

FAST ACTUATOR 1.5 - 8 SEC.

For applications up to 50 in.lb. (5.6 Nm)

APPLICATIONS

- fume hood control
- stairwell pressurization
- air handler dampers

Performance Examples:

Time ⇨ 1.5 sec. Rotation ⇨ 0-90° Torque ⇨ 25 in.lb. (2.8Nm)
 Time ⇨ 3.5 sec. Rotation ⇨ 0-90° Torque ⇨ 35 in.lb. (4Nm)



FAST ACTUATOR 15 - 30 SEC.

For applications up to 240 in.lb. (27 Nm)

APPLICATIONS

- fume hood control
- stairwell pressurization
- air handler dampers

Performance Examples:

Time ⇨ 20 sec. Rotation ⇨ 0-90° Torque ⇨ 240 in.lb. (27Nm)



Fast Actuators (25 to 50 in.lb. torque)



**Rotational speeds from 1.5 to 8 sec
for applications up to 50 in.lb. (5.6 Nm)**



PRIMARY USES FOR THESE ACTUATORS

- ◆ fume hood control
- ◆ stairwell pressurization
- ◆ air handler dampers

These microprocessor based actuators are designed for critical for environments where the speed of the actuator is essential. All actuators are bi-directional. Enerdrive actuators are also bi-directional under fail safe conditions. The stroke may be limited to less than 90° electronically.

GENERAL SPECIFICATIONS

Power Supply:	24Vac/30Vdc
Power Consumption:	Peak at Start-up: 15VA to 24VA at 26Vac Depending upon the Model Operating at Full Load: 15VA to 24VA at 26Vac Depending upon the Model
Wire Size:	18 AWG (0.8 mm ²) Minimum
Electrical Connections:	Two 7/8 in. (22.2mm) or One 5/8 in. (15.9mm) and One 7/8in. (22.2mm) Knock Outs, Screw Terminals
Control Signals:	Digital (BT): 2 Wire or 3 Wire 2 Position and/or 3 Wire or 4 Wire 3 Point Floating Depending upon the Model Multi Signal: ANALOG: A) 2-10Vdc; or B) May be Externally Wired with a 500 Ohm Resistor which is Supplied for 4-20mA, Zero & Span Adjustable PULSE WIDTH MODULATION: Time Base of 0.1-5 sec/20mS Resolution or 0.1-25 sec/100mS Resolution Selected by Dip Switch Position SWITCH 24Vac: Triac or Dry Contact, 40mA Max. Switching Current SWITCH COMMON: NPN Transistor, SCR, Triac or Dry Contact 75mA Max. Switching Current DIGITAL: 3 Wire 2 Position or 4 Wire 3 Point Floating
Torque at Rated Voltage:	25 in.lb. (2.8 Nm) to 50 in.lb. (5.6 Nm) at Rated Voltage Depending upon the Model
Direction & Time of Rotation:	Reversible, 1.5 to 8 Sec Depending upon the Model
Ambient Temperature:	0°F to +122°F (-18°C to +50°C)
Feedback Potentiometer:	In Multi Signal (BM): 4-20mA Output (May be wired for a 2-10Vdc signal)
Fail Safe (Enerdrive) Rating:	Models Ending in 60, 80 (F, FF, FN, FFN): 25 to 50 in.lb. (2.8 to 5.6Nm) Depending upon the Model
Enerdrive Response Time:	1.5 to 20 sec Closure Through 90°, Depending upon the Model
Auxiliary Switches:	Models Ending in 20 or 80 (F, FF, FN, FFN): 2 Mechanical Switches, Fixed at 10° & 80°
Auxiliary Switch Rating:	5 Amp Resistive, 250Vac
Electronic Enclosure:	Flammability rating UL94-5V

Actuator Models	Power			Control Signals					Time in sec Thru 90° Arc	Actuator Features				
	Nom. Supply	Consumption		Digital		Multi Signal				Feed Back	Auto Stroke	Zero & Span	Fail Safe (Enerdrive)	2 Mech. Aux. Switches
		Start Up	Full Load	2 POS	3 PT FLT	2-10 Vdc	4-20 mA	PWM						
25 in.lb. (2.8 Nm.) torque at rated voltage														
BM000FF	24Vac 30Vdc	15VA	15VA	◆	◆	◆	◆	◆	1.5 to 2.5	◆	◆	◆		
BM020FF	24Vac 30Vdc	15VA	15VA	◆	◆	◆	◆	◆	1.5 to 2.5	◆	◆	◆		◆
BM060FF	24Vac 30Vdc	24VA	15VA	◆	◆	◆	◆	◆	1.5 to 2.5	◆	◆	◆	◆	
BM080FF	24Vac 30Vdc	24VA	15VA	◆	◆	◆	◆	◆	1.5 to 2.5	◆	◆	◆	◆	◆
35 in.lb. (4 Nm.) torque at rated voltage														
BM000F	24Vac 30Vdc	15VA	15VA	◆	◆	◆	◆	◆	3.5 to 4.5	◆	◆	◆		
BM020F	24Vac 30Vdc	15VA	15VA	◆	◆	◆	◆	◆	3.5 to 4.5	◆	◆	◆		◆
BM060F	24Vac 30Vdc	24VA	15VA	◆	◆	◆	◆	◆	3.5 to 4.5	◆	◆	◆	◆	
BM080F	24Vac 30Vdc	24VA	15VA	◆	◆	◆	◆	◆	3.5 to 4.5	◆	◆	◆	◆	◆
BM000FFN	24Vac 30Vdc	24VA	24VA	◆	◆	◆	◆	◆	3	◆	◆	◆		
BM020FFN	24Vac 30Vdc	24VA	24VA	◆	◆	◆	◆	◆	3	◆	◆	◆		◆
BM060FFN	24Vac 30Vdc	24VA	24VA	◆	◆	◆	◆	◆	3	◆	◆	◆	◆	
50 in.lb. (5.6 Nm.) torque at rated voltage														
BT000F	24Vac 30Vdc	15VA	15VA	◆	◆				6 to 8		◆			
BT020F	24Vac 30Vdc	15VA	15VA	◆	◆				6 to 8		◆			◆
BT060F	24Vac 30Vdc	24VA	15VA	◆	◆				6 to 8		◆		◆	
BT080F	24Vac 30Vdc	24VA	15VA	◆	◆				6 to 8		◆		◆	◆
BM000FN	24Vac 30Vdc	24VA	24VA	◆	◆	◆	◆	◆	6	◆	◆	◆		
BM020FN	24Vac 30Vdc	24VA	24VA	◆	◆	◆	◆	◆	6	◆	◆	◆		◆
BM060FN	24Vac 30Vdc	24VA	24VA	◆	◆	◆	◆	◆	6	◆	◆	◆	◆	

Note: All actuators are powered by brush motors except those ending with the letter "N"

Fast Actuators (120 in.lb. torque)



**Rotational speeds from 15 to 30 sec
for applications up to 120 in.lb. (13.5 Nm)**



PRIMARY USES FOR THESE ACTUATORS

- ◆ fume hood control
- ◆ stairwell pressurization
- ◆ air handler dampers

These microprocessor based actuators are designed for critical environments where the speed of the actuator is essential. All actuators are bi-directional. Enerdrive actuators are also bi-directional under fail safe conditions. The stroke may be limited to less than 90° electronically.

GENERAL SPECIFICATIONS

Power Supply:	24Vac, 30Vdc, 120Vac, and/or 240Vac Depending upon the Model
Power Consumption:	Peak at Start-up: 10VA to 50VA at 26Vac Depending upon the Model Operating at Full Load: 10VA to 30VA at 26Vac Depending upon the Model
Wire Size:	18 AWG (0.8 mm ²) Minimum
Electrical Connections:	Two 7/8 in. (22.2mm) or One 5/8 in. (15.9mm) and One 7/8in. (22.2mm) Knock Outs, Screw Terminals

Control Signals:	Digital (TT): 2 Wire or 3 Wire 2 Position and/or 3 Wire or 4 Wire 3 Point Floating Depending upon the Model
	Multi Signal: ANALOG: A) 2-10Vdc; or B) May be Externally Wired with a 500 Ohm Resistor which is Supplied for 4-20mA, Zero & Span Adjustable PULSE WIDTH MODULATION: Time Base of 0.1-5 sec/20mS Resolution or 0.1-25 sec/100mS Resolution Selected by Dip Switch Position SWITCH 24Vac: Triac or Dry Contact, 40mA Max. Switching Current SWITCH COMMON: NPN Transistor, SCR, Triac or Dry Contact 75mA Max. Switching Current DIGITAL: 3 Wire 2 Position or 4 Wire 3 Point Floating

Torque at Rated Voltage:	120 in.lb. (13.5 Nm) at Rated Voltage
Direction & Time of Rotation:	Reversible, 15 to 30 sec Depending upon the Model

Ambient Temperature:	0°F to +122°F (-18°C to +50°C)
-----------------------------	--------------------------------

Feedback Potentiometer:	In Multi Signal (TM): 4-20mA Output (May be wired for a 2-10Vdc signal)
--------------------------------	--

Fail Safe (Enerdrive) Rating:	Models Ending in 60, 80 (F, FN): 120 in.lb. (13.5 Nm)
Enerdrive Response Time:	15 to 30 sec Closure Through 90°, Depending upon the Model

Auxiliary Switches:	Models Ending in 20, 80 (F, FN): 2 Mechanical Switches, Fixed at 10° & 80°
Auxiliary Switch Rating:	5 Amp Resistive, 250Vac

Electronic Enclosure:	Flammability rating UL94-5V
------------------------------	-----------------------------

Spec Sheet Available on Our Website

Actuator Models	Power			Control Signals					Time in sec Thru 90° Arc	Actuator Features				
	Nom. Supply	Consumption		Digital		Multi Signal				Feed Back	Auto Stroke	Zero & Span	Fail Safe (Enerdrive)	2 Mech. Aux. Switches
		Start Up	Full Load	2 POS	3 PT FLT	2-10 Vdc	4-20 mA	PWM						
<i>120 in.lb. (13.5 Nm.) torque at rated voltage</i>														
TT000F	24Vac 30Vdc	10VA	10VA	◆	◆				20 to 30		◆			
TT020F	24Vac 30Vdc	10VA	10VA	◆	◆				20 to 30		◆			◆
TT060F	24Vac 30Vdc	24VA	10VA	◆	◆				20 to 30		◆		◆	
TT080F	24Vac 30Vdc	24VA	10VA	◆	◆				20 to 30		◆		◆	◆
TM000FN	24Vac 30Vdc	25VA	25VA	◆	◆	◆	◆	◆	15 to 20	◆	◆	◆		
TM020FN	24Vac 30Vdc	25VA	25VA	◆	◆	◆	◆	◆	15 to 20	◆	◆	◆		◆
TM060FN	24Vac 30Vdc	40VA	25VA	◆	◆	◆	◆	◆	15 to 20	◆	◆	◆	◆	
TM080FN	24Vac 30Vdc	40VA	25VA	◆	◆	◆	◆	◆	15 to 20	◆	◆	◆	◆	◆
TM100FN	24Vac 30Vdc 120Vac	30VA	30VA	◆	◆	◆	◆	◆	20	◆	◆	◆		
TM200FN	24Vac 30Vdc 240Vac	30VA	30VA	◆	◆	◆	◆	◆	20	◆	◆	◆		
TM120FN	24Vac 30Vdc 120Vac	30VA	30VA	◆	◆	◆	◆	◆	20	◆	◆	◆		◆
TM220FN	24Vac 30Vdc 240Vac	30VA	30VA	◆	◆	◆	◆	◆	20	◆	◆	◆		◆
TM160FN	24Vac 30Vdc 120Vac	50VA	30VA	◆	◆	◆	◆	◆	20	◆	◆	◆	◆	
TM260FN	24Vac 30Vdc 240Vac	50VA	30VA	◆	◆	◆	◆	◆	20	◆	◆	◆	◆	
TM180FN	24Vac 30Vdc 120Vac	50VA	30VA	◆	◆	◆	◆	◆	20	◆	◆	◆	◆	◆
TM280FN	24Vac 30Vdc 240Vac	50VA	30VA	◆	◆	◆	◆	◆	20	◆	◆	◆	◆	◆

Note: All actuators are powered by brush motors except those ending with the letter "N"