: Technische Änderungen vorbehalten !

Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 3.500\ min^{-1}$

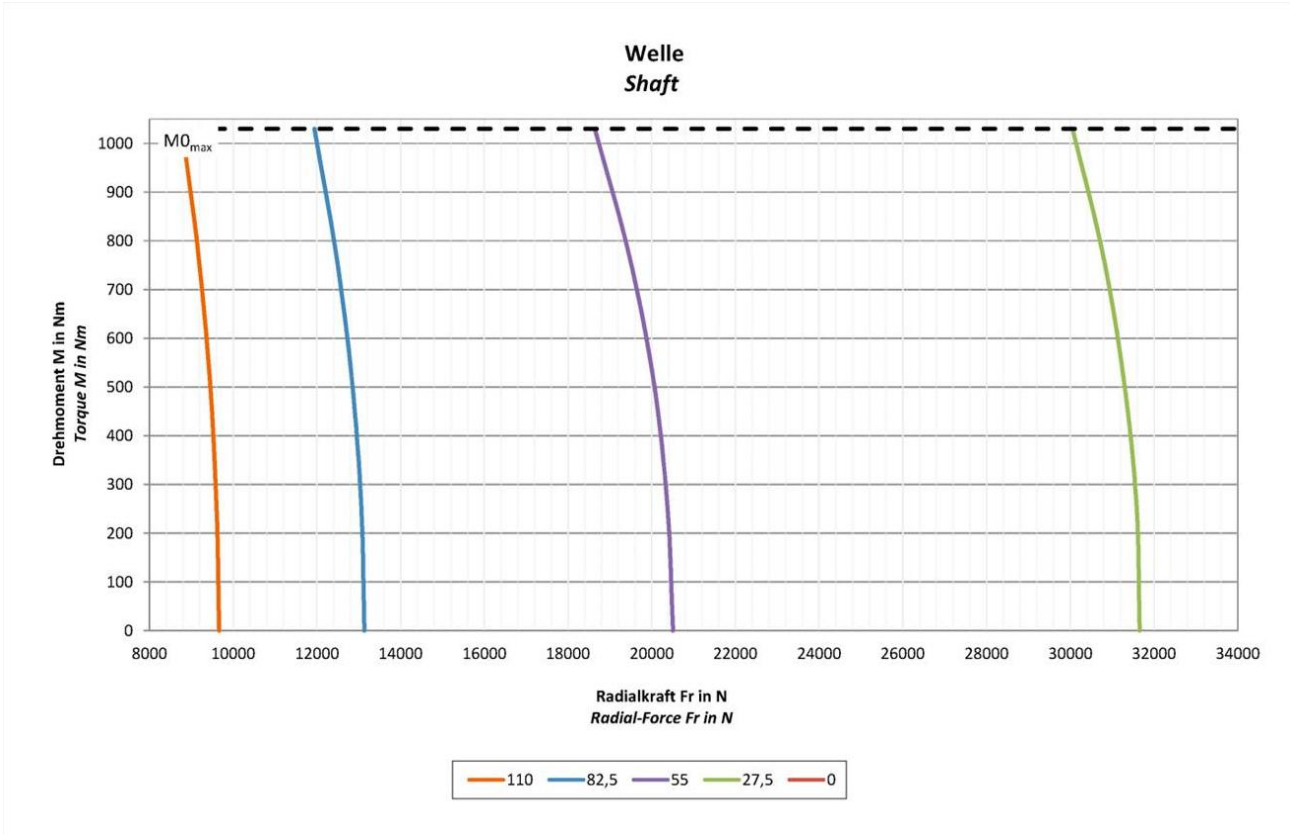
Note: 20,000h grease service life at $n_{effective} \leq 3,500$ rpm



Achtung: Technische Änderungen vorbehalten !

Hinweis: 20.000h Fettgebrauchsdauer bei $n_{mittel} \leq 1.000\ min^{-1}$

Note: 20,000h grease service life at $n_{effective} \leq 1,000$ rpm


Welle
Shaft
M0max
1000
900
800
700
600
500
400
300
200
100
0
Drehmoment M in Nm
Torque M in Nm
8000
10000
12000
14000
16000
18000
20000
22000
24000
26000
28000
30000
32000
34000
Radialkraft Fr in N
Radial-Force Fr in N
110
82,5
55
27,5
0

3. Motor components (options)

3.1 Holding brake DSD2-028 bis 100

The motors can be optionally equipped with a holding brake. The holding brake is a backlash-free permanent magnetic brake. The brakes work according to the closed current principle, i.e., the brake is applied when switched off (or at a failure of the operating voltage). The brakes are designed for an operating voltage of 24 VDC. The specifications by the brake manufacturer apply at room temperature.

The motors are available with the following holding brakes:

Motor	Frame size 028	Frame size 036	Frame size 045	Frame size 056	Frame size 071	Frame size 100
Minimal static holding torque [Nm] at 120 °C.	2	4	10	20	45	105
Nominal dynamic holding torque [Nm] at 120 °C.	1,5	3,5	8	18	25	45
Maximum switching energy [J] per braking from n = 3,000 rpm	170	220	270	320	1400	2800
Connection values [V] (+6 % / -10 %)	24	24	24	24	24	24
Power consumption [W]	11	12	18	20	28	50
Moment of inertia [kgcm^2]	0,068	0,18	0,6	2,9	7,9	17,6
Switching time On [ms] Ventilation; with basic air gap	25	35	40	65	100	200
Switching time Off [ms] Braking; with basic air gap	2	2,5	20	30	40	50

All brakes are not fail-safe brakes in the sense that a torque reduction cannot occur due to uninfluenceable malfunction factors. Depending on the application, the relevant accident prevention regulations, as well as basic health and safety requirements of Annex I of the Machinery Directive and the harmonized European standards must be observed.

For emergency stops or power failures, approximately 2,000 brake processes can be performed.

(Condition: maximum external inertia = motor inertia and n_{max} type-related; Max. braking / hour <20; evenly distributed).

3.2 Holding brake DSD2-132

Motor	Brake type	Brake torque M_B [Nm]	Input power [W]	Current at 24 VDC [A]	Max. perm. Switching energy [kJ]	Engaging time [s]	Dis-engaging time [s]	Inertia [kgm²]	Max. perm. speed [min⁻¹]	Weight [kg]
DSD2-132	SB 200	200	170	6,5	20	0,225	0,3	0,0040	3000	13

For use as a **holding brake** the following must be observed:

- **3 emergency stops** (individual braking operations) per hour are possible if evenly distributed
- Switching times values are valid for switching on the AC side, in a cold state, with basic air gap and holding brake
- Disengaging time – Time until the brake has completely disengaged (brake without torque)
- Engaging time – Time until the brake torque is reached
- All information is valid for installation on a horizontal shaft.
- The supplier must be contacted before vertical installation.
- Requirements other than those indicated can be catered for on request

Brake time / switching energy

It is necessary to check that the brake is suited for this application. For this the switching energy must be determined.

Determination of the braking time [t_B]

t_B	$t_B = \frac{\sum J * \Delta n}{9{,}55 * (M_B \pm M_L)} + t_0$ in s
$\sum J$	Total moment of inertia in kgm² = J_{mot} + J_{add} (referred to motor shaft)
J_{mot}	Motor moment of inertia in kgm²
J_{zus}	Additional moment of inertia in kgm² (referred to motor shaft)
Δn	Motor speed in rpm
M_B	Brake torque in Nm
M_L	Load torque in Nm (positively calculated if it decelerates, negatively calculated if it accelerates)
t_0	Time in s from the switching instant to the full extent of the braking torque (response time)
I	Number of cycles per hour

Determining the switching energy [W_R]	**Determining the switching capacity [P_R]**
$W_R = \frac{\sum J \cdot \Delta n^2}{182.4} \cdot \frac{M_B}{(M_B \pm M_L)}$ in $\frac{\text{joules}}{\text{switching operation}}$	$P_R = \frac{W_R \cdot i}{1000}$ in $\frac{kJ}{h}$

$W_{Rzul} \leq$ value from table

In most cases, t_0 is negligibly small. If this is not the case and a reduction of time t_0 is desired, it can be achieved by interrupting the magnetic circuit on the DC side. However, this measure must be specified prior to the design of the brake motor.

3.2.1 Brake supply

Standard:	Normal voltage 24 V DC Supply with transformer and rectifier
Option:	Normal voltage 104 and 176 V DC Supply using brake supply unit. The brake supply unit must be order separately.

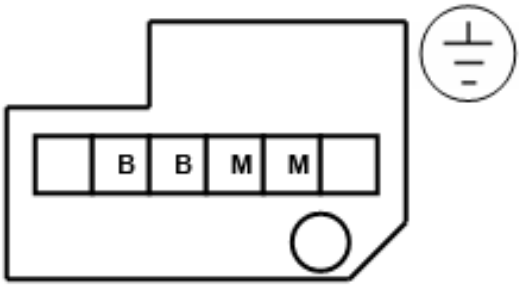
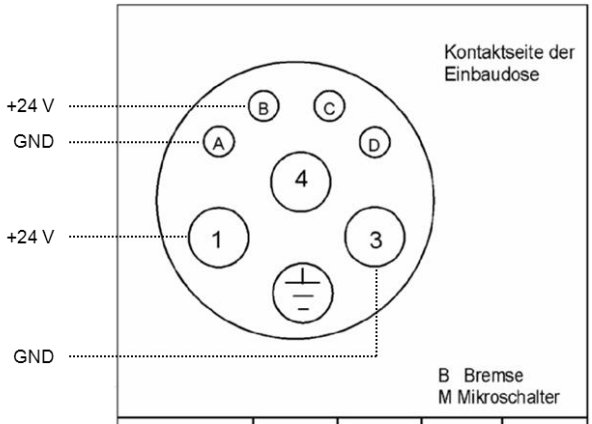
The brakes are equipped with a micro switch (normally closed contact). The silver contacts are coated with a layer of gold, allowing for two operating ranges. The gold layer can be irreversibly burned off if its maximum load capacity is exceeded. In such a case, the contact material "gold layer" can no longer be used.

Electrical data of the switches:

Contact material	Min. load	Ideal range of use		Max. load
Gold coat	0 mA; 0 V up to 3 Mio. cycles	0 mA; 0 V up to 3 Mio. cycles	10 mA; 12 V up to 1 Mio. cycles	Gold coat
Argent	10 mA; 12 V up to 3 Mio. cycles	100 mA; 12 V up to 3Mio. cycles	5 A; 30 V up to 50.000 cycles	Argent

The brakes can be executed optional with hand ventilation and lock.

3.2.2 Brake connection

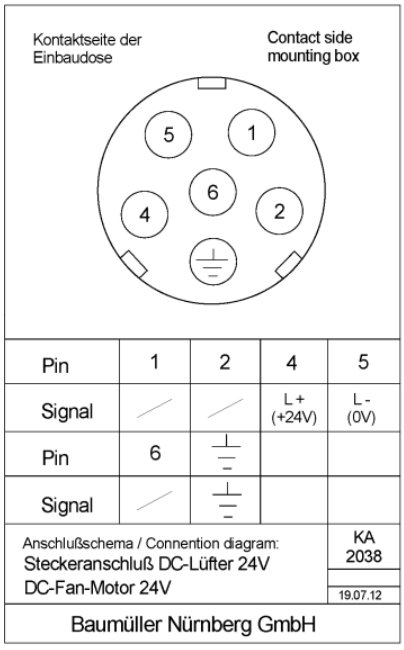
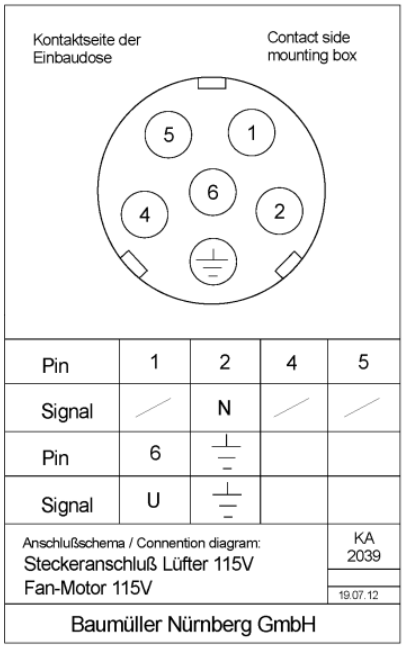
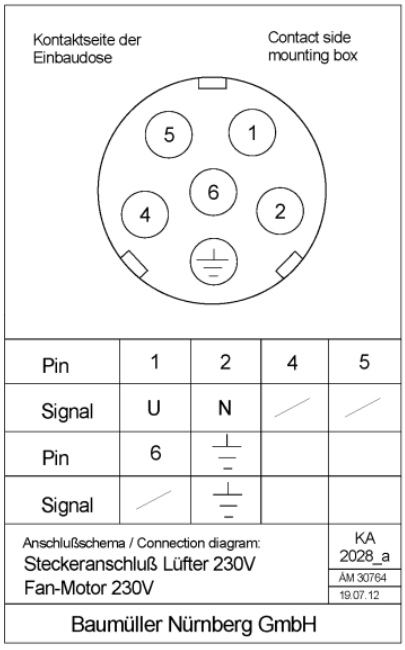
DSD2-132 with radial external cooling or liquid cooling	**DSD2-132** with axial external cooling
 B – brake M – micro switch	

Pin	A	B	C	D
Signal	M	M		
Pin	1	⏚	3	4
Signal	B		B	

3.3 Fan data DSD2-056-100

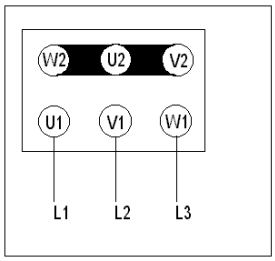
Motor	Frame size 056 to 100			
Nominal voltage [V]	24 VDC	115 VAC	230 VAC	
Nominal frequency [Hz]	-	60	50	60
Nominal current [A]	0,52	0,47	0,22	0,20
Nominal speed [min^{-1}]	2.758	2.394	2.385	2.099
Nominal power [W]	12,4	35	32	30
Connection	6 poles			
Protection class	IP65			

Fan connection:

24 VDC	115 VAC	230 VAC
		

View of contact side of the socket

3.4 Fan data DSD2-132

Blower connection for standard fan motors via terminal box		
Connection diagram:		U V W power connection

Standard fan motor for radial ventilation – cURus approved

200/400V // 230/460V – 50 // 60Hz IE3

Size	Power [kW]	Rated current [A]	Fan motor	Rated input power [kW]	Volume flow rate [m^3/min]	Stat. pressure [Pa]	Speed [min^{-1}]	Spec. ratio
132	0,25 // 0,25	1,3/0,65 // 1,1/0,55	FCA 63B-2	0,36	11,5	599	2825	1

Standard fan motor for axial ventilation – cURus approved

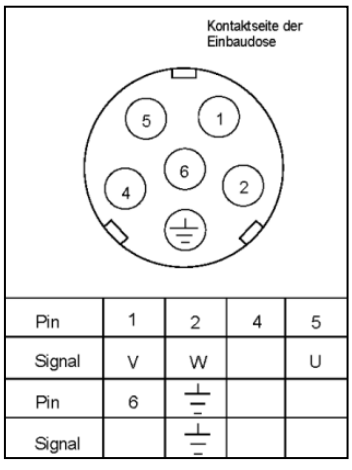
Δ/Y 200-265V / 345-460V – 50 // 60Hz

Size	Power [kW]	Rated current [A]	Fan motor	Rated input power [kW]	Volume flow rate [m^3/min]	Stat. pressure [Pa]	Speed [min^{-1}]	Spec. ratio
132	0,08 // 0,12	0,4/0,23 // 0,61/035	FCA 56A-2	0,16	5,15	514	2800	1
Δ/Y 265-345V / 460-600V – 50 // 60Hz								
132	0,08 // 0,12	0,3/0,18 // 0,46/0,26	FCA 56A-2	0,16	5,15	514	2800	1

The nominal currents are max. values.

Ventilation connections for integrated axial blowers

Connection diagram:



Pin	1	2	4	5
Signal	V	W		U
Pin	6	⏚		
Signal		⏚		

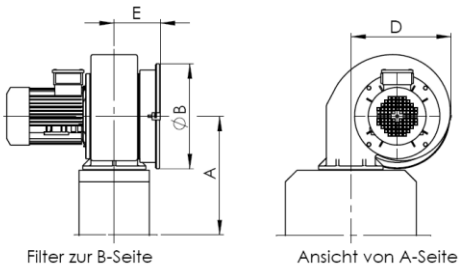
Y 400V // 480V - 50 // 60Hz – cURus approved

Size	Power [kW]	Rated current [A]
132	0,15 // 0,24	0,26 // 0,33

The nominal currents are max. values.

3.4.1 Filter

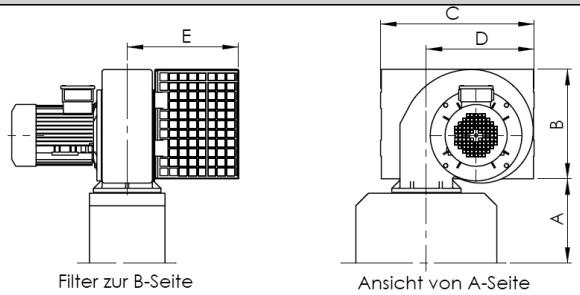
Flat filter for DSD2-132..R



Dimensions for fan mounting at top or on the side

Size	Fan type	A	Ø B	D	E
132	BFB 519	264	210	214	105

Rectangle filter for DSD2-132..R



Dimensions for fan mounting at top or on the side

Size	Fan type	A	B	C	D	E
132	BFB 519	175	207	306	213	163

Note:

For IP54 motors, coarse filter mats are preferably used. If there are no space constraints, the rectangular filter is preferable to the flat filter. This is primarily due to the filter dimensions, which allow for less frequent maintenance of the rectangular filter compared to the flat filter

3.4.2 Fan connection

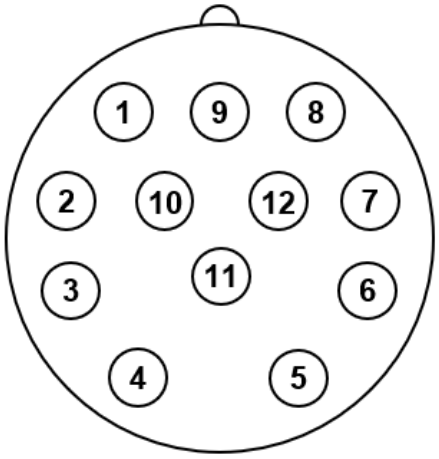
Connection dimensions for fan motors:

	Terminal box dimensions			Cable inlet	Terminal
	Length [mm]	Width [mm]	Height [mm]		
FCA 56A-2	85	85	42	M16x1.5	M4
FCA 63B-2	101	101	42	M16x1.5	M4
FCA 71B-2	101	101	42	M16x1.5	M4
FCA 80B-2	101	101	42	M16x1.5	M4
FCA 100LA-2	101	101	42	M16x1.5	M4

3.5 Encoder

3.5.1 Resolver DSD2-028 und 036

	Resolver
BM type code indication	A
Pole pair count	1
Transmission ratio	0,5 ± 0,05
Frequency	5 kHz
Nominal input voltage	7 Vrms
Effective input power at no-load speed	33 mW
Current consumption at no-load speed	58 mA
Max. output voltage at no-load speed	3,5 V ± 10%
Voltage constant	61 mV/°
Phase shift	8° ± 3°
Zero voltage	30 mV
Angle error in relation to $(\Delta\varphi_{max}+\Delta\varphi_{min})/2$	± 10'
Shock according to DIN EN 60068-2-27 (11ms)	≤ 101 g
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	≤ 50 g

Resolver Connection	Pin	Signal	Assignment option PT1000 (R1/R2) on encoder socket
	1	cos –	cos –
	2	-	-
	3	-	-
	4	-	-
	5	sin –	sin –
	6	sin +	sin +
	7	-	R2
	8	cos +	cos +
	9	-	R1
	10	ref +	ref +
	11	-	-
	12	ref -	ref -

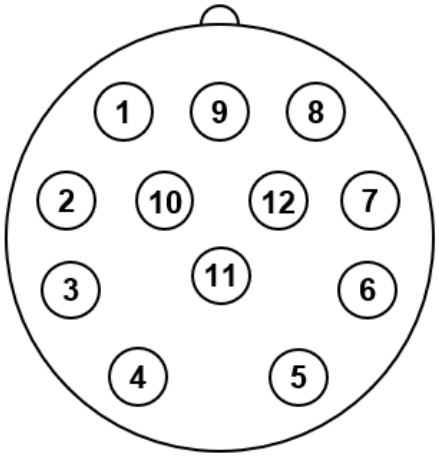
View of contact side of the socket

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.

3.5.2 Resolver Safety DSD2-028 und 036

	Resolver Safety
BM type code indication	M
Pole pair count	1
Transmission ratio	0,5 ± 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/s²
Active input power in no-load operation	7 Vrms
Rated input voltage	33 mW
Current consumption in no-load	58 mA
max. output voltage in no-load	3,5 V ± 10%
Voltage constant	61 mV/°
Phase shift	8° ± 3°
Zero voltage	30 mV
Angular error regarding $(\Delta\varphi_{max}+\Delta\varphi_{min})/2$	± 10'
Shock according to DIN EN 60068-2-27 (11ms)	≤ 101 g
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	≤ 50 g

Resolver Safety Connection	Pin	Signal	Assignment option PT1000 (R1/R2) on encoder socket
	1	cos –	cos –
	2	-	-
	3	-	-
	4	-	-
	5	sin –	sin –
	6	sin +	sin +
	7	-	R2
	8	cos +	cos +
	9	-	R1
	10	ref +	ref +
	11	-	-
	12	ref -	ref -

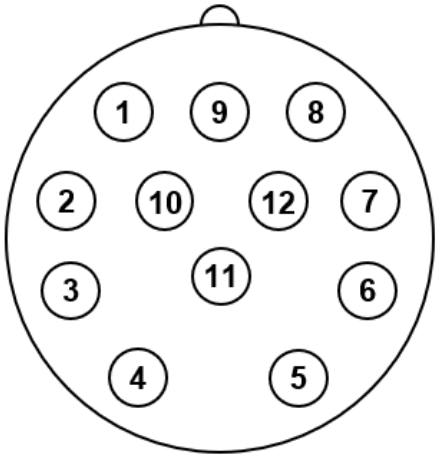
View of contact side of the socket

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.

3.5.3 Resolver

	Resolver
BM type code indication	A
Pole pair count	1
Transmission ratio	0,5 ± 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 V ± 10%
Voltage constant	61 mV/°
Phase shift	0° ± 3°
Zero voltage	30 mV
Angle error in relation to $(\Delta\varphi_{max}+\Delta\varphi_{min})/2$	± 6'
Shock according to DIN EN 60068-2-27 (11ms)	≤ 101 g
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	≤ 50 g

Resolver connection	Pin	Signal	Assignment option PT1000 (R1/R2) on encoder socket
	1	cos –	cos –
	2	-	-
	3	-	-
	4	-	-
	5	sin –	sin –
	6	sin +	sin +
	7	-	R2
	8	cos +	cos +
	9	-	R1
	10	ref +	ref +
	11	-	-
	12	ref -	ref -

View of contact side of the socket

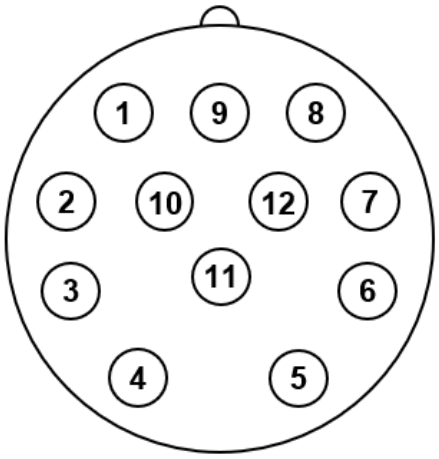
Note:

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.

Limitation:
Only for motor with frame size 045 and bigger available.

3.5.4 Resolver Safety

	Resolver Safety
BM type code indication	M
Pole pair count	1
Transmission ratio	0,5 ± 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/s²
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 V ± 10%
Voltage constant	61 mV/°
Phase shift	0° ± 3°
Zero voltage	30 mV
Angular error regarding $(\Delta\varphi_{max}+\Delta\varphi_{min})/2$	± 6'
Shock according to DIN EN 60068-2-27 (11ms)	≤ 101 g
Vibration according to DIN EN 60068-2-6 (55-2000 Hz)	≤ 50 g

Resolver Safety connection	Pin	Signal	Assignment option PT1000 (R1/R2) on encoder socket
	1	cos –	cos –
	2	-	-
	3	-	-
	4	-	-
	5	sin –	sin –
	6	sin +	sin +
	7	-	R2
	8	cos +	cos +
	9	-	R1
	10	ref +	ref +
	11	-	-
	12	ref -	ref -

View of contact side of the socket

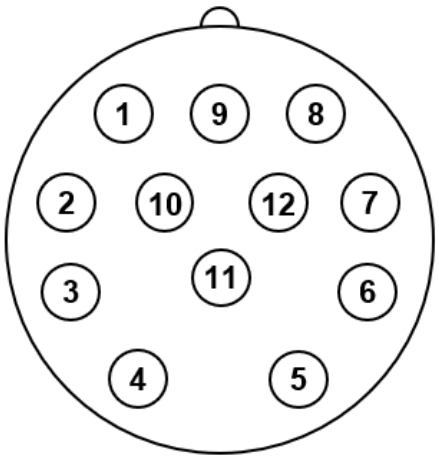
Note:
Use at low requirements to the concentricity properties of the motor, only. The technical data was specified by the encoder manufacturer, and we assume no liability for its correctness. The configuration options of the safety encoders with different motor variants are available on request.

Limitation:
Only for motor with frame size 028 and 036.

3.5.5 SEK/SEL37 (SICK)

	SEK37	SEL37
BM type code indication for DSD2-028 and 036	J	K
BM type code indication for DSD2-045 to 132	t	u
Number of sine-, cosine periods per revolution	16	

Measuring step at interpolation of the sine-, cosine periods such as with 12 bits	20"	
Number of absolute completed revolutions	1	4.096
Code type for the absolute value	binary	
Error limits at the evaluation of the sine-, cosine periods; integral non-linearity	+/- 288"	
Non-linearity within a sine-, cosine period, differential non-linearity at nominal position +/- 0.1mm	+/- 144"	
Operating speed up to which the absolute position can be made	6.000 min^{-1}	
Maximum operating speed	12.000 min^{-1}	
Output signal	serial RS 485, asynchronous, half duplex	
Operating voltage range	7-12 V	
max. operating current without load	50 mA	
Shock according to DIN EN 60068-2-27 (10ms)	100 g	
Vibration according to DIN EN 60068-2-6 (10-2000 Hz)	50 g	

SEK/SEL37 Connection	Pin	Signal	Assignment option PT1000 (R1/R2) on encoder socket
	1	cos -	cos -
	2	+ 485	+ 485
	3	-	R1
	4	-	R2
	5	sin +	sin +
	6	sin -	sin -
	7	- 485	- 485
	8	cos +	cos +
	9	-	-
	10	GND	GND
	11	-	-
	12	+ U	+ U

View of contact side of the socket

Note:

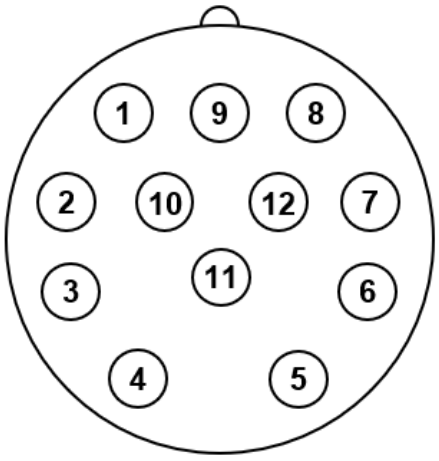
SEK/SEL37 – with mechanical adaption	Mechanical offset 0° (identical to SEK/SEL52)

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 for motor with frame size 045 and bigger available.

3.5.6 SKS/SKM36 (SICK)

	SKS36	SKM36
BM type code indication	R	T
Number of sine, cosine periods per revolution	128	
Number of increments per revolution	4.096	
Number of absolute resolved revolutions	1	4.096
Code type for the absolute value	binary	
Output frequency of the sine and cosine signals	0-65 kHz	
Error limits at the evaluation of the sine-, cosine periods; integral non-linearity	+/- 80"	
Non-linearity within a sine-, cosine period, differential non-linearity at nominal position +/- 0.1mm	+/- 40"	
Operating speed up to which the absolute position can be made	6.000 1/min	
Maximum operating speed	12.000 1/min	
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	60 mA	
Shock according to DIN EN 60068-2-27 (6ms)	100 g	
Vibration according to EN 60068-2-6 (10-2000 Hz)	50 g	

SKS/SKM36 connection	Pin	Signal	Assignment option PT1000 (R1/R2) on encoder socket
	1	cos -	cos -
	2	+ 485	+ 485
	3	-	R1
	4	-	R2
	5	sin +	sin +
	6	sin -	sin -
	7	- 485	- 485
	8	cos +	cos +
	9	-	-
	10	GND	GND
	11	-	-
	12	+ U	+ U

View of contact side of the socket

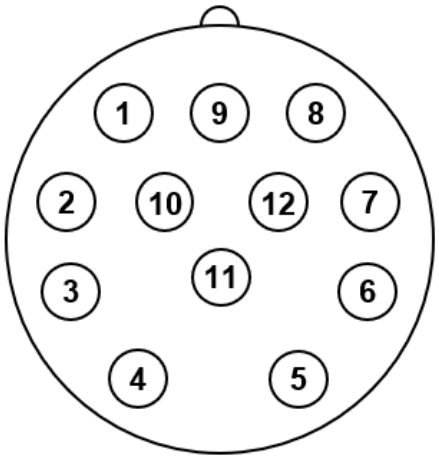
Note:

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.

Limitation:
Only for motor with frame size 028 and 036.

3.5.7 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	Assignment option PT1000 (R1/R2) on encoder socket
	1	cos -	cos -
	2	+ 485	+ 485
	3	-	R1
	4	-	R2
	5	sin +	sin +
	6	sin -	sin -
	7	- 485	- 485
	8	cos +	cos +
	9	-	-
	10	GND	GND
	11	-	-
	12	+ U	+ U

View of contact side of the socket

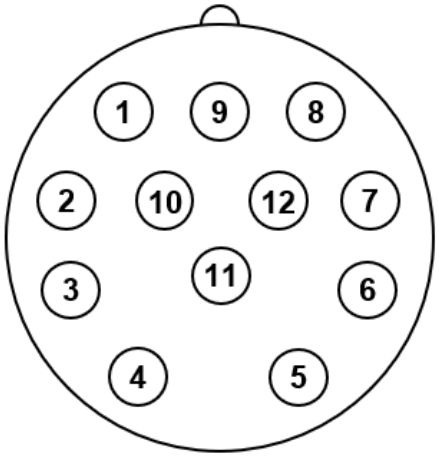
Note:

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.

Limitation:
Only for motor with frame size 045 and bigger available.

3.5.8 SKS/SKM36-S (SICK)

	SKS36-S	SKM36-S
BM type code indication	S	U
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	128	
Number of steps per revolution	4.096	
Number of the absolutely completed revolutions	1	4.096
Code type of the absolute value	binary	
Output frequency of the sine-, cosine signals	0-65 kHz	
Error limits at the evaluation of the sine-, cosine signals, integral non-linearity	+/- 80“	
Non-linearity within a sine-, cosine period, differential non-linearity	+/- 40“	
Operating speed up to which the absolute position can be made	6.000 1/min	
Maximum operating speed	12.000 1/min	
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	60 mA	
Shock according to DIN EN 60068-2-27 (6ms)	100 g	
Vibration according to DIN EN 60068-2-6 (10-2000 Hz)	50 g	

SKS/SKM36-S connection	Pin	Signal	Assignment option PT1000 (R1/R2) on encoder socket
	1	cos -	cos -
	2	+ 485	+ 485
	3	-	R1
	4	-	R2
	5	sin +	sin +
	6	sin -	sin -
	7	- 485	- 485
	8	cos +	cos +
	9	-	-
	10	GND	GND
	11	-	-
	12	+ U	+ U

View of contact side of the socket

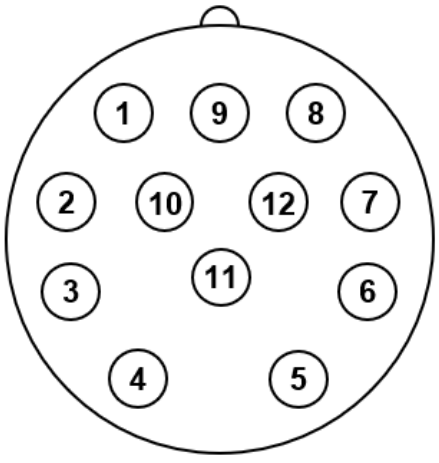
Note:

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:
Only for motor with frame size 028 and 036.

3.5.9 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	Assignment option PT1000 (R1/R2) on encoder socket
	1	cos -	cos -
	2	+ 485	+ 485
	3	-	R1
	4	-	R2
	5	sin +	sin +
	6	sin -	sin -
	7	- 485	- 485
	8	cos +	cos +
	9	-	-
	10	GND	GND
	11	-	-
	12	+ U	+ U

View of contact side of the socket

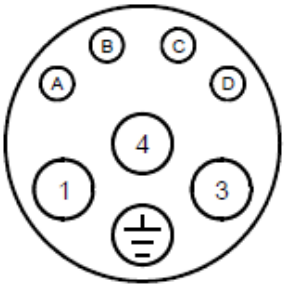
Note:

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.

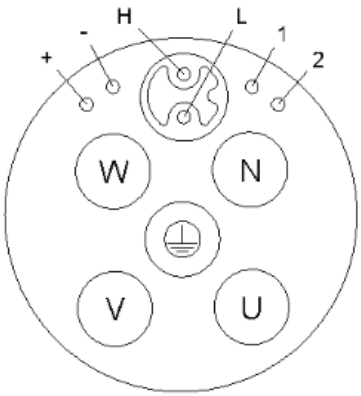
Limitation:
Only for motor with frame size 045 and bigger available.

3.5.10 EKS/EKM36 Hiperface DSL® (SICK)

	EKS36	EKM36
BM type code indication	a	b
Number of absolute resolved revolutions	1 (18 bit)	4.096 (18 bit)
Code type for the absolute value	binary	
Output signal	Digital, RS-485	
Position values/revolution	262.144	
Maximum operating speed	12.000 min^{-1}	
Operating voltage range	7...12 V	
max. operating current without load	≤ 150 mA	
Shock according to DIN EN 60068-2-27 (6ms)	100g	
Vibration according to EN 60068-2-6 (10-2000 Hz)	50g	
Operating temperature	-20°C...+115°C	

EKS/EKM36 connection	Pin	Signal
	1	U
	3	V
	4	W
	⏚	GN/GE
	A	B+
	B	B-
	C	+U/DSL+
	D	GND/DSL-

View of contact side of the socket size 1

EKS/EKM36 connection	Pin	Signal
	U	U
	V	V
	W	W
	N	/
	⏚	GN/GE
	+	B+
	-	B-
	1	/
	2	/
	H	+U/DSL+
	L	GND/DSL-

View of contact side of the socket size 1,5

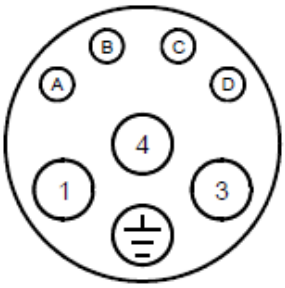
Note:

This encoder is an ESD-sensitive component. The technical data provided are specifications from the encoder manufacturer. Configuration options for Hiperface DSL® encoders with various motor variants can be found in the product configurator. The encoders can be used with cable lengths of up to 60 meters.

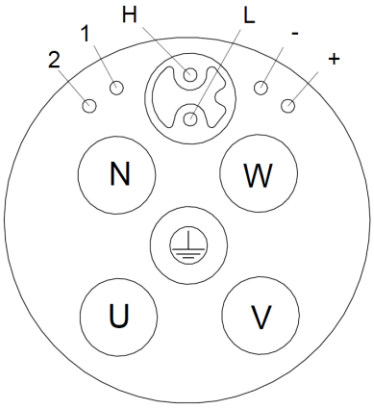
Limitation:
Only for motor with frame size 028 and 036.

3.5.11 EES/EEM37 Hiperface DSL® (SICK)

	EES37	EEM37
BM type code indication	r	s
Number of absolute resolved revolutions	1 (15 bit)	4.096 (15 bit)
Code type for the absolute value	binary	
Output signal	Digital, RS-485	
Position values/revolution	32.768	
Maximum angular acceleration	500.000 rad/s^2	
Maximum operating speed	12.000 min^{-1}	
Operating voltage range	7...12 V	
max. operating current without load	≤ 150 mA	
Shock according to DIN EN 60068-2-27 (6ms)	100 g	
Vibration according to EN 60068-2-6 (10-2000 Hz)	50 g	
Operating temperature	-40°C...+115°C	

EES/EEM37 connection	Pin	Signal
	1	U
	3	V
	4	W
	⏚	GN/GE
	A	B+
	B	B-
	C	+U/DSL+
	D	GND/DSL-

View of contact side of the socket size 1

EES/EEM37 connection	Pin	Signal
	U	U
	V	V
	W	W
	N	/
	⏚	GN/GE
	+	B+
	-	B-
	1	/
	2	/
	H	+U/DSL+
	L	GND/DSL-

View of contact side of the socket size 1,5

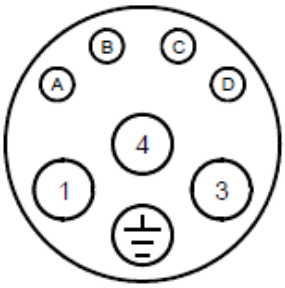
Note:

This encoder is an ESD-sensitive component. The technical data provided are specifications from the encoder manufacturer. Configuration options for Hiperface DSL® encoders with various motor variants can be found in the product configurator. The encoders can be used with cable lengths of up to 60 meters.

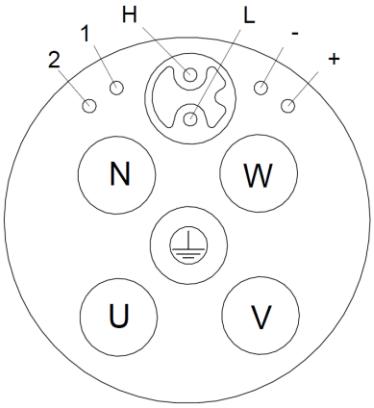
Limitation:
Only for motor with frame size 045 and bigger available.

3.5.12 EDS/EDM35 Hiperface DSL® (SICK)

	EDS35	EDM35
BM type code indication	i	k
Number of absolute resolved revolutions	1 (24 bit)	4.096 (24 bit)
Code type for the absolute value	binary	
Output signal	Digital, RS-485	
System accuracy	± 25"	
Maximum angular acceleration	160.000 rad/s^2	
Maximum operating speed	9.000 min^{-1}	
Operating voltage range	7...12 V	
max. operating current without load	≤ 150 mA	
Shock according to DIN EN 60068-2-27 (6ms)	100 g	
Vibration according to EN 60068-2-6 (10-2000 Hz)	50 g	
Operating temperature	-40°C...+125°C	

EDS/EDM35 connection	Pin	Signal
	1	U
	3	V
	4	W
	⏚	GN/GE
	A	B+
	B	B-
	C	+U/DSL+
	D	GND/DSL-

View of contact side of the socket size 1

EDS/EDM35 connection	Pin	Signal
	U	U
	V	V
	W	W
	N	/
	⏚	GN/GE
	+	B+
	-	B-
	1	/
	2	/
	H	+U/DSL+
	L	GND/DSL-

View of contact side of the socket size 1,5

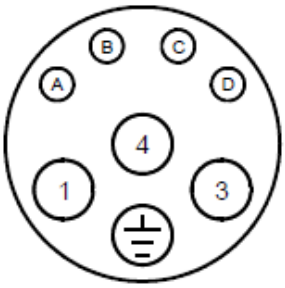
Note:

This encoder is an ESD-sensitive component. The technical data provided are specifications from the encoder manufacturer. Configuration options for Hiperface DSL® encoders with various motor variants can be found in the product configurator. The encoders can be used with cable lengths of up to 60 meters.

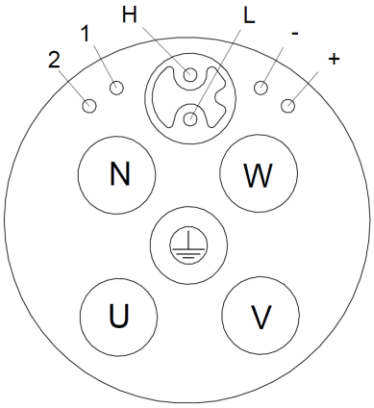
Limitation:
Only for motor with frame size 045 and bigger available.

3.5.13 EFS/EFM50 Hiperface DSL® (SICK)

	EFS50	EFM50
BM type code indication	g	h
Number of absolute resolved revolutions	1 (21 bit)	4.096 (21 bit)
Code type for the absolute value	binary	
Output signal	Digital, RS-485	
Position values/revolution	2.097.152	
Maximum angular acceleration	200.000 rad/s^2	
Maximum operating speed	12.000 min^{-1}	
Operating voltage range	7...12 V	
max. operating current without load	≤ 150 mA	
Shock according to DIN EN 60068-2-27 (6ms)	100 g	
Vibration according to EN 60068-2-6 (10-2000 Hz)	20 g	
Operating temperature	-20°C...+120°C	

EFS/EFM50 connection	Pin	Signal
	1	U
	3	V
	4	W
	⏚	GN/GE
	A	B+
	B	B-
	C	+U/DSL+
	D	GND/DSL-

View of contact side of the socket size 1

EFS/EFM50 connection	Pin	Signal
	U	U
	V	V
	W	W
	N	/
	⏚	GN/GE
	+	B+
	-	B-
	1	/
	2	/
	H	+U/DSL+
	L	GND/DSL-

View of contact side of the socket size 1,5

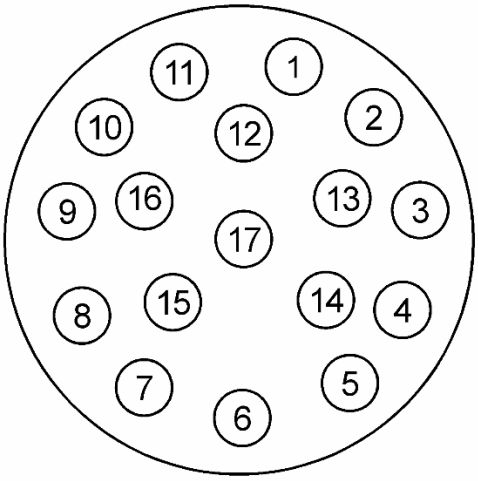
Note:

This encoder is an ESD-sensitive component. The technical data provided are specifications from the encoder manufacturer. Configuration options for Hiperface DSL® encoders with various motor variants can be found in the product configurator. The encoders can be used with cable lengths of up to 60 meters.

Limitation:
Only for motor with frame size 045 and bigger available.

3.5.14 ECN1313/EQN1325 (Heidenhain)

	ECN1313	EQN1325
BM type code indication	F	G
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 2.1	
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	Assignment option PT1000 (R1/R2) on encoder socket
	1	U_p	U_p
	2	-	-
	3	-	-
	4	0V	0V
	5	-	R1
	6	-	R2
	7	U_p	U_p
	8	Clock	Clock
	9	Clock inv.	Clock inv.
	10	0V	0V
	11	-	-
	12	B +	B +
	13	B -	B -
	14	Data	Data
	15	A +	A +
	16	A -	A -
	17	Data inv.	Data inv.

View of contact side of the socket

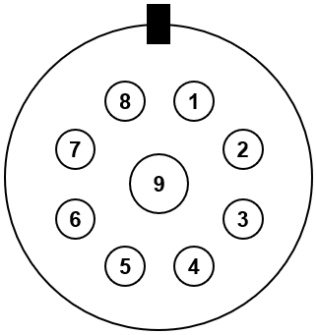
Note:

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.

Limitation:
Only for motor with frame size 045 and bigger available.

3.5.15 ECI1319/EQI1331 (Heidenhain)

	ECI1319	EQI1331
BM type code indication	Y	X
Number of lines	-	
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 (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

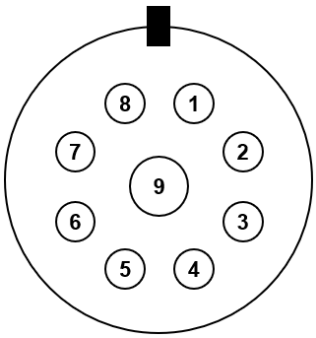
Note:

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 for motor with frame size 056 and bigger available.

3.5.16 ECI1319-S/EQI1331-S (Heidenhain)

	ECI1319-S	EQI1331-S
BM type code indication	p	q
Safety integrity level	SIL 2 acc. to 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 (6ms)	≤ 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

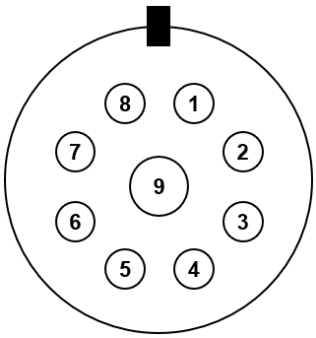
Note:

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 for motor with frame size 056 and bigger available.

3.5.17 ECN1325/EQN1337 (Heidenhain)

	ECN1325	EQN1337
BM type code indication	H	I
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/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

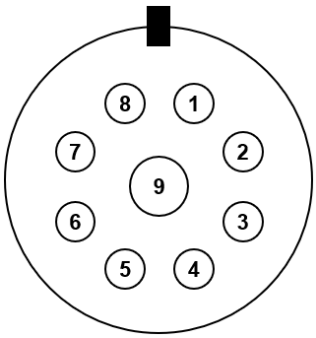
Note:

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.

Limitation:
Only for motor with frame size 045 and bigger available.

3.5.18 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:
Only for motor with frame size 045 and bigger available.

3.6 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).

3.6.1 Technical data

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

- LiYCY, 5x (2x0.14mm^2) + 2 x 0.5mm^2 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 ≥ 60 mm (fixed routing), r ≥ 135 mm (flexible use)
- Nominal voltage: 250V$_{AC}$

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

- Li12YC11Y, 5x (2x0.14mm^2) + 2 x 0.5mm^2 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 ≥ 70 mm (fixed routing), r ≥ 100 mm (flexible use)
- Nominal voltage: 300V$_{AC}$

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

- LiYCY, 5x (2x0.14mm^2) + 2 x 0.5mm^2 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 ≥ 60 mm (fixed routing), r ≥ 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 ≥ 70 mm (fixed routing), r ≥ 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 ≥ 20 mm (fixed routing), r ≥ 75 mm (flexible use)
- Dielectric strength wire/wire and wire/shield: 0.5kV at 50Hz, 1 minute

3.6.2 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.

3.6.3 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 (2x0.14mm²) + 2 x 0.5 mm² with plug connector		Cable 5 x (2x0.14mm²) + 2 x 0.5 mm² 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 (2x0.14mm²) + 2 x 0.5 mm² with plug connector		Cable 5 x (2x0.14mm²) + 2 x 0.5 mm² 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		
Length [m]	Art. No.	Art. No. (Speedtec)
2	434056	459031
3	434057	459032
5	434058	459033
10	434059	459035
15	434060	459036
20	434061	459037
25	434062	459038
50	434063	459042

3.7 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.

3.7.1 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 ≥ 4 x D (fixed routing), r > 10 x 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 ≥ 4 x D (fixed routing), r > 10 x 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 ≥ 4 x D (fixed routing), r > 10 x 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

3.7.2 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.

3.7.3 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

3.7.4 Order information for hybrid cable

For Hiperface DSL® hybrid cables size 1 for bmaXX 5300

	Rated current 15A	**Rated current 20A**
	4G1.5+(2x0,75)+(2x22AWG)	4G2.5+(2x1.0)+(2x22AWG)
Length [m]	Art. No.	Art. No.
3	464201	464217
5	464202	464218
7	464203	464219
10	464204	464220
15	464205	464221
20	464206	464222
25	464207	464223
30	464208	464224
35	464209	464225
40	464210	464226
50	464211	464227
60	464212	464228

For Hiperface DSL® hybrid cables size 1.5 for bmaXX 5300

	Rated current 21A	**Rated current 28A**	**Rated current 36A**
	4G2.5+(2x1.0)+(2x22AWG)	4G4.0+(2x1.0)+(2x22AWG)	4G6.0+(2x1.0)+(2x22AWG)
Length [m]	Art. No.	Art. No.	Art. No.
3	464235	464278	464294
5	464236	464279	464295
7	464237	464280	464296
10	464238	464281	464297
15	464239	464282	464298
20	464240	464283	464299
25	464241	464284	464300
30	464242	464285	464301
35	464243	464286	464302
40	464244	464287	464303
50	464245	464288	464304

3.8 Motor cables

3.8.1 Technical data

The motor cables are highly flexible trailing cables with overall shielding. They comply with VDE, UL and CSA regulations. The control cables are integrated as star quads. The brake control and the temperature sensor are connected via the main connector. The cables are particularly suited for the optimum use of cable racks thanks to their small cross-section, low weight, and non-impeding surface. As a result, they can be used efficiently in trailing chains.

The overall shielding with an optical coverage of more than 85% makes the cable non-critical from an EMC perspective.

- Sheath resistance to media such as coolants and machine and gearbox oils
- Abrasion resistance thanks to a special surface in cable racks and trailing chains
- Highly flexible trailing cable, minimum bending radius for flexible use: 12 x D
- Non-blocking sheath surface with satin finish
- Shield made of tinned copper braid with optical coverage of ≥ 85%
- Core insulation made from TPE or polyester, sheath material: Halogen-free PUR
- Cable is CFC and silicone-free
- Behavior in the event of fire: Fire-inhibiting, halogen-free
- Cable color RAL 1028, melon yellow
- Label features Baumüller logo and VDE, UL and CSA marks

Rated Voltage

U_o/U 600/1.000 V (power cores)

U = 24 V DC (control cores)

Core labeling

Power cores U, VV, WWW

Colored control cable pairs as star quads in red, white, black, yellow

Assignment of pairs: (note the polarity)

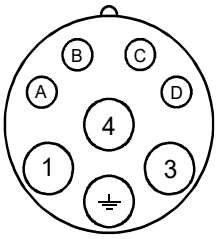
Red – black (brake)

white – yellow (temperature)

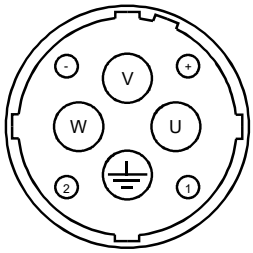
3.8.2 Main connection via connector

The connector size is determined by the stall current I_0 of the motor used. Motors with a stall current ≤ 20 A are equipped with a main connector of size 1. For a stall current of 20 A < I_0 ≤ 36 A, a main connector of size 1.5 is used. If I_0 > 36 A, a terminal box must be used.

Poles of main connector:

		Pin	Signal	Collor/labeling
Size 1 I_0 ≤ 20 A		1	Phase U	U
		⏚	PE	green / yellow
		3	Phase V	V V
		4	Phase W	W W W
		A	B+	red
		B	B-	black
		C	R1	white
		D	R2	yellow

View of contact side of the socket

		Pin	Signal	Collor/labeling
Size 1,5 I_0 ≤ 36 A		U	Phase U	U
		V	Phase V	V V
		W	Phase W	W W W
		⏚	PE	green / yellow
		+	B+	red
		-	B-	black
		1	R1	white
		2	R2	yellow

View of contact side of the socket

Cable cross-section	Rated current [A][1)]	I_n [A] for cULus-approbated motors	Connector size for 540V	Cable diameter [mm]
4×1,5 mm² + 4×0,75 mm²	15	12	1	11,7-12,3
4×2,5 mm² + 4×0,75 mm²	20	16	1	12,7-14,6
4×4 mm² + 4×0,75 mm²	28	22,4	1,5	14,2-15,4
4×6 mm² + 4×0,75 mm²	36	28,8	1,5	16,6-17,9
4x10 mm² + 4x0,75 mm²	50	40	1,5	20,5-21,5
4x16 mm² + 4x0,75 mm²	66	52,8	-	23,0-25,8
4x25 mm² + 2x(2x1,5 mm²)	84	67,2	-	26,3-29,7
4x35 mm² + 2x(2x1,5 mm²)	104	83,2	-	30,8-32,5

[1)] Current carrying capacity acc, to Table 5, laying type C or E VDE 0113/EN 60204 Part 1 issue 1997) Ambient temperature 40 °C

3.8.3 Application references

Operating temperature	The cables can be operated within a temperature range of between -20°C and +80°C
Cable laying at the motor	The cables must not touch the motor surface
Smallest permissible bending radii	12x outer cable diameter

3.8.4 Ordering information for motor cables

Rated current: 15 A

Cable 4 x 1,5 mm² + 4x 0,75 mm² with connector size 1

Length [m]	Art. No.	Art. No. Speedtec
5	324781	445872
7	324782	445887
10	324783	445889
15	324784	447675
20	324785	447676
25	324786	447677
30	324787	447678
35	324788	447679
40	324789	447680
50	324790	447681
75	324791	447682
100	324792	447683

Rated current: 28 A

Cable 4 x 4 mm² + 4x 0,75 mm² with connector size 1,5

Length [m]	Art. No.	Art. No. Speedtec
5	326589	448063
7	326591	448064
10	326592	448065
15	326593	448066
20	326594	448067
25	326596	448069
30	326597	448070
35	326598	448071
40	326599	448072

Rated current: 20 A

Cable 4 x 2,5 mm² + 4x 0,75 mm² with connector size 1

Length [m]	Art. No.	Art. No. Speedtec
5	414840	447684
7	380967	447687
10	413410	447688
15	414841	447692
20	414842	447698
25	414843	447852
30	414846	447853
35	414848	447854
40	414849	447855
50	414850	447856
75	414851	447857
100	414852	447858

Rated current: 36 A

Cable 4 x 6 mm² + 4x 0,75 mm² with connector size 1,5

Length [m]	Art. No.	Art. No. Speedtec
5	326600	448080
7	326601	448118
10	326602	448119
15	326603	448120
20	326604	448121
25	326605	448122
30	326606	448123
35	326607	448124
40	326608	448125

Rated current: 21 A

Cable 4 x 2,5 mm² + 4x 0,75 mm² with connector size 1,5

Length [m]	Art. No.	Art. No. Speedtec
5	326577	447686
7	326578	447689
10	326579	447690
15	326580	447691
20	326581	447693
25	326582	447694
30	326583	447695
35	326584	447696
40	326585	447697
50	326586	447699
75	326587	448060
100	326588	448061

Rated current: 50 A

Cable 4 x 10 mm² + 4x 0,75 mm² with connector size 1,5

Length [m]	Art. No.	Art. No. Speedtec
5	326609	448129
7	326610	448131
10	326611	448132
15	326612	448133
20	326613	448134
25	326614	448135
30	326615	448136
35	326616	448137
40	326617	448138

Mating plug

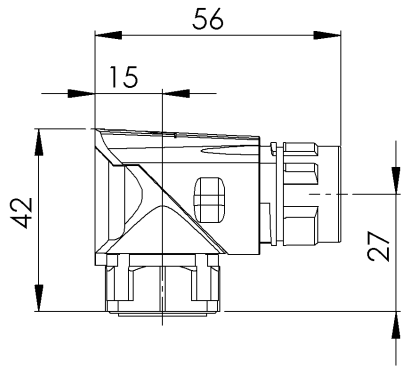
Type		Art. No.	Art. No. Speedtec
connector size 1	4x1,5mm² o. x2,5mm²	261740	445486
connector size 1	4x2,5mm² bis 4x4mm²		500064
connector size 1,5	4x2,5mm² bis 4x6mm²	326574	445487
connector size 1,5	4x10mm²	326569	445488

Deviating regulations apply for c UL us approved motors

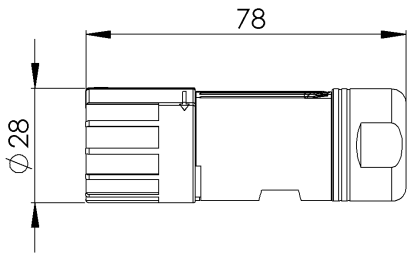
3.9 Dimensional drawings for equipment socket

3.9.1 Main connection

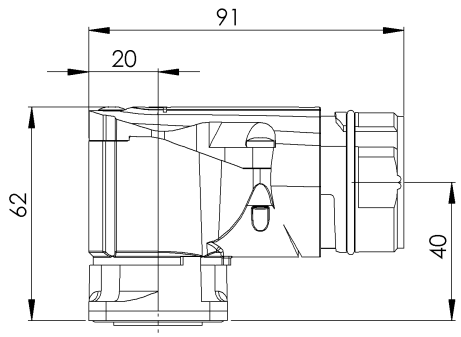
Speedtec - Rotary angle socket
(Size 1 for current I_0 up to 20 A)



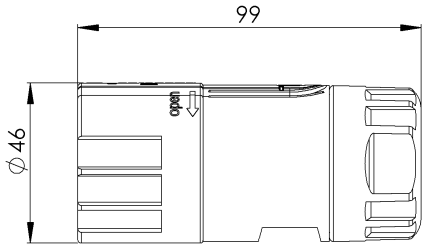
Speedtec - Mating connector
(Size 1 for current I_0 up to 20 A)



Speedtec - Rotary angle socket
(Size 1,5 for current I_0 up to 36 A)

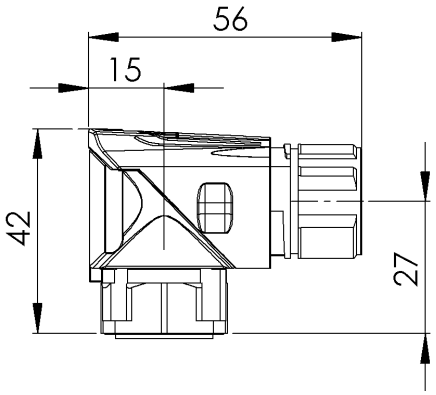


Speedtec - Mating connector
(Size 1,5 for current I_0 up to 36 A)

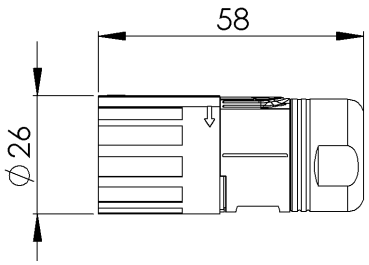


3.9.2 Encoder connection

Speedtec – angle built-in socket can turn

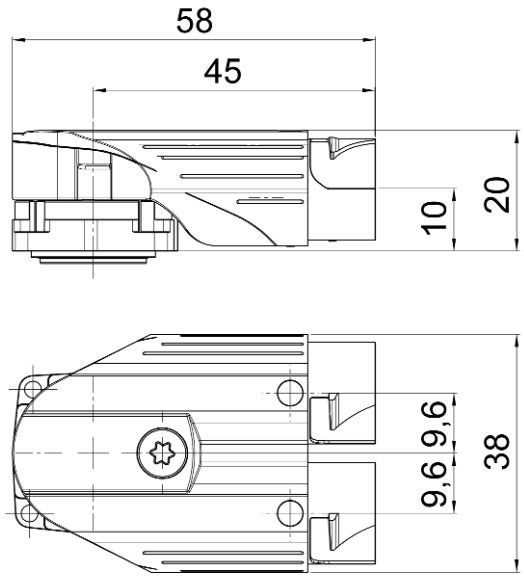


Speedtec – mating connector

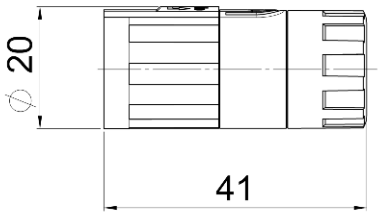


3.9.3 Combined angled flange socket

Rotatable combined angled flange socket
(current I_0 up to 14 A)



Mating connector for combined angled flange socket
(current I_0 up to 14 A)



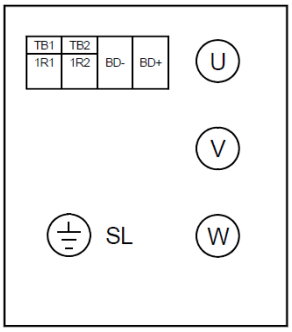
Note:

The pin assignments of the combined angled flange socket and the mating connector are not identical to the encoder or main connection pin assignments described in this documentation. The pin assignment for the combined angled flange socket is available upon request.

3.10 Main connection via terminal box

3.10.1 Terminal designation

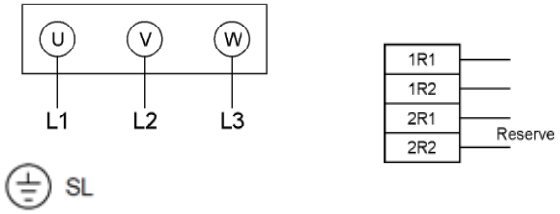
Connection diagram DSD2-071 and 100:



Connection diagram

U V W	Power connection
1R1/1R2	Temperature sensor
BD+/BD-	Brake
SL	PE

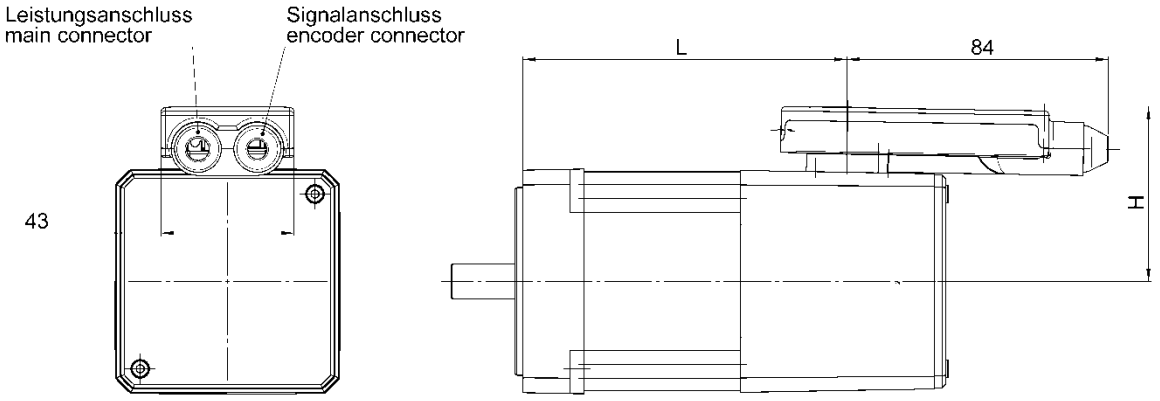
Connection diagram DSD2-132:



Wiring diagram

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

3.10.2 Terminal box DSD2-028 and 036



Motor	Length	Height
DSD2-028SO	97	56
DSD2-028MO	127	56
DSD2-036SO	104	58
DSD2-036MO	134	58
DSD2-036LO	164	58

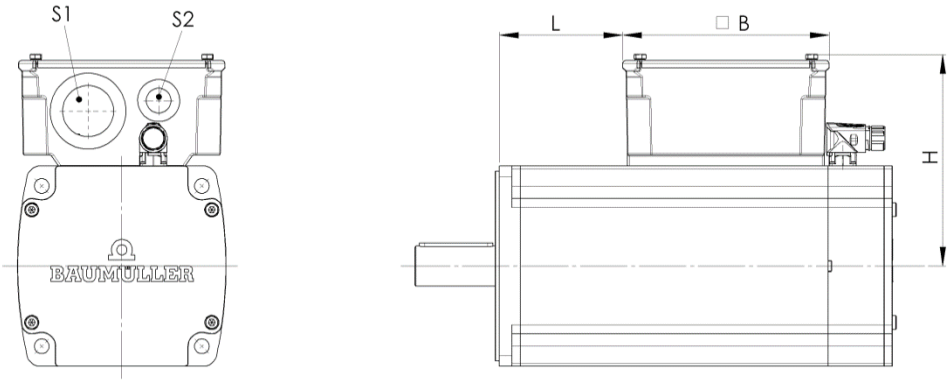
The terminal box can be mounted in 90° increments. The direction of the main and encoder connections must be specified in the order code.

Note:

The wiring configuration of the terminal box is not identical to the encoder or main connection configurations described in this documentation. The wiring configuration of the terminal box is available upon request.

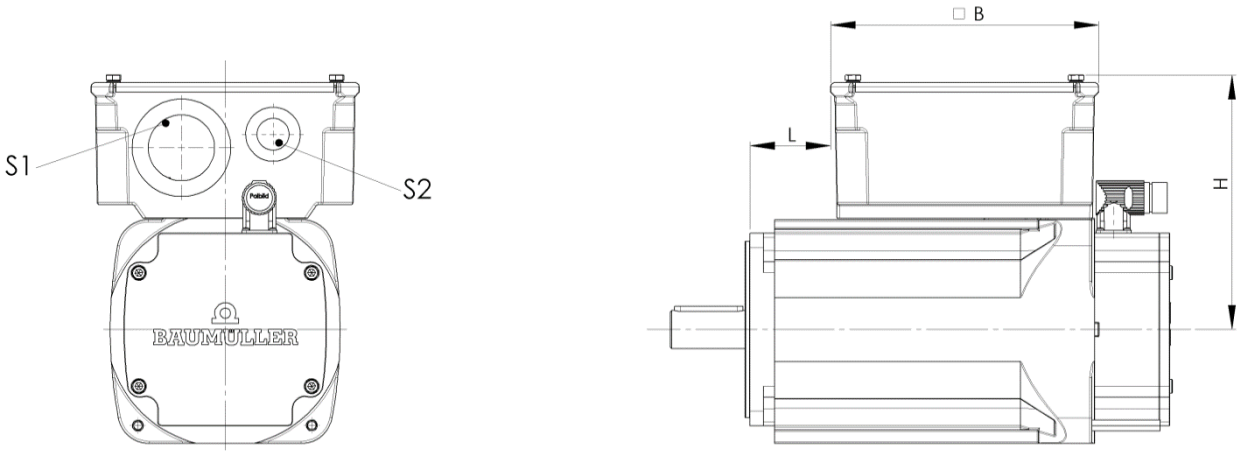
3.11 Main connection via terminal box DSD2-071 and 100

If I_0 > 36 A, a terminal box must be used. The direction of the main connection is towards NDE.



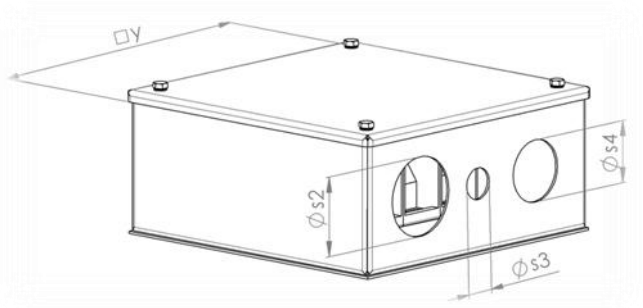
Motor	L	B	H	S1	S2	I_0
DSD2-071SO	57	156	170	M40	M25	≤ 63 A
DSD2-071MO	97	156	170	M40	M25	≤ 63 A
DSD2-071LO	137	156	170	M40	M25	≤ 63 A
DSD2-100SO	65	196	205	M50	M25	≤ 95 A
DSD2-100MO	117	196	205	M50	M25	≤ 95 A
DSD2-100LO	169	196	205	M50	M25	≤ 95 A
DSD2-100BO	221	196	205	M50	M25	≤ 95 A
DSD2-100XO	208	258	264	2x M63	M25	> 95A

For a water-cooled DSD2-071 with I_0 > 63 A, the following terminal box must be used. The direction of the main connection is towards NDE.



Motor	L	B	H	S1	S2	I_0
DSD2-071MO	59	196	190	M50	M25	≤ 95 A
DSD2-071LO	99	196	190	M50	M25	≤ 95 A

3.12 Main connection via terminal box DSD2-132



No.	Cable entry fitting		Terminal	Thread	
	□ y [mm]	g1 [mm] see chapter 4		s2 [mm]	s3 [mm]
20	258	250	3 x M8	2 x M25x1,5	1 x M25x1,5
22	258	250	3 x M8	2 x M40x1,5	1 x M25x1,5
24	258	250	3 x M8	2 x M63x1,5	1 x M25x1,5
26	258	250	3 x M10	2 x M63x1,5	1 x M25x1,5
28	318	305	3 x M12	2 x M75x1,5	1 x M25x1,5

3.12.1 Position of terminal box

The terminal box is on the N-side. The following terminal box positions are possible:

- Terminal box on top
- Terminal box on the left (with view to the DE-side on the shaft end)
- Terminal box on the right (with view to the DE-side on the shaft end)

The following directions of the main connection in dependence with the terminal box position can be configured (refer to product configurator).

Cooling type	Position terminal box	Outlet direction main connection				
		Top	Bottom	Left [3]	Right [3]	NDE-side
Radially fitted external fan [1]	Top	-	-	☒	☒	☒ [2]
	left [3]	☒	☒	-	-	☒
	right [3]	☒	☒	-	-	☒
Water cooling	Top	-	-	☒	☒ [2]	☒
	left [3]	-	-	-	-	-
	right [3]	-	-	-	-	-
Axially fitted external fan	Top	-	-	☒	☒ [2]	-
	left [3]	☒	☒	-	-	-
	right [3]	☒	☒	-	-	-

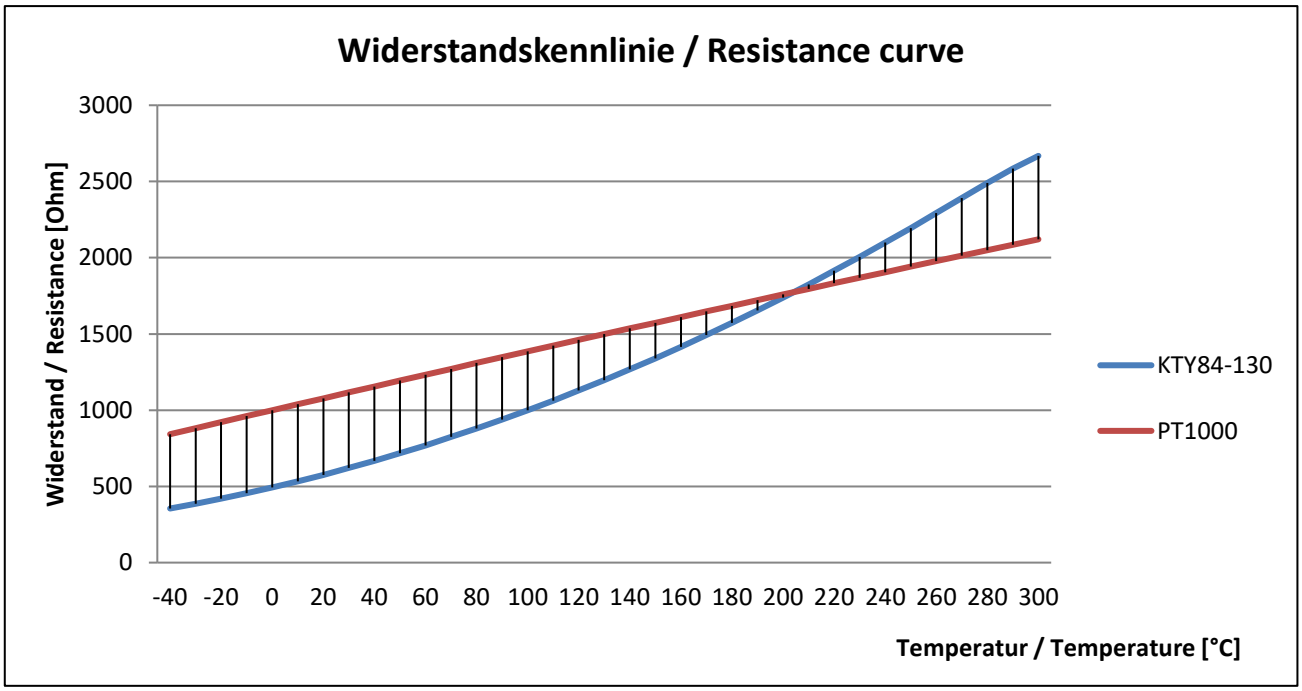
[1] The position of the terminal box of motors with a radial fan is dependent of the cooling system position. (such as position of the terminal box „above“ is not possible if position cooling „above“)
[2] Preferred version
[3] View to the DE-side on the shaft end

For the DSD2-071-100, the position of the terminal box is on the top, and the direction of the main connection is towards NDE.

3.13 Temperature sensor

The option to wire the temperature sensor via the encoder connector is only available for motors in frame sizes 028 to 100.

The motors are equipped with a temperature sensor in the stator winding as standard. This allows evaluation by the motor controller. The temperature sensor is connected via the main connection. As an option, connection via the encoder terminal box is possible. The respective configuration must be specified in the order code.

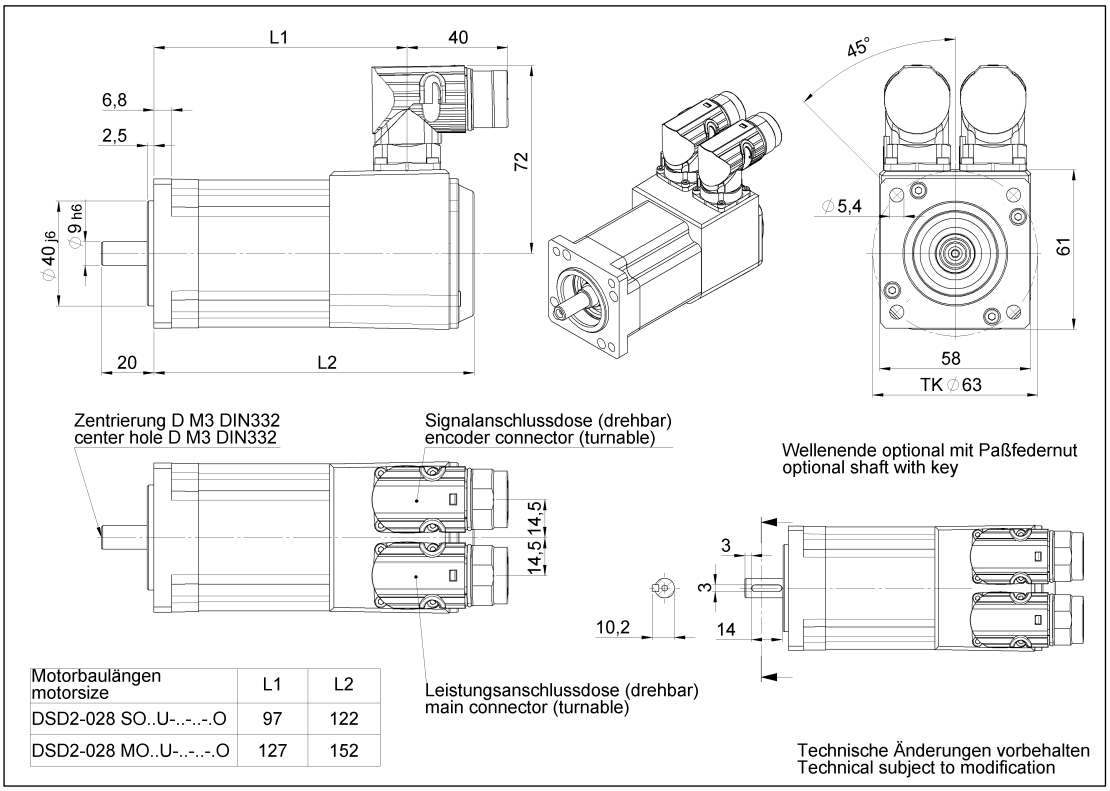


The motor temperature is continuously monitored using the PT1000 temperature sensor. When the sensor is supplied with a measuring current of 2 mA, the resistance curve shown above is obtained.

4. Dimensional drawings

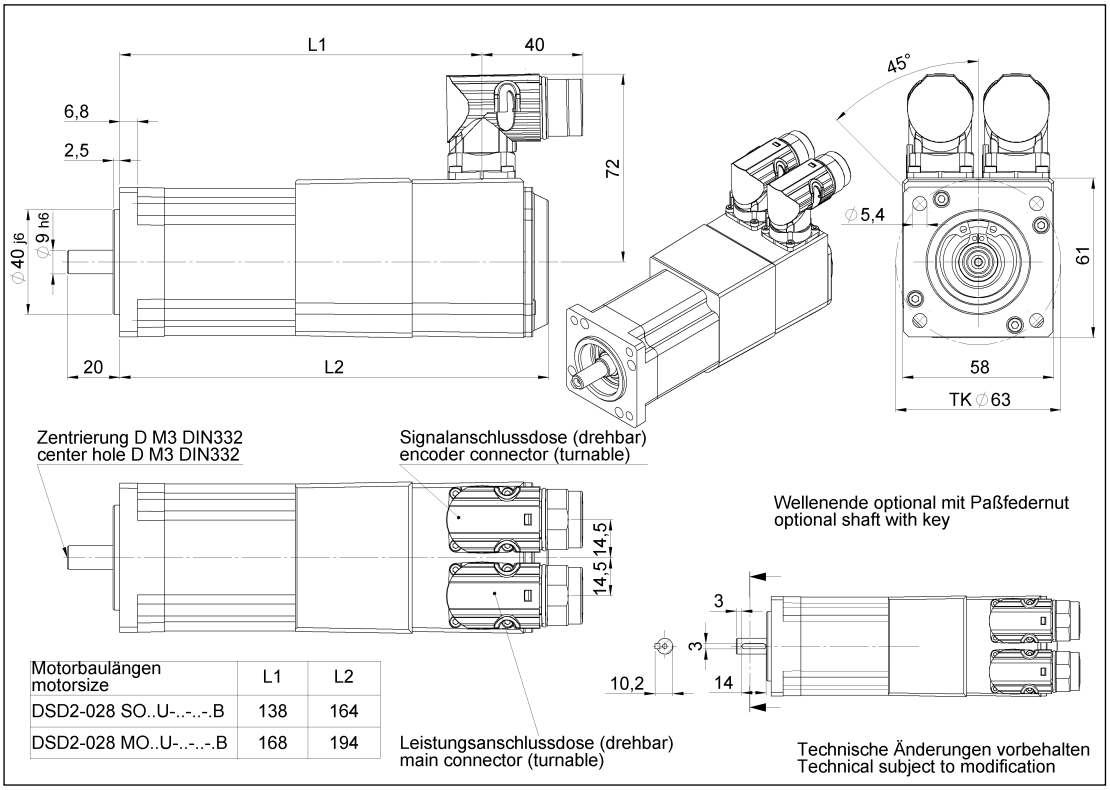
4.1 Dimensional drawings DSD2-028

DSD2-028....U-..-..-.0.-.PP-.-..-0-000	IM B5



Motorbaulängen motorsize	L1	L2
DSD2-028 SO..U-..-..-.O	97	122
DSD2-028 MO..U-..-..-.O	127	152

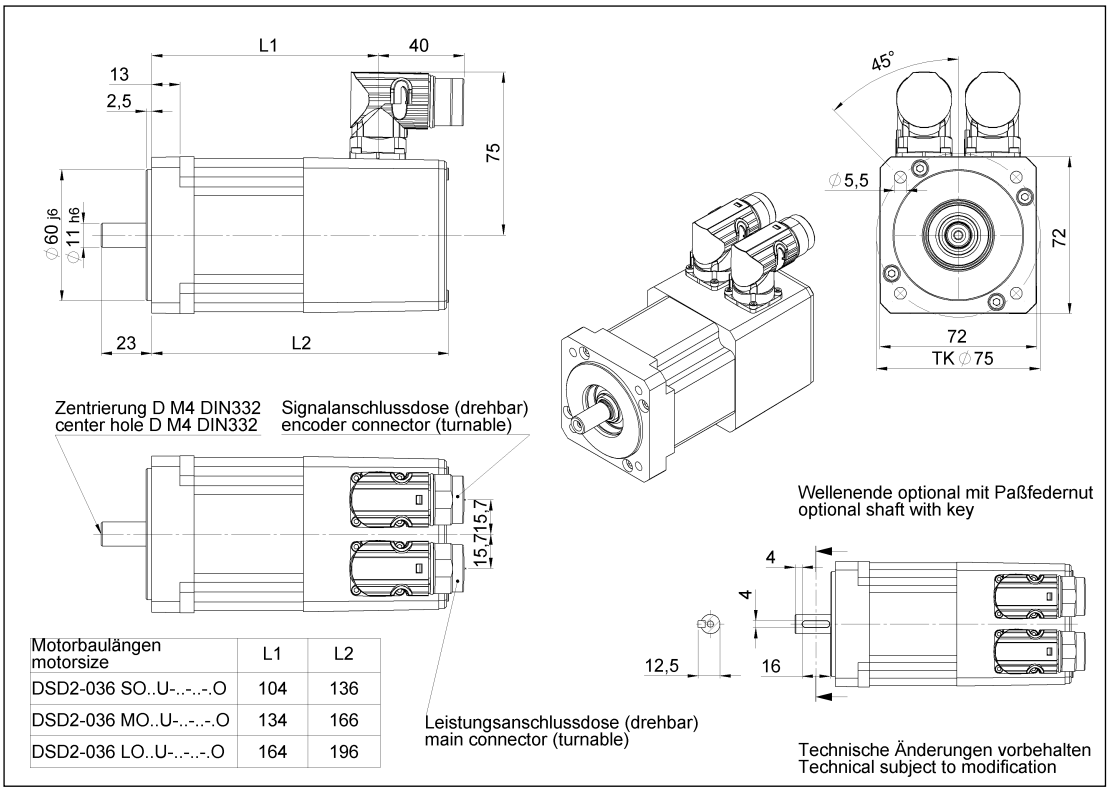
DSD2-028....U-..-..-.B.-.PP-.-..-0-000	IM B5



Motorbaulängen motorsize	L1	L2
DSD2-028 SO..U-..-..-.B	138	164
DSD2-028 MO..U-..-..-.B	168	194

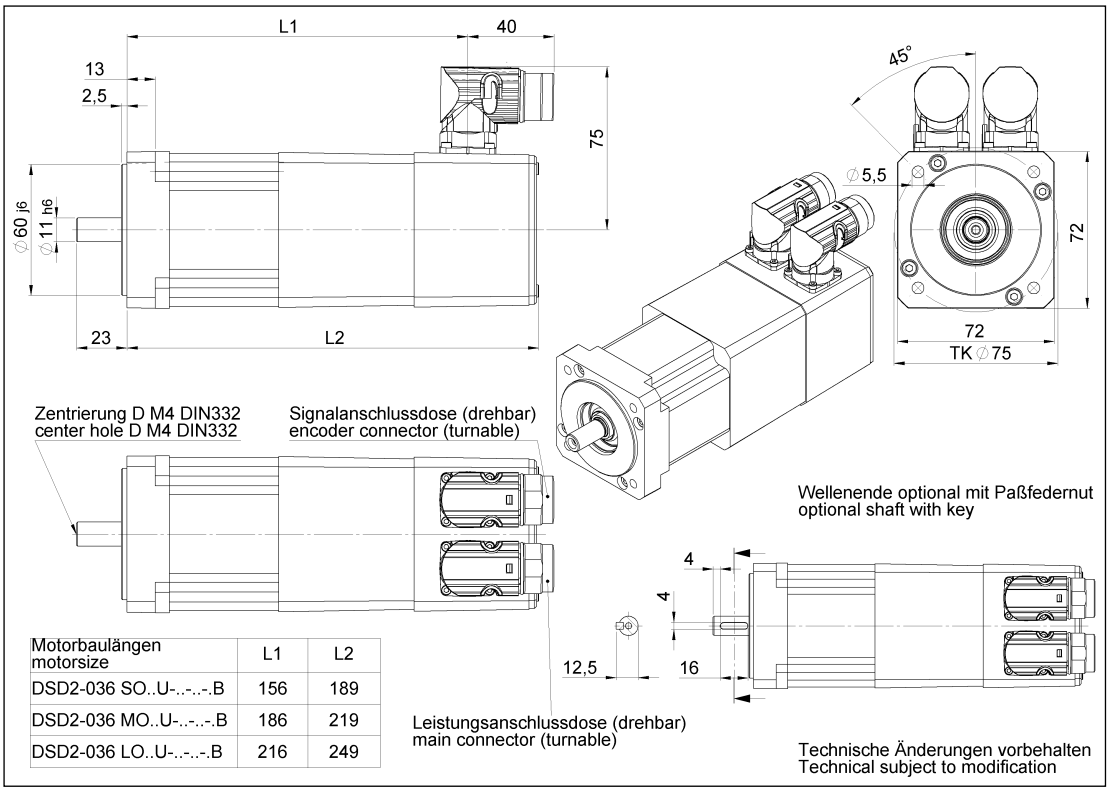
4.2 Dimensional drawings DSD2-036

DSD2-036....U-..-..-.0.-.PP-.-..-0-000	IM B5



Motorbaulängen motorsize	L1	L2
DSD2-036 SO..U-..-..-.O	104	136
DSD2-036 MO..U-..-..-.O	134	166
DSD2-036 LO..U-..-..-.O	164	196

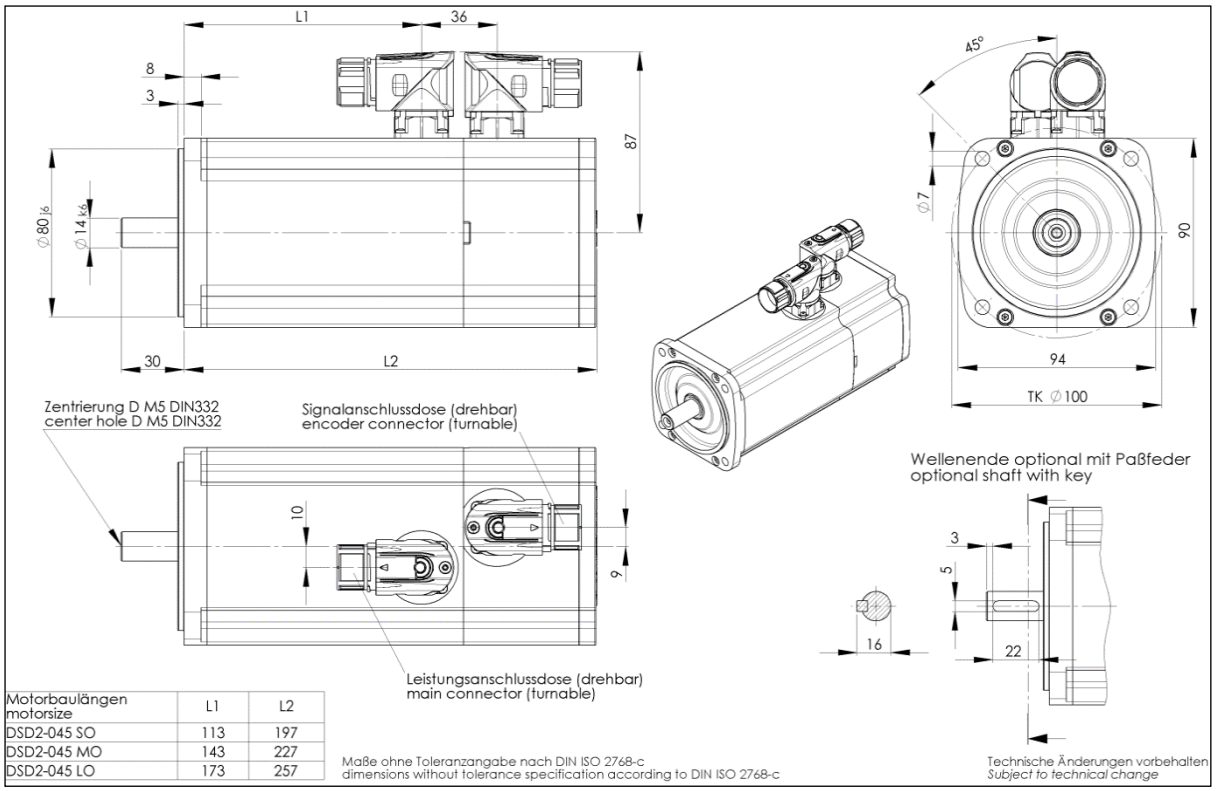
DSD2-036....U-..-..-.B.-.PP-.-..-0-000	IM B5



Motorbaulängen motorsize	L1	L2
DSD2-036 SO..U-..-..-.B	156	189
DSD2-036 MO..U-..-..-.B	186	219
DSD2-036 LO..U-..-..-.B	216	249

4.3 Dimensional drawings DSD2-045

DSD2-045....U-..-..-.0.-.PP-.-..-0-000	IM B5

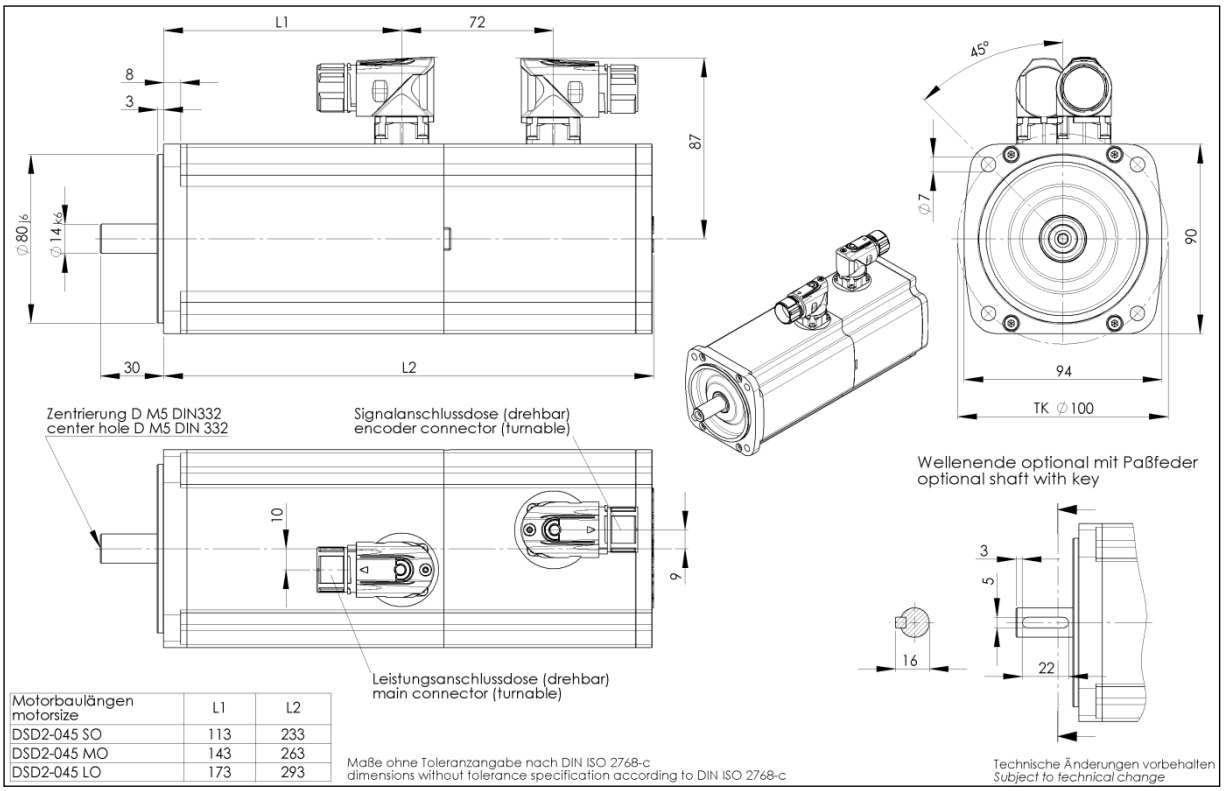


Motorbaulängen motorsize	L1	L2
DSD2-045 SO	113	197
DSD2-045 MO	143	227
DSD2-045 LO	173	257

Maße ohne Toleranzangabe nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-c

Technische Änderungen vorbehalten
Subject to technical change

DSD2-045....U-..-..-.B.-.PP-.-..-0-000	IM B5

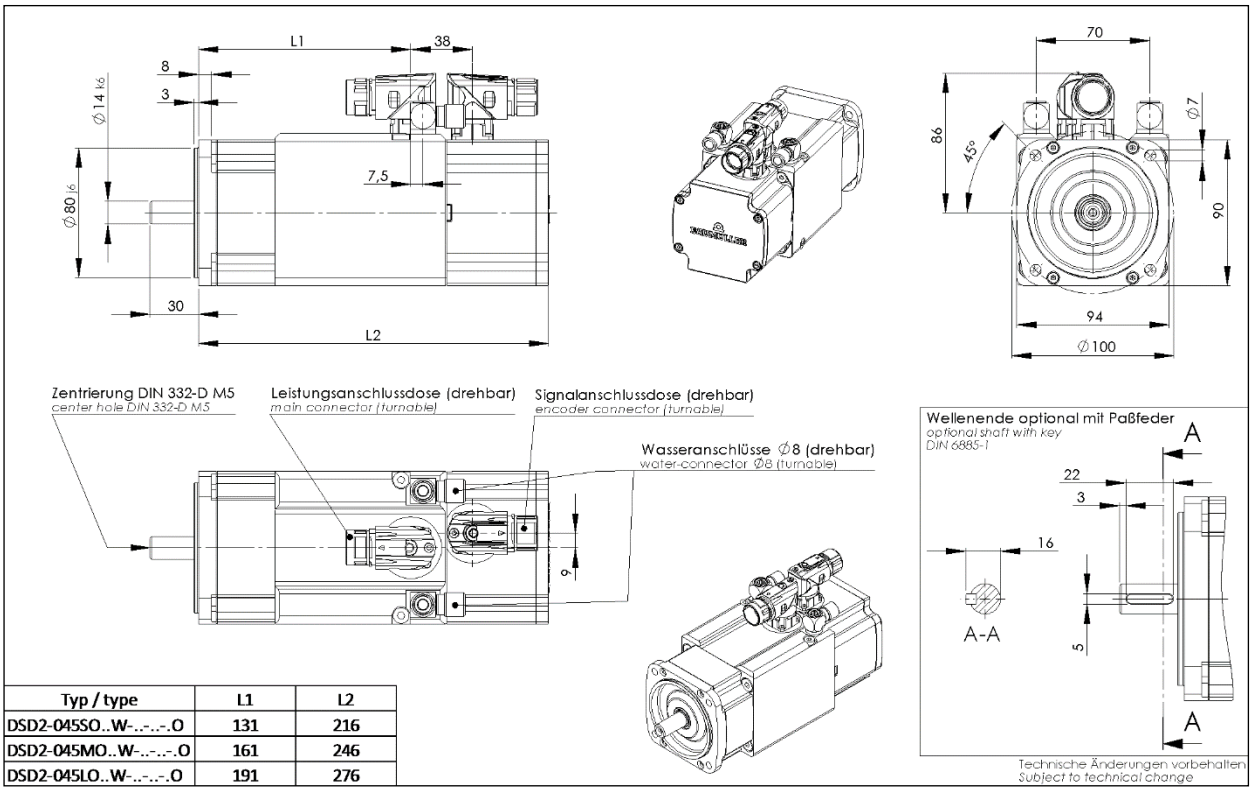


Motorbaulängen motorsize	L1	L2
DSD2-045 SO	113	233
DSD2-045 MO	143	263
DSD2-045 LO	173	293

Maße ohne Toleranzangabe nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-c

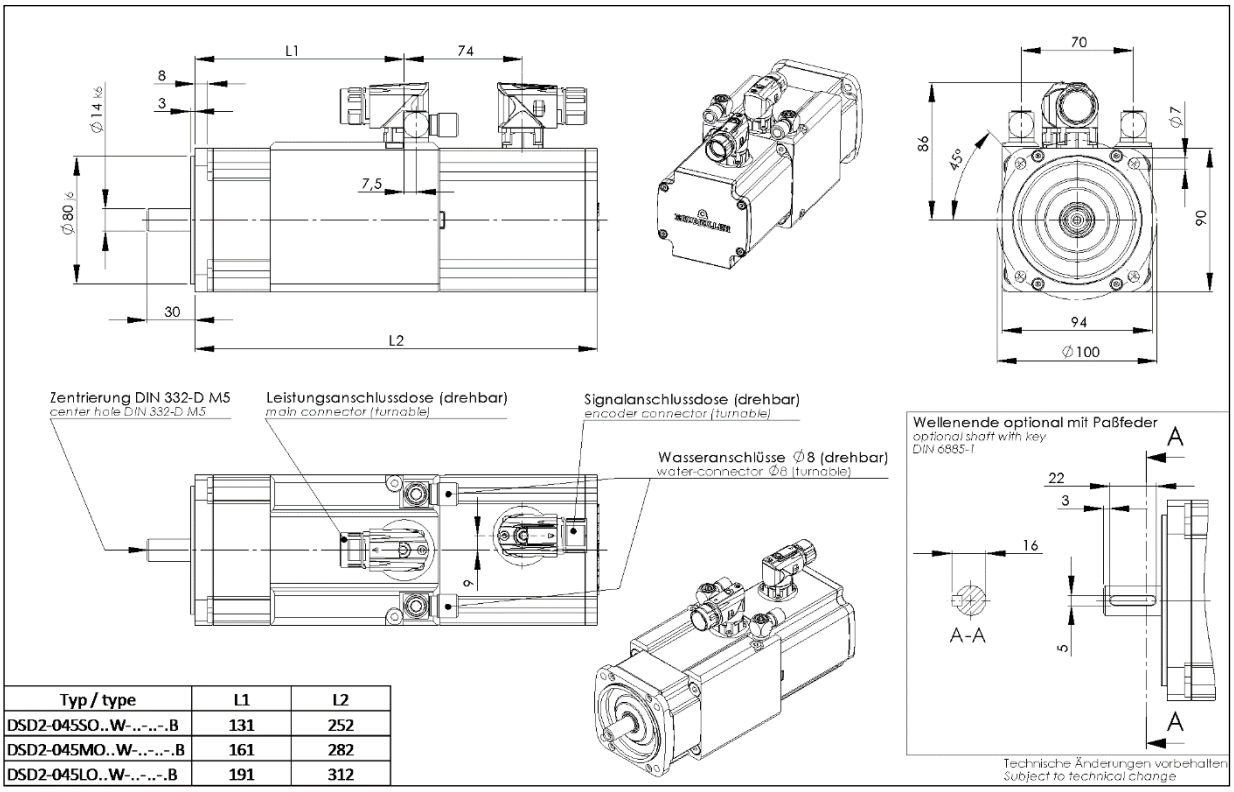
Technische Änderungen vorbehalten
Subject to technical change

DSD2-045....W-..-..-.0.-.PP-.-..-0-000	IM B5



Typ / type	L1	L2
DSD2-045SO..W-..-..-.O	131	216
DSD2-045MO..W-..-..-.O	161	246
DSD2-045LO..W-..-..-.O	191	276

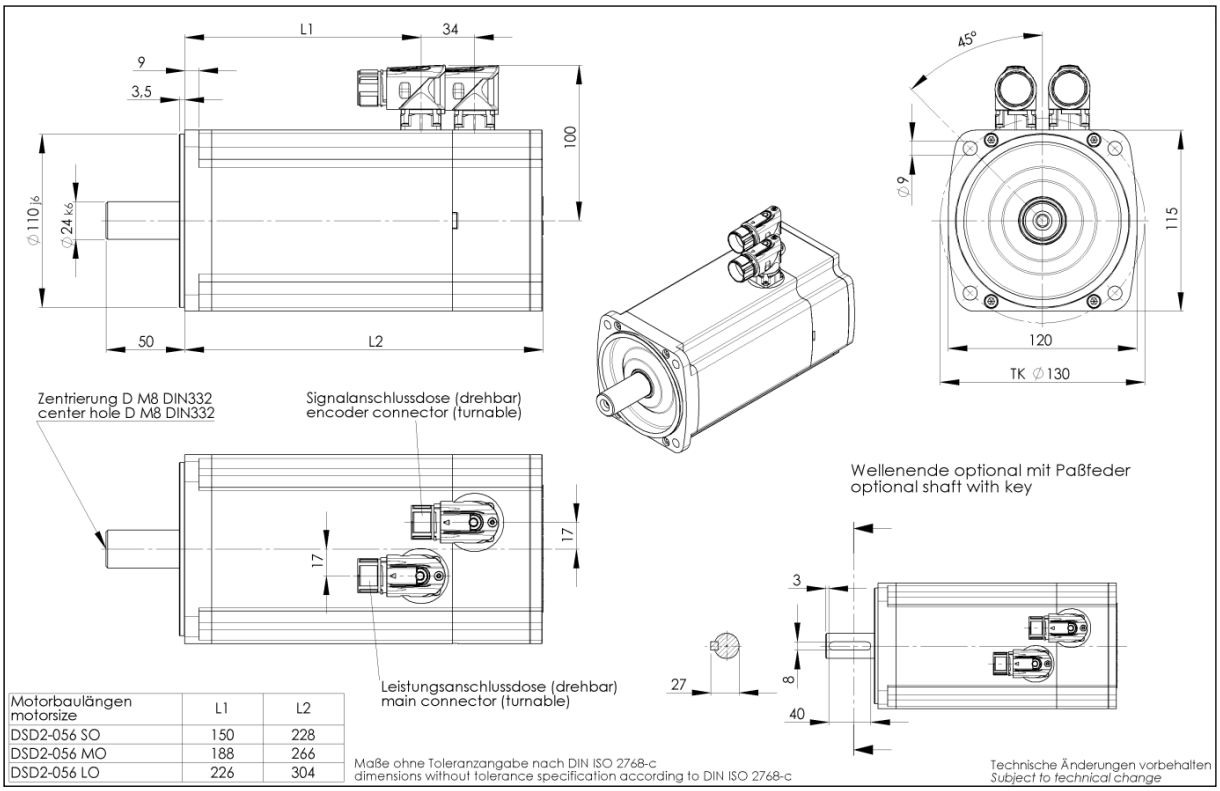
DSD2-045....W-..-..-.B.-.PP-.-..-0-000	IM B5



Typ / type	L1	L2
DSD2-045SO..W-..-..-.B	131	252
DSD2-045MO..W-..-..-.B	161	282
DSD2-045LO..W-..-..-.B	191	312

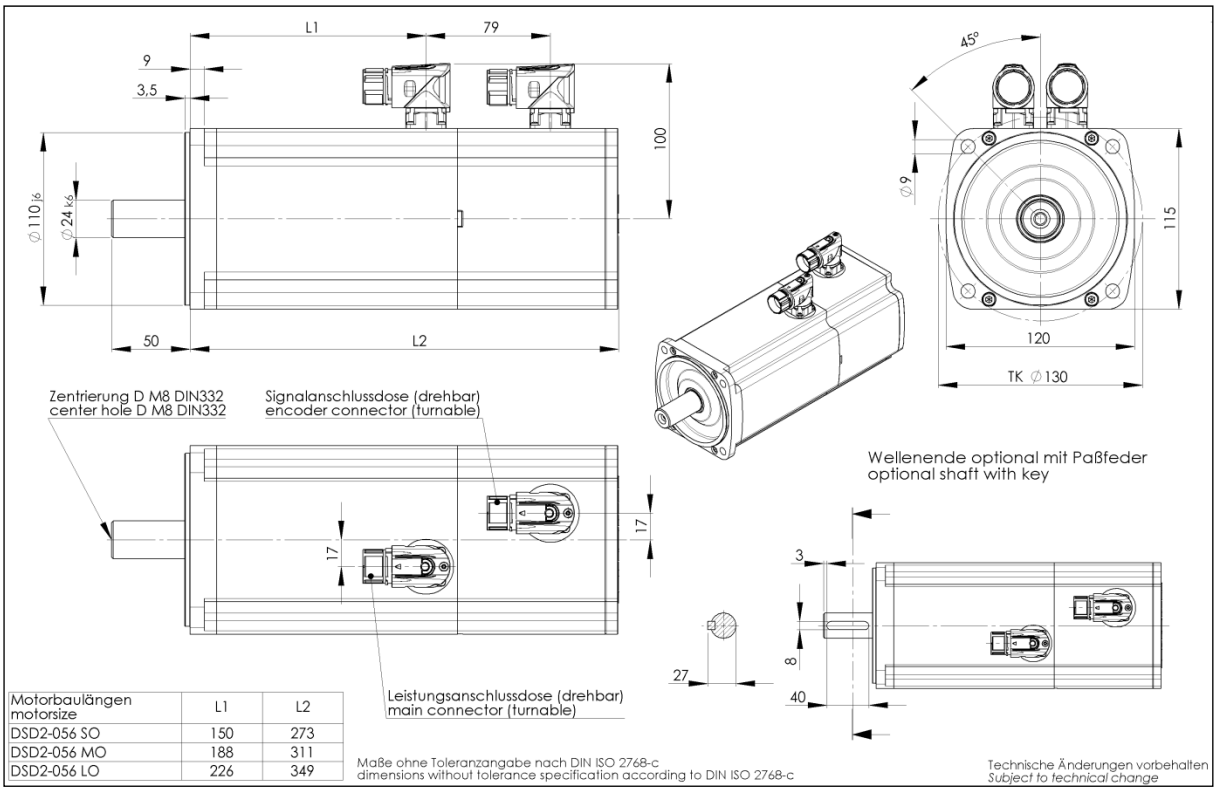
4.4 Dimensional drawings DSD2-056

DSD2-056....U-..-..-.0.-.PP-.-..-0-000	IM B5



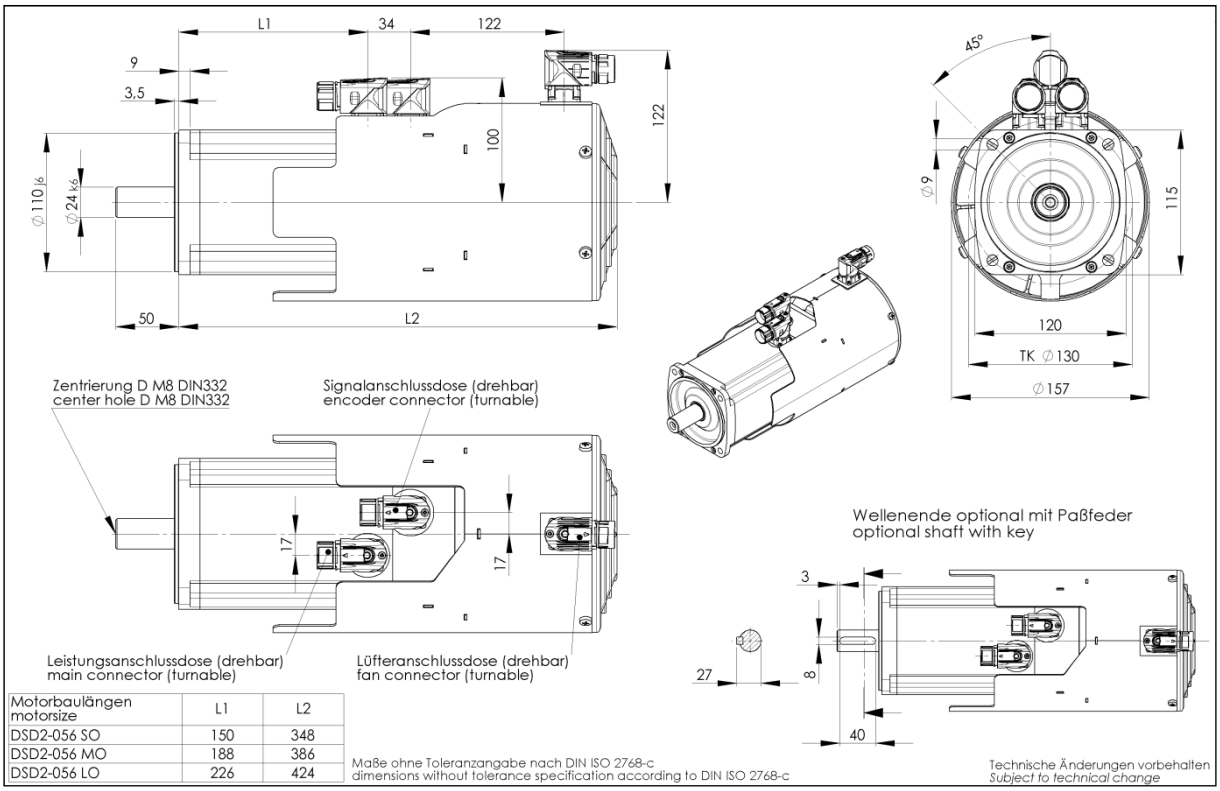
Motorbaulängen motorsize	L1	L2
DSD2-056 SO	150	228
DSD2-056 MO	188	266
DSD2-056 LO	226	304

DSD2-056....U-..-..-.B.-.PP-.-..-0-000	IM B5



Motorbaulängen motorsize	L1	L2
DSD2-056 SO	150	273
DSD2-056 MO	188	311
DSD2-056 LO	226	349

DSD2-056....0-..-..-.0.-.PP-.-..-0-000	IM B5

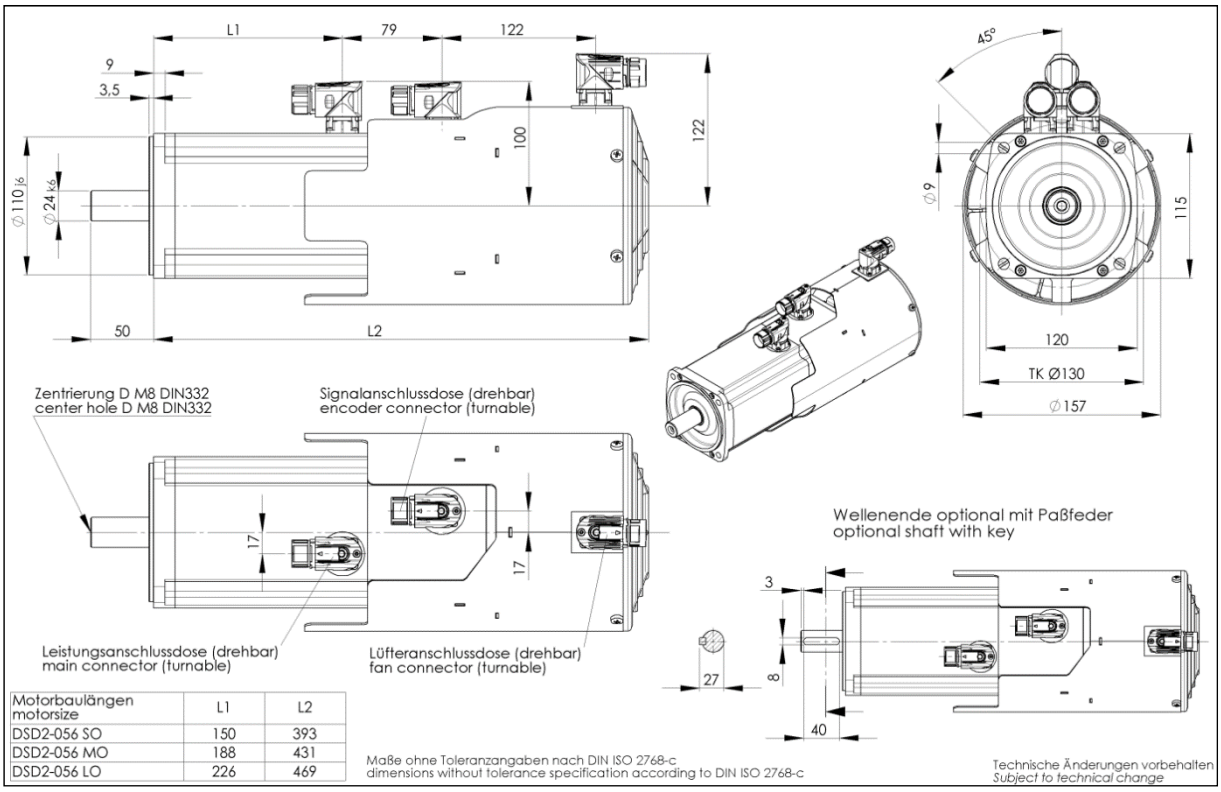


Motorbaulängen motorsize	L1	L2
DSD2-056 SO	150	348
DSD2-056 MO	188	386
DSD2-056 LO	226	424

Maße ohne Toleranzangabe nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-c

Technische Änderungen vorbehalten
Subject to technical change

DSD2-056....0-..-..-.B.-.PP-.-..-0-000	IM B5

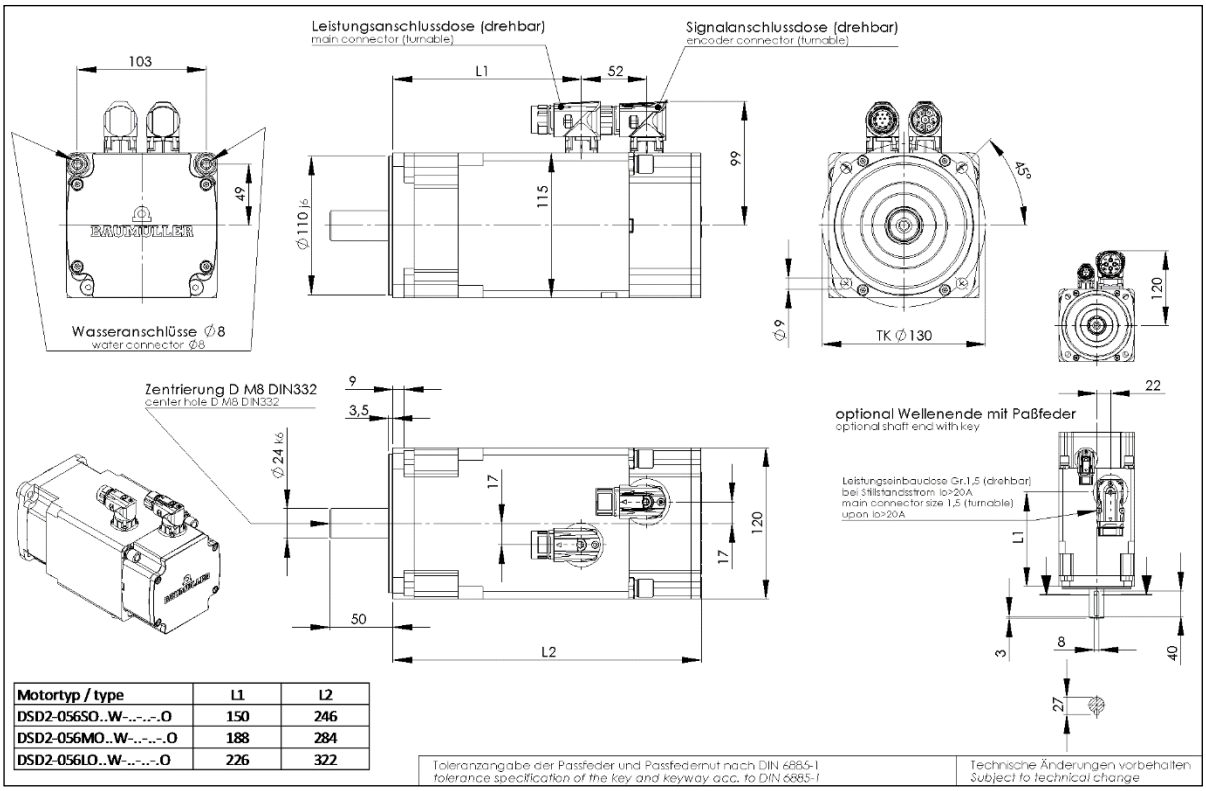


Motorbaulängen motorsize	L1	L2
DSD2-056 SO	150	393
DSD2-056 MO	188	431
DSD2-056 LO	226	469

Maße ohne Toleranzangaben nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-c

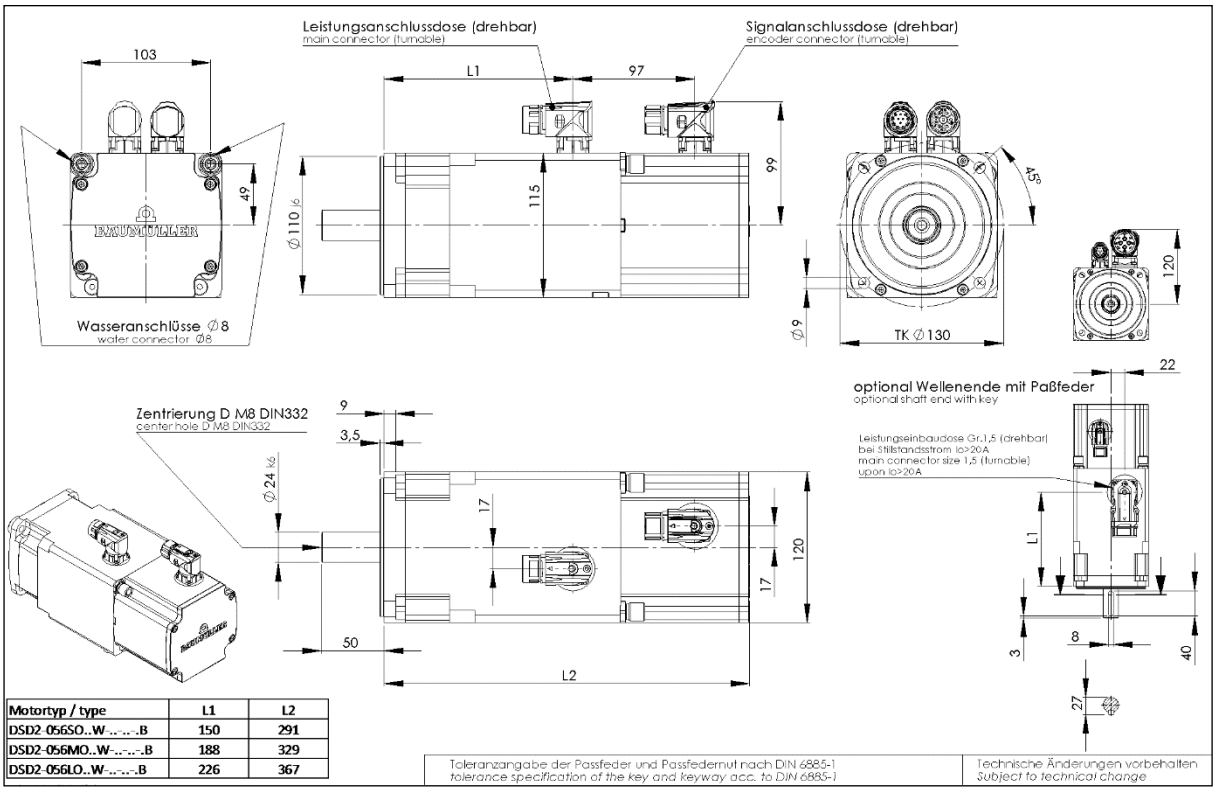
Technische Änderungen vorbehalten
Subject to technical change

DSD2-056....W-..-..-.0.-.PP-.-..-0-000	IM B5



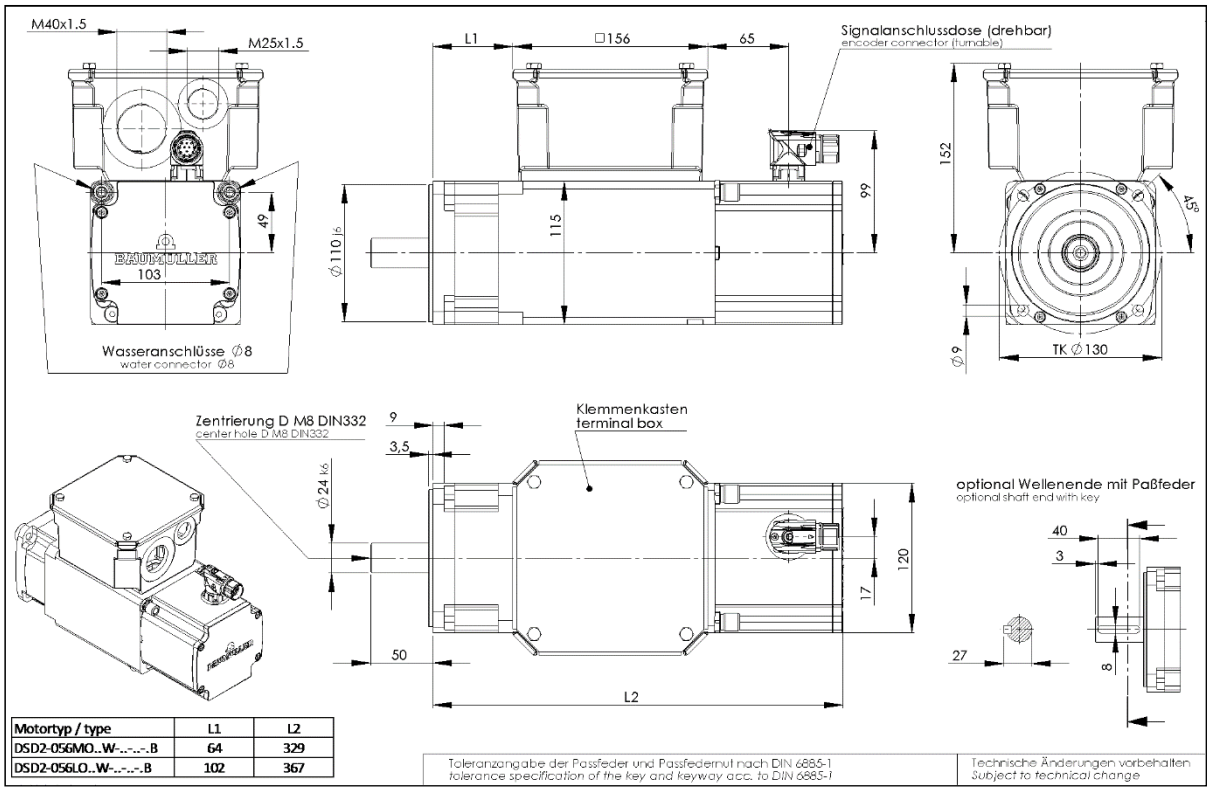
Motortyp / type	L1	L2
DSD2-056SO..W-..-..-.0	150	246
DSD2-056MO..W-..-..-.0	188	284
DSD2-056LO..W-..-..-.0	226	322

DSD2-056....W-..-..-.B.-.PP-.-..-0-000	IM B5



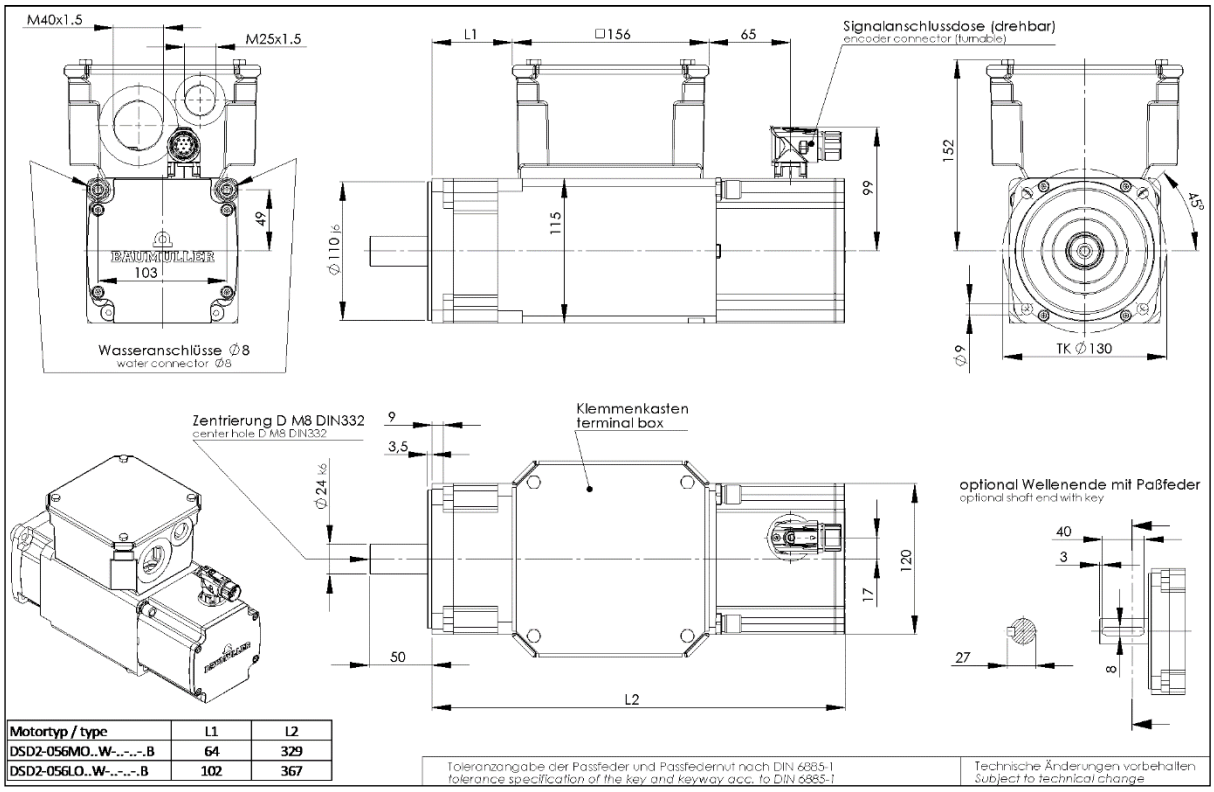
Motortyp / type	L1	L2
DSD2-056SO..W-..-..-.B	150	291
DSD2-056MO..W-..-..-.B	188	329
DSD2-056LO..W-..-..-.B	226	367

DSD2-056....W-..-..-.0.-.NP-.-..-0-000	IM B5



Motortyp / type	L1	L2
DSD2-056MO..W-..-..-.B	64	329
DSD2-056LO..W-..-..-.B	102	367

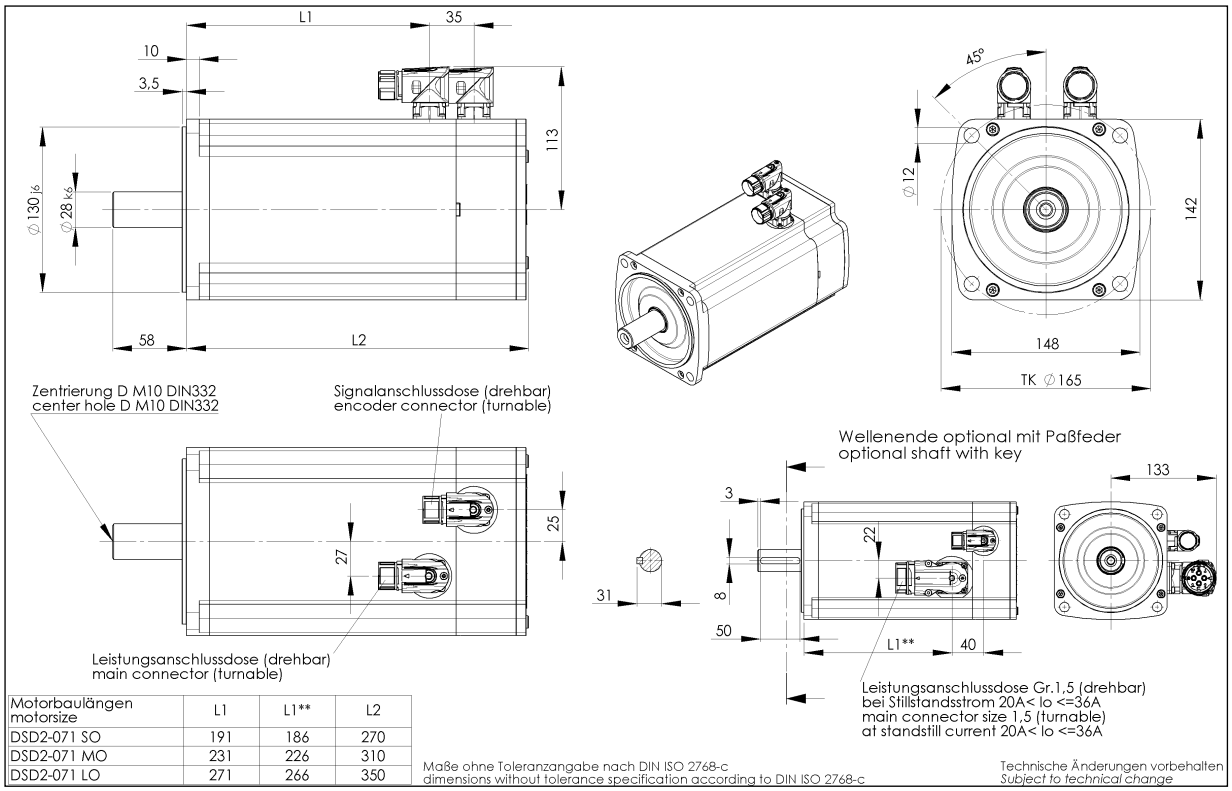
DSD2-056....W-..-..-.B.-.NP-.-..-0-000	IM B5



Motortyp / type	L1	L2
DSD2-056MO..W-..-..-.B	64	329
DSD2-056LO..W-..-..-.B	102	367

4.5 Dimensional drawings DSD2-071

DSD2-071....U-..-..-.0.-.PP-.-..-0-000	IM B5

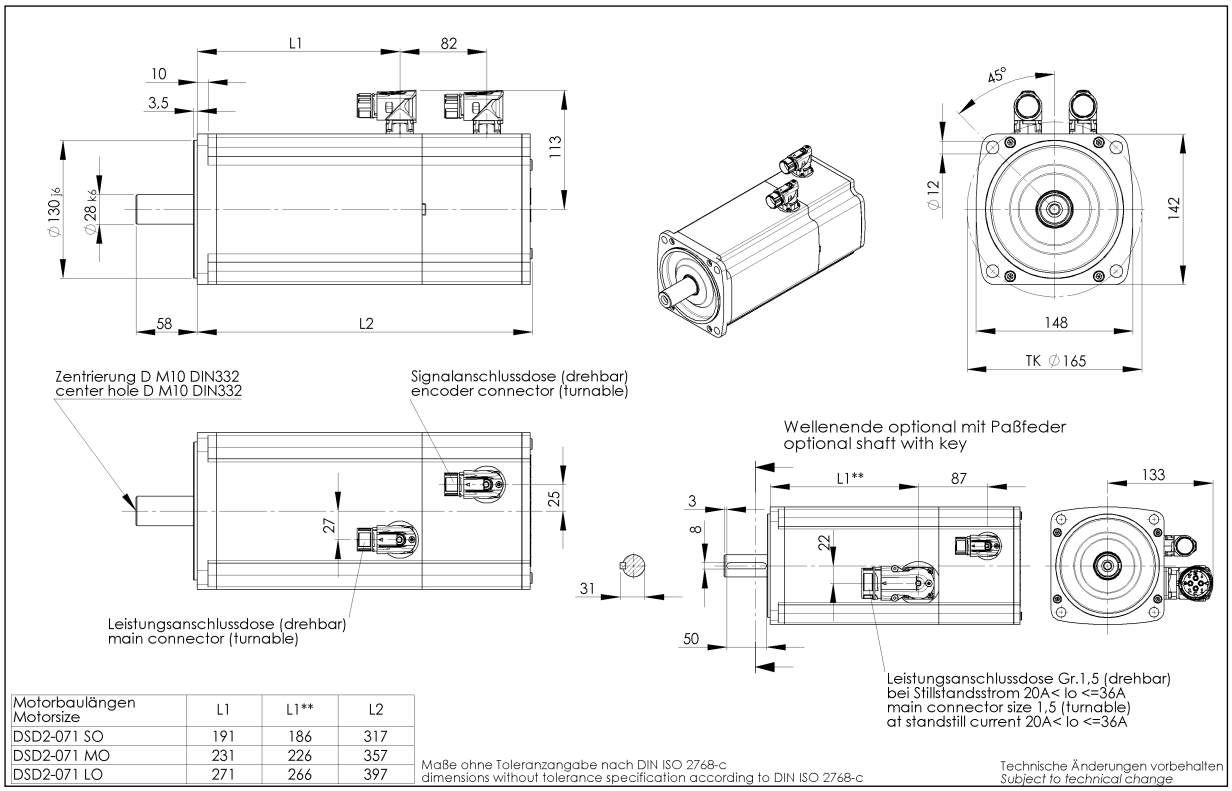


Motorbaulängen motorsize	L1	L1**	L2
DSD2-071 SO	191	186	270
DSD2-071 MO	231	226	310
DSD2-071 LO	271	266	350

Maße ohne Toleranzangabe nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-c

Technische Änderungen vorbehalten
Subject to technical change

DSD2-071....U-..-..-.B.-.PP-.-..-0-000	IM B5

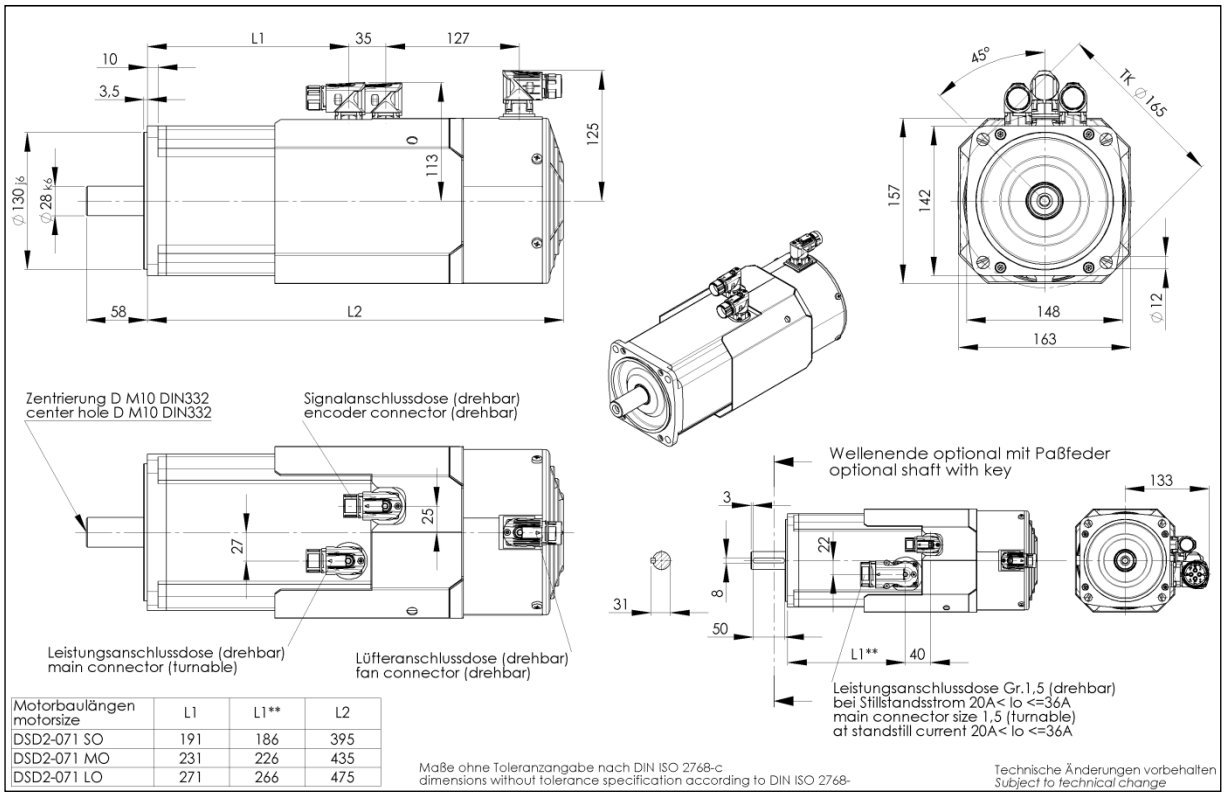


Motorbaulängen Motorsize	L1	L1**	L2
DSD2-071 SO	191	186	317
DSD2-071 MO	231	226	357
DSD2-071 LO	271	266	397

Maße ohne Toleranzangabe nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-c

Technische Änderungen vorbehalten
Subject to technical change

DSD2-071....0-..-..-.0.-.PP-.-..-0-000	IM B5

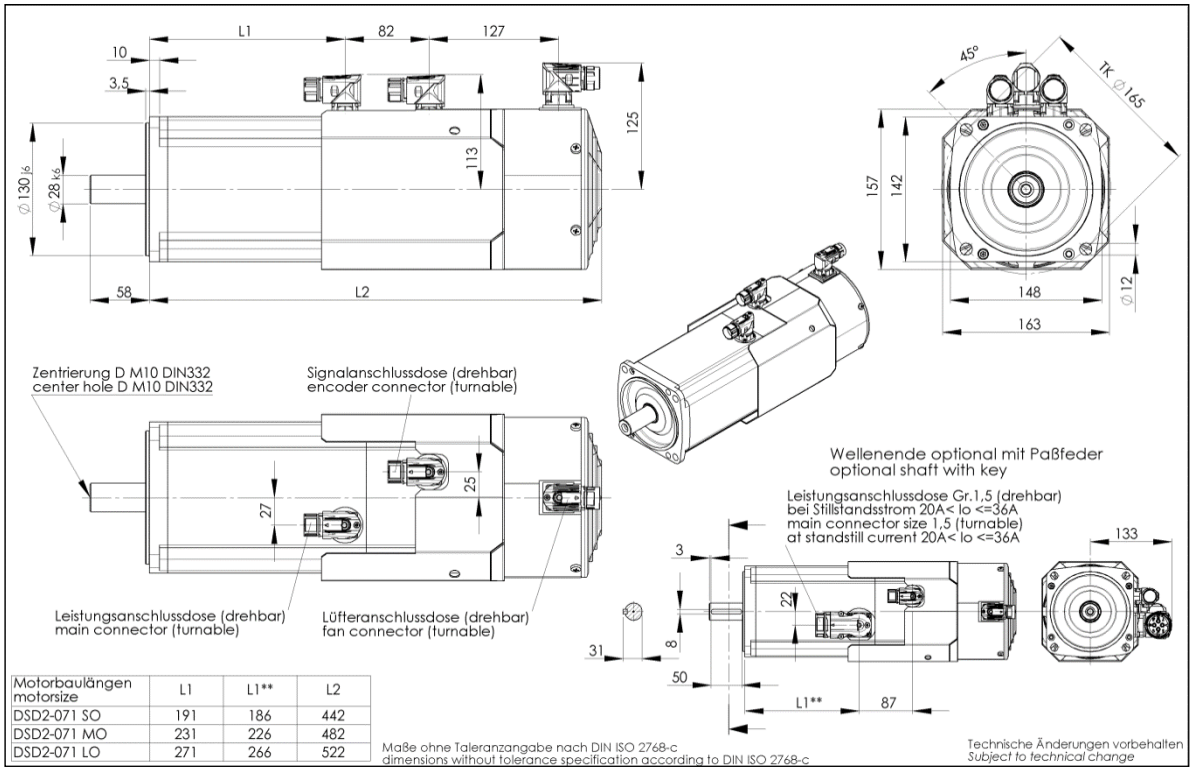


Motorbaulängen motorsize	L1	L1**	L2
DSD2-071 SO	191	186	395
DSD2-071 MO	231	226	435
DSD2-071 LO	271	266	475

Maße ohne Toleranzangabe nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-

Technische Änderungen vorbehalten
Subject to technical change

DSD2-071....0-..-..-.B.-.PP-.-..-0-000	IM B5

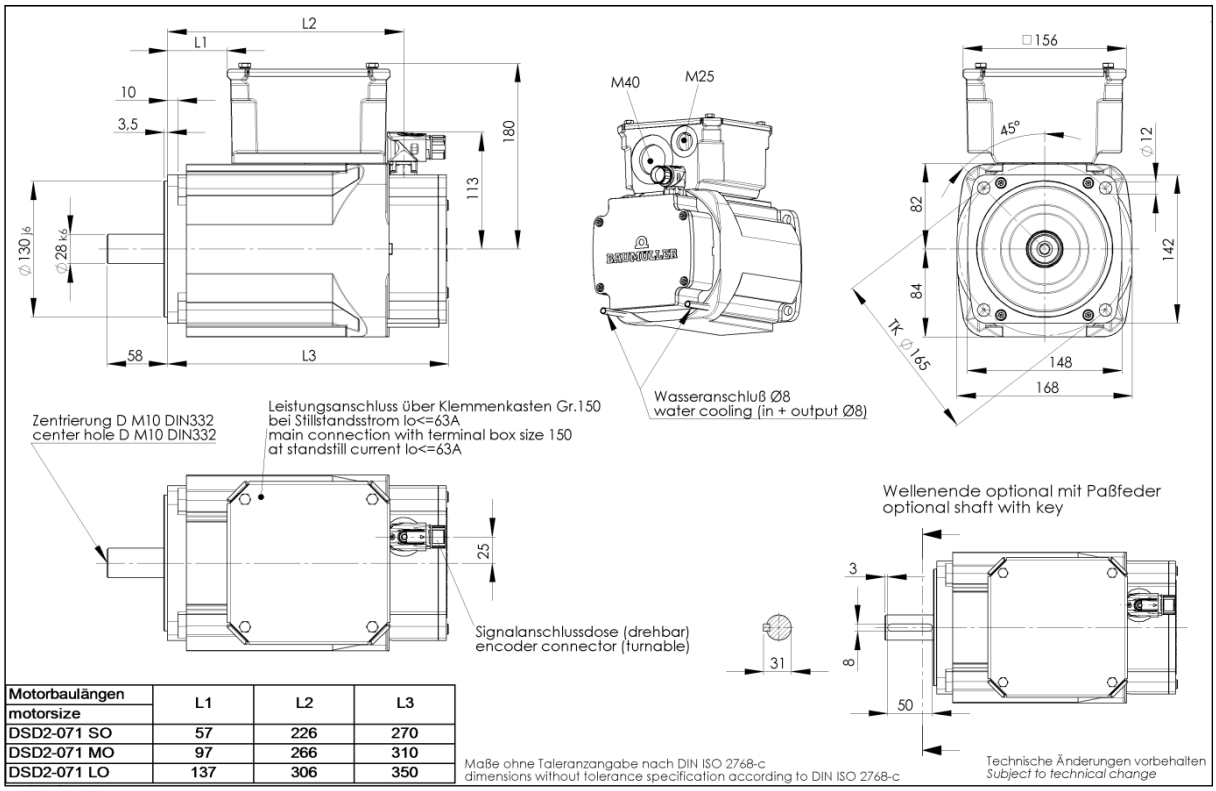


Motorbaulängen motorsize	L1	L1**	L2
DSD2-071 SO	191	186	442
DSD2-071 MO	231	226	482
DSD2-071 LO	271	266	522

Maße ohne Taleranzangabe nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-c

Technische Änderungen vorbehalten
Subject to technical change

DSD2-071....W-..-..-.0.-.NP-.-..-0-000	IM B5

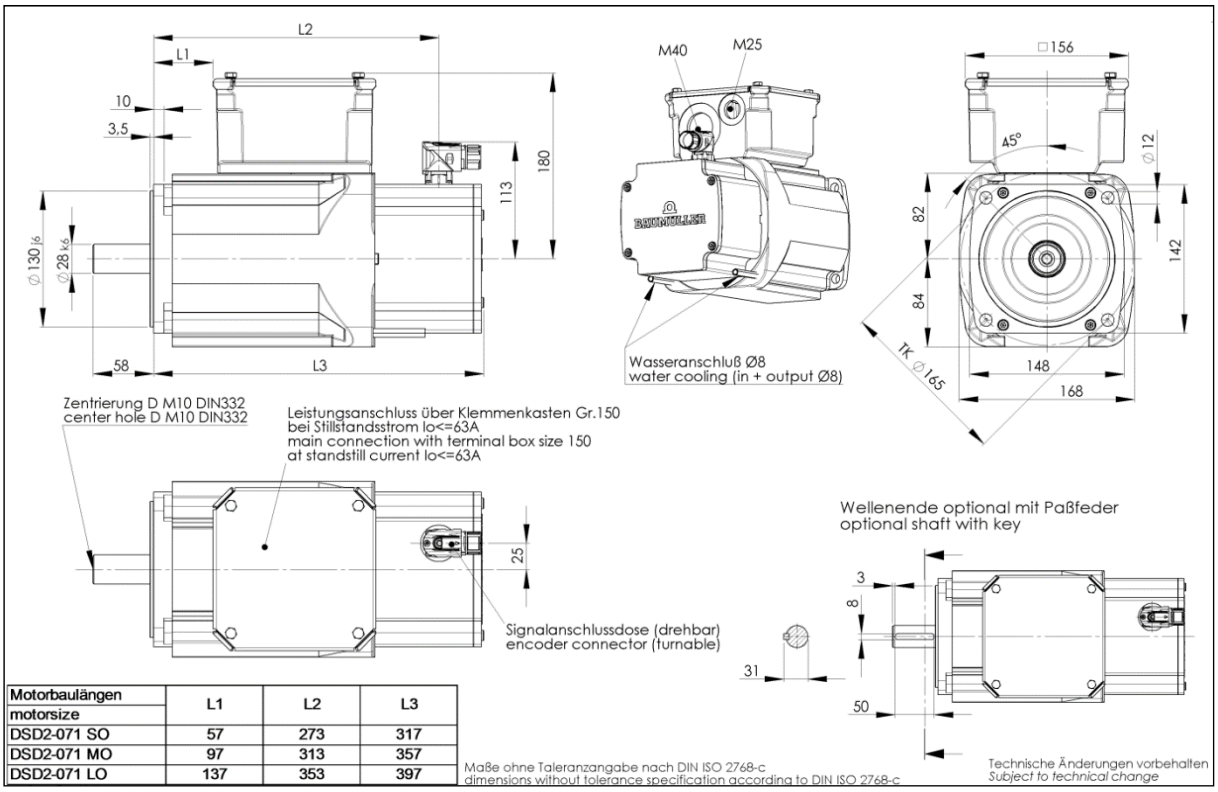


Motorbaulängen / motorsize	L1	L2	L3
DSD2-071 SO	57	226	270
DSD2-071 MO	97	266	310
DSD2-071 LO	137	306	350

Maße ohne Taleranzangabe nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-c

Technische Änderungen vorbehalten
Subject to technical change

DSD2-071....W-..-..-.B.-.NP-.-..-0-000	IM B5



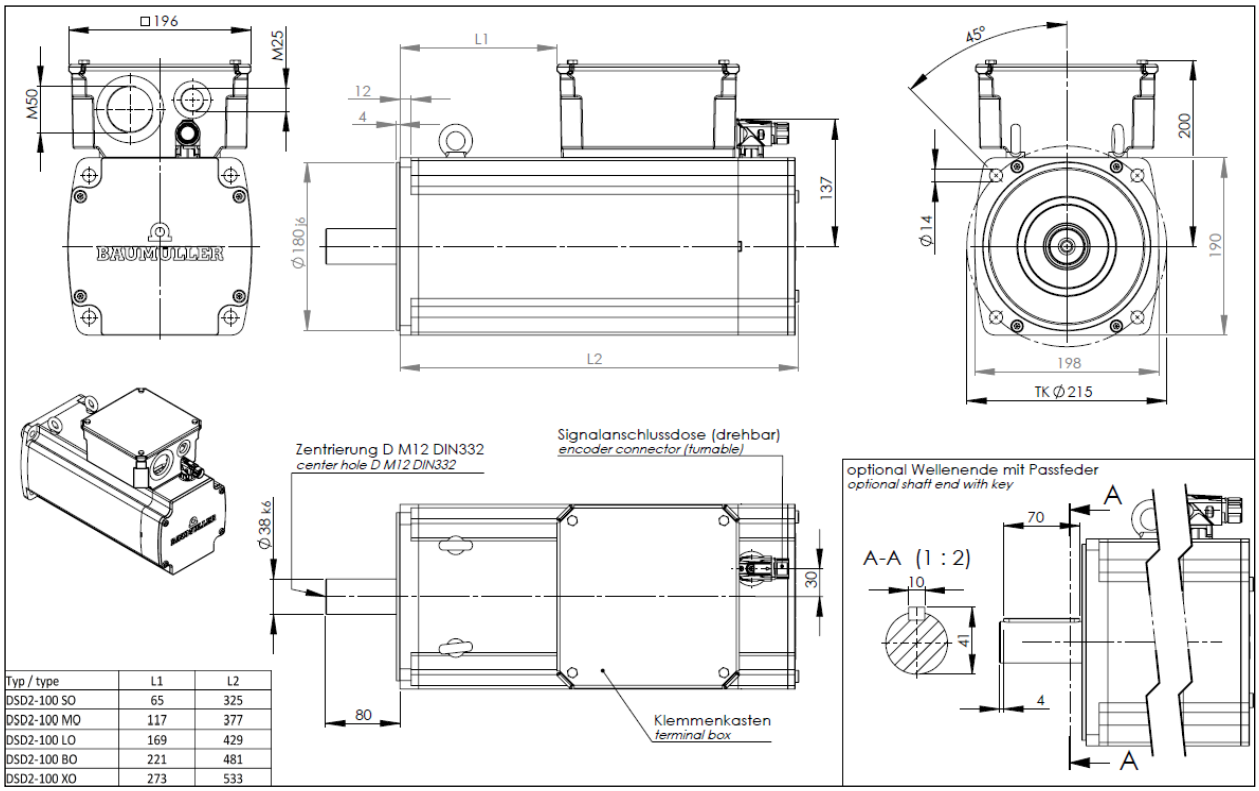
Motorbaulängen / motorsize	L1	L2	L3
DSD2-071 SO	57	273	317
DSD2-071 MO	97	313	357
DSD2-071 LO	137	353	397

Maße ohne Taleranzangabe nach DIN ISO 2768-c
dimensions without tolerance specification according to DIN ISO 2768-c

Technische Änderungen vorbehalten
Subject to technical change

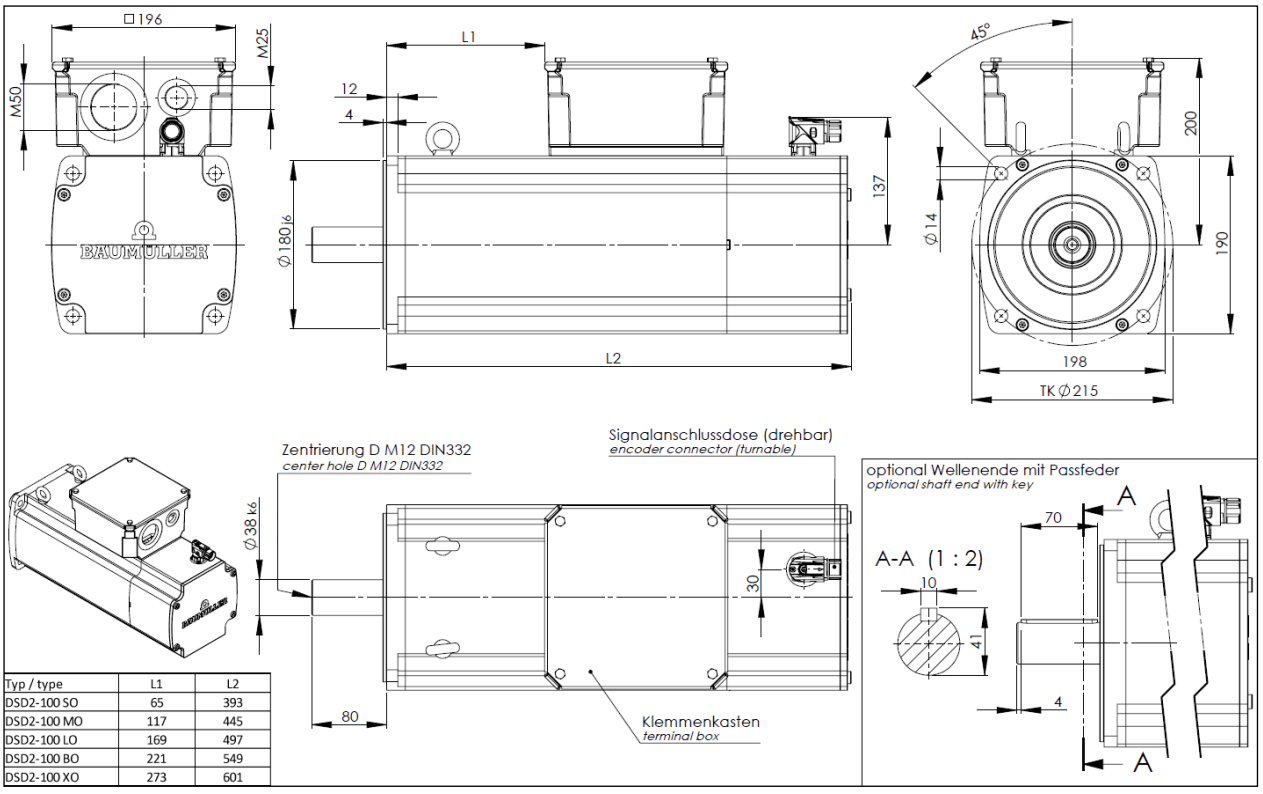
4.6 Dimensional drawings DSD2-100

DSD2-100....U-..-..-.0.-.PP-.-..-0-000	IM B5



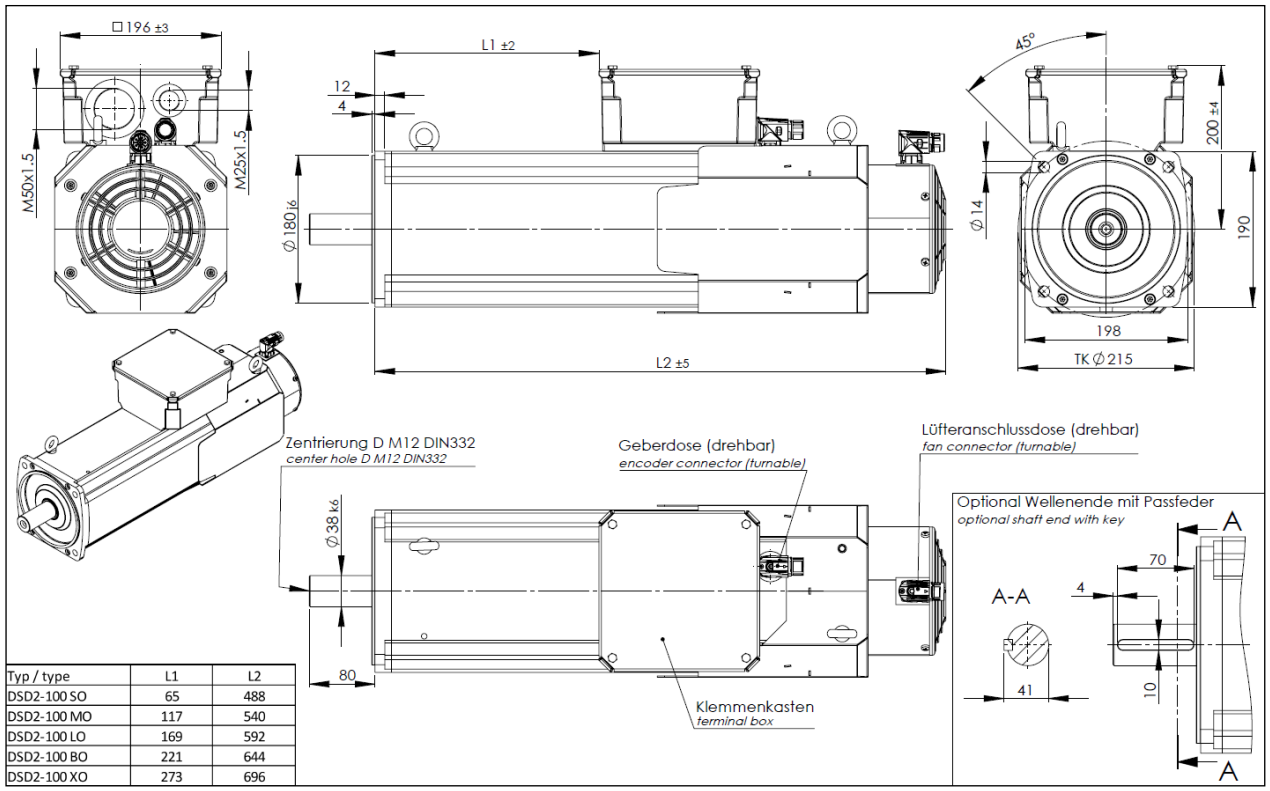
Typ / type	L1	L2
DSD2-100 SO	65	325
DSD2-100 MO	117	377
DSD2-100 LO	169	429
DSD2-100 BO	221	481
DSD2-100 XO	273	533

DSD2-100....U-..-..-.B.-.PP-.-..-0-000	IM B5



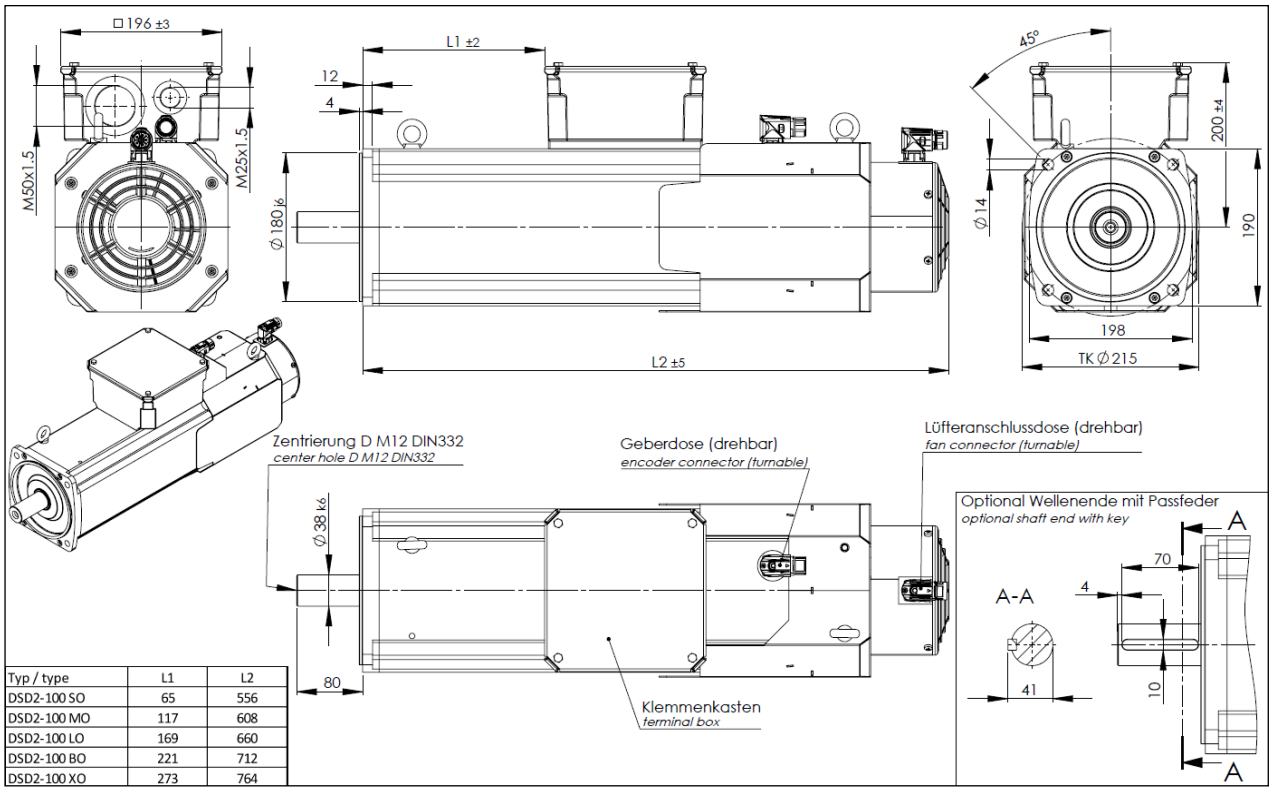
Typ / type	L1	L2
DSD2-100 SO	65	393
DSD2-100 MO	117	445
DSD2-100 LO	169	497
DSD2-100 BO	221	549
DSD2-100 XO	273	601

DSD2-100....0-..-..-.0.-.PP-.-..-0-000	IM B5



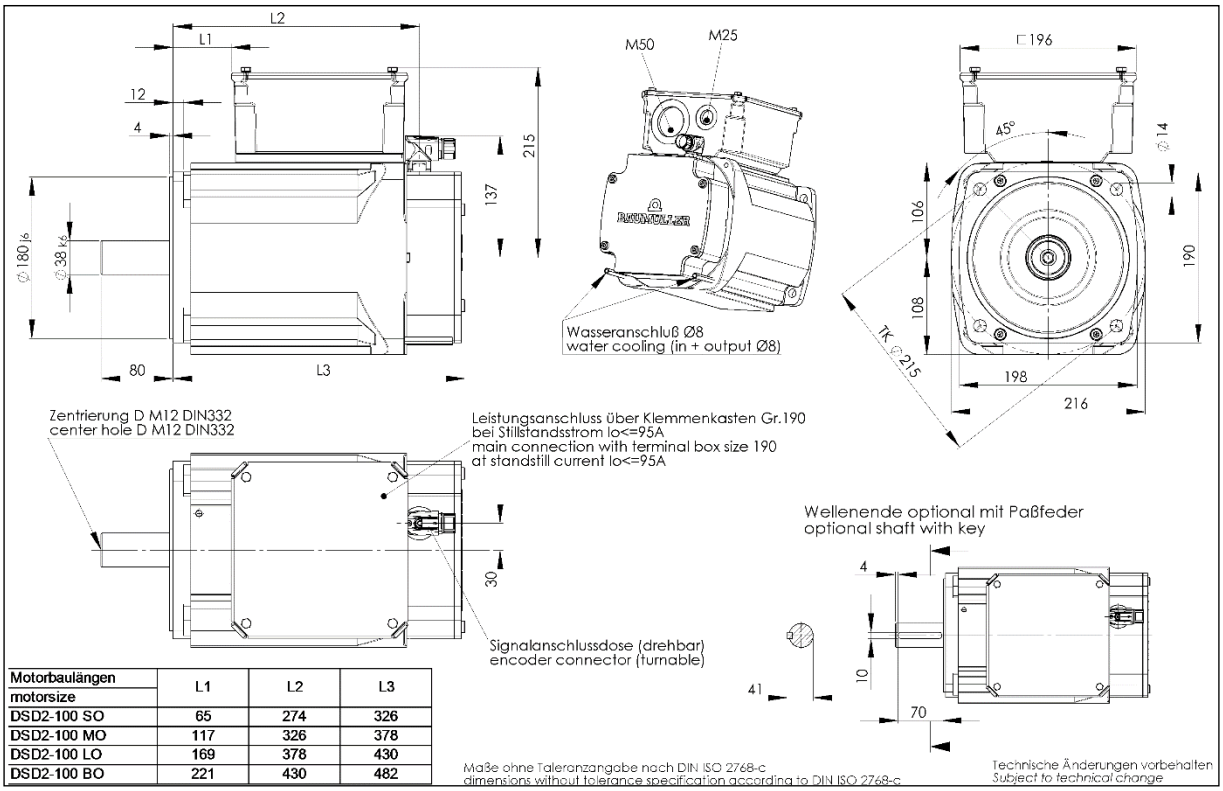
Typ / type	L1	L2
DSD2-100 SO	65	488
DSD2-100 MO	117	540
DSD2-100 LO	169	592
DSD2-100 BO	221	644
DSD2-100 XO	273	696

DSD2-100....0-..-..-.B.-.PP-.-..-0-000	IM B5



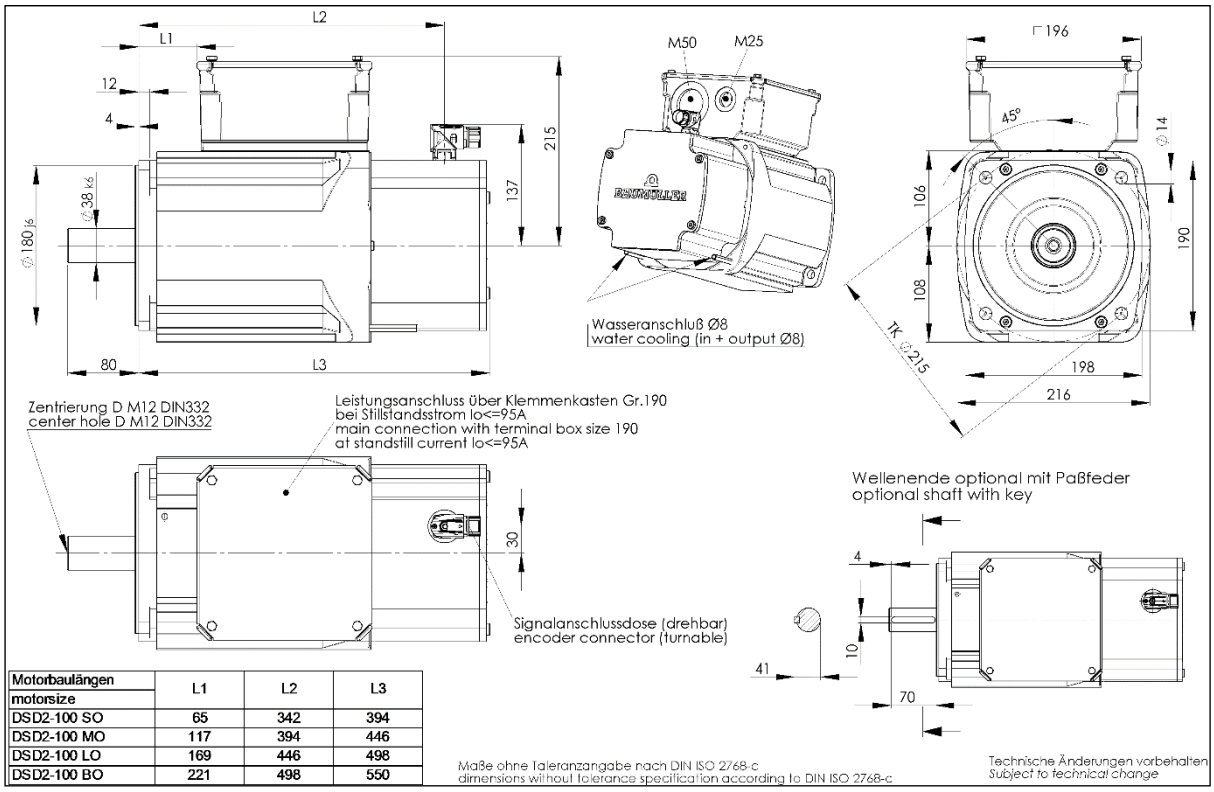
Typ / type	L1	L2
DSD2-100 SO	65	556
DSD2-100 MO	117	608
DSD2-100 LO	169	660
DSD2-100 BO	221	712
DSD2-100 XO	273	764

DSD2-100....W-..-..-.0.-.NP-.-..-0-000	IM B5



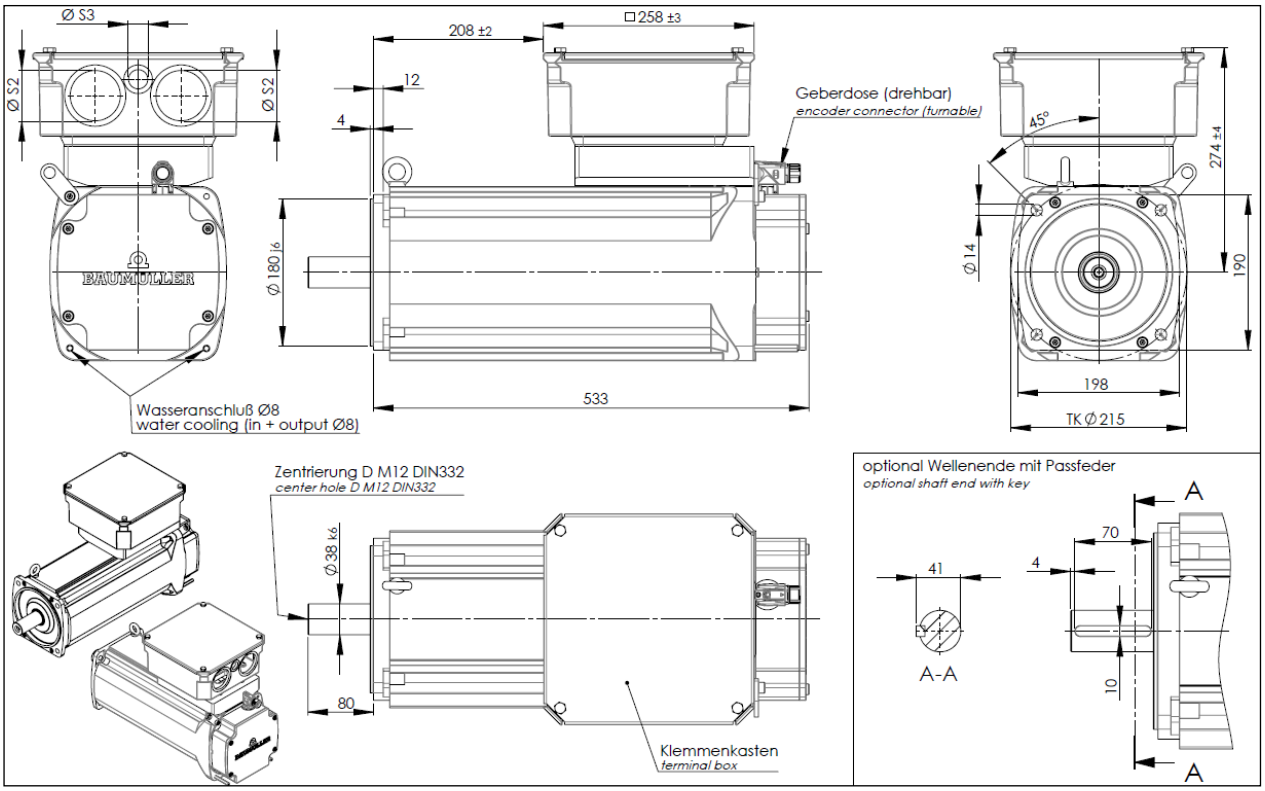
Motorbaulängen / motorsize	L1	L2	L3
DSD2-100 SO	65	274	326
DSD2-100 MO	117	326	378
DSD2-100 LO	169	378	430
DSD2-100 BO	221	430	482

DSD2-100....W-..-..-.B.-.NP-.-..-0-000	IM B5

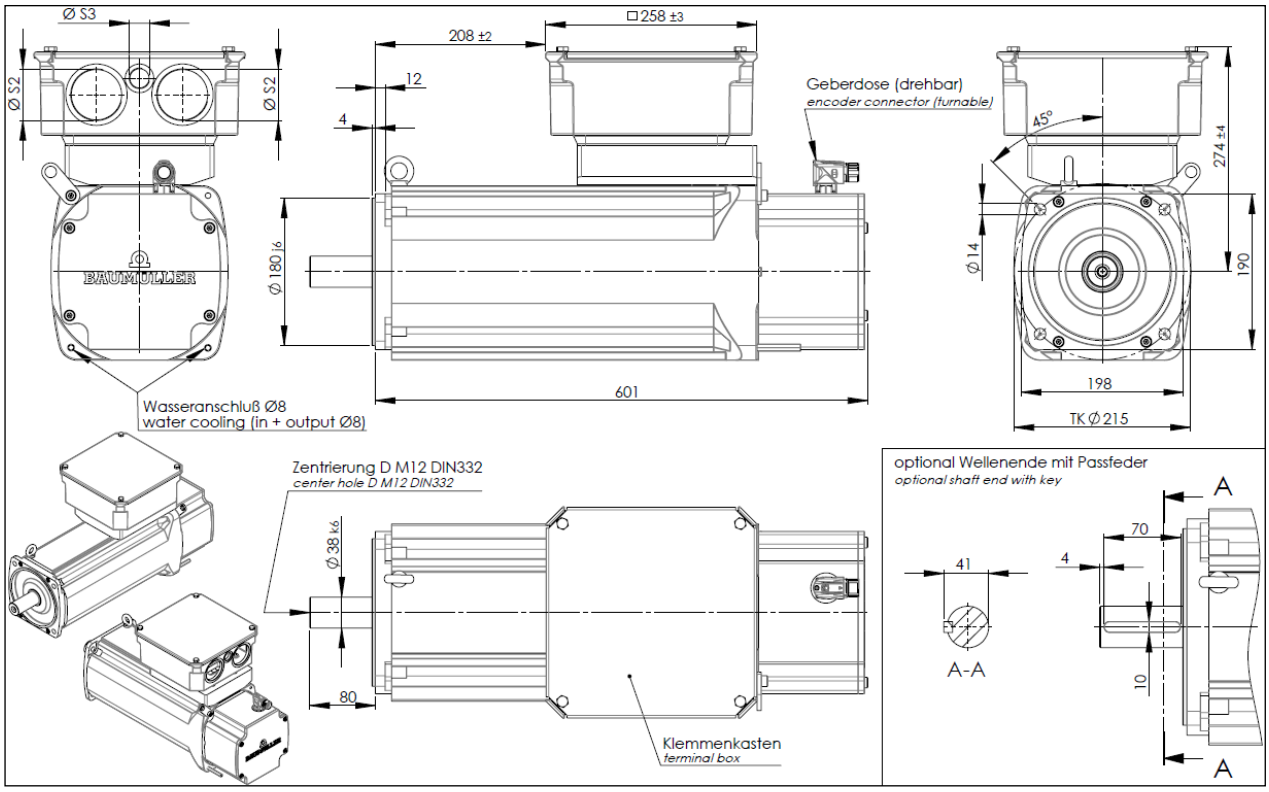


Motorbaulängen / motorsize	L1	L2	L3
DSD2-100 SO	65	342	394
DSD2-100 MO	117	394	446
DSD2-100 LO	169	446	498
DSD2-100 BO	221	498	550

DSD2-100X0..W-..-..-.0.-.NP-.-..-0-000	IM B5

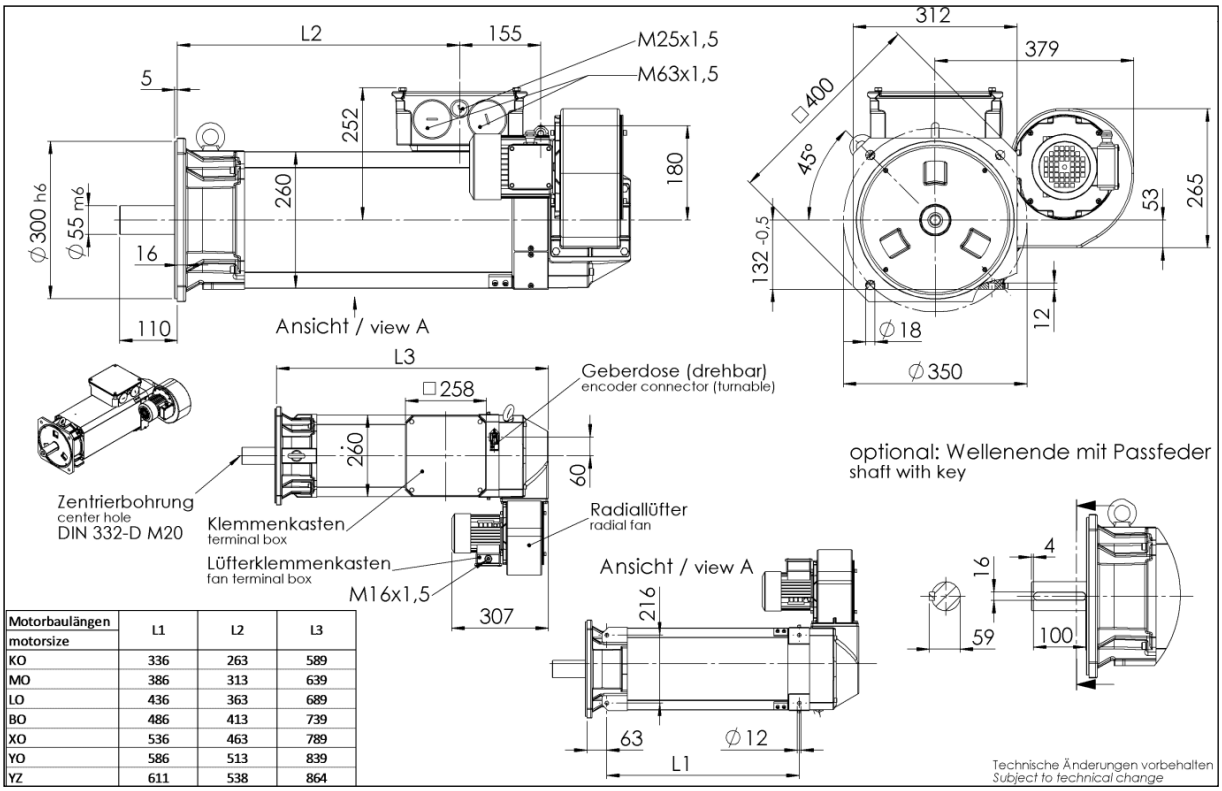


DSD2-100X0..W-..-..-.B.-.NP-.-..-0-000	IM B5



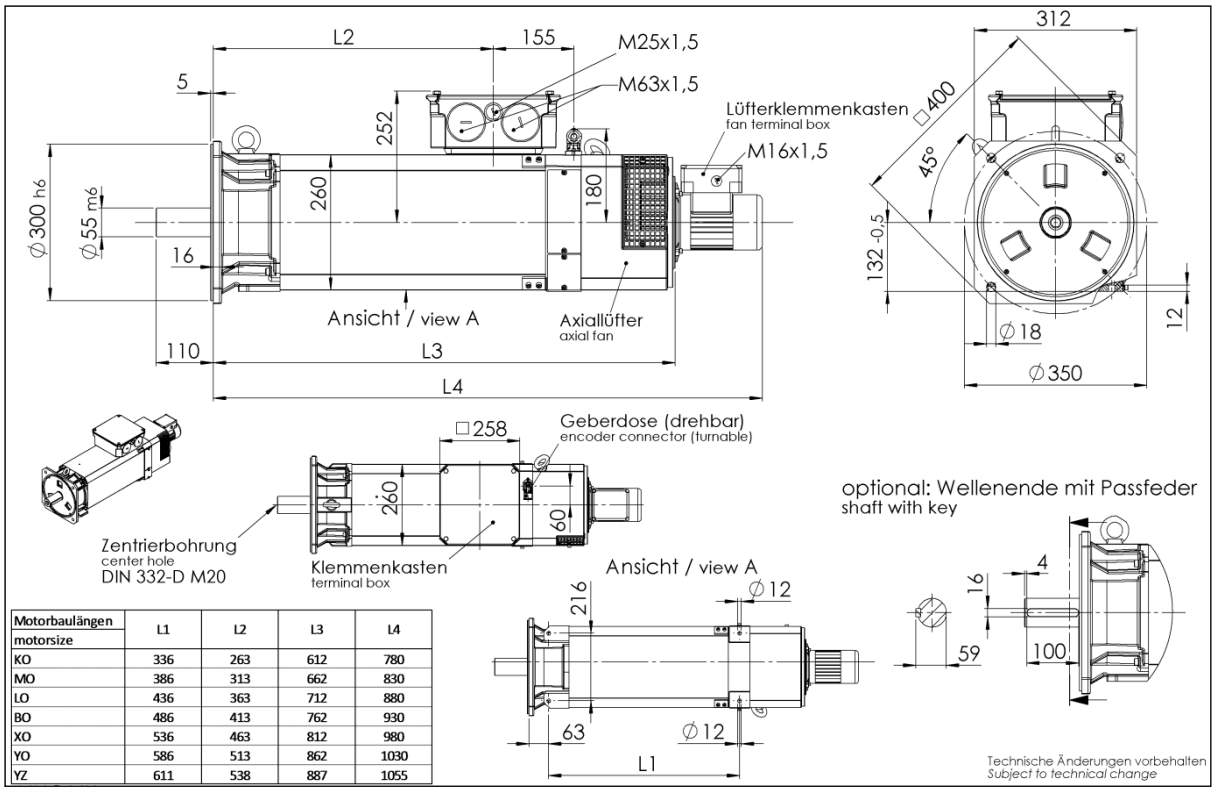
4.7 Dimensional drawings DSD2-132

DSD2-132....R-..-.-.0.-8-.TR-...-R.0-000	IM B35



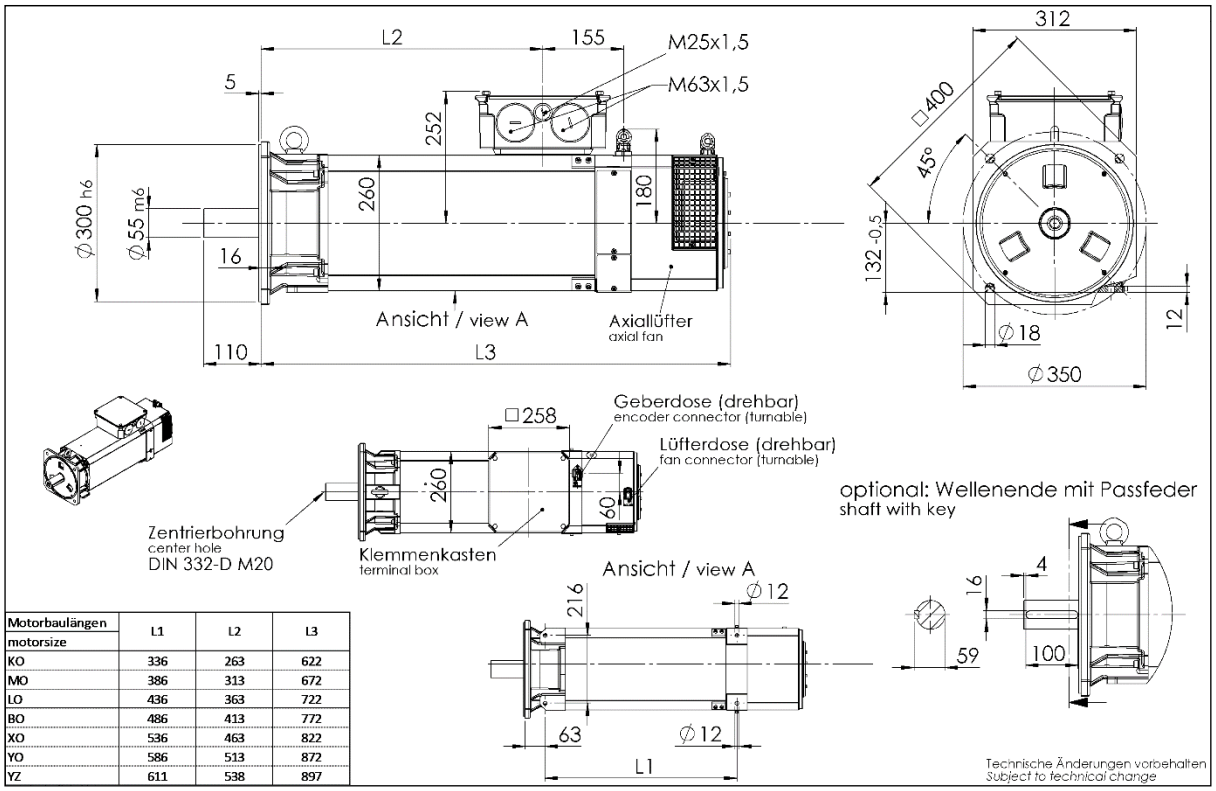
Motorbaulängen motorsize	L1	L2	L3
KO	336	263	589
MO	386	313	639
LO	436	363	689
BO	486	413	739
XO	536	463	789
YO	586	513	839
YZ	611	538	864

DSD2-132....A-..-.-.0.-8-.TR-...-A.0-000	IM B35



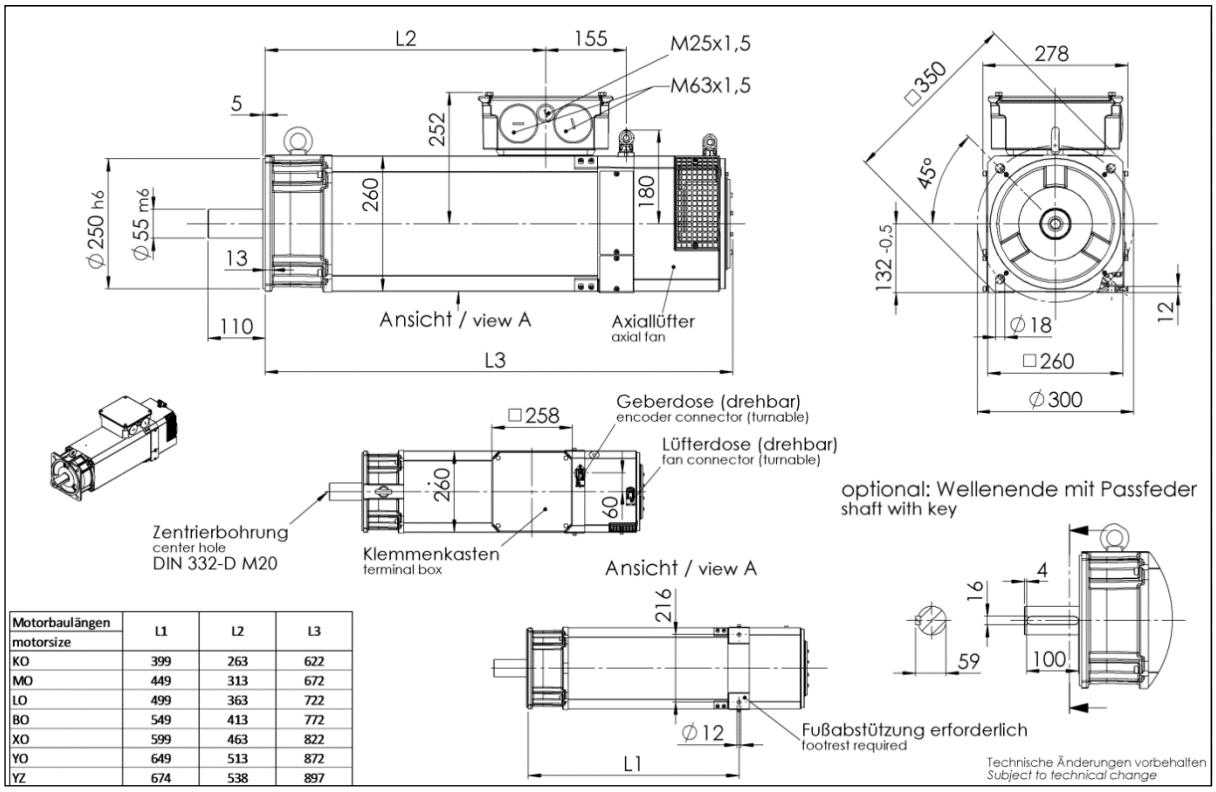
Motorbaulängen motorsize	L1	L2	L3	L4
KO	336	263	612	780
MO	386	313	662	830
LO	436	363	712	880
BO	486	413	762	930
XO	536	463	812	980
YO	586	513	862	1030
YZ	611	538	887	1055

DSD2-132....I-..-.-.0.-8-.TR-...-A.0-000	IM B35



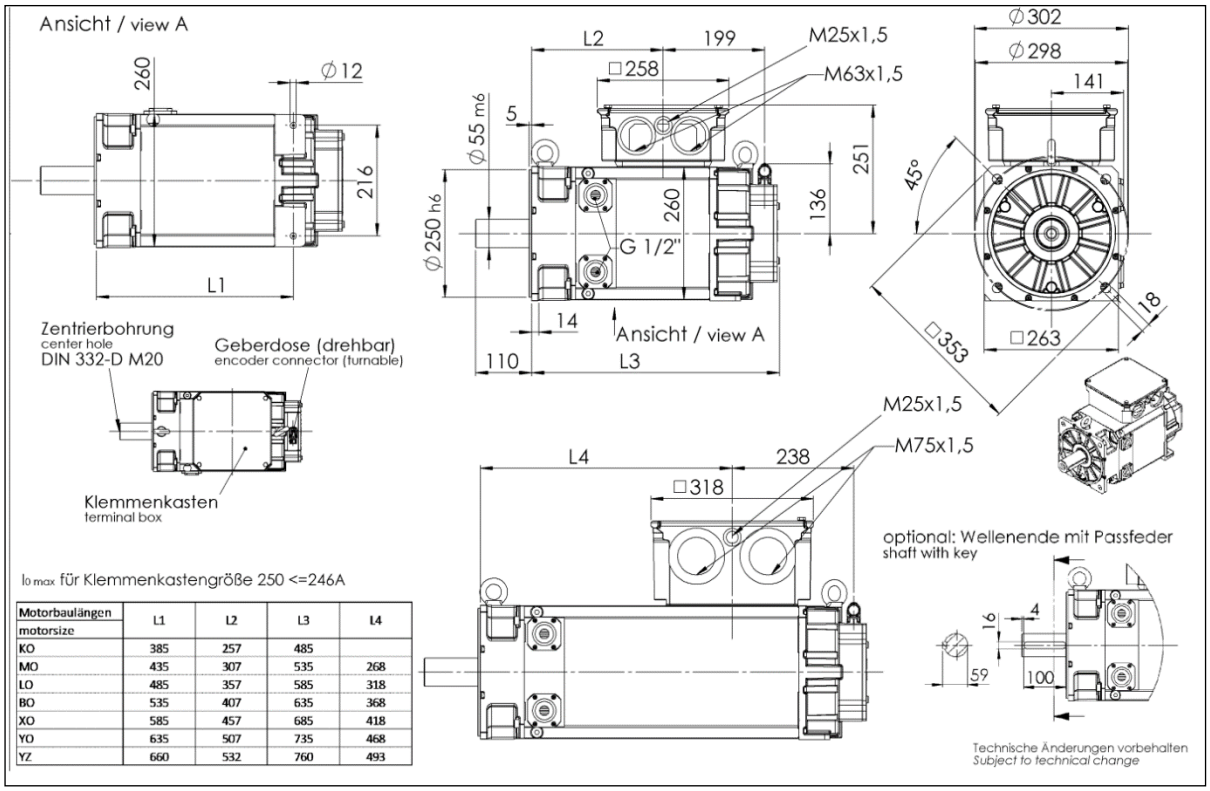
Motorbaulängen / motorsize	L1	L2	L3
KO	336	263	622
MO	386	313	672
LO	436	363	722
BO	486	413	772
XO	536	463	822
YO	586	513	872
YZ	611	538	897

DSD2-132....I-..-.-.0.-7-.TR-...-A.0-000	IM B35



Motorbaulängen / motorsize	L1	L2	L3
KO	399	263	622
MO	449	313	672
LO	499	363	722
BO	549	413	772
XO	599	463	822
YO	649	513	872
YZ	674	538	897

DSD2-132....W-..-.-.0-2-.TR-...-A-0-000	IM B5*



$I_{0\,max}$ für Klemmenkastengröße 250 <=246A

Motorbaulängen motorsize	L1	L2	L3	L4
KO	385	257	485	
MO	435	307	535	268
LO	485	357	585	318
BO	535	407	635	368
XO	585	457	685	418
YO	635	507	735	468
YZ	660	532	760	493

* ab Baulänge BO wird die B-seitige Fußunterstützung benötigt	* for motor length BO and longer the B-side needs to be supported by feet

5. Motor characteristics

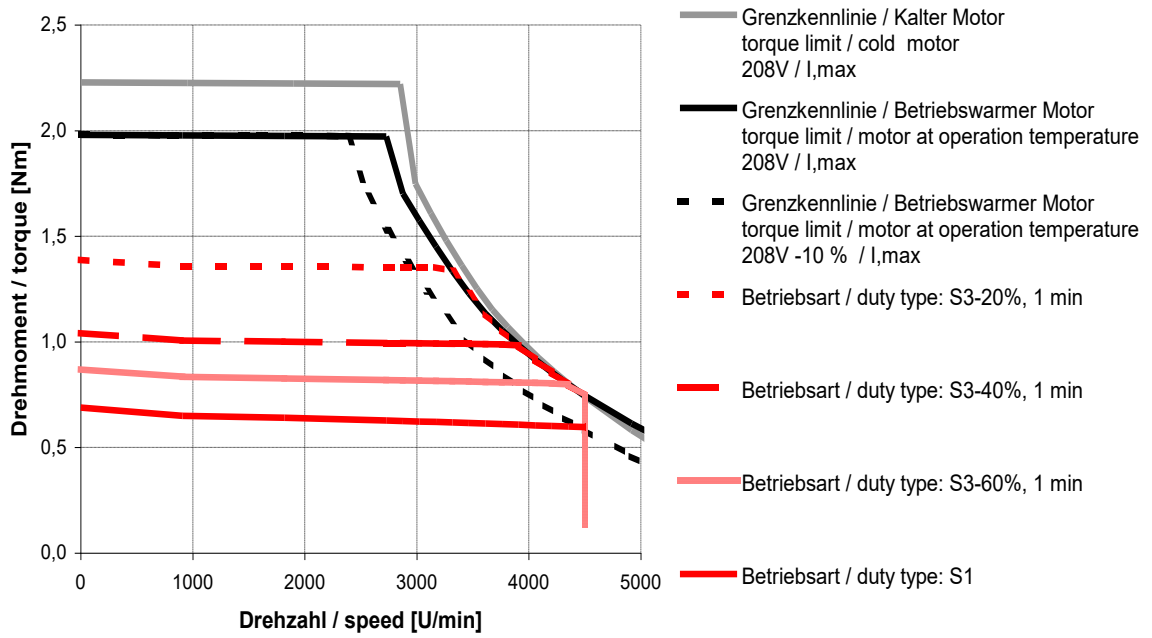
Definition:

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)

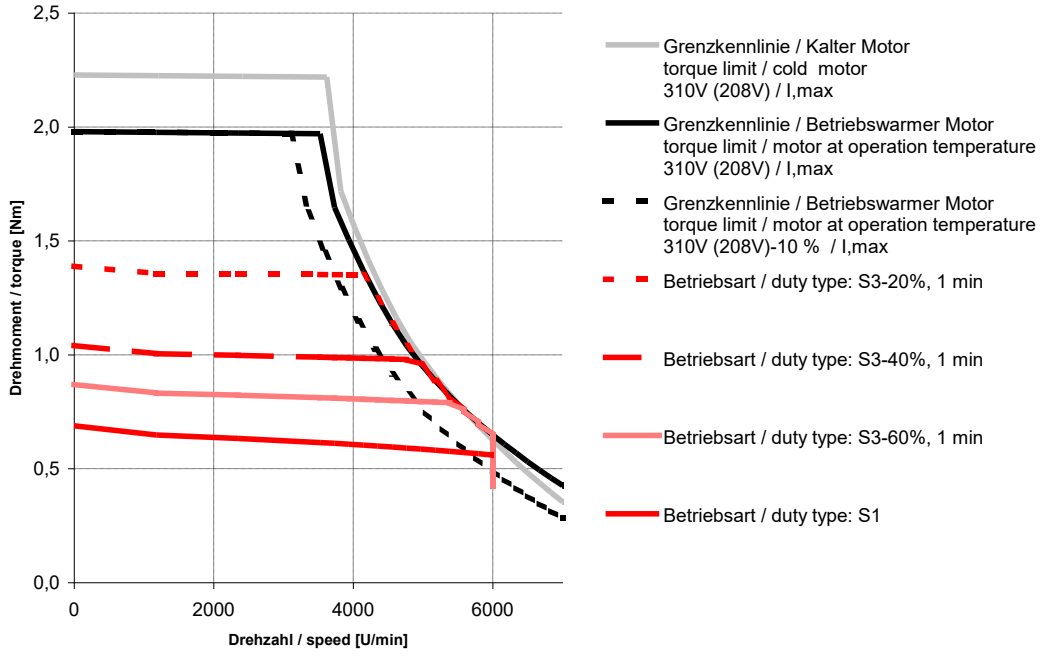
5.1 Characteristics DSD2-028

5.1.1 DSD2-028..44U-..-31

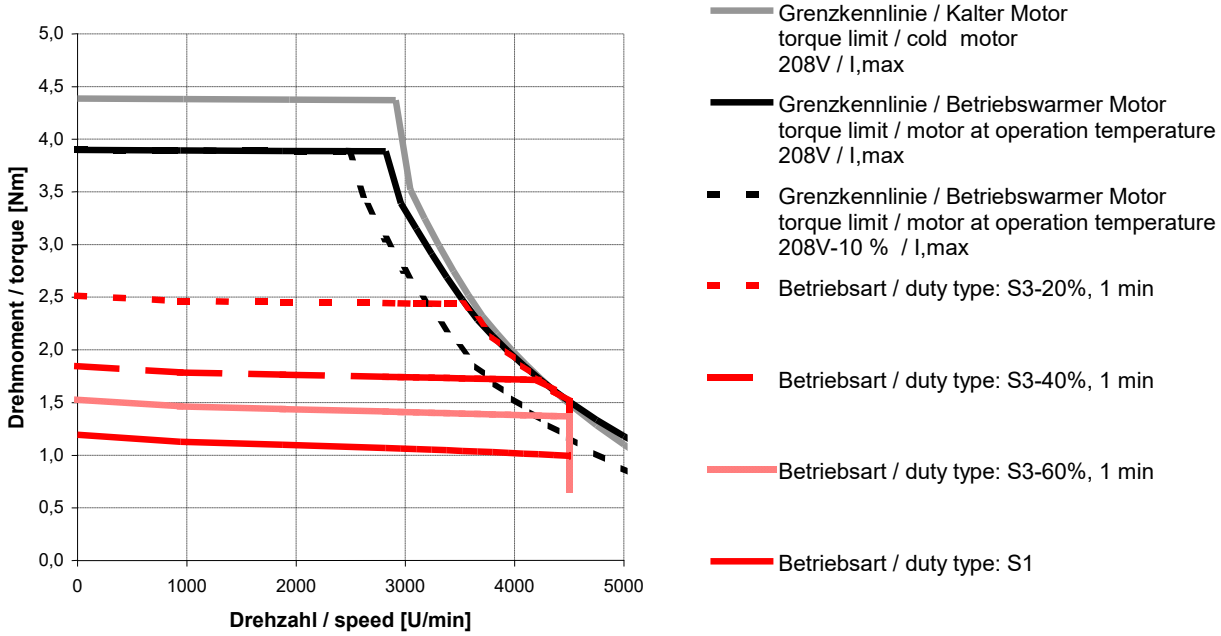
DSD2-028SO44U-45-31



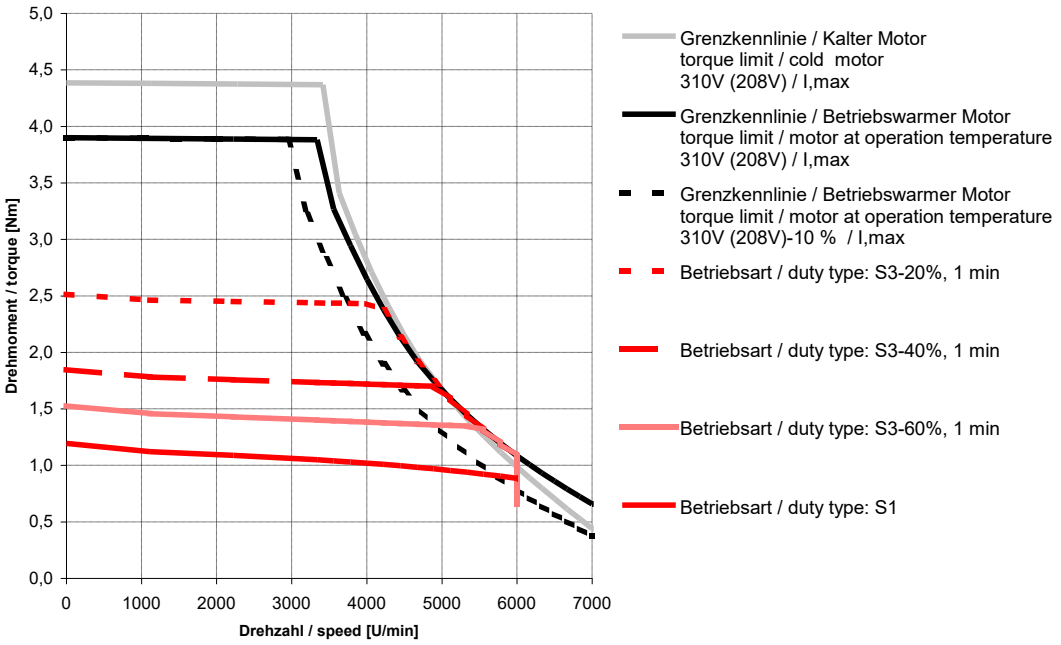
DSD2-028S044U-60-31



DSD2-028M044U-45-31

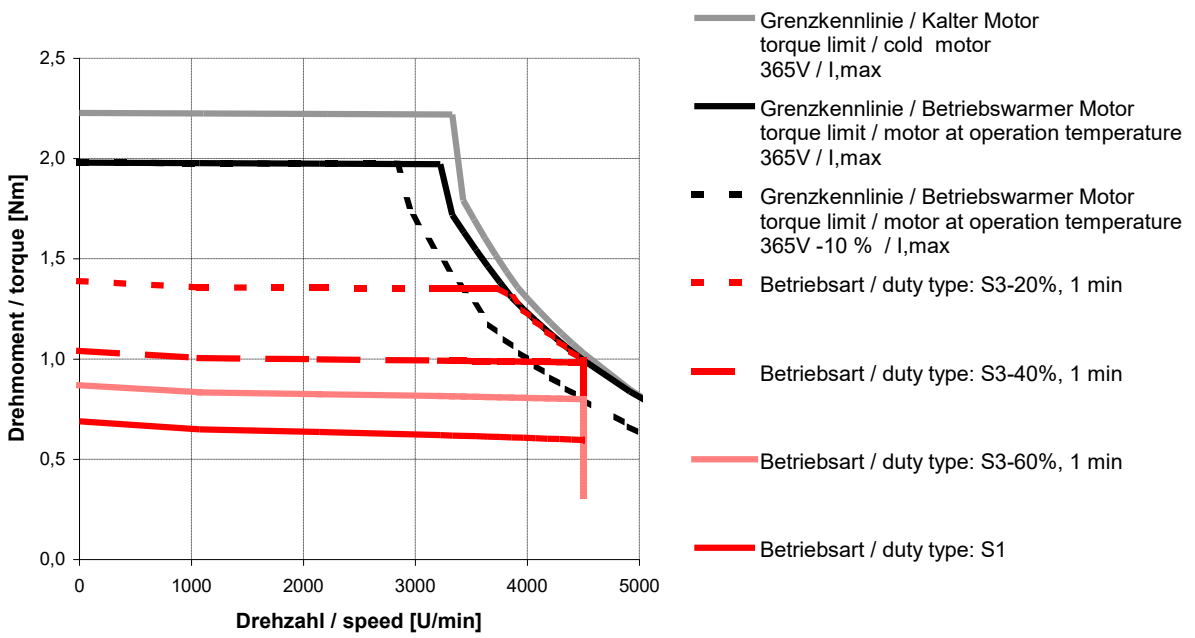


DSD2-028M044U-60-31

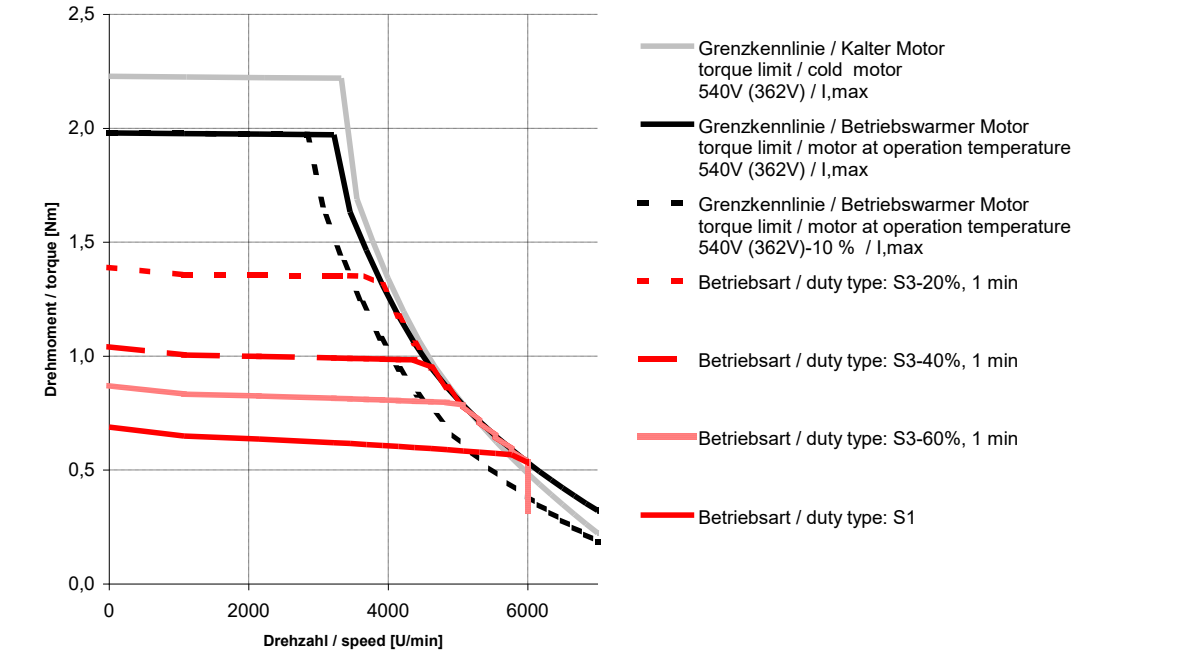


5.1.2 DSD2-028..44U-..-54

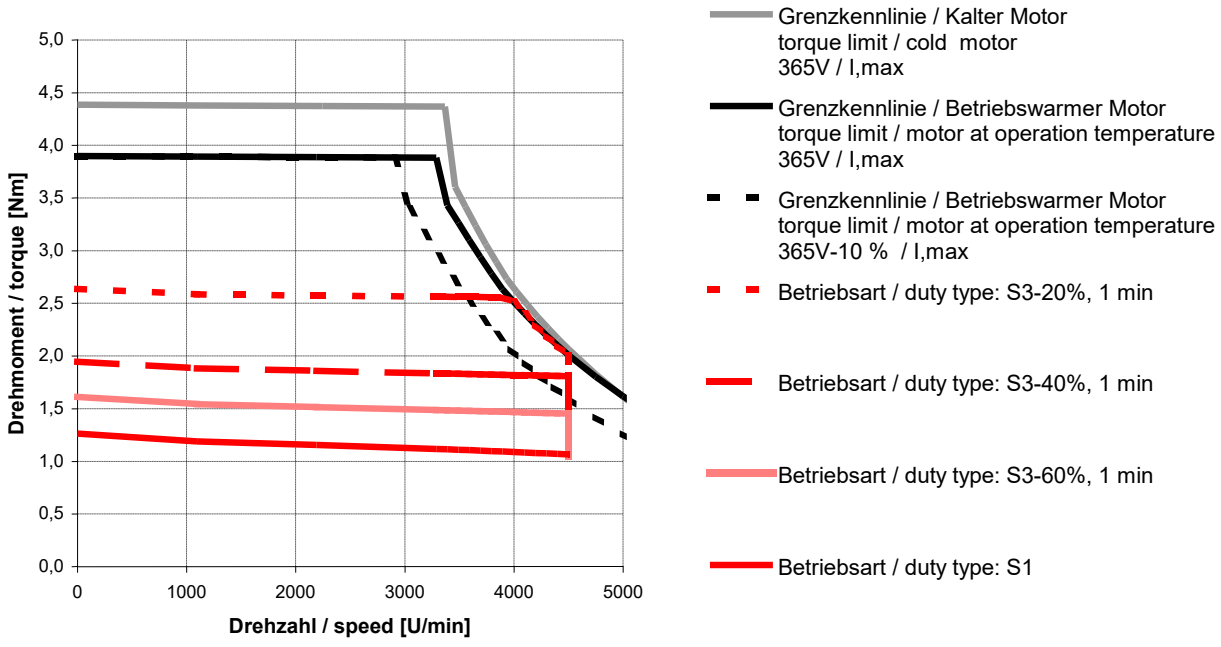
DSD2-028S044U-45-54



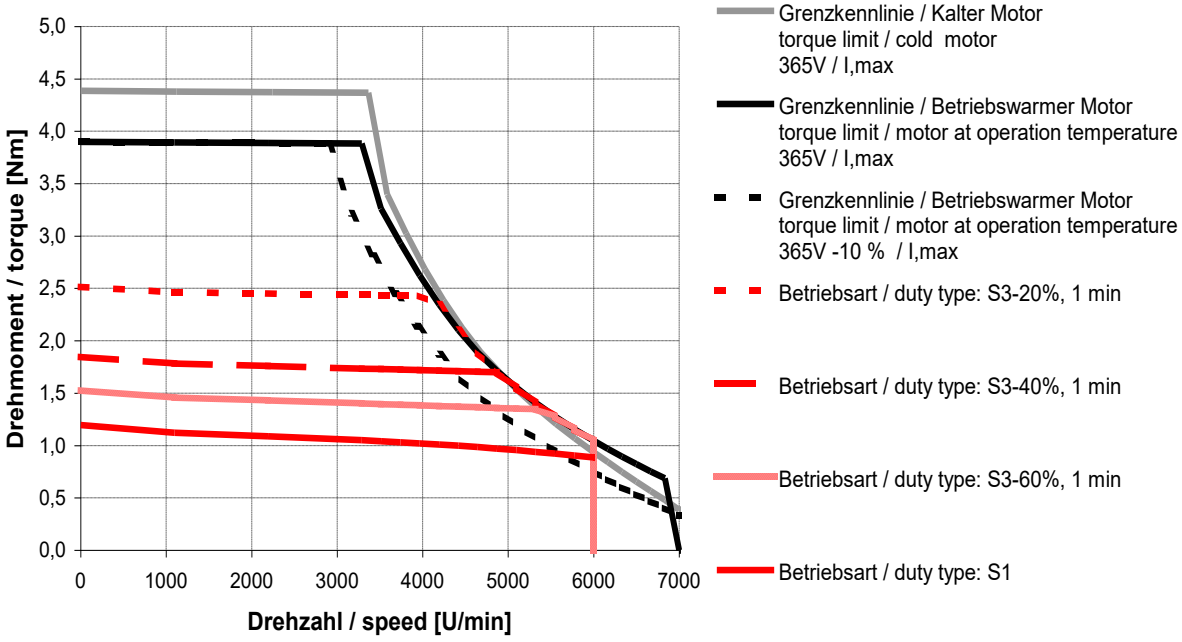
DSD2-028S044U-60-54



DSD2-028M044U-45-54



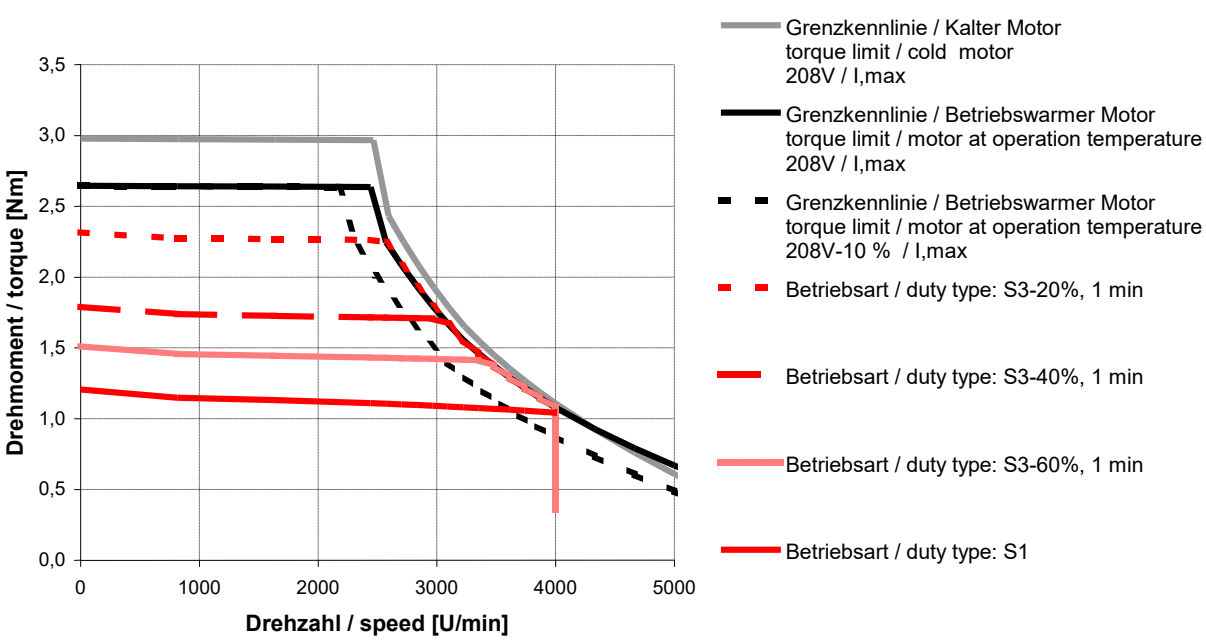
DSD2-028M044U-60-54



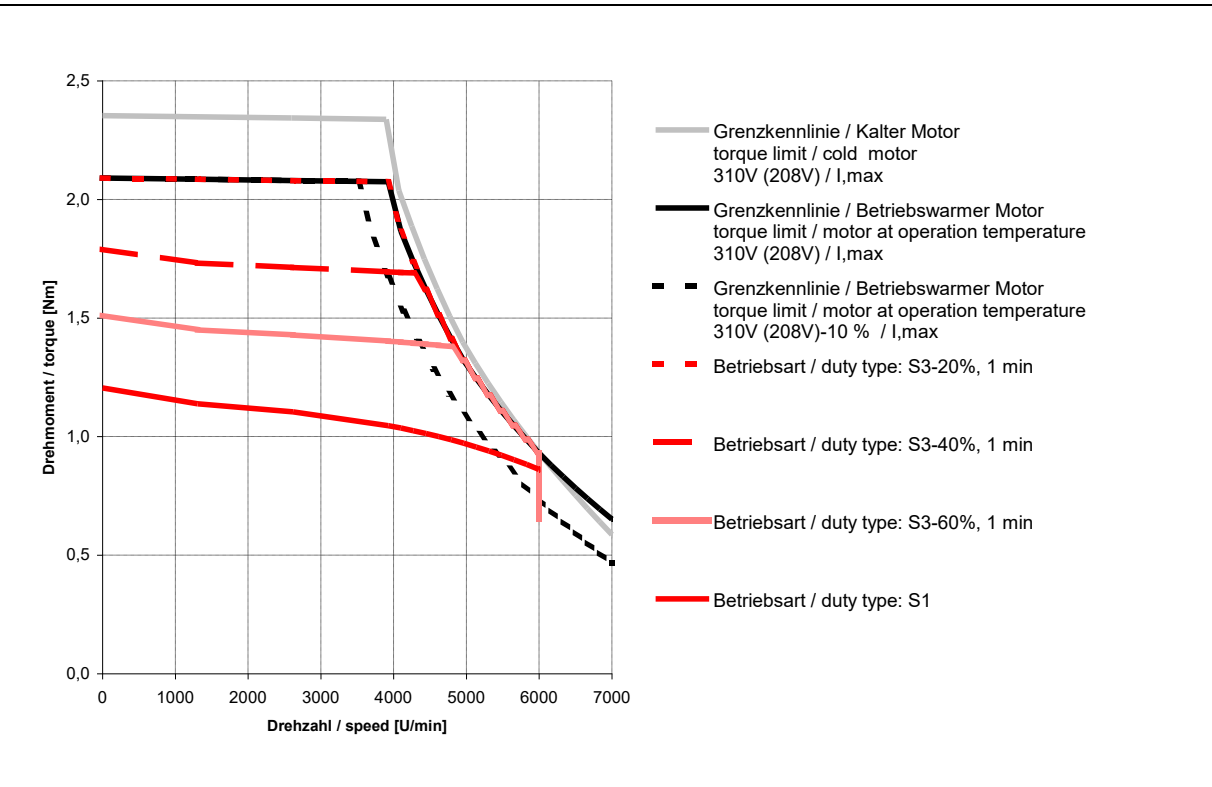
5.2 Characteristics DSD2-036

5.2.1 DSD2-036..44U-..-31

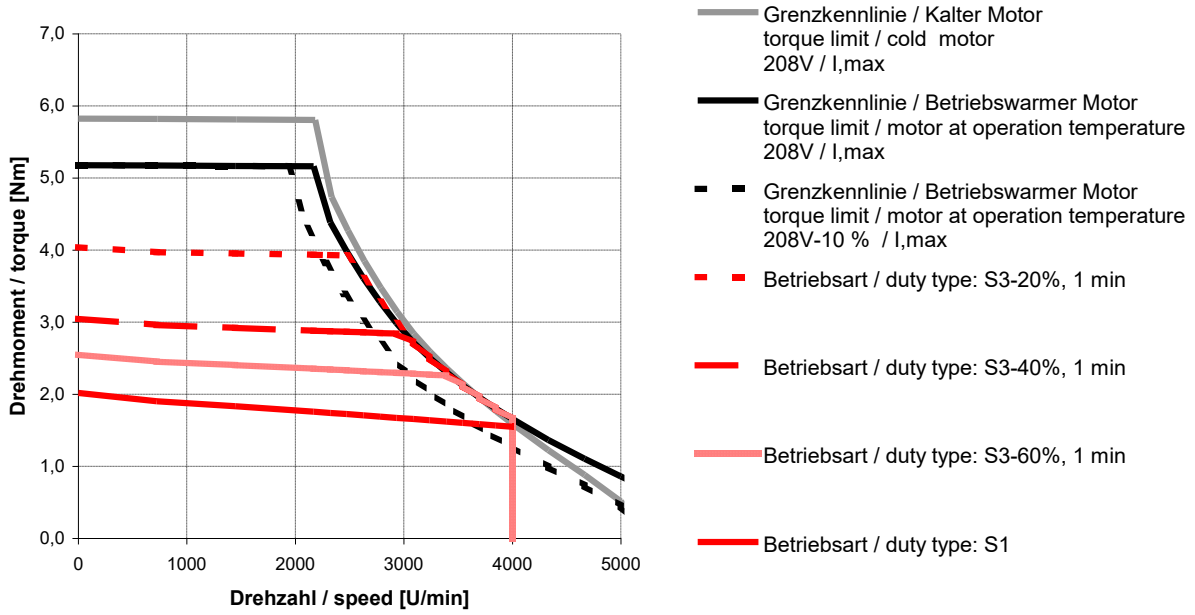
DSD2-036SO44U-40-31



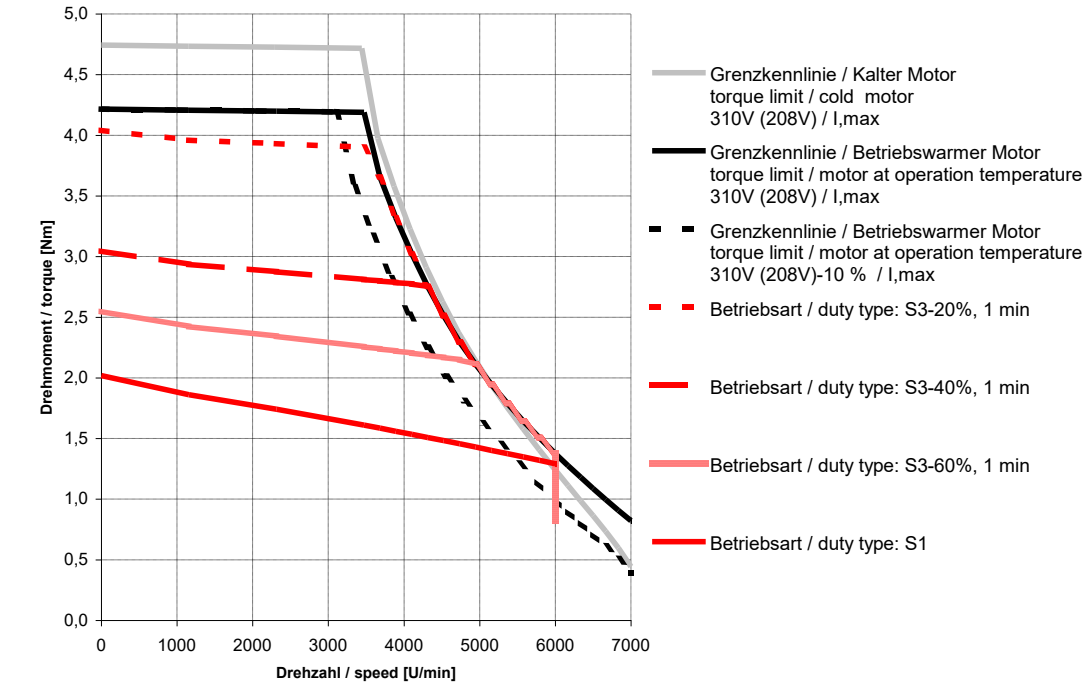
DSD2-036SO44U-60-31



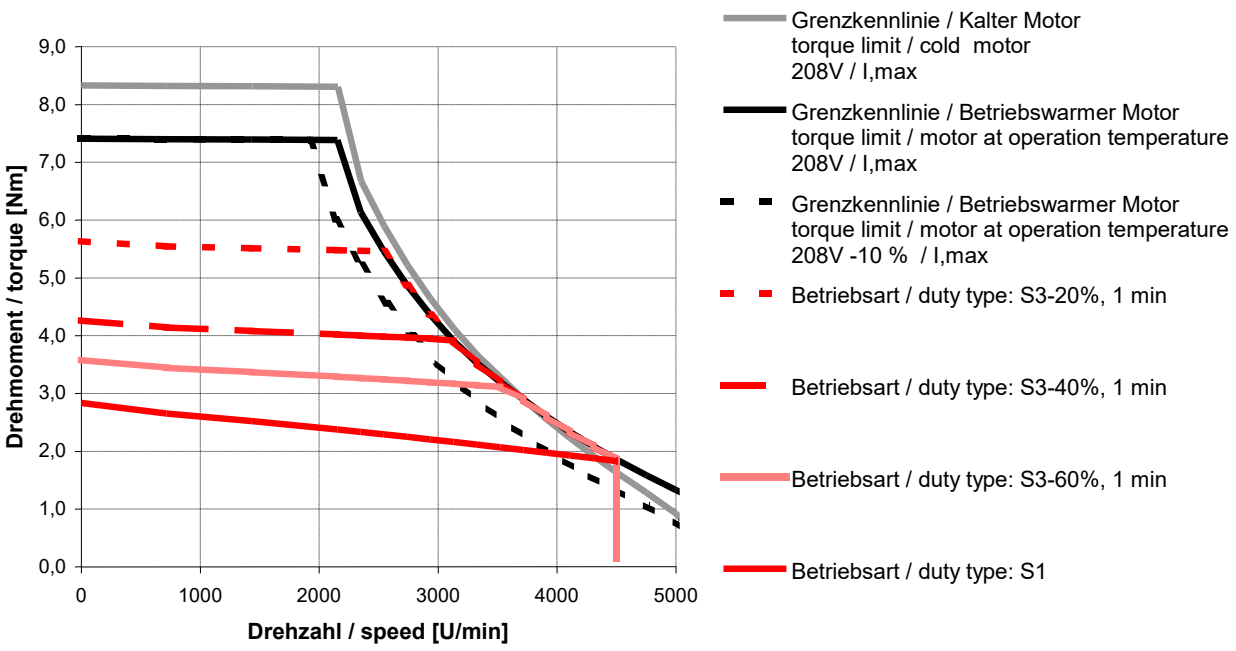
DSD2-036M044U-40-31



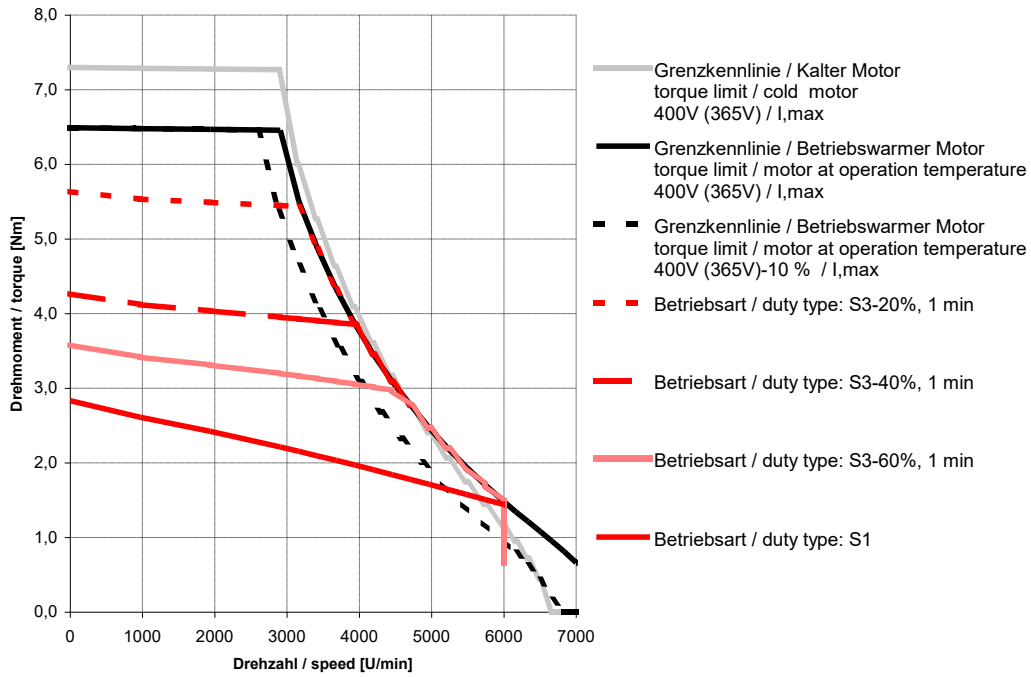
DSD2-036M044U-60-31



DSD2-036L044U-45-31

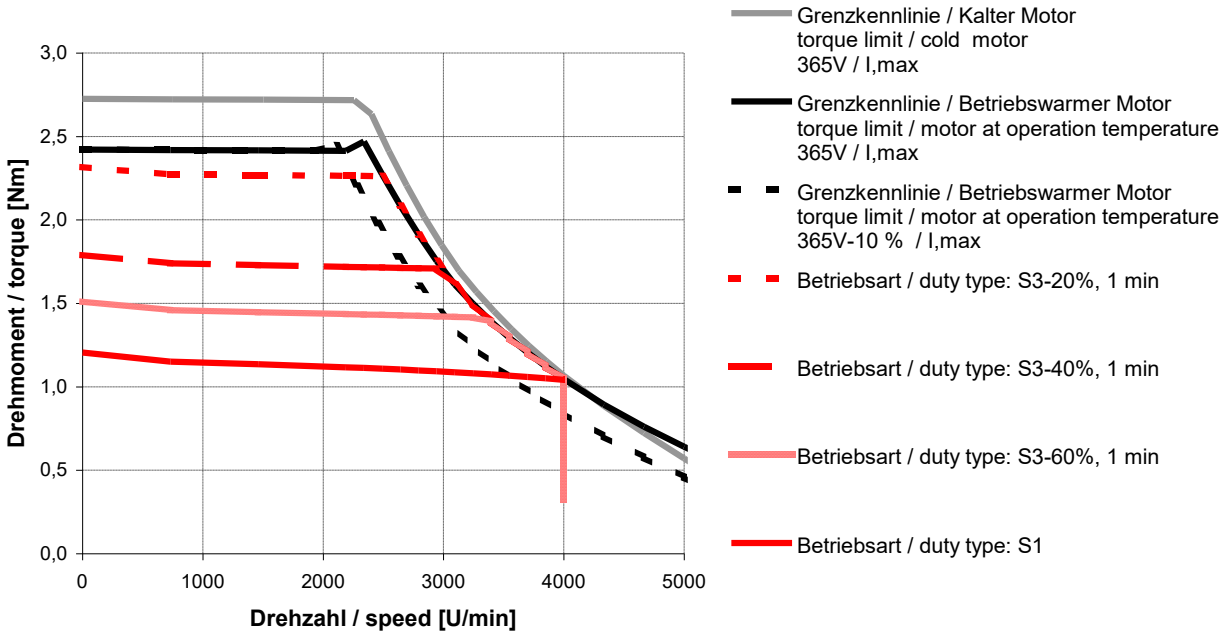


DSD2-036L044U-60-31

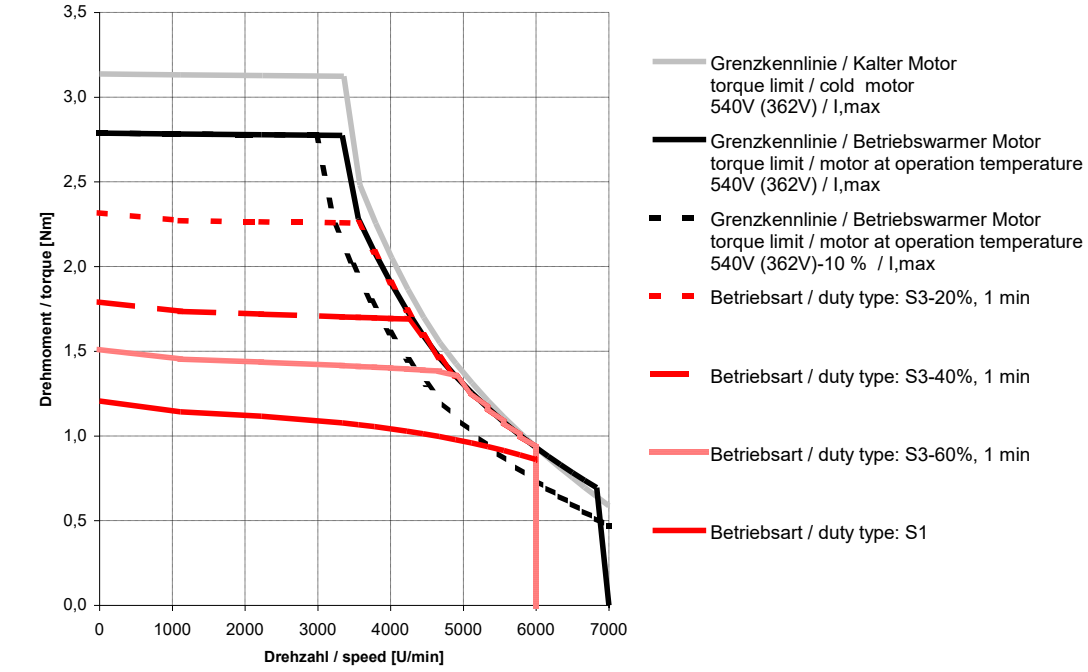


5.2.2 DSD2-036..44U-..-54

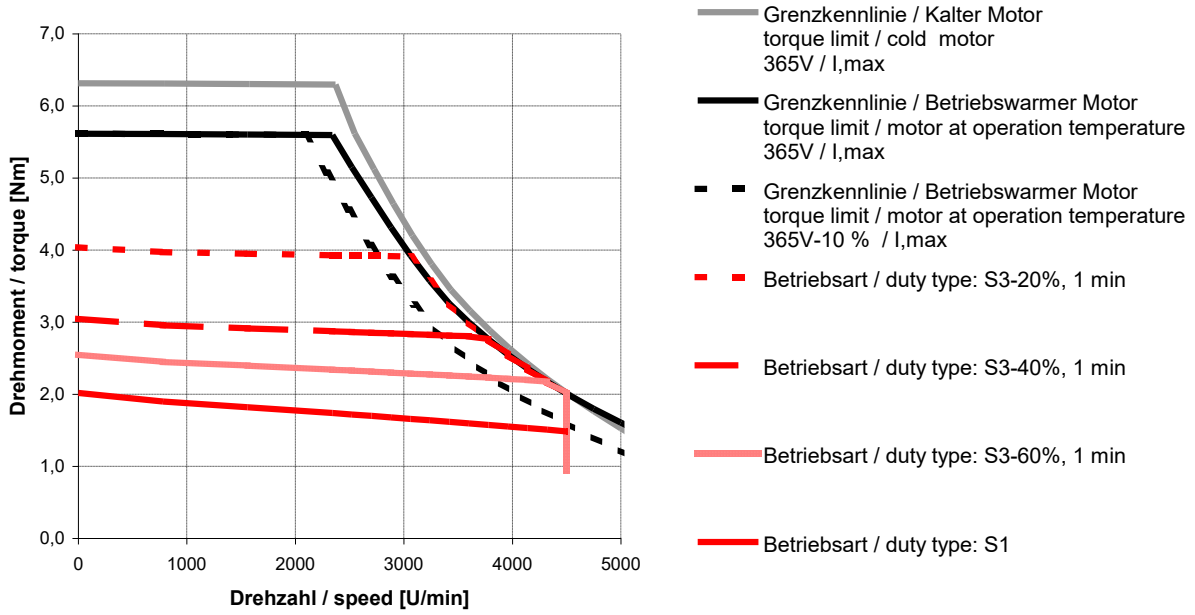
DSD2-036S044U-40-54



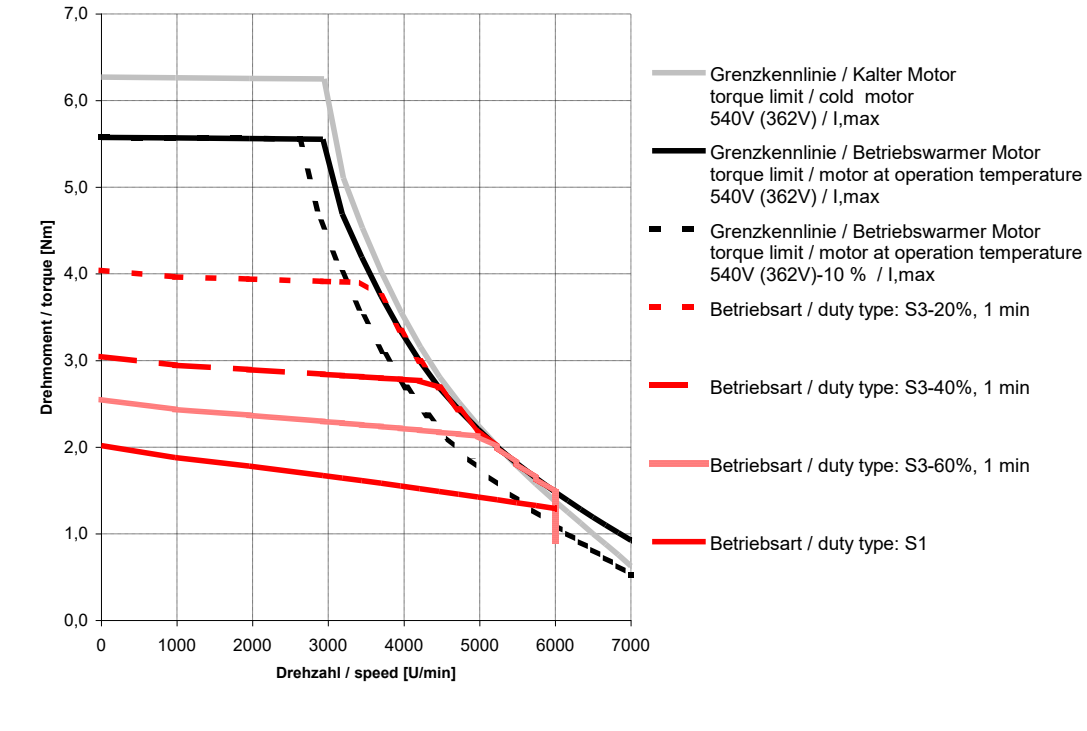
DSD2-036S044U-60-54



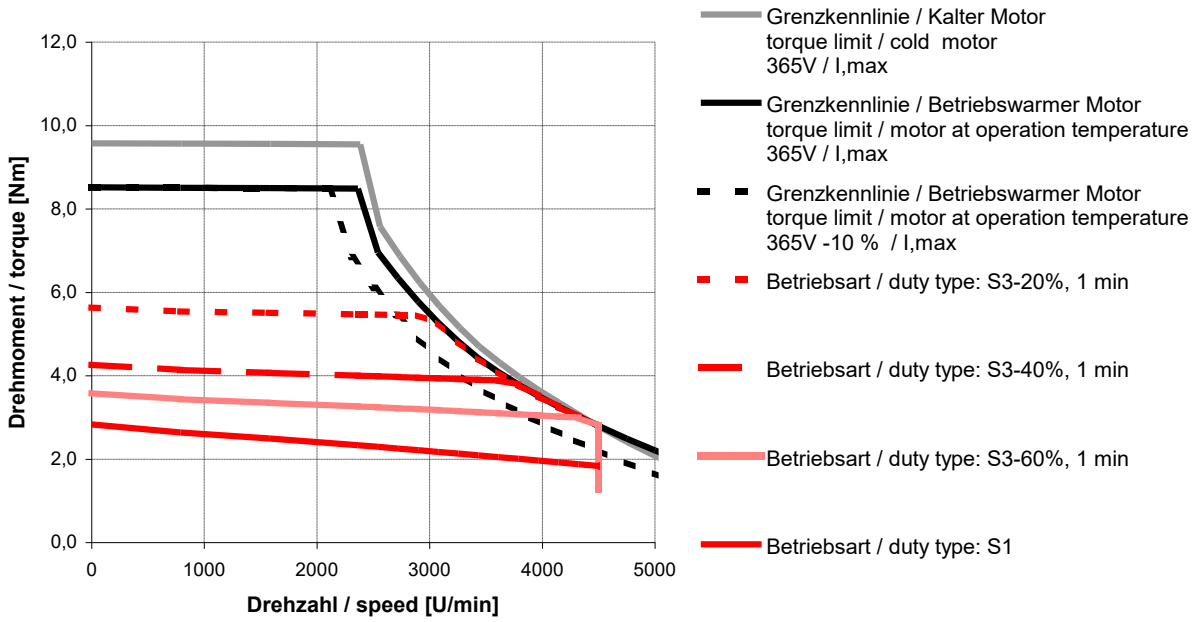
DSD2-036M044U-45-54



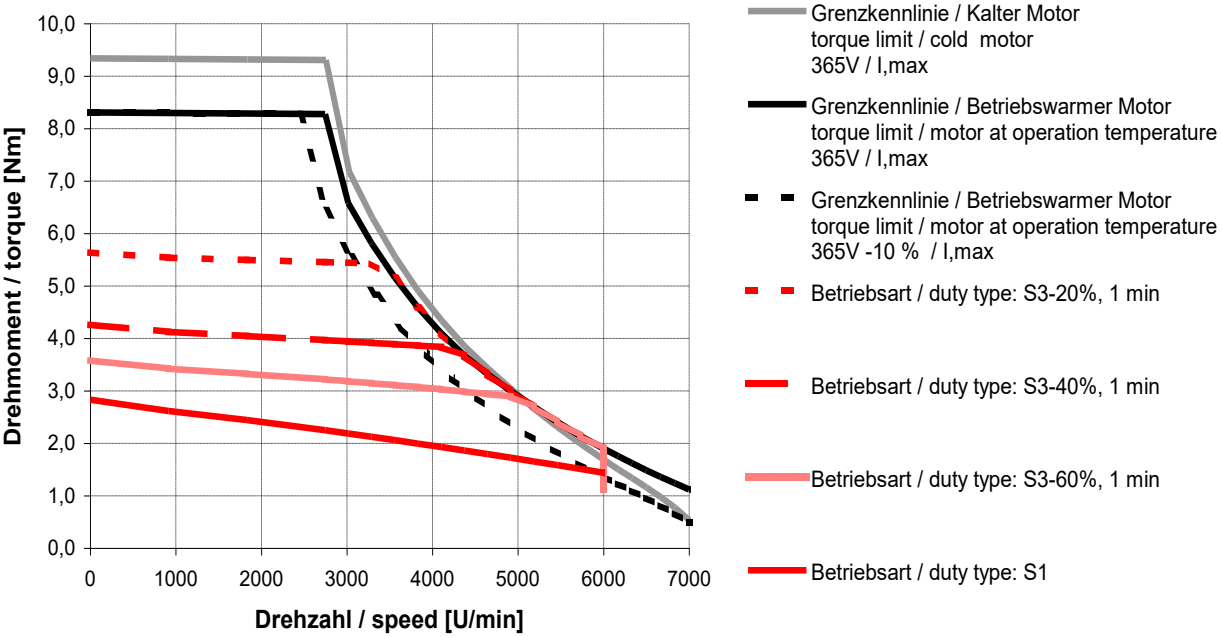
DSD2-036M044U-60-54



DSD2-036L044U-45-54



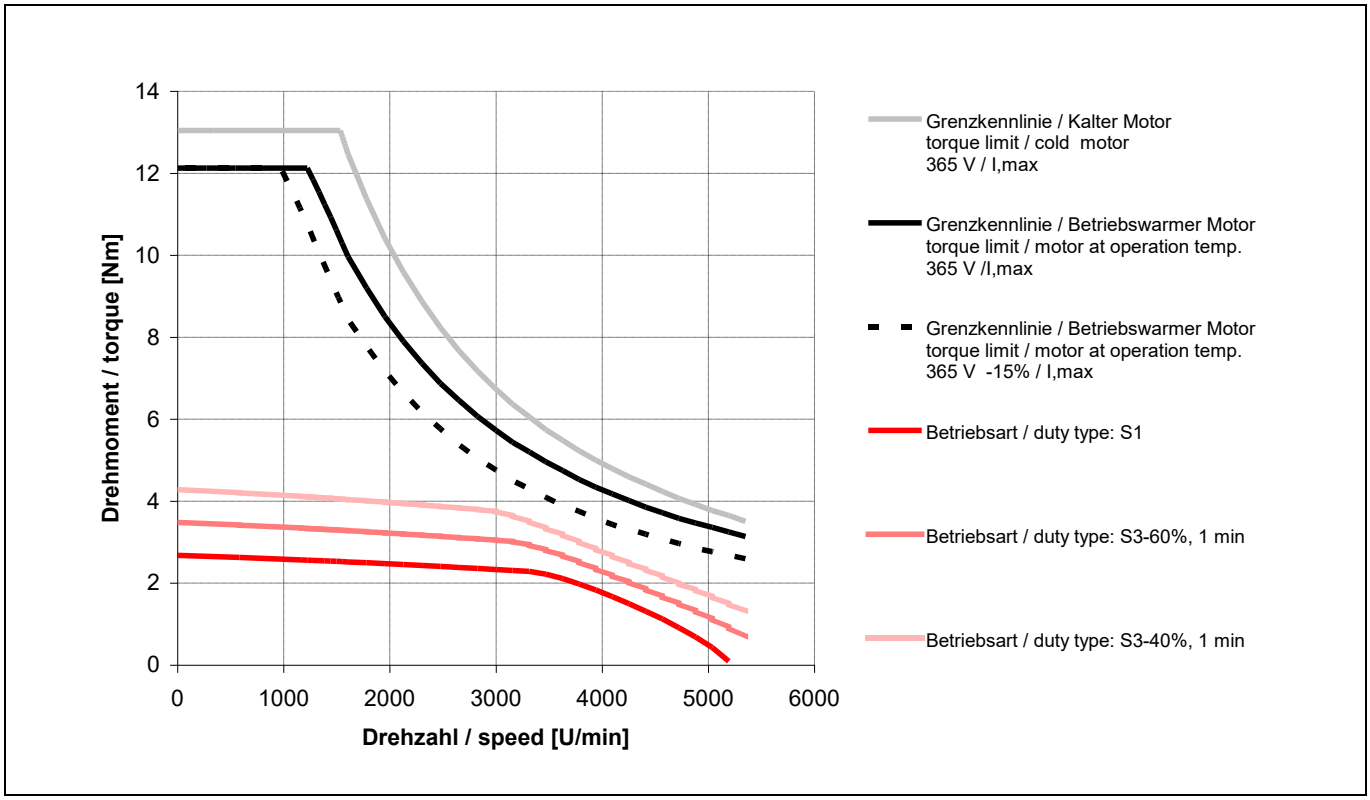
DSD2-036L044U-60-54



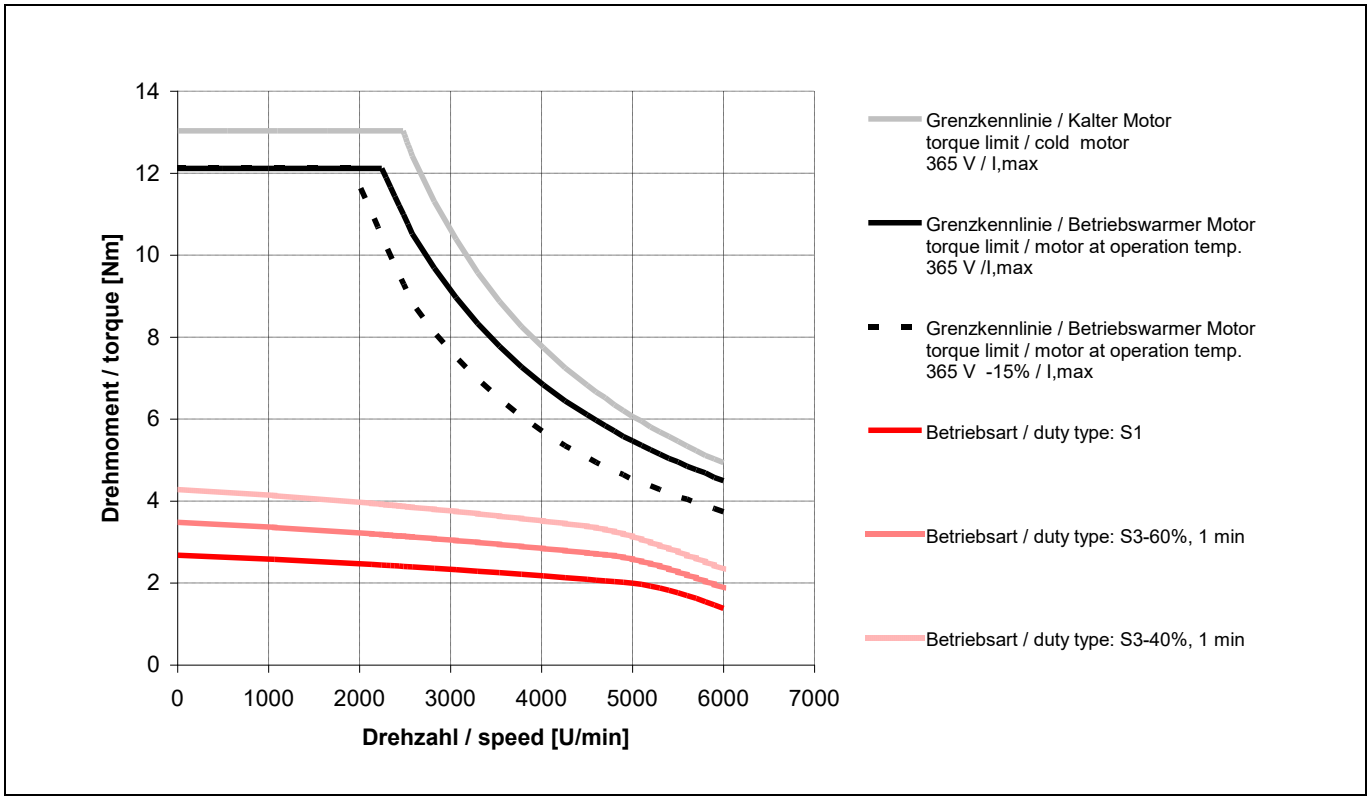
5.3 Characteristics DSD2-045

5.3.1 DSD2-045..64U-..

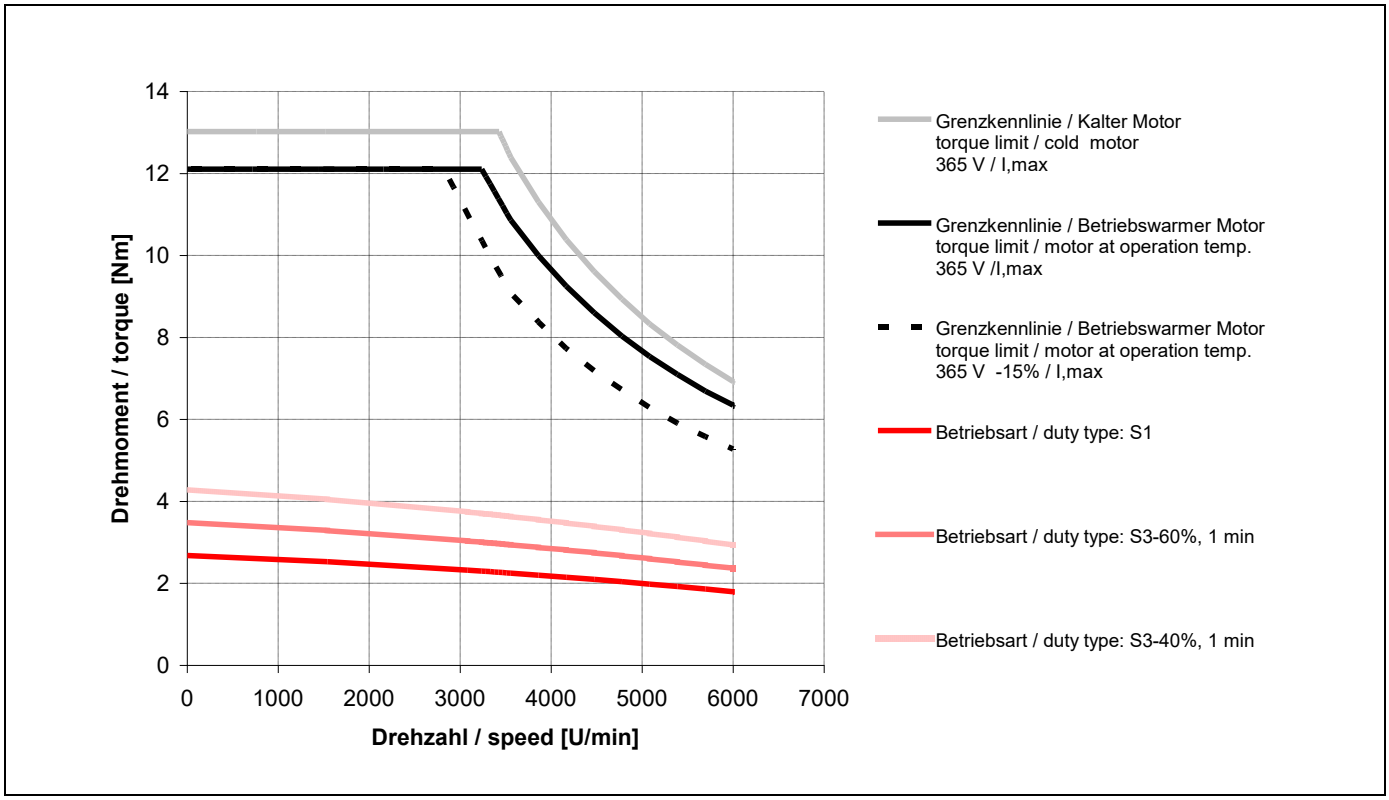
DSD2-045SO64U-30-54



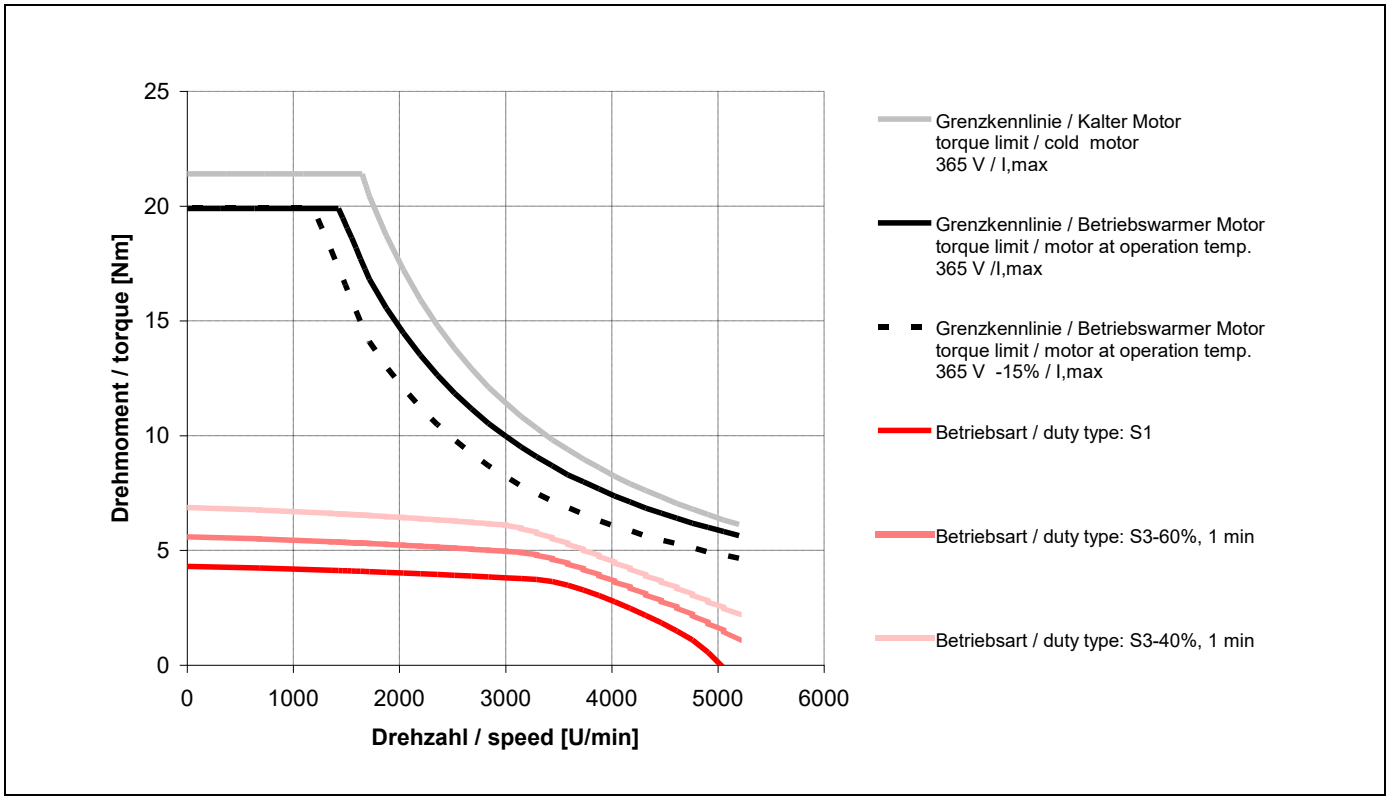
DSD2-045SO64U-45-54



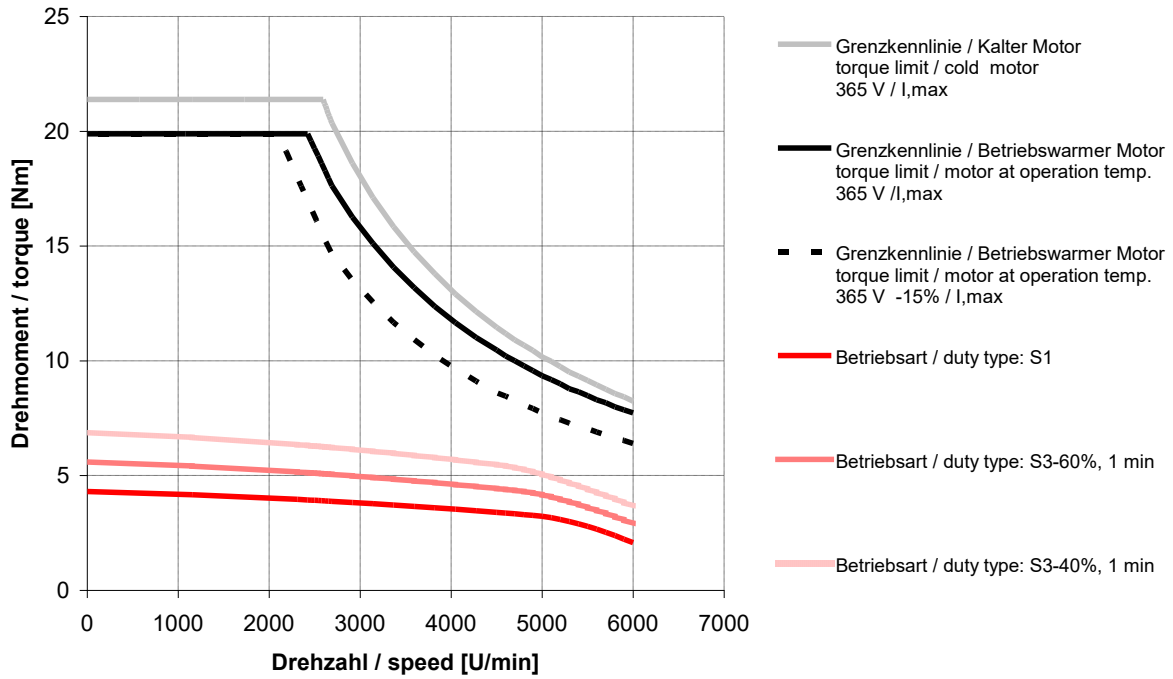
DSD2-045SO64U-60-54



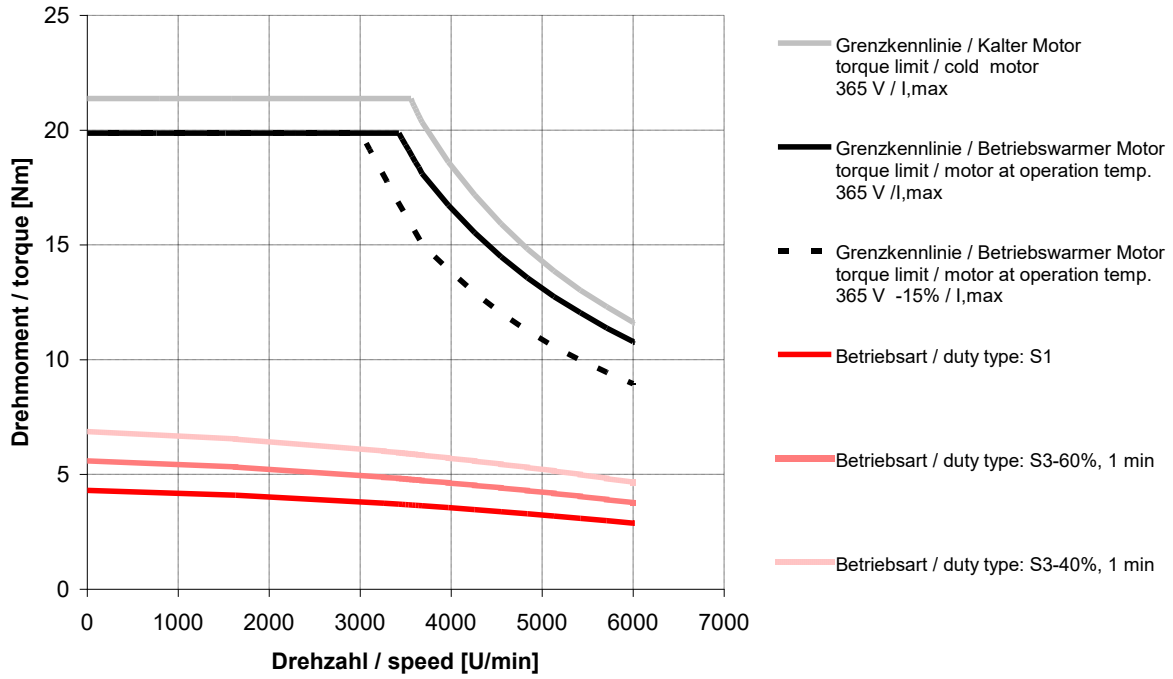
DSD2-045MO64U-30-54



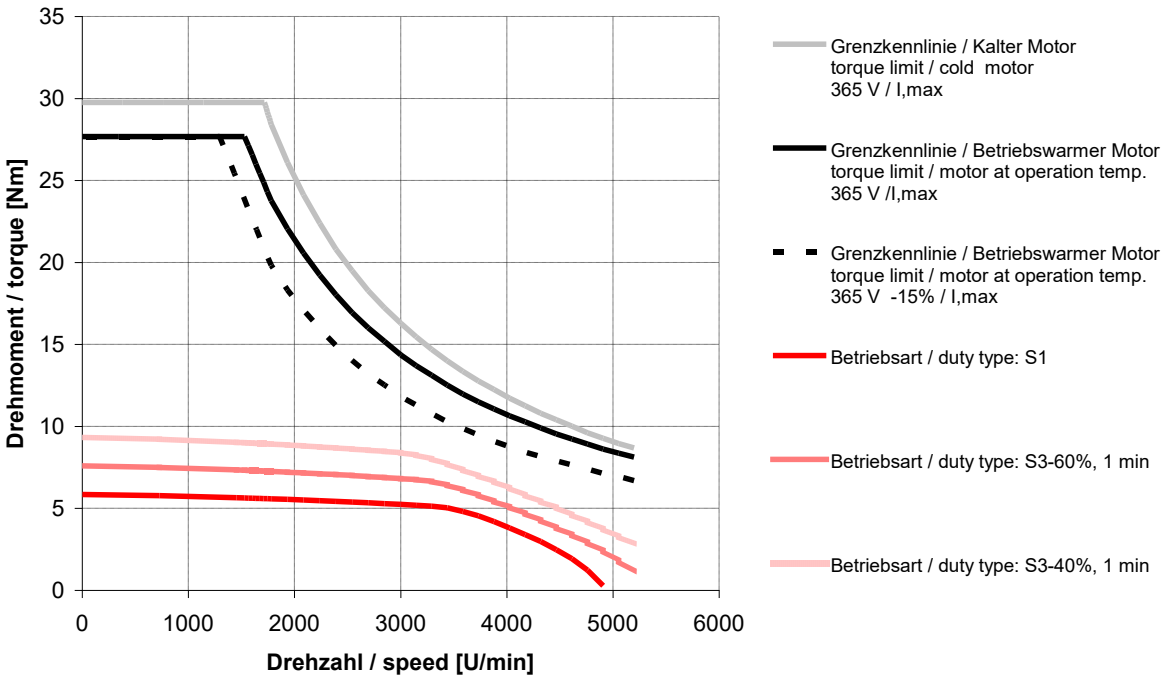
DSD2-045M064U-45-54



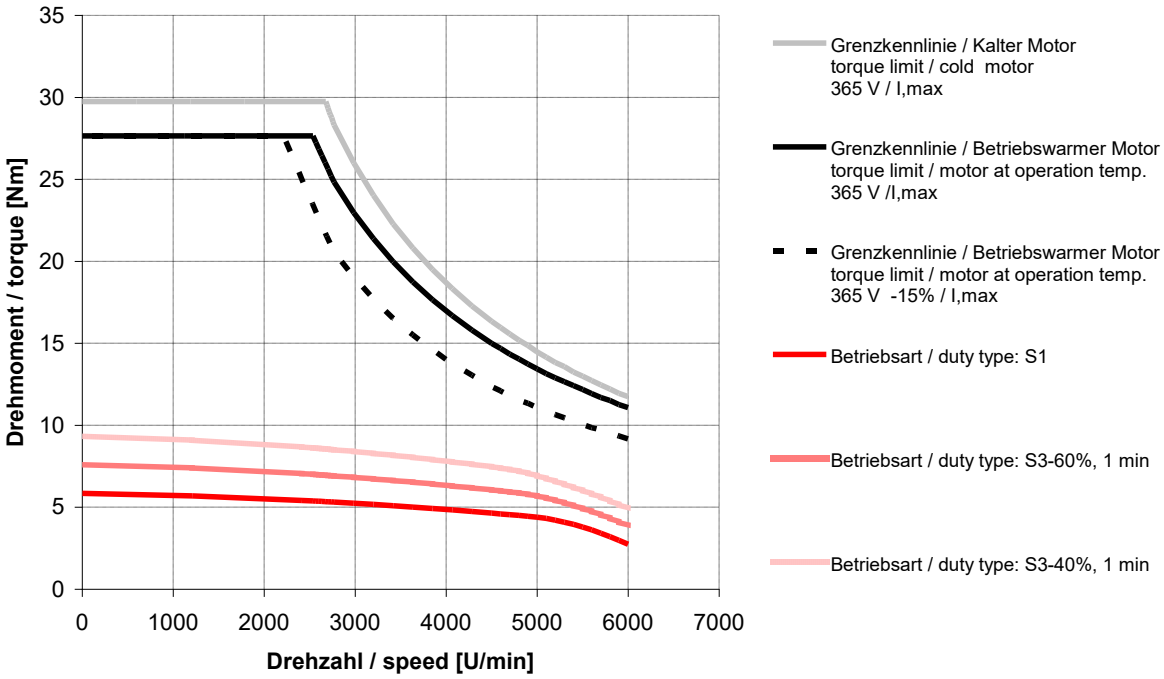
DSD2-045M064U-60-54



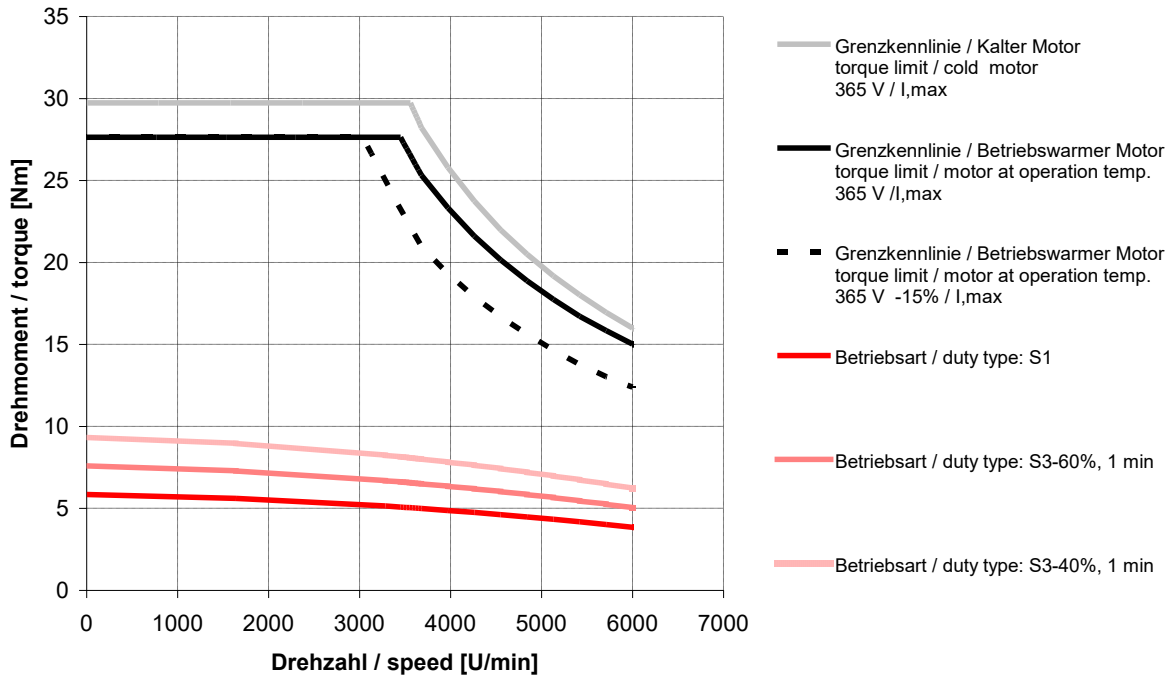
DSD2-045L064U-30-54



DSD2-045L064U-45-54

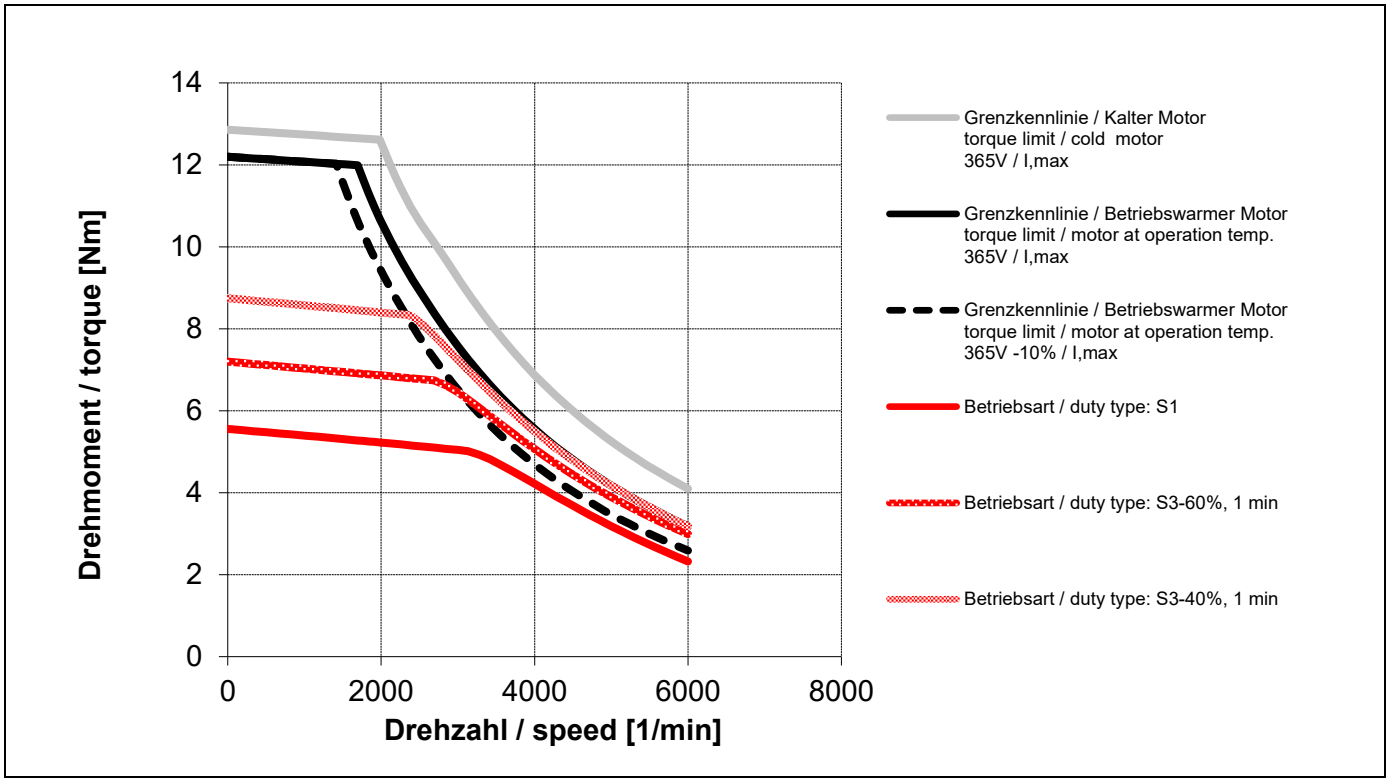


DSD2-045L064U-60-54

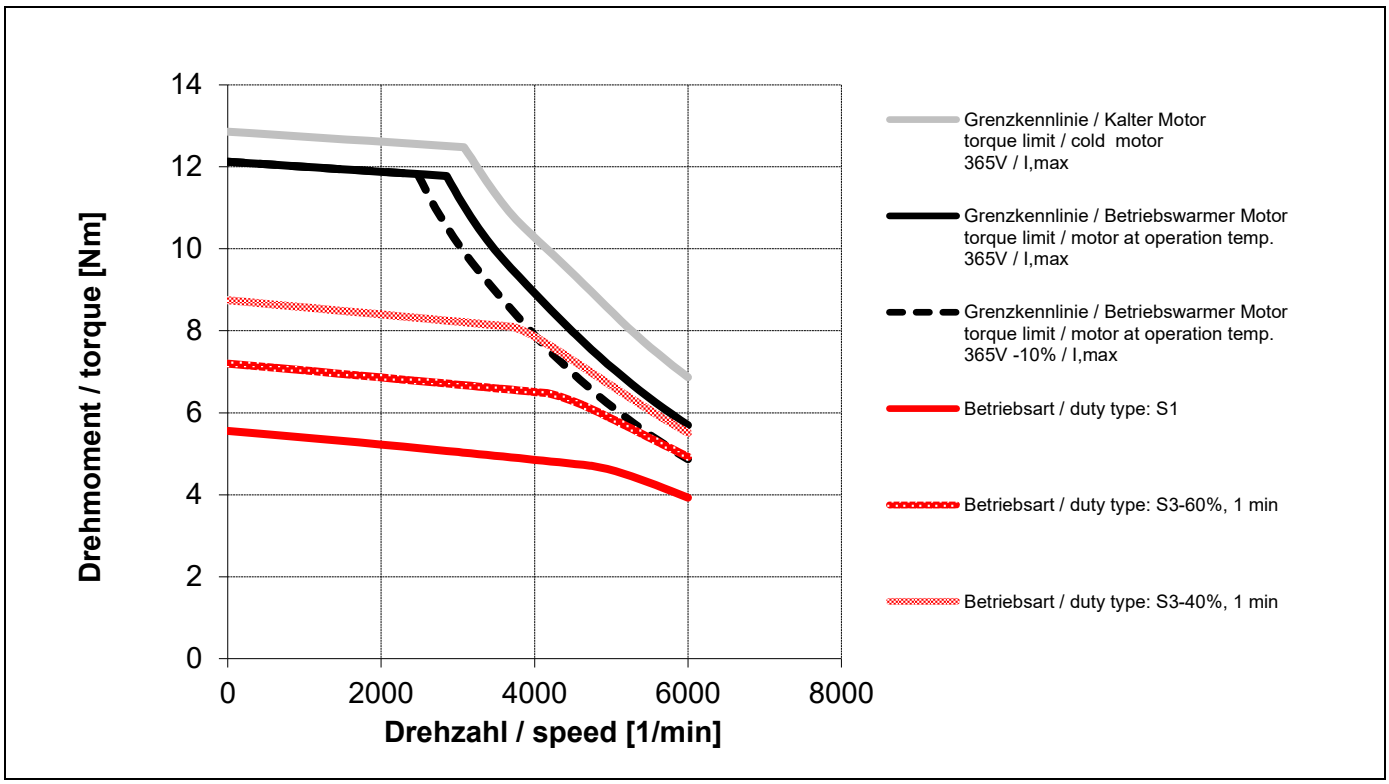


5.3.2 DSD2-045..64W-..

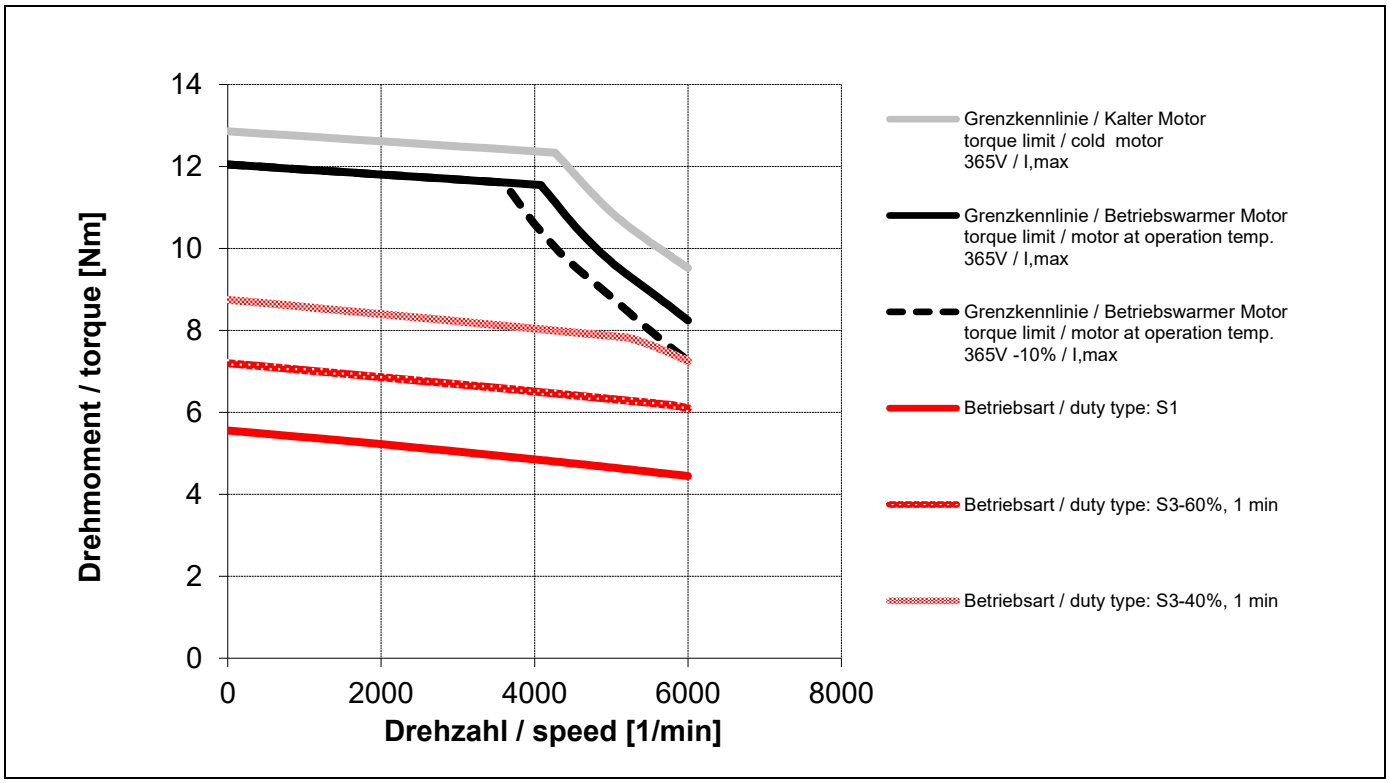
DSD2-045SO64W-30-54



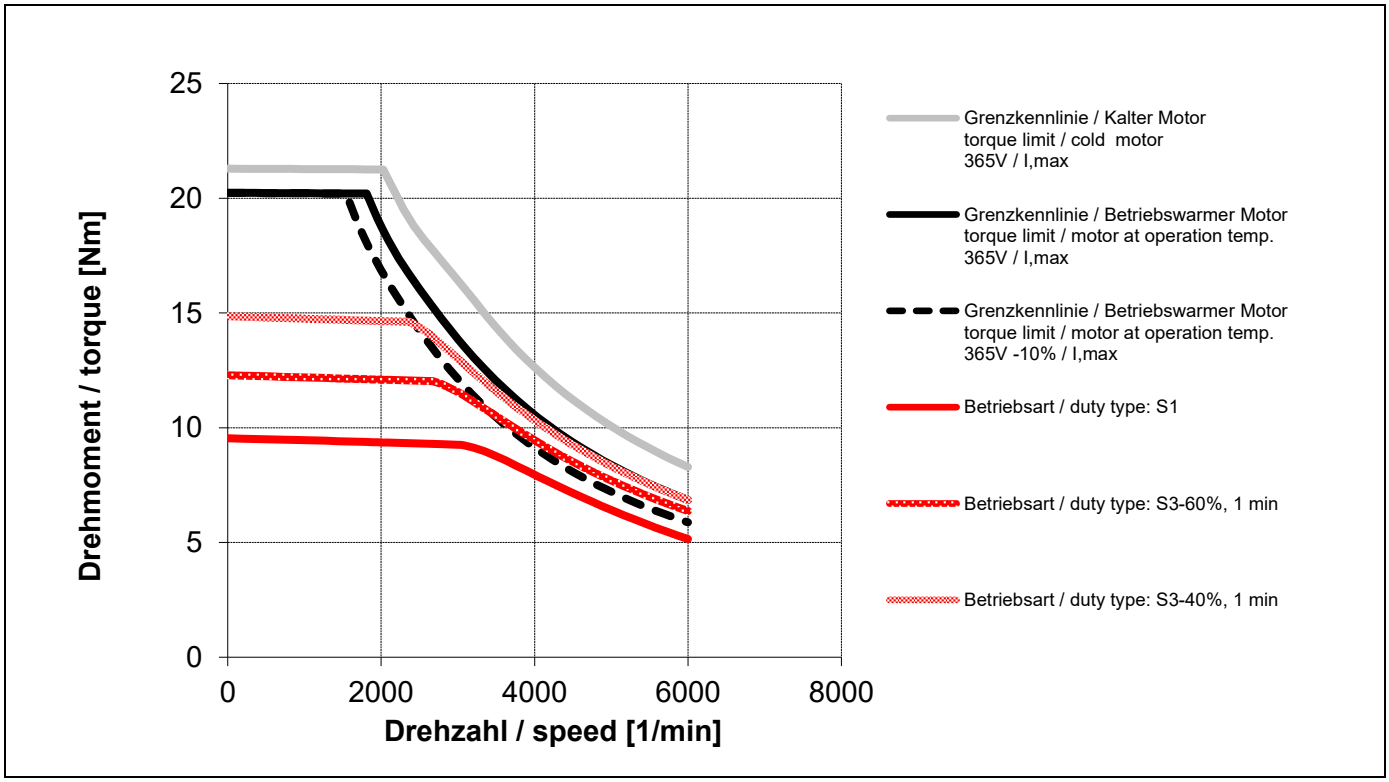
DSD2-045SO64W-45-54



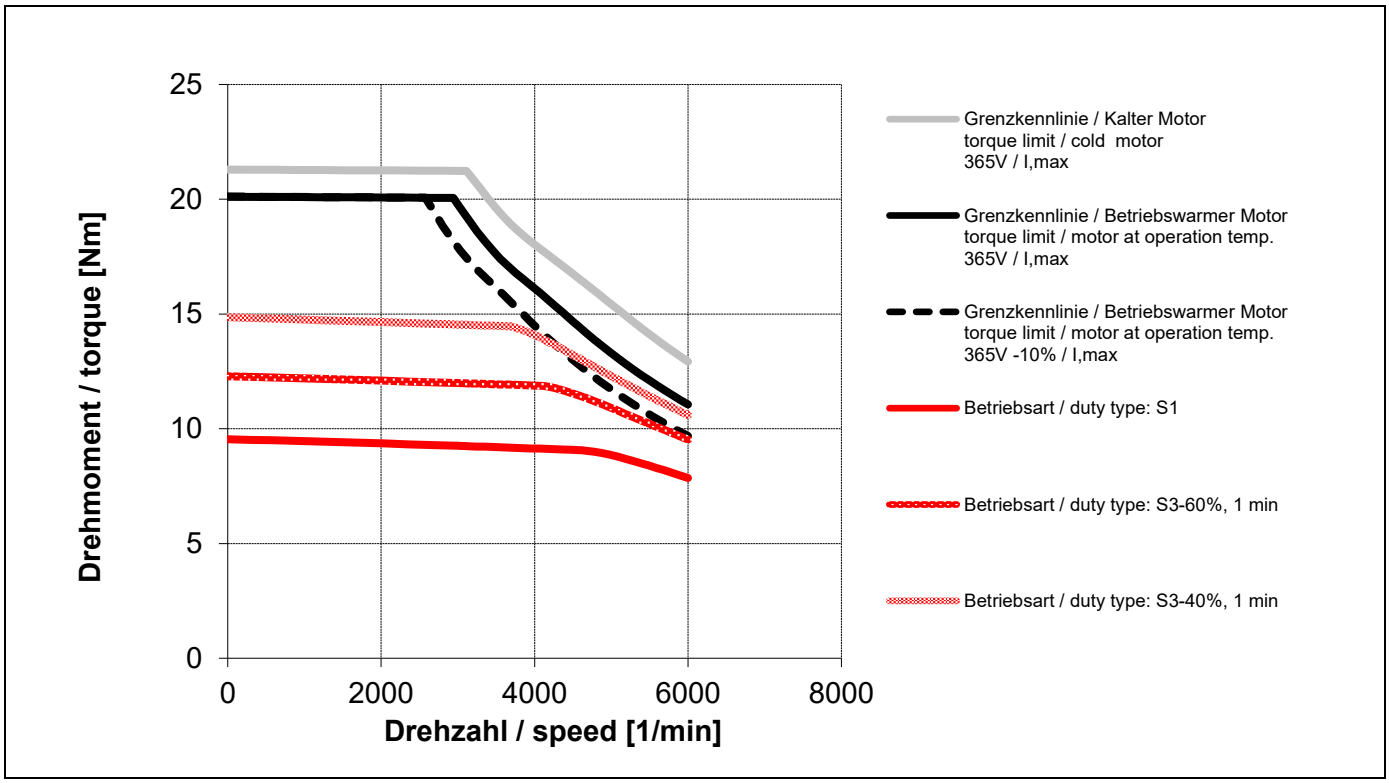
DSD2-045SO64W-60-54



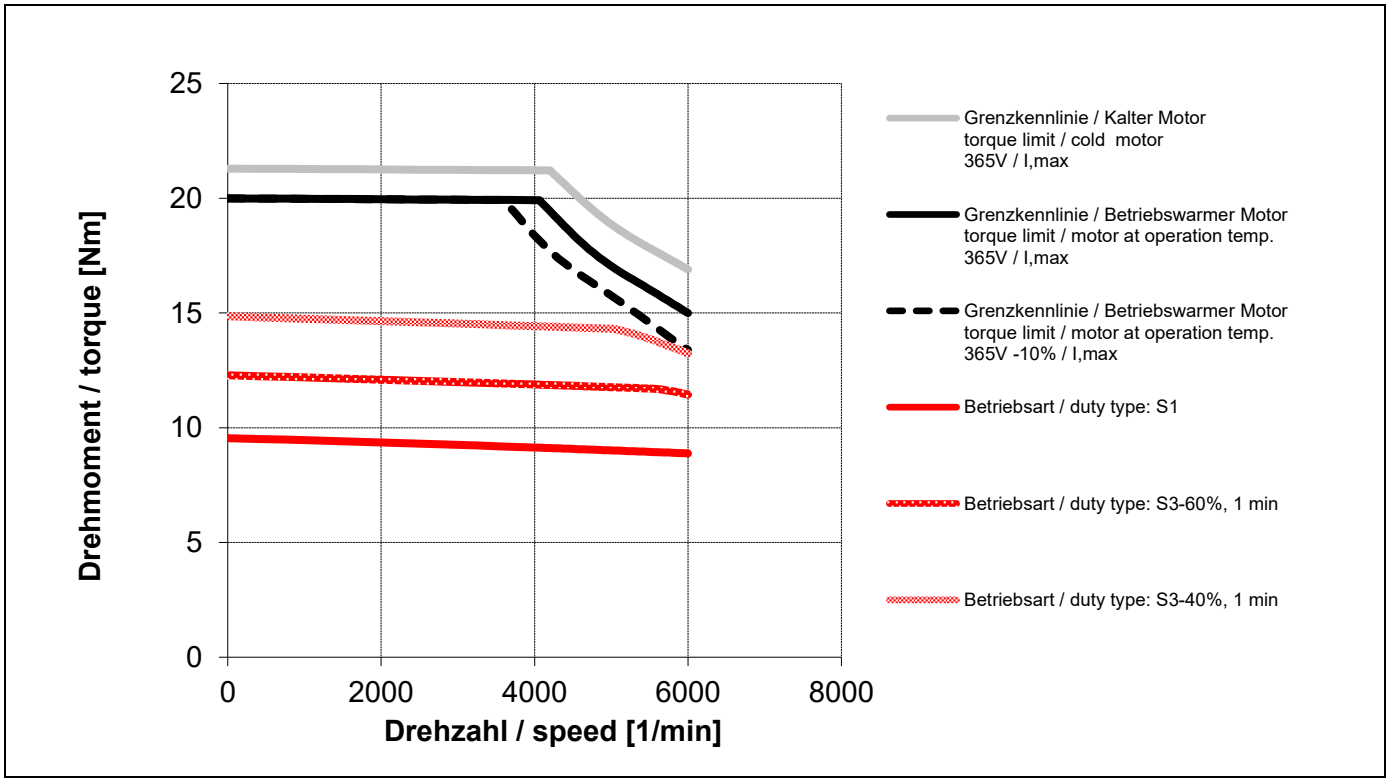
DSD2-045MO64W-30-54



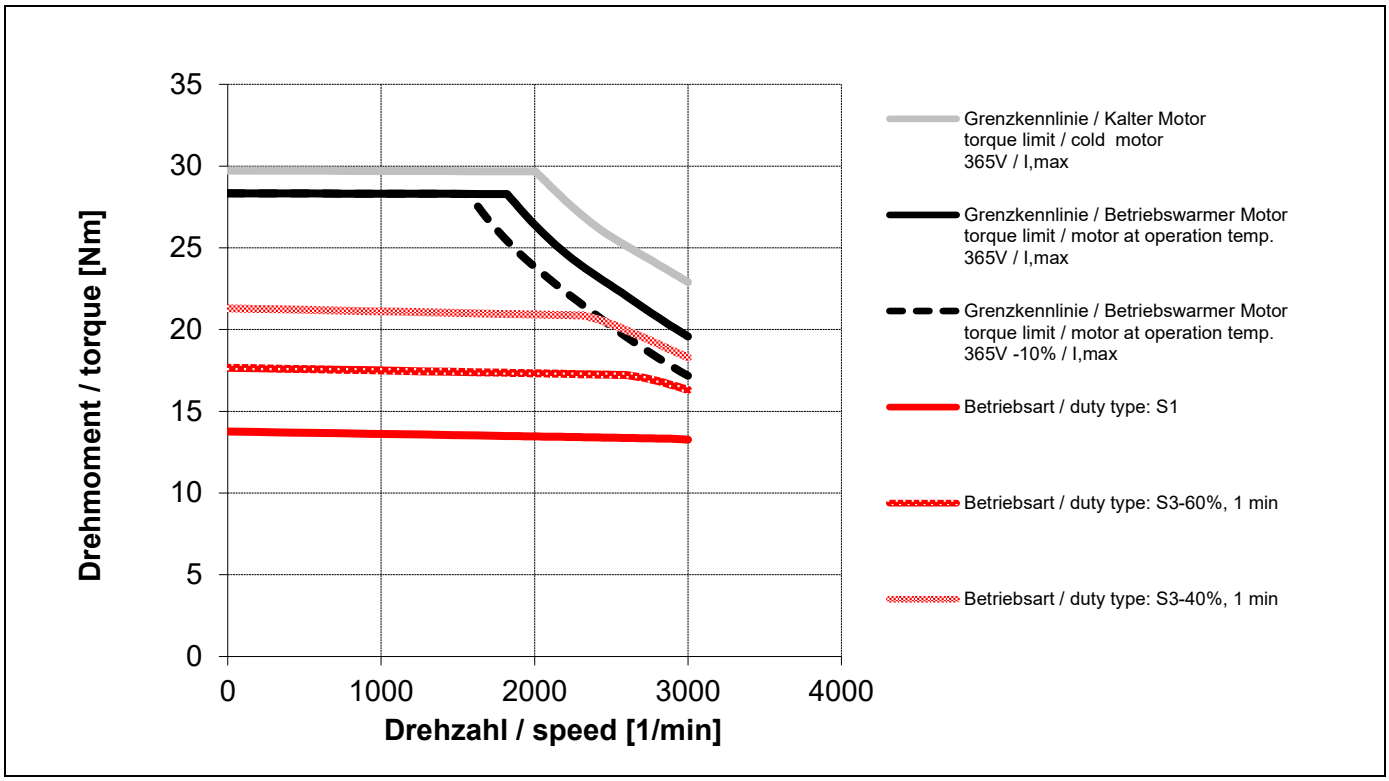
DSD2-045M064W-45-54



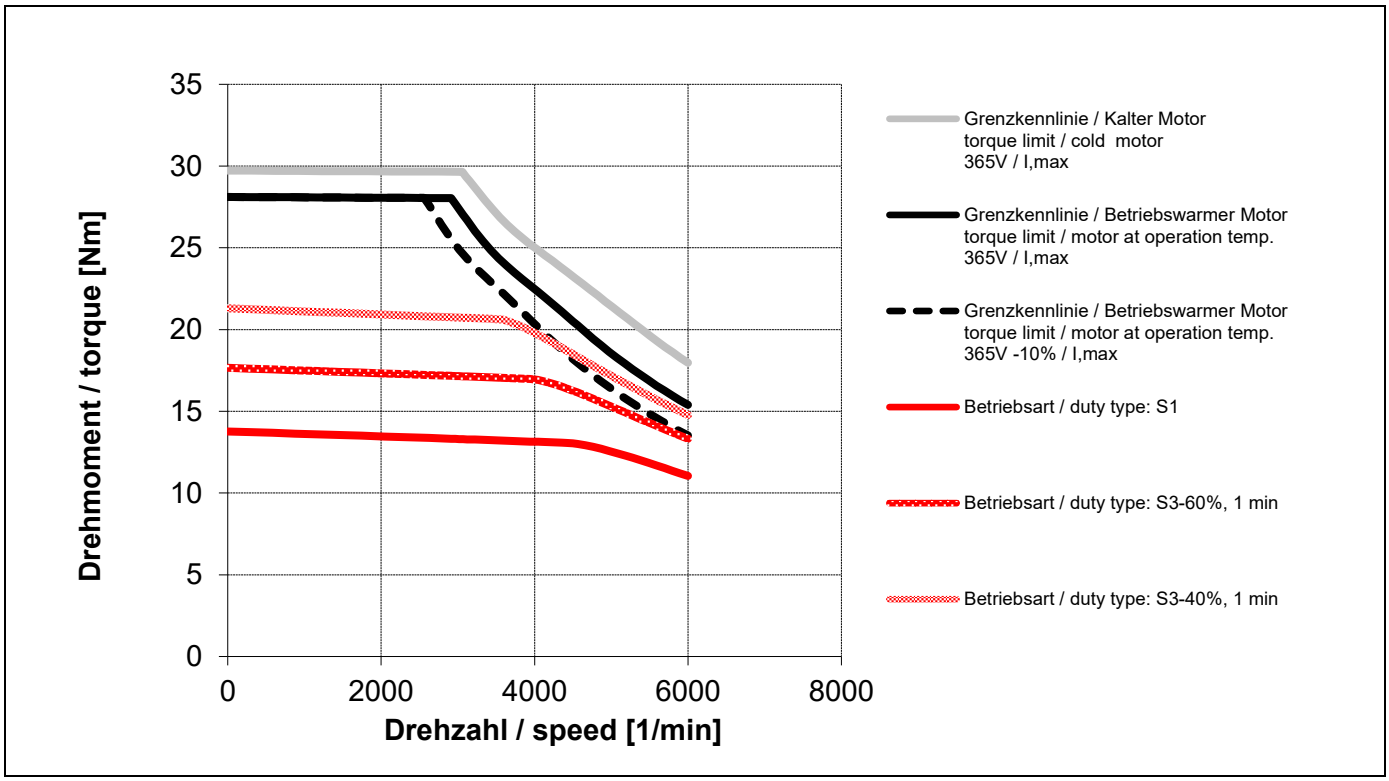
DSD2-045M064W-60-54



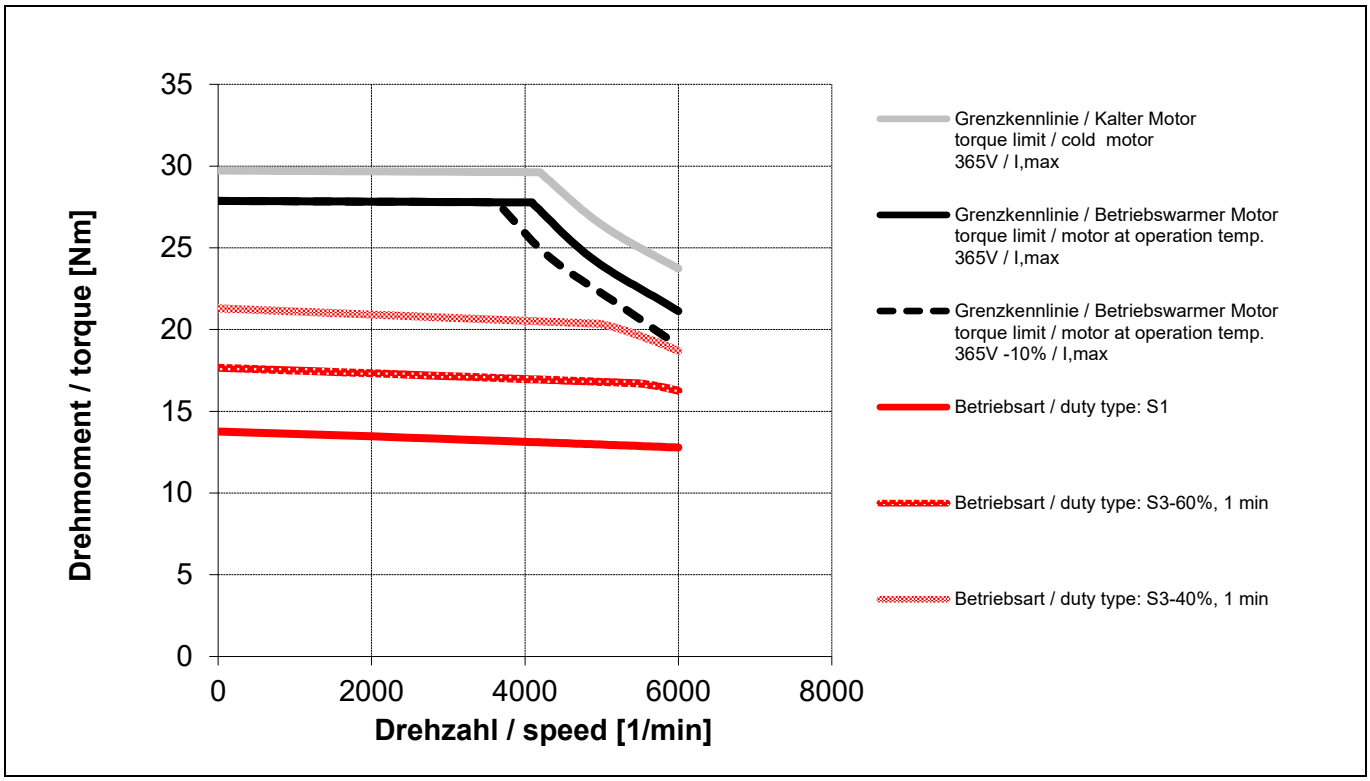
DSD2-045L064W-30-54



DSD2-045L064W-45-54



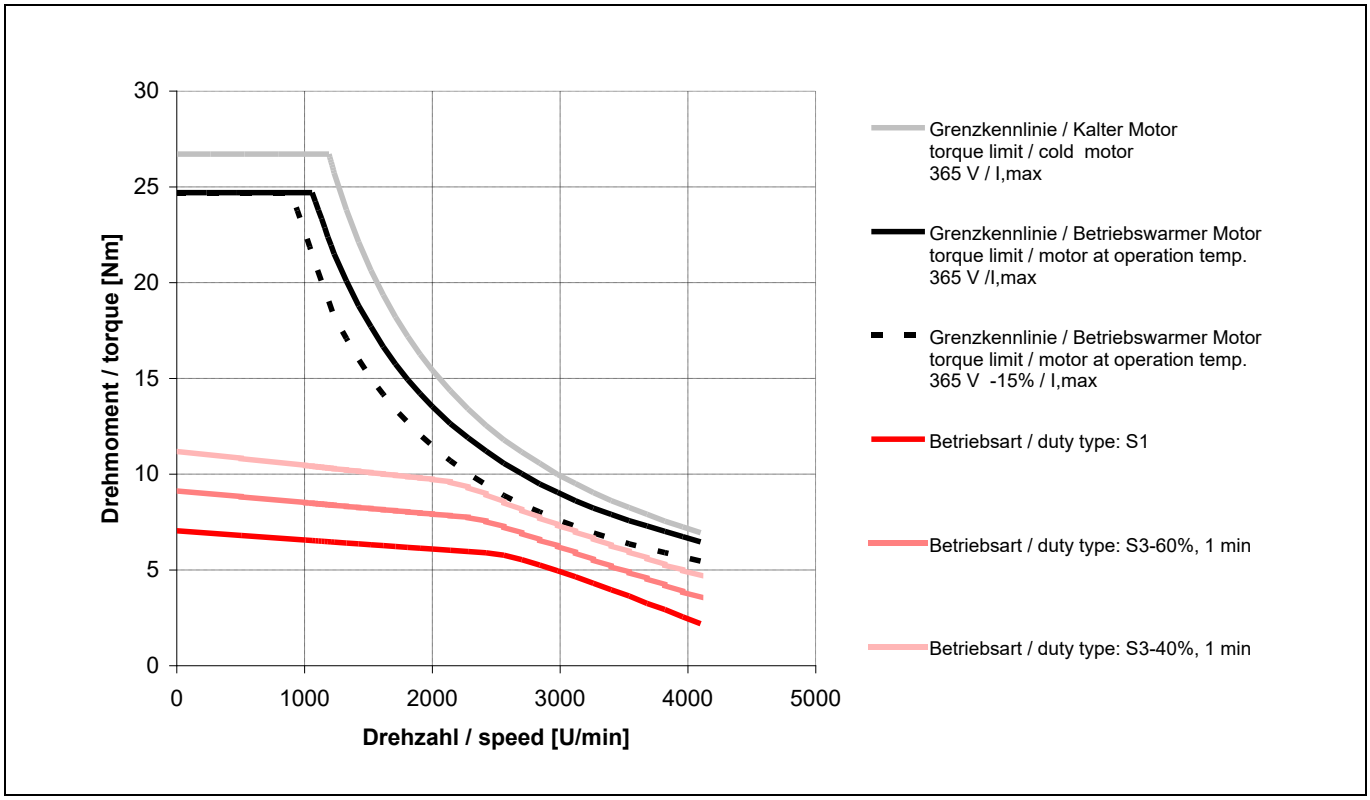
DSD2-045L064W-60-54



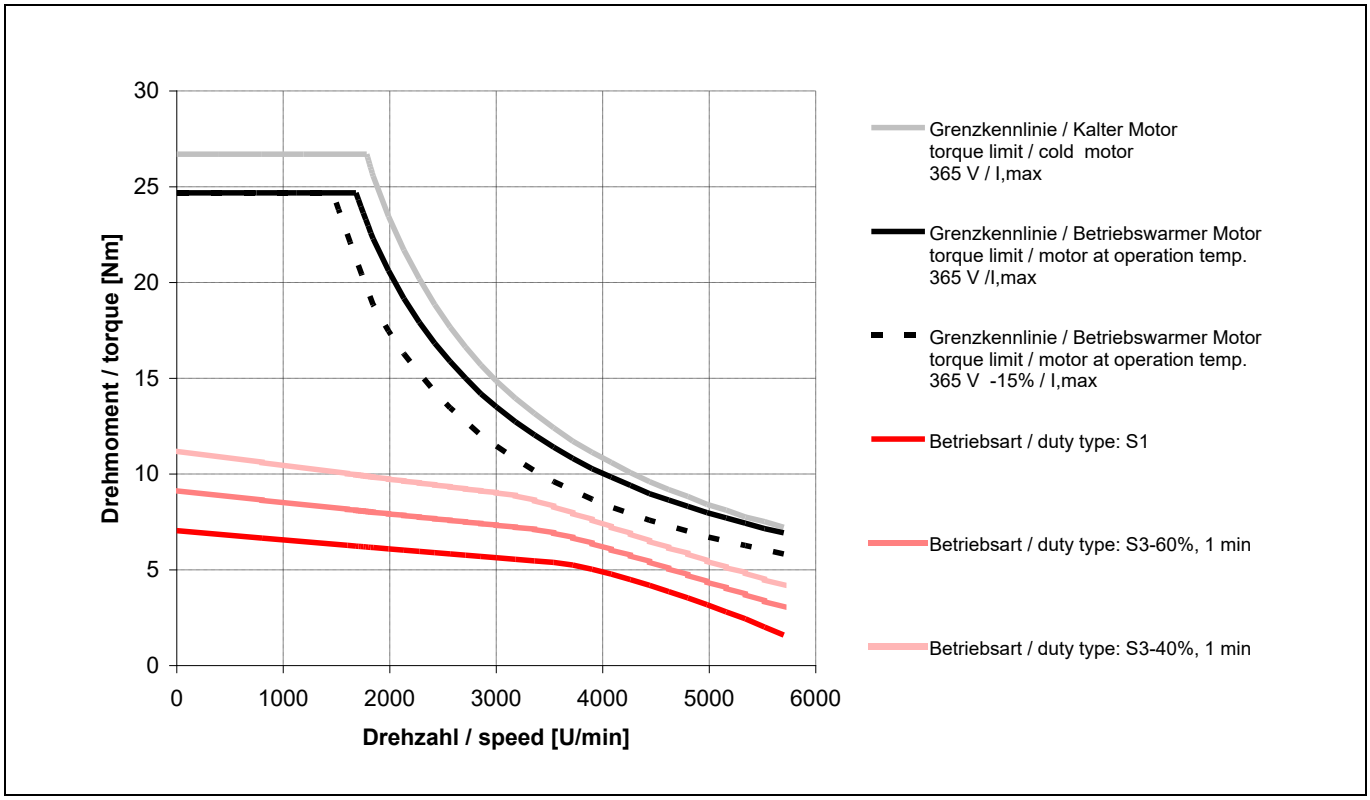
5.4 Characteristics DSD2-056

5.4.1 DSD2-056..64U-..

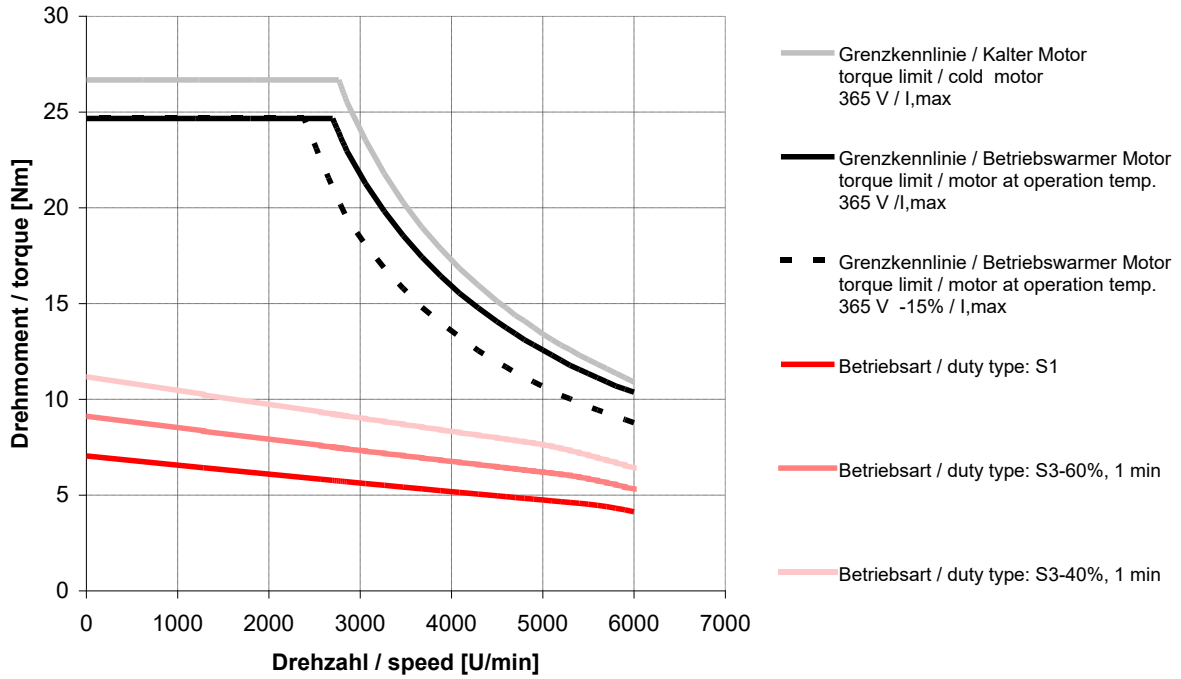
DSD2-056SO64U-20-54



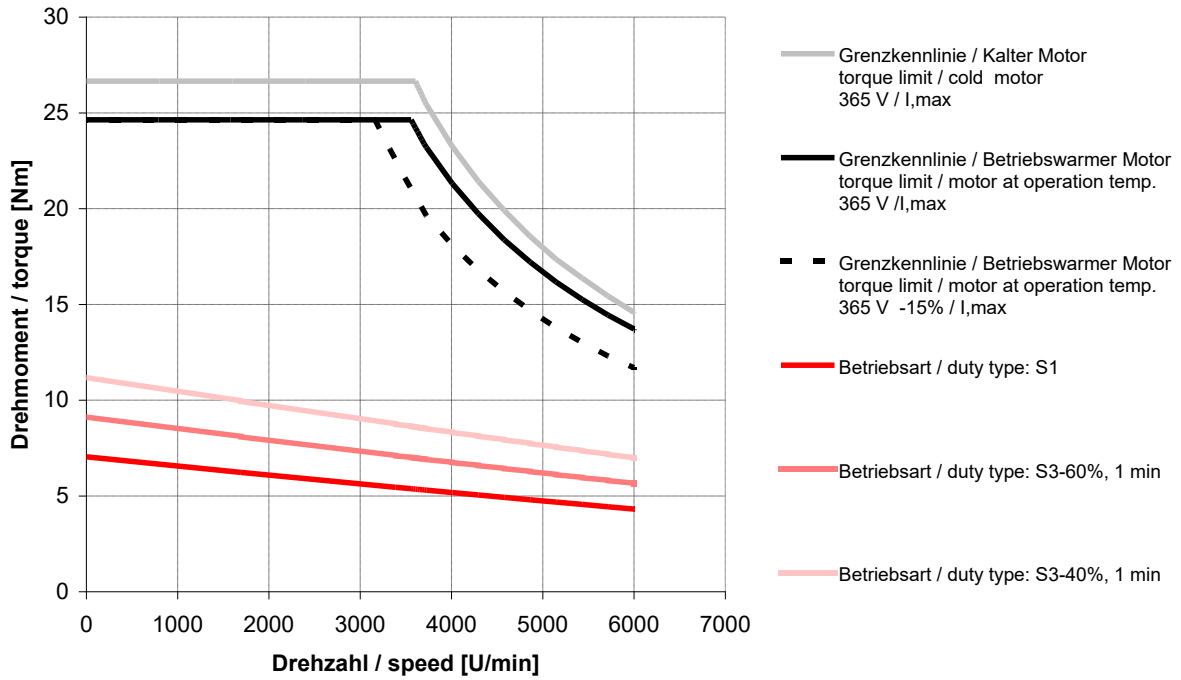
DSD2-056SO64U-30-54



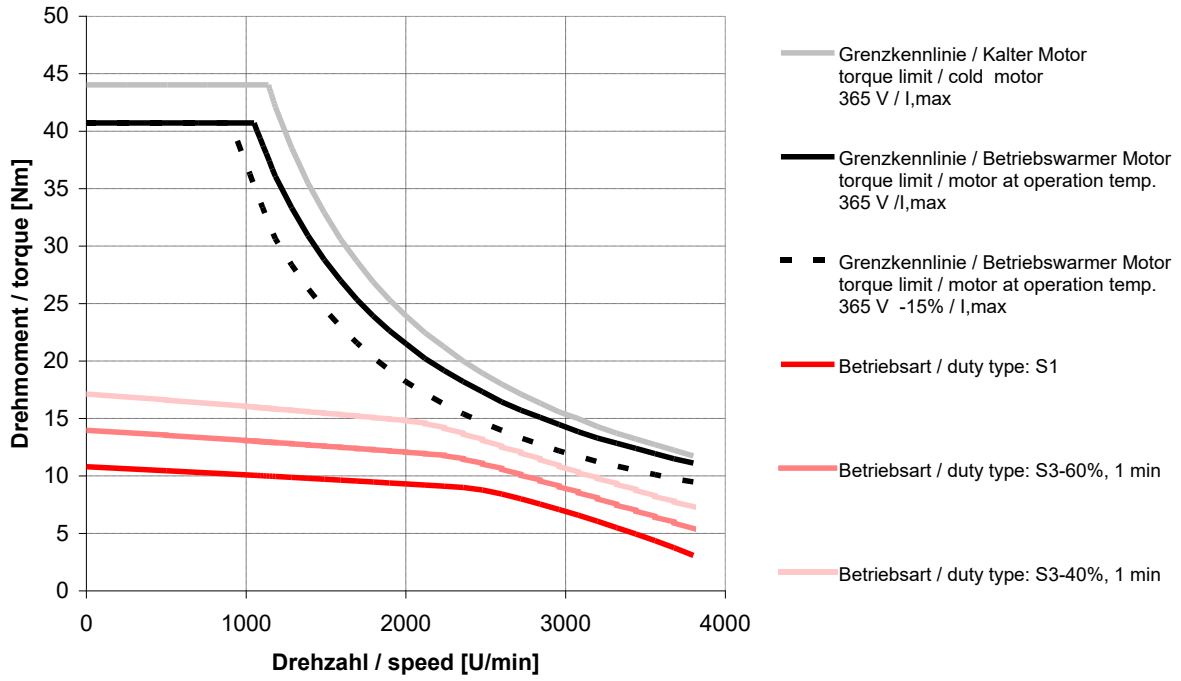
DSD2-056SO64U-45-54



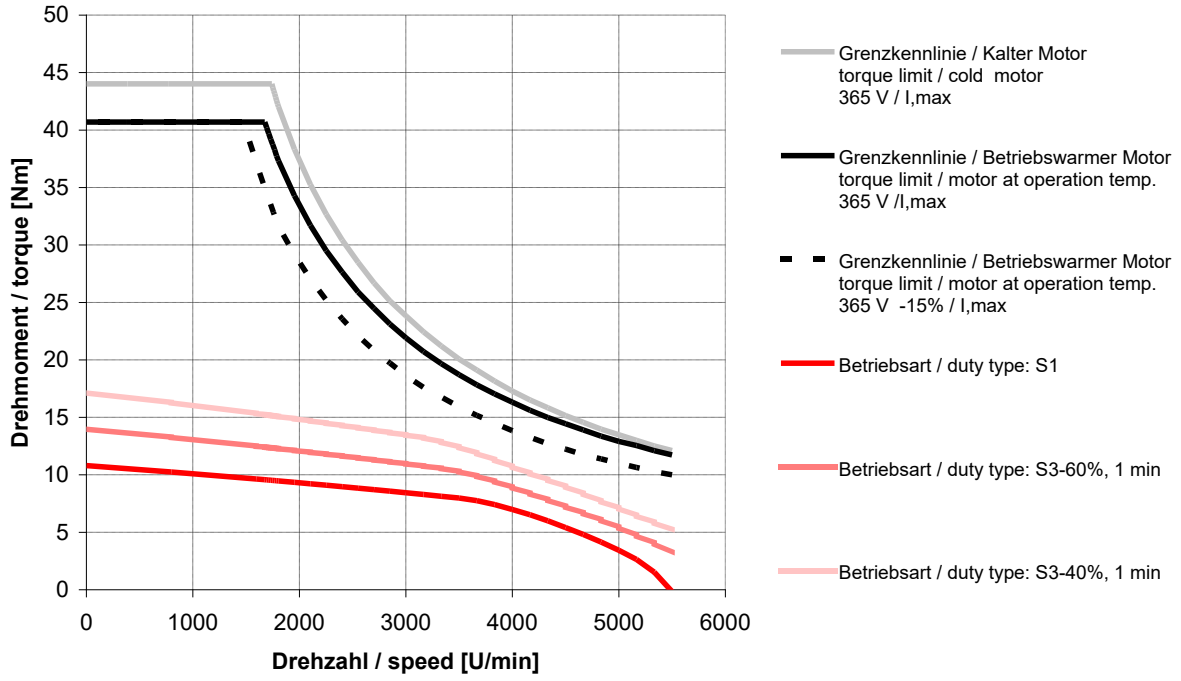
DSD2-056SO64U-60-54



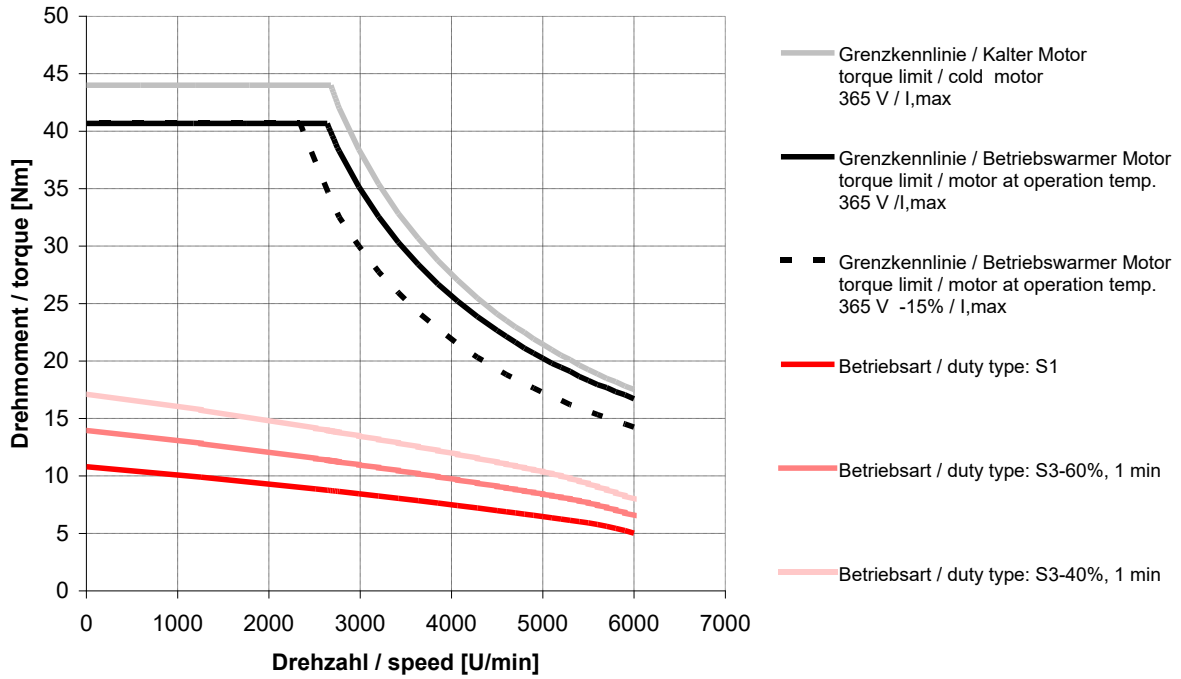
DSD2-056MO64U-20-54



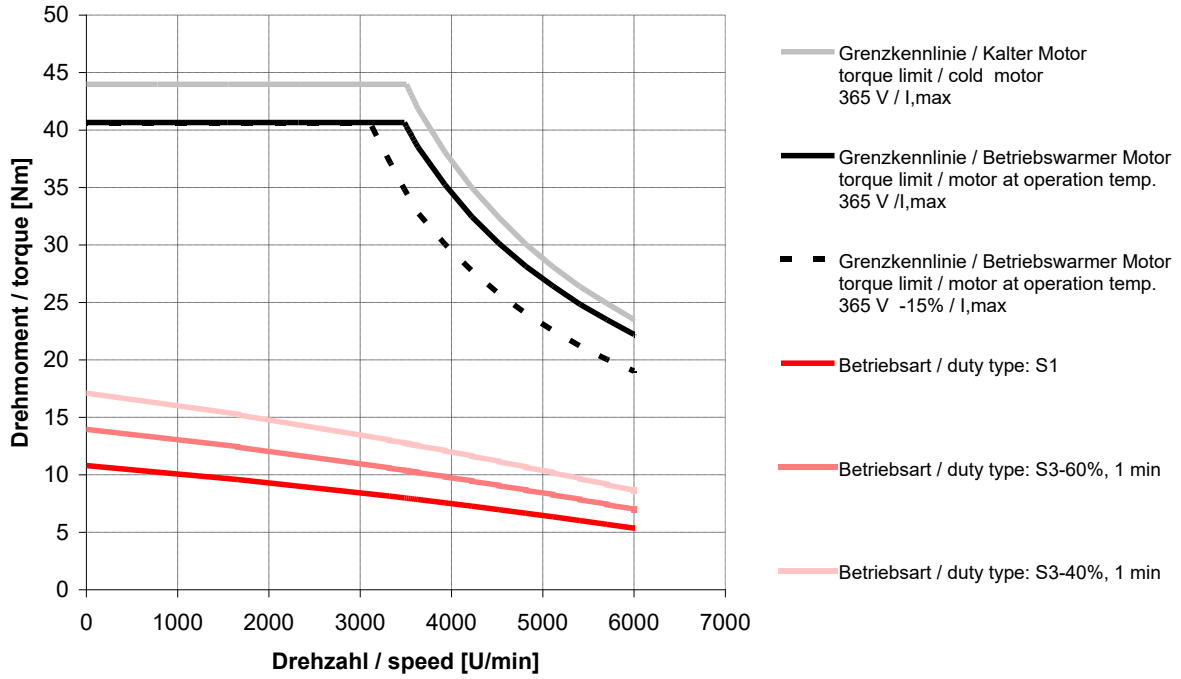
DSD2-056MO64U-30-54



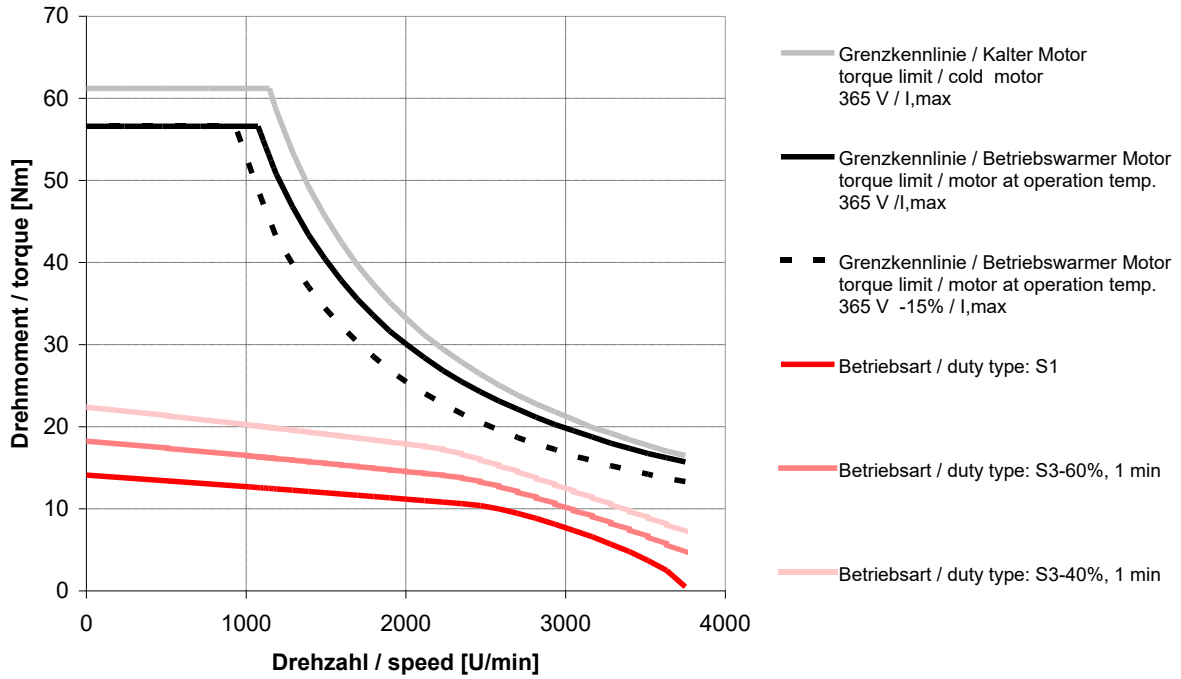
DSD2-056MO64U-45-54



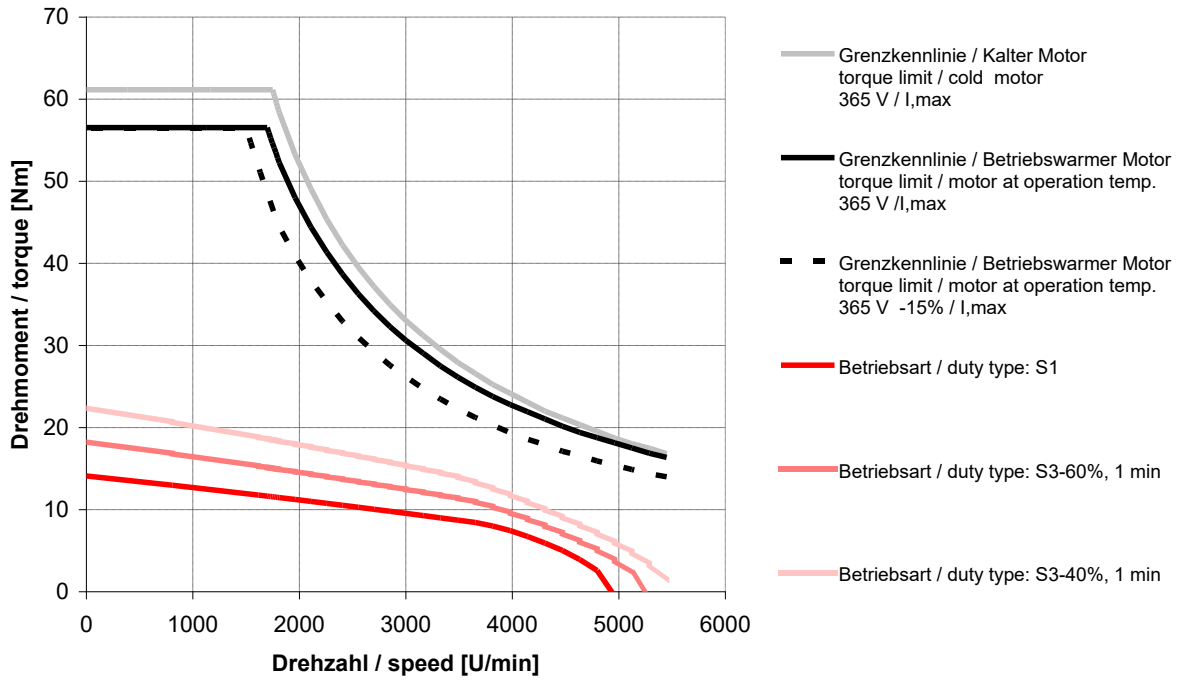
DSD2-056MO64U-60-54



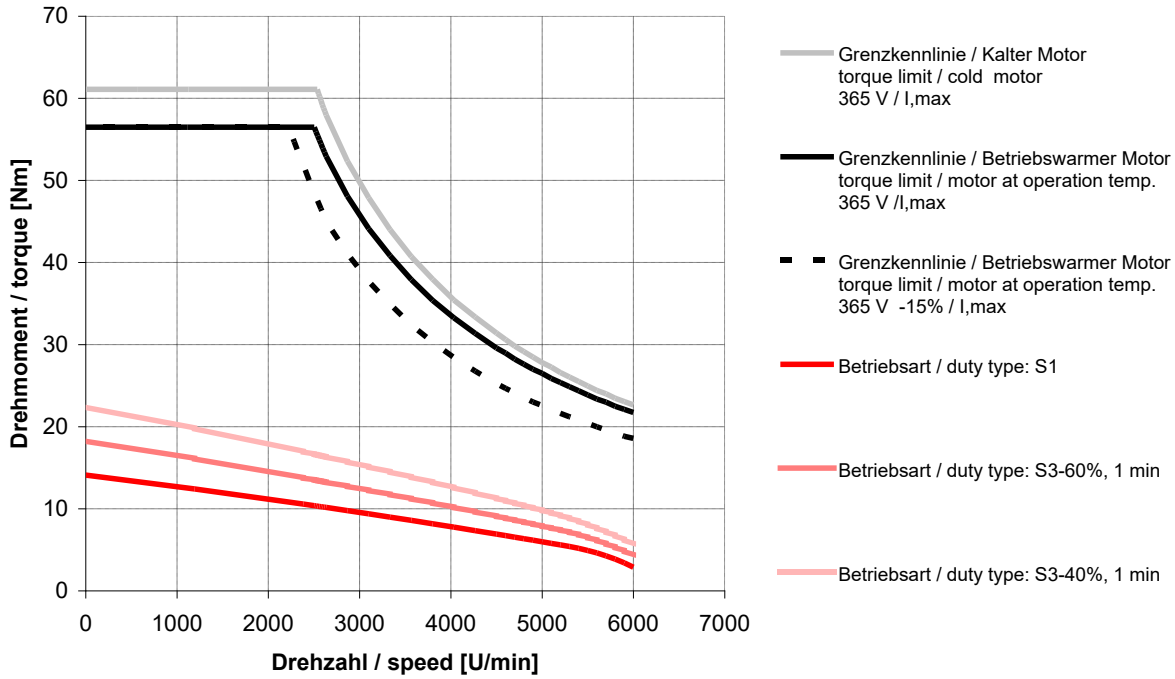
DSD2-056LO64U-20-54



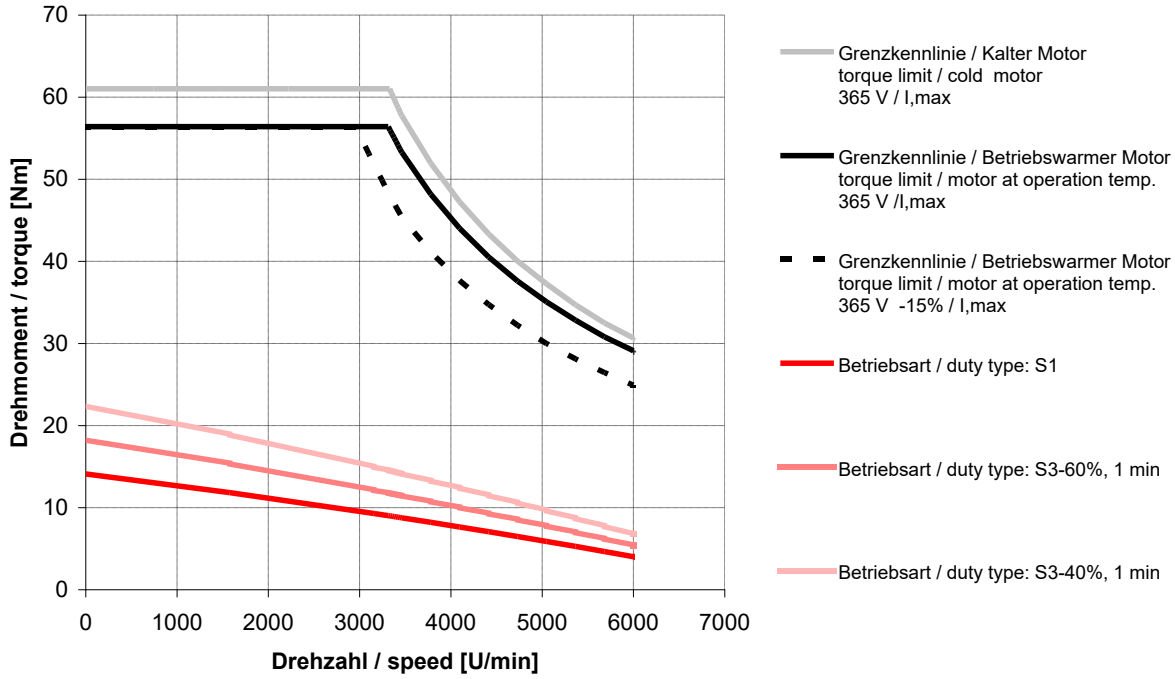
DSD2-056LO64U-30-54



DSD2-056LO64U-45-54

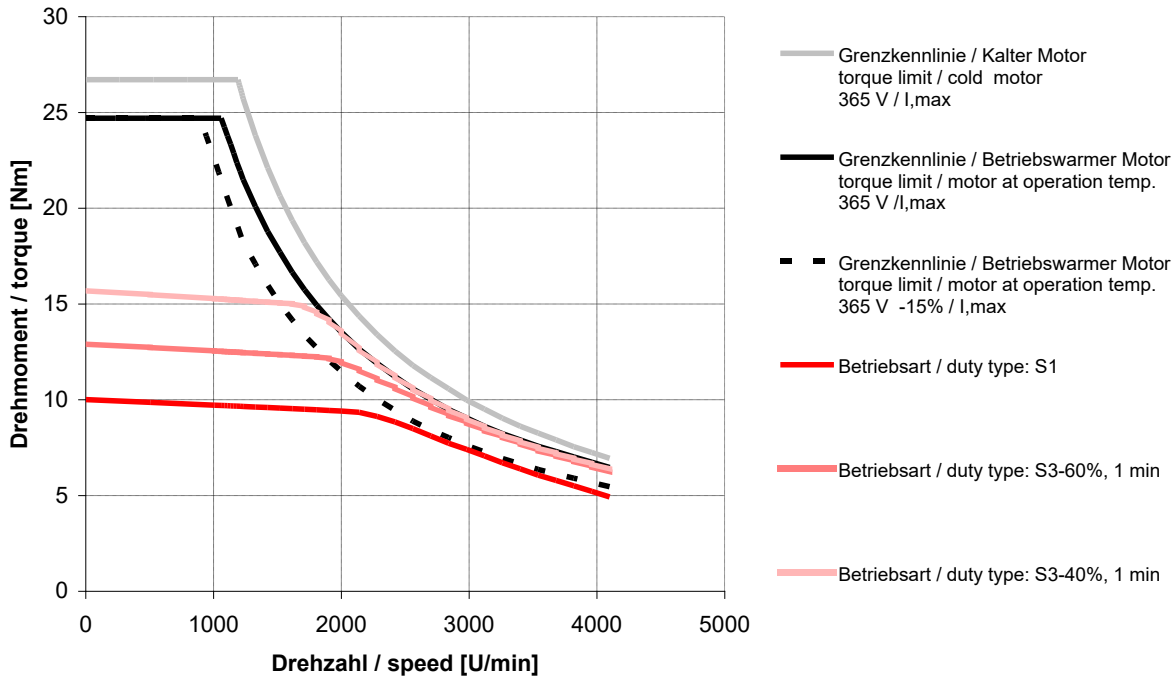


DSD2-056LO64U-60-54

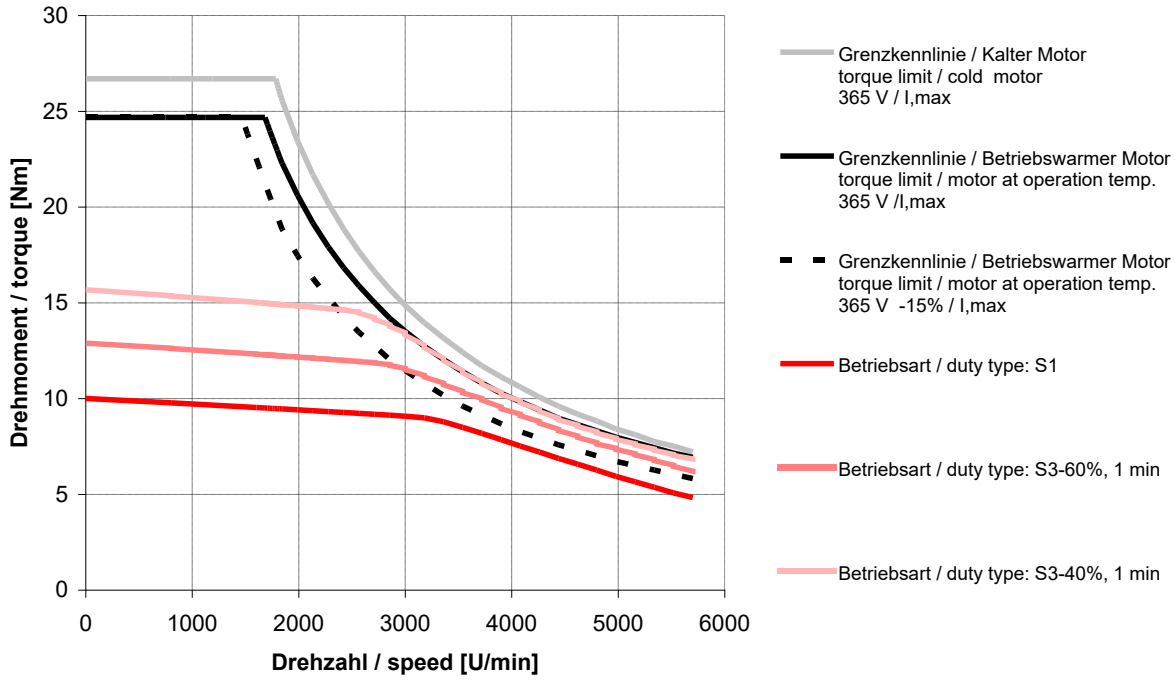


5.4.2 DSD2-056..640-..

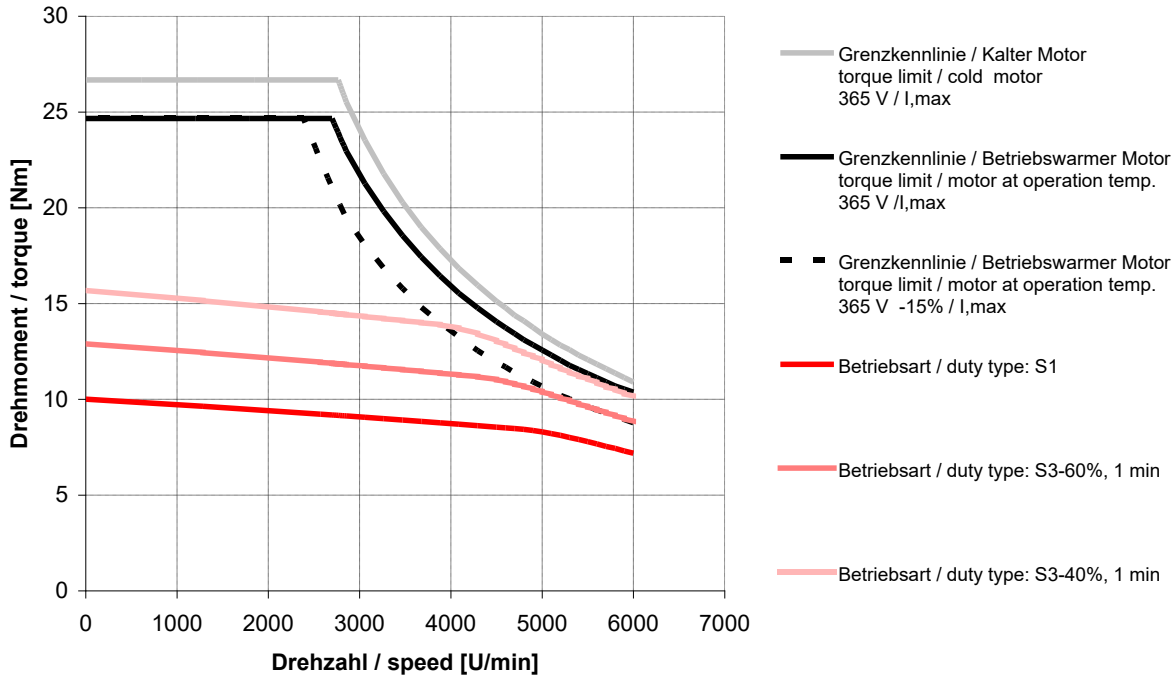
DSD2-056S0640-20-54



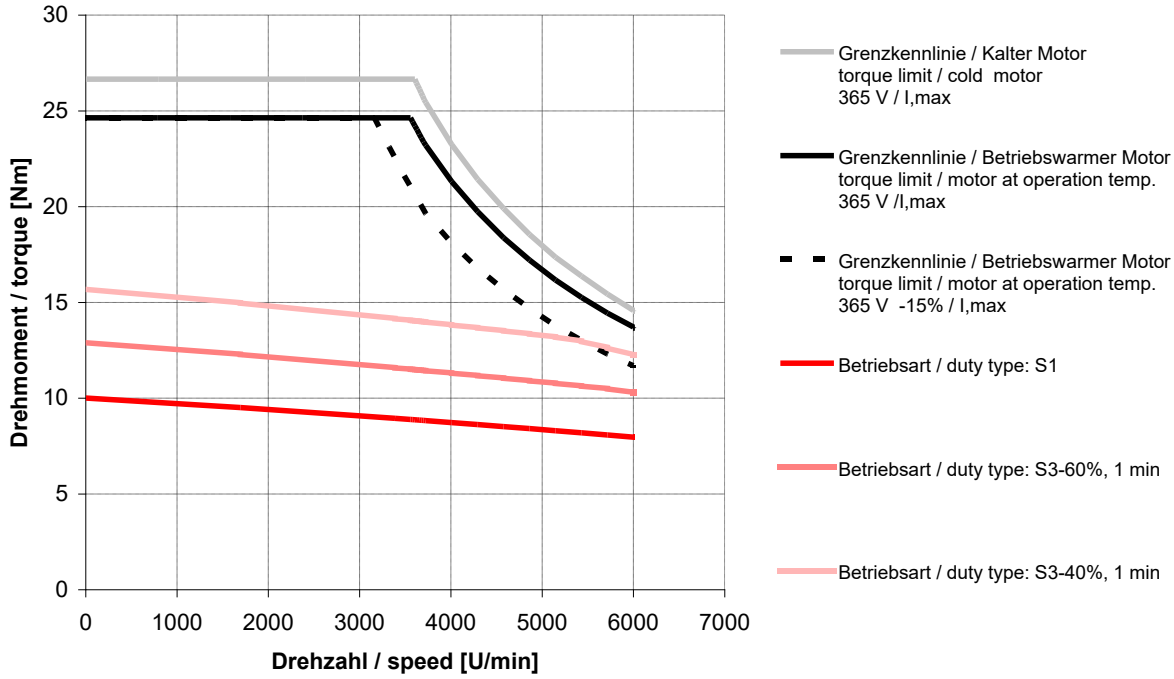
DSD2-056S0640-30-54



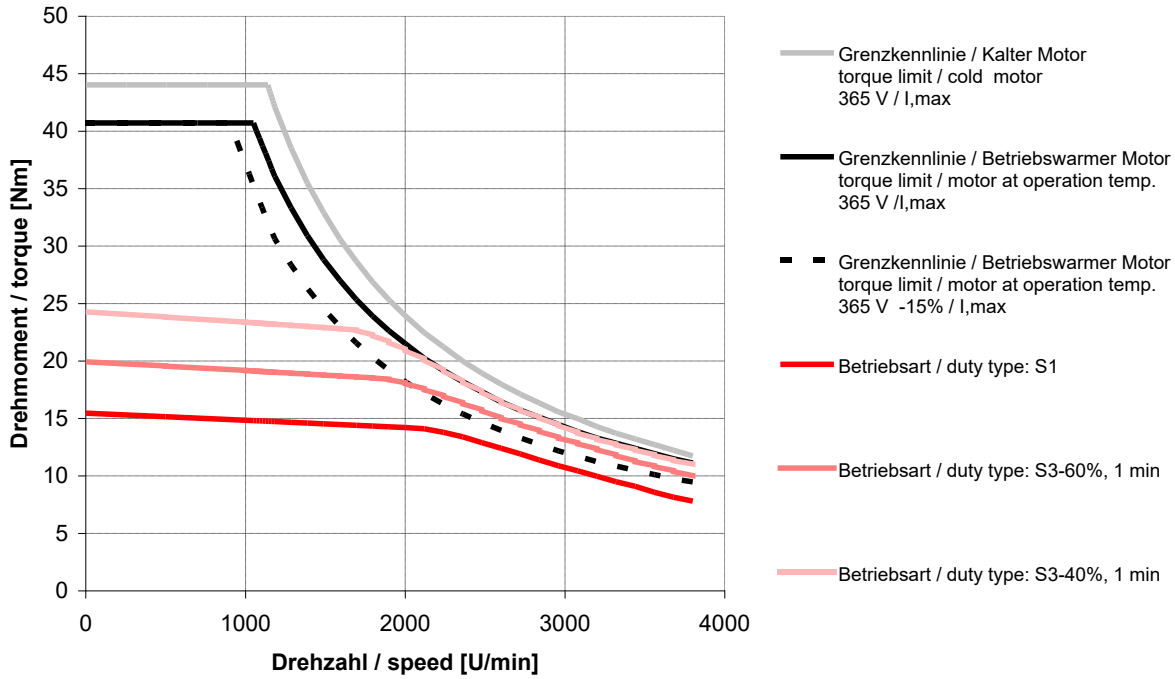
DSD2-056SO640-45-54



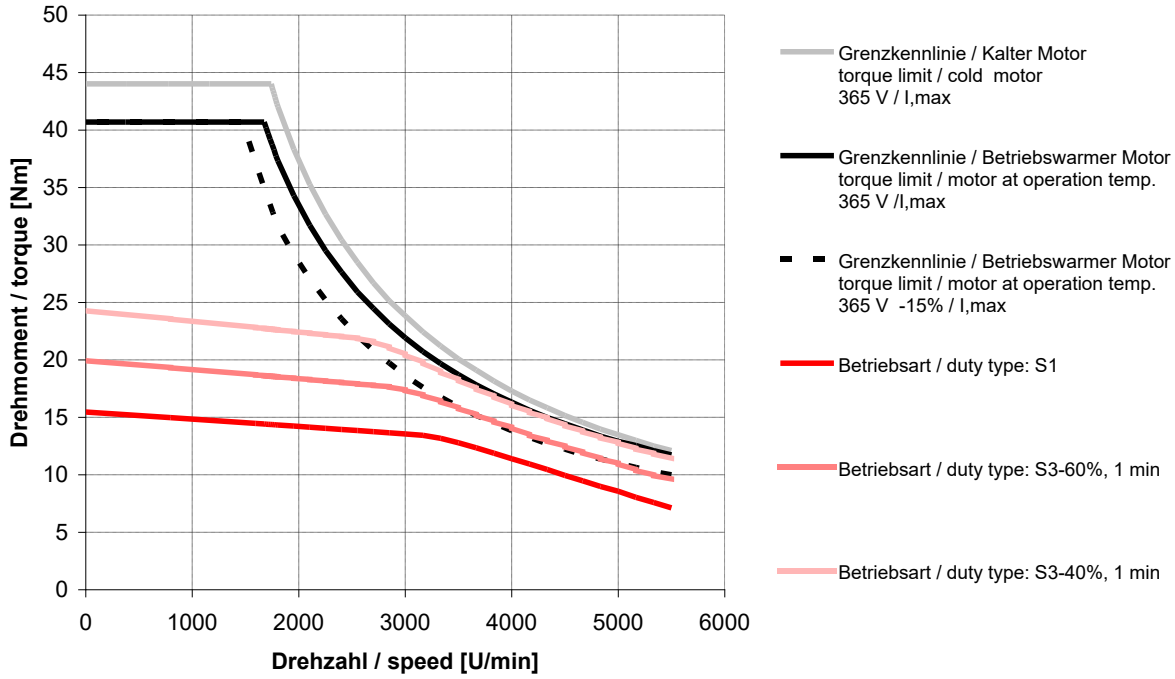
DSD2-056SO640-60-54



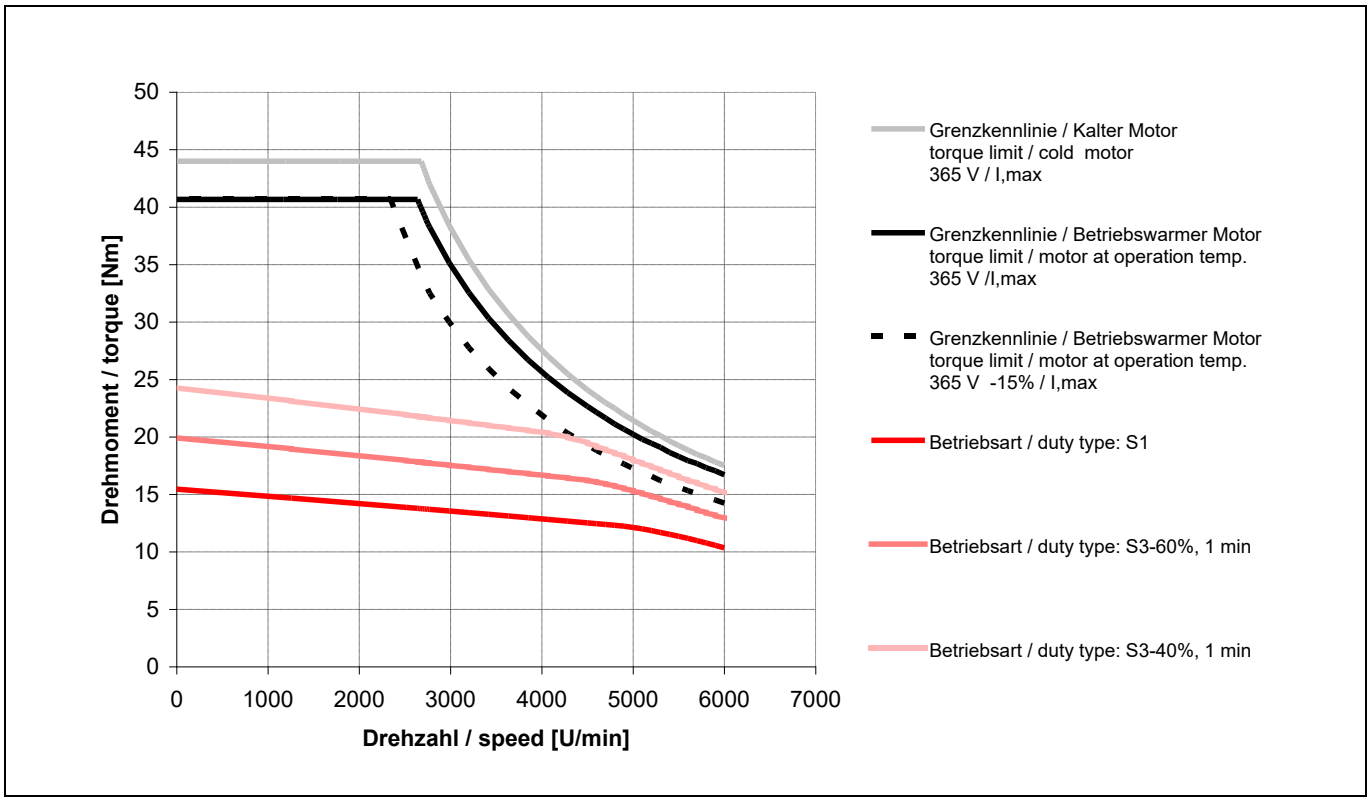
DSD2-056MO640-20-54



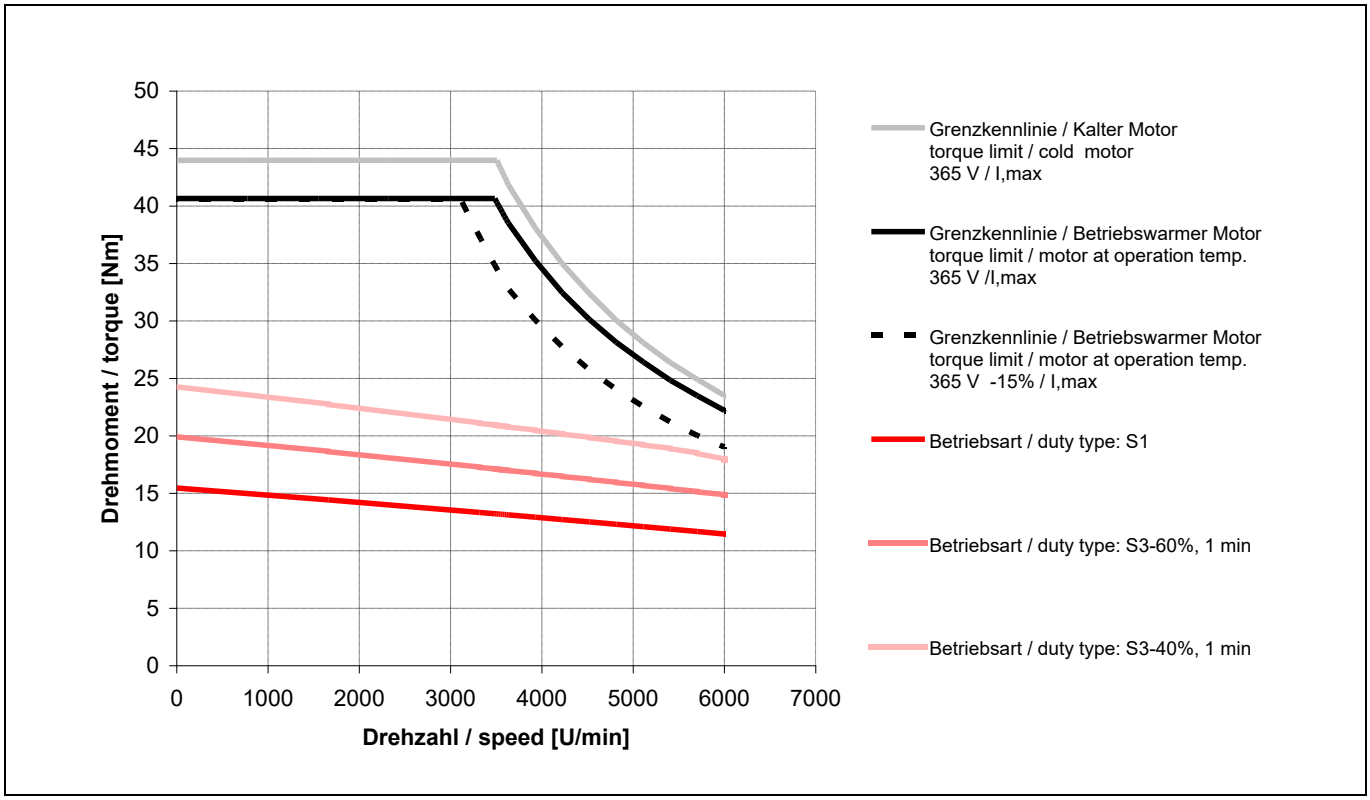
DSD2-056MO640-30-54



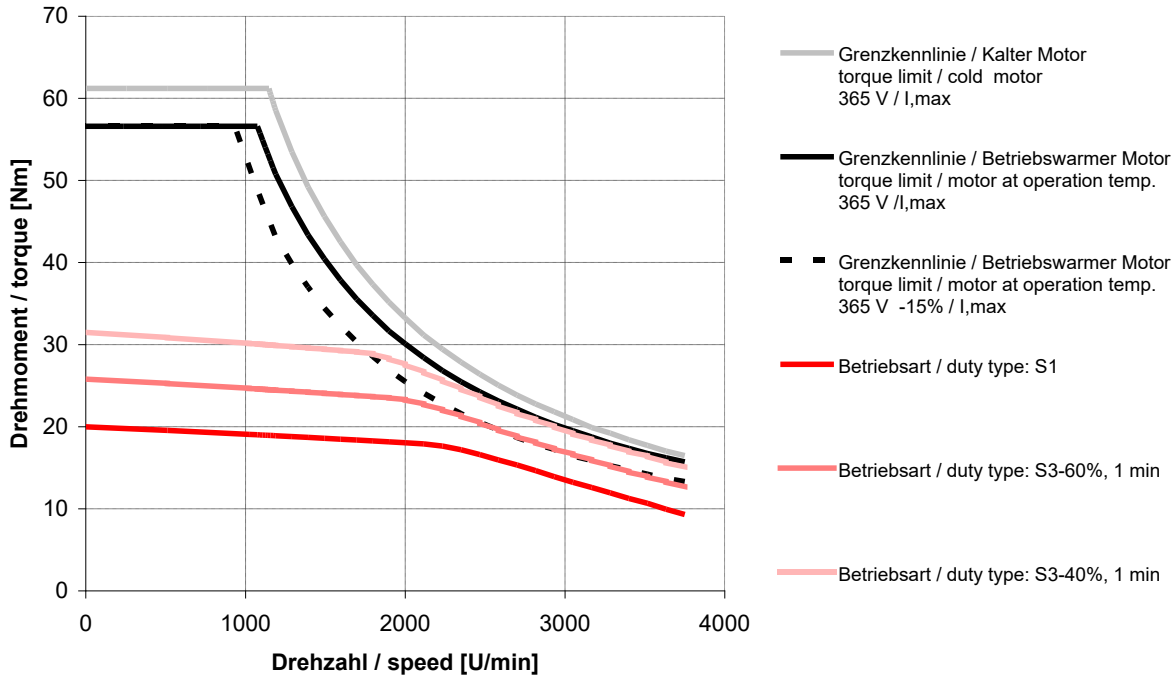
DSD2-056MO640-45-54



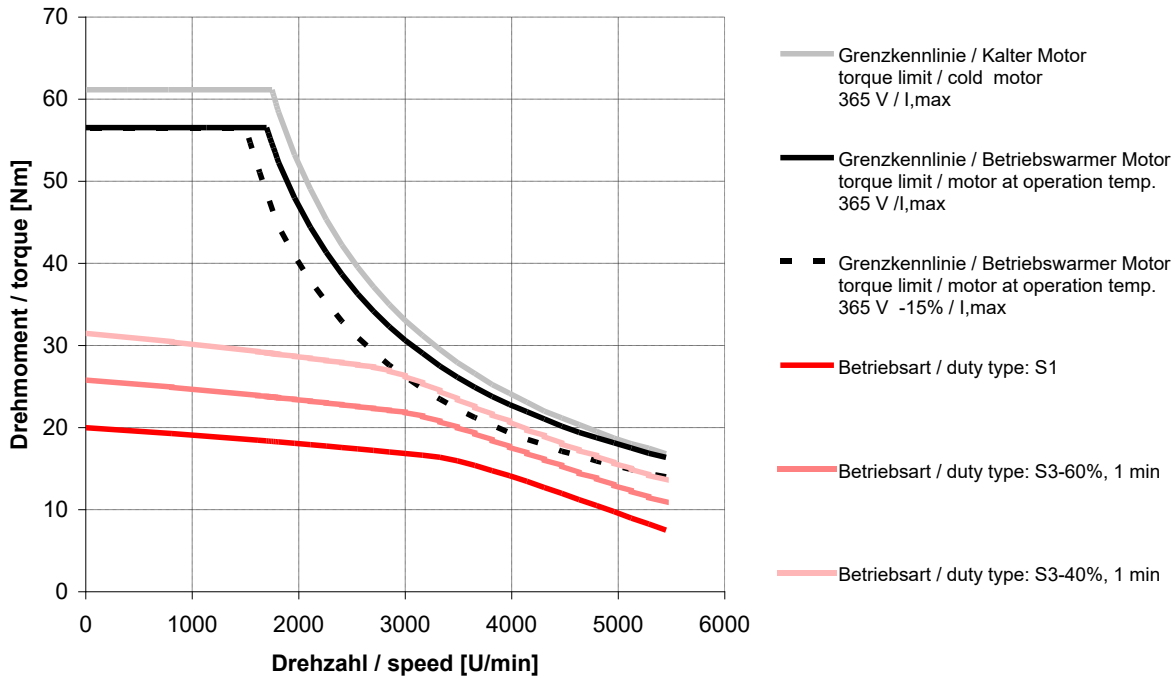
DSD2-056MO640-60-54



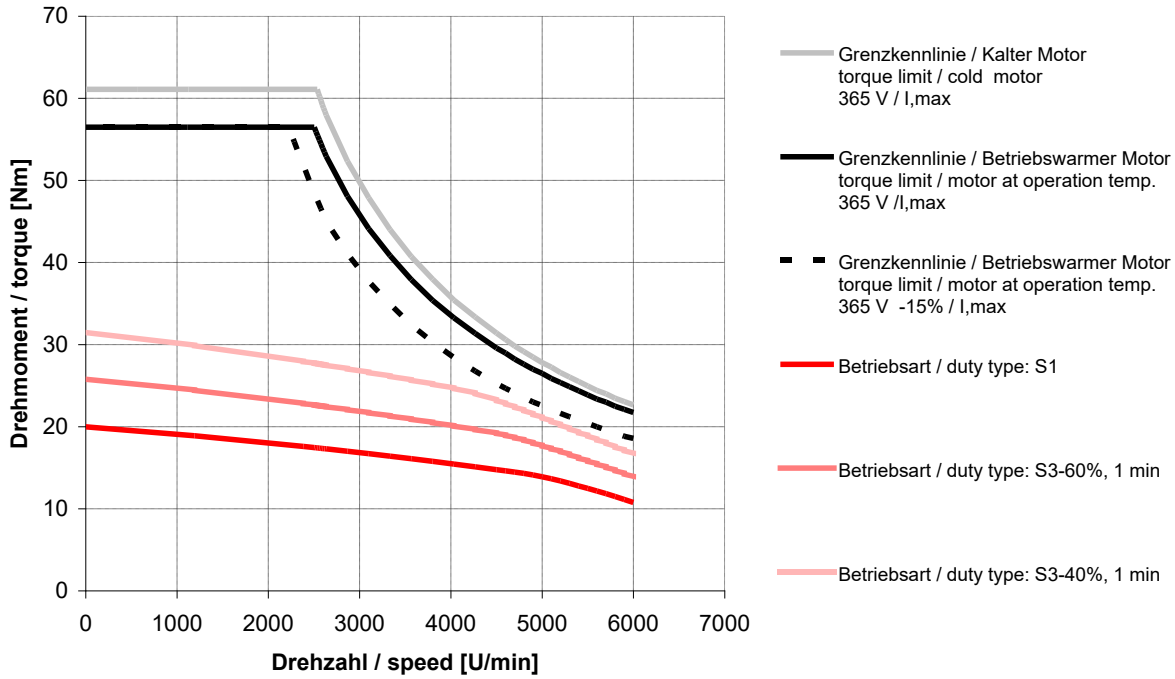
DSD2-056L0640-20-54



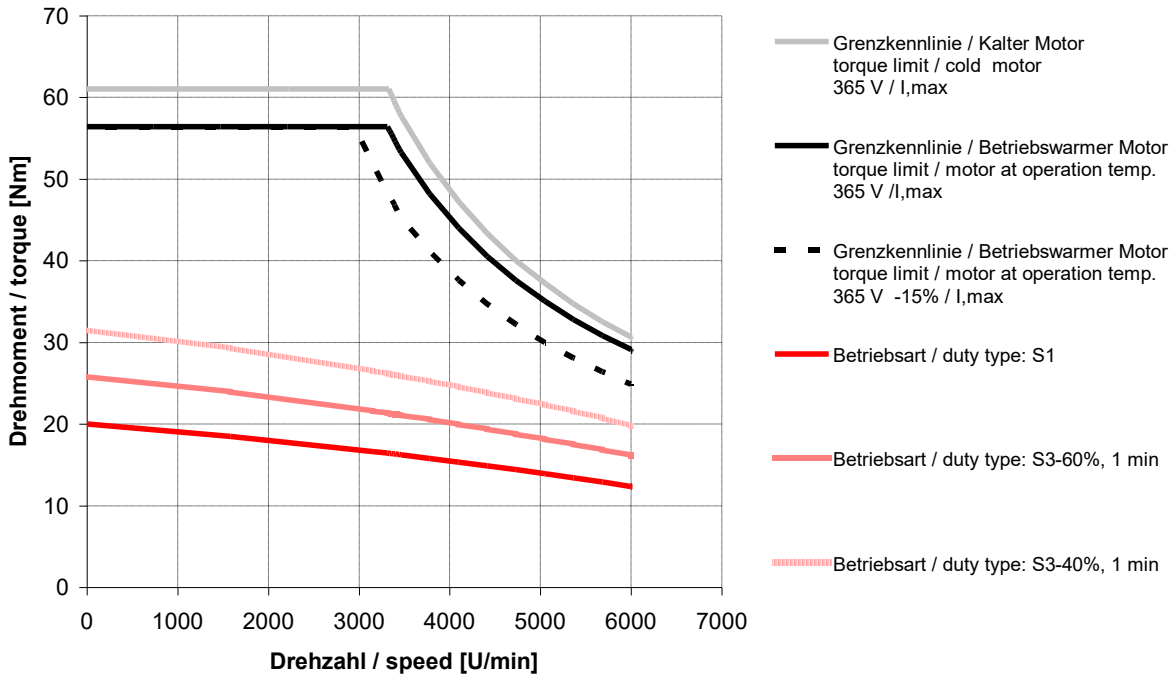
DSD2-056L0640-30-54



DSD2-056LO640-45-54

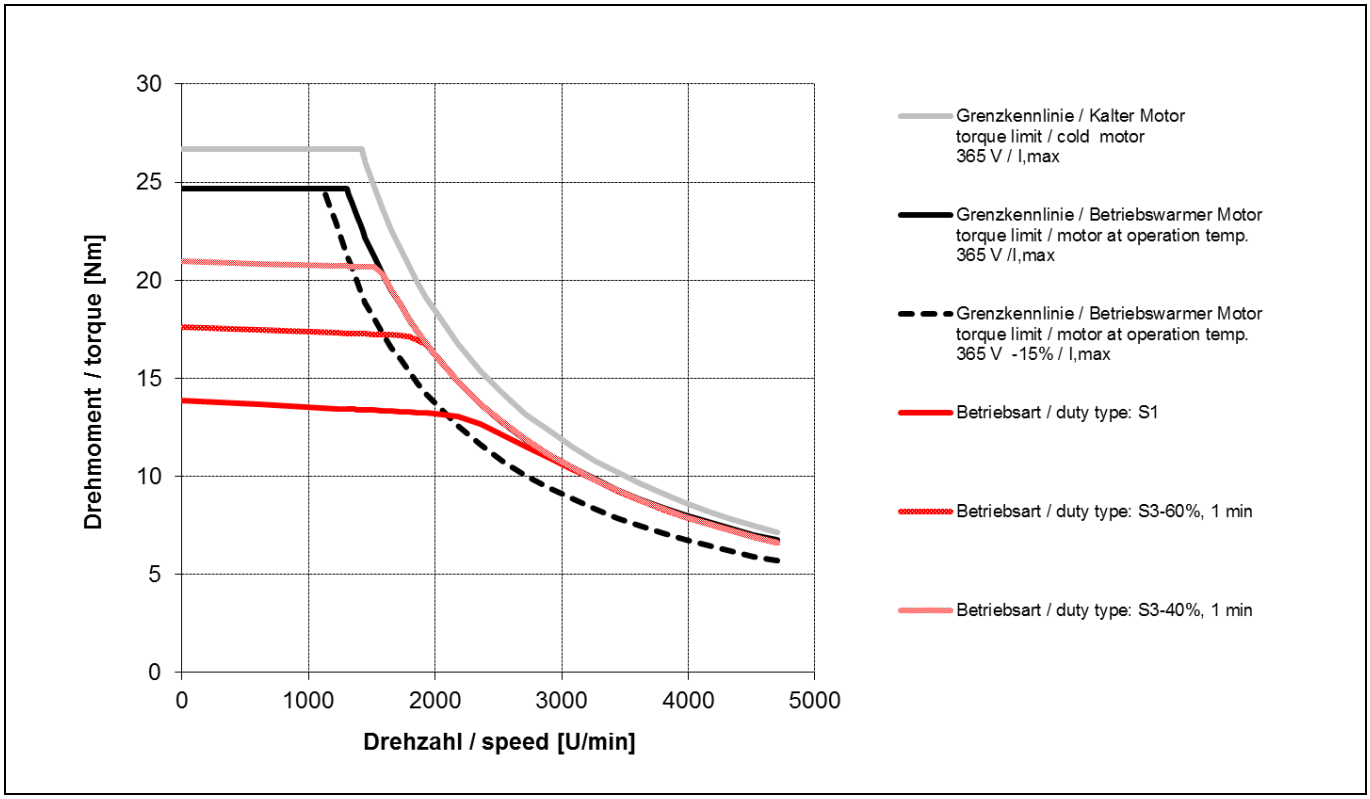


DSD2-056LO640-60-54

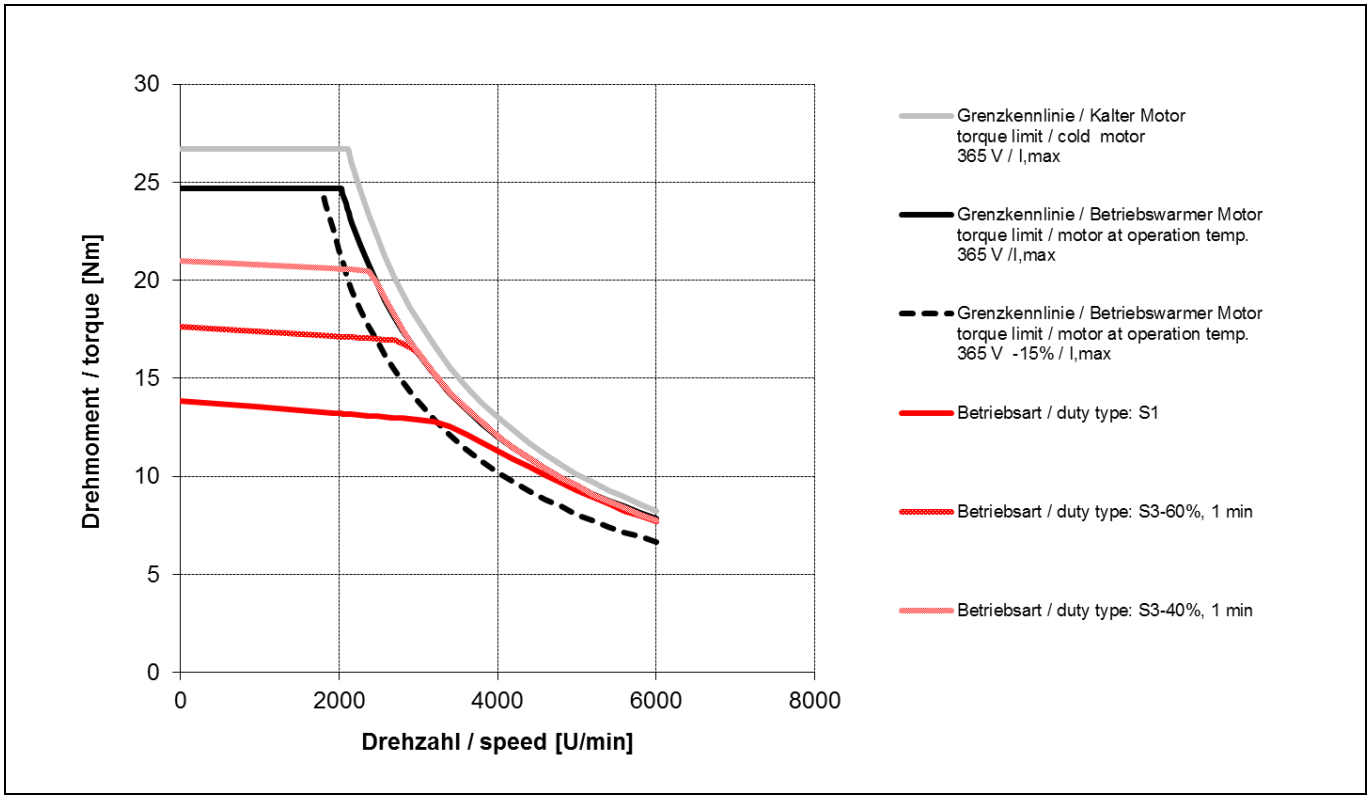


5.4.3 DSD2-056..64W-..

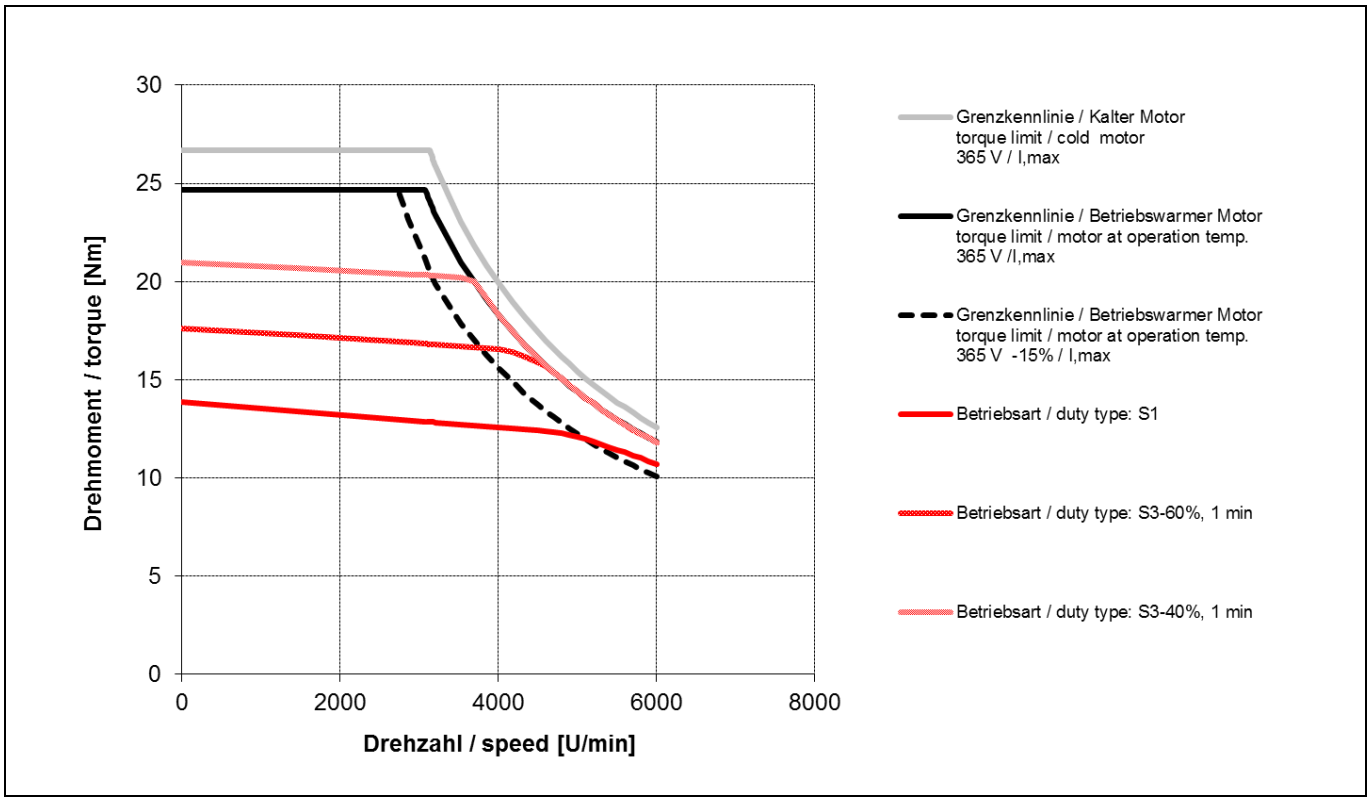
DSD2-056SO64W-20-54



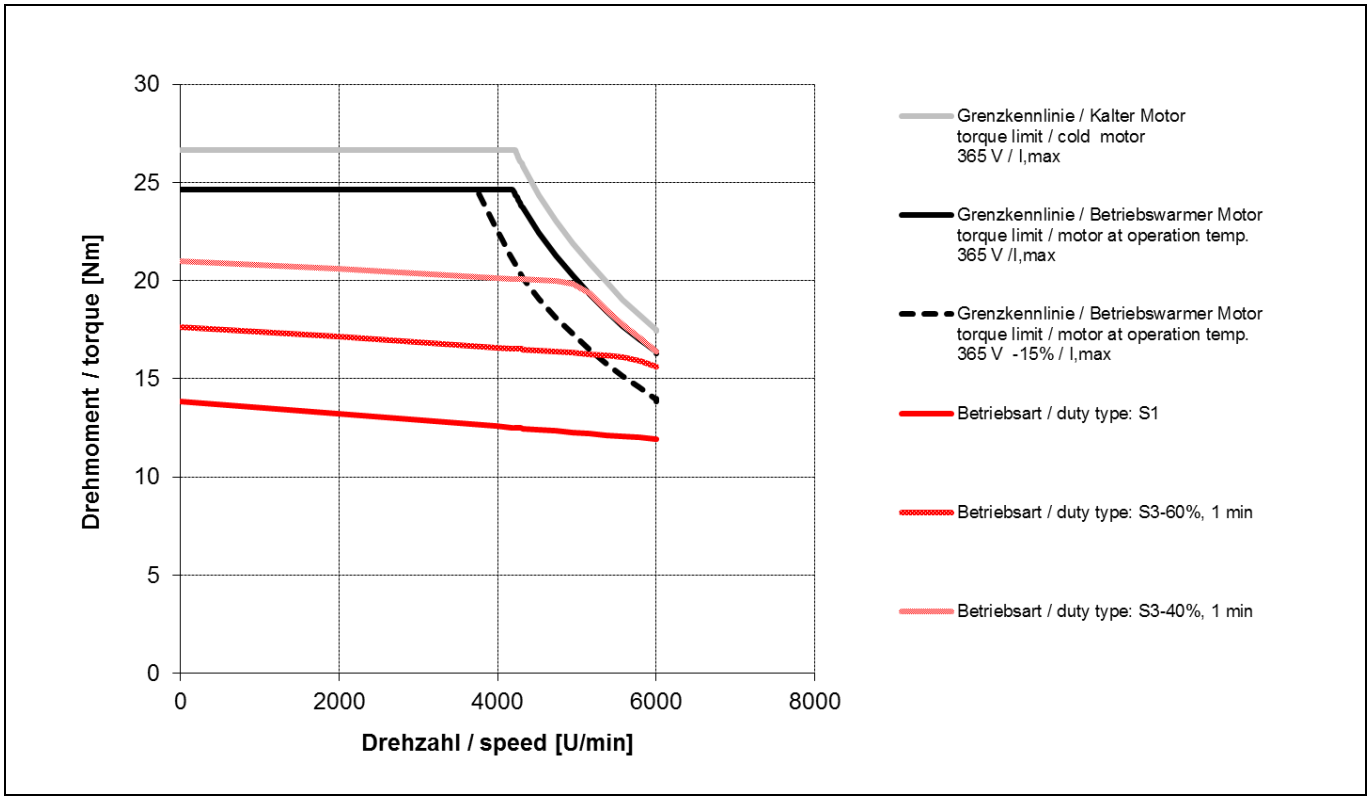
DSD2-056SO64W-30-54



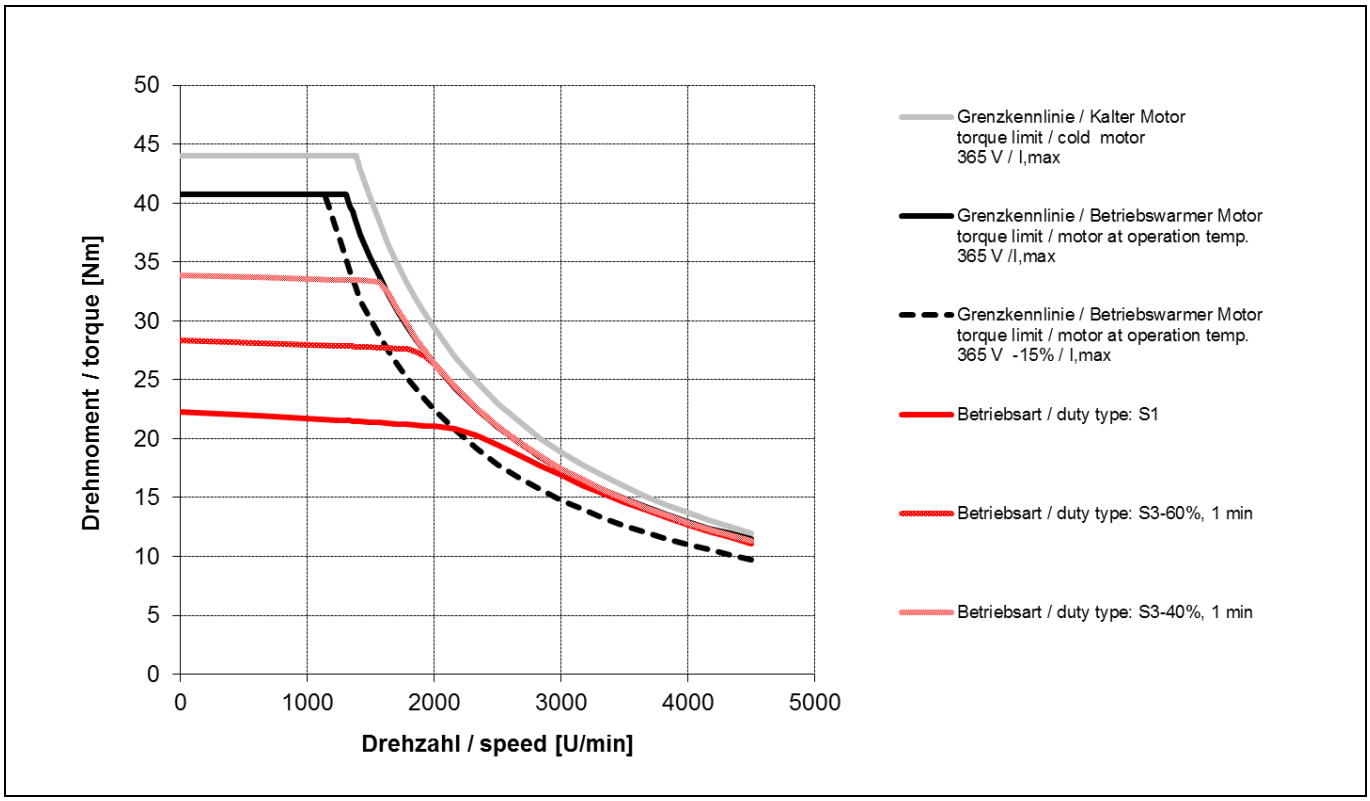
DSD2-056SO64W-45-54



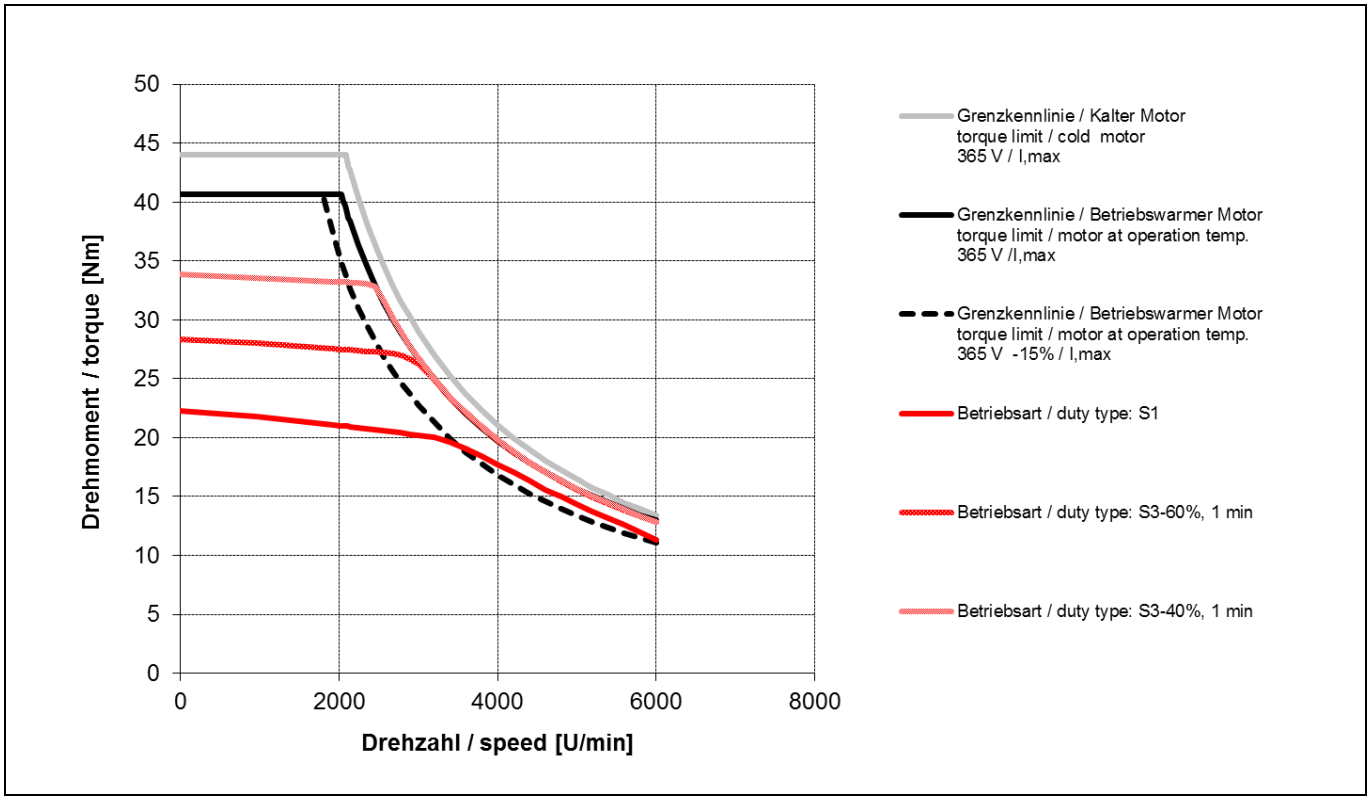
DSD2-056SO64W-60-54



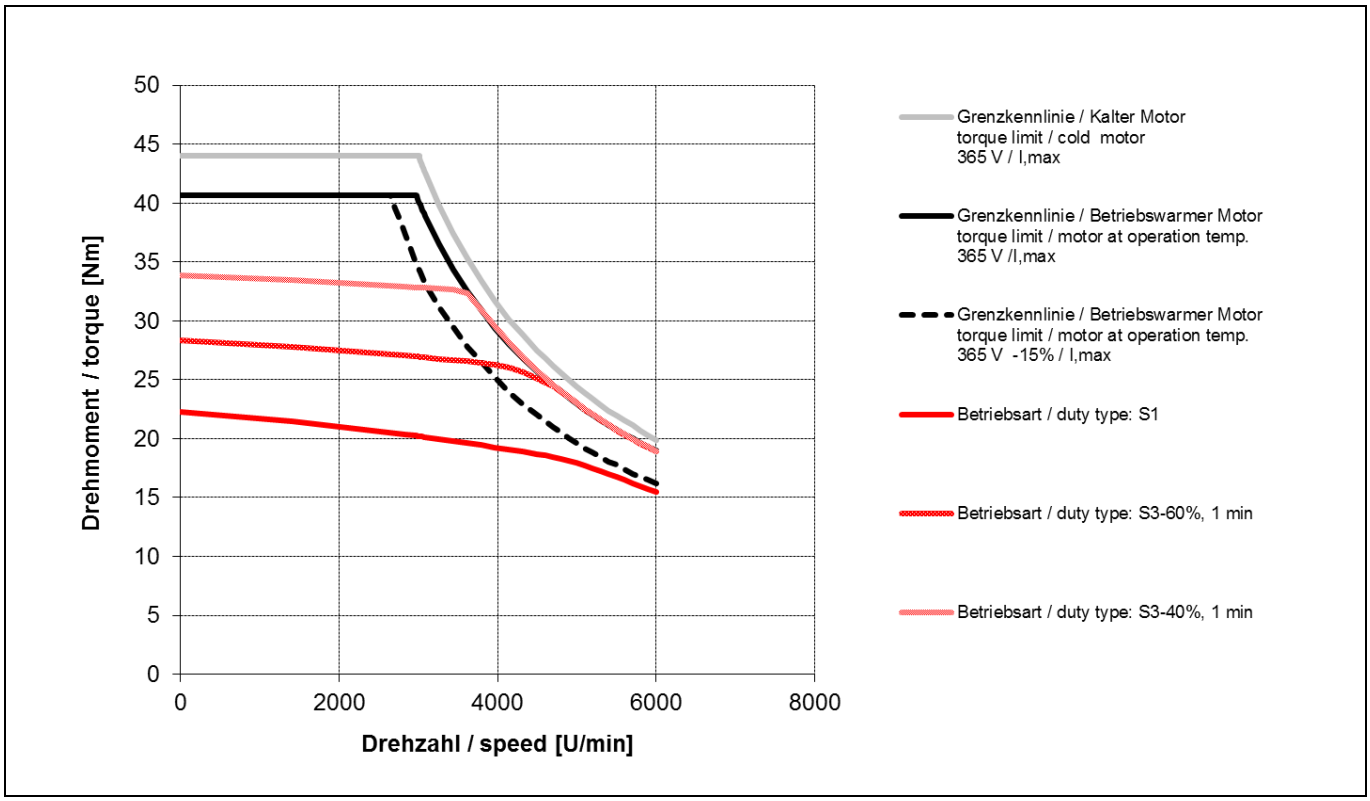
DSD2-056MO64W-20-54



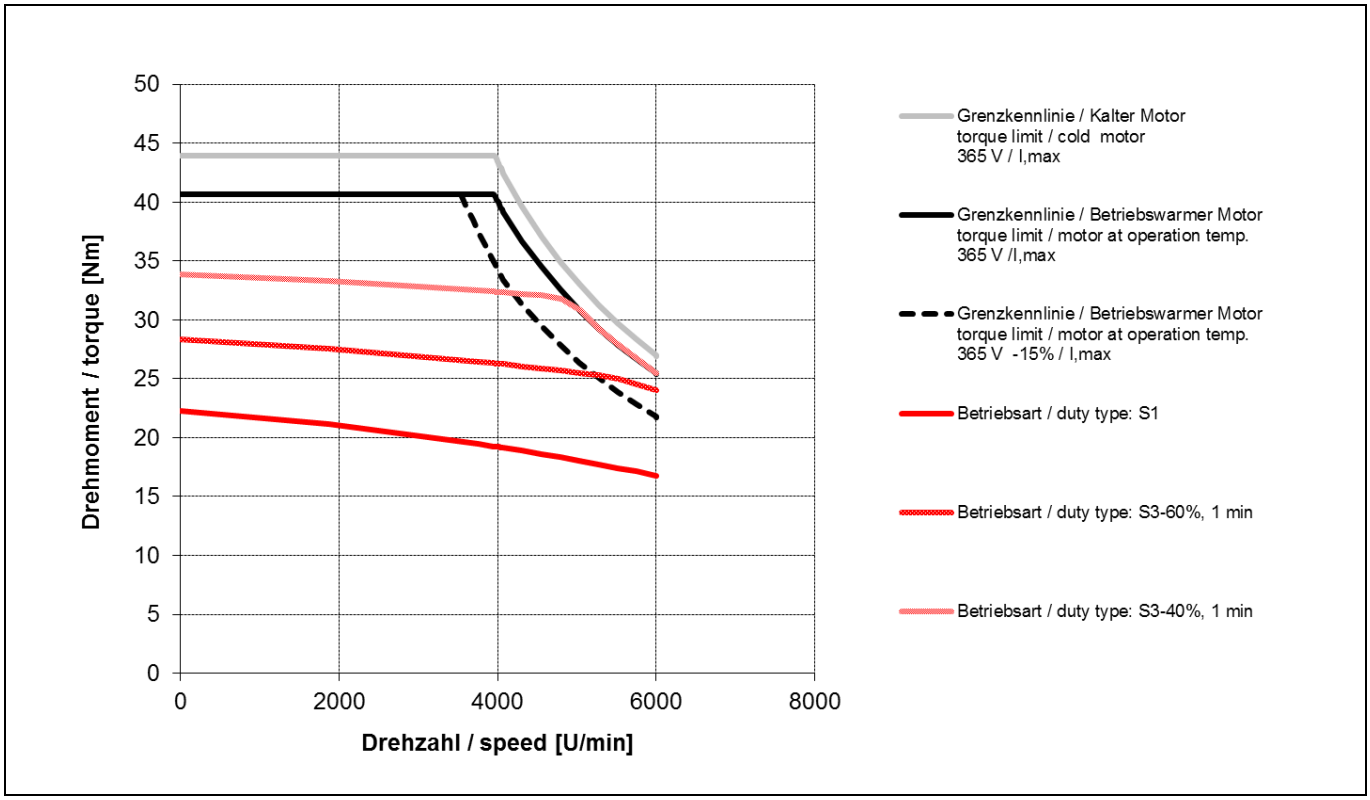
DSD2-056MO64W-30-54



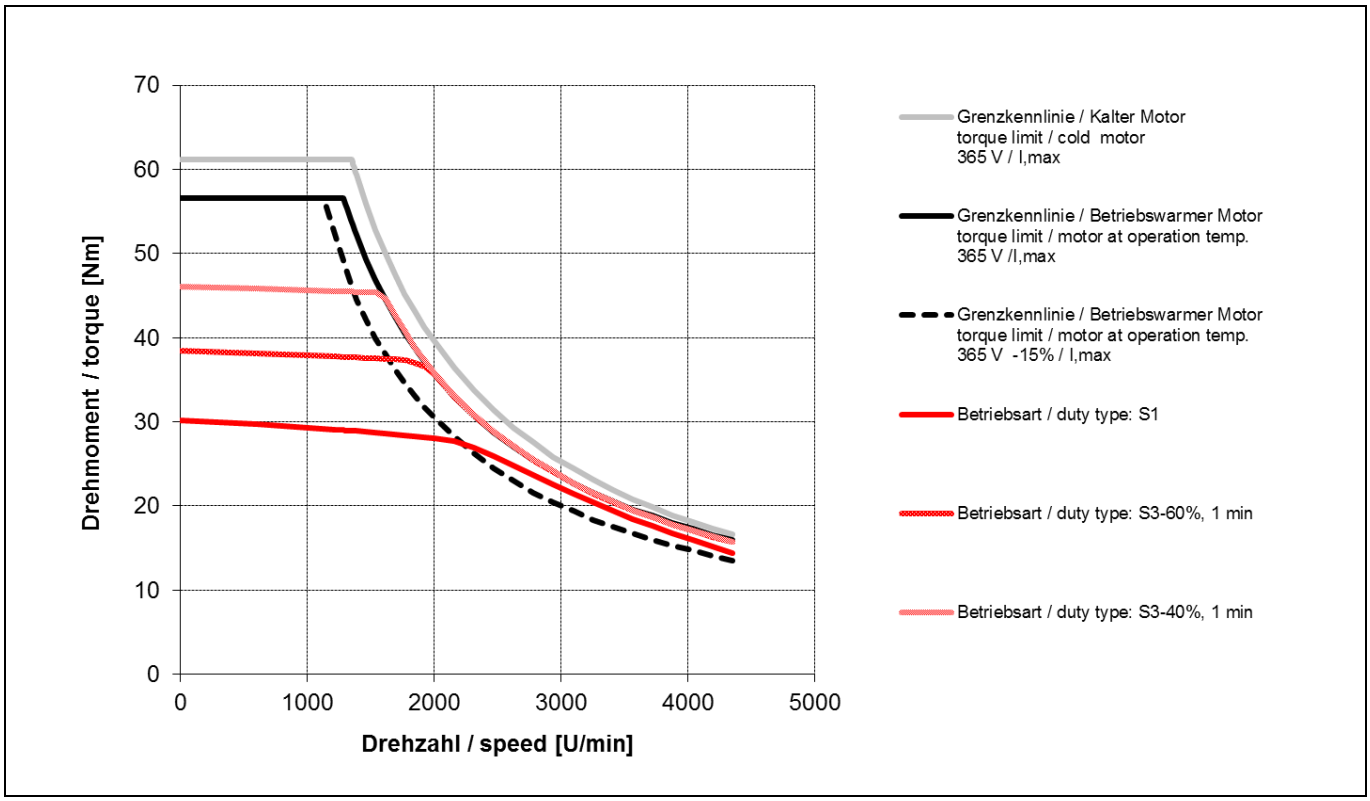
DSD2-056MO64W-45-54



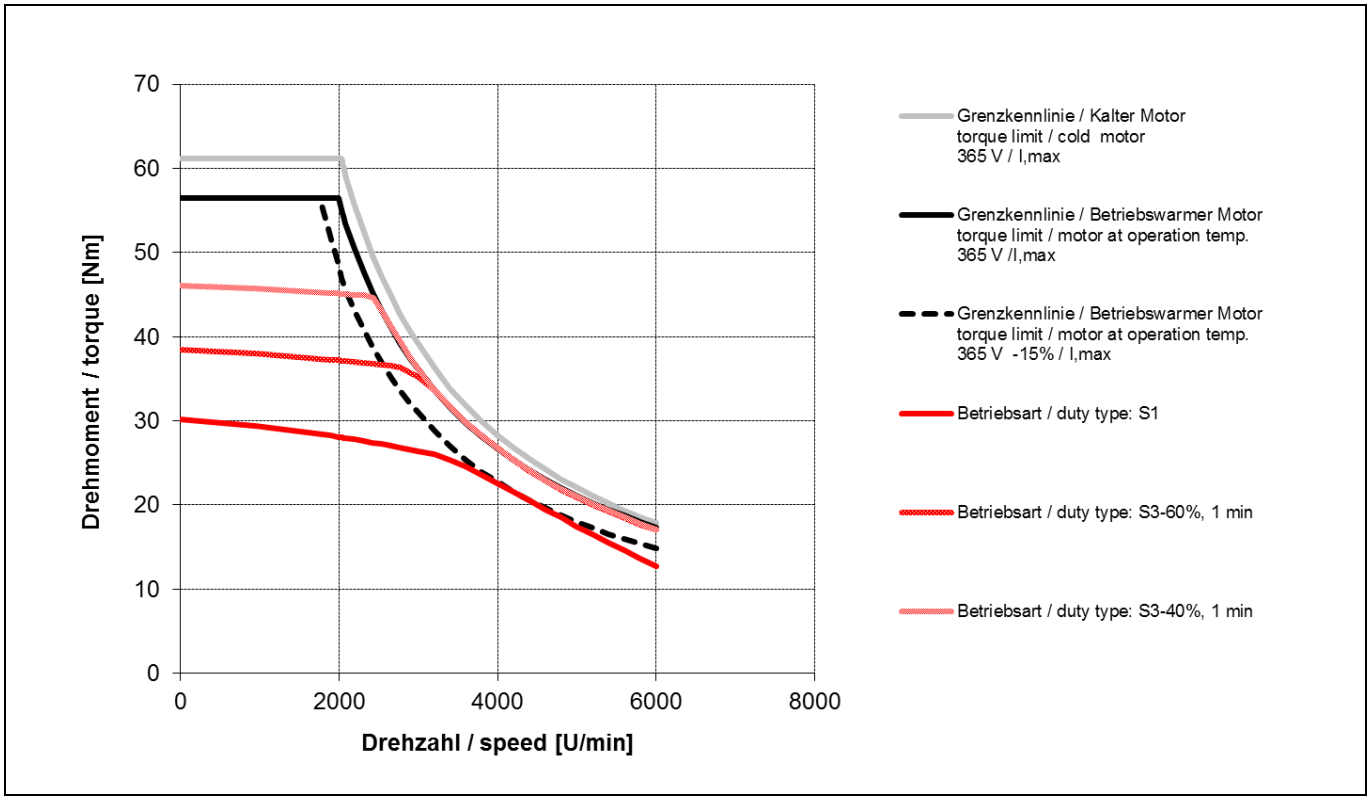
DSD2-056MO64W-60-54



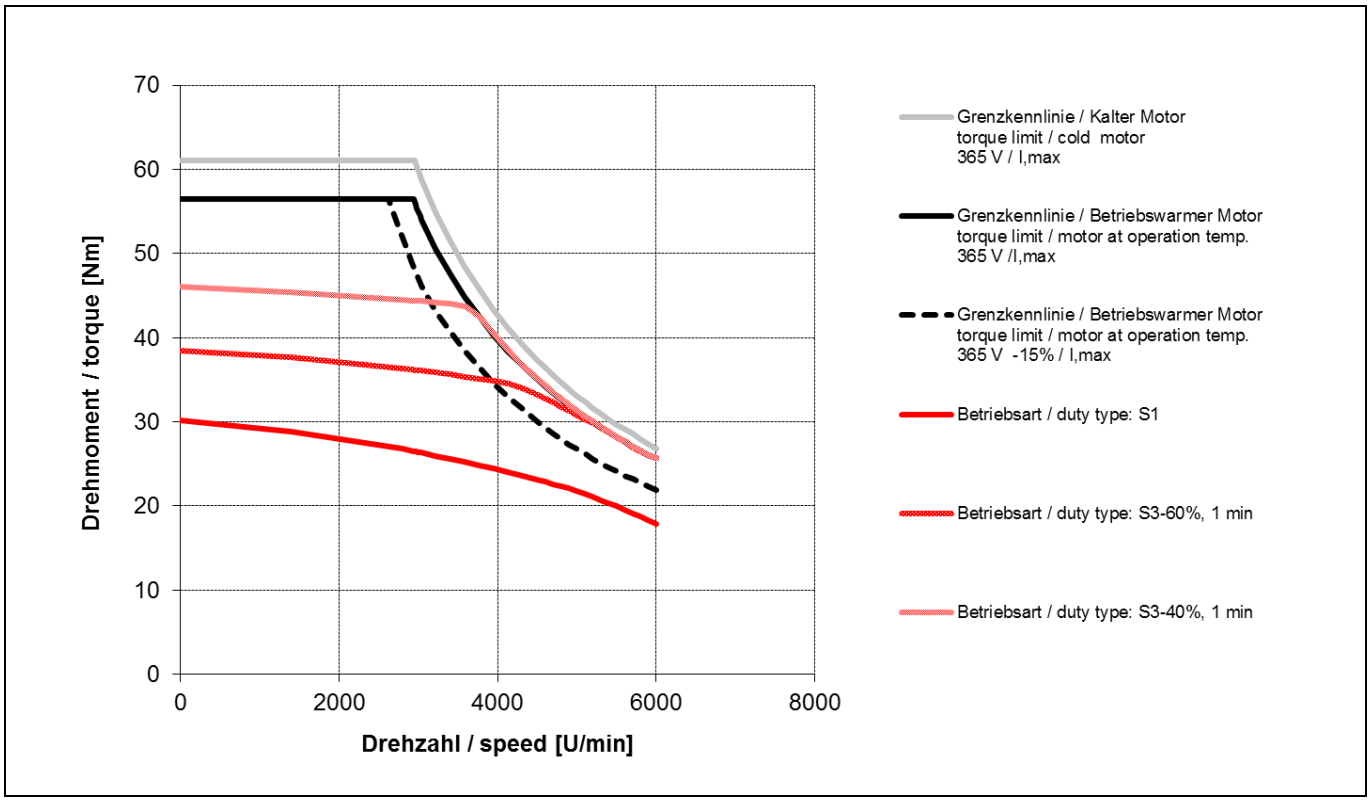
DSD2-056LO64W-20-54



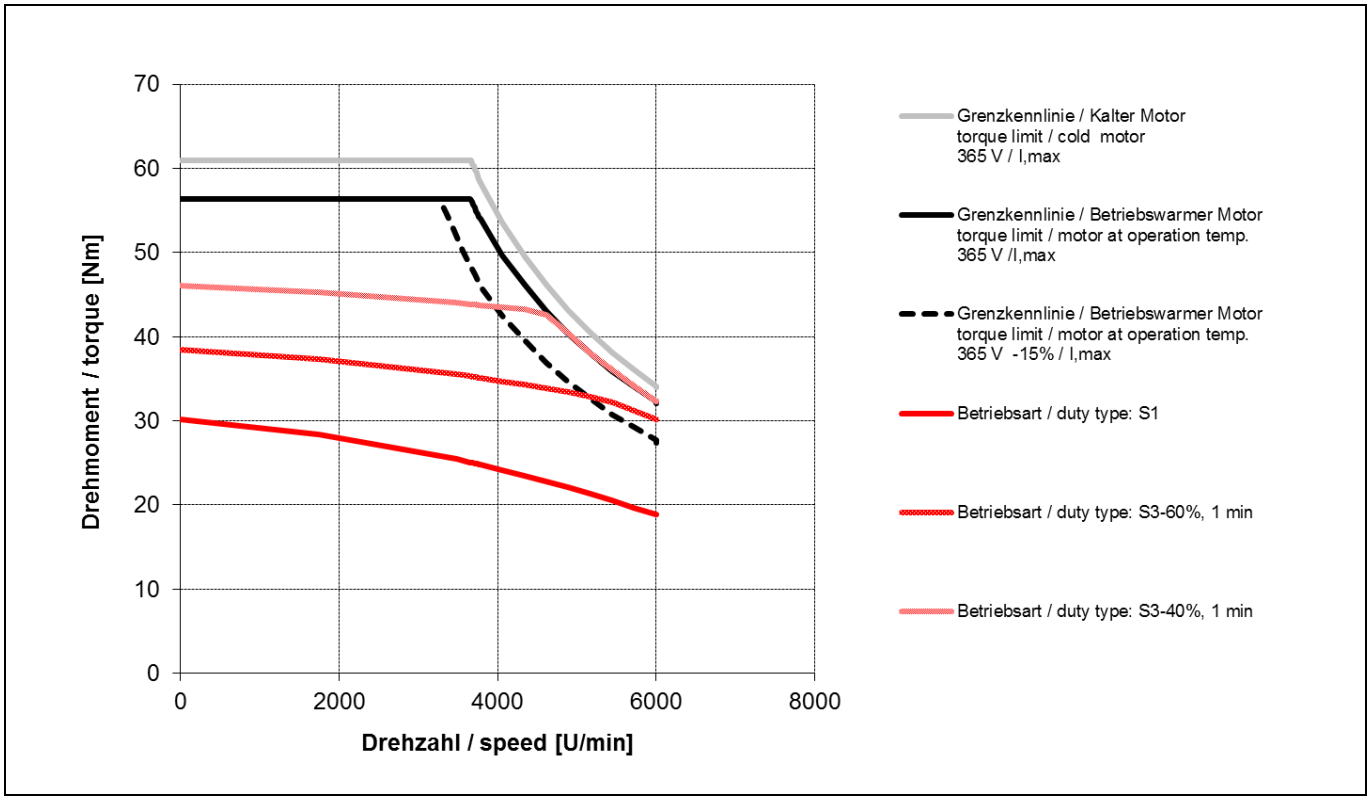
DSD2-056LO64W-30-54



DSD2-056LO64W-45-54



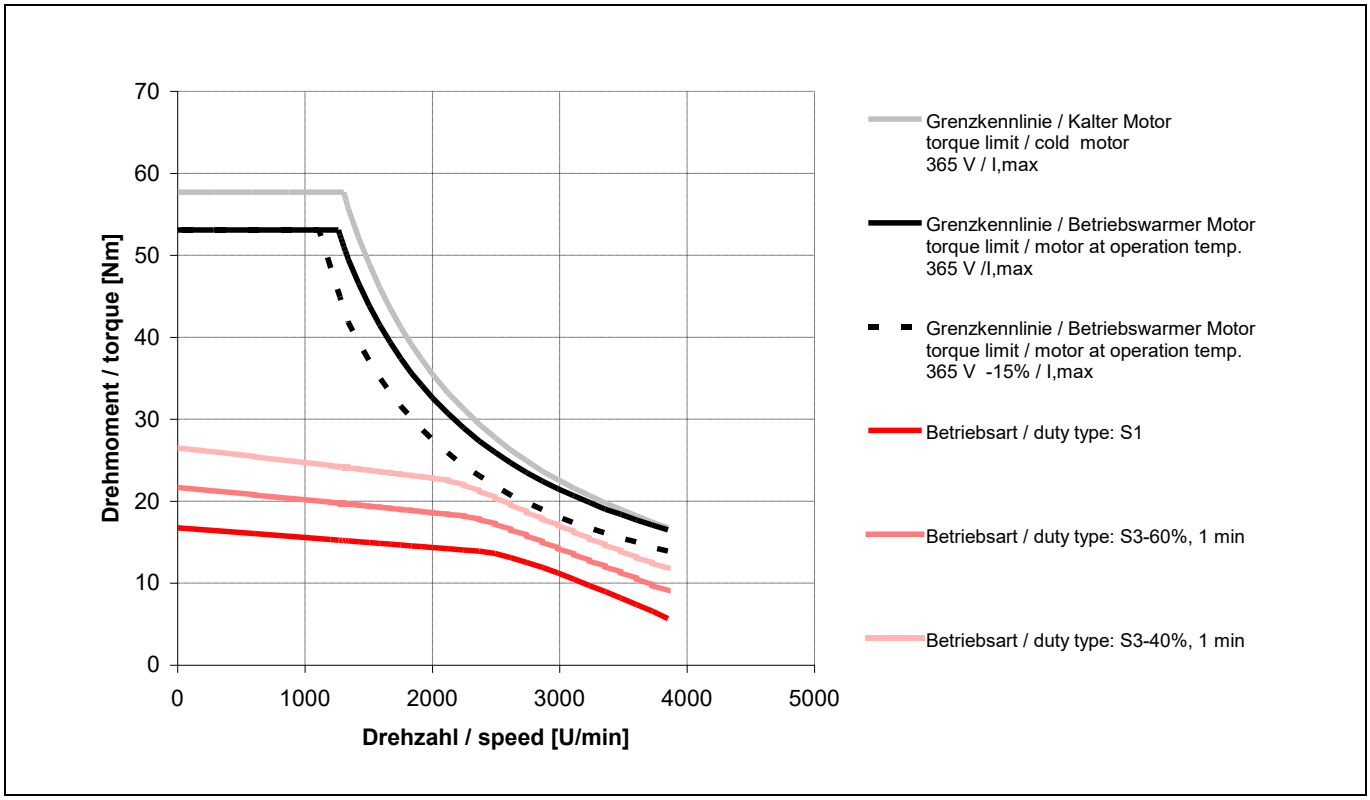
DSD2-056LO64W-60-54



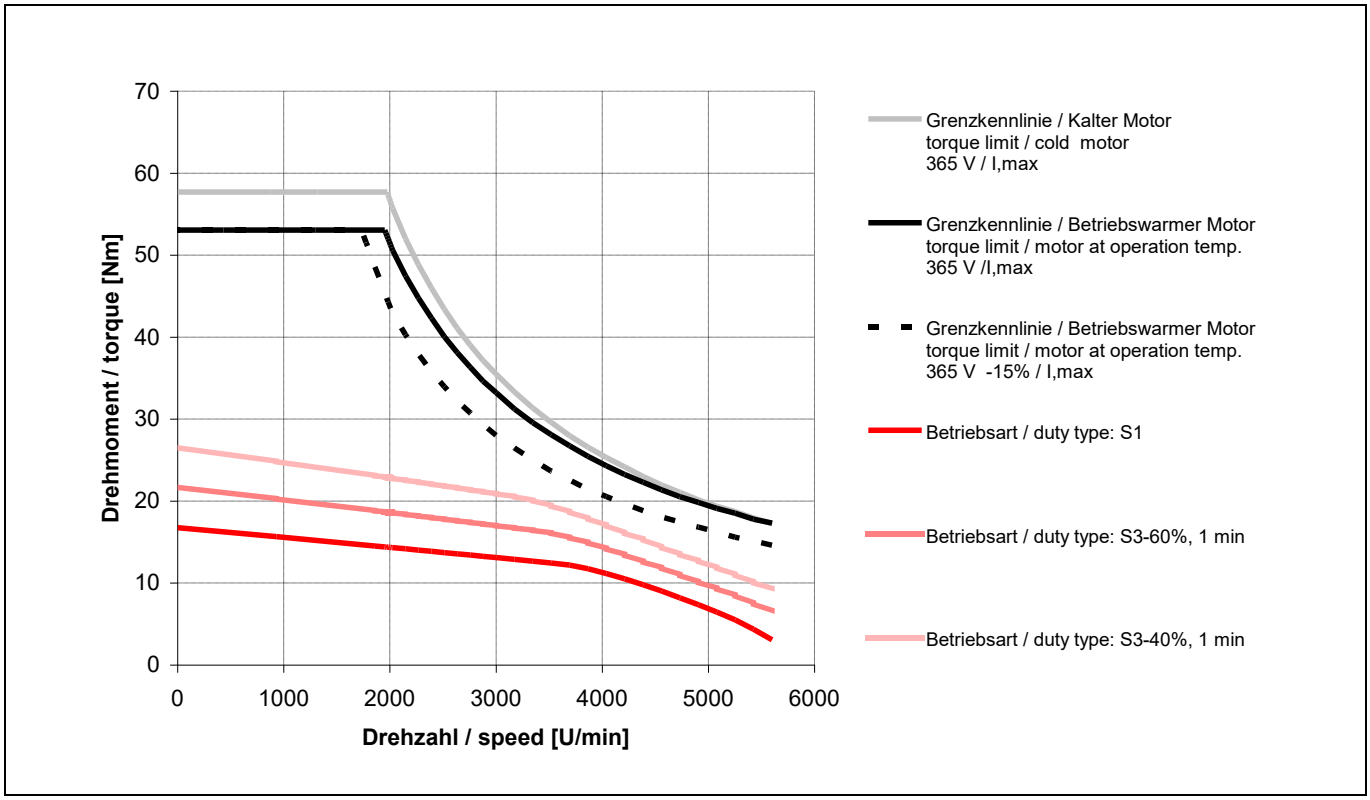
5.5 Characteristics DSD2-071

5.5.1 DSD2-071..64U-..

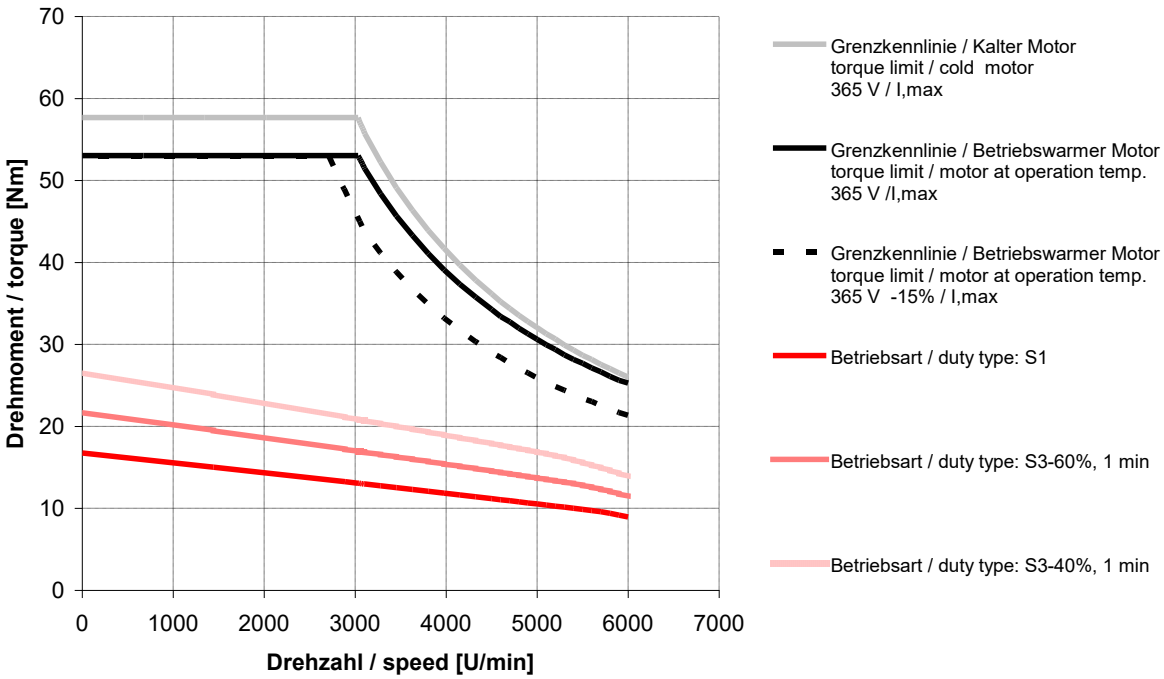
DSD2-071S064U-20-54



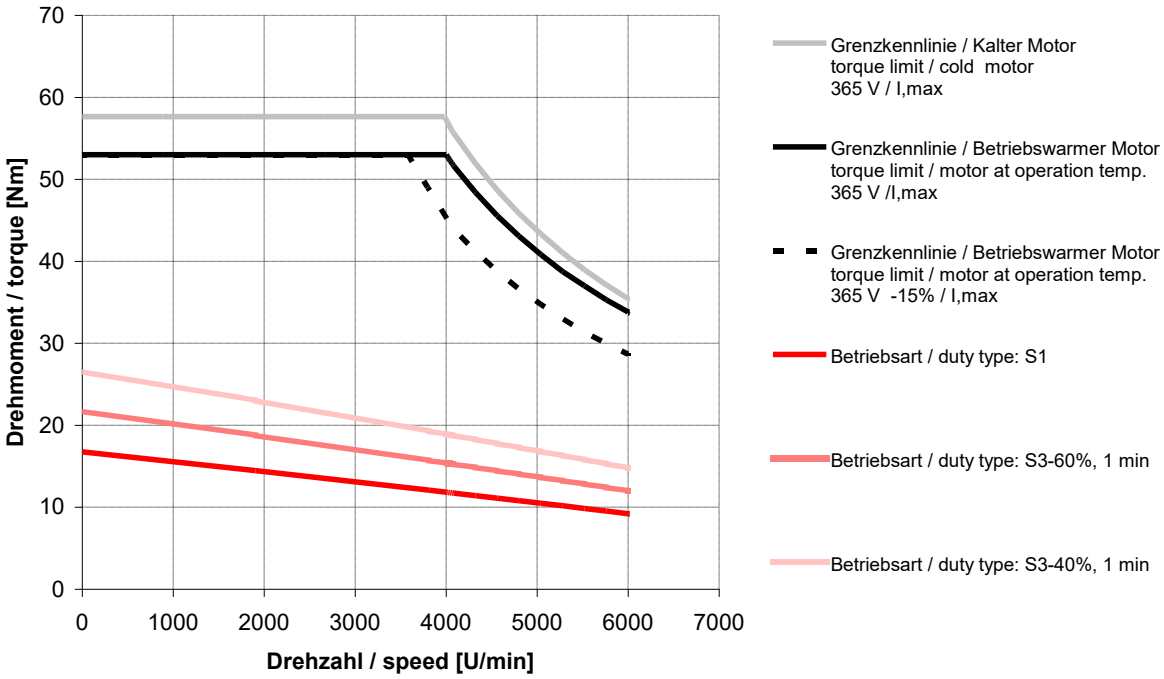
DSD2-071S064U-30-54



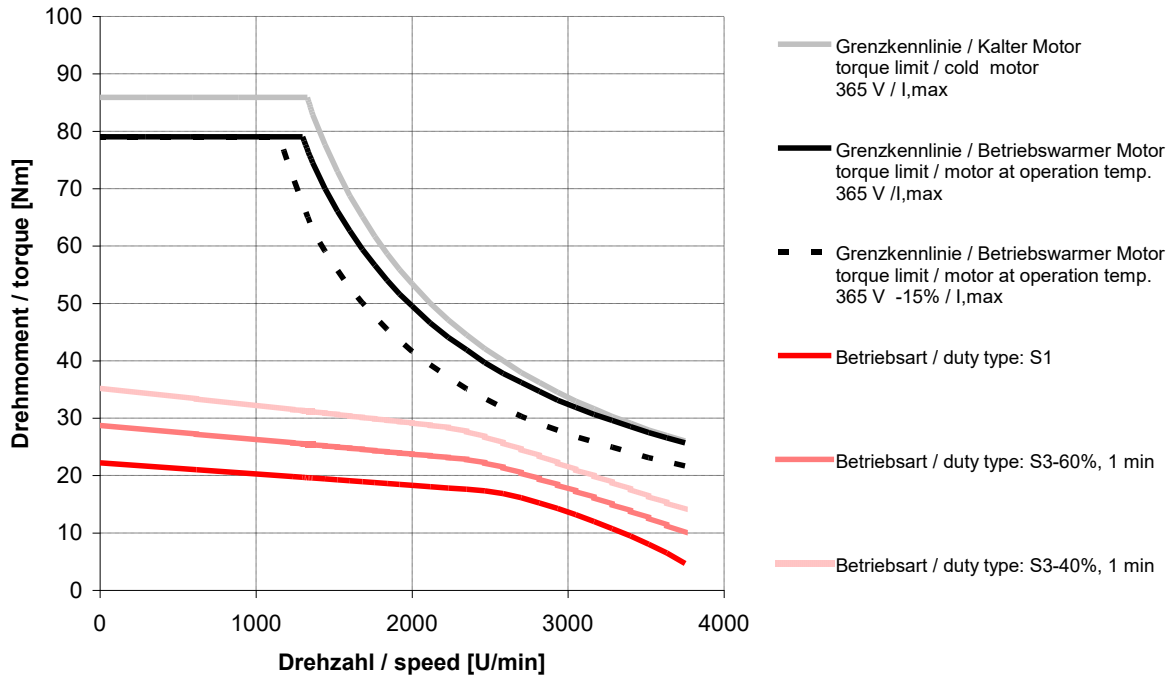
DSD2-071S064U-45-54



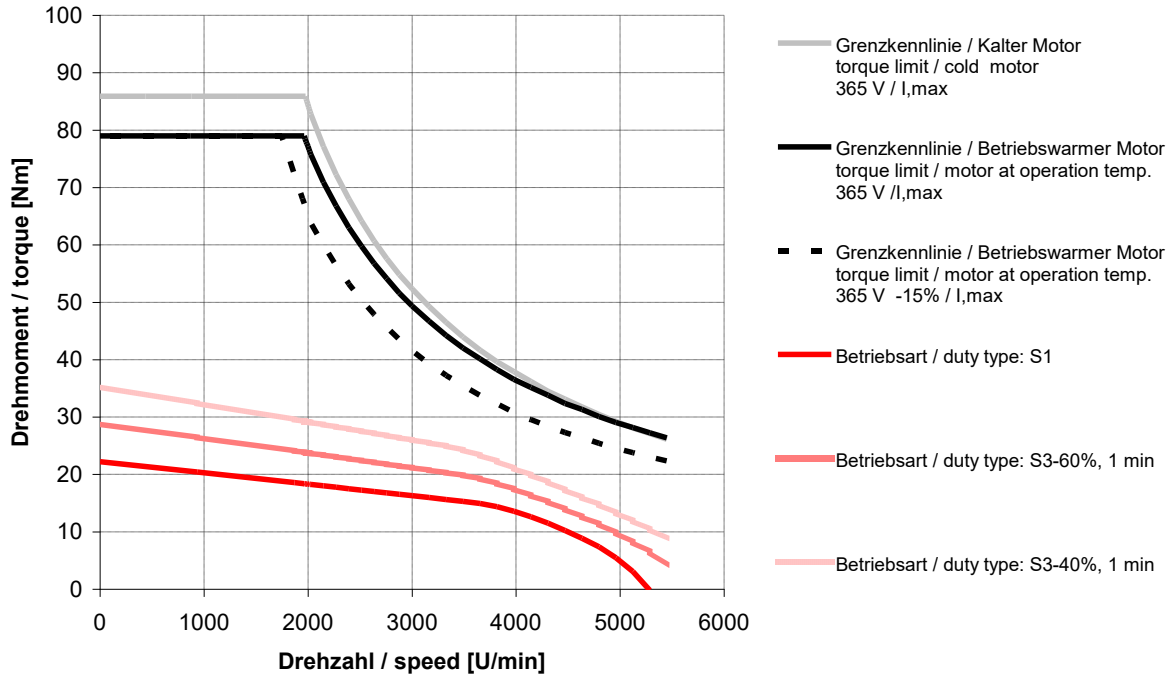
DSD2-071S064U-60-54



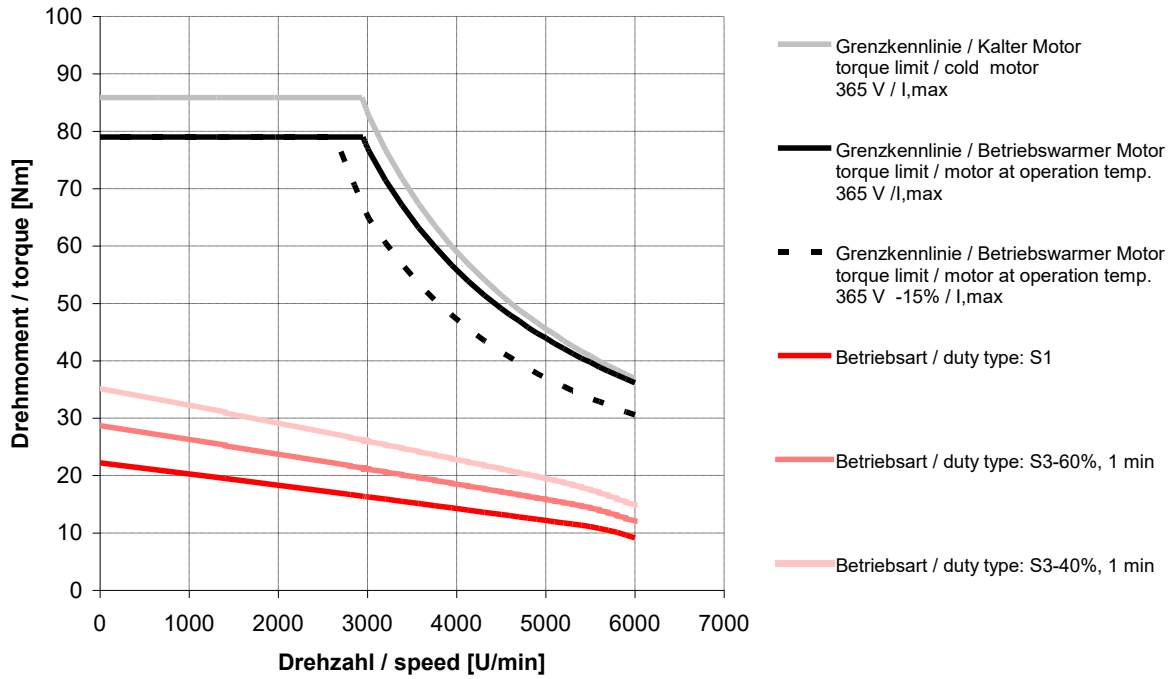
DSD2-071M064U-20-54



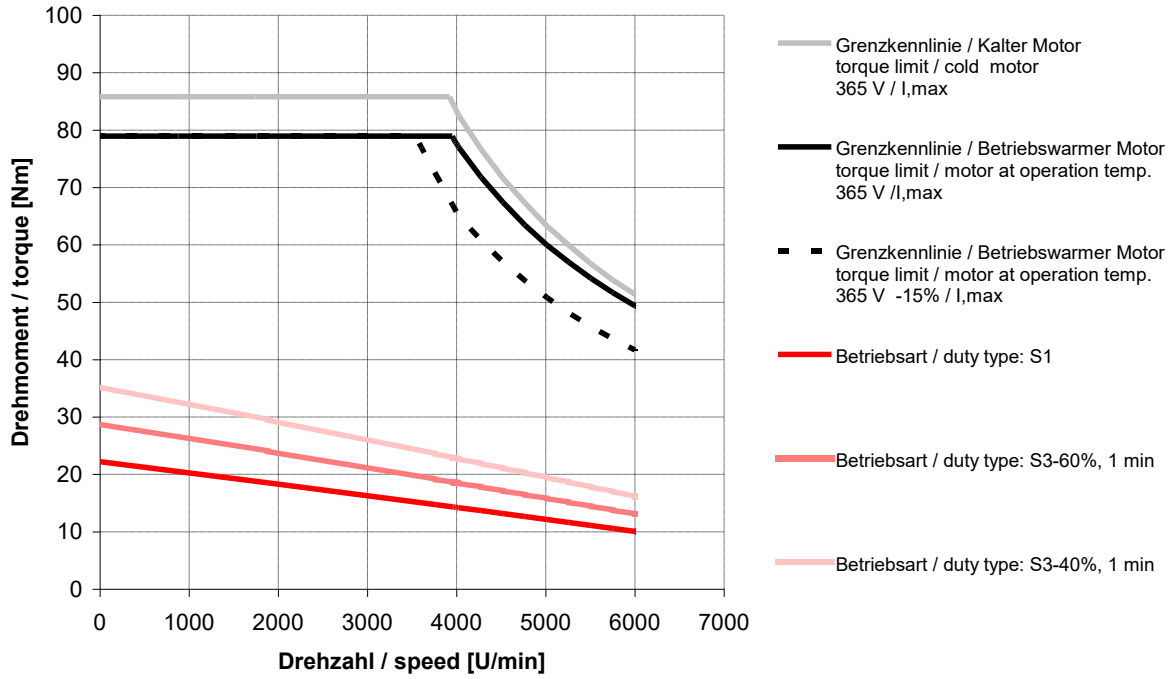
DSD2-071M064U-30-54



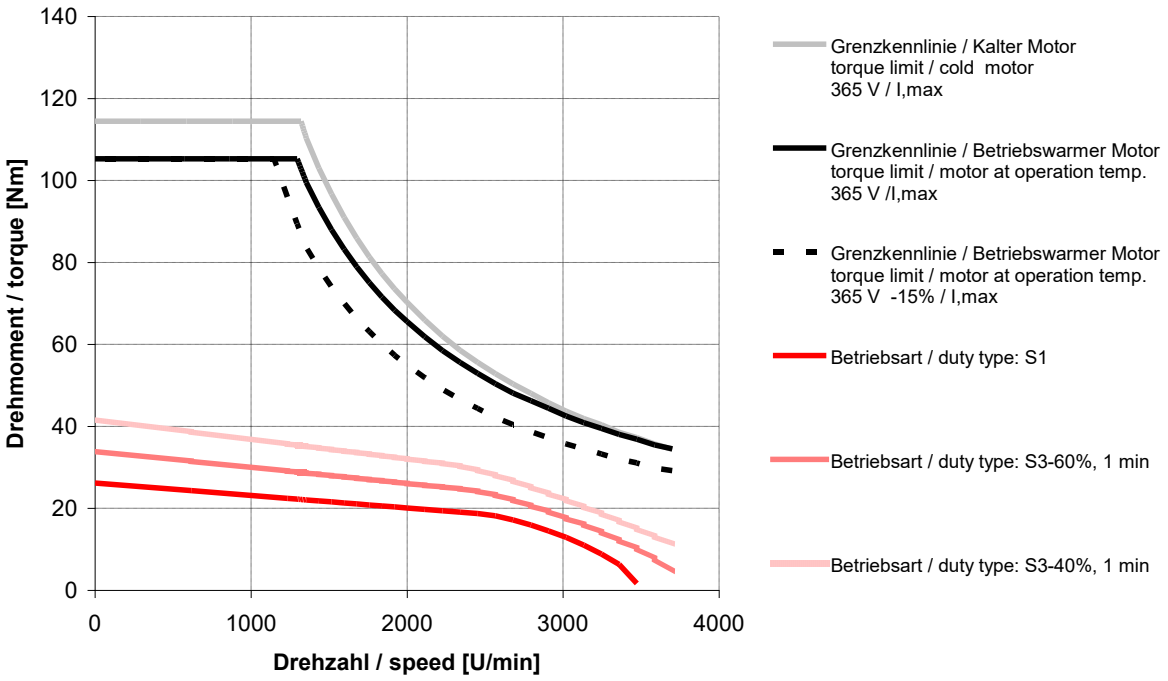
DSD2-071M064U-45-54



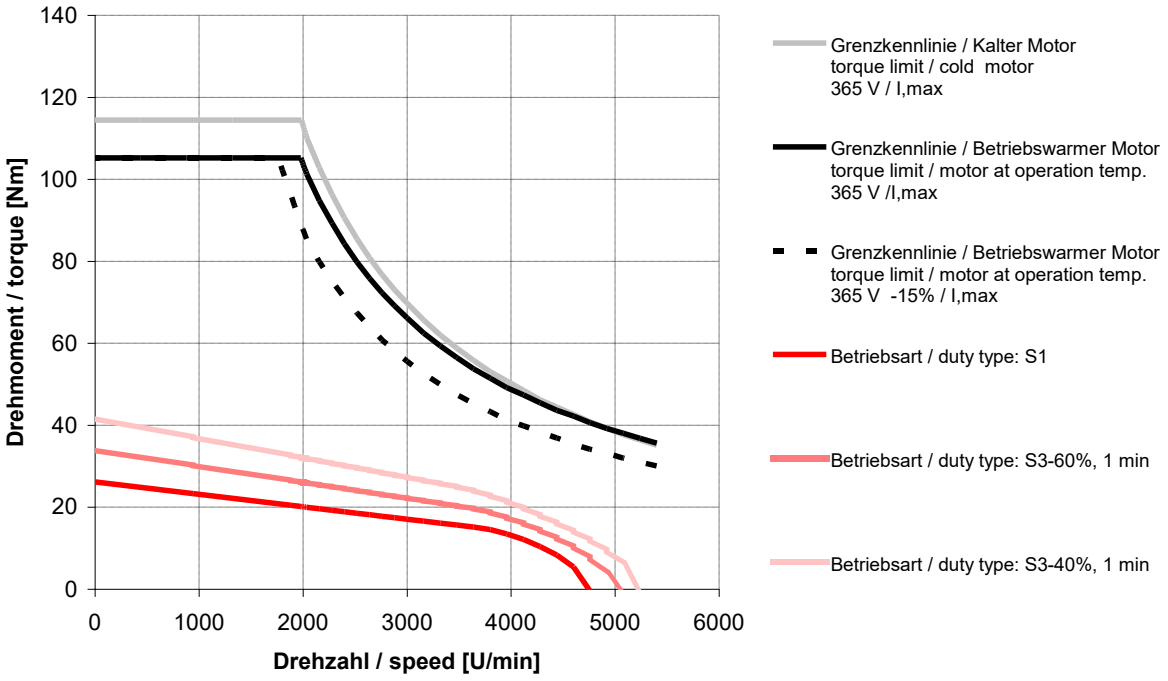
DSD2-071M064U-60-54



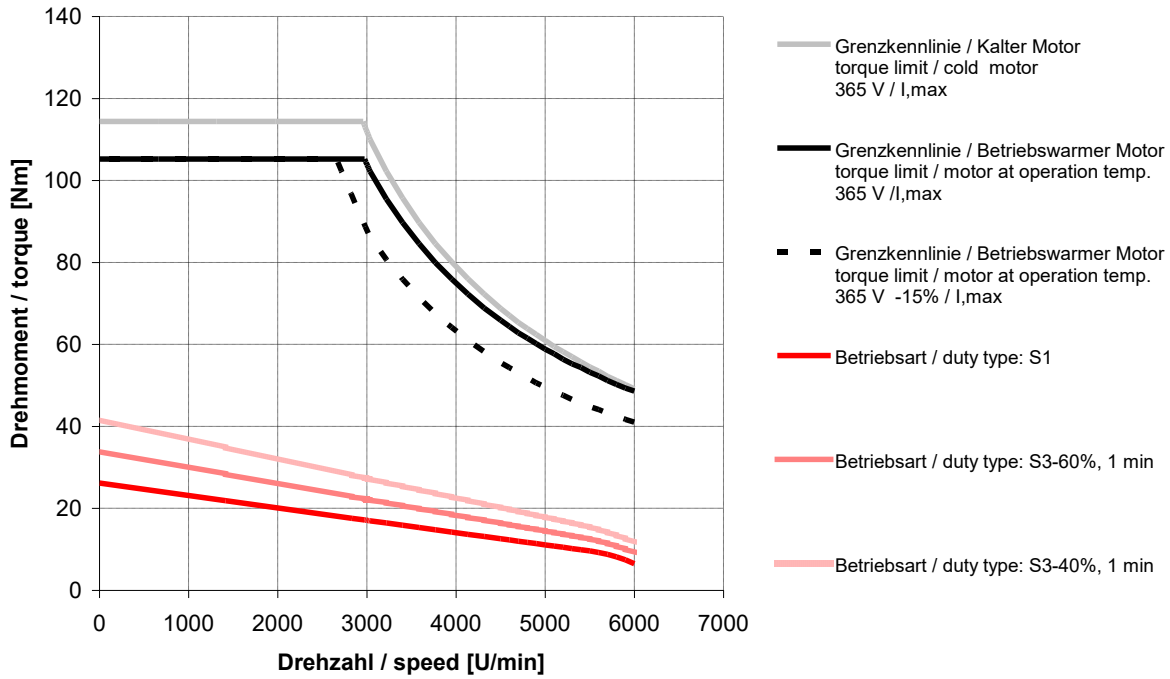
DSD2-071L064U-20-54



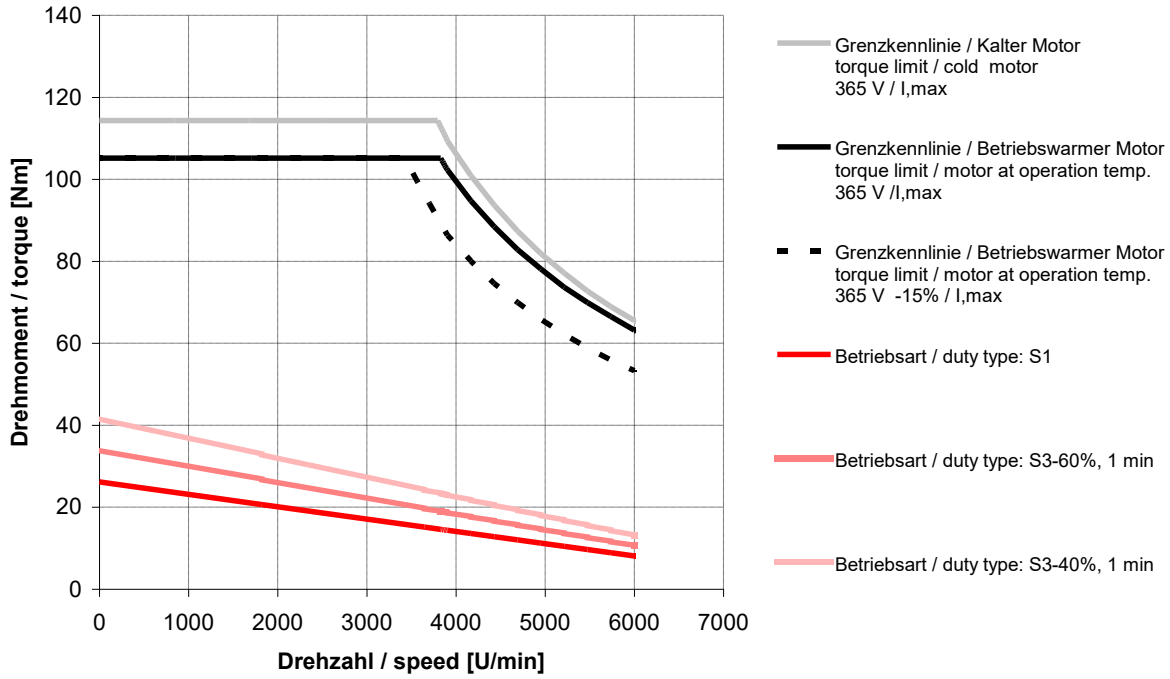
DSD2-071L064U-30-54



DSD2-071L064U-45-54

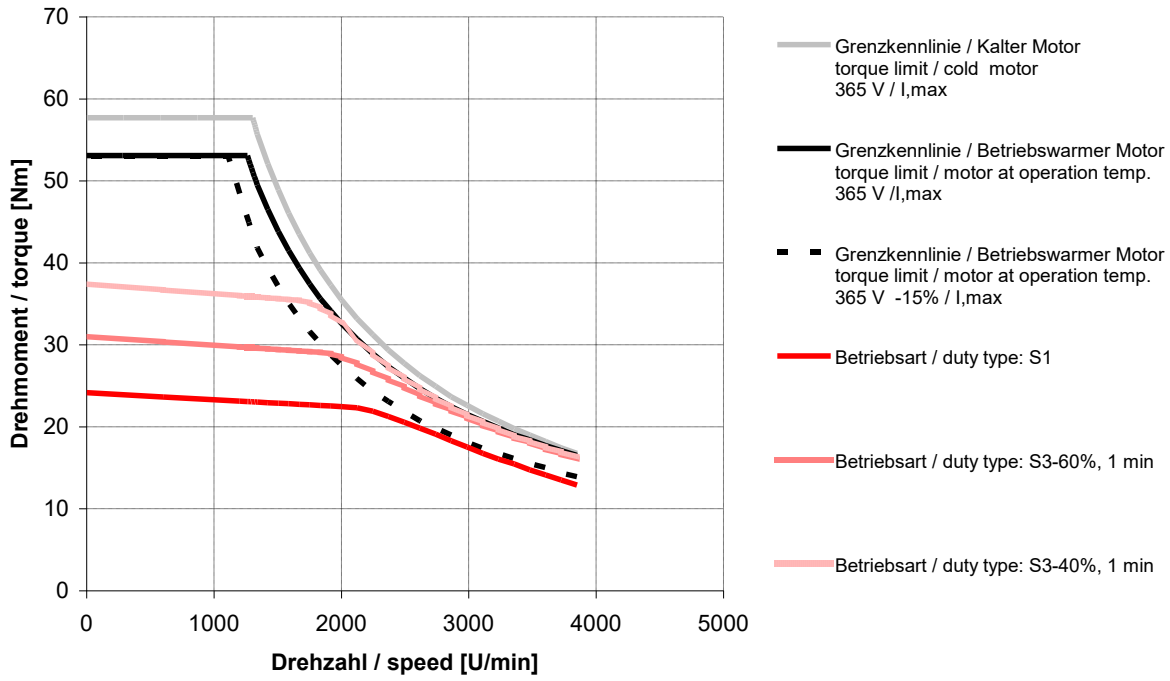


DSD2-071L064U-60-54

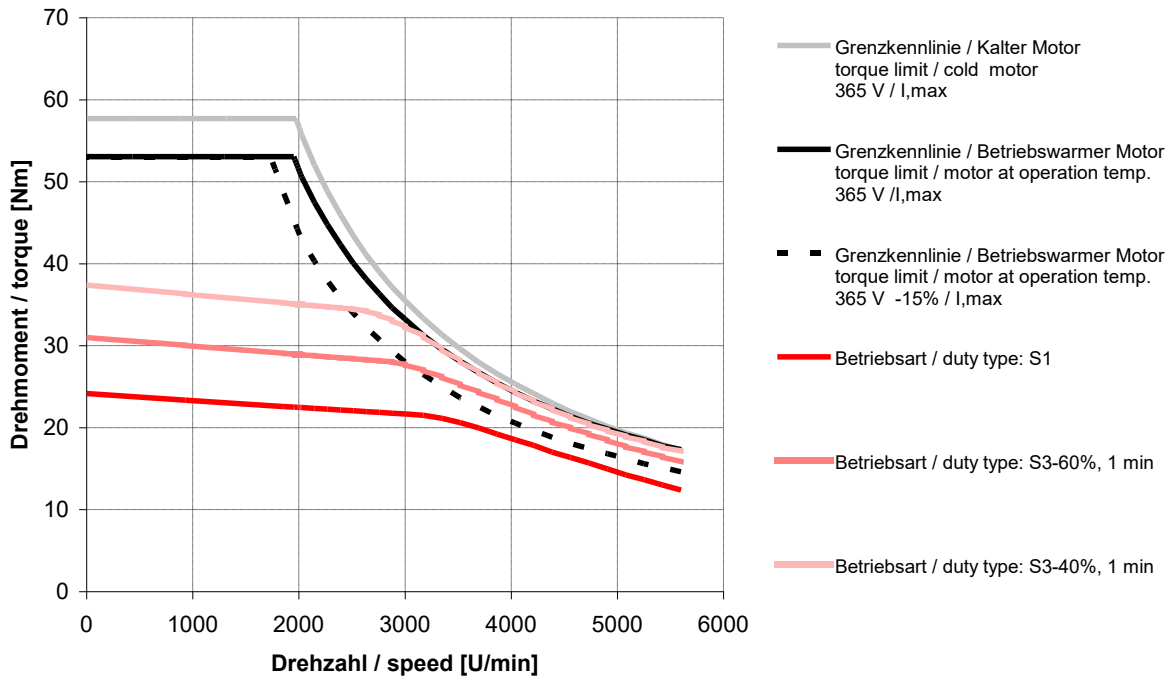


5.5.2 DSD2-071..640-..

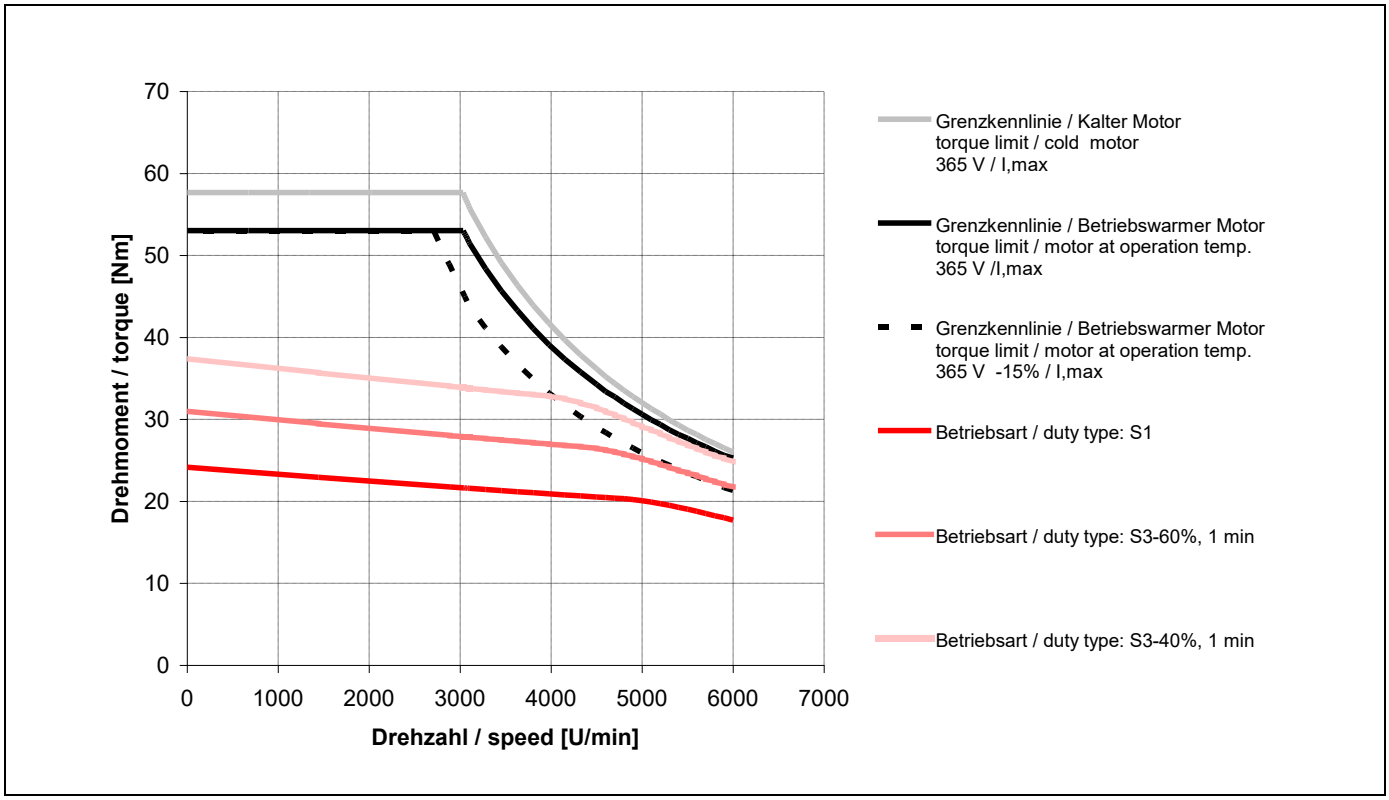
DSD2-071S0640-20-54



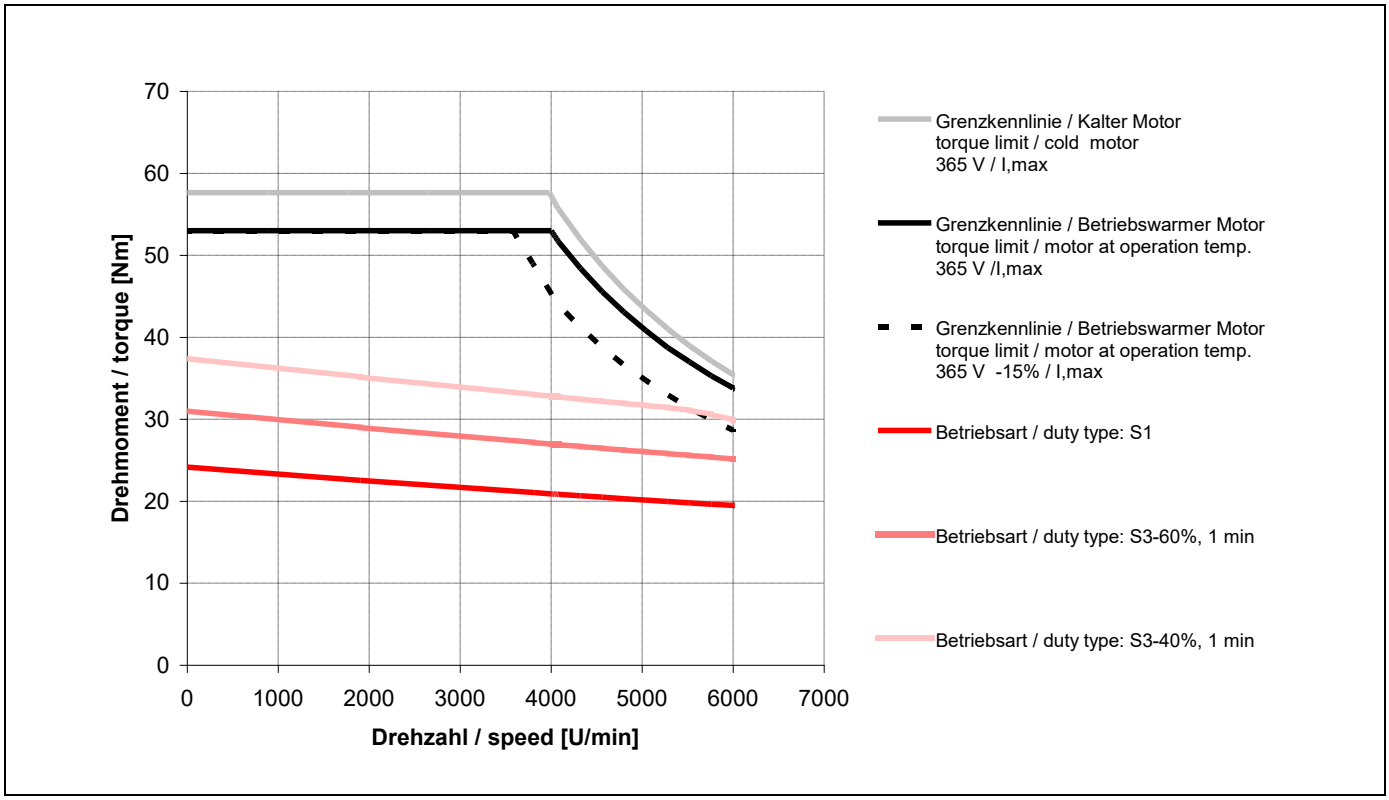
DSD2-071S0640-30-54



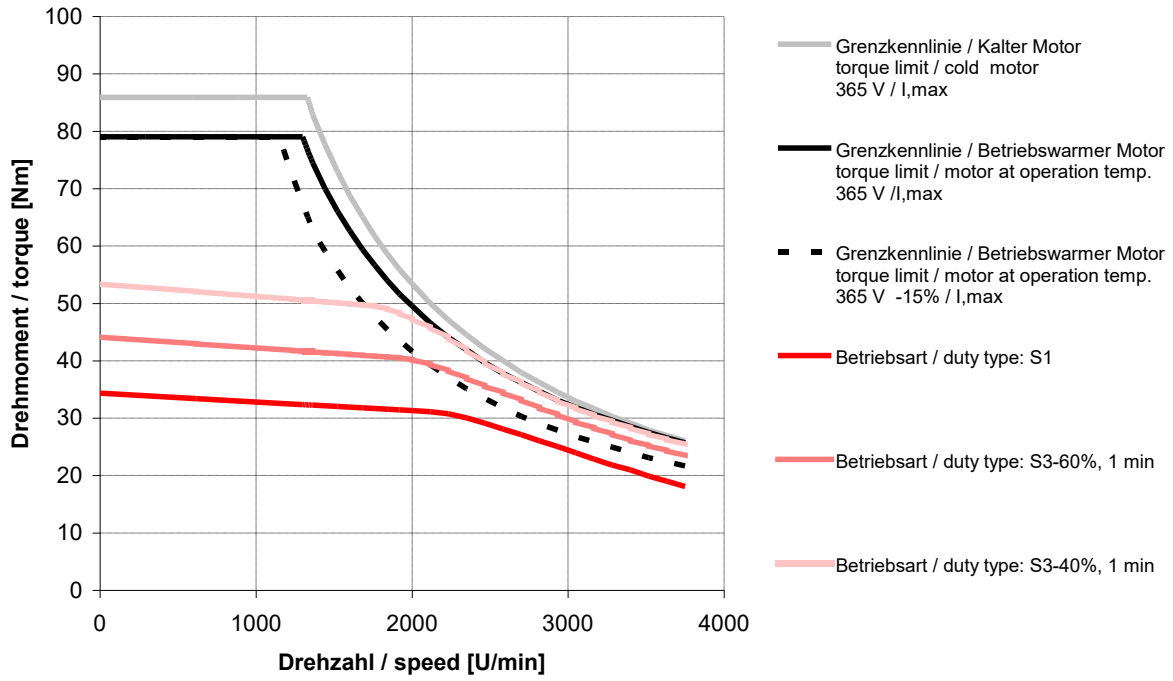
DSD2-071S0640-45-54



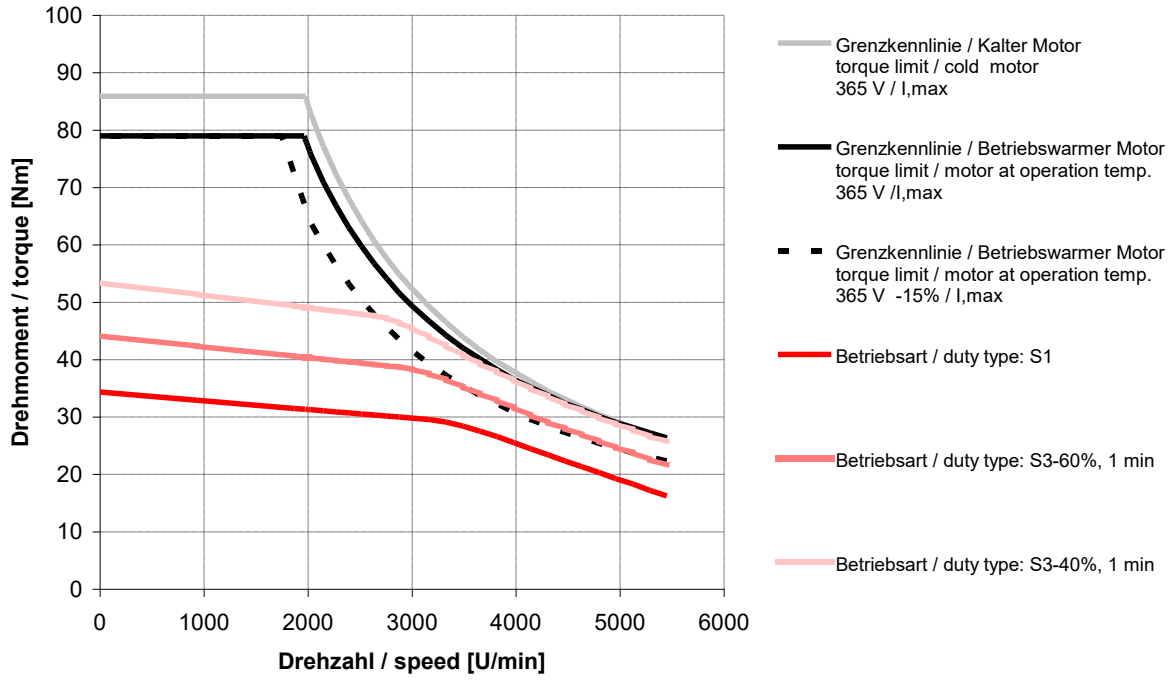
DSD2-071S0640-60-54



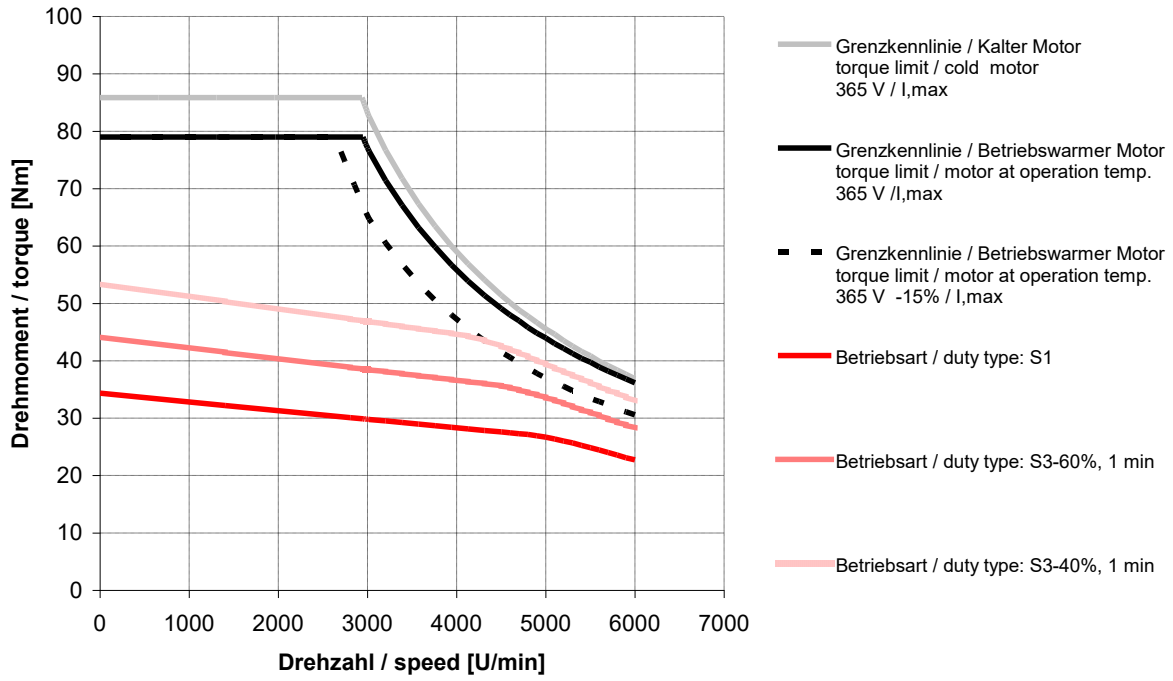
DSD2-071M0640-20-54



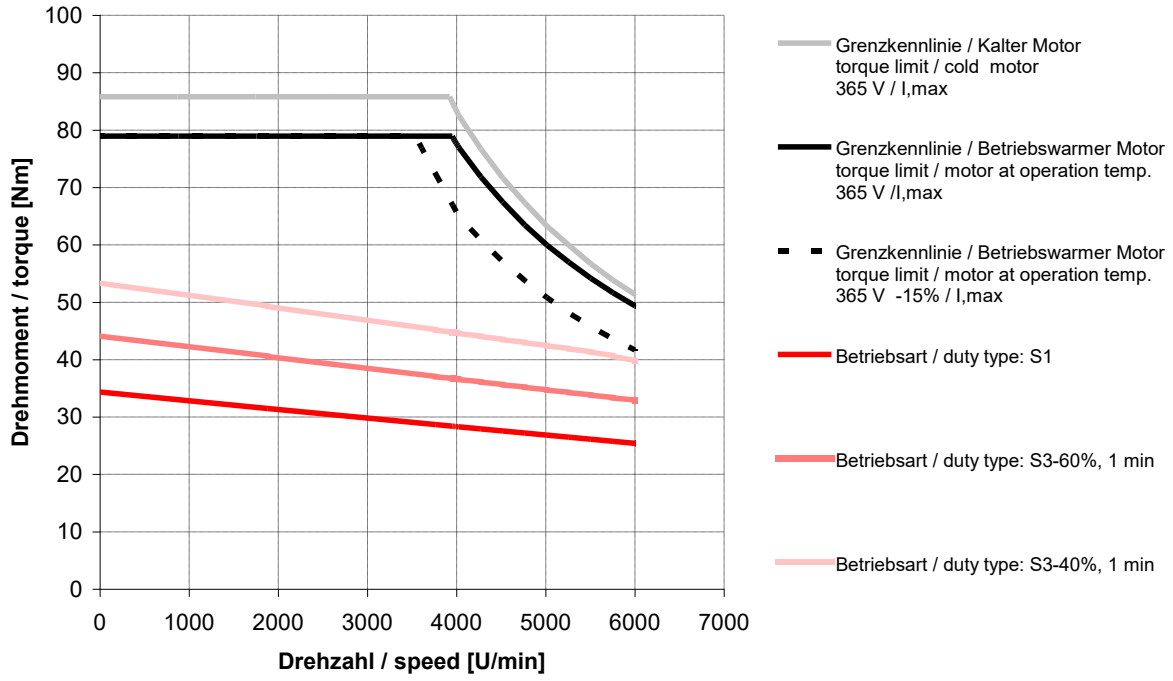
DSD2-071M0640-30-54



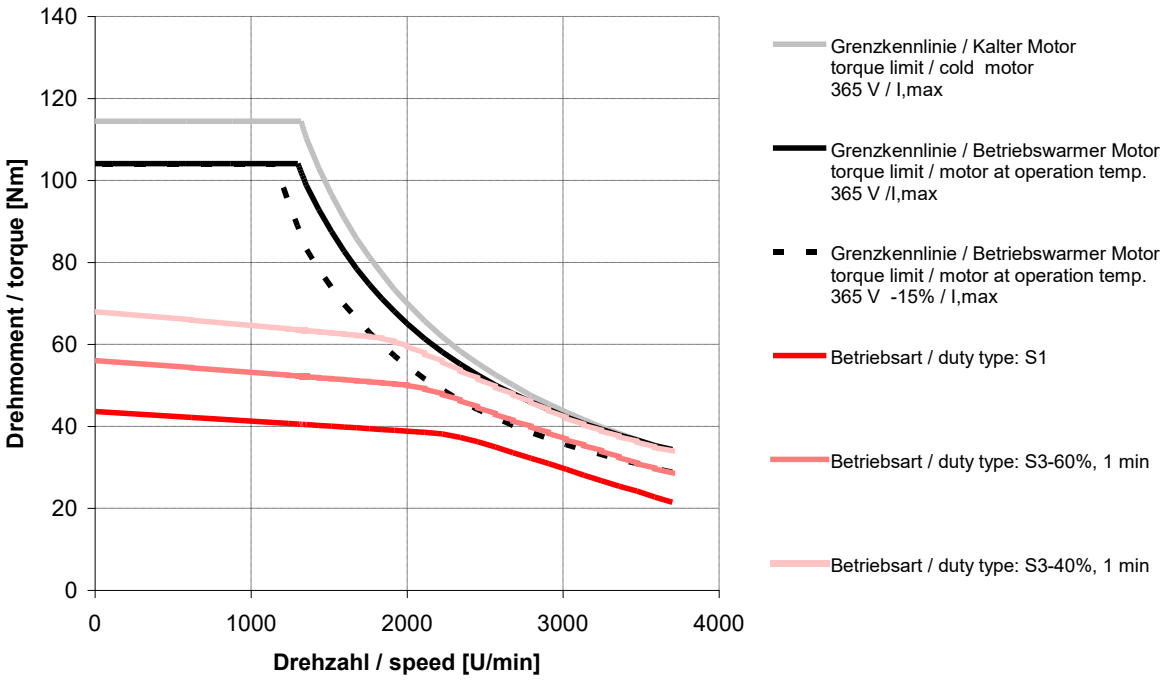
DSD2-071M0640-45-54



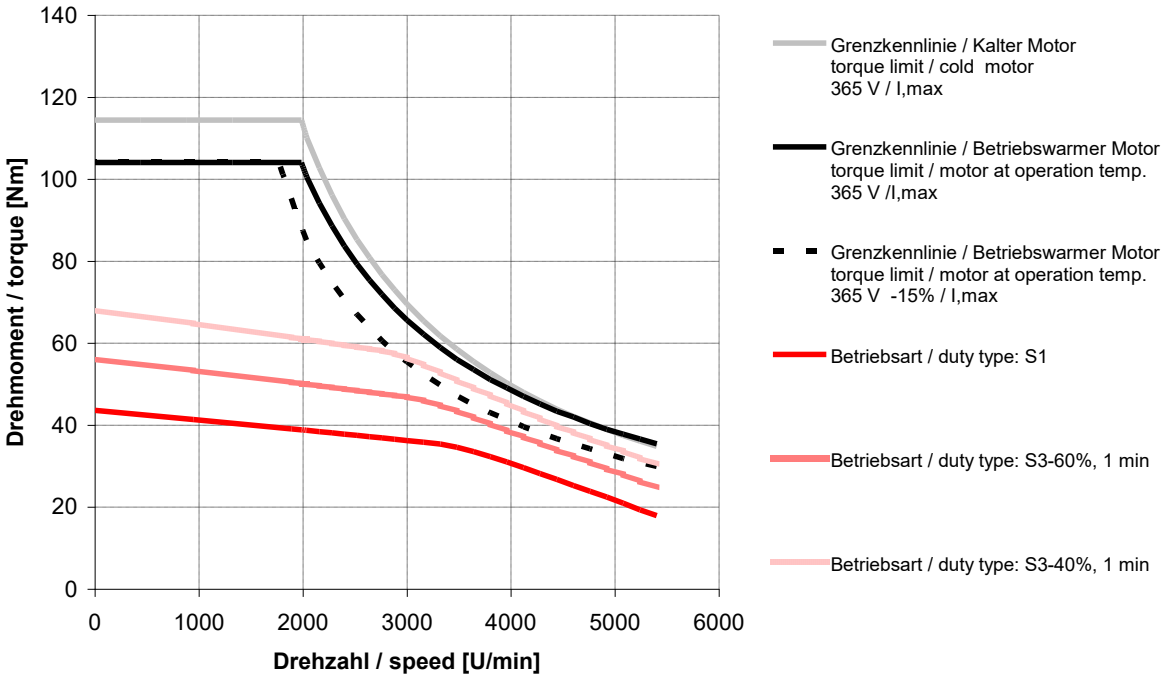
DSD2-071M0640-60-54



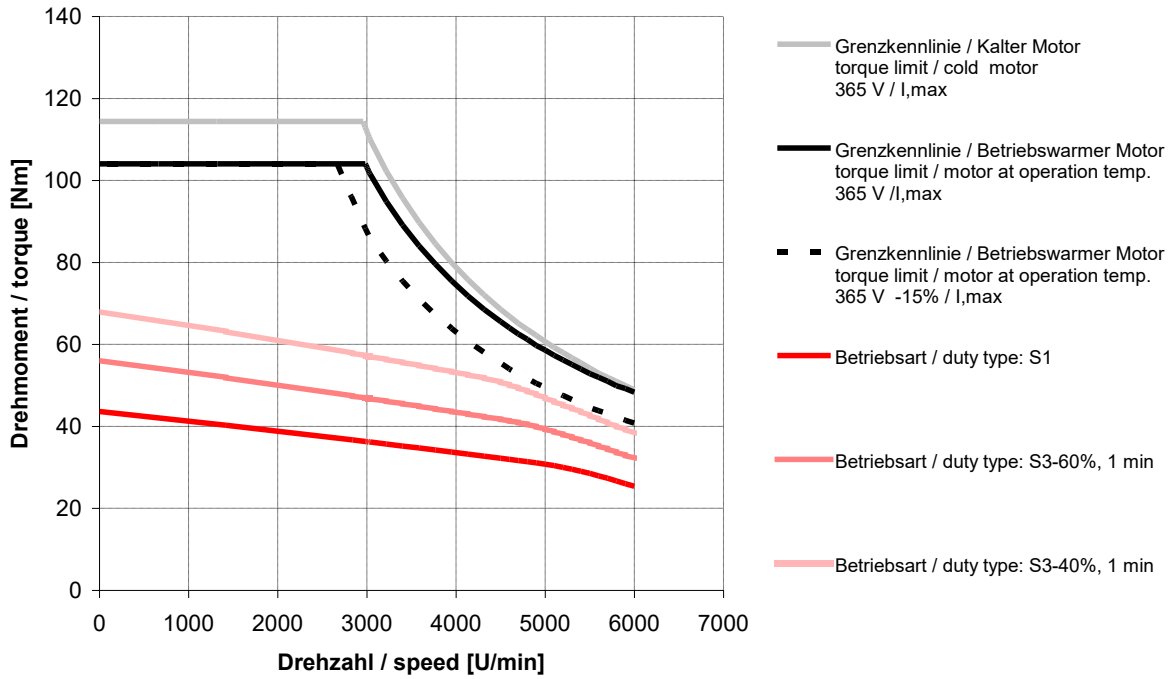
DSD2-071L0640-20-54



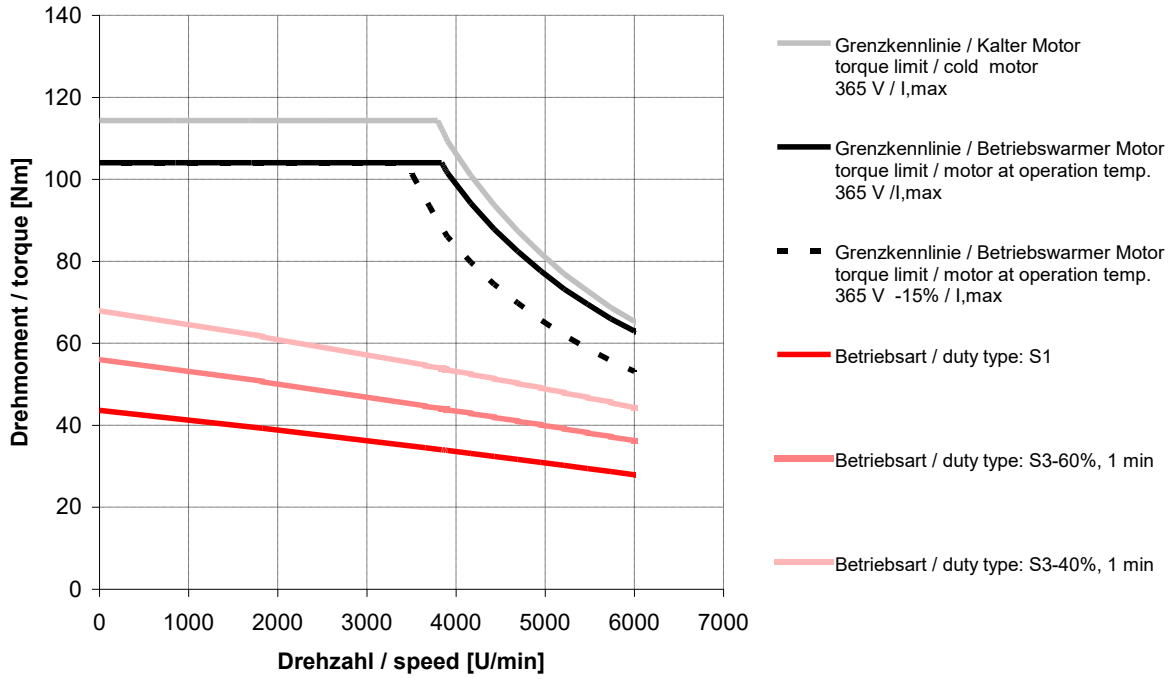
DSD2-071L0640-30-54



DSD2-071L0640-45-54

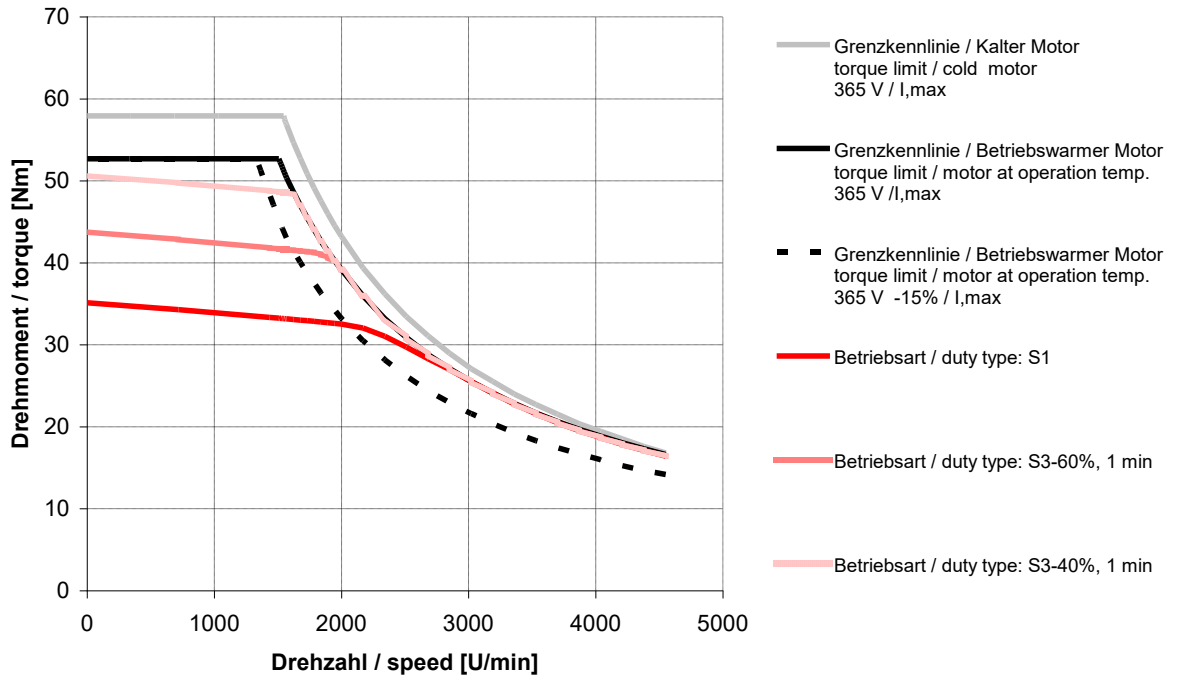


DSD2-071L0640-60-54

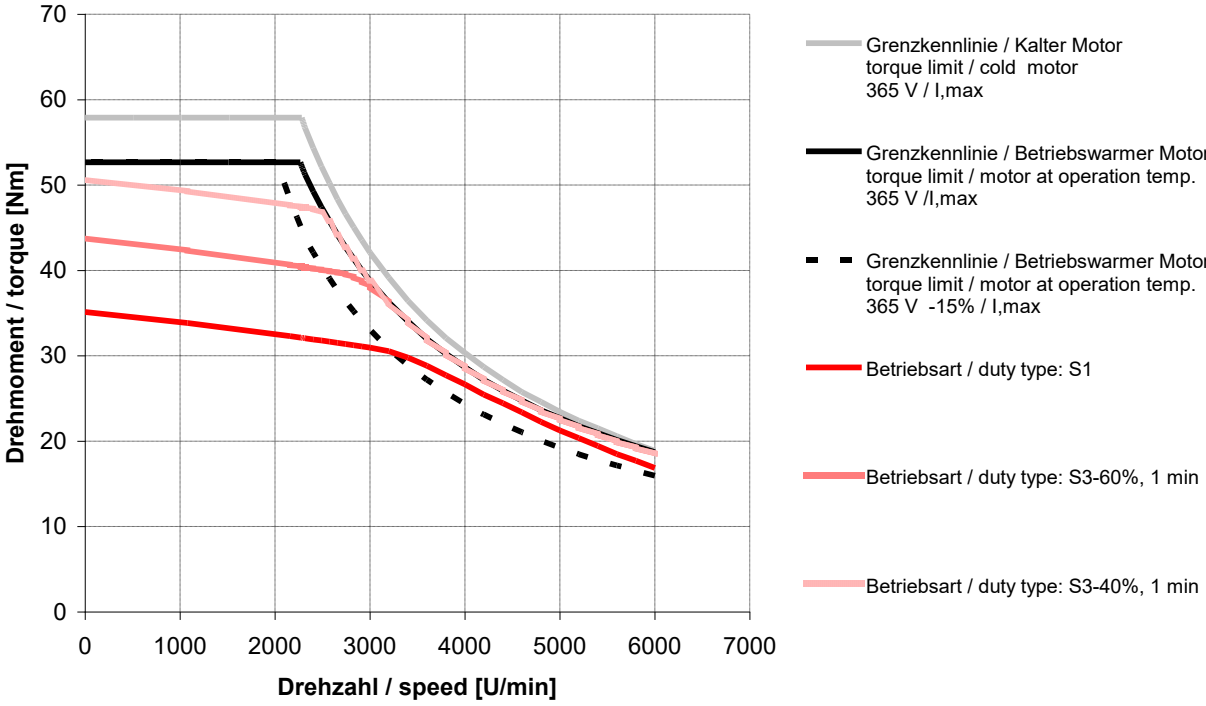


5.5.3 DSD2-071..64W

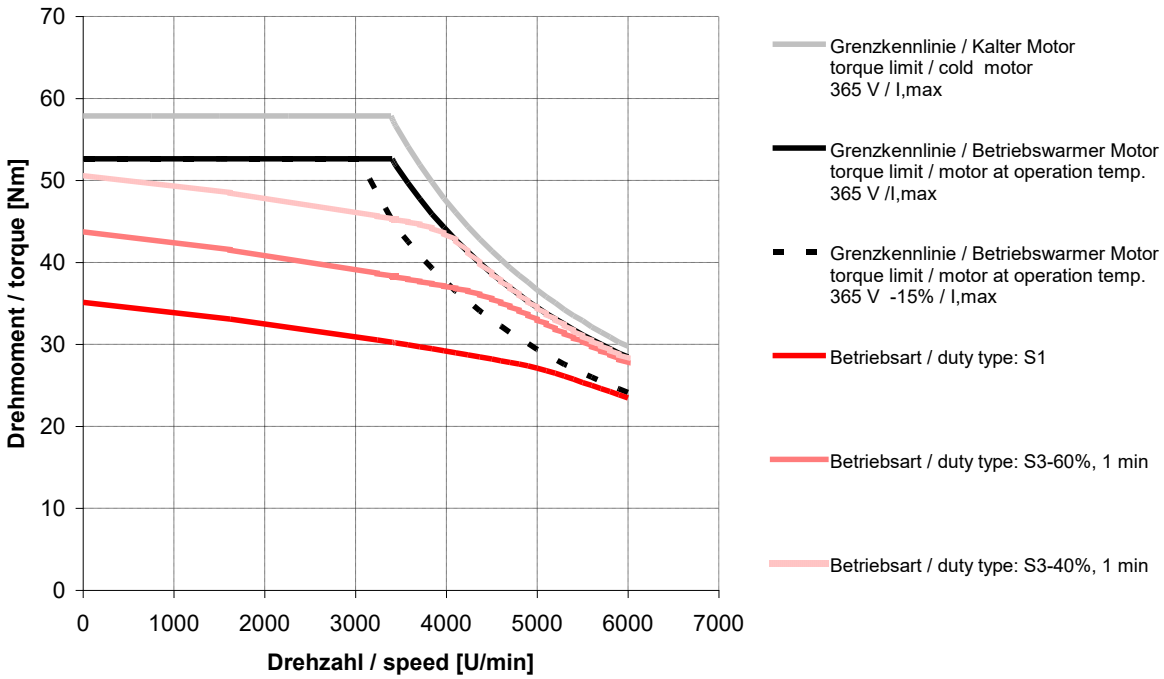
DSD2-071S064W-20-54



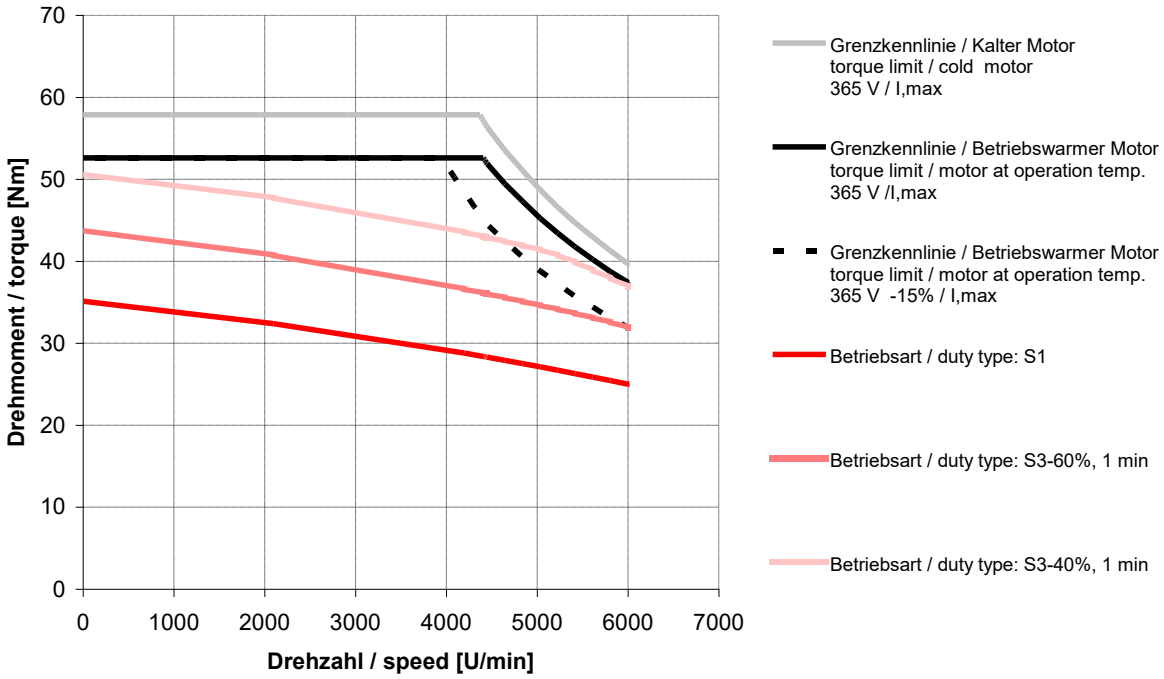
DSD2-071S064W-30-54



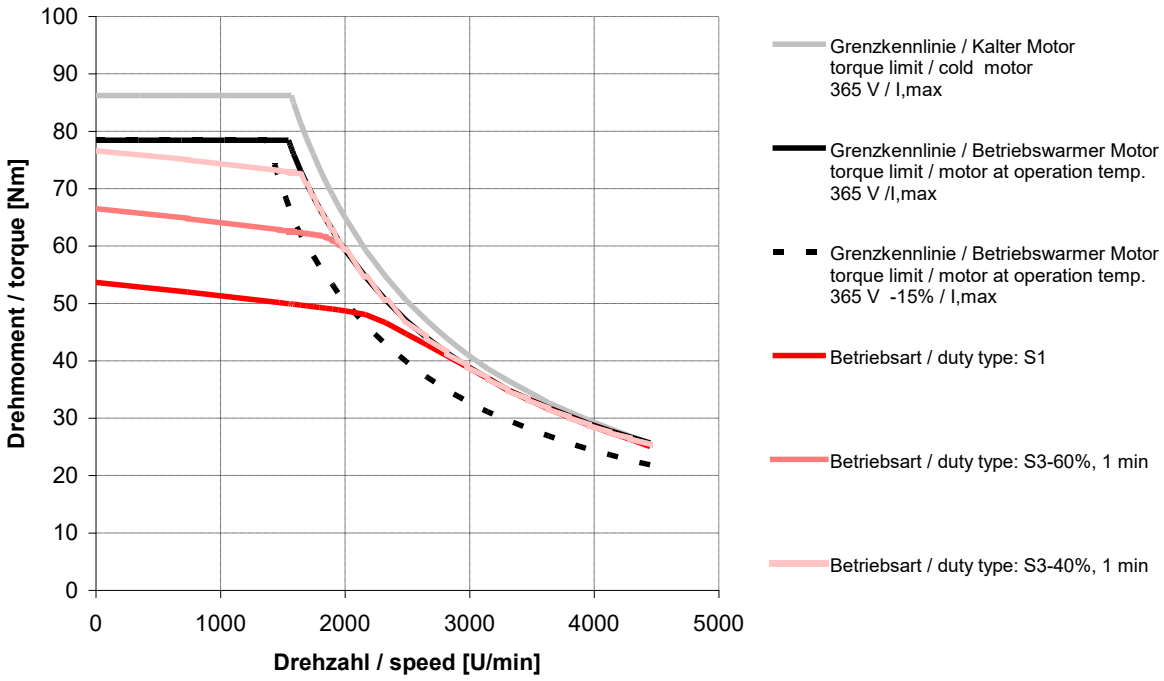
DSD2-071S064W-45-54



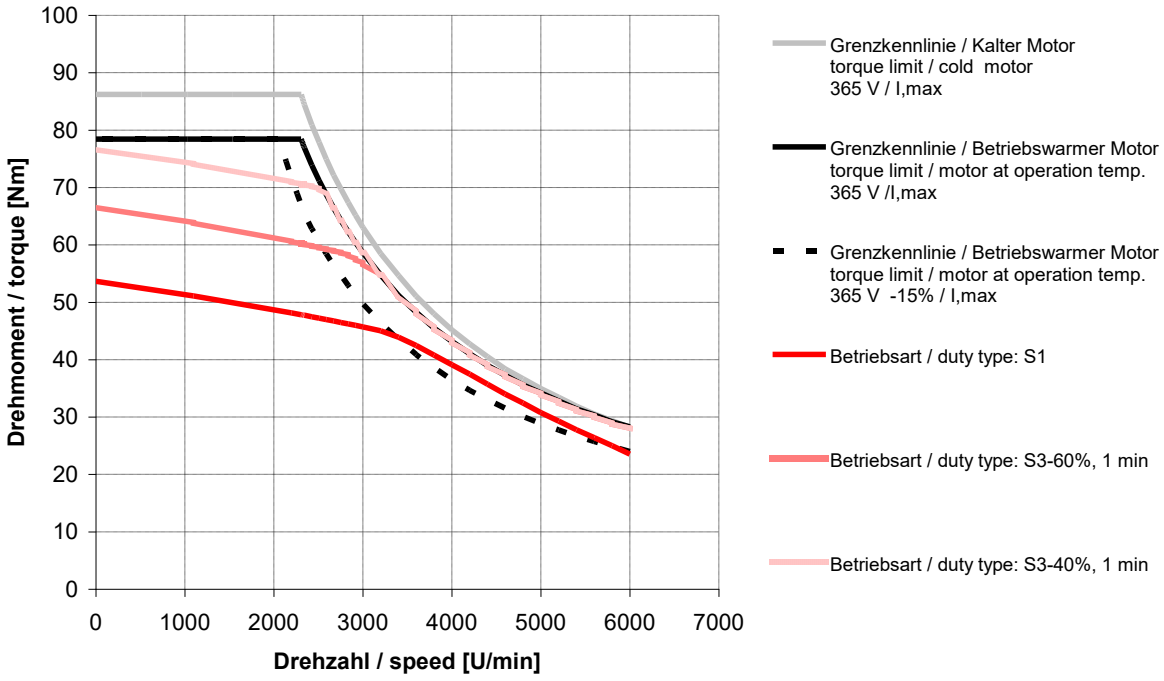
DSD2-071S064W-60-54



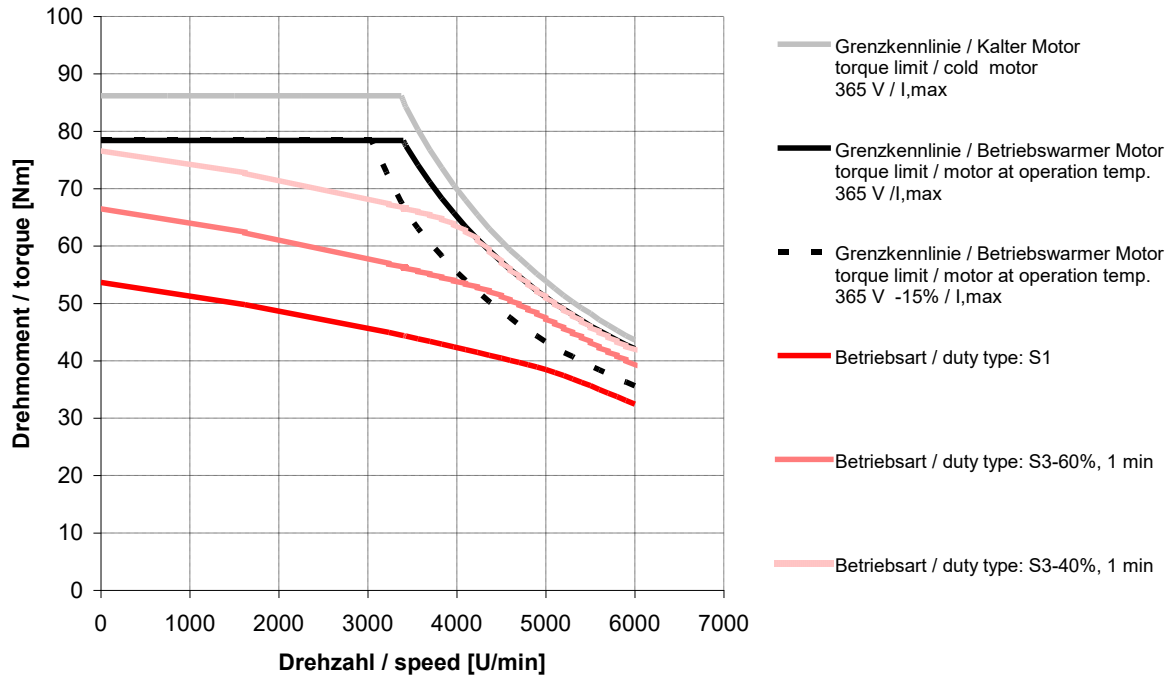
DSD2-071M064W-20-54



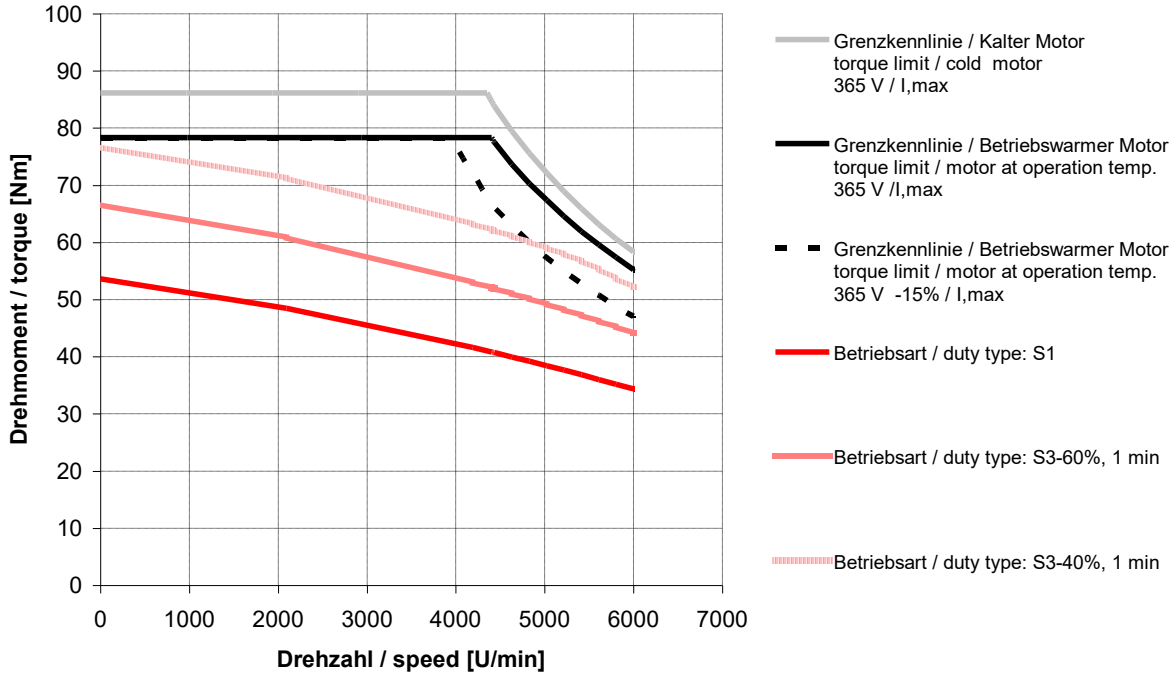
DSD2-071M064W-30-54



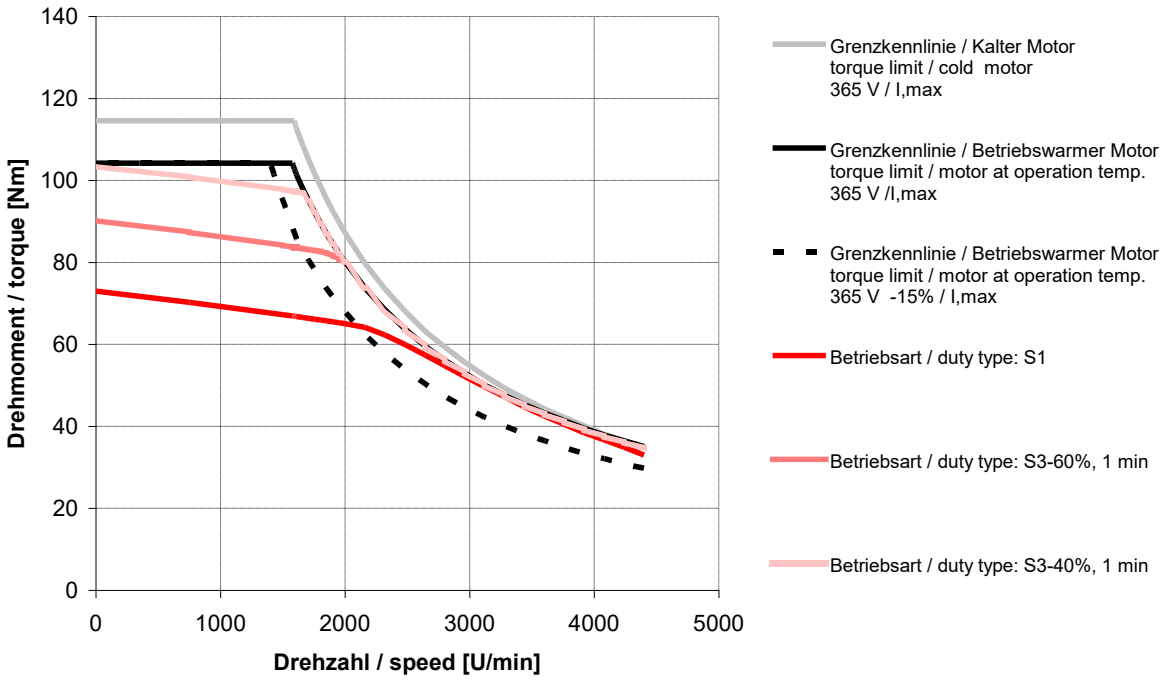
DSD2-071M064W-45-54



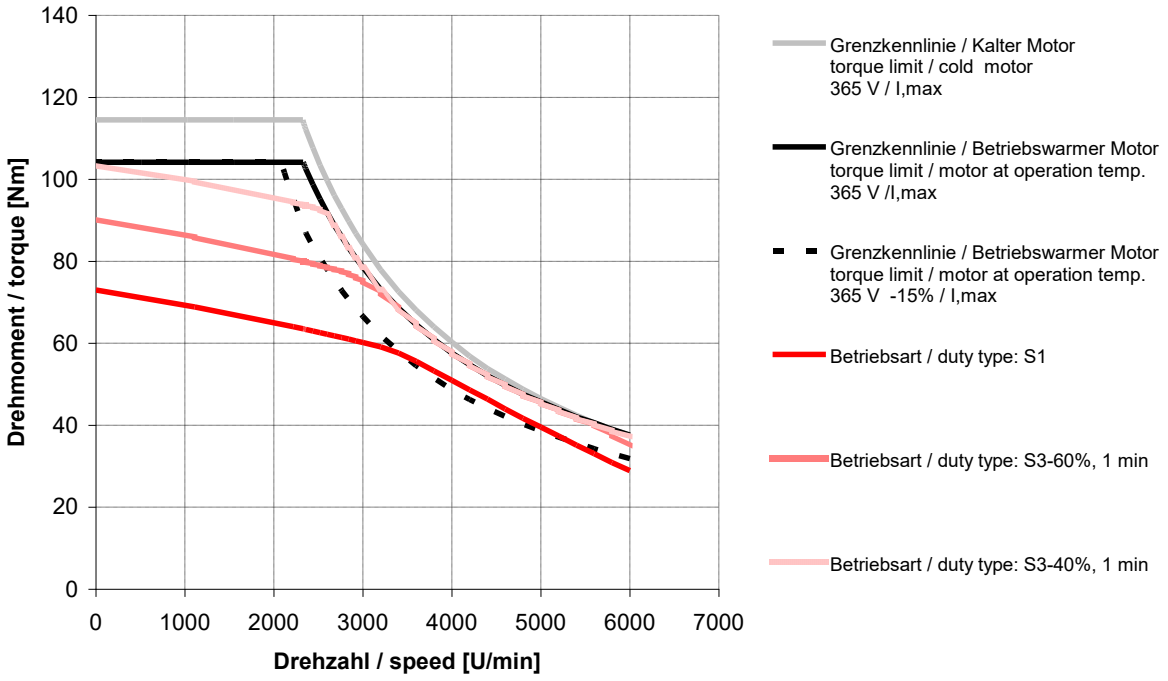
DSD2-071M064W-60-54



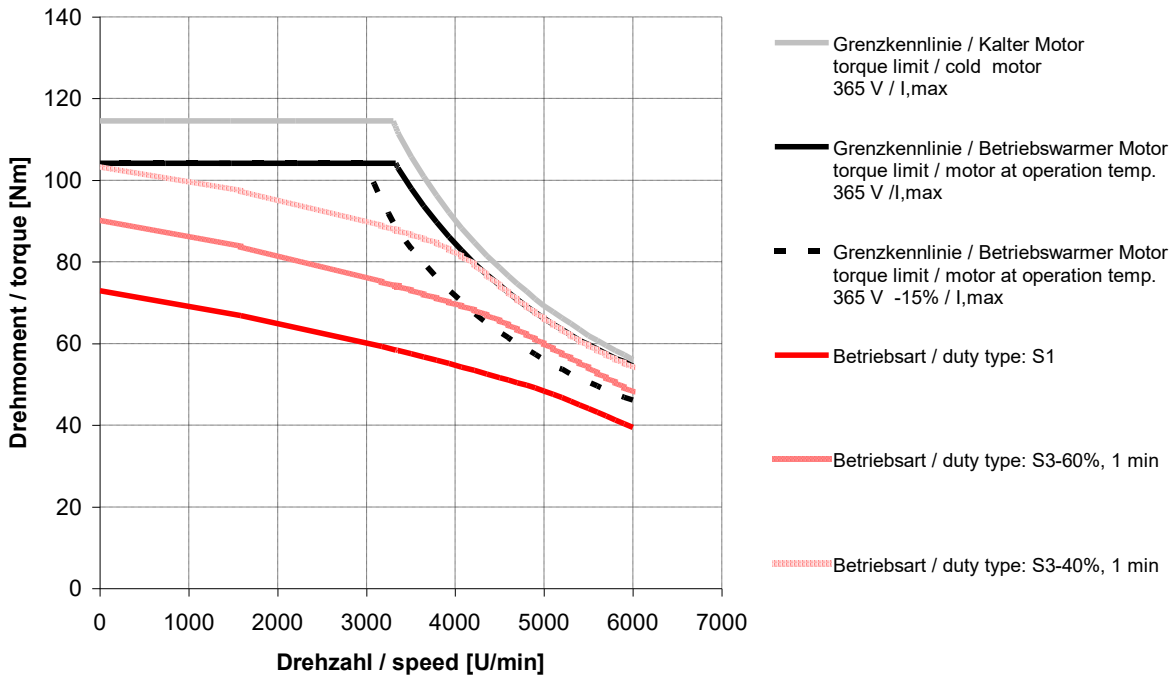
DSD2-071L064W-20-54



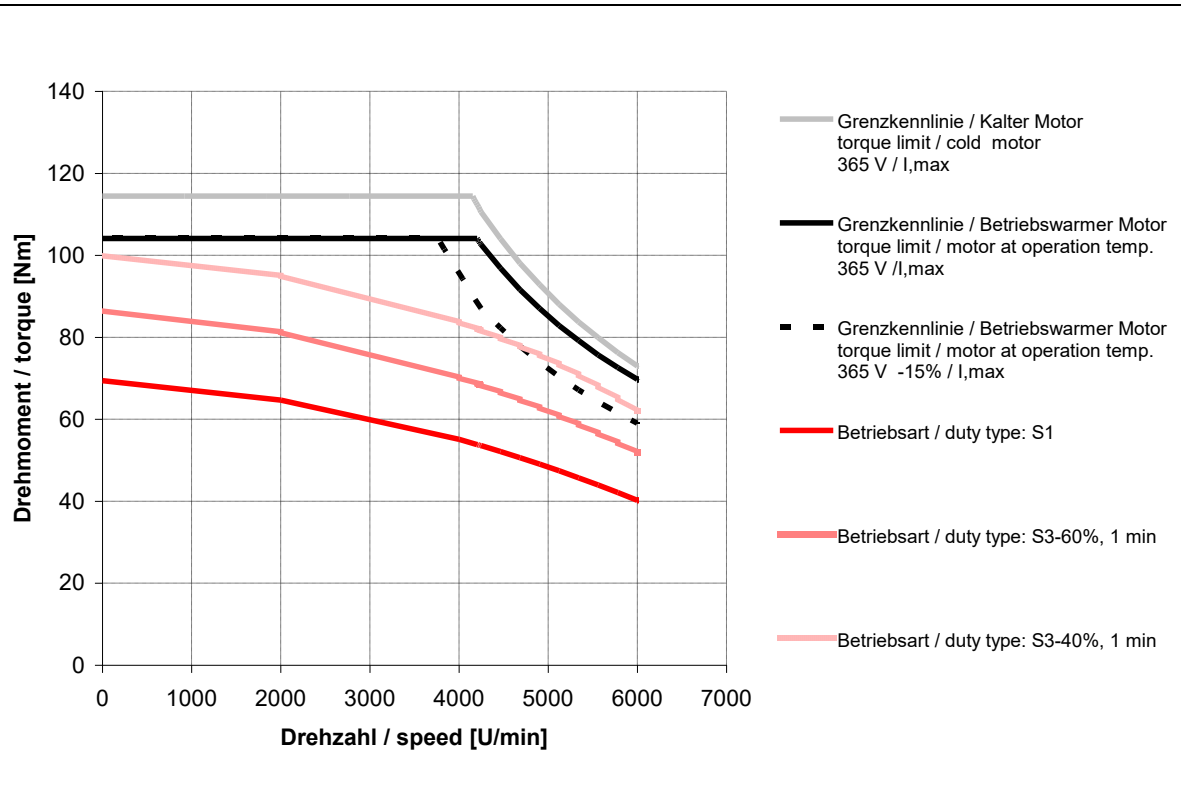
DSD2-071L064W-30-54



DSD2-071L064W-45-54



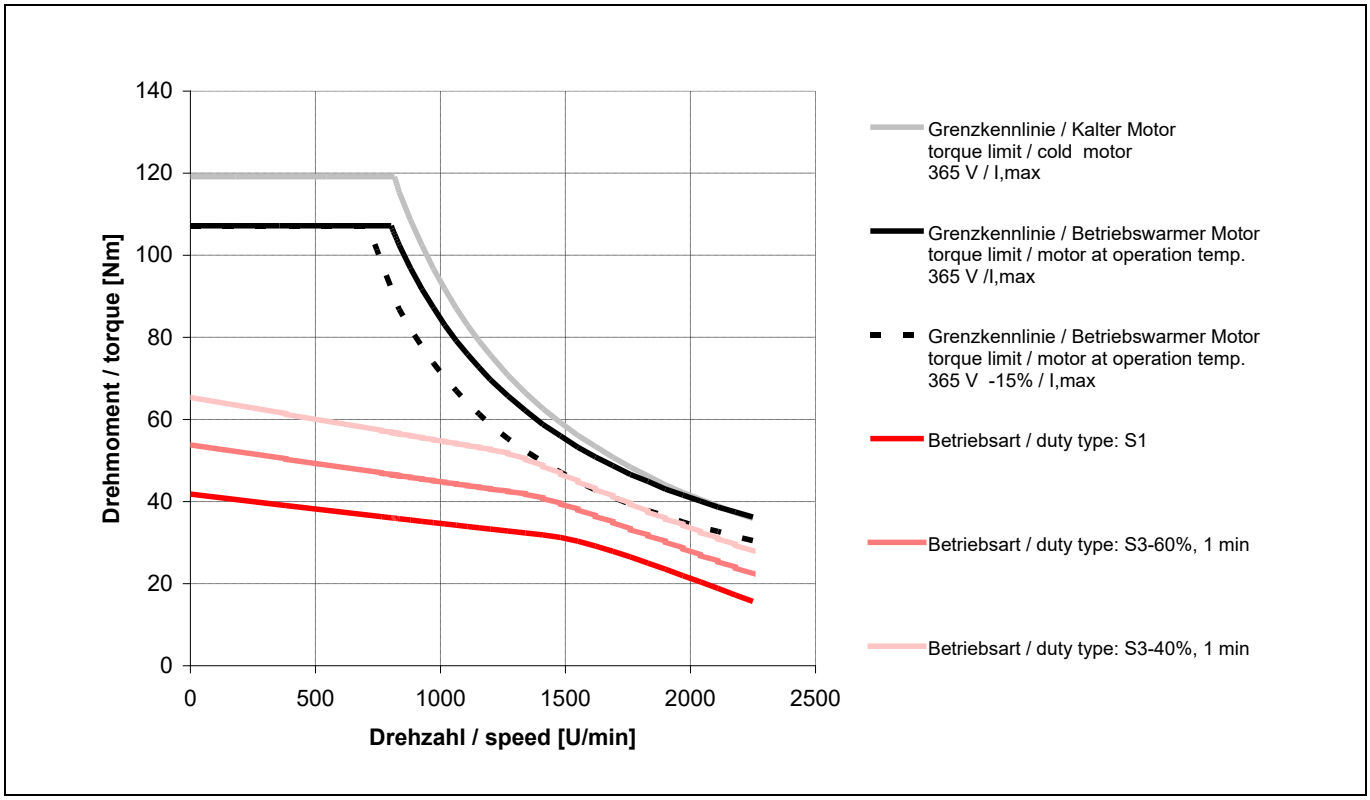
DSD2-071L064W-60-54



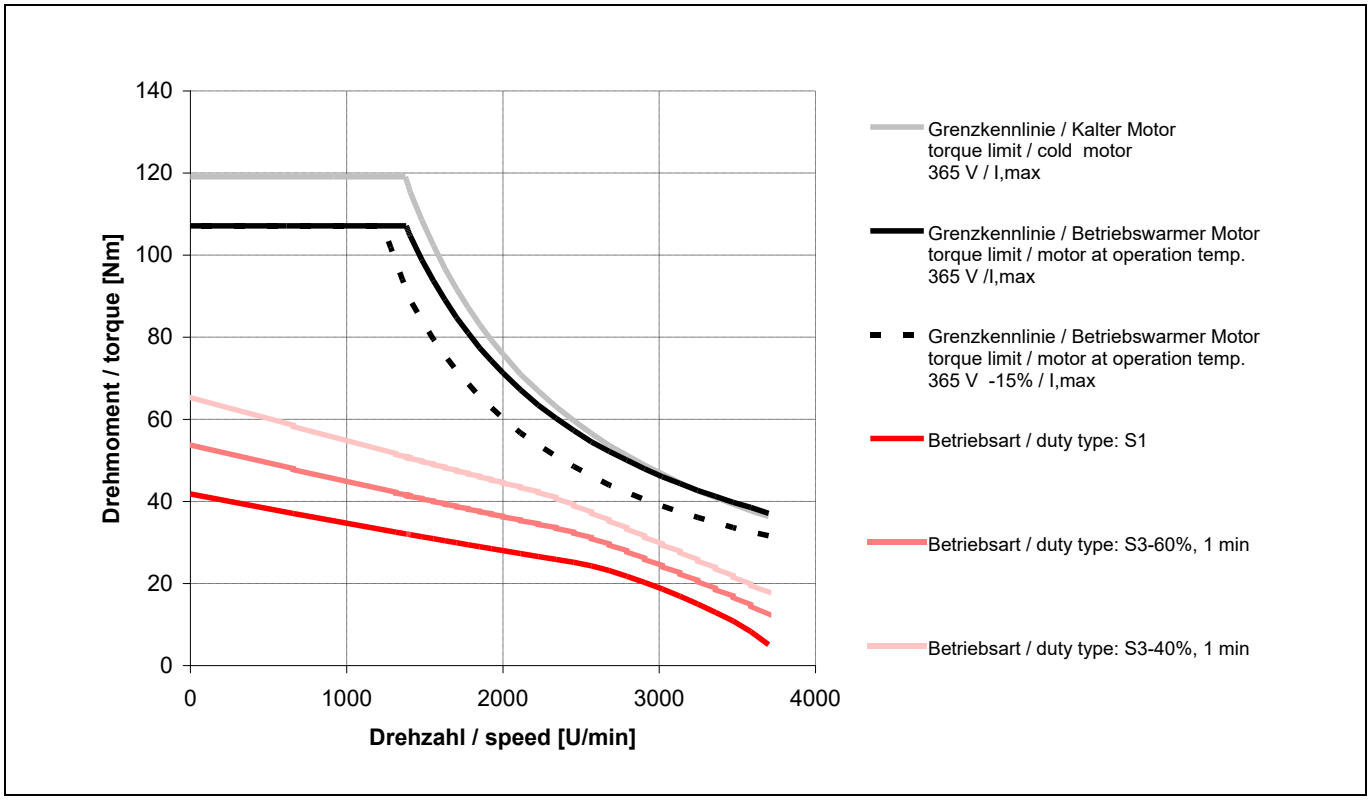
5.6 Characteristics DSD2-100

5.6.1 DSD2-100..64U-..

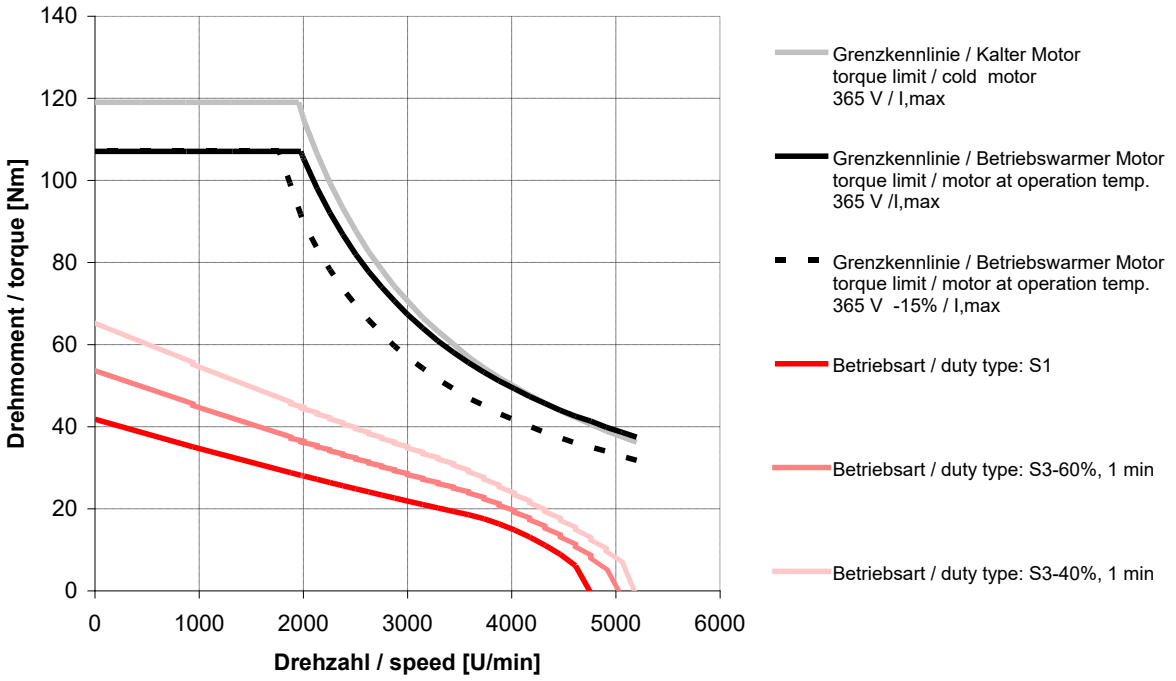
DSD2-100S064U-12-54



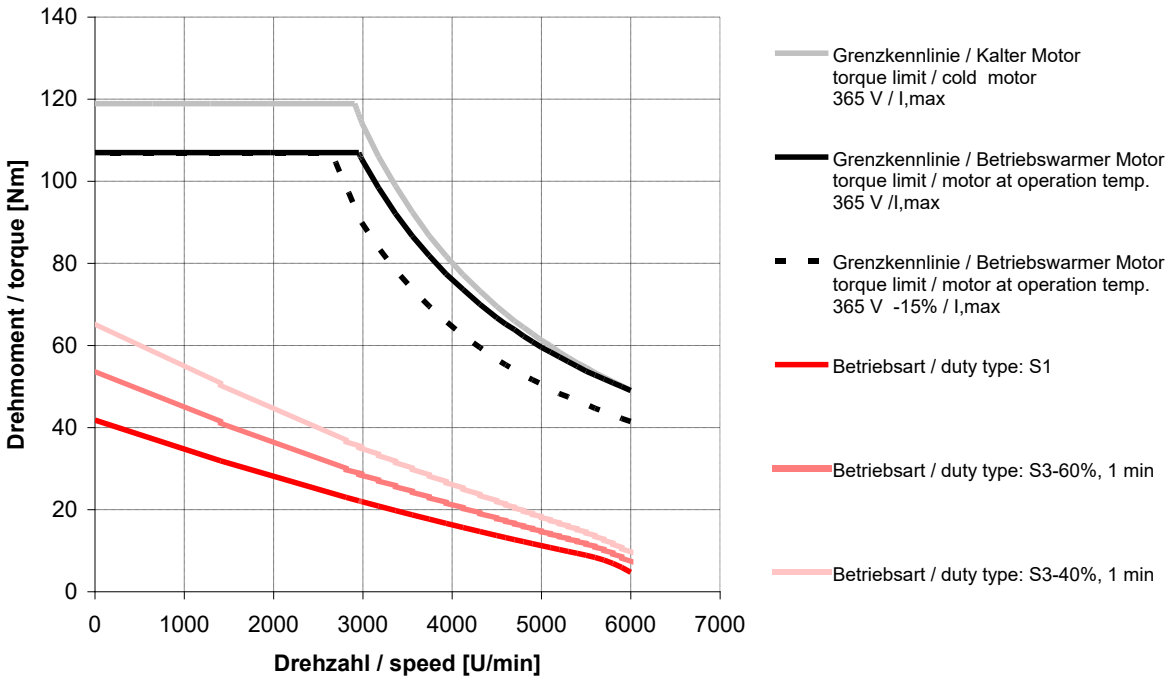
DSD2-100S064U-20-54



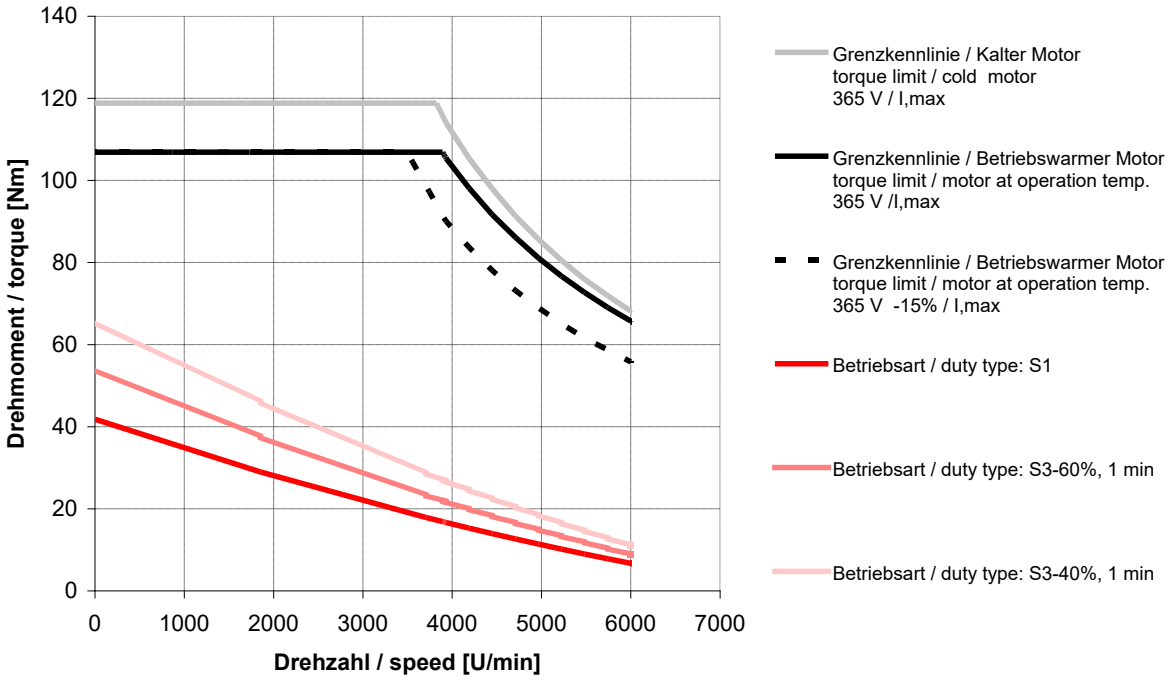
DSD2-100S064U-30-54



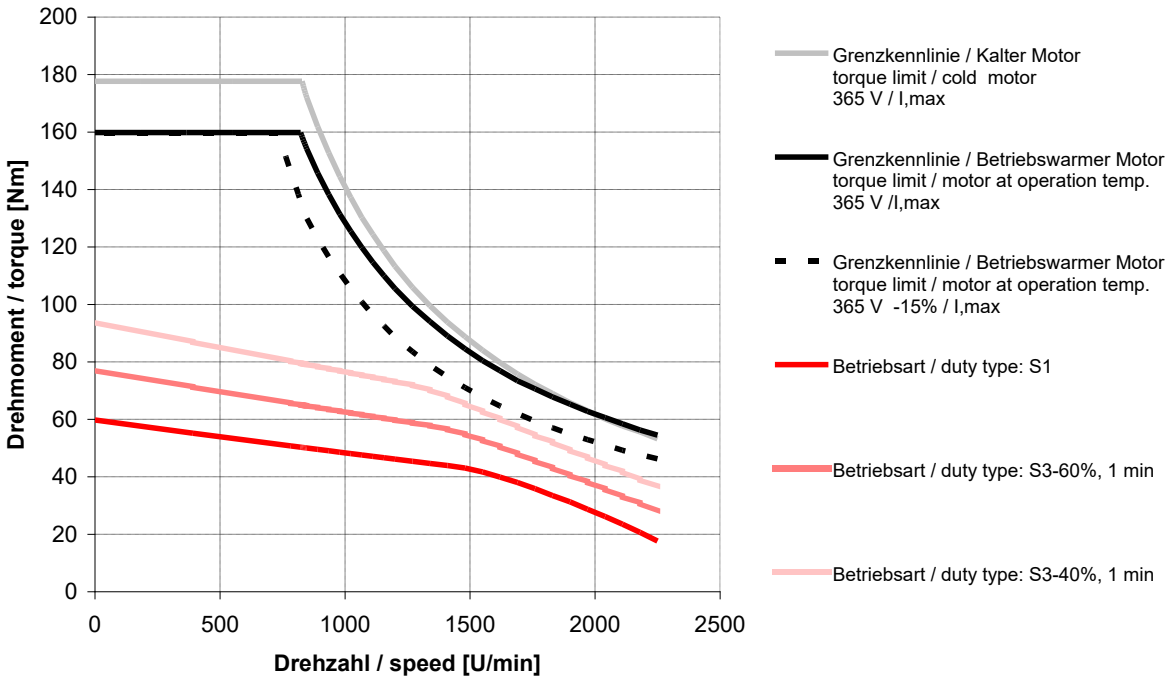
DSD2-100S064U-45-54



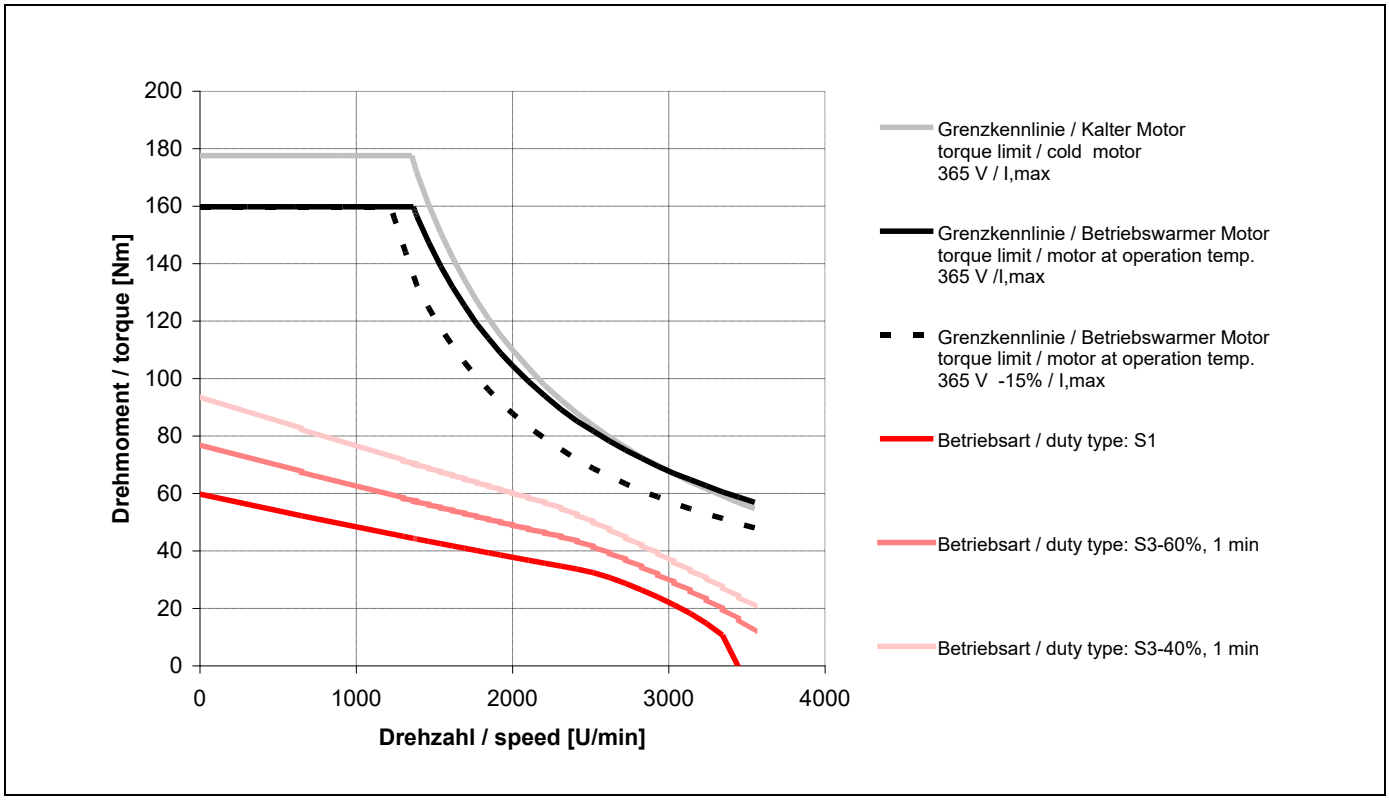
DSD2-100S064U-60-54



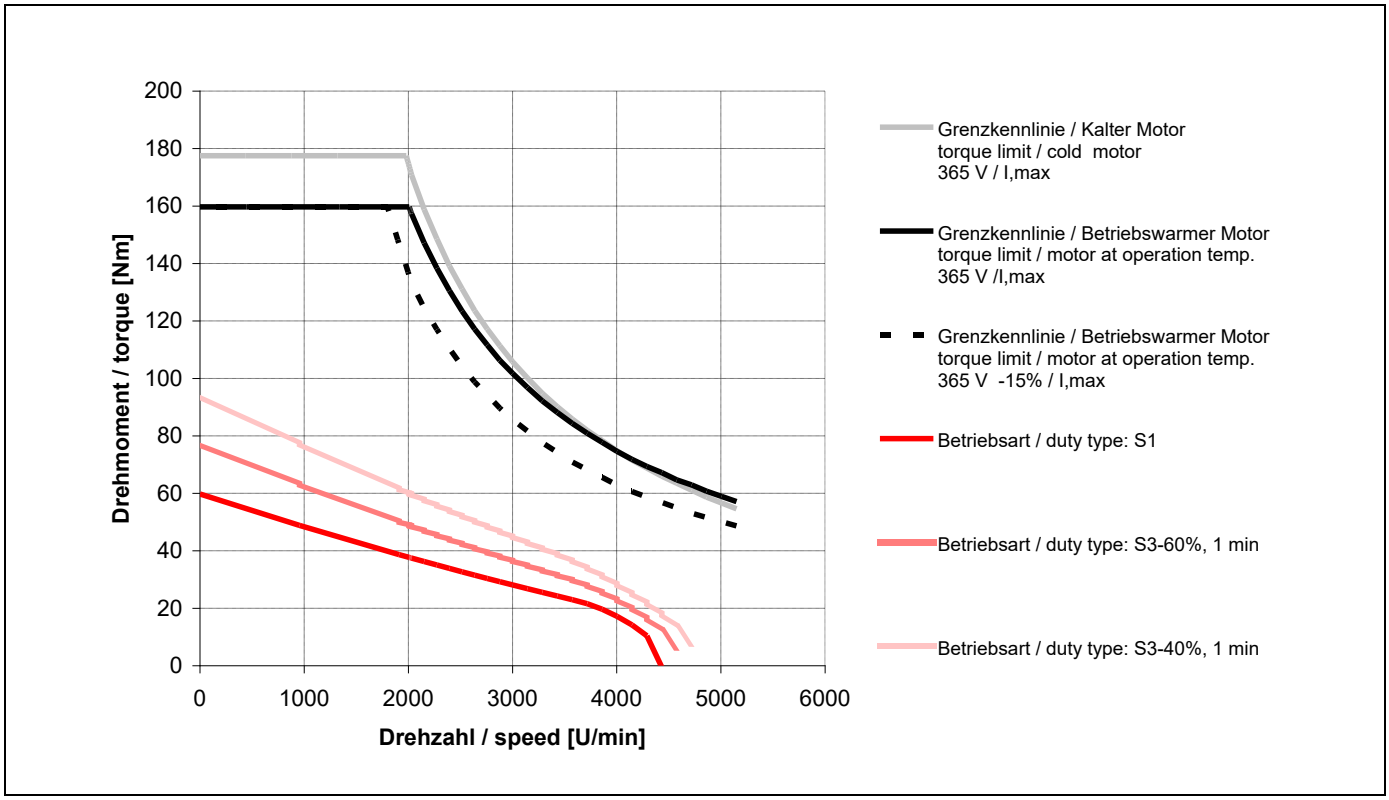
DSD2-100M064U-12-54



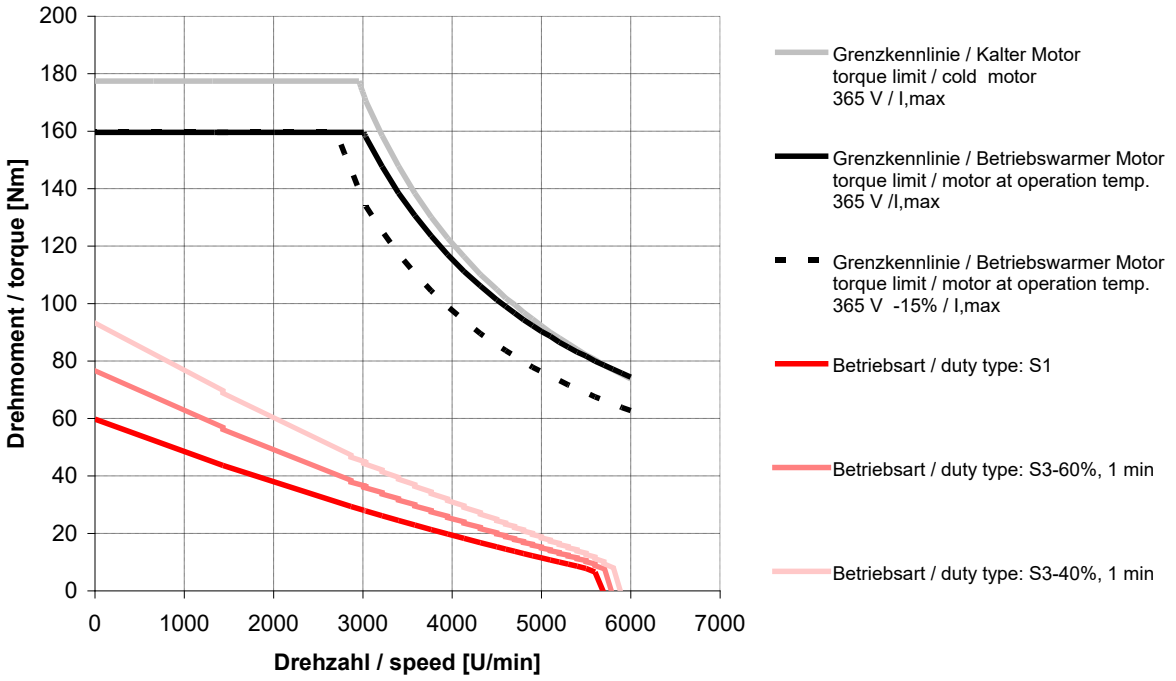
DSD2-100M064U-20-54



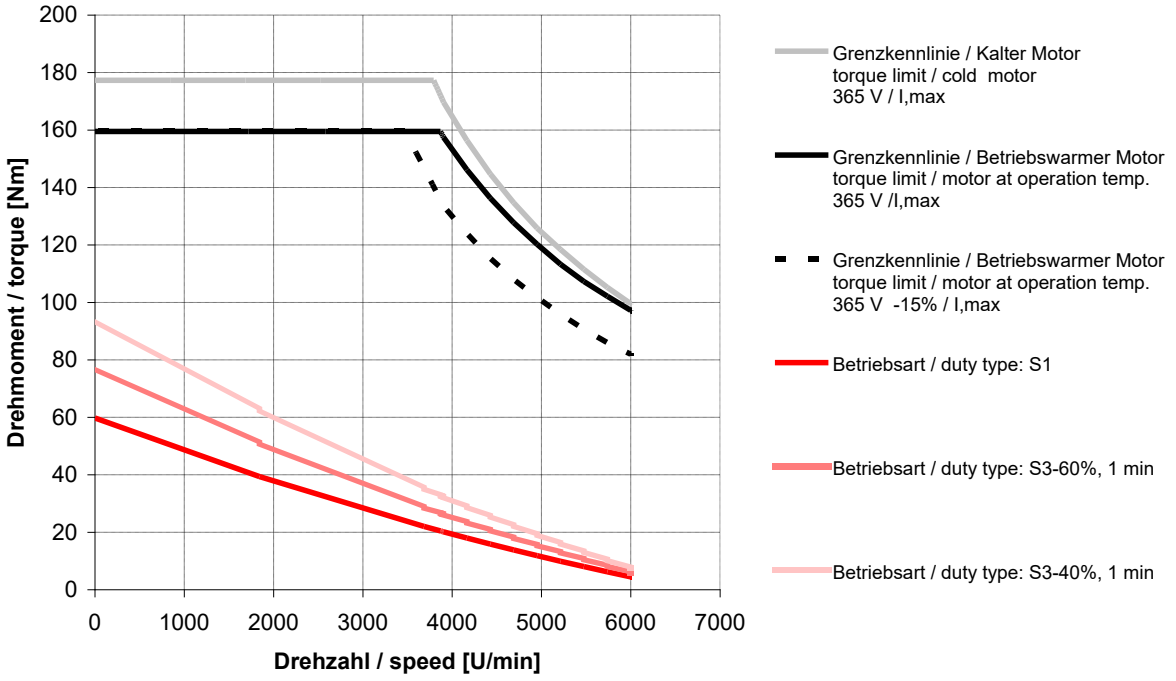
DSD2-100M064U-30-54



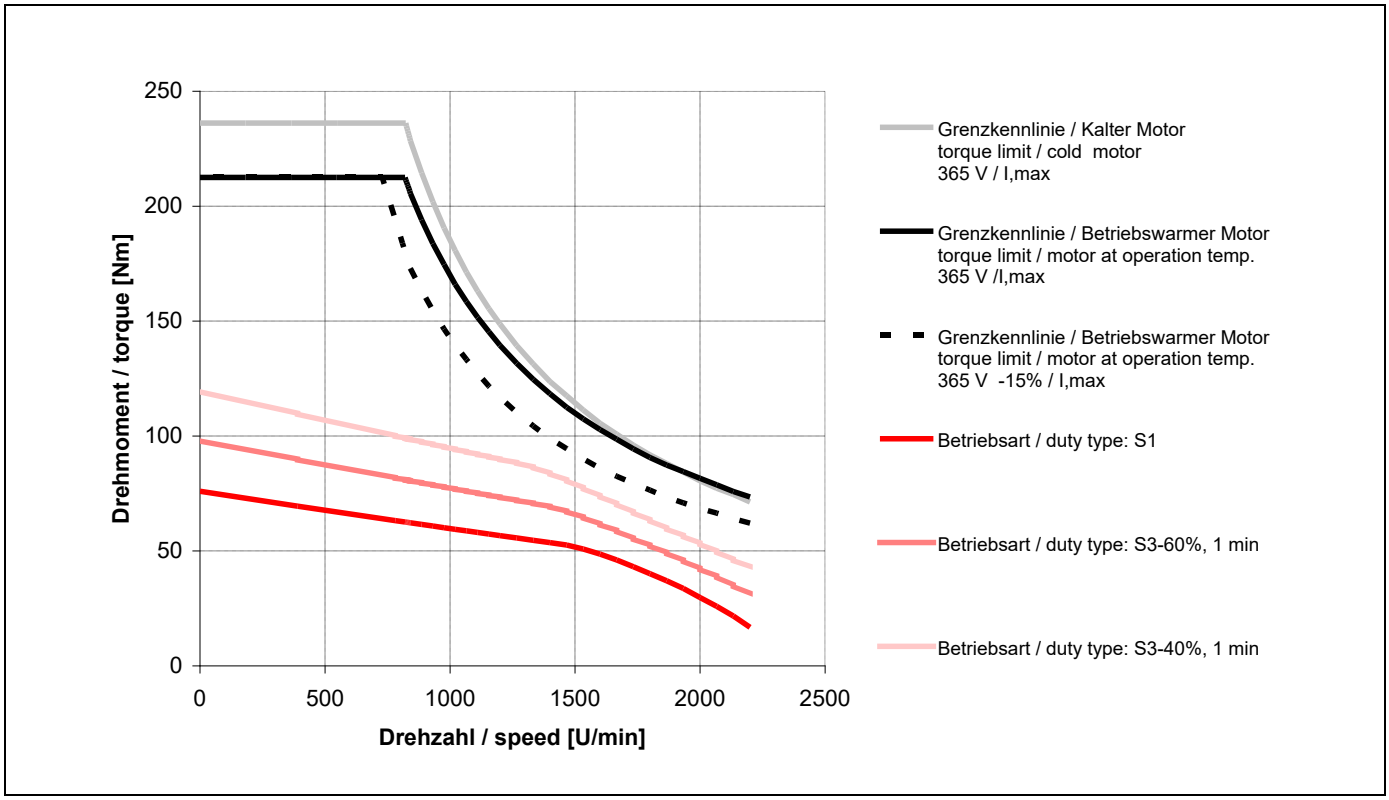
DSD2-100M064U-45-54



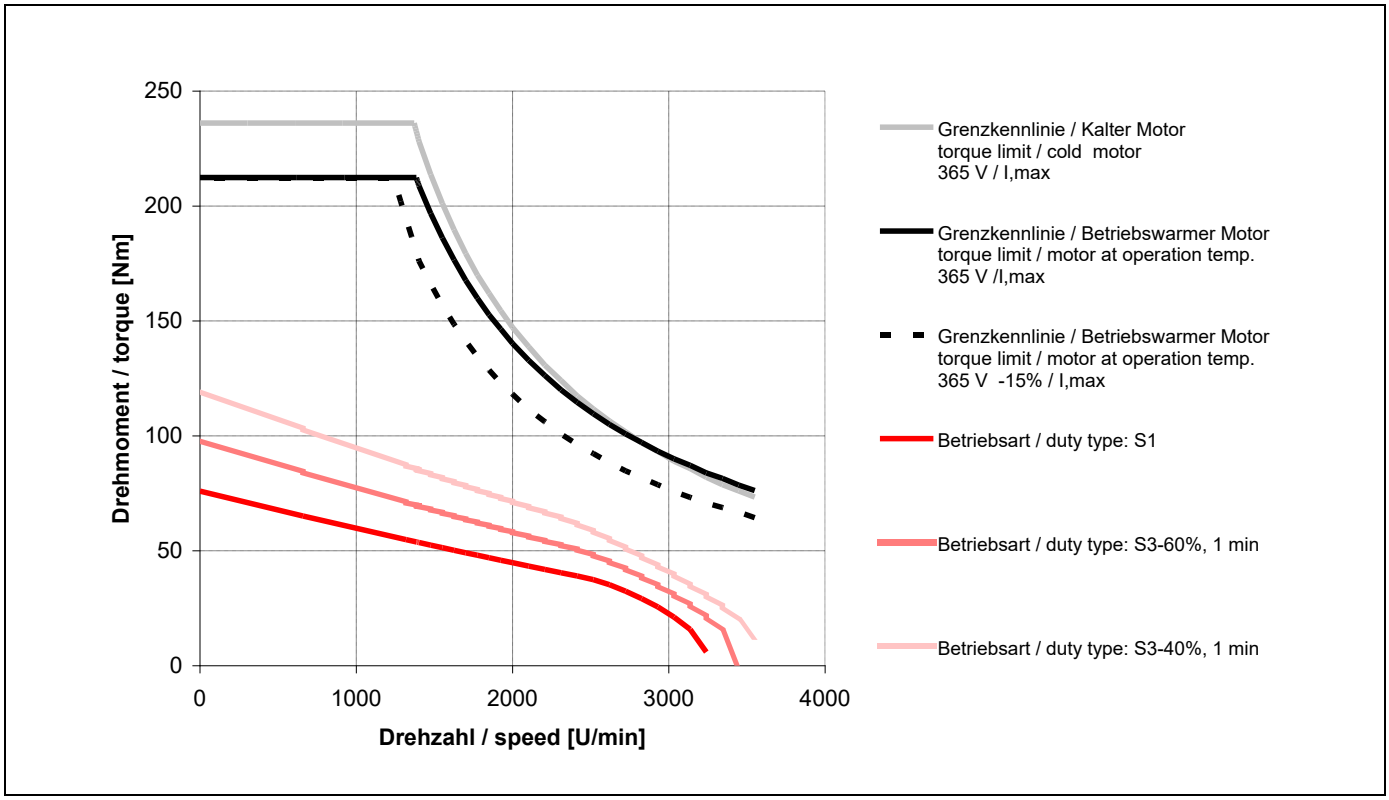
DSD2-100M064U-60-54



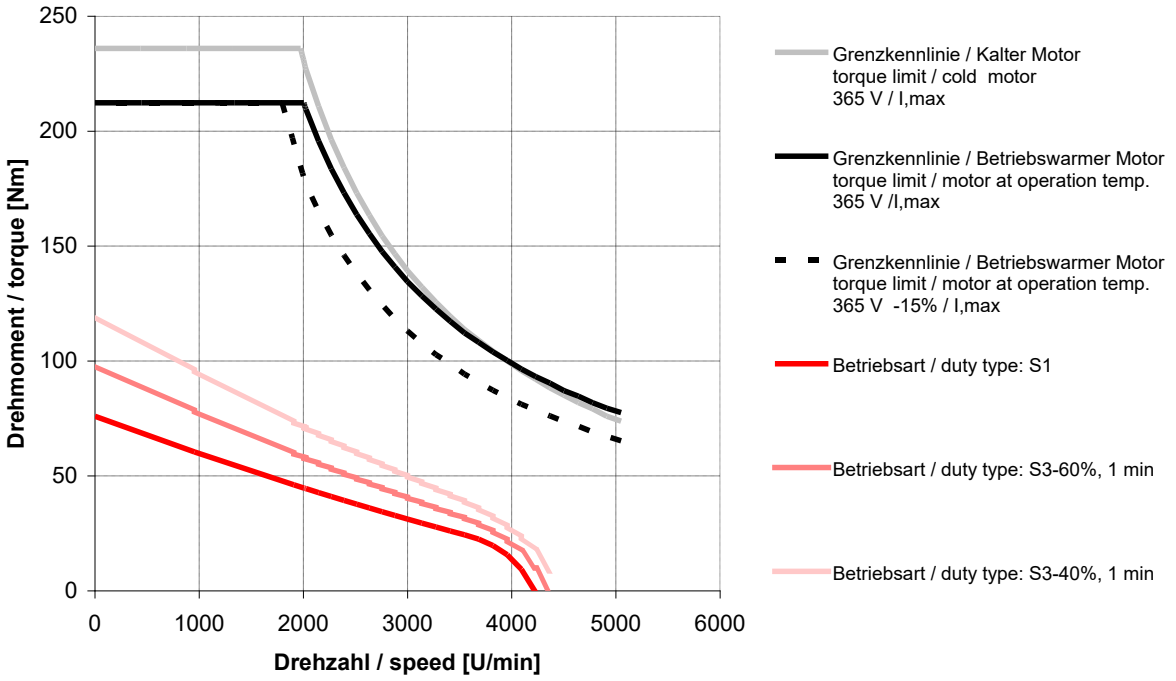
DSD2-100LO64U-12-54



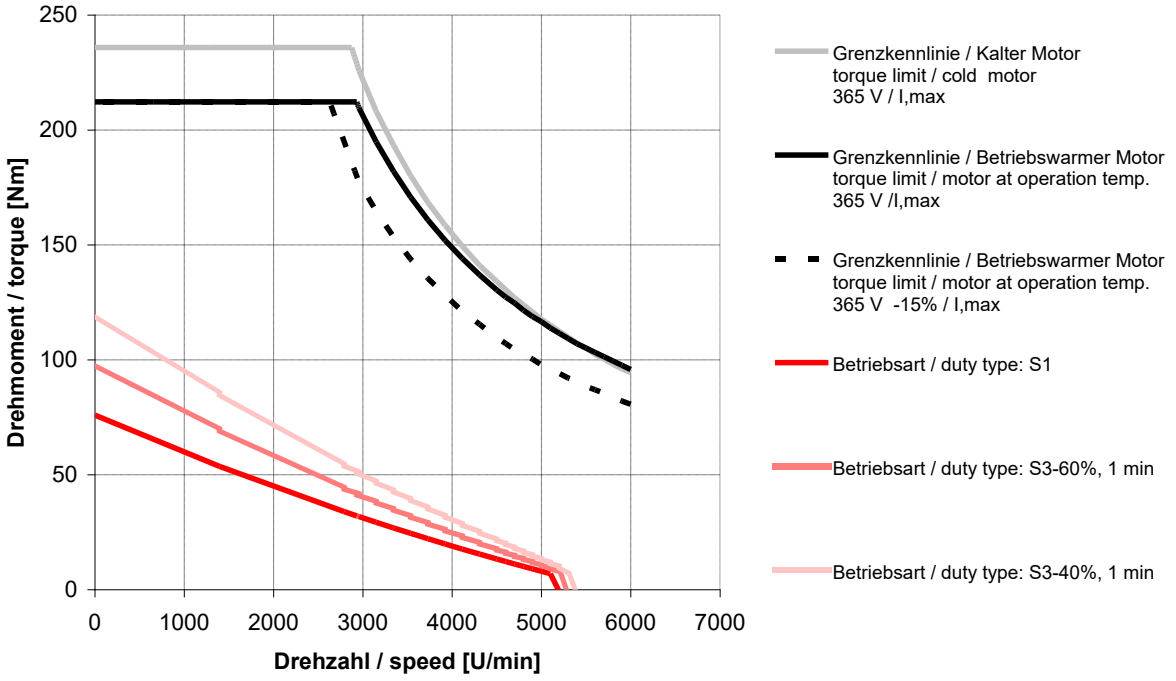
DSD2-100LO64U-20-54



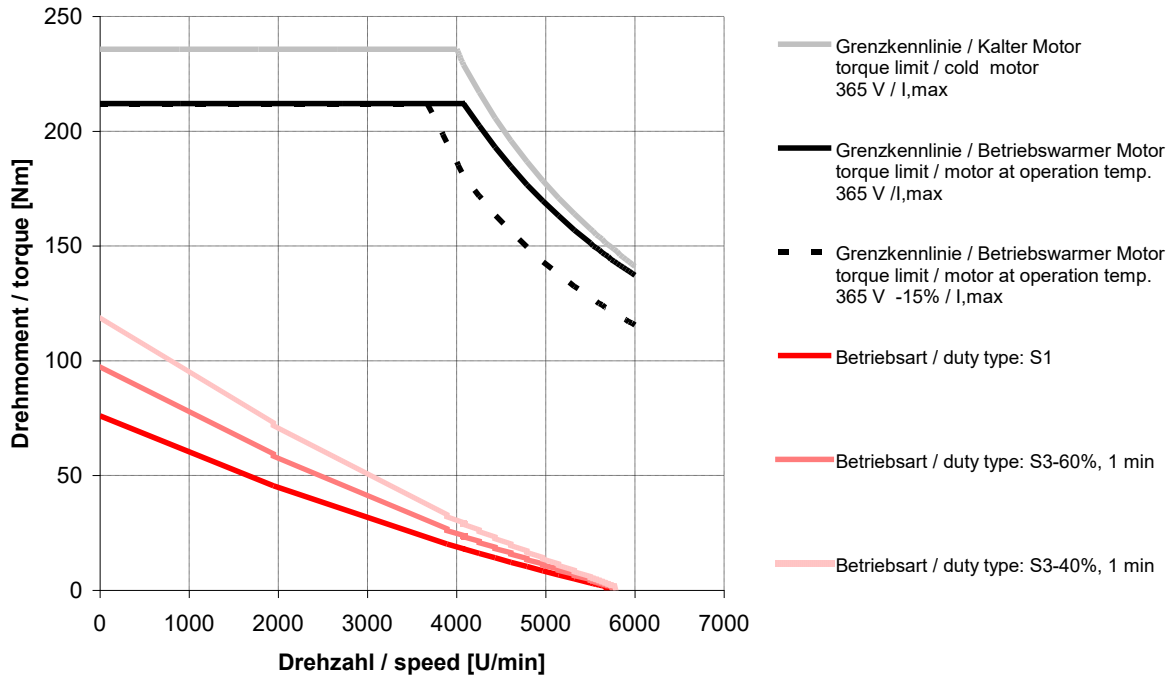
DSD2-100L064U-30-54



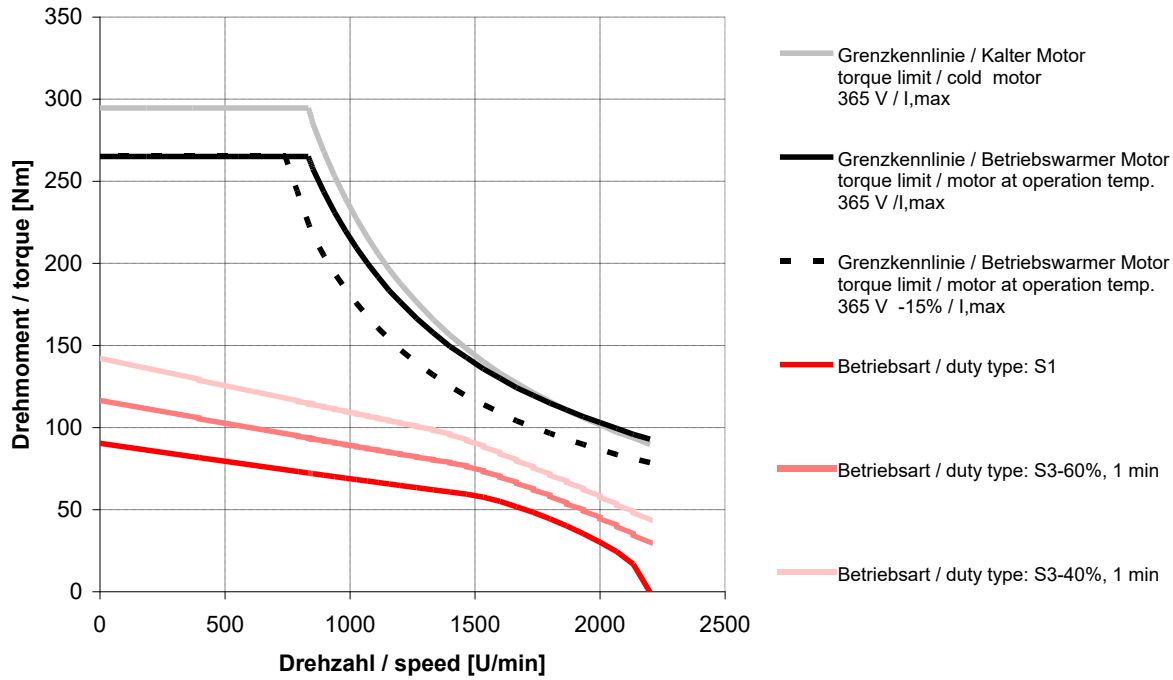
DSD2-100L064U-45-54



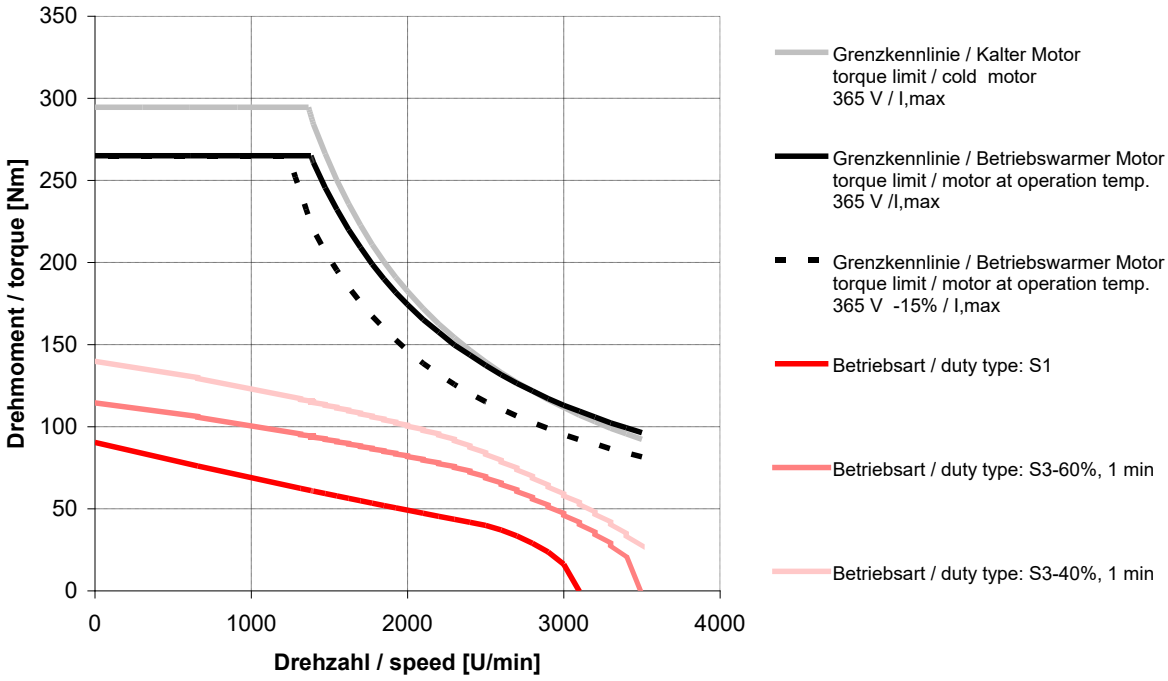
DSD2-100LO64U-60-54



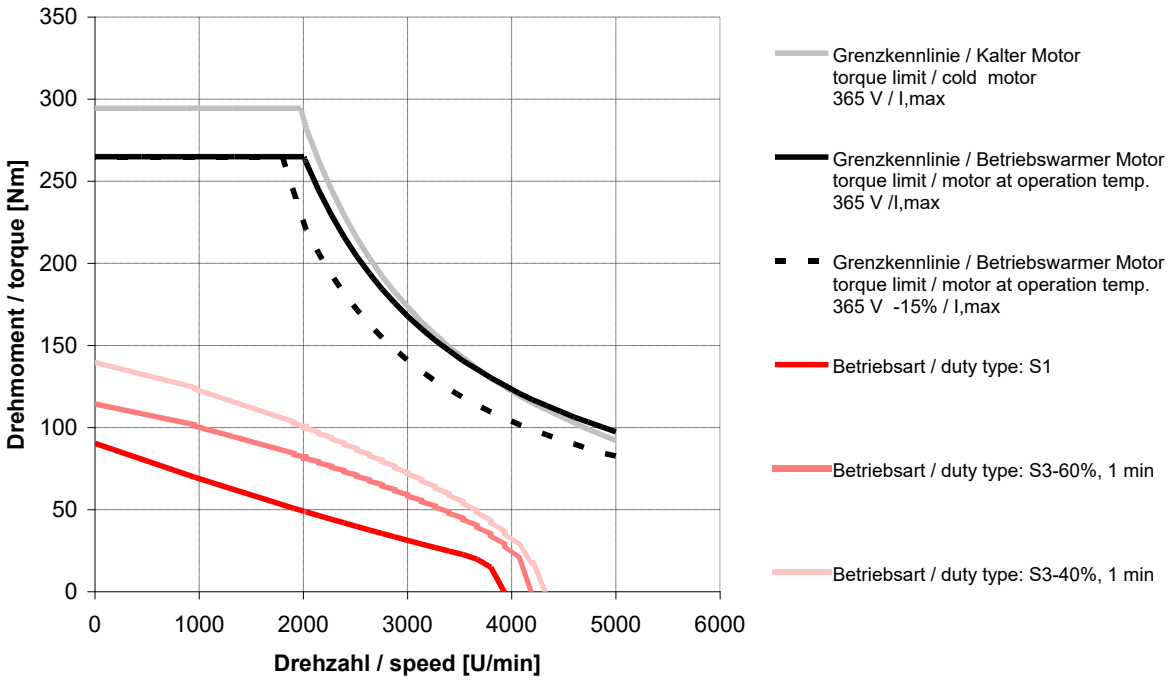
DSD2-100BO64U-12-54



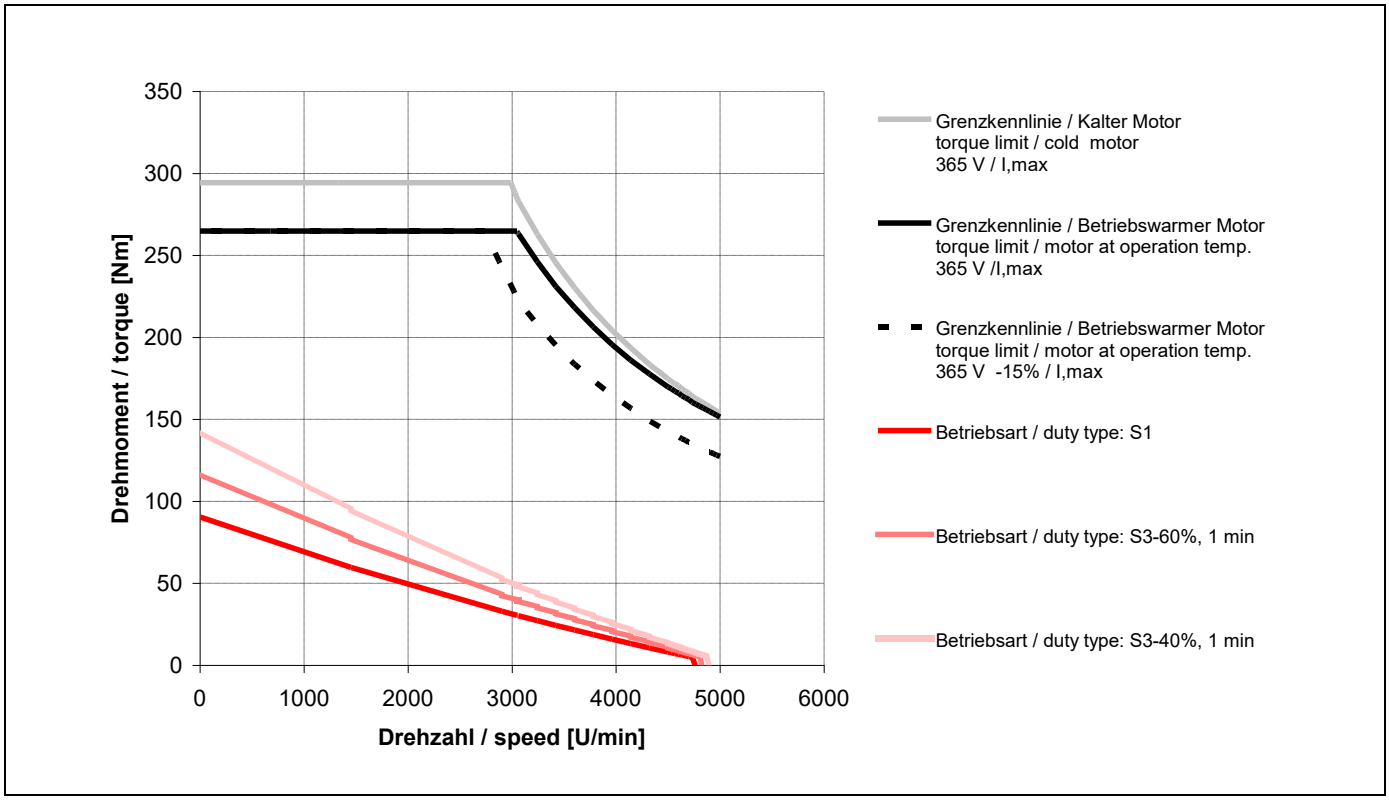
DSD2-100B064U-20-54



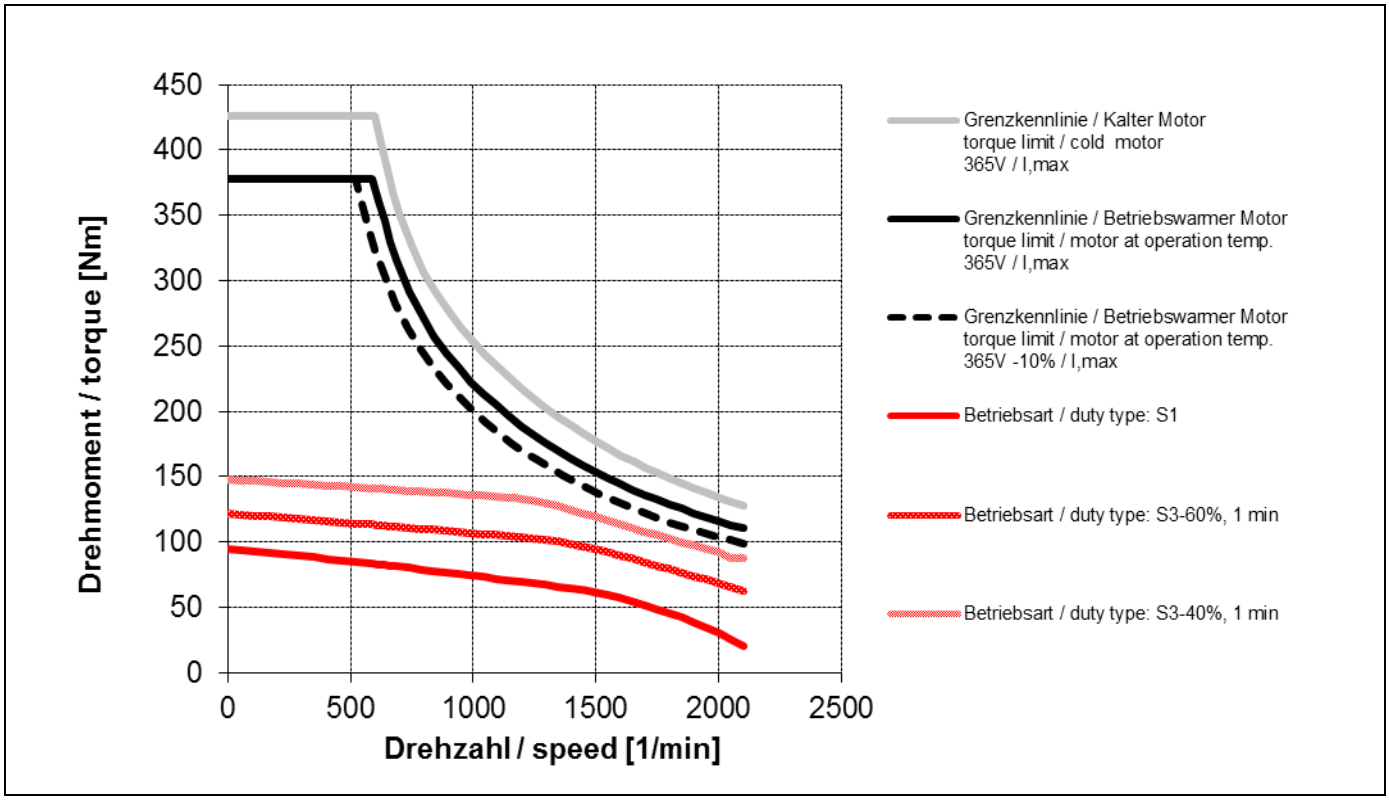
DSD2-100B064U-30-54



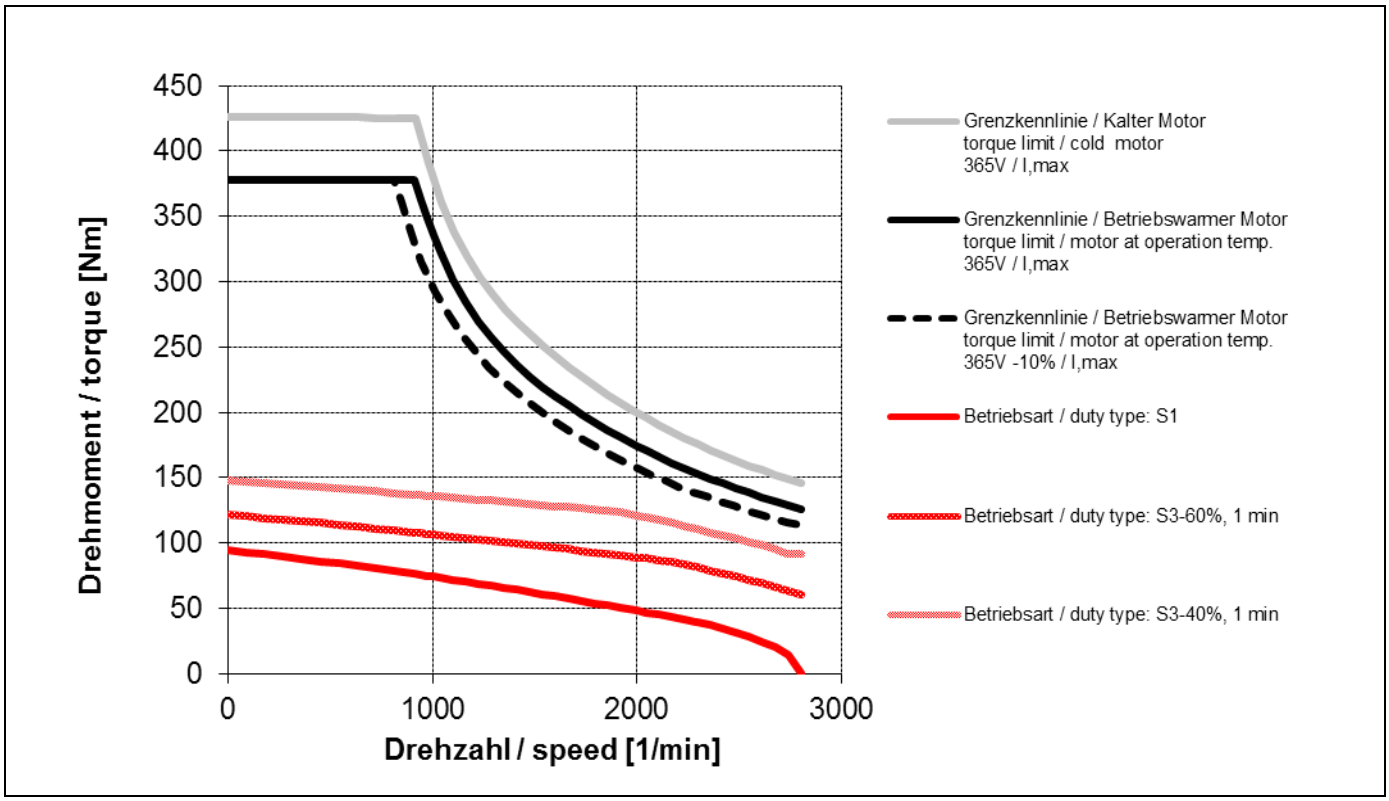
DSD2-100B064U-45-54



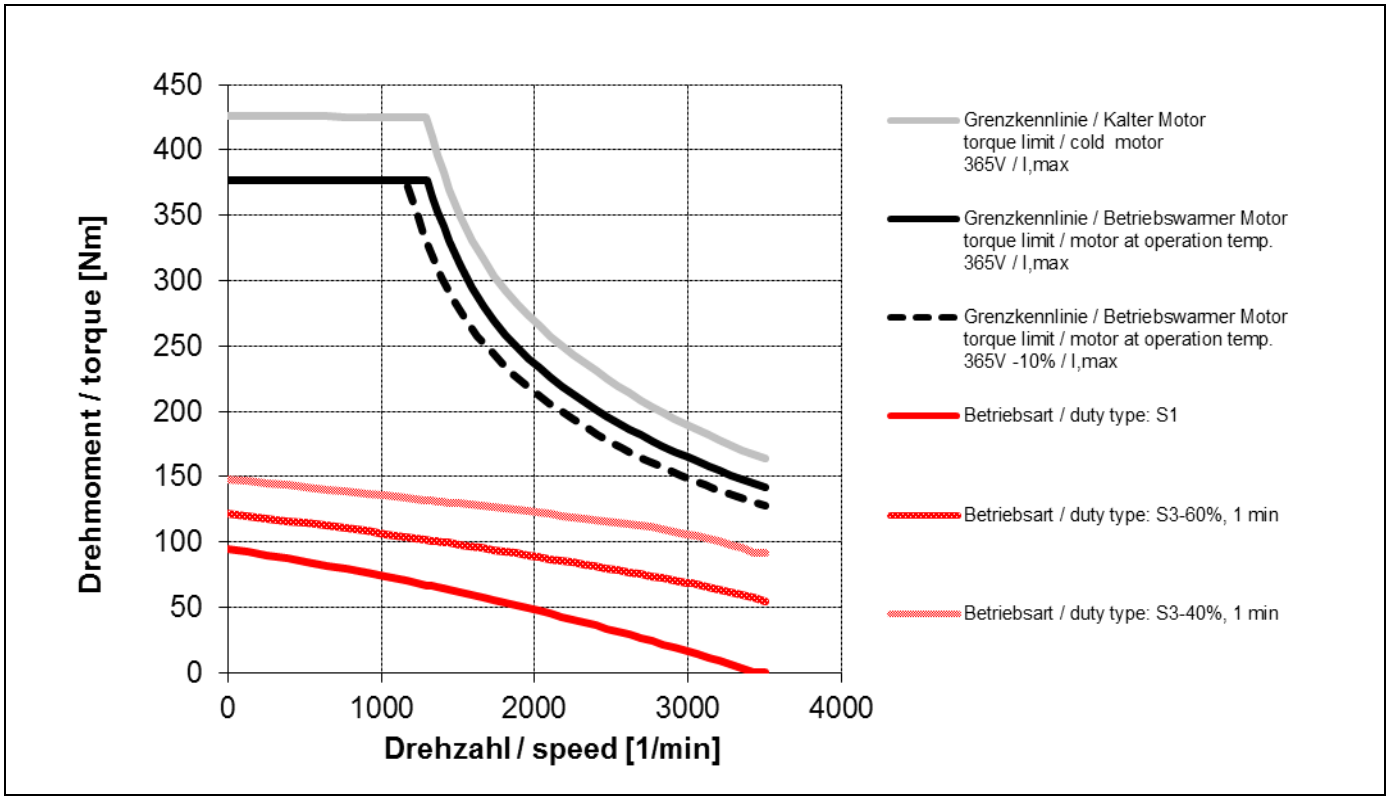
DSD2-100X064U-12-54



DSD2-100X064U-20-54

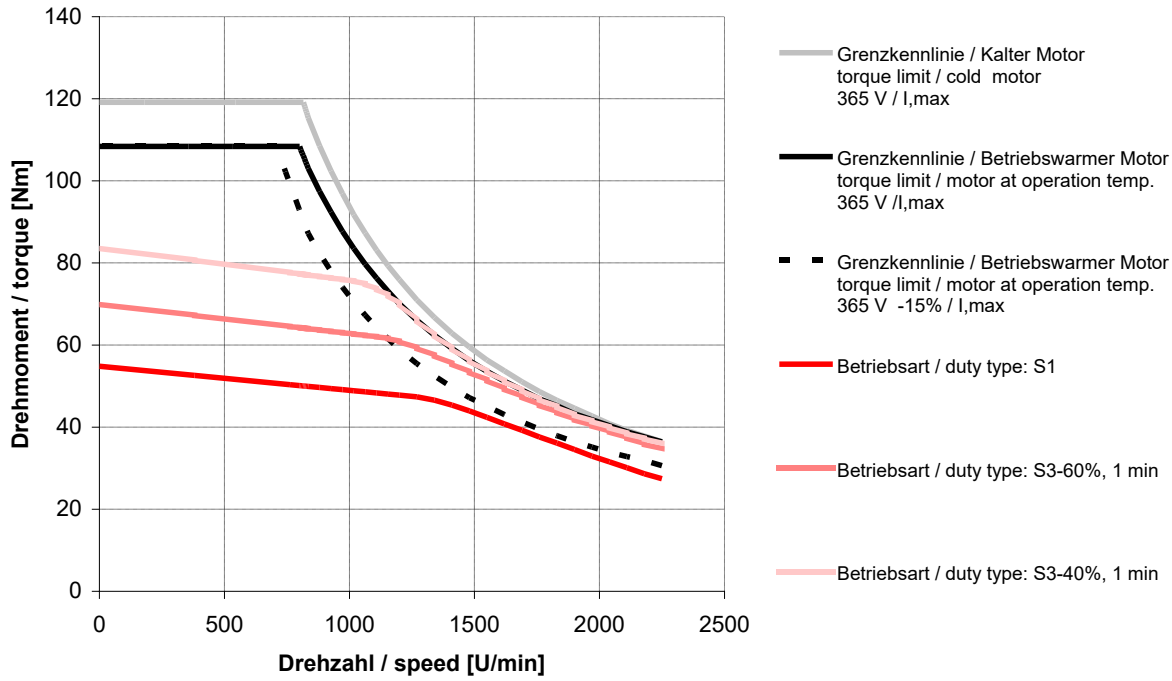


DSD2-100X064U-30-54

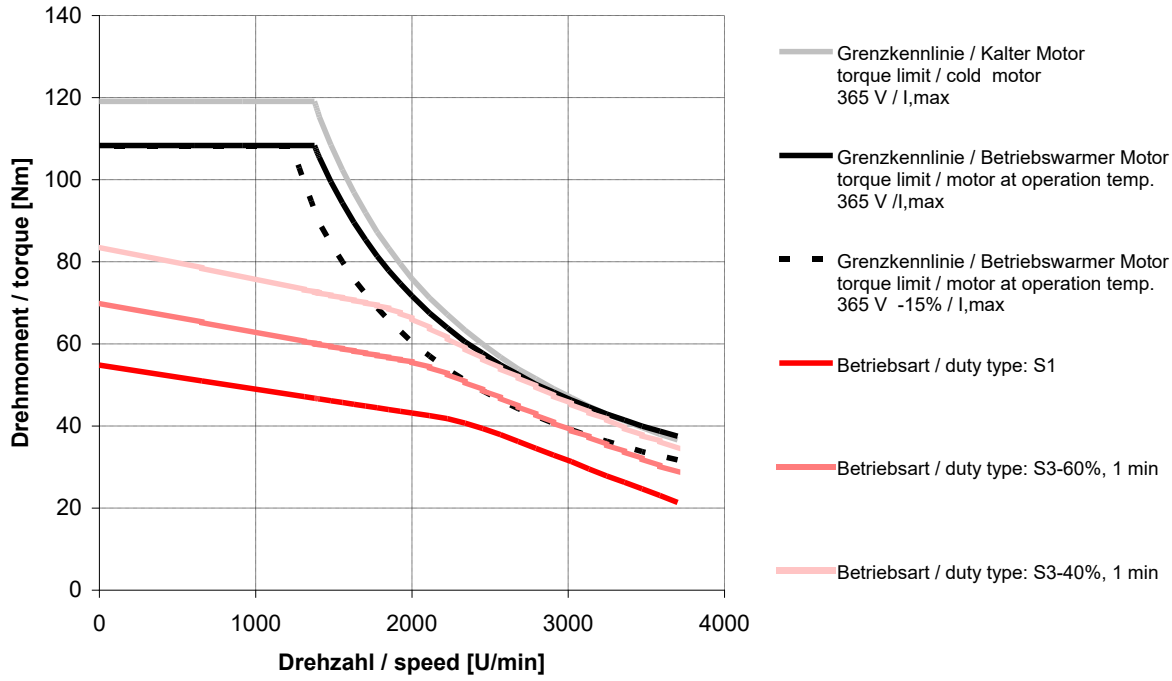


5.6.2 DSD2-100..640-..

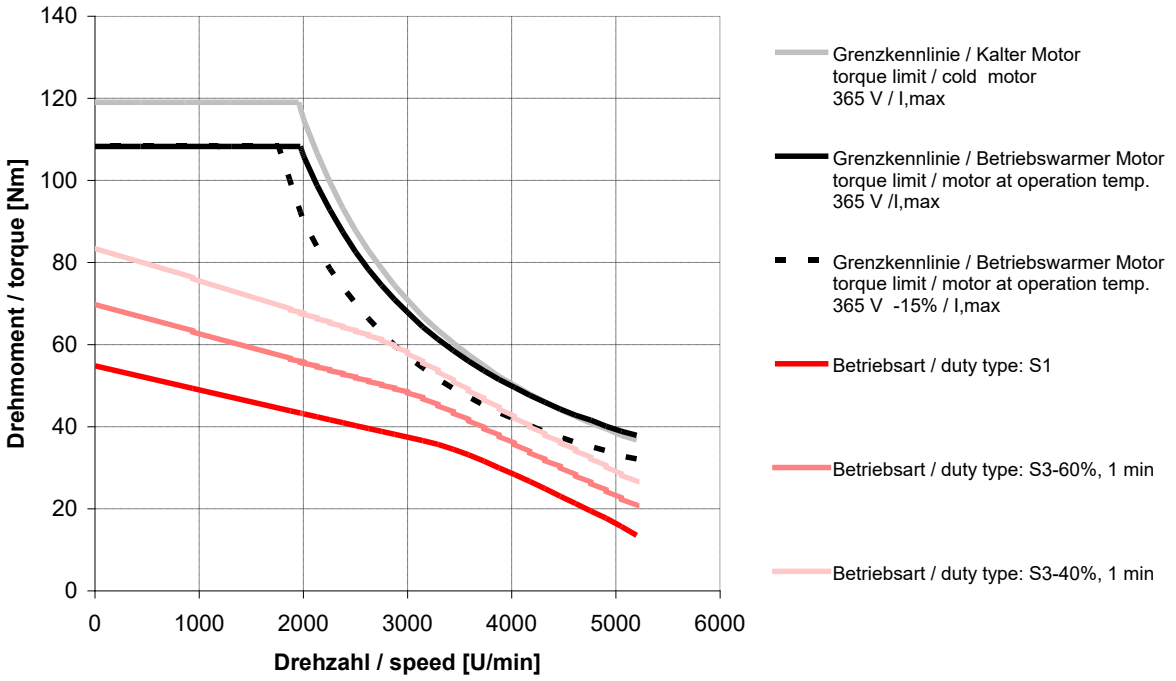
DSD2-100S0640-12-54



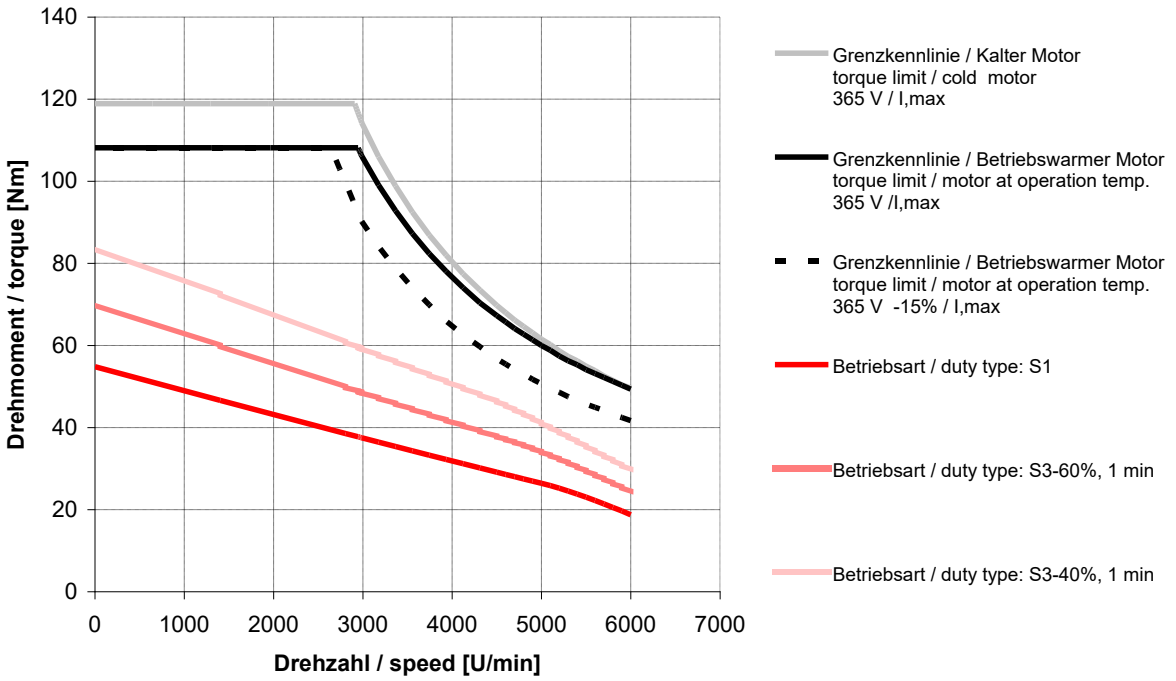
DSD2-100S0640-20-54



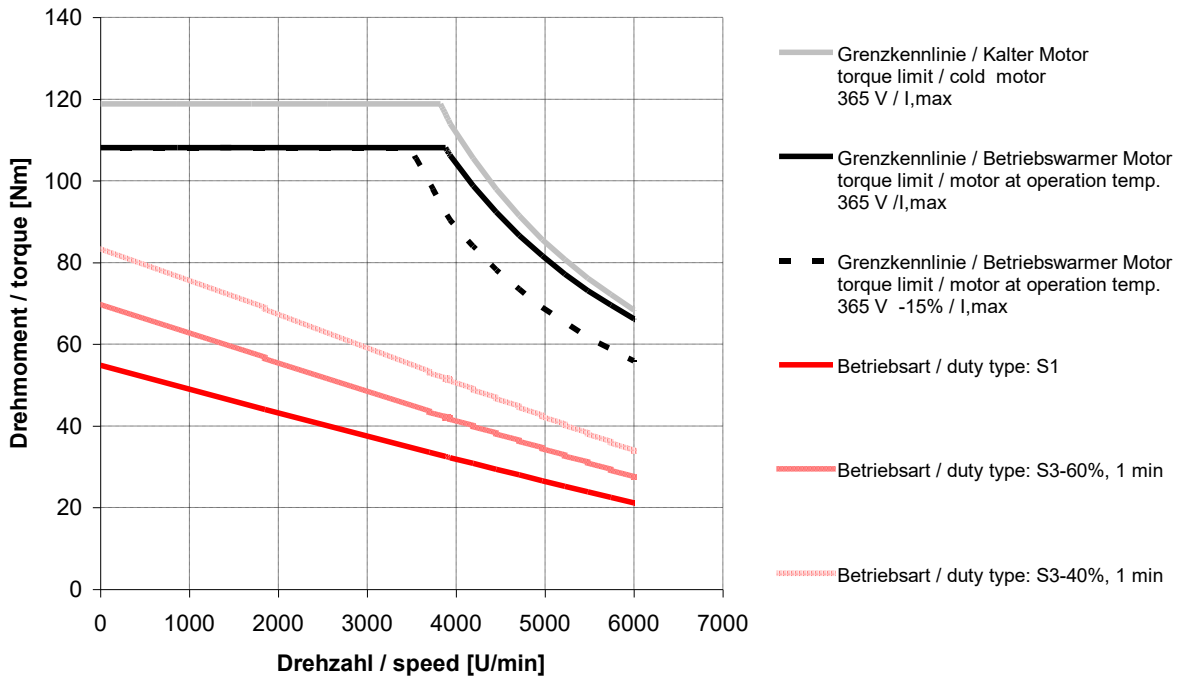
DSD2-100SO640-30-54



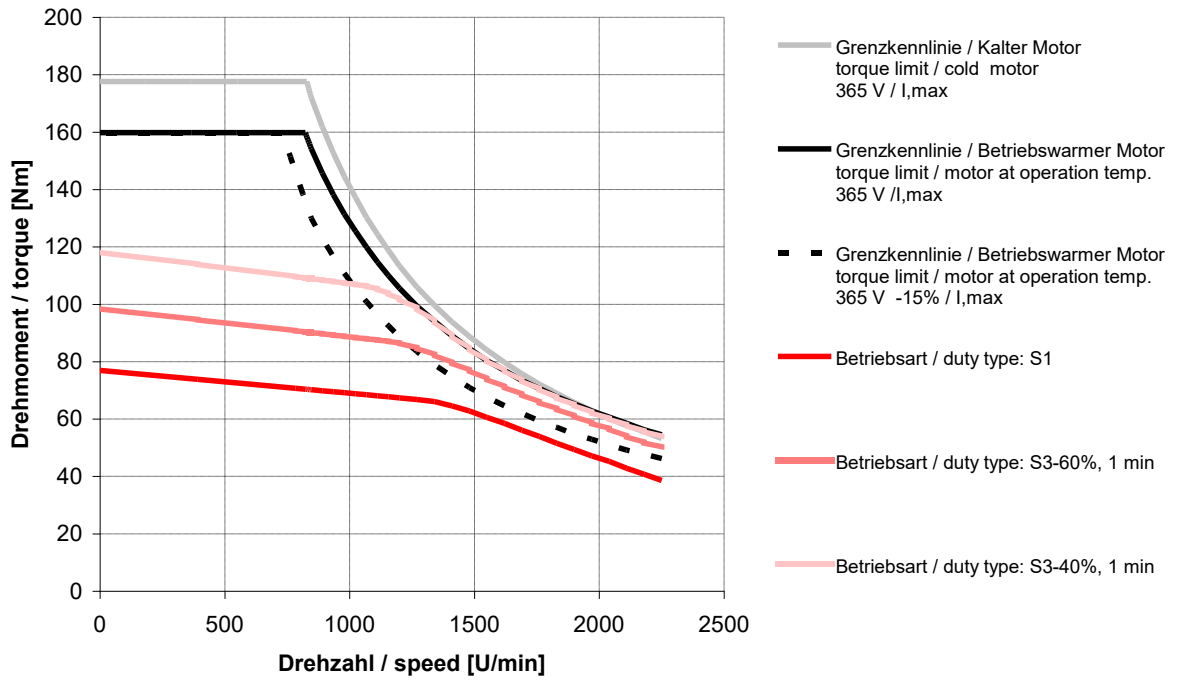
DSD2-100SO640-45-54



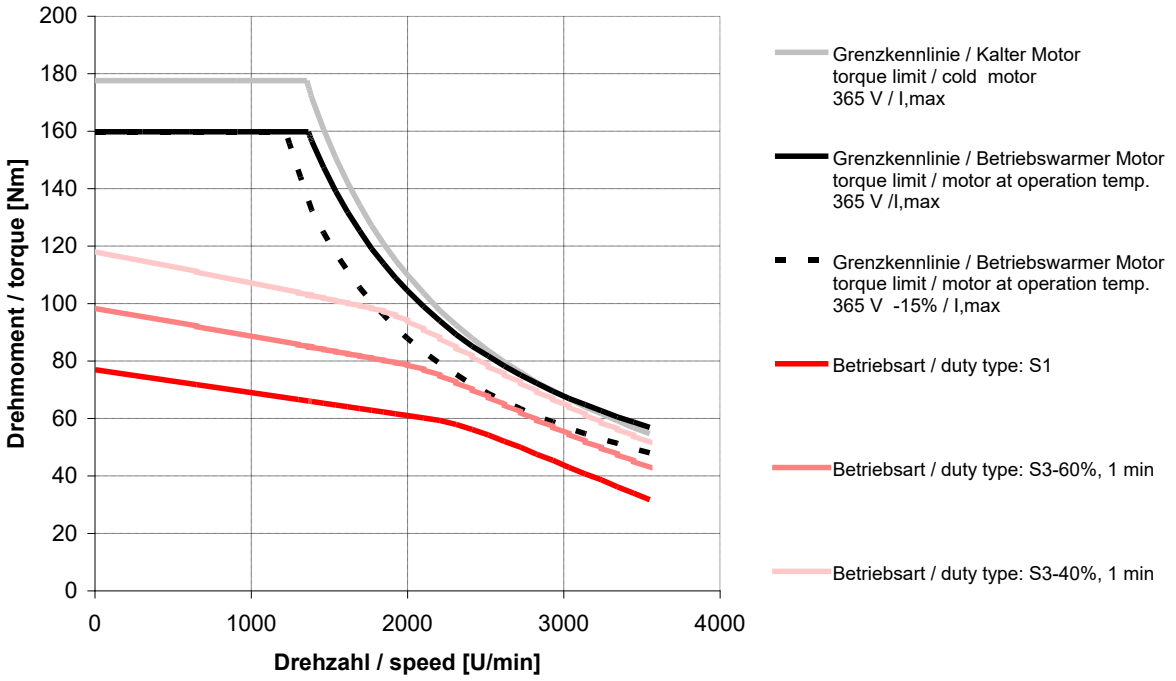
DSD2-100S0640-60-54



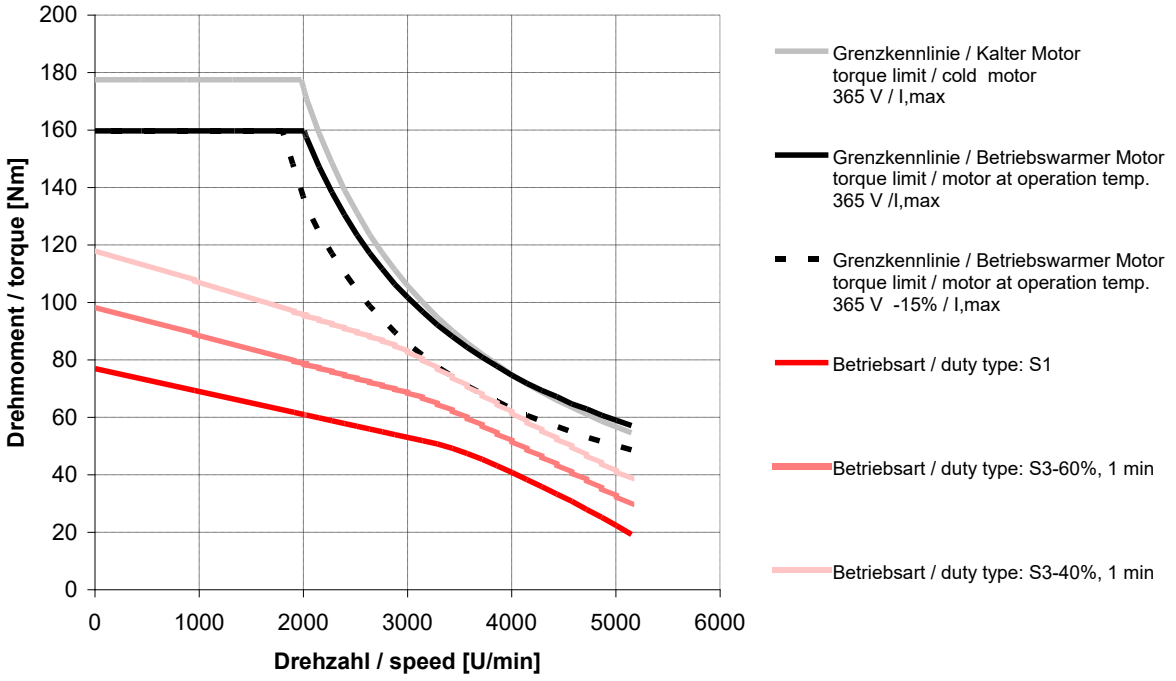
DSD2-100M0640-12-54



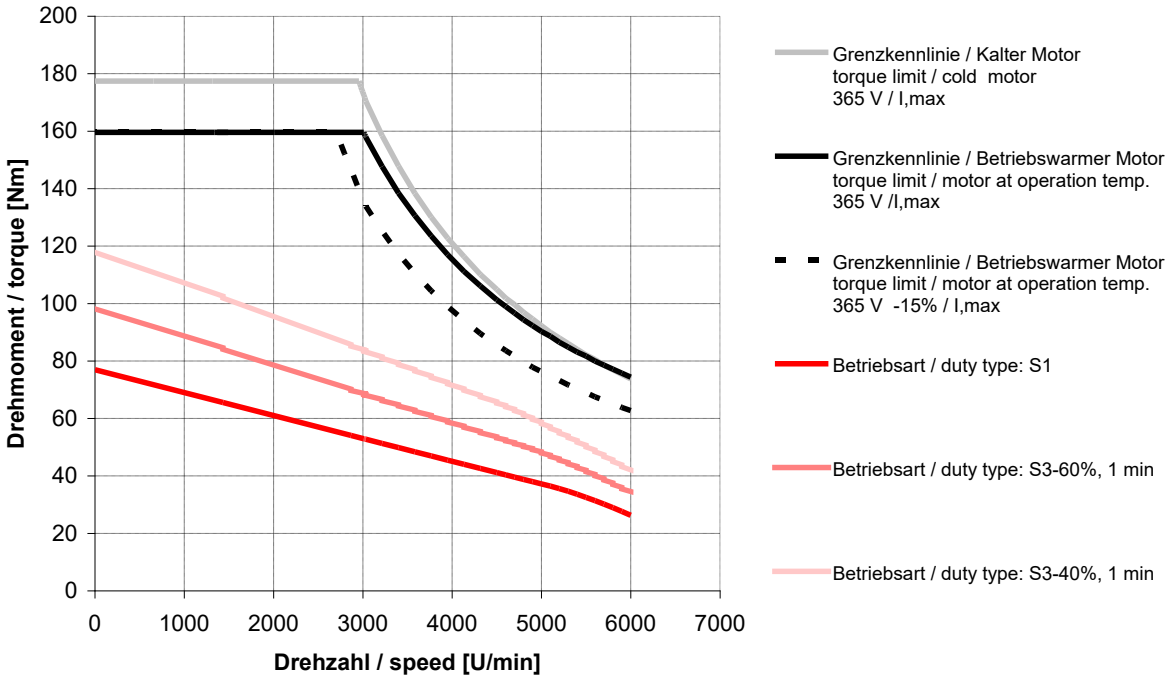
DSD2-100M0640-20-54



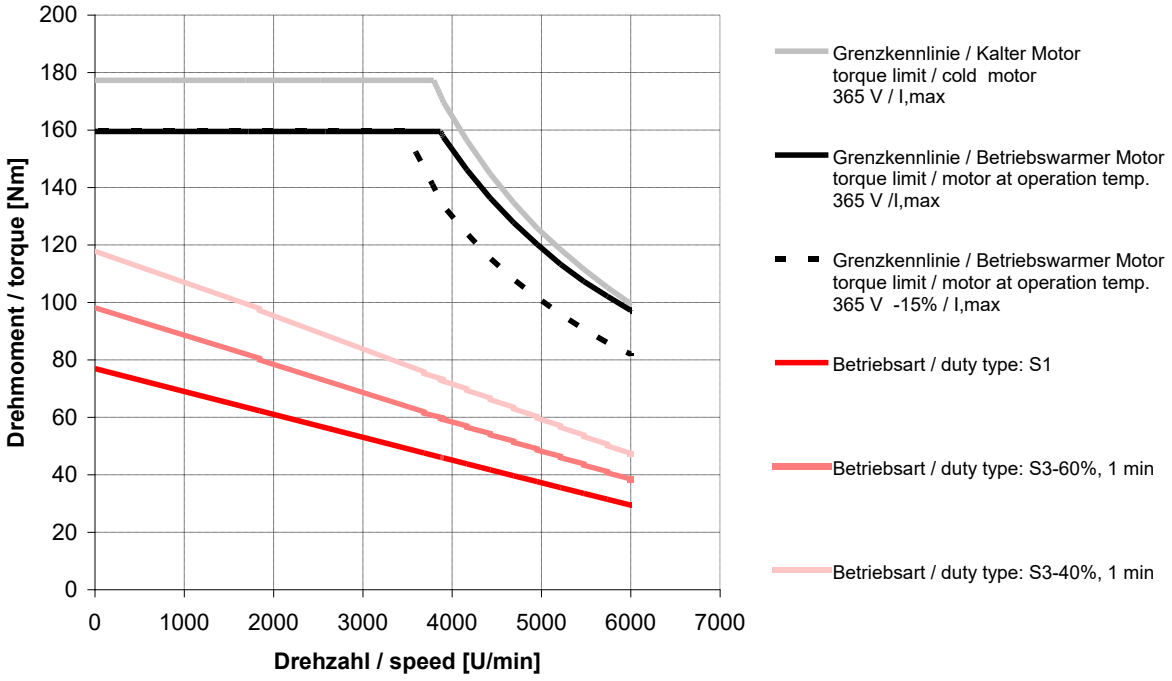
DSD2-100M0640-30-54



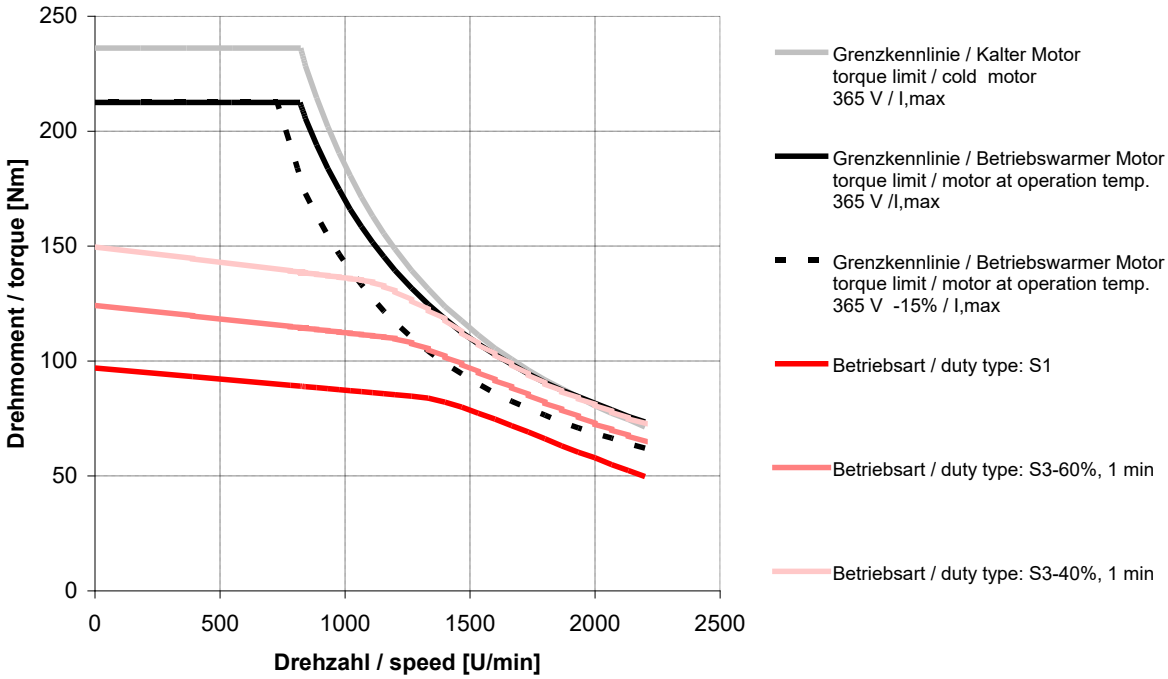
DSD2-100M0640-45-54



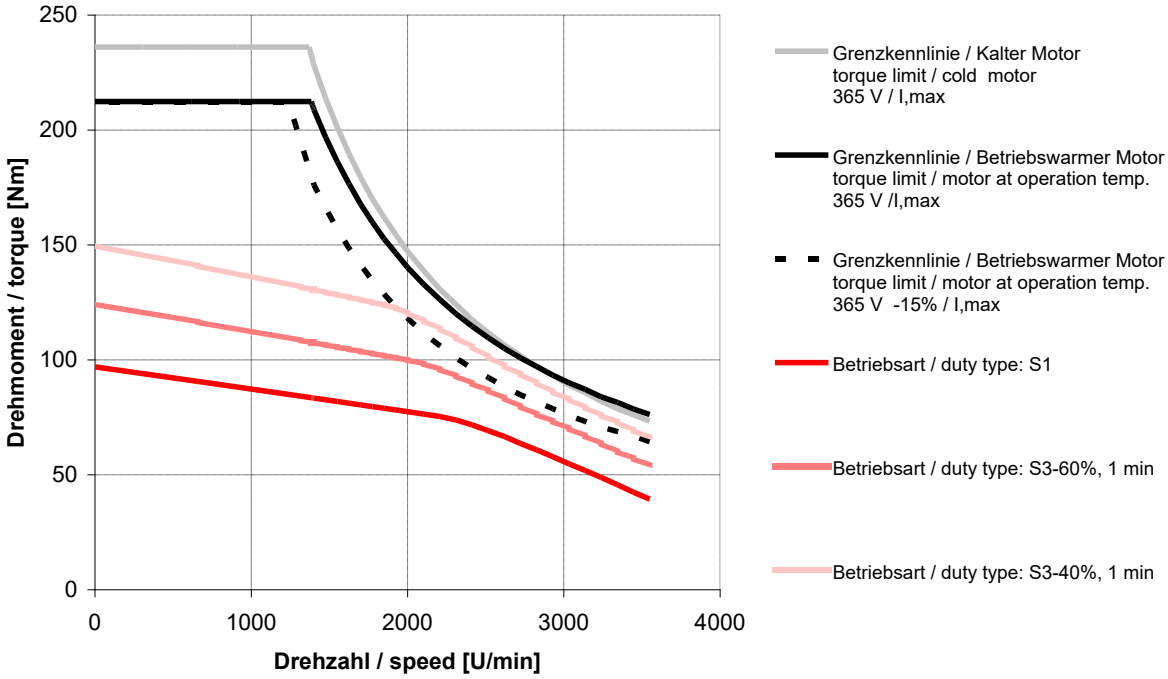
DSD2-100M0640-60-54



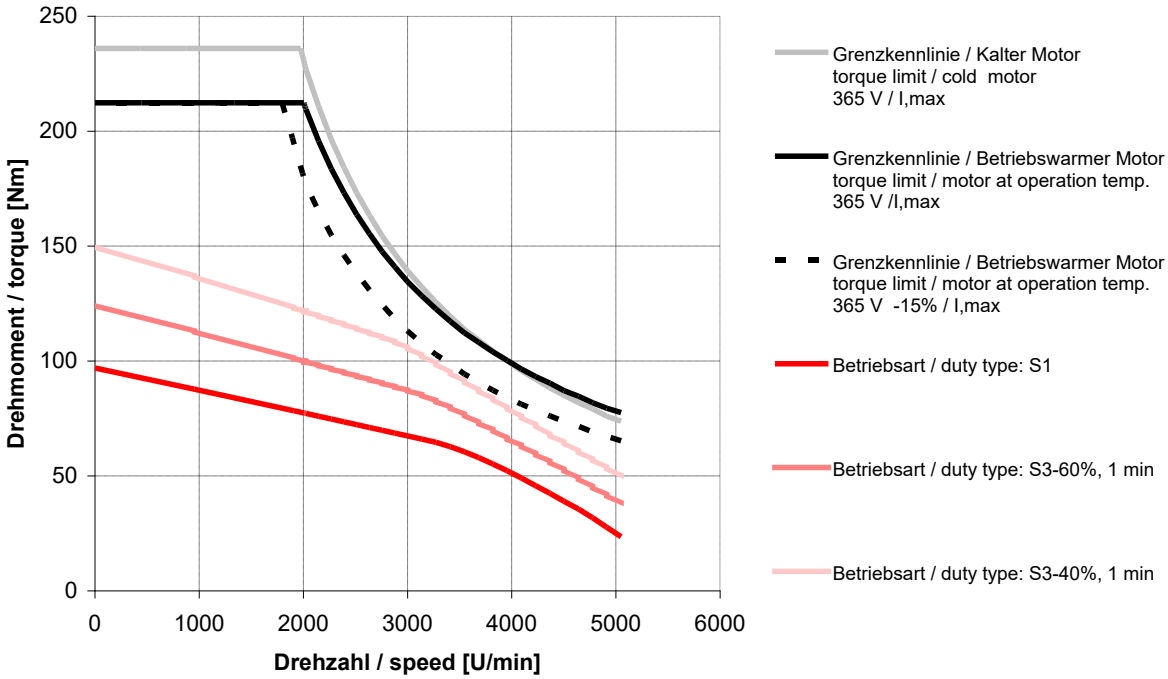
DSD2-100LO640-12-54



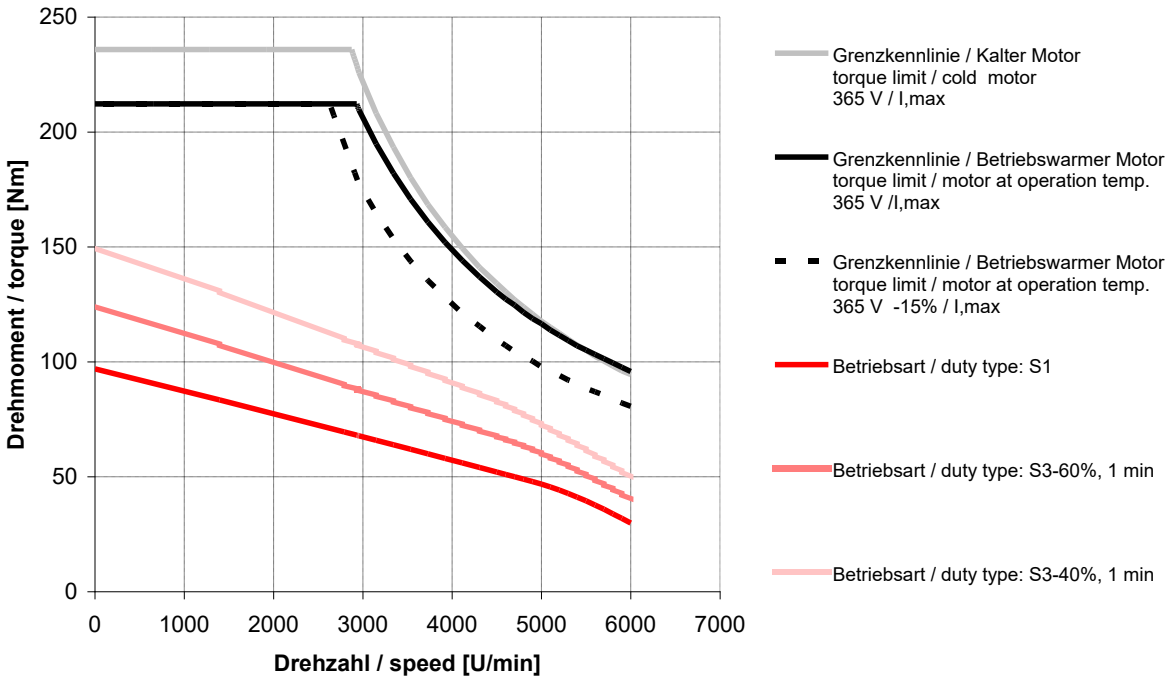
DSD2-100LO640-20-54



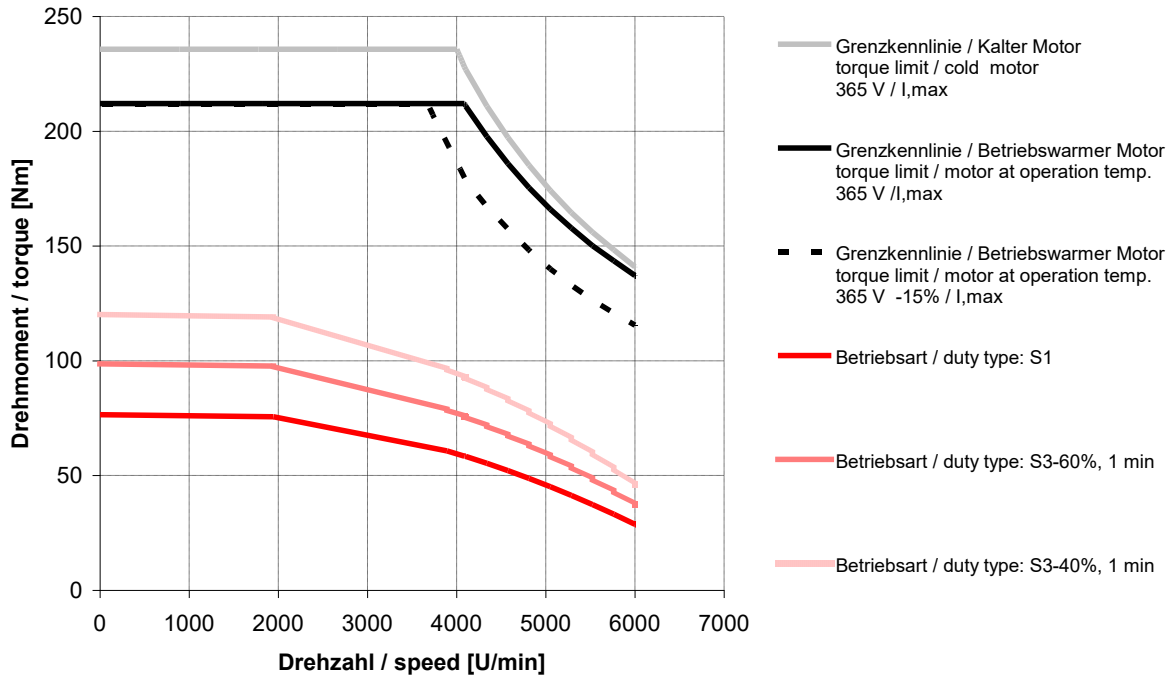
DSD2-100LO640-30-54



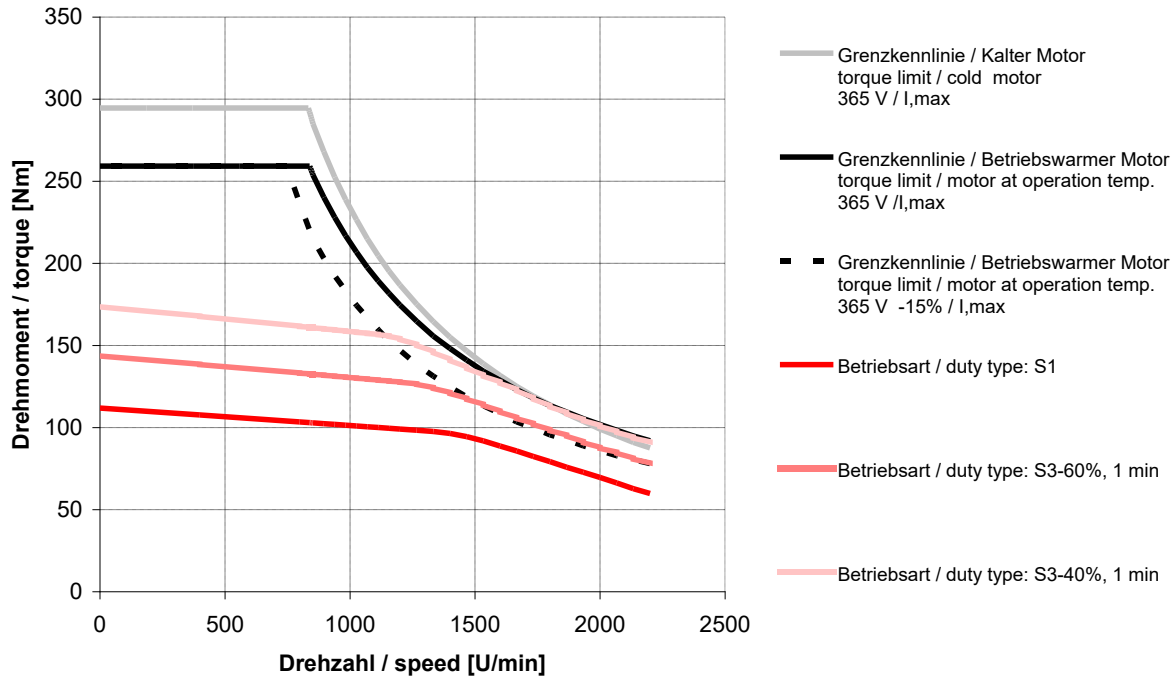
DSD2-100LO640-45-54



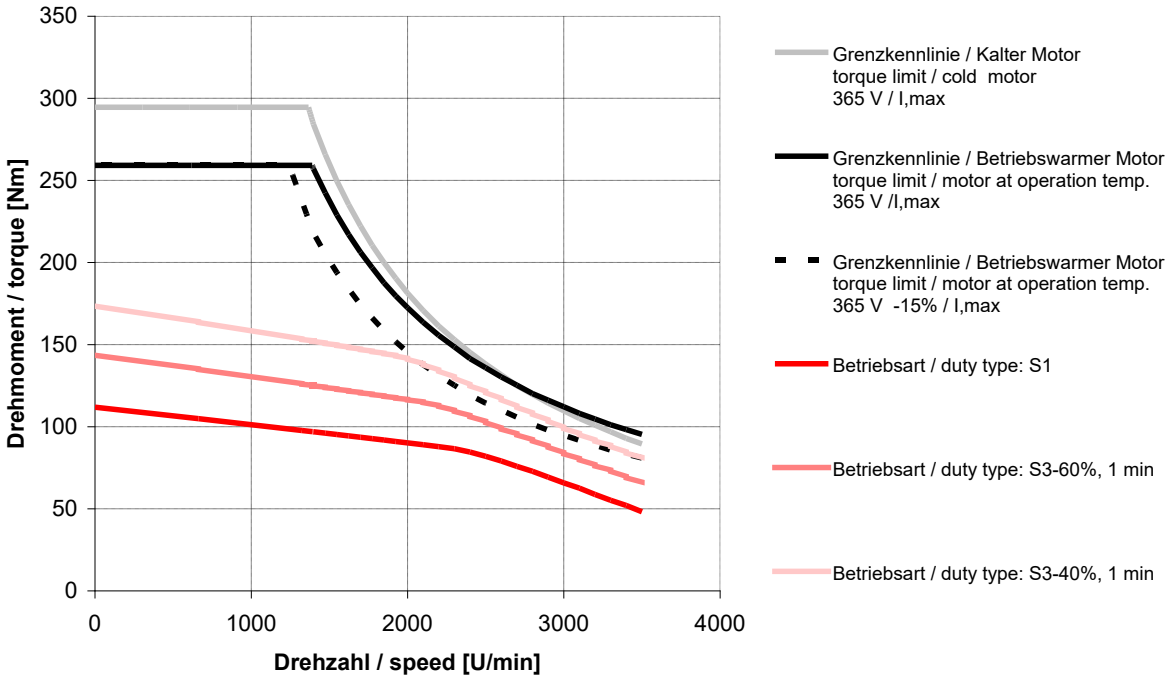
DSD2-100L0640-60-54



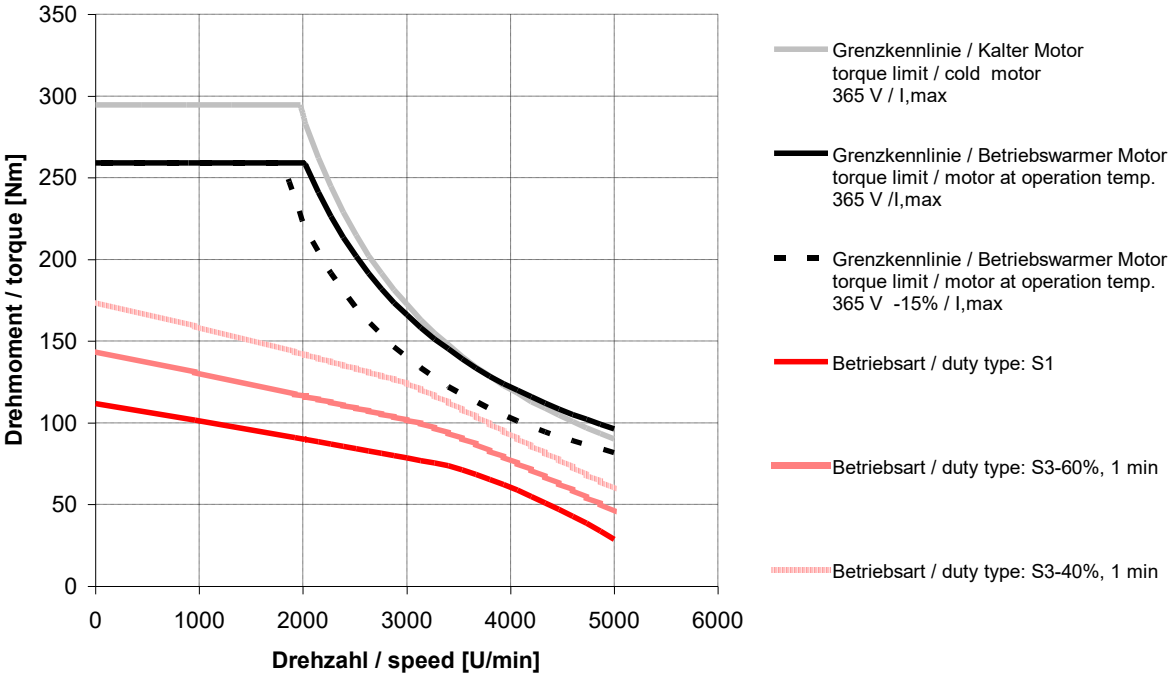
DSD2-100B0640-12-54



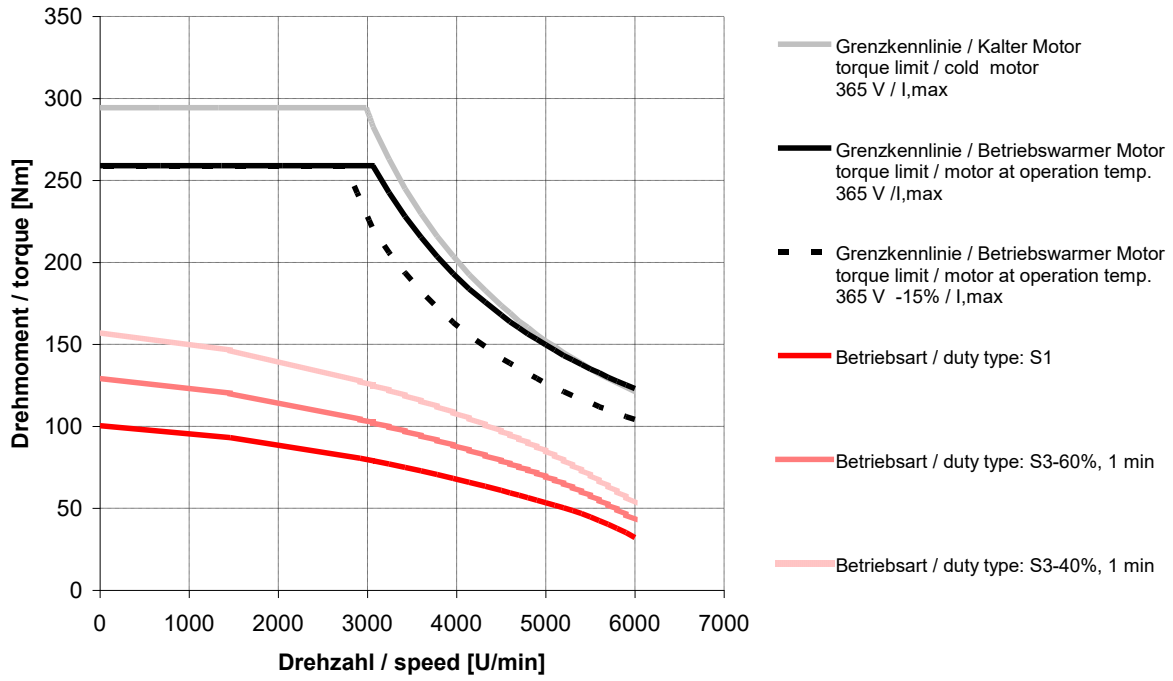
DSD2-100B0640-20-54



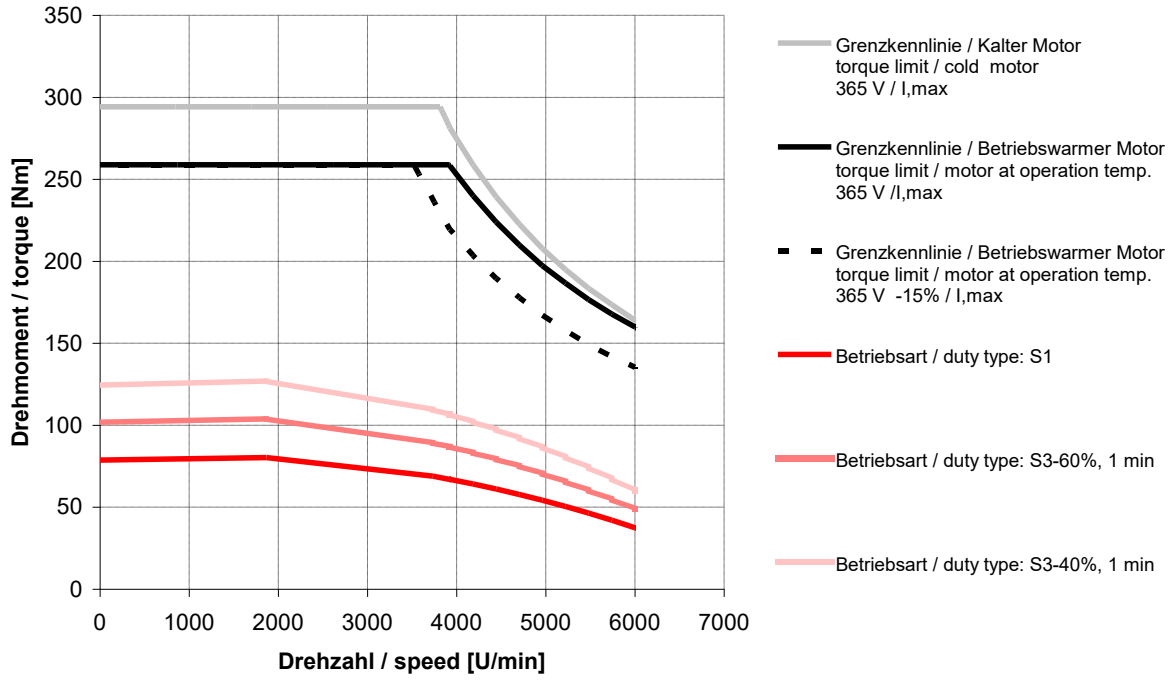
DSD2-100B0640-30-54



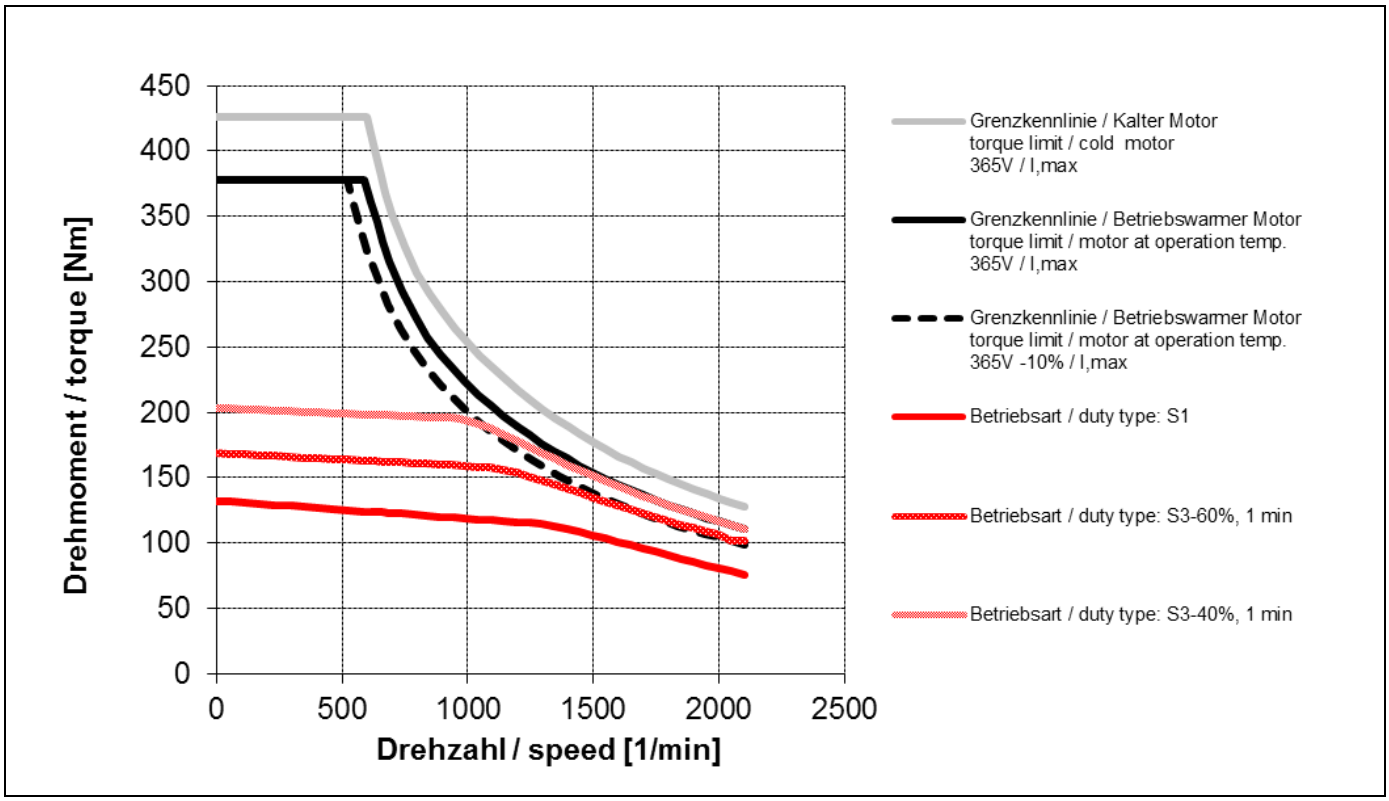
DSD2-100B0640-45-54



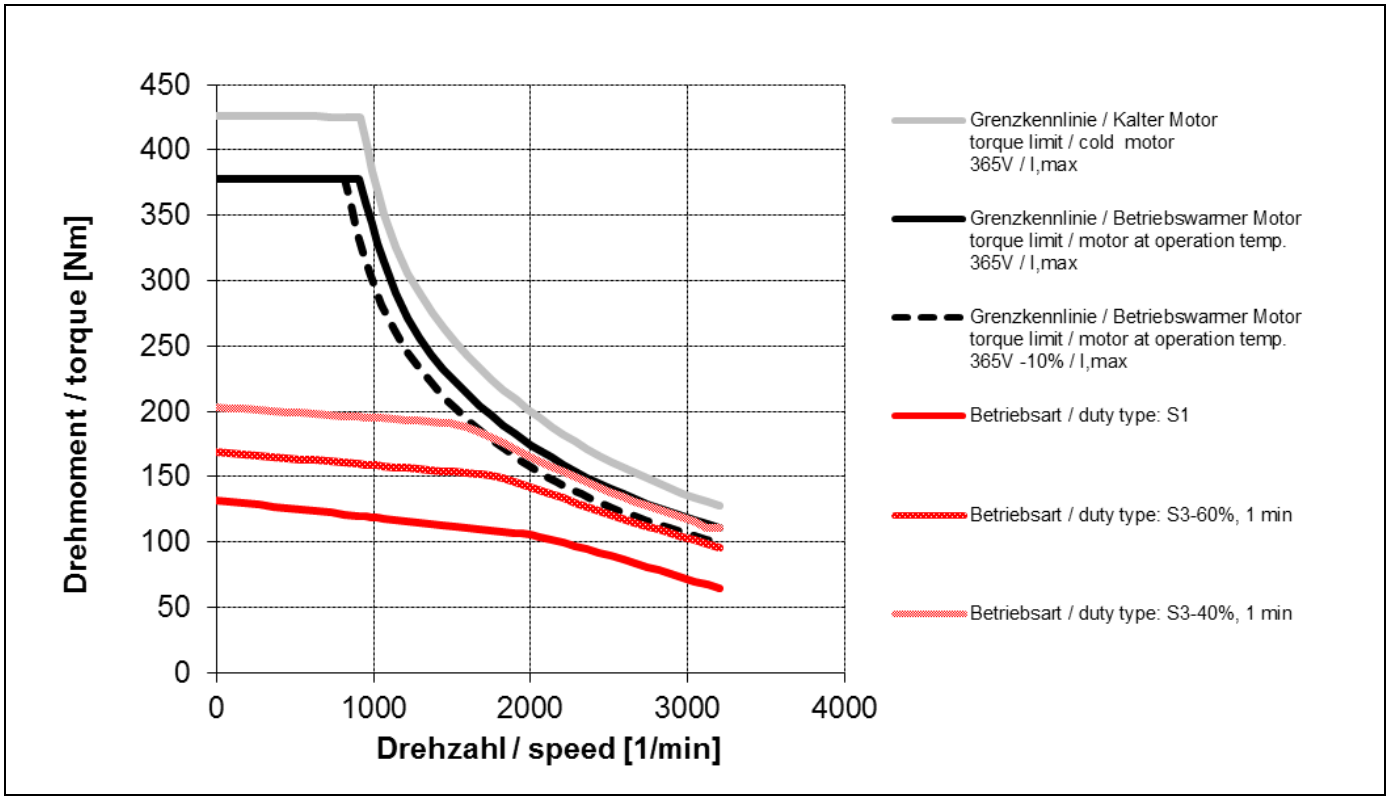
DSD2-100B0640-60-54



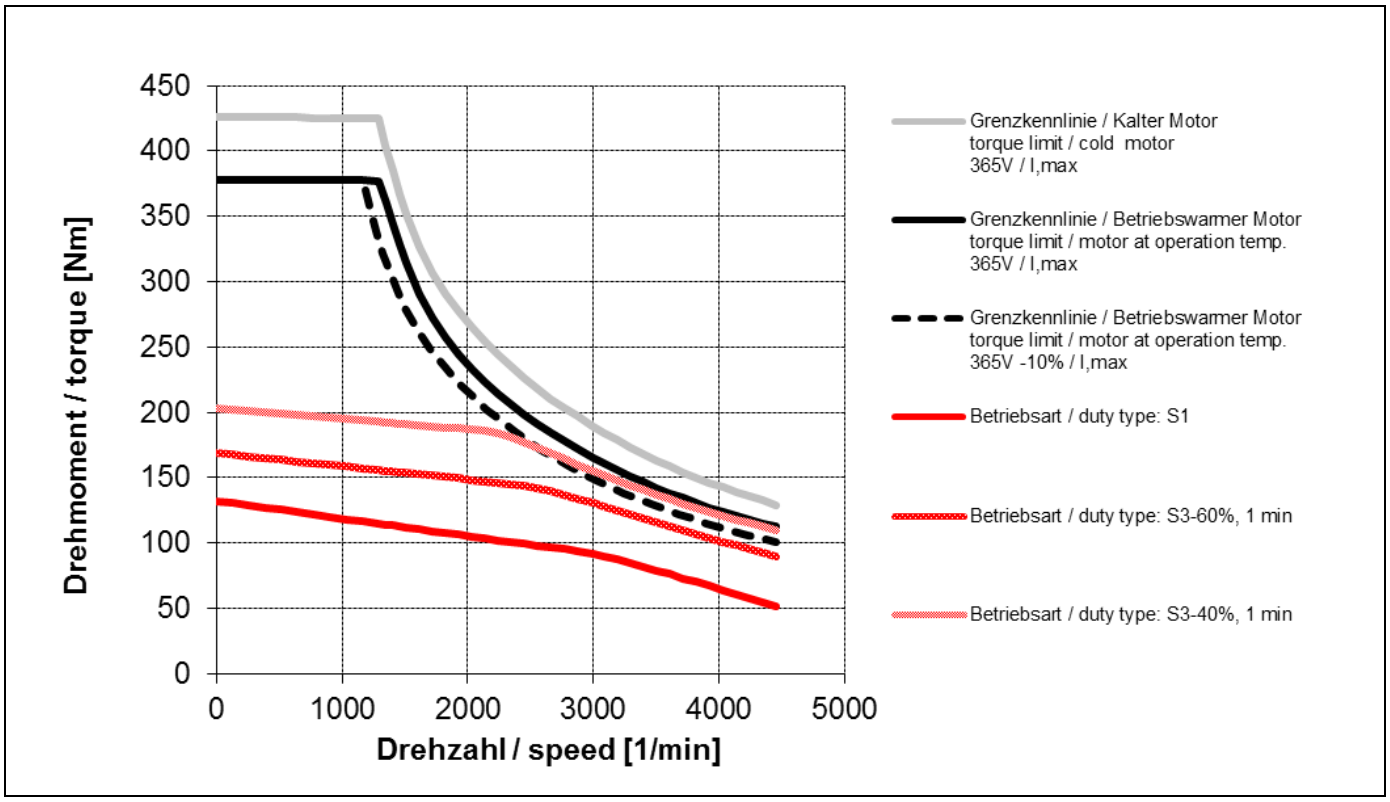
DSD2-100X0640-12-54



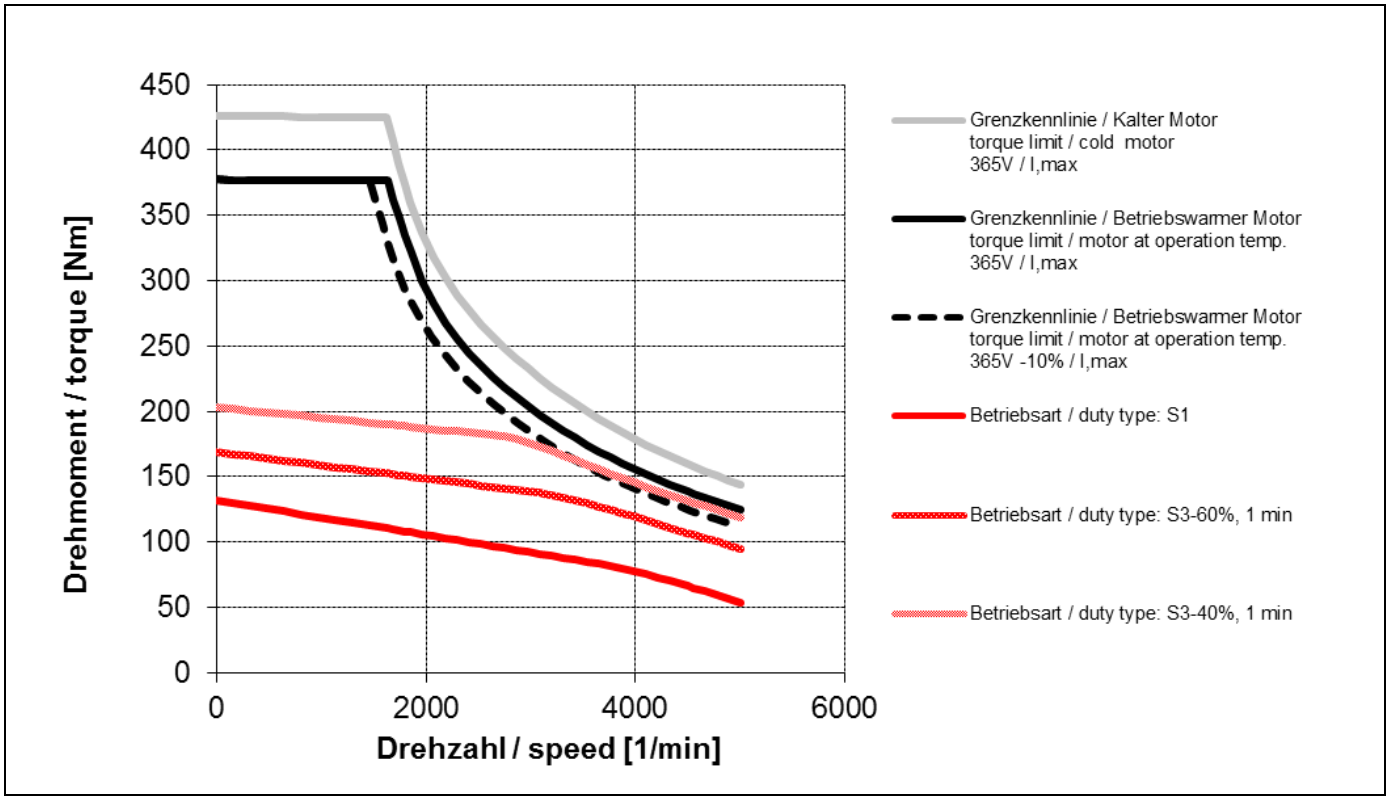
DSD2-100X0640-20-54



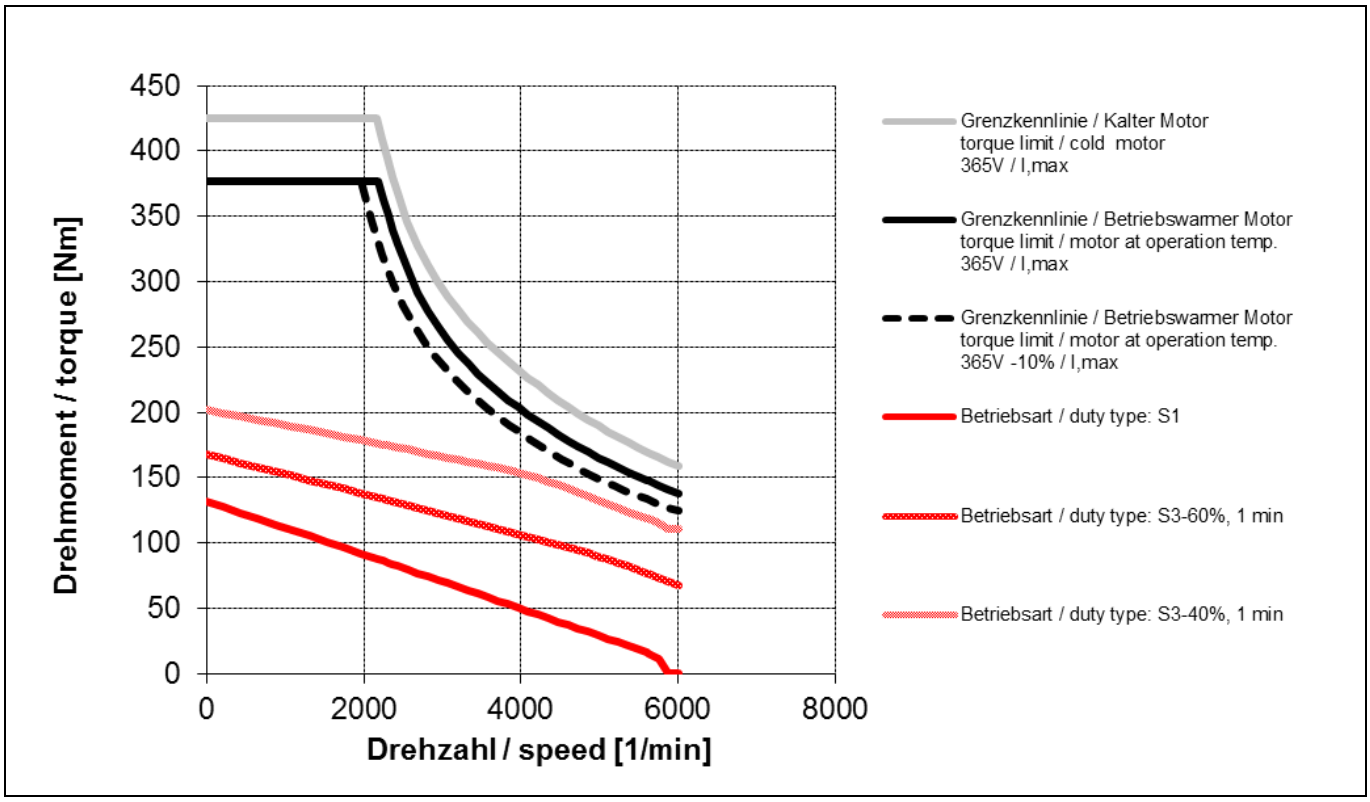
DSD2-100X0640-30-54



DSD2-100X0640-45-54

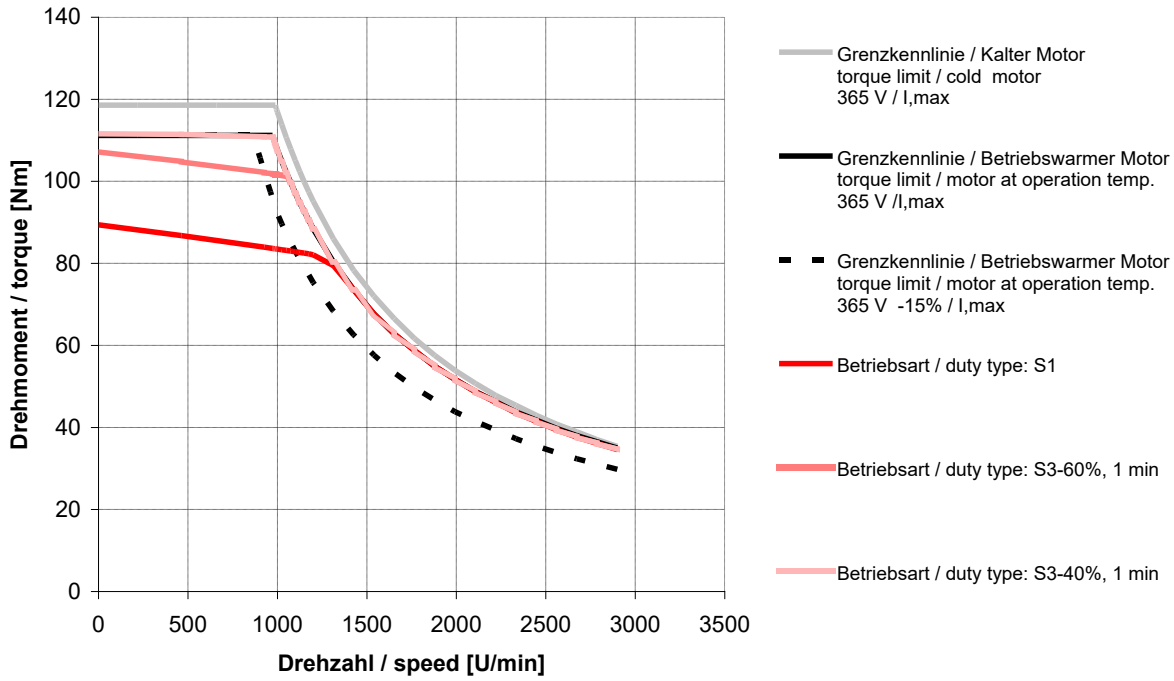


DSD2-100X0640-60-54

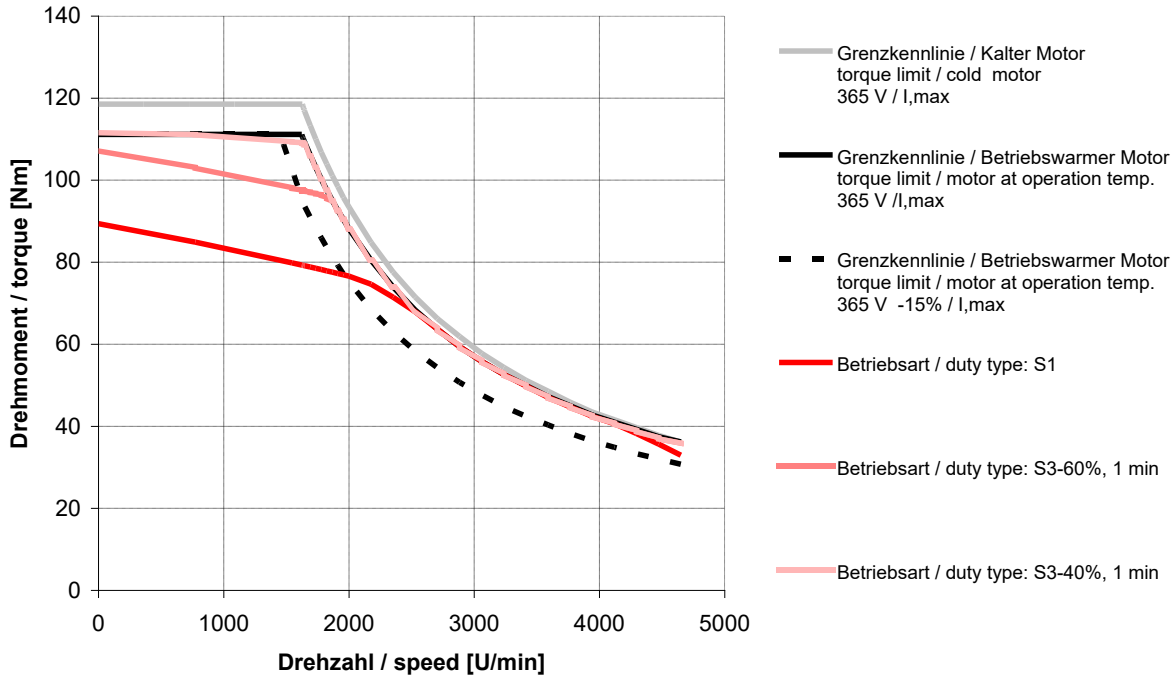


5.6.3 DSD2-100..64W-..

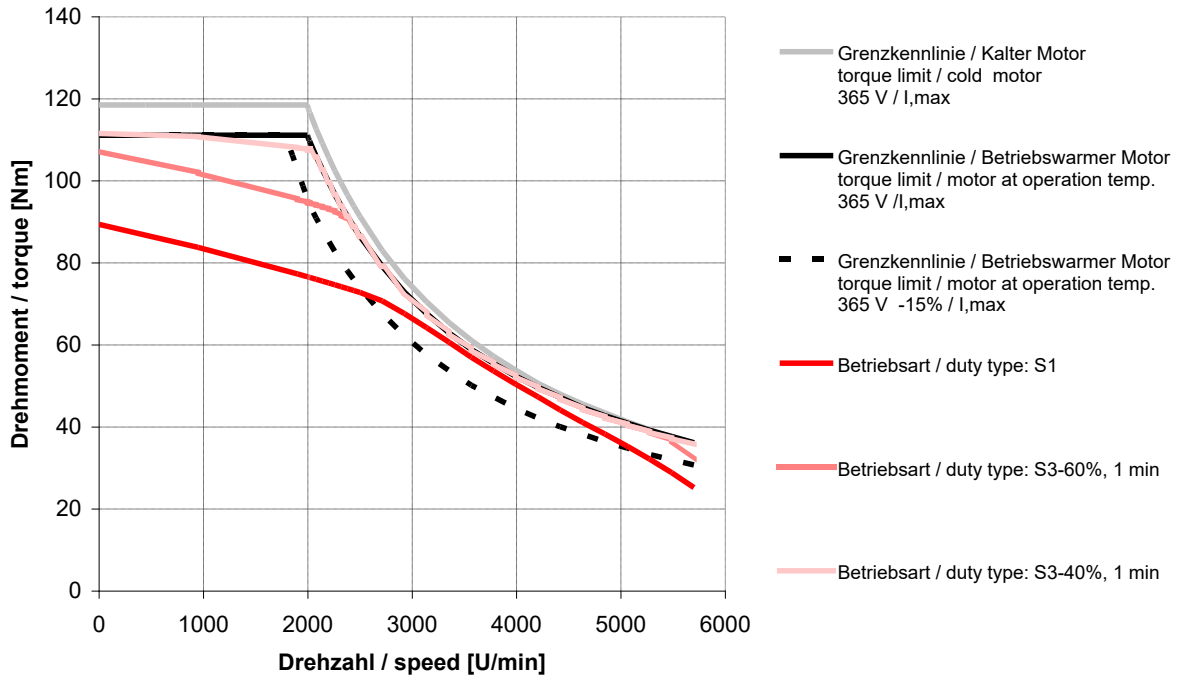
DSD2-100S064W-12-54



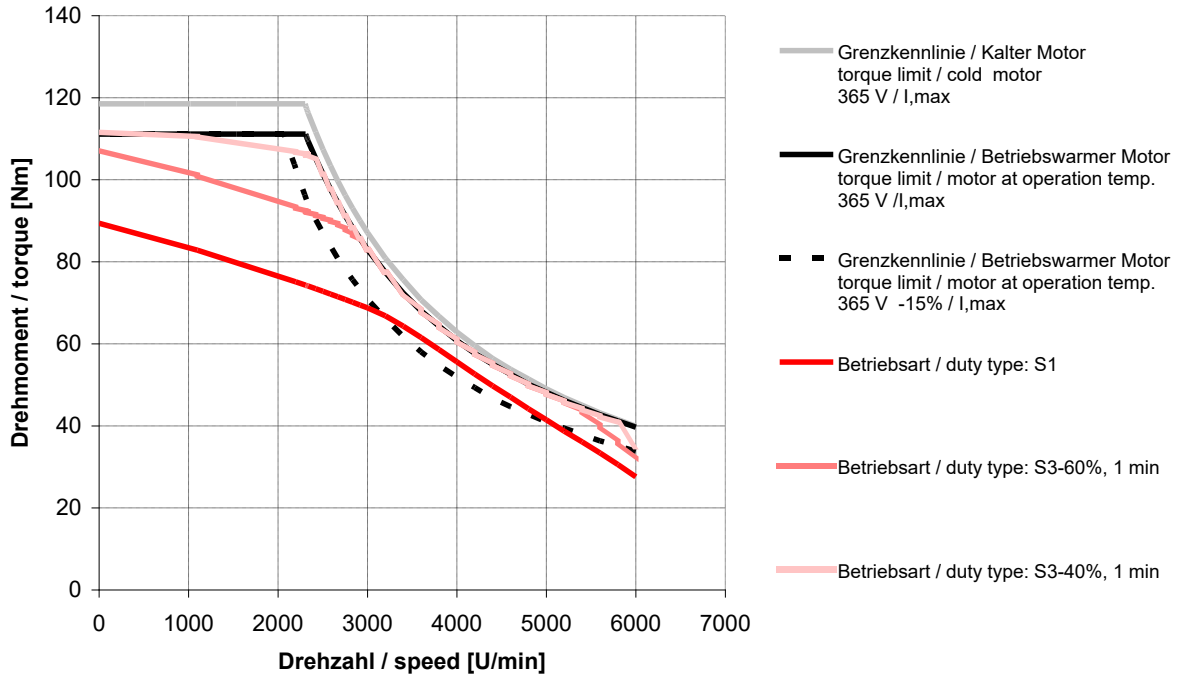
DSD2-100S064W-20-54



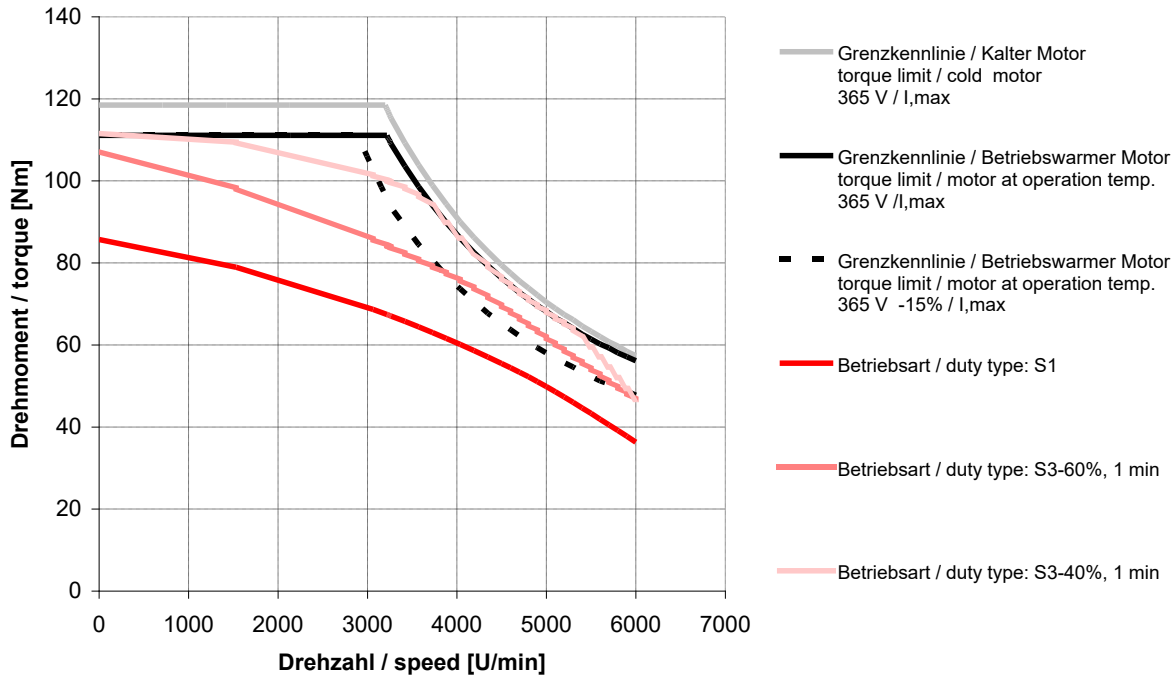
DSD2-100S064W-25-54



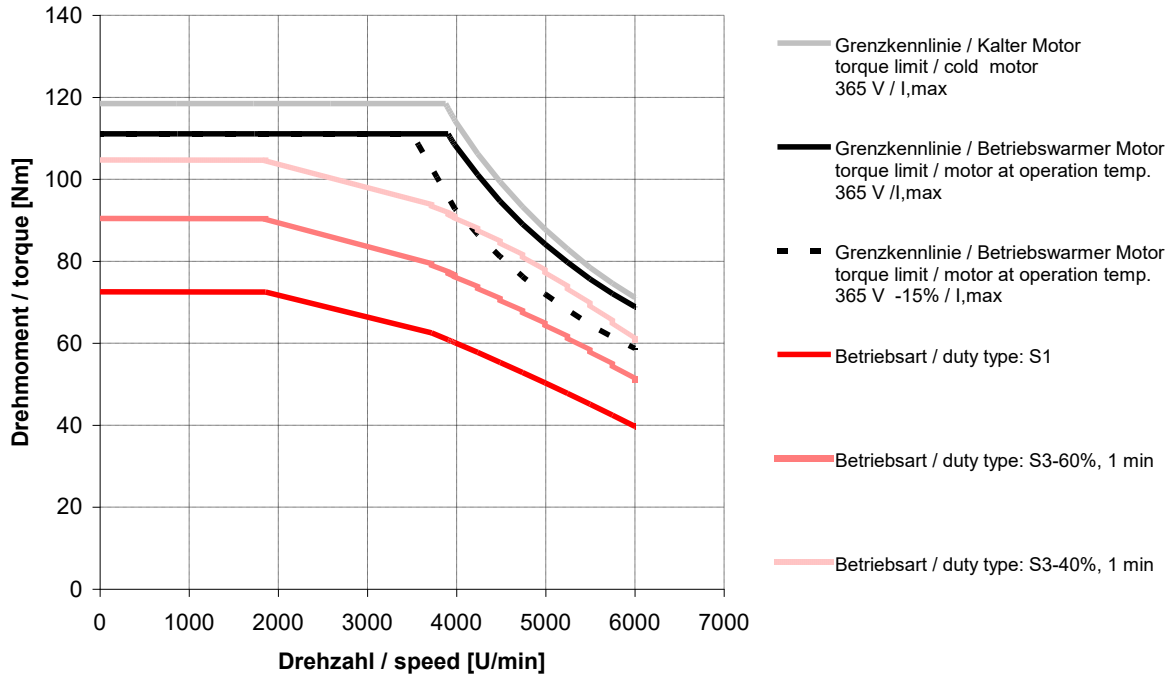
DSD2-100S064W-30-54



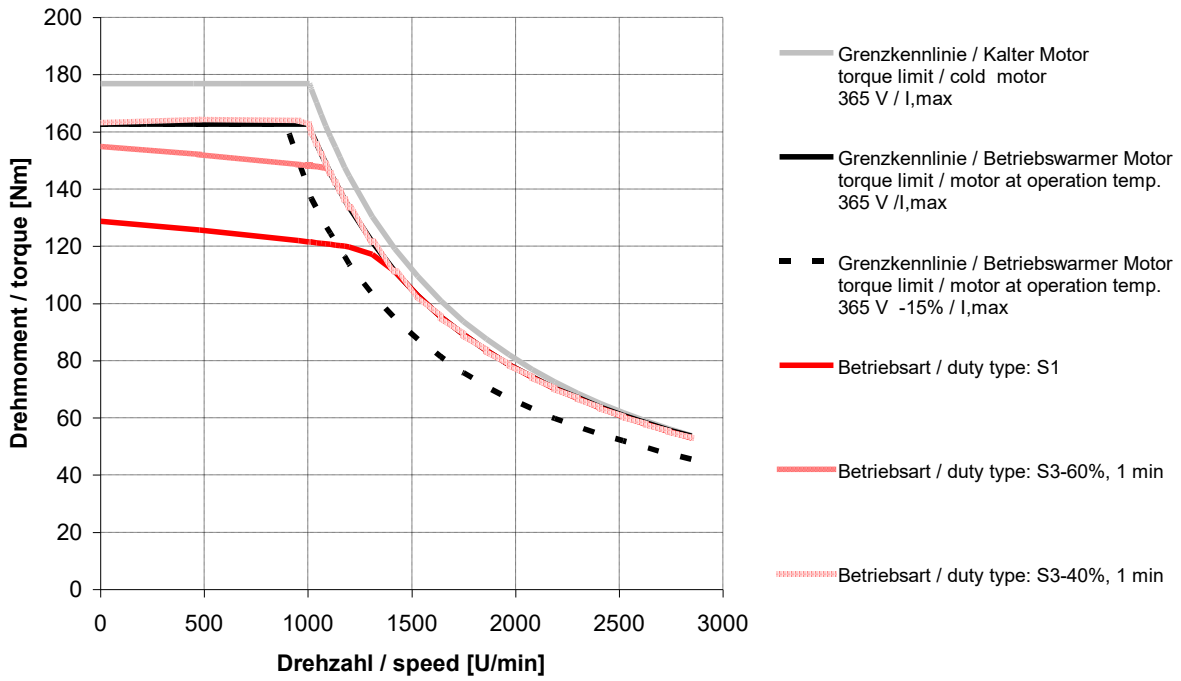
DSD2-100SO64W-45-54



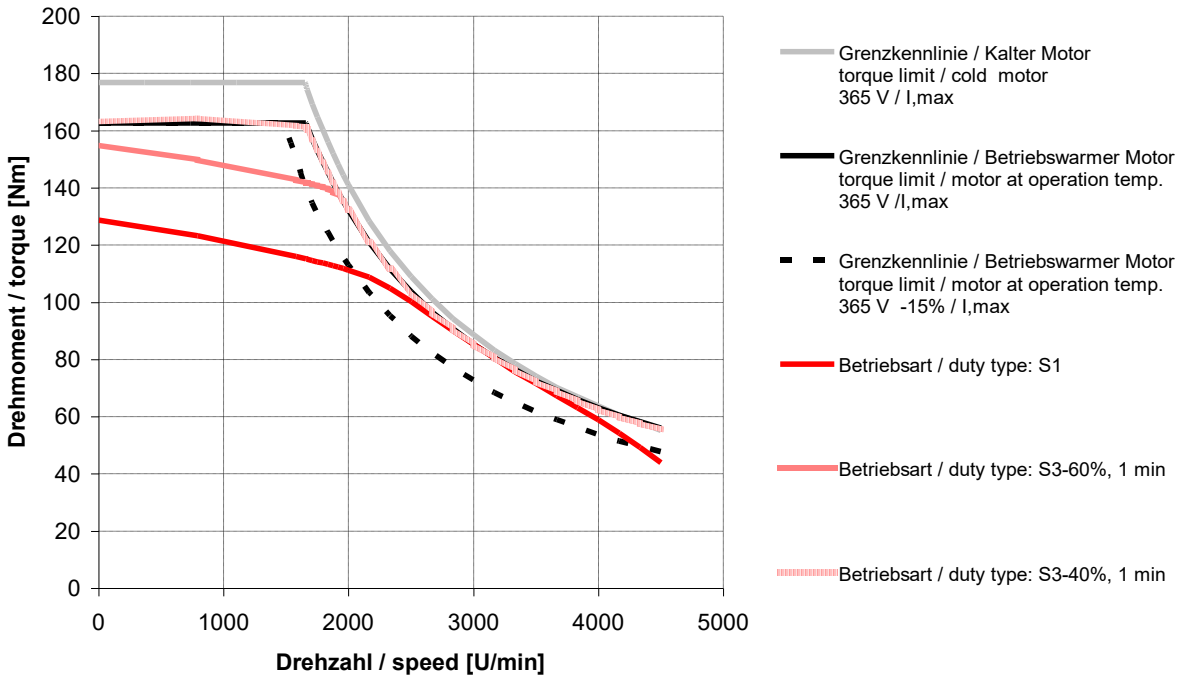
DSD2-100SO64W-60-54



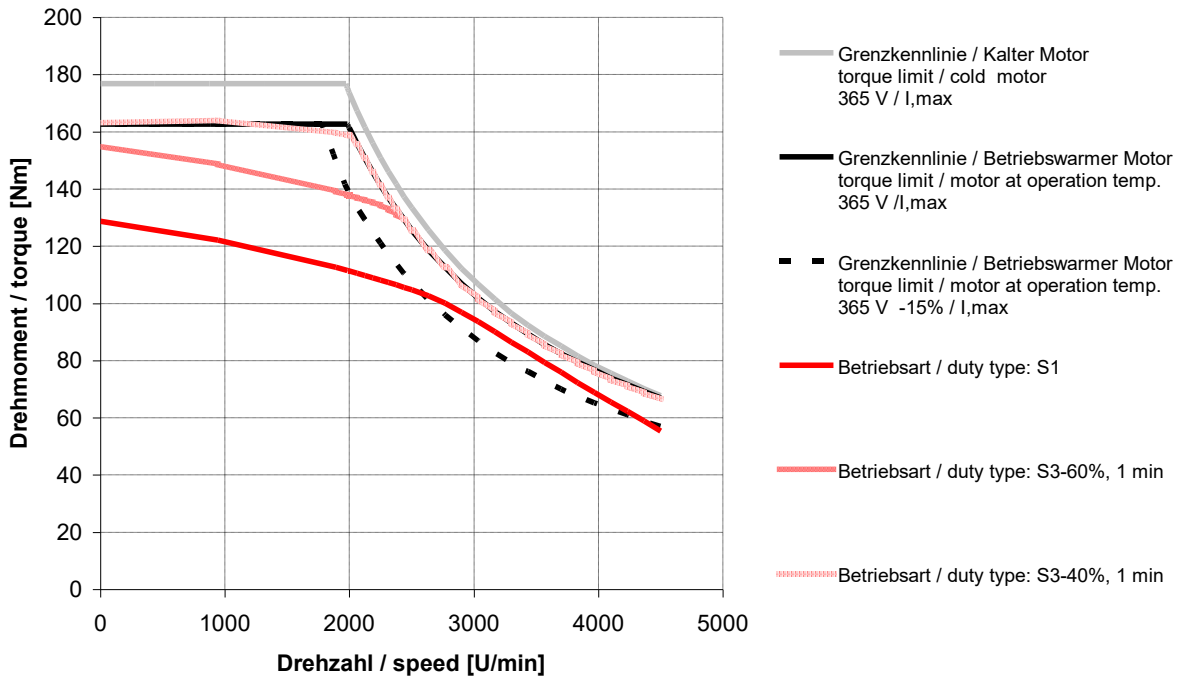
DSD2-100M064W-12-54



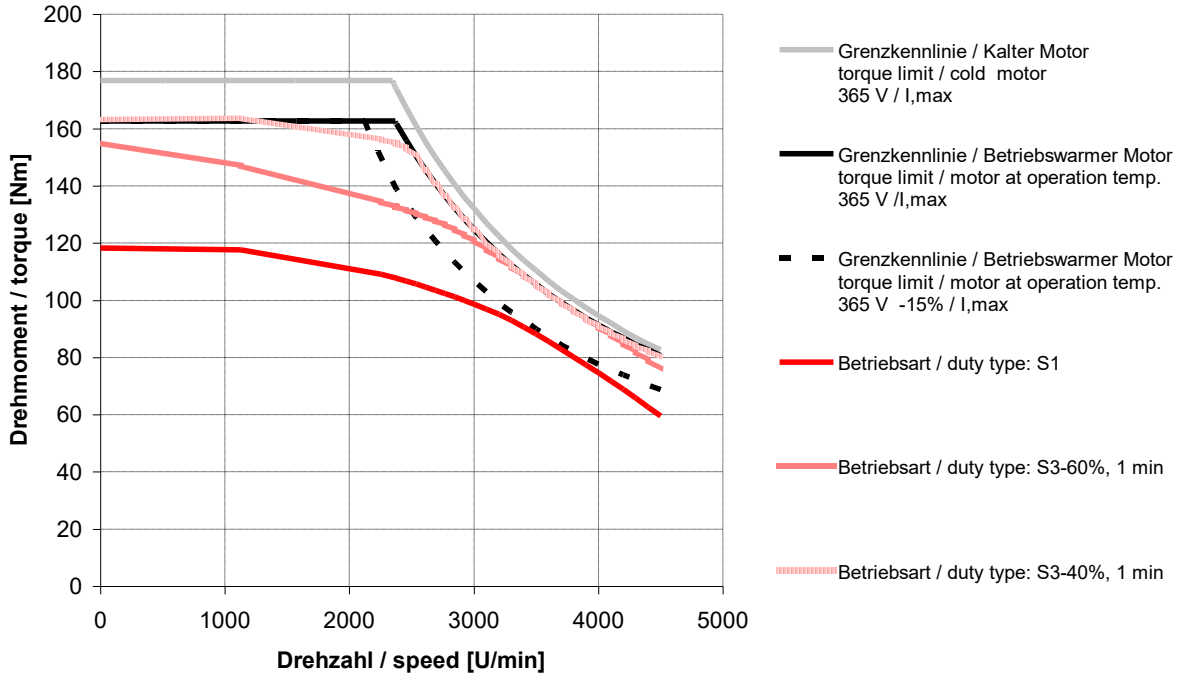
DSD2-100M064W-20-54



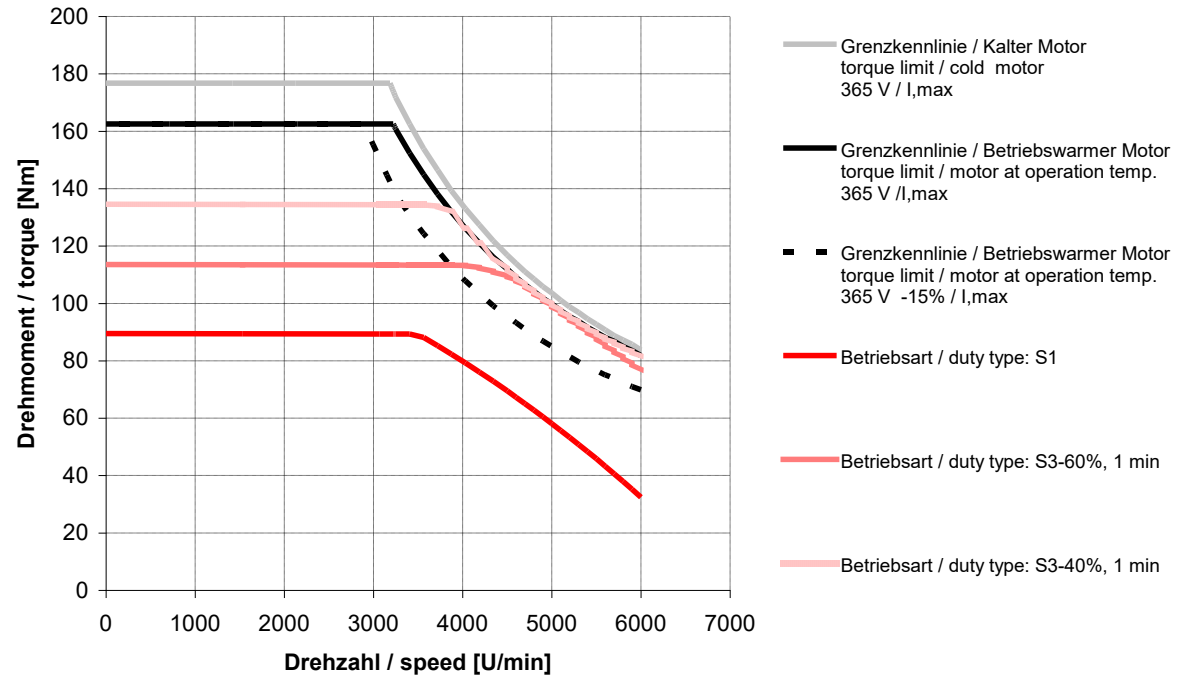
DSD2-100M064W-25-54



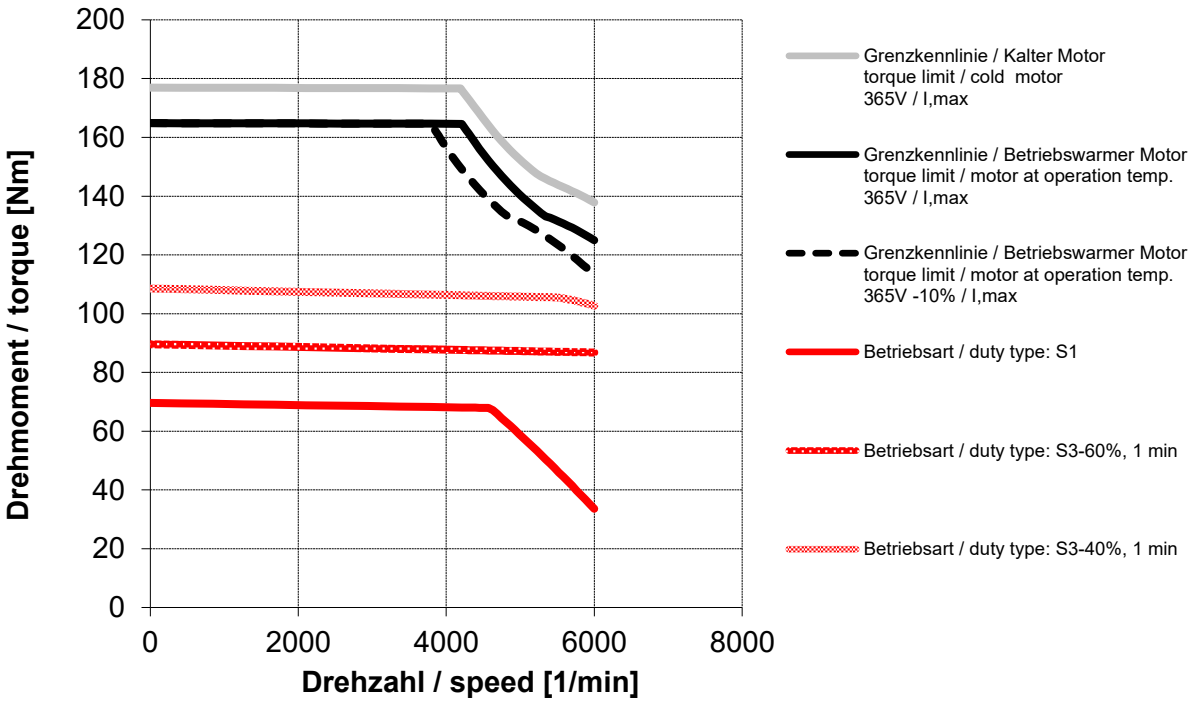
DSD2-100M064W-30-54



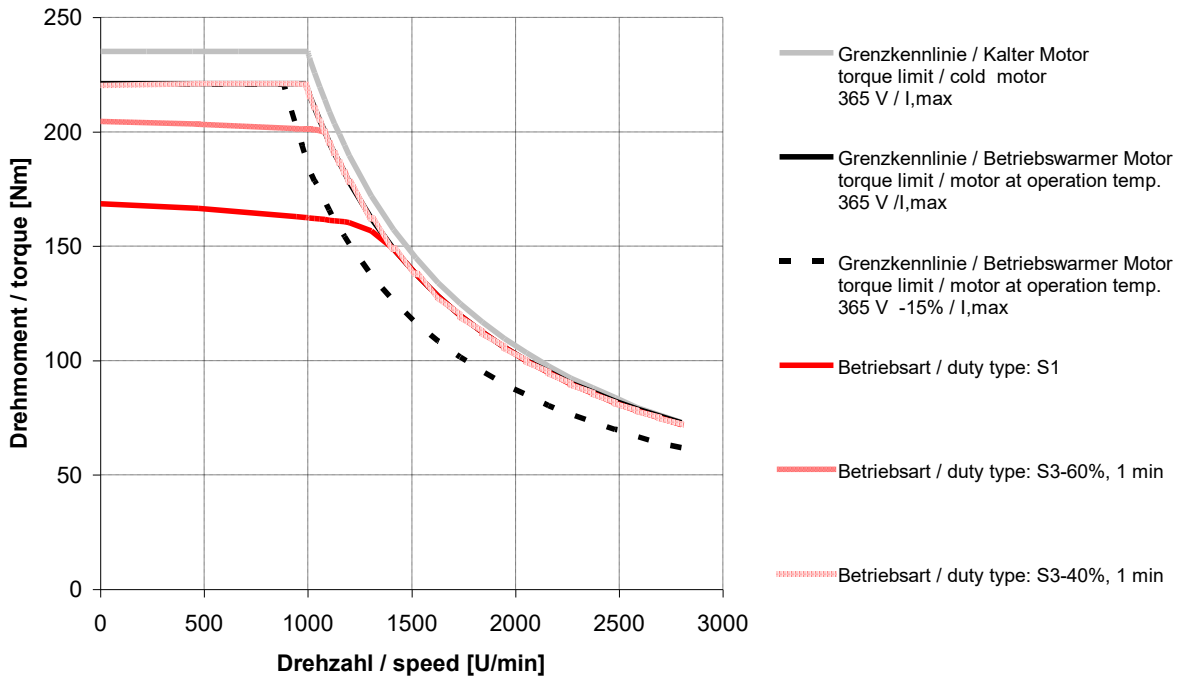
DSD2-100M064W-45-54



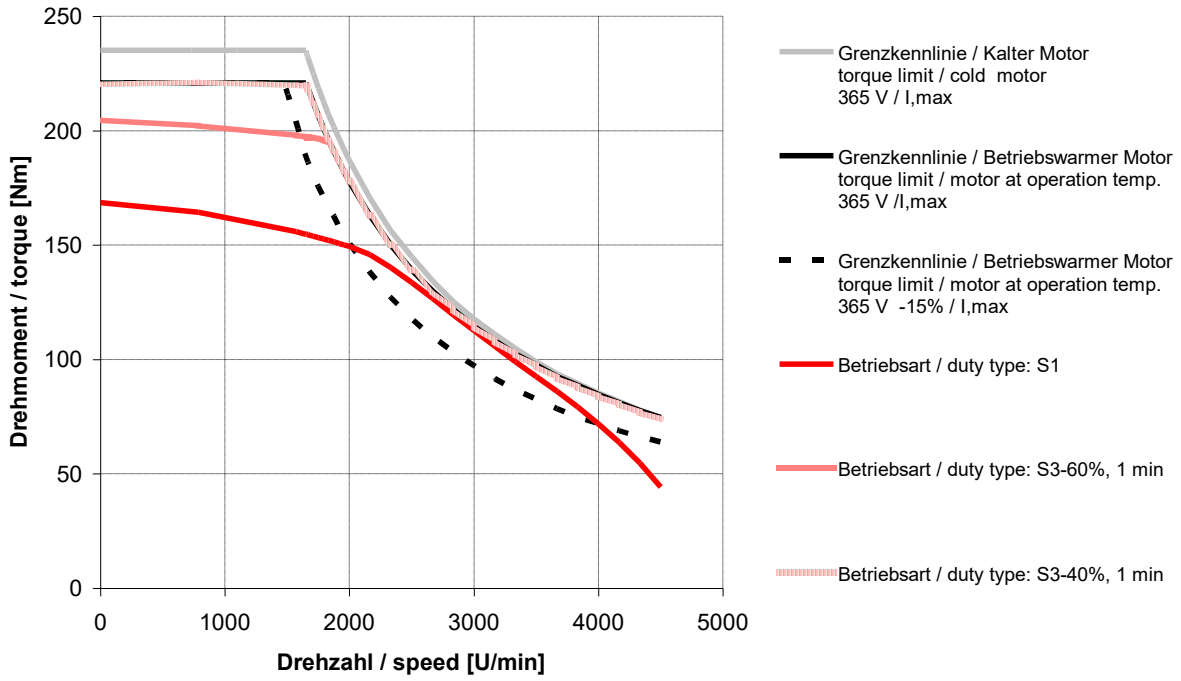
DSD2-100M064W-60-54



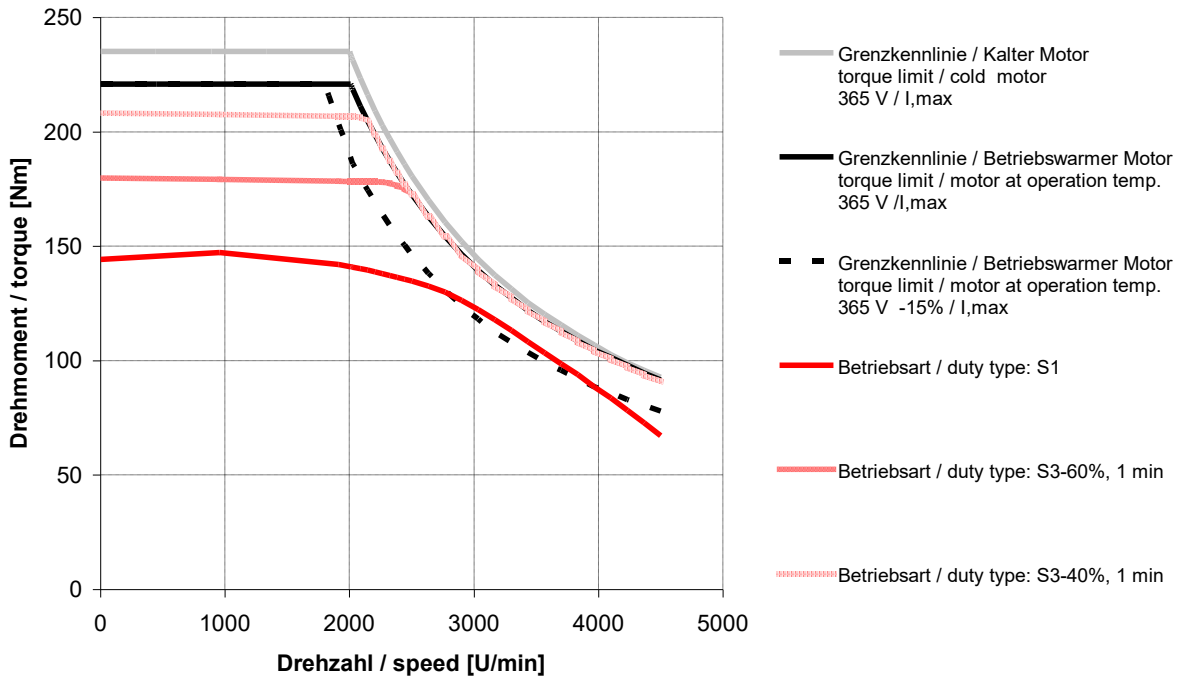
DSD2-100L064W-12-54



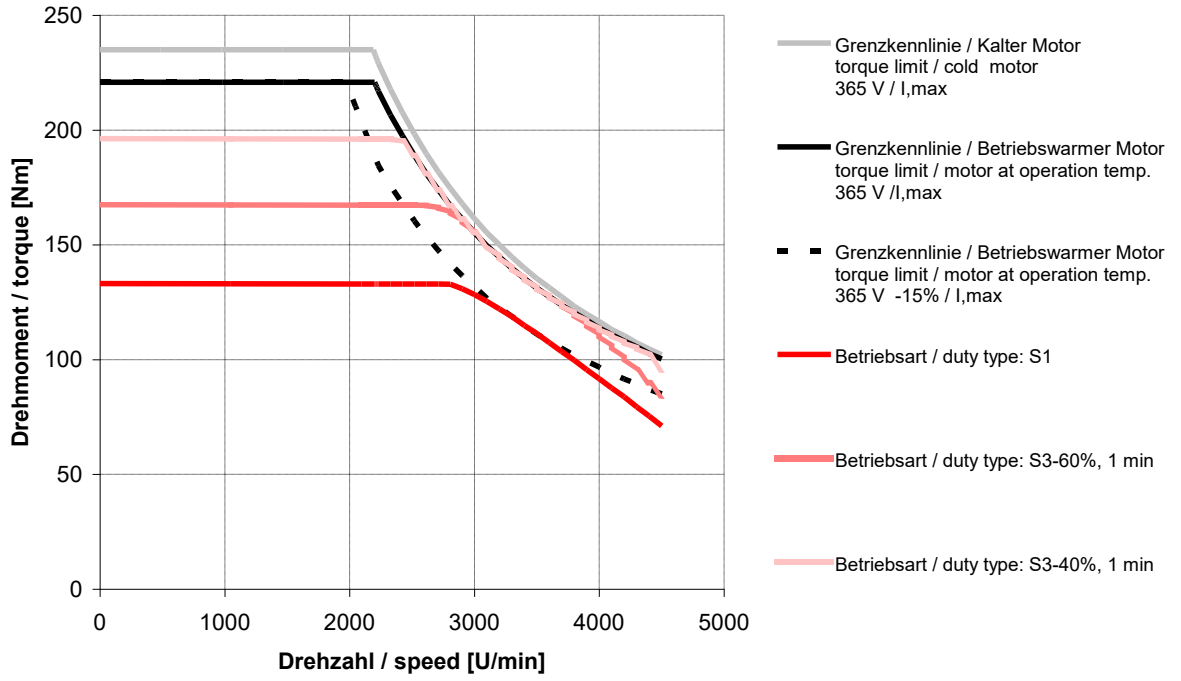
DSD2-100L064W-20-54



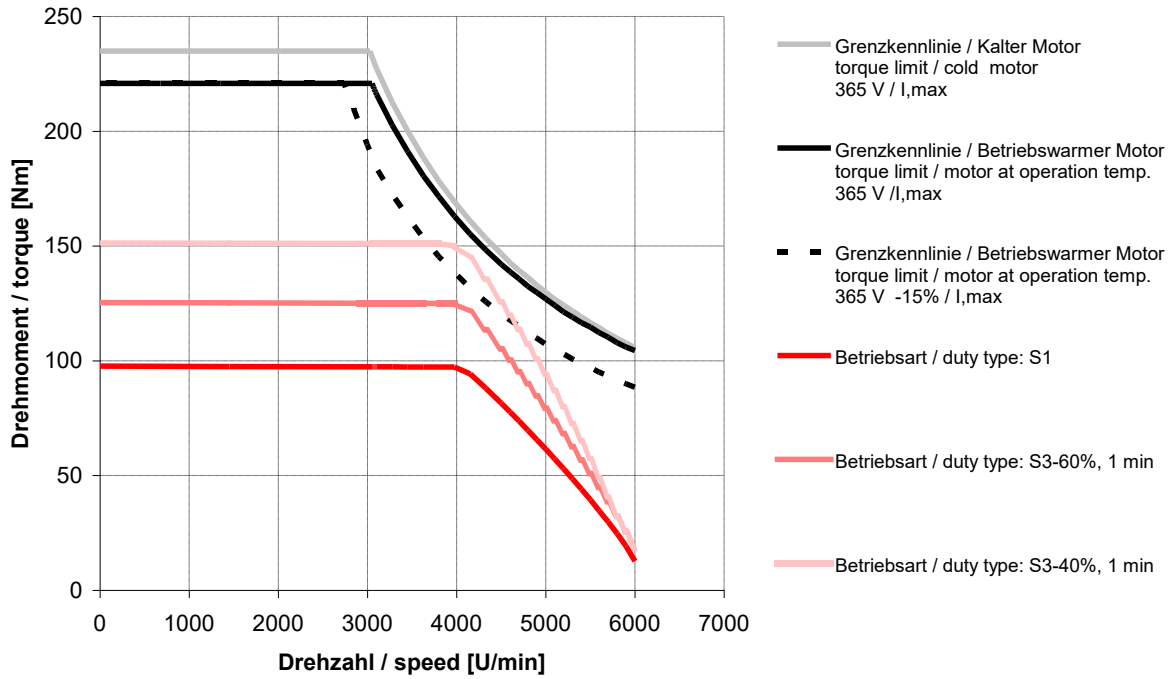
DSD2-100LO64W-25-54



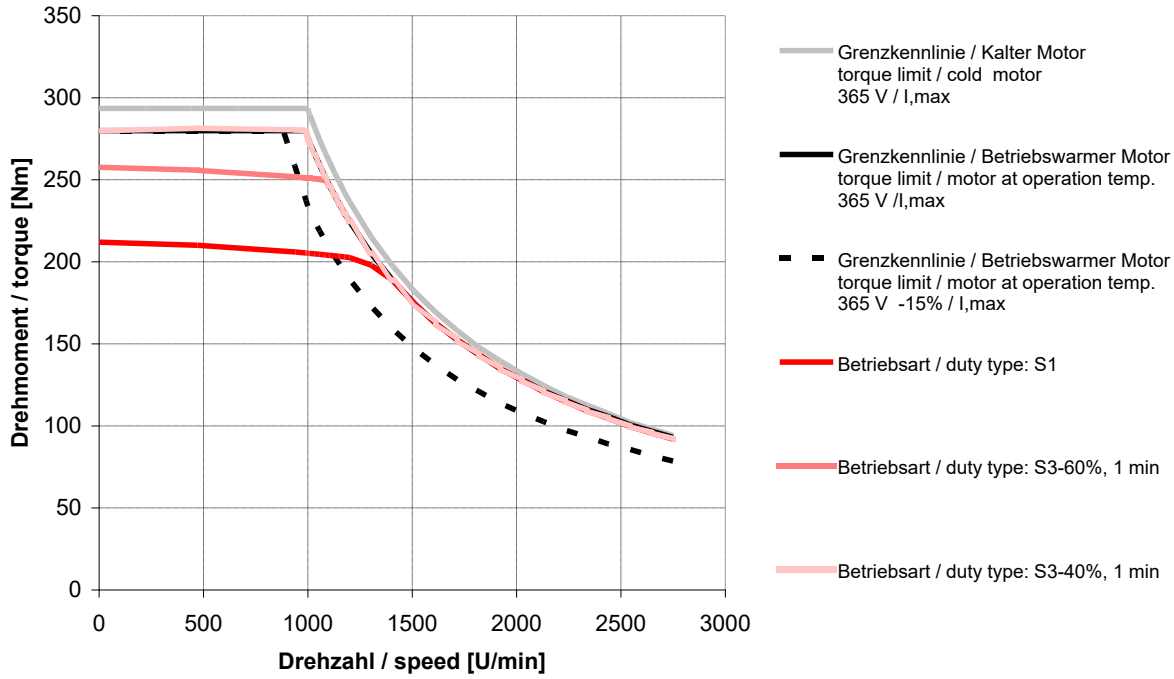
DSD2-100LO64W-30-54



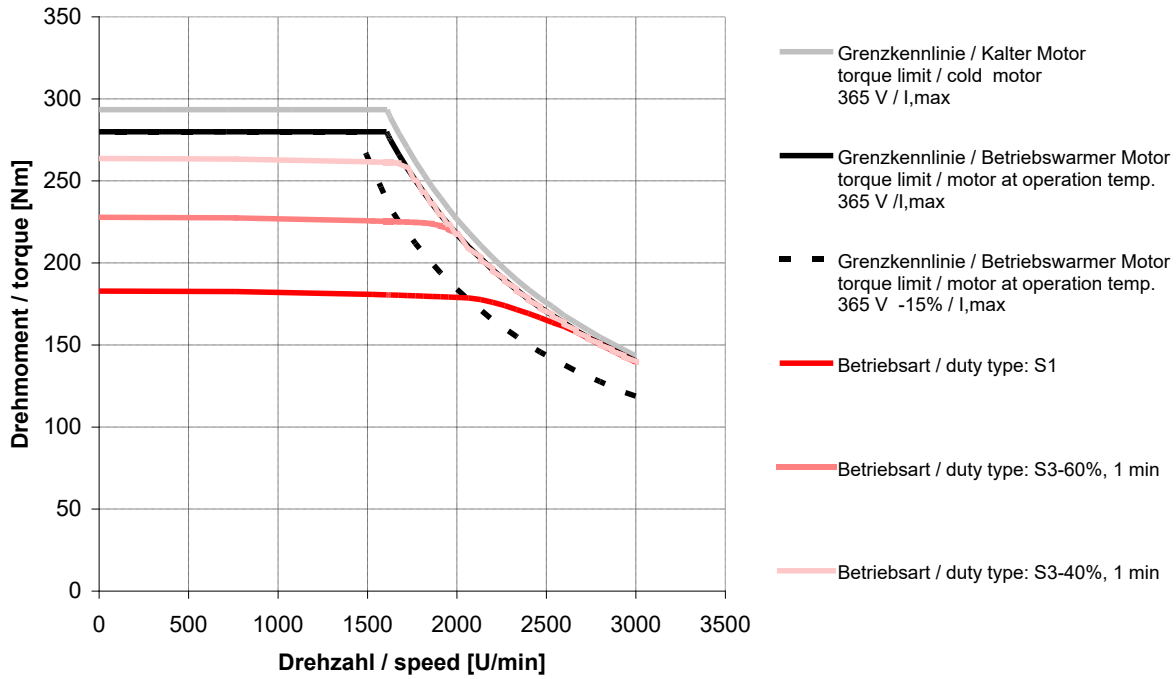
DSD2-100LO64W-45-54



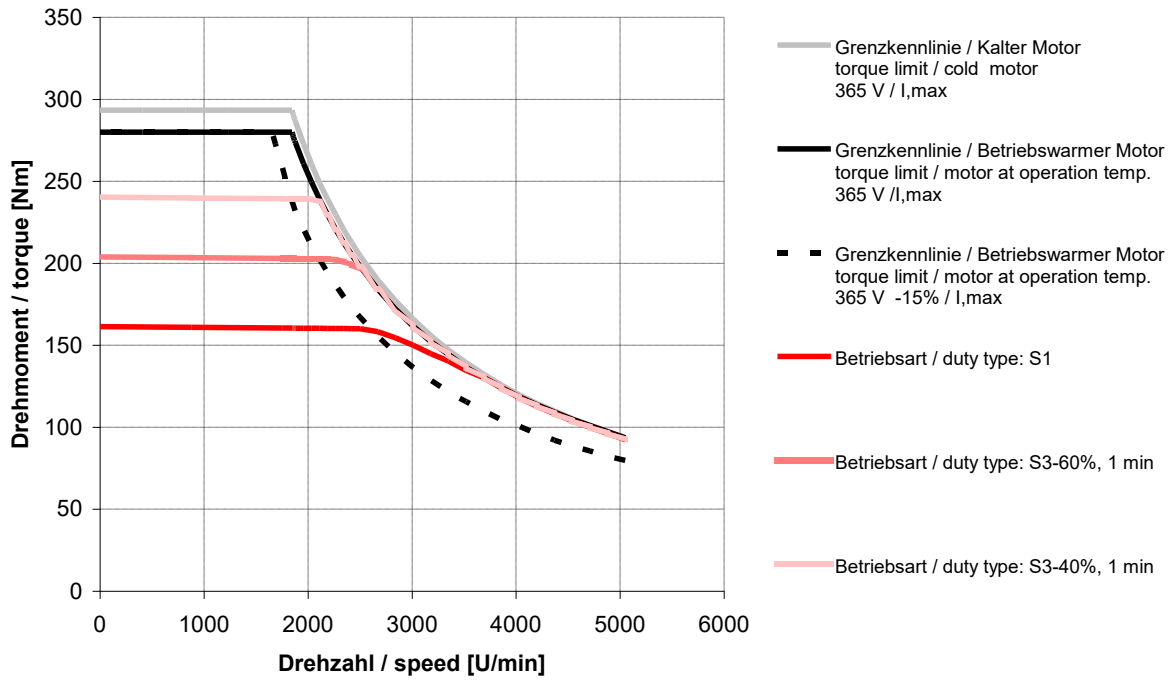
DSD2-100BO64W-12-54



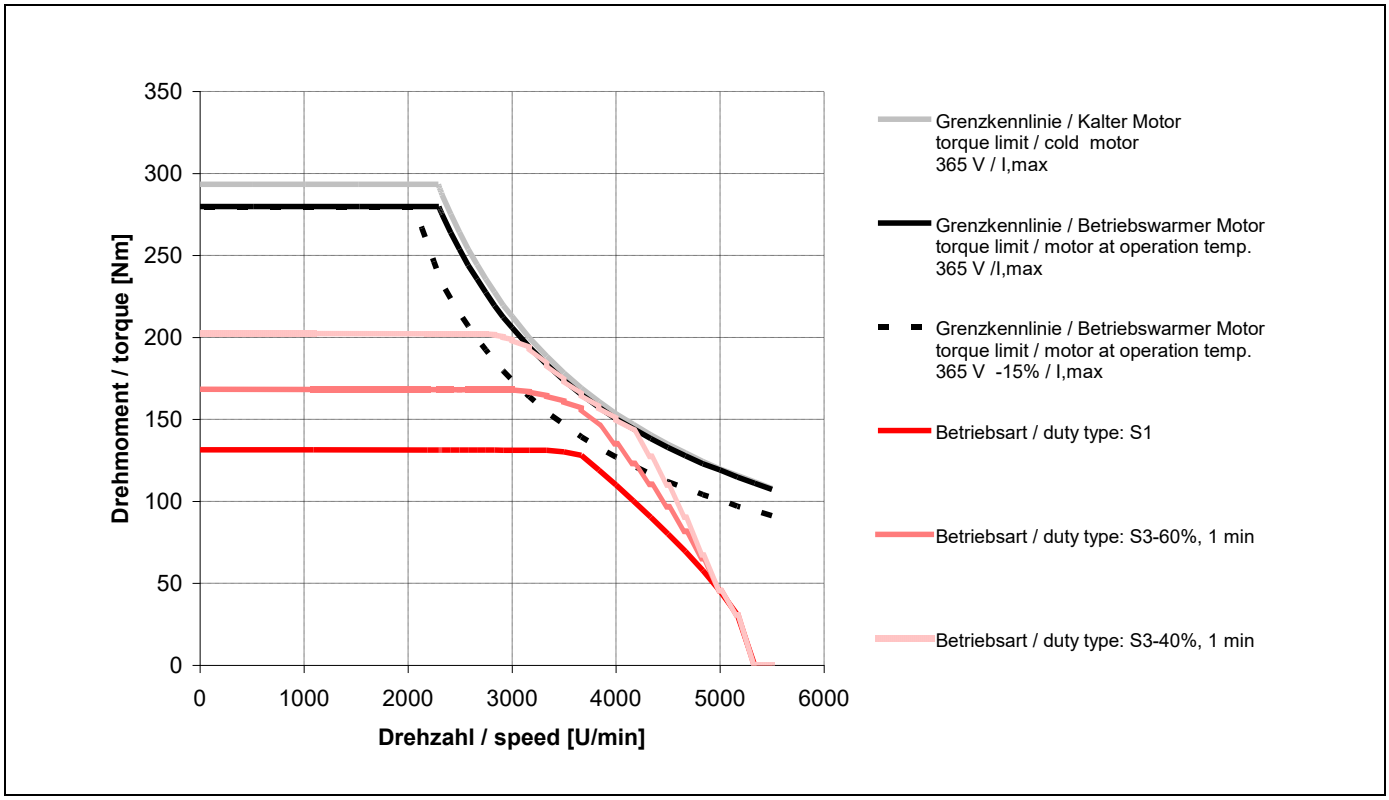
DSD2-100B064W-20-54



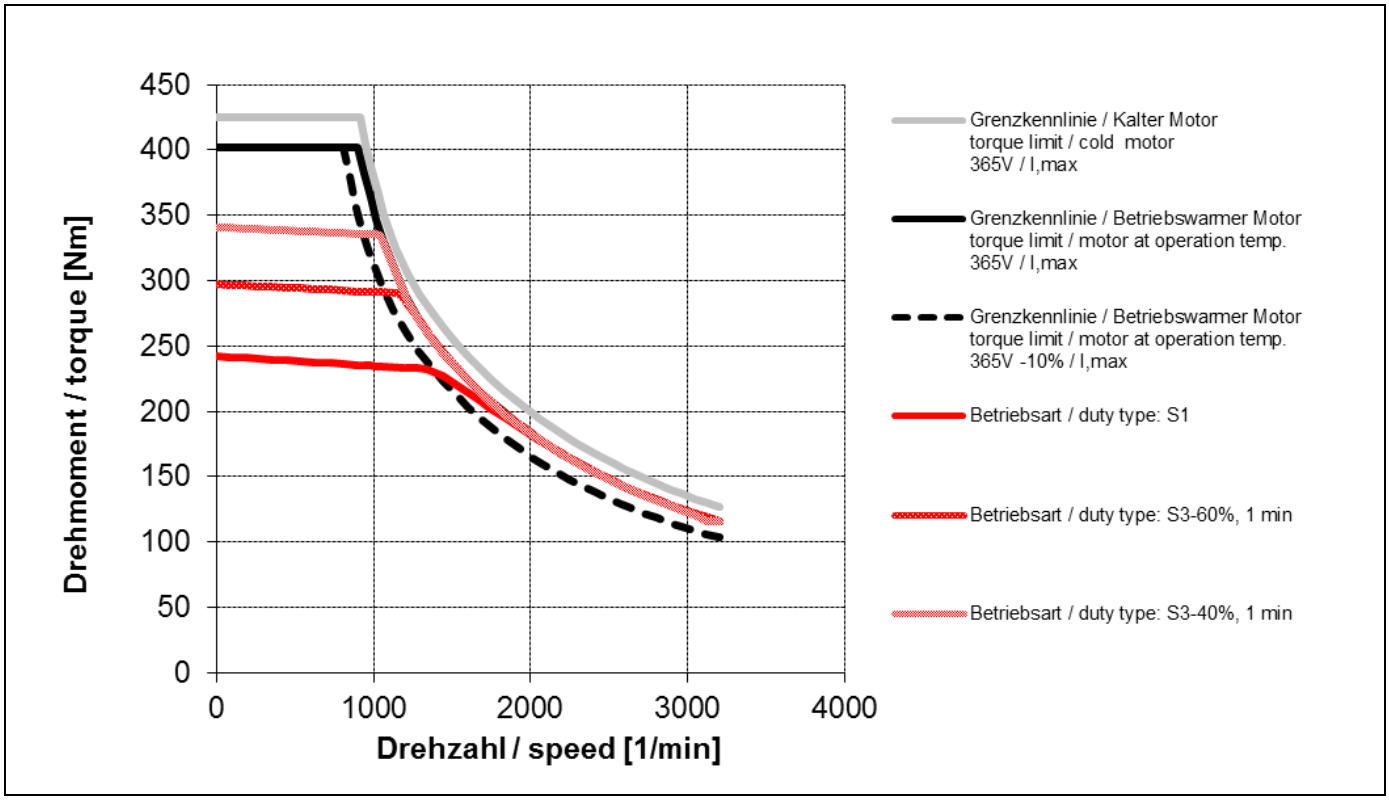
DSD2-100B064W-25-54



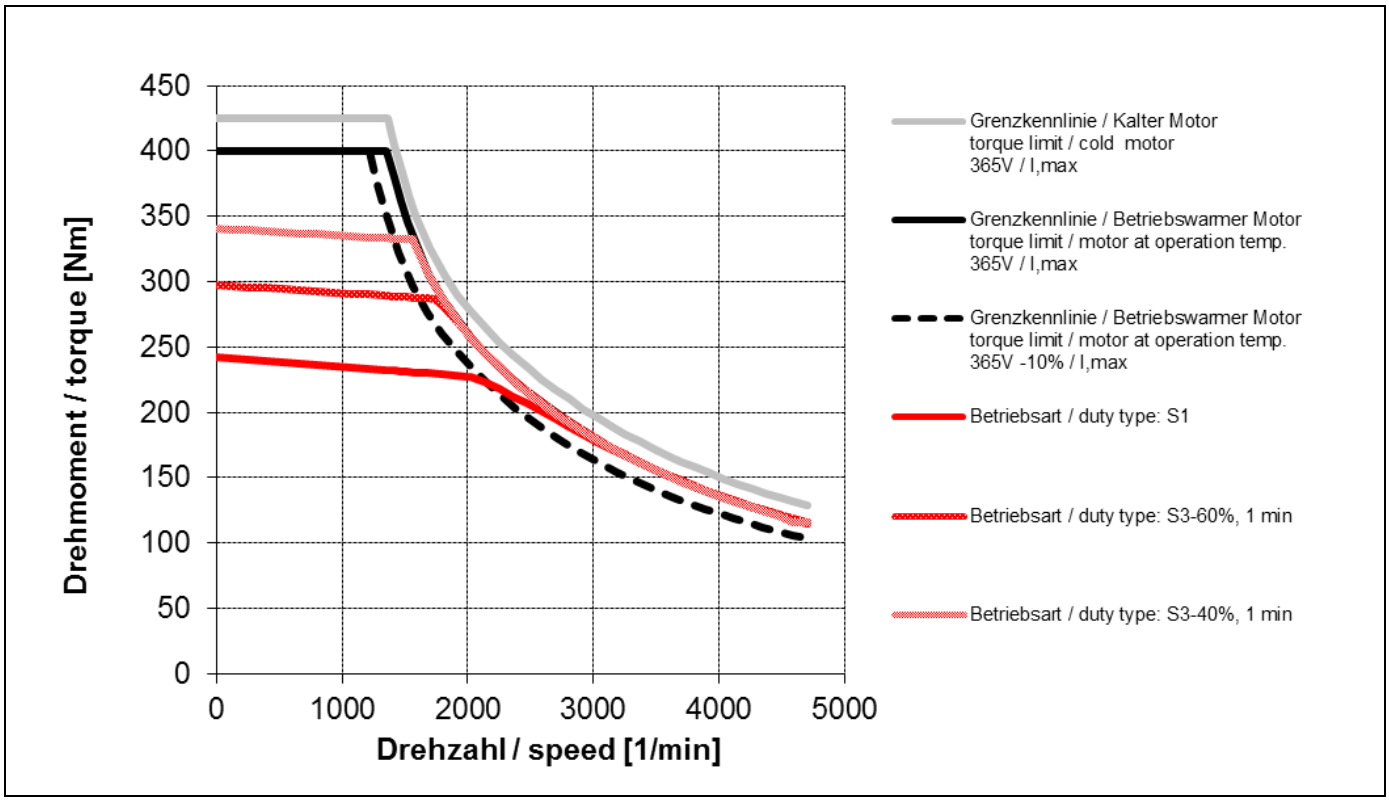
DSD2-100B064W-30-54



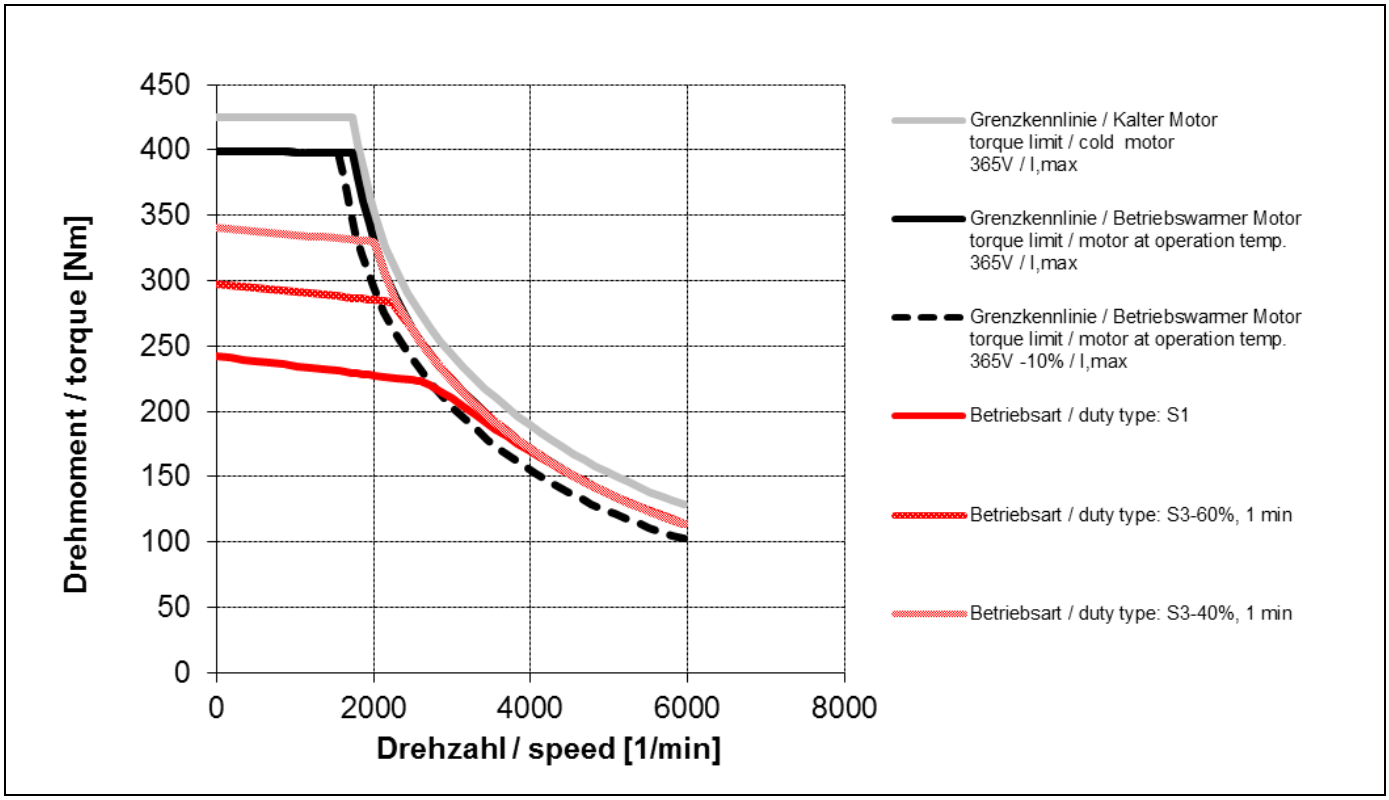
DSD2-100X064W-12-54



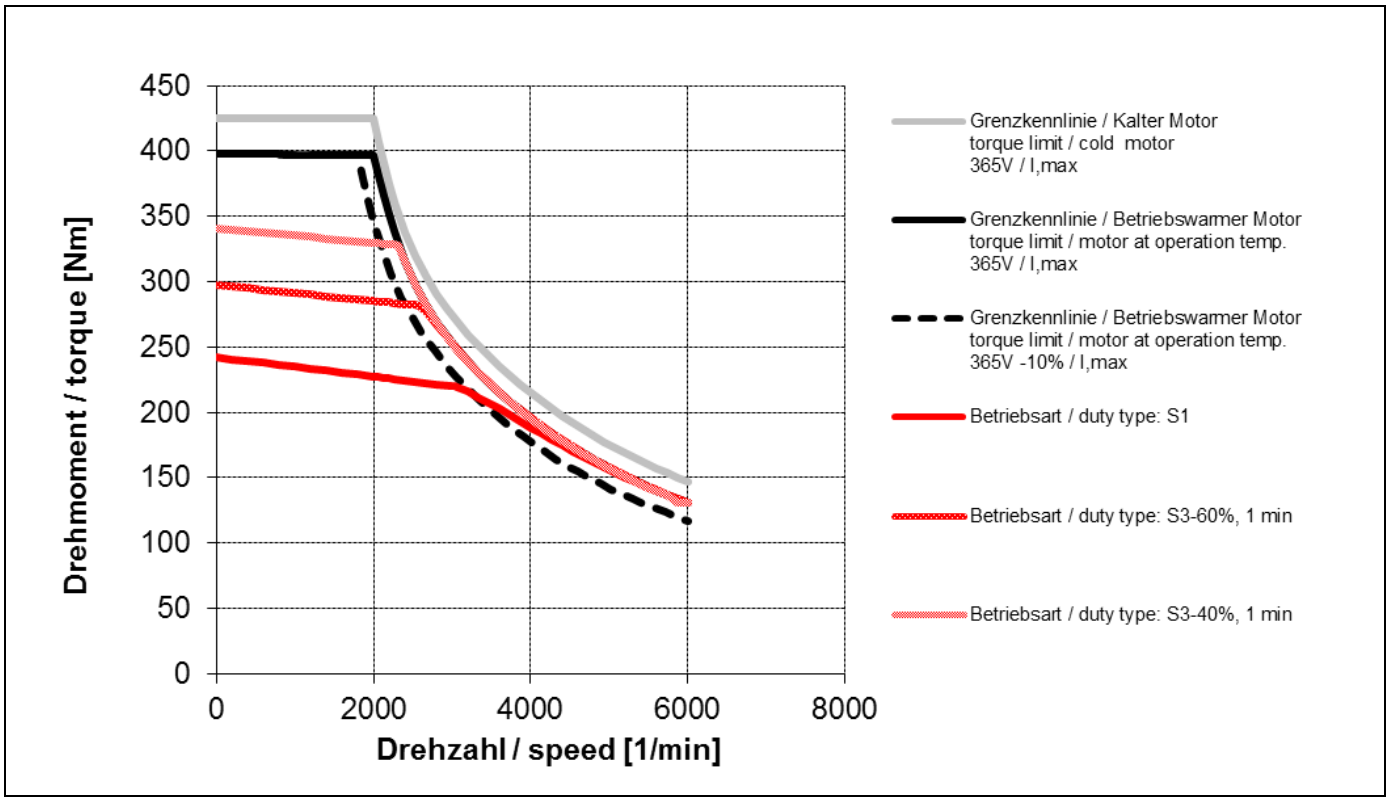
DSD2-100X064W-20-54



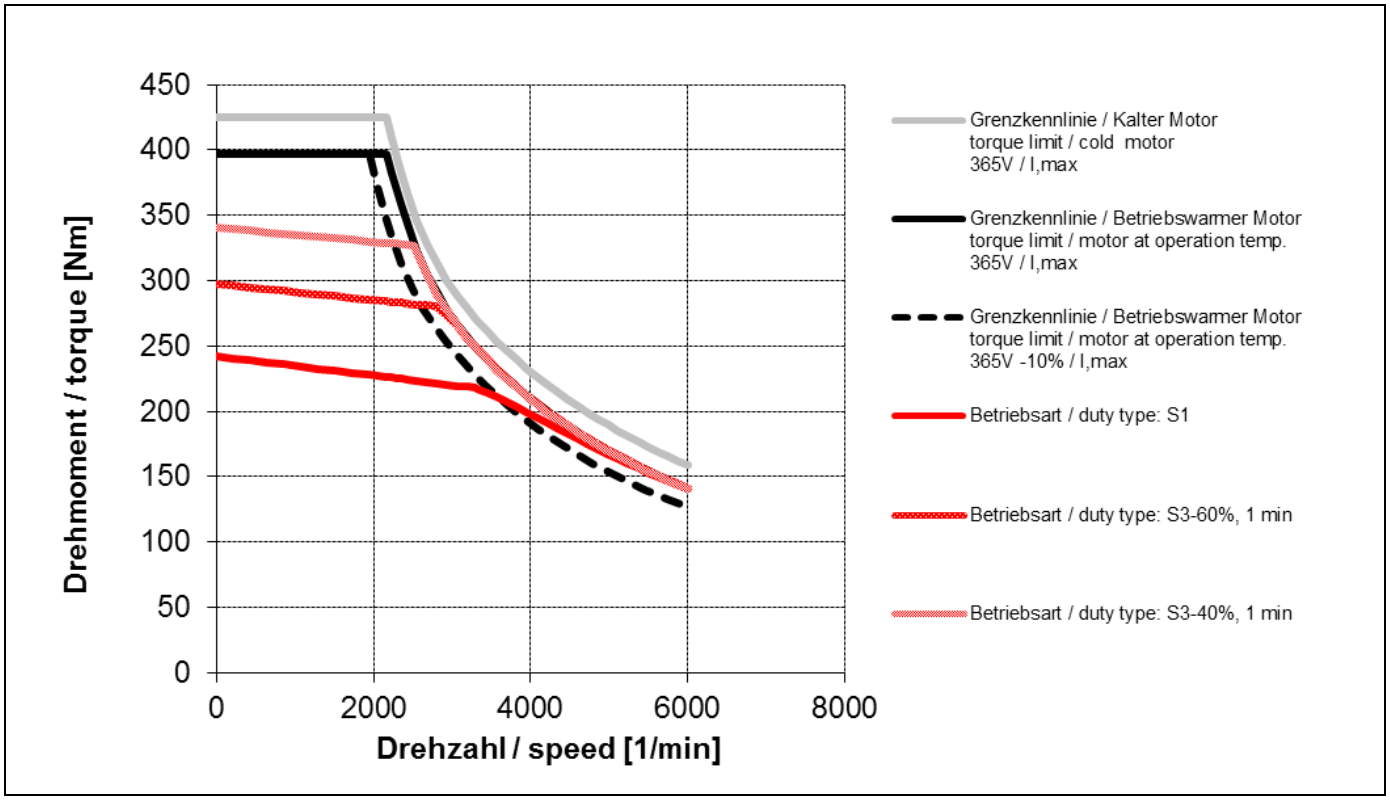
DSD2-100X064W-25-54



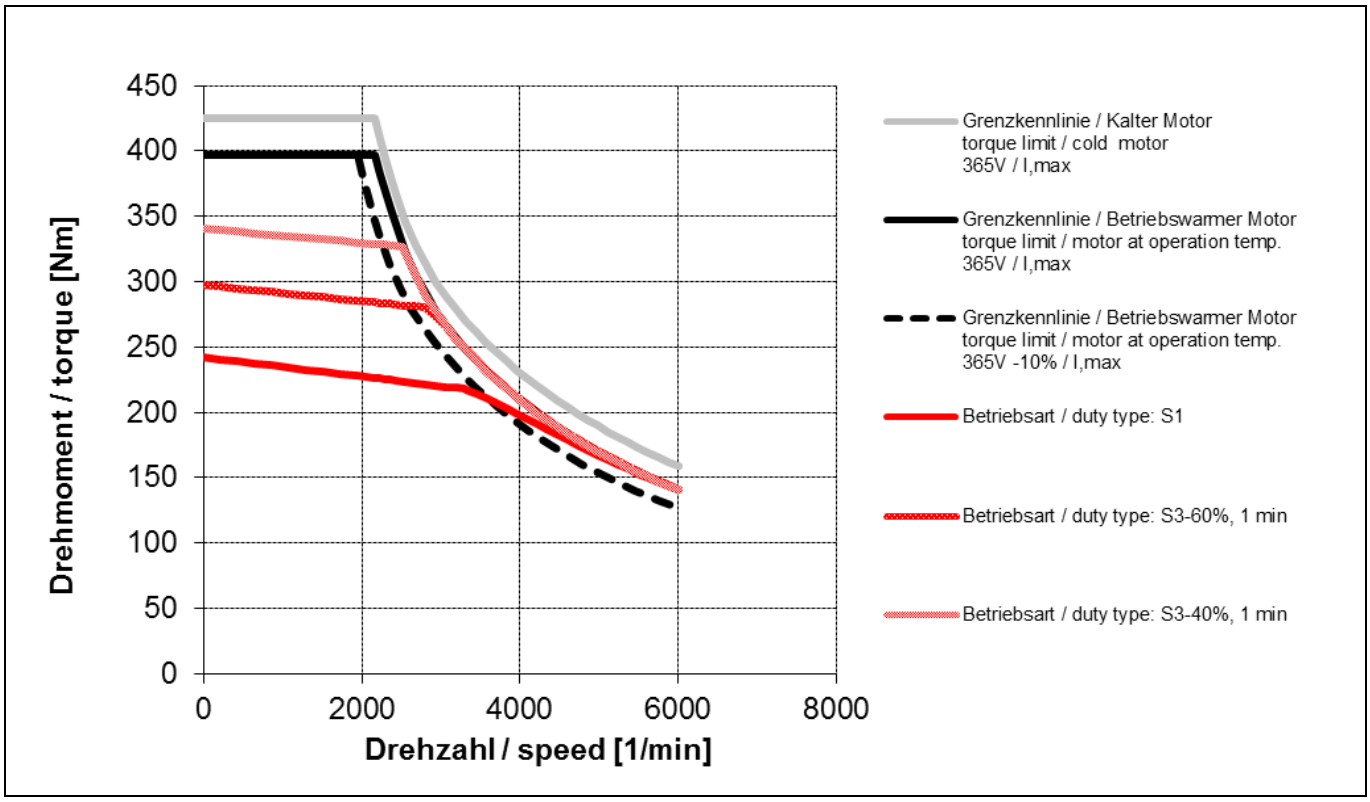
DSD2-100X064W-30-54



DSD2-100X064W-45-54



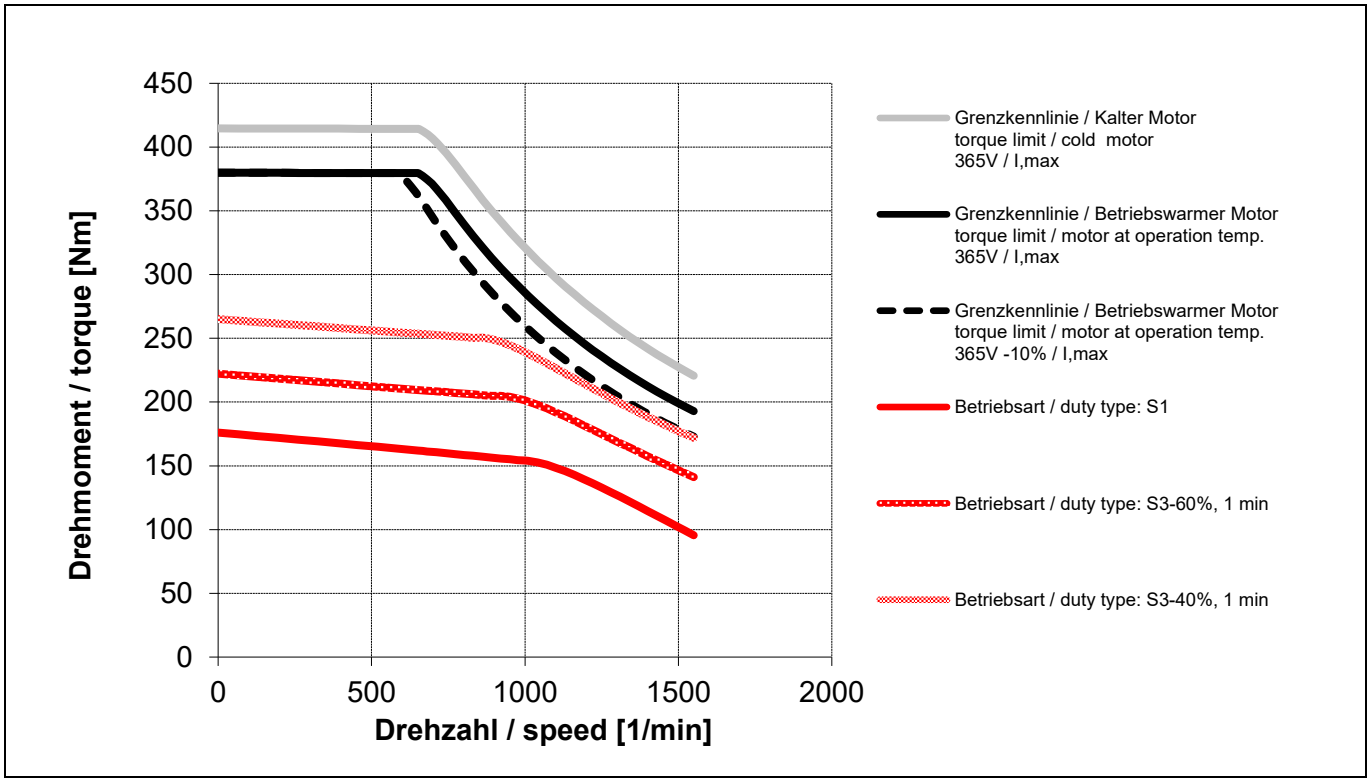
DSD2-100X064W-60-54



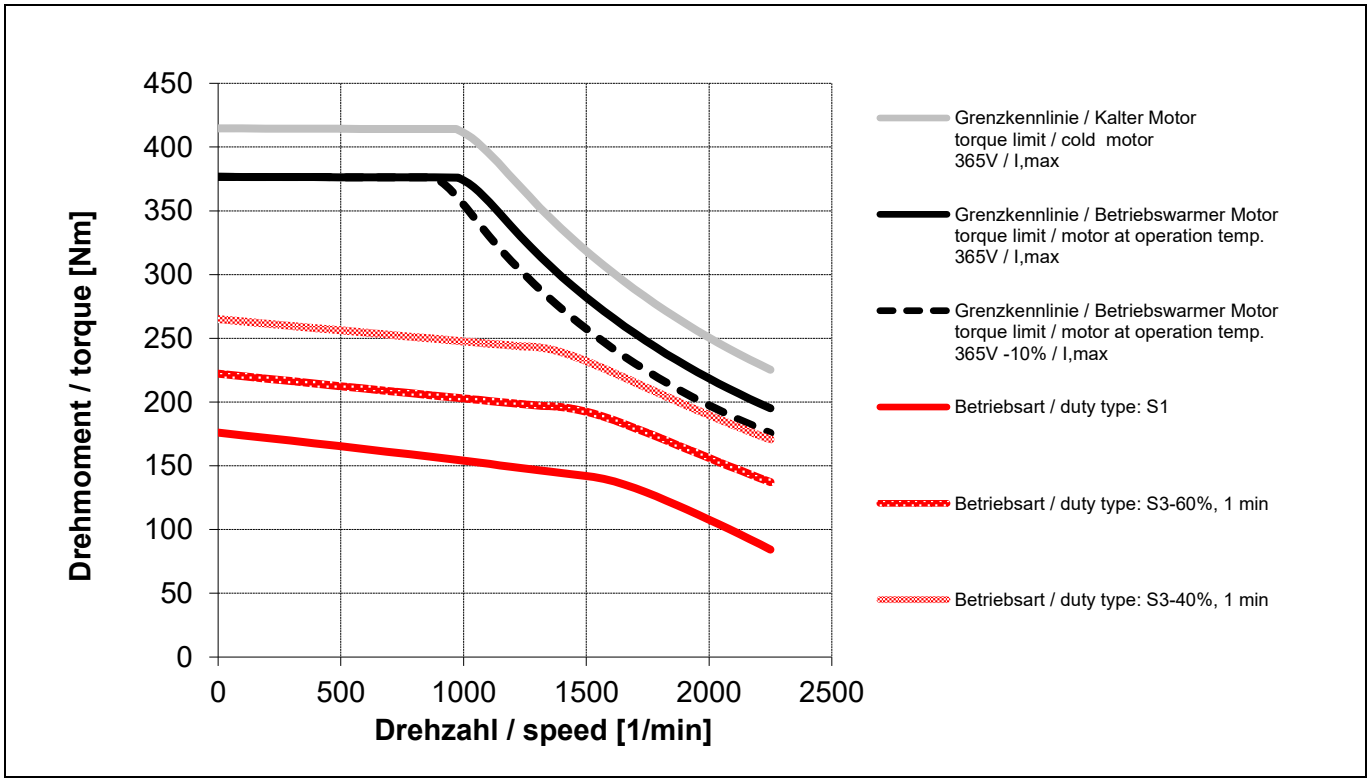
5.7 Characteristics DSD2-132

5.7.1 DSD2-132..64A/I/R-..

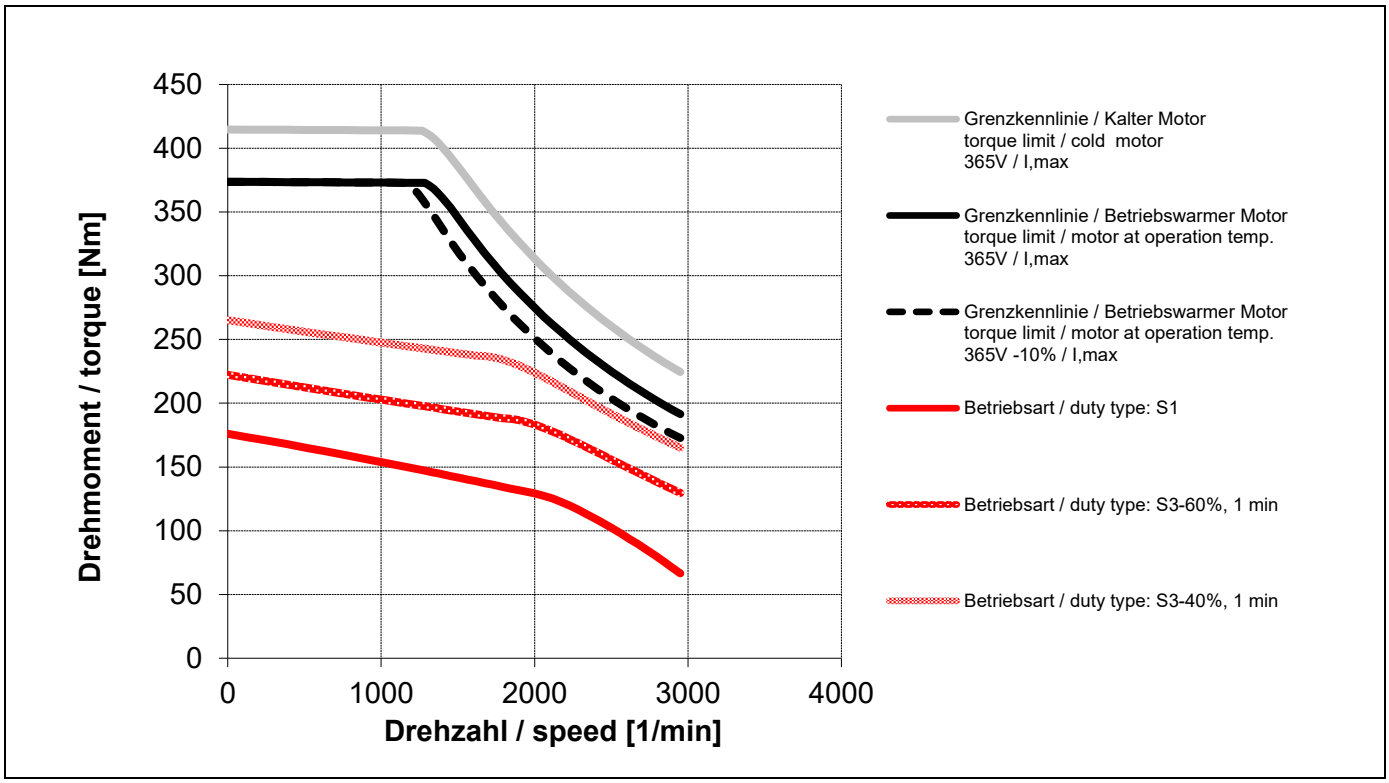
DSD2-132K054A/I/R-10-5



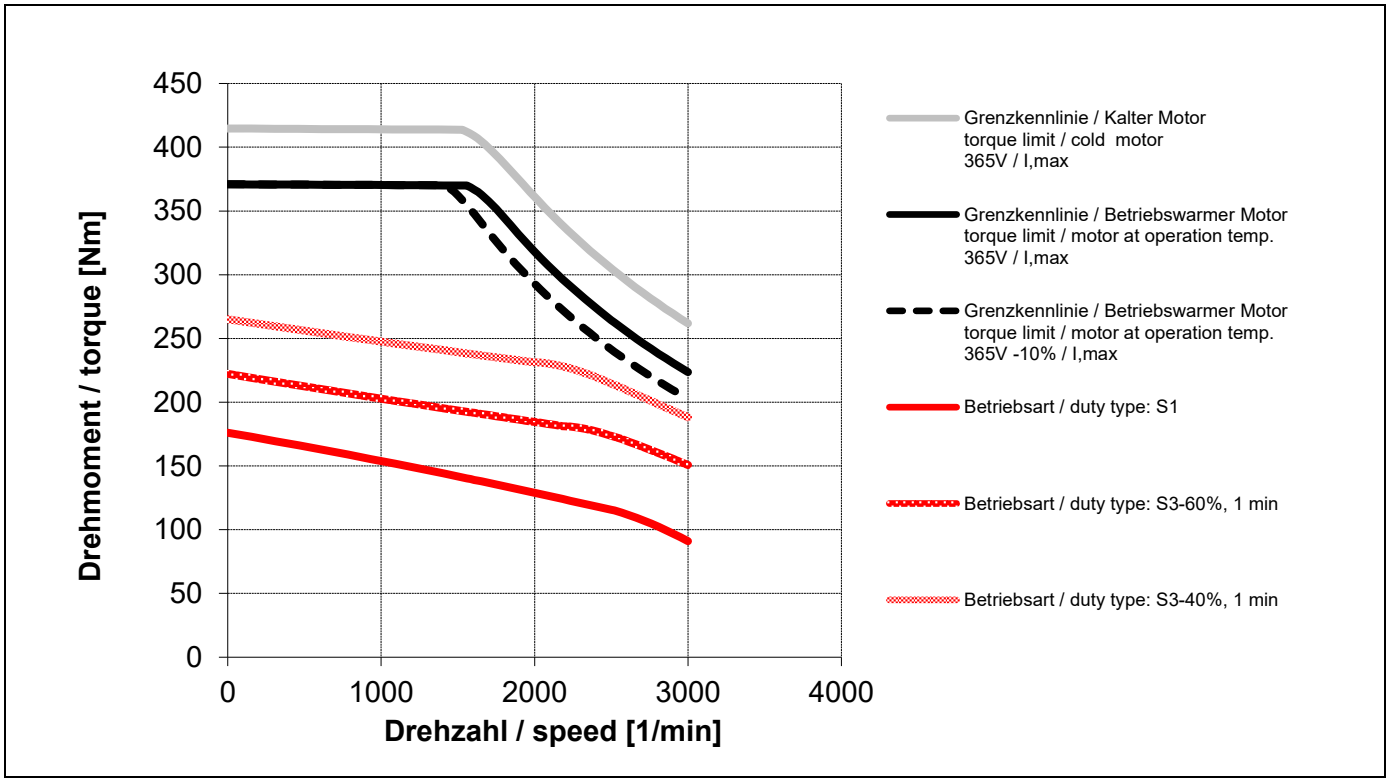
DSD2-132K054A/I/R-15-5



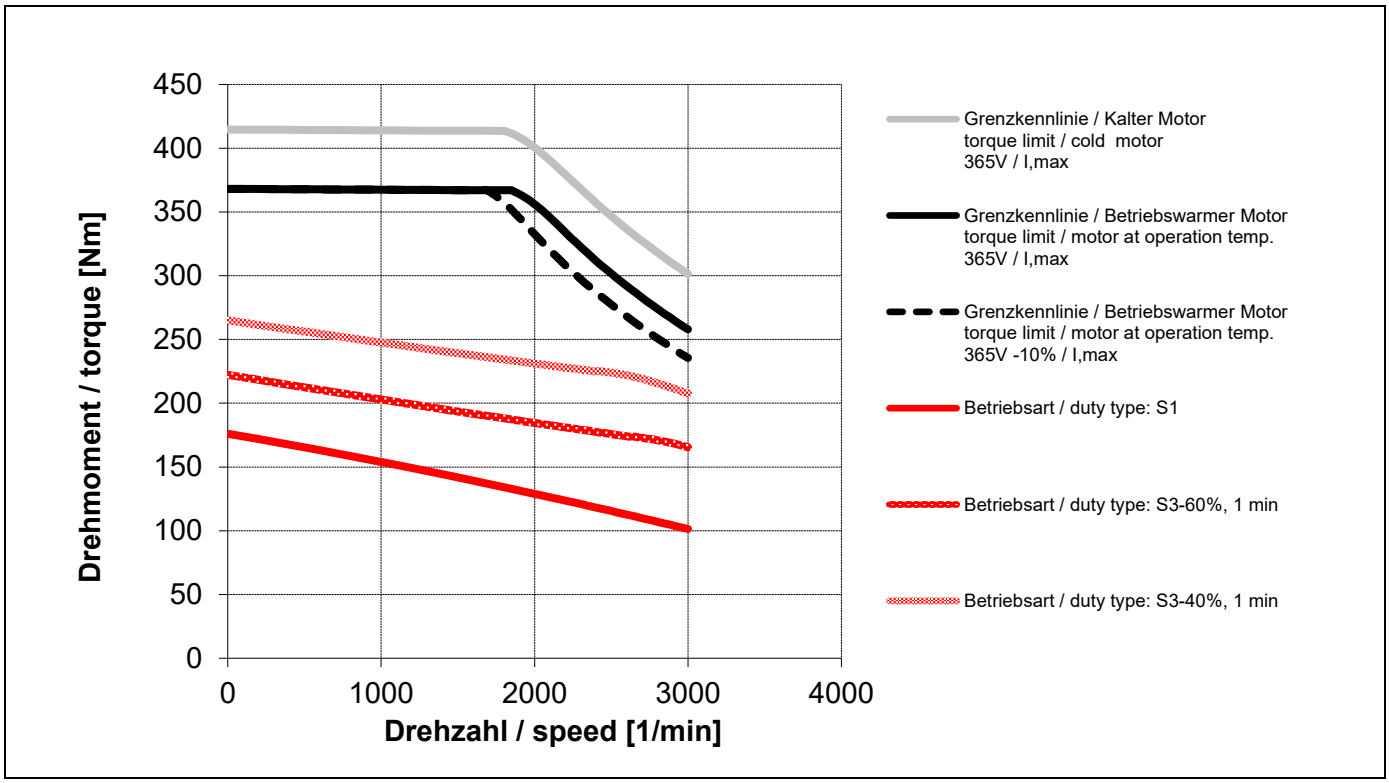
DSD2-132K054A/I/R-20-5



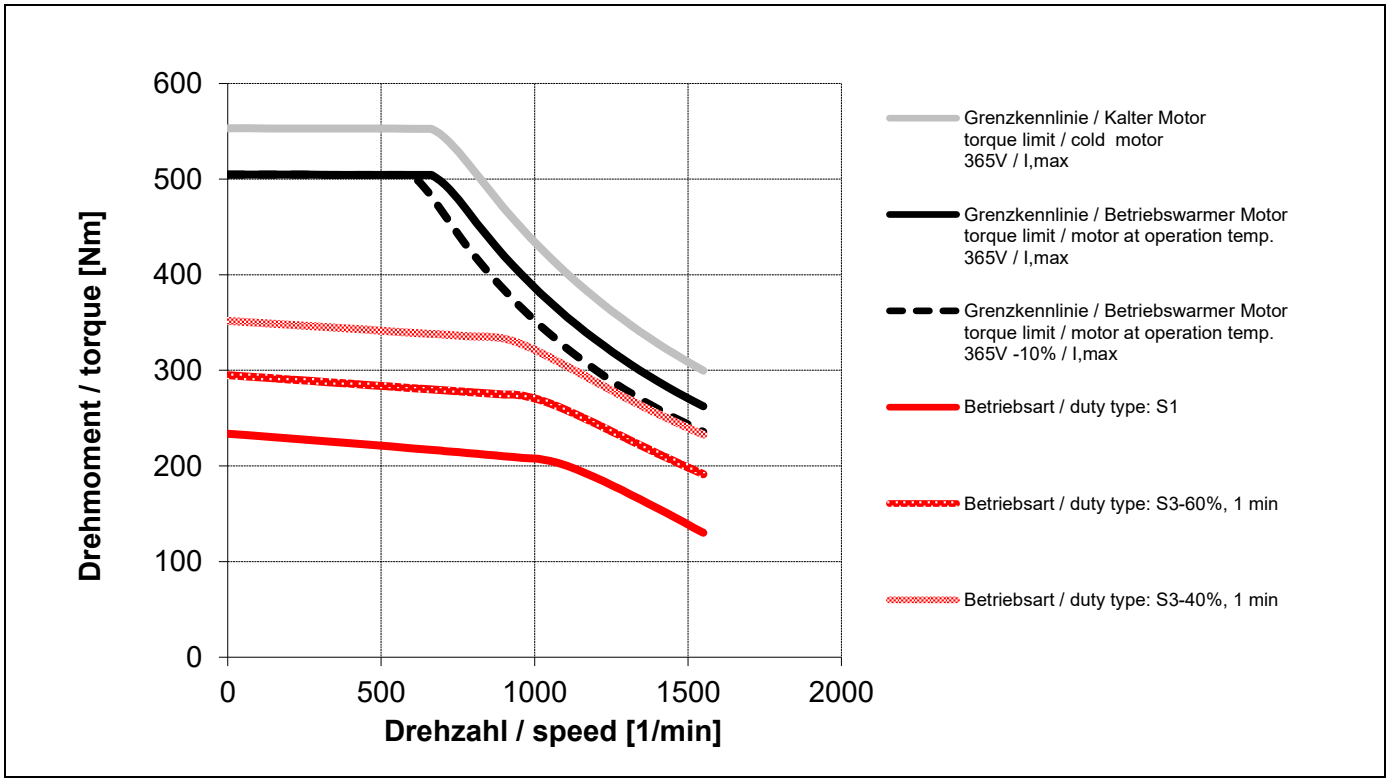
DSD2-132K054A/I/R-25-5



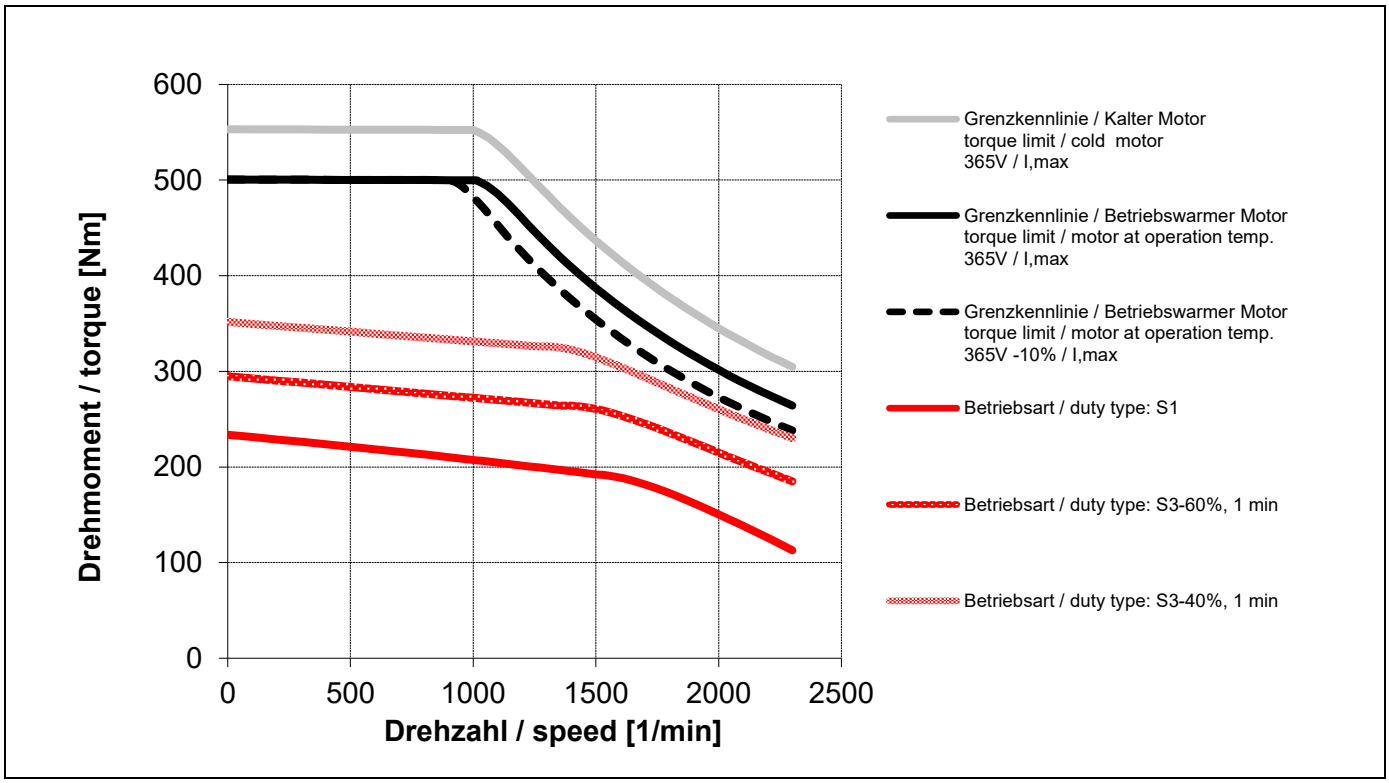
DSD2-132K054A/I/R-30-5



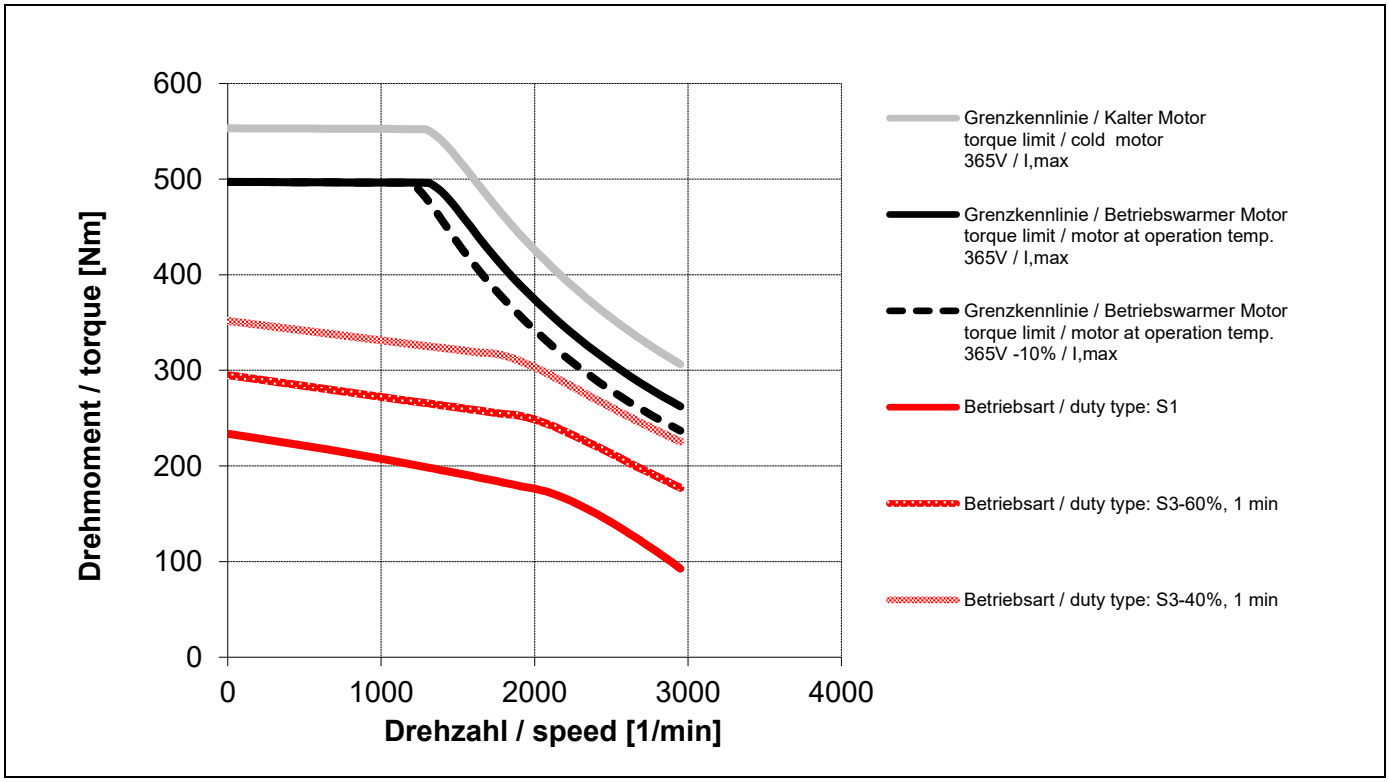
DSD2-132M054A/I/R-10-5



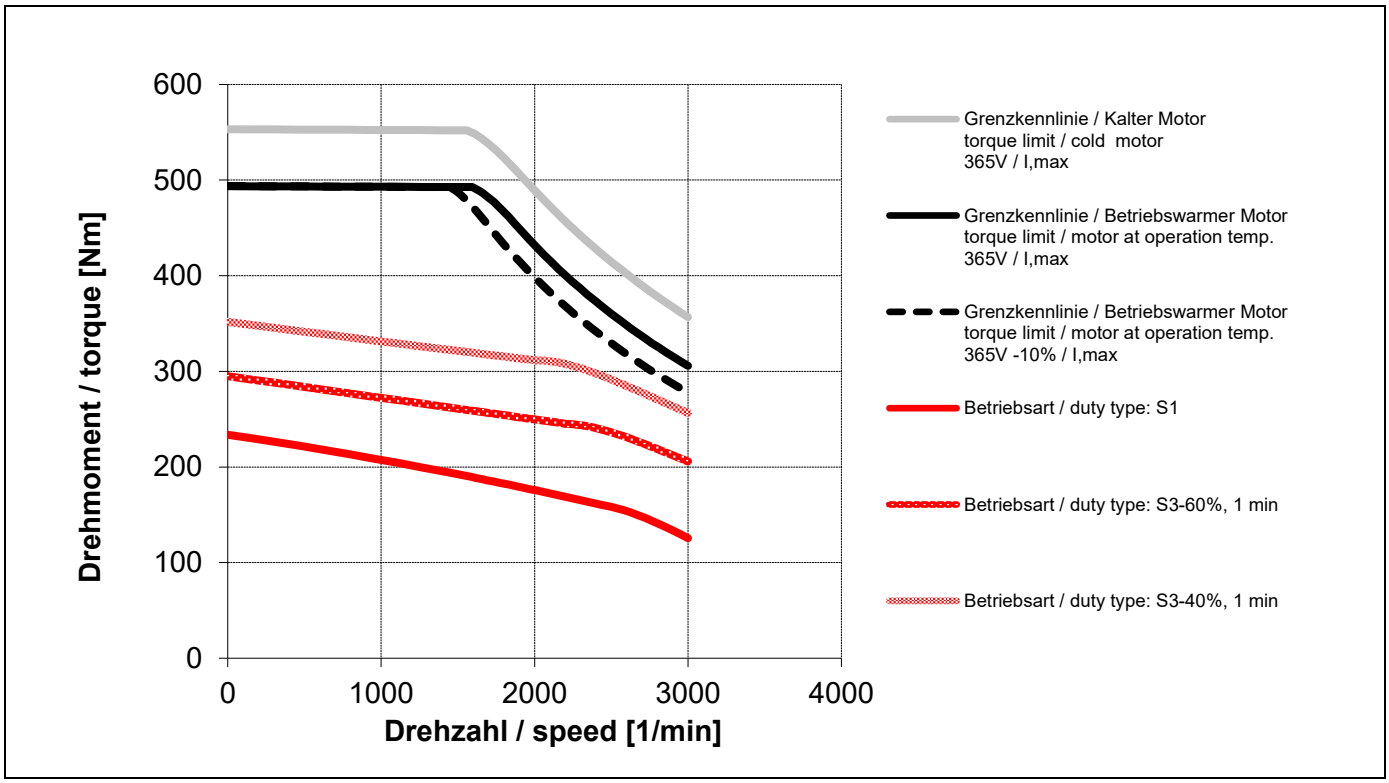
DSD2-132M054A/I/R-15-5



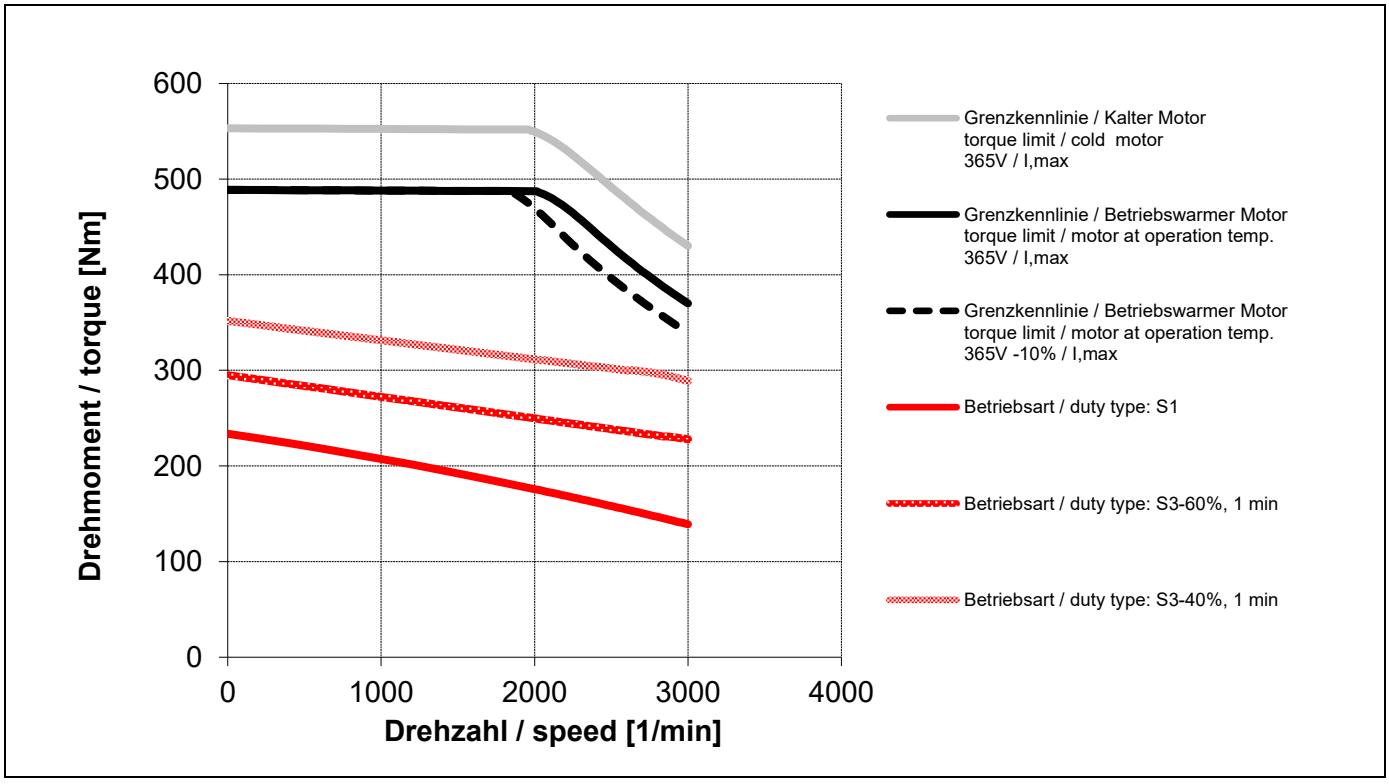
DSD2-132M054A/I/R-20-5



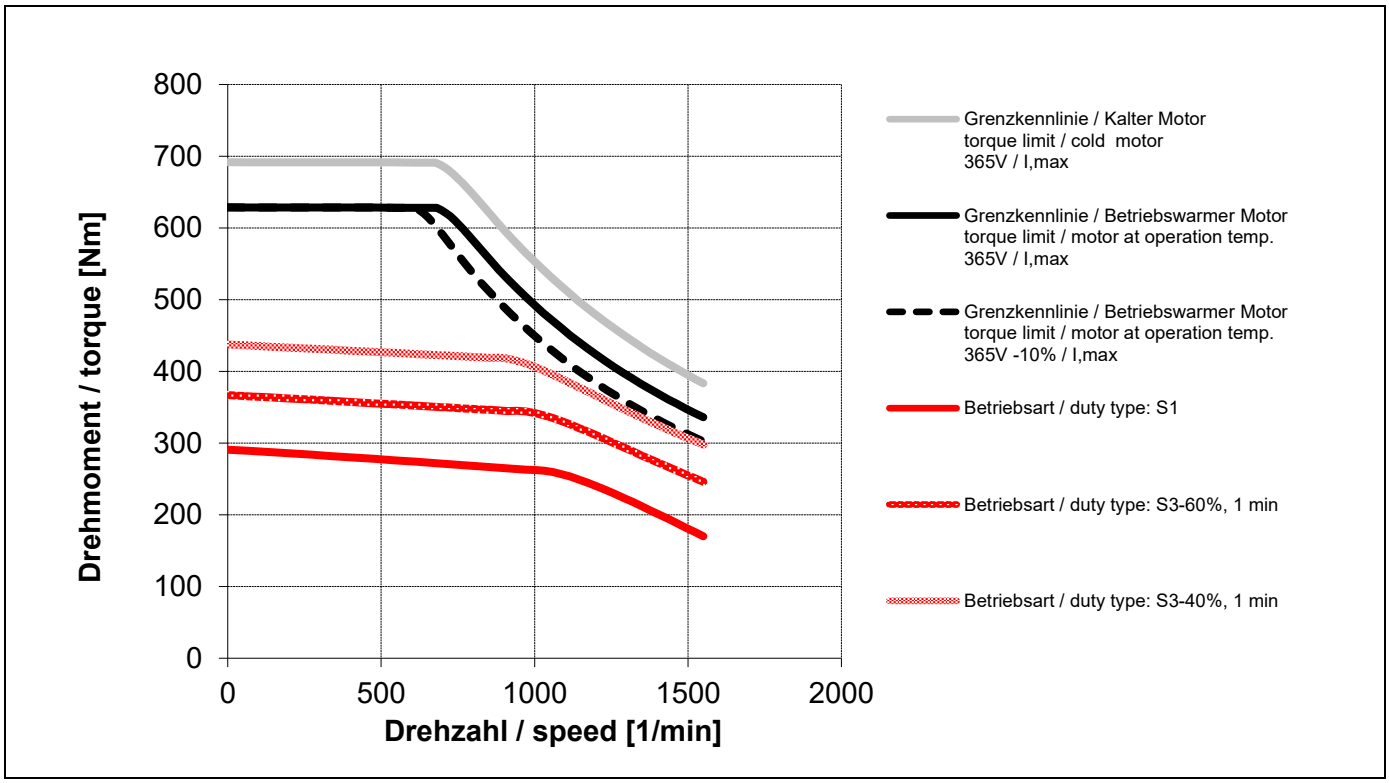
DSD2-132M054A/I/R-25-5



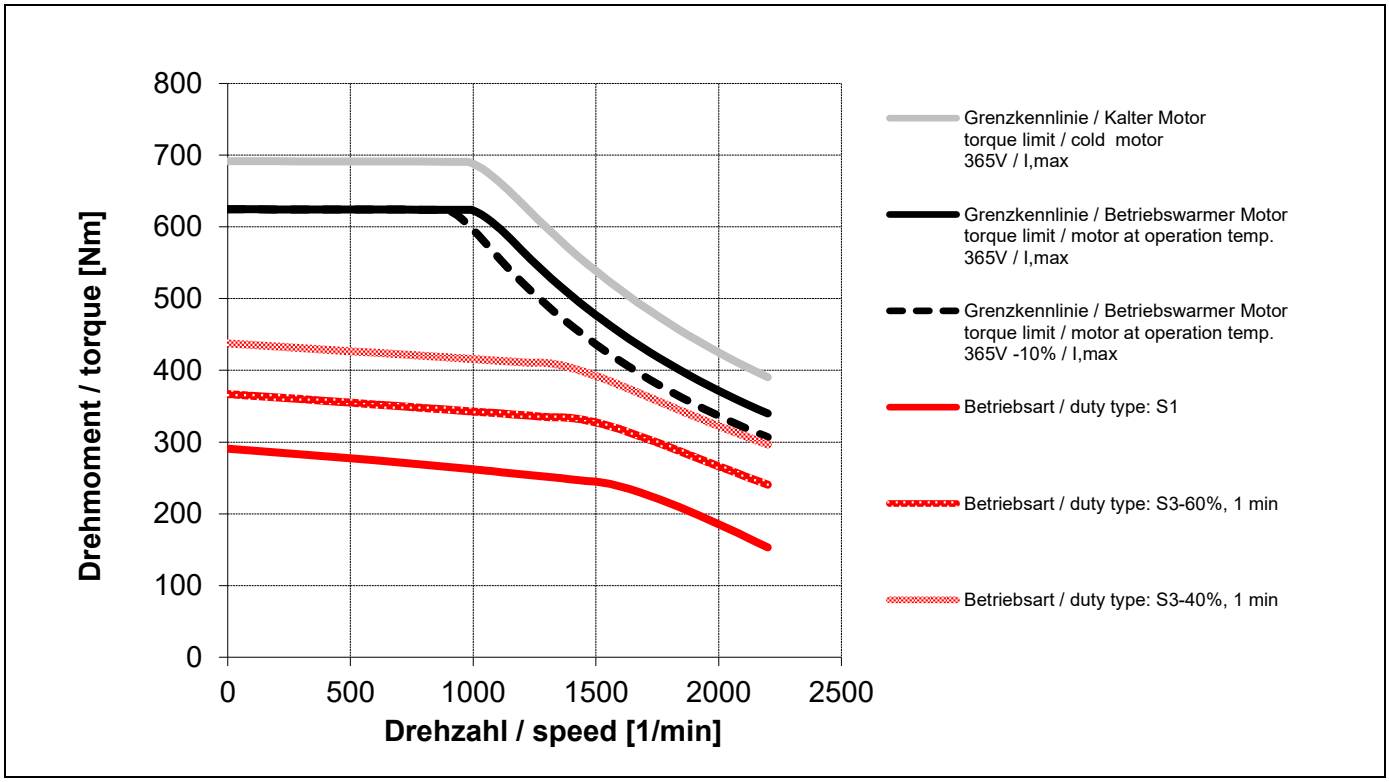
DSD2-132M054A/I/R-30-5



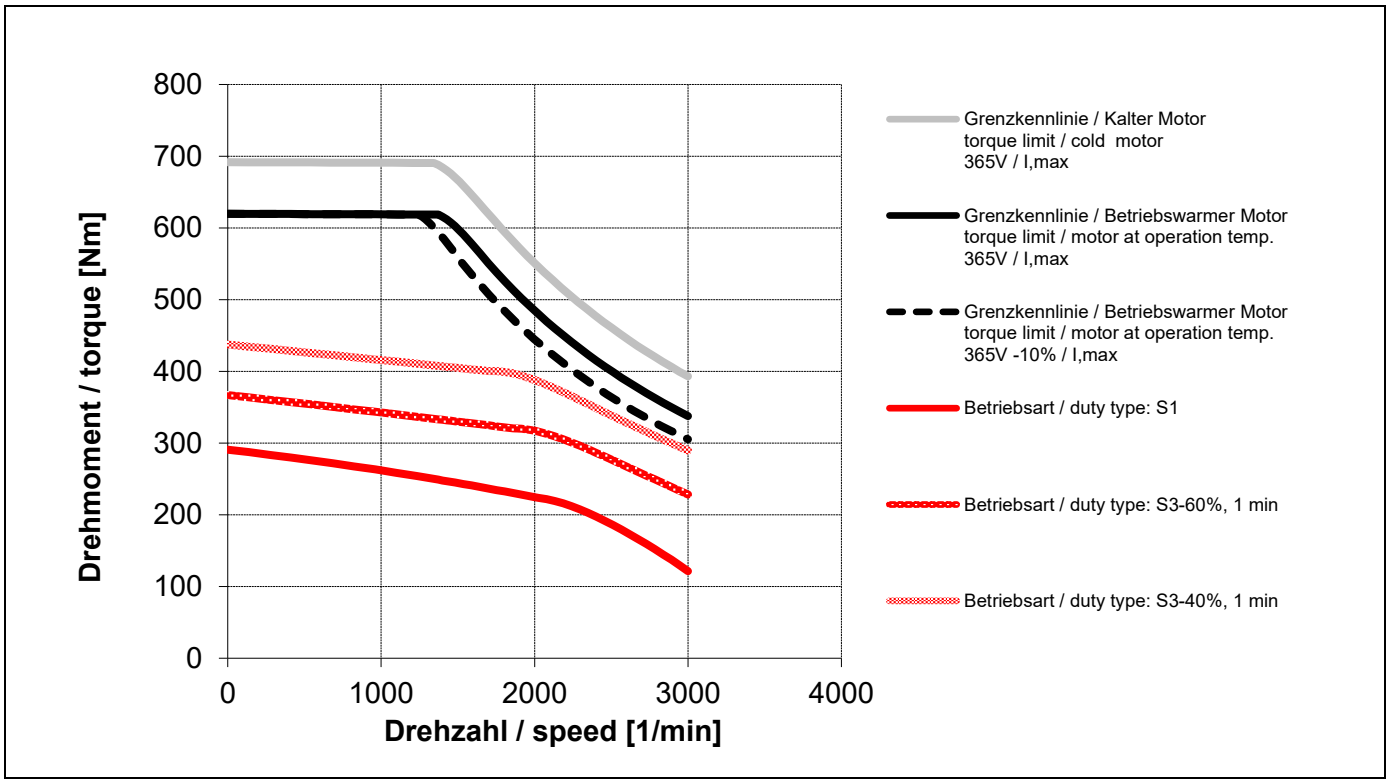
DSD2-132L054A/I/R-10-5



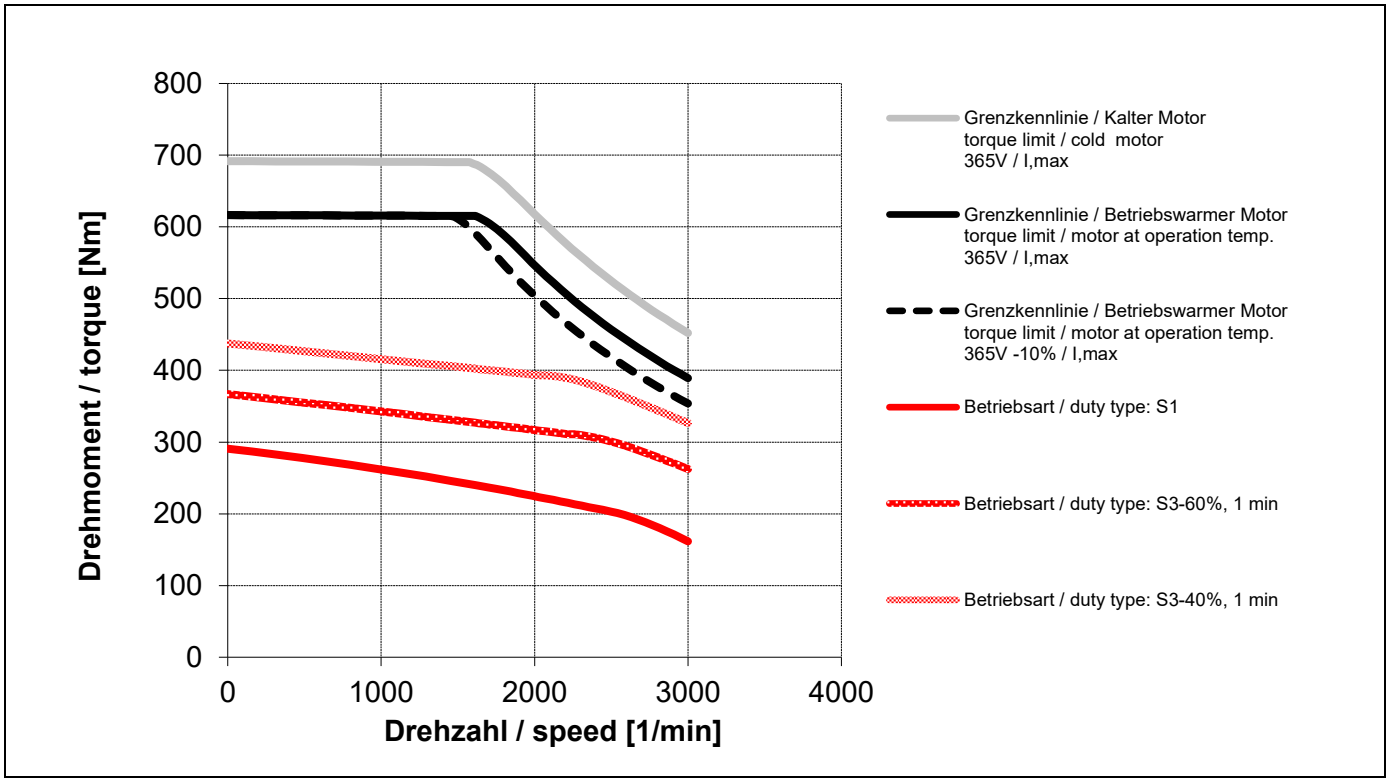
DSD2-132L054A/I/R-15-5



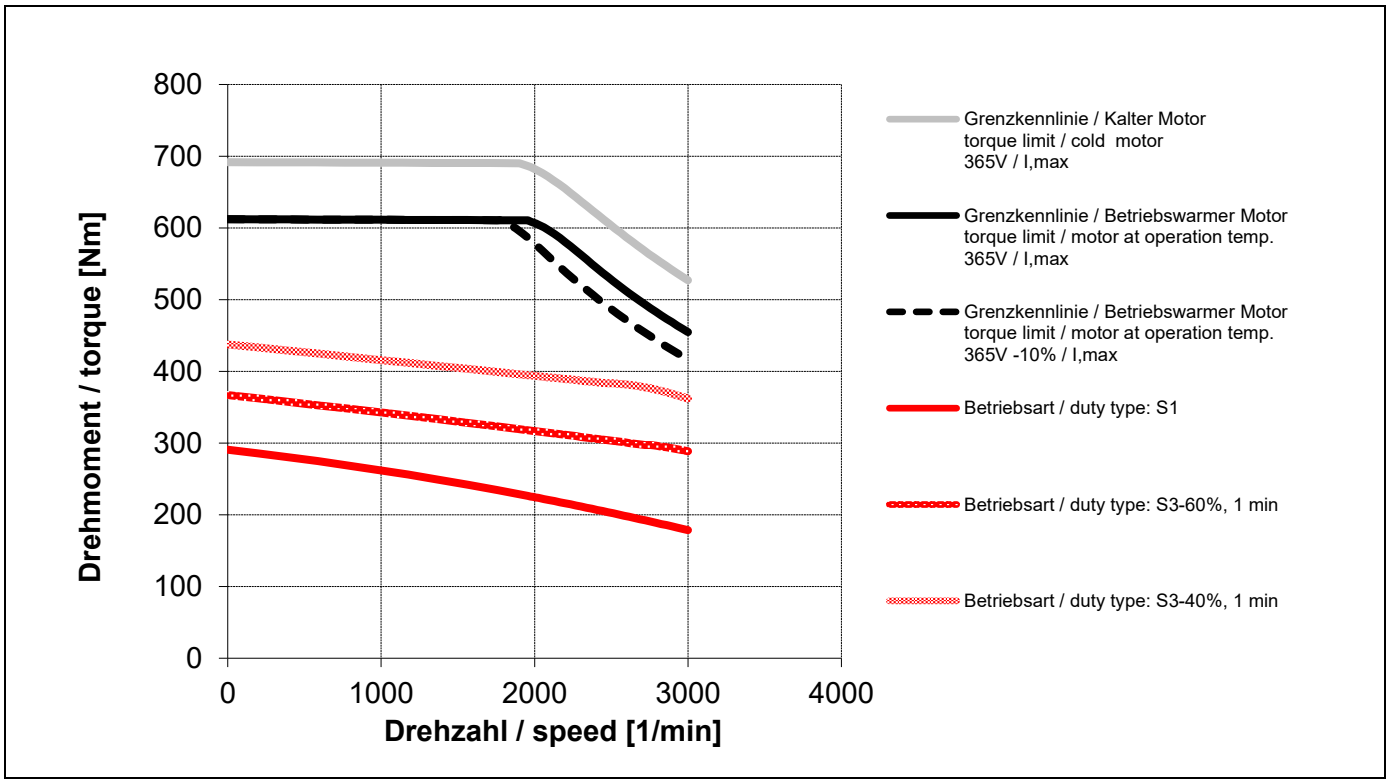
DSD2-132L054A/I/R-20-5



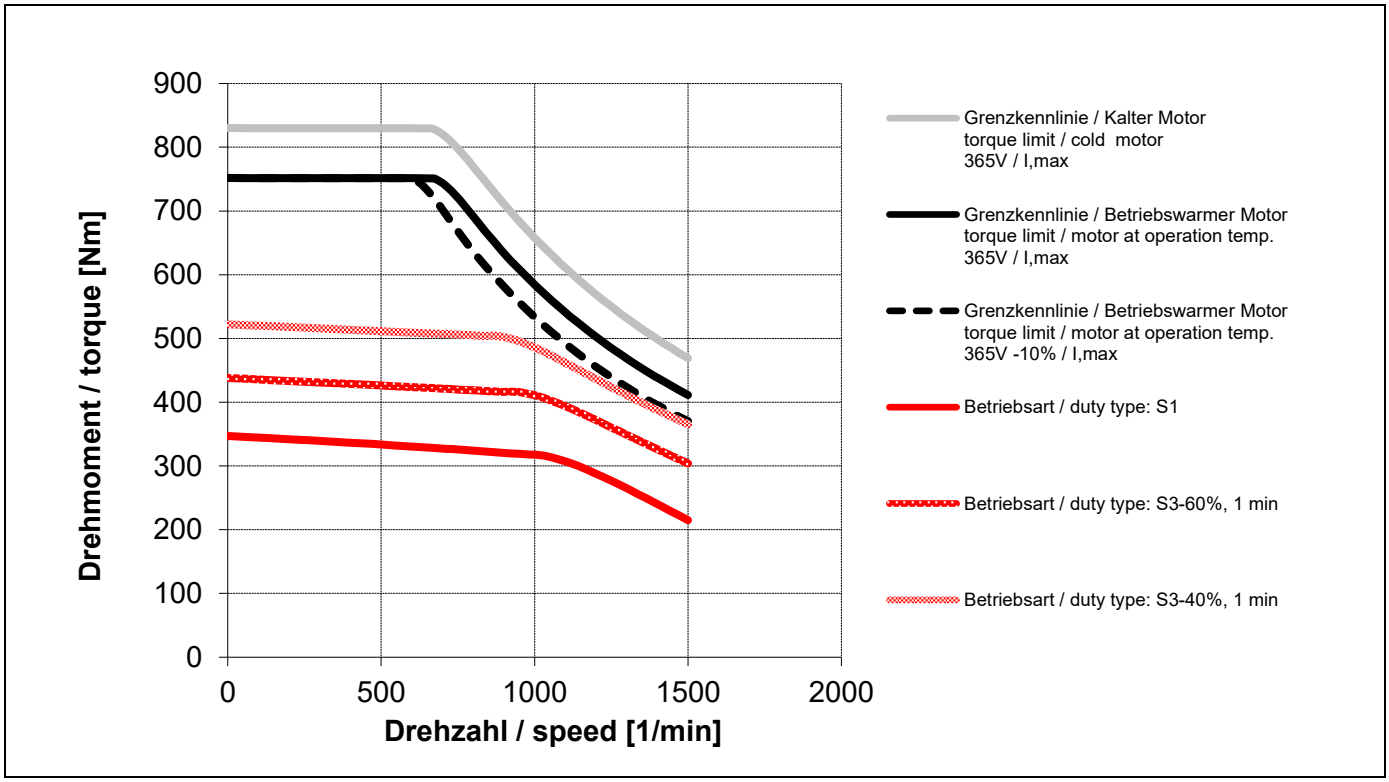
DSD2-132L054A/I/R-25-5



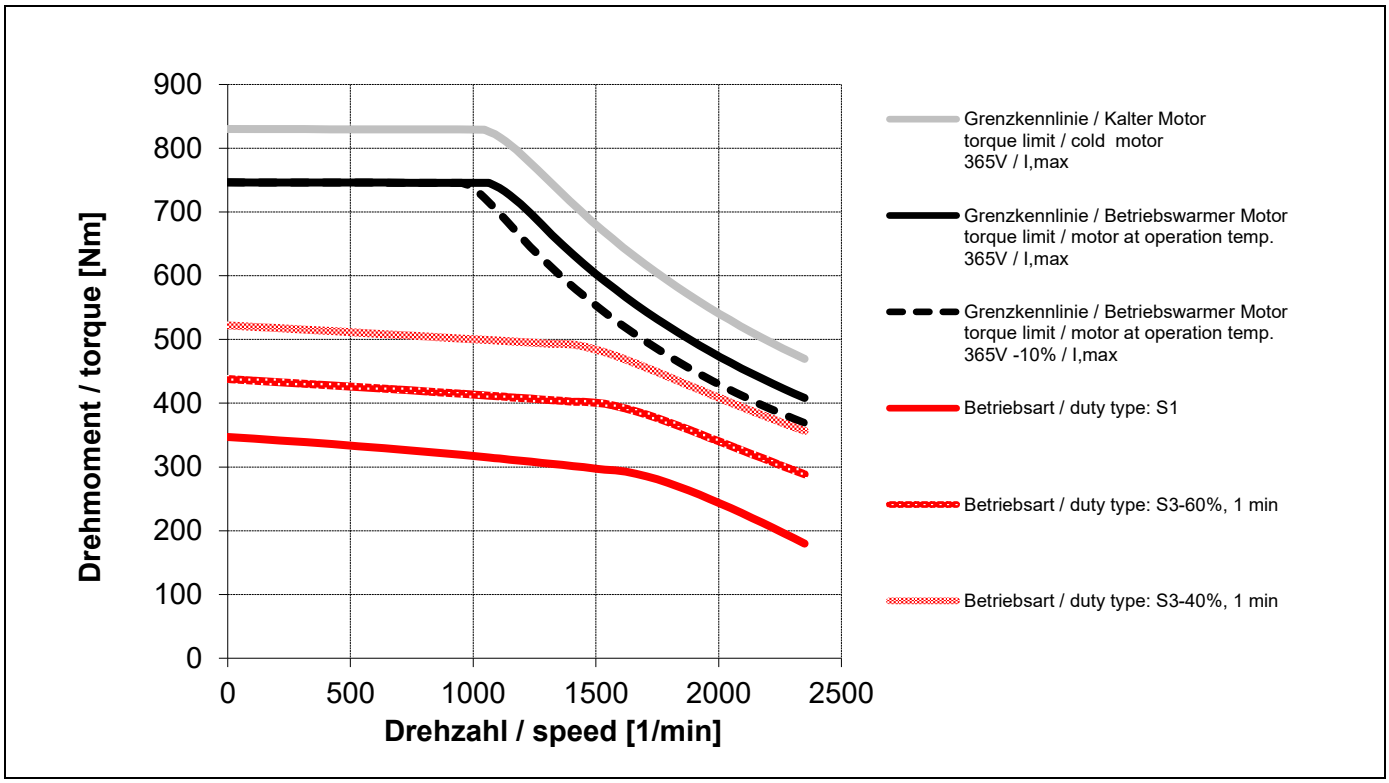
DSD2-132L054A/I/R-30-5



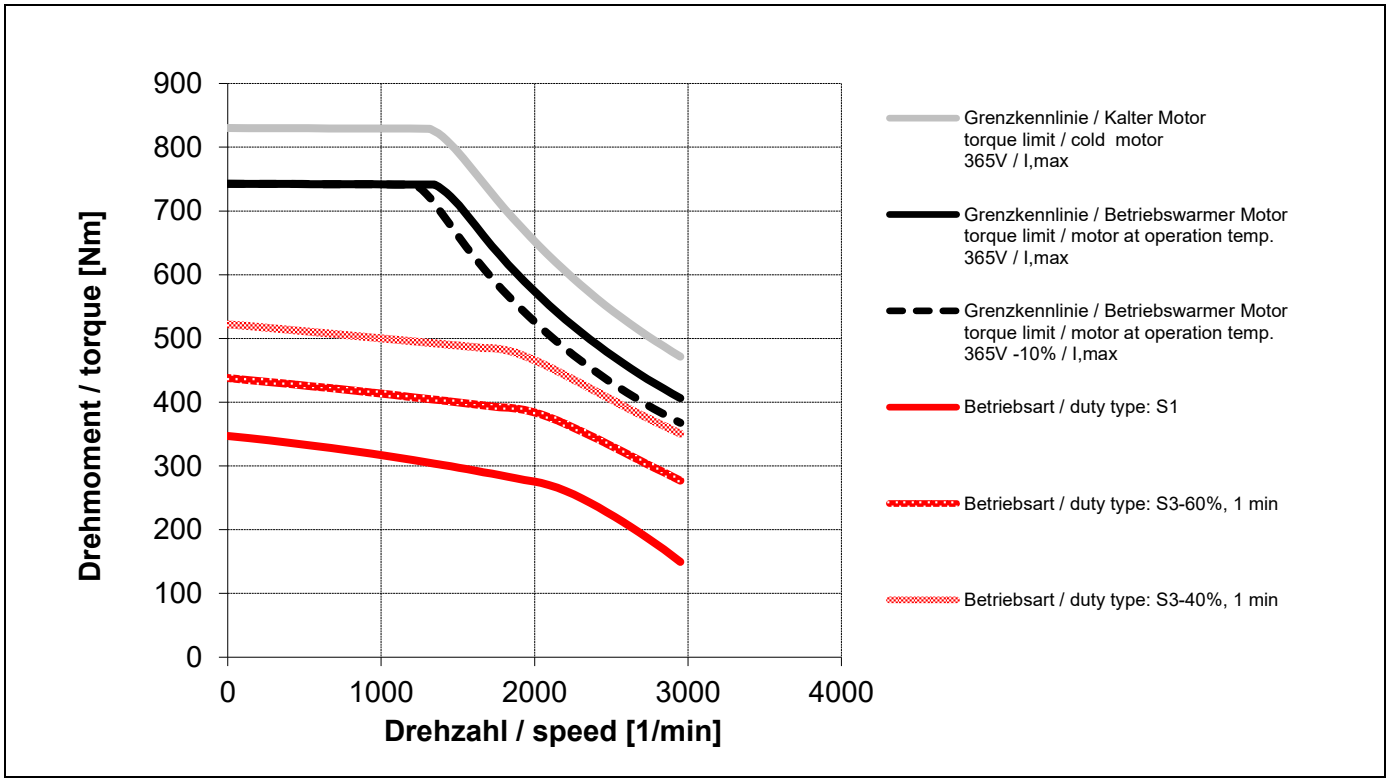
DSD2-132B054A/I/R-10-5



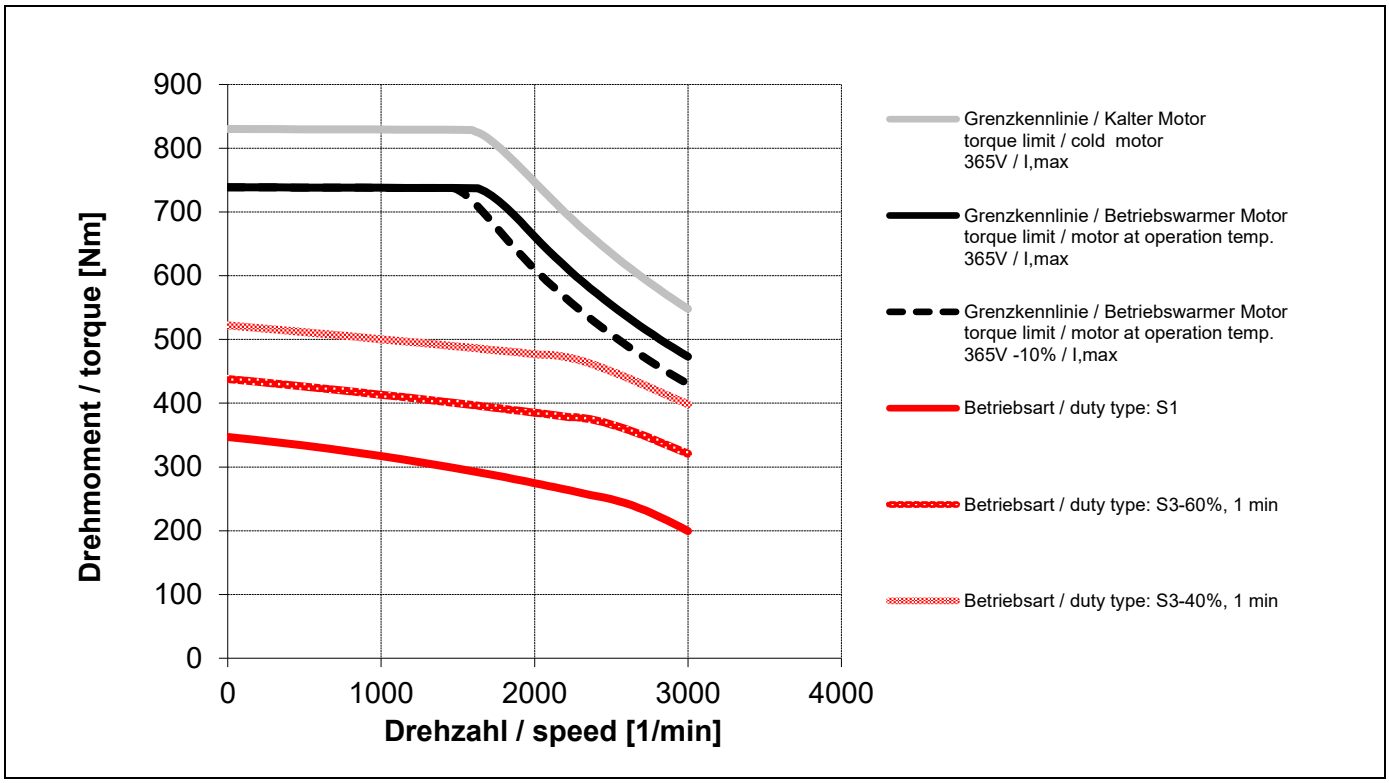
DSD2-132B054A/I/R-15-5



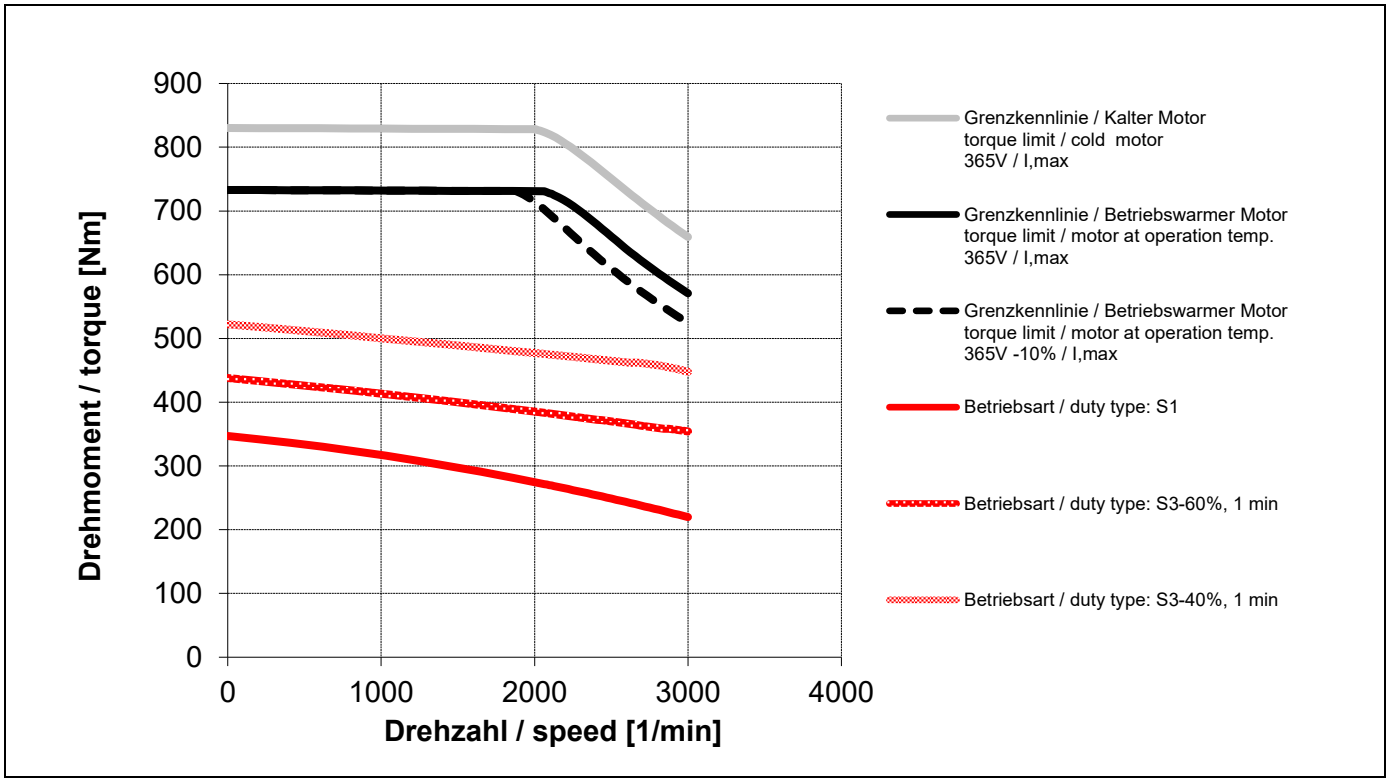
DSD2-132B054A/I/R-20-5



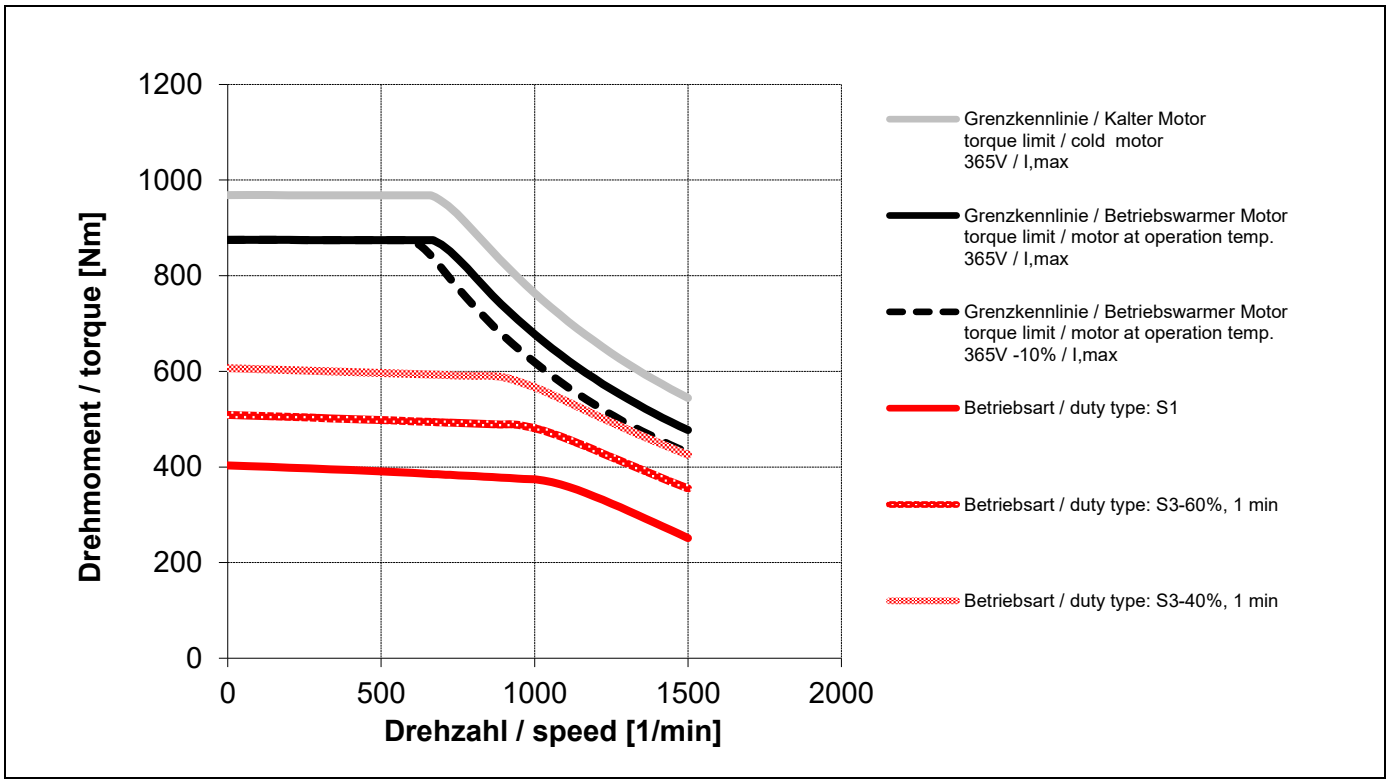
DSD2-132B054A/I/R-25-5



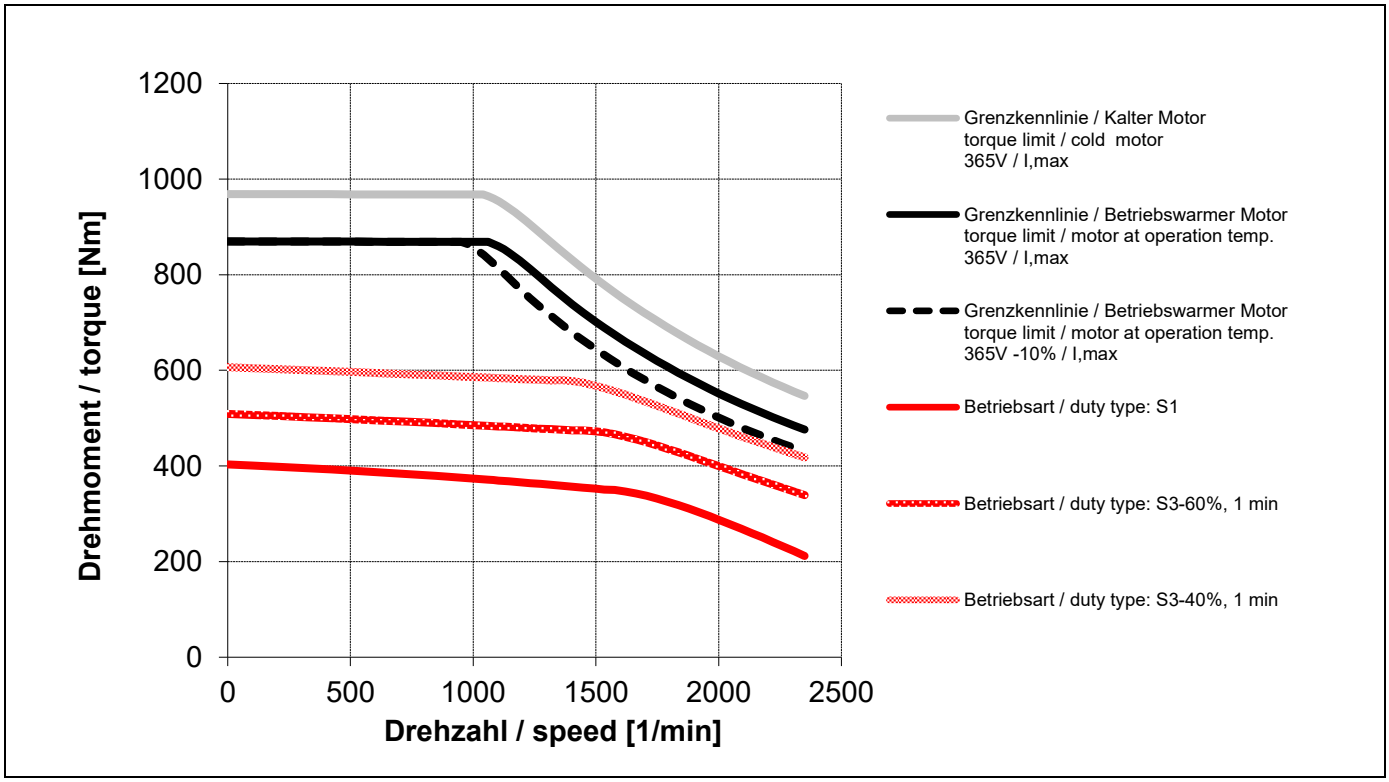
DSD2-132B054A/I/R-30-5



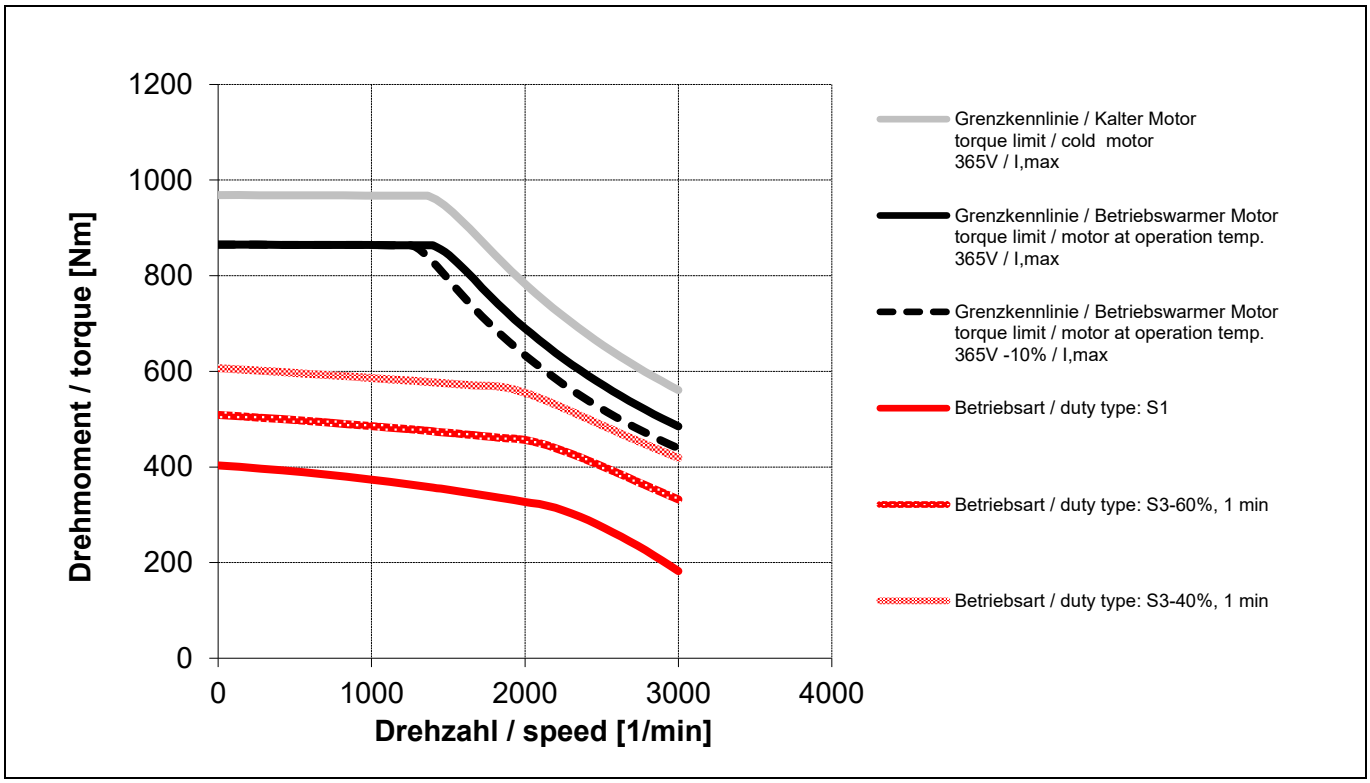
DSD2-132X054A/I/R-10-5



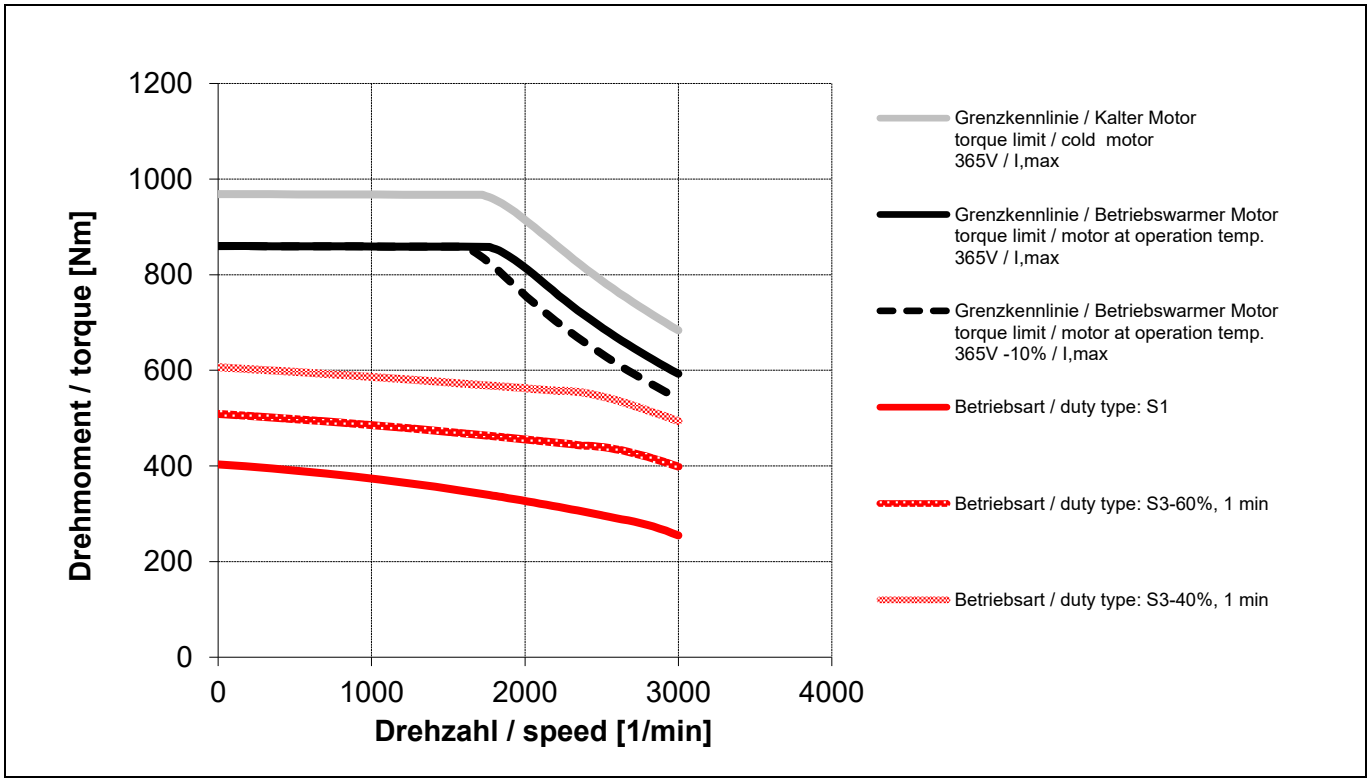
DSD2-132X054A/I/R-15-5



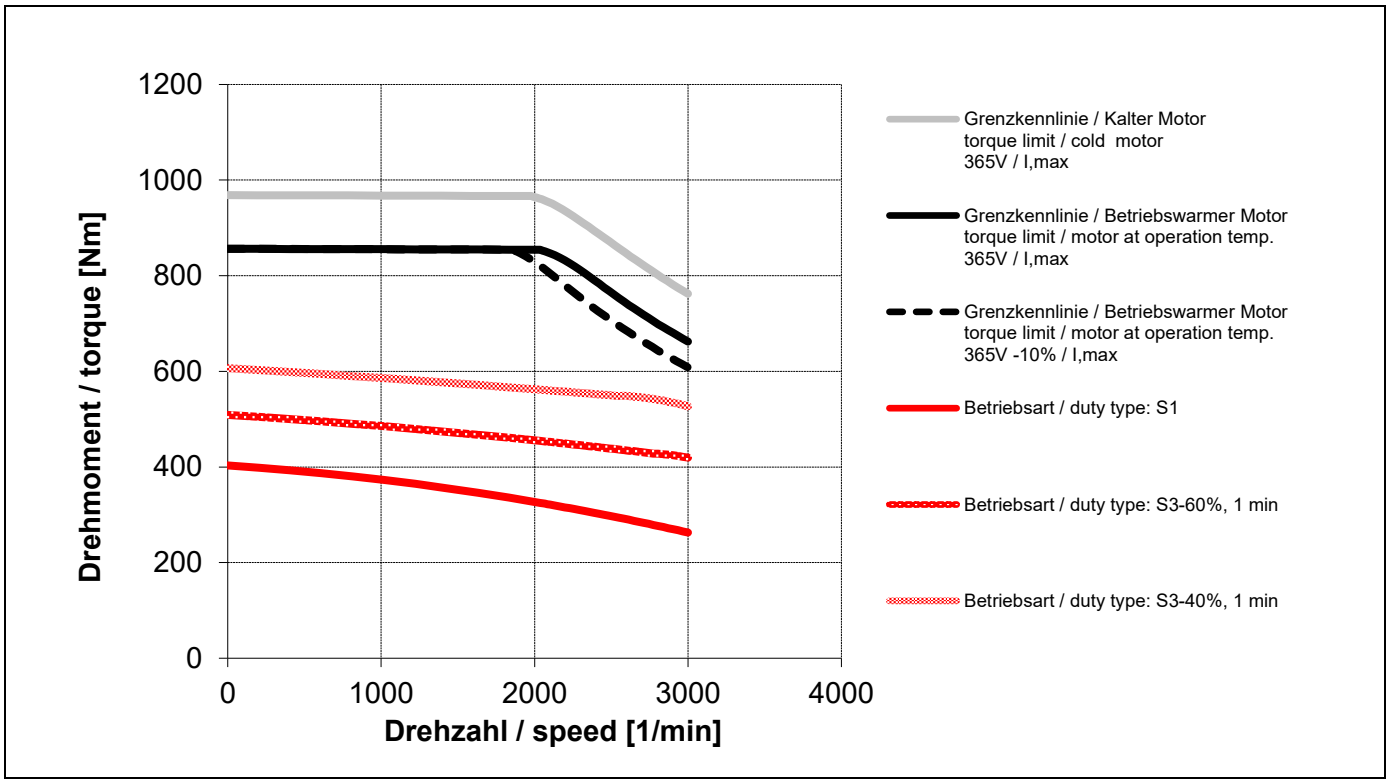
DSD2-132X054A/I/R-20-5



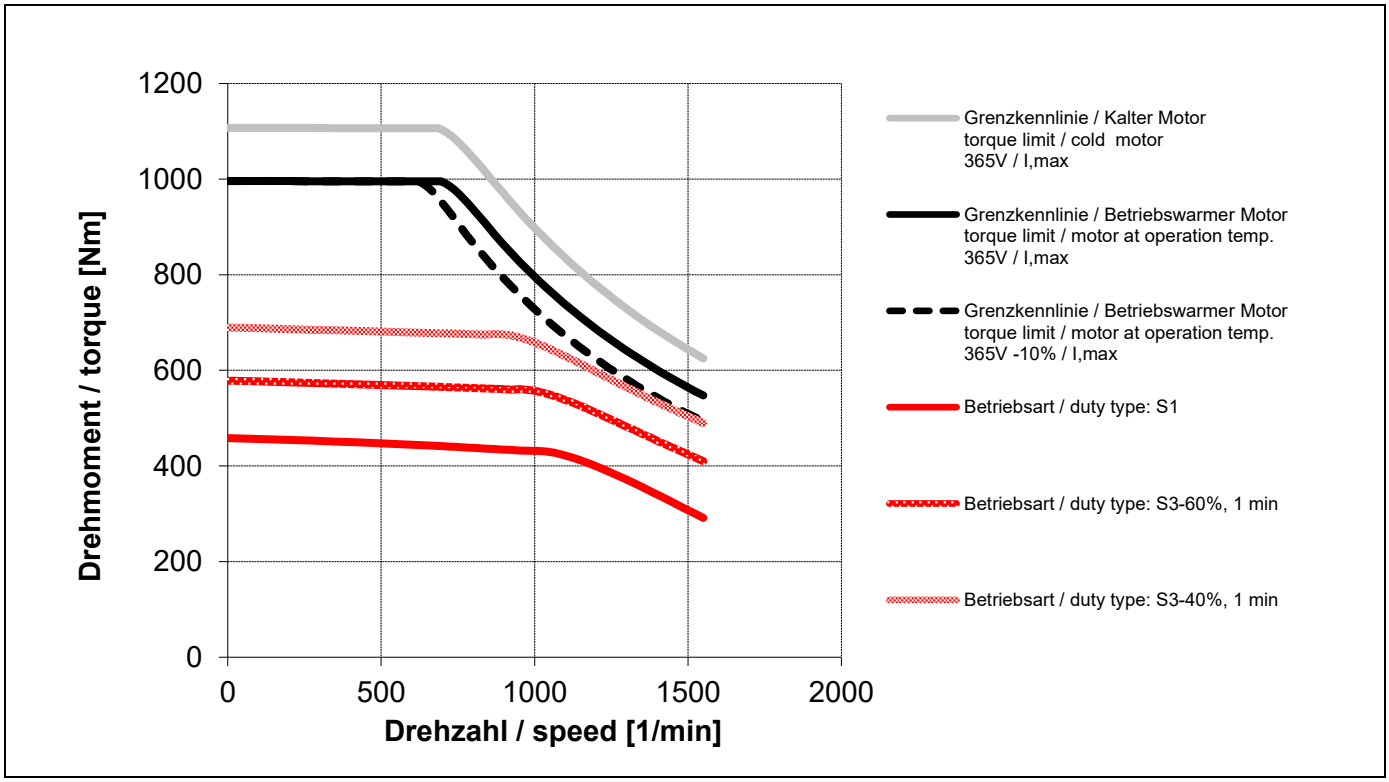
DSD2-132X054A/I/R-25-5



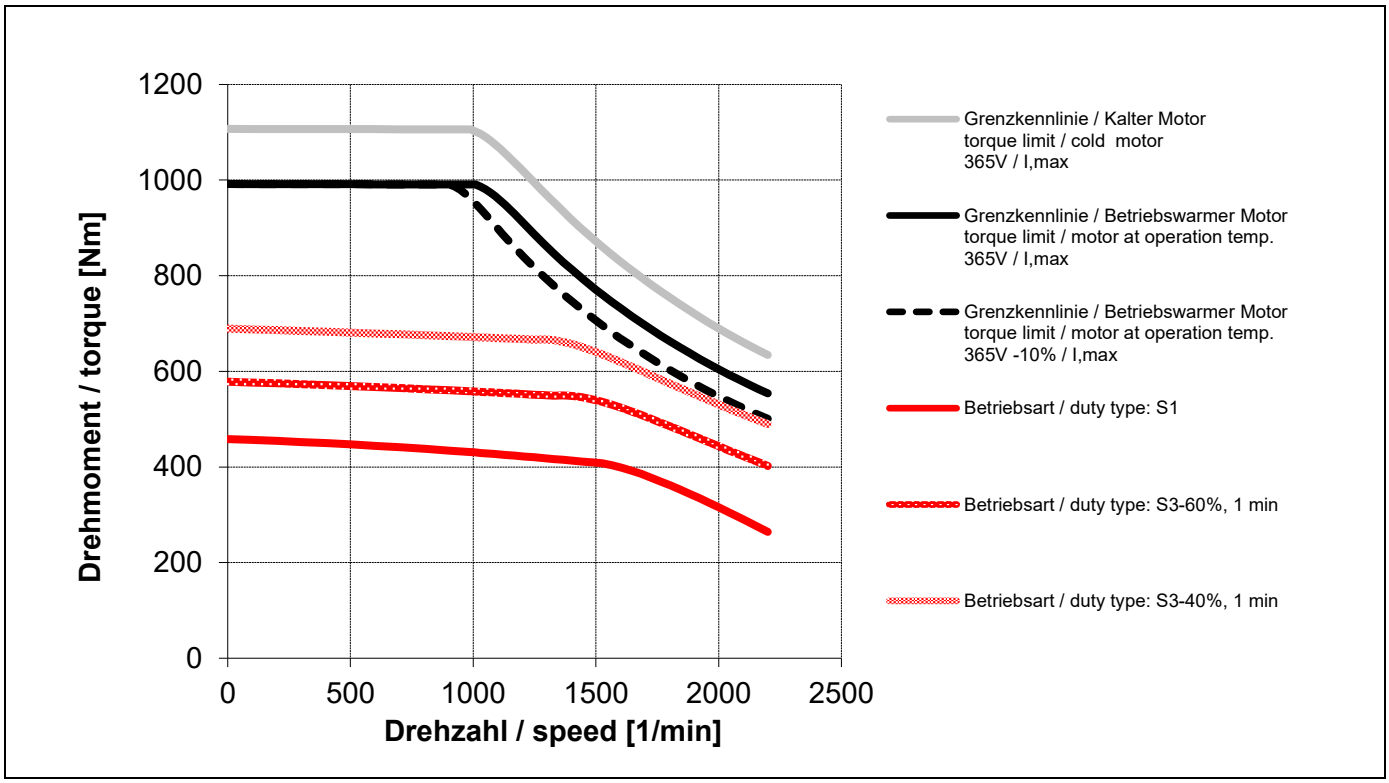
DSD2-132X054A/I/R-30-5



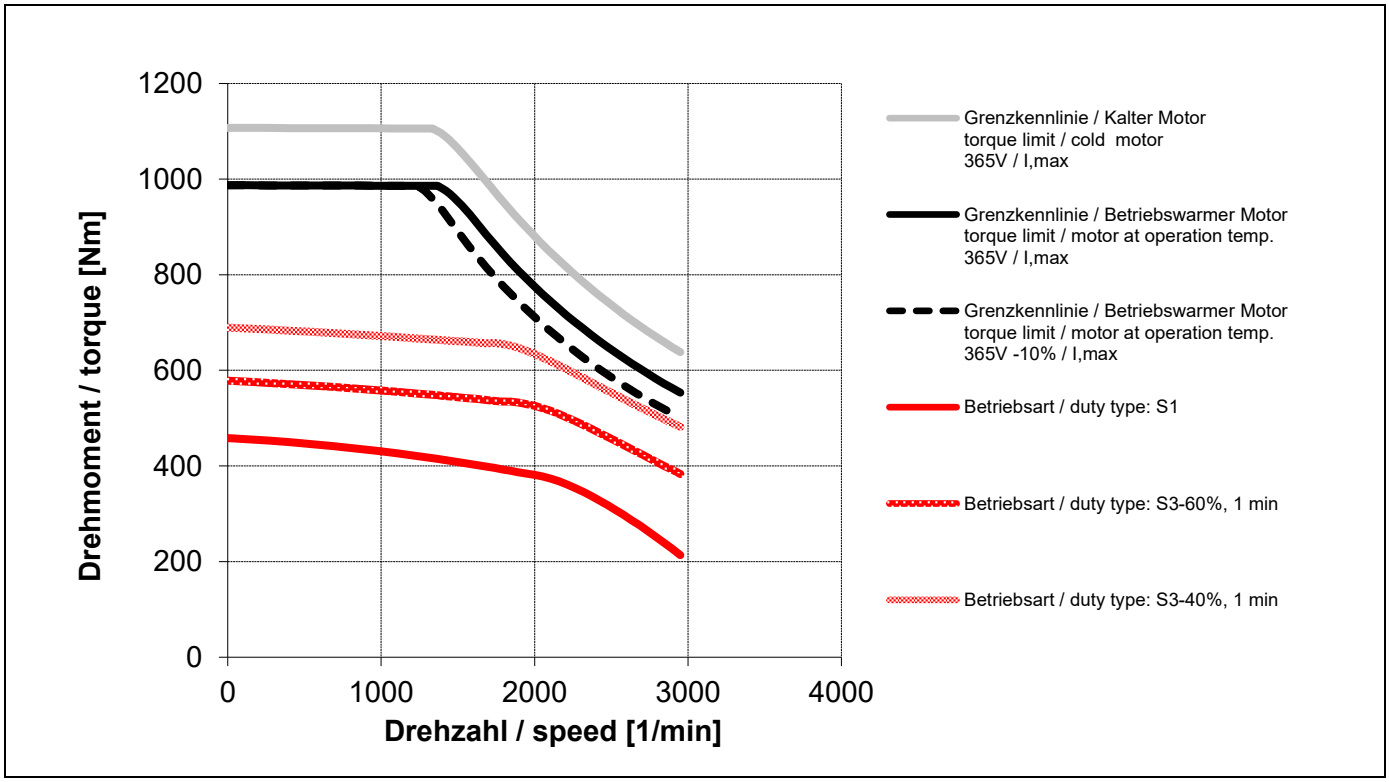
DSD2-132Y054A/I/R-10-5



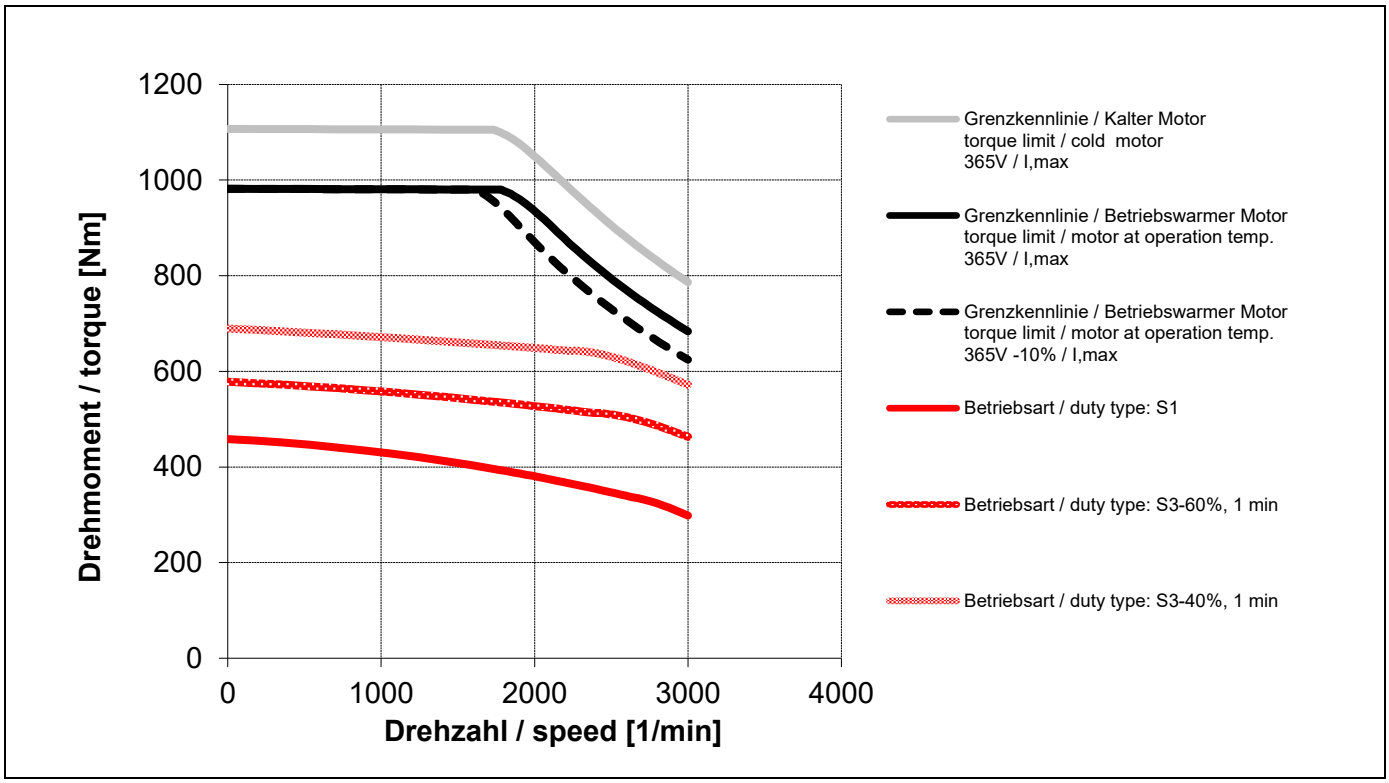
DSD2-132Y054A/I/R-15-5



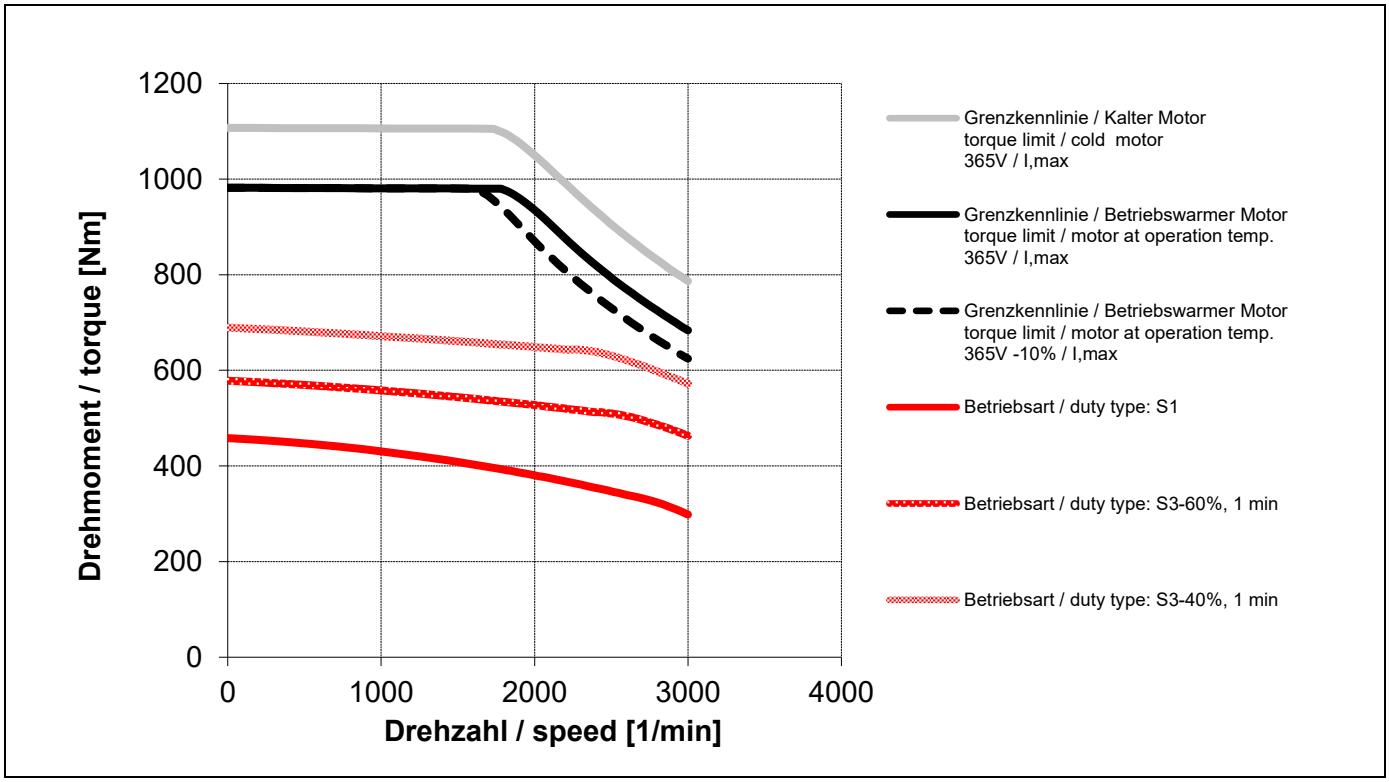
DSD2-132Y054A/I/R-20-5



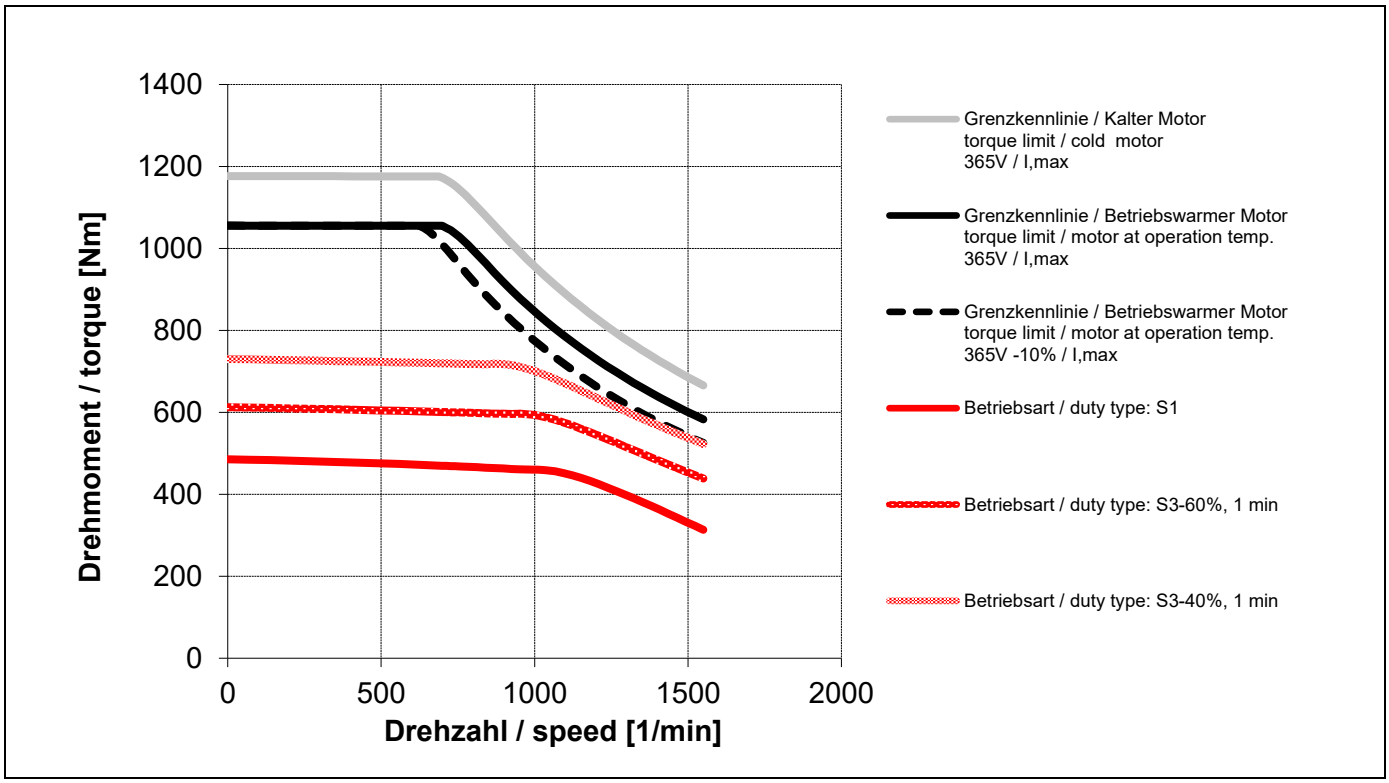
DSD2-132Y054A/I/R-25-5



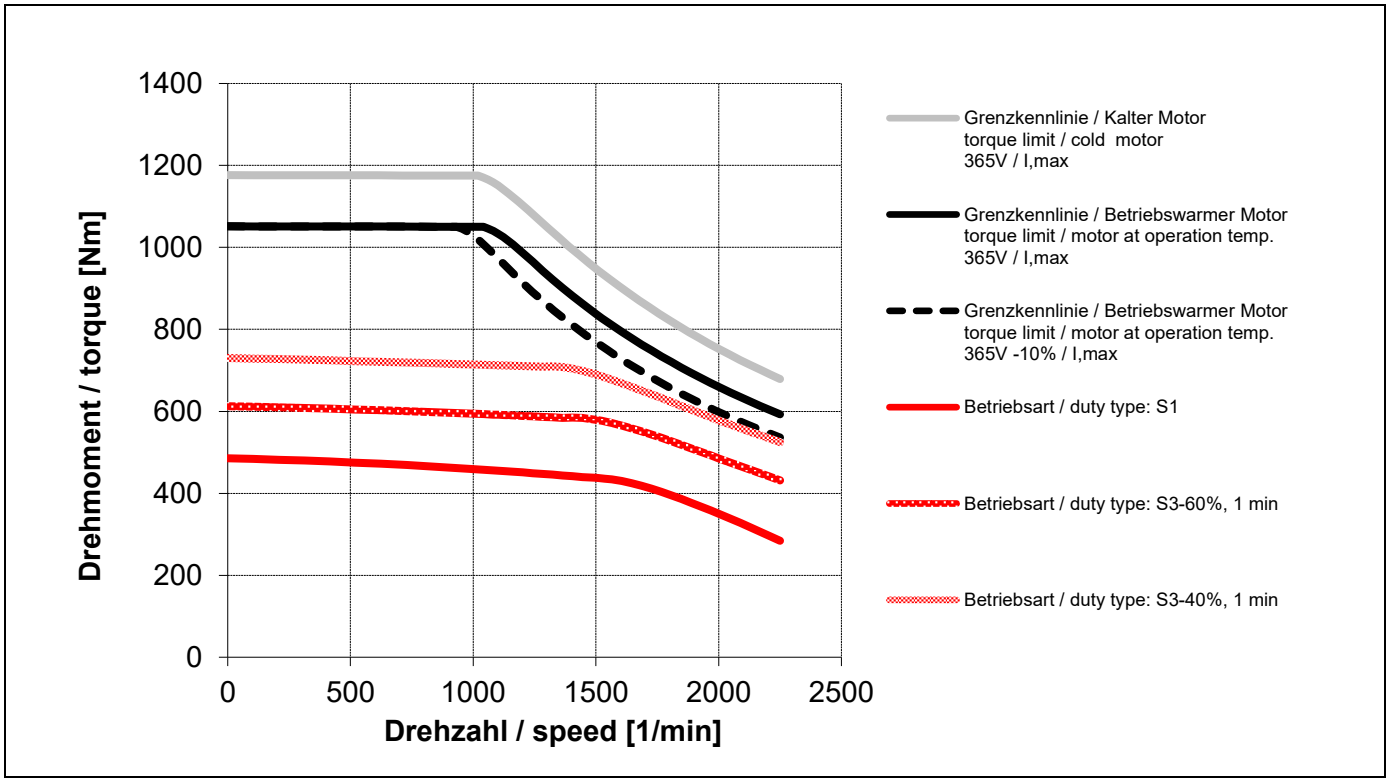
DSD2-132Y054A/I/R-30-5



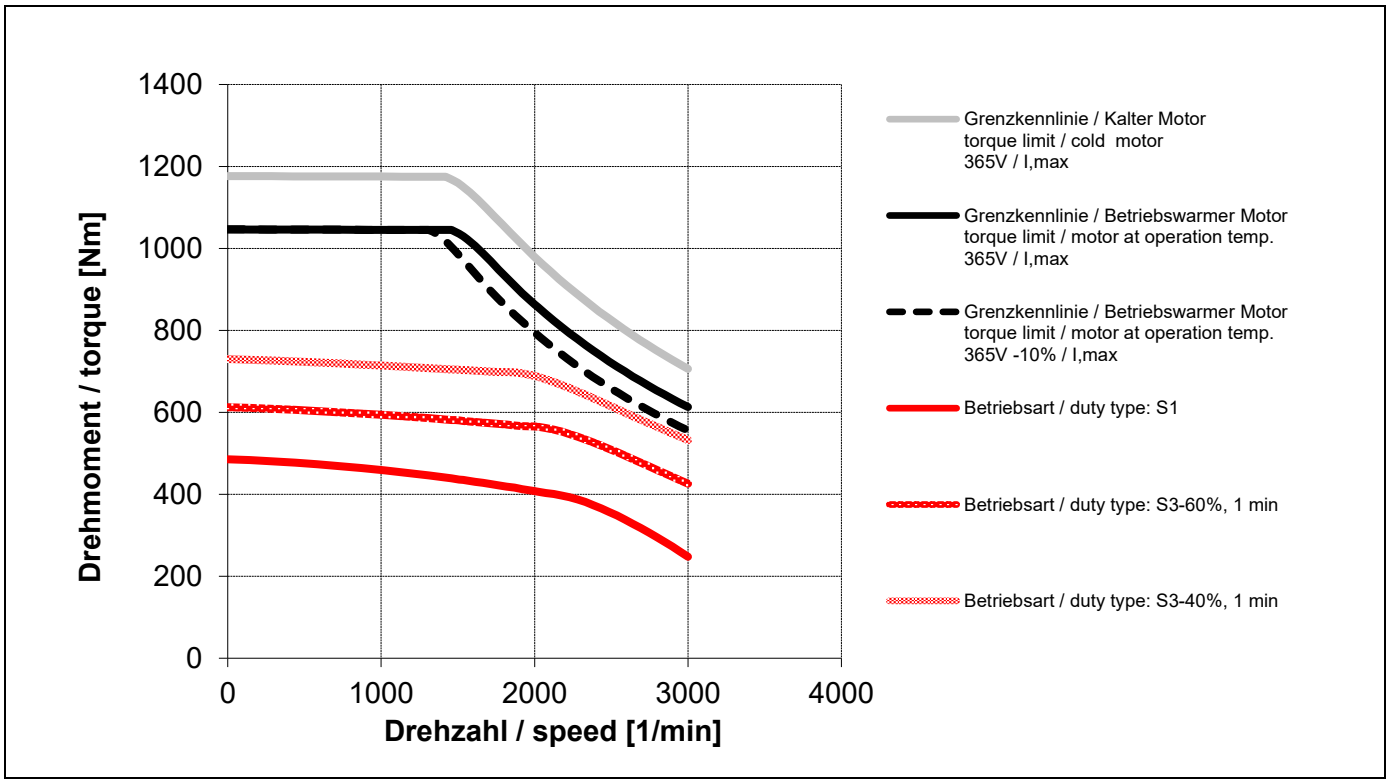
DSD2-132YZ54A/I/R-10-5



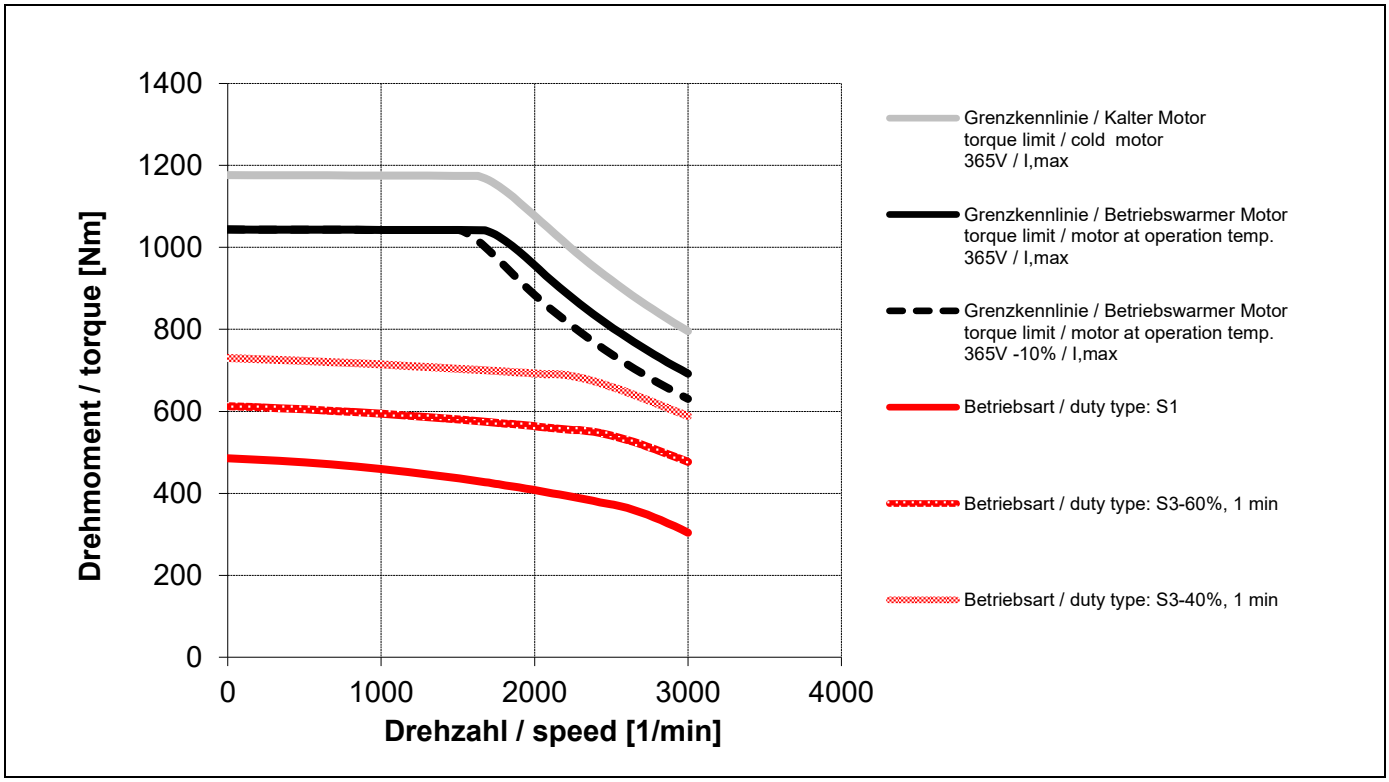
DSD2-132YZ54A/I/R-15-5



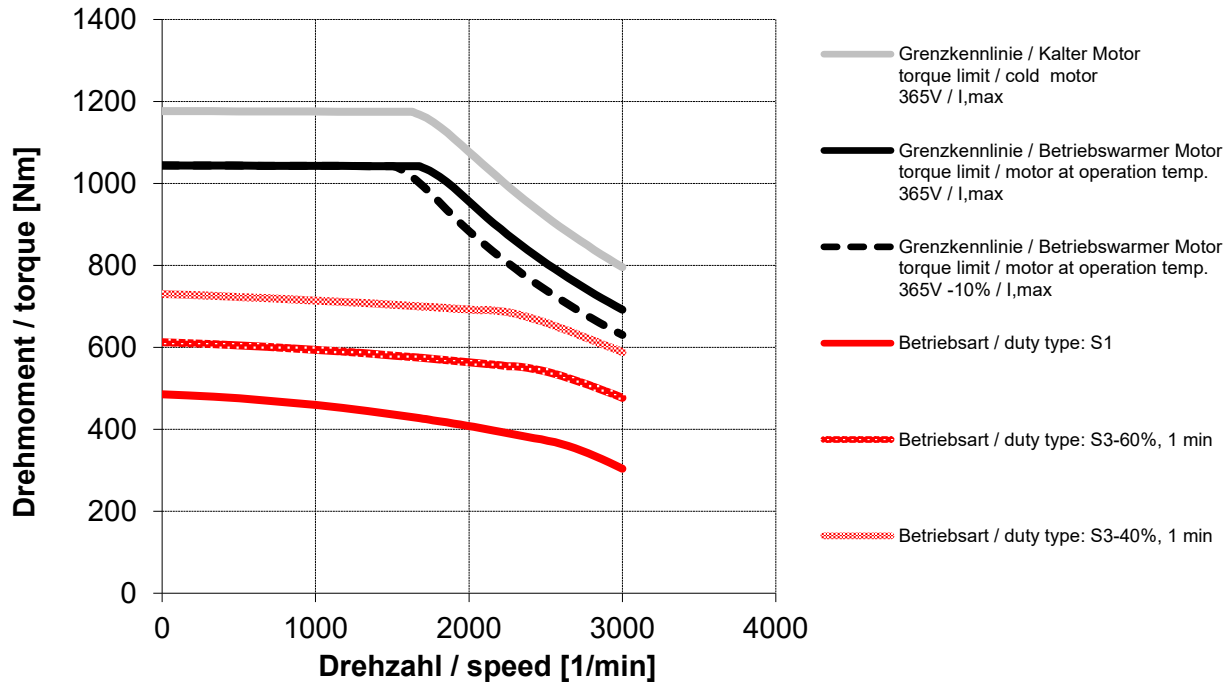
DSD2-132YZ54A/I/R-20-5



DSD2-132YZ54A/I/R-25-5

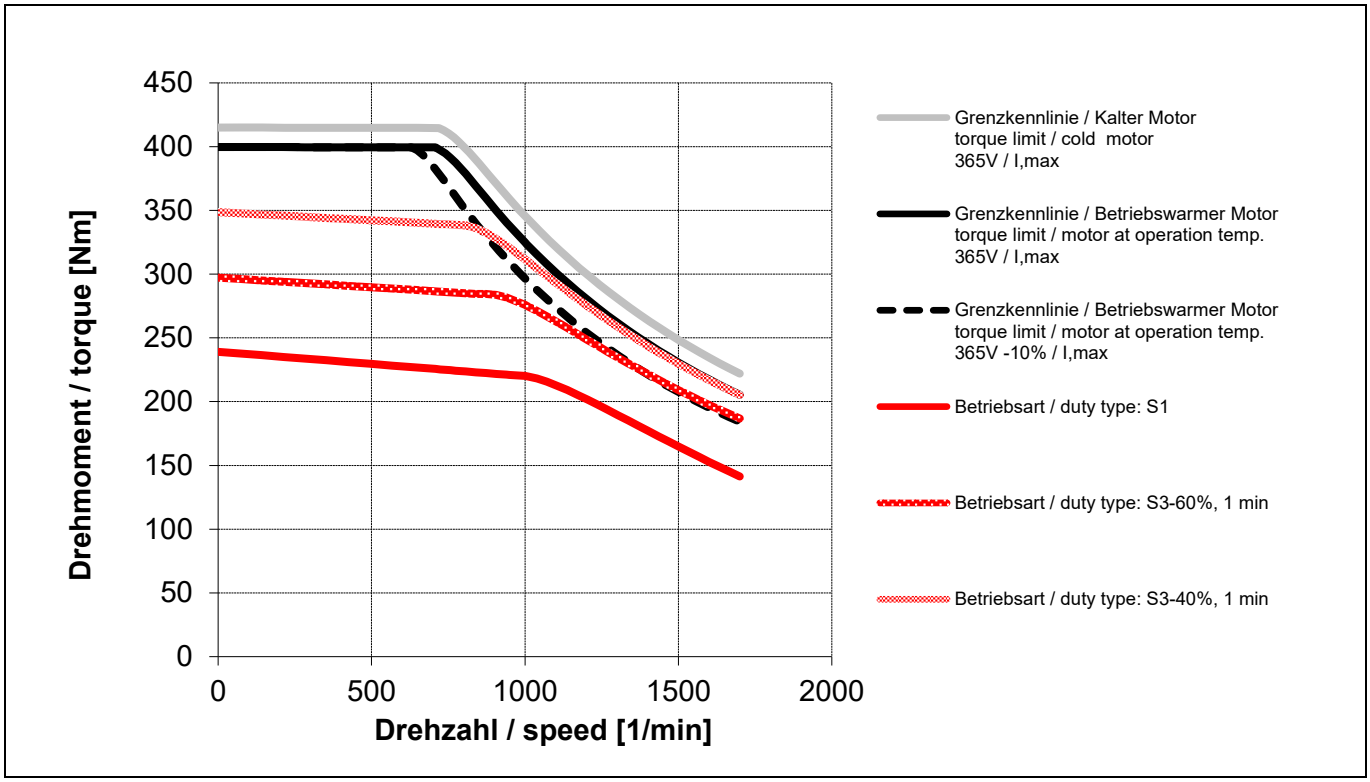


DSD2-132YZ54A/I/R-30-5

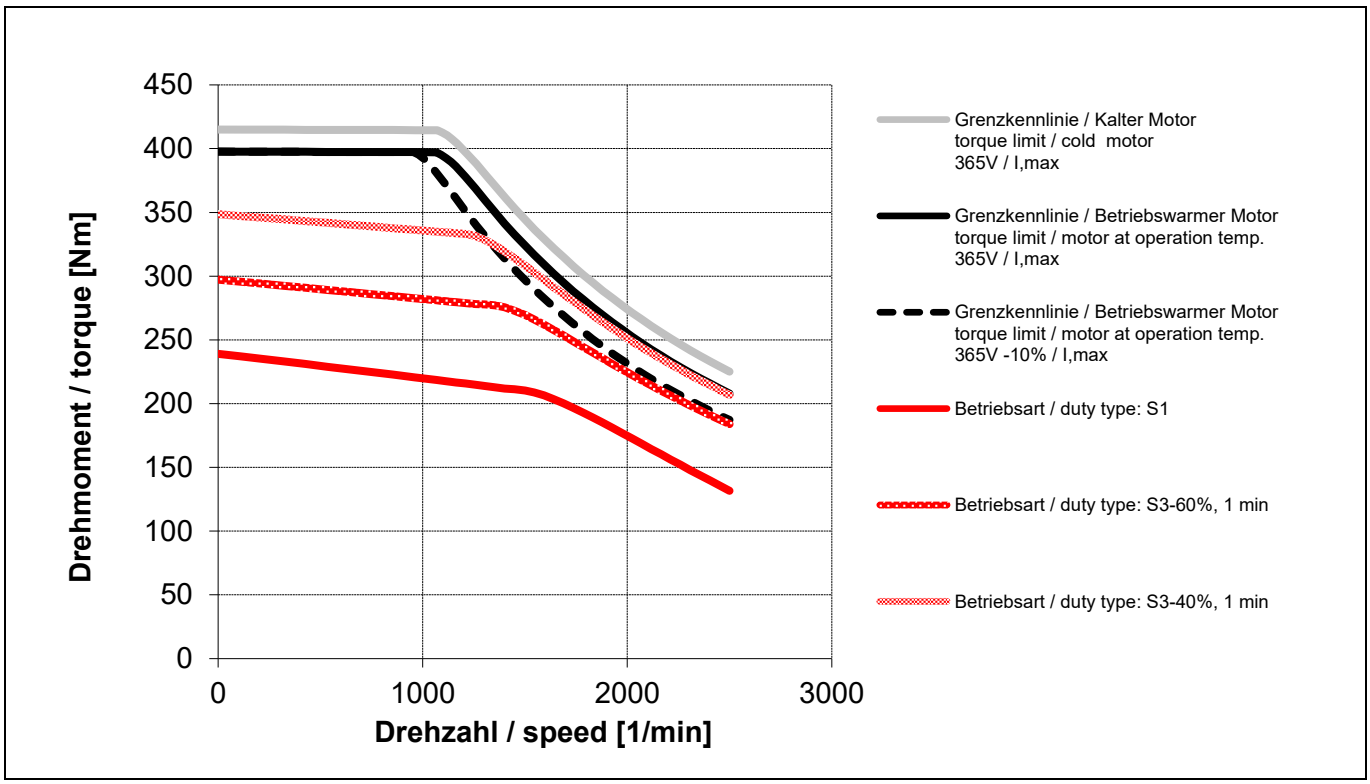


5.7.2 DSD2-132..64W-..

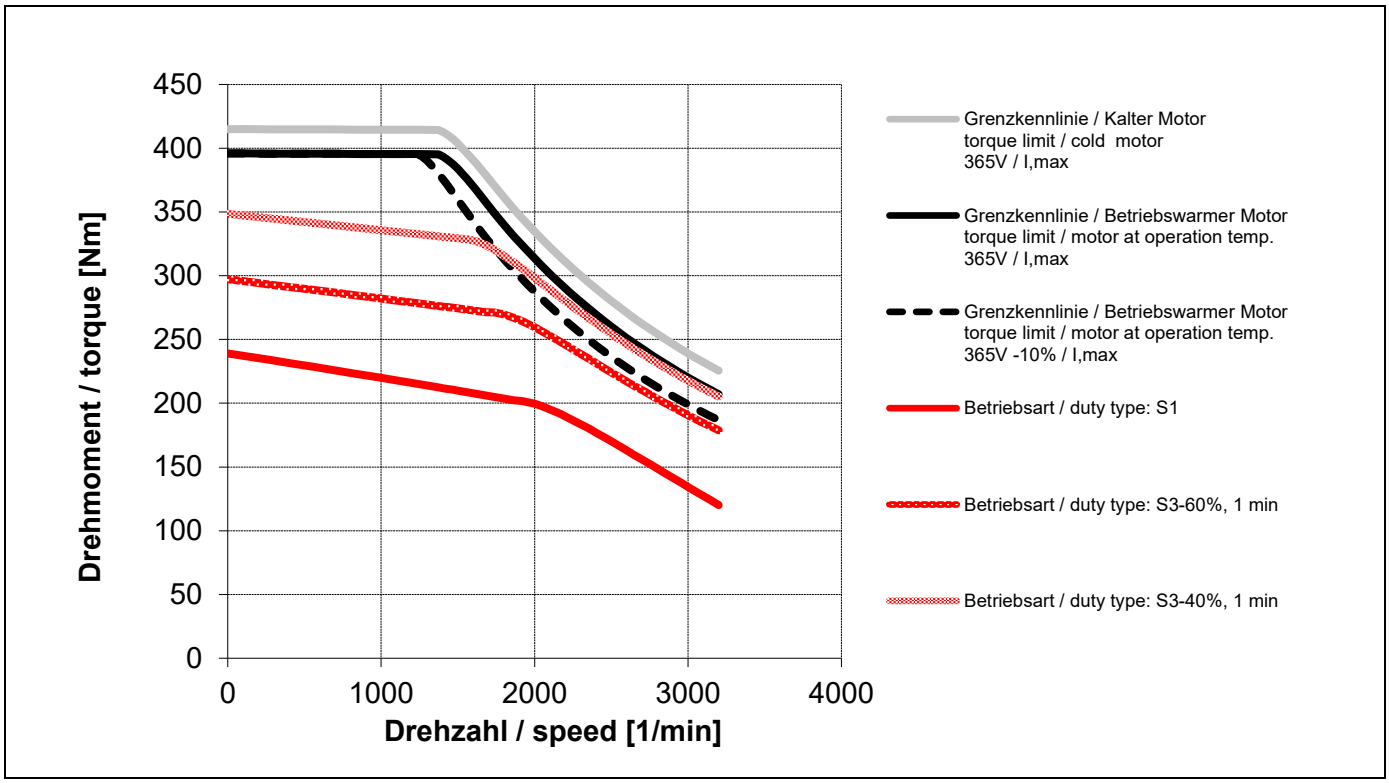
DSD2-132K054W-10-5



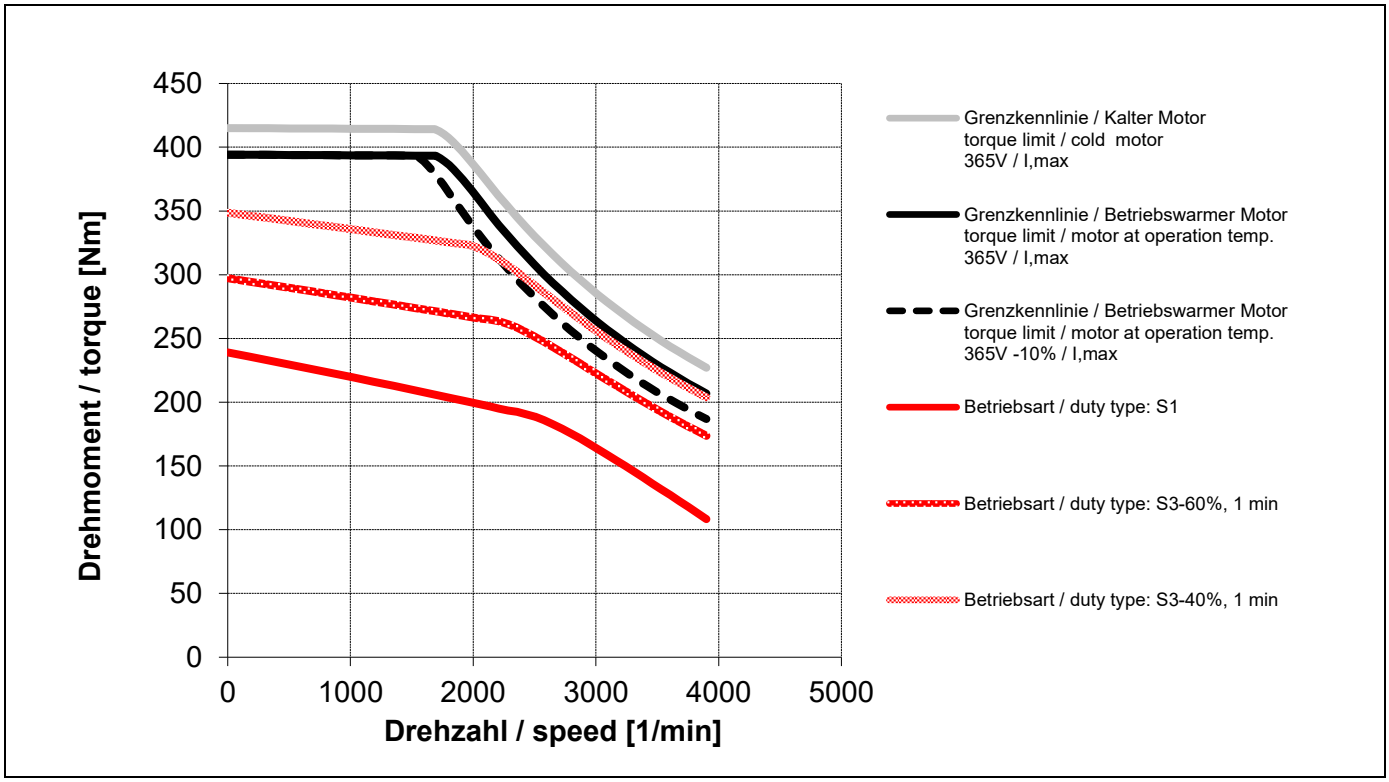
DSD2-132K054W-15-5



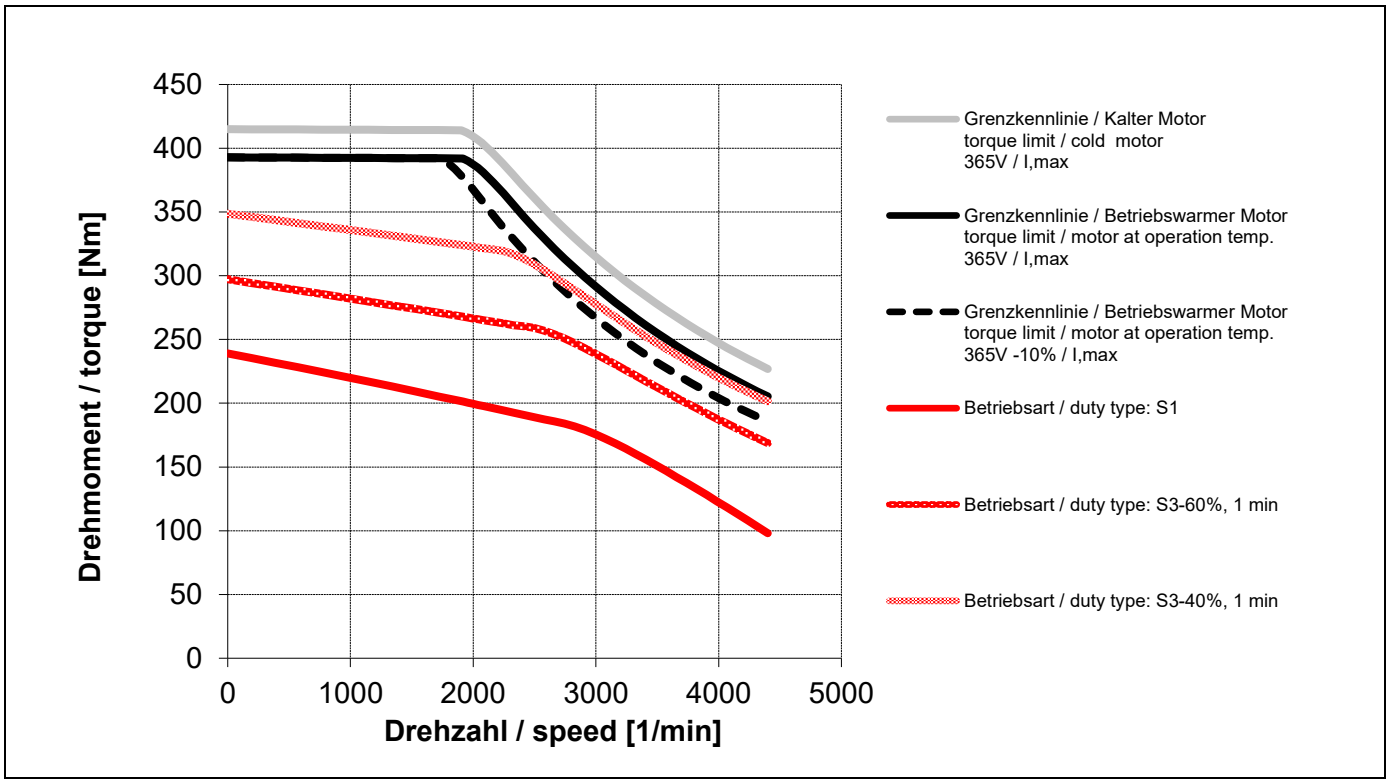
DSD2-132K054W-20-5



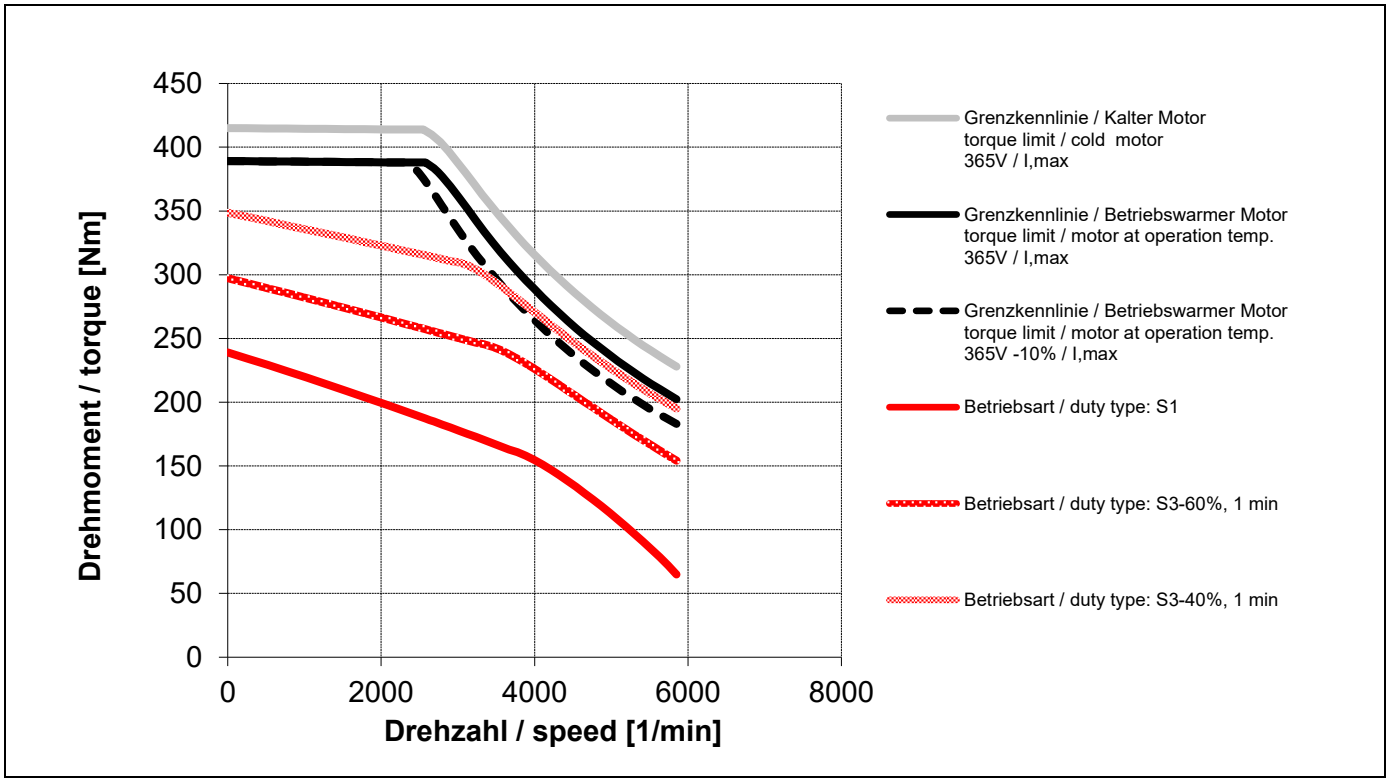
DSD2-132K054W-25-5



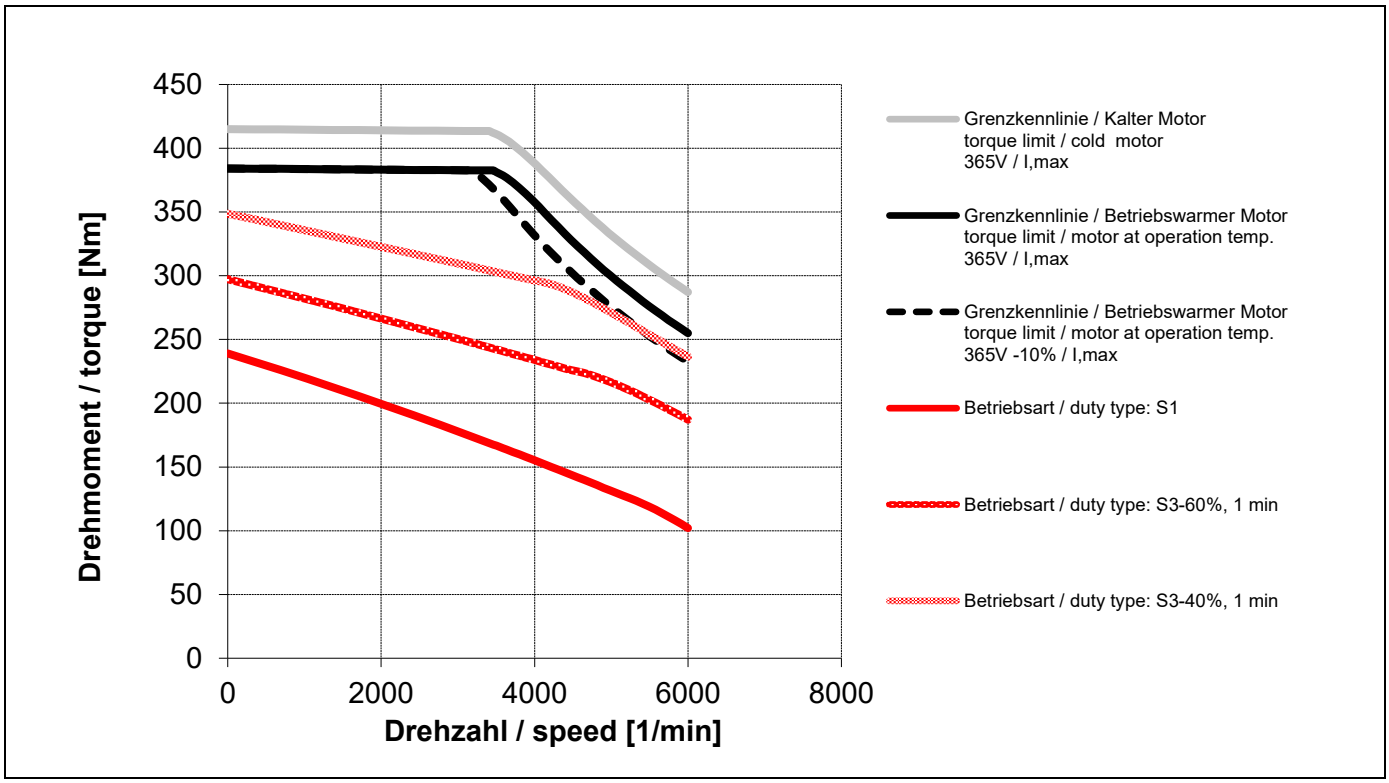
DSD2-132K054W-30-5



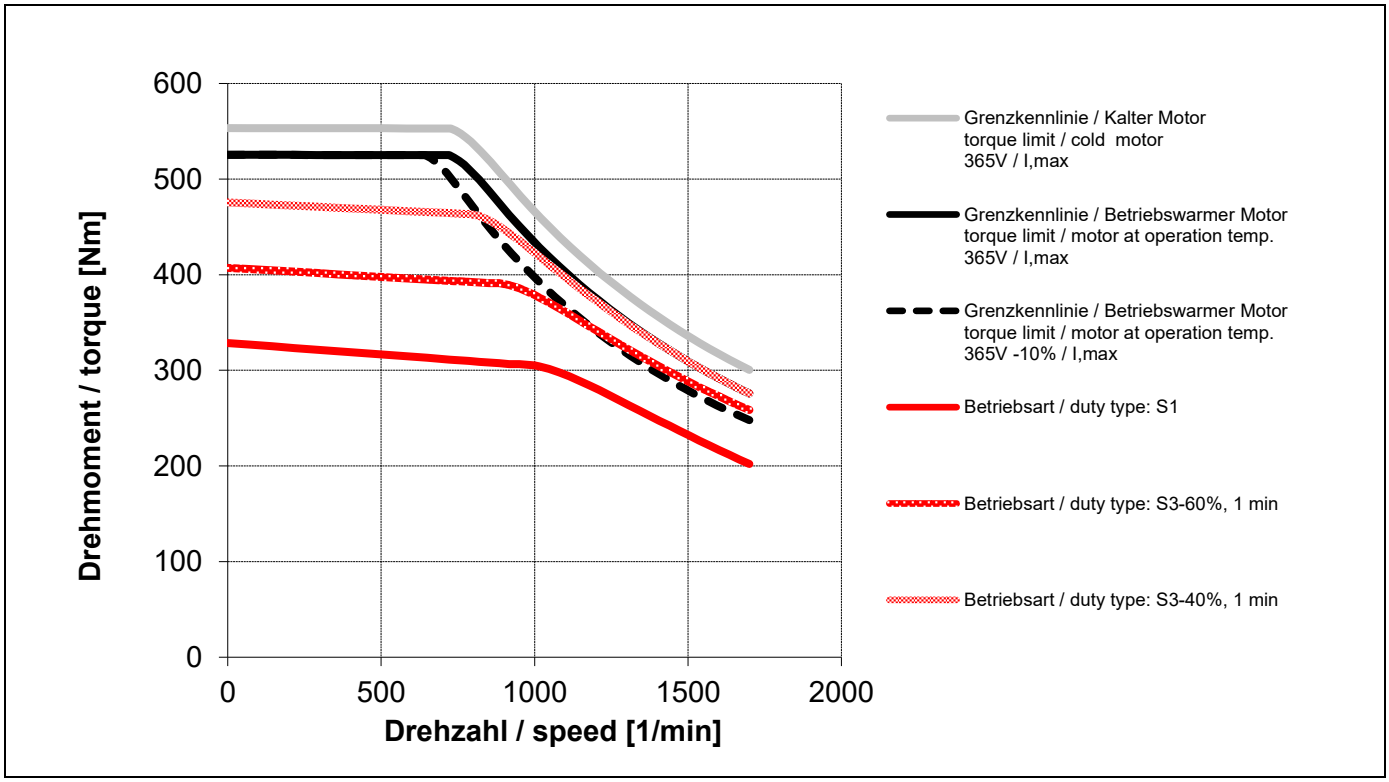
DSD2-132K054W-40-5



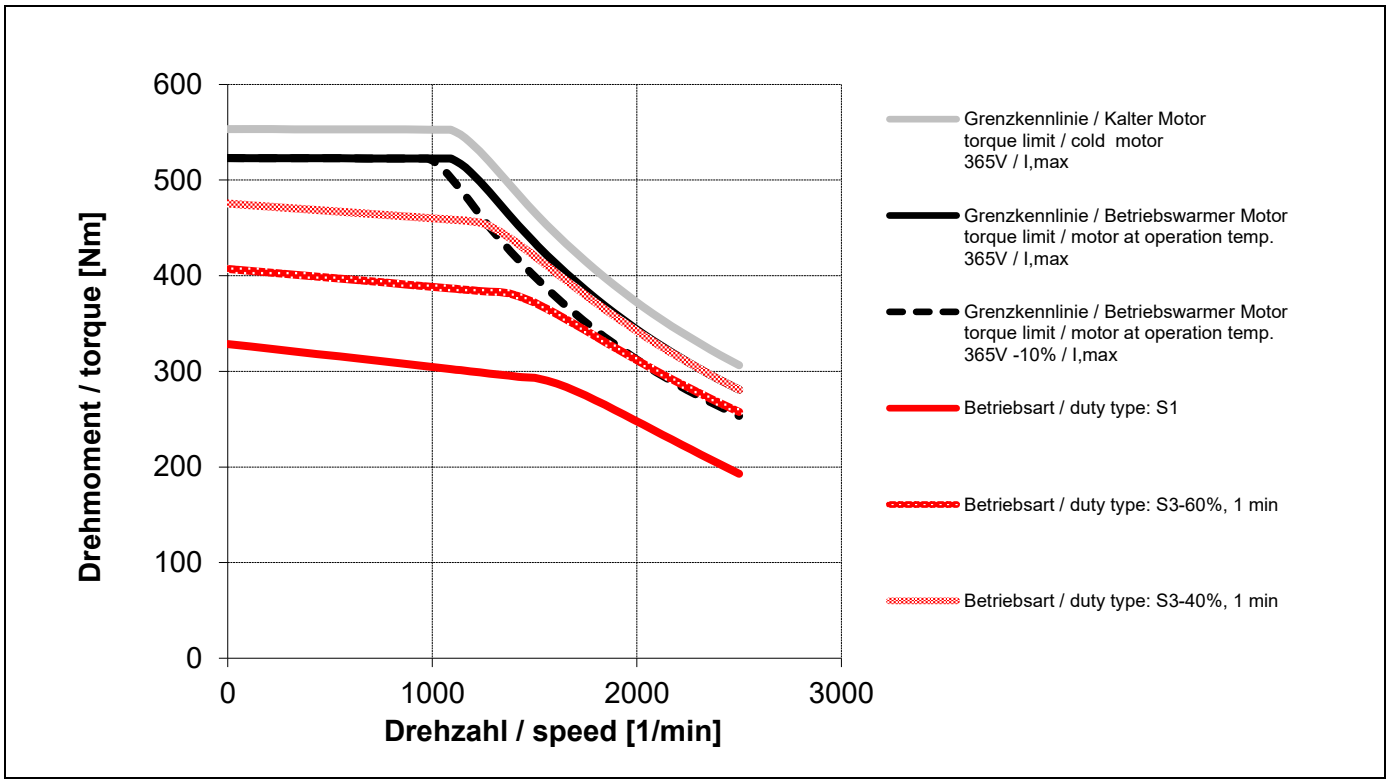
DSD2-132K054W-60-5



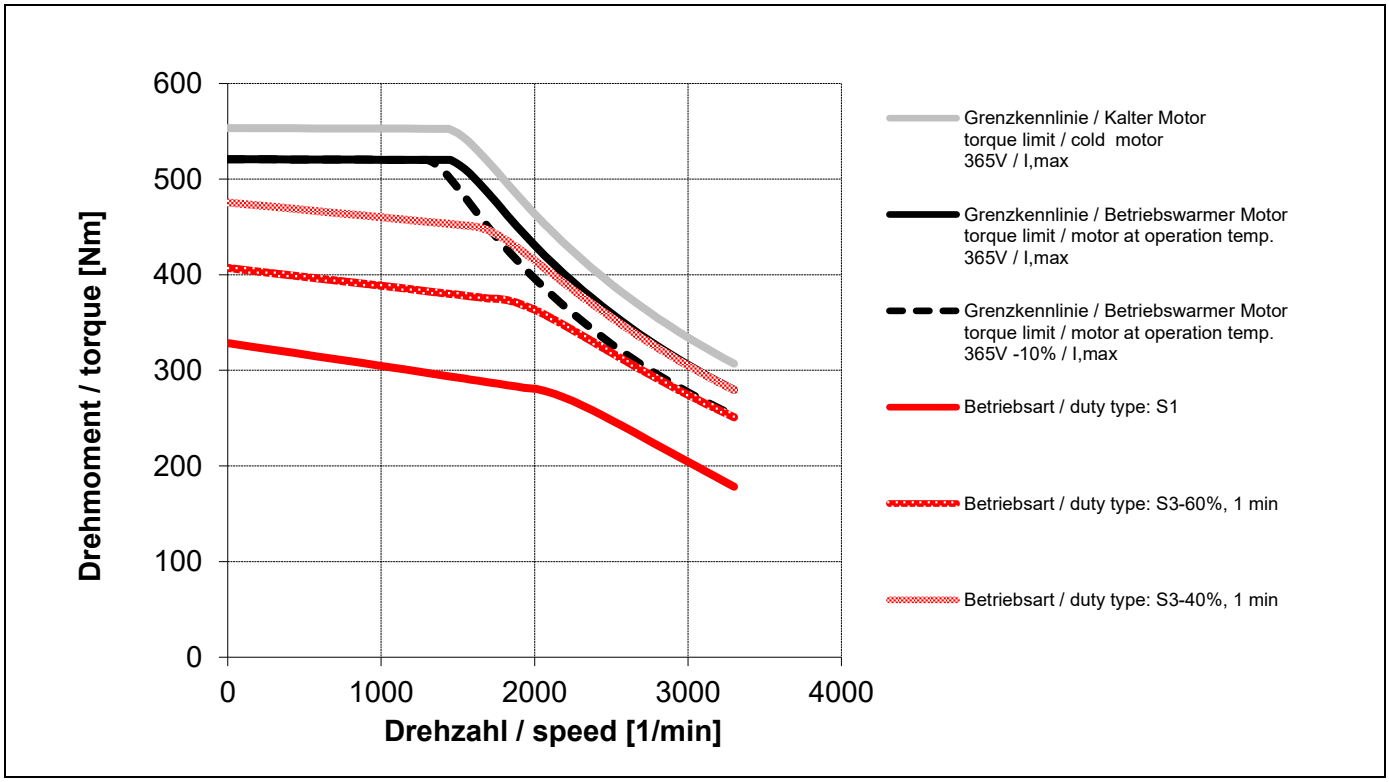
DSD2-132M054W-10-5



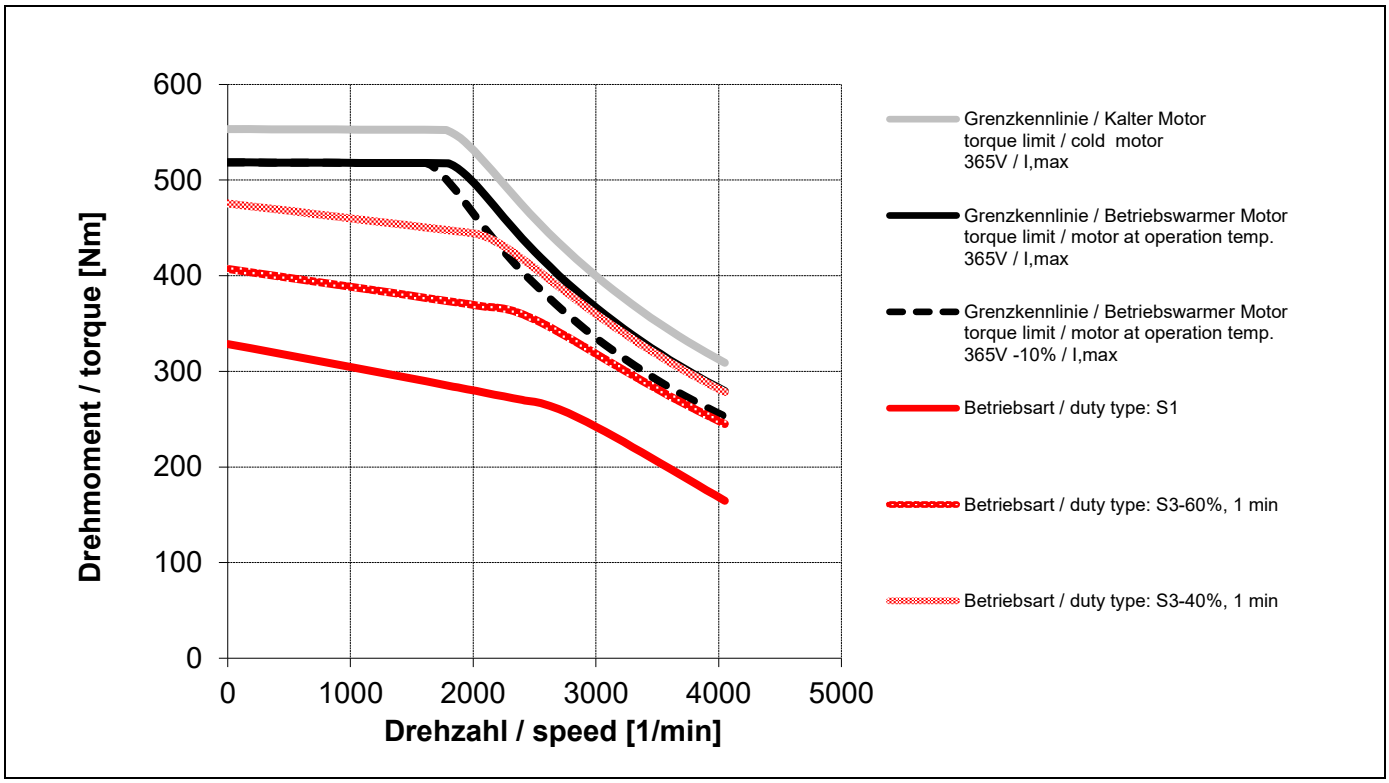
DSD2-132M054W-15-5



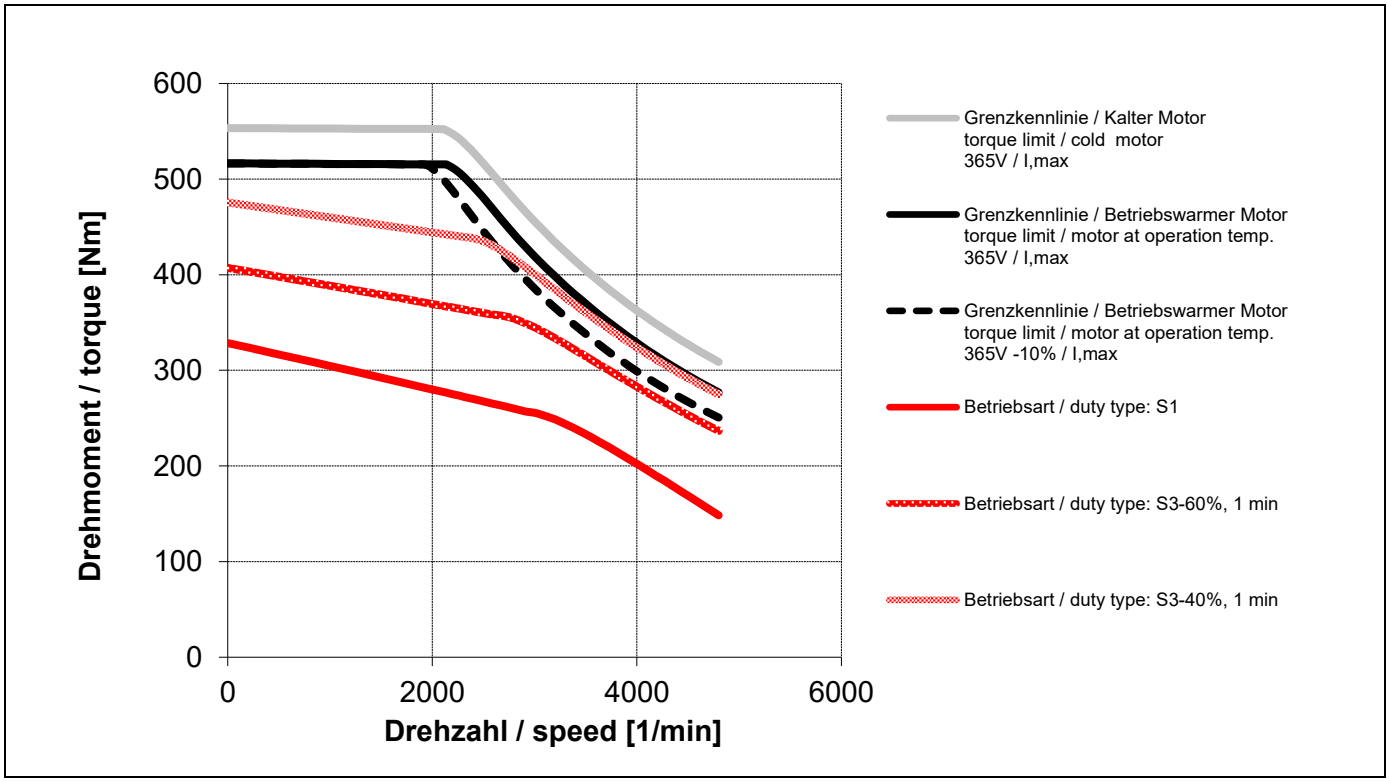
DSD2-132M054W-20-5



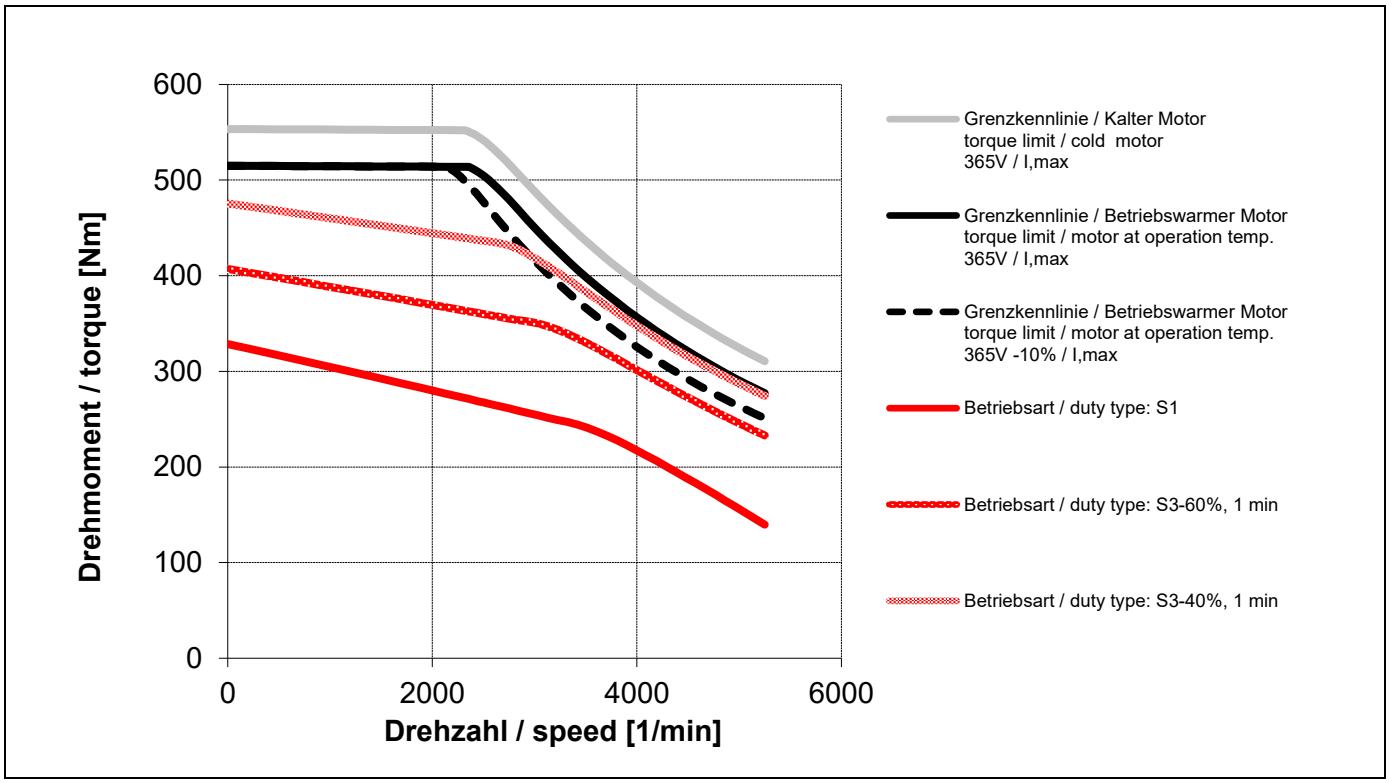
DSD2-132M054W-25-5



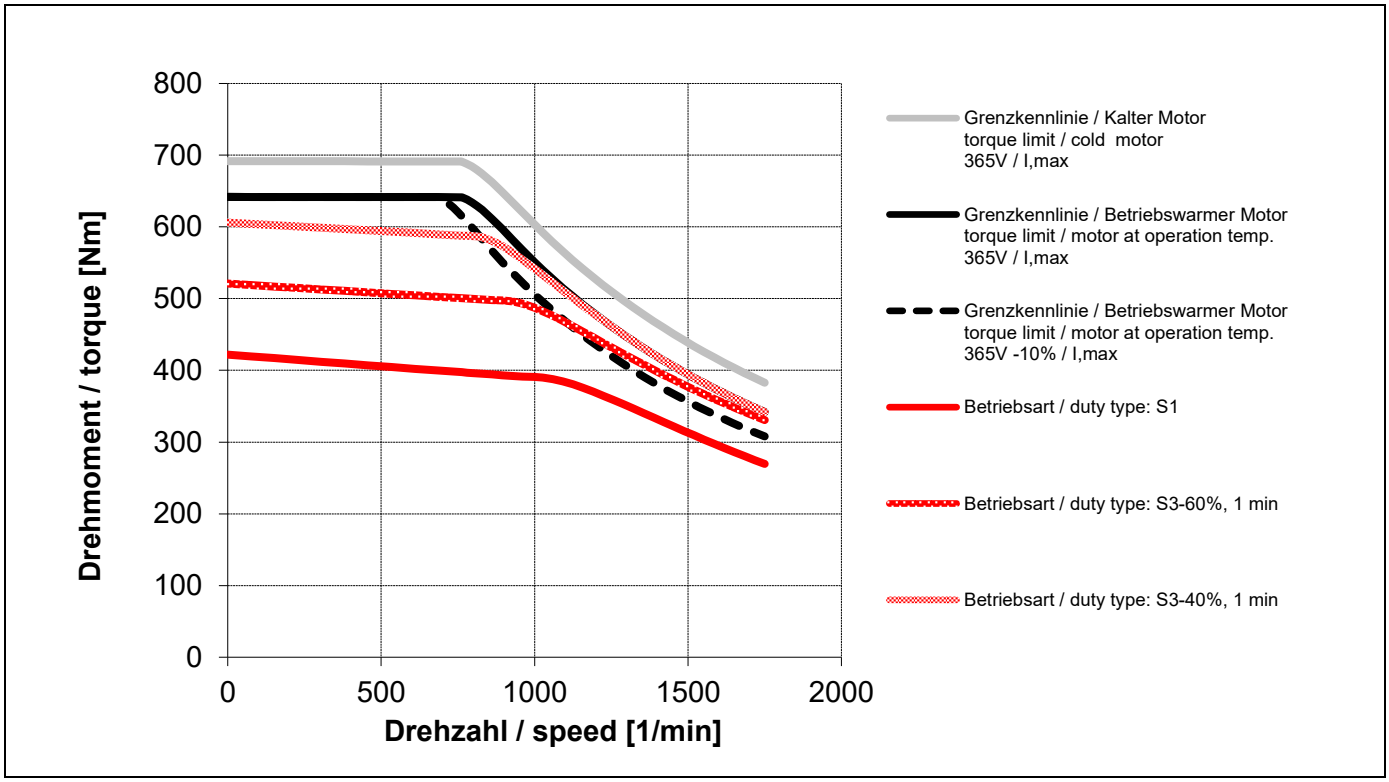
DSD2-132M054W-30-5



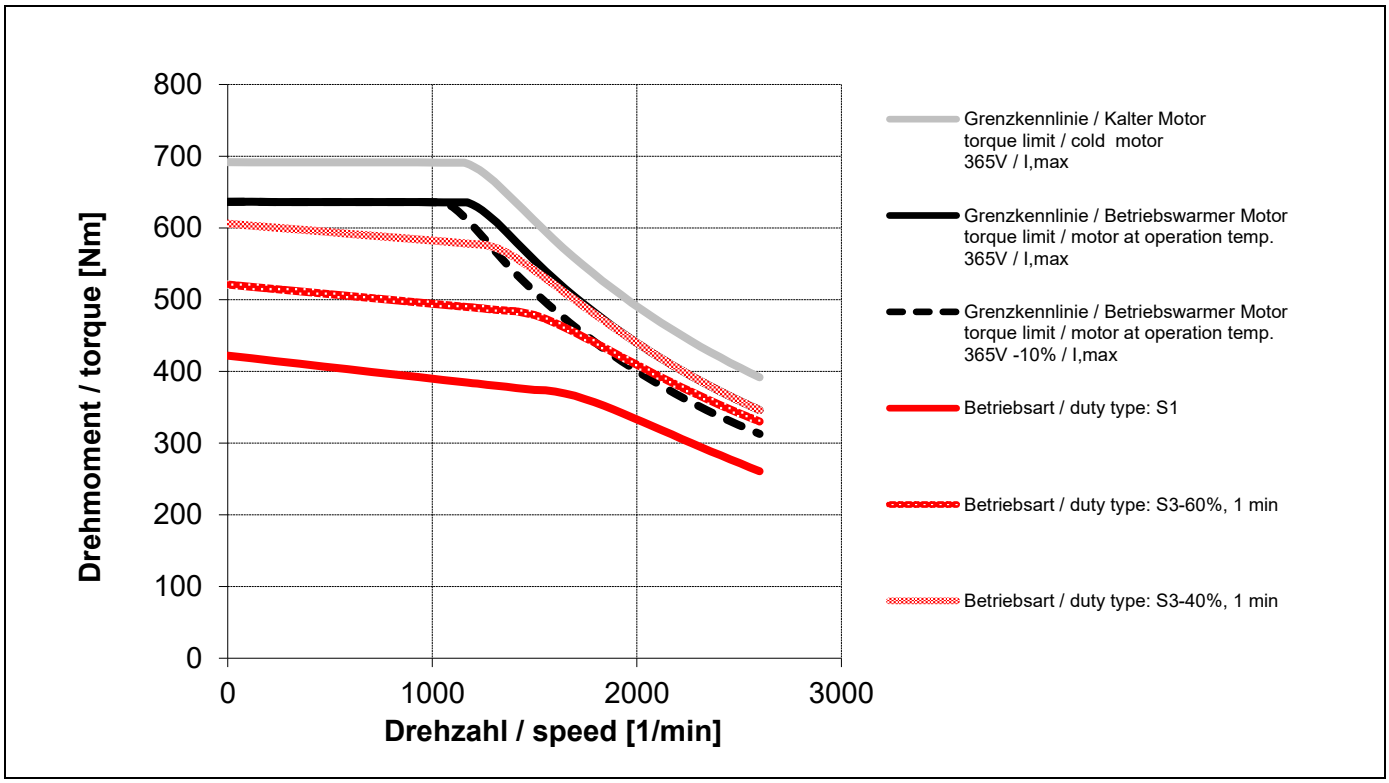
DSD2-132M054W-40-5



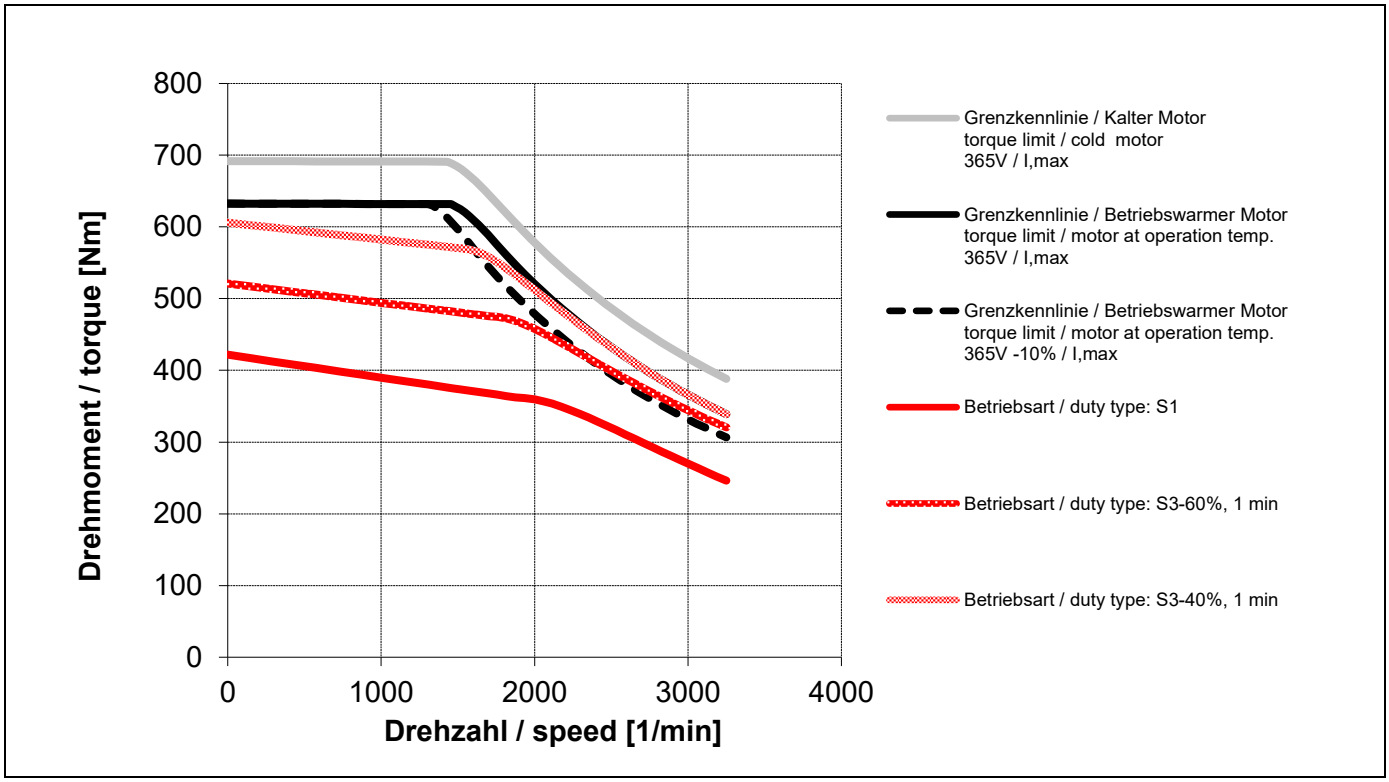
DSD2-132L054W-10-5



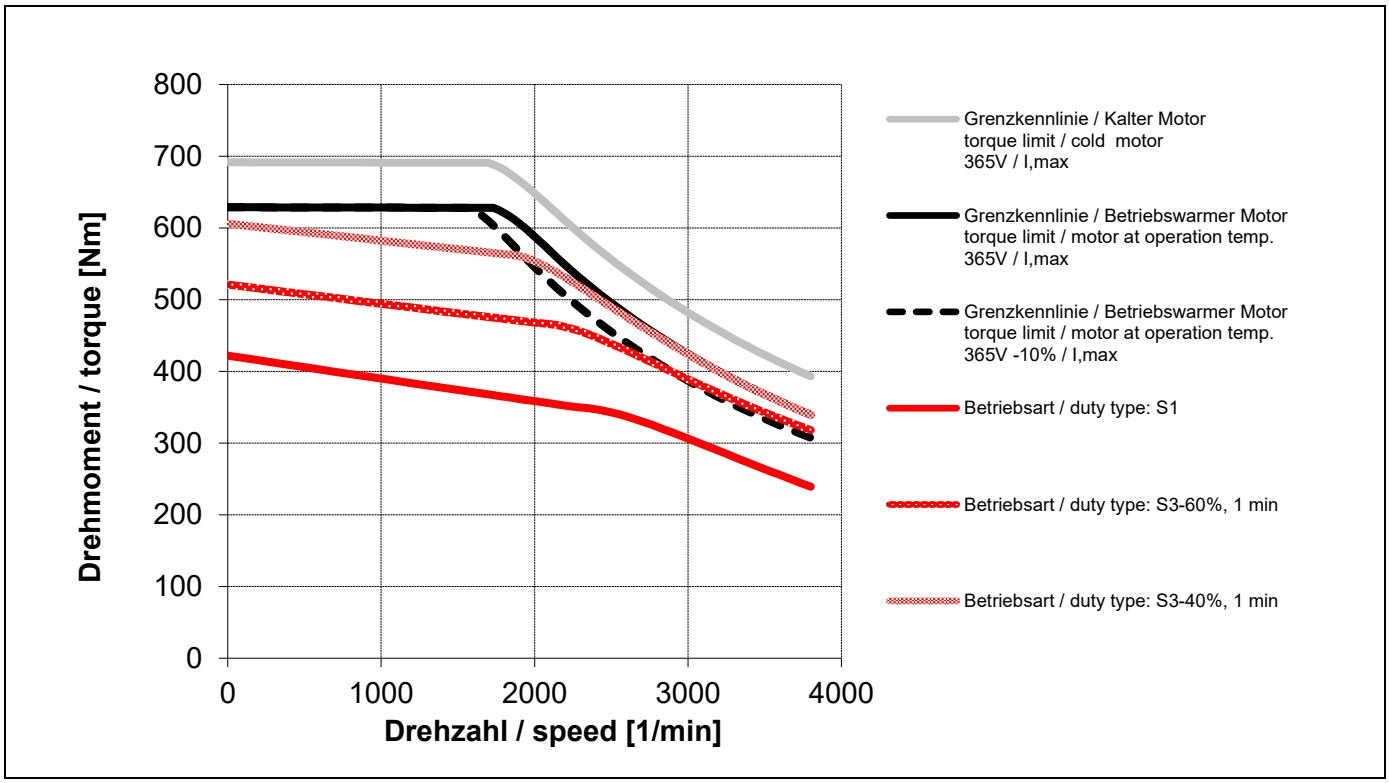
DSD2-132L054W-15-5



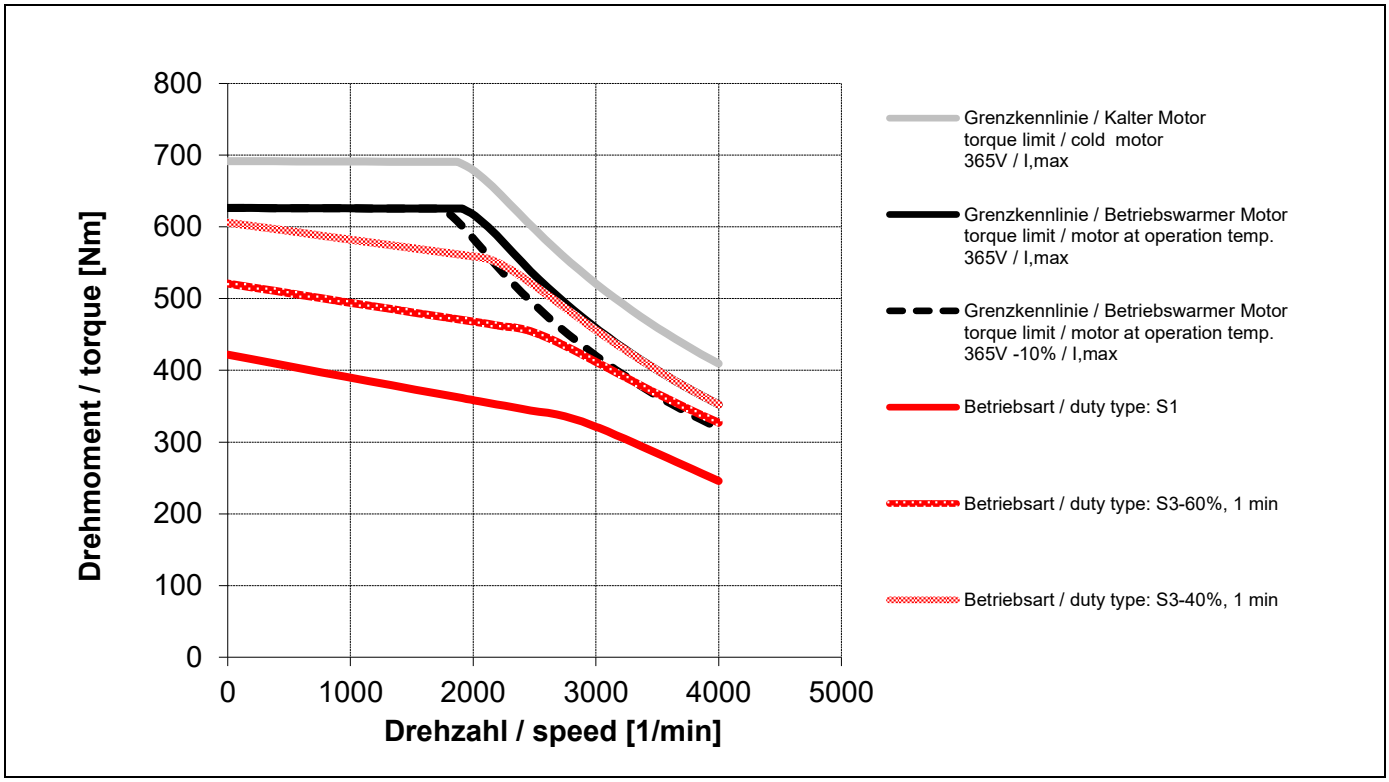
DSD2-132L054W-20-5



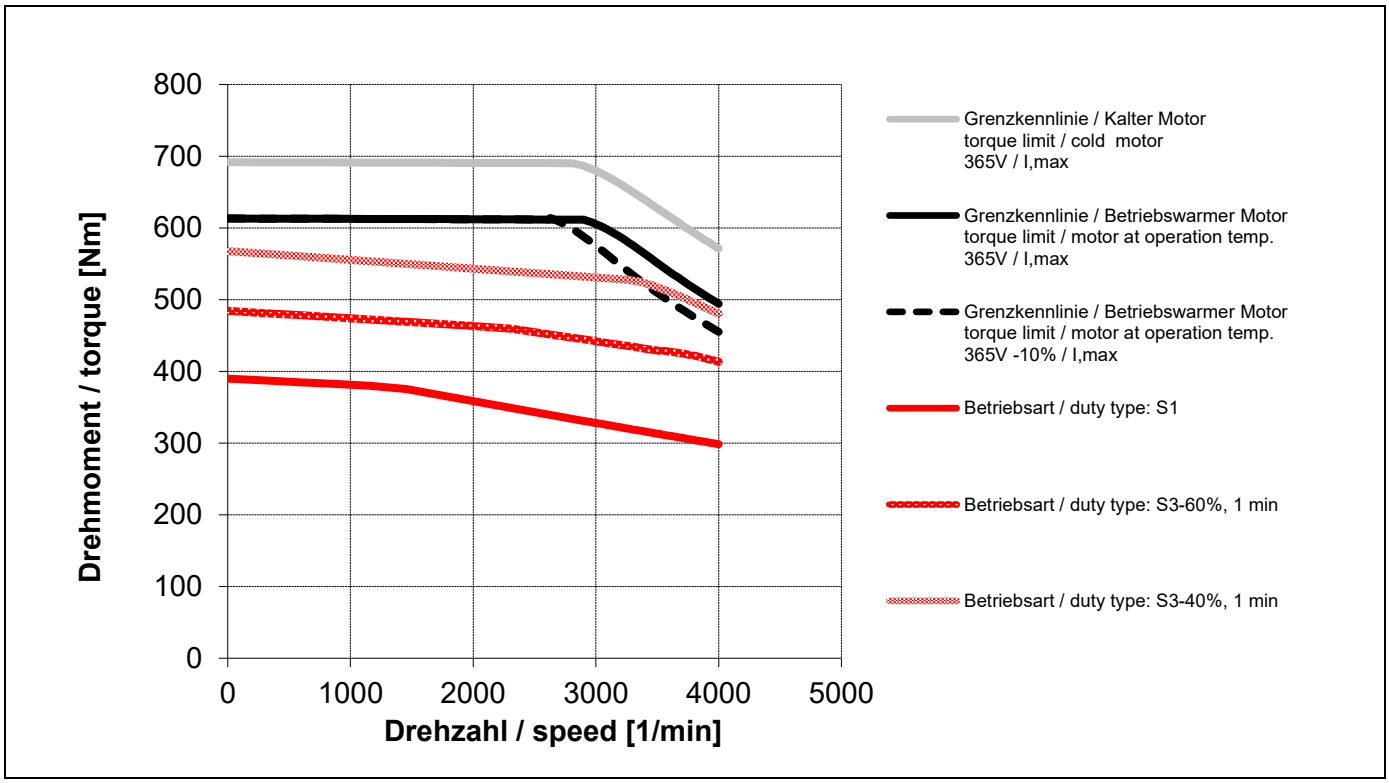
DSD2-132L054W-25-5



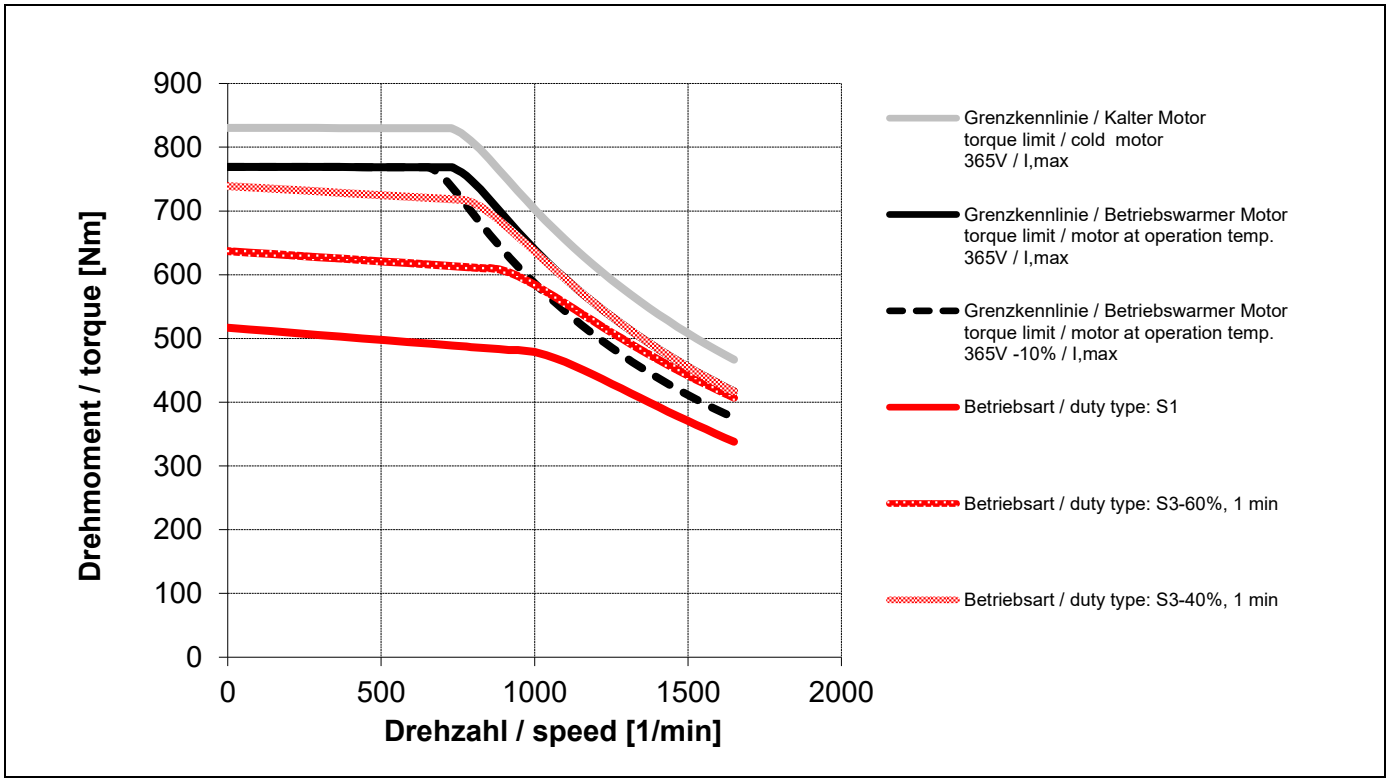
DSD2-132L054W-30-5



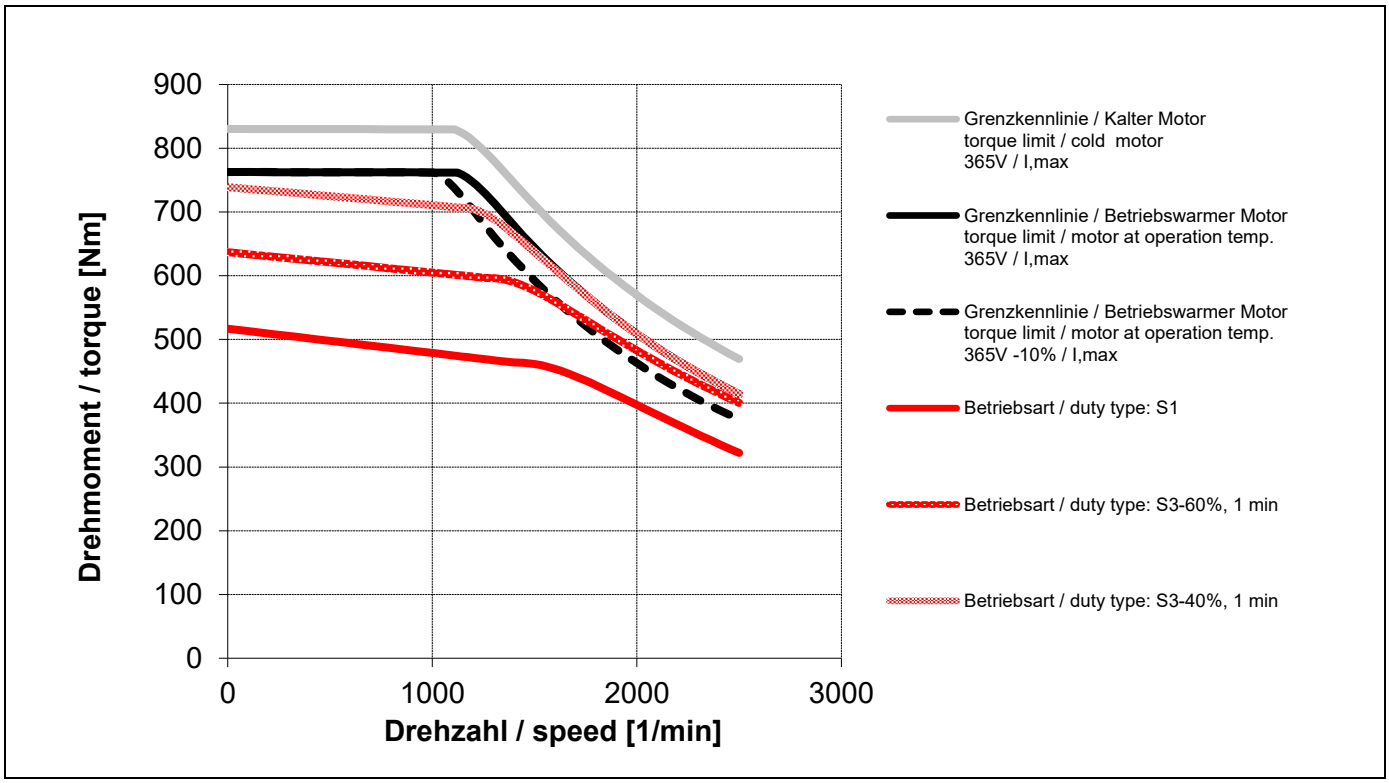
DSD2-132L054W-40-5



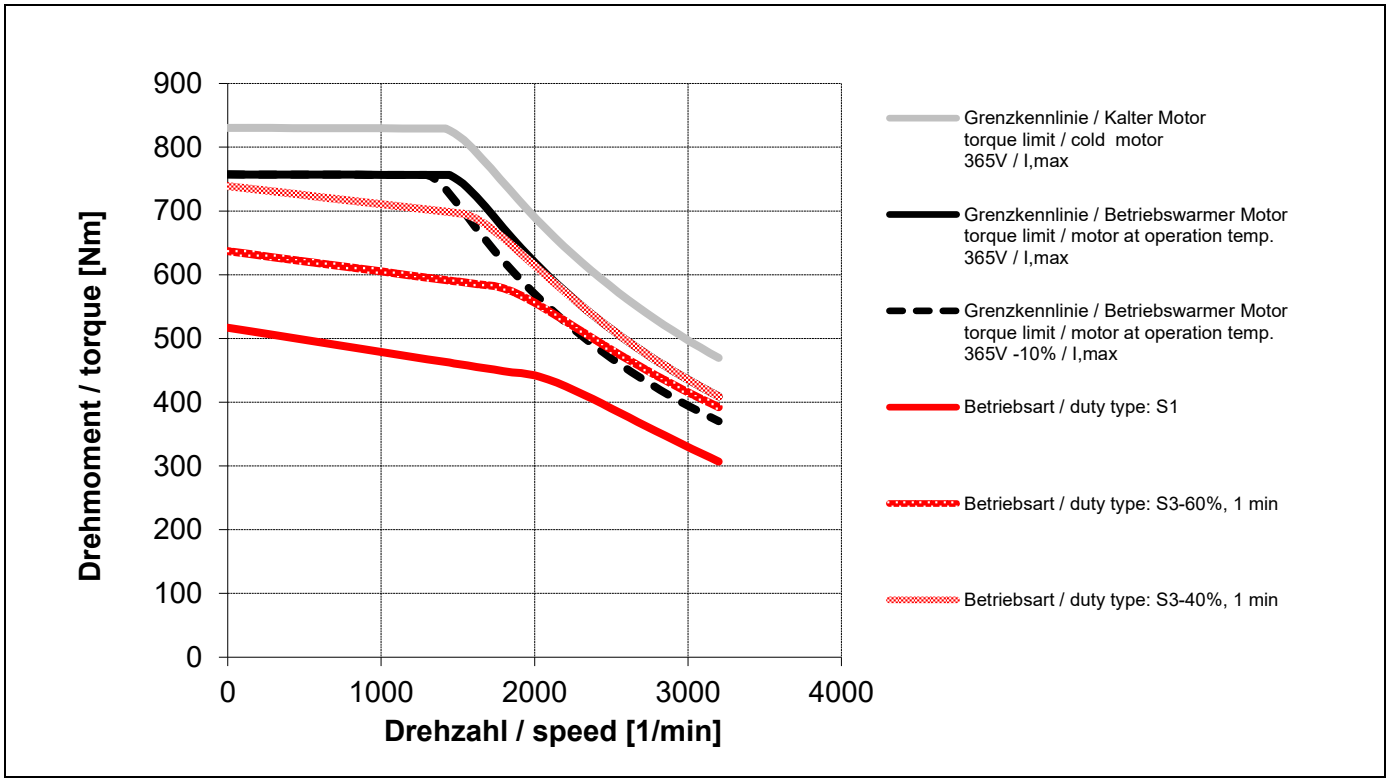
DSD2-132B054W-10-5



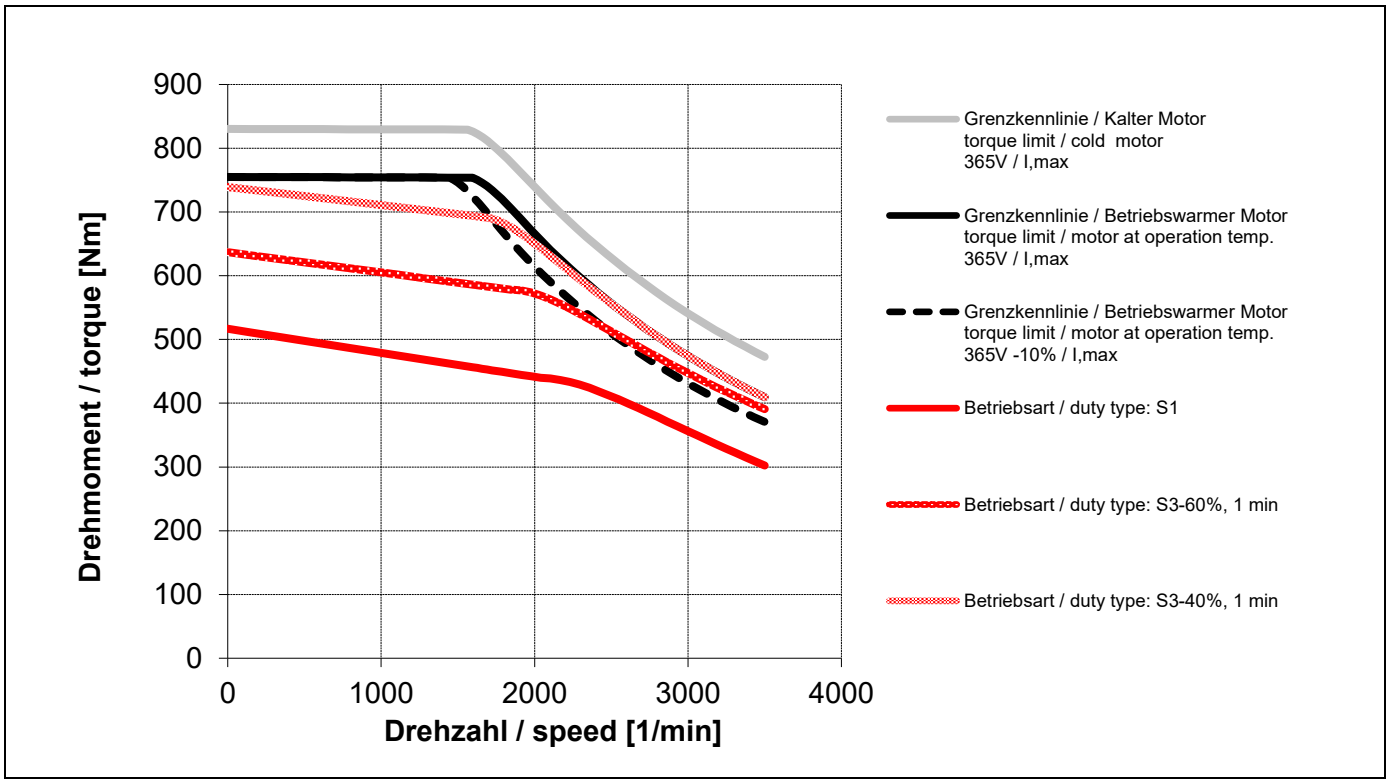
DSD2-132B054W-15-5



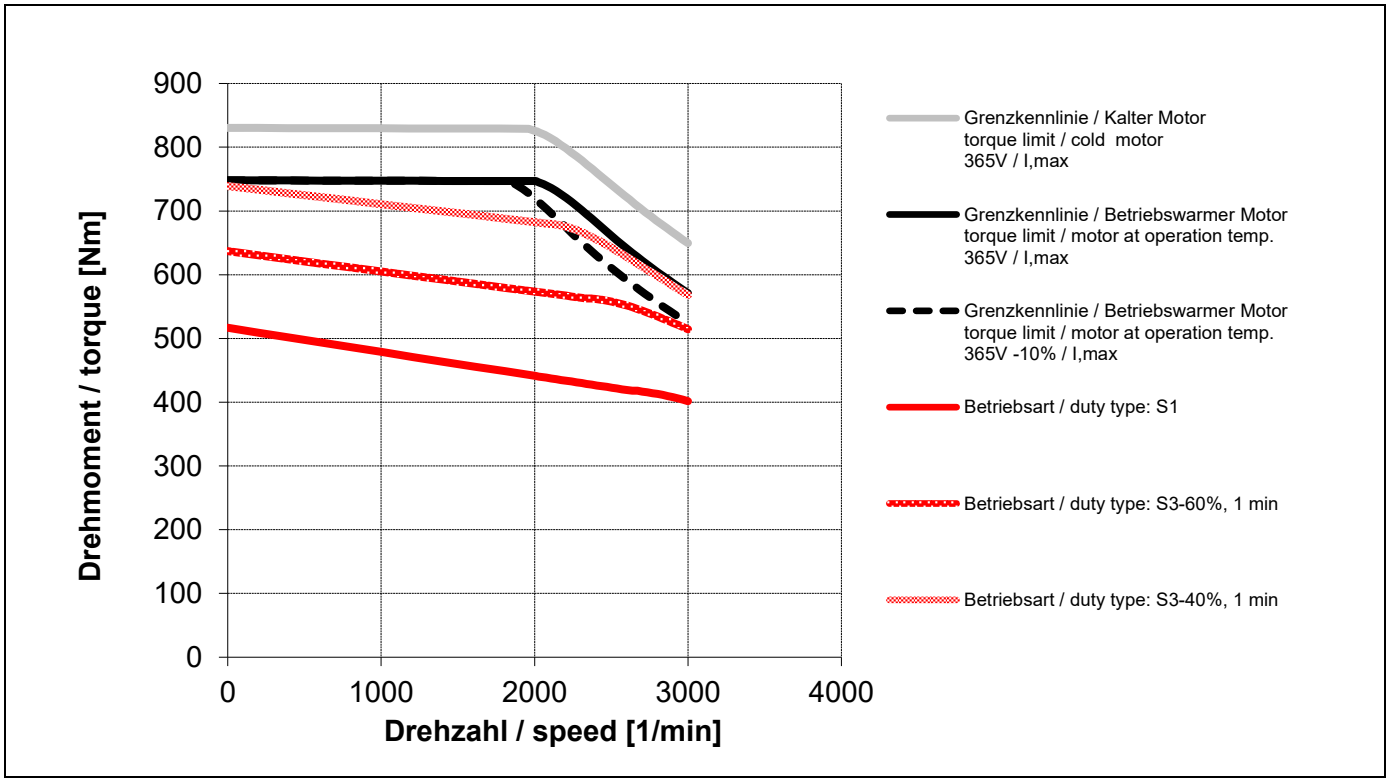
DSD2-132B054W-20-5



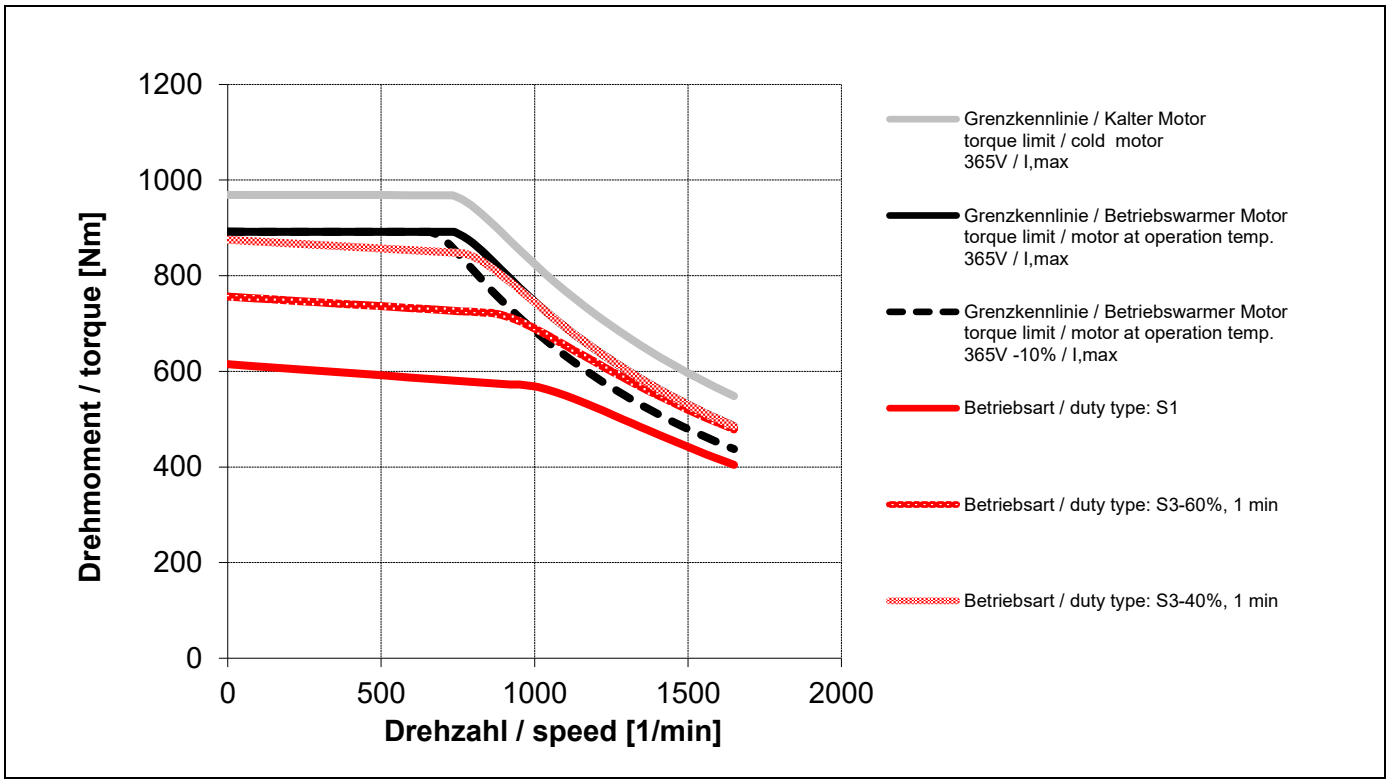
DSD2-132B054W-25-5



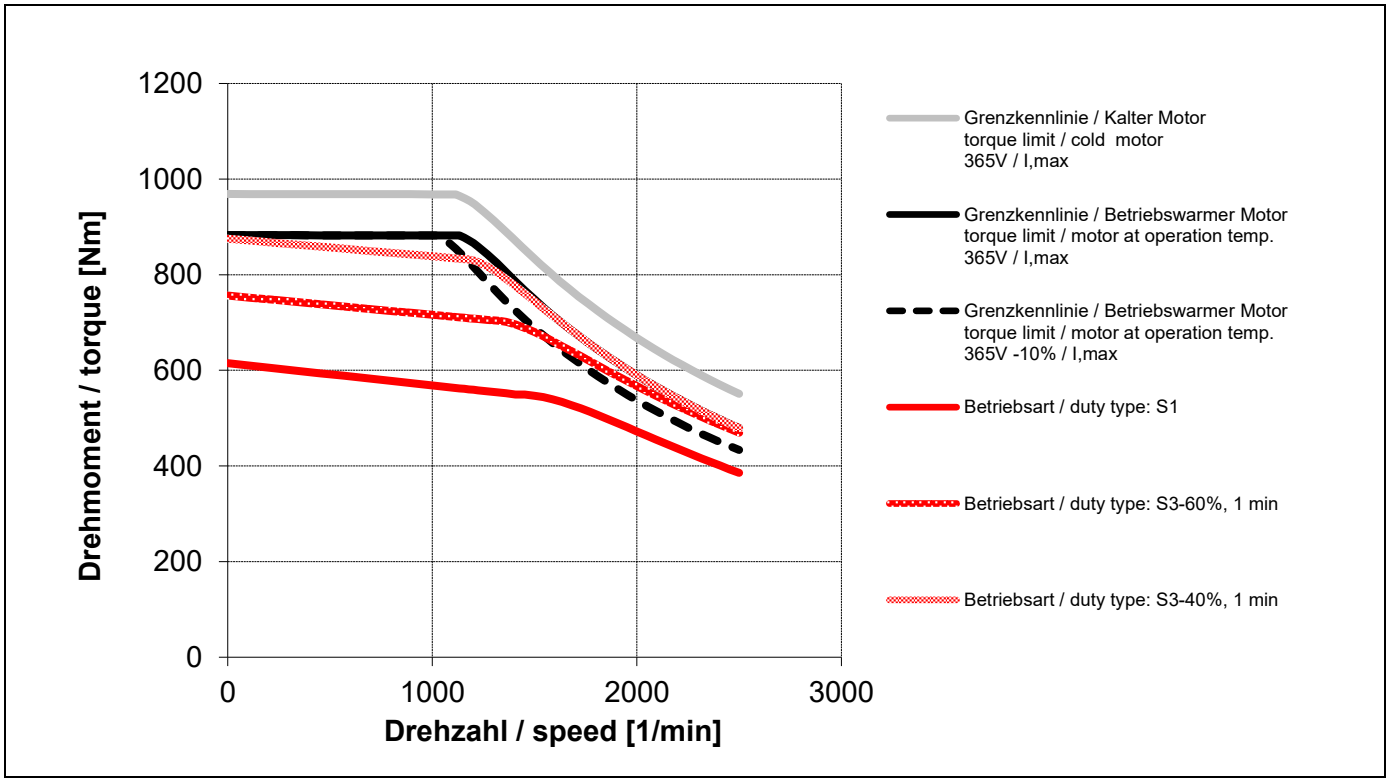
DSD2-132B054W-30-5



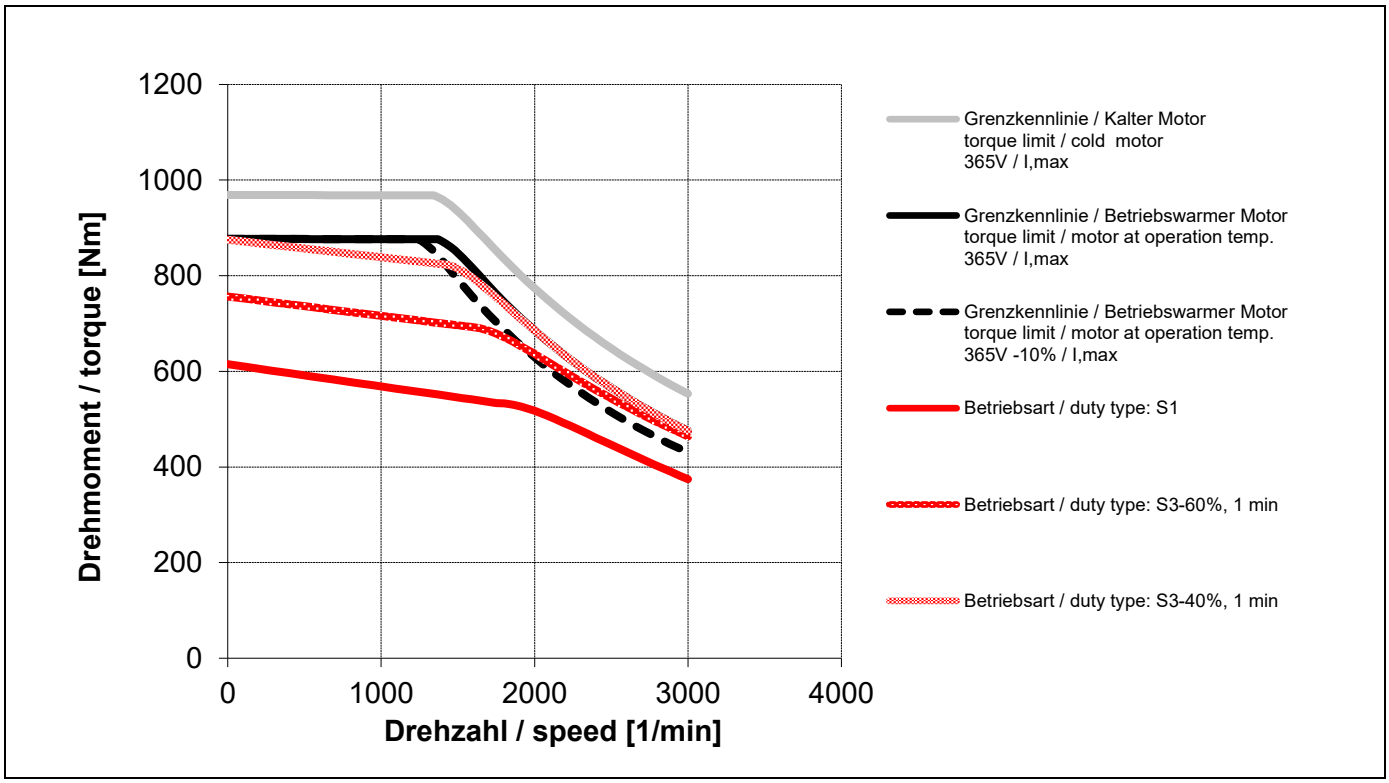
DSD2-132X054W-10-5



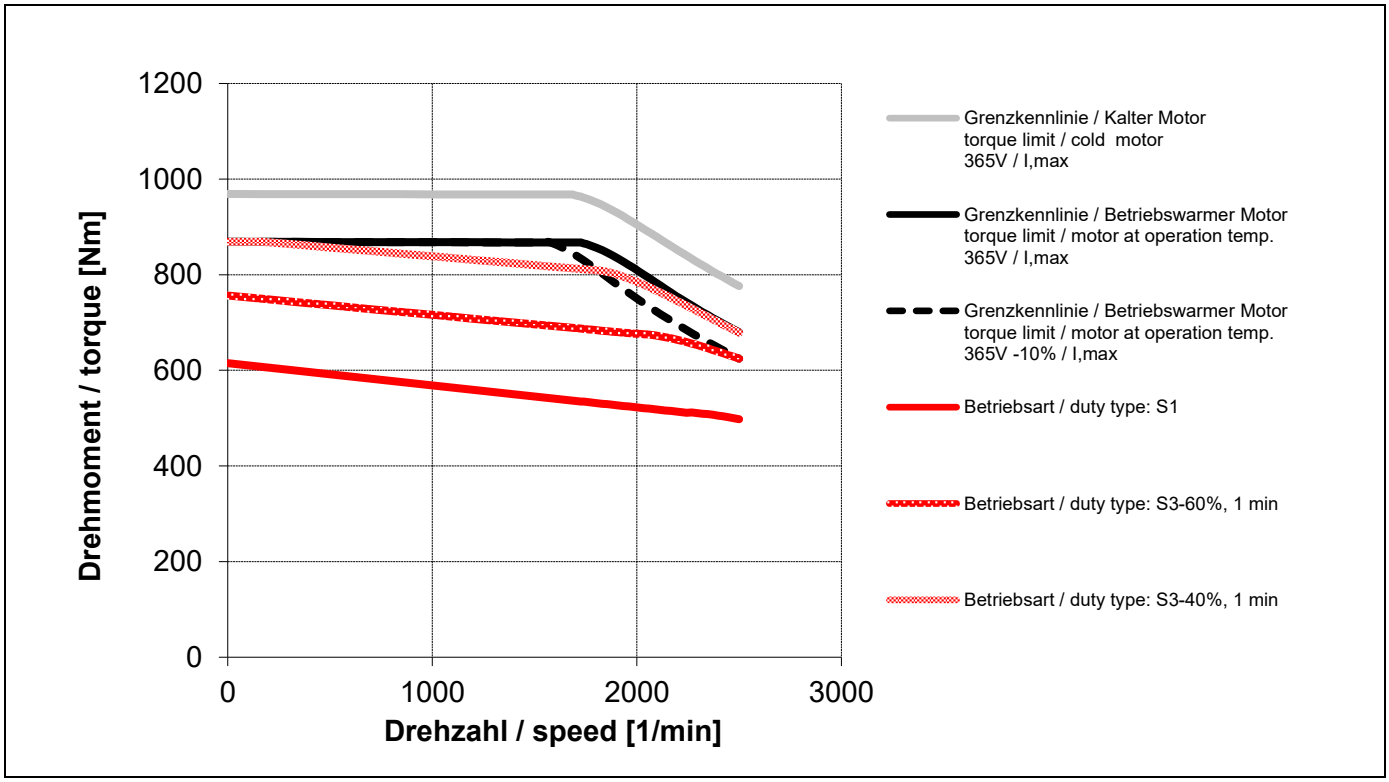
DSD2-132X054W-15-5



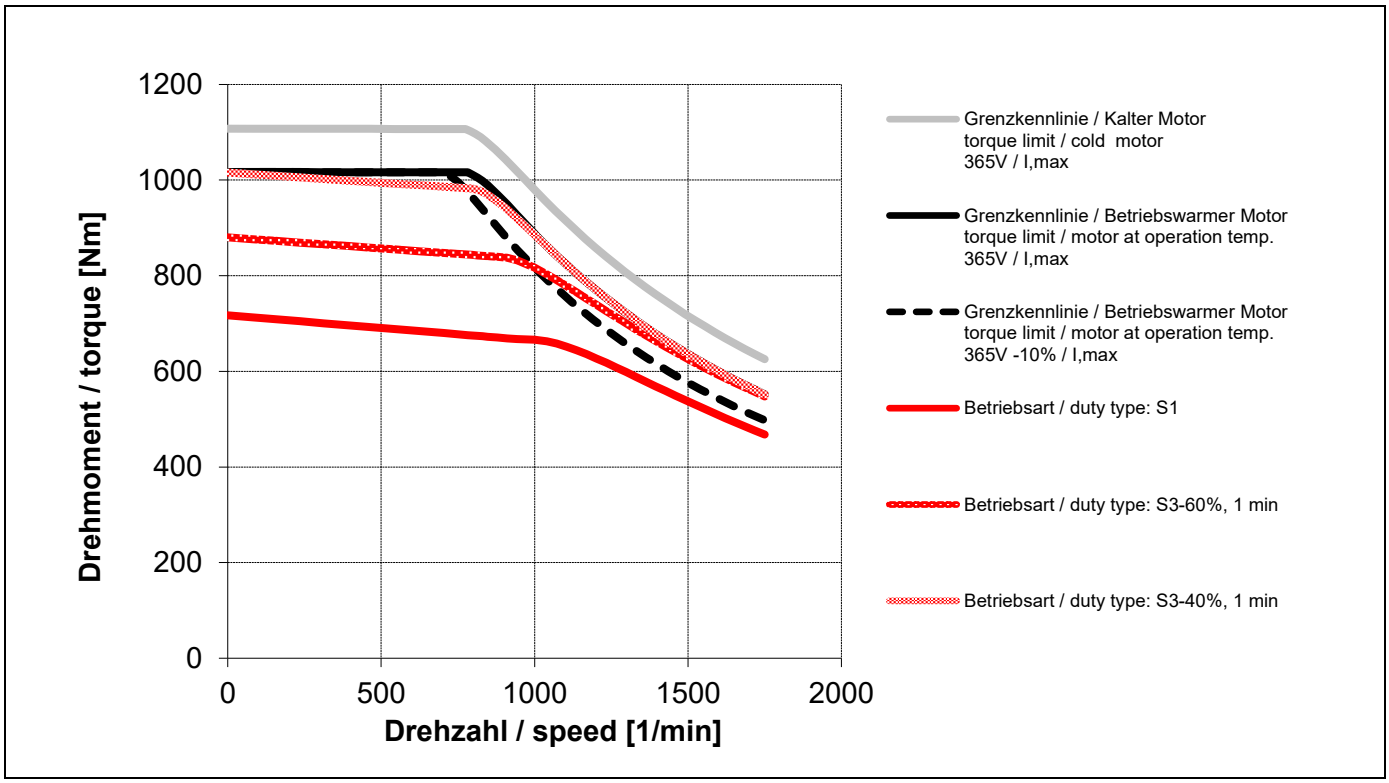
DSD2-132X054W-20-5



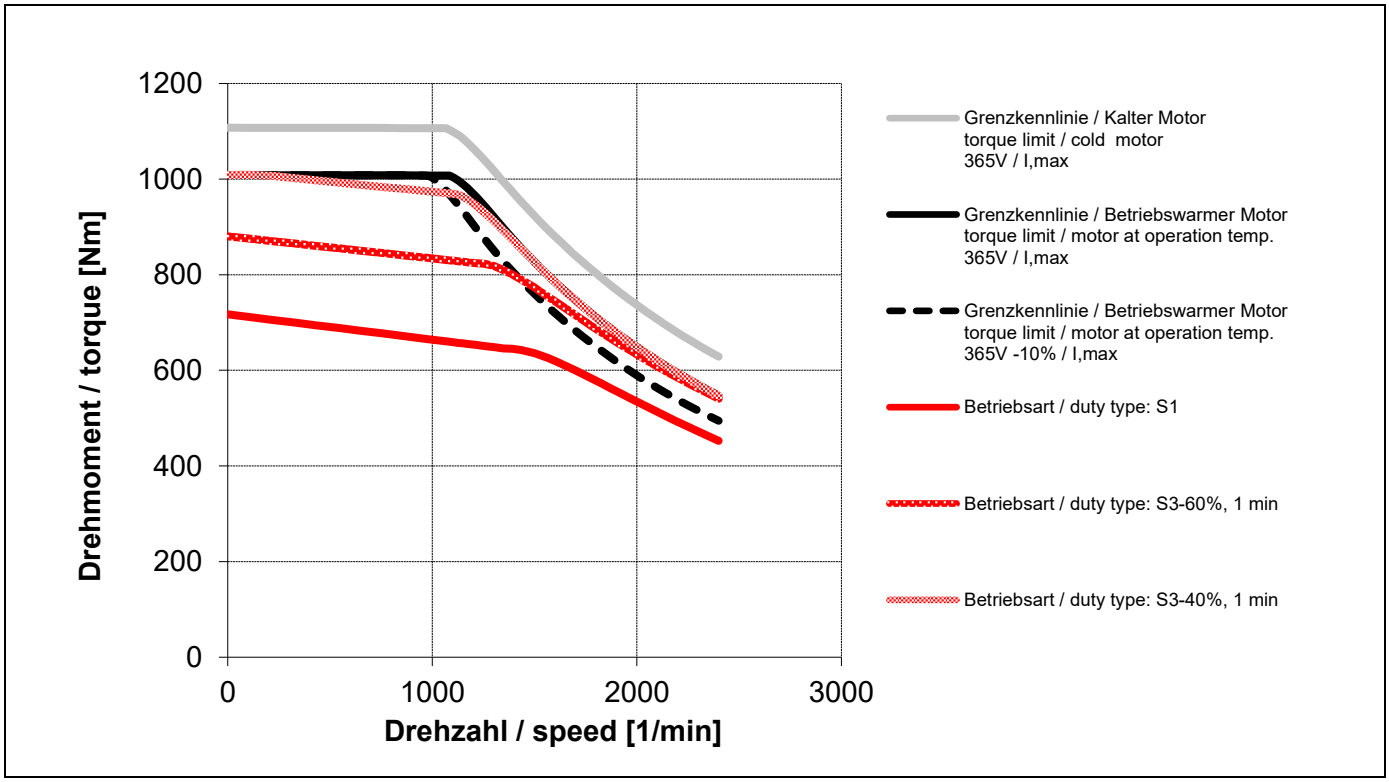
DSD2-132X054W-25-5



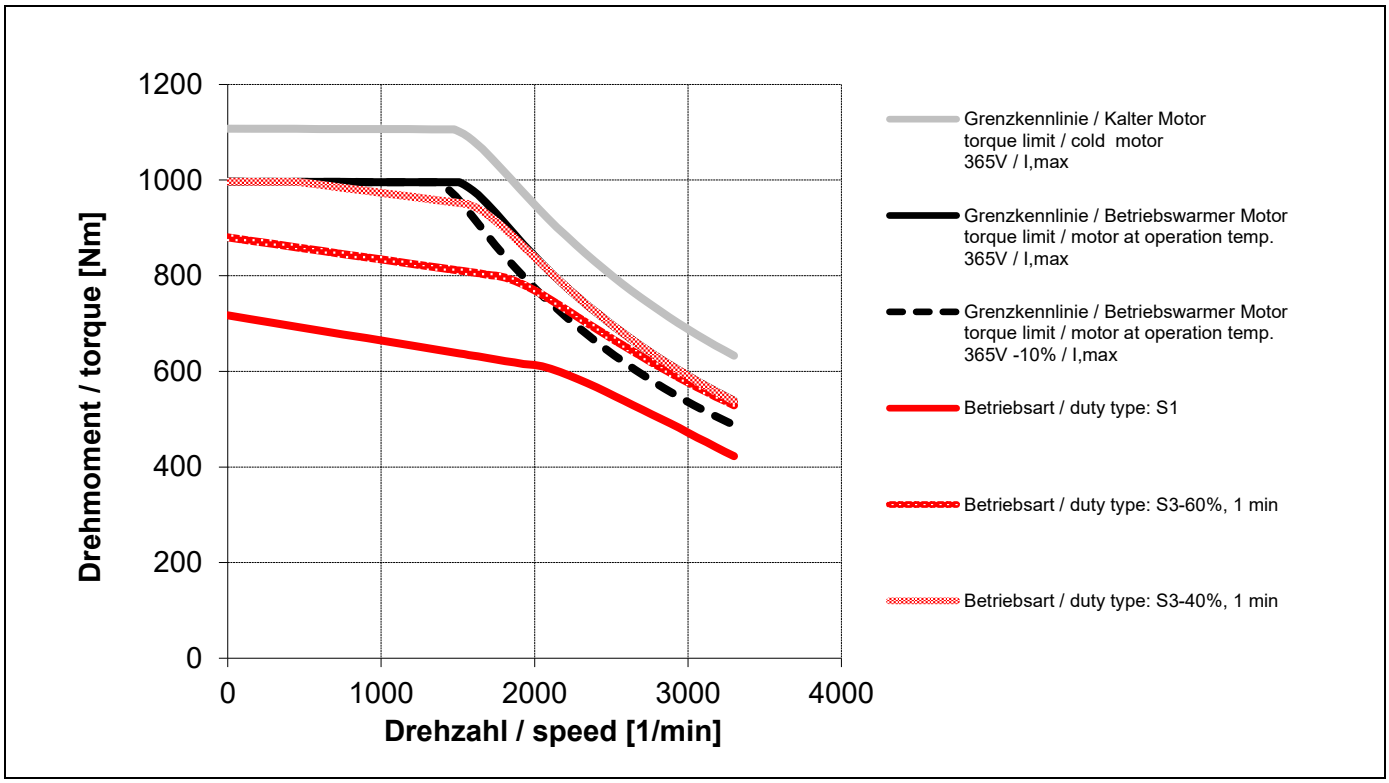
DSD2-132Y054W-10-5



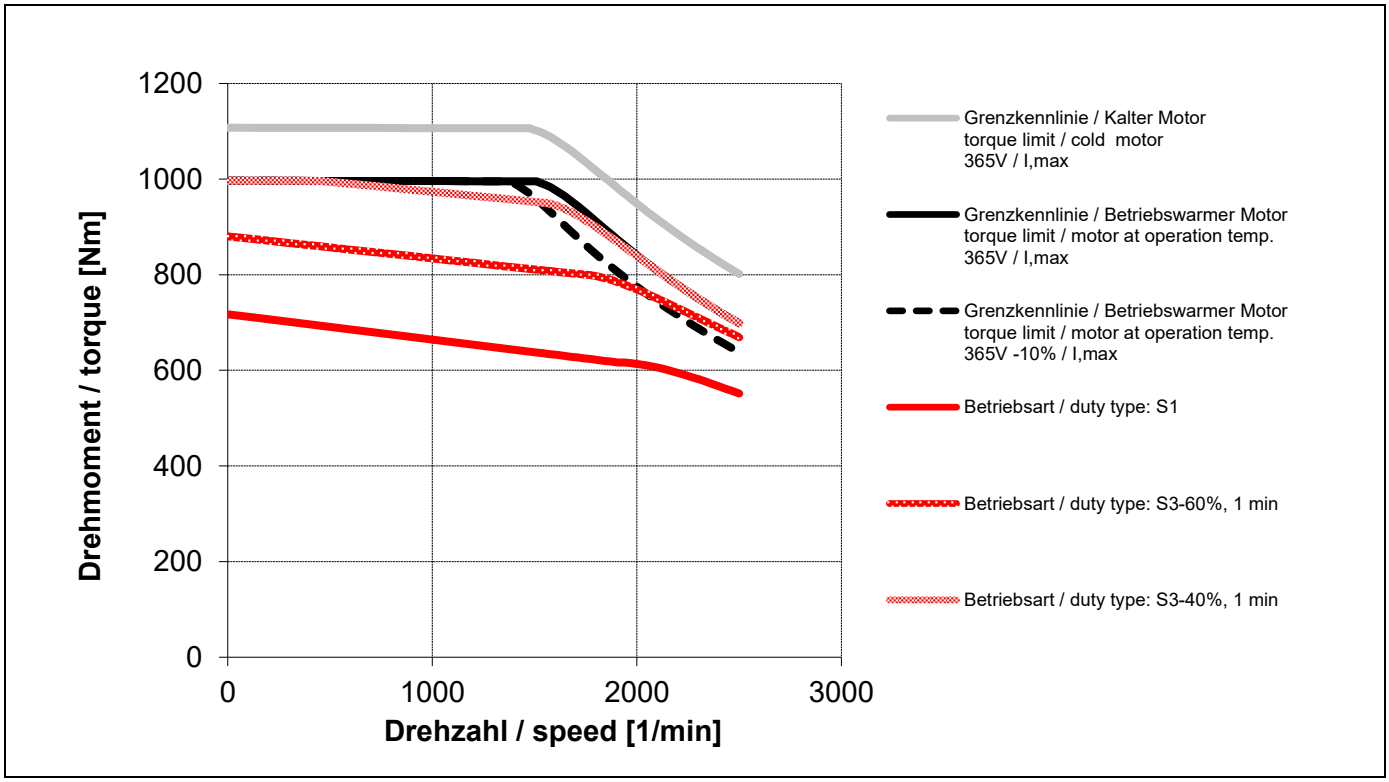
DSD2-132Y054W-15-5



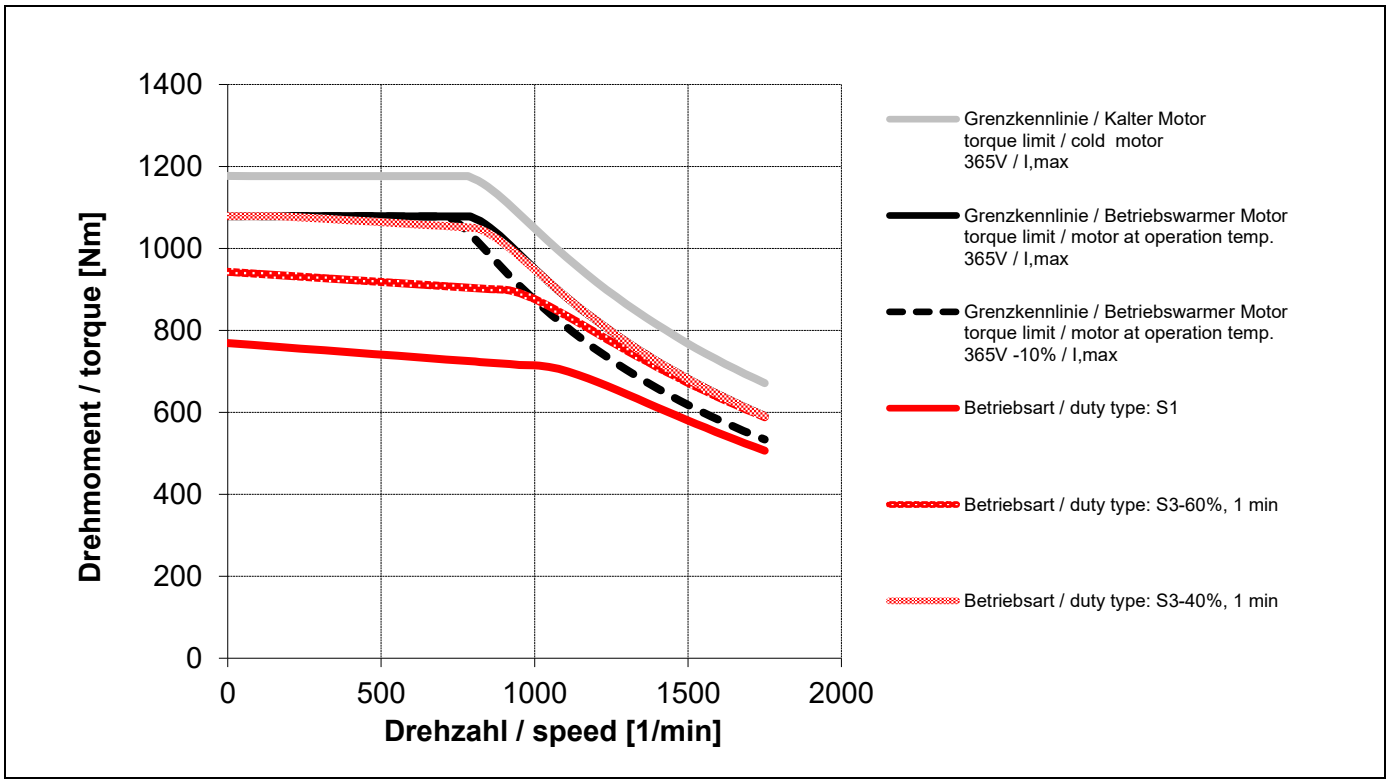
DSD2-132Y054W-20-5



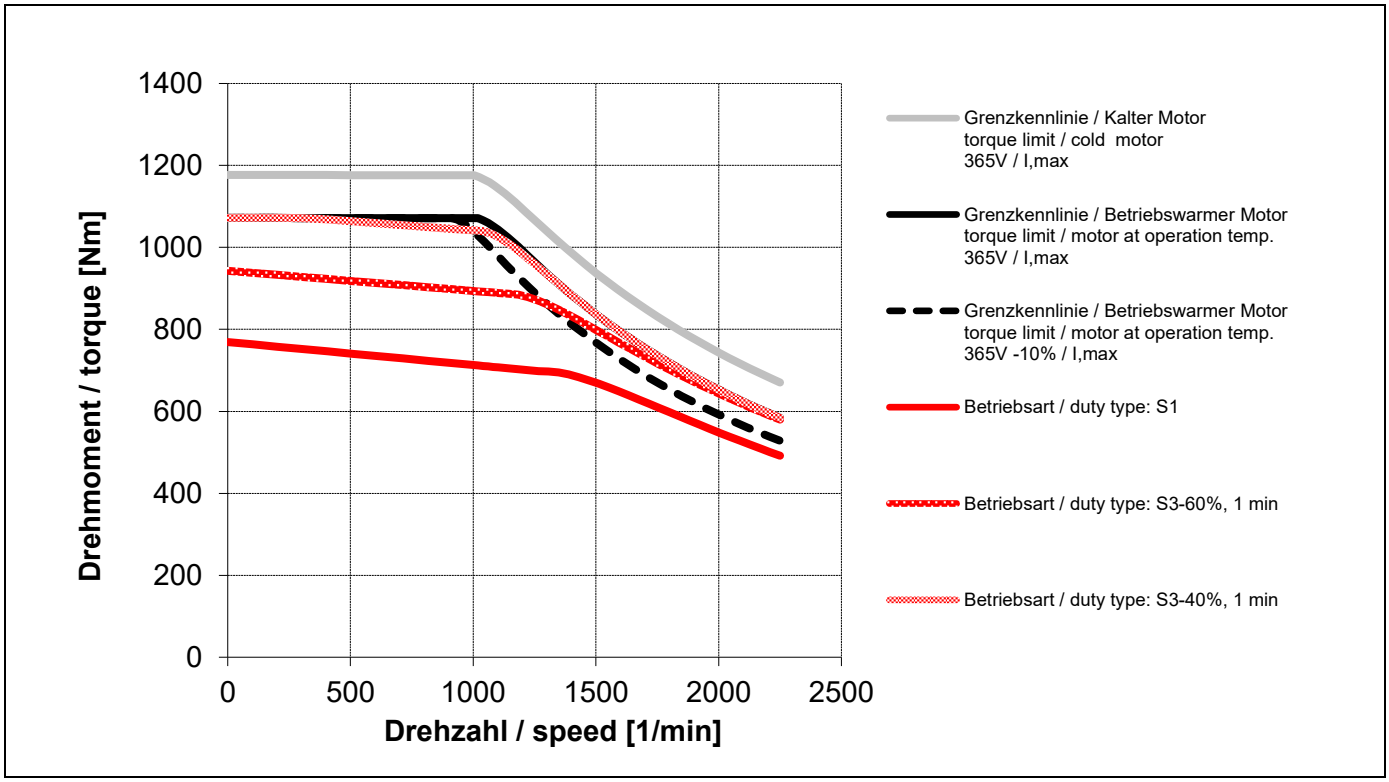
DSD2-132Y054W-25-5



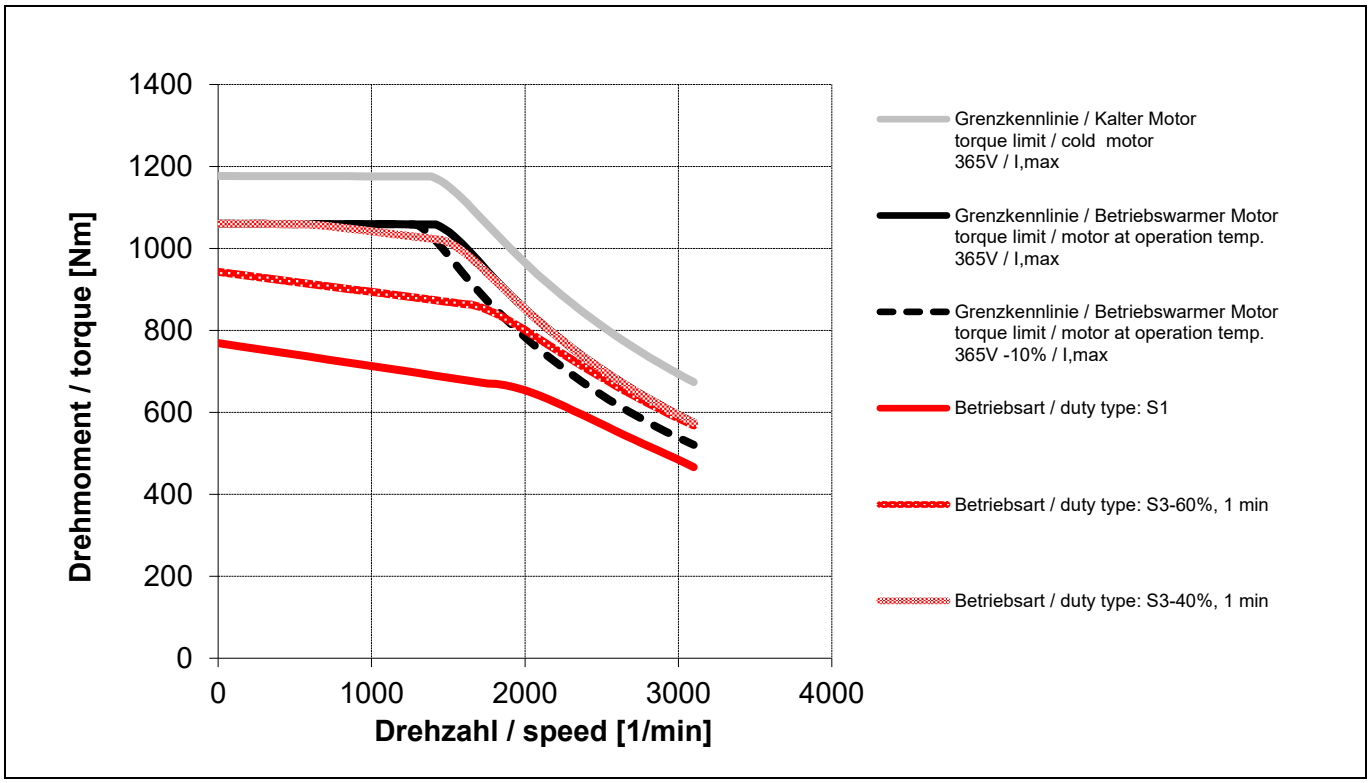
DSD2-132YZ54W-10-5



DSD2-132YZ54W-15-5



DSD2-132YZ54W-20-5



6. 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 DSD2 motor, this would be TAM 00721 and TAM 00699.