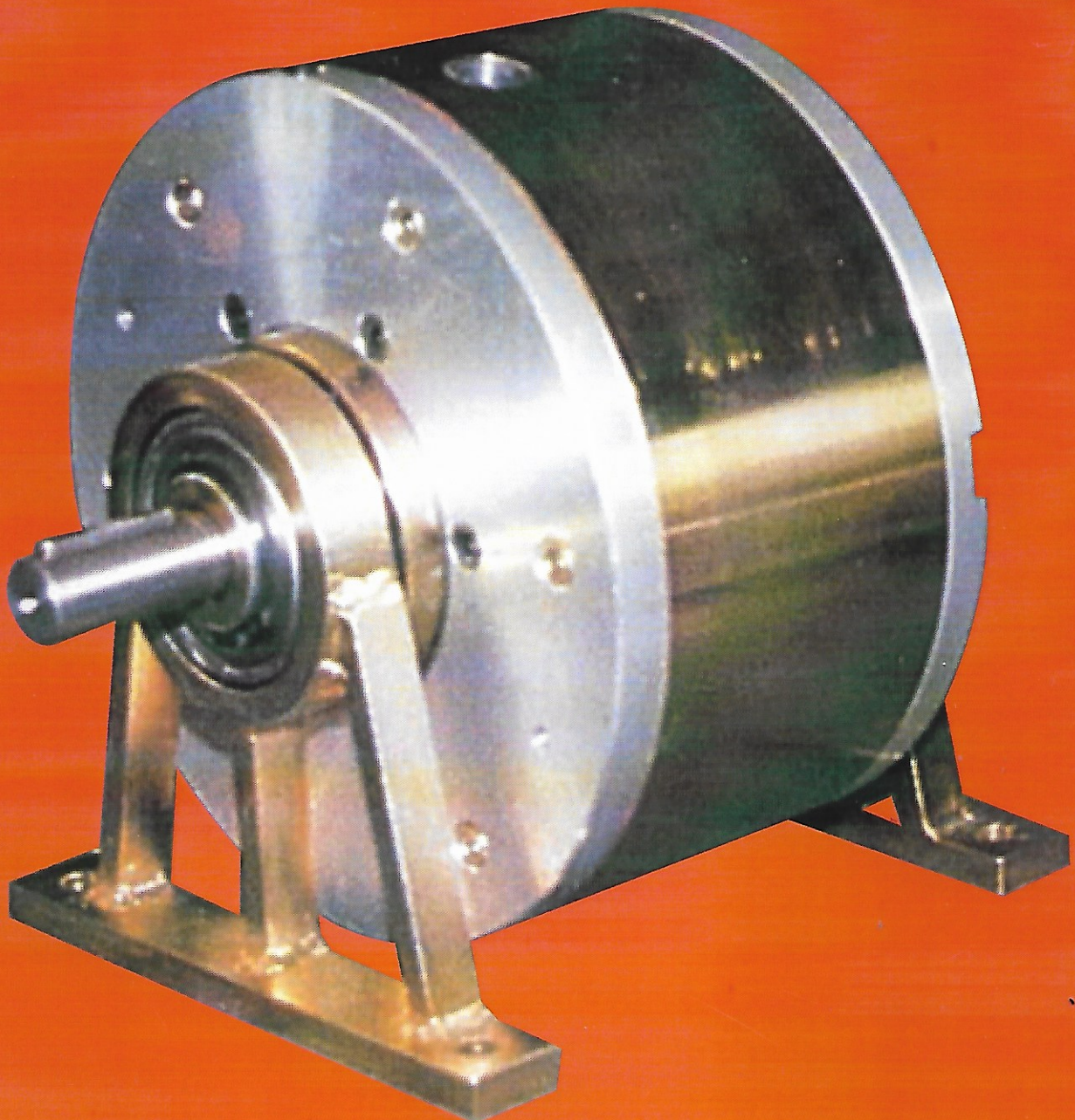
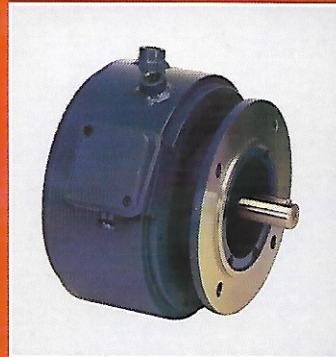
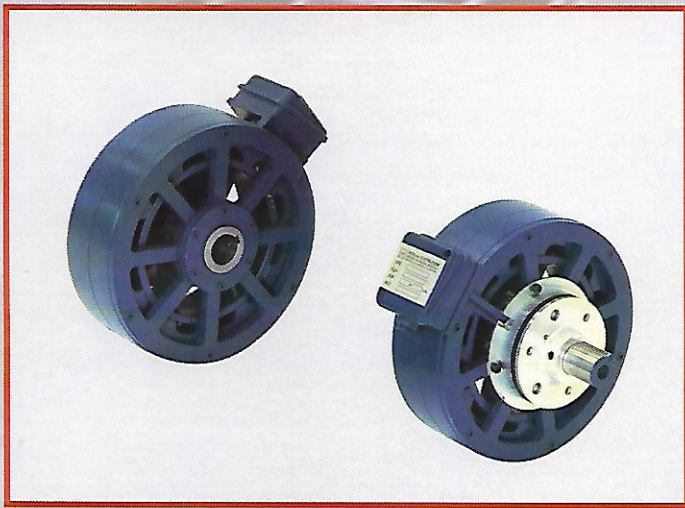


**Freni a correnti indotte controllati
elettronicamente**

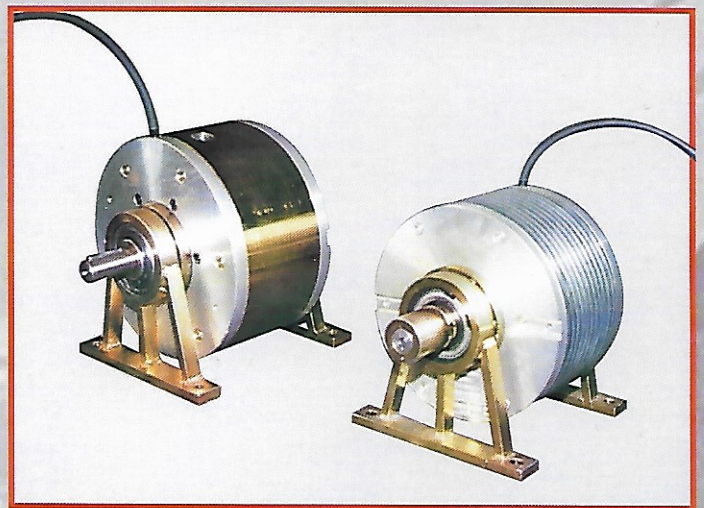
*Electronically controlled
induced current braking systems*

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& SOLUTIONS**

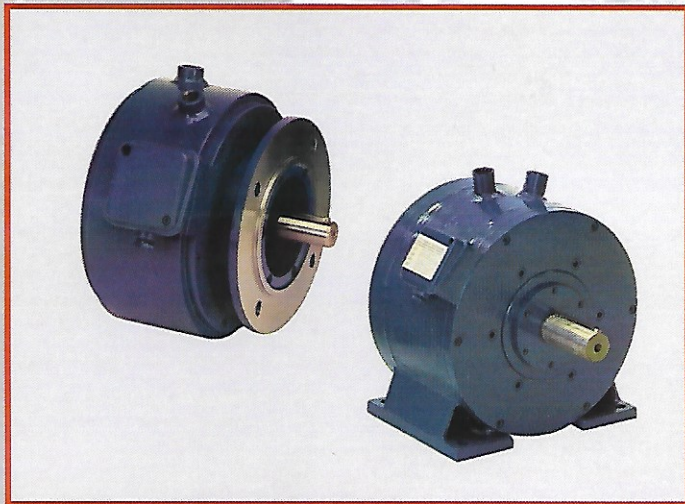




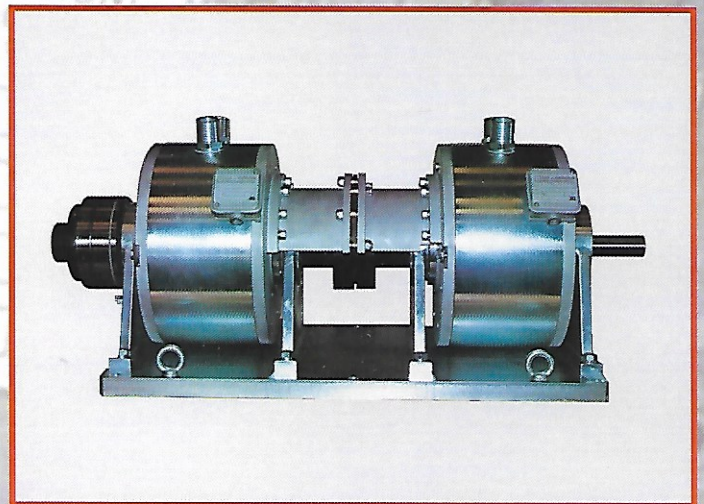
Freno dinamico a correnti indotte serie **GMFE...** controllo decelerazione con freno E a lancio di corrente.
*Induced current dynamic brake of **GMFE...** series with deceleration control with disc brake E and current launch.*



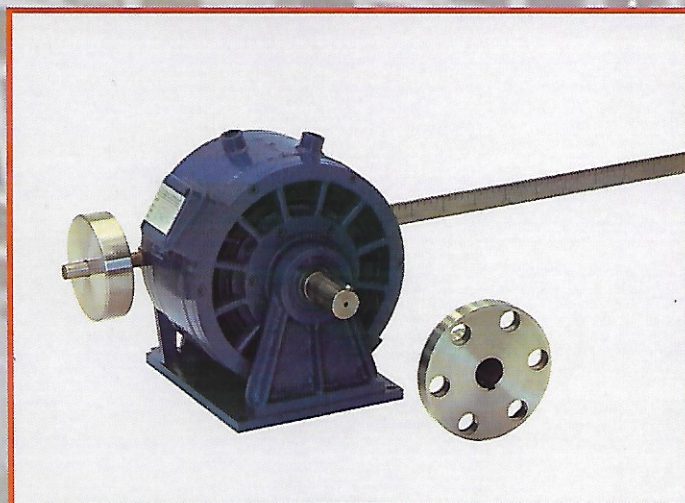
Freni dinamici serie **GFA.../GFB...** raffreddati ad acqua o in aria.
*Dynamic brakes **GFA.../GFB...** series. Water or air cooled.*



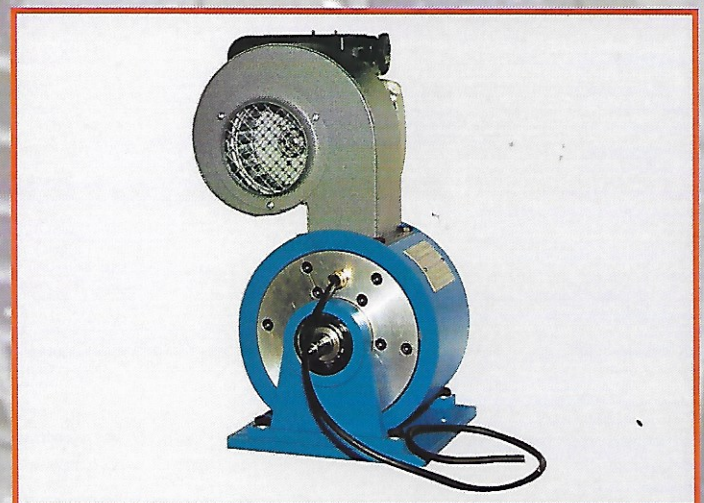
Freni continui a correnti indotte serie **GFC.../GFD...**
SVOLGITORI B3-B5 raffreddati ad acqua o in aria.
*Induced current continuous brake **GFC.../GFD...UNROLL B3-B5** series - Water and air cooled.*



2 - GFA8-EZE100-BA - Freni dinamici per il controllo del momento torcente raffreddati ad acqua, innesto elettromagnetico a denti a lancio di corrente per il controllo coppia di spunto.
Dynamic, water-cooled brakes for twisting moment control. Electromagnetic, current-launch tooth start for static torque control



Freno dinamico a correnti indotte **GFA.../GFB...** raffreddato ad acqua.
*Dynamic induced current brake **GFA.../GFB...** Water cooled.*



Freno dinamico serie **GFA.../GFB...** raffreddato con ventilatore.
*Dynamic brakes **GFA.../GFB...** series. Fan cooled.*



CARATTERISTICHE GENERALI FRENI A CORRENTI INDOTTE CONTROLLATI ELETTRONICAMENTE

FRENO DINAMICO AD INTERMITTENZA SERIE GMF/GMEF/GMMF

Alimentato attraverso l'apparecchiatura ALC, questo freno viene utilizzato ogni qualvolta occorre frenare una macchina in modo dolce e regolabile. Si tenga presente che la coppia statica è nulla ad albero fermo e quindi la serie GMF non può essere utilizzata come freno di stazionamento; sulla serie GMEF viene montato all'uscita un freno a disco di corrente E, mentre la serie GMMF all'uscita monta un freno di sicurezza a mancanza di corrente M. Questa serie è ad albero cavo, pertanto è possibile montarla all'estremità di un albero frenante.

FRENO DI COPPIA NEGATIVA

Alimentato attraverso l'apparecchiatura ALVF in coppia con la serie GMV è possibile controllare oltre all'accelerazione anche la decelerazione, frenando il carico in tempi controllati. Per posizionamenti di alta precisione si sceglierà la serie GMEF; GMMF corredati di freni statici e a mancanza di corrente. Montati in blocco sulla serie GMV formano la serie GMVI con freno dinamico, serie GMVIE con freno a lancio di corrente, serie GMVIM con freno dinamico e freno a mancanza di corrente.

FRENO CONTINUO A COPPIA REGOLABILE SERIE GFC/GFD

Serie GFD è utilizzata quasi sempre per avvolgitori, essendo la sua curva di coppia simile a quella dello svolgimento coppia che diminuisce automaticamente con l'aumentare dei giri entrata (considerato a potenza costante).

Serie GFC: è utilizzata per frenature ad alta velocità essendo la sua curva di coppia in aumento con l'aumentare dei giri in entrata.

FRENO DINAMOMETRICO PER CONTROLLO MOMENTO TORCENTE SERIE GFA/GFB.

La Serie GFA ha le stesse caratteristiche della serie GFC; la serie GFB ha le stesse caratteristiche della curva serie GFD (potenza costante). La serie GFA, GFB, GFC, GFD viene normalmente fornita con raffreddamento ad acqua, e alimentata dall'apparecchiatura ALC.

PRINCIPALI CAMPI DI APPLICAZIONE

Macchine Plastiche, Macchine Enologiche, Macchine Legno, Macchine Equilibratrici, Macchine Alimentari, Macchine Bobinatrici, Impianti di Sollevamento-Trasporto, Impianti Fonderia-Acciaio, Macchine Tessili, Macchine Pelletteria, Macchine Grafiche e Cartotecnica, Macchine Imballo e confezionamento, Macchine Radiologiche, Macchine Utensili, Macchine Lavorazione Lamiera, Macchine Marmo, Impianti Conglomerati Bituminosi.



ELECTRONICALLY CONTROLLED INDUCED CURRENT BRAKING SYSTEMS GENERAL CHARACTERISTICS

INTERMITTENT DYNAMIC BRAKING SYSTEM OF THE GMF/ GMEF/ GMMF RANGES

This device is powered by an ALC appliance, and is used whenever a smooth and adjustable braking action is necessary. It must be pointed out that the static torque is null with the shaft at a standstill and therefore the GMF series cannot be used as a parking brake; while the GMEF series features an E current brake disk mounted on the output, while the GMMF series features a safety brake mounted on the output in the event of lack of current M. This range has a hollow shaft so that it can be mounted at the end of a brake shaft.

NEGATIVE TORQUE BRAKE

Powered by means of the ALVF appliance coupled with the GMV series, and can therefore control both acceleration and deceleration, braking the load over controlled time periods. For high precision positioning the GMEF and GMMF series are more suitable as they are equipped with static brakes and lack of current feature.

When mounted as one on the GMV series they constitute the GMVI series with dynamic brake, series GMVIE with current launch brake, and GMVIM series with dynamic brake and lack of current brake.

ADJUSTABLE TORQUE CONTINUOUS BRAKE SERIES GFC/GFD

The GFD series is almost always used for unwinding devices, as its torque curve is similar to the torque unwinding curve, which is automatically reduced on increase of the number of input revs (considered as being constant power).

The GFC series is used for high speed braking operations as its torque curve increases with the increase of the number of input revs.

DYNAMOMETRIC BRAKE FOR TWISTING MOMENT CONTROL - SERIES GFA/GFB

The GFA series has the same features as the GFC series; the GFB series has the same features as the GFD series curve (constant power). Series GFA, GFB, GFC and GFD are normally equipped with water cooling feature and powered by an ALC appliance.

MAIN FIELDS OF APPLICATION

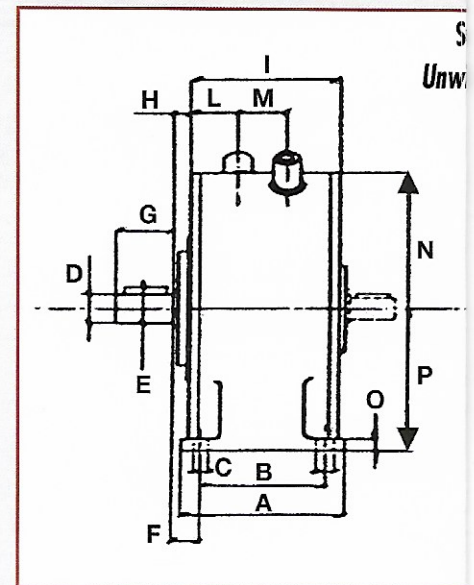
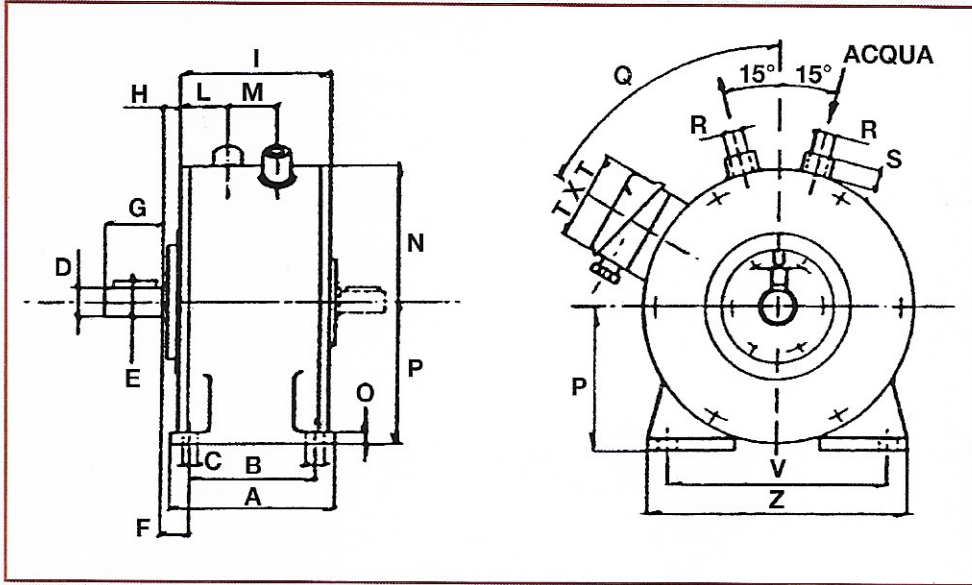
Plastic production machinery, Wine making machinery, Wood working machinery, Balancing machinery, Food production machinery, Winding machines, Lifting-conveyance machinery, Steel-foundry systems, Textile machinery, Leather goods production machinery, Graphic and paper making machinery, Packaging and making-up machinery, Radiological machinery, machine Tools, Sheet metal processing machinery, Marble processing machinery, Bituminous conglomerate systems.

Freno continuo a coppia regolabile

Adjustable torque continuous brake

Freno continuo a coppia regolabile

Adjustable torque continuous brake



Dimensioni caratteristiche freni a correnti indotte raffreddati ad acqua tipo GFC fornibili anche raffreddati ad aria
Type and dimensions induced current brake water cooling type GFC also available on air cooled

Grandezza Size			GFC1/90	GFC2/90	GFC3/90	GFC4/90	GFC5/90	GFC6/90	GFC7/90
Momento	Dinamico	rpm = 200	0,3	0,6	1,0	1,8	2,5	5,0	10,0
	dinamico	rpm = 1000	0,6	2,2	2,2	3,0	7,5	11,0	25,0
Kgm	Kgm	rpm = 1500	1,2	1,7	3,0	4,0	8,8	13,0	30,0
		rpm = 3000	2,0	3,2	4,0	6,0	11,0	17,0	37,0
Bobina Coil	Tensione Vcc - Tension Vcc		90	90	90	90	90	90	90
	Potenza W - Power W		50	60	70	85	120	150	240
Dimensioni - Dimensions	A		120	130	140	155	170	190	235
	B		105	110	115	130	140	160	200
	C		7	9	11	11	13	15	17
	D (K6)		14	19	24	24	28	38	42
	E		16	21,5	27	27	31	41,5	45,5
	F		15	15	17	17	18	20	23
	G		30	40	50	50	50	8	100
	H		12	12	14	14	15	17	20
	I		105	110	115	130	140	160	205
	L		35	35	40	45	45	60	67
	M		35	35	35	40	45	50	90
	N		75	88	108	116	135	153	168
	O		6	8	10	10	10	12	15
	P		80	90	112	120	138	155	170
	Angoli - Corners Q		45	45	60	60	60	60	60
	R		1/4	1/4	3/8	3/8	3/8	1/2	3/4
	S		15	15	15	1	20	20	30
TxT		65	65	65	65	65	80	80	
U		5	6	8	8	8	10	12	
V		125	145	180	200	230	250	285	
Z		140	165	205	225	260	280	320	
Peso GFC Kg. ca. - Weight GFC Kg. ca.			15	17	22	31	40	60	115

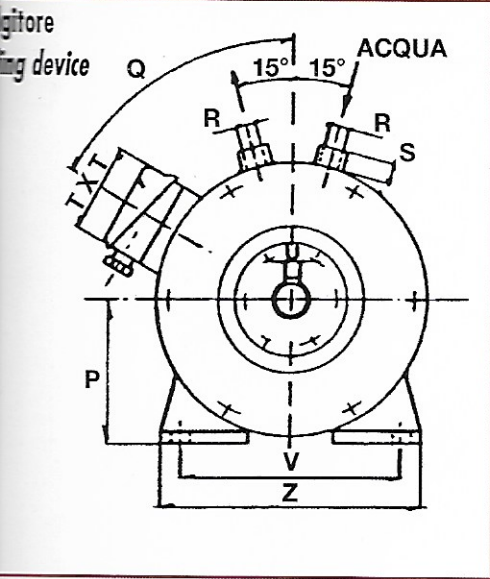
Dimensioni caratteristiche freni a correnti indotte raffreddati ad aria
Type and dimensions induced current brake air cooled type GFD

Grandezza Size			GFD1/90	GFD2/90
Momento	Dinamico	rpm = 100	1,1	1,1
	dinamico	rpm = 500	0,4	0,4
(da Nm)	(from Nm)			
Kgm	Kgm	rpm = 1000	0,2	0,2
Bobina Coil	Tensione Vcc - Tension Vcc		90	90
	Potenza W - Power W		50	50
Dimensioni - Dimensions	A		120	120
	B		105	105
	C		7	7
	D (K6)		14	14
	E		16	16
	F		15	15
	G		30	30
	H		12	12
	I		105	105
	L		35	35
	M		35	35
	N		75	75
	O		6	6
	P		80	80
	Angoli - Corners Q		45	45
	R		1/4	1/4
	S		15	15
TxT		65	65	
U		5	5	
V		125	125	
Z		140	140	
Peso GFC Kg. ca. - Weight GFC Kg. ca.			15	15

Forme costruttive: B3 e B5
 Construction type: B3 and B5

Forme costruttive: B3 e B5
 Construction type: B3 and B5

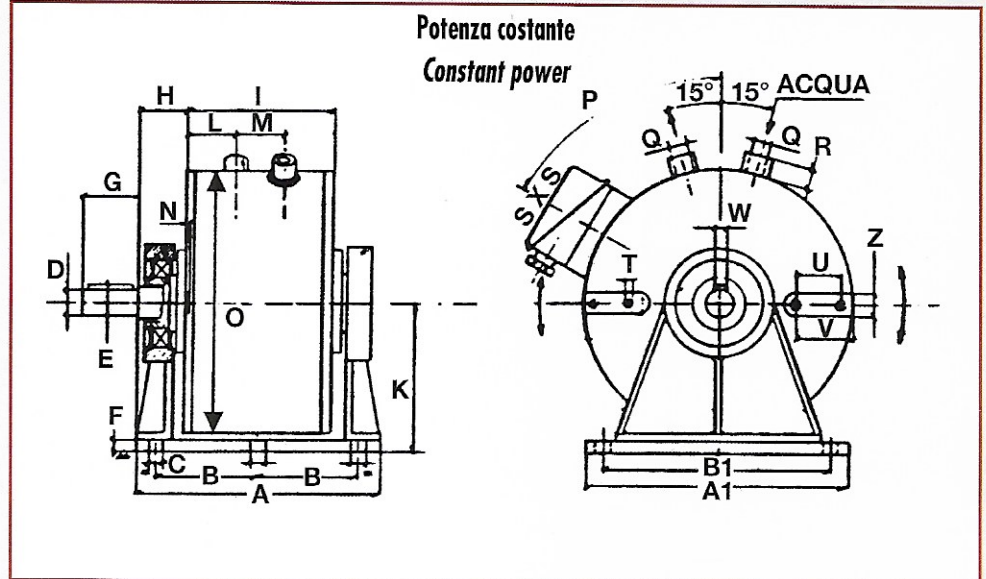
abile "Svolgitore" s brake "Unwinding device"



dati ad acqua tipo GFD fornibili anche raffreddati ad aria
er cooling type GFD also available on air cooled

90	GFD3/90	GFD4/90	GFD5/90	GFD6/90	GFD7/90
	3,1	5,2	7,1	10,0	13,0
	1,5	3,1	4,2	5,2	6,5
	1,2	1,5	3,1	4,0	5,1
	90	90	90	90	90
	70	85	120	160	250
	140	155	170	190	235
	115	130	140	160	200
	11	11	13	15	17
	24	28	28	38	42
	27	27	31	41,5	45,5
	17	17	18	20	23
	50	50	50	8	100
	14	14	15	17	20
	115	130	140	160	205
	40	45	45	60	67
	35	40	45	50	90
	108	116	135	153	168
	10	10	10	12	15
	112	120	138	155	170
	60	60	60	60	60
	3/8	3/8	3/8	1/2	3/4
	15	15	20	20	30
	65	65	65	80	80
	8	8	8	10	12
	180	200	230	250	285
	205	225	260	280	320
	22	31	40	60	115

Freno a bilancia per controllo momento torcente Dynamometric brake for twisting moment control



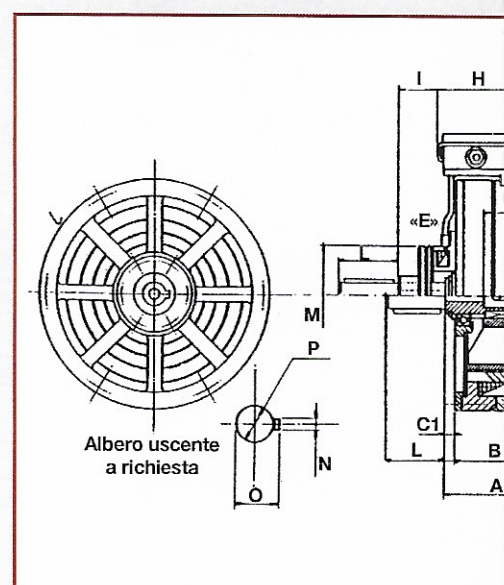
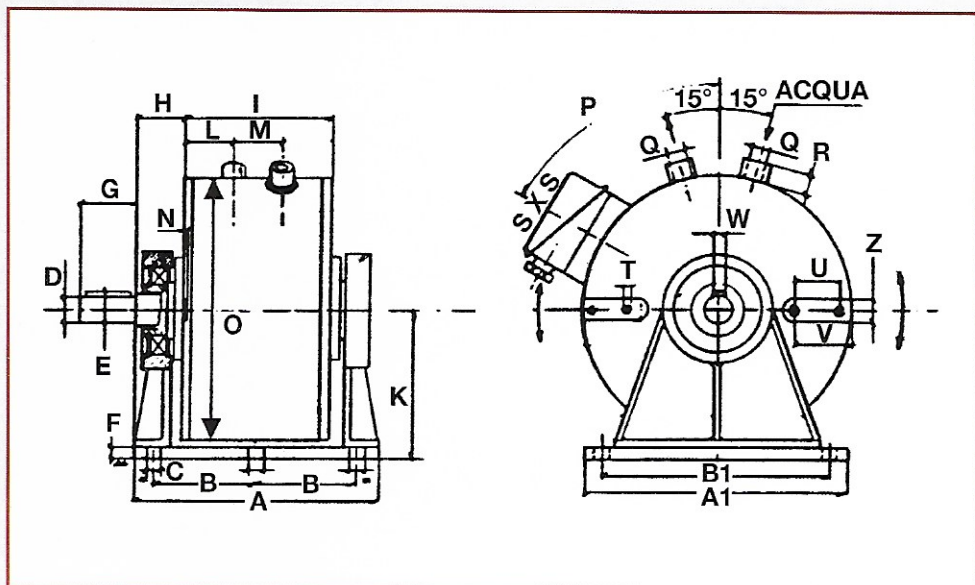
Dimensioni caratteristiche freni a correnti indotte raffreddati ad acqua tipo GFB fornibili anche raffreddati ad aria
Type and dimensions induced current brake water cooling type GFB also available on air cooled

Grandezza Size		GFB1/90	GFB2/90	GFB3/90	GFB4/90	GFB5/90	GFB6/90	GFB7/90	
Momento	Dynamic rpm = 100	1,1	2,0	3,1	5,2	7,1	10,0	13,0	
dinamico	dynamic rpm = 500	0,4	1,0	1,5	3,1	4,2	5,2	6,5	
(da Nm)	(from Nm)								
Kgm	Kgm rpm = 1000	0,2	0,5	1,2	1,5	3,1	4,0	5,1	
Bobina Coil	Tensione Vcc - Tension Vcc	90	90	90	90	90	90	90	
	Potenza W - Power W	50	60	70	85	120	160	250	
Dimensioni - Dimensions	A	175	185	195	215	230	260	325	
	B	80	80	85	90	102	115	143	
	A1	140	170	200	230	260	290	320	
	B1	125	145	175	205	235	265	290	
	C	7	9	9	9	11	13	15	
	D (K6)	14	19	24	28	28	38	42	
	E	16	21,5	27	27	31	41,5	45,5	
	F	10	10	12	12	13	15	17	
	G	30	40	50	60	60	80	100	
	H	35	37	40	42	45	50	60	
	K	90	105	126	132	156	175	190	
	W	5	6	8	8	8	10	12	
	I	105	110	115	130	140	160	205	
	L	35	35	40	45	45	60	67	
	M	35	35	35	40	45	50	90	
	N	3	3	4	6	6	6	8	
	O	150	177	215	232	270	305	335	
	Angoli - Corners P		45	45	60	60	60	60	60
	Q		1/4	1/4	3/8	3/8	3/8	1/2	3/4
R		15	15	15	15	20	20	30	
SxS		65	65	65	65	65	80	80	
T		6	6	6	6	8	8	10	
U		12	15	20	22	25	30	35	
V		25	30	35	37	40	45	50	
Z		15	15	20	20	20	30	35	
Peso GFA Kg. ca. - Weight GFC Kg. ca.		18	21	28	38	49	70	130	

Forme costruttive: B3 e B5
Construction type: B3 and B5

Freno a bilancia per controllo momento torcente Dynamometric brake for twisting moment control

Freno dinamico GMF/GMFE Dynamic braking system of t



Dimensioni caratteristiche freni a correnti indotte raffreddati ad acqua tipo GFA fornibili anche raffreddati ad aria
Type and dimensions induced current brake water cooling type GFA also available on air cooled

Grandezza Size			GFA1/90	GFA2/90	GFA3/90	GFA4/90	GFA5/90	GFA6/90	GFA7/90
Momento	Dynamic	rpm = 200	0,3	0,6	1,0	1,8	2,5	5,0	10,0
dinamico	dynamic	rpm = 1000	0,6	1,3	2,2	3,0	7,5	11,0	25,0
Kgm	Kgm	rpm = 1500	1,2	1,7	3,0	4,0	8,8	13,0	30,0
		rpm = 3000	2,0	3,2	4,0	6,0	11,0	17,0	37,0
Bobina Coil	Tensione Vcc - Tension Vcc		90	90	90	90	90	90	90
	Potenza W - Power W		50	60	70	85	120	150	240
Dimensioni - Dimensions	A		175	185	195	215	230	260	325
	B		80	80	85	90	102	115	143
	A1		140	170	200	230	260	290	320
	B1		125	145	175	205	235	265	290
	C		7	9	9	9	11	13	15
	D (K6)		14	19	24	28	28	38	42
	E		16	21,5	27	27	31	41,5	45,5
	F		10	10	12	12	13	15	17
	G		30	40	50	60	60	80	100
	H		35	37	40	42	45	50	60
	K		90	105	126	132	156	175	190
	W		5	6	8	8	8	10	12
	I		105	110	115	130	140	160	205
	L		35	35	40	45	45	60	67
	M		35	35	35	40	45	50	90
	N		3	3	4	6	6	6	8
	O		150	177	215	232	270	305	335
	Angoli - Corners P		45	45	60	60	60	60	60
	Q		1/4	1/4	3/8	3/8	3/8	1/2	3/4
	R		15	15	15	15	20	20	30
SxS		65	65	65	65	65	80	80	
T		6	6	6	6	8	8	10	
U		12	15	20	22	25	30	35	
V		25	30	35	37	40	45	50	
Z		15	15	20	20	20	30	35	
Peso GFA Kg. ca. - Weight GFC Kg. ca.			18	21	28	38	49	70	130

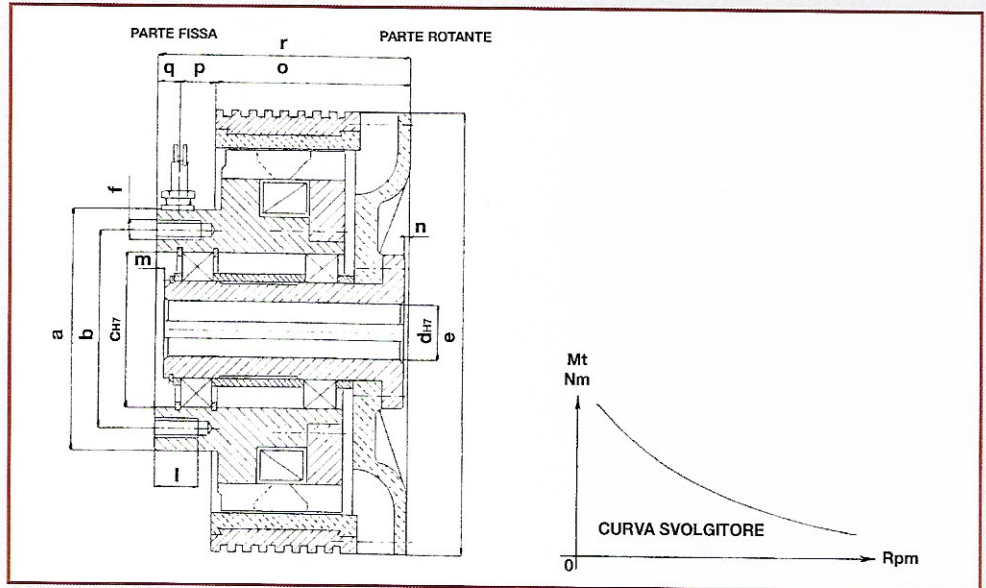
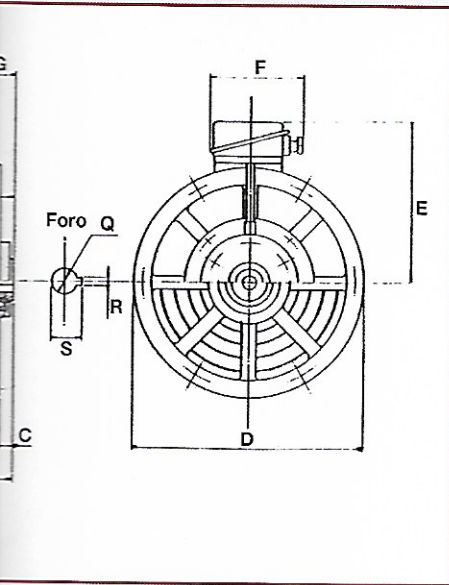
Dimensioni caratteristiche freni a correnti indotte
Type and dimensions induced current brake

Grandezza Size			GMF1/90	GMF2/90
Momento	Dynamic	rpm = 200	0,25	0,5
dinamico	dynamic	rpm = 1000	0,5	1,0
Kgm	Kgm	rpm = 1500	0,9	1,8
		rpm = 3000	1,8	3,6
Bobina Coil GMF	Tensione Vcc - Tension Vcc		90	90
	Potenza W - Power W		60	80
Bobina Coil E	Tensione Vcc - Tension Vcc		24	24
	Potenza W - Power W		10	10
Dimensioni - Dimensions	Kgm freno "E" - Kgm brake "E"		0,3	0,5
	A		71	80
	B		55	60
	C		10	10
	C1		6	6
	D		175	200
	E		133	140
	F		90	90
	G		12	12
	H		78	78
	I per GMF/GMFE - I for GMF/GMFE		13	13
	L		30	40
	M per GMF/GMFE - M for GMF/GMFE		50	60
	N (TH8)		5	5
	O		16	21
P (J6)		14	14	
Q (J16)		14	14	
R (TH8)		5	5	
S		16,3	21	
Peso GFA Kg. ca.			10	10
Weight GMF/GMFE Kg. ca.			10	10

Forme costruttive: B3 e B5

Construction type: B3 and B5





Correnti indotte GMF - GMFE Induced current water cooling type GMF/GMFE				
	GMF3/90	GMF4/90	GMF5/90	GMF6/90
	1,0	1,8	2,5	4,5
	2,2	3,0	7,5	11,0
	3,0	4,0	8,8	13,3
	3,5	6,0	11,0	17,0
	90	90	90	90
	110	135	180	250
	24	24	24	24
	14	20	20	25
	1,5	3	3	6,5
	99	112	124	140
	80	90	100	120
	12	14	14	10
	7	8	10	10
	230	275	300	330
	168	190	202	218
	105	105	105	105
	25	37	47	63
	92	92	92	92
	20	29	29	37
	50	60	60	80
	80	100	100	125
	8	8	8	10
	27	31	31	41
	24	28	28	38
	24	28	28	38
	8	8	8	10
	27.3	31.3	31.3	41.3
	22	32	47	67

**A gabbia di sciottolo con ventilatore e cavo alimentazione
Special body "D" execution with ventilator and cable feed**

Grandezza Size		GFDS1	GFDS2	GFDS3	GFDS4	GFDS5
Momento torcente Nm	rpm = 100	6	15	39	60	85
	rpm = 500	4	7	25	40	55
	rpm = 1000	2,5	4,5	15	25	35
Bobina Coil	Tensione - Tension Vdc	24	24	24	24	24
	Corrente - Current A	1,90	2,4	3,37	4,46	6,1
	Potenza - Power W	45,6	57,6	81	107	145
Bobina Coil	Tensione - Tension Vdc	90	90	90	90	90
	Corrente - Current A	0,5	0,64	0,90	1,19	1,6
	Potenza - Power W	45,6	57,6	81	107	145
Larghezze mm Widths mm	l	13	15	20	25	25
	m	5	5	5	5	5
	n	2	2	2	2	2
	o	67	75	90	102	119
	p	20	20	20	20	20
	q	9	9	9	9	9
	r	96	104	119	131	148
Diametri mm Diameters mm	a	80	100	110	120	130
	b	66	78	85	100	120
	c	55	62	68	80	95
	d max	19	24	28	28	38
	d min	14	19	24	24	28
	e	145	175	200	230	265
	f	6x6 M	6x8 M	6x10 M	6x12 M	6x12 M
Apparecch. - Appliances 0-24 Vdc		ALC/24	ALC/24	ALC/24	ALC/24	ALC/24
Apparecch. - Appliances 0-90 Vdc.		ALC/90	ALC/90	ALC/90	ALC/90	ALC/90
Max Rpm		6000	5500	5300	5000	4100
PD ² corpo esterno - PD ² external body		0,022	0,060	0,14	0,30	0,55
Peso Kg. - Weight Kg.		4,2	7,3	12	20	30