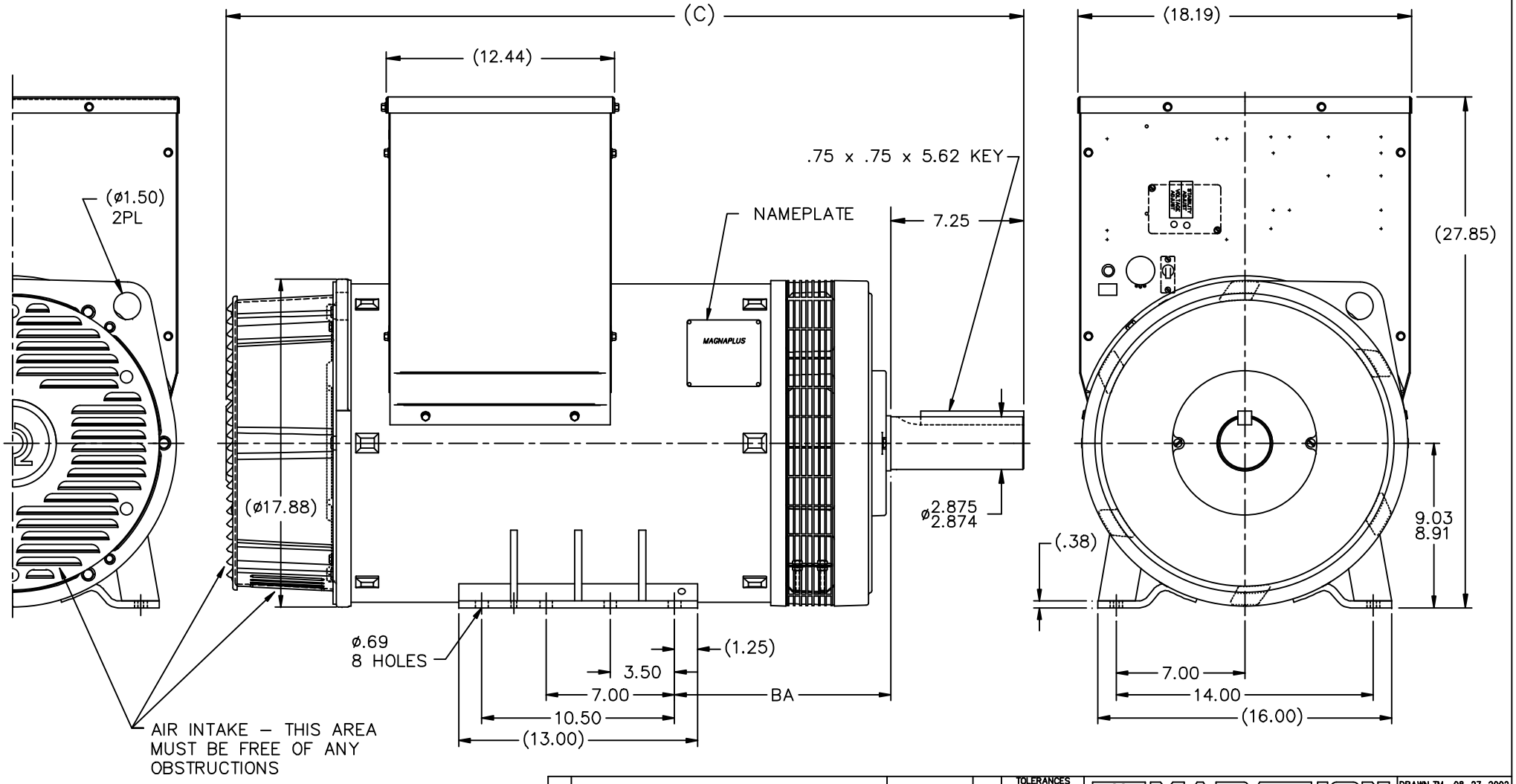
771296-0A



363	13.03	46.59
362	11.78	43.47
FRAME	BA	C

NO.	REVISION	BY & DATE	CHK
3	ADDED GROUNDHOLE ISAAC 12-0087	SJW 05-30-2012	EH
2	CHANGED PMG COVER CN 10344C	DEE 07-10-2006	TM
1	NEW DRAWING EJ 10914 (CN 9690 / 9690A)	TM 08-27-2002	

TOLERANCES UNLESS SPECIFIED
DEC. INCHES
.X ±.1
.XX ±.03
.XXX ±.005
.XXXX ±.0005
ANG ±1/2°

MARATHON ELECTRIC

TITLE OUTLINE (2BRG STD 2.88 X 7.25 DE EXT.)
362-363 PLS / STD CONN BOX / PMG

MAT'L.
FINISH
RFP
CAD FILE 771296_0a
DIST LM-SB

DRAWN TM 08-27-2002
CHK ML 08-27-2002
APPD GK 08-27-2002
SCALE 1=5
REF 771291-0A
FMF
PREV

SIZE B | DRAWING NO. 771296-0A | PAGE OF | REV. 3

HARSH DUTY®

TYPICAL SUBMITTAL DATA

BASE MODEL: 362PSL3126 **Winding:** 1606 **Date:** 11/18/21

Kilowatt ratings at	1800 RPM	60 Hertz		12 Leads	
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
240/480	80 (100)	96 (120)	105 (131)	105 (131)	113 (141)
220/440	82 (103)	92 (115)	102 (128)	102 (128)	107 (134)
208/416	80 (100)	90 (113)	100 (125)	100 (125)	105 (131)
200/400	76 (95)	86 (108)	96 (120)	96 (120)	101 (126)
190/380	72 (90)	81 (101)	90 (113)	90 (113)	95 (119)

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*, 105 kW, 131 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	>1.5 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)	3.5%	
	Exciter Stator	1500	Volts				
	Exciter Rotor	1500	Volts	601.4a	L-L Harmonic Max - Single	2.5%	
				601.1c	Deviation Factor	7.0%	
401.1a	Stator Resistance, Line to Line High Wye Connection	0.09800	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	1.2	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	23.5	Ohms				
	Exciter Rotor	0.12	Ohms				
410.1a	No Load Exciter Field Amps at 480 Volts Line to Line	0.93	A DC	**Additional Prototype Mil-Std Methods are Available on Request.**			
420.1a	Short Circuit Ratio	0.511					
421.1a	Xd Synchronous Reactance	2.201	PU	--	Generator Frame	362	
		3.863	Ohms	--	Type	MagnaPlus	
422.1a	X2 Negative Sequence React.	0.114	PU	--	Insulation	Class H	
		0.200	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.037	PU	--	Amortisseur Windings	Full	
		0.065	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.145	PU	--	Voltage Regulator	SE350	
		0.254	Ohms	--	Voltage Regulation	1.00%	
426.1a	X''d Subtransient Reactance	0.102	PU				
		0.179	Ohms				
				--	Cooling Air Volume	700	CFM
				--	Heat rejection rate	568	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.053	Sec	--	Full load current	157.9	Amps
				--	Minimum Input hp required	154.1	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.006	Sec	--	Full load torque	449	Lb-ft
				--	Efficiency at rated load :	91.3%	
430.1a	T'do Transient Open Circuit Time Constant	0.63	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.015	Sec	--	Weight	796	lbs

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

www.regalrexnord.com/brands/Marathon-Generators

RegalRexnord
Not indicative of legal entity.

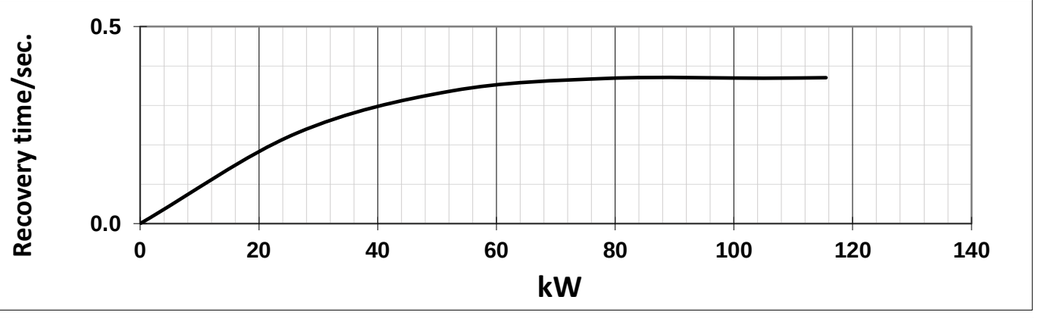
marathon® Generators

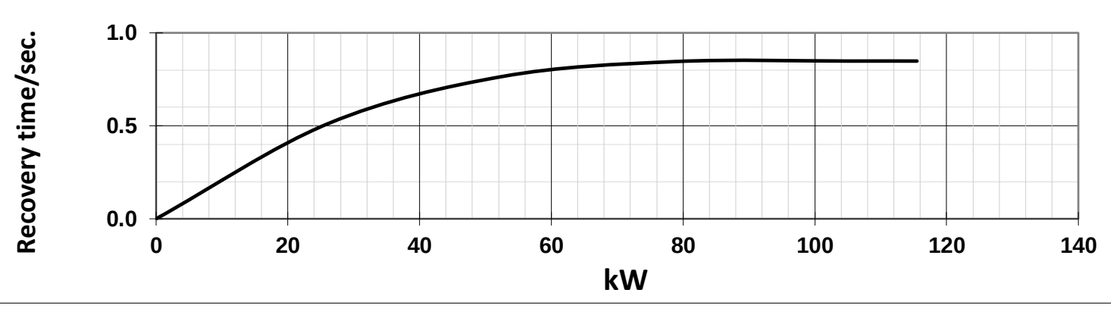
HARSH DUTY®

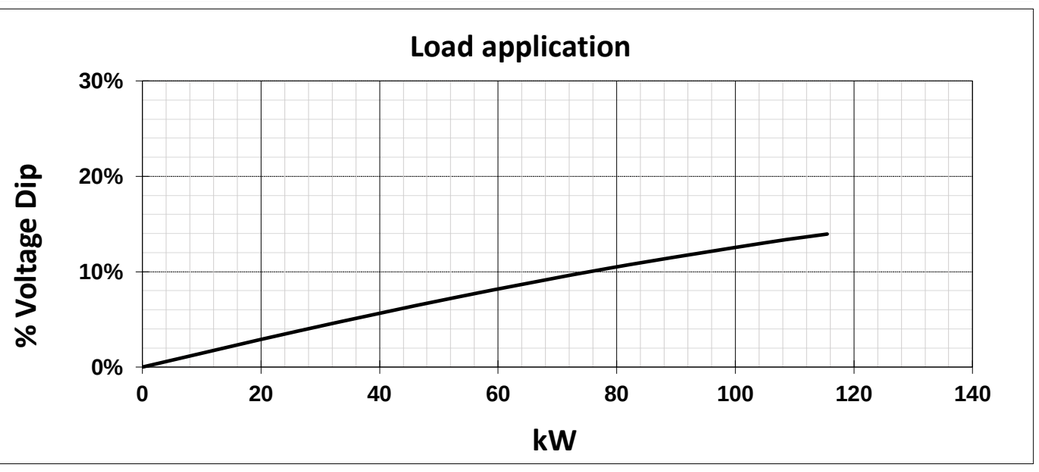
TYPICAL DYNAMIC CHARACTERISTICS

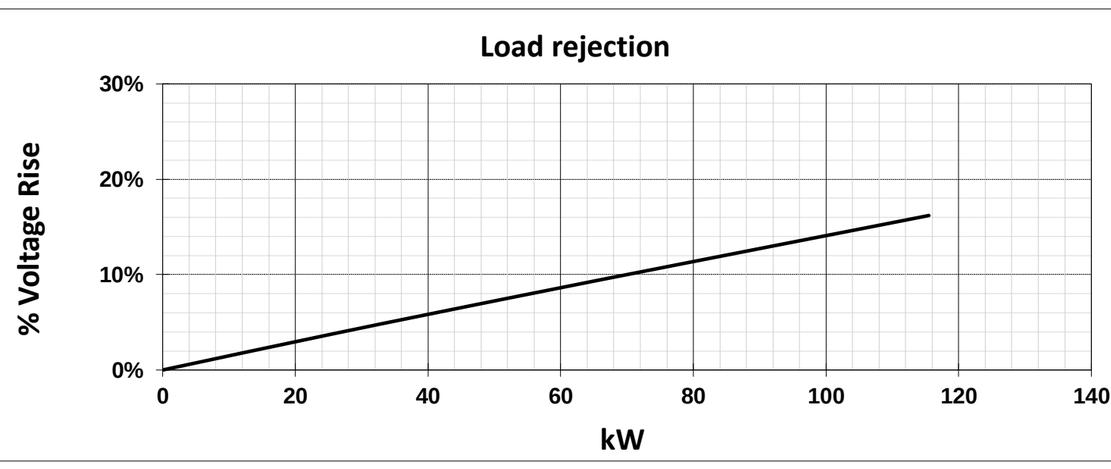
BASE MODEL: 362PSL3126 **Date: 11/18/21**

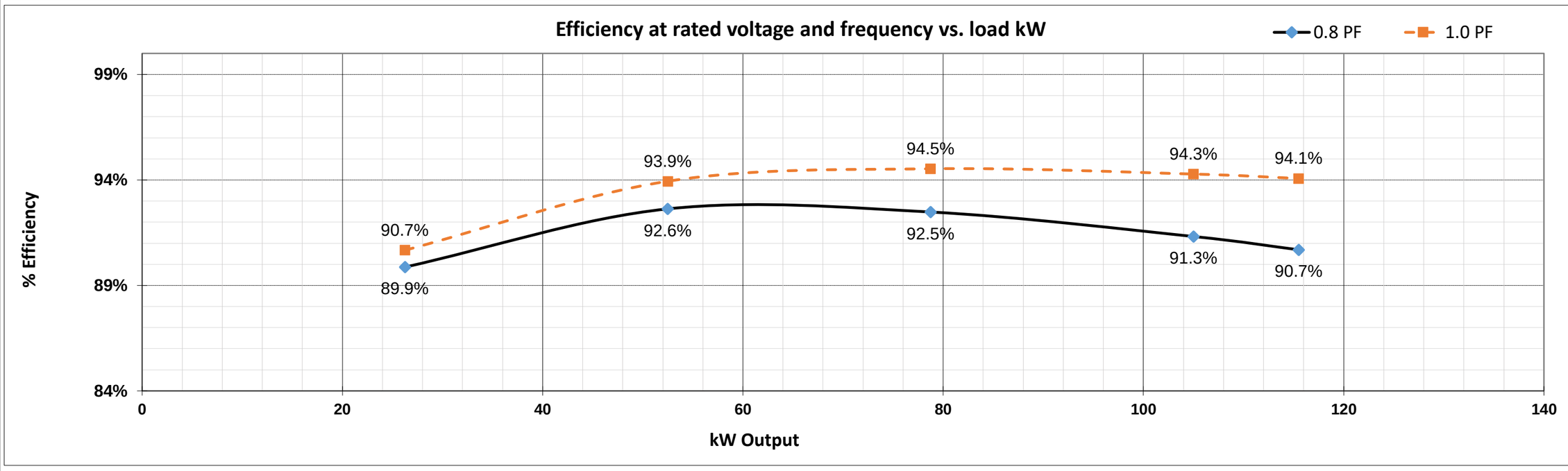
Submittal Data: 480 Volts*, 105 kW, 131 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

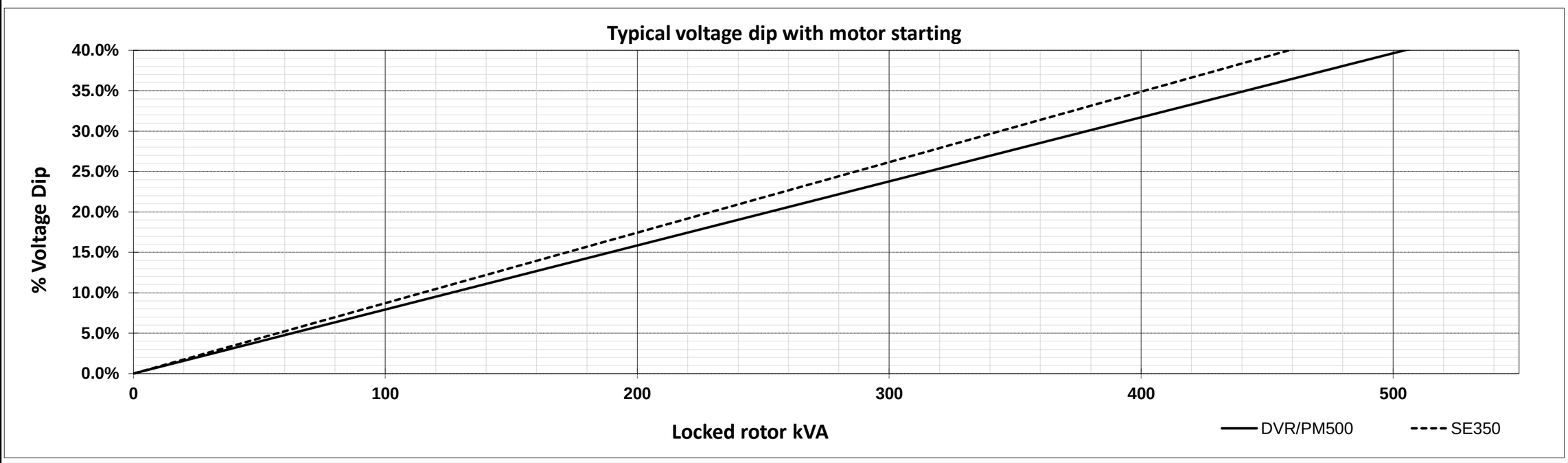












RegalRexnord

marathon® Generators

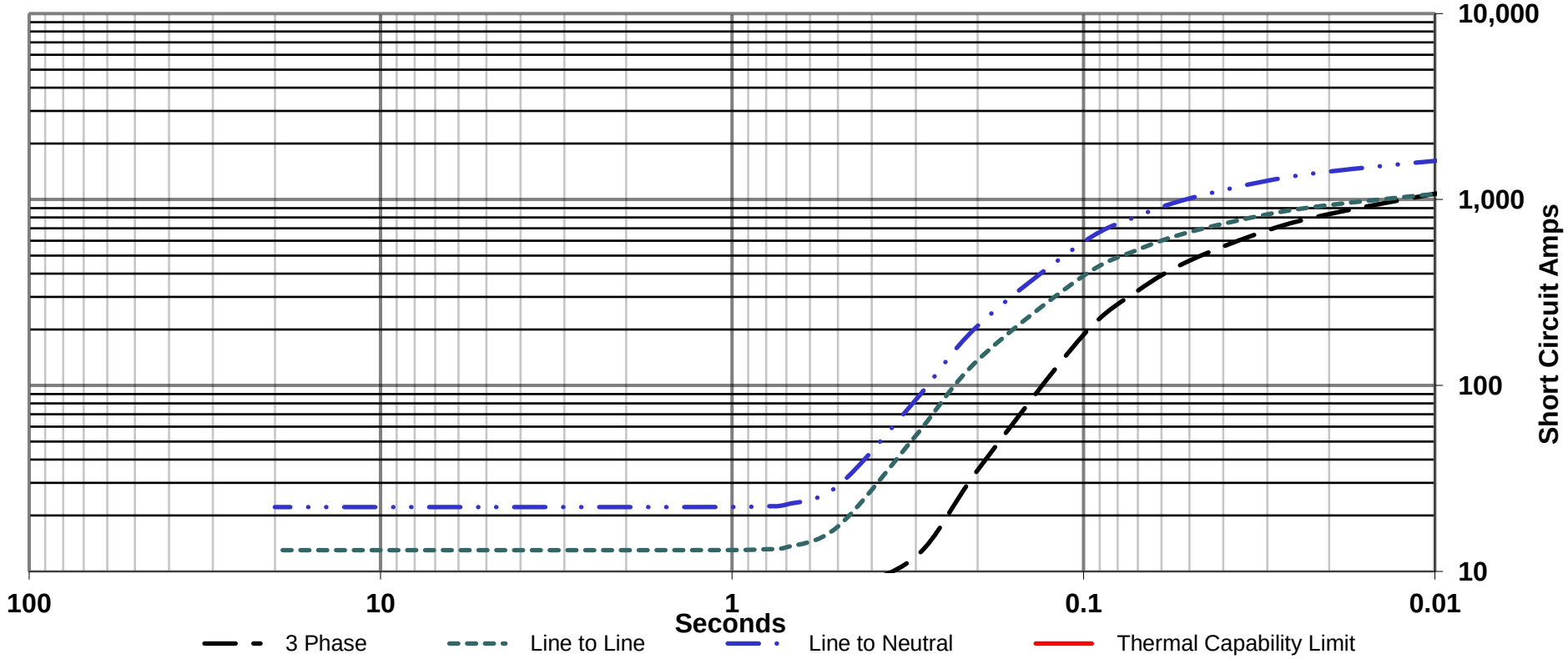
HARSH DUTY®

DECREMENT CURVE

BASE MODEL: 362PSL3126
Submittal Data: 480 Volts*, 105 kW, 131 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase **Date :** 11/18/21

Full Load Current : 157.9 amps
Steady State S.C. Current : 7.9 amps
Max. 3 ph. Symm. S.C. Current : 1548 amps

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



RegalRexnord

marathon® Generators

HARSH DUTY®

DECREMENT CURVE

BASE MODEL: 362PSL3126

Submittal Data: 480 Volts*, 105 kW, 131 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

Date : 11/18/21

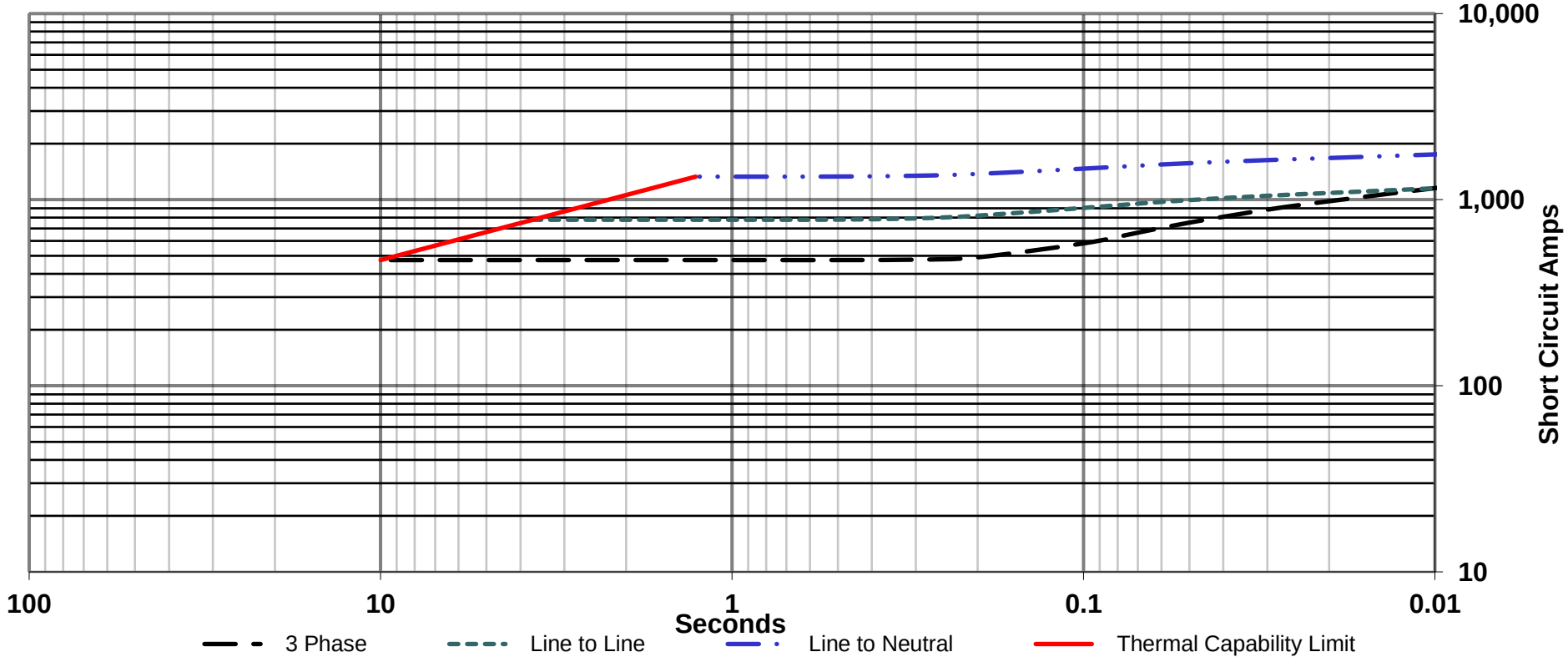
Full Load Current : 157.9 amps

Steady State S.C. Current : 473.7 amps

Max. 3 ph. Symm. S.C. Current : 1548 amps

INCLUDES EXCITATION SUPPORT (PMG)

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



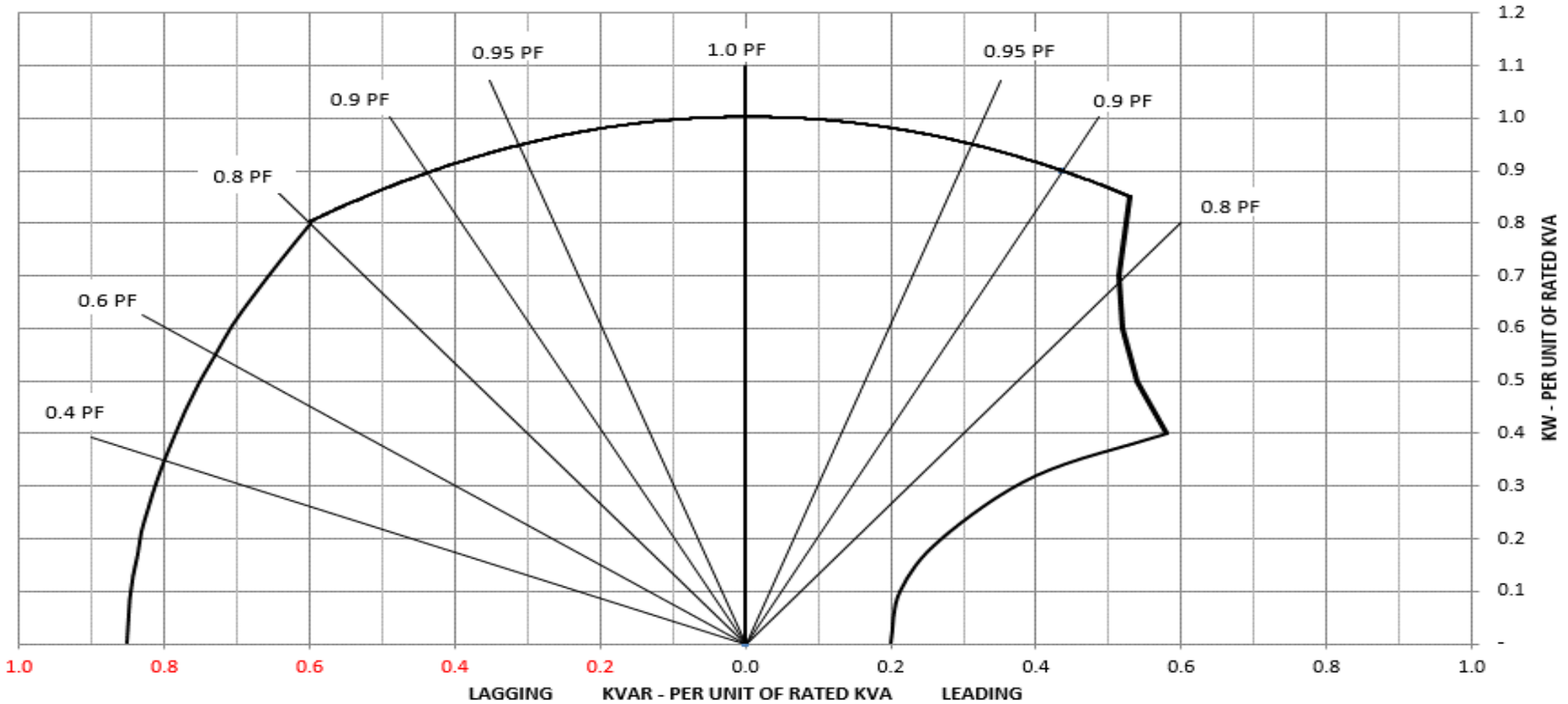
RegalRexnord

marathon® Generators

HARSH DUTY®

Typical Reactive Capability Curve

Date : 11/18/21



RegalRexnord

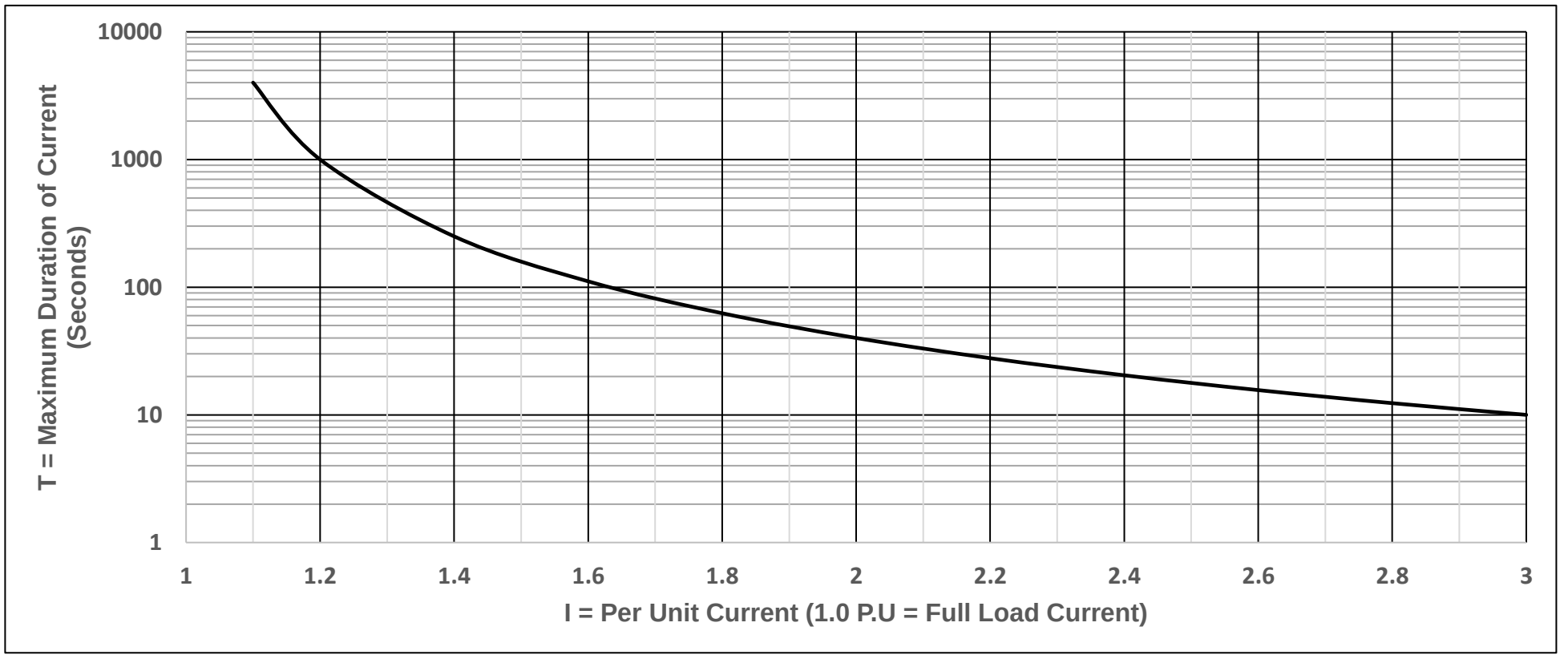
marathon® Generators

HARSH DUTY®

THERMAL DAMAGE CURVE

Date : 11/18/21

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



RegalRexnord

marathon® Generators

HARSH DUTY

marathon®
Generators

HARSH DUTY GENERATORS

DEPENDABLE POWER FOR THE HARSHEST APPLICATIONS
10KW TO 800KW, 60HZ AND 50HZ

REGAL®

HARSH DUTY

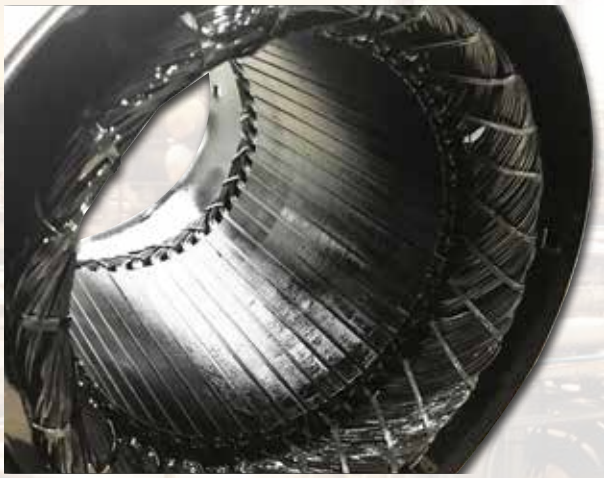
WITH OVER 50 YEARS OF EXPERIENCE IN THE INDUSTRIAL MARKET, MARATHON® GENERATORS DELIVER THE LONG LIFE AND RELIABILITY THAT THE HARSHEST APPLICATIONS DEMAND.

HARSH DUTY EXCITER

The ultimate in HARSH DUTY exciter stator construction. Coils are toroidally wrapped in fiberglass tape, fully encapsulating the winding and jumper sleeve ends. All coil to coil jumpers are fully sleeved. The windings are then fully submerged to ensure they are completely encased in 100% solids varnish. Finally, the complete exciter stator is coated with a two-component, anti-tracking top coat finish varnish for maximum protection in harsh, dust-laden, industrial applications.

REINFORCED MAIN STATOR WINDINGS

Main stator windings receive multiple Dip & Bake cycles using 100% solids varnish. The main stator is then coated with a two-component, anti-tracking top coat finish varnish for maximum protection in harsh, dust-laden, industrial applications.



WET WOUND ROTOR CONSTRUCTION

Because industrial applications demand 100% uptime and reliability is critical, HARSH DUTY generators utilize single piece laminations and wet layer winding processes to provide the most reliable rotor construction on the market today.

HEAVY DUTY RECTIFIER ASSEMBLY

Industrial generators often see harsh electrical applications including paralleling Make-Before-Break-Transfers, large motor starting loads and highly non-linear loads. Marathon® Generator's heavy duty rectifier assemblies are designed to handle extreme voltage transient surges and over-current situations. Diodes are selected with ratings of 300% beyond worst case design requirements. Diodes are hermetically sealed, welded case stud type for maximum environmental protection.

Selenium surge suppressors are standard on models 360 frame size and larger. Selenium suppressors have self-healing characteristics and heat-sink capacity to handle up to 40x more power than a Metal Oxide Varistor (MOV) to better protect diodes during extreme loading conditions encountered in movie and entertainment industry lighting applications and other transient conditions.

GLOBAL TECHNICAL SUPPORT

With highly qualified teams of engineers and technical support staff in the United States, Asia and Europe; Regal can promptly respond to all technical inquires our customers may have including specification review, custom design needs, 3D STEP files and application review.

PMG EXCITATION SUPPORT SYSTEMS - OPTIONAL

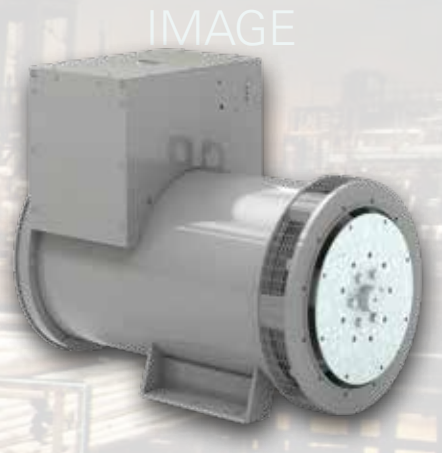
When PMG excitation support is required, HARSH DUTY generators can be supplied with one of two PMG ready voltage regulators.

The proven Digital Voltage Regulator (DVR) provides ¼% voltage regulation utilizing the isolated PMG power supplier to assure maximum motor starting capacity and reliable voltage output independent of the load on the generator. The DVR also offers 14 different protective features, many customizable to your specific application, 300% short circuit support and many other features to ensure long, reliable service life.

The PM500 provides advanced voltage regulation and generator protection in a robust, analog package. With ¼% voltage regulation, the PM500 provides superior, full-wave dynamic performance, maximum motor starting capability, 300% short circuit support and 6 different protective features in an easy-to-use analog control package.

HARSH DUTY INSULATION - WHEN FAILURE IS NOT AN OPTION

Standard insulation systems are designed for operation in clean and dry environments. Most industrial environments include high levels of moisture, dust, sand, grit or other air-borne contaminates in the ambient conditions. These harsh industrial conditions may drastically reduce the service life of a standard insulation system.



Marathon® HARSH DUTY generators with toroidally wrapped exciter stators and all windings top coated with two component anti-tracking varnish are designed to perform in these harsh industrial environments. Toroidally wrapped fiberglass tape provides the ultimate in protection against dust, sand, grit and other particulate matter in the air-stream. Marathon's two component anti-tracking, top coat varnish, applied to all HARSH DUTY windings, provides maximum protection against moisture and other air-borne contaminates.

HARSH DUTY APPLICATIONS DEMAND HARSH DUTY GENERATORS

- Quarry and Aggregate Pits
- Mining
- Barges
- Chemical Plants
- Heavy Industrial Plants
- Any application within 50 miles of coastline
- Rental / Construction Sites
- Motion Picture Industry
- Oil & Gas Field Operations
- Refineries
- Irrigation / Agricultural
- Off-Shore Platforms