



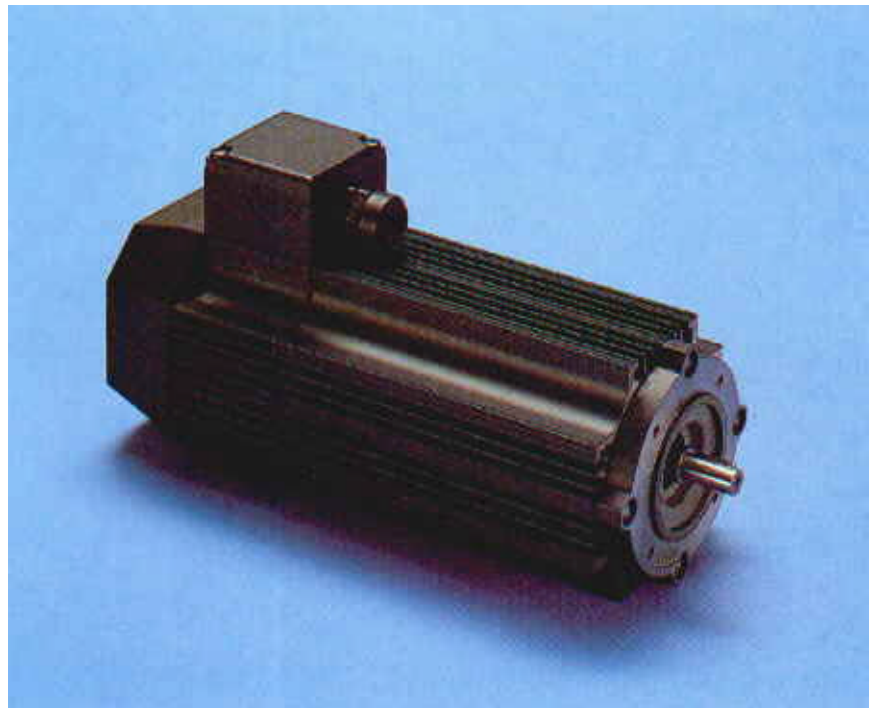
Industrialtecnoelettrica S.r.l.

NUOVA EDIZIONE

**2002**

NEW ISSUE

# Serie Q7



**motori in corrente continua a magneti permanenti  
permanent magnet direct current motors**

serie **Q**

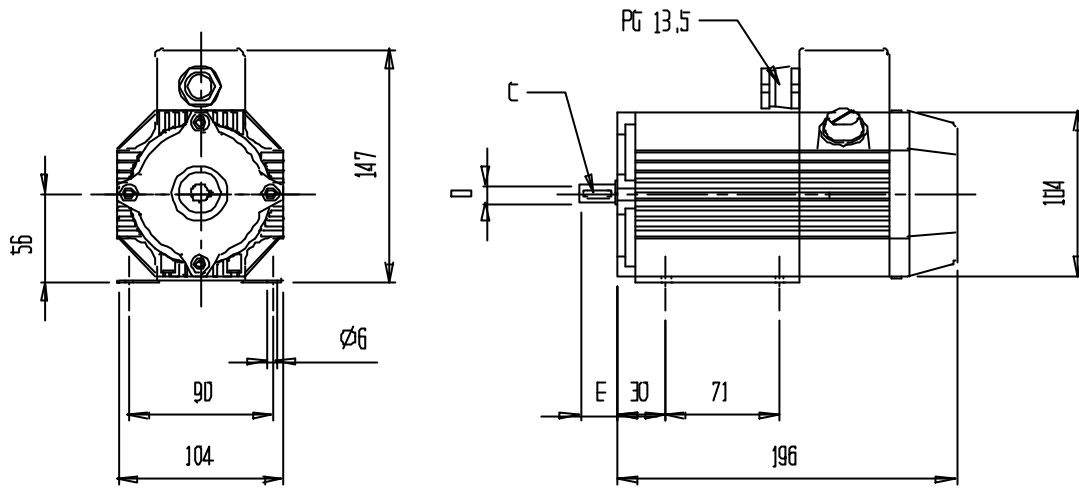


DATI MOTORE Motor ratings	SIMBOLI Symbols	UNITA' Units	SERIE Series									
			Q7S									
COPPIA ALLA VELOCITA' NOM. Torque at rated speed	Cn	Nm	0.6					0.6				
VELOCITA' NOMINALE Rated speed	Nn	RPM	2000					3000				
POTENZA NOMINALE Rated output	Pu	W	125					190				
TENSIONE NOMINALE Rated voltage	Vn	V	170	90	48	24	12	170	90	48	24	12**
CORRENTE NOMINALE Rated current	In	A	1	1.9	3.5	7.8	15	1.4	2.75	5.2	10.4	20
COPPIA DI PICCO Peak torque	Cp	Nm	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
CORRENTE DI PICCO Peak current	Ip	A	4	7.6	14	31.2	60	5.6	11	20.8	41.6	80
RENDIMENTO Efficiency	η	%	75	73	73	69	69	80	77	77	76	71
<b>DATI MECCANICI Mechanical data</b>												
INERZIA ROTORE Rotor inertia	J	Kg m <sup>2</sup>	0.00031					0.00031				
MAX. ACCELERAZ. TEORICA Max theoretical acceleration	α	rad/ sec <sup>2</sup>	7750					7750				
CARICO ASSIALE MAX Max axial load	Fa	N	119					119				
CARICO RADIALE MAX Max radial load	Fr	N	382					382				
VENTILAZIONE Ventilation			AUTOVENTILATO ESTERNO External self ventilation					AUTOVENTILATO ESTERNO External self ventilation				
GRADO DI PROTEZIONE Protection (IEC 34.5)		IP	54					54				
PESO Weight	G	Kg	4.0					4.0				
<b>DATI ELETTRICI Winding data</b>												
COSTANTE DI TEMPO TERMICA Thermal time constant	Tt	min	45					45				
COSTANTE DI TEMPO ELETT. Electrical time constant	Te	ms	3.2	2.8	2.3	1.9	2.9	3.4	3.1	2.4	2.6	1.6
RESISTENZA D'ARMATURA Armature resistance	Rm	Ohm	28	9.5	3.3	1	0.14	13.8	5.1	1.5	0.34	0.13
INDUTTANZA D'ARMATURA Armature inductance	La	mH	90	27	7.6	1.9	0.4	46.6	15.7	3.6	0.9	0.21
CLASSE ISOLAMENTO Insulation class			F					F				
FATTORE DI SERVIZIO Duty			S1					S1				
FATTORE DI FORMA Form factor			1					1				
TEMPERATURA AMBIENTE Ambient temperature		°C	25					25				
ALTEZZA s.l.m. Height upon sea level		m	1000					1000				
TOLLERANZE Tolerances		%	±5					±5				

\*\* Servizio intermittente / Intermittent duty

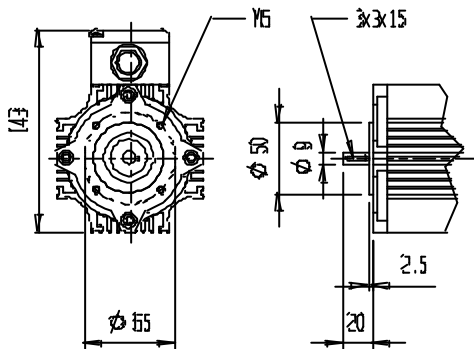
Altre tensioni a richiesta / Other voltages on request

## B3

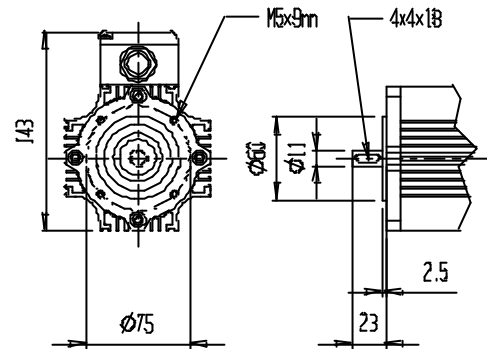


SIZE	D	E	C
MEC 56	9	20	3x3x15
MEC 63	11	23	4x4x18

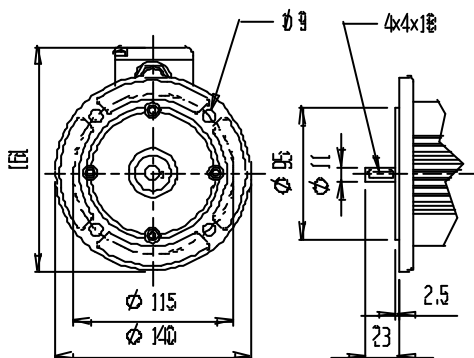
## B14 M56



## B14 M63



## B5 M63



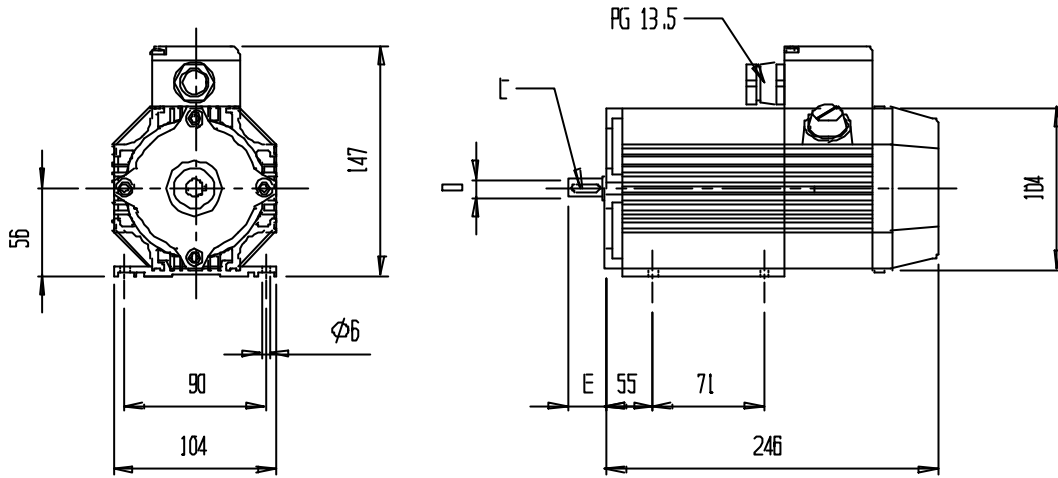


DATI MOTORE Motor ratings	SIMBOLI Symbols	UNITA' Units	SERIE Series									
			Q7M									
COPPIA ALLA VELOCITA' NOM. Torque at rated speed	Cn	Nm	1.2					1.2				
VELOCITA' NOMINALE Rated speed	Nn	RPM	2000					3000				
POTENZA NOMINALE Rated output	Pu	W	260					380				
TENSIONE NOMINALE Rated voltage	Vn	V	170	90	60	48	24**	170	90	60	48	24**
CORRENTE NOMINALE Rated current	In	A	2	3.7	5.5	7.1	15.5	2.8	5.3	8.1	9.9	22
COPPIA DI PICCO Peak torque	Cp	Nm	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
CORRENTE DI PICCO Peak current	Ip	A	8	14.8	22	28.4	62	11.2	21.2	32.8	39.6	88
RENDIMENTO Efficiency	η	%	79	77	77	76	72	80	79	78	77	72
<b>DATI MECCANICI Mechanical data</b>												
INERZIA ROTORE Rotor inertia	J	Kg m <sup>2</sup>	0.00066					0.00066				
MAX. ACCELERAZ. TEORICA Max theoretical acceleration	α	rad/ sec <sup>2</sup>	7280					7280				
CARICO ASSIALE MAX Max axial load	Fa	N	119					119				
CARICO RADIALE MAX Max radial load	Fr	N	382					382				
VENTILAZIONE Ventilation			AUTOVENTILATO ESTERNO External self ventilation					AUTOVENTILATO ESTERNO External self ventilation				
GRADO DI PROTEZIONE Protection (IEC 34.5)		IP	54					54				
PESO Weight	G	Kg	5.8					5.8				
<b>DATI ELETTRICI Winding data</b>												
COSTANTE DI TEMPO TERMICA Thermal time constant	Tt	min	45					45				
COSTANTE DI TEMPO Elett. Electrical time constant	Te	ms	3.3	2.6	2.2	2	2.15	2.95	2.3	1.6	1.8	1.3
RESISTENZA D'ARMATURA Armature resistance	Rm	Ohm	11.7	4.4	2.1	1.2	0.28	6.1	2.05	1.4	0.8	0.24
INDUTTANZA D'ARMATURA Armature inductance	La	mH	38	11.2	4.7	2.5	0.6	18	4.7	2.2	1.4	0.3
CLASSE ISOLAMENTO Insulation class			F					F				
FATTORE DI SERVIZIO Duty			S1					S1				
FATTORE DI FORMA Form factor			1					1				
TEMPERATURA AMBIENTE Ambient temperature		°C	25					25				
ALTEZZA s.l.m. Height upon sea level		m	1000					1000				
TOLLERANZE Tolerances		%	±5					±5				

\*\* Servizio intermittente / Intermittent duty

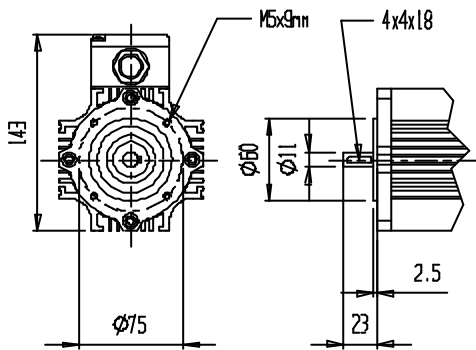
Altre tensioni a richiesta / Other voltages on request

## B3

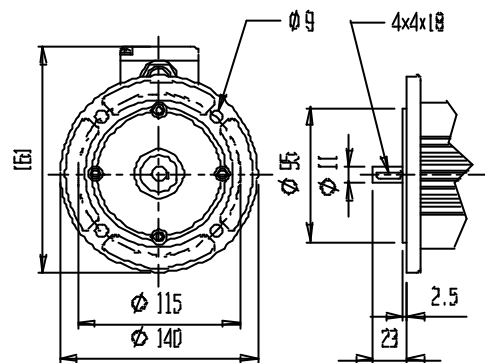


SIZE	D	E	C
MEC 63	11	23	4x4x18
MEC 71	14	30	5x5x25

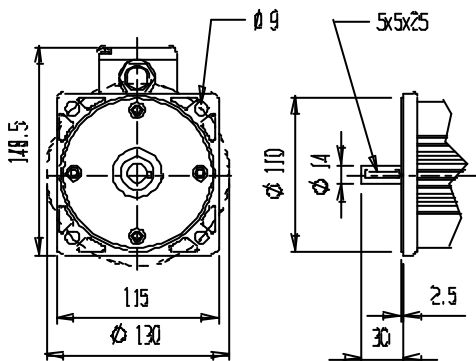
## B14 M63



## B5 M63



## B5 M71



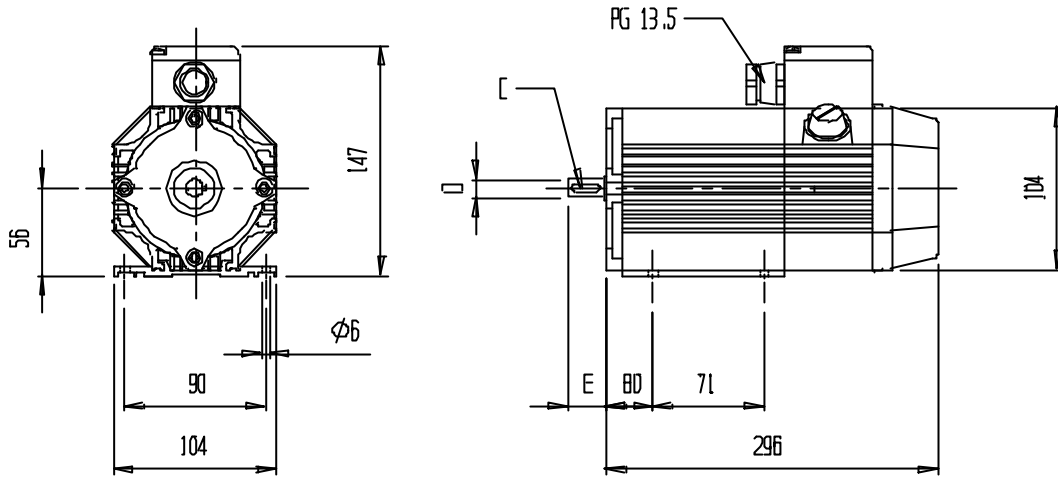


DATI MOTORE Motor ratings	SIMBOLI Symbols	UNITA' Units	SERIE Series									
			Q7L									
COPPIA ALLA VELOCITA' NOM. Torque at rated speed	Cn	Nm	1.6					1.6				
VELOCITA' NOMINALE Rated speed	Nn	RPM	2000					3000				
POTENZA NOMINALE Rated output	Pu	W	330					500				
TENSIONE NOMINALE Rated voltage	Vn	V	170	90	60		170	90	60			
CORRENTE NOMINALE Rated current	In	A	2.5	4.6	6.7		3.7	7	10.6			
COPPIA DI PICCO Peak torque	Cp	Nm	6.4	6.4	6.4		6.4	6.4	6.4			
CORRENTE DI PICCO Peak current	Ip	A	10	18.4	26.8		14.8	28	42.4			
RENDIMENTO Efficiency	$\eta$	%	79	78	78		79	79	77			
<b>DATI MECCANICI Mechanical data</b>												
INERZIA ROTORE Rotor inertia	J	Kg m <sup>2</sup>	0.00101					0.00101				
MAX. ACCELERAZ. TEORICA Max theoretical acceleration	$\alpha$	rad/ sec <sup>2</sup>	6350					6350				
CARICO ASSIALE MAX Max axial load	Fa	N	119					119				
CARICO RADIALE MAX Max radial load	Fr	N	382					382				
VENTILAZIONE Ventilation			AUTOVENTILATO ESTERNO External self ventilation					AUTOVENTILATO ESTERNO External self ventilation				
GRADO DI PROTEZIONE Protection (IEC 34.5)		IP	54					54				
PESO Weight	G	Kg	7.6					7.6				
<b>DATI ELETTRICI Winding data</b>												
COSTANTE DI TEMPO TERMICA Thermal time constant	Tt	min	45					45				
COSTANTE DI TEMPO ELETT. Electrical time constant	Te	ms	3	2.2	2.8		2.3	2.7	1.4			
RESISTENZA D'ARMATURA Armature resistance	Rm	Ohm	8.2	2.6	1.1		5	1.27	0.9			
INDUTTANZA D'ARMATURA Armature inductance	La	mH	25.2	5.6	3.1		11.5	3.4	1.25			
CLASSE ISOLAMENTO Insulation class			F					F				
FATTORE DI SERVIZIO Duty			S1					S1				
FATTORE DI FORMA Form factor			1					1				
TEMPERATURA AMBIENTE Ambient temperature		°C	25					25				
ALTEZZA s.l.m. Height upon sea level		m	1000					1000				
TOLLERANZE Tolerances		%	±5					±5				

\*\* Servizio intermittente / Intermittent duty

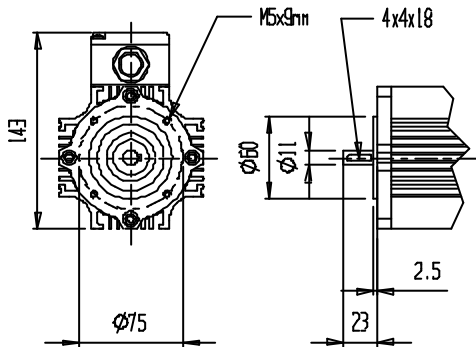
Altre tensioni a richiesta / Other voltages on request

## B3

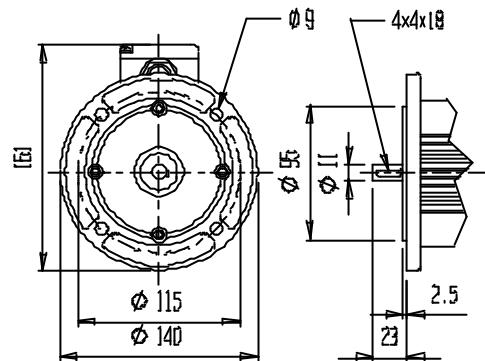


SIZE	D	E	C
MEC 63	11	23	4x4x18
MEC 71	14	30	5x5x25

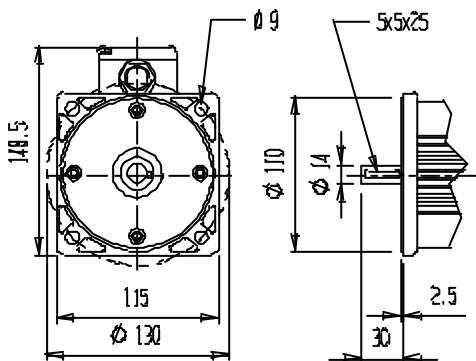
## B14 M63



## B5 M63



## B5 M71

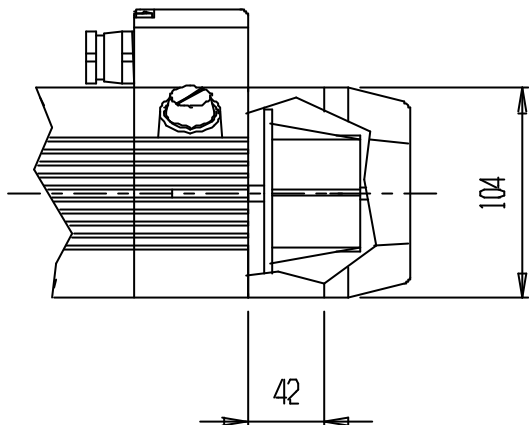




**OPZIONI**    **Optionals**

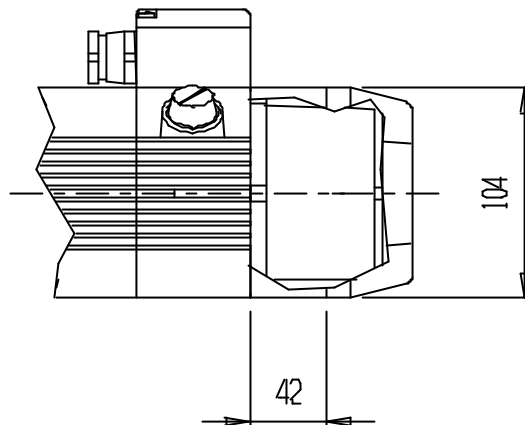
**SERIE Q7** Serie

**ALTERNATORE TACHIMETRICO**  
Alternator



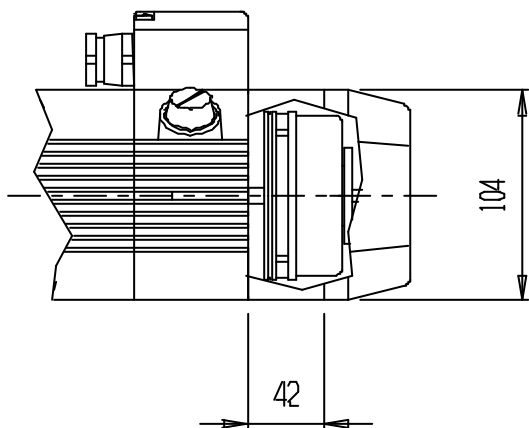
costante di tens. voltage constant	24 V/KRPM
max velocita' max speed	10000 RPM
corrente nominale rated current	5 mA
max corrente max current	100 mA

**DINAMO TACHIMETRICA 4 POLI**  
Tacho generator 4 poles



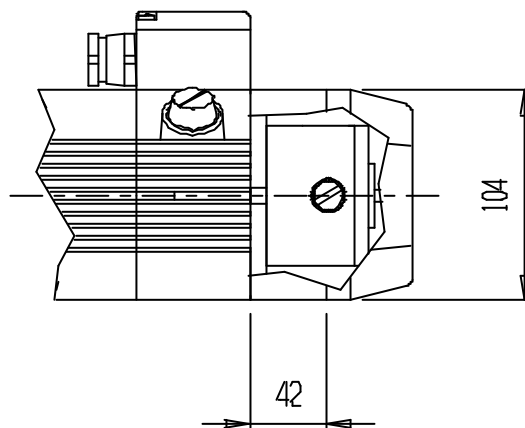
costante di tens. voltage constant	10 V/KRPM
ondulazione di picco ripple	1.6 %
linearita' linearity (6000 RPM)	0.5 %
N° poli N° poles	4

**FRENO**  
Brake



coppia statica static torque	6 Nm
tensione alim. pwr supply voltage	24 - 190 V cc
corrente current	0.85 - 0.1 A
potenza assorbita input power	20 W

**DINAMO TACHIMETRICA 2 POLI**  
Tacho generator 2 poles



costante di tens. voltage constant	10 V/KRPM
ondulazione di picco ripple	≤10 %
linearita' linearity (5000 RPM)	8 %
N° poli N° poles	2



**Q** **6** **S** **30** **17** **02** **9**

OPZIONI Optional

- 0 D.T 2 POLI T.G 2 Poles
- 1 D.T 4 POLI T.G 4 Poles
- 4 FRENO Brake
- 7 ALTERNATORE Alternator
- 8 ENCODER
- 9 SOLO MOTORE Only motor
- X SPECIALI Special

FORMA COSTRUTT. Costruction form

- 01 B14 M56
- 02 B5 M71
- 03 B14 M63
- 04 B5 M63
- 07 B3 M56
- 08 B3 M63
- 09 B3 M71
- 11 B3-B14 M56
- 12 B3-B5 M71
- 13 B3-B14 M63
- 14 B3-B5 M63

TENSIONE Voltage

- 12 12 V
- 24 24 V
- 48 48 V
- 60 60 V
- 90 90 V
- 17 170 V

N° GIRI RPM

- 20 2000 RPM
- 30 3000 RPM

TAGLIA MOTORE Motor lenght

- S CORTO Short
- M MEDIO Medium
- L LUNGO Long

TIPO MOTORE Motor type

- 3 SERIE SPECIALE (VENTILAZIONE NATURALE) Special serie (natural ventilation)
- 6 AUTOVENTILATO ESTERNO External autoventilated

SERIE MOTORE Motor serie

Q QUADRIMOT

