



NGBe

Permanent magnet
brushless servomotors

IT/EN



A dynamic, strong and ambitious Group

Orange1 Holding is an international renown Group, one of the most important European manufacturers of single-phase and three-phase asynchronous electric motors. It has an annual capacity of more than 1 million motors and 5 million electric stators with an annual turnover of approx 235 million euro and more than 1600 workers in 15 production facilities. The group, established in 1971 by Leone Donazzan, chaired today by his son Armando Donazzan, is strongly focused on technological innovation, performance and customization to meet individual clients requirements.

Un gruppo forte, dinamico e ambizioso

Orange1 Holding è un gruppo internazionale, uno dei più importanti produttori europei di motori elettrici monofase e trifase. Ha una capacità produttiva annuale di oltre 1 milione di motori e 5 milioni di statori elettrici con un fatturato annuo di circa 235 milioni e più di 1600 lavoratori in 15 sedi. Il gruppo fondato nel 1971 da Leone Donazzan, presieduto oggi dal figlio Armando Donazzan, è fortemente focalizzato sull'innovazione tecnologica e sulla customizzazione di prodotto per soddisfare le esigenze di ogni cliente.

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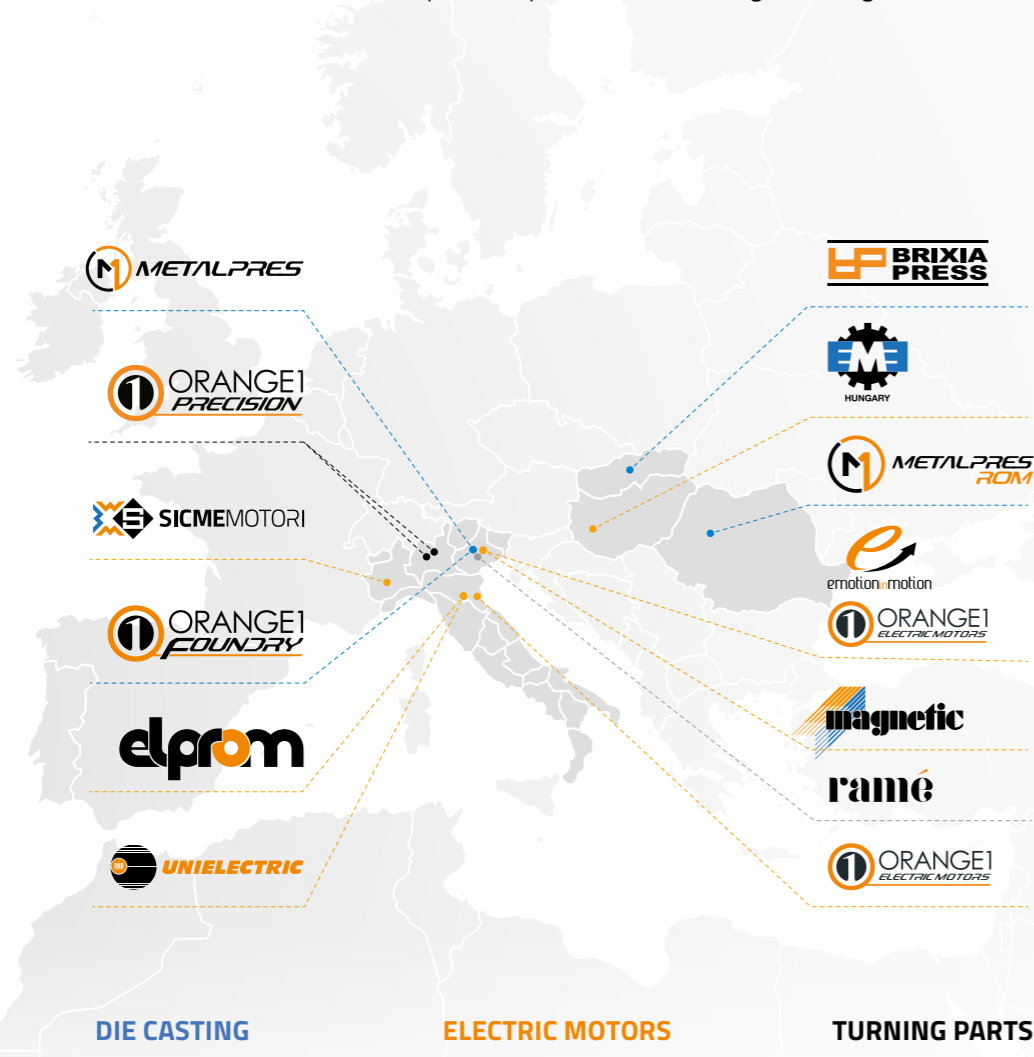
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NGBe

Nominal torque Nm
Nominal power kW



NGBe96

4,9 Nm
1,9 kW



NGBe123

11,9 Nm
2,7 kW



NGBe143

30 Nm
4,1 kW

NGBe143.TEBC

39 Nm
9,1 kW

NGBe200

86 Nm
27,0 kW

NGBe200.TEBC

116 Nm
36,4 kW

SERVOMOTORI BRUSHLESS NGBe — Pensati per le esigenze sempre più estreme dell'automazione industriale che richiedono sistemi ad elevate prestazioni, miglior affidabilità e ridotta manutenzione.

La serie NGBe è stata sviluppata utilizzando materiali di altissima qualità, nuovi dettagli estetici e funzionali sono stati introdotti per ottenere ingombri ridotti e una riduzione dei costi per il cliente.

THE NGBe BRUSHLESS RANGE — The NGBe brushless servomotors are designed to meet the increasingly demanding needs of the automation industry, which require high-performance systems, greater reliability, and reduced maintenance. We used high-quality materials to develop the NGBe series. The new aesthetic and functional details introduced allowed us to reduce the overall dimensions, resulting in great savings for the customer.



LINEA NGBe
NGBe SERIE

Caratteristiche principali — Main features

Affidabilità — Reliability

Magneti

Realizzati in terre rare **NeFeB**, rivestiti superficialmente per garantire elevate prestazioni e una protezione totale del magnete da fenomeni di ossidazione e corrosione vengono inoltre contenuti da un elemento tubolare.

Magnets

*Magnets are made of **NeFeB** rare earth and are surface-coated to guarantee high performance and protect them against oxidation and corrosion. Moreover, they are contained in a tubular element.*

Stator — The motors manufactured with the stator's **monolithic structure**, thus guaranteeing reliability and greater structural rigidity.

Colle epossidiche

Dedicate all'incollaggio dei magneti al rotore per consentire un bloccaggio strutturale degli stessi, il riempimento dei giochi ed un'ottima protezione del magnete.

Epoxy glues

Used to glue the magnets to the rotor and lock them in place, fill in gaps, and protect the magnet.

Cuscinetti

Di tipo a sfere con schermi, prelubrificati a vita. Il cuscinetto lato accoppiamento è stato scelto con un'adeguata capacità di carico radiale e sul lato opposto un cuscinetto speciale con grasso per alte temperature.

Bearings

The shielded ball bearings are lubricated for life. The bearing on the coupling side has a suitable radial load capacity, whereas the special bearing on the opposite side has high-temperature grease.



Modularità — Modularity

NGBe è progettato prevedendo un'uguale predisposizione meccanica per il montaggio di **4 differenti tipi di feedback motore**.

Il fissaggio del motore alle vostre macchine è agevole grazie all'**accesso diretto delle viti di fissaggio della flangia B5, V1 o V3**.

Le connessioni previste per i connettori M23 hanno la funzionalità di **aggancio rapido**, garantendo praticità anche nelle situazioni di impianti con difficile accessibilità.

*NGBe has an equal mechanical set-up for assembling **4 types of motor feedback**.*

*The motor can be easily fastened to your machines thanks to the **direct access to the B5, V1 or V3 flange fastening screws**.*

*The connections of the M23 connectors have the **quick coupling function**, which guarantees practicality, even when systems are difficult to access.*

Isolamento — Insulation

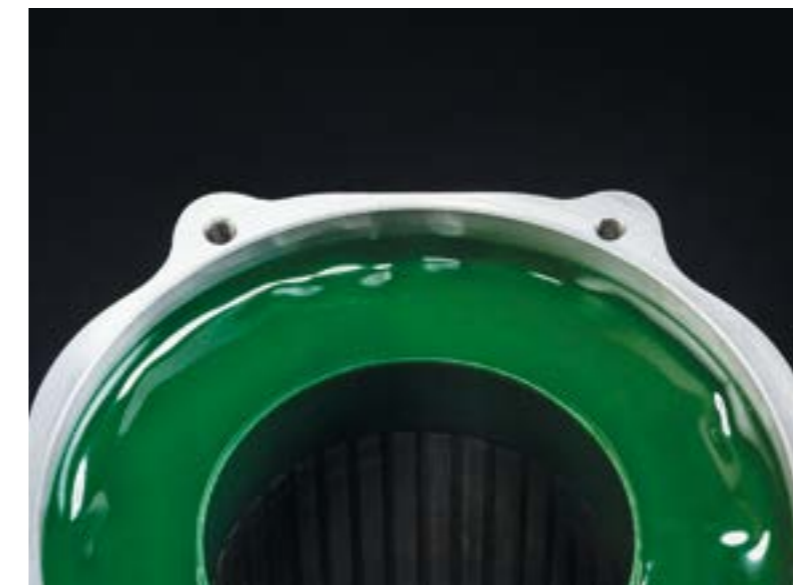
Tutta la **serie NGBe** è in **classe termica F**, pertanto la massima sovratemperatura dell'avvolgimento ammessa è di 105K (temperatura max ambiente 40°C).

L'avvolgimento dello statore è progettato con un **doppio isolamento elettrico**. Una prima impregnazione di vernice isolante seguita da un secondo riempimento con resina epossidica, in ambiente sottovuoto. Queste attenzioni garantiscono un eccellente grado di affidabilità dell'avvolgimento. Un'ottima soluzione per la protezione dello statore anche nei momenti di smontaggio per le operazioni di manutenzione.

*The entire **NGBe series** has a **class F thermal rating**; therefore, the maximum winding over-temperature permitted is of 105K (maximum room temperature: 40°C).*

*The winding of the stator is designed with **double electrical insulation**. It is first impregnated with an insulating paint and then it is filled with an epoxy resin in a vacuum environment. These details make the winding extremely reliable. An excellent solution to protect the stator during disassembly operations for maintenance purposes.*

References standard — Our brushless servomotors comply with the IEC 60034 standard concerning rotating electrical machines. Therefore, they comply with the regulations of most of the EU Countries.



Soluzioni costruttive — Constructive solutions

Dummy slot

Sono previste delle nicchie sullo statore per produrre effetti sulla coppia simili a quelli dovuti alle cave, compensandoli.
The slots on the stator produce effects on the torque similar to those on the hollows, thereby compensating them.

Magnet phase shift

Nello stesso modulo di rotore i magneti sono collocati in posizione asimmetrica.
The magnets are placed in an asymmetric position in the same rotor module.

Stepped skewing

Posizione disallineata dei moduli del rotore
Misaligned position of the rotor modules.



“I servomotori **NGBe** sono progettati per ottenere una ridotta pendolazione di coppia, a favore di un’ottima rotondità di moto.”

“**NGBe** servomotors are designed to reduce torque oscillation and promote excellent rotation regularity.”



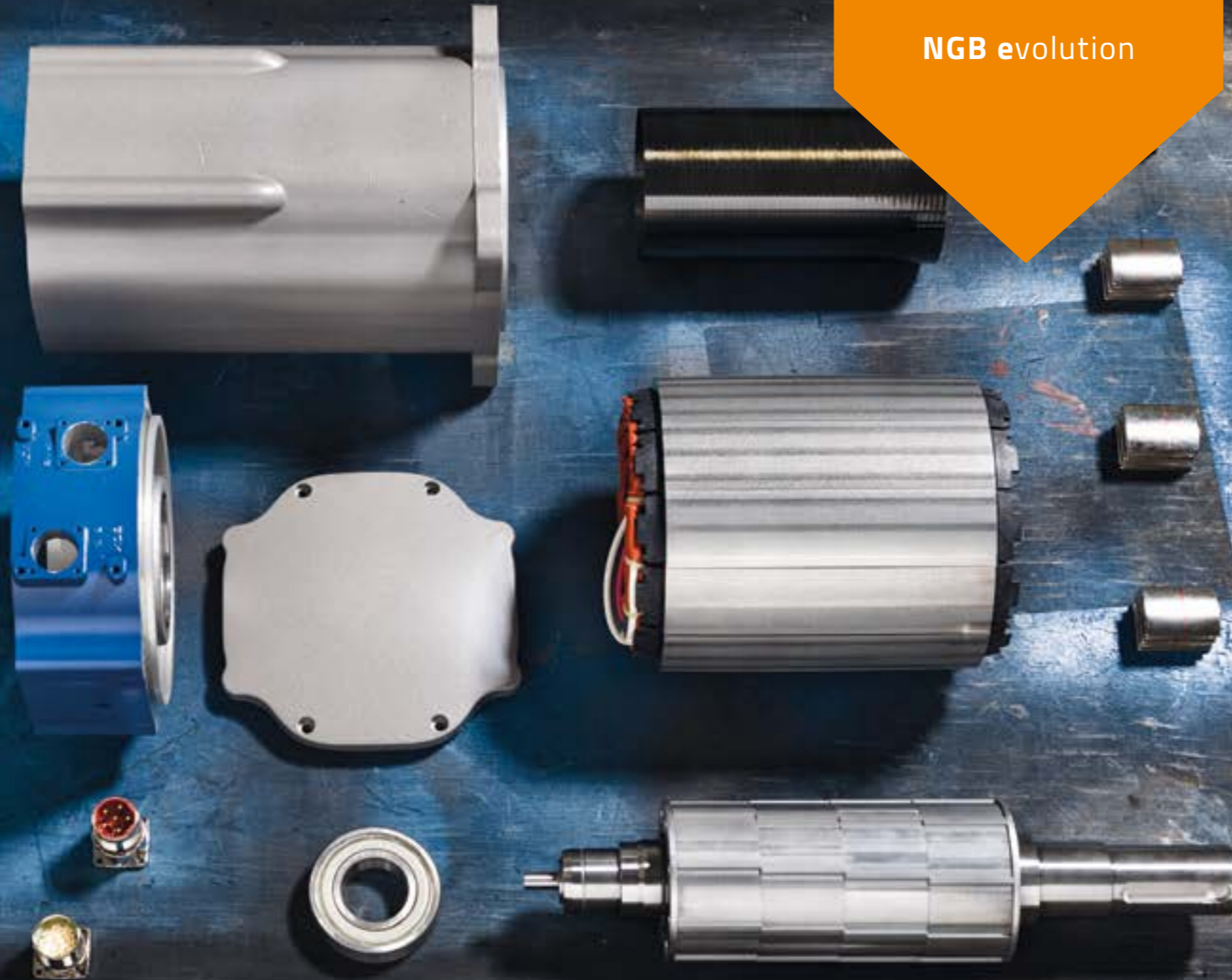
I NUOVI SERVOMOTORI
BRUSHLESS —

L'estetica del prodotto è il risultato di una grande attenzione al rapporto tra forma e funzionalità dei diversi componenti, soluzione capace di offrire un motore dalla forte riconoscibilità e con importanti dettagli funzionali.

THE NEW BRUSHLESS
MOTORS —

The aesthetics of the product is the result of our great attention to the relationship between the shape and functionality of different components to provide a highly recognizable motor with important functional details.

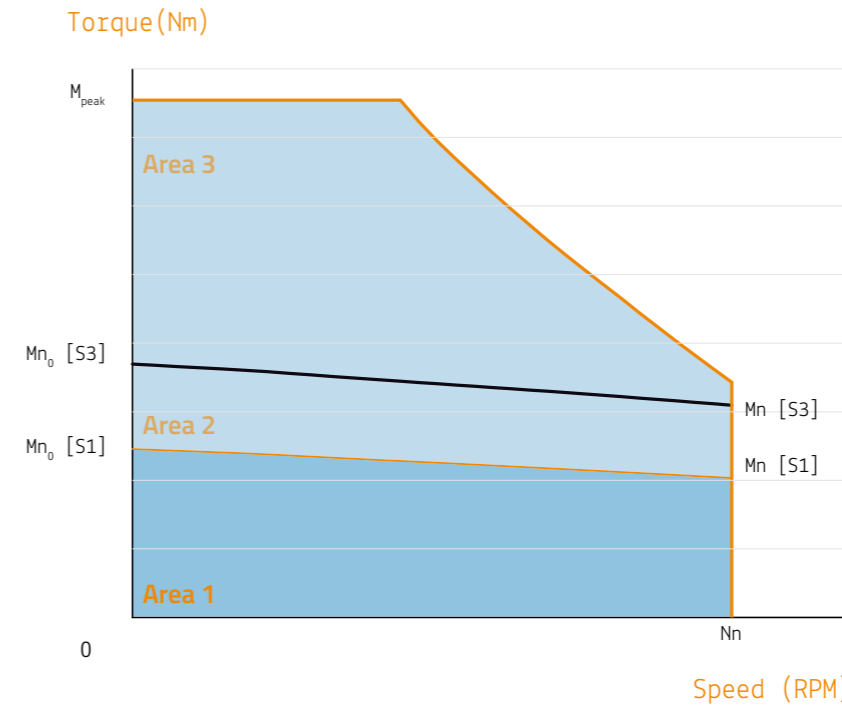
NGB evolution



“L’attenzione che poniamo nella scelta dei materiali, ci consente di proporre servomotori dalle ottime performance, elevata robustezza e massima affidabilità.”

“Our attention in choosing the materials allows us to provide high-performance, solid, and reliable servomotors.”

Definizione dei parametri — Parameters definition



Reference graph for the parameters defined in this catalogue. For technical details not included in this document, refer to the NGBE series technical manual.

■ Area 1:

Area di funzione del motore in servizio continuativo S1 (CEI EN 60034-1); la curva Mn_0 - Mn indica il declassamento della coppia continuativa erogabile in funzione della velocità.

■ Area 2:

Area di funzione del motore con servizio intermittente periodico S3-40% su periodo di un minuto (CEI EN 60034-1), con 40 secondi a carico costante e 60 secondi con motore a riposo; la curva $Mn_0[S3] - Mn[S3]$ indica il declassamento della coppia quadratica media del ciclo erogabile, in funzione della velocità.

■ Area 3:

Area che descrive la coppia massima fornibile dal motore in relazione alle caratteristiche costruttive dello stesso $[M_{peak}]$ e in relazione alla massima tensione fornibile dal convertitore. Nella scelta del motore e avvolgimento si deve considerare la velocità fino a cui viene richiesta l'erogazione della coppia massima.

■ Area 1:

Function area of the motor in continuous running duty S1 (IEC EN 60034-1); the Mn_0 - Mn curve indicates the de-rating of the continuous torque supplied according to speed.

■ Area 2:

Function area of the motor with periodic intermittent duty S3-40% over a period of one minute (IEC EN 60034-1), with 40 seconds at constant load and 60 seconds with motor in standby; the $Mn_0[S3] - Mn[S3]$ curve indicates the de-rating of the cycle average square torque supplied, according to speed.

■ Area 3:

This area describes the maximum torque supplied by the motor in relation to its construction features $[M_{peak}]$ and maximum converter-supplied voltage. When choosing the motor and winding, it is important to consider the speed up to which the maximum torque has to be supplied.

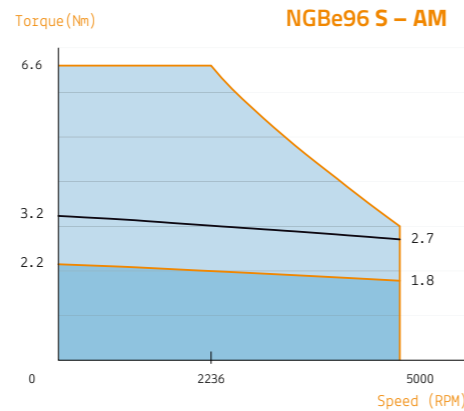
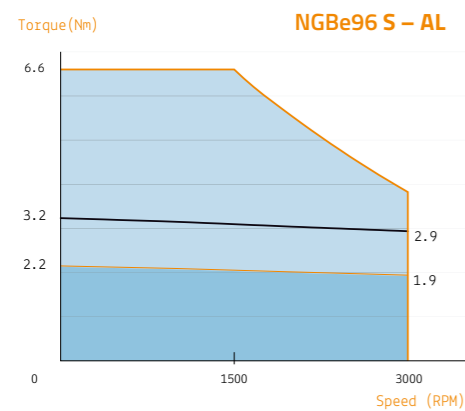
Nominal Speed Nn : It is the maximum speed available at which the maximum overload torque is higher than $Mn_0[S1]$

NGBe96 TENV - 8 poles - 3x360VRMS motor power supply

code	Nominal speed Nn	Duty cycle S1			Duty cycle S3-40%, 1 min		Peak torque M _{peak}	Torque constant K _t	Inertia J	Weight m	
		Stall torque Mn ₀	Nominal torque Mn	Stall current In ₀	Stall torque Mn ₀ [s3]	Nominal torque Mn [s3]					
NGBe96S	AL	3000 Rpm	2.2 Nm	1.9 Nm	2.2 A _{RMS}	3.2 Nm	2.9 Nm	6.6 Nm	0.99 Nm/A _{RMS}	1.3 kgcm ²	3.6 kg
NGBe96M	AI	3000 Rpm	3.6 Nm	3.2 Nm	2.8 A _{RMS}	5.5 Nm	4.9 Nm	10.8 Nm	1.30 Nm/A _{RMS}	2.3 kgcm ²	4.8 kg
NGBe96L	AH	3000 Rpm	4.9 Nm	4.2 Nm	3.7 A _{RMS}	7.5 Nm	6.5 Nm	14.7 Nm	1.34 Nm/A _{RMS}	3.4 kgcm ²	5.4 kg
NGBe96S	AM	5000 Rpm	2.2 Nm	1.8 Nm	3 A _{RMS}	3.2 Nm	2.7 Nm	6.6 Nm	0.71 Nm/A _{RMS}	1.3 kgcm ²	3.6 kg
NGBe96M	AF	5000 Rpm	3.6 Nm	2.8 Nm	4.6 A _{RMS}	5.5 Nm	4.3 Nm	10.8 Nm	0.79 Nm/A _{RMS}	2.3 kgcm ²	4.8 kg
NGBe96L	AD	5000 Rpm	4.9 Nm	3.5 Nm	5.9 A _{RMS}	7.5 Nm	5.5 Nm	14.7 Nm	0.83 Nm/A _{RMS}	3.4 kgcm ²	5.4 kg



NGBe96 S — B: 152mm
 L: 182mm
 LB: 232mm
NGBe96 M — B: 179mm
 L: 209mm
 LB: 259mm
NGBe96 L — B: 206mm
 L: 236mm
 LB: 286mm

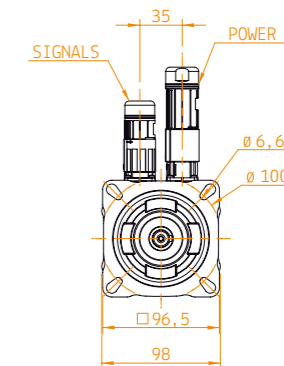
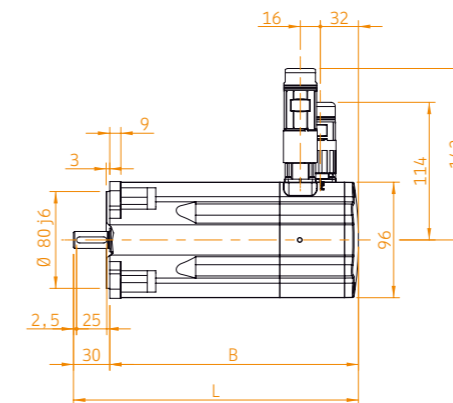
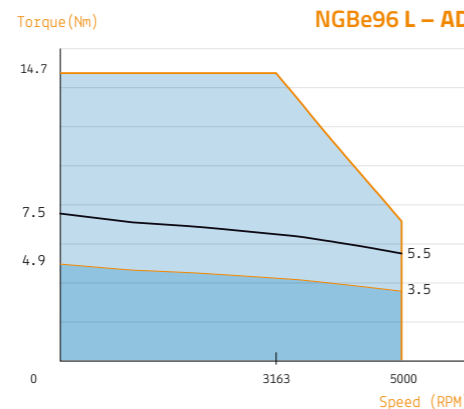
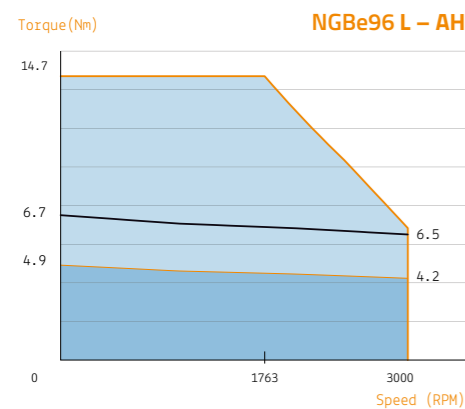
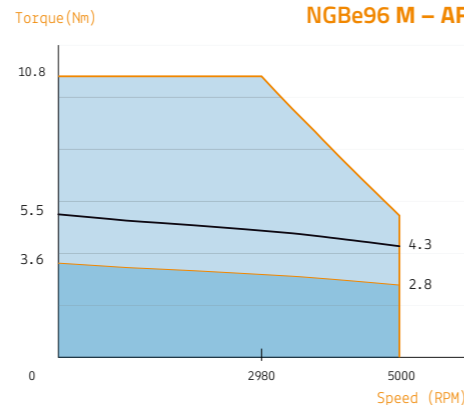
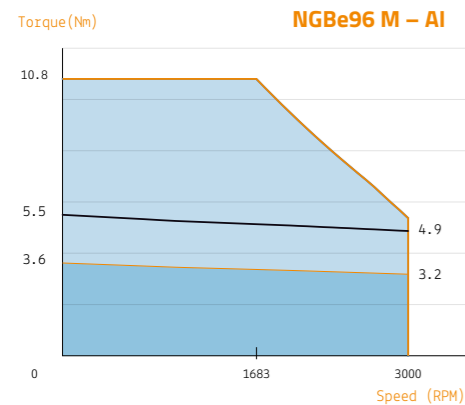


Torque constant —
 The torque is proportional to the motor current

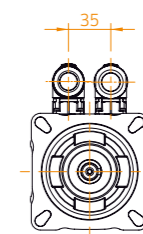
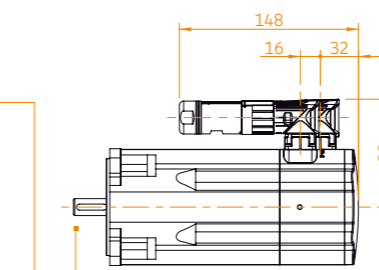
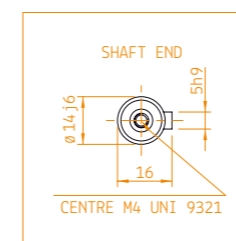
$$K_t = \frac{M_n \text{ [Nm]}}{I_n \text{ [A}_{RMS}]}$$

Others informations:
 more data are available on technical manual of NGBe motor

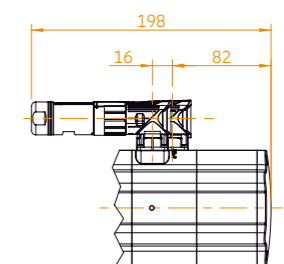
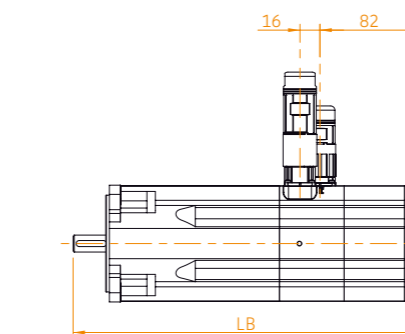
Max torque —
S3 - 40% 1' —
S1 torque —



Version B —
 Standard execution



Version D —
 Motor with rotatable right angle connectors



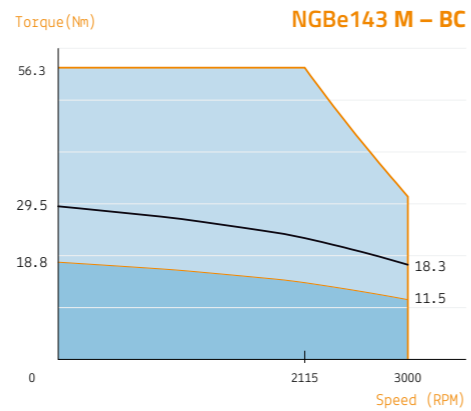
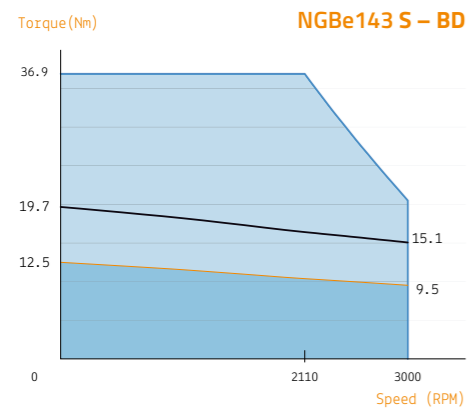
Motor with brake —
 Left: Version B
 Right: Version D

NGBe143 TENV - 8 poles - 3x360VRMS motor power supply

code	Nominal speed Nn	Duty cycle S1			Duty cycle S3-40%, 1 min		Peak torque M _{peak}	Torque constant K _t	Inertia J	Weight m	
		Stall torque Mn ₀	Nominal torque Mn	Stall current In ₀	Stall torque Mn ₀ [s3]	Nominal torque Mn [s3]					
NGBe143S	BD	3000 Rpm	12.5 Nm	9.5 Nm	9.4 A _{RES}	19.7 Nm	15.1 Nm	36.9 Nm	1.33 Nm/A _{RES}	28 kgcm ²	8.8 kg
NGBe143M	BC	3000 Rpm	18.8 Nm	11.5 Nm	13.9 A _{RES}	29.5 Nm	18.3 Nm	56.3 Nm	1.35 Nm/A _{RES}	38 kgcm ²	12 kg
NGBe143L	AE	3000 Rpm	25 Nm	12.7 Nm	16.6 A _{RES}	39.4 Nm	20.2 Nm	75 Nm	1.51 Nm/A _{RES}	49 kgcm ²	15.1 kg
NGBe143P	AD	3000 Rpm	30 Nm	13.1 Nm	19.8 A _{RES}	47.3 Nm	20.8 Nm	90 Nm	1.52 Nm/A _{RES}	60 kgcm ²	18.2 kg



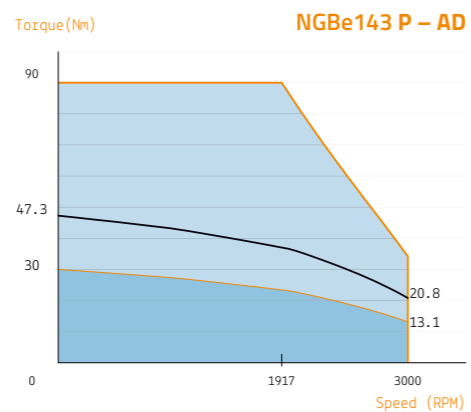
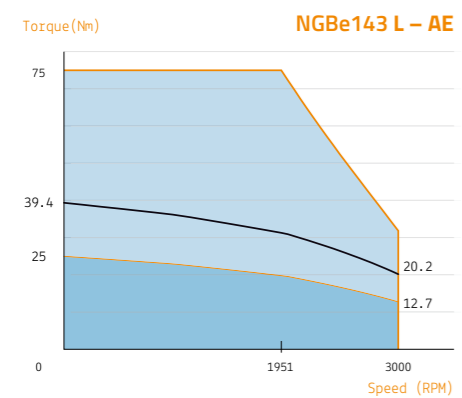
NGBe143S	B: 221mm
	L: 279mm
	LB: 344mm
NGBe143M	B: 258mm
	L: 316mm
	LB: 381mm
NGBe143L	B: 295mm
	L: 353mm
	LB: 418mm
NGBe143P	B: 332mm
	L: 390mm
	LB: 455mm



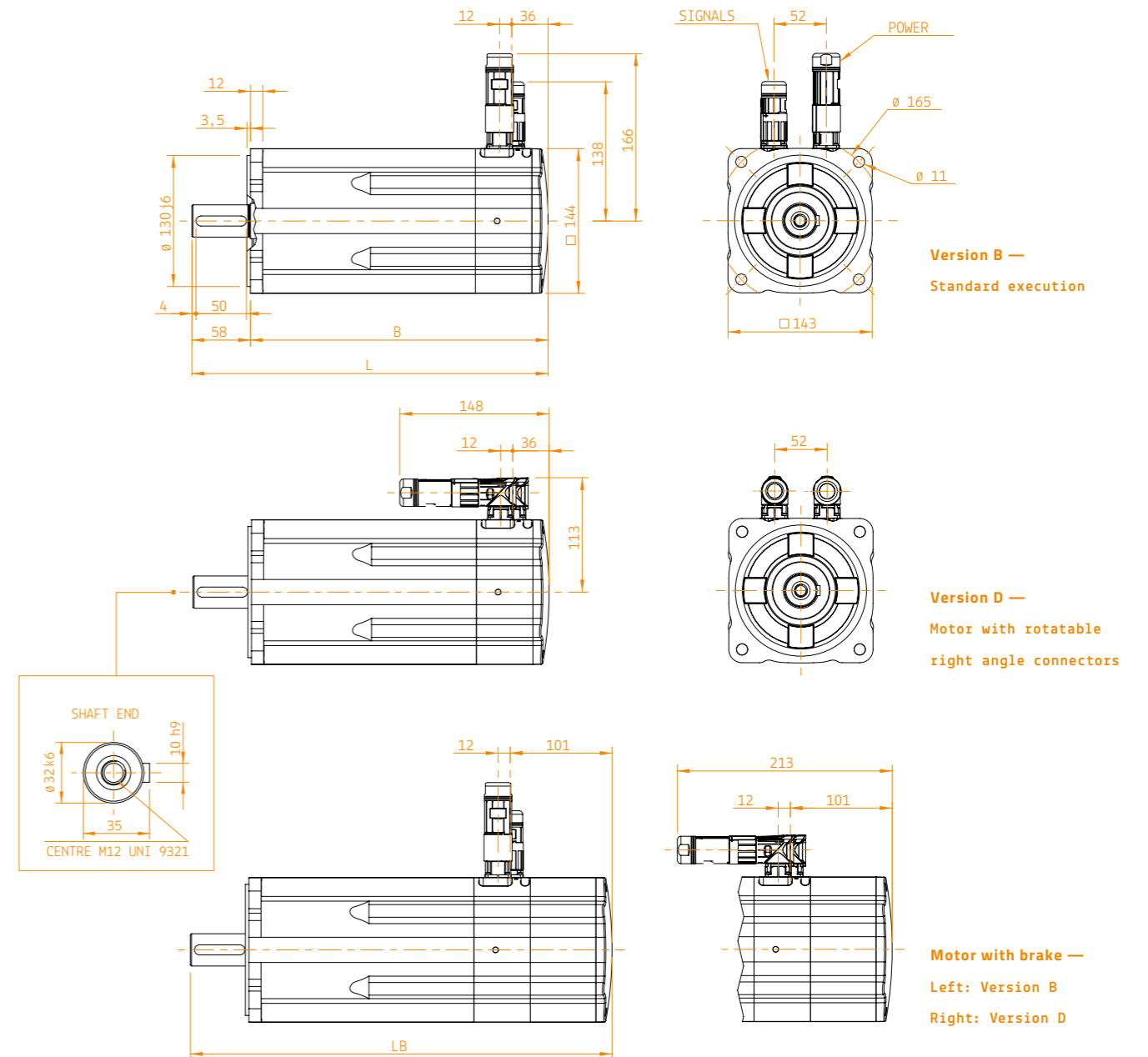
Torque constant —
The torque
is proportional
to the motor current

$$K_t = \frac{M_n \text{ [Nm]}}{I_n \text{ [A}_{RES}\text{]}}$$

Others informations:
more data are available
on technical manual of
NGBe motor



Max torque —
S3 - 40% 1' —
S1 torque —



NGBe143 TEBC - 8 poles - 3x360VRMS motor power supply

code	Nominal speed Nn	Duty cycle S1			Duty cycle S3-40%, 1 min			Peak torque M _{peak}	Torque constant K _t	Inertia J	Weight m
		Stall torque Mn ₀	Nominal torque Mn	Stall current In ₀	Stall torque Mn ₀ [S3]	Nominal torque Mn [S3]					
NGBe143S	BD	3000 Rpm	17.3 Nm	14.7 Nm	13 A _{RMS}	26.9 Nm	23.1 Nm	36.9 Nm	1.33 Nm/A _{RMS}	28 kgcm ²	11.8 kg
NGBe143M	BC	3000 Rpm	24.7 Nm	19.9 Nm	18.3 A _{RMS}	38.5 Nm	31.3 Nm	56.3 Nm	1.35 Nm/A _{RMS}	38 kgcm ²	15.3 kg
NGBe143L	AE	3000 Rpm	31.8 Nm	24.6 Nm	21.3 A _{RMS}	49.7 Nm	39.8 Nm	75 Nm	1.49 Nm/A _{RMS}	49 kgcm ²	18.7 kg
NGBe143P	AD*	3000 Rpm	38.7 Nm	29 Nm	25.5 A _{RMS}	60.5 Nm	46.3 Nm	90 Nm	1.52 Nm/A _{RMS}	60 kgcm ²	22.1 kg

*Scatola morsetti disponibile per NGBe143 e obbligatoria per NGBe143P
 *Motor with terminal box is available for NGBe143 and mandatory for NGBe143P only

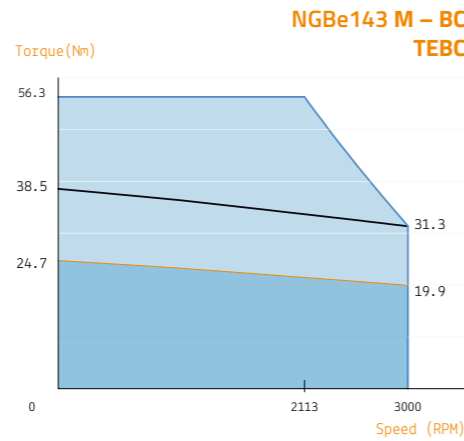
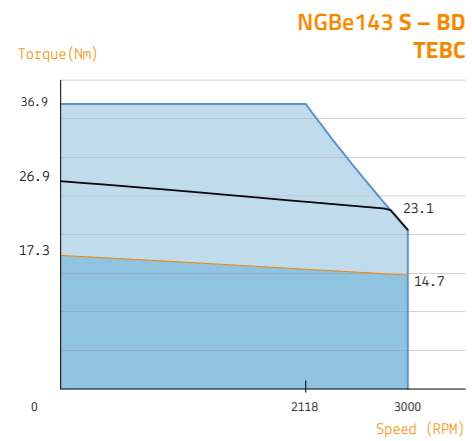


NGBe143S — B: 332mm	NGBe143L — B: 406mm
L: 390mm	L: 464mm
LB: 577mm	LB: 529mm
NGBe143M — B: 369mm	NGBe143P — B: 443mm
L: 427mm	L: 501mm
LB: 492mm	LB: 566mm

Totally Enclosed Blower Cooled

La versione ventilata del NGBe consente di raggiungere coppie continuative più elevate in tutto il range di velocità. Si presta ad applicazioni dove il ciclo macchina è particolarmente oneroso. Prevede elettroventilatore con alimentazione 1x230Vac, 50/60Hz, 0.25A, 42W su connettore industriale M16 3 pin.

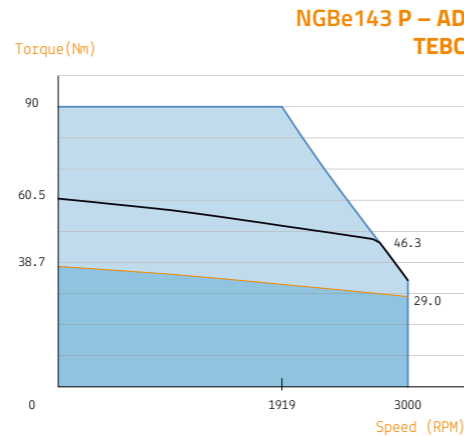
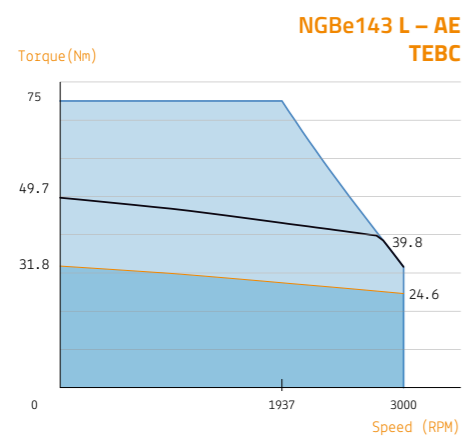
The NGBe143 TEBC reaches higher continuous torque over the whole speed range. It is suitable for applications where machine cycle is particularly heavy. Fan supply 1x230Vac, 50/60Hz, 0.25A, 42W with M16 3 pins connector.



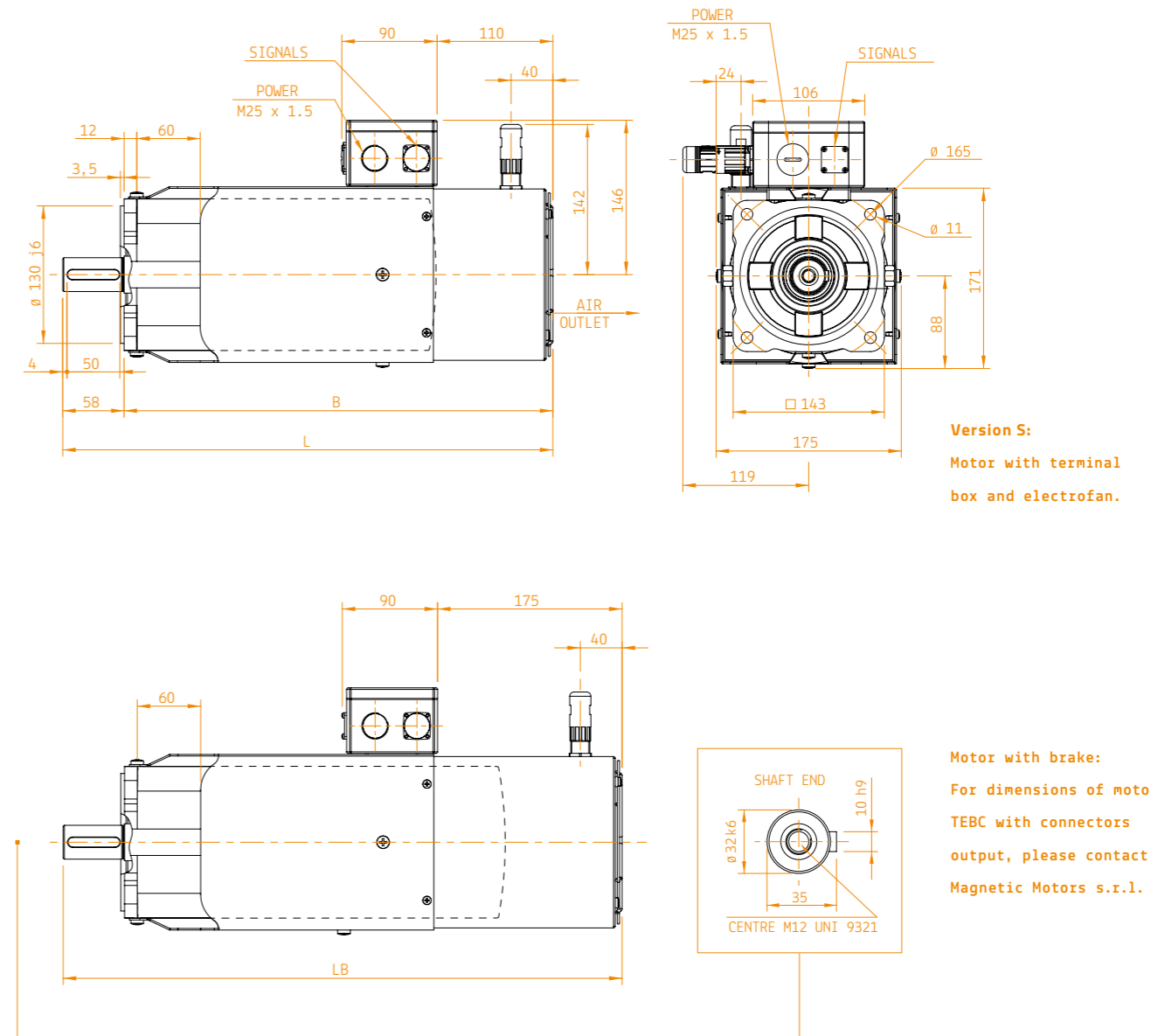
Torque constant —
 The torque is proportional to the motor current

$$K_t = \frac{M_n \text{ [Nm]}}{I_n \text{ [A}_{RMS}]}$$

Others informations:
 more data are available on technical manual of NGBe motor



Max torque —
S3 - 40% 1' —
S1 torque —



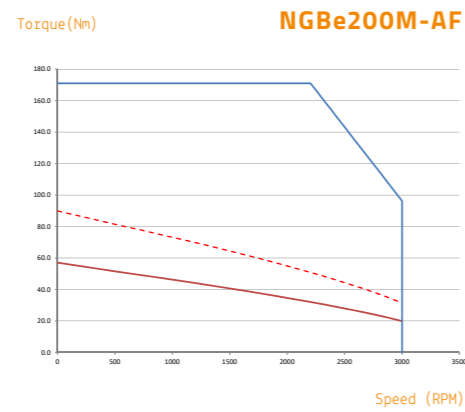
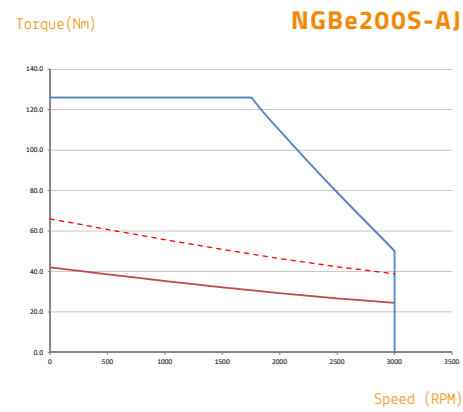
NGBe200 TENV - 8 poles - 3x360VRMS motor power supply

code	Nominal speed N_n	Duty cycle S1			Duty cycle S3-40% 1 min		Peak torque M_{peak}	Torque constant K_t	Inertia J	Weight m	
		Stall torque M_{n0}	Nominal torque M_n	Stall current I_{n0}	Stall torque $M_{n0} [s3]$	Nominal torque $M_n [s3]$					
NGBe200S	AJ	3000 Rpm	42 Nm	24,5 Nm	28,1 A_{RMS}	65,9 Nm	38,8 Nm	126 Nm	1,50 Nm/ A_{RMS}	66 kgcm ²	29 kg
NGBe200M	AF	3000 Rpm	57 Nm	19,8 Nm	38,8 A_{RMS}	89,9 Nm	31,4 Nm	171 Nm	1,47 Nm/ A_{RMS}	94 kgcm ²	43 kg
NGBe200L	AK	2000 Rpm	68 Nm	34,4 Nm	28,2 A_{RMS}	107,5 Nm	54,4 Nm	204 Nm	2,41 Nm/ A_{RMS}	122 kgcm ²	48 kg
NGBe200P	AF	2000 Rpm	75 Nm	27,2 Nm	31,4 A_{RMS}	118,7 Nm	42,9 Nm	225 Nm	2,39 Nm/ A_{RMS}	150 kgcm ²	60 kg

*Motor with connectors output is available for NGBe200



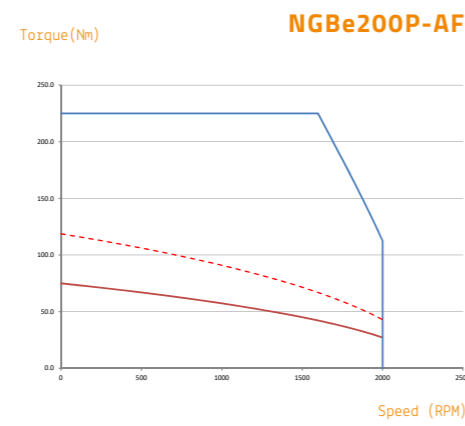
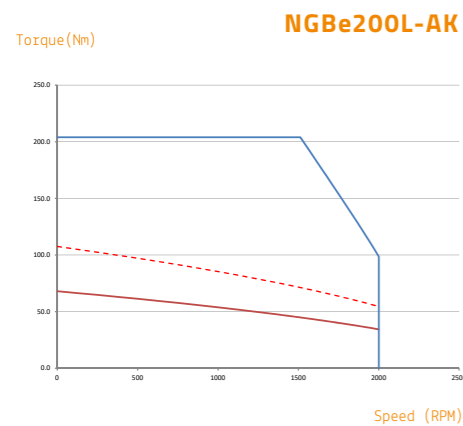
NGBe200 S - B: 322mm
L: 404mm
NGBe200 M - B: 376mm
L: 458mm
NGBe200 L - B: 430mm
L: 512mm
NGBe200 P - B: 484mm
L: 566mm



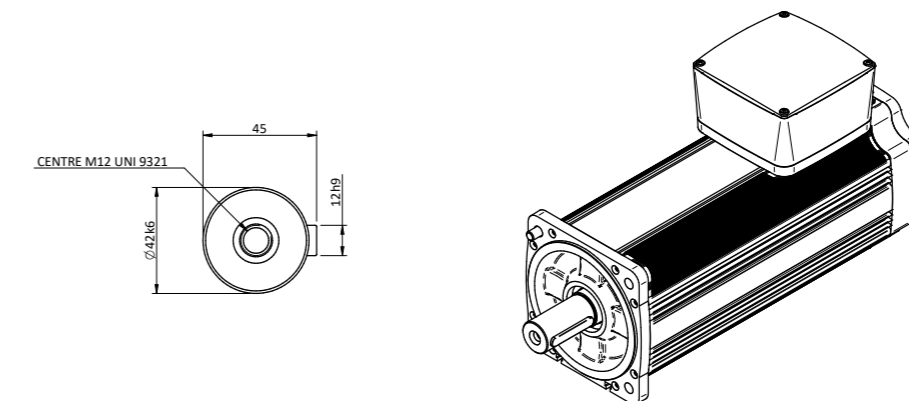
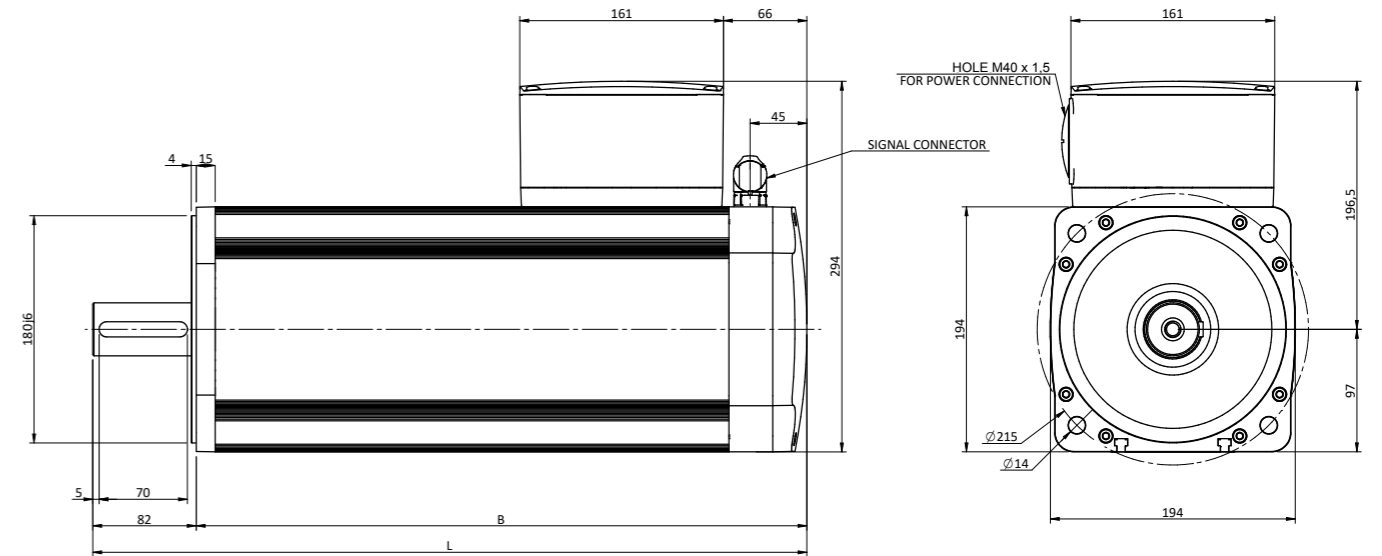
Torque constant —
The torque
is proportional
to the motor current

$$K_t = \frac{M_n [Nm]}{I_n [A_{RMS}]}$$

Others informations:
more data are available
on technical manual of
NGBe motor



Max torque ————
S3 - 40% 1' - - - -
S1 torque ————



NGBe200 TEBC - 8 poles - 3x360VRMS motor power supply

code	Nominal speed N_n	Duty cycle S1			Duty cycle S3-40% 1 min		Peak torque M_{peak}	Torque constant K_t	Inertia J	Weight m	
		Stall torque M_{n0}	Nominal torque M_n	Stall current I_{n0}	Stall torque $M_{n0} [s3]$	Nominal torque $M_n [s3]$					
NGBe200S	AH	3000 Rpm	58 Nm	46,9 Nm	49,3 A _{RMS}	88,8 Nm	69,8 Nm	126 Nm	1,18 Nm/A _{RMS}	66 kgcm ²	32 kg
NGBe200M	AF	3000 Rpm	84 Nm	65,8 Nm	60,2 A _{RMS}	129,4 Nm	91,6 Nm	171 Nm	1,39 Nm/A _{RMS}	94 kgcm ²	46 kg
NGBe200L	AD	3000 Rpm	108 Nm	81,9 Nm	70,3 A _{RMS}	166,7 Nm	119,6 Nm	204 Nm	1,49 Nm/A _{RMS}	122 kgcm ²	51 kg
NGBe200P	AC	3000 Rpm	128 Nm	99,2 Nm	76,7 A _{RMS}	199,5 Nm	121,9 Nm	225 Nm	1,67 Nm/A _{RMS}	150 kgcm ²	64 kg

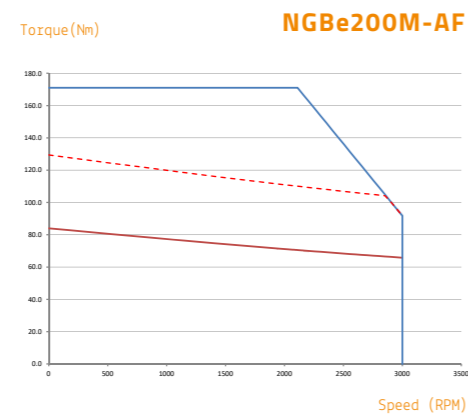
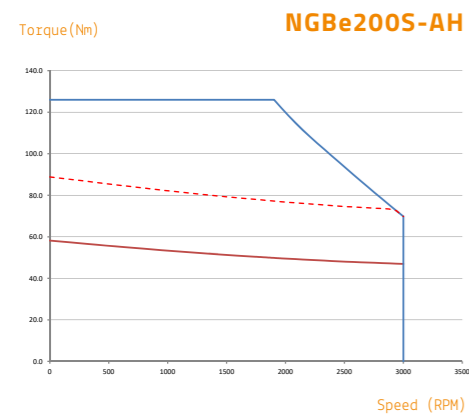


NGBe200 S - B: 428mm	L: 510mm
NGBe200 M - B: 482mm	L: 564mm
NGBe200 L - B: 536mm	L: 618mm
NGBe200 P - B: 590mm	L: 672mm

Totally Enclosed Blower Cooled

Prevede elettroventilatore con alimentazione 3x400Vac, 50/60Hz, 0.17/0,13A, 68/70W su connettore industriale M23 6 pin.

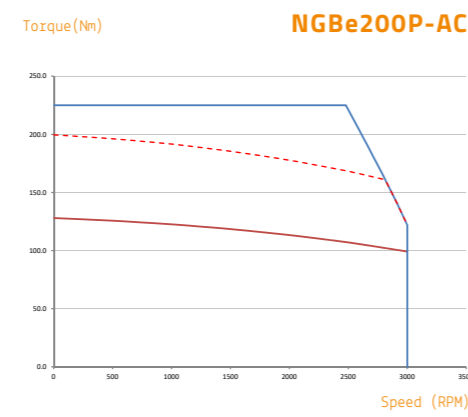
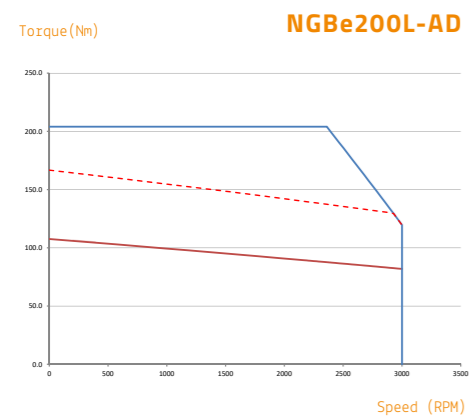
Fan supply 3x400Vac, 50/60Hz, 0,17/0,13A, 68/70W connected on M23 6 pins connector.



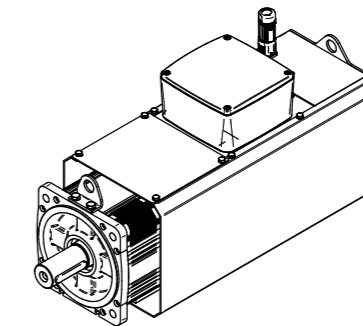
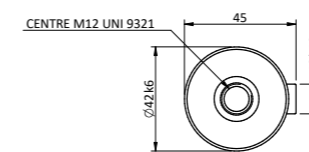
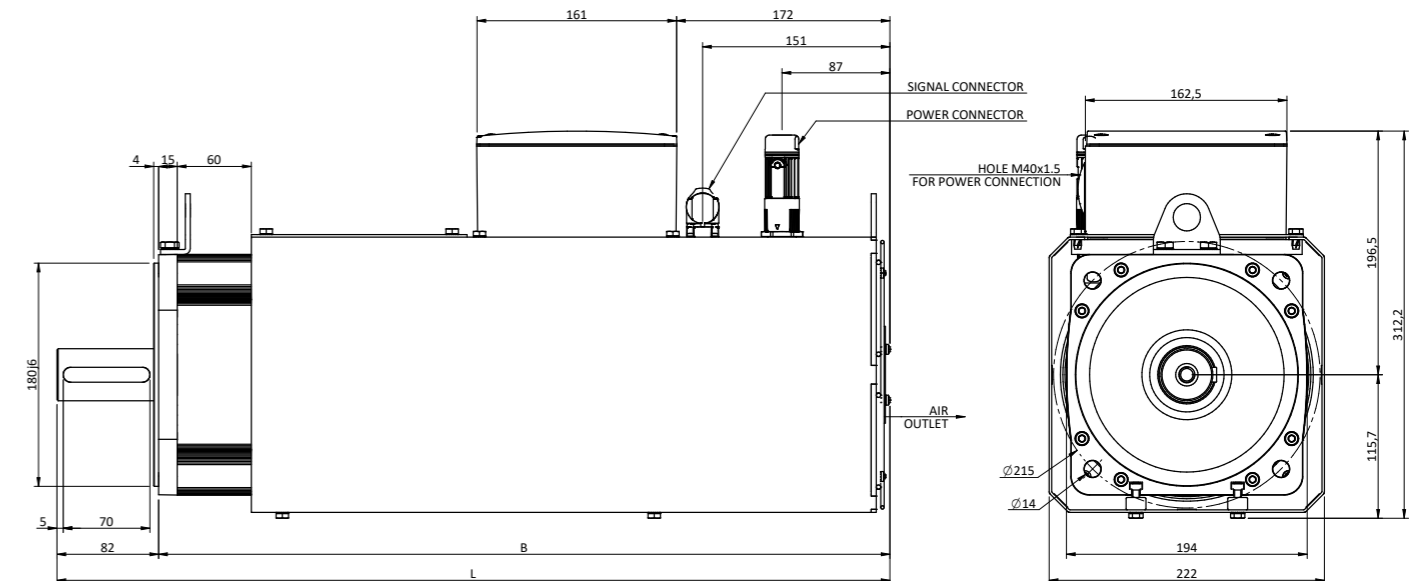
Torque constant —
The torque is proportional to the motor current

$$K_t = \frac{M_n \text{ [Nm]}}{I_n \text{ [A}_{RMS}]}$$

Others informations:
more data are available on technical manual of NGBe motor



Max torque —
S3 - 40% 1' - - -
S1 torque —



NGBe260 TENV - 8 poles - 3x360VRMS motor power supply

*preliminary data

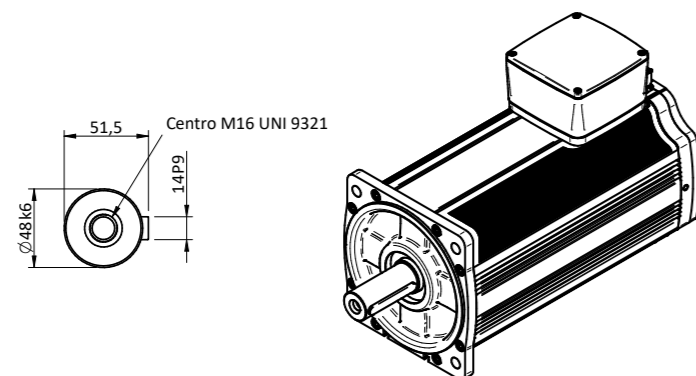
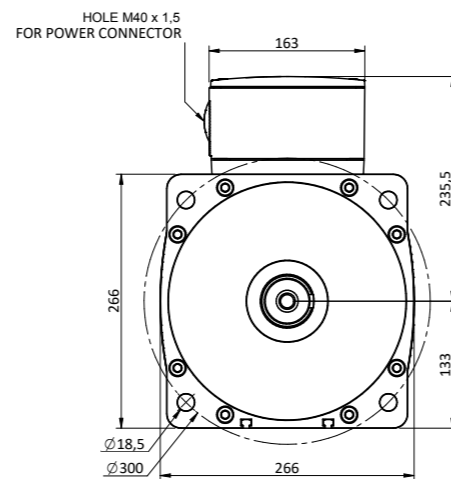
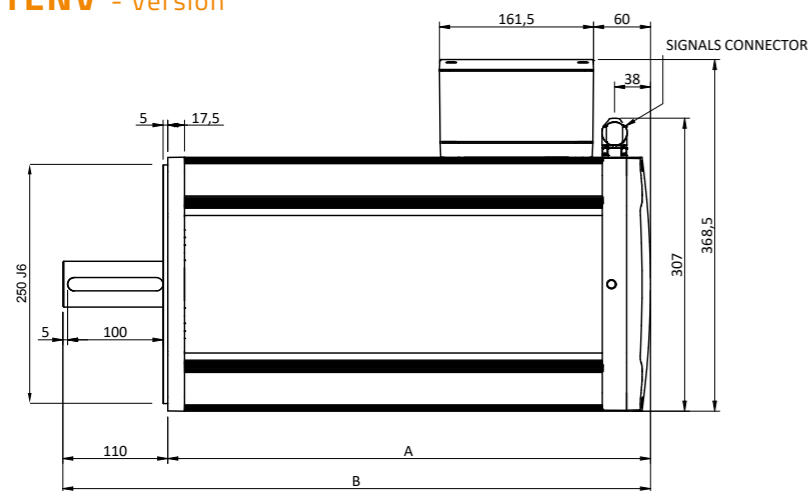
	code	Nominal speed N_n	Stall torque M_{n_0}	Nominal torque M_n	Stall current I_{n_0}	Peak torque N_m	Torque constant Nm/A	Inertia $Kgcm^2$	Weight m
NGBe260S	S1	2000 Rpm	120 Nm	68 Nm	54 A _{RMS}	370 Nm	2,2 Nm/A _{RMS}	284 kgcm ²	75 kg
NGBe260M	S2	2000 Rpm	175 Nm	67 Nm	79 A _{RMS}	550 Nm	2,2 Nm/A _{RMS}	427 kgcm ²	96 kg
NGBe260L	S3	2000 Rpm	230 Nm	32 Nm	102 A _{RMS}	740 Nm	2,3 Nm/A _{RMS}	569 kgcm ²	120 kg
NGBe260P	S4	2000 Rpm	280 Nm	20 Nm	121 A _{RMS}	920 Nm	2,3 Nm/A _{RMS}	711 kgcm ²	142 kg

NGBe260 TEBC - 8 poles - 3x360VRMS motor power supply

*preliminary data

	code	Nominal speed N_n	Stall torque M_{n_0}	Nominal torque M_n	Stall current I_{n_0}	Peak torque N_m	Torque constant Nm/A	Inertia $Kgcm^2$	Weight m
NGBe260S	S1	3000 Rpm	190 Nm	135 Nm	147 A _{RMS}	370 Nm	1,29 Nm/A _{RMS}	284 kgcm ²	87 kg
NGBe260M	S2	3000 Rpm	280 Nm	170 Nm	200 A _{RMS}	550 Nm	1,40 Nm/A _{RMS}	427 kgcm ²	109 kg
NGBe260L	S3	3000 Rpm	360 Nm	190 Nm	245 A _{RMS}	740 Nm	1,47 Nm/A _{RMS}	569 kgcm ²	133 kg
NGBe260P	S4	3000 Rpm	440 Nm	200 Nm	275 A _{RMS}	920 Nm	1,60 Nm/A _{RMS}	711 kgcm ²	156 kg

TENV - Version



NGBe260 S -	A: 422mm
	B: 532mm
NGBe260 M -	A: 506mm
	B: 616mm
NGBe260 L -	A: 590mm
	B: 700mm
NGBe260 P -	A: 674mm
	B: 784mm

ACCESSORI ACCESSORIES



Connessioni motore - Motor connection

Sistema di feedback del motore - Motor feedback system

Il motore è fornito completo di resolver o di encoder, alloggiato nello scudo posteriore per la protezione contro gli urti accidentali. Sono disponibili i seguenti tipi:

— **Resolver 2 poles:** Sine-Cosine wave – 2 poles – 0.5 ratio transformation

— **Encoder TTL + Hall S., Abs. singleturn:** incremental signal TTL2048 ppr (max 150 kHz) – 5 Vdc Line driver – Commutation signals – Zero pulse

— **Encoder Sin Cos Abs. singleturn:** incremental signal sinusoidale 2048 ppr – 1 Vpp signal SinCos + zero pulse – 1 period absolute waves/rev. – 5Vdc

— **Encoder BiSS Abs. multiturn:** absolute multiturn BiSS interface – incremental sinusoidal signal 2048 ppr – 19 bit singleturn + 12 multiturn – 5Vdc

Altri encoder (Endat, Hyperface ..) o sole predisposizioni sono possibili su richiesta.

The motor is provided with a resolver or encoder housed in the rear shield to protect it against accidental impacts.

The following types are available:

— **2-pole resolver:** Sine-Cosine wave – 2 poles – 0.5 transformation ratio

— **Encoder TTL + Hall S., Abs. singleturn:** incremental signal TTL2048 ppr (max 150 kHz) – 5 Vdc Line driver – Commutation signals – Zero pulse

— **Encoder Sin Cos Abs. single turn:** incremental signal sinusoidale 2048 ppr – 1 Vpp signal SinCos + zero pulse – 1 period absolute waves/rev. – 5Vdc

— **Encoder BiSS Abs. multi-turn:** absolute multiturn BiSS interface – incremental sinusoidal signal 2048 ppr – 19 bit singleturn + 12 multiturn – 5Vdc

Other encoders (Endat, Hyperface, etc.) or other set-ups are available upon request.

Freno — Brake

Su richiesta è disponibile il motore completo di freno di stazionamento che si inserisce in mancanza di alimentazione (freno negativo). Tale freno è previsto per mantenere bloccato l'asse e deve essere inserito a velocità prossima a zero: le operazioni di frenatura del motore in velocità sono infatti delle frenature elettriche effettuate tramite l'inverter e non svolte o assistite dal freno. L'alimentazione a 24 Vdc è cablata sul connettore di potenza.

The motor complete with holding brake, which engages in case of power failure (negative brake), is available upon request. This brake keeps the axis blocked and must be engaged when speed is close to zero. At a certain speed, the motor brakes electrically via an inverter and not via the brake, which does not even assist during this operation. The 24 Vdc power supply is wired to the power connector.

	Nominal torque @20°C M _n	Stall torque @100°C M _{stat}	Inertia *ΔJ	Weight *Δm
NGBe96	4.5 Nm	4.0 Nm	0.12 kgcm ²	0.3 kg
NGBe123	18 Nm	15 Nm	1.66 kgcm ²	0.9 kg
NGBe143	36 Nm	32 Nm	5.56 kgcm ²	1.6 kg

* Aggiuntiva a quella del motore - To be added to the motor torque

(Versione NGBe200 e NGBe260 con freno: Disponibile a breve - NGBe200 and NGBe260 with brake: coming soon)

Protezione termica — Power connection

I servomotori possono essere forniti con uno dei seguenti tipi di sensore termico: **Termoresistenza tipo KTY 84-130** **Termocontatto N.C. klixon**

*The servo motors can be supplied with one of the following types of thermal sensor: **Resistance thermometer type KTY 84-130** **Temperature Switch N.C. klixon***

Verniciatura — Painting

I motori vengono forniti verniciati in RAL9005 o RAL5002, con vernici a polvere che assicurano elevate caratteristiche meccaniche (durezza, elasticità) e una buona finitura delle superfici del motore. A richiesta possiamo realizzare una verniciatura smalto monocoloro su specifiche a richiesta del cliente.

The motors are painted with two colours, RAL9005 or RAL5002, with powder paints that ensure high mechanical features (hardness, elasticity) and a good finish of the motor's surfaces. Single-colour enamel paint available upon request.

Anello paraolio — Seal ring

Tutti i motori possono essere equipaggiati con anello di tenuta paraolio con molla per applicazioni dove è previsto il bagno d'olio, mentre su richiesta è possibile fornire anche la versione solo per tenuta IP65 sull'albero.

All motors can be equipped with oil seal ring with a spring for applications requiring oil bath. The specific version for an IP65 seal on the shaft can be supplied upon request.

Inerzia supplementare — Ring seal

Su richiesta è possibile prevedere un'inerzia aggiuntiva per migliorare il controllo del motore (opzione disponibile solo nella versione senza freno).

Extra inertia can be added upon request to improve motor control (option available only in the brakeless version).

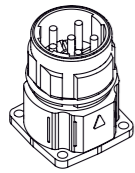
	Additional inertia ΔJ	Additional weight Δm
NGBe96	+ 1.1 kgcm ²	+ 0.4 kg
NGBe123	+ 7.5 kgcm ²	+ 1.0 kg
NGBe143	+ 22.8 kgcm ²	+ 1.9 kg

Conessioni motore — Motor connection

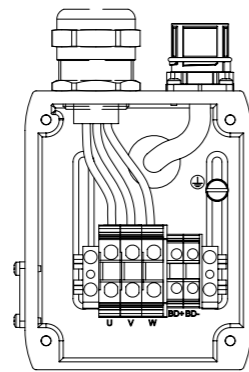
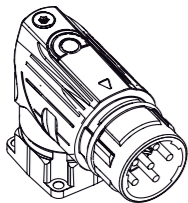
Conessioni di potenza 6 pins — Power connection 6 pins

Conessione di potenza
+ connessione freno di stazionamento.

*Power connections
+ parking brake connection.*



connector M23 —
Straight or adjustable
to 90 °, fitted for
both quick-coupling for
in thread engagement.
Connector M40 for
NGBe200 available
upon request.

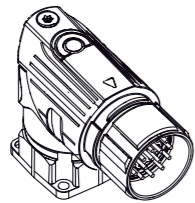
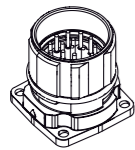


**Terminal adjustable box
2 positions —**
Available for NGBe143,
NGBe200 and NGBe260

Conessioni di segnale 17 pins — Signal connection 17 pins

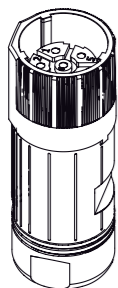
Conessione trasduttore velocità/posizione.

Speed/position transducer connection.

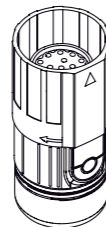


connector M23 —
Straight or adjustable
to 90 °, fitted for
both quick-coupling for
in thread engagement.

Connettori volanti opzionali — Optional mobile connectors



Free connector M23 —
6 pins power connector,
quick coupling.



Free connector M23 —
17 pins signal connector,
quick coupling.

Cavi opzionali — Optional cables

A richiesta possiamo fornire cavi
di alimentazione e di controllo servomotore
della lunghezza desiderata completi
di connettore ad innesto rapido lato motore.

*Servomotor control and power cables
(of the required length) complete
with quick coupling connector on the
motor side can be supplied upon request.*



ORANGE1
HOLDING

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