



FIRBESON

F30S Series Spring Return Damper Actuator

The damper actuator specially designed for the air dampers of the HVAC Systems



Torque

3.5Nm, 5Nm, 10Nm, 15Nm, 20Nm

Supply Voltage & Control

AC/DC 19.2-28.8V or AC 85-265V, 2/3 point

AC/DC 19.2-28.8V, 0(2)-10V or 0(4)-20mA

Order code

F30 S - X X X - X

Accessories : S for Auxiliary Switches

Power source : 24 for AC/DC19.2-28.8V;
230 for AC 85-265V

Control : D for 2 point; M for modulating

Torque : 3.5Nm, 5Nm, 10Nm, 15Nm, 20Nm

S for Spring Return

Labeling of Series

3.5Nm Model Type

Model	Torque	Running Time	Nominal Voltage	Auxiliary Switches
F30S-3.5D24	3.5Nm	Motor Running < 70s; Spring Return < 30s	AC/DC 24V Or AC 230V	Without
F30S-3.5D230				With 2 SPDT
F30S-3.5M24				
F30S-3.5D24-S				
F30S-3.5D230-S				
F30S-3.5M24-S				

F30S-3.5 Specification

Items	F30S-3.5D24 F30S-3.5D24-S	F30S-3.5D230 F30S-3.5D230-S	F30S-3.5M24 F30S-3.5M24-S
Electrical Parameters			
Nominal Voltage （V）	AC/DC 24V 50/60Hz	AC 230V 50/60Hz	AC/DC 24V 50/60Hz
Nominal Voltage Range （V）	AC/DC19.2-28.8V	AC 85-265V	AC/DC19.2-28.8V
Power Consumption （on）	2.5W		
Power Consumption （off）	1.6W		
Cable	2 point: 1m cable 3*0.75mm ² ; Modulating: 1m cable 4*0.5mm ² ; Positional Feedback: 1m cable 6*0.5mm ²		
Technical Parameters			
Torque	3.5Nm		
Damper Area （m ² ）	0.8		
Running Time	Motor Running < 70s; Spring Return < 30s		
Control Signal	2 point		0（2）-10V
Angle of Rotation	0~90°（max 93°）		
Direction of Rotation	L/R switch		
Positional Feedback	None or 2 SPDT		
Life Cycle	≥70000		
Noise Level	50dB and 62dB		
Operating Condition			
Protection Class	II/III		
Degree of Protection	IP54		
Ambient Temperature	-30~+55℃		
Ambient Humidity	5~95%RH		
Non-operating Temperature	-40~+80℃		
Dimensions & Weight			
Spindle Diameter	 8 - 14 mm		
Weight （Kg）	1.0		
Certificates	CE, UKCA, UL, RoHS		

5Nm Model Type

Model	Torque	Running Time	Nominal Voltage	Auxiliary Switches
F30S-5D24	5Nm	Motor Running < 70s; Spring Return < 20s (For Modulating Motor Running < 120s; Spring Return < 20s)	AC/DC 24V Or AC 230V	Without
F30S-5D230				With 2 SPDT
F30S-5M24				
F30S-5D24-S				
F30S-5D230-S				
F30S-5M24-S				

F30S-5 Specification

Items	F30S-5D24 F30S-5D24-S	F30S-5D230 F30S-5D230-S	F30S-5M24 F30S-5M24-S
Electrical Parameters			
Nominal Voltage （V）	AC/DC 24V 50/60Hz	AC 230V 50/60Hz	AC/DC 24V 50/60Hz
Nominal Voltage Range （V）	AC/DC19.2-28.8V	AC 85-265V	AC/DC19.2-28.8V
Power Consumption （on）	5W		
Power Consumption （off）	2.5W		
Cable	2 point: 1m cable 3*0.75mm ² ; Modulating: 1m cable 4*0.5mm ² ; Positional Feedback: 1m cable 6*0.5mm ²		
Technical Parameters			
Torque	5Nm		
Damper Area （m ² ）	1		
Running Time	Motor Running < 70s; Spring Return < 20s		Motor < 120s; Spring < 20s
Control Signal	2 point		0(2)-10V
Angle of Rotation	0~90° (max 93°)		
Direction of Rotation	L/R switch		
Positional Feedback	None or 2 SPDT		None or 1 SPDT
Life Cycle	≥70000		
Noise Level	50dB and 62dB		
Operating Condition			
Protection Class	II/III		
Degree of Protection	IP54		
Ambient Temperature	-30~+55℃		
Ambient Humidity	5~95%RH		
Non-operating Temperature	-40~+80℃		
Dimensions & Weight			
Spindle Diameter	 10 - 16 mm		
Weight （Kg）	1.4		
Certificates	CE, UKCA, UL, RoHS		

10Nm Model Type

Model	Torque	Running Time	Nominal Voltage	Auxiliary Switches
F30S-10D24	10Nm	Motor Running < 70s; Spring Return < 30s (For Modulating Motor Running < 120s; Spring Return < 30s)	AC/DC 24V Or AC 230V	Without
F30S-10D230				With 2 SPDT
F30S-10M24				
F30S-10D24-S				
F30S-10D230-S				
F30S-10M24-S				

F30S-10 Specification

Items	F30S-10D24 F30S-10D24-S	F30S-10D230 F30S-10D230-S	F30S-10M24 F30S-10M24-S
Electrical Parameters			
Nominal Voltage （V）	AC/DC 24V 50/60Hz	AC 230V 50/60Hz	AC/DC 24V 50/60Hz
Nominal Voltage Range （V）	AC 19.2-28.8V DC 21.6-28.8V	AC 85-265V	AC/DC19.2-28.8V
Power Consumption （on）	5W		
Power Consumption （off）	2.5W		
Cable	2 point: 1m cable 3*0.75mm ² ; Modulating: 1m cable 4*0.5mm ² ; Positional Feedback: 1m cable 6*0.5mm ²		
Technical Parameters			
Torque	10Nm		
Damper Area （m ² ）	2		
Running Time	Motor Running < 100s; Spring Return < 30s		Motor < 120s; Spring < 30s
Control Signal	2 point		0(2)-10V
Angle of Rotation	0~90° (max 93°)		
Direction of Rotation	L/R switch		
Positional Feedback	None or 2 SPDT		
Life Cycle	≥70000		
Noise Level	50dB and 62dB		
Operating Condition			
Protection class	II/III		
Degree of Protection	IP54		
Ambient Temperature	-30~+55°C		
Ambient Humidity	5~95%RH		
Non-operating Temperature	-40~+80°C		
Dimensions & Weight			
Spindle Diameter	 12 - 20 mm		
Weight （Kg）	2.4		
Certificates	CE, UKCA, UL, RoHS		

15Nm Model Type

Model	Torque	Running Time	Nominal Voltage	Auxiliary Switches
F30S-15D24	15Nm	Motor Running < 130s; Spring Return < 30s	AC/DC 24V Or AC 230V	Without
F30S-15D230				
F30S-15M24				
F30S-15D24-S				With 2 SPDT
F30S-15D230-S				
F30S-15M24-S				

F30S-15 Specification

Items	F30S-15D24 F30S-15D24-S	F30S-15D230 F30S-15D230-S	F30S-15M24 F30S-15M24-S
Electrical Parameters			
Nominal Voltage （V）	AC/DC 24V 50/60Hz	AC 230V 50/60Hz	AC/DC 24V 50/60Hz
Nominal Voltage Range （V）	AC/DC19.2-28.8V	AC 85-265V	AC/DC19.2-28.8V
Power Consumption （on）	6W		
Power Consumption （off）	2.5W		
Cable	2 point: 1m cable 3*0.75mm ² ; Modulating: 1m cable 4*0.5mm ² ; Positional Feedback: 1m cable 6*0.5mm ²		
Technical Parameters			
Torque	15Nm		
Damper Area （m ² ）	3		
Running Time	Motor Running < 130s; Spring Return < 30s		
Control Signal	2 point		0(2)-10V
Angle of Rotation	0~90° (max 93°)		
Direction of Rotation	L/R switch		
Positional Feedback	None or 2 SPDT		
Life Cycle	≥70000		
Noise Level	50dB and 62dB		
Operating Condition			
Protection Class	II/III		
Degree of Protection	IP54		
Ambient Temperature	-30~+55℃		
Ambient Humidity	5~95%RH		
Non-operating Temperature	-40~+80℃		
Dimensions & Weight			
Spindle Diameter	 12 - 20 mm		
Weight （Kg）	2.4		
Certificates	CE, UKCA, UL, RoHS		

20Nm Model Type

Model	Torque	Running Time	Nominal Voltage	Auxiliary Switches
F30S-20D24	20Nm	Motor Running < 130s; Spring Return < 30s	AC/DC 24V Or AC 230V	Without
F30S-20D230				With 2 SPDT
F30S-20M24				
F30S-20D24-S				
F30S-20D230-S				
F30S-20M24-S				

F30S-20 Specification

Items	F30S-20D24 F30S-20D24-S	F30S-20D230 F30S-20D230-S	F30S-20M24 F30S-20M24-S
Electrical Parameters			
Nominal Voltage （V）	AC/DC 24V 50/60Hz	AC 230V 50/60Hz	AC/DC 24V 50/60Hz
Nominal Voltage Range （V）	AC/DC19.2-28.8V	AC 85-265V	AC/DC19.2-28.8V
Power Consumption （on）	7W		
Power Consumption （off）	2.5W		
Cable	2 point: 1m cable 3*0.75mm ² ; Modulating: 1m cable 4*0.5mm ² ; Positional Feedback: 1m cable 6*0.5mm ²		
Technical Parameters			
Torque	20Nm		
Damper Area （m ² ）	4		
Running Time	Motor Running < 130s; Spring Return < 30s		
Control Signal	2 point		0(2)-10V
Angle of Rotation	0~90° (max 93°)		
Direction of Rotation	L/R switch		
Positional Feedback	None or 2 SPDT		
Life Cycle	≥70000		
Noise Level	50dB and 62dB		
Operating Condition			
Protection Class	II/III		
Degree of Protection	IP54		
Ambient Temperature	-30~+55℃		
Ambient Humidity	5~95%RH		
Non-operating Temperature	-40~+80℃		
Dimensions & Weight			
Spindle Diameter	 12 - 20 mm		
Weight （Kg）	2.4		
Certificates	CE, UKCA, UL, RoHS		