7.3.3 – BSn, BSv

Generalità:
I motori sincroni a magneti permanenti della serie BS Sincrovert® soddisfano le richieste di elevata dinamica ed alta coppia tipiche delle macchine e delle linee di produzione moderne. Il progetto è stato ottimizzato per garantire una ridotta inerzia rotorica ed una rotazione fluida e con ondulazione di coppia particolarmente contenuta.
La costruzione del rotore prevede il montaggio superficiale dei magneti permanenti a terre rare, opportunamente dimensionati e fissati meccanicamente alla struttura del rotore.
Questi motori sviluppano accelerazioni elevatissime che assicurano un funzionamento dinamico e performante con il minimo impiego di energia.

General information:
The permanent magnet synchronous motors of the BS Sincrovert® series have been designed and built to meet requests for high torque output from the sort of highly dynamic motor typically used on modern production lines. The project have been optimized to guarantee a reduced rotor inertia and fluid rotation, with limited torque ripple.
The rotor is provided with high quality rare-earth permanent magnets of a suitable size and shape that are mechanically blocked on the surface of the rotor laminations. These motors produce very high acceleration and a dynamic high performance with minimum energy usage.

Allgemein:
Die Permanentmagnet-Synchronmotoren der Baureihe BS Sincrovert® erfüllen hinsichtlich Dynamik und Drehmoment die für moderne Produktionsmaschinen und Fertigungslinien typischen Anforderungen. Der Entwurf wurde zur Gewährleistung einer verringerten Rotationsträgheit sowie eines fließenden Rundlaufs mit besonders geringer Drehmomentwelligkeit optimiert.
Die Konstruktion des Rotors umfasst die Oberflächenmontage Seltenerd Permanentmagneten, die entsprechend dimensioniert und mechanisch an der Rotorstruktur befestigt sind. Diese Motoren entwickeln sehr hohe Beschleunigungen, die einen dynamischen und leistungsstarken Betrieb bei minimalem Energieeinsatz gewährleisten.

Vantaggi dei motori BS Sincrovert®:
- Elevato rapporto coppia / inerzia rotorica
- Design moderno e particolarmente curato
- Elevatissima dinamica di funzionamento
- Dimensioni di ingombro molto contenute
- Servoventilazione per serie BSv
- Vasta gamma di opzioni disponibili

Advantages of the BS Sincrovert® motors:
- *High torque/rotor inertia ratio*
- *Modern design*
- *Highly dynamic performance*
- *Very compact dimensions*
- *Servo-ventilation for BSv serie*
- *Wide range of options available*

Vorteile der Motoren BS Sincrovert®:
- Top Verhältnis Drehmoment/ Trägheitsmoment
- Modernes und ausgefeiltes Design
- Hohe Betriebsdynamik
- Sehr kompakte Außenmaße
- Effiziente Lüftung fur BSv Motoren
- Große Auswahl an verfügbarem Zubehör

Settori di utilizzo:
I principali settori che utilizzano questa serie di motori sono:
- Lavorazione lamiere
- Lavorazione carta e cartone
- Lavorazione plastica
- Macchine utensili
- Packaging

Sectors of use:
The main sectors of use for this series of motors are:
- *Sheet steel works*
- *Paper and cardboard works*
- *Working plastics*
- *Machine tools*
- *Packaging*

Einsatzbranchen:
Diese Motorbaureihe wird hauptsächlich in folgenden Branchen eingesetzt:
- Blechbearbeitung
- Papier- und Kartonverarbeitung
- Kunststoffbearbeitung
- Werkzeugmaschinen
- Verpackungsindustrie

Campi di impiego tipici:
- Taglierine per carta e cartone
- Cesoie rotanti
- Linee di taglio per lamiera
- Presse per deformazione lamiere
- Iniezione materie plastiche
- Linee lavorazione tubi metallici
- Macchine da stampa
- Robots e manipolatori

Typical fields of use:
- *Paper and cardboard cutters*
- *Rotary shears*
- *Sheet metal cutting lines*
- *Sheet metal folding presses*
- *Plastic injection systems*
- *Metal pipe working lines*
- *Printing machines*
- *Robots and manipulators*

Typische Einsatzbereiche:
- Schneidemaschinen für Papier und Karton
- Kreisscheren
- Linien für Blechschnitt
- Blechformpressen
- Kunststoffeinspritzung
- Fertigungslinie für Metallrohre
- Druckmaschinen
- Roboter und Manipulatoren

7.3.3 – BSn, BSv

7.3.3 – BSn, BSv Series - SINCROVERT®

Servomotore Sincrono 3-fase a magneti permanenti
AC 3-phase permanent magnets Synchronous servomotor
3-Phasen Synchronmotor mit Permanentmagneten

Motore	*Motor*	Motor	AC 3-phase permanent magnets synchronous servomotor
Esecuzione	*Execution*	Ausführung	Synchronous permanent magnets
Altezze d'asse	*Shaft height*	Wellenhöhe	71, 100, 132mm
Potenza	*Power*	Leistung	0,8…98kW
Coppia	*Torque*	Drehmoment	5,8…580Nm
Peso	*Weight*	Gewicht	10…200kg
Nr. di poli	*Nr. of poles*	Anzahl Pole	8
Velocità base	*Base speed*	Nenndrehzahl	1500, 2000, 2800, 3000rpm
Tensione di alimentazione	*Supply voltage*	Versorgungsspannung	300…400Vac
Collegamento	*Connection*	Anschluss	Star
Collegamenti elettrici	*Electrical connection*	Elektrischer Anschluss	Power connector or terminal box
Classe di isolamento	*Insulation class*	Isolationklasse	F, temperature rise cl.F
Termoprotettori	*Thermal protectors*	Thermikschutz	PTC as standard, PTO*, KTY84-130*, PT100* on request
Forma costruttiva	*Mounting construction*	Bauform	IM 3001 (IM 1001, B3, available on request)
Grado di protezione	*Protection degree*	Schutzart	IP 54, IP 65 on request
Tipo di raffreddamento	*Type of cooling*	Art der Kühlung	IC 410, IC 416 with axial fan
Grado di vibrazione	*Vibration degree*	Vibrationsgrad	A, B*
Metodo di equilibratura	*Balancing method*	Auswuchtmethode	Half key, full* key or without* key on request
Temperatura ambiente	*Ambient temperature*	Raumtemperatur	-20…+40°C
Colore	*Color*	Farbe	RAL 9005 (black)
Materiale carcassa	*Frame material*	Statormaterial	Aluminium
Materiale coperchi	*Covers material*	Deckelmaterial	Aluminium, cast iron
Materiale flangia	*Flange material*	Flanschmaterial	Aluminium, cast iron
Albero	*Shaft*	Welle	$39NiCrMo^3$
Posizione morsettiera	*Terminal box position*	Klemmenkastenposition	Standard position top mounted
Opzioni disponibili	*Options available*	Mögliche Optionen	Resolver, Absolute encoder, PTO, PT100, PT1000, parking brake, cURus omologation.

* A richiesta con sovrapprezzo – On request with price increase –

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7.3.3 – BSn, BSv

DATI GENERALI	*GENERAL DATA*	ALLGEMEINE DATEN	
Protezione motore	*Motor Protection*	Schutzart	IP 54 (IP 65) 2)
Raffreddamento	*Cooling System*	Kühlung	BSn IC 410 – BSv IC 416
Forma costruttiva	*Mounting*	Bauformen	IM 3001 (B5)
Equilibratura	*Balancing*	Schwinggüte	grado A – *A degree* – grad A
Isolamento	*Insulation*	Isolation	classe F – *F class* – F Klasse
Protezione termica	Thermal Protection	Thermikschutz	PTC – PTO 2) – PT100 2) - PT1000 2)
Rumore L_W	*Noise* L_W	Geräuschpegel L_W	L_W < 85 dB (A)
Sollecitazione massima	*Max adm. shock*	Max schuss	V eff 4.5 mm/s 6,3...63Hz – acc. 2.55 m/s²
Installazione	*Ambient*	Umgebungstem.	- 20 / + 40°C – 1000 m ASL

VENTILATORE	*ELECTRIC FAN*	*ELEKTROLÜFTER*				
Grandezza Motore	Motor size	Motoren	Size	71	100	132
Alimentazione	*Power supply*	Versorgung	V		1-ph 230Vac 50/60Hz	
Corrente	*Current*	Strom	A	0.11/0.14	0.18/0.22	0.68/0,95
Potenza	*Power*	Leistung	W	24/31	38/44	155/225
Portata	*Air flow*	Volumen	m³/min	4.8/5.6	7.8/8.9	20/21.5
Pressione	*Pressure*	Pression	Pa	175/245	240/325	560/720
Tipo ventilatore	*Fan type*	Typ des ventil.		R2E133	R2E175	R2E225

FRENO 2) ***BRAKE*** 2) **BREMSE** 2)

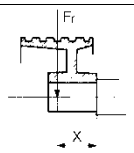
Motore Motor	Freno Brake	Coppia statica Static torque	Power supply Coil		Inerzia (J) inertia (J)	Velocità max. Max. speed	Tempi - Times sw. ON	sw. OFF	Lavoro ammissibile Max admissible work	
Size	Type	Nm (max)	Vdc	W	Kgm²	rpm	ms	ms	kJ	Q max
71	PM	32	24 / 12	26	0.00055	6000	90	22	30	$\frac{J_{tot} * \Delta n^2}{182.5}$
100	PM	130	24 / 12	50	0.0053	6000	190	65	65	
132	SPRING	225	24	75	0.0065	4500	100	15	30	*See sec.A par. 4.0*
132	SPRING	450	24	75	0.0129	4500	115	120	60	

Freni PM utilizzabili solo come stazionamento, non utilizzabili per frenate di emergenza - *PM Brakes are only for parking, Not suitable for emergency operation*

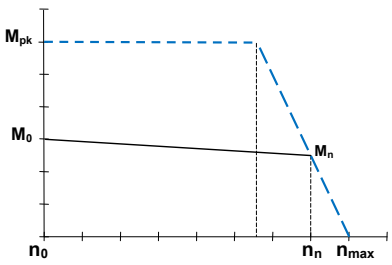
CUSCINETTI ***BEARINGS*** ***WÄLZLAGER***

Motor type	Drive-end side Bearing code	Non drive-end side Bearing code	Distance X mm	Max. radial load Fr N @ 1500rpm	Max. axial load N @ 1500rpm
BS. 71	6206 ZZ	6205 ZZ	25..30 / 50..60	1100 / 950	300
BS. 100	6309 ZZ	6306 ZZ	40 / 80	3000 / 2500	800
BS. 132	6313 ZZ	6309 ZZ	55 / 110	5300 / 4500	1500

Distance X mm



TORQUE DIAGRAM



Coppia di picco M_{pk} disponibile da 0rpm a 80% di n_n, vedere diagramma precedente

Peak torque M_{pk} available from 0rpm up to 80% of n_n, see previous diagram.

n_N	rated speed	**V1000**	FEM x 1000rpm
M_N	rater torque duty S1	**ke**	voltage constant
P_N	rated power duty S1	**kt**	torque constant
Un	rated voltage	**Rc**	phase to phase resistance
I_N	rated current duty S1	**Lc**	phase to phase inductance
M_0	standstill torque	**P**	nr of poles
I_0	standstill current	N_{max}	max speed
M_{pk}	peak torque	**Jm**	rotor inertia
I_{pk}	peak current	**m**	weigth

7.3.3 – BSn, BSv

BSn non ventilated

DATI ELETTRICI E PRESTAZIONI — *ELECTRICAL DATA AND PERFORMANCES* — ELEKTRISCHE DATEN UND LEISTUNGEN

	n_N	M_N	P_N	Un	I_N	M_0	I_0	M_{pk}	I_{pk}	V1000	ke	kt	Rc	Lc	P	N_{max}	Jm	m
	rpm	Nm	kW	Vrms	Arms	Nm	Arms	Nm	Arms	V/krpm	Vs/rad	Nm/Arms	Ohm	mH	2p	rpm	kgm²	kg
	1500	5,6	0,88	345	1,9		1,9	13,2	4,5	199	1,90	3,19	23,580	88,30		2200		
BSn 71 XS	2000	5,5	1,15	349	2,4	5,8	2,4	12,7	5,5	157	1,50	2,52	14,720	58,00	8	3000	0,00052	9,5
	3000	5,4	1,70	356	3,3		3,5	12,4	7,6	110	1,05	1,76	7,250	30,23		4000		
	1500	10,2	1,60	330	3,4		3,7	25,9	8,6	203	1,94	3,26	8,020	50,20		2200		
BSn 71 S	2000	10,0	2,09	328	4,4	11,6	4,9	25,6	11,0	156	1,49	2,50	4,600	29,30	8	3000	0,00085	11,9
	3000	9,8	3,08	326	6,2		7,2	25,4	16,0	107	1,02	1,72	2,190	12,40		4000		
	1500	16,5	2,59	336	5,3		5,5	37,7	12,1	210	2,00	3,36	4,635	32,30		2200		
BSn 71 M	2000	16,0	3,35	324	7,0	17,5	7,4	38,6	16,7	155	1,48	2,49	2,550	18,14	8	3000	0,00118	14,2
	3000	14,1	4,43	329	8,8		10,6	37,5	23,2	109	1,04	1,75	1,260	9,23		4000		
	1500	20,5	3,22	343	6,4		6,6	48,3	14,9	218	2,08	3,49	3,400	26,40		2200		
BSn 71 L	2000	20,0	4,19	328	8,5	22,0	9,0	50,0	21,1	160	1,52	2,56	1,830	14,20	8	3000	0,00151	16,6
	3000	16,5	5,18	322	10,3		13,4	50,0	30,9	109	1,04	1,75	0,849	6,39		4000		
	1500	24,0	3,77	323	7,8		8,0	63,0	20,3	209	1,99	3,35	2,340	18,76		2200		
BSn 71 P	2000	23,3	4,88	330	9,7	25,5	10,2	61,1	25,2	163	1,56	2,62	1,430	10,96	8	3000	0,00184	18,9
	3000	18,5	5,81	319	11,5		15,5	62,5	38,6	109	1,04	1,75	0,650	4,78		4000		
	1500	27,5	4,32	326	8,8		9,2	74,4	23,6	212	2,03	3,41	1,930	15,50		2200		
BSn 71 PX	2000	25,6	5,36	317	11,0	30,0	12,4	75,9	32,4	158	1,51	2,53	1,070	9,30	8	3000	0,00217	21,3
	3000	20,0	6,28	317	12,5		18,2	75,0	46,4	109	1,04	1,75	0,515	4,09		4000		
	1500	30,5	4,79	320	9,9		10,7	87,9	28,2	210	2,00	3,36	1,590	13,30		2200		
BSn 71 X	2000	27,9	5,84	316	11,9	34,2	14,1	88,0	37,3	159	1,52	2,55	0,905	7,81	8	3000	0,00250	23,6
	3000	21,3	6,69	311	13,4		20,9	88,2	55,0	108	1,03	1,73	0,419	3,09		4000		
	1500	33,5	5,26	318	10,8		12,0	100	32,0	210	2,01	3,38	1,370	10,70		2200		
BSn 71 XX	2000	30,4	6,37	314	12,9	38,7	15,9	100	42,2	160	1,52	2,56	0,782	5,86	8	3000	0,00283	26
	3000	22,2	6,97	313	13,9		23,5	100	61,8	109	1,04	1,75	0,361	2,94		4000		
	1000	31,5	3,30	351	6,7		6,72	88,0	18,4	314	2,99	5,03	4,860	47,80		2200		
BSn 100 S	2000	30,5	6,39	300	14,3	32,5	14,8	88,0	40,4	143	1,36	2,29	0,950	9,90	8	3000	0,00490	30
	3000	29,5	9,27	322	18,8		20,2	88,0	55,1	105	1,00	1,68	0,490	5,30		4000		
	1000	56,0	5,86	302	13,1		13,6	165	37,9	285	2,72	4,57	1,340	19,80		2200		
BSn 100 M	2000	51,0	10,7	307	22,4	60,0	25,6	165	71,0	152	1,45	2,44	0,390	5,60	8	3000	0,00890	43
	3000	44,0	13,8	281	30,9		40,9	165	114	95	0,91	1,52	0,150	2,19		4000		
	1000	72,0	7,54	321	15,3		17,0	239	49,9	314	2,99	5,03	0,900	15,90		2200		
BSn 100 L	2000	62,0	13,0	281	29,0	82,0	37,3	239	110	143	1,36	2,29	0,190	3,30	8	3000	0,0128	54
	3000	53,0	16,7	331	31,0		46,6	239	137	114	1,09	1,83	0,130	2,11		4000		
	1000	90,0	9,43	308	19,7		21,7	290	62,4	304	2,90	4,88	0,620	11,20		2200		
BSn 100 P	2000	76,3	16,0	297	33,5	102	43,5	290	125	152	1,45	2,44	0,160	2,81	8	3000	0,0167	68
	3000	65,0	20,4	329	38,0		58,0	290	166	114	1,09	1,83	0,090	1,58		4000		
	1000	93,0	9,7	323	21,6		21,6	168	38,3	306	2,92	4,91	0,826	13,21		2200		
BSn 132 S	2000	76,0	15,9	330	33,1	100	40,5	168	71,9	163	1,56	2,62	0,230	4,40	8	3000	0,0224	75
	3000	60,0	18,9	358	34,8		54,0	168	95,8	122	1,17	1,96	0,120	2,40		3000		
	1000	150	15,7	325	32,7		36,8	295	63,1	326	3,12	5,24	0,312	6,50		2200		
BSn 132 M	2000	113	23,7	311	49,2	182	73,7	295	126	163	1,56	2,62	0,070	2,13	8	3000	0,0401	109
	-	-	-	-	-		-	-	-	-	-	-	-	-		-		
	1000	205	21,5	303	47,6		58,3	440	100	306	2,92	4,91	0,160	4,41		2200		
BSn 132 L	2000	115	24,1	345	44,5	270	97,2	440	167	184	1,75	2,95	0,050	1,70	8	3000	0,0577	143
	-	-	-	-	-		-	-	-	-	-	-	-	-		-		
	1000	270	28,3	325	58,8		68,8	530	113	326	3,12	5,24	0,120	4,26		2200		
BSn 132 P	2000	130	27,0	326	56,6	340	138	530	227	163	1,56	2,62	0,027	1,06	8	3000	0,0753	177
	-	-	-	-	-		-	-	-	-	-	-	-	-		-		

cULus Versione cURus disponibile a richiesta – cURus version available on request.

7.3.3 – BSn, BSv

BSv Servo ventilated

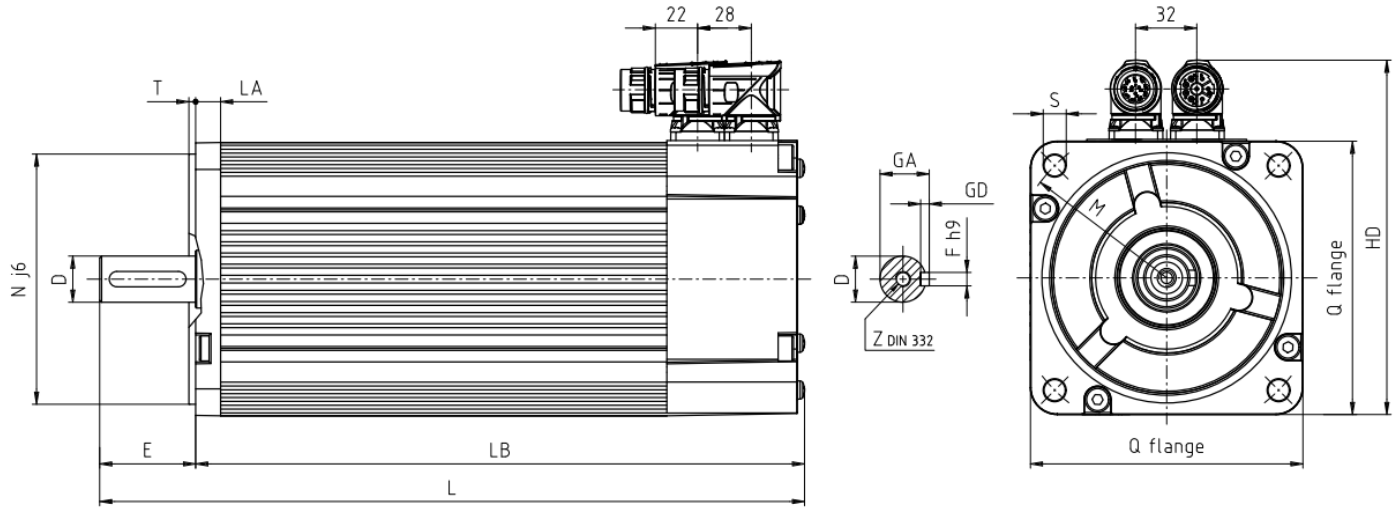
DATI ELETTRICI E PRESTAZIONI — *ELECTRICAL DATA AND PERFORMANCES* — ELEKTRISCHE DATEN UND LEISTUNGEN

	n_N	M_N	P_N	Un	I_N	M_0	I_0	M_{pk}	I_{pk}	V1000	ke	kt	Rc	Lc	P	N_{max}	Jm	m
	rpm	Nm	kW	Vrms	Arms	Nm	Arms	Nm	Arms	V/krpm	Vs/rad	Nm/Arms	Ohm	mH	2p	rpm	kgm²	kg
	1500	7,4	1,17	371	2,5		2,7	15,9	5,4	199	1,90	3,19	23,580	88,30		2200		
BSv 71 XS	2000	7,0	1,47	369	3,0	8,1	3,4	15,3	6,5	157	1,50	2,52	14,720	58,00	8	3000	0,00052	11,5
	3000	6,3	1,98	364	3,9		4,8	14,9	9,1	110	1,05	1,76	7,250	30,23		4000		
	1500	14,6	2,30	357	4,9		5,0	31,1	10,3	203	1,94	3,26	8,020	50,20		2200		
BSv 71 S	2000	14,0	2,93	349	6,1	15,4	6,5	30,7	13,2	156	1,49	2,50	4,600	29,30	8	3000	0,00085	14,0
	3000	12,6	3,96	338	8,0		9,4	30,5	19,2	107	1,02	1,72	2,190	12,40		4000		
	1500	22,0	3,46	356	7,1		7,2	45,2	14,5	210	2,00	3,36	4,635	32,30		2200		
BSv 71 M	2000	21,5	4,50	341	9,4	23	9,7	46,3	20,1	155	1,48	2,49	2,550	18,14	8	3000	0,00118	16,7
	3000	19,5	6,13	345	12,2		13,8	45,0	27,8	109	1,04	1,75	1,260	9,23		4000		
	1500	29,0	4,56	365	9,0		9,3	58,0	17,9	218	2,08	3,49	3,400	26,40		2200		
BSv 71 L	2000	28,0	5,86	346	11,9	31	12,7	60,0	25,3	160	1,52	2,56	1,830	14,20	8	3000	0,00151	19,1
	3000	24,0	7,54	336	15,0		18,6	60,0	37,1	109	1,04	1,75	0,849	6,39		4000		
	1500	34,0	5,34	342	11,1		11,6	75,7	24,4	209	1,99	3,35	2,340	18,76		2200		
BSv 71 P	2000	32,5	6,81	345	13,5	37	14,8	73,3	30,2	163	1,56	2,62	1,430	10,96	8	3000	0,00184	21,9
	3000	28,5	8,95	331	17,8		22,2	75,0	46,4	109	1,04	1,75	0,650	4,78		4000		
	1500	39,0	6,13	342	12,5		12,9	89,2	28,3	212	2,03	3,41	1,930	15,50		2200		
BSv 71 PX	2000	37,5	7,85	333	16,1	42	17,4	91,0	38,8	158	1,51	2,53	1,070	9,30	8	3000	0,00217	24,3
	3000	33,0	10,4	330	20,6		25,3	90,0	55,7	109	1,04	1,75	0,515	4,09		4000		
	1500	44,3	6,96	337	14,4		15,0	106	33,9	210	2,00	3,36	1,590	13,30		2200		
BSv 71 X	2000	42,0	8,80	331	18,0	48	19,8	106	44,8	159	1,52	2,55	0,905	7,81	8	3000	0,00250	27,1
	3000	36,0	11,3	322	22,7		29,1	106	66,0	108	1,03	1,73	0,419	3,09		4000		
	1500	49,0	7,70	333	15,8		16,8	120	38,4	210	2,01	3,38	1,370	10,70		2200		
BSv 71 XX	2000	47,0	9,84	327	20,0	54	22,1	120	50,6	160	1,52	2,56	0,782	5,86	8	3000	0,00283	29,5
	3000	39,0	12,3	324	24,3		32,5	120	74,2	109	1,04	1,75	0,361	2,94		4000		
	1000	42,7	4,47	380	9,1		9,3	100	21,9	314	2,99	5,03	4,860	47,80		2200		
BSv 100 S	2000	42,0	8,80	321	19,7	45	20,5	100	48,1	143	1,36	2,29	0,950	9,90	8	3000	0,00490	37
	3000	43,0	13,5	346	27,4		27,9	100	65,6	105	1,00	1,68	0,490	5,30		4000		
	1000	87,0	9,11	332	20,4		20,2	218	52,4	285	2,72	4,57	1,340	19,80		2200		
BSv 100 M	2000	85,0	17,8	336	37,3	89	37,9	218	98,3	152	1,45	2,44	0,390	5,60	8	3000	0,00890	49
	3000	80,0	25,1	306	56,1		60,7	218	157	95	0,91	1,52	0,150	2,19		4000		
	1000	124	13,0	355	26,4		26,9	300	65,6	314	2,99	5,03	0,900	15,90		2200		
BSv 100 L	2000	118	24,7	308	55,2	130	59,1	300	144	143	1,36	2,29	0,190	3,30	8	3000	0,0128	64
	3000	111	34,9	360	64,9		73,9	300	180	114	1,09	1,83	0,130	2,11		4000		
	1000	154	16,1	338	33,8		34,7	400	90,2	304	2,90	4,88	0,620	11,20		2200		
BSv 100 P	2000	144	30,2	322	63,2	163	69,5	400	180	152	1,45	2,44	0,160	2,81	8	3000	0,0167	78
	3000	137	43,0	351	80,1		92,7	400	241	114	1,09	1,83	0,090	1,58		4000		
	1000	143	15,0	356	33,2		31,3	305	69,0	306	2,92	4,91	0,826	13,21		2200		
BSv 132 S	2000	125	26,2	363	54,4	145	58,7	305	130	163	1,56	2,62	0,230	4,40	8	3000	0,0224	89
	3000	117	34,3	368	67,9		78,3	305	174	122	1,17	1,96	0,120	2,40		3000		
	1000	290	30,4	360	63,1		62,8	620	133	326	3,12	5,24	0,312	6,50		2200		
BSv 132 M	2000	260	54,5	356	110	310	127	620	265	163	1,56	2,62	0,070	2,13	8	3000	0,0401	126
	2800	230	67,4	363	134		162	600	342	122	1,17	1,96	0,038	1,20		3000		
	1000	395	41,4	336	91,7		95	840	192	306	2,92	4,91	0,160	4,41		2200		
BSv 132 L	2000	350	73,3	387	136	440	158	840	319	184	1,75	2,95	0,050	1,70	8	3000	0,0577	164
	2800	300	88,0	353	174		238	750	428	122	1,17	1,96	0,022	0,80		3000		
	1000	530	55,5	366	115		117	1100	235	326	3,12	5,24	0,120	4,26		2200		
BSv 132 P	2000	470	98,4	348	205	580	239	950	406	163	1,56	2,62	0,027	1,06	8	3000	0,0753	203
	2800	320	93,8	341	186		313	880	502	122	1,17	1,96	0,015	0,60		3000		

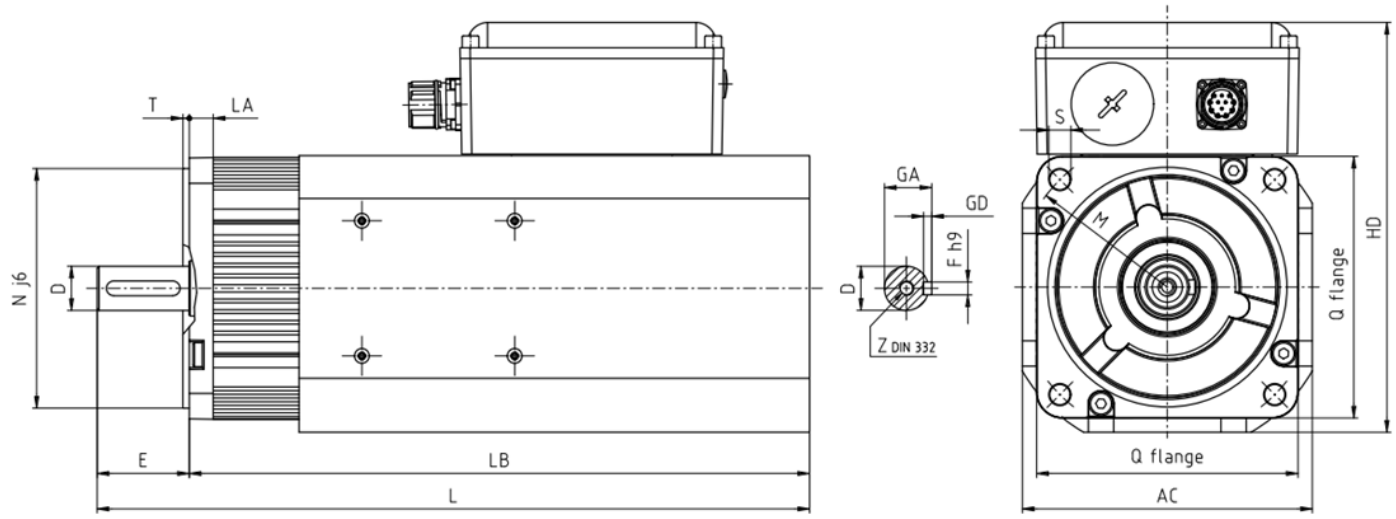
cURus Versione cURus disponibile a richiesta – cURus version available on request.

7.3.3 – BSn, BSv

BSn 71 **DIMENSIONI DI INGOMBRO - *OVERALL DIMENSIONS* - ABMESSUNGEN** Dimensions [mm]



BSv 71



Size	AC	D	E	F	GA	GD	HD	HD 1)	L	L 1)	LA	LB	LB 1)	M	N	P	Q	S	T	Z	BR 2)
71 XS	158	24 J6	50	8	27	7	185	224	270	365	13	220	315	165	130	200	142	11	3.5	M8	50
71 S									295	390		245	340								
71 M									325	420		275	370								
71 L									350	445		300	395								
71 P									380	375		330	425								
71 PX									405	500		355	450								
71 X	158	28 J6	60	8	31	7	185	224	445	540		385	480	165	130	200	142	11	3.5	M10	50
71 XX									470	565		410	505								

Note: 1) Per motori servoventilati serie BSv – *For servo-ventilated motors BSv series*
2) Per motori con freno Freno aggiungere la quota BR – *For motor with brake add the BR dimension*

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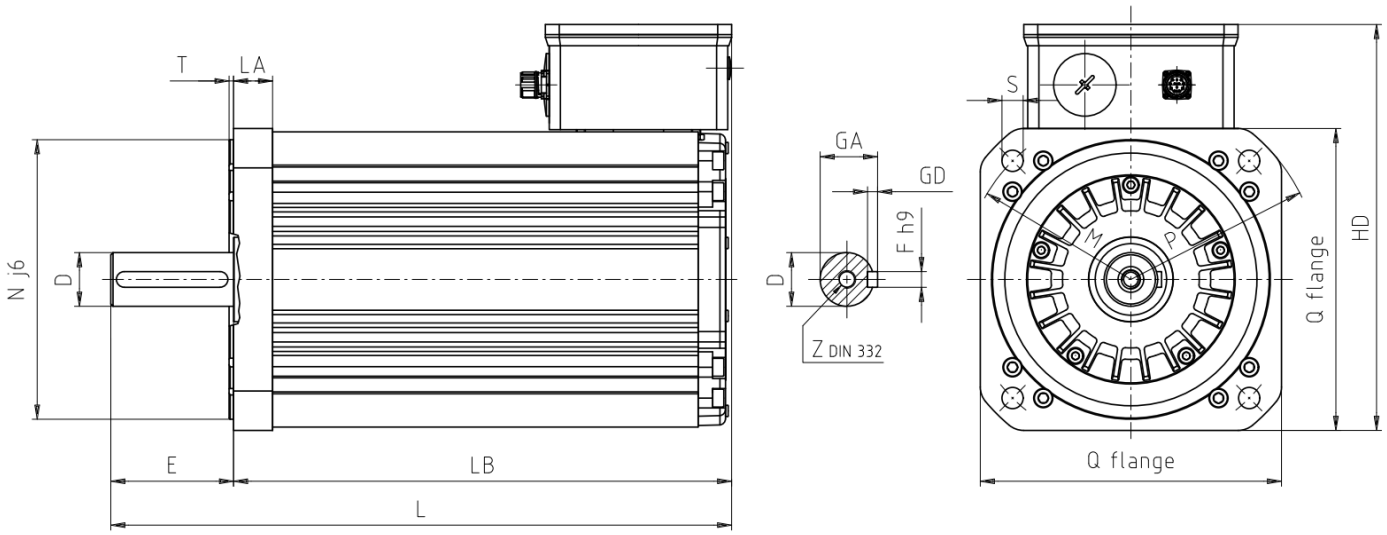
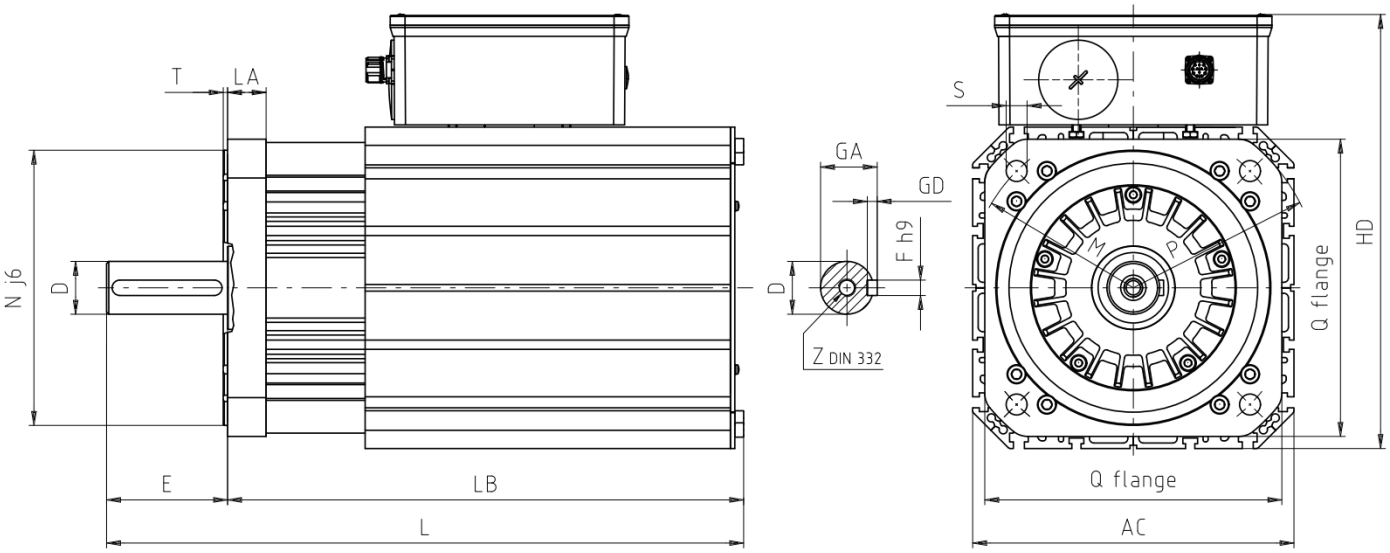
7.3.3 – BSn, BSv

BSn 100…132 **DIMENSIONI DI INGOMBRO - *OVERALL DIMENSIONS* - ABMESSUNGEN** Dimensions [mm]



BSv 100…132



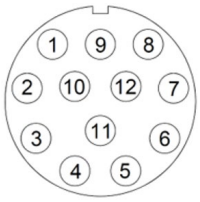
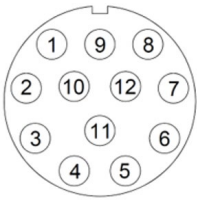
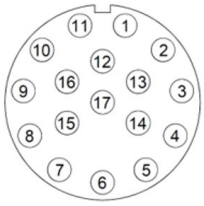
Size	AC	D	E	F	GA	GD	HD	HD [1]	L	L [1]	LA	LB	LB [1]	M	N	P	Q	S	T	Z	BR [2]
100S	224	42 k6	82 110 [3]	12	45	8	272	320	302	437	20	260	355	215	180 j6	250	200	14.5	4	M16	120
100M									377	512		335	430								
100L									492	587		410	505								
100P									567	662		485	580								
132S	292	48 k6	110	14	51.5	9	364	395	450	580	35	340	470	300	250 j6	350	270	19	4	M16	135
132M									560	690		450	580								
132L									665	795		555	685								
132P									770	900		660	790								

Note:
[1] Per motori servoventilati serie BSv – *For servo-ventilated motors BSv series*
[2] Per motori con freno Freno aggiungere la quota BR – *For motor with brake add the BR dimension*
[3] A richiesta – On request

7.3.3 – BSn, BSv

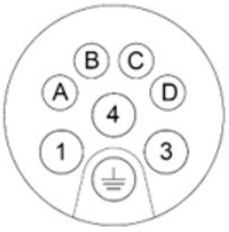
TRASDUTTORI	*FEEDBACK*	DREHGEBER					
			Singolo giro – *Single Turn* - xxxx				
Tipo Trasduttore	*Transducer type*	Drehgeber-Typ	**Resolver**	**Encoder**	**Encoder**	**Encoder**	**Encoder**
Modello	*Model*	Modell	**TS2640N1**	**SRS50**	**SRS50S**	**ECN1313**	**ECN1325**
Funzione	*Function*	Funktion	Singleturn	Singleturn	Singleturn	Singleturn	Singleturn
Protocollo	*Protocol*	Schnittstelle	-	Hyperface	Hyperface	EnDat01	EnDat22
Alimentazione	*Power supply*	Versorgungsspannung	7Vrms 10kHz	7…12Vdc	7…12Vdc	3,6…14Vdc	3,6…14Vdc
Segnali incrementali	*Incremental signals*	Inkrementalsignale	2 poli	1024	1024	2048	-
Segnale di uscita	*Output signal*	Ausgangssignale	RT 0,5 +/- 5%	SinCos 1Vpp	SinCos 1Vpp	SinCos 1Vpp	-
Posizioni per giro	*Positions per rev.*	Positionswerte	-	32 768	32 768	8192	33 544 432
Posizioni totali	*Total positions*	Umdrehungen	-	-	-	-	-
Risoluzione	*Resolution*	Strichzahlen	-	15 bit	15 bit	13 bit	25 bit
Funzione safety	*Functional safety*	Funktionale Sicherheit	-	Not	Yes – SIL2	Not	Yes – SIL2

			Multigiro – *Multiturn* - xxxx				
Tipo Trasduttore	*Transducer type*	Drehgeber-Typ	**Encoder**	**Encoder**	**Encoder**	**Encoder**	
Modello	*Model*	Modell	**SRM50**	**SRM50S**	**EQN1325**	**EQN1337**	
Funzione	*Function*	Funktion	Multiturn	Multiturn	Multiturn	Multiturn	
Protocollo	*Protocol*	Schnittstelle	Hyperface	Hyperface	EnDat01	EnDat22	
Alimentazione	*Power supply*	Versorgungsspannung	7…12Vdc	7…12Vdc	3,6…14Vdc	3,6…14Vdc	
Segnali incrementali	*Incremental signals*	Inkrementalsignale	1024	1024	512	-	
Segnale di uscita	*Output signal*	Ausgangssignale	SinCos 1Vpp	SinCos 1Vpp	SinCos 1Vpp	-	
Posizioni per giro	*Positions per rev.*	Positionswerte	32 768	32 768	8192	33 544 432	
Giri totali	*Total revolutions*	Totale Revolutionen	4096	4096	4096	4096	
Posizioni totali	*Total positions*	Umdrehungen	134 217 728	134 217 728	-	-	-
Risoluzione	*Resolution*	Strichzahlen	27 bit	27 bit	13 bit	25 bit	
Funzione safety	*Functional safety*	Funktionale Sicherheit	Not	Yes – SIL2	Not	Yes – SIL2	

CONNETTORE	*CONNECTOR*	STECKVERBINDER			
Trasduttore	*Feedback*	Drehgeber	**Resolver**	**Encoder Hyperface**	**Encoder Endat**
Tipo di connettore	*Type of connector*	Stecker-Typ	M23 Speedtech	M23 Speedtech	M23 Speedtech
Nr. di pins	*Pins nr.*	Anzahl Pins	12 pin	12 pin	17 pin
Schema	*Diagram*	Diagramm	IT 12-160	IT 12-40	IT 17-70
Tipo di inserto	*Insert type*	Einsatz-Typ	P	P	E
Tipo pins	*Pins type*	Belegung-Typ	Φ 1mm	Φ 1mm	Φ 1mm
Connettore volante	*Flying connector*	Flugstecker	ASTA021FS04400166000	ASTA021FS04400166000	ASTA035FS044001666000
Disegno connettore	*Connector drawing*	Stecker Zeichnung			

Schema connessione	*Pin Layout*	Anschlussbelegung	**Pin nr.**	Signal	Signal	Signal
			1	Sin +	TP +	Sensor up
			2	Cos -	TP -	
			3			
			4		RefSin	Sensor 0V
			5	Supply -	RefCos	TP +
			6		Data +	TP -
			7	Supply +	Data -	+ Vdc
			8	TP +	Sin +	Clock +
			9	TP -	Cos +	Clocl -
			10	Sin -	+ Vdc	0V gnd
			11	Cos +	0V gnd	
			12			B +
			13			B -
			14			Data +
			15			A +
			16			A -
			17			Data -

7.3.3 – BSn, BSv

CONNETTORE DI POTENZA	*POWER CONNECTOR*	STROMVERSORGUN STECKVERBINDER		
Tipo di connettore	*Type of connector*	Stecker-Typ	M23 8 Poli	M40 8 poli
Tipo pins	*Pins type*	Belegung-Typ	4 x Φ 2mm + 4 x Φ 1mm	
Connettore volante	*Flying connector*	Flugstecker		
Disegno connettore	*Connector drawing*	Stecker Zeichnung		
Schema connessione	*Pin Layout*	Anschlussbelegung	**Pin nr.**	
			1	Phase U
			4	Phase V
			3	Phase W
			gnd	Gnd
			A	Brake +
			B	Brake -
			C	
			D	