

Tachometer Generator

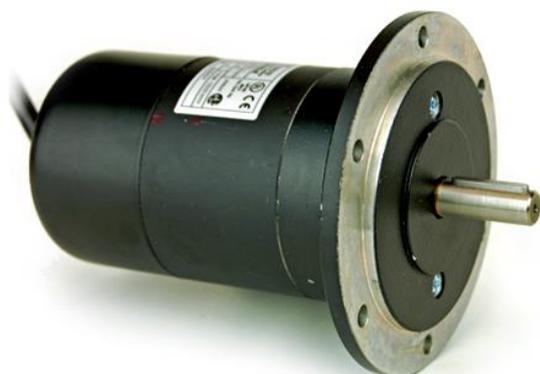
REO444N

RADIO-ENERGIE SAS

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www.radio-energie.eu - Capital de 300 000 Euros immatriculée au RCS de Poitiers sous n° 829 195 668
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RE.0444 N (Normal)

Direct Current Tachometer generator

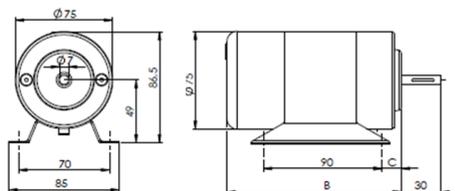


- Applications :**
- Industry
 - Speed control & regulation

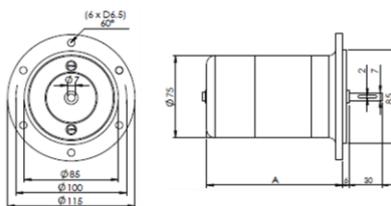
- Descriptions :**
- The most common DC tachometer generator
 - Permanent magnet excitation
 - Brush-holders under cover
 - Cable connection
 - Low ripple
 - Available with one or two commutator

DIAGRAMS

Base mounting – B3



Flange mounting – B5



	Shaft diameter	1 commutator	2 commutators
A	Ø 7 mm	126 mm	142 mm
	Ø 11 mm	131 mm	
	Ø 14 mm	128 mm	
B	Ø 7 mm	132 mm	148 mm
	Ø 11 mm	137 mm	
	Ø 14 mm	141 mm	
C	Ø 7 mm	14,5 mm	30 mm
	Ø 11 mm	17,5 mm	
	Ø 14 mm	21,5 mm	

MAIN CHARACTERISTICS

DESIGNATION	SYMB	VALUE
Max. speed	n_m	12 000 rpm
Moment of inertia	J	0,95 Kg cm ²
No-load driving torque	M_r	1,5 N.cm
Max. radial shaft stress		
7x30 mm	F	0,4 da N
11x30 mm	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	$\pm 1 \% E_{T_o}$
E.M.F. temperature drift		
Not compensated	ΔE_c	0,02 %/°C
Compensated	ΔE_c	0,005 %/°C
Time constant	C_t	2,5 ms
Filter :		
Time constant		0,47 ms
Load current		5 mA
Speed		3 000 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	IP44 (IEC 34-5)
Direction of rotation	reversible
Excitation Permanent magnets:	Alnico
Weight	1.8 kg (1 commutator) 2.1 kg (2 commutators)

MECHANICAL OPTIONS

	MOUNTING SIDE			OPPOSITE MOUNTING SIDE (upon request)		
	D (mm)	L (mm)	Bearings	D (mm)	L (mm)	Bearings
Standard Shaft	7	30	8 x 22 x 7 ZZ	7	30	8 x 22 x 7 ZZ
Special shaft	14 max	30	15 x 32 x 9 ZZ	8	30	8 x 22 x 7 ZZ



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

1 COMMUTATOR

Red wire : +
White wire : -

2 COMMUTATORS

1 st comm.	Blue wire: + White wire: -	2 nd comm.	yellow wire: + green wire: -
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ELECTRICAL OPTIONS

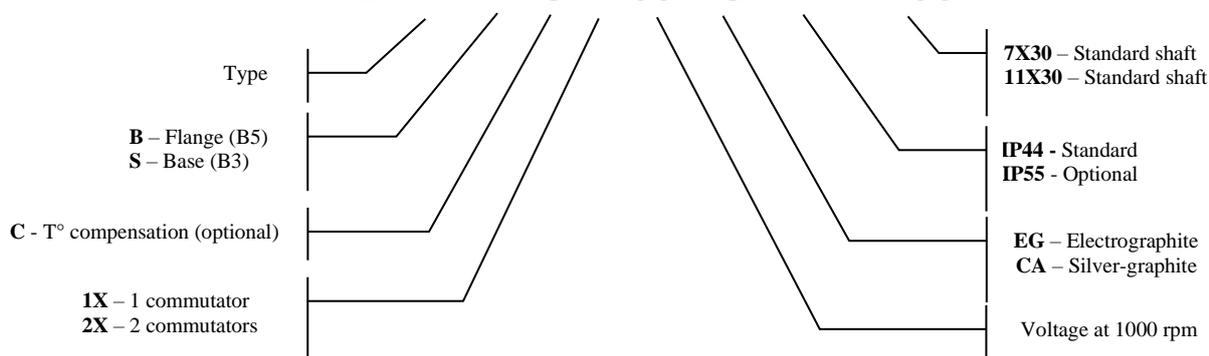
DESCRIPTION	SYMB	UNIT	VALUES											
			1 com.	6	20	30	40	50	60	80	100	120	150	200
E.M.F at 1 000 rpm	E _n	V	1 com.	6	20	30	40	50	60	80	100	120	150	200
			2 com.	2 x 20	2 x 30	2 x 50	2 x 60	2 x 100						
Voltage gradient	C _v	V/rpm	1 com.	0,006	0,02	0,03	0,04	0,05	0,06	0,08	0,1	0,12	0,15	0,2
			2 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.	1,5	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	12 000	12 000	12 000	12 000	12 000	10 000	7 500	6 000	5 000	4 000	3 000
			CA	6 000	6 000	6 000	6 000	6 000	5 000	3 750	3 000	2 500	2 000	1 500

BRUSHES

GRADE	CODE	APPLICATION LIMITS	DIMENSIONS	NUMBER
EG - Electrographite	/0002607	600 V	3,1 x 4,1 x 12,5 mm	4
CA - Silver-graphite	/0001397	< 300 V		

PRODUCT DESCRIPTION

RE.0444N B C 1x60 EG IP44 7x30



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

Main Item / Part Number for RE.0444 N



OUR CODE		OUR PRODUCT DESCRIPTION	Types	Mounting Type	Nb Collec teur	Charac. at 1000 rpm	Comp.	Brush	IP	Shaft
RE.0 444 N STANDARD 1x60 V										
0000001	REO	444N B 1X60 EG IP44 7X30	RE.0444 N1	B > Flange	1	60 V	No	EG	44	7x30
0000002	REO	444N B 1X60 CA IP44 7X30	RE.0444 N1	B > Flange	1	60 V	No	CA	44	7x30
0000012	REO	444N S 1X60 EG IP44 7X30	RE.0444 N1	S > Foot	1	60 V	No	EG	44	7x30
0000013	REO	444N S 1X60 CA IP44 7X30	RE.0444 N1	S > Foot	1	60 V	No	CA	44	7x30
0000007	REO	444N B 1X60 EG IP44 11X30	RE.0444 N1	B > Flange	1	60 V	No	EG	44	11x30
0000164	REO	444N B 1X60 CA IP44 11X30	RE.0444 N1	B > Flange	1	60 V	No	CA	44	11x30
0000017	REO	444N S 1X60 EG IP44 11X30	RE.0444 N1	S > Foot	1	60 V	No	EG	44	11x30
0016381	REO	444N S 1X60 CA IP44 11X30	RE.0444 N1	S > Foot	1	60 V	No	CA	44	11x30
RE.0 444 N 1X60 V with Temperature Compensation										
0000272	REO	444N B C1X60 EG IP44 7X30	RE.0444 N1	B > Flange	1	60 V	Yes	EG	44	7x30
0000009	REO	444N B C1X60 CA IP44 7X30	RE.0444 N1	B > Flange	1	60 V	Yes	CA	44	7x30
0000273	REO	444N B C1X60 EG IP44 11X30	RE.0444 N1	B > Flange	1	60 V	Yes	EG	44	11x30
0005107	REO	444N B C1X60 CA IP44 11X30	RE.0444 N1	B > Flange	1	60 V	Yes	CA	44	11x30
0006621	REO	444N S C1X60 EG IP44 7X30	RE.0444 N1	S > Foot	1	60 V	Yes	EG	44	7x30
0000018	REO	444N S C1X60 CA IP44 7X30	RE.0444 N1	S > Foot	1	60 V	Yes	CA	44	7x30
0013881	REO	444N S C1X60 EG IP44 11X30	RE.0444 N1	S > Foot	1	60 V	Yes	EG	44	11x30
0000270	REO	444N S C1x60 CA IP44 11x30	RE.0444 N1	S > Foot	1	60 V	Yes	CA	44	11x30

OUR CODE		OUR PRODUCT DESCRIPTION	Types	Mounting Type	Nb Collec- teur	Charac. at 1000 rpm	Comp.	Brush	IP	Shaft
RE.0 444 N 1X6V to 200V										
0016931	REO	444N B 1X6 CA IP44 7X30	RE.0444 N1	B > Flange	1	6 V	No	CA	44	7X30
0011124	REO	444N B 1X12 CA IP44 7X30	RE.0444 N1	B > Flange	1	12 V	No	CA	44	7X30
C4N10S100G12	REO	444N B 1X12 EG IP44 7X30	RE.0444 N1	B > Flange	1	12 V	No	EG	44	7X30
0000121	REO	444N B 1X20 EG IP44 7X30	RE.0444 N	B > Flange	1	20 V	No	EG	44	7X30
0007918	REO	444N B 1X20 CA IP44 7X30	RE.0444 N1	B > Flange	1	20 V	No	CA	44	7X30
C4N10K100A20	REO	444N B 1x20 CA IP55 7x30	RE.0444 N1	B > Flange	1	20 V	No	CA	44	7X30
0010565	REO	444N B 1X40 CA IP44 7X30	RE.0444 N1	B > Flange	1	40 V	No	CA	44	7X30
0019487	REO	444N B 1X50 EG IP44 7X30	RE.0444 N1	B > Flange	1	50 V	No	EG	44	7X30
0009374	REO	444N B 1X80 EG IP44 7X30	RE.0444 N1	B > Flange	1	80 V	No	EG	44	7X30
0016992	REO	444N B 1X80 CA IP55 7X30	RE.0444 N1	B > Flange	1	80 V	No	CA	44	7X30
0027104	REO	444N B 1X100 CA IP44 7X30	RE.0444 N1	B > Flange	1	100 V	No	CA	44	7X30
0000003	REO	444N B 1X40 EG IP44 7X30	RE.0444 N1	B > Flange	1	120 V	No	EG	44	7x30
0000005	REO	444N B 1X120 EG IP44 7X30	RE.0444 N1	B > Flange	1	120 V	No	EG	44	7x30
0005420	REO	444N S 1X120 EG IP44 7X30	RE.0444 N1	S > Foot	1	120 V	No	EG	44	7X30
0009020	REO	444N B 1X120 CA IP44 7X30 A	RE.0444 N1	B > Flange	1	120 V	No	CA	44	7X30
0010222	REO	444N B 1X120 CA IP44 7X30	RE.0444 N1	B > Flange	1	120 V	No	CA	44	7X30
0020111	REO	444N B 1X120 EG IP55 7X30	RE.0444 N1	B > Flange	1	120 V	No	EG	44	7X30
0000006	REO	444N B 1X150 EG IP44 7X30	RE.0444 N1	B > Flange	1	150 V	No	EG	44	7x30
0000277	REO	444N S 1X150 CA IP44 7X30	RE.0444 N1	S > Foot	1	150 V	No	CA	44	7X30
0005108	REO	444N B 1X150 CA IP44 7X30	RE.0444 N1	B > Flange	1	150 V	No	CA	44	7X30
0005421	REO	444N S 1X150 EG IP44 7X30	RE.0444 N1	S > Foot	1	150 V	No	EG	44	7X30
0000283	REO	444N B 1X20 EG IP44 11X30	RE.0444 N1	B > Flange	1	20 V	No	EG	44	11x30
0005422	REO	444N S 1X20 EG IP44 11X30	RE.0444 N1	S > Foot	1	20 V	No	EG	44	11X30
0005426	REO	444N B 1X30 EG IP44 11X30	RE.0444 N1	B > Flange	1	30 V	No	EG	44	11X30
0007459	REO	444N B 1X40 CA IP44 11X30	RE.0444 N1	B > Flange	1	40 V	No	CA	44	11x30
0011643	REO	444N B 1X40 EG IP44 11X30	RE.0444 N1	B > Flange	1	40 V	No	EG	44	11x30
0010131	REO	444N S 1X40 EG IP44 11X30	RE.0444 N1	S > Foot	1	40 V	No	EG	44	11X30
0005360	REO	444N B 1X80 EG IP44 11X30	RE.0444 N1	B > Flange	1	80 V	No	EG	44	11x30
0006796	REO	444N B 1X100 EG IP44 11X30	RE.0444 N1	B > Flange	1	100 V	No	EG	44	11X30
0017798	REO	444N B 1X120 EG IP44 11X30	RE.0444 N1	B > Flange	1	120 V	No	EG	44	11x30
0012654	REO	444N B 1X150 EG IP44 11X30	RE.0444 N1	B > Flange	1	150 V	No	EG	44	11x30
0016044	REO	444N S 1X150 EG IP44 11X30	RE.0444 N1	S > Foot	1	150 V	No	EG	44	11X30
0016775	REO	444N B 1X150 CA IP44 11X30	RE.0444 N1	B > Flange	1	150 V	No	CA	44	11x30

RE.0 444 N 1X6V to 200V with Temperature Compensation

OUR CODE		OUR PRODUCT DESCRIPTION	Types	Mounting Type	Nb Collec- teur	Charac. at 1000 rpm	Comp.	Brush	IP	Shaft
0017804	REO	444N B C1X40 CA IP44 7X30	RE.0444 N1	B > Flange	1	40 V	Yes	CA	44	7X30
0018302	REO	444N B C1X40 EG IP44 7X30	RE.0444 N1	B > Flange	1	40 V	Yes	EG	44	7X30
AR49510	REO	444N B C1X80 EG IP44 7X30	RE.0444 N1	B > Flange	1	80 V	Yes	EG	44	7X30
0011208	REO	444N B C1X100 EG IP44 7X30	RE.0444 N1	B > Flange	1	100 V	Yes	EG	44	7X30
0023186	REO	444N B C1X100 CA IP44 7X30	RE.0444 N1	B > Flange	1	100 V	Yes	CA	44	7X30
0000271	REO	444N B C1X120 CA IP44 7X30	RE.0444 N1	B > Flange	1	120 V	Yes	CA	44	7X30
0016580	REO	444N B C1X40 EG IP44 11X30	RE.0444 N1	B > Flange	1	40 V	Yes	EG	44	11X30

RE.0 444 N Special

0000011	REO	444N B 1X60 EG IP55 7x30	RE.0444 N1	B > Flange	1	60 V	No	EG	55	7x30
0009023	REO	444N B 1X60 CA IP55 7x30	RE.0444 N1	B > Flange	1	60 V	No	CA	55	7x30
0011867	REO	444N B C1X60 CA IP44 7X30 CA10	RE.0444 N1	B > Flange	1	60 V	Yes	CA	44	7x30
0017093	REO	444NE B C1X60 CA IP55 7x30	RE.0444 NE1	B > Flange	1	60 V	Yes	CA	44	7x30
0022722	REO	444N B C1X60 EG IP44 7X17P	RE.0444 N1	B > Flange	1	60 V	Yes	EG	44	7X17P
C4N10K200G60	REO	444N B 1X60 EG IP55 11x30	RE.0444 N1	B > Flange	1	60 V	No	EG	55	11x30
0006034	REO	444NUSB 1x100 CA IP44 D7,9x19,5 PR	RE.0444 N1	B > Flange	1	100 V	No	CA	44	7,9x19,5 PR
0005686	REO	444N B 1X12 CA IP44 7X30 CA6.5	RE.0444 N1	B > Flange	1	12 V	No	CA	44	7X30
0016338	REO	444N B 1X12 EG IP44 7X30 CA6.5	RE.0444 N1	B > Flange	1	12 V	No	EG	44	7X30
C4N10K10DA12	REO	444N B 1X12 CA IP55 7X30 CA6.5	RE.0444 N1	B > Flange	1	12 V	No	CA	55	7X30
0000281	REO	444N B 1X120 CA IP44 7X30 CA6,5	RE.0444 N1	B > Flange	1	120 V	No	CA	44	7X30
0007585	REO	444N B C1X120 EG IP44 14X28 15	RE.0444 N1	B > Flange	1	120 V	Yes	EG	44	14X28
0018967	REO	444N B C1X120 CA IP44 14X28 CA15	RE.0444 N1	B > Flange	1	120 V	Yes	CA	44	14X28C A
0000274	REO	444N B 1X150 CA IP55 7X30 CA1,5	RE.0444 N1	B > Flange	1	150 V	No	CA	44	7X30
0011695	REO	444N B 1X20 EG IP55 8X30 CA4	RE.0444 N1	B > Flange	1	20 V	No	EG	55	8X30
0025647	REO	444N B 1X20 EG IP44 6X30	RE.0444 N1	B > Flange	1	20 V	No	EG	44	6X30
C4N10S300A20	REO	444N B 1X20 CA IP44 14X30	RE.0444 N1	B > Flange	1	20 V	No	CA	44	14X30
0000278	REO	444N S 1X200 CA IP44 11X30 CA2,0	RE.0444 N1	S > Foot	1	200 V	No	CA	44	11X30
0016380	REO	444N S 1X200 CA IP44 11X30	RE.0444 N1	S > Foot	1	200 V	No	CA	44	11X30
0012602	REO	444N B 1X30 EG IP44 8X60 L	RE.0444 N1	B > Flange	1	30 V	No	EG	44	8x60L
0000269	REO	444N B C1X40 CA IP55 7X10L CA2,5	RE.0444 N1	B > Flange	1	40 v	Yes	CA	44	7x10L
0006717	REO	444N B C1X40 CA IP55 7X10L CA1,5	RE.0444 N1	B > Flange	1	40 v	Yes	CA	44	7x10L
0008386	REO	444N B 1X40 EG IP44 14X30	RE.0444 N1	B > Flange	1	40 V	No	EG	44	14X30
0020287	REO	444N B 1X40 CA IP44 7X10	RE.0444 N1	B > Flange	1	40 V	No	CA	44	7X20
0024532	REO	444N B 1X40 CA IP55 7X10 1.5M	RE.0444 N1	B > Flange	1	40 V	No	CA	44	7X30
C4N1CS10BA40	REO	444N B C1X40 CA IP44 7X30 CA2	RE.0444 N1	B > Flange	1	40 V	Yes	CA	44	7X30
0006524	REO	444NUSB 1X50 CA IP44 D7,9X19,5 PR	RE.0444 N1	B > Flange	1	50 V	No	CA	44	7,9x19,5 PR
0000085	REO	444N B 1X60 EG IP55 7X30 CA2,5	RE.0444 N1	B > Flange	1	60 V	No	EG	55	7X30

OUR CODE		OUR PRODUCT DESCRIPTION	Types	Mounting Type	Nb Collec teur	Charac. at 1000 rpm	Comp.	Brush	IP	Shaft
0000118	REO	444N S 1X60 EG IP44 14X30 BORNES SOUS CAPOT	RE.0444 N1	S > Foot	1	60 V	No	EG	44	14X30
0000122	REO	444N B 1X60 CA IP44 7X30 SL5	RE.0444 N1	B > Flange	1	60 V	No	CA	44	7X30
0000165	REO	444N B C1X60 CA IP44 EX19	RE.0444 N1	B > Flange	1	60 V	Yes	CA	44	SPE
0000166	REO	444N S C1x60 CA IP44 D12.7x19 P	RE.0444 N1	S > Foot	1	60 V	Yes	CA	44	12,7X19
0000168	REO	444NT B 1X60 CA IP44 7X30	RE.0444 N1	B > Flange	1	60 V	No	CA	44	7X30
0000169	REO	444NT B 1X60 CA IP44 11X30	RE.0444 N1	B > Flange	1	60 V	No	CA	44	11X30
0000280	REO	444N B 1x60 EG IP44 11x20	RE.0444 N1	B > Flange	1	60 V	No	EG	44	11X20
0005109	REO	444N B 1X60 EG IP44 14X30	RE.0444 N1	B > Flange	1	60 v	No	EG	44	11x30
0005358	REO	444N S 1X60 EG IP44 14X30 CA3	RE.0444 N1	S > Foot	1	60 V	No	EG	44	14X30
0006438	REO	444N S C1X60 CA IP44 7X30 SOC FOND	RE.0444 N1	S > Foot	1	60 V	Yes	CA	44	7X30
0015515	REO	444N S C1X60 CA IP44 7X30 A	RE.0444 N1	S > Foot	1	60 V	Yes	CA	44	7X30
0019804	REO	444N B 1X80 EG IP44 11X20	RE.0444 N1	B > Flange	1	80 V	No	EG	44	11X20
0007156	REO	444N B 2X20 EG IP44 7X30 CD	RE.0444 N1	B > Flange	2	20 V	No	EG	44	7x30 CD
0006730	REO	444N B 2X30 CA IP44 7X30	RE.0444 N1	B > Flange	2	30 V	No	CA	44	7x30
0009510	REO	444N B 2X30 EG IP44 7X30	RE.0444 N1	B > Flange	2	30 V	No	EG	44	7X30
0000019	REO	444N B 2X60 EG IP44 7X30	RE.0444 N2	B > Flange	2	60 V	No	EG	44	7x30
0000020	REO	444N B 2X60 CA IP44 7X30	RE.0444 N2	B > Flange	2	60 V	No	CA	44	7x30
0000021	REO	444N S 2X60 EG IP44 7X30	RE.0444 N2	S > Foot	2	60 V	No	EG	44	7x30
0016096	REO	444N S 2X60 CA IP44 7X30	RE.0444 N2	S > Foot	2	60 V	No	CA	44	7x30
0000268	REO	444N B C1X40 CA IP55 7X10	RE.0444 N1	B > Flange	1	40 V	Yes	CA	55	7X10
0000084	REO	444N B C1X60 CA IP44 7X30 CA10	RE.0444 N1	B > Flange	1	60 V	Yes	CA	44	7X30
0017629	REO	444N B C1X80 CA IP55 7X10 L	RE.0444 N1	B > Flange	1	80 V	Yes	CA	55	7X10