

Monthly Informative Application Guidelines, with respect to *Motors & Drives* to keep you better INFORMED.

APPLICATION GUIDELINE INDEX

Brought to you by your Motor & Drive Specialists.....

AG#	TITLE	DESCRIPTION
1	Greasing Intervals	Includes chart on recommended intervals
2	Belt Tension	Shows proper deflections for belts on belt drive applications
3	'NEMA' Definition & Purpose	Includes chart on important sections of NEMA MG1
4	Common Causes of Motor Failure	Broken down into bearing and insulation failures
5	Temperature Rise, Insulation Life	Includes chart on insulation classifications
6	Service Factor	Concerns with running motors into service factor
7	Repetitive Starts	2cold/1hot are NEMA limits unless Variable Torque load
8	Direct Coupled Alignment Issues	Bearing life is significantly affected by mis-alignment
9	Speed-Torque Curves	Motor Curve, Motor&VFD Curve
10	Overspeeds	Torque concerns when overspeeding a motor with VFD's
11	Thermal Damage Curves	Curves which describe the amount of current that a motor can sustain for how long.
12	Bearing Damage Related to PWM Drives	Description and Conclusions of potential bearing failures due to the use of PWM drives.
13	Motor Protection	Includes types of motor protection, short circuit protection, auxiliary thermal protection, and vibration protection
14	Harmonics	Definition of harmonics, explanation of point of common coupling and options for harmonic mitigation.
15	Reliability against Voltage and Current wrt VFD's	Explanation of importance in having 1700PIV IGBT's and high current rating IGBT's.
16	IEEE-841 1994	Overview of what's included in this standard
17	Efficiency-Part 1	NEMA guidelines, Third party testing, Eff. Charts
18	Efficiency-Part 2	Breakdown of losses, Important factors relating to Eff.
19	NEMA Premium Efficiency-Common Questions	Annual Savings Chart, When to use an energy eff motor, Should I rewind a failed motor, Design factors
20	Open Loop Flux Vector Control	Explanation of technology
21	VFD Basics	Rectifier, Filter, Chopper, PWM signal diagram
22	Energy Consumption Facts	Using current 'best Practices' an industrial end user can reduce power consumption by as much as 11-18%.
23	Application Considerations for VFD's-Part 1	Points that should be reviewed before applying a VFD-Application Questions list
24	Application Considerations for VFD's-Part 2	Description/Explanation of factors which should be considered before applying VFD's

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Upcoming Guideline Topics Include.....

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| 25 | Explosion Proof Classifications | Brief overview of Division, Class, Groups, Zonal system and use of VFD's in explosion proof areas |
| 26 | Proper Grounding and VFD cables | Description of importance on both of these issues |
| 27 | Avoiding Pre-Service Cylindrical Roller Bearing Problems | Damage can happen during handling, shipping, storage, preparation for mounting, mounting and final assembly |

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