

STANDARD STAINLESS STEEL – TENV/ TEFC MOTORS

Hp	Enclosure	Base Speed (RPM)	Recommended Maximum RPM Turndown	
			Constant Torque	Variable Torque
.33	TENV	1800	3:1	8:1
		3600	5:1	5:1
.50	TENV	1800	3:1	8:1
		3600	5:1	5:1
.75	TENV	1800	3:1	8:1
		3600	4:1	5:1
1.0	TEFC	1800	3:1	8:1
		3600	5:1	5:1
1.5	TEFC	1800	3:1	8:1
		3600	5:1	5:1
2.0	TEFC	1800	3:1	5:1
		3600	4:1	5:1
3.0	TEFC	1800	3:1	5:1
		3600	4:1	5:1
5.0	TEFC	1800	3:1	4:1
		3600	3:1	4:1
7.5	TEFC	1800	3:1	4:1
		3600	3:1	4:1
10.0	TEFC	1800	2:1	4:1
		3600	2:1	4:1

Standard Sterling Electric, Inc. Stainless Steel motors are 3-Phase, 60Hz, 230/460V.

Use of standard motors on variable frequency, variable voltage controllers should be limited as follows:

1. Maximum total line distance between the controller and motor is not to exceed 50 ft.
2. Maximum switching (carrier) frequency of the control is not to exceed 8 kHz.

3600-RPM motors operating at lower frequencies can become unstable, noisy, and produce “cogging”.

Small motors such as the above will require varying degrees of voltage “boost” or “forcing” in order to produce rated torque at low frequency operation. Refer to NEMA MG1-1998, Part 31.

NOTE: The use of standard Sterling motors on high switching frequency, IGBT type inverters may void the warranty relating to winding and possible bearing failures. Inverter Duty Motors are recommended.

CAUTION: These motors are designed to run at elevated temperatures with normal life expectancy. Extreme caution should be exercised when applying these motors in inverter applications where physical contact with the motor can occur.

DANGER: The maximum allowable speed for these motors is 5000 RPM. Operating the motors beyond this speed can cause severe damage to both equipment and personnel. Consult factory for applications that require motor speeds beyond 5000 RPM.

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