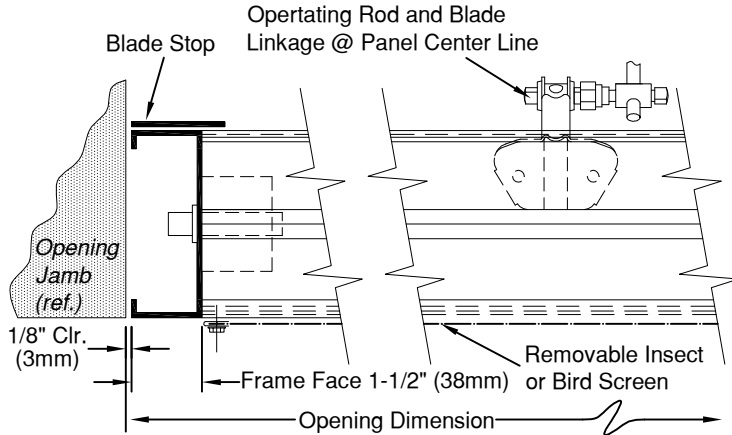


# L&L LOUVERS INC.

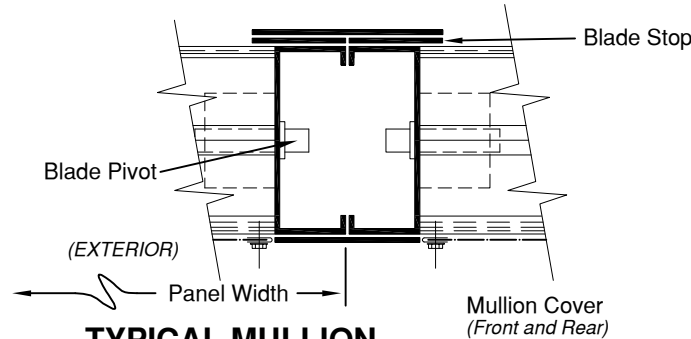
12355 DOHERTY STREET  
 RIVERSIDE, CA. 92503  
 (951) 735-9300 FAX:(951)735-4628  
 E-MAIL: info@louver1.com

# MODEL AG-4054-M

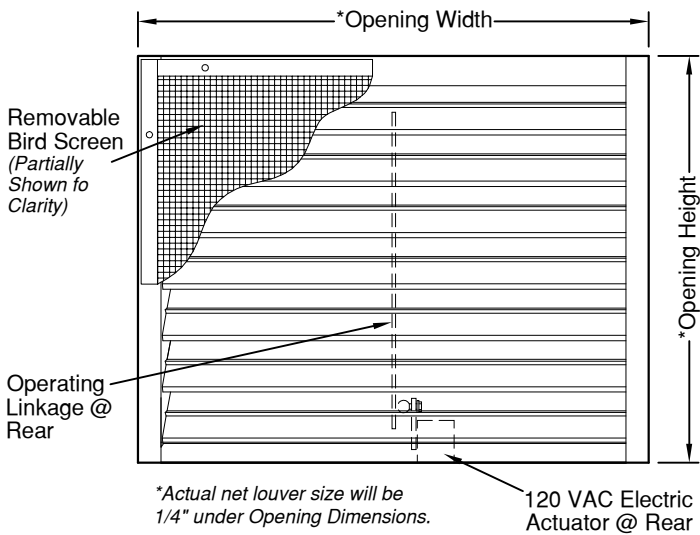
FORMED STEEL LOUVER  
 4" Adjustable (Motor Operated) 45° Blade



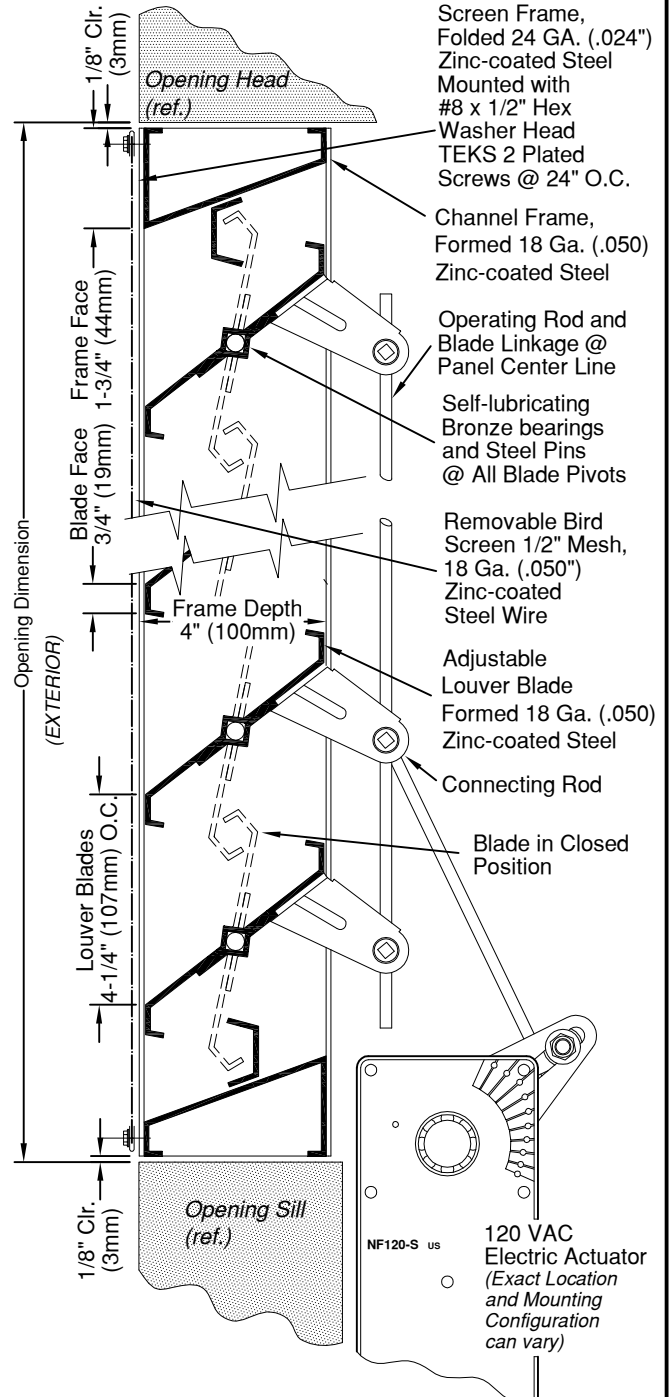
**TYPICAL JAMB**



**TYPICAL MULLION**



**FRONT ELEVATION**



**TYPICAL VERTICAL SECTION**

PROJECT:	
LOCATION:	
ARCHITECT:	
CONTRACTOR:	
CUSTOMER:	
	DATE:



# NF120 (-S) US

On-off, Spring Return Fail-Safe, 120 VAC



Technical Data	NF120 (-S) US
Power supply	120 VAC $\pm$ 10% 50/60 Hz
Power consumption	running: 6 W; holding: 3.5 W
Transformer sizing	7 VA
Electrical connection	3 ft, 18 GA appliance cable 1/2" conduit connector
Overload protection	Electronic throughout 0 to 95° rotation
Electrical protection	Auxiliary switches are double insulated
Angle of rotation	95°, adjustable 30 to 95° w/ accessories
Torque	60 in-lb [7 Nm] constant torque
Direction of rotation	reversible with CW/CCW mounting
Position indication	visual indicator, 0° to 95° (0° is spring return position)
Auxiliary switches (-S models)	1 x SPDT 7A (2.5A) @ 250 VAC, UL listed, adjustable 5° to 85°
Running time (nominal)	motor: < 75 sec spring: < 60 sec
Humidity	5 to 95% RH non-condensing
Ambient temperature	-22°F to +122°F [-30°C to +50°C]
Storage temperature	-40°F to +176°F [-40°C to +80°C]
Housing	NEMA type 2 / IP54
Housing material	zinc coated steel
Agency listings	UL 873 listed, CSA C22.2 No.24 certified
Noise level	max. 45 dB (A)
Servicing	maintenance free
Quality standard	ISO 9001
Weight	7.3 lbs (3.3 kg)

Torque min. 60 in-lb, for control of air dampers

## Application

For on-off, fail-safe control of dampers in HVAC systems. Actuator sizing should be done in accordance with the damper manufacturer's specifications. Control is on-off from an auxiliary contact, or a manual switch.

The actuator is mounted directly to a damper shaft up to 1.05" in diameter by means of its universal clamp. A crank arm and several mounting brackets are available for applications where the actuator cannot be direct coupled to the damper shaft.

## Operation

The NF series actuators provide true spring return operation for reliable fail-safe application and positive close off on air tight dampers. The spring return system provides constant torque to the damper with, and without, power applied to the actuator.

The NF series provides 95° of rotation and is provided with a graduated position indicator showing 0° to 95°.

The actuator may be stalled anywhere in its normal rotation without the need of mechanical end switches.

The NF120-S US versions are provided with 1 built-in auxiliary switch. This SPDT switch is provided for safety interfacing or signaling, for example, for fan start-up. The switching function is adjustable between 5° and 85°.

## Dimensions [All numbers in brackets are in millimeters.]

