

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14285128	
				Catalog # : 06018OT3E364T-W40G	
Frame		: 364/5T		Cooling method	
Insulation class		: F		: IC01 - ODP	
Duty cycle		: Cont.(S1)		Mounting	
Ambient temperature		: -20°C to +40°C		: F-1	
Altitude		: 1000 m.a.s.l.		Rotation <sup>1</sup>	
Protection degree		: IP23		: Both (CW and CCW)	
Design		: B		Starting method	
				: Direct On Line	
				Approx. weight <sup>2</sup>	
				: 745 lb	
				Moment of inertia (J)	
				: 15.6 sq.ft.lb	
Output [HP]	60	50	50	50	50
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	140/69.9	69.6	66.9	65.3	65.3
L. R. Amperes [A]	909/454	473	482	457	457
LRC [A]	6.5x(Code G)	6.8x(Code G)	7.2x(Code H)	7.0x(Code H)	7.0x(Code H)
No load current [A]	49.4/24.7	24.4	26.2	27.7	27.7
Rated speed [RPM]	1780	1480	1480	1485	1485
Slip [%]	1.11	1.33	1.33	1.00	1.00
Rated torque [ft.lb]	177	177	177	177	177
Locked rotor torque [%]	200	200	220	240	240
Breakdown torque [%]	240	229	250	270	270
Service factor	1.25	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	34s (cold) 19s (hot)	32s (cold) 18s (hot)	30s (cold) 17s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)
Noise level <sup>2</sup>	69.0 dB(A)				
Efficiency (%)	25%	94.4	93.4	93.4	93.4
	50%	94.5	93.5	93.5	93.5
	75%	95.0	93.9	93.9	93.9
	100%	95.0	93.9	93.9	93.9
Power Factor	25%	0.48	0.49	0.45	0.42
	50%	0.73	0.74	0.71	0.68
	75%	0.82	0.83	0.81	0.79
	100%	0.85	0.86	0.85	0.84
Bearing type		Drive end	Non drive end	Foundation loads	
Sealing		6314 C3	6212 Z C3	Max. traction : 1263 lb	
Lubrication interval		Without	Without	Max. compression : 2008 lb	
Lubricant amount		Bearing Seal	Bearing Seal		
Lubricant type		20000 h	20000 h		
		27 g	13 g		
		Mobil Polyrex EM			
Notes					
USABLE @208V 155A SF 1.15 SFA 178A					
This revision replaces and cancel the previous one, which must be eliminated.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
(1) Looking the motor from the shaft end.					
(2) Measured at 1m and with tolerance of +3dB(A).					
(3) Approximate weight subject to changes after manufacturing process.					
(4) At 100% of full load.					
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Performed by					
Checked by				Page	Revision
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



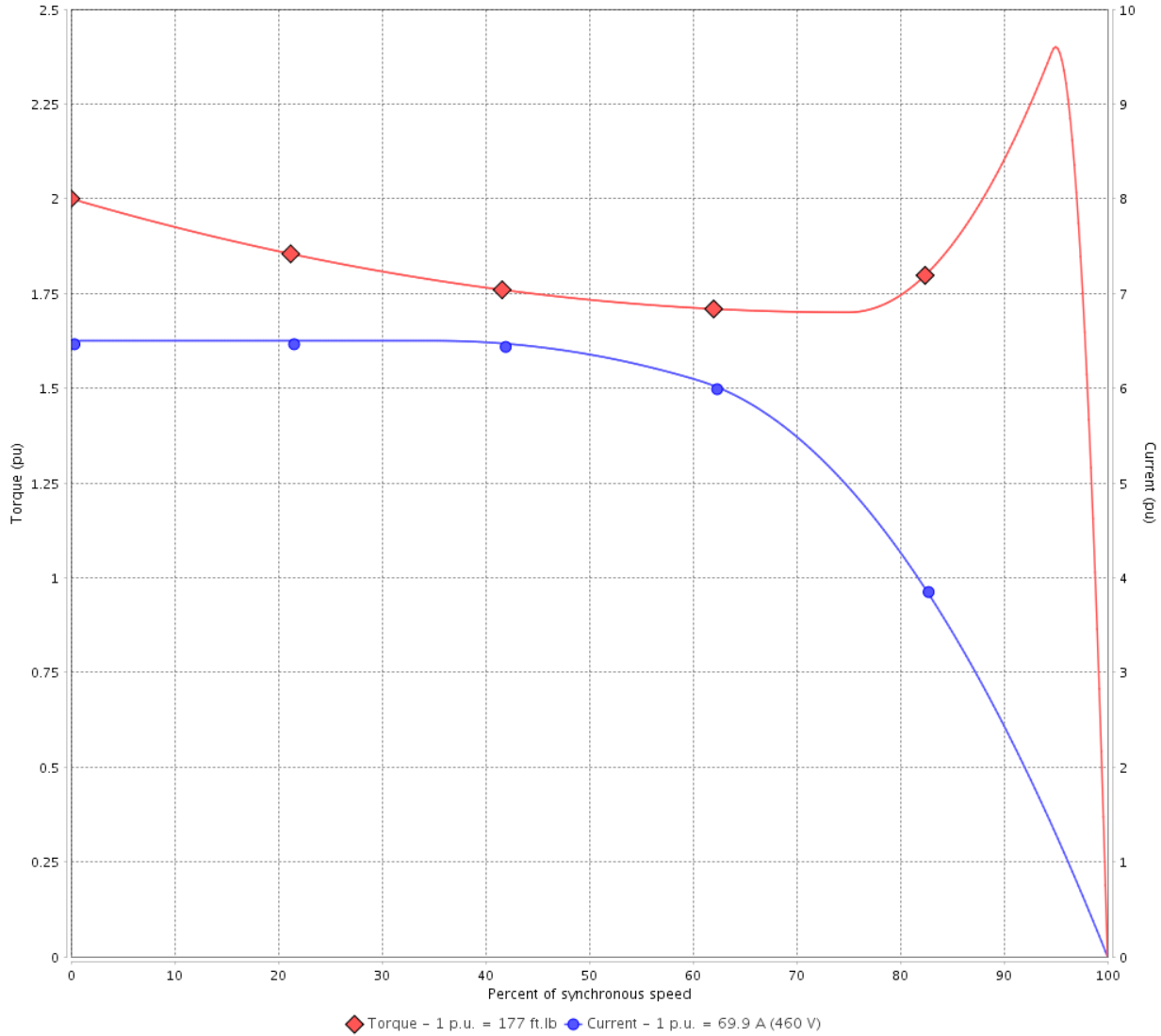
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 140/69.9 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 34s (cold) 19s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



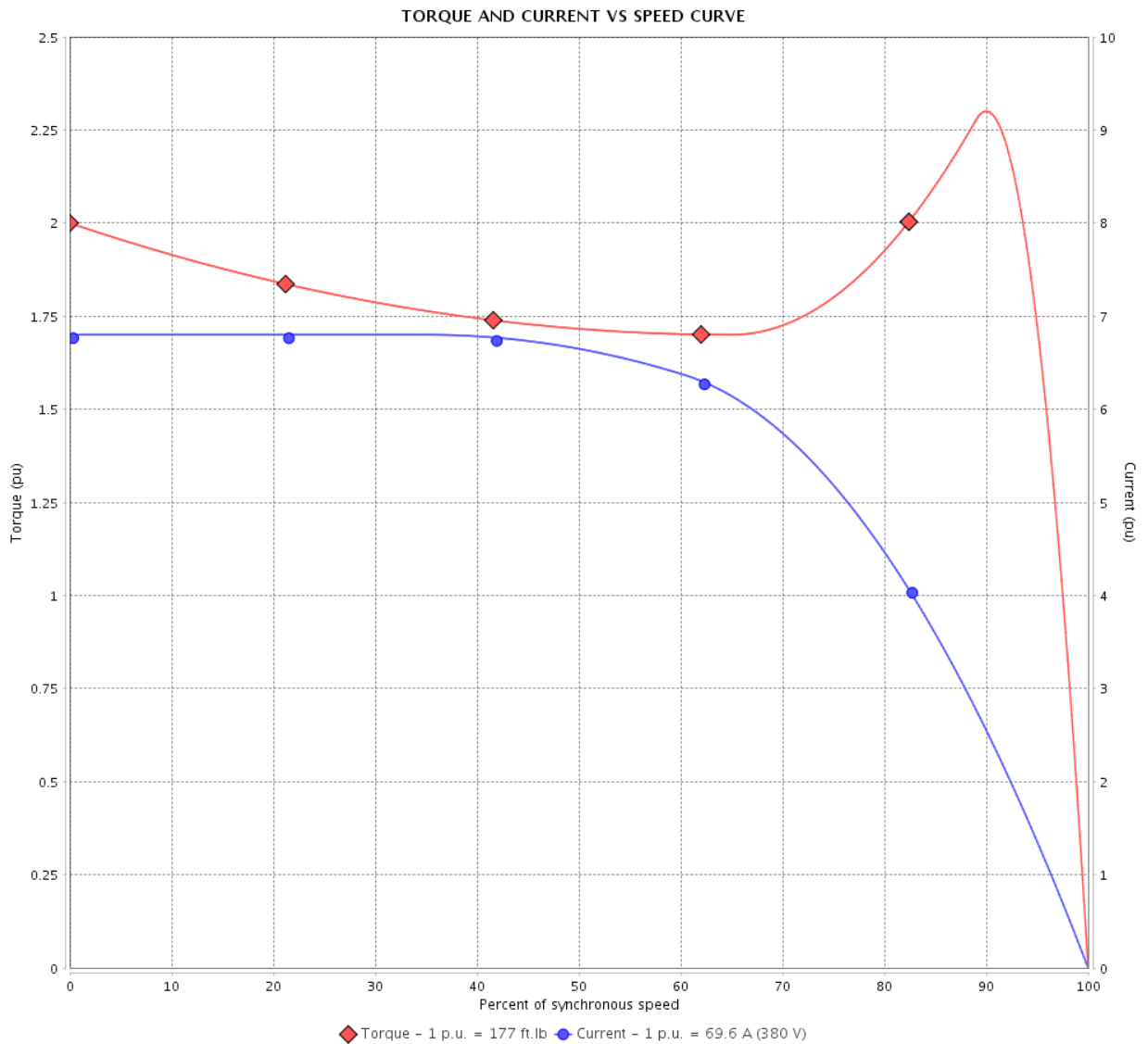
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G



Performance : 380 V 50 Hz 4P IE3

Rated current	: 69.6 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



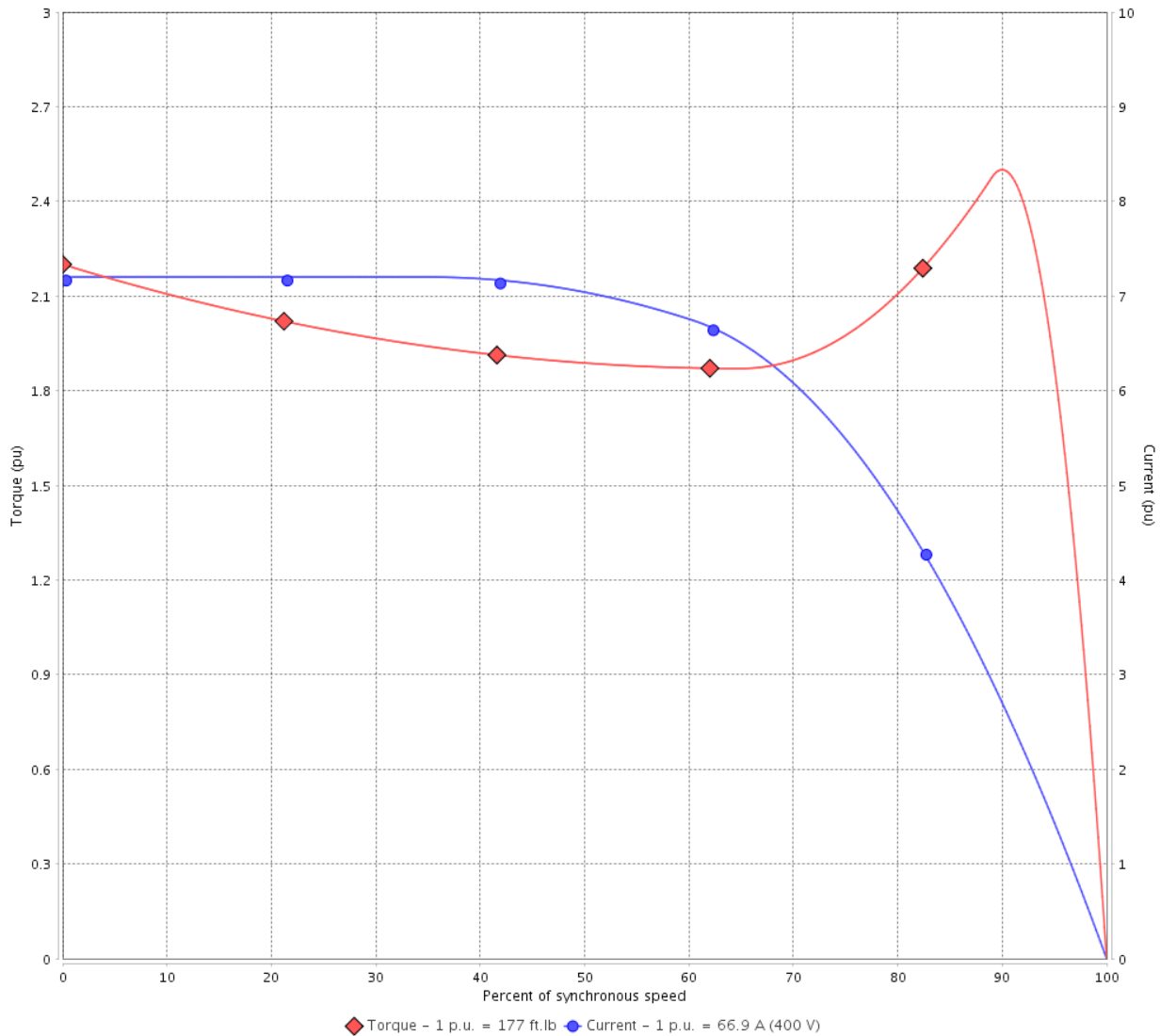
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 66.9 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



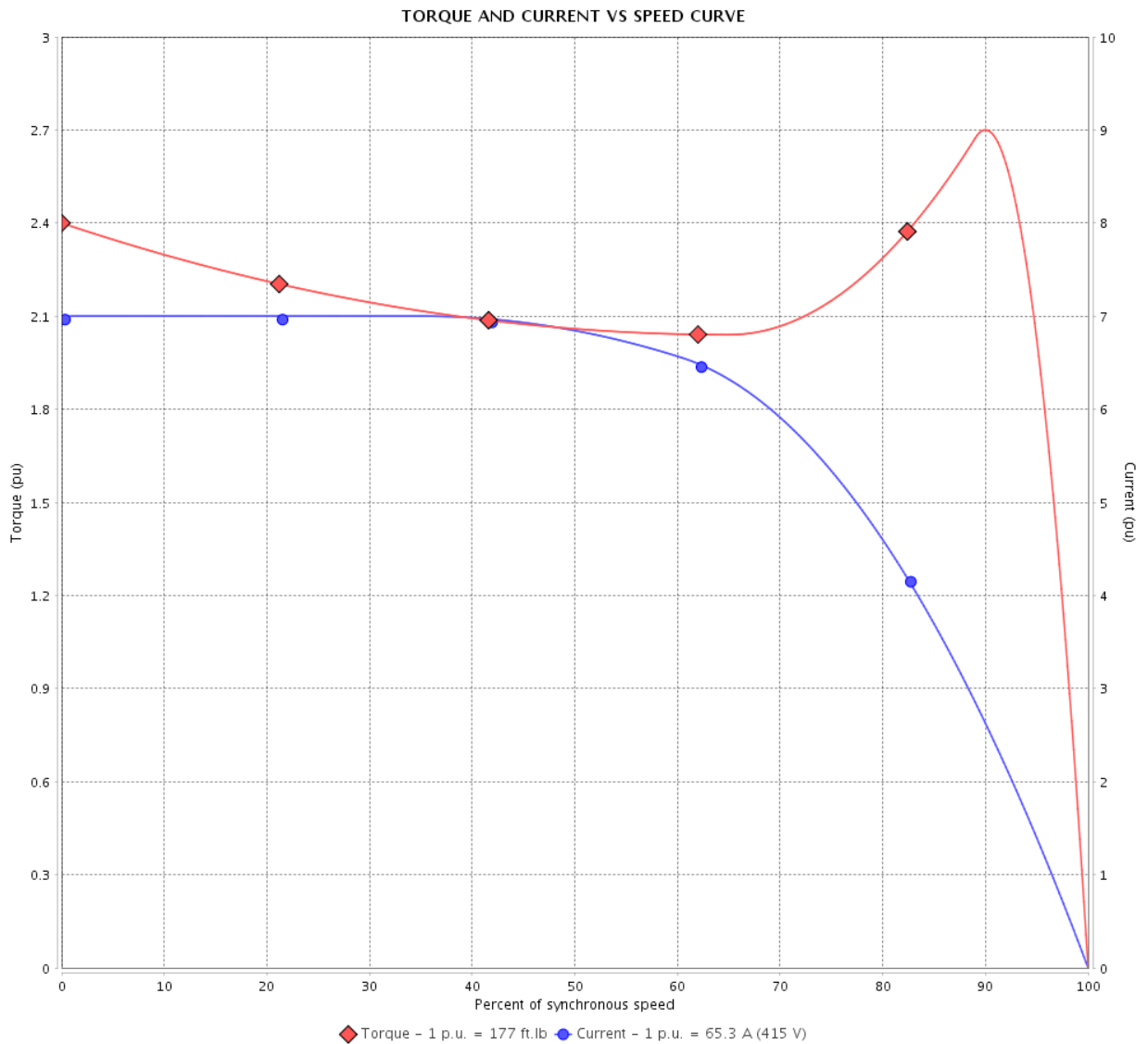
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G



Performance : 415 V 50 Hz 4P IE3

Rated current	: 65.3 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

Locked rotor time : 28s (cold) 16s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

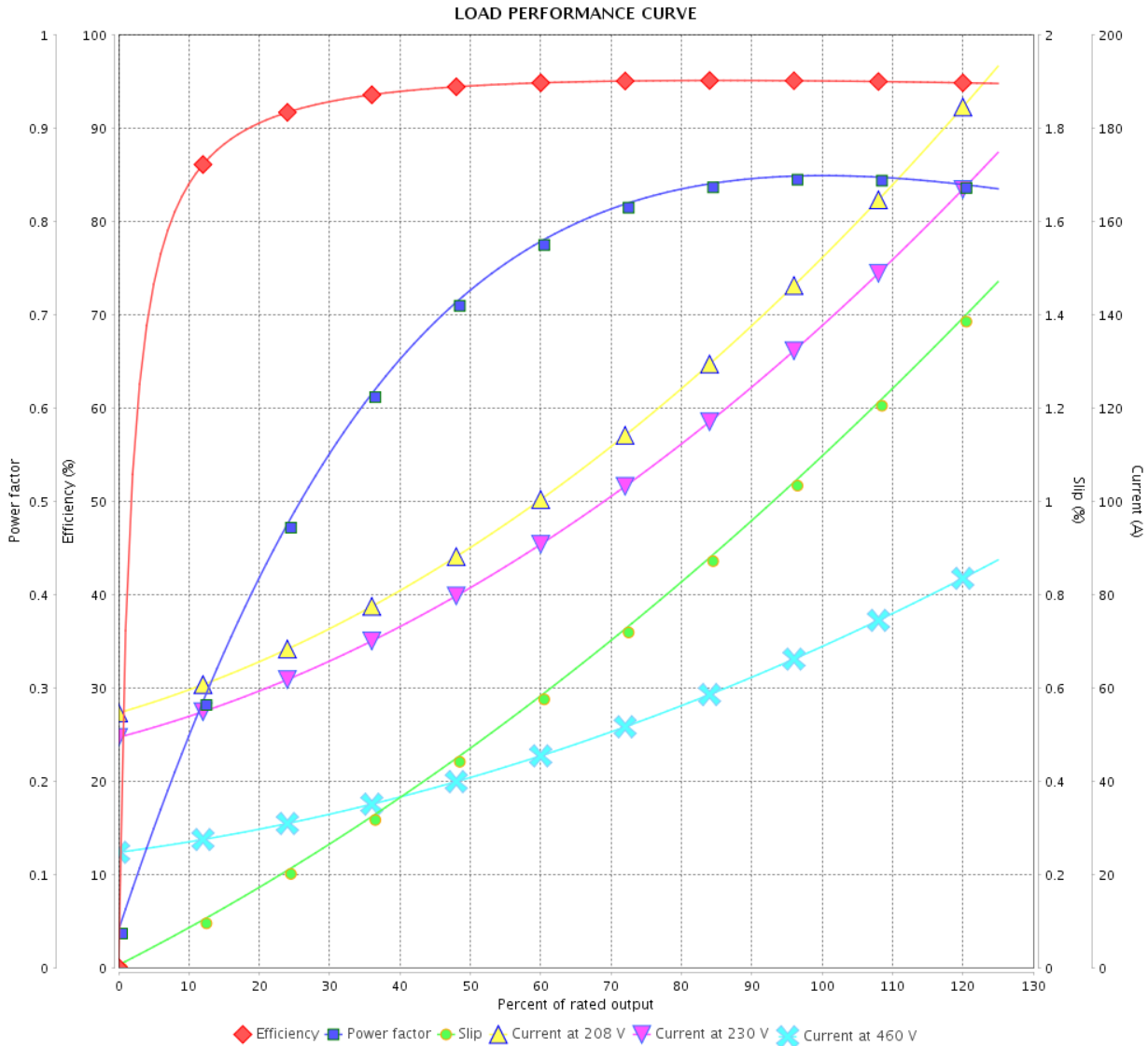


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 140/69.9 A  
 LRC : 6.5  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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Date				

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

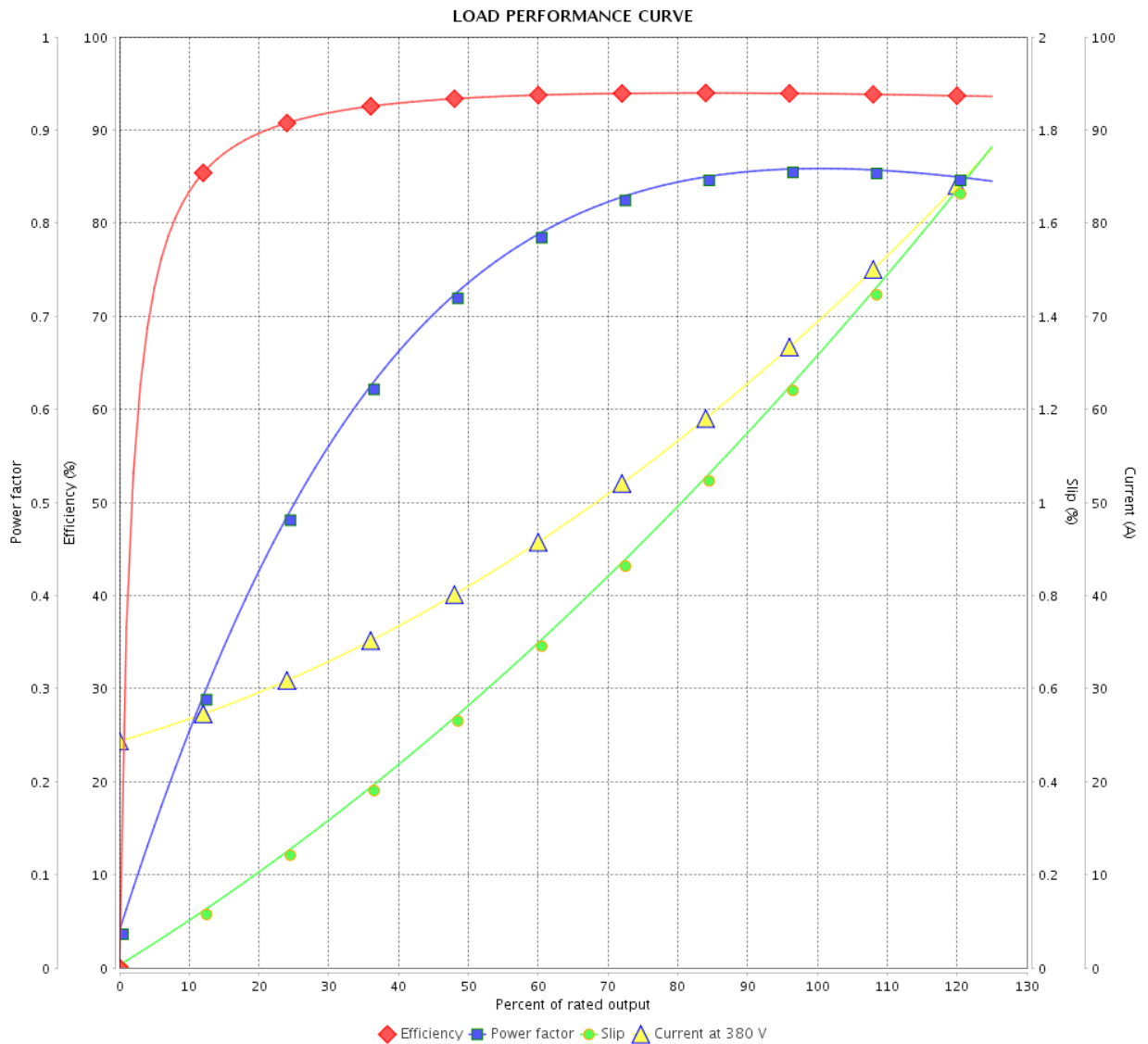


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G



Performance : 380 V 50 Hz 4P IE3

Rated current : 69.6 A  
 LRC : 6.8  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 229 %  
 Rated speed : 1480 rpm

Moment of inertia (J) : 15.6 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

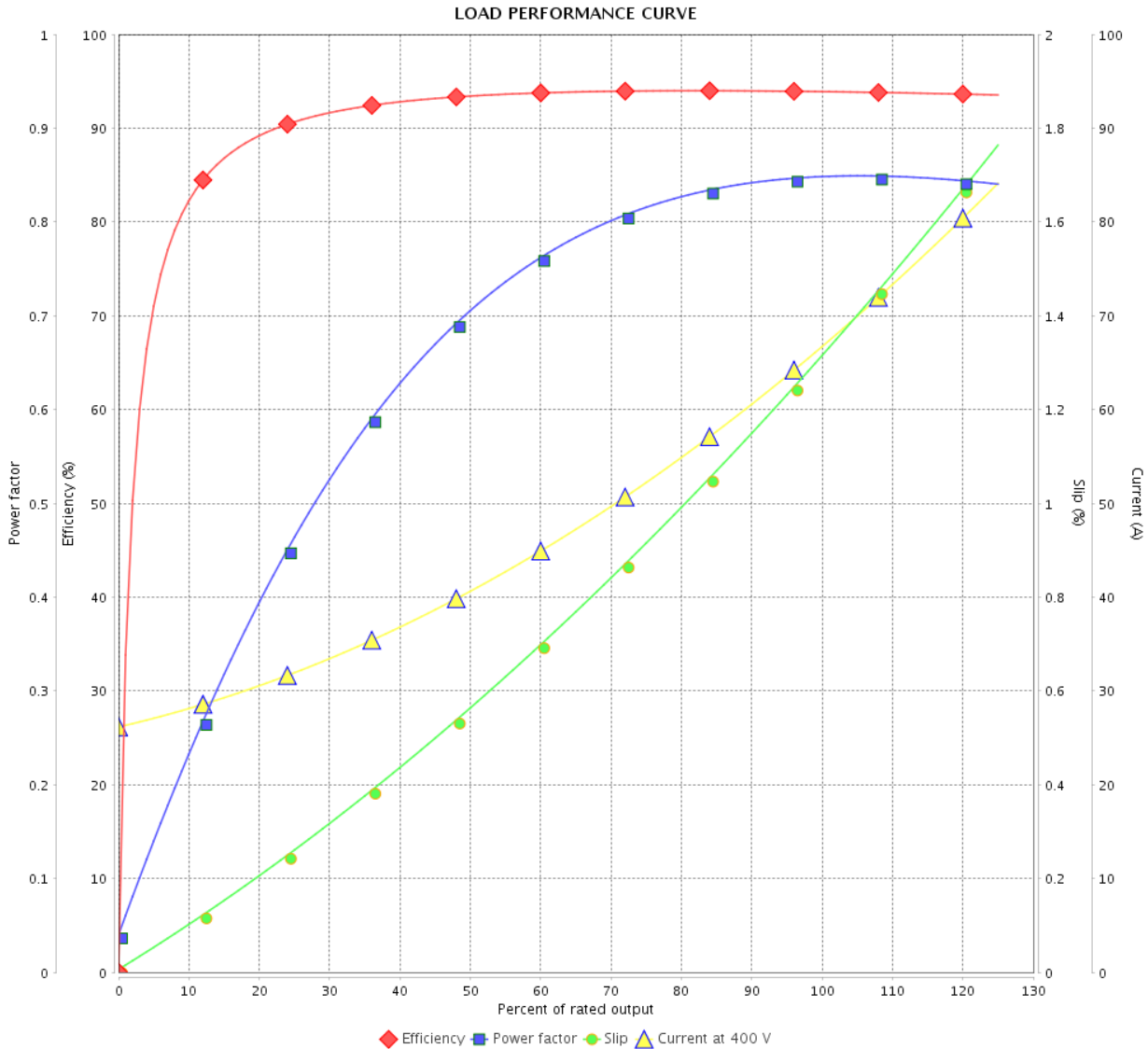


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G



Performance : 400 V 50 Hz 4P IE3

Rated current	: 66.9 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

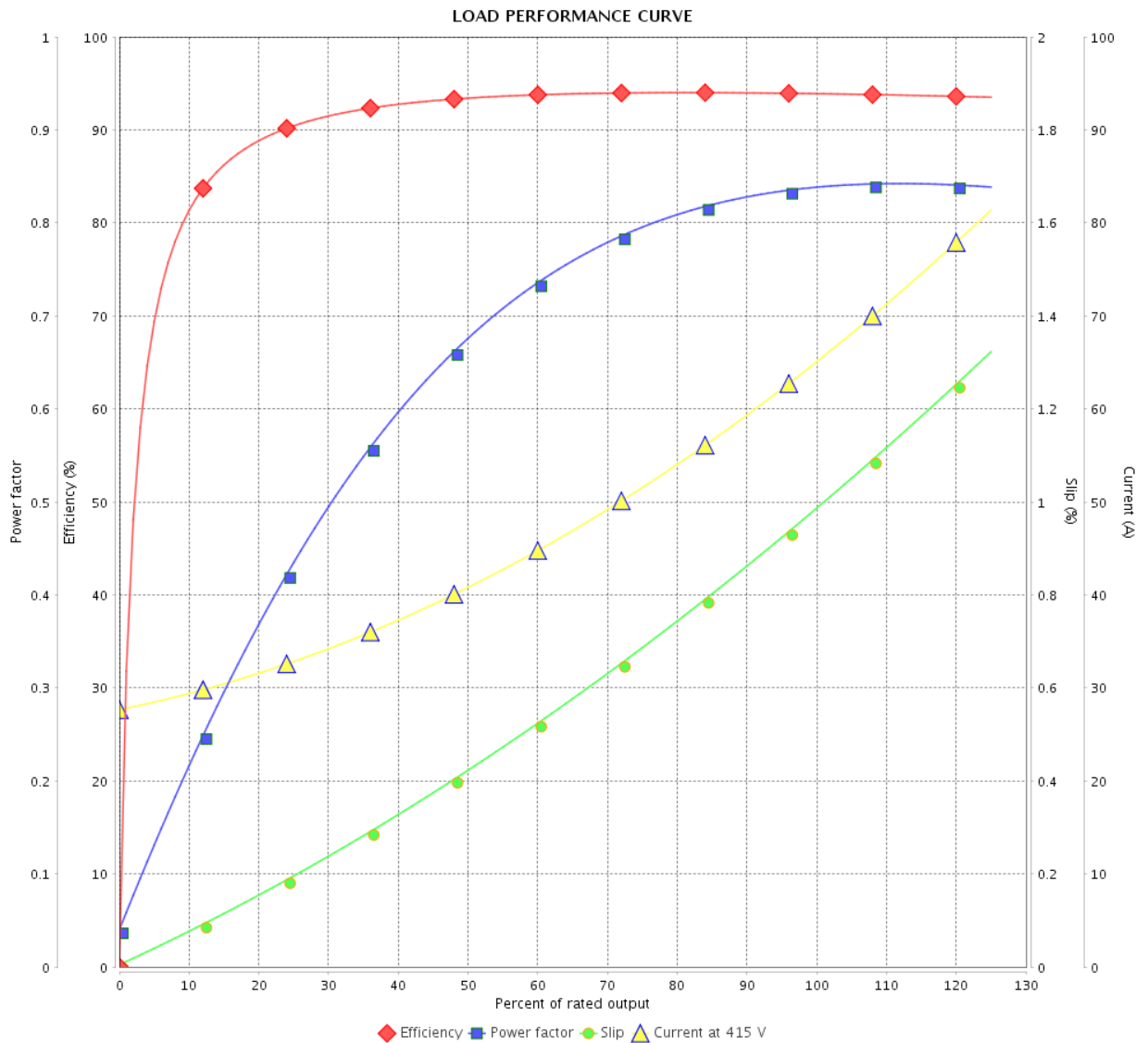


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G



Performance : 415 V 50 Hz 4P IE3

Rated current : 65.3 A  
 LRC : 7.0  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 270 %  
 Rated speed : 1485 rpm

Moment of inertia (J) : 15.6 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G

Performance : 230/460 V 60 Hz 4P

Rated current : 140/69.9 A  
LRC : 6.5  
Rated torque : 177 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

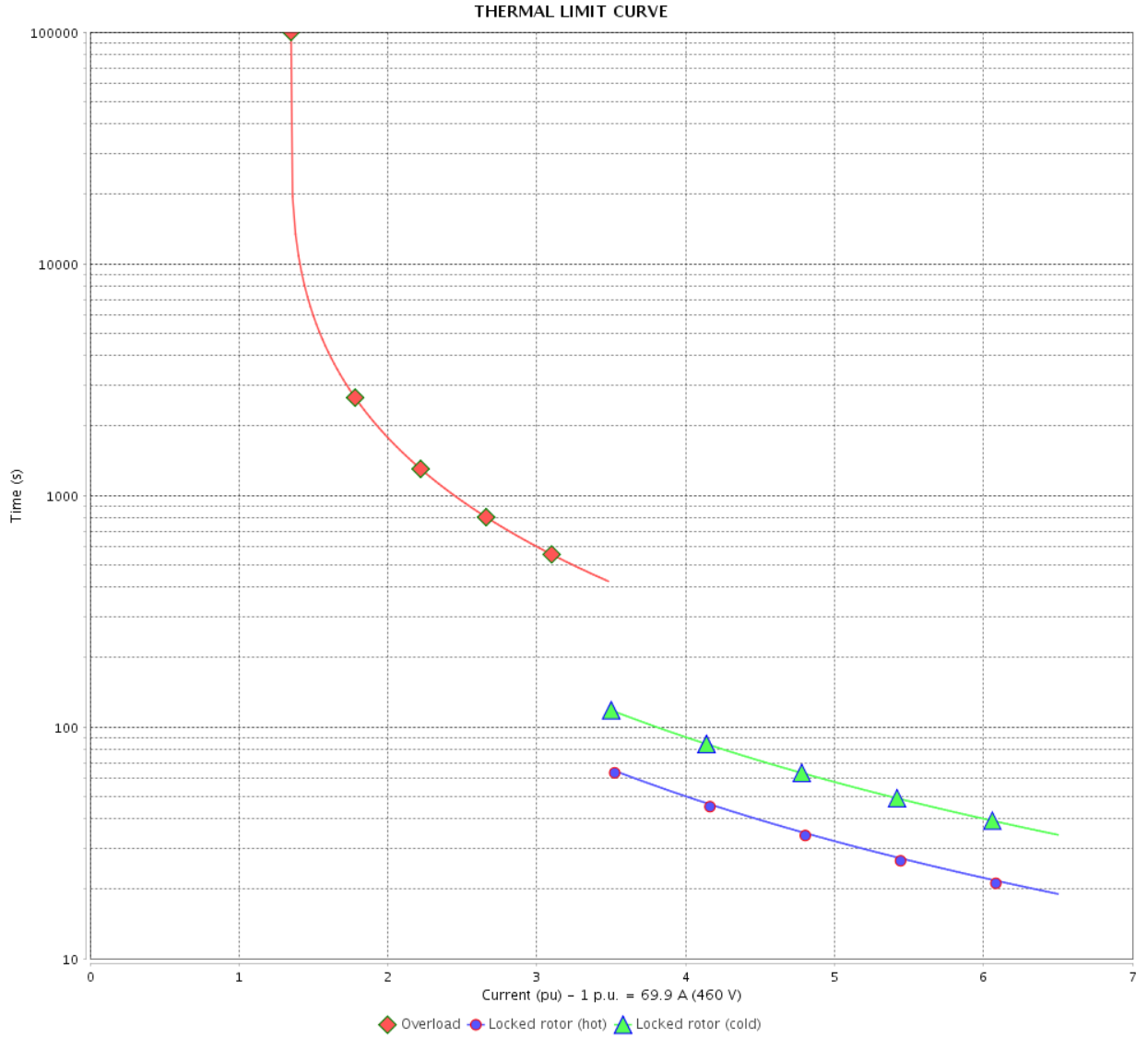
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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Date		12/04/2022		

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G

Performance : 380 V 50 Hz 4P IE3

Rated current : 69.6 A	Moment of inertia (J) : 15.6 sq.ft.lb
LRC : 6.8	Duty cycle : Cont.(S1)
Rated torque : 177 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.00
Breakdown torque : 229 %	Temperature rise : 80 K
Rated speed : 1480 rpm	Design : B

Heating constant

Cooling constant

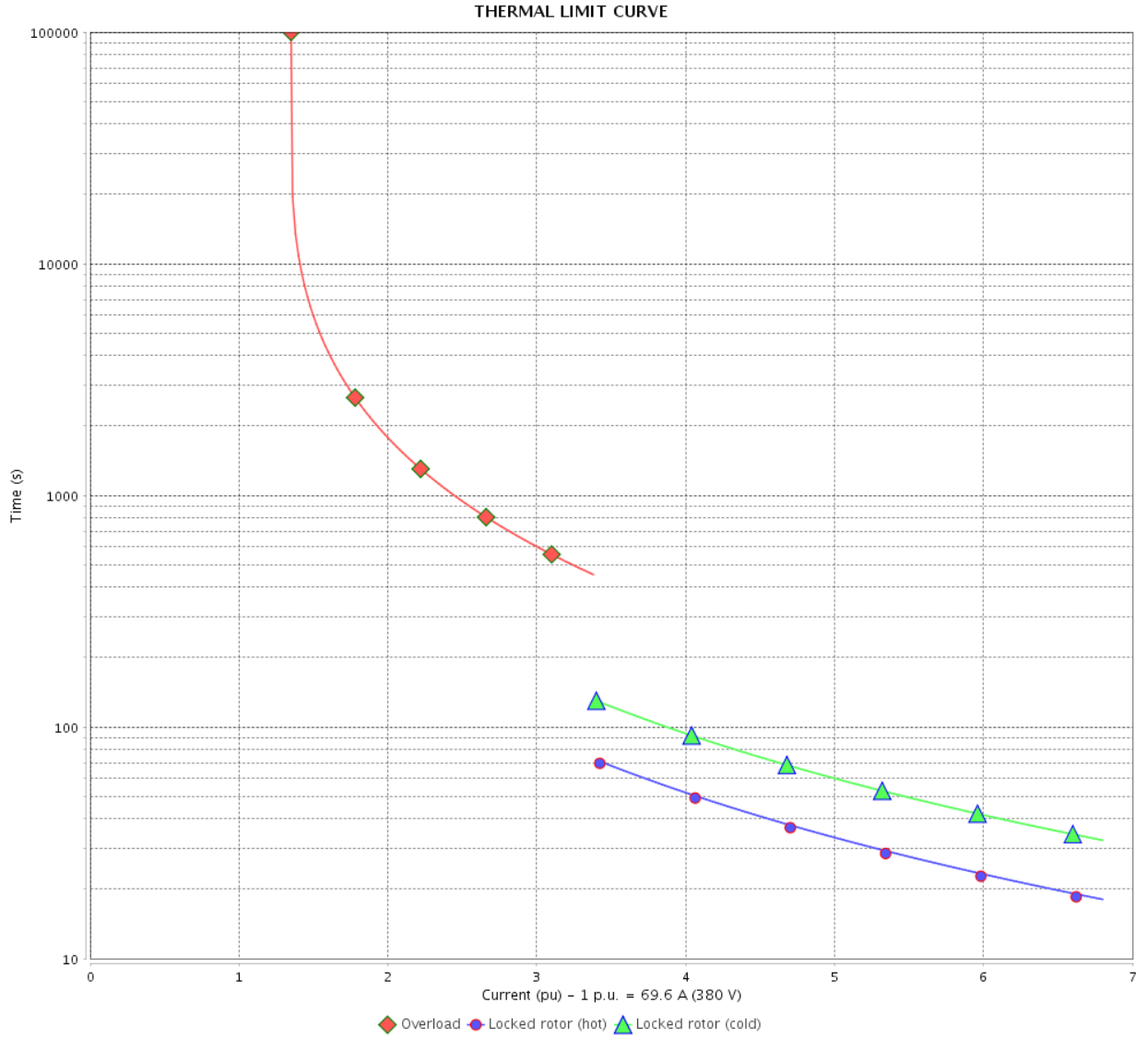
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Date	12/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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Performed by		Page		Revision
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Date		12/04/2022		

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase      Product code : 14285128  
 Catalog # : 06018OT3E364T-W40G

Performance : 400 V 50 Hz 4P IE3

Rated current : 66.9 A	Moment of inertia (J) : 15.6 sq.ft.lb
LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 177 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 1480 rpm	Design : B

Heating constant

Cooling constant

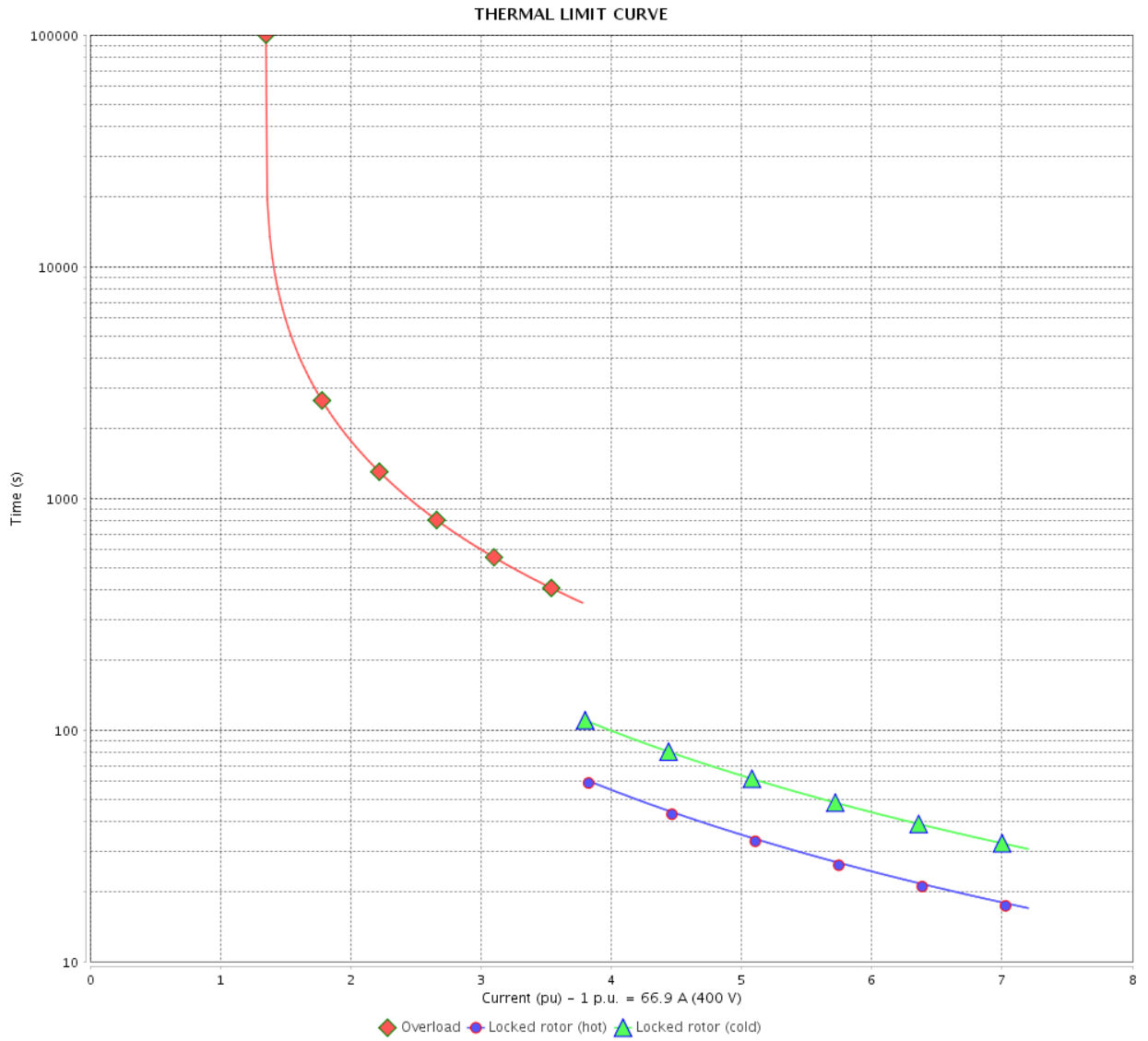
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Performed by			Page 14 / 21	Revision
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Date	12/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G

Performance : 415 V 50 Hz 4P IE3

Rated current	: 65.3 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

Heating constant

Cooling constant

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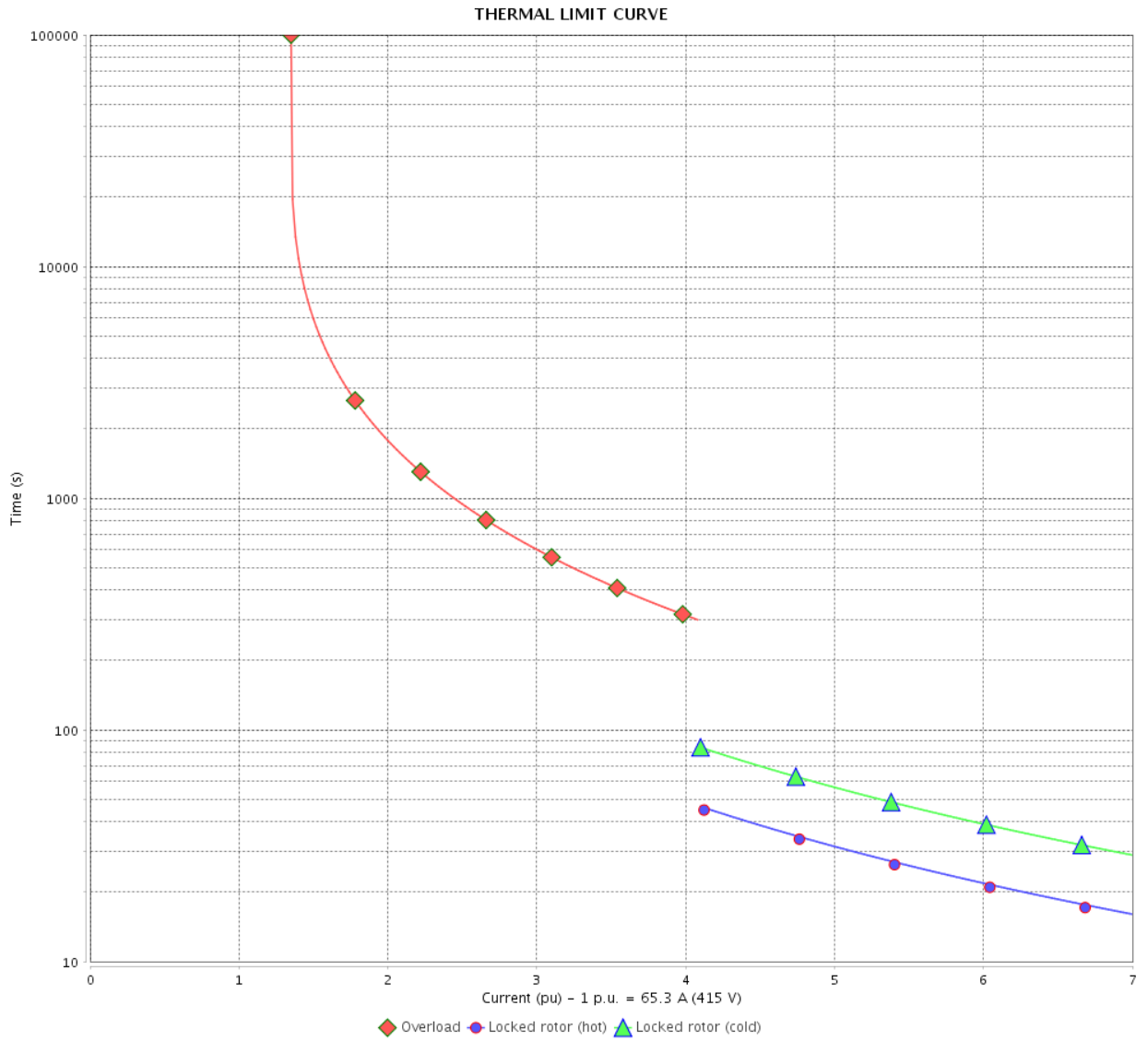


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

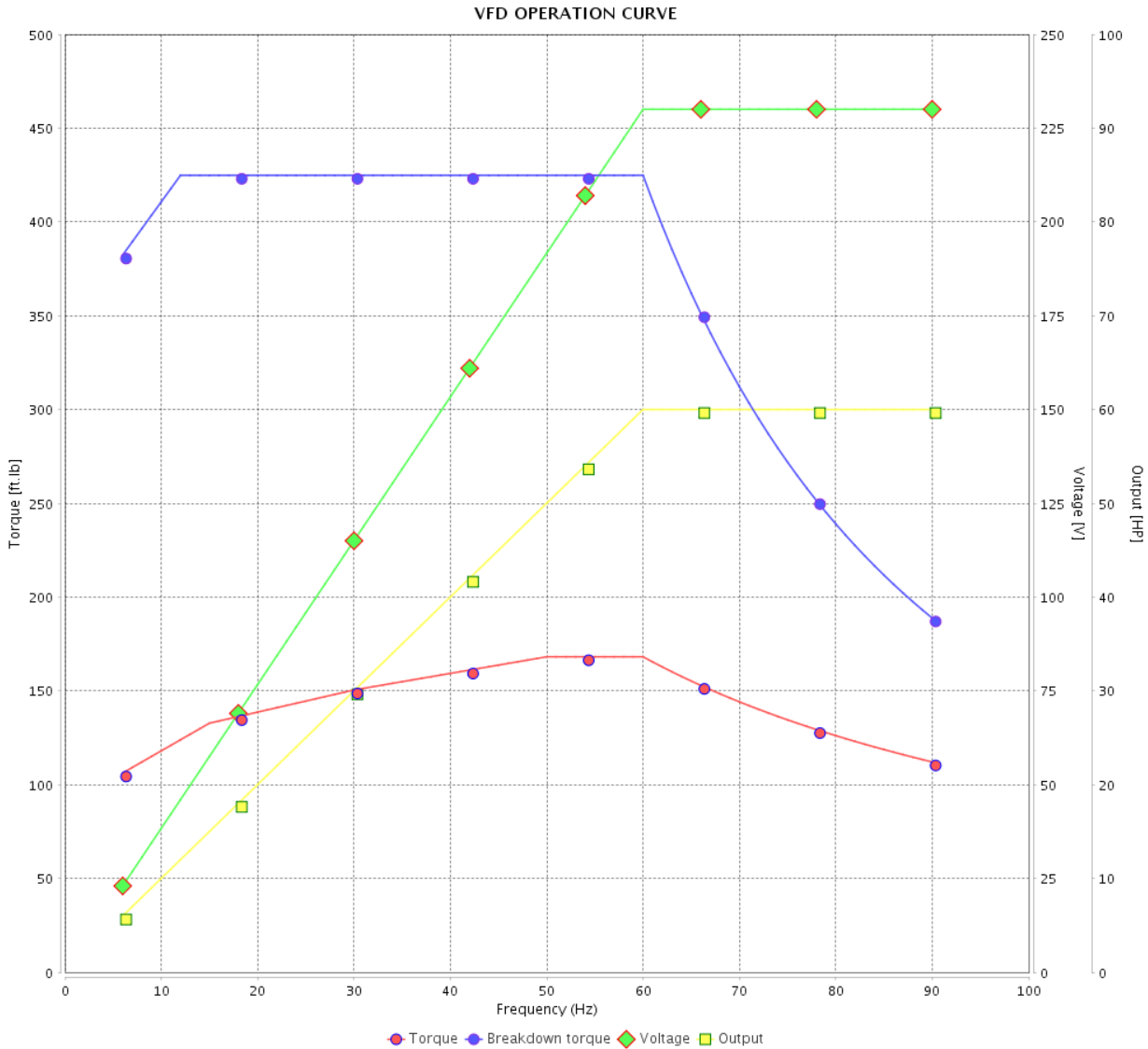


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 140/69.9 A  
LRC : 6.5  
Rated torque : 177 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

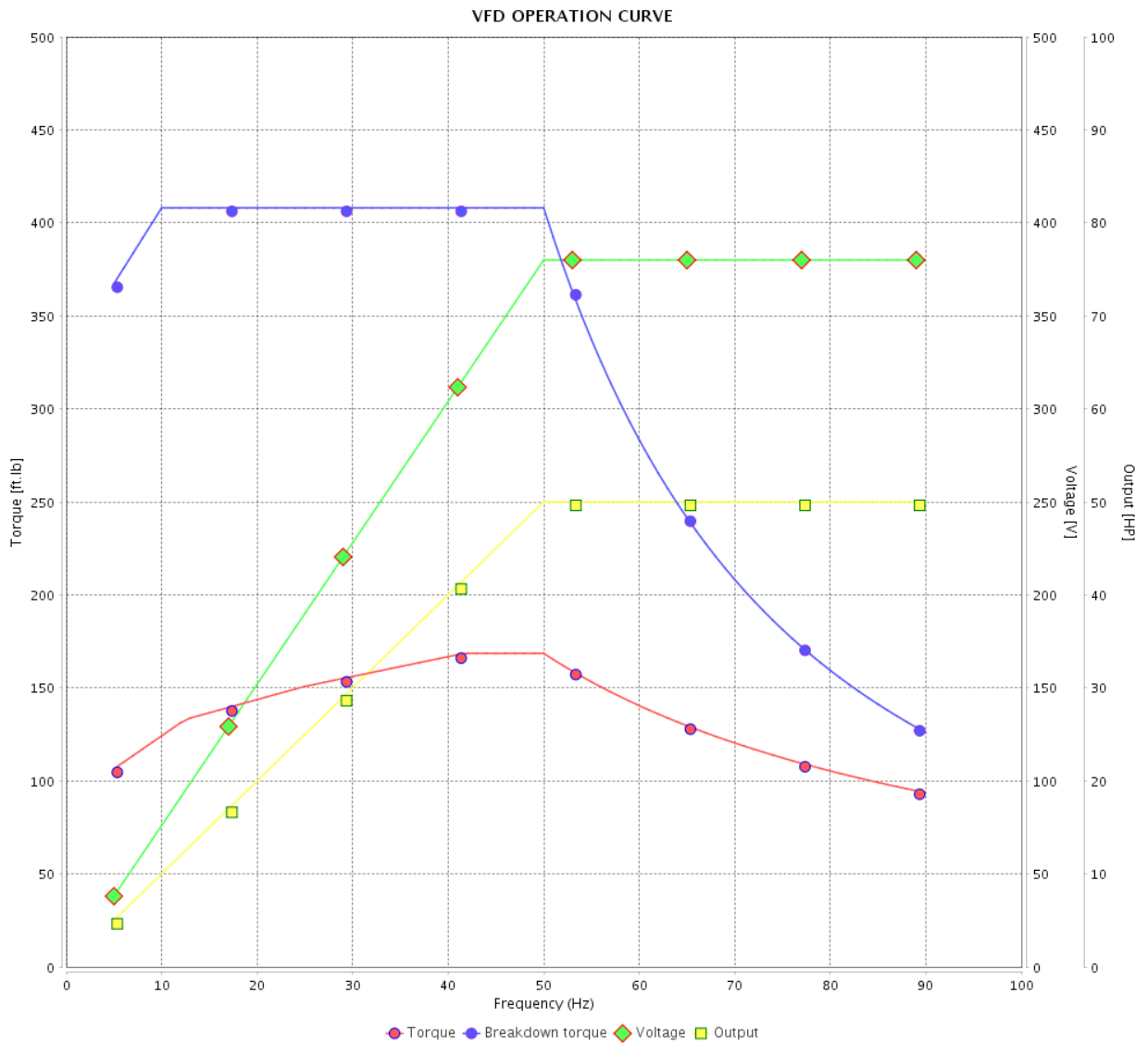


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G



Performance : 380 V 50 Hz 4P IE3

Rated current : 69.6 A  
 LRC : 6.8  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 229 %  
 Rated speed : 1480 rpm

Moment of inertia (J) : 15.6 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



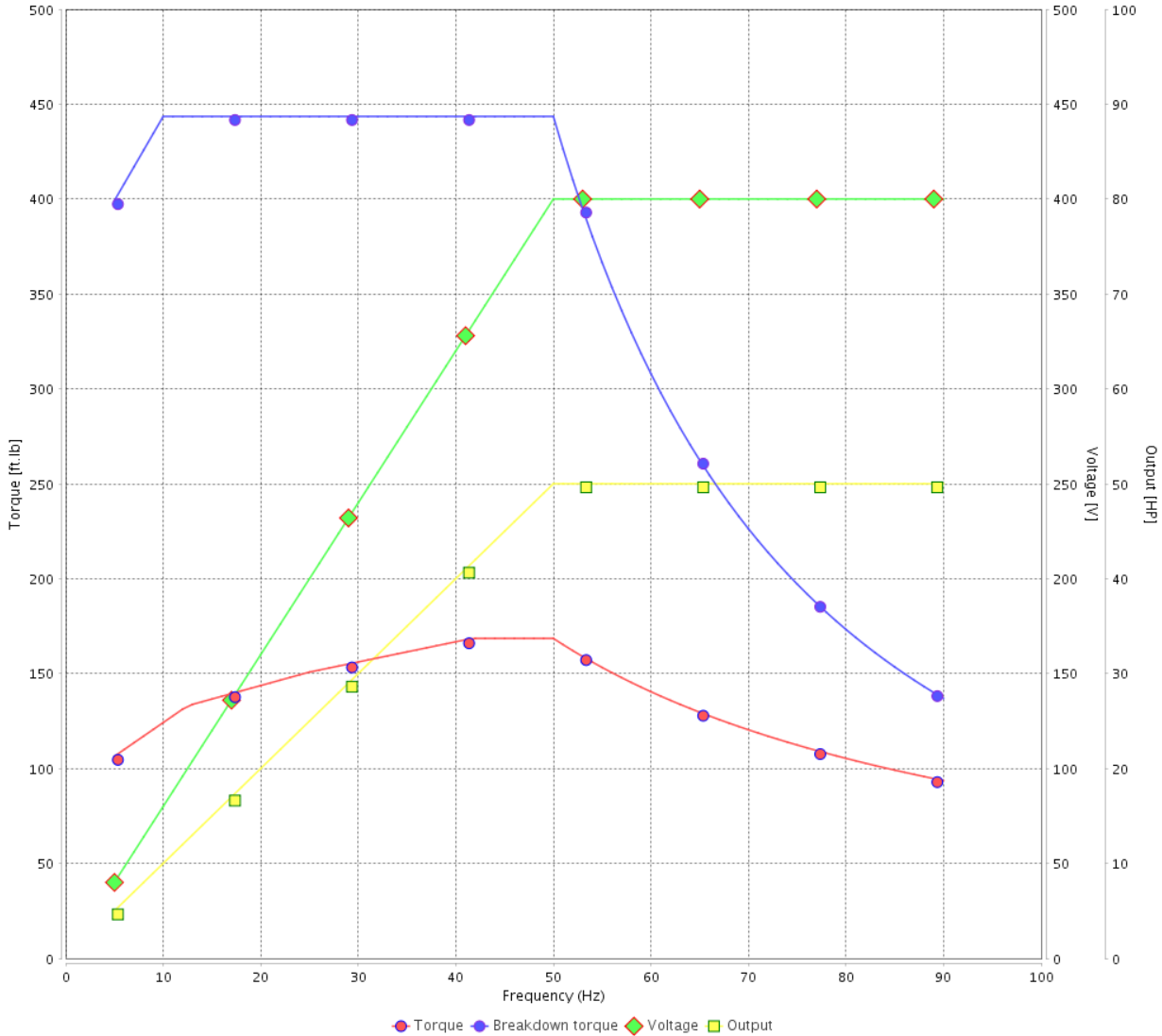
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G

VFD OPERATION CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current : 66.9 A  
LRC : 7.2  
Rated torque : 177 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 250 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 15.6 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

Rev.	Changes Summary	Performed	Checked	Date
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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

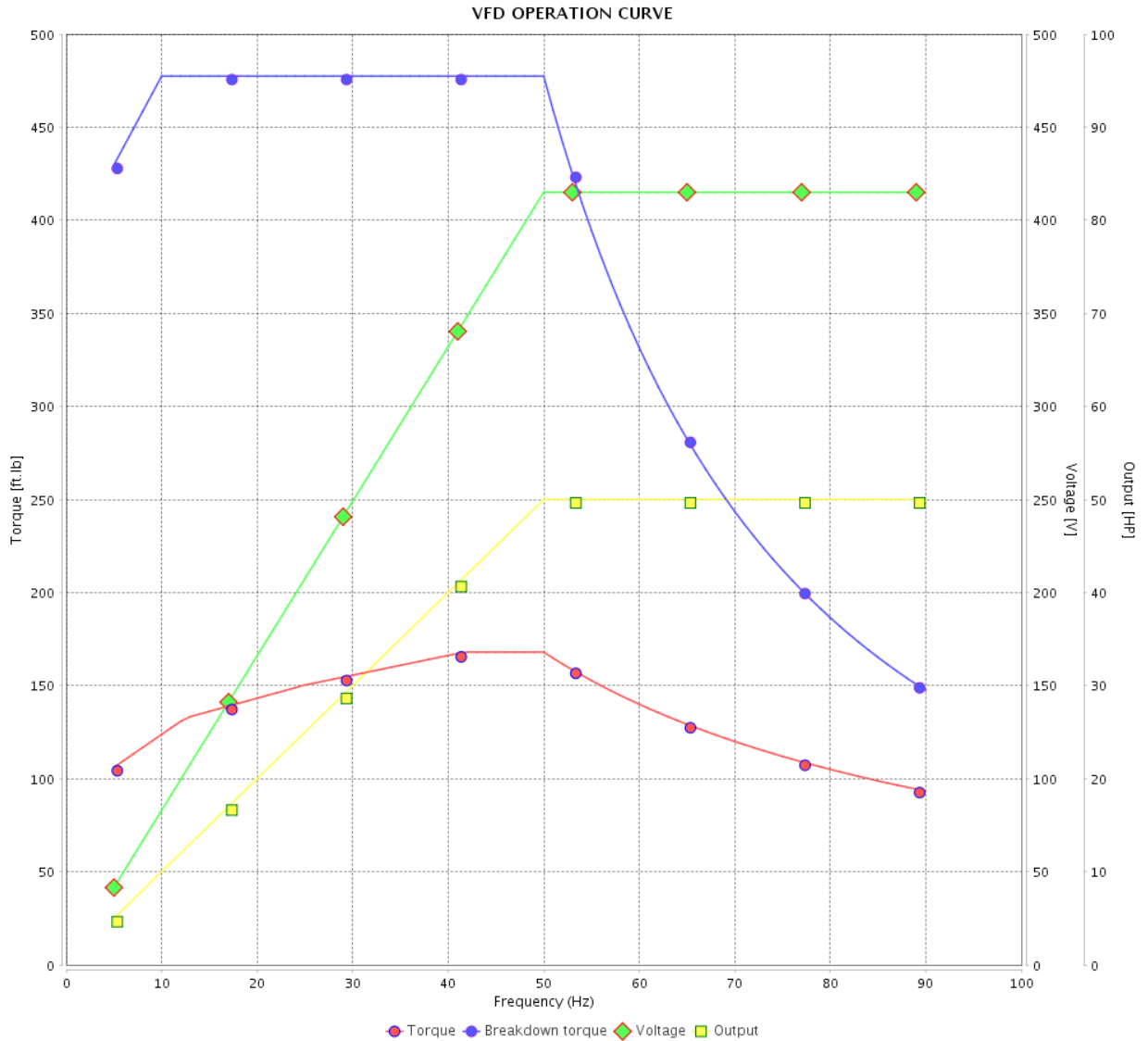


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14285128

Catalog # : 06018OT3E364T-W40G

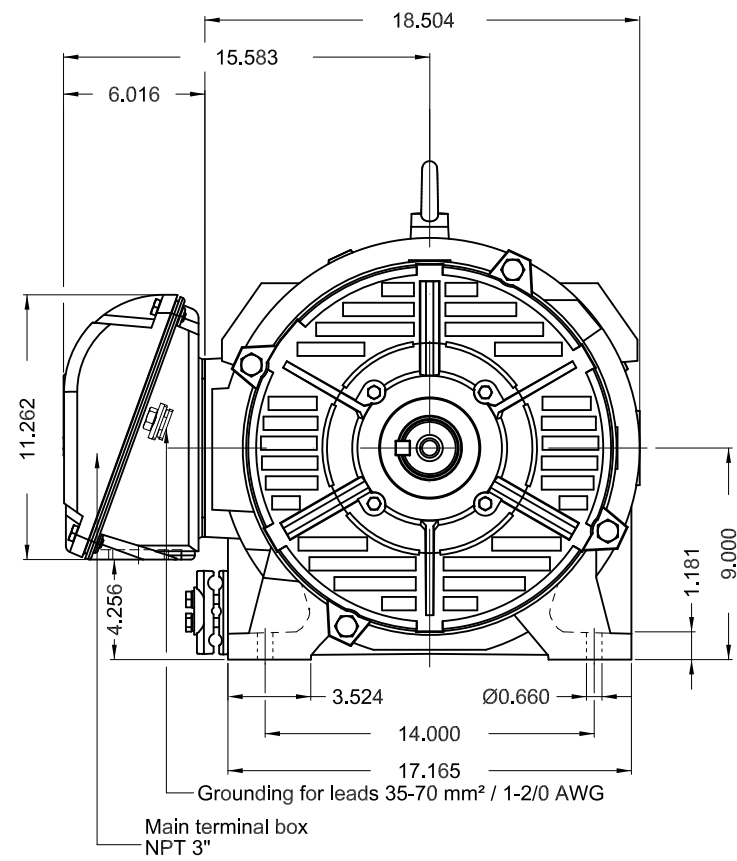


Performance : 415 V 50 Hz 4P IE3

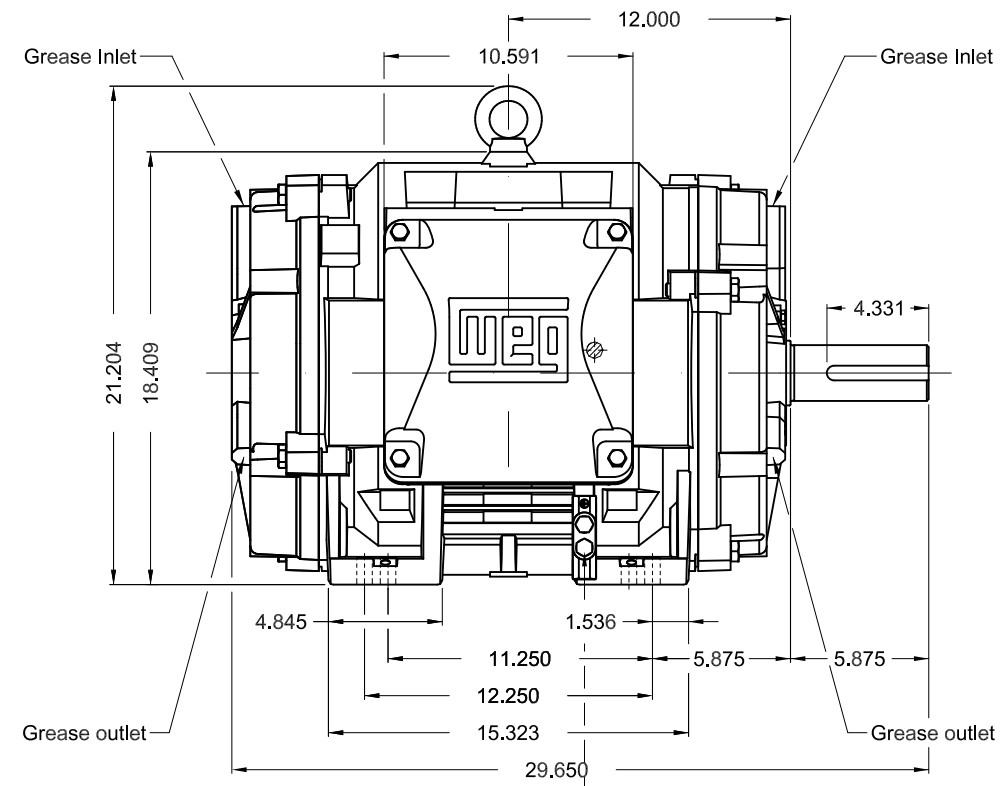
Rated current : 65.3 A  
 LRC : 7.0  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 270 %  
 Rated speed : 1485 rpm

Moment of inertia (J) : 15.6 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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Grounding for leads 35-70 mm<sup>2</sup> / 1-2/0 AWG  
Main terminal box  
NPT 3"



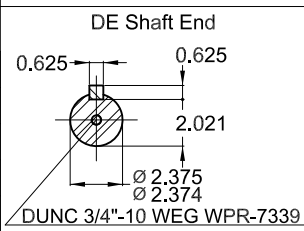
Grounding for leads 25-185 mm<sup>2</sup> / 3AWG-350MCM

60 HP 04 Poles 60 Hz

A

1:8

- Internal AEGIS ground ring on the DE
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



DUNC 3/4"-10 WEG WPR-7339

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 364/5T IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW  
WDD



**WEG** **W40 NEMA**  
**CC029A Premium**  
*Inverter Duty Motor*



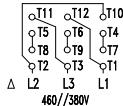
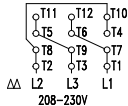
IEC 60034-1  
 MOD.T01#FOXON





For 60Hz use on PWM, VT 1000:1, CT 2:1, 1.0SF

MODEL 060180T3E364T-W40G  
 MADE IN BRAZIL  
 14285128

PH 3	FR 364/5T	HP(kW) 60.0(45.0)	Hz 60
V 230/460	A 140/69.9	RPM 1780	DES B
NEMA NOM EFF 95.0 %	INS. CL. F $\Delta$ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.85	SF 1.25	SFA 175/87.4
USABLE @208V	155 A	SF 1.15	SFA 178
50HP 37kW 50Hz 380V 69.6A 1480RPM SF1.00 EFF 93.9% (IE3)	ALT 1000 m.a.s.l.		



-  → 6314-C3(27g)
-  → 6212-Z-C3(13g)

MOBIL POLYREX EM  
 20000 h