

PRODUCT SPECIFICATION

# TSL-R-555-SF

## Brushed DC Vibration Motor Series

12 V and 24 V options

8000r/min

Single fan head configuration

12 V

24 V

*Clean design. Reliable performance. Custom configurations available.*



**R-555-SF Brushed DC Vibration Motor**

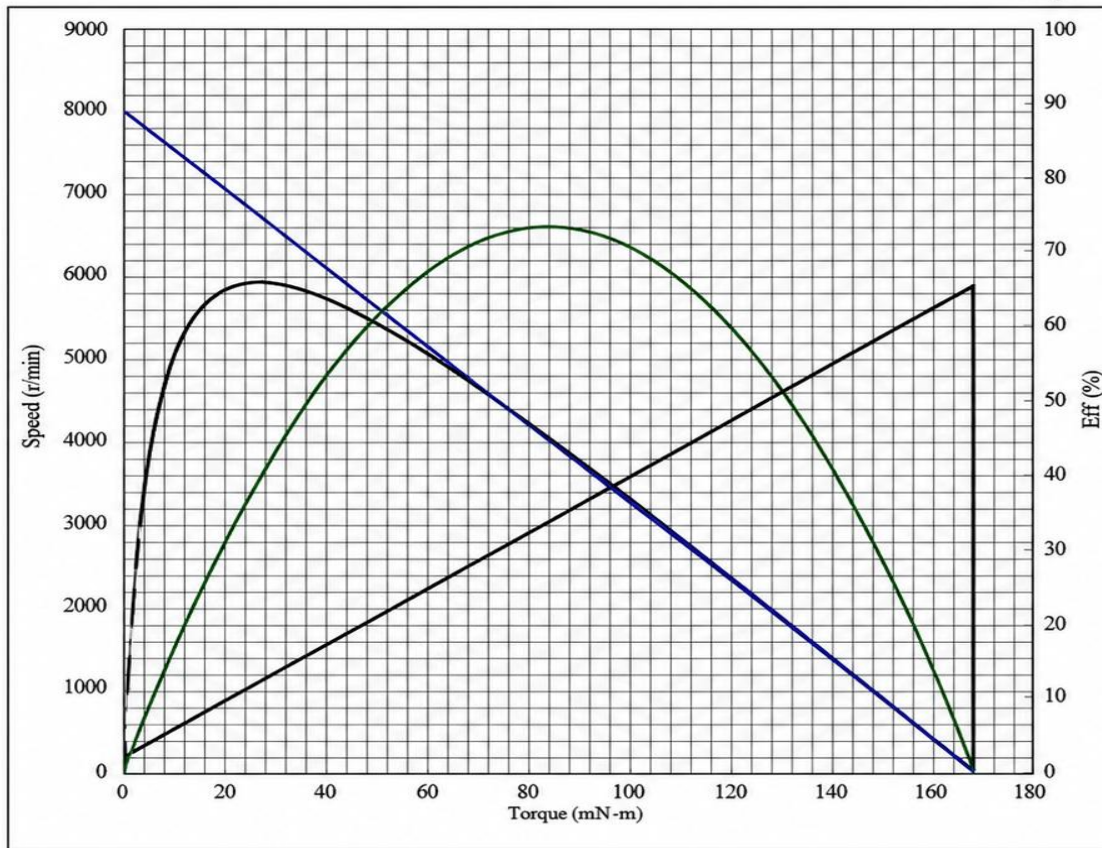
Motor Model	TSL-R-555-1280	TSL-R-555-2480
Operating Voltage Range	9.0–14.0 V	14.5–26.0 V
Nominal Working Voltage	12 V	24 V
No-Load Speed (r/min)	8000	8000
No-Load Current (A)	5	5
Max Efficiency Speed (r/min)	6730	7141
Max Efficiency Current (A)	2.471	1.641
Max Efficiency Torque (g·cm)	267.26	362.08
Max Efficiency Output Power (W)	14.553	19.3
Max Power Speed (r/min)	4294	4126
Max Power Current (A)	6.332	6.663
Max Power Torque (g·cm)	842.532	1686.339
Max Power Output (W)	36.573	78.396
Stall Torque (g·cm)	1684.6	3332.8
Stall Current (A)	13.1	13.63

*Specifications are for reference only. Products can be customized according to customer requirements.*

# Performance Curve - 12 V / 8000 r/min

**Model: R-555-1280**

Date : 04/24/22  
 Full scale : ----- 100 % Eff  
 ----- 50.0 Watts  
 \_\_\_\_\_ 2.00 Amp.



Performance (in an ambient temperature of 25-30 ° C)

Motor tested rapidly to prevent significant temperature rise.

At a constant voltage of: 12.0 Volts

Direction : CCW

At No Load

Speed :	7999	r/min
Current :	5	AMPS

At stall (Extrapolated)

Torque :	168.46	mN-m
Current :	13.106	AMPS

At maximum efficiency

Efficiency:	49.0	%
Torque :	26.726	mN-m
Speed :	6730	r/min
Current :	2.471	AMPS
Output :	14.53	Watts

At maximum Power output

Output :	36.573	Watts
Torque :	84.232	mN-m
Speed :	4294	r/min
Current :	6.32	AMPS

Characteristics

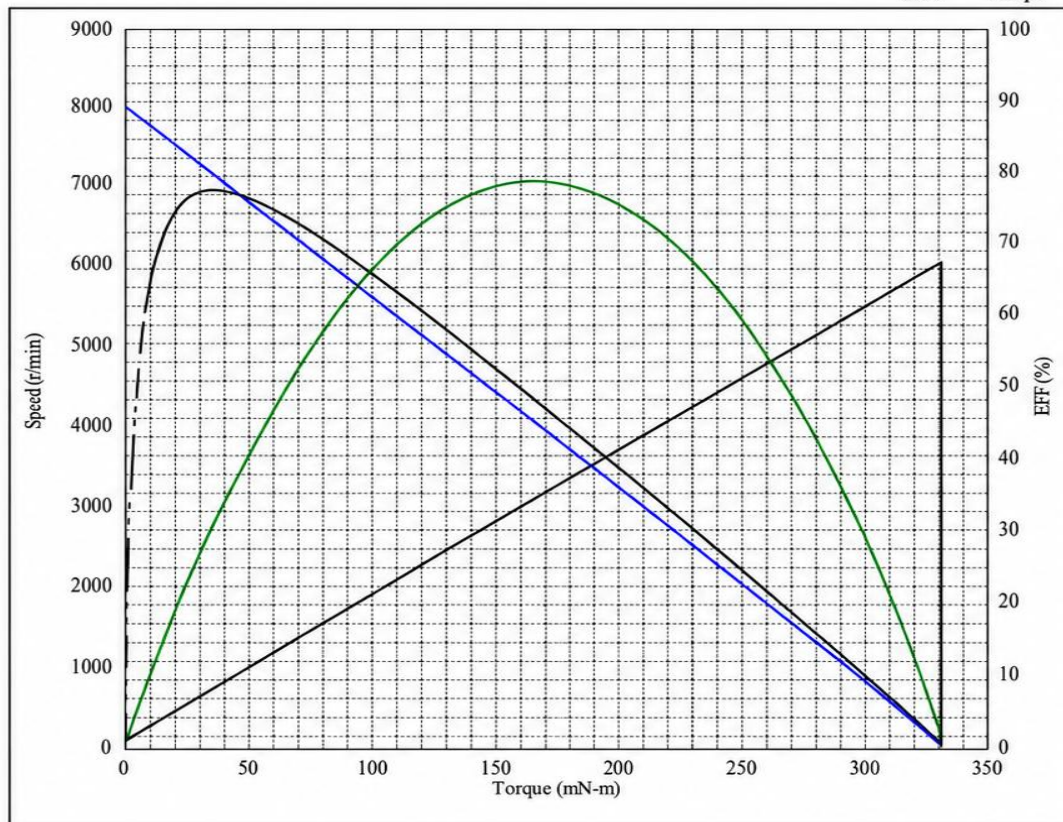
Torque constant $K_t$ :	13.327	mN-m/AMP
E.M.F. constant $E_c$ :	13.327	mV/rad/sec
Dynamic resistance:	0.9156	Ohms
Motor regulation $M_r$ :	47.48	r/min/mN-m

$K_m$  13.92825206

# Performance Curve - 24 V / 8000 r/min

**Model: R-555-2480**

Date : 04/25/22  
 Full scale : ----- 100 % Eff  
 ----- 100.0 Watts  
 \_\_\_\_\_ 2.00 Amp.



Performance (in an ambient temperature of 25-30 ° C )

Motor tested rapidly to prevent significant temperature rise.

At a constant voltage of: 24.0 Volts

Direction : CCW

At No Load

Speed : 8011 r/min  
 Current : 5 AMPS

At stall (Extrapolated)

Torque : 333.28 mN-m  
 Current : 13.463 AMPS

At maximum efficiency

Efficiency: 49.0 %  
 Torque : 36.208 mN-m  
 Speed : 7141 r/min  
 Current : 1.641 AMPS  
 Output : 19.30 Watts

At maximum Power output

Output : 78.396 Watts  
 Torque : 166.639 mN-m  
 Speed : 4126 r/min  
 Current : 6.63 AMPS

Characteristics

Torque constant  $K_t$  : 25.128 mN-m/AMP  
 E.M.F. constant  $E_c$  : 25.128 mV/rad/sec  
 Dynamic resistance: 1.7827 Ohms  
 Motor regulation  $M_r$  : 24.04 r/min/mN-m

$K_m$ : 18.82046571

# Outline Dimensions - Single Fan-Shaped Head

## R555 Single Vibration Head Motor

