

**BETTIS**

**TorqPlus™**

Electric Valve  
Actuators  
and Controls



**EMERSON**  
Process Management

**EMERSON. CONSIDER IT SOLVED.**



Torque 350 IN/LB – 1600 IN/LB

### The Engineered Solution

Bettis TorqPlus quality line of electric actuators are designed for quarter turn applications — ball, butterfly and plug valves; dampers; vents and similar uses.

TorqPlus actuators are manufactured in a wide range of guaranteed output torques and operating speeds to fit your specific requirements.

The Model EM-500 Series are designed for the entire mid-range of torques and operating speeds, with a rugged versatility that is hard to beat.



### STANDARD FEATURES

- Two year warranty
- Heater and thermostat installed in all actuators
- Hardened steel spur gear train is permanently lubricated
- Hardened steel drive shaft
- Female DIN/ISO F07 output drive and F07/F10 bolt pattern or male output drive

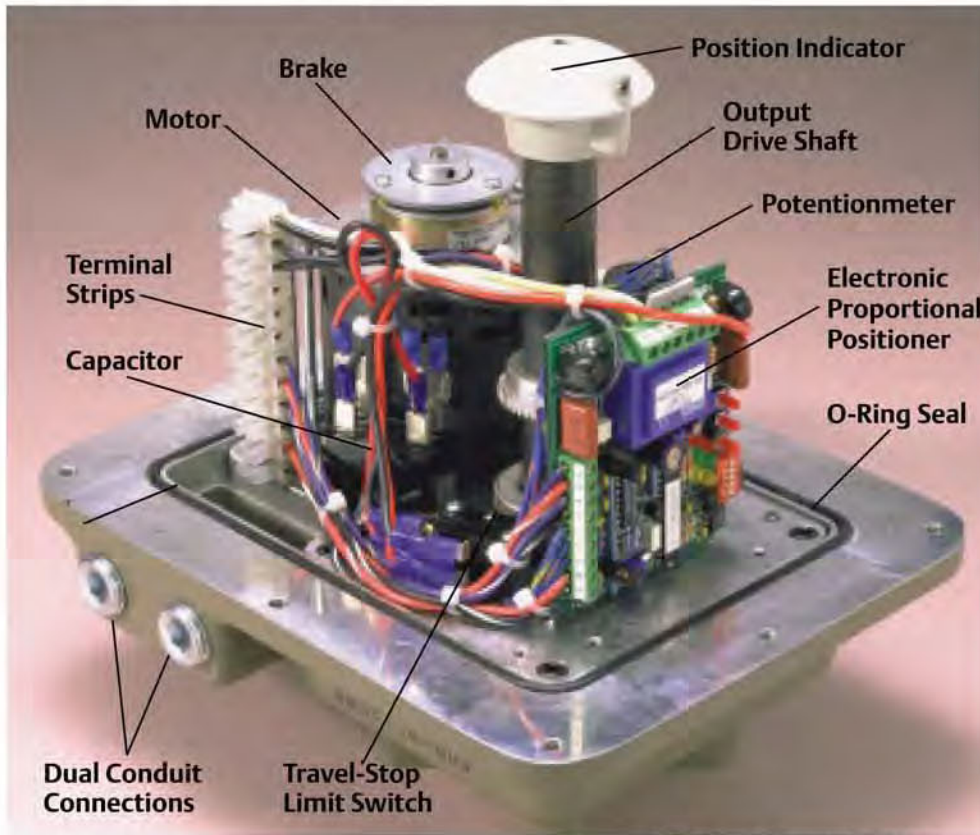
- Operating temperatures:
  - 40° F with standard heater activated, to +140° F
- Single phase capacitor run motor with thermal overload protection
- Enclosure certified to weatherproof C.S.A. specifications that conform to NEMA type 1, 2, 3, 3R, 4, 4X and 12
- Dec clutchable manual override with position indicator
- Dual 1/2-inch NPT machined conduit entrances
- Captive hex bolts on enclosure
- Operational in any mounting orientation
- Two single pole double throw end of travel stop limit switches with adjustable cams
- Weight: 17 to 18 lbs

### OPTIONAL FEATURES

- Electromechanical brake
- Standard 110 potentiometer, other ranges provided upon request
- Electronic proportional positioner for 4-20mA, 1-5 VDC, or 0-10 VDC control input, and 4-20mA output signal
- Relay control
- Optional voltages
  - 220 VAC 50/60 Hz single phase
  - 12/24 VDC
  - 24 VAC
- Maximum of four additional single pole double throw auxiliary limit switches with adjustable cams
- Handwheel
- Dual purpose weatherproof and explosion-proof enclosures are certified by Canadian Standards Association for services: Class I Groups C, D, Division I; Class II Groups E, F, G Division I that conform to NEMA type 7 and 9
- Canadian Standards Association general purpose for electrical certification available under file #LR90062



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\*Heater and Thermostat not shown.

MODEL EM-500 SERIES									
TORQUE		SPEED 90°	MODEL	LOCKED ROTOR AMP				MOTOR DUTY CYCLE @ 75°F	
IN/LB	NM			115VAC	230VAC	12VDC	24VDC	AC	DC
350	39	5 SEC	500-05	0.69	0.36	<b>8.4</b>	<b>7.3</b>	100%	100%
700	79	10 SEC	500-10	0.69	0.36	<b>8.4</b>	<b>7.3</b>	100%	100%
1000	113	15 SEC	500-15	0.69	0.36	<b>8.4</b>	<b>7.3</b>	100%	100%
1600	181	30 SEC	500-30	0.35	0.45	<b>8.4</b>	<b>7.3</b>	100%	100%
325	36	2 SEC	510-02	1.57	0.80	--	<b>18.4</b>	100%	100%
600	68	5 SEC	510-05	1.57	0.80	--	<b>18.4</b>	100%	100%
1000	113	7 SEC	510-07	1.57	0.80	--	<b>18.4</b>	100%	100%
180	20	5 SEC	520-05	0.57	0.29	<b>19.2</b>	<b>8.8</b>	30%	100%
450	51	10 SEC	520-10	0.57	0.29	<b>19.2</b>	<b>8.8</b>	30%	100%
600	68	15 SEC	520-15	0.57	0.29	<b>19.2</b>	<b>8.8</b>	30%	100%
1000	113	30 SEC	520-30	0.57	0.29	<b>19.2</b>	<b>8.8</b>	30%	100%

# Assembly Layout Drawings



**MODEL EM-500  
EM-510  
EM-520**

