

## TYPE

# RE.0 444 US



# DESTINATION

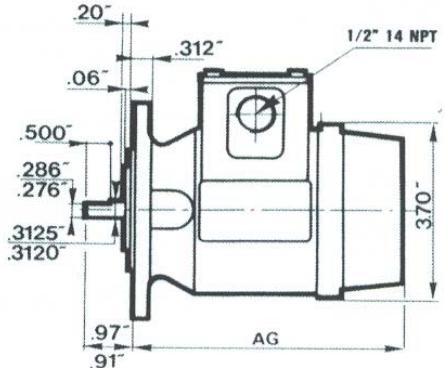
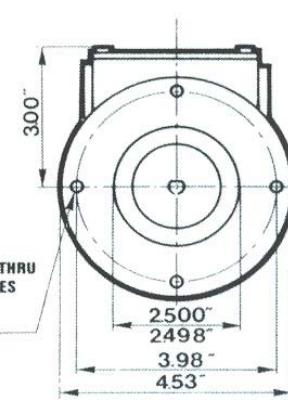
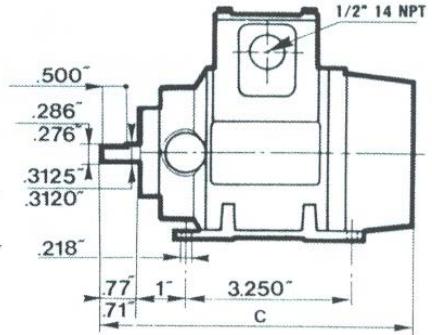
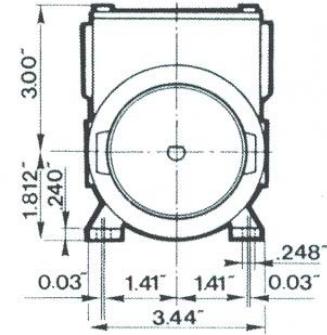
- Industrial applications
  - Control and regulation

## **DESCRIPTION**

- DC tachogenerator derived from RE.0444 N- model
  - Designed or the market of North America
  - UL listed



	1 Collector	2 Collector
AG (in)	5,36	6,10
B (in)	6,33	7,07
Masse lb	6,15	7,05



## GENERAL DATA

Designation	Symbol	Unit	Value
Maximum speed (mechanical)	n <sub>m</sub>	Rpm.	12000
Moment of inertia	J	kg cm <sup>2</sup>	0,950
No load driving torque	M <sub>r</sub>	N. cm	1,50
Maximum radial shaft stress	F	da N	1,0
Maximum E.M.F.	E <sub>m</sub>	V	600
Maximum linearity error	ΔE	% E <sub>T</sub>	≤ 0,15
Overall ripple rate (peak to peak)	ΔE <sub>C</sub>	% E <sub>C</sub>	≤ 0,5
Rotation harmonics (f = 2 p.n)	ΔE <sub>P</sub>	% E <sub>C</sub>	≤ 0,2
Slot harmonics (f = Z.n)	ΔE <sub>Z</sub>	% E <sub>C</sub>	≤ 0,3
Calibration precision	ΔE <sub>O</sub>	% E <sub>To</sub>	± 1
E.M.F. temperature drift - not compensated - compensated	ΔE <sub>e</sub>	% /°C	0,02 0,005
Time constant	C <sub>t</sub>	ms	2,5
*Filter: Load current Speed	R <sub>F</sub> x R <sub>C</sub> I <sub>C</sub> n	ms mA rpm.	0,47 5 3000

Construction details		
Number of poles	2p	2
Number of armature slots	Z	19
Number of collector blades	K	57
Insulation class		B (IEC 34-1)
Operating temperature		-30° - +130 °C
Climatic protection		C <sub>a</sub> (IEC 68-1)
Protection degree		IP 54 (IEC 34-5)
Direction of rotation		Reversible
Excitation		Permanent magnets Alnico

\* Filter-connecting diagram on demand

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**Mechanical options****Shaft ends and bearings**

	Mounting side			Opposite mounting side		
	D (mm)	L (mm)	Bearings	D (mm)	L (mm)	Bearings
Standard	.3125"	77"	12 x 28 x 8 ZZ	.314"	-	8 x 22 x 7 ZZ

**Options**

- Sealing ring (IP 56)
- Flat shaft
- Key shaft

**Markings and polarity of terminals (cables) for counter-clockwise rotation viewing the mounting face**

1 collector		A1 : +	A2 : -
2 collectors	1. collector	1A1: +	1A2: -
	2. collector	2A1: +	2A2: -

**Available options on 2nd shaft end**

- Possible adaptation of different sensors

**Electrical options**

				Min.										Max.
E.M.F. at 1000 rpm.	E <sub>n</sub>	V	1 coll. 2 coll.	6	20 2 x 20	30 2 x 30	40	50 2 x 50	60 2 x 60	80	100 2 x 100	120	150	200
Voltage gradient	C <sub>v</sub>	V/rpm	1 coll. 2 coll.	0,006	0,020 2 x 0,02	0,030 2 x 0,03	0,040	0,050 2 x 0,05	0,060 2 x 0,06	0,080	0,100 2 x 0,1	0,120	0,150	0,200
Armature resistance	R <sub>a</sub>	Ω	1 coll. 2 coll.	1,50	12 2 x 24	28 2 x 55	45	70 2 x 150	100 2 x 200	180	280 2 x 470	400	640	900
Max. thermal load	I <sub>th</sub>	A	1 coll. 2 coll.	1,40	0,55 2 x 0,23	0,35 2 x 0,14	0,25	0,22 2 x 0,09	0,18 2 x 0,09	0,14	0,11 2 x 0,05	0,09	0,07	0,07
Max. allowed speed	n <sub>a</sub>	rpm	1 coll. 2 coll.	12000	12000 12000	12000 12000	12000	12000 12000	10000 10000	7500	6000 6000	5000	4000	3000

**Brushes**

Number	Size	Grade	Application limits	Reference
4 or 8	3,1 x 4,1 x 12,5	Electrographite (EG)	Recommended for high speed and E.M.F. > 300 V	31 - 41 - EG
		Silver-graphite (CA)	STANDARD for normal use at E.M.F. < 300 V	31 - 41 - CA