PRODUCT DESCRIPTION

22-309, 22-409 & 22-809 GENERAL SPECIFICATIONS

Output Torque and Timing

22-309	3,000 lb-ft (4 067 N•m), 30–300 (configurable) sec./100°
22-409	4,000 lb-ft (5 423 N•m), 15–300 (configurable) sec./100°
22-809	8,000 lb-ft (10 846 N•m), 15–300 (configurable) sec./100°

Drive Current Rating in Amps (listed by operating voltage)*

Model No.	Operating Voltage (Volts AC)							
	1 - phase		3 - phase					
	120	240	208	240	380	416	480	575
22-309	6.0	3.0	3.5	3.0	1.9	1.7	1.5	1.3
22-409	N/A	N/A	4.0	3.5	2.2	2.0	1.7	1.4
22-809	N/A	N/A	6.9	6.0	3.8	3.5	3.0	2.5

*Operating voltage tolerance is +10% to -15%. All models may be operated at 60 Hz or 50 Hz frequency.

= Current rating for the standard operating voltage configuration. Other operating voltages for the 22-309 & 22-409 are available with an optional transformer.

Weight

22-309	515 lbs. (234 kgs), depending on selected options.
22-409	515 lbs. (234 kgs)
22-809	1,250 lbs. (567 kgs)

Operating Conditions	-40° to 85°C (-40° to 185°F) 0 to 99% relative humidity
Communication Interface	HART protocol or local pushbutton/LED panel and RS-232 Serial commands.
Demand Input Signal Range	4–20 mA, 1–5 V dc
Minimum Step	0.1° typical
Hysteresis	0.25% of span at any point.
Demand Input Signal Characterization	Linear: Drive output shaft moves proportionally to the input signal. Square: Drive output shaft moves proportionally to the square of the input signal.
Position Feedback Signal	4–20 mA
Isolation	Demand input and position Feedback signals are isolated from ground and the ac power line. Signal buffering provides 24 V dc isolation between the Demand and Feedback signals.
Action on Loss of Power	Output shaft stays in last position.
Action on Loss of Input Signal (Power on)	Stays in place or runs to any preset position (configurable).

Overtorque Protection	If the output torque of the drive exceeds 115% of the drive rating, the motor will shut off (feature can be enabled/disabled).
Stall Protection	If the motor tries to run in one direction for more than 300 seconds (configurable from 30 to 300 seconds), the motor will shut off.
Over-travel Protection Switches	Two SPDT, one for CW and one for CCW limit of output shaft travel. Standard switch setting is for 101° of travel.
Non-Dedicated Switches (Field adjustable)	Two SPDT, rated for 1 A, 250 V ac.
Customer Wiring	Terminals accommodate up to 12 AWG (3.31 mm^2).
Handswitch	Permits local electrical operation, independent of Demand Input signal.
Handwheel and Handcrank	Provides manual operation without electrical power (Handcrank mechanism is provided with model 22-809 only).
Motor	Does not coast or overshoot and will not overheat, even under continuous modulation.
Gear Train	High efficiency, precision-cut, heat-treated alloy steel and ductile iron spur gears enclosed in, and permanently lubricated by, a grease-filled housing are designed for long life and minimal wear.
Mechanical Stops	Prevent over-travel during automatic or manual operation.
Enclosure	Precision-machined aluminum alloy castings, painted with corrosion-resistant polyurethane paint, provide a rugged, dust-tight, weatherproof enclosure.
Mounting Orientation	Upright, as depicted in outline dimension drawings on pages 8–11.
Standards**	UL Listed CE Compliant

**NOTE: May not be available with all options and models. For more information or to inquire about standards not specifically listed, please call Beck for more information at 215-968-4600.