

# NASA SERIES FAST RUNNING DAMPER ACTUATOR


2 Point & 3 Point Control  
20 Nm


# NENUTEC<sup>®</sup>

INNOVATIVE MEMBER OF SWISSTECH

**NENUTEC ASIA PACIFIC PTE LTD**  
7030 Ang Mo Kio Ave 5  
#03-56 Northstar @ AMK  
Singapore 569 880













 (65) 6570 3233

 (65) 6570 6783

 [info@nenutec.com.sg](mailto:info@nenutec.com.sg)

## DAMPER ACTUATOR MODEL CHART

MODEL	 NACA	 NACM	 NECA	 NECM	 NASA	 NASM	 NAFA	 SAFA	 SASA	 NSVA
VOLTAGE 230VAC ~ 24VAC/DC	●	●	●	●	●	●	●	●	●	24 VAC
TORQUE (NM)	2 ; 5 ; 10 ; 20 ; 40	2 ; 5 ; 10 ; 20 ; 40	5 ; 10 ; 20	5 ; 10 ; 20	10 ; 20	10 ; 20	3 ; 5 ; 8 ; 20	3 ; 5 ; 8 ; 20	10 ; 15	5
CONTROL	2/3 pts	Modulating	2 pts	Modulating	2/3 pts	Modulating	2 pts SR	2 pts SR	3 pts	Modulating
SPECIAL TYPE										
ELECTRONIC RETURN			●	●						
FAST RUNNING					●	●			●	
SPRING RETURN							●			
FIRE & SMOKE SPRING RETURN								●		
SMOKE SAFETY								●	●	
NETWORKING										●

## TYPE DESIGNATION

TYPE	ACTUATOR	DESIGNATION	CONTROL	VOLTAGE	DOT	INPUT SIGNAL	HYPHENATED	TOUQUE	AUXILIARY SWITCH
N	A	C	M	1	.	1	-	1 0	S1

<b>TYPE</b>	N = Standard Actuator S = Fire & Smoke
<b>ACTUATOR</b>	A = Standard Actuator E = Electronic Return
<b>DESIGNATION</b>	C = Standard Actuator S = Fast Running Actuator F = Spring Back Actuator
<b>CONTROL</b>	A = 2/3 Points M = Modulating
<b>VOLTAGE</b>	1 = 24 VAC/VDC 2 = 230 VAC 3 = 110/120 VAC 4 = 48 VAC

<b>INPUT SIGNAL (NOT APPLICABLE FOR 2/3 POINTS)</b>	1 = 0(2)...10 VDC and 0(4)...20 mA 2 = 0(2)...10 VDC only 3 = 0...135 Ω only 4 = 4...20 mA only
<b>TORQUE</b>	02 = 2 Nm    03 = 3 Nm 05 = 5 Nm    08 = 8 Nm 10 = 10 Nm    15 = 15 Nm 20 = 20 Nm    40 = 40 Nm
<b>AUXILIARY SWITCH / FEEDBACK POTENTIOMETER</b>	None = No Auxiliary or Feedback Potentiometers S1 = 1 x Auxiliary Switch S = 2 x Auxiliary Switches P1 = 1000Ω P2 = 10000Ω P3 = 140Ω

# NASA SERIES

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### NASA...20 (S) SERIES

NENUTEC is proud to offer the 10 and 20 Nm damper actuator of the NASA... 10/20 (S) Series of designed specifically applications into the HVAC and Light Industrial market. NENUTEC high quality actuators have been designed for use with fast running air damper and ball valve application.

### PRODUCT FEATURE

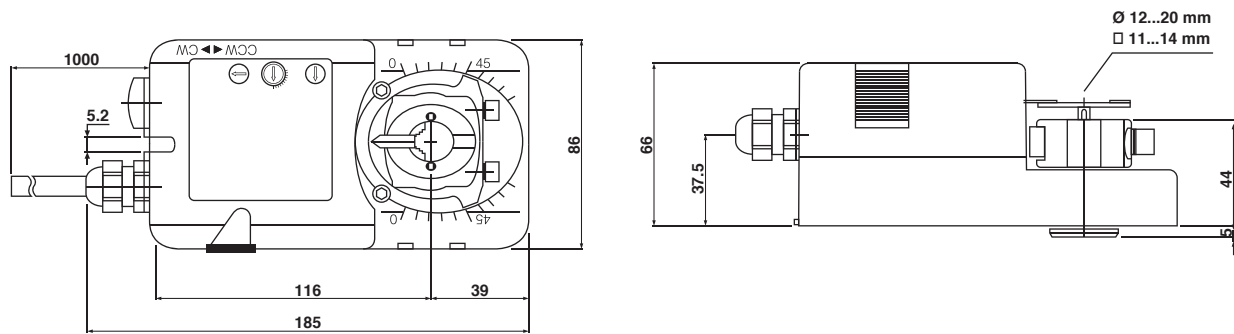


- Torque 20 Nm
- Power supply AC/DC 24V and AC 230V
- Shaft dimensions - Ø 12...20 mm / □ 11...14 mm
- Minimum Shaft Length 40 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Optional 2 Adjustable SPDT auxiliary switches
- Manual Over-ride push button when required
- Collaborate with NVCB 9000 Bracket 1

### MODEL SELECTION TABLE

MODEL / TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	AUXILIARY SWITCH
NASA 1-20	20 Nm	AC/DC 24 V ± 10%	20 Sec	-
NASA 1-20S	20 Nm	AC/DC 24 V ± 10%	20 Sec	2 x SPDT (Adjustable)
NASA 2-20	20 Nm	AC 230 V ± 10%	20 Sec	-
NASA 2-20S	20 Nm	AC 230 V ± 10%	20 Sec	2 x SPDT (Adjustable)

## DIMENSION (mm)



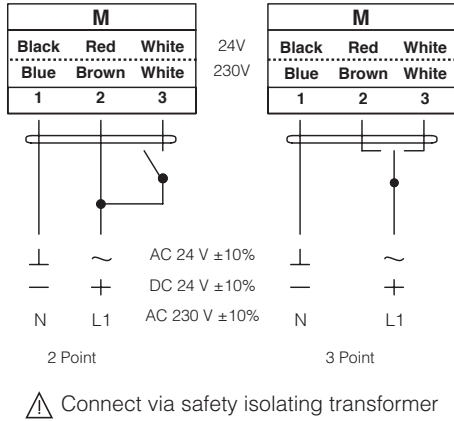
## TECHNICAL SPECIFICATION

MODEL NUMBER	NASA 1-20 (S)	NASA 2-20 (S)
TORQUE	20 Nm	20 Nm
DAMPER SIZE	4.0 m <sup>2</sup>	4.0 m <sup>2</sup>
SHAFT DIMENSION	Ø 12...20 mm / □ 11...14 mm	Ø 12...20 mm / □ 11...14 mm
POWER SUPPLY	AC/DC 24 V ± 10%	AC 230 V ± 10%
FREQUENCY	50...60 Hz	50...60 Hz
CONTROL SIGNAL	2 & 3 point control	2 & 3 point control
POWER CONSUMPTION		
● OPERATING	8.0 W	8.0 W
● END POSITION	2.0 W	2.0 W
FOR WIRE SIZING	14.0 VA	14.0 VA
ELECTRICAL CONNECTION	1 m Cable	1 m Cable
AUXILIARY SWITCHES RATING	3 (1.5) A, AC 250 V	3 (1.5) A, AC 250 V
PROTECTION CLASS	Class III ⚡	Class II ⚡
ANGLE OF ROTATION	90° (95° mechanical)	90° (95° mechanical)
WEIGHT	1.2 Kg	1.2 Kg
LIFE CYCLE	60,000 Rotation	60,000 Rotation
SOUND LEVEL	45 dB	45 dB
IP PROTECTION	IP54	IP54
OPERATING TEMPERATURE	-20°...50° as per IEC 721-3-3	-20°...50° as per IEC 721-3-3
NON-OPERATING TEMPERATURE	-30°...+60° C / IEC 721-3-2	-30°...+60° C / IEC 721-3-2
AMBIENT HUMIDITY	5%...95% rH non condensing / EN	5%...95% rH non condensing / EN
MAINTENANCE	Maintenance Free	Maintenance Free
MODE OF OPERATION	Type I / EN 60730-1	Type I / EN 60730-1
EMC	CE & ISO 9000 EN / EEC	CE & ISO 9000 EN / EEC

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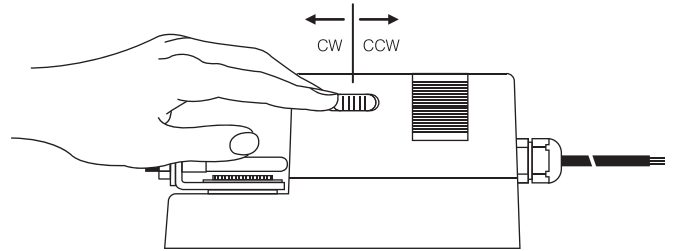
## WIRING DIAGRAM NASA...20 (S) POWER SUPPLY AC/DC 24V / AC 230V



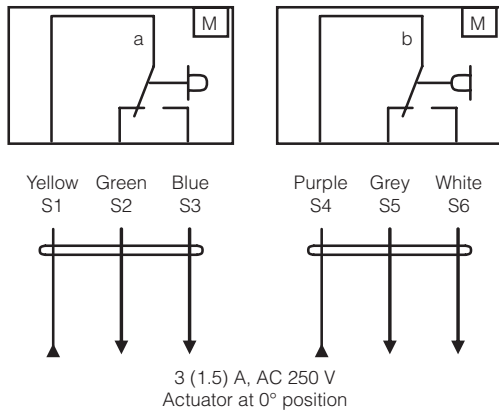
## DIRECTION OF ROTATION NASA...20 (S)

Default factory setting: CW.

Direction of rotation can be change by toggling between CW/CCW switch on the actuator's housing.



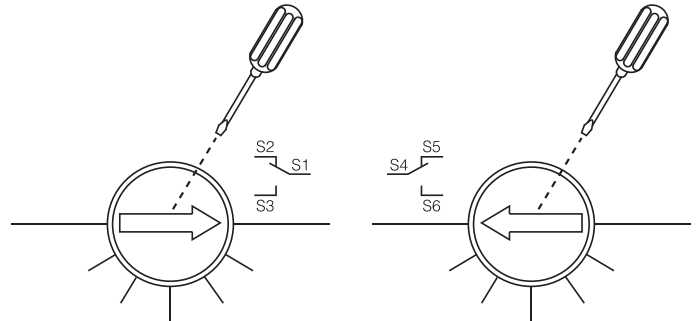
## WIRING DIAGRAM NASA...20 (S) AUXILIARY SWITCHES



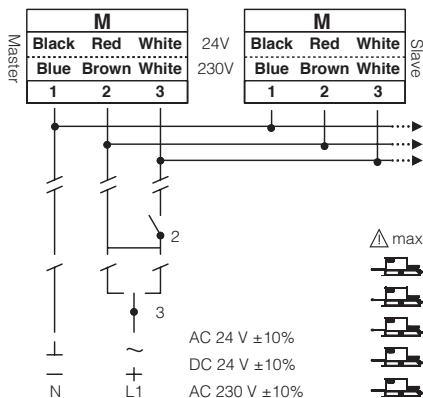
## AUXILIARY SWITCH NASA...20 (S)

Switch **a** factory-set at 5° and 85°.

The auxiliary switch can be optimally adjusted between 0°...90°.



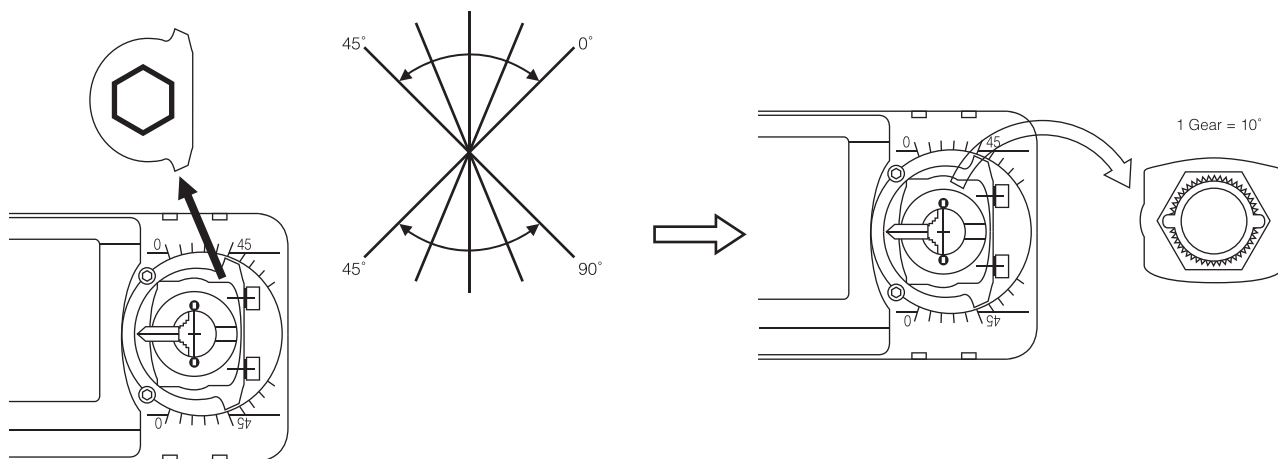
## WIRING DIAGRAM NASA...20 (S) PARALLEL CONNECTION



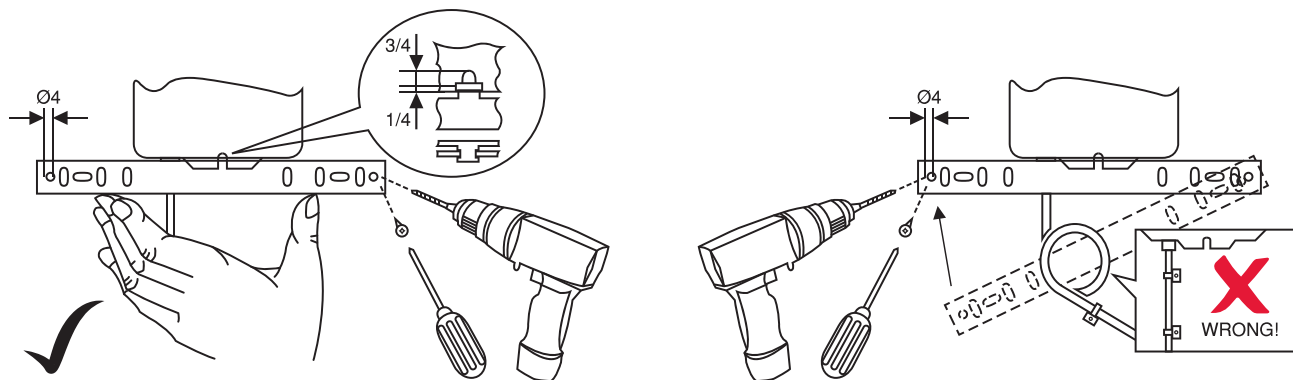
## REMARK

Parallel connection of NASA...20 (S) actuators are limited to 5. Power consumption must be observe.

## ANGLE OF ROTATION LIMITING





## INSTALLATION / MOUNTING INSTRUCTION



### IMPORTANT REMARK

For special requirement, consult your local Nenutec's representative.

  This actuator includes electrical and electronic components and may not be disposed as household garbage. Please consider the local valid legislation.

 AC / DC 24 V: Connect via safety isolating transformer.  
AC 230 V: To isolate from the main power supply, the system must incorporate a device which disconnects the phase conductor (with at least a 3mm contact gap.)

The performance specifications are nominal and conform to acceptable industry standards. NENUTEC shall not be liable for damages resulting from misapplication or misuse of its products.