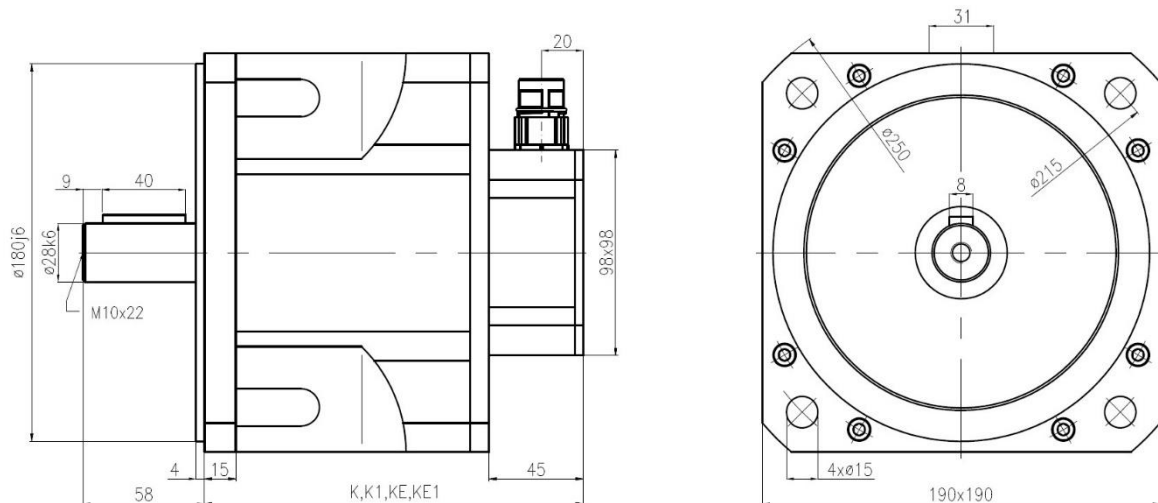




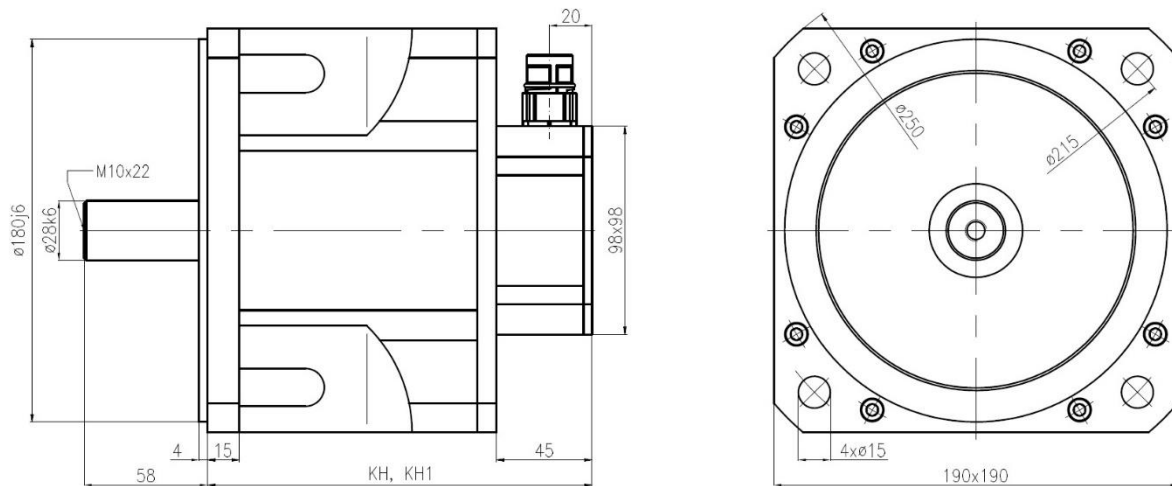
## Dimensionen



Art	K (Resolver)	K1 (Resolver+Bremse)	KE (EnDAT)	KE1 (EnDAT+Bremse)
TGN7-3000	181 mm	240 mm	201 mm	260 mm
TGN7-4000	211 mm	270 mm	231 mm	290 mm
TGN7-5000	241 mm	300 mm	261 mm	320 mm
TGN7-6000	271 mm	330 mm	291 mm	350 mm

Die Länge des Motors mit Hiperface-Sensor ist die gleiche wie die Länge des Motors mit EnDat-Sensor. Bei einigen Motortypen kann es kleiner sein.

## Servomotoren mit integriertem Stecker



Art	KH (DSL)	KH1 (DSL+Bremse)
TGN7-3000	181 mm	241 mm
TGN7-4000	211 mm	271 mm
TGN7-5000	241 mm	301 mm
TGN7-6000	271 mm	331 mm

## RATED DATA

Motor type

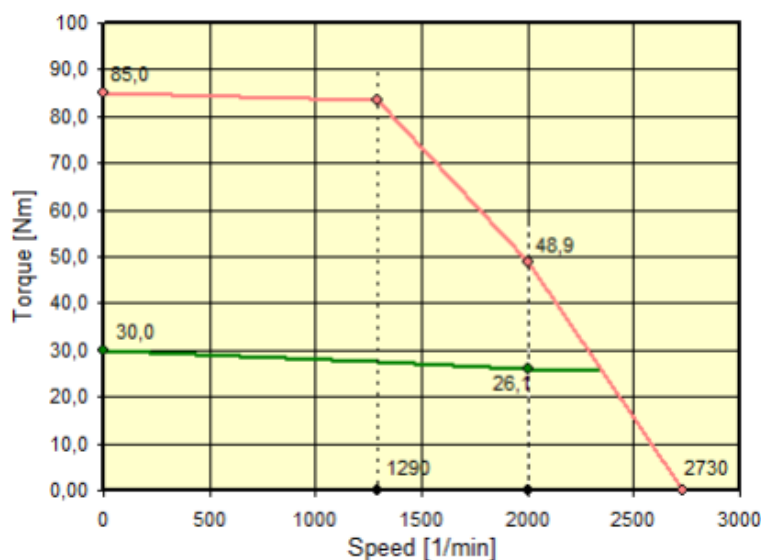
<b>N7</b>	<b>3000</b>	<b>20</b>	<b>560</b>
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Rated Speed	$n_n$	2000 $\text{min}^{-1}$
DC Bus Voltage	$U_{dc}$	560 V
Nominal AC Voltage	$U_n$	380 V
Rated Motor Voltage	$U_m$	297 V
Rated Torque	$M_n$	26,1 Nm
Rated AC Current	$I_n$	13,2 A
Stall Torque	$M_o$	30,0 Nm
Stall AC Current	$I_o$	13,1 A
Peak Torque	$M_{max}$	85 Nm
Peak Current	$I_{max}$	46 A
Max. Speed	$n_{max}$	6000 $\text{min}^{-1}$
EMF Constant	$K_E$	139,0 V/1000
Torque Constant	$K_T$	2,3 Nm/A
Terminal Resistance	$R_{2ph}$	0,64 $\Omega$
Terminal Inductance	$L_{2ph}$	10,1 mH
Number of poles	$2p$	10

No Load Speed	$n_o$	2730 $\text{min}^{-1}$
Torque at $I_{max}/U_n$	$M_z$	84 Nm
Speed at $I_{max}/U_n$	$n_z$	1290 $\text{min}^{-1}$
Max. Torque at $n_n$	$M_x$	49 Nm

El. Time Constant	$T_{el}$	15,8 ms
Mech. Time Constant	$T_{mech}$	1,0 ms
Thermal Time Constant	$T_{th}$	80 min
Rotor Inertia	$J$	49,5 $\text{kgcm}^2$

**Torque/speed curves**



## RATED DATA

Motor type

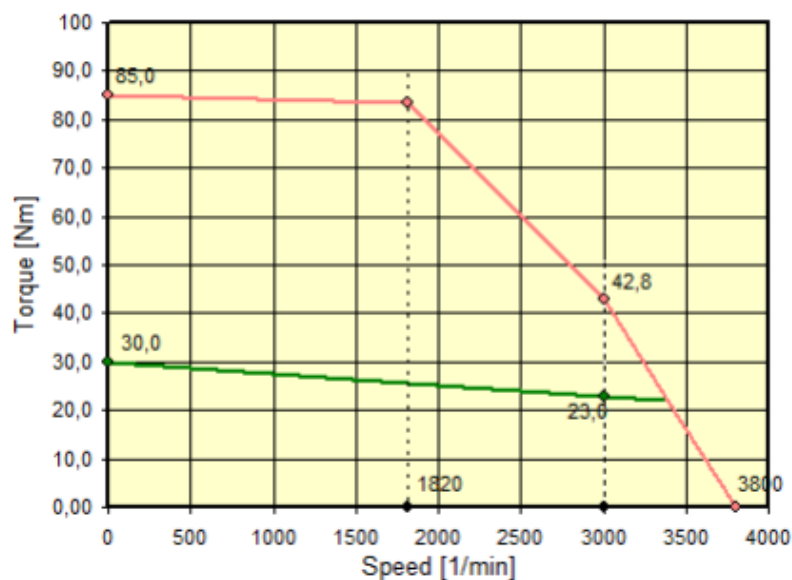
	<b>N7</b>	<b>3000</b>	<b>30</b>	<b>560</b>
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Rated Speed	$n_n$	3000 $\text{min}^{-1}$
DC Bus Voltage	$U_{dc}$	560 V
Nominal AC Voltage	$U_n$	380 V
Rated Motor Voltage	$U_m$	300 V
Rated Torque	$M_n$	23,0 Nm
Rated AC Current	$I_n$	17,2 A
Stall Torque	$M_o$	30,0 Nm
Stall AC Current	$I_o$	18,1 A
Peak Torque	$M_{max}$	85 Nm
Peak Current	$I_{max}$	64 A
Max. Speed	$n_{max}$	6000 $\text{min}^{-1}$
EMF Constant	$K_E$	100,0 V/1000
Torque Constant	$K_T$	1,65 Nm/A
Terminal Resistance	$R_{2ph}$	0,33 $\Omega$
Terminal Inductance	$L_{2ph}$	5,2 mH
Number of poles	$2p$	10

No Load Speed	$n_o$	3800 $\text{min}^{-1}$
Torque at $I_{max}/U_n$	$M_z$	84 Nm
Speed at $I_{max}/U_n$	$n_z$	1820 $\text{min}^{-1}$
Max. Torque at $n_n$	$M_x$	43 Nm

El. Time Constant	$T_{el}$	15,8 ms
Mech. Time Constant	$T_{mech}$	1,0 ms
Thermal Time Constant	$T_{th}$	80 min
Rotor Inertia	$J$	49,5 $\text{kgcm}^2$

### Torque/speed curves



## RATED DATA

Motor type

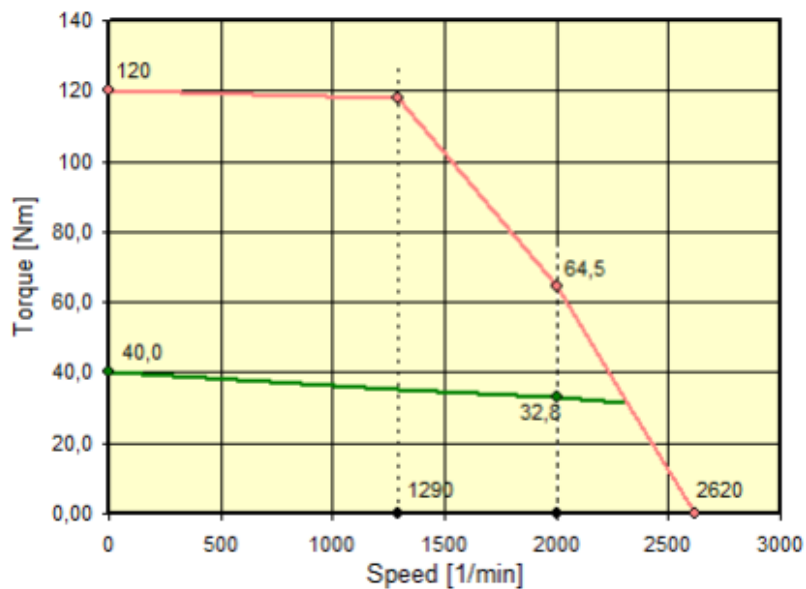
<b>N7</b>	<b>4000</b>	<b>20</b>	<b>560</b>
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Rated Speed	$n_n$	2000 $\text{min}^{-1}$
DC Bus Voltage	$U_{dc}$	560 V
Nominal AC Voltage	$U_n$	380 V
Rated Motor Voltage	$U_m$	311 V
Rated Torque	$M_n$	32,8 Nm
Rated AC Current	$I_n$	15,4 A
Stall Torque	$M_o$	40,0 Nm
Stall AC Current	$I_o$	16,7 A
Peak Torque	$M_{max}$	120 Nm
Peak Current	$I_{max}$	59 A
Max. Speed	$n_{max}$	6000 $\text{min}^{-1}$
EMF Constant	$K_E$	145,0 V/1000
Torque Constant	$K_T$	2,4 Nm/A
Terminal Resistance	$R_{2ph}$	0,43 $\Omega$
Terminal Inductance	$L_{2ph}$	7,8 mH
Number of poles	$2p$	10

No Load Speed	$n_o$	2620 $\text{min}^{-1}$
Torque at $I_{max}/U_n$	$M_z$	118 Nm
Speed at $I_{max}/U_n$	$n_z$	1290 $\text{min}^{-1}$
Max. Torque at $n_n$	$M_x$	65 Nm

El. Time Constant	$T_{el}$	18,1 ms
Mech. Time Constant	$T_{mech}$	0,89 ms
Thermal Time Constant	$T_{th}$	90 min
Rotor Inertia	$J$	69 $\text{kgcm}^2$

### Torque/speed curves



## RATED DATA

Motor type

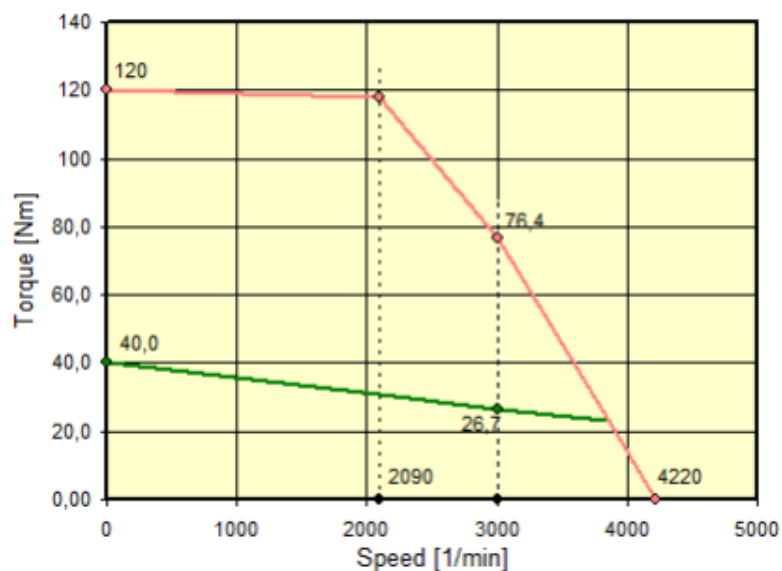
<b>N7</b>	<b>4000</b>	<b>30</b>	<b>560</b>
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Rated Speed	$n_n$	3000 $\text{min}^{-1}$
DC Bus Voltage	$U_{dc}$	560 V
Nominal AC Voltage	$U_n$	380 V
Rated Motor Voltage	$U_m$	274 V
Rated Torque	$M_n$	26,7 Nm
Rated AC Current	$I_n$	21,0 A
Stall Torque	$M_o$	40,0 Nm
Stall AC Current	$I_o$	26,9 A
Peak Torque	$M_{max}$	120 Nm
Peak Current	$I_{max}$	95 A
Max. Speed	$n_{max}$	6000 $\text{min}^{-1}$
EMF Constant	$K_E$	90,0 V/1000
Torque Constant	$K_T$	1,49 Nm/A
Terminal Resistance	$R_{2ph}$	0,17 $\Omega$
Terminal Inductance	$L_{2ph}$	3,1 mH
Number of poles	$2p$	10

No Load Speed	$n_o$	4220 $\text{min}^{-1}$
Torque at $I_{max}/U_n$	$M_z$	118 Nm
Speed at $I_{max}/U_n$	$n_z$	2090 $\text{min}^{-1}$
Max. Torque at $n_n$	$M_x$	76 Nm

El. Time Constant	$T_{el}$	17,9 ms
Mech. Time Constant	$T_{mech}$	0,92 ms
Thermal Time Constant	$T_{th}$	90 min
Rotor Inertia	$J$	69 $\text{kgcm}^2$

**Torque/speed curves**



## RATED DATA

Motor type

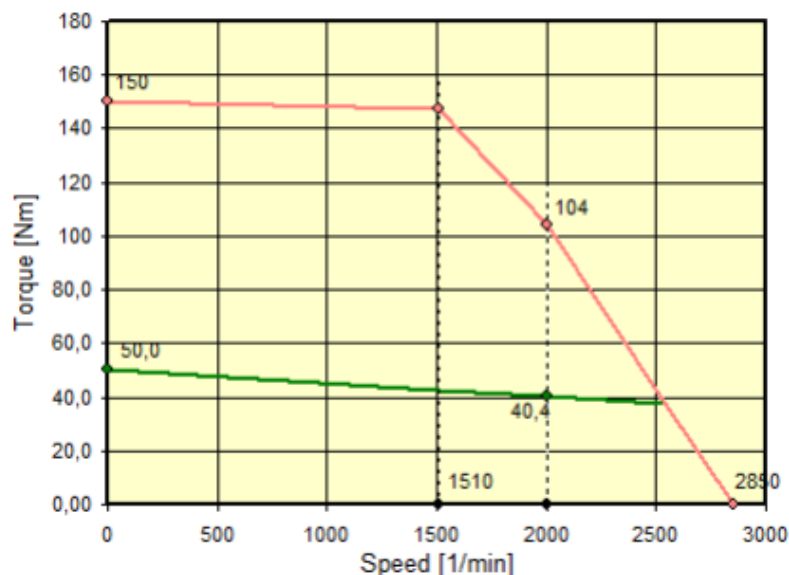
<b>N7</b>	<b>5000</b>	<b>20</b>	<b>560</b>
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Rated Speed	$n_n$	2000 $\text{min}^{-1}$
DC Bus Voltage	$U_{dc}$	560 V
Nominal AC Voltage	$U_n$	380 V
Rated Motor Voltage	$U_m$	269 V
Rated Torque	$M_n$	40,4 Nm
Rated AC Current	$I_n$	21,8 A
Stall Torque	$M_o$	50 Nm
Stall AC Current	$I_o$	22,7 A
Peak Torque	$M_{max}$	150 Nm
Peak Current	$I_{max}$	79 A
Max. Speed	$n_{max}$	6000 $\text{min}^{-1}$
EMF Constant	$K_E$	133,0 V/1000
Torque Constant	$K_T$	2,2 Nm/A
Terminal Resistance	$R_{2ph}$	0,25 $\Omega$
Terminal Inductance	$L_{2ph}$	4,9 mH
Number of poles	$2p$	10

No Load Speed	$n_o$	2850 $\text{min}^{-1}$
Torque at $I_{max}/U_n$	$M_z$	147 Nm
Speed at $I_{max}/U_n$	$n_z$	1510 $\text{min}^{-1}$
Max. Torque at $n_n$	$M_x$	104 Nm

El. Time Constant	$T_{el}$	19,6 ms
Mech. Time Constant	$T_{mech}$	0,79 ms
Thermal Time Constant	$T_{th}$	100 min
Rotor Inertia	$J$	88 $\text{kgcm}^2$

### Torque/speed curves





## RATED DATA

Motor type

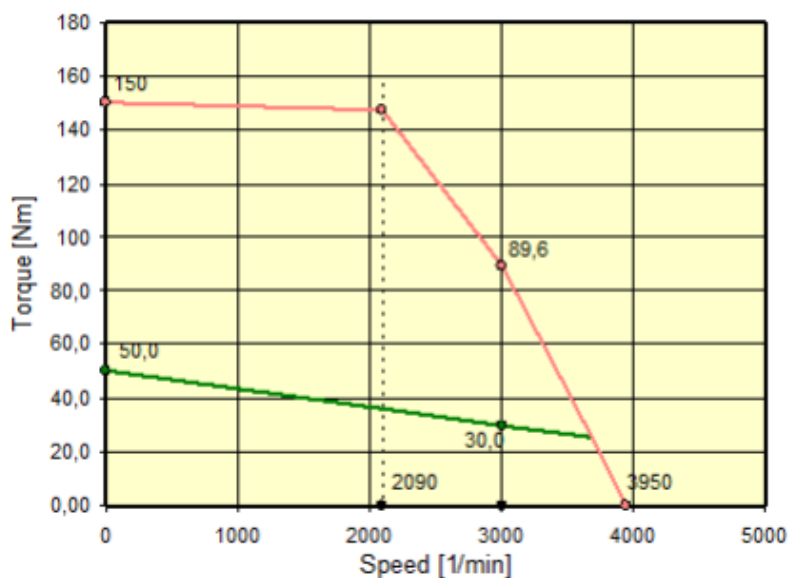
	<b>N7</b>	<b>5000</b>	<b>30</b>	<b>560</b>
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Rated Speed	$n_n$	3000 $\text{min}^{-1}$
DC Bus Voltage	$U_{dc}$	560 V
Nominal AC Voltage	$U_n$	380 V
Rated Motor Voltage	$U_m$	265 V
Rated Torque	$M_n$	30,0 Nm
Rated AC Current	$I_n$	24,4 A
Stall Torque	$M_o$	50 Nm
Stall AC Current	$I_o$	31,5 A
Peak Torque	$M_{max}$	150 Nm
Peak Current	$I_{max}$	109 A
Max. Speed	$n_{max}$	6000 $\text{min}^{-1}$
EMF Constant	$K_E$	96,0 V/1000
Torque Constant	$K_T$	1,59 Nm/A
Terminal Resistance	$R_{2ph}$	0,13 $\Omega$
Terminal Inductance	$L_{2ph}$	2,6 mH
Number of poles	$2p$	10

No Load Speed	$n_o$	3950 $\text{min}^{-1}$
Torque at $I_{max}/U_n$	$M_z$	147 Nm
Speed at $I_{max}/U_n$	$n_z$	2090 $\text{min}^{-1}$
Max. Torque at $n_n$	$M_x$	90 Nm

El. Time Constant	$T_{el}$	20 ms
Mech. Time Constant	$T_{mech}$	0,79 ms
Thermal Time Constant	$T_{th}$	100 min
Rotor Inertia	$J$	88 $\text{kgcm}^2$

### Torque/speed curves



## RATED DATA

Motor type

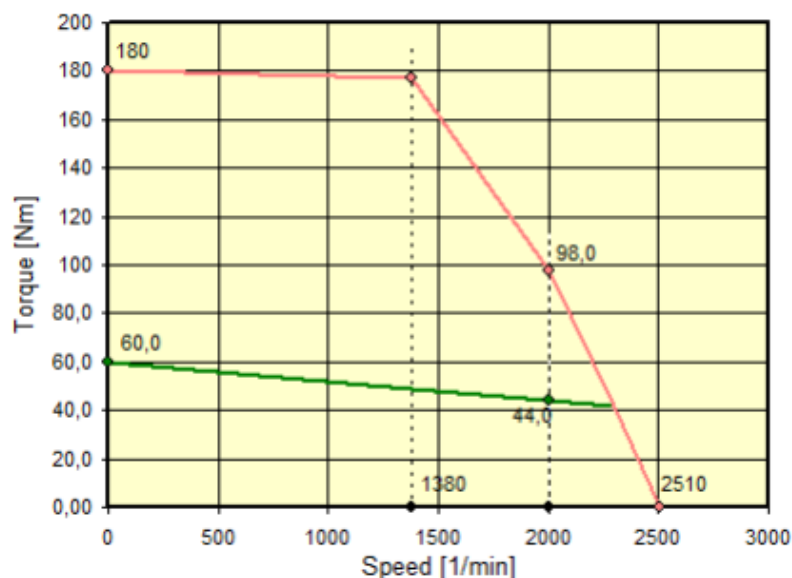
<b>N7</b>	<b>6000</b>	<b>20</b>	<b>560</b>
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Rated Speed	$n_n$	2000 $\text{min}^{-1}$
DC Bus Voltage	$U_{dc}$	560 V
Nominal AC Voltage	$U_n$	380 V
Rated Motor Voltage	$U_m$	311 V
Rated Torque	$M_n$	44,0 Nm
Rated AC Current	$I_n$	19,7 A
Stall Torque	$M_o$	60 Nm
Stall AC Current	$I_o$	24,0 A
Peak Torque	$M_{max}$	180 Nm
Peak Current	$I_{max}$	82 A
Max. Speed	$n_{max}$	6000 $\text{min}^{-1}$
EMF Constant	$K_E$	151,0 V/1000
Torque Constant	$K_T$	2,5 Nm/A
Terminal Resistance	$R_{2ph}$	0,24 $\Omega$
Terminal Inductance	$L_{2ph}$	5,1 mH
Number of poles	$2p$	10

No Load Speed	$n_o$	2510 $\text{min}^{-1}$
Torque at $I_{max}/U_n$	$M_z$	177 Nm
Speed at $I_{max}/U_n$	$n_z$	1380 $\text{min}^{-1}$
Max. Torque at $n_n$	$M_x$	98 Nm

El. Time Constant	$T_{el}$	21 ms
Mech. Time Constant	$T_{mech}$	0,71 ms
Thermal Time Constant	$T_{th}$	108 min
Rotor Inertia	$J$	107 $\text{kgcm}^2$

### Torque/speed curves



## RATED DATA

Motor type

<b>N7</b>	<b>6000</b>	<b>30</b>	<b>560</b>
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Rated Speed	$n_n$	3000 $\text{min}^{-1}$
DC Bus Voltage	$U_{dc}$	560 V
Nominal AC Voltage	$U_n$	380 V
Rated Motor Voltage	$U_m$	349 V
Rated Torque	$M_n$	27,3 Nm
Rated AC Current	$I_n$	16,2 A
Stall Torque	$M_o$	60 Nm
Stall AC Current	$I_o$	30,0 A
Peak Torque	$M_{max}$	180 Nm
Peak Current	$I_{max}$	102 A
Max. Speed	$n_{max}$	6000 $\text{min}^{-1}$
EMF Constant	$K_E$	121,0 V/1000
Torque Constant	$K_T$	2,0 Nm/A
Terminal Resistance	$R_{2ph}$	0,16 $\Omega$
Terminal Inductance	$L_{2ph}$	3,3 mH
Number of poles	$2p$	10

No Load Speed	$n_o$	3140 $\text{min}^{-1}$
Torque at $I_{max}/U_n$	$M_z$	177 Nm
Speed at $I_{max}/U_n$	$n_z$	1750 $\text{min}^{-1}$
Max. Torque at $n_n$	$M_x$	37 Nm

El. Time Constant	$T_{el}$	20 ms
Mech. Time Constant	$T_{mech}$	0,74 ms
Thermal Time Constant	$T_{th}$	108 min
Rotor Inertia	$J$	107 $\text{kgcm}^2$

### Torque/speed curves

