

Data sheet

Actuators for dampers (with spring return)

AMD 613, 613 AS, AMD 623, 623 AS

Description



AMD actuators are used for the regulation of air dampers of 90° angle of rotation to be used in heating, ventilation and air conditioning applications (HVAC).

Features:

- Spring return function
- Manual operation
- Rotation direction selection by switch
- Position indication
- Overload protection
- Direct mounting with universal spindle clamp
- Anti-rotation strap for preventing actuator from rotating
- Maintenance free

Main Data:

- Nominal voltage (AC or DC):
230 V, 50/60 Hz
24 V, 50/60 Hz
- Control Input signal: modulating or 2/3 point (depend on wiring)
- Torque: 20 Nm
- Rotation angle: 0- max. 95°
- Running time motor 150 s /90°
- Running time spring 20 s /90°

Ordering

Note:

* Actuator with built-in auxiliary switches

** Damper size:

damper size:	
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 40px; height: 20px; margin-right: 5px;"></div> <div style="text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="text-align: center;">r</div> </div> </div> <p>a b S=a×b</p>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; border-radius: 50%;"></div> <div style="text-align: center;">r</div> </div> <p>S=π×r²</p>

Type	Torque (Nm)	Control signal	Speed (s/90°)	Supply voltage (V)	Auxiliary switch	Max. damper size (m²)	Code No.	
AMD 613	20	2/3-point	150 s motor / 20 s spring	24 VAC/DC	-	3 **	082H1154	
AMD 613 AS				24 VAC/DC	2 aux. Switches *		082H1155	
AMD 613				230 VAC/DC	-		082H1156	
AMD 613 AS				230 VAC/DC	2 aux. Switches *		082H1157	
AMD 623		modulating		24 VAC/DC	-		082H1158	
AMD 623 AS				24 VAC/DC	2 aux. Switches *		082H1159	

Working cycles

2/3-point	>60.000 cycles (0°-95°-0°)
modulating	>60.000 cycles (0°-95°-0°)
	>1.000.000 partial cycles (±5°)

Technical data

Type		613/613AS (24V)	613/613AS (230V)	623/623AS (24V)
Power supply	V	24 AC/DC or 230 AC/DC ± 20%		
Power consumption in motion	W	9		7,5
Power consumption in Stand by (end position)		2,5		2
Frequency	Hz	50/60		
Control Input		2/3 point *		modulating
	V	/		0-10 (2-10) Ri = 100 kΩ
	mA			0-20 (4-20) Ri = 500Ω
Operating torque	Nm	20		
Rotation angle		0...max 95°		
Ambient temperature	°C	-30 ... 50		
Ambient humidity:		5...95% r.F., non- condensating (EN 60730-1)		
Storage and transport temperature		-30 ... 80		
Protection Class		III (24V) / II (230V)		
Rated impulse voltage:	kV	0,8 (EN 60730-1)	4 (EN 60730-1)	0,8 (EN 60730-1)
Grade of enclosure / Degree of protection		IP 54		
Sound power level motor: **	dB(A)	< 45 motor / < 65 spring		< 35 motor / < 65 spring
Weight	kg	2,6		
CE marking in accordance with standards		Low voltage directive (LVD) 2006/95/EC: EN 60730-1, EN 60730-2-14 EMC Directive 2004/108/EC: EN 61000-6-2, EN 61000-6-3 RoHS CE (2011/65/EU)		

Note:

* depend on wiring

** at distance 1m

Operating mode

Valid for: AMD 623, 623AS

Through connecting the power supply to BU+BN (1+2) and a reference signal Y to BK (3) of 0(2)...10VDC, moves the actuator to its specified position. The actual damper position 0...100% is a feedback signal U for example to share the signal with other actuators. If the power supply is interrupted the actuator is moving to position 0 by spring power. The actuator is still maintaining the minimum torque at the damper spindle

The actuator is overload-proof and requires no end switches. It automatically stops when the end stop is reached.

Valid for: AMD 613, 613AS

Through connecting the power supply to BU+BN (1+2), the actuator moves to position 1 while the pre-tensioned spring is wound up the same time. If the power supply is interrupted the actuator is moving back to position 0 by the spring power. The actuator is still maintaining the minimum torque at the damper spindle.

The actuator is overload-proof and requires no end switches. It automatically stops when the end stop is reached.

Direct mounting

Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with an anti-rotation strap to prevent the actuator from rotating.

Manual operation

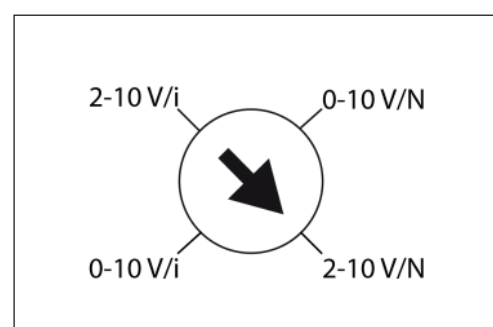
The actuator can be operated only manually while the power supply is off. The supplied lever is to open and lock the damper position. The lock stays until the power supply is put on.

Mode- switch

Valid for AMD: (623, 623AS)

Mode switch with four rast positions at the housing

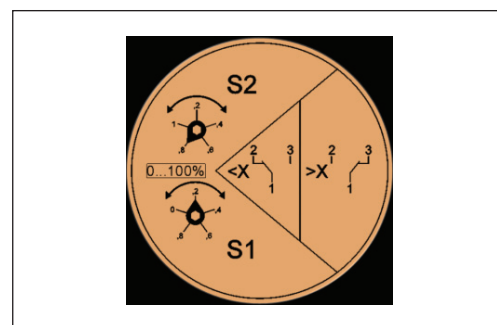
- Rotary direction Normal 2-10 V
- Rotary direction Normal 0-10 V
- Rotary direction invers 2-10 V
- Rotary direction invers 0-10 V



Auxiliary switches

Valid for AMD 613AS

The two integrated auxiliary switches are freely adjustable in the angle of 0 – 95°. These are activated corresponding to the adjusted angle. The damper position can be checked by the mechanical pointer.



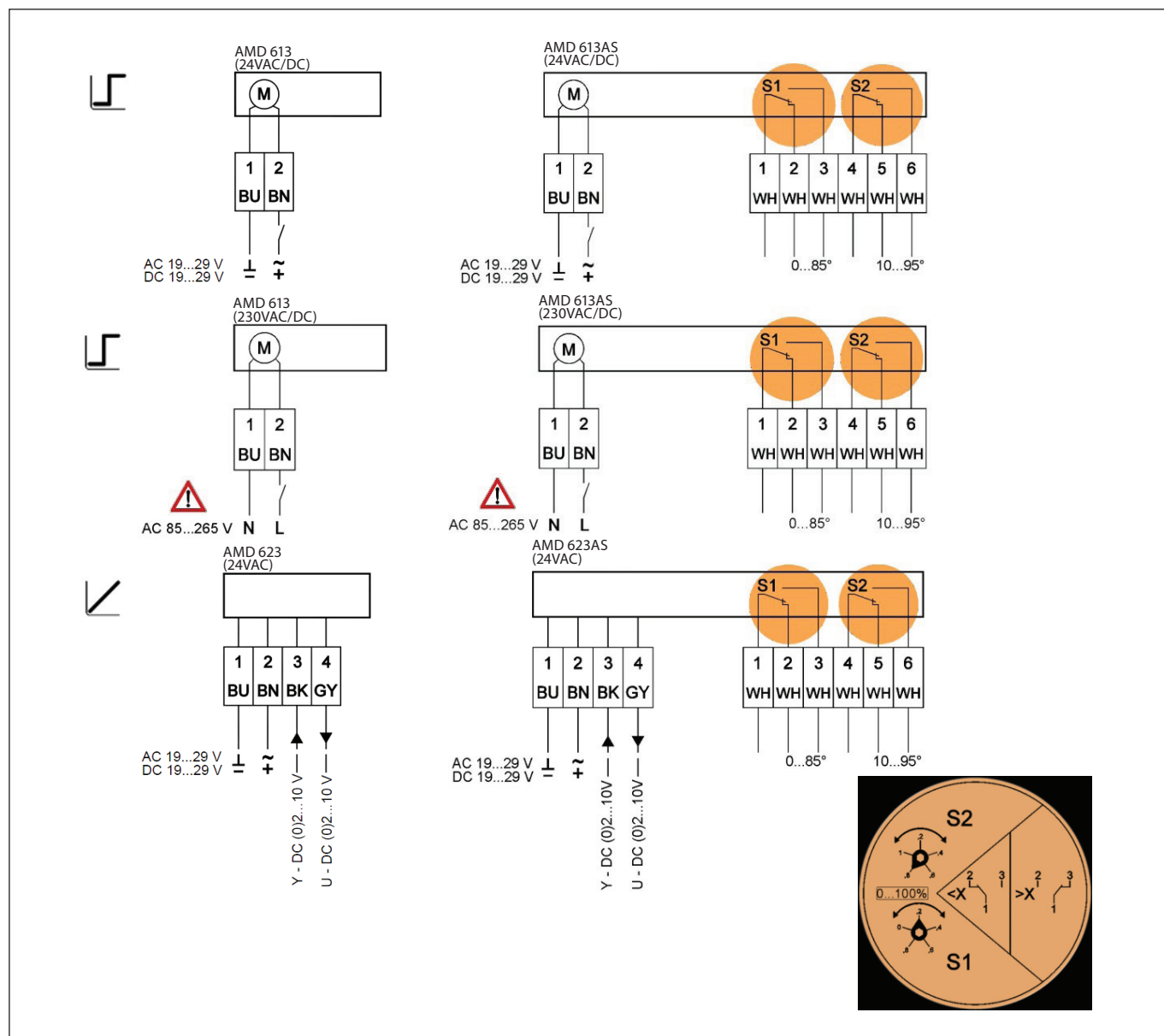
Installation

The actuators should be mounted in a dry environment, absolutely free from acrid fumes. In case of outdoor installation, the actuator has to be protected against climatic influences by suitable measures.

Clamp coupling dimensions:

Ø 9-16mm / Ø 9-20 mm

Wiring



Dimensions

