

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 NEMA Premium Efficiency Three-Phase	Product code :	14270958	
			Catalog # :	07536OT3G364TS-W40	
Frame		: 364/5TS	Cooling method	: IC01 - ODP	
Insulation class		: F	Mounting	: F-1	
Duty cycle		: Cont.(S1)	Rotation <sup>1</sup>	: Both (CW and CCW)	
Ambient temperature		: -20°C to +40°C	Starting method	: Direct On Line	
Altitude		: 1000 m.a.s.l.	Approx. weight <sup>2</sup>	: 713 lb	
Protection degree		: IP23	Moment of inertia (J)	: 6.40 sq.ft.lb	
Design		: B			
Output [HP]	75	60	60	60	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	84.8	82.7	79.4	78.4	
L. R. Amperes [A]	560	579	588	588	
LRC [A]	6.6x(Code G)	7.0x(Code H)	7.4x(Code H)	7.5x(Code H)	
No load current [A]	21.5	20.7	22.7	25.0	
Rated speed [RPM]	3555	2955	2963	2965	
Slip [%]	1.25	1.50	1.23	1.17	
Rated torque [ft.lb]	111	107	106	106	
Locked rotor torque [%]	200	190	220	220	
Breakdown torque [%]	250	229	250	280	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	34s (cold) 19s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	
Noise level <sup>2</sup>	84.0 dB(A)				
Efficiency (%)	25%	91.0	90.5	90.2	
	50%	91.7	91.7	91.4	
	75%	93.0	92.9	92.8	
	100%	93.6	94.0	94.0	
Power Factor	25%	0.56	0.56	0.51	
	50%	0.77	0.78	0.73	
	75%	0.84	0.85	0.83	
	100%	0.87	0.88	0.87	
Bearing type		<u>Drive end</u> 6314 C3 <u>Non drive end</u> 6212 Z C3	Foundation loads		
Sealing		Without Without	Max. traction : 663 lb		
		Bearing Seal Bearing Seal	Max. compression : 1376 lb		
Lubrication interval		: 14418 h 20000 h			
Lubricant amount		: 27 g 13 g			
Lubricant type		: Mobil Polyrex EM			
Notes					
This revision replaces and cancel the previous one, which must be eliminated. (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.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



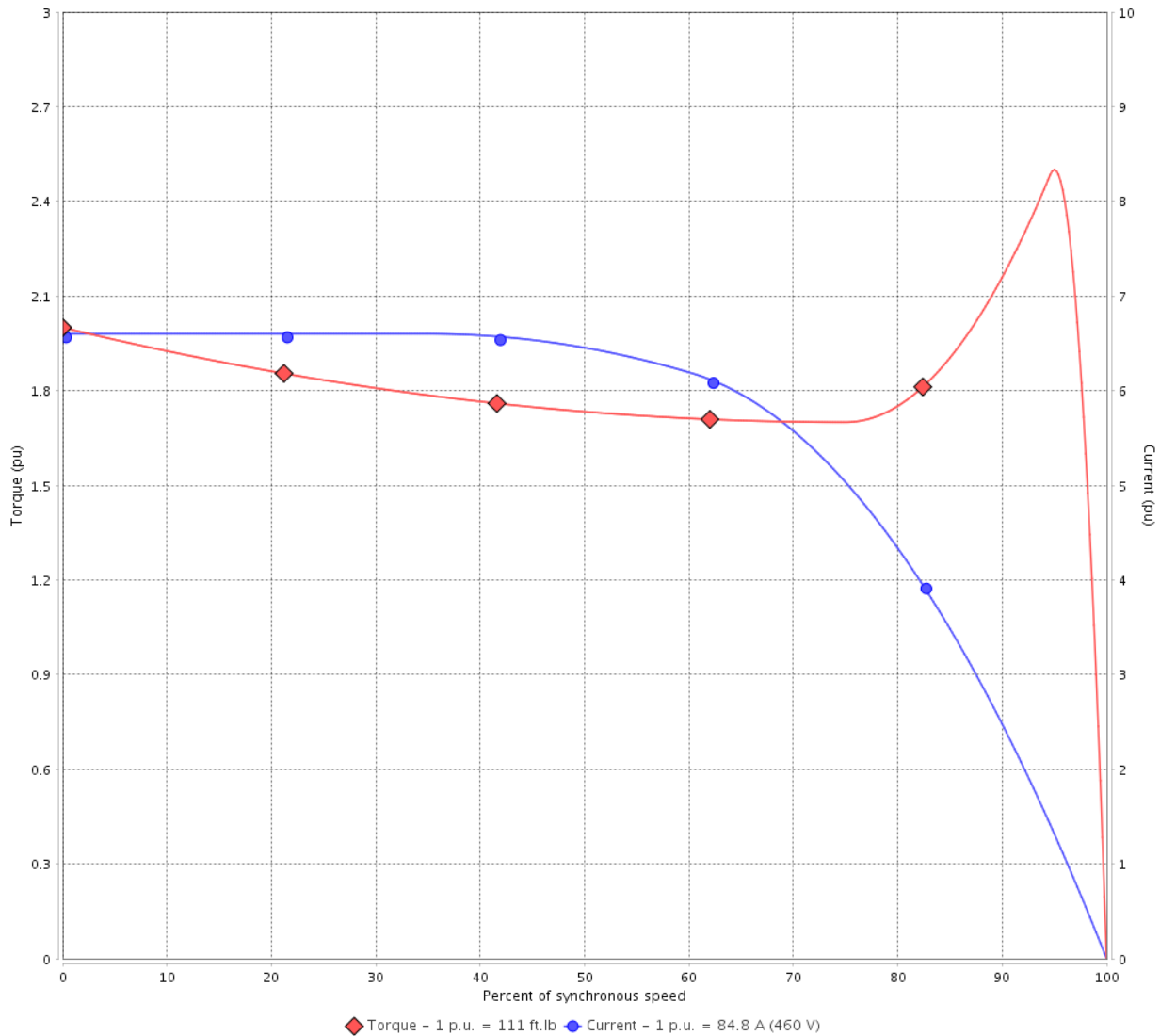
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14270958

Catalog # : 075360T3G364TS-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 2P

Rated current	: 84.8 A	Moment of inertia (J)	: 6.40 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 111 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3555 rpm	Design	: B

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

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# TORQUE AND CURRENT VS SPEED CURVE



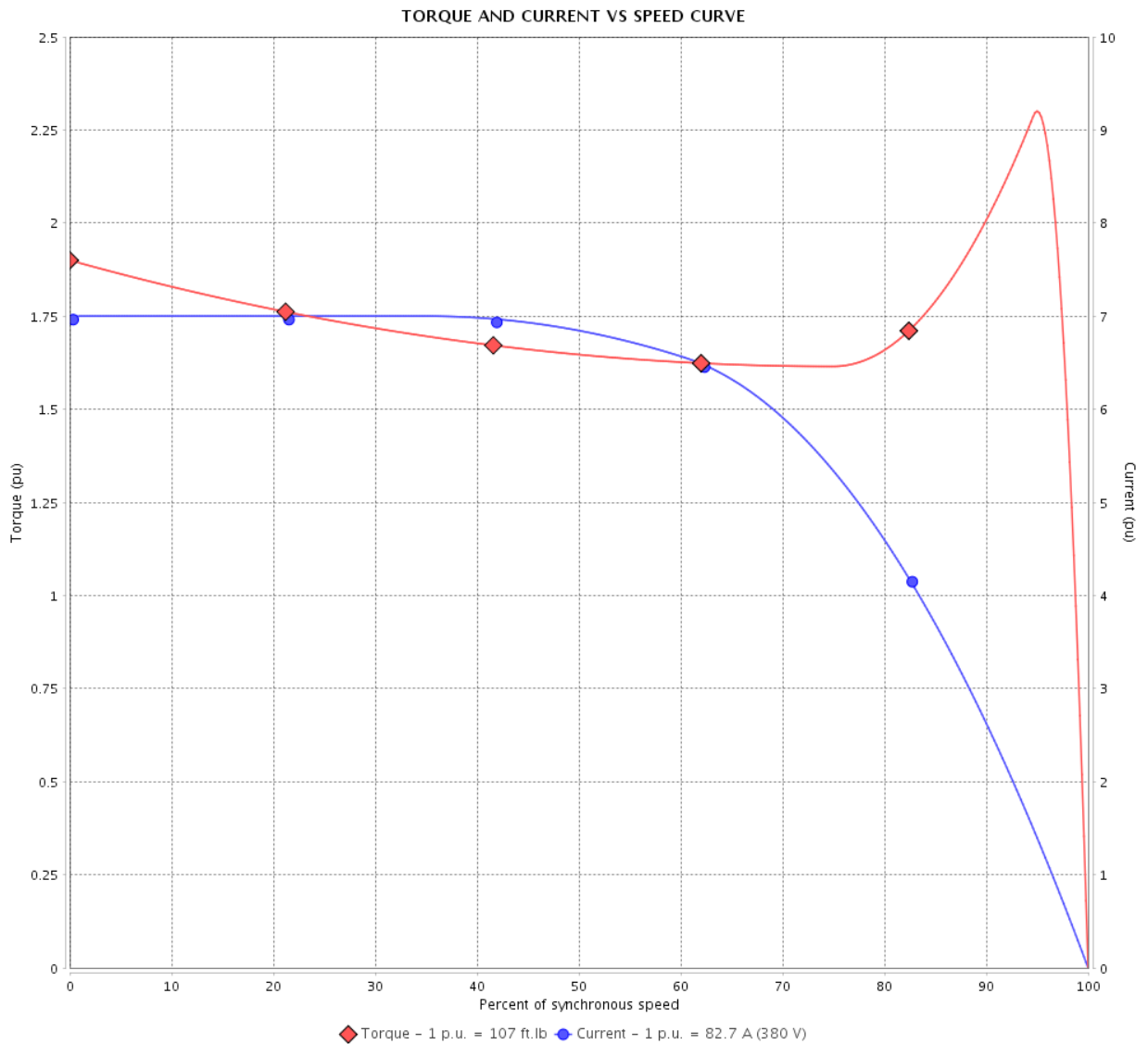
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14270958

Catalog # : 07536OT3G364TS-W40



Performance : 380 V 50 Hz 2P IE3

Rated current	: 82.7 A	Moment of inertia (J)	: 6.40 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 107 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



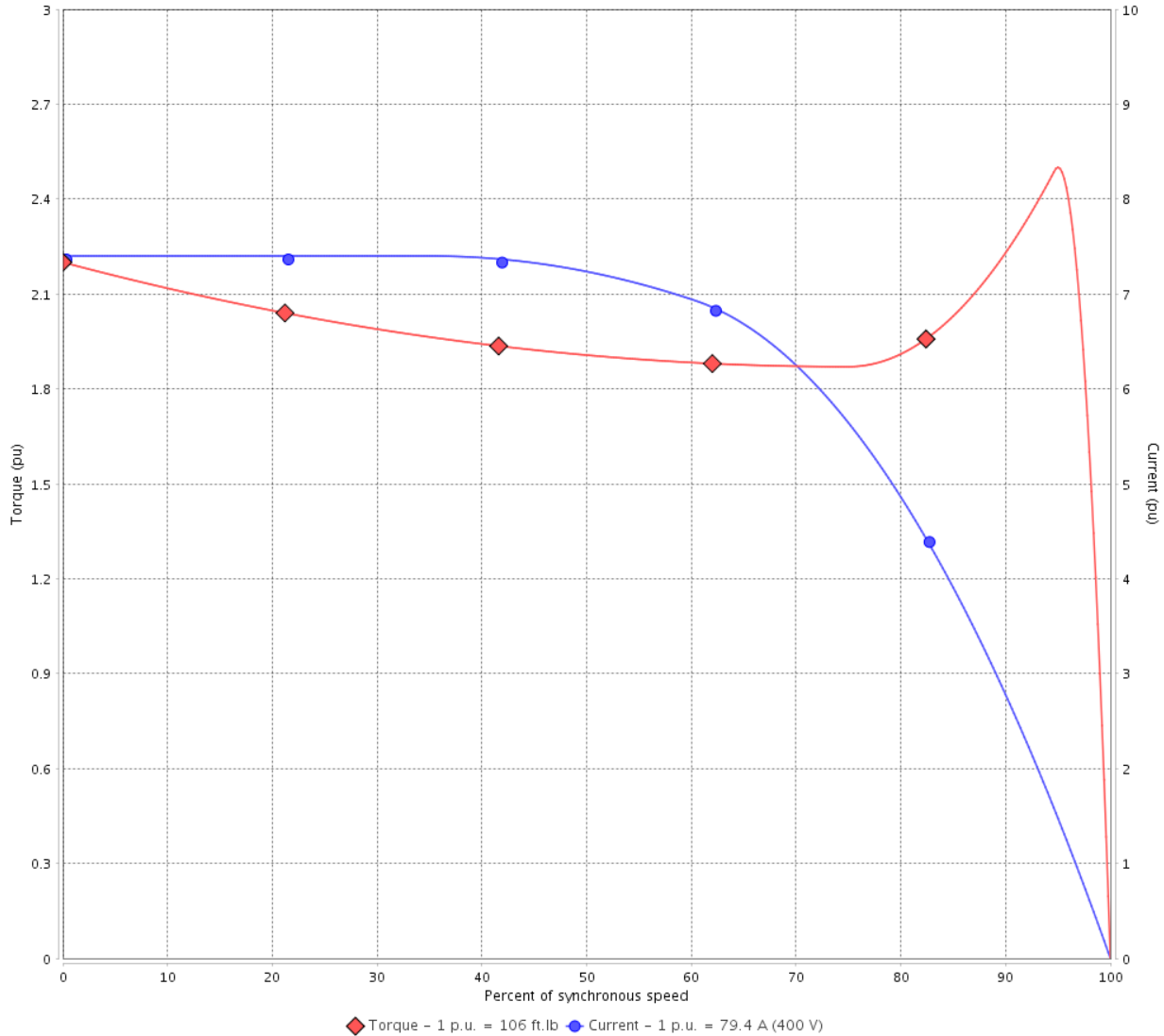
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14270958

Catalog # : 07536OT3G364TS-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 79.4 A	Moment of inertia (J)	: 6.40 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2963 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



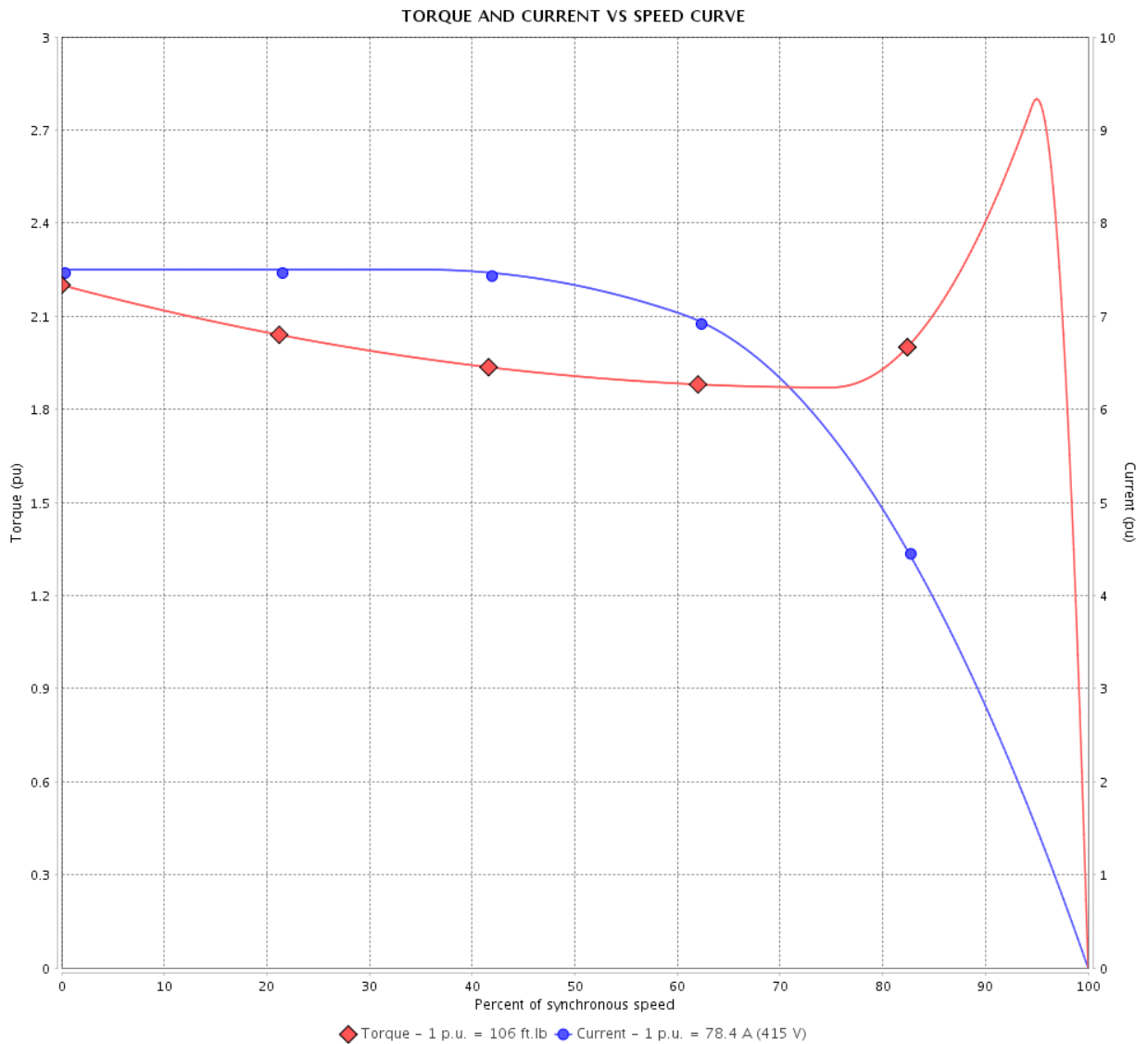
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LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

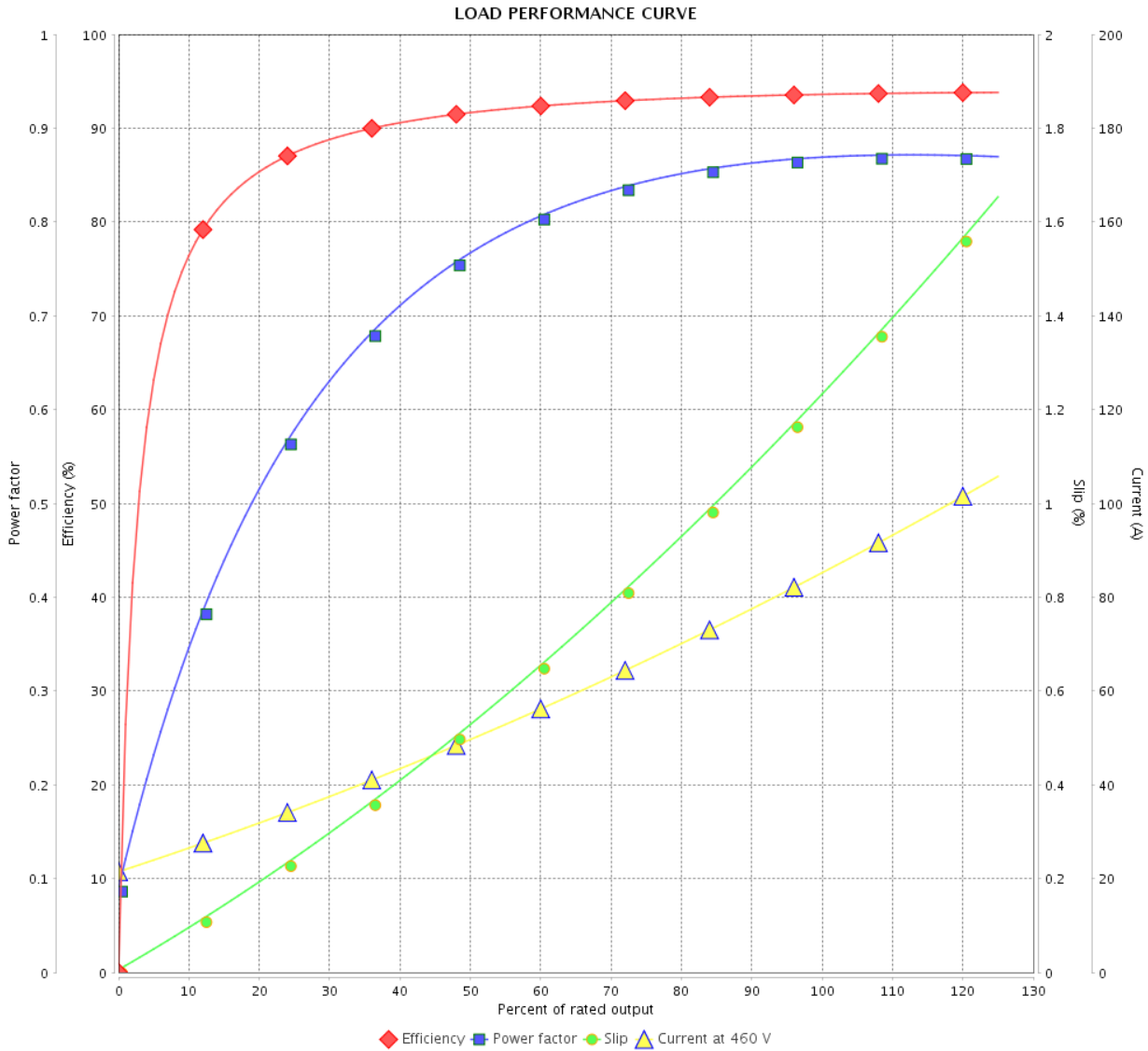


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14270958

Catalog # : 07536OT3G364TS-W40



Performance : 460 V 60 Hz 2P

Rated current : 84.8 A  
 LRC : 6.6  
 Rated torque : 111 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 3555 rpm

Moment of inertia (J) : 6.40 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

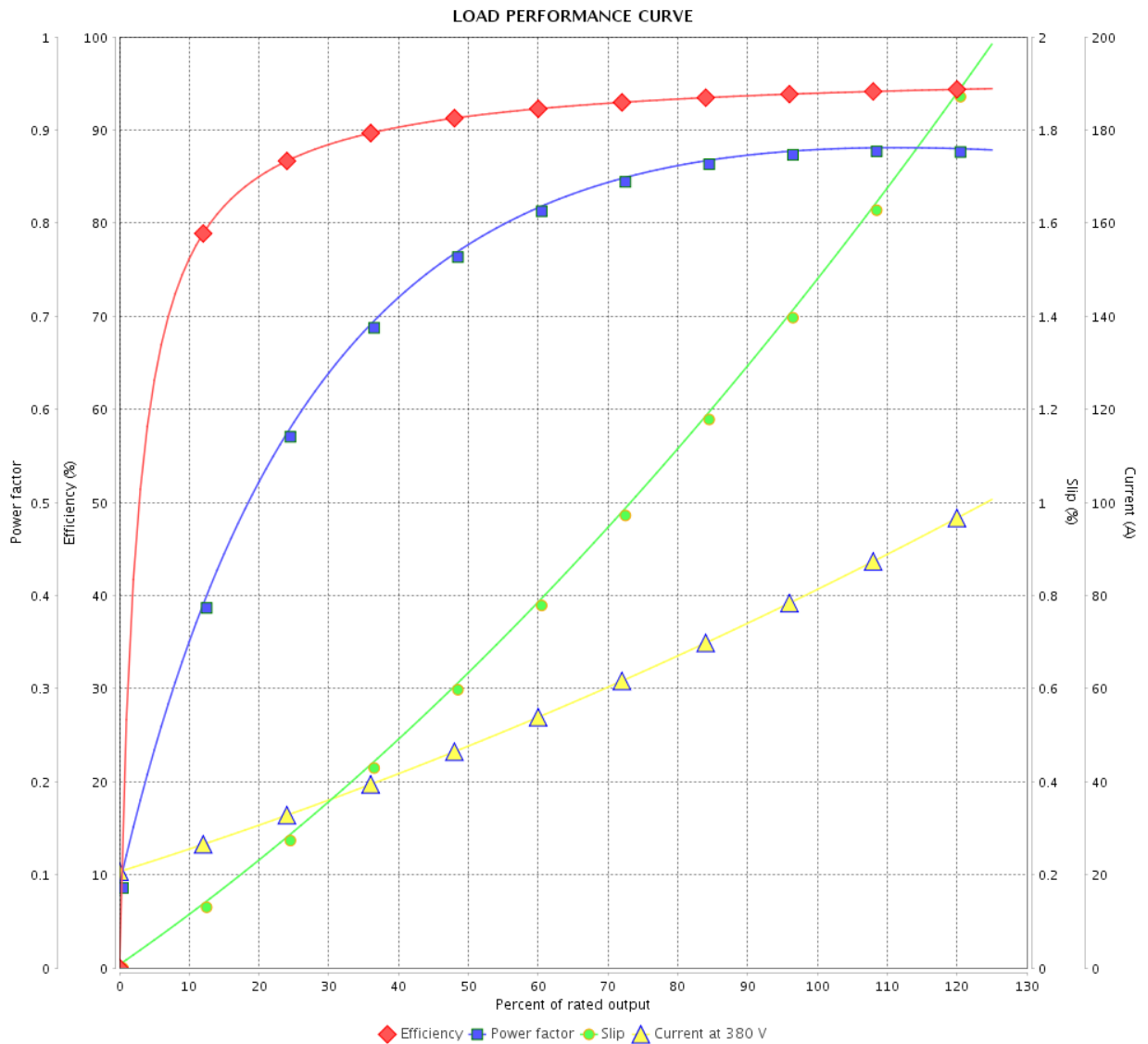


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Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14270958

Catalog # : 07536OT3G364TS-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 82.7 A  
 LRC : 7.0  
 Rated torque : 107 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 2955 rpm

Moment of inertia (J) : 6.40 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



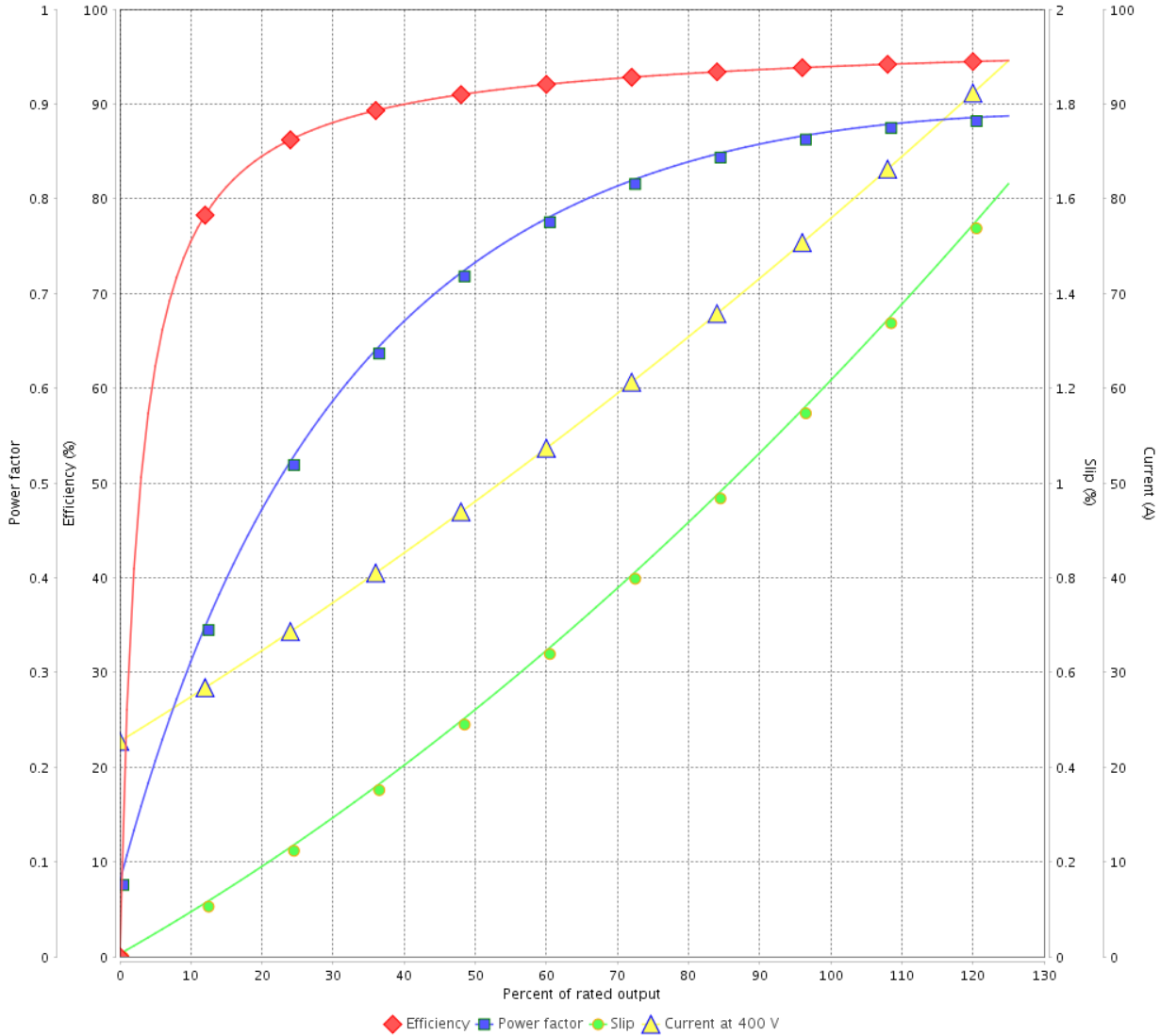
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Product code : 14270958

Catalog # : 07536OT3G364TS-W40

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 79.4 A  
LRC : 7.4  
Rated torque : 106 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 250 %  
Rated speed : 2963 rpm

Moment of inertia (J) : 6.40 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

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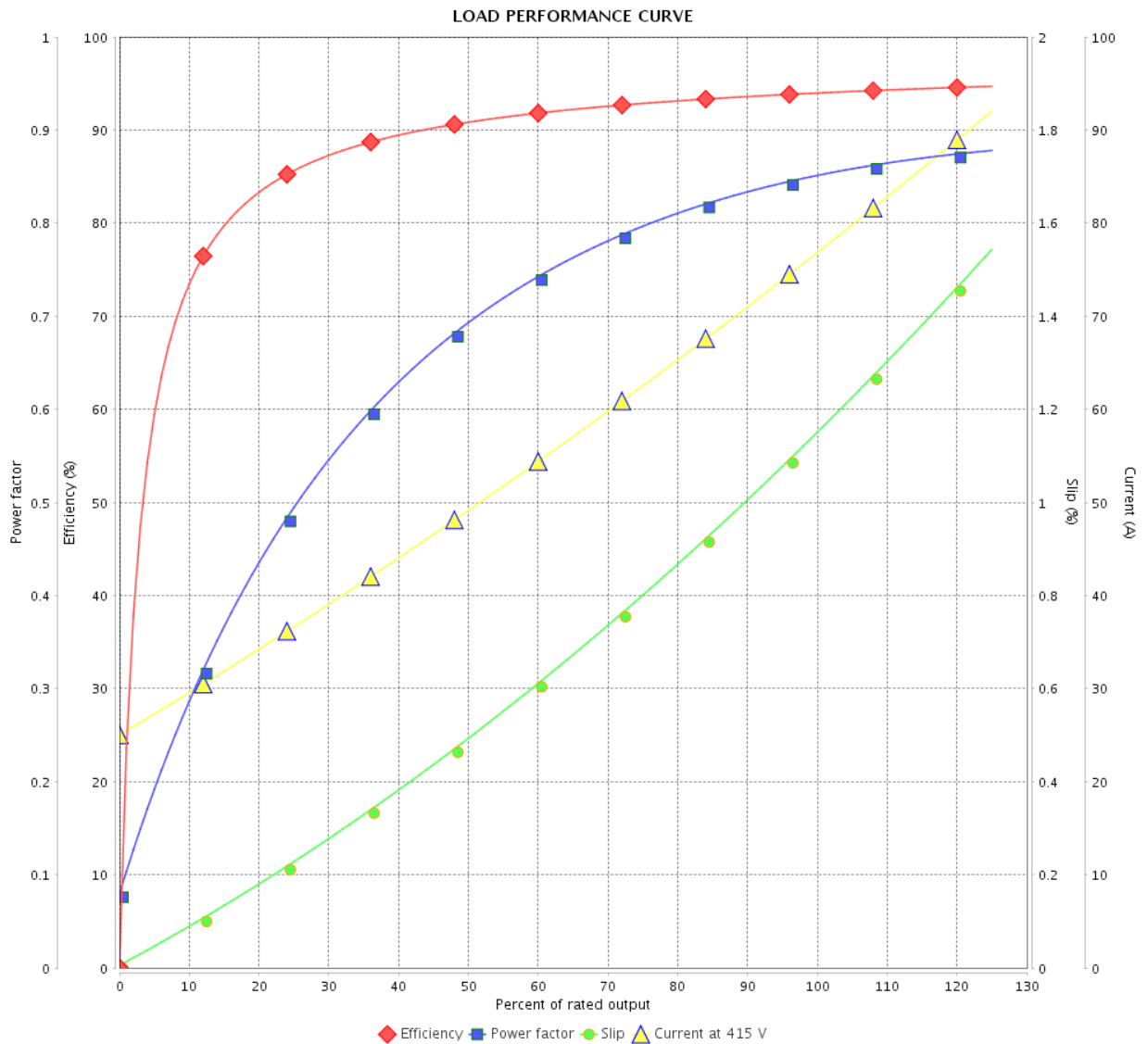


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Product code : 14270958

Catalog # : 07536OT3G364TS-W40



Performance : 415 V 50 Hz 2P IE3

Rated current : 78.4 A  
 LRC : 7.5  
 Rated torque : 106 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 280 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 6.40 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



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Locked rotor torque	: 200 %	Service factor	: 1.25
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Rated speed	: 3555 rpm	Design	: B

Heating constant

Cooling constant

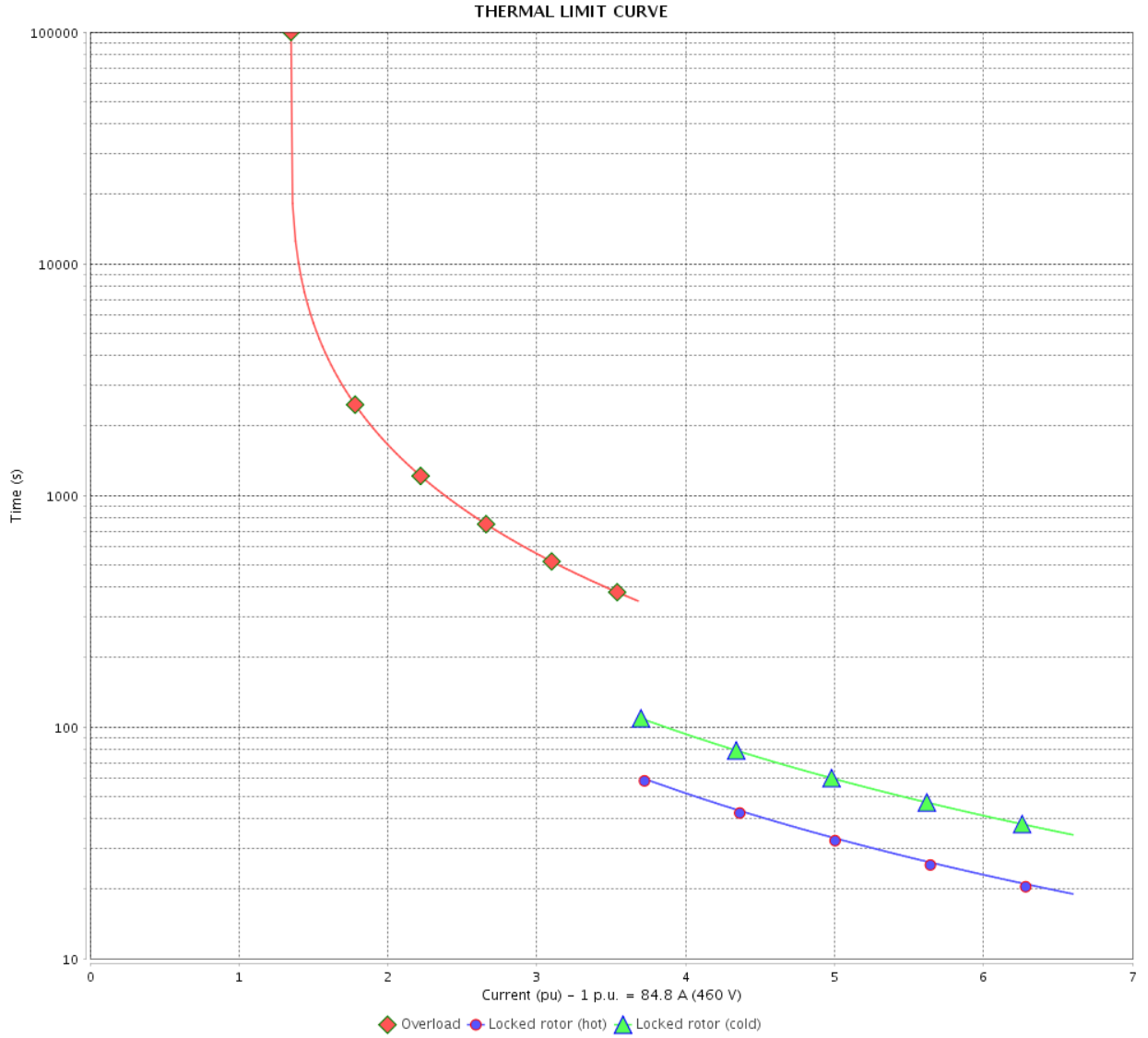
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Rated current	: 82.7 A	Moment of inertia (J)	: 6.40 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 107 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Heating constant

Cooling constant

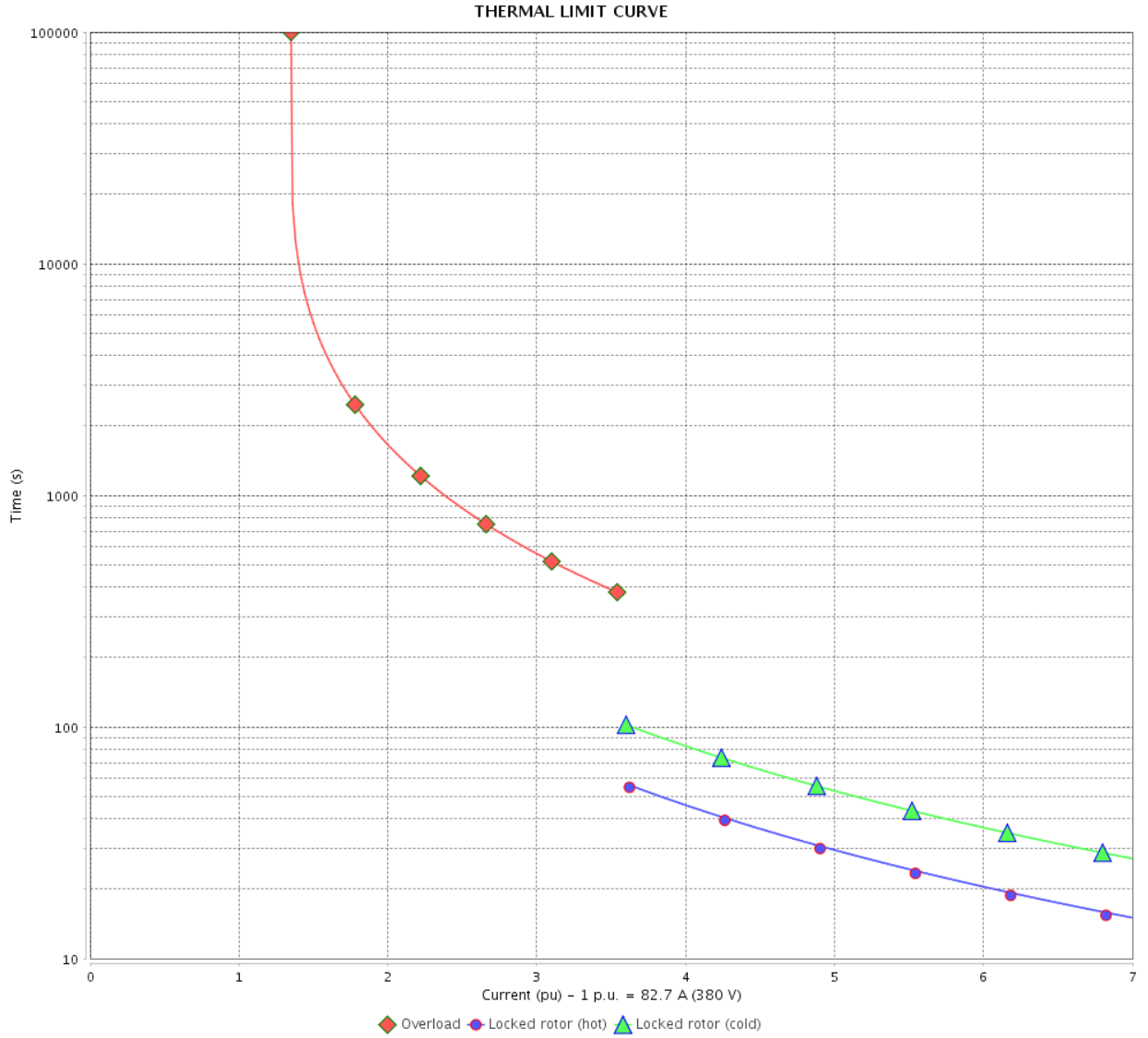
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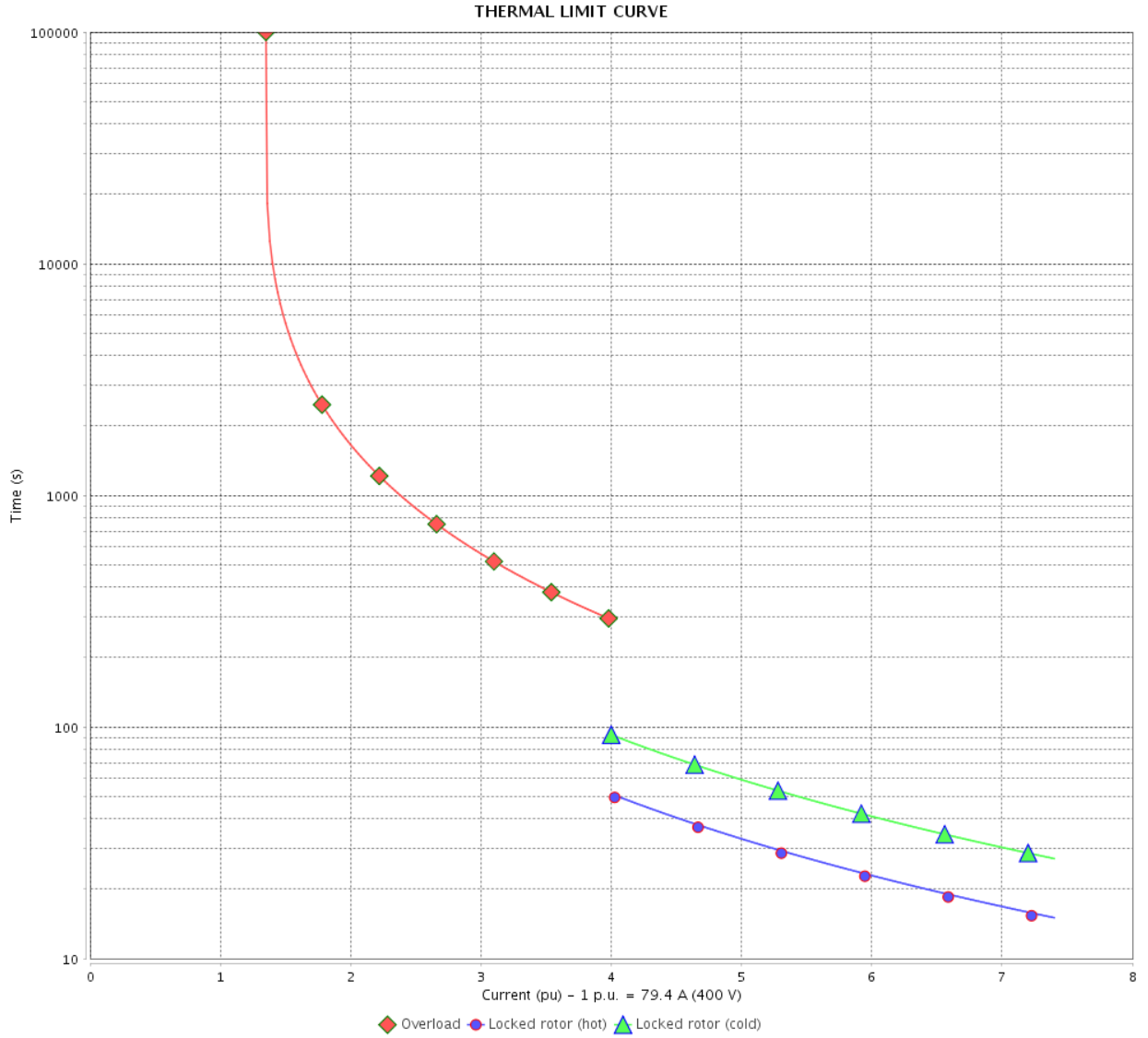
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Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
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Heating constant

Cooling constant

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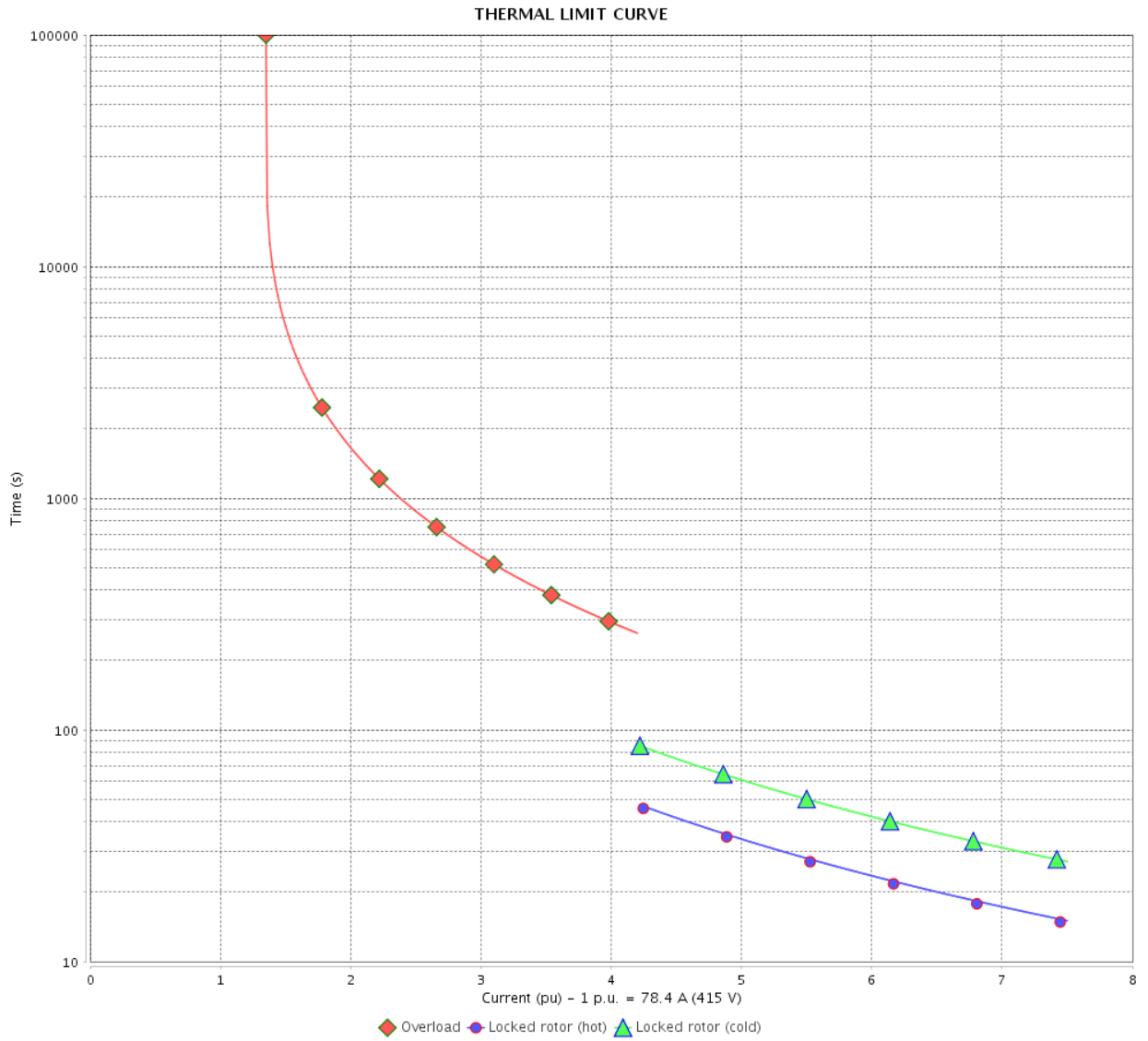


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Date				
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

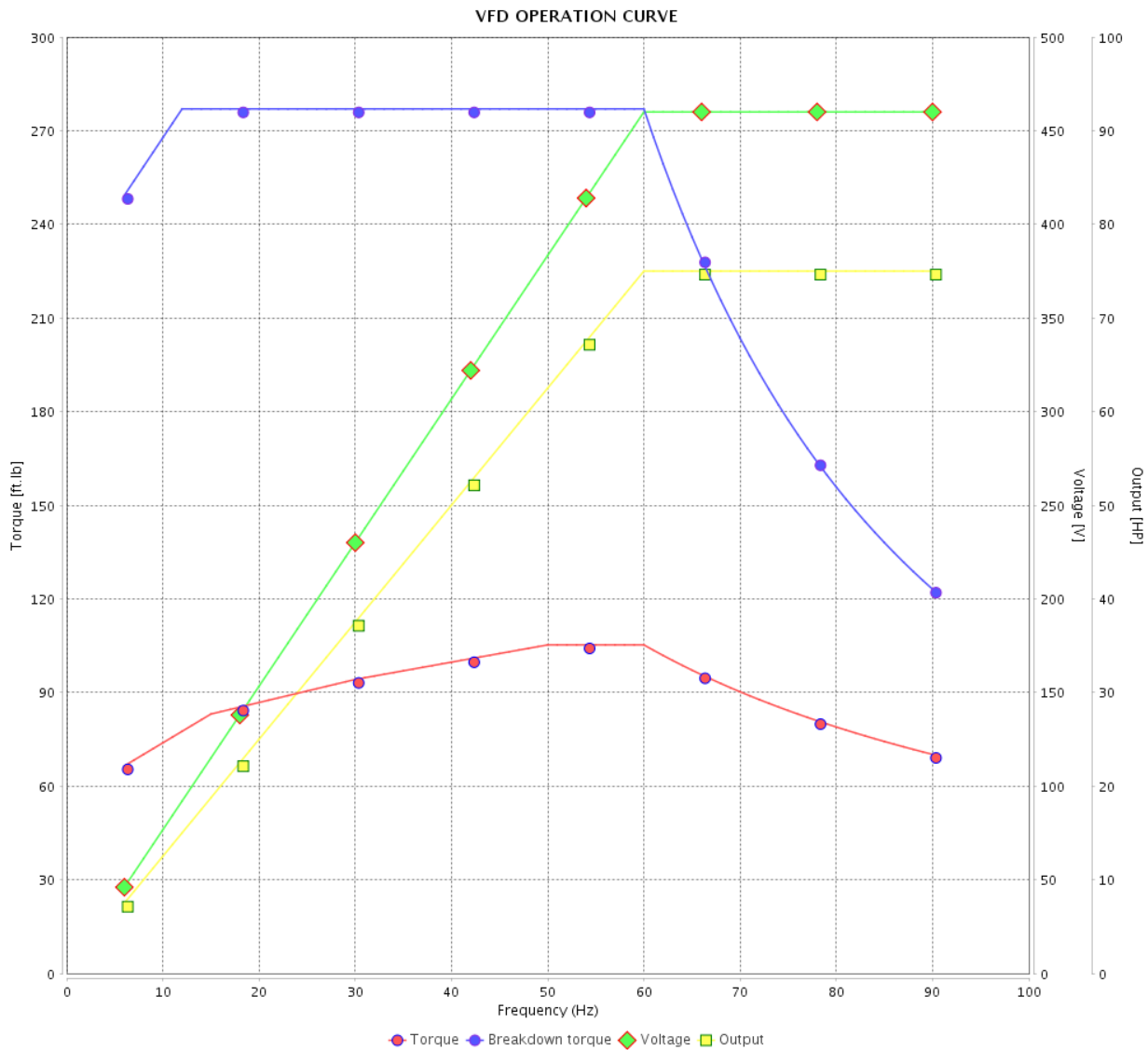


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 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 3555 rpm

Moment of inertia (J) : 6.40 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

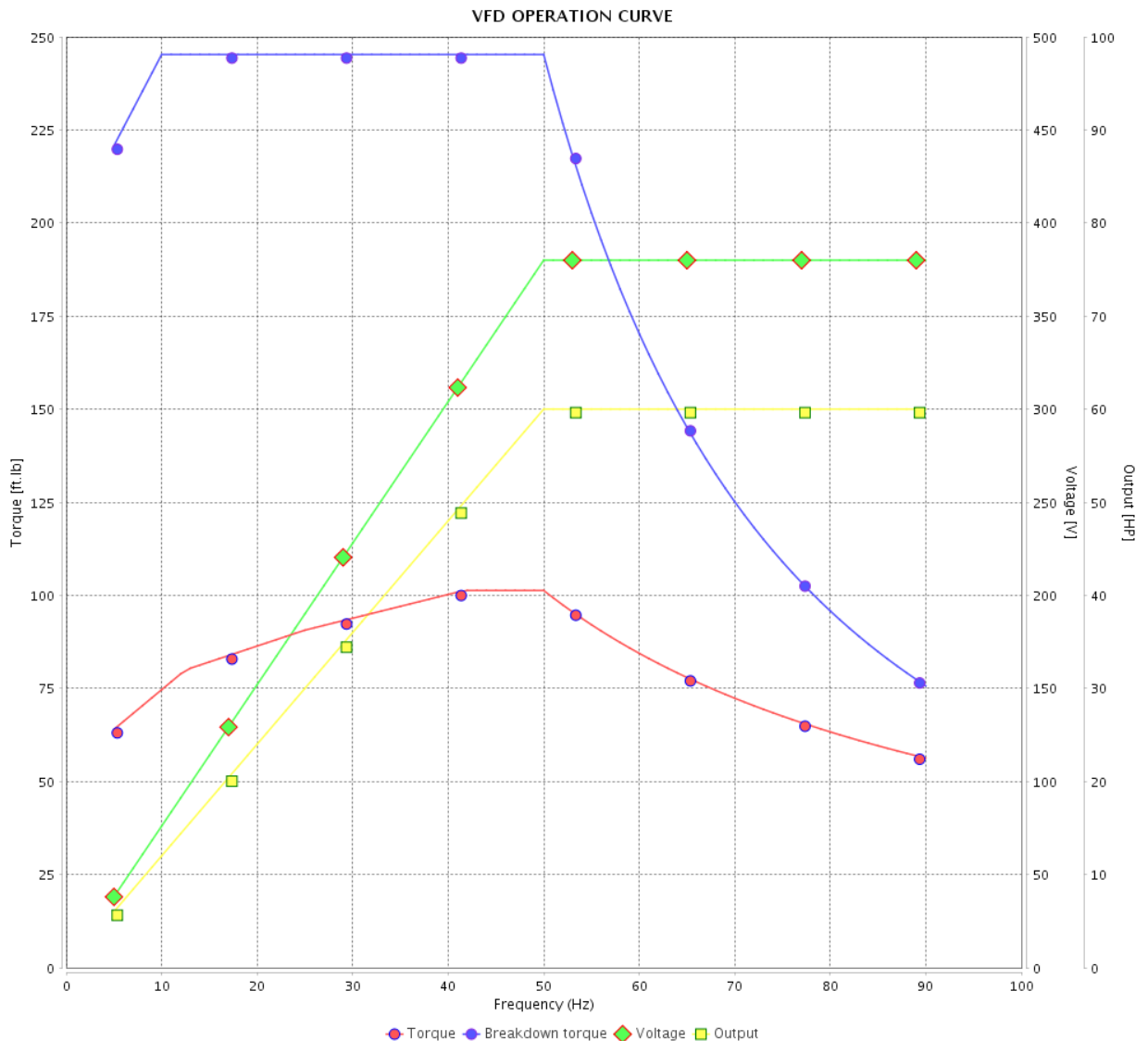


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Rated speed : 2955 rpm

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Insulation class : F  
Service factor : 1.00  
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Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



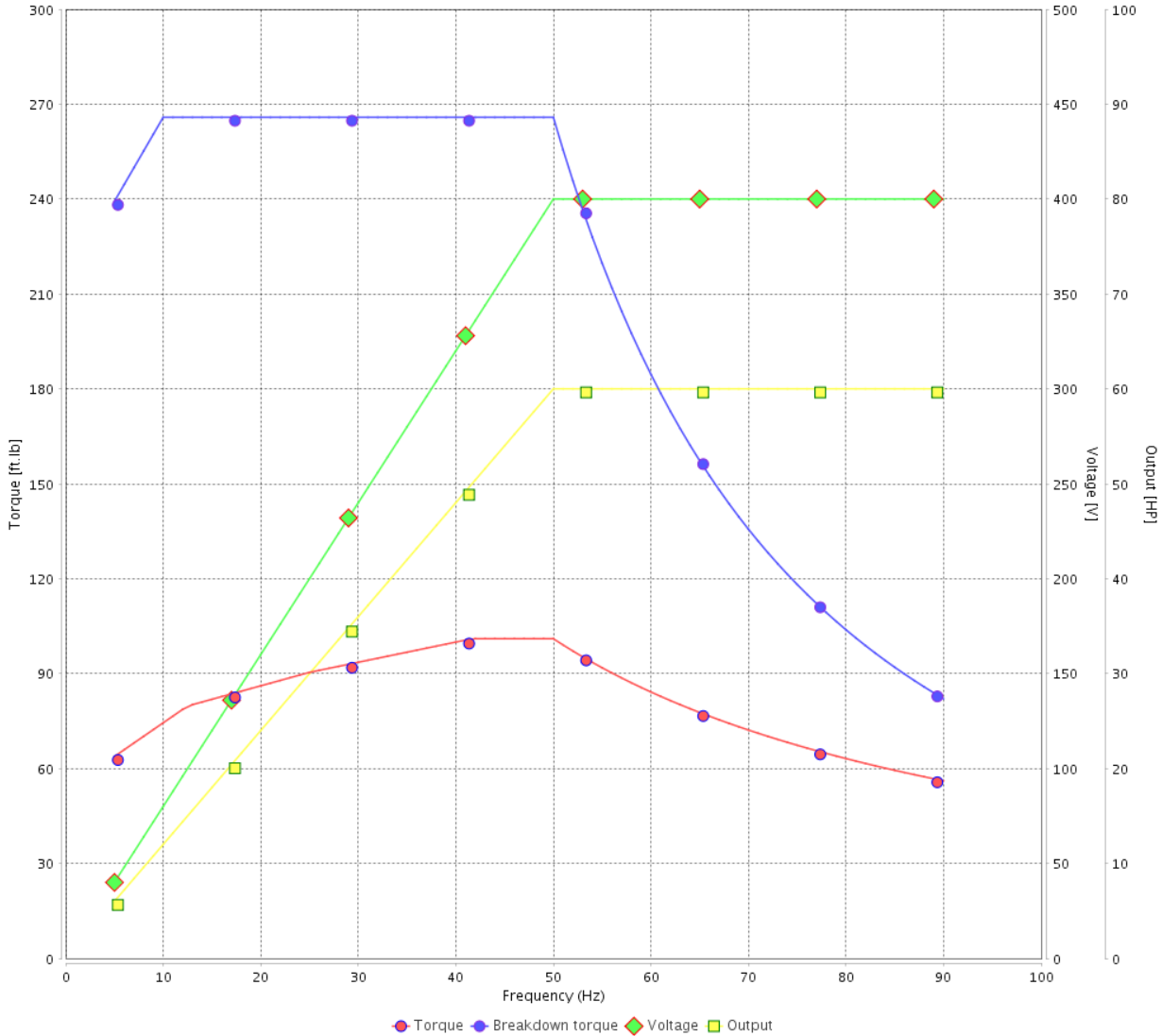
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VFD OPERATION CURVE



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Three Phase Induction Motor - Squirrel Cage

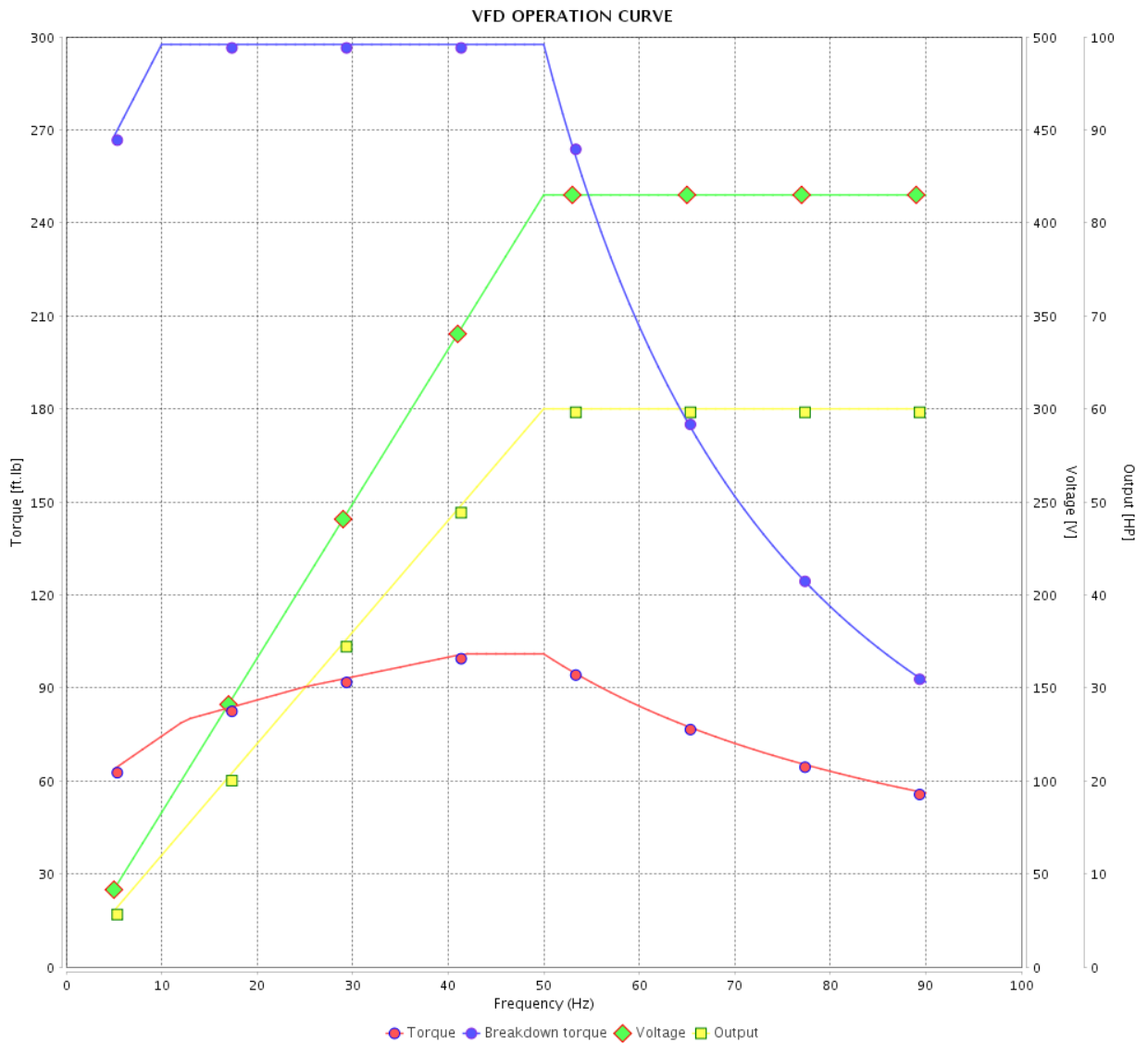


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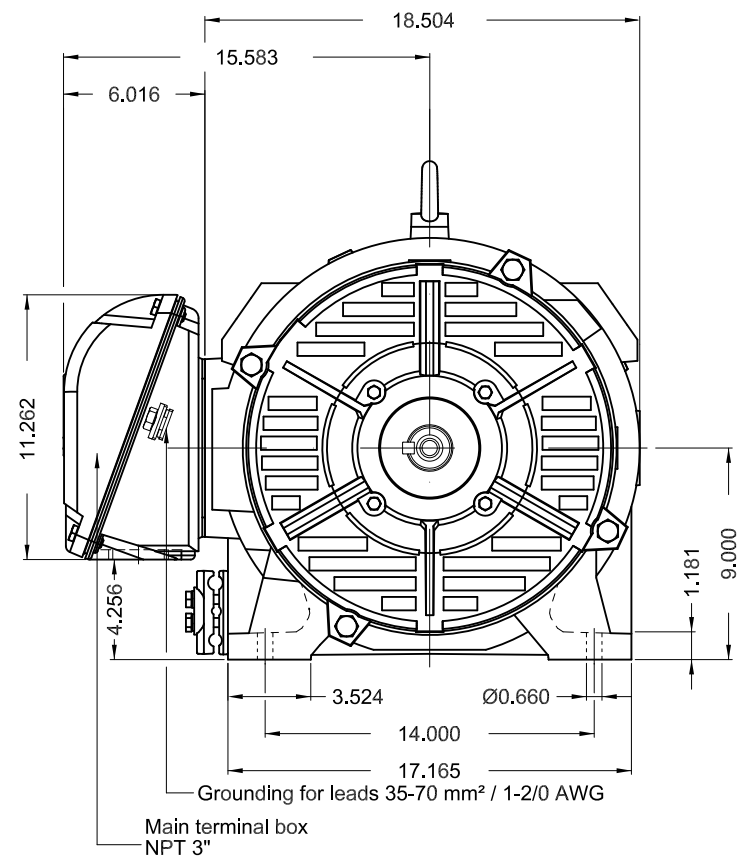


Performance : 415 V 50 Hz 2P IE3

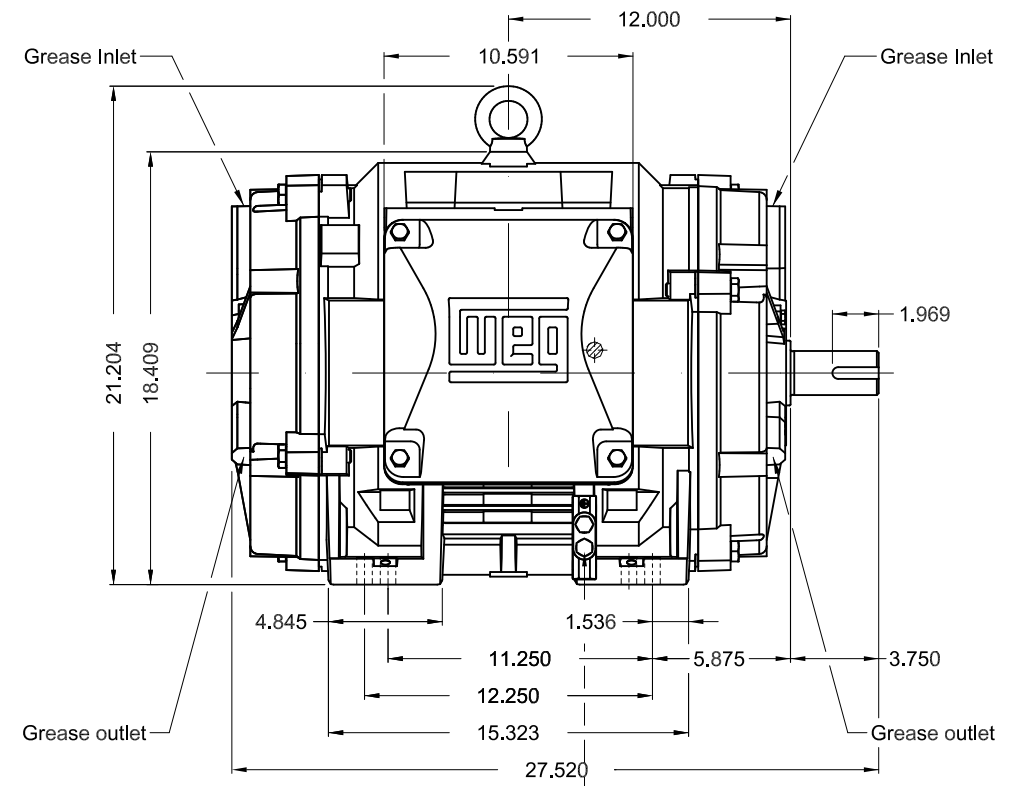
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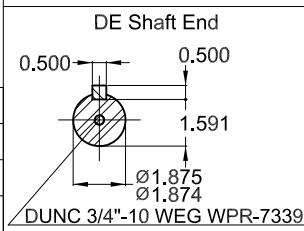


Grounding for leads 35-70 mm<sup>2</sup> / 1-2/0 AWG  
Main terminal box  
NPT 3"



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

Color RAL 5009  
Painting plan 203A  
Mounting NEMA F-1  
Mounting B3R(D)



75 HP 02 Poles 60 Hz

A

1:8

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

PREVIEW  
WDD



SHEET 1 / 1

MODEL 075360T3G364TS-W40  
MADE IN BRAZIL  
14270958

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

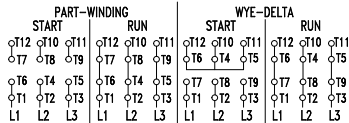



IEC 60034-1  
MOD.T01#FOXON



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

PH 3	FR 364/5TS	HP(kW) 75(55)		Hz 60
V 460		A 84.8		IP23
NEMA NOM EFF		93.6	%	RPM 3555
ENCL ODP	DUTY	CONT.		INS. CL. F $\Delta$ T 80 K
PF 0.87		DES B	CODE G	AMB. 40°C
SF 1.25		SFA 106		ALT 1000 m.a.s.l.
60HP 45kW 50Hz 380V 82.7A 2955RPM SF1.00 EFF 94.0% (IE3)				



 → 6314-C3(27g)      MOBIL POLYREX EM  
 → 6212-Z-C3(13g)      14418 h

714 Lbs