

MAGNAMAX®

TYPICAL SUBMITTAL DATA

BASE MODEL: 744FSL4062

Winding: 740307

Date: 01/13/22

| | | | | | |
|---------------------|----------------------------|------------------|-----------------|-----------------------------|-----------------|
| Kilowatt ratings at | 1800 RPM | 60 Hertz | 4 Bus Bars | | |
| kW (kVA) | 3 Phase | 0.8 Power Factor | | Dripproof or Open Enclosure | |
| | CONTINUOUS ^{1, 2} | | | STANDBY ^{1, 2} | |
| Voltage* | NEMA B / 80 °C | NEMA F / 105 °C | NEMA H / 125 °C | NEMA F / 130 °C | NEMA H / 150 °C |
| 480 | 1500 (1875) | 1800 (2250) | 1900 (2375) | 1900 (2375) | 1900 (2375) |
| 440 | 1530 (1913) | 1780 (2225) | 1860 (2325) | 1860 (2325) | 1860 (2325) |
| 416 | 1510 (1888) | 1750 (2188) | 1830 (2288) | 1830 (2288) | 1830 (2288) |
| 400 | 1475 (1844) | 1706 (2133) | 1750 (2188) | 1750 (2188) | 1750 (2188) |
| 380 | 1430 (1788) | 1650 (2063) | 1650 (2063) | 1650 (2063) | 1650 (2063) |

① Rise by resistance method, Mil-Std-705, Method 680.1b.

② Machine rated for Max Ambient of 40 °C, Max Altitude 3300 ft

Submittal Data: 480 Volts*, 1900 kW, 2375 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase High Wye CONNECTION

| Mil-Std-705B Method | Description | Value | Units | Mil-Std-705C Method | Description | Value | Units |
|---------------------|--|---------|--------|---|--|-----------------------------------|-----------|
| 301.1b | Insulation Resistance | >10 Meg | Ohms | 505.3b | Overspeed | 2250 | RPM |
| 302.1a | High Potential Test | | | 507.1c | Phase Sequence CCW-ODE | ABC | |
| | Main Stator | 1960 | Volts | 508.1c | Voltage Balance, L-L or L-N | 0.2% | |
| | Main Rotor | 1500 | Volts | 601.4a | L-L Harmonic Max - Total (Distortion Factor) | 5.0% | |
| | Exciter Stator | 1500 | Volts | | | | |
| | Exciter Rotor | 1500 | Volts | 601.4a | L-L Harmonic Max - Single | 3.0% | |
| PMG Stator | 1500 | Volts | 601.1c | Deviation Factor | 5.0% | | |
| 401.1a | Stator Resistance, Line to Line High Wye Connection | 0.00180 | Ohms | --- | TIF (1960 Weightings) | <50 | |
| | | | | --- | THF (IEC, BS & NEMA Weightings) | <2% | |
| | Rotor Resistance | 1.044 | Ohms | --- | Winding Pitch | 2/3 | |
| | Exciter Stator | 22.1 | Ohms | | | | |
| | Exciter Rotor | 0.066 | Ohms | | | | |
| | PMG Stator | 2.1 | Ohms | | | | |
| 410.1a | No Load Exciter Field Amps at 480 Volts Line to Line | 0.79 | A DC | Additional Prototype Mil-Std Methods are Available on Request. | | | |
| 420.1a | Short Circuit Ratio | 0.543 | | | | | |
| 421.1a | Xd Synchronous Reactance | 2.370 | PU | -- | Generator Frame | 744 | |
| | | 0.230 | Ohms | -- | Type | MagnaMax | |
| 422.1a | X2 Negative Sequence React. | 0.211 | PU | -- | Insulation | Class H | |
| | | 0.020 | Ohms | -- | Coupling - Single Bearing | Flexible | |
| 423.1a | X0 Zero Sequence Reactance | 0.070 | PU | -- | Amortisseur Windings | Full | |
| | | 0.007 | Ohms | -- | Excitation | Ext. Voltage Regulated, Brushless | |
| 425.1a | X'd Transient Reactance | 0.176 | PU | -- | Voltage Regulator | DVR2400 | |
| | | 0.017 | Ohms | -- | Voltage Regulation | 0.25% | |
| 426.1a | X''d Subtransient Reactance | 0.143 | PU | | | | |
| | | 0.014 | Ohms | | | | |
| -- | Xq Quadrature Synchronous Reactance | 1.120 | PU | -- | Cooling Air Volume | 3190 | CFM |
| | | 0.109 | Ohms | -- | Heat rejection rate | 4141 | Btu's/min |
| 427.1a | T'd Transient Short Circuit Time Constant | 0.196 | Sec | -- | Full load current | 2856.7 | Amps |
| | | | | -- | Minimum Input hp required | 2644.5 | HP |
| 428.1a | T''d Subtransient Short Circuit Time Constant | 0.012 | Sec | -- | Full load torque | 7713 | Lb-ft |
| | | | | -- | Efficiency at rated load : | 96.3% | |
| 430.1a | T'do Transient Open Circuit Time Constant | 3.4 | Sec | | | | |
| 432.1a | Ta Short Circuit Time Constant of Armature Winding | 0.024 | Sec | -- | Weight | 8300 | lbs |

* Voltages refer to wye (star) connection, unless otherwise specified.

www.regalrexnord.com/brands/Marathon-Generators



Not indicative of legal entity.



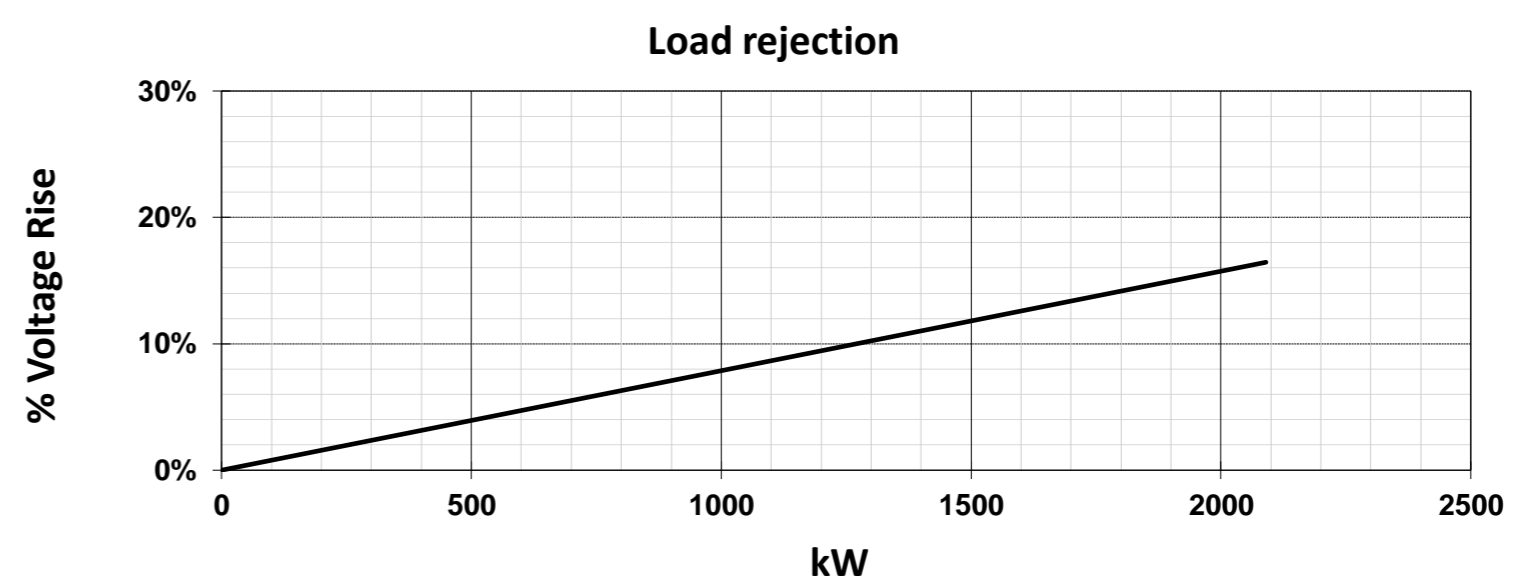
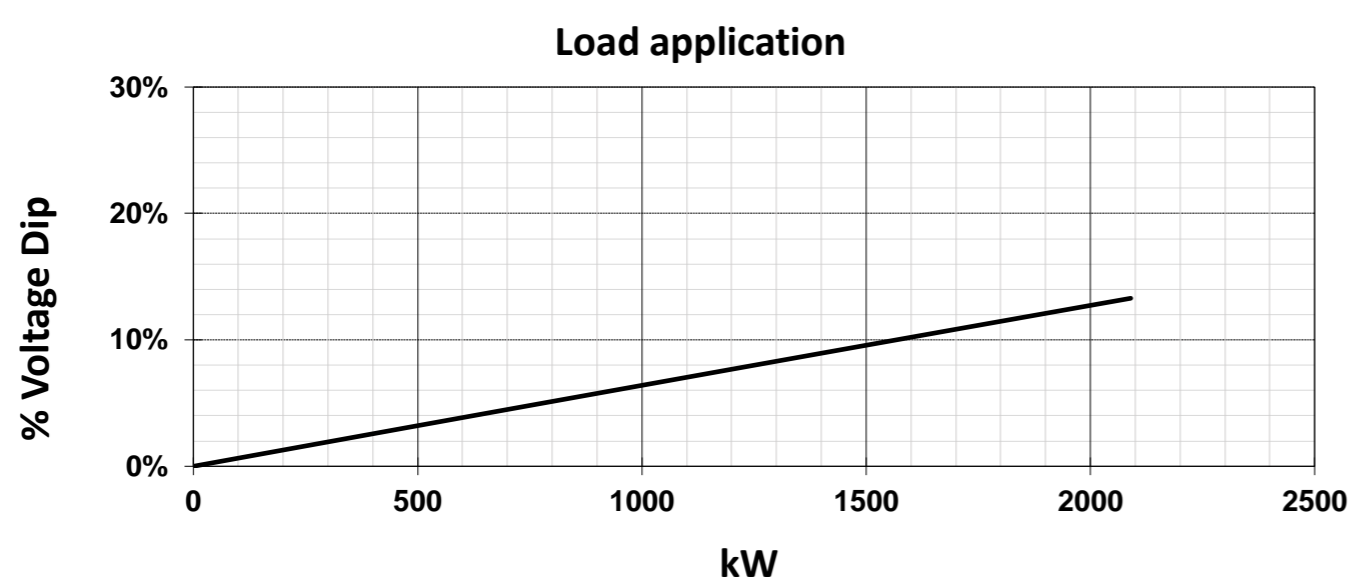
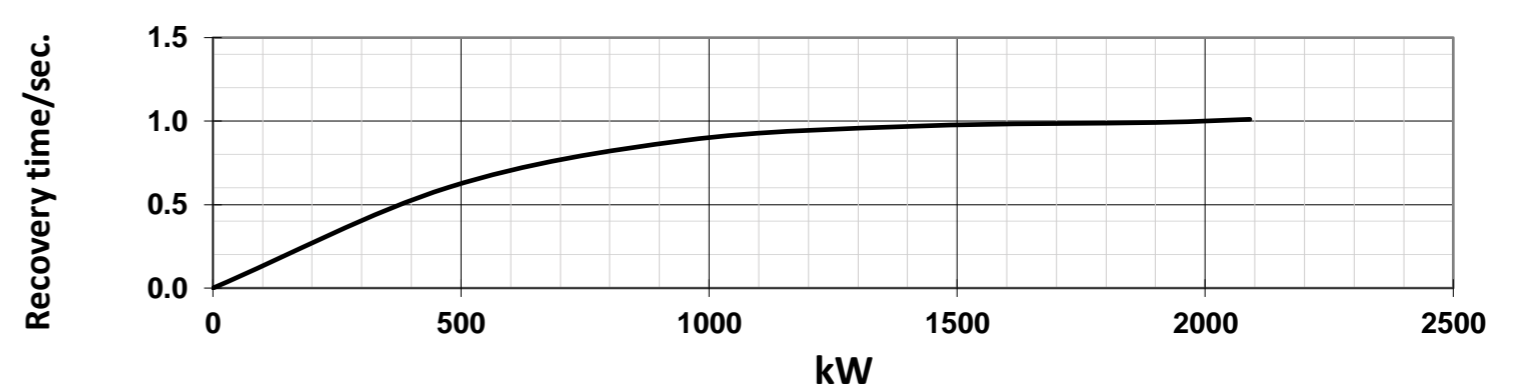
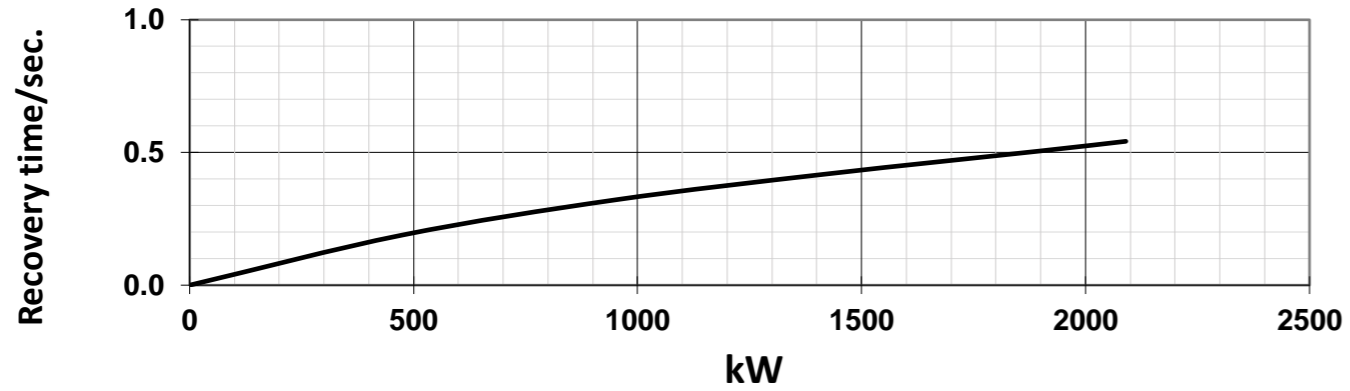
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TYPICAL DYNAMIC CHARACTERISTICS

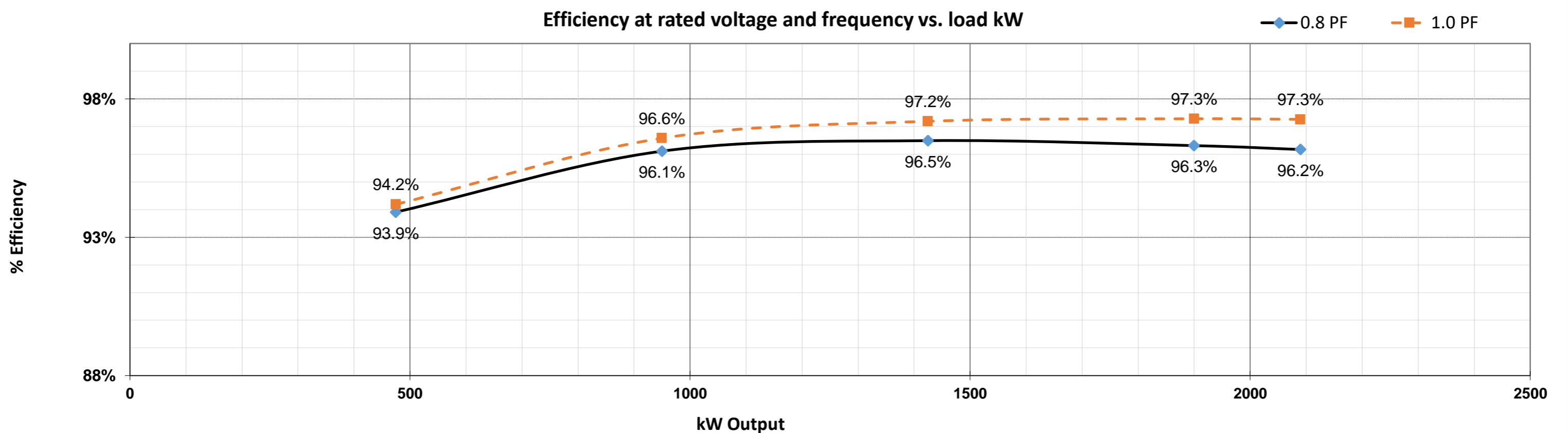
BASE MODEL: **744FSL4062**

Date: **01/13/22**

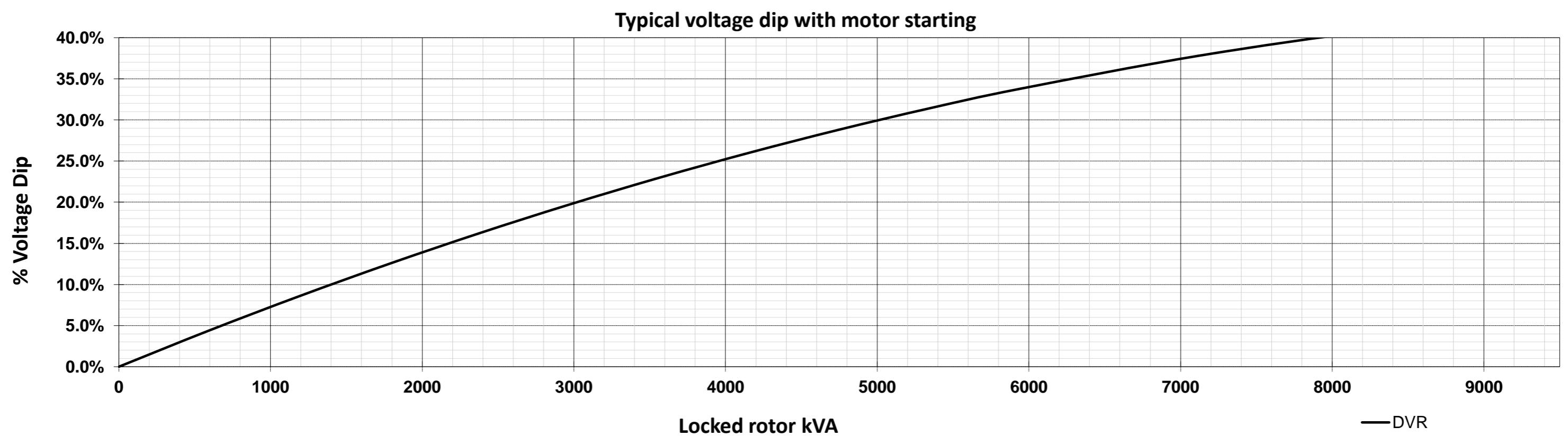
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Efficiency at rated voltage and frequency vs. load kW



Typical voltage dip with motor starting



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DECREMENT CURVE

BASE MODEL: 744FSL4062

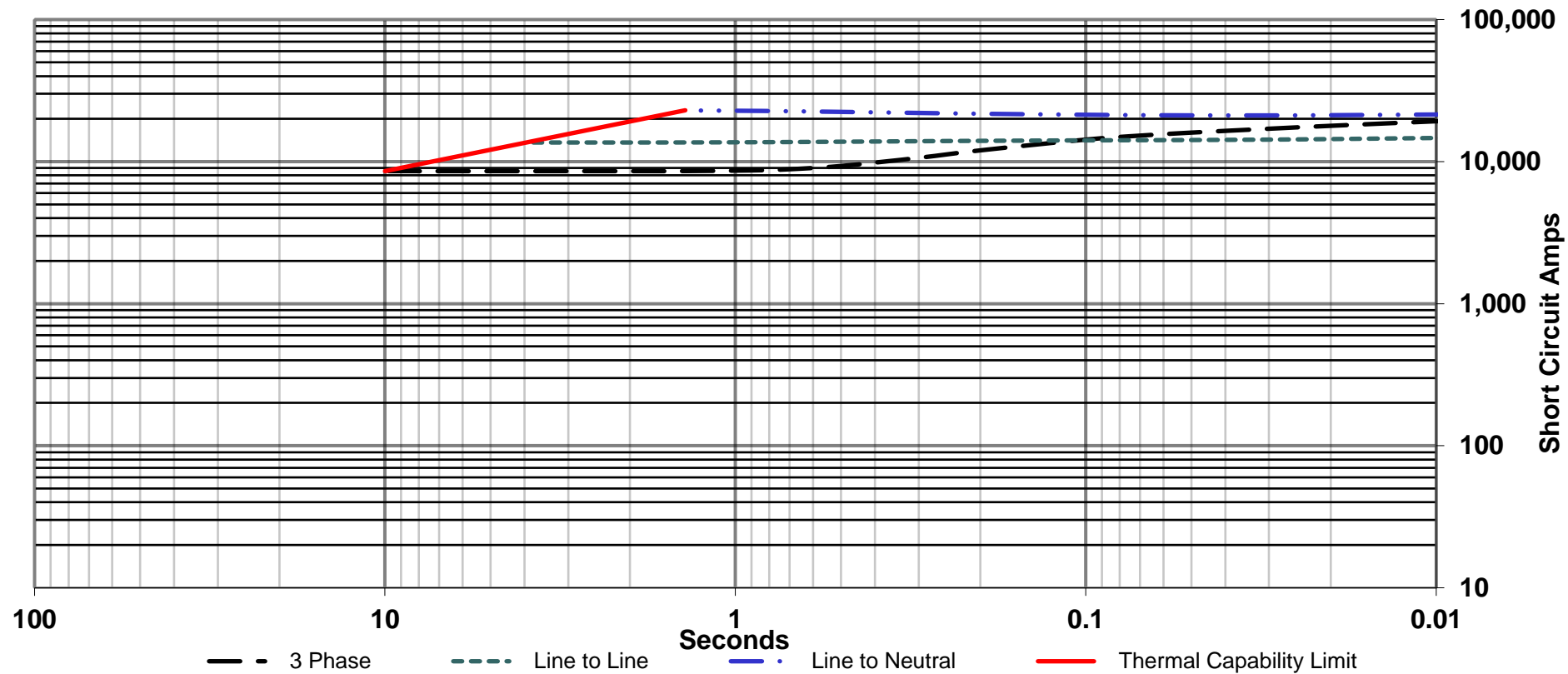
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Date : 01/13/22

Full Load Current : 2856.7 amps
Steady State S.C. Current : 8570.1 amps

Max. 3 ph. Symm. S.C. Current : 19977 amps
INCLUDES EXCITATION SUPPORT (PMG)

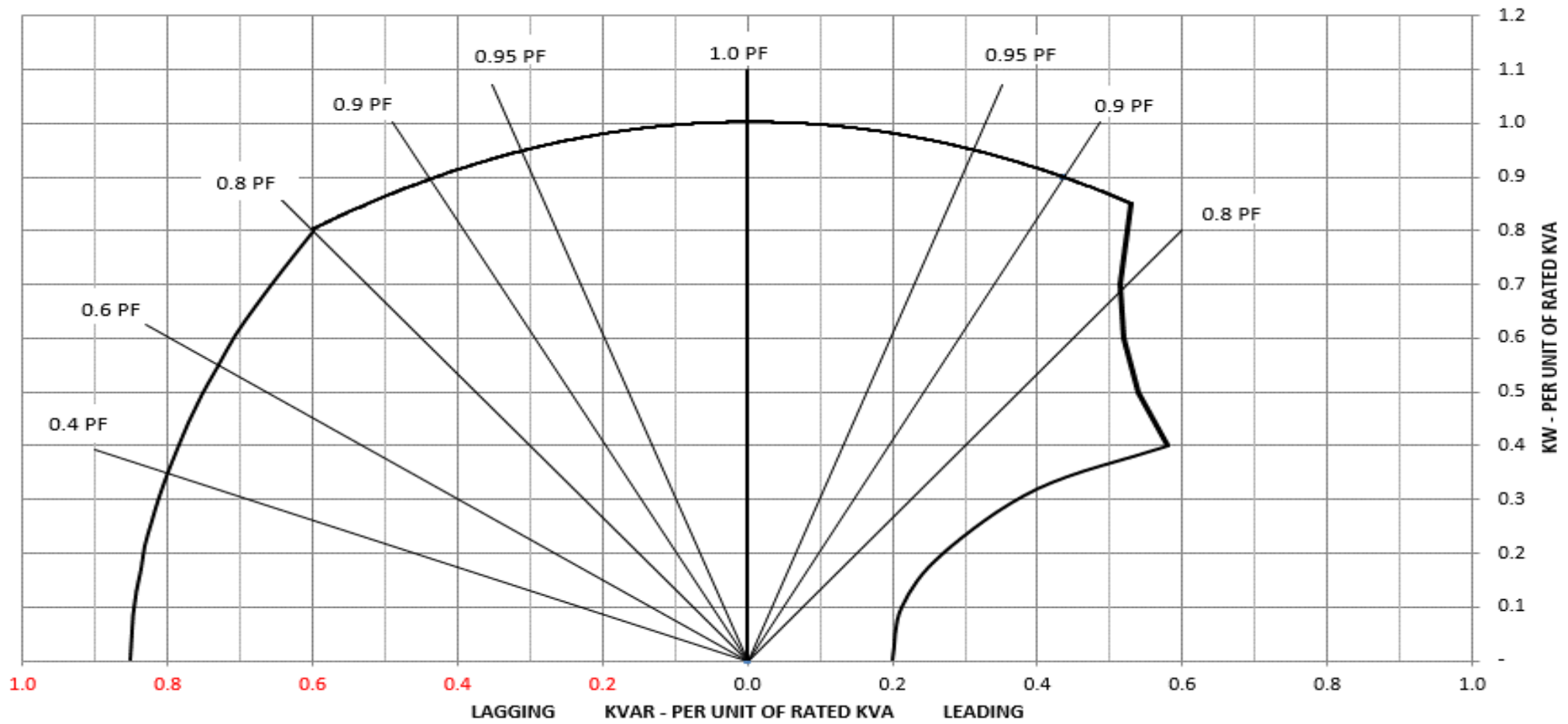
Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



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Typical Reactive Capability Curve

Date : 01/13/22



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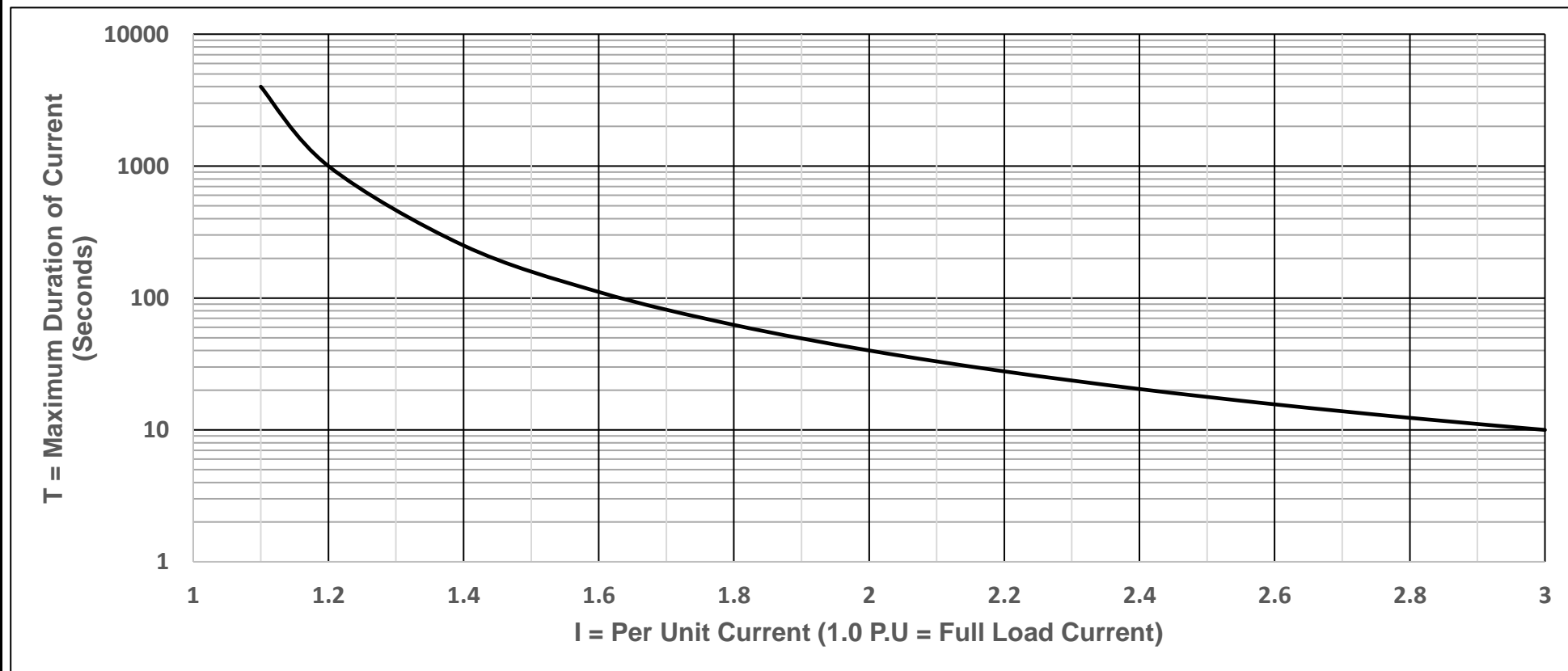
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THERMAL DAMAGE CURVE

Date : 01/13/22

Base is 3.0 P.U. current for 10 seconds from $T = 40/(I-1)^2$
Windings at operating temperature



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