

# Size 5S Rotary Solenoid

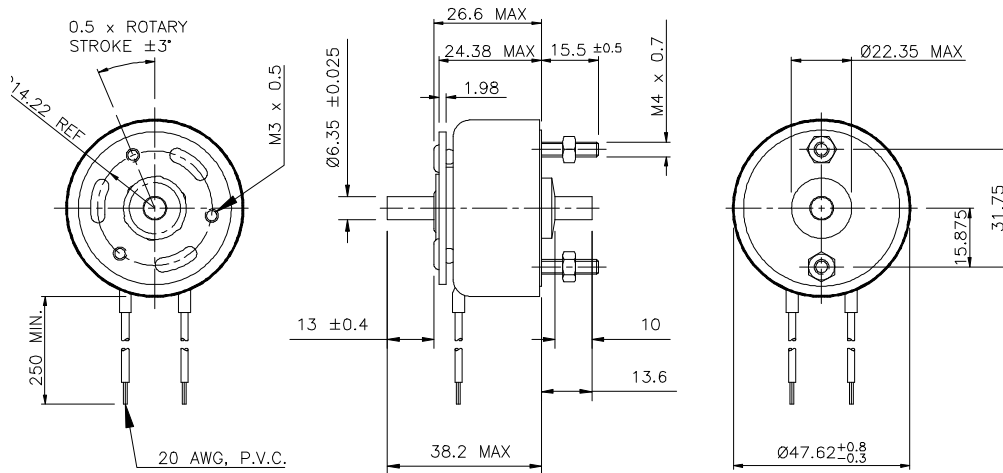


## General Specifications:

- **Dielectric Strength:** 23 awg. 1000 VRMS / 24-33 awg. 1200 VRMS
- **Recommended Heat Sink:** Maximum watts dissipated by the solenoid are based on an unrestricted flow of air at 20°C mounted on the equivalent of an aluminium plate 190.5 x 190.5 x 3.2mm min.

- **Coil Resistance:** +/- 5% tolerance
- **Starting Torque:** Gross torque values are shown For net starting torque, subtract return spring torque
- **Return Spring Torque:** 28.2 mNm +/- 20%
- **Weight:** 255 g

Solenoid shown in the de-energised position



## Notes

1. Continuously pulsed at stated watts and duty cycle
2. Single pulsed at stated watts (with coil at ambient room temperature 20°C)
3. Other coil gauges available, consult factory
4. Reference number of turns
5. Gross starting torques are shown. For net starting torque, subtract return spring torque of 28.2mNm +/-20%
6. Holding torque is shown at the stabilised temperature of 105°C, 100% duty cycle

## Performance Specification

Starting Torque (mNm) @ 20° C (5)						
Maximum Duty Cycle	100%	50%	25%	10%	5%	
Stroke	Holding Torque (6)					
25°	565	214.7	463.3	824.9	1367	1492
35°		135.6	293.8	508.5	881.4	1040
45°	339	79.1	192.1	384.2	711.9	779.7
67.5°		56.5	135.6	248.6	440.7	553.7
95°	226	22.6	56.5	113.0	214.7	293.8

## Coil Specifications

Maximum Duty Cycle	100%	50%	25%	10%	5%		
Maximum ON Time (sec) When pulsed continuously (1)		100	36	10	3.5		
Maximum ON Time (sec) for single pulse (2)		160	44	13	4.6		
Watts (@20° C)		21	42	84	210	420	
Ampere Turns (@ 20° C)		860	1220	1720	2730	3853	
Coil Data							
awg. (3)	Resistance (@ 20°C)	# Turns (4)	Nominal DC Voltage				
23	2.03	288	6.1	8.6	12.1	19.2	27.0
24	3.2	360	7.6	10.8	15.3	24.0	34.0
25	4.91	440	9.6	13.6	19.2	31.0	43.0
26	7.72	550	12.1	17.1	24.0	38.0	54.0
27	11.12	636	15.0	21.0	30.0	48.0	67.0
28	18.79	840	19.2	27.0	39.0	61.0	86.0
29	30.48	1088	24.0	34.0	48.0	77.0	108.0
30	44.86	1275	30.0	43.0	61.0	96.0	136.0
31	70.90	1596	38.0	54.0	76.0	121.0	171.0
32	109.00	1974	47.0	67.0	95.0	150.0	212.0
33	175.00	2496	60.0	86.0	121.0	192.0	271.0

## How to Order - Please Specify

- Direction and angle of rotation
- Coil awg, or voltage and duty cycle
- Supplementary 'X' features ie method of load take off
- Operating temperature range
- Any special features, if complex please submit a drawing of your requirements

Please Note: In line with continued development we reserve the right to amend specification without prior notice (Rev 01/12)

NSF Controls Ltd | Ingrow Bridge Works | Keighley | West Yorkshire | BD21 5EF | UK | Registered in England No. 3378269

T: +44 (0) 1535 661 144 | F: +44 (0) 1535 661 474 | E: info@nsfcontrols.co.uk | www.nsfcontrols.co.uk