

# BTA® Size 4EV

Part Numbers: Clockwise Rotation 190834-0XX  
Counter-Clockwise Rotation 195624-0XX

All products are RoHS Compliant

ROTARY BTA®

## Performance

Maximum Duty Cycle	100%	50%	25%	10%
Maximum ON Time (sec) when pulsed continuously <sup>1</sup>	∞	40	15	4
Maximum ON Time (sec) for single pulse <sup>2</sup>	∞	108	34	9
Typical Energize Time (msec) <sup>3</sup>	27	19	14	10
Watts (@ 20°C)	14.5	29	58	145
Ampere Turns (@ 20°C)	510	721	1020	1613

## Specifications

Dielectric Strength	1000 VRMS (23-24 awg); 1200 VRMS (25-33 awg)
Recommended Minimum Heat Sink	Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C, with solenoid mounted on the equivalent of an aluminum plate measuring 6-1/4" square by 1/8" thick
Thermal Resistance	7.63 (°C/watt)
Rotor Inertia	13.92 (gm-cm <sup>2</sup> )
Weight	8.0 oz (227 gms)

## Coil Data

awg (0XX) <sup>4</sup>	Resistance (@20°C)	# Turns <sup>5</sup>	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
23	0.71	104	3.2	4.5	6.4	10.1
24	1.54	174	4.7	6.7	9.4	14.9
25	2.15	195	5.6	7.9	11.2	17.6
26	3.01	219	6.6	9.3	13.2	20.9
27	5.78	328	9.2	12.9	18.3	28.9
28	8.09	368	10.8	15.3	21.7	34.3
29	14.40	515	14.5	20.4	28.9	45.7
30	20.11	575	18.9	26.7	37.7	59.6
31	34.40	774	22.3	31.6	44.6	71.0
32	56.60	1008	28.7	40.5	57.0	91.0
33	91.40	1288	36.0	52.0	73.0	115.0



## How to Order

Add the coil awg number (0XX) to the part number (for example: to order a 25% duty cycle clockwise rotation unit rated at 13.2 VDC, specify 190834-026).

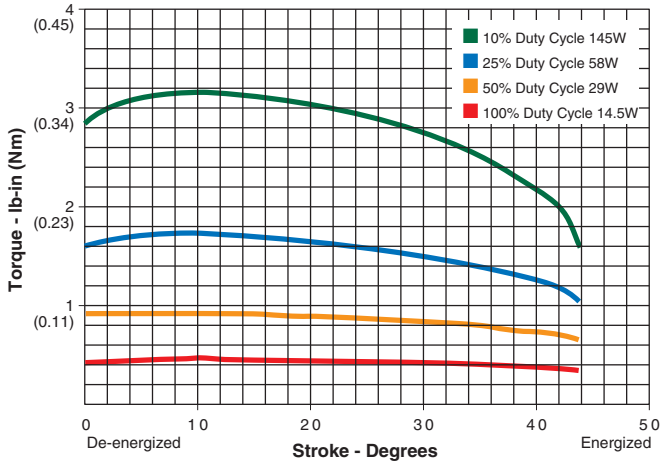
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- <sup>1</sup> Continuously pulsed at stated watts and duty cycle
- <sup>2</sup> Single pulse at stated watts (with coil at ambient room temperature 20°C)
- <sup>3</sup> Typical energize time based on a 2.4 oz-in torque load including 14 gm-cm<sup>2</sup> of inertia
- <sup>4</sup> Other coil awg sizes available — please consult factory
- <sup>5</sup> Reference number of turns

All specifications subject to change without notice.

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## Typical Torque @ 20°C (see notes)



### Notes:

Torque curves shown are without spring.  
 Typical standard spring has a torque of 3.0 oz-in.  
 Torque values are for reference only.

## Dimensions (in)

