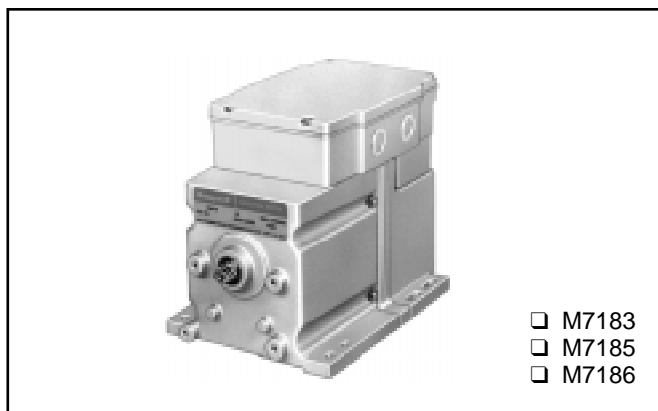


## M7183, M7185, M7186 Modutrol IV™ Motors

### SPECIFICATION DATA



### APPLICATION

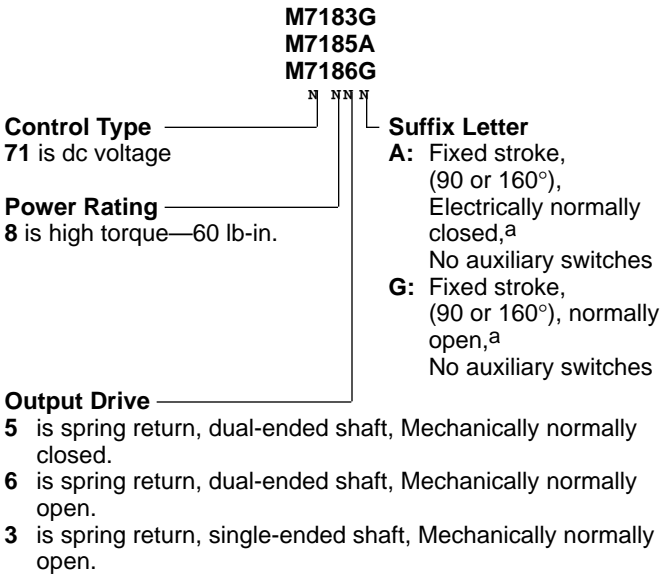
These Modutrol IV™ motors provide proportioning control for dampers and valves in air conditioning systems controlled by the W7080 Multizone Panel.

### FEATURES

- M7185A replaces M745P Motors. M7183G, M7186G replace M745G Motors.
- Rated for 60 lb-in. torque.
- Integral spring returns motor to normal position when power is interrupted.
- Oil immersed motor and gear train for reliable performance and long life.
- Wiring box provides NEMA 3 weather protection.
- Quick-connect terminals standard—screw terminal adapter available.
- Adapter bracket for matching shaft height of older motors is standard with replacement motors.
- Die-cast aluminum housing.
- M7186G can be used for field replacement of Ranco series LA2-2000 Linear Actuators.



## SPECIFICATIONS





<sup>a</sup> Electrically normal position is the position the motor shaft assumes at minimum input signal; closed is fully counterclockwise and open is fully clockwise viewed from the power end.

### Electrical Ratings:

M7183G M7185A M7186G	Voltage (V at 50/60 Hz)	Current Draw (A)	Power Consumption (W)
Without Transformer <sup>a</sup>	24	1.0	23
With Internal Transformer	120	0.28	28
	208	0.16	28
	240	0.14	28

<sup>a</sup>Internal transformer can be field added.

### Motor Rotation:

Normally closed M7185A rotates to the fully counterclockwise  position as viewed from the power end when the input signal is at a minimum or power is interrupted. M7183G, M7186G rotate to the fully clockwise  position under these conditions.

### Input Signal:

4-7 Vdc.

### Stroke:

160°.

### Timing:

60 seconds.

### Torque:

Maximum Operating: 60 lb-in. (6.8 N•m).

Breakaway: 200 lb-in. (23 N•m). Breakaway torque is the maximum torque available to overcome occasional large loads such as a seized damper or valve. *Motor must not be used continuously at this rating.*

### Maximum Damper Rating:

B dim = 68 in. (1727 mm).

### Dead Weight Load on Shaft:

Power or Auxiliary End: 200 lb (90.8 kg) maximum.  
Maximum Combined Load: 300 lb. (136 kg).

### Ambient Temperature Ratings:

Maximum: 150° F (66° C) at 25% duty cycle.  
Minimum: minus 40° F (-40° C).

### Shaft: 3/8 in. (9.5 mm) Square.

M7185, M7186 have double-ended shaft.  
M7183 has single-ended shaft.

### Dimensions:

See Fig. 1.

### Underwriters Laboratories Inc. Listed:

File No. E4436, Guide No. XAPX.

### Canadian Standards Association Certified:

General Listed File No. LR1620, Guide No. 400-E.

### Brake:

Electromechanical; holds load when motor is stopped and releases when motor is running and when power is interrupted.

### Accessories:

ES650117 Explosion-proof Housing: Encloses motor for use in explosive atmospheres. Not for use with Q601, Q618, and Q455 Linkages. Order separately from Nelson Electric Co.

Requires Honeywell 7617DM Coupling.

Q607 External Auxiliary Switch: Controls auxiliary equipment as a function of motor position.

Q605 Damper Linkage: Connects motor to damper. Includes motor crank arm.

Q618 Linkage: Connects Modutrol® Motor to water or steam valve.

Q601 Bracket and Linkage Assembly: Connects Modutrol motor to water or steam valve.

Q100 Linkage: Connects Modutrol motor to butterfly valve.

221455A Infinitely Adjustable Crank Arm: Approximately 0.75 inch (19 mm) shorter than the 4074ELY Crank Arm. Can rotate through downward position and clear base of motor without requiring use of adapter bracket.

220741A Screw Terminal Adapter: Converts the standard quick-connect terminals to screw terminals.

7617ADW Adjustable Crank Arm: Approximately 0.75 inch (19 mm) shorter than 7616BR Crank Arm.

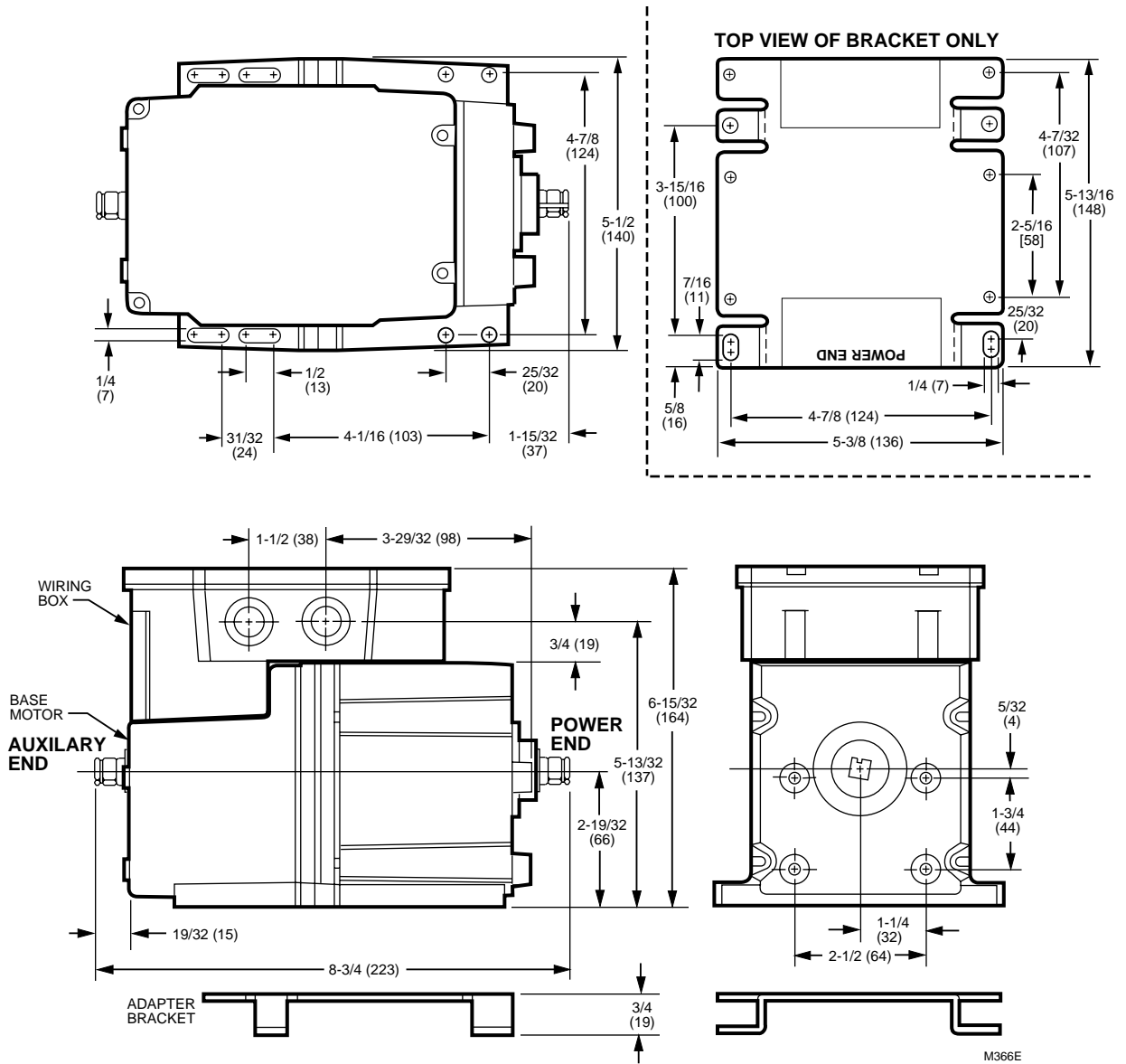
Transformers: Mounted internally, provide 24 Vac power to motor.

198162JA: 24 Vac; 50/60 Hz (for electrical isolation).

198162EA: 120 Vac; 50/60 Hz.

198162GA: 220 Vac; 50/60 Hz.

198162AA: 120/208/240 Vac; 50/60 Hz.



**Fig. 1. Dimensions of M7185, M7186 motors in in. (mm).  
Note: M7183 motors do not have auxiliary shaft. All other dimensions are the same.**

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