PRECILEC
ZODIAC AEROSPACE

RE.0444R - Robust

Direct Current Tachometer generator



Applications :

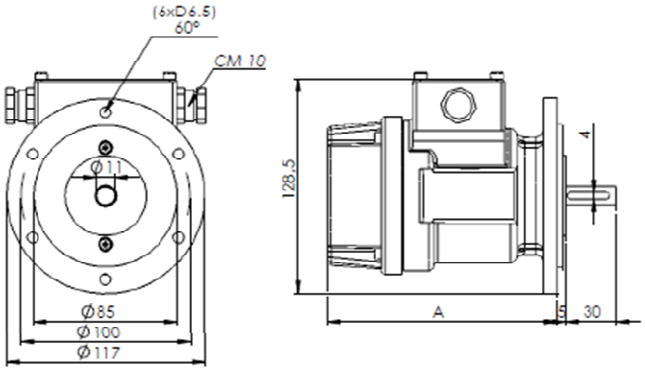
- Industry
- Speed control & regulation

Features :

- Robust design
- High quality signal
- Terminal box
- Mechanical combinations with encoders & speed switches
- Various electrical options

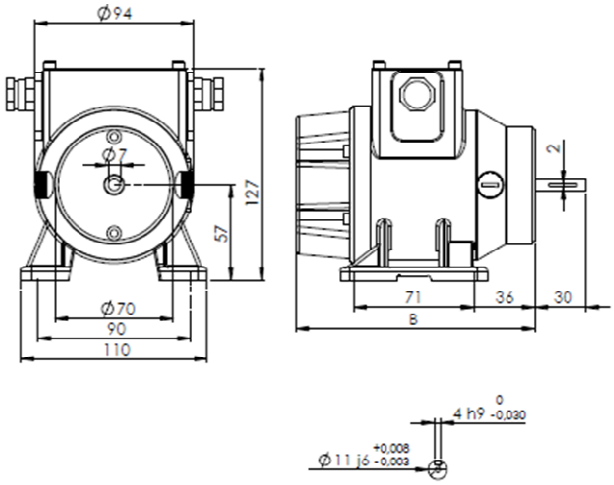
RADIO-ENERGIE

RE.0444R – B5 flange



	1 commutator	2 commutators
A	136 mm	155 mm
B	142 mm	161 mm

RE.0444R – B3 foot



MAIN CHARACTERISTICS

DESCRIPTION	SYMB	VALUE
Max. speed	n_m	12 000 rpm
Moment of inertia	J	0,95 Kg cm²
No-load driving torque	Mr	1,5 N.cm
Max. radial shaft stress	F	1,0 da N
Maximum E.M.F.	E_m	600 V
Maximum linearity error	ΔE	$\leq$ 0,15 %E_T
Overall ripple rate (peak to peak)	ΔE_c	$\leq$ 0,5 %E_c
Rotation harmonics (f=2 p.n)	ΔE_p	$\leq$ 0,2 %E_c
Slots harmonics (f=Z.n.)	ΔE_z	$\leq$ 0,3 %E_c
Calibration precision	ΔE_o	+ 1 %E_{To}
E.M.F. temperature drift		
Not compensated	ΔE_e	0,02 %/°C
Compensated		0,005 %/°C
Time constant	C_t	2,5 ms
*Filter :		
Time constant of filter		0,47 ms
Load current	L_c	5 mA
Speed	n	3000 rpm

CONSTRUCTION DETAILS	
Number of poles	2
Armature slots number	19
Commutator blades number	57
Insulation class	B (IEC 34-1)
Operating temperature	-30 +130 °C
Climatic protection	C_a (IEC 68-1)
Ingress protection	IP54 (IEC 34-5) IP56 with sealing ring
Direction of rotation	reversible
Excitation	Permanent magnets Alnico

Weight	**2,8 kg** (1 commutator) **3,2 kg** (2 commutators)

CE

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MECHANICAL OPTIONS

	MOUNTING SIDE			OPPOSITE MOUNTING SIDE (upon request)		
	D (mm)	L (mm)	Ball-bearing	D (mm)	L (mm)	Ball-bearing
Standard shaft	11	30	12 x 28 x 8 ZZ	7	30	8 x 22 x 7 ZZ
Special shaft	14 max	30	15 x 32 x 9 ZZ	8 max	30	8 x 22 x 7 ZZ
				Various adaptors available for mounting devices on the rear of the tachometer generator		



Markings and polarity of terminals (cables) for counter-clockwise rotation, seen from the shaft

1 COMMUTATOR	2 COMMUTATORS
1 A1 : +	2 A1 : +
1 A2 : -	2 A2 : -

ELECTRICAL OPTIONS

DESCRIPTION	SYMB	UNIT		VALUES										
E.M.F at 1 000 rpm	E_n	V	1 com.	**6**	**20**	**30**	**40**	**50**	**60**	**80**	**100**	**120**	**150**	**200**
			2 com.		2 x 20	2 x 30		2 x 50	2 x 60		2 x 100			
Voltage gradient	C_v	V/rpm	1 com.	0,006	0,02	0,03	0,04	0,05	0,06	0,08	0,1	0,12	0,15	0,2
			2 com.		2 x 0,02	2 x 0,03		2 x 0,05	2 x 0,06		2 x 0,1			
Armature resistance	R_a	Ω	1 com.	1,50	12	28	45	70	100	180	280	400	640	900
			2 com.		2 x 24	2 x 55		2 x 150	2 x 200		2 x 470			
Max thermal load	I_{th}	A	1 com.	1.4	0,55	0,35	0,25	0,22	0,18	0,14	0,11	0,09	0,07	0,07
			2 com.		2 x 0,23	2 x 0,14		2 x 0,09	2 x 0,09		2 x 0,05			
Max. Allowed speed	n_a	rpm	**EG**			12000			10000	7500	6000	5000	4000	3000
			CA			6000			5000	3750	3000	2500	2000	1500

BRUSHES

QUANTITY	DIMENSION	GRADE	MAX OUTPUT VOLTAGE	PART NO
4	3,1 x 4,1 x 12,5 mm	**EG -** Electrographite	600 V	/0002607
4	3,1 x 4,1 x 12,5 mm	**CA** - Silver-graphite	< 300 V	/0001397

PRODUCT DESCRIPTION

RE.0444R B C1X60 EG IP54 11X30

- Type
- **B** – Flange (B5) / **S** – Base (B3)
- **C** - T° compensation (optional)
- **1X** – 1 commutator / **2X** – 2 commutators
- Main shaft
- **IP54** - Standard / **IP56** - Optional
- **EG** – Electrographite brushes / **CA** – Silver-graphite brushes
- Voltage at 1000 rpm

When inquiring, please advise the serial number of the tachogenerator to be replaced.

Technical modifications reserved