

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 JP Pump NEMA Premium Efficiency Three-Phase		Product code :	14270478
				Catalog # :	07536OT3G364JP-W40
Frame	: 364/5JP	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>	: 743 lb		
Protection degree	: IP23	Moment of inertia (J)	: 6.40 sq.ft.lb		
Design	: B				
Output [HP]	75	60	60	60	60
Poles	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	460	380	400	415	415
Rated current [A]	84.8	82.7	79.4	78.4	78.4
L. R. Amperes [A]	560	579	588	588	588
LRC [A]	6.6x(Code G)	7.0x(Code H)	7.4x(Code H)	7.5x(Code H)	7.5x(Code H)
No load current [A]	21.5	20.7	22.7	25.0	25.0
Rated speed [RPM]	3555	2955	2963	2965	2965
Slip [%]	1.25	1.50	1.23	1.17	1.17
Rated torque [ft.lb]	111	107	106	106	106
Locked rotor torque [%]	200	190	220	220	220
Breakdown torque [%]	250	229	250	280	280
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)	27s (cold) 15s (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	89.7
	50%	91.7	91.7	91.4	91.0
	75%	93.0	92.9	92.8	92.7
	100%	93.6	94.0	94.0	94.0
Power Factor	25%	0.56	0.56	0.51	0.47
	50%	0.77	0.78	0.73	0.69
	75%	0.84	0.85	0.83	0.80
	100%	0.87	0.88	0.87	0.85
Bearing type	: <u>Drive end</u> 6314 C3 <u>Non drive end</u> 6212 Z C3	Foundation loads			
Sealing	: Without Without	Max. traction : 648 lb			
	: Bearing Seal Bearing Seal	Max. compression : 1391 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



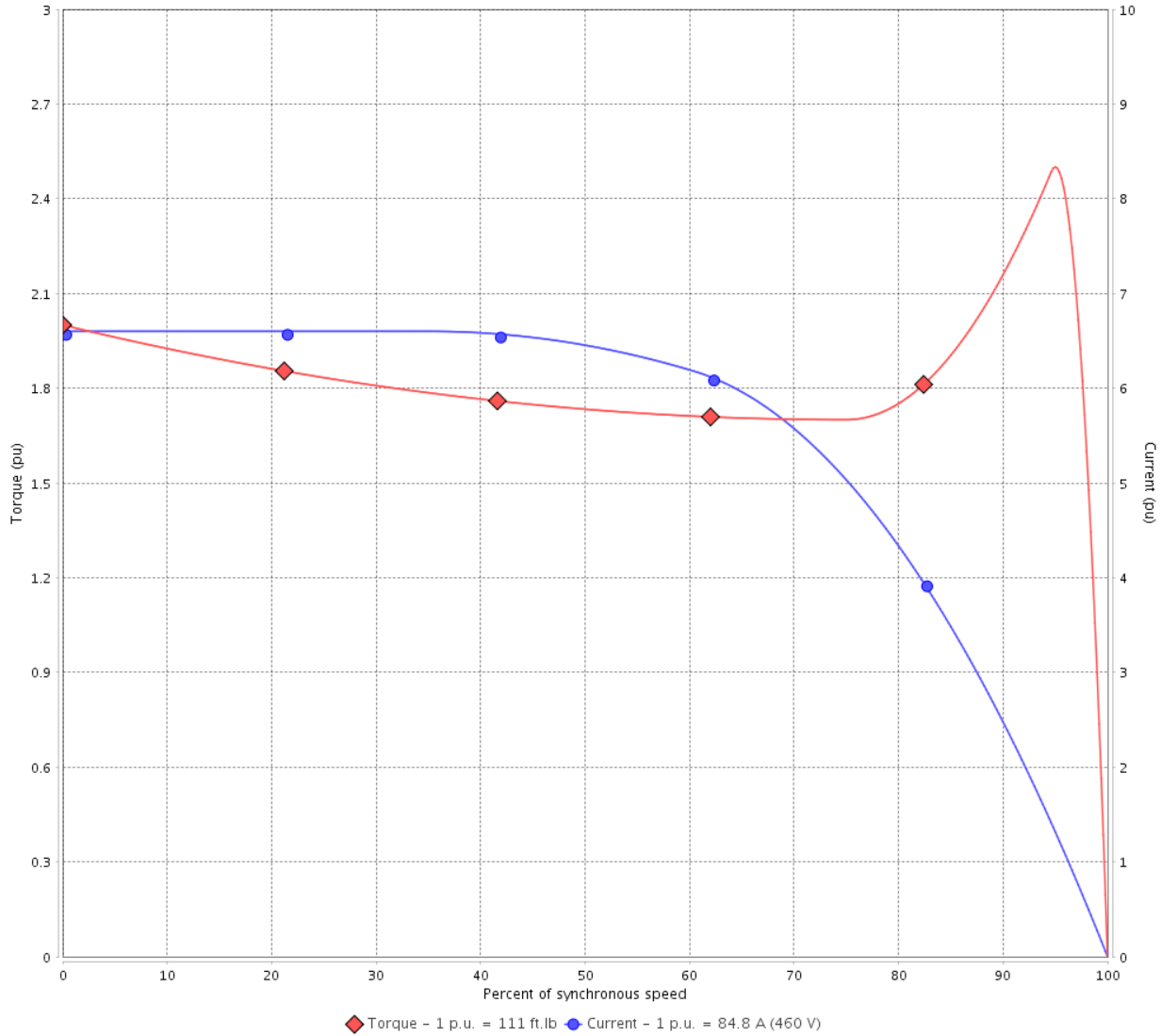
Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14270478

Catalog # : 07536OT3G364JP-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



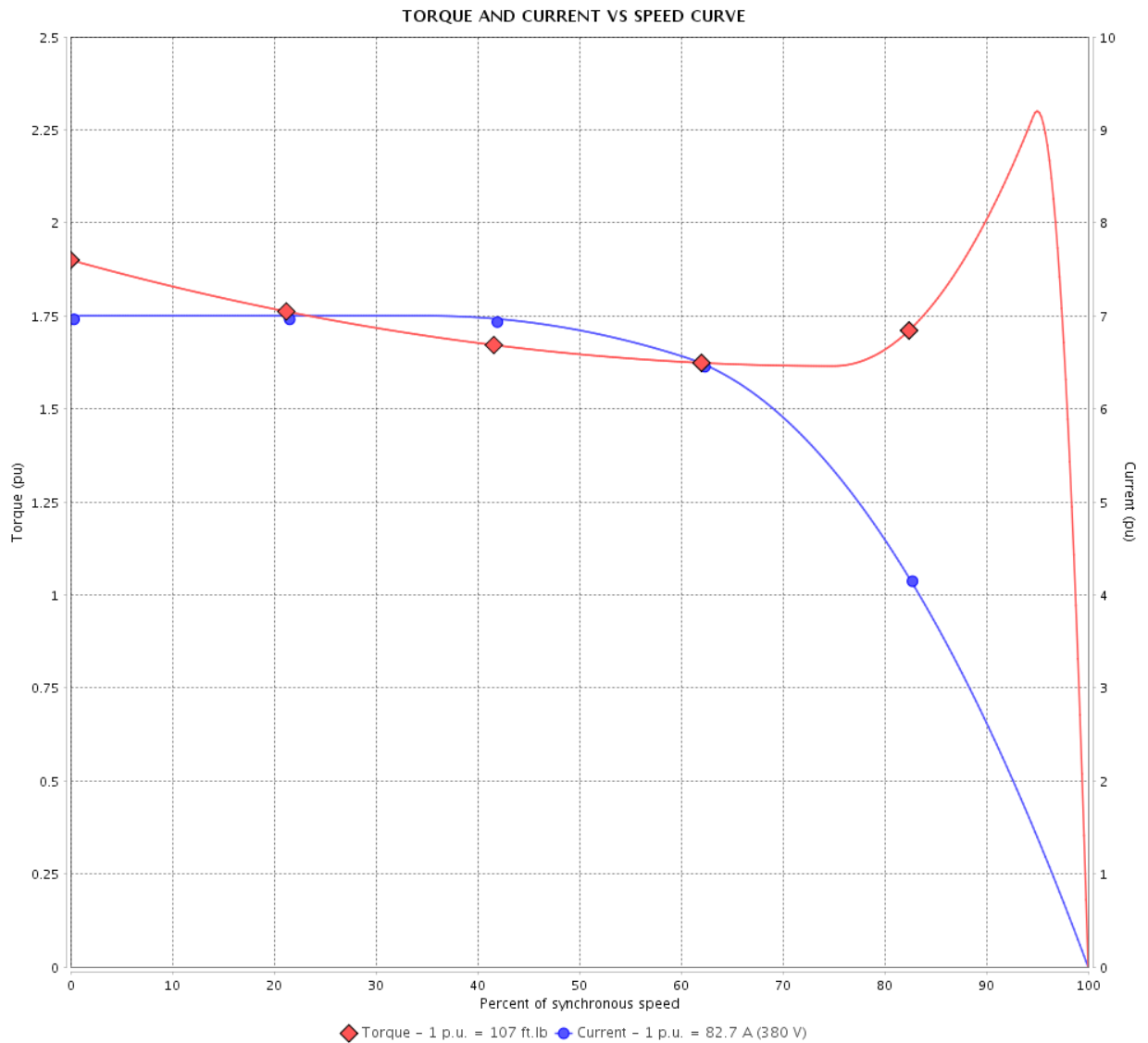
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14270478

Catalog # : 07536OT3G364JP-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



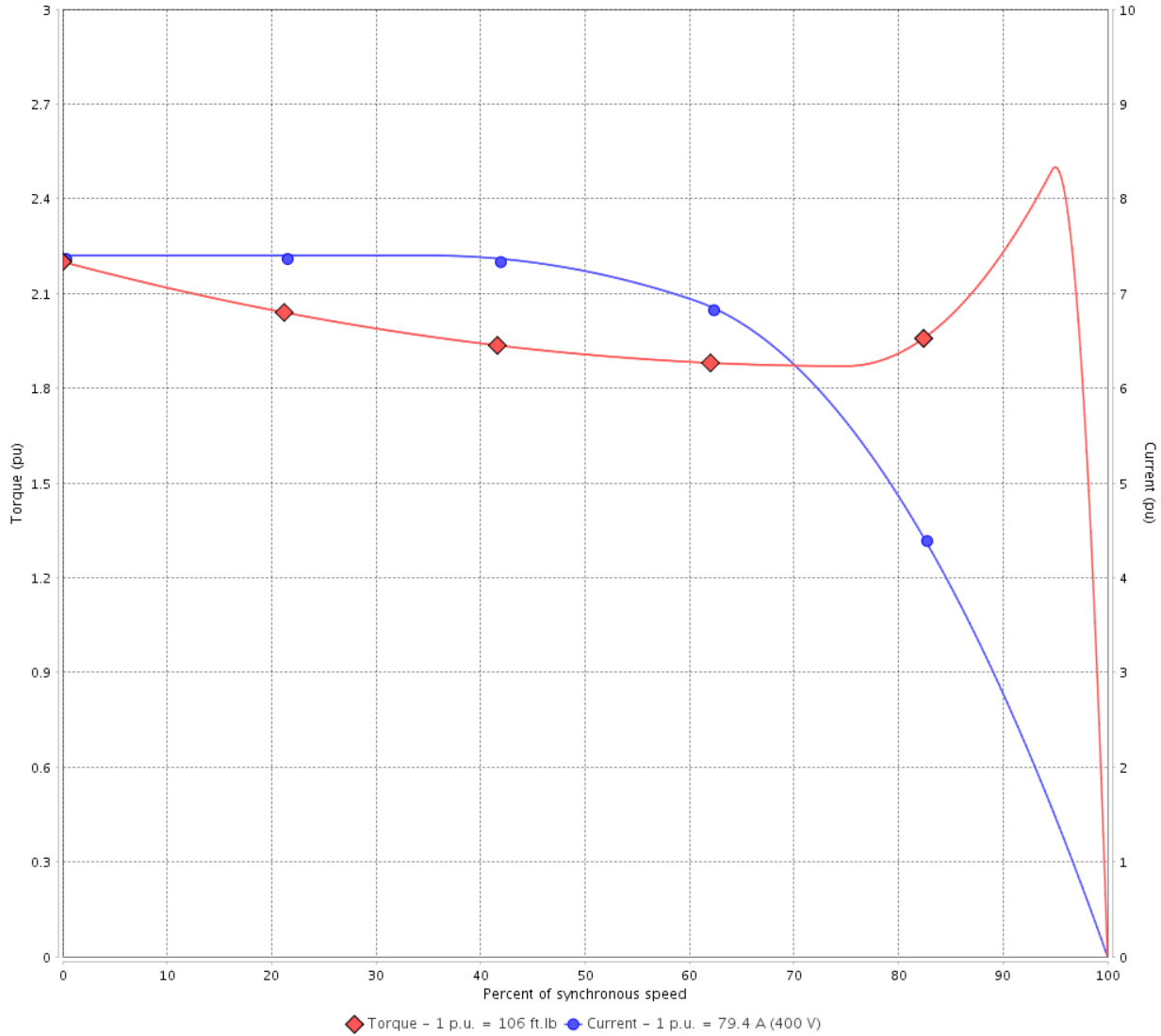
Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14270478

Catalog # : 07536OT3G364JP-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



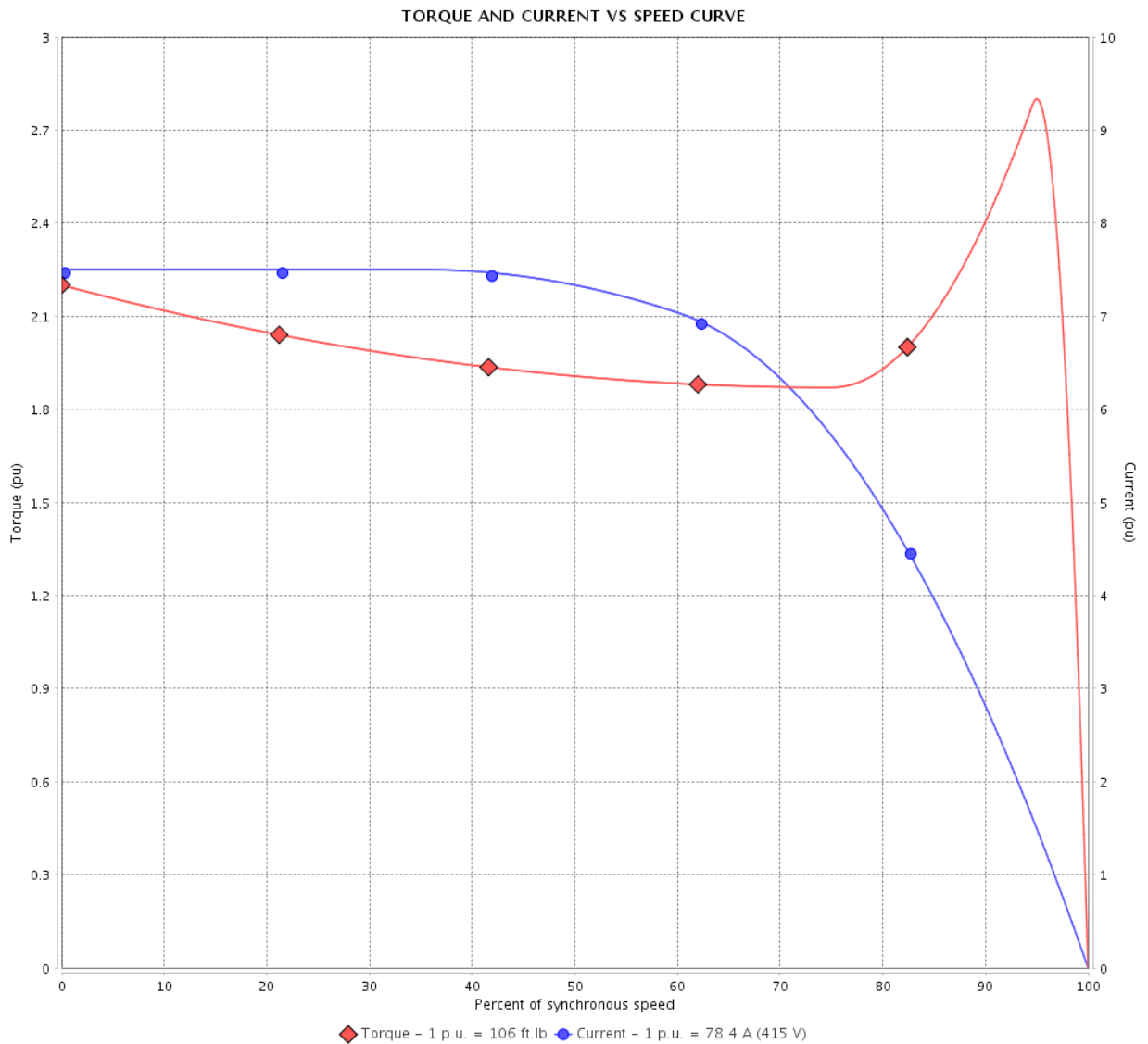
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Product code : 14270478

Catalog # : 07536OT3G364JP-W40



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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

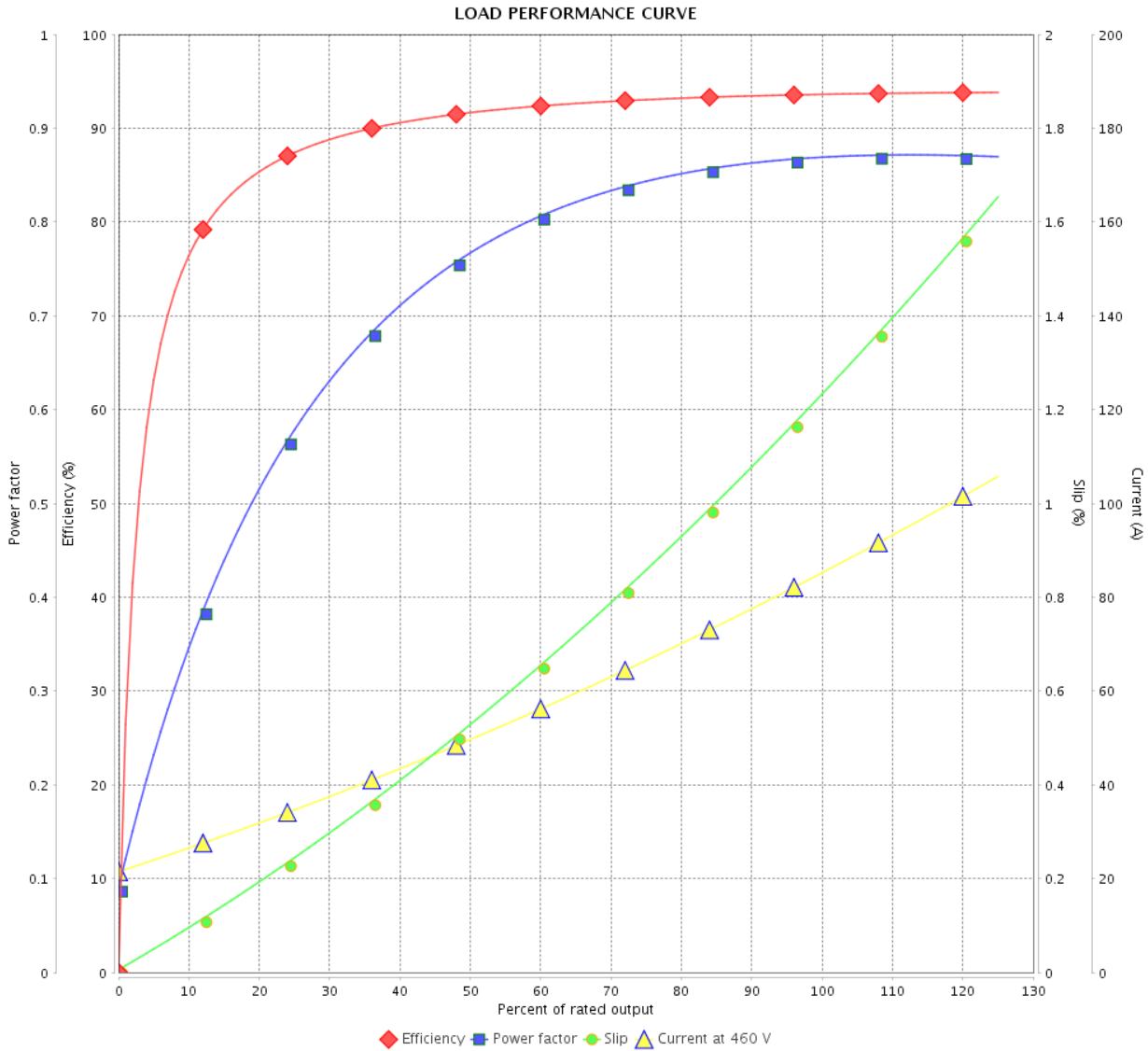


Customer :

Product line : W40 JP Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14270478

Catalog # : 07536OT3G364JP-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

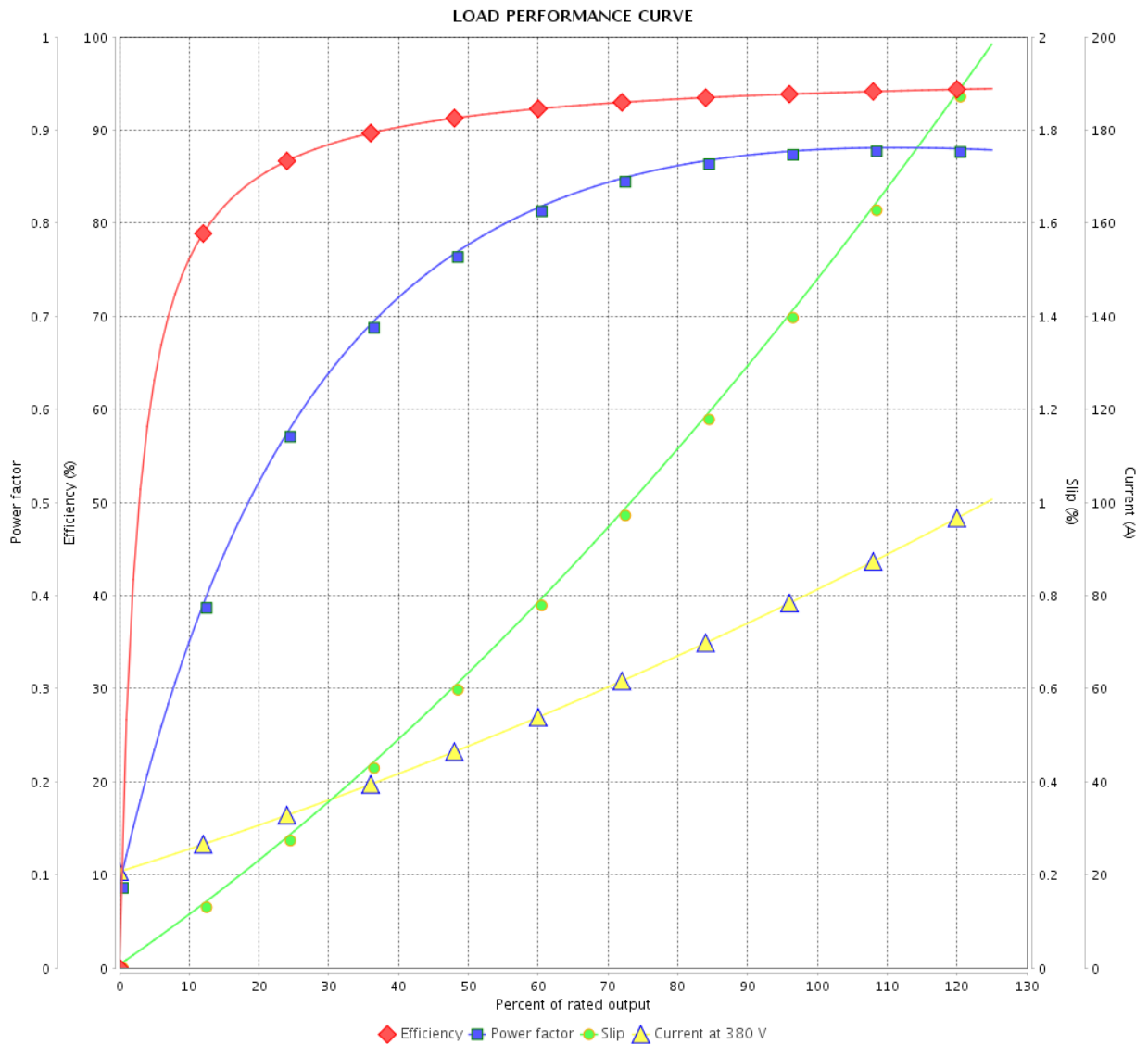


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Product code : 14270478

Catalog # : 07536OT3G364JP-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

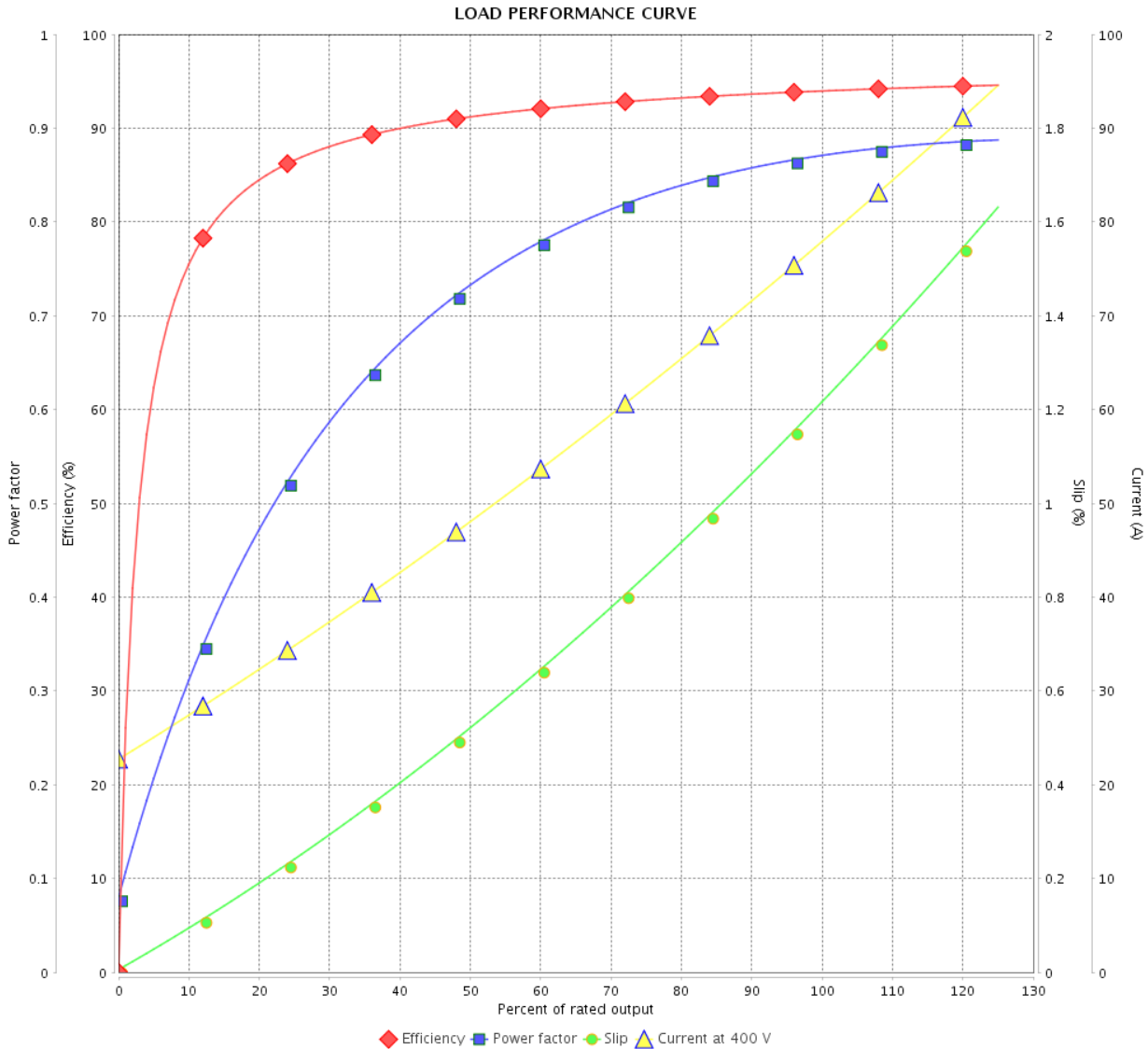


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Product code : 14270478

Catalog # : 07536OT3G364JP-W40



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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Date				



# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

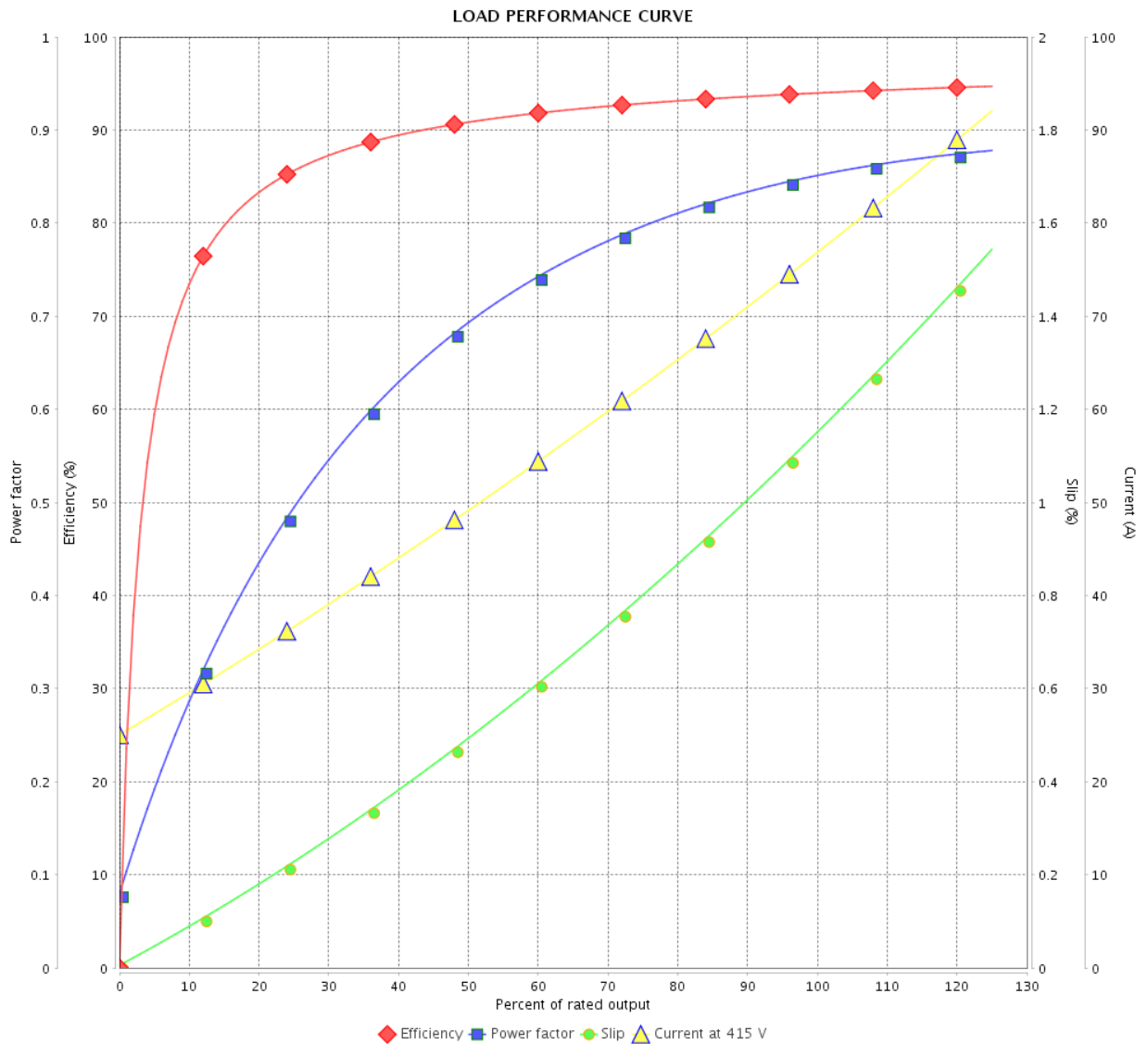


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 LRC : 7.5  
 Rated torque : 106 ft.lb  
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 Breakdown torque : 280 %  
 Rated speed : 2965 rpm

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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Insulation class : F  
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Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

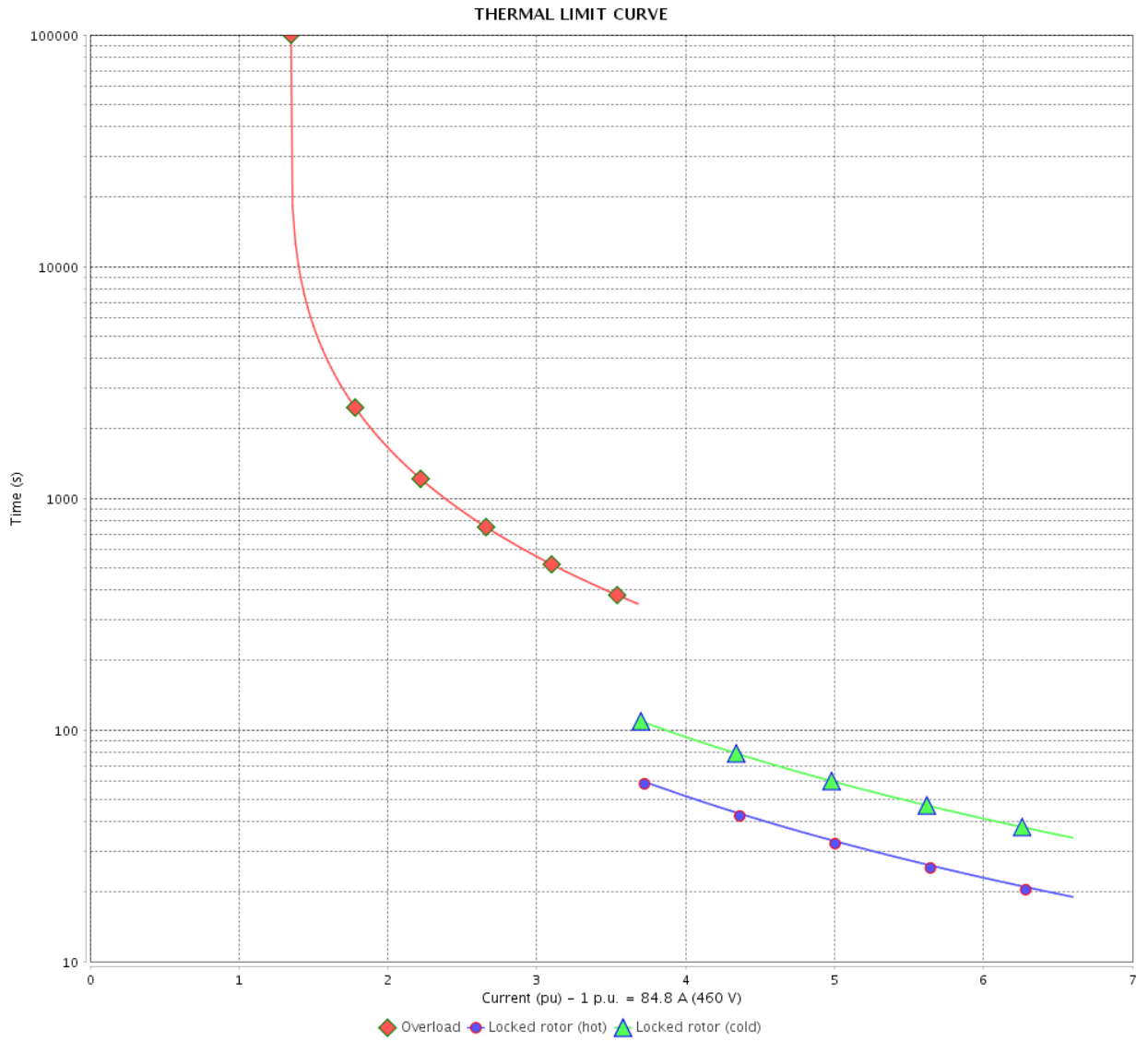
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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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

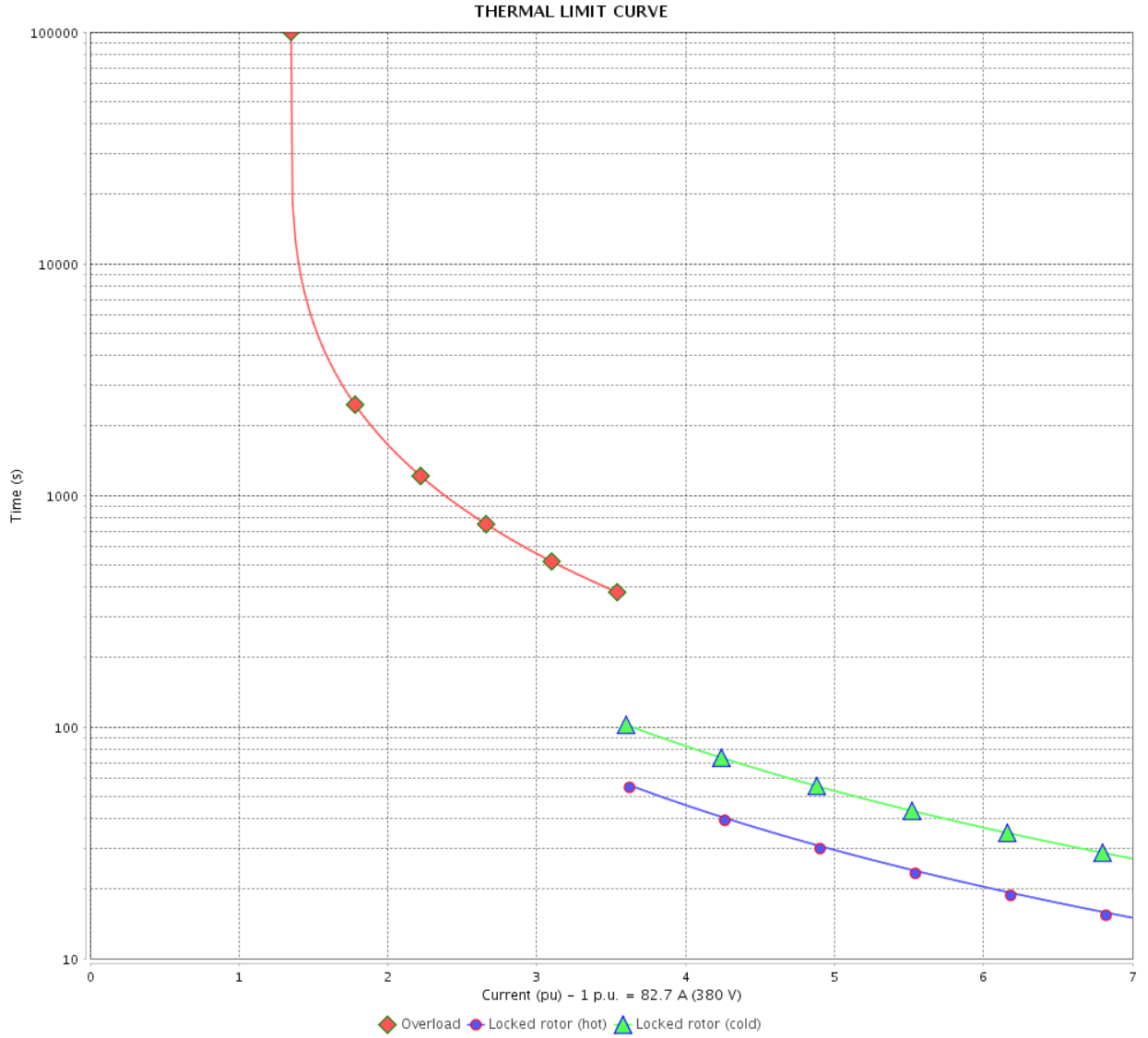
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



Rev.	Changes Summary	Performed	Checked	Date
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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
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Rated speed	: 2963 rpm	Design	: B

Heating constant

Cooling constant

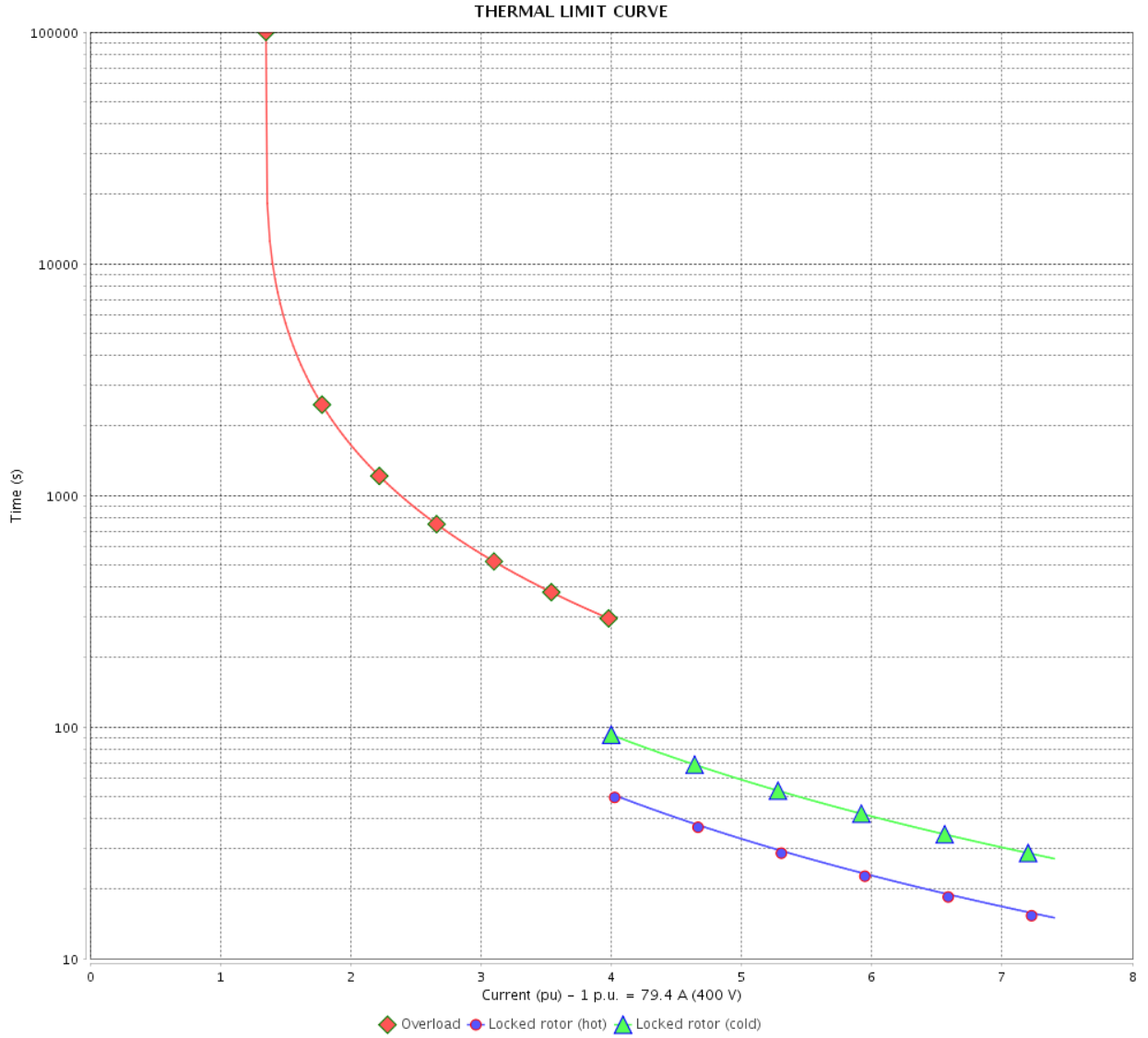
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Checked by				
Date				

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JP Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14270478

Catalog # : 07536OT3G364JP-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

Heating constant

Cooling constant

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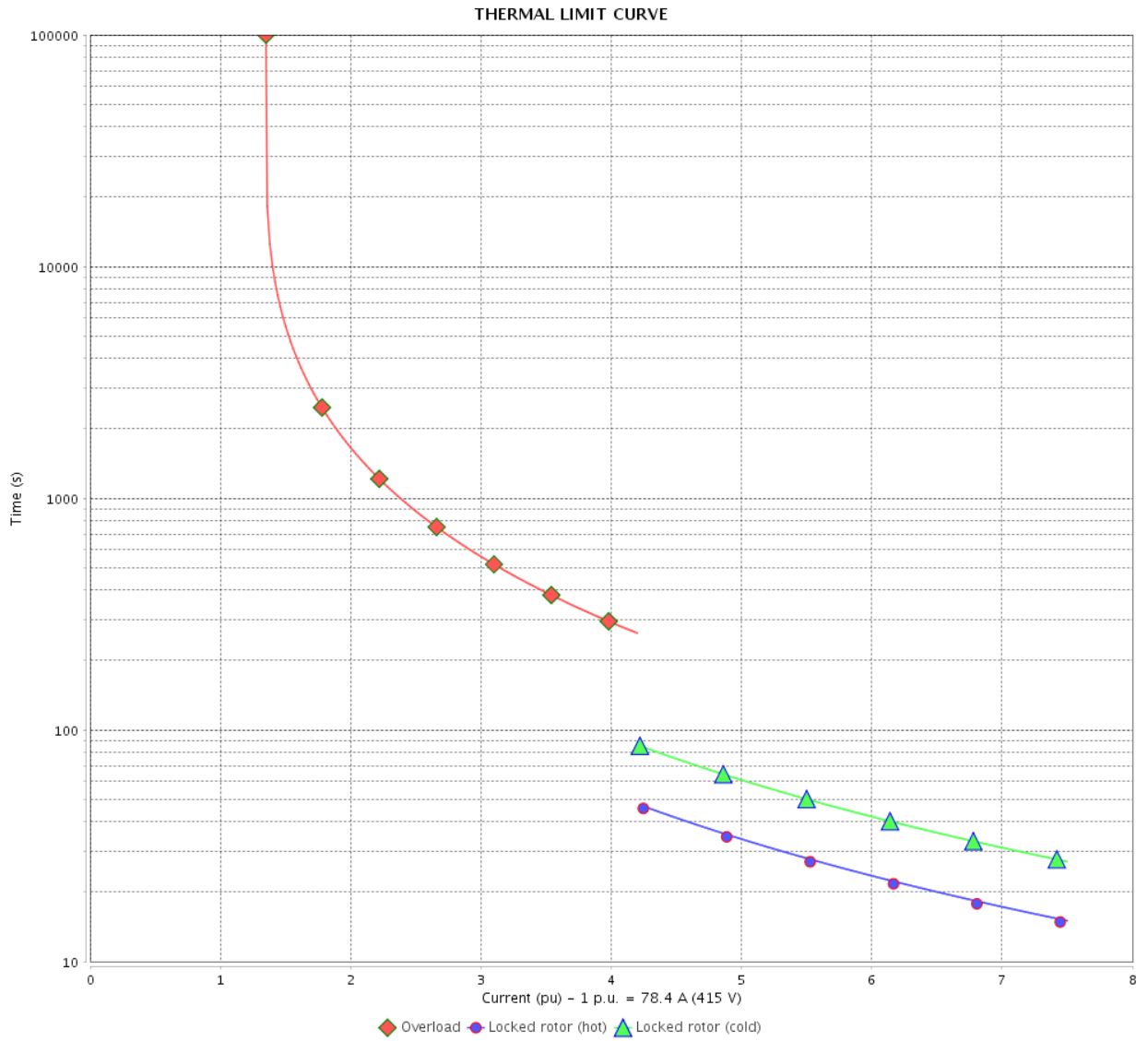


# THERMAL LIMIT CURVE

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Rev.	Changes Summary	Performed	Checked	Date
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Date		13/04/2022		

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



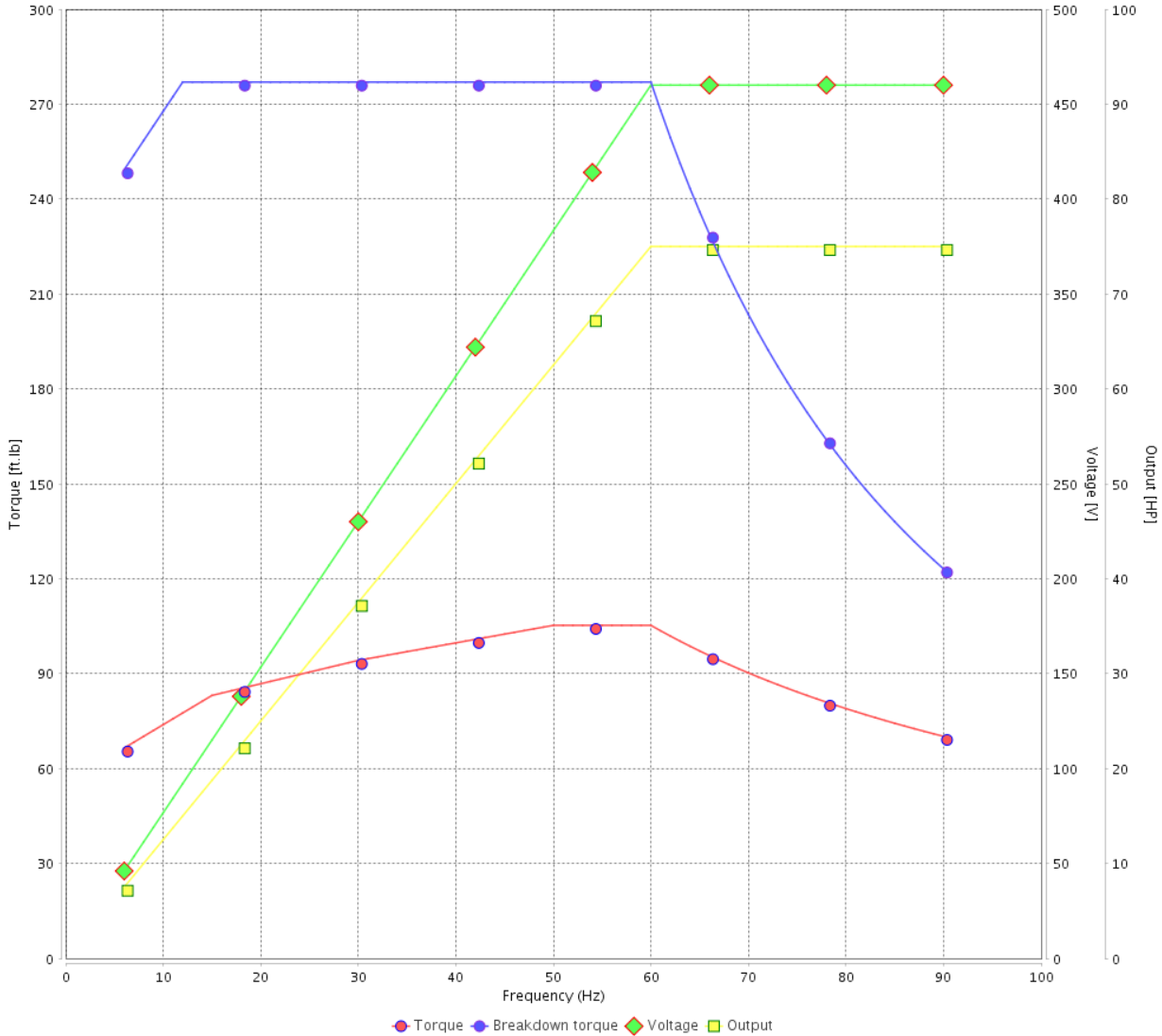
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VFD OPERATION CURVE



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

Rev.	Changes Summary	Performed	Checked	Date
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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

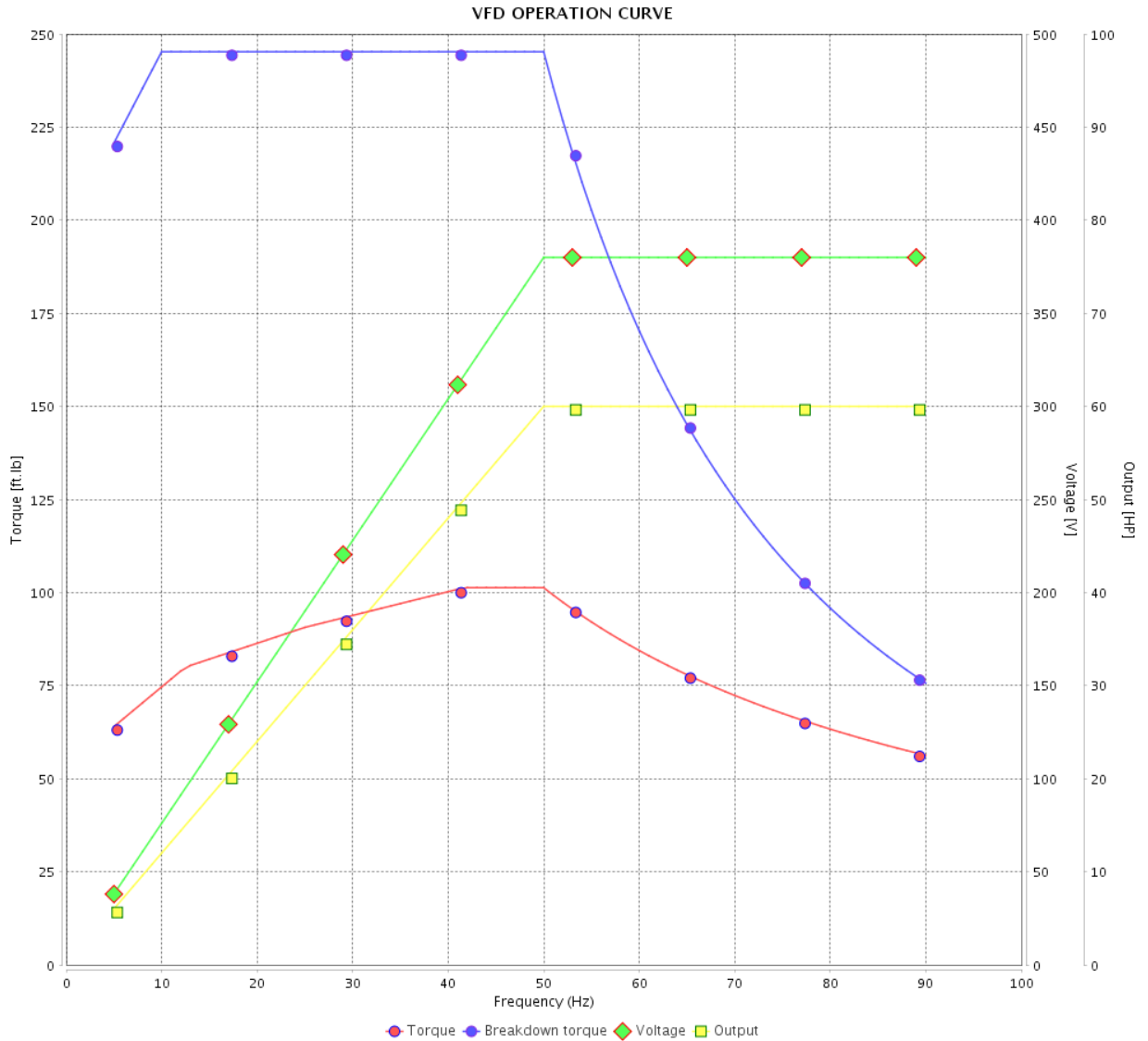


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Product code : 14270478

Catalog # : 07536OT3G364JP-W40



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Rated current : 82.7 A  
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 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 2955 rpm

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 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

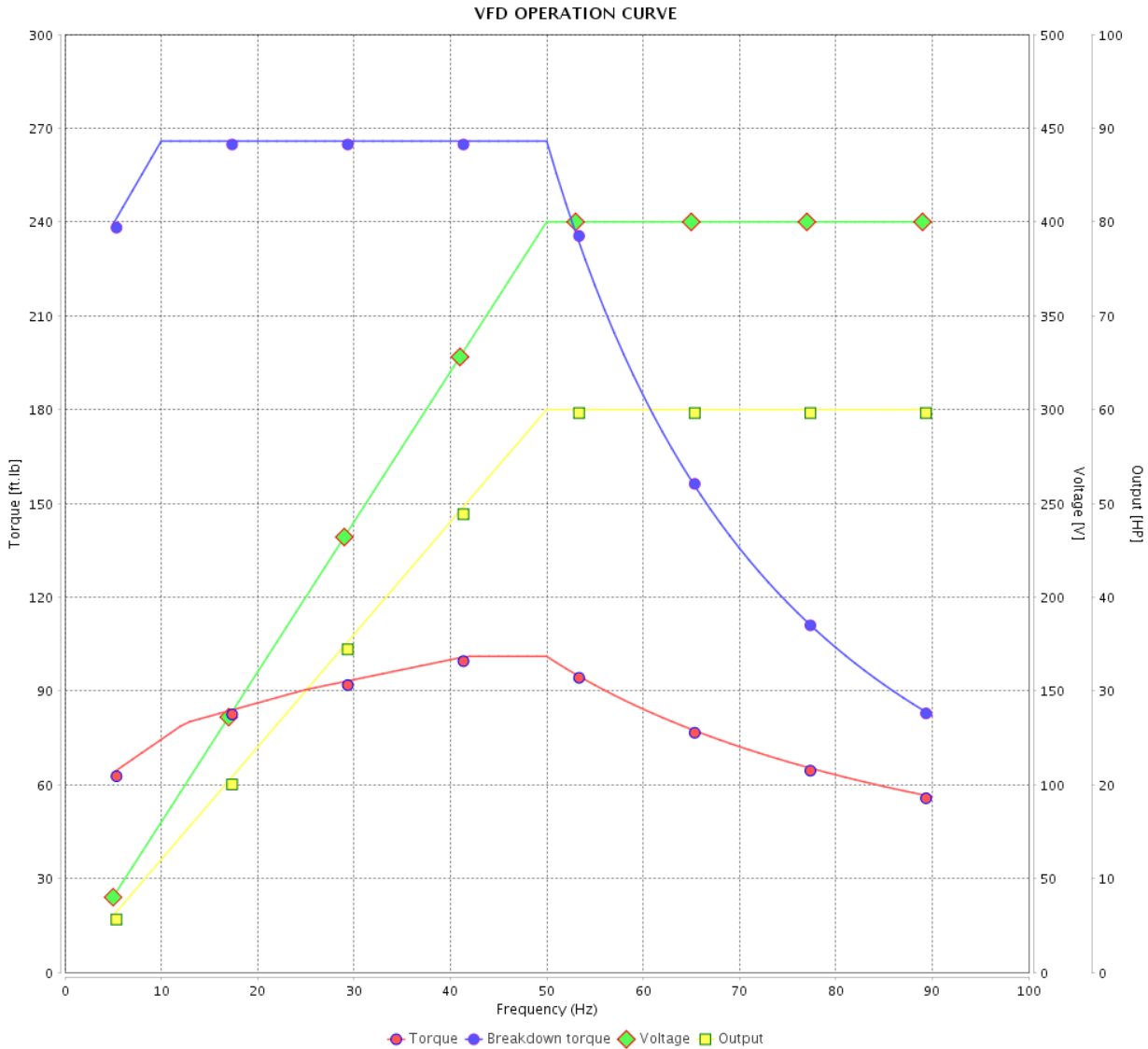


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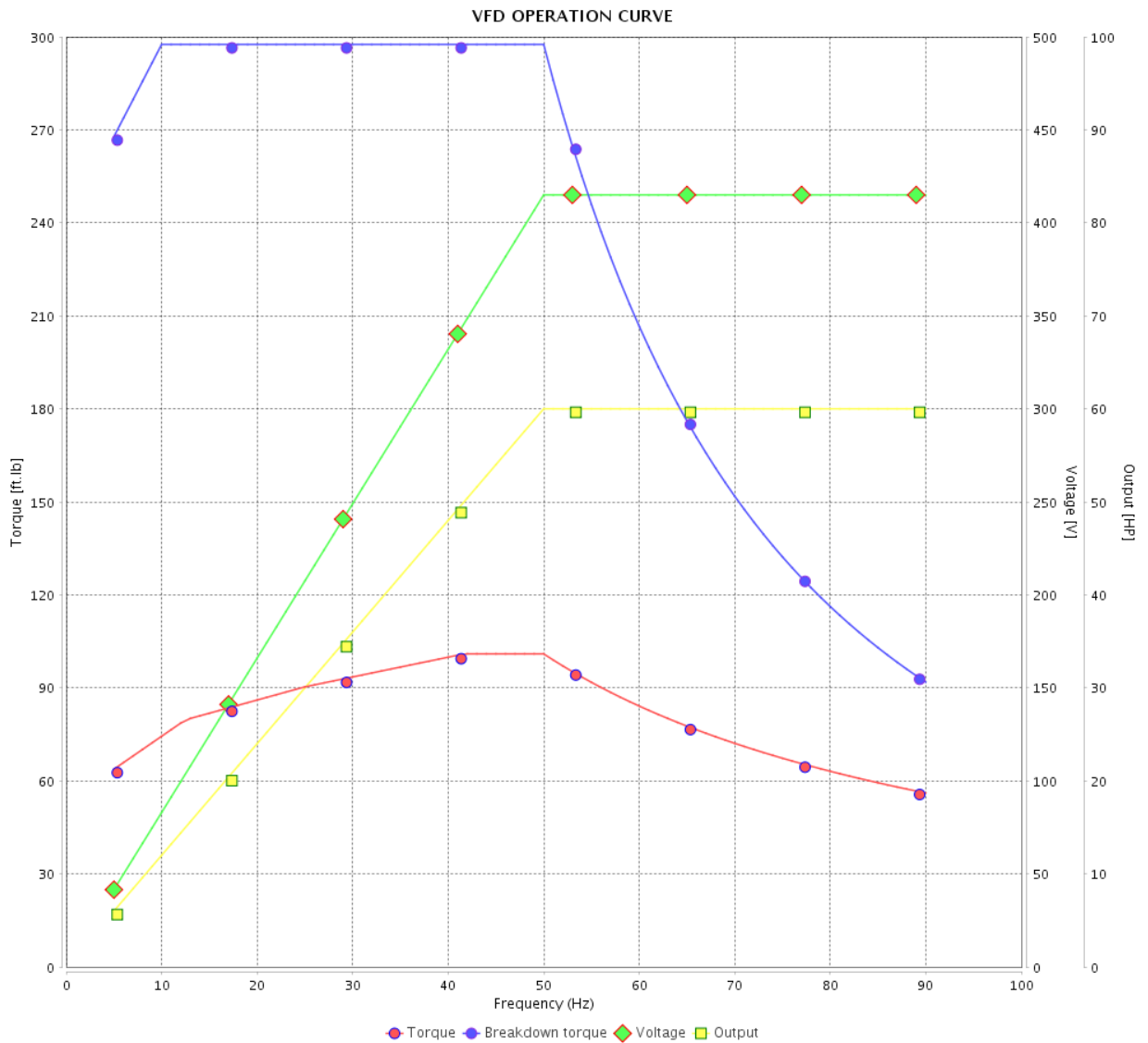


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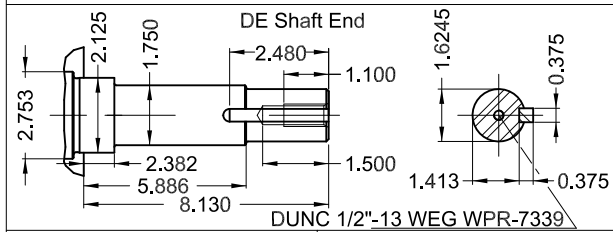
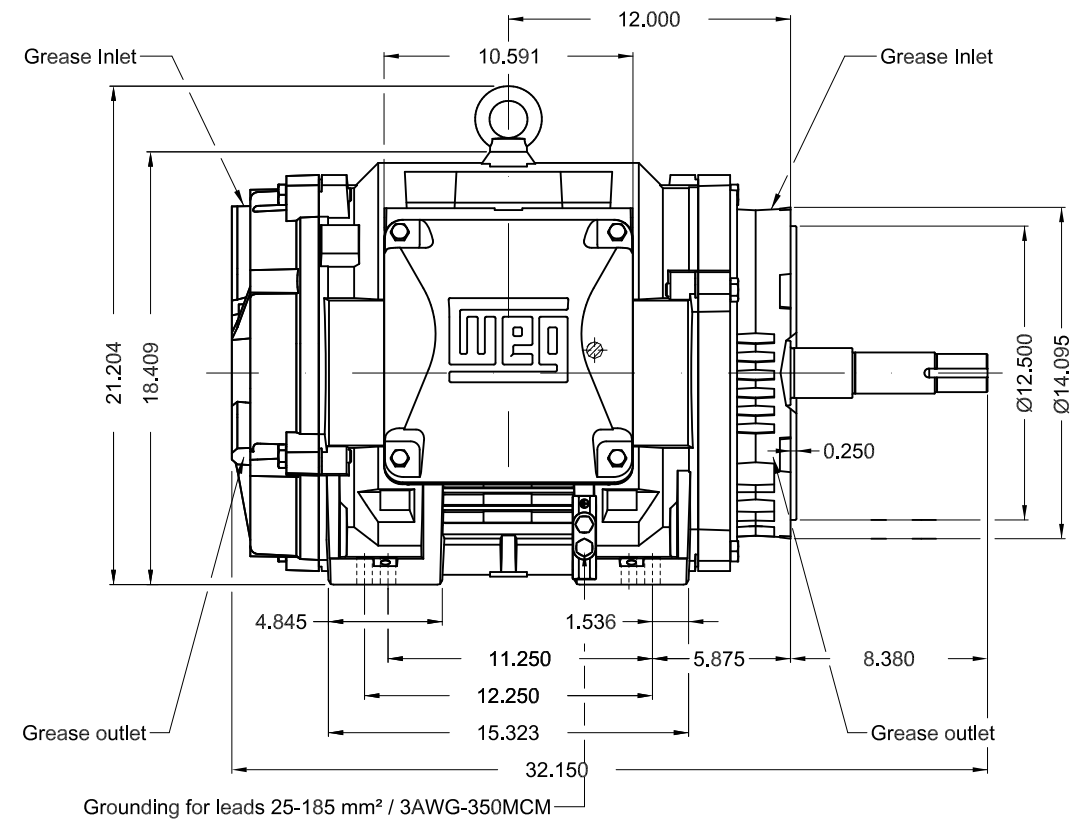
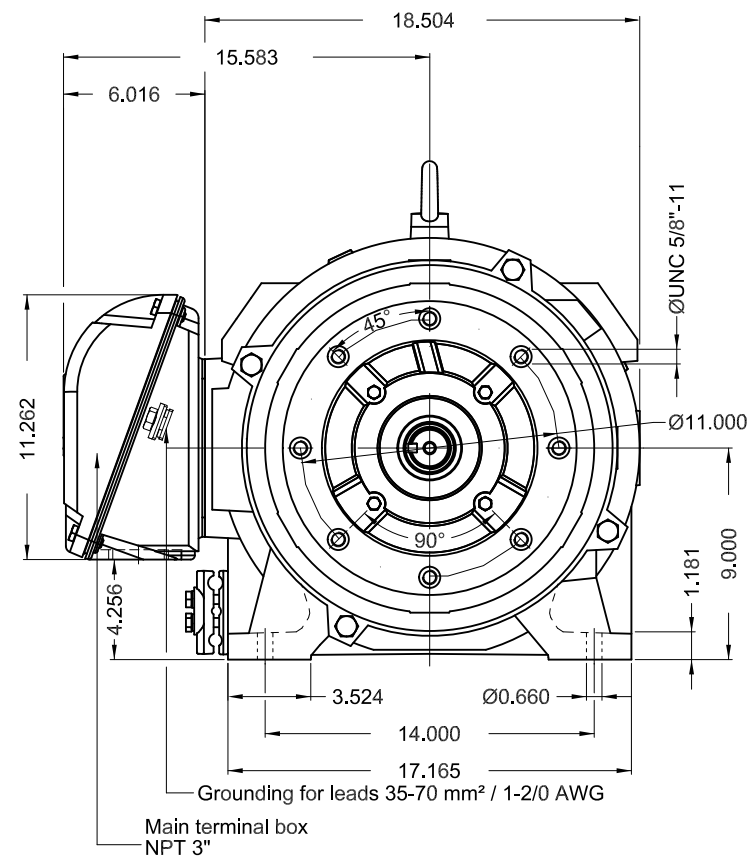


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 Design : B

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Color RAL 5009  
 Painting plan 203A  
 Mounting NEMA F-1  
 Mounting B34R(D)

75 HP 02 Poles 60 Hz A

1:8

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR W40 CLOSE COUPLED PUMP JP TYPE PREM. FT.					
CHECKED		FRAME 364/5JP IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

**PREVIEW**  
 WDD



MODEL 075360T3G364JP-W40  
MADE IN BRAZIL  
14270478

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

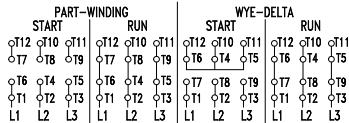



IEC 60034-1  
MOD.T01#FOXON



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

PH 3	FR 364/5JP	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

743 Lbs