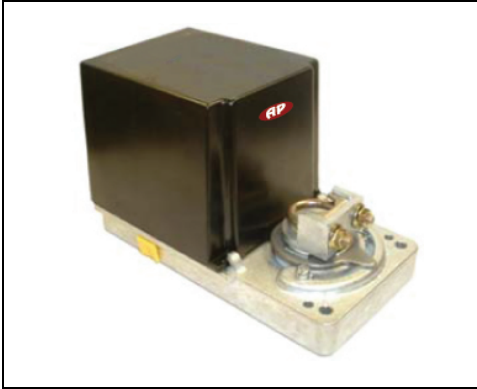




Actuator

Specification & Installation instructions



Feature:

- Mounts easy on round & square shaft (with option -8).
- Power supply high voltage 120 or 240 VAC.
- External clutch for manual adjustments.
- Maintenance free.
- Position indicator.
- Fail safe by *Enerdrive System*¹
- Auxiliary switches (on model 180 & 280).

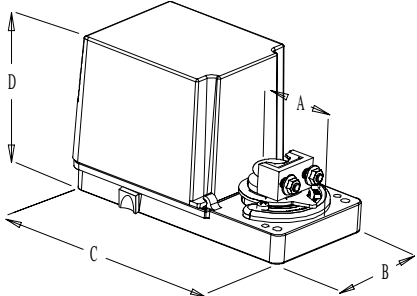
Old Number

<i>BBTHV1160A</i>	BT160
<i>BBTHV1180A</i>	BT180
<i>BBTHV1260A</i>	BT260
<i>BBTHV1280A</i>	BT280

Technical Data	BT160 <i>BBTHV1160A</i>	BT180 <i>BBTHV1180A</i>	BT260 <i>BBTHV1260A</i>	BT280 <i>BBTHV1280A</i>
Auxiliary switches	No	Yes (2)	No	Yes (2)
Power supply	110 to 130 VAC 50/60Hz		220 to 250 VAC 50/60Hz	
Fail safe - Enerdrive	Yes			
Power consumption	8VA Peak, 5VA			
Control signal	2 wire / 2 position			
Running time through 90°	20 to 35 sec Torque dependant			
Torque	50 in.lb. [5,6 Nm] at rated voltage			
Electrical connection	18 AWG [0.8 mm ²] minimum			
Inlet bushing	2 inlet bushing of 5/8 in [15.9 mm] & 7/8 in [22.2 mm]			
Angle of rotation	0 to 90 degrees, mechanically adjustable (factory set with 90° stroke)			
Direction of rotation	Reversible, Clockwise (CW) or Counterclockwise (CCW) (factory set with CW direction)			
Ambient temperature	-22°F to +122°F [-30°C to +50°C]			
Storage temperature	-22°F to +122°F [-30°C to +50°C]			
Relative Humidity	5 to 95 % non condensing.			
Ingress protection	IP22 equivalent to Nema type 2			
Weight	3 lbs. [1.4 kg]			

Warning: Do not press the clutch when actuator is powered

Dimensions



Dimension	Inches	Metric (mm)
A	1.50	38.1
B	3.26	82.8
C	6.60	167.5
D	3.72	94.5

Caution

We strongly recommend that all neptronic® products be wired to a separate transformer and that transformer shall service only neptronic® products. This precaution will prevent interference with, and/or possible damage to incompatible equipment.
When multiple actuators are wired on a single transformer, polarity must be observed. Long wiring runs create voltage drop which may affect the actuator performance.

¹ Enerdrive System U.S.A. Patent #5,278,454



Mechanical installation

MOUNTING BRACKET

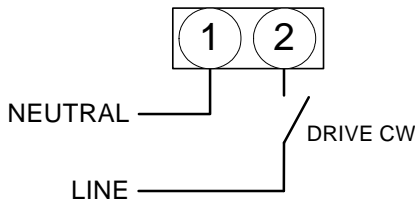
CLUTCH

1. Manually close the damper blades and positioned the actuator at 0° or 90°.
2. Slide the actuator onto the shaft.
3. Tighten the nuts on the “U” bolt to the shaft with a 8mm wrench to a torque of 60 in.lb. [6,7 Nm].
4. Slide the mounting bracket under the actuator. Ensure free movement of the slot at the base of the actuator. The bracket pin must be placed in the mid distance of the slot.
5. Fix the bracket to the ductwork with #8 self-tapping screws.

Wiring Diagrams

Caution: Risk of electric shock. Remove power prior to connect.

2 wire / 2 position (ON-OFF)



PC Board

BBTHV1X60A

Switches
Only on model
180 & 280

Rotation & Fail Safe direction

DIR REV S1 Terminal

Switches terminal
Only on model
180 & 280

TB1 1 2 TB2 6 7 8

Rotation direction

CW (0 to 90°)		Fail Safe (90 to 0°)
CCW (90 to 0°)		Fail Safe (0 to 90°)

Stroke adjustment

To adjust the stroke, move the adjustment screws at the desired position.