

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 JP Pump NEMA Premium Efficiency Three-Phase	Product code :	14836796		
		Catalog # :	07536OT3E364JPV-W40		
Frame	: 364/5JP	Cooling method	: IC01 - ODP		
Insulation class	: F	Mounting	: W-6		
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>	: 693 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]	230/460	380	400	415	
Rated current [A]	170/84.8	82.7	79.4	78.4	
L. R. Amperes [A]	1119/560	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]	43.0/21.5	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	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	: 673 lb		
	: Bearing Seal Bearing Seal	Max. compression	: 1366 lb		
Lubrication interval	: 7209 h 12143 h				
Lubricant amount	: 27 g 13 g				
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 188A SF 1.15 SFA 216A					
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



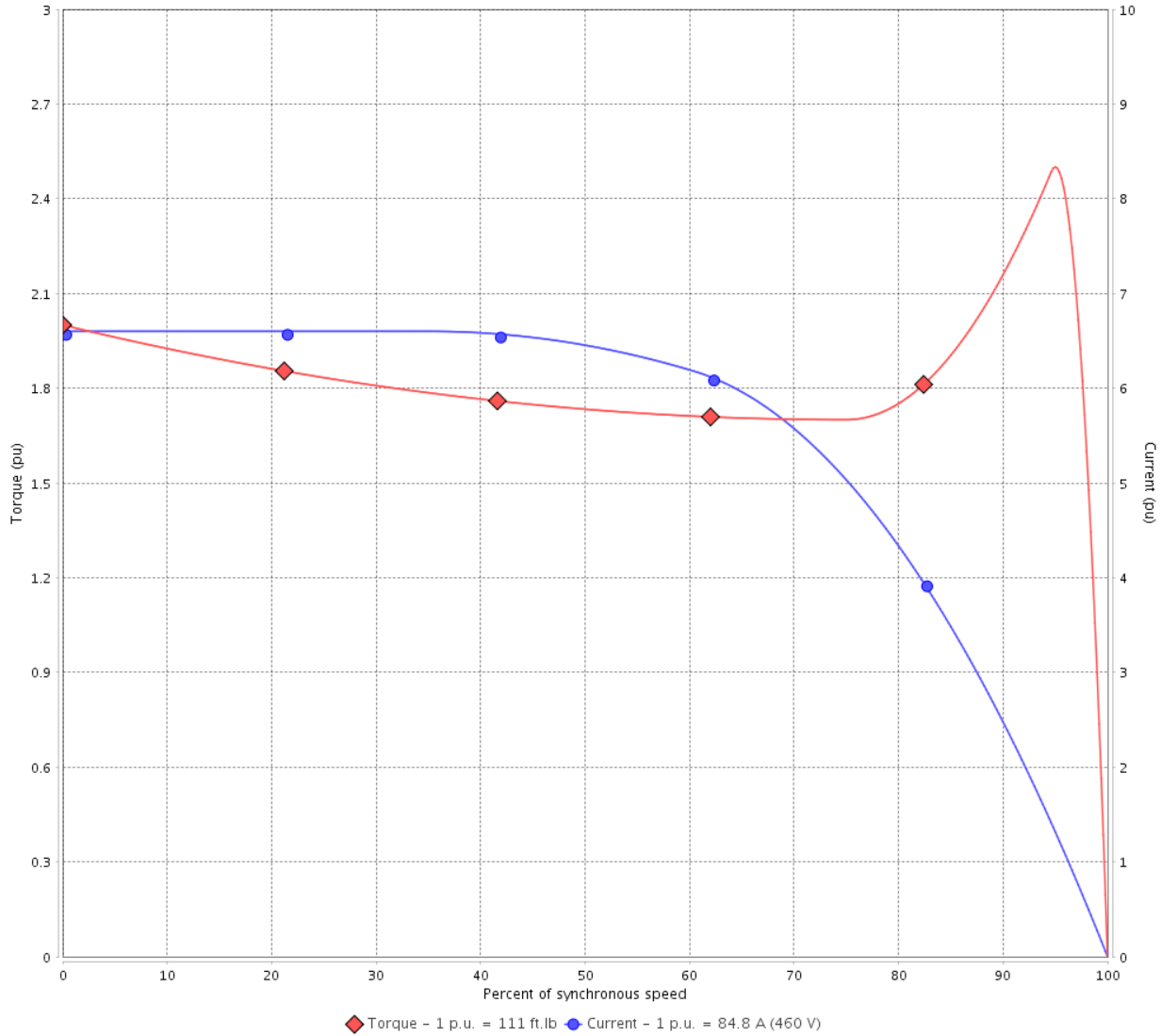
Customer :

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

Product code : 14836796

Catalog # : 07536OT3E364JPV-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 170/84.8 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



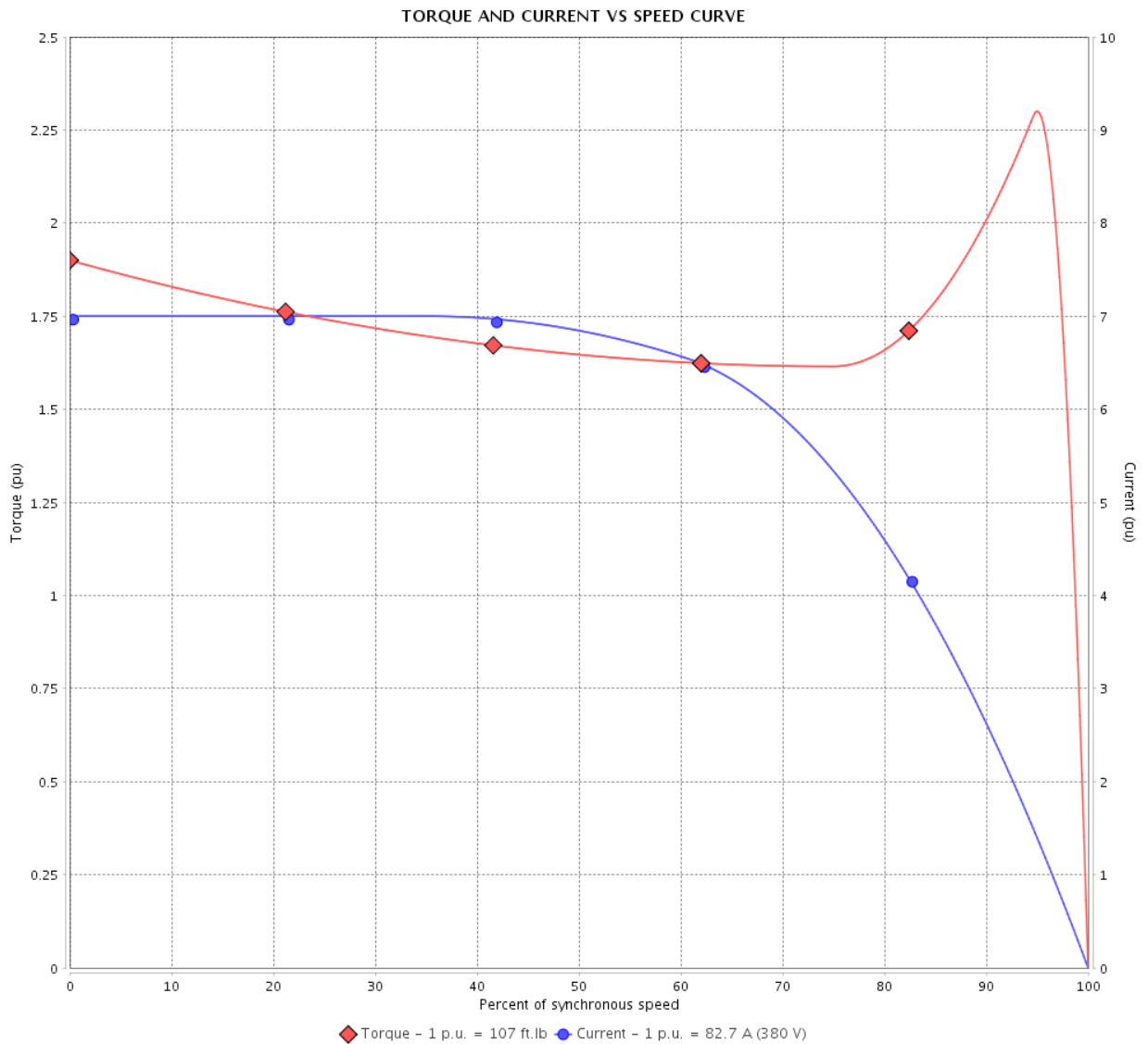
## Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14836796

Catalog # : 07536OT3E364JPV-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

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

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Date				

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



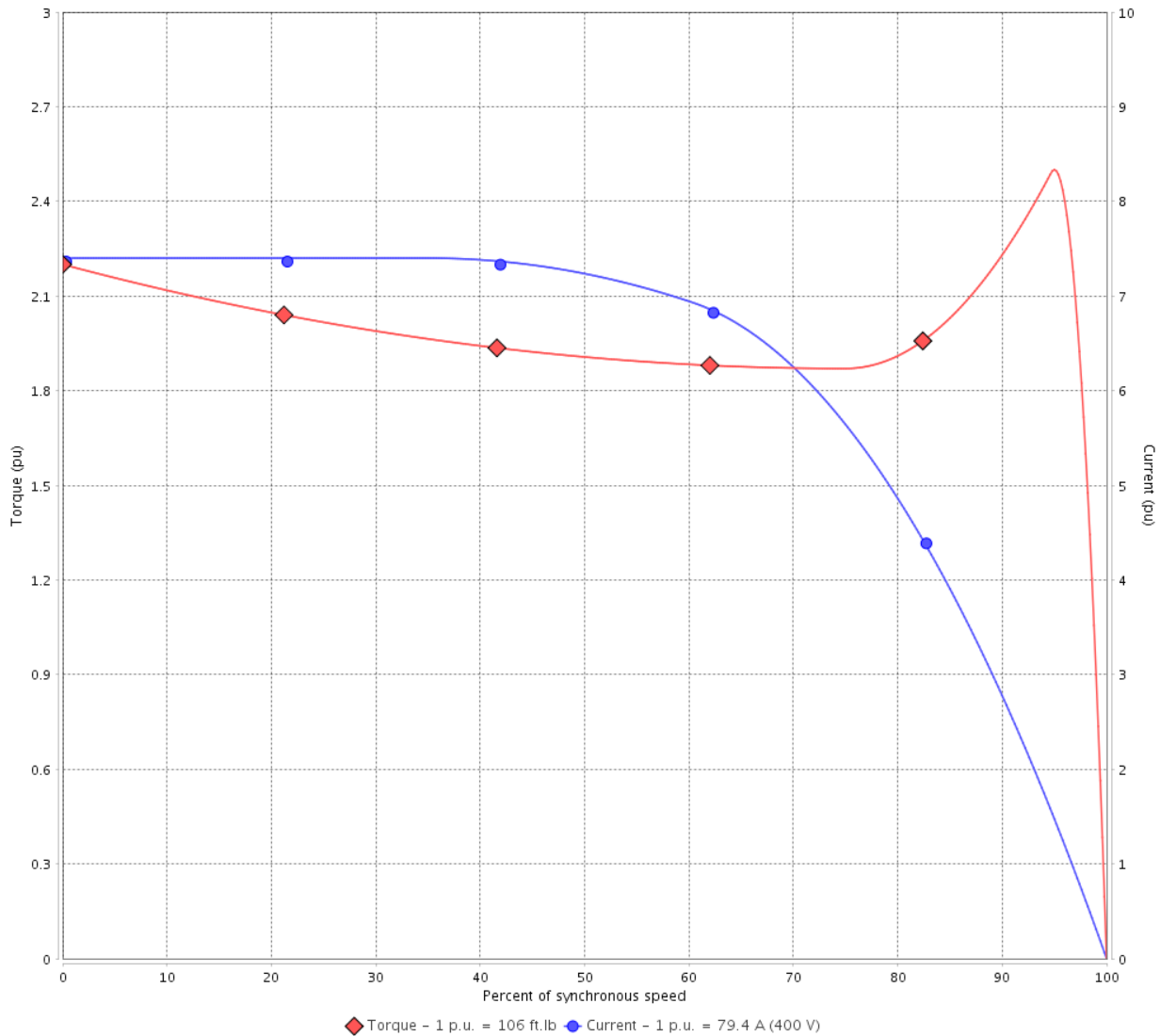
Customer :

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

Product code : 14836796

Catalog # : 07536OT3E364JPV-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



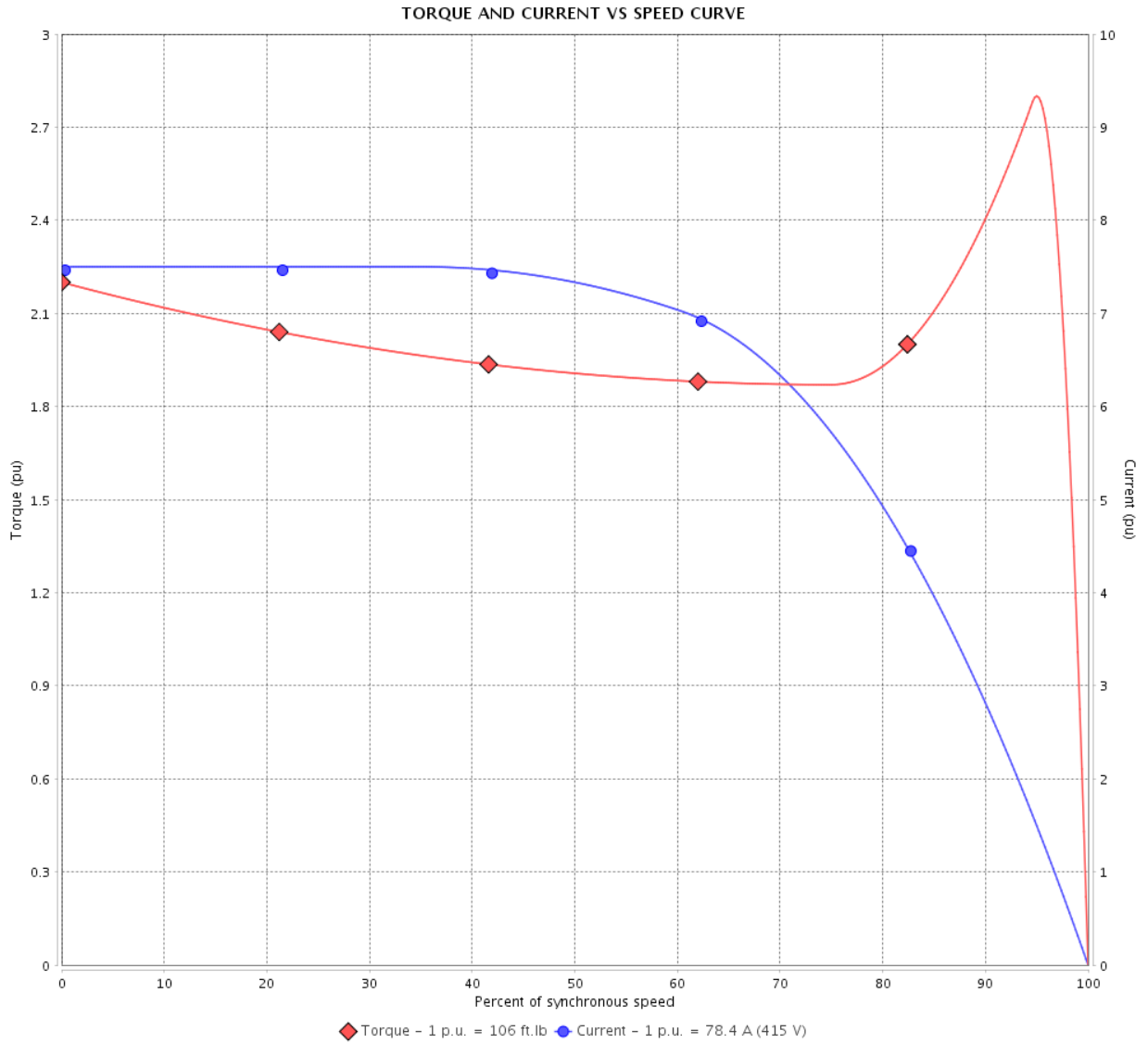
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Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

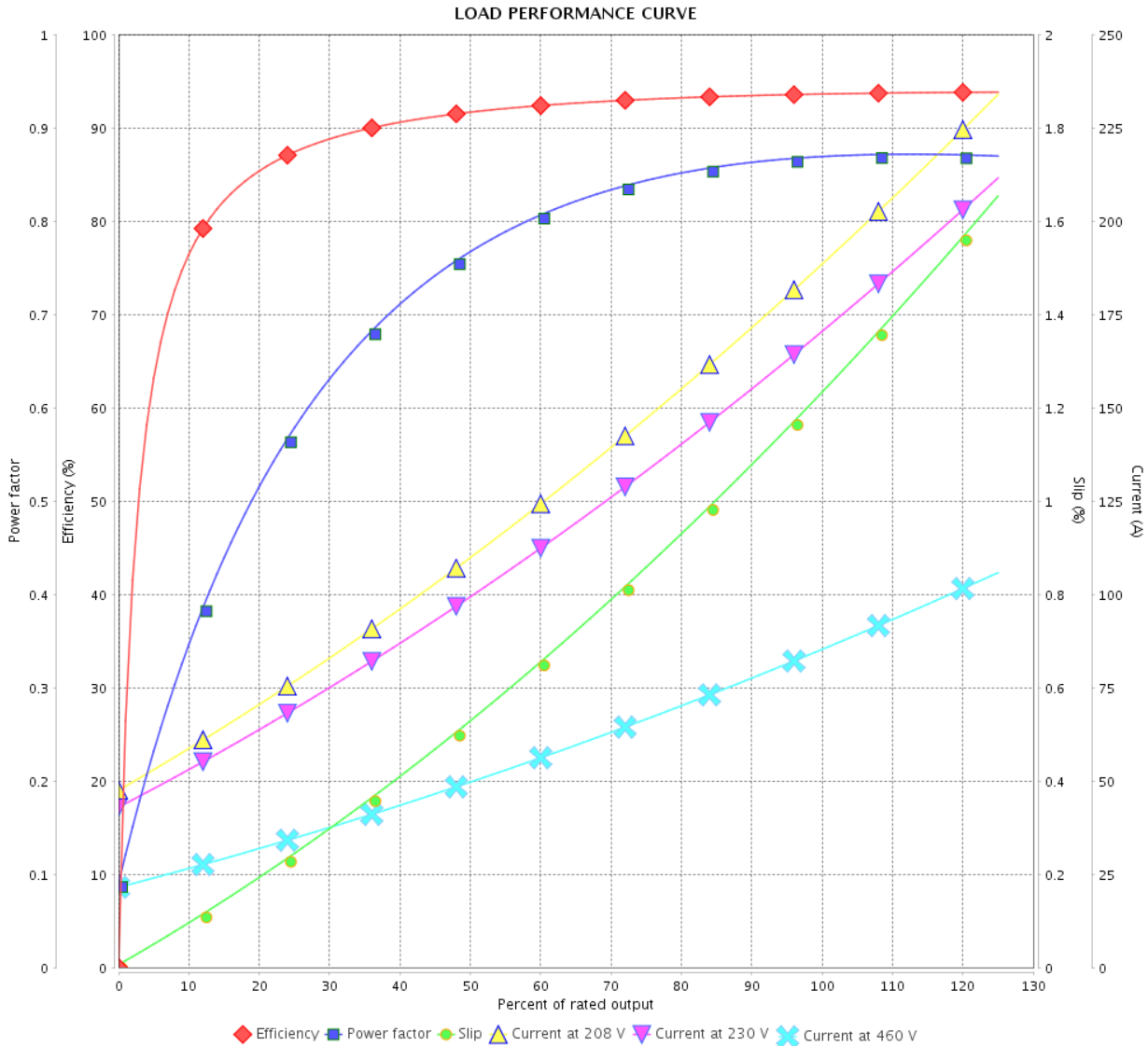


Customer :

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

Product code : 14836796

Catalog # : 07536OT3E364JPV-W40



Performance : 230/460 V 60 Hz 2P

Rated current : 170/84.8 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

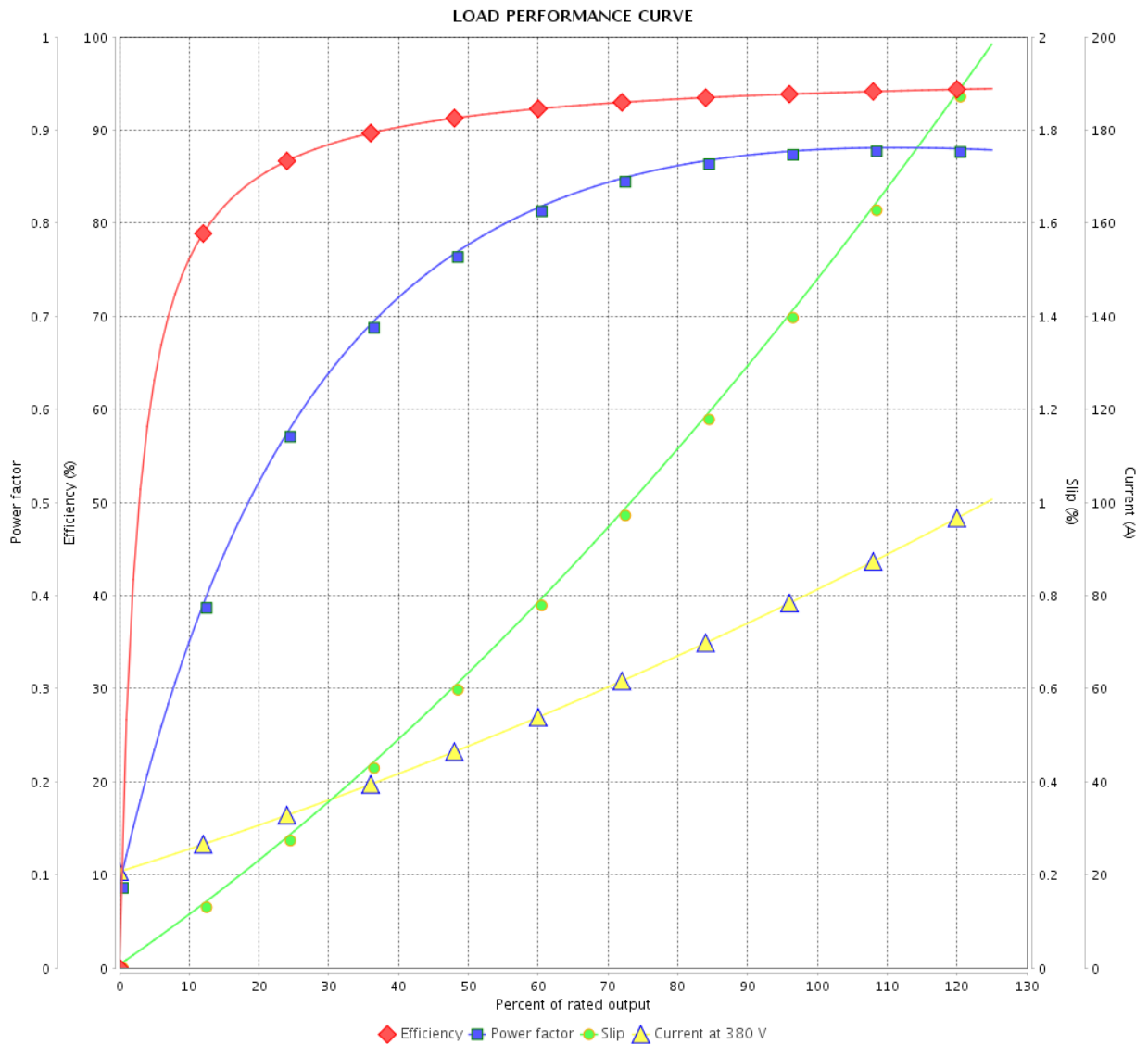


Customer :

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Product code : 14836796

Catalog # : 07536OT3E364JPV-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

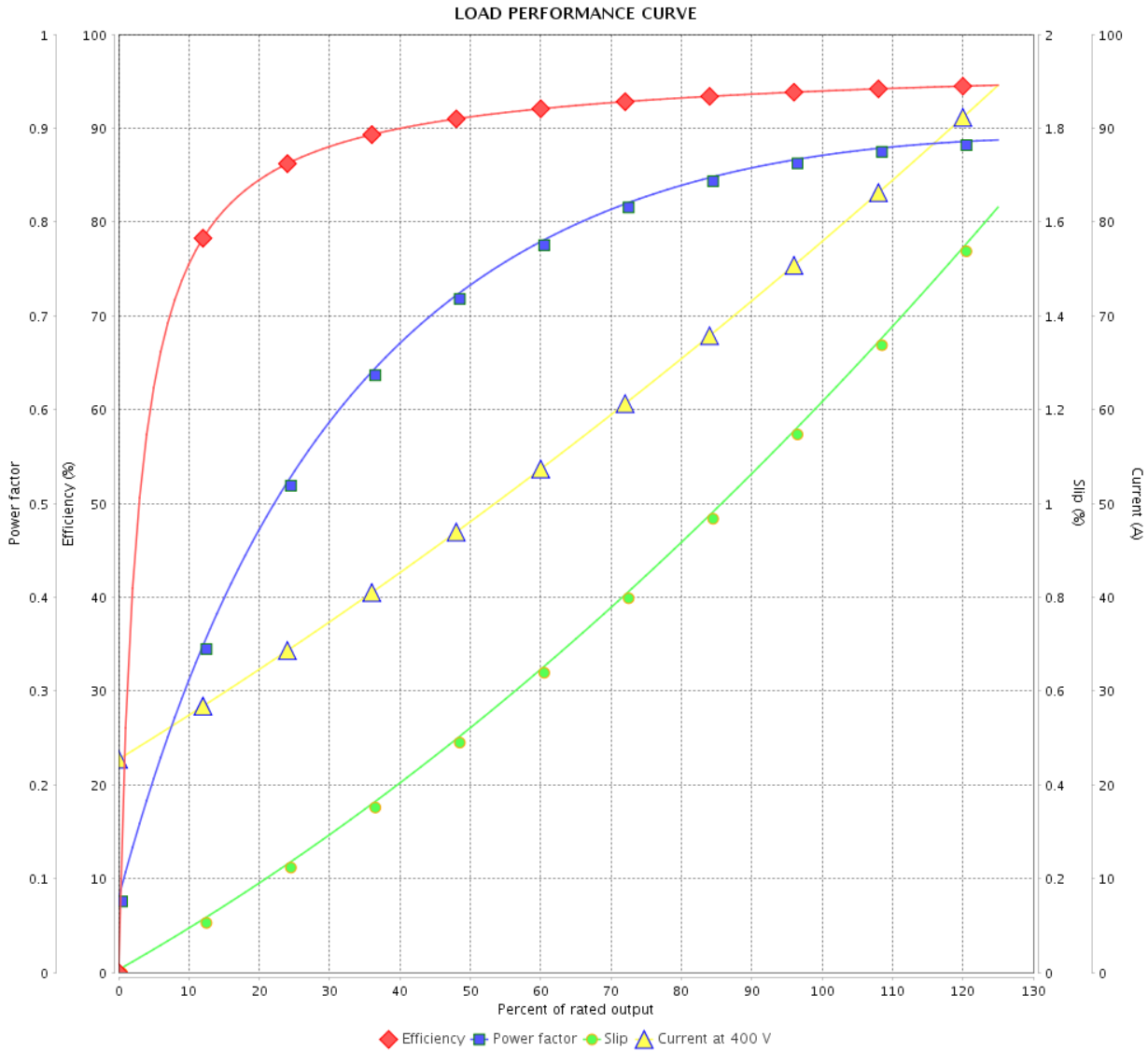


Customer :

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Product code : 14836796

Catalog # : 07536OT3E364JPV-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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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

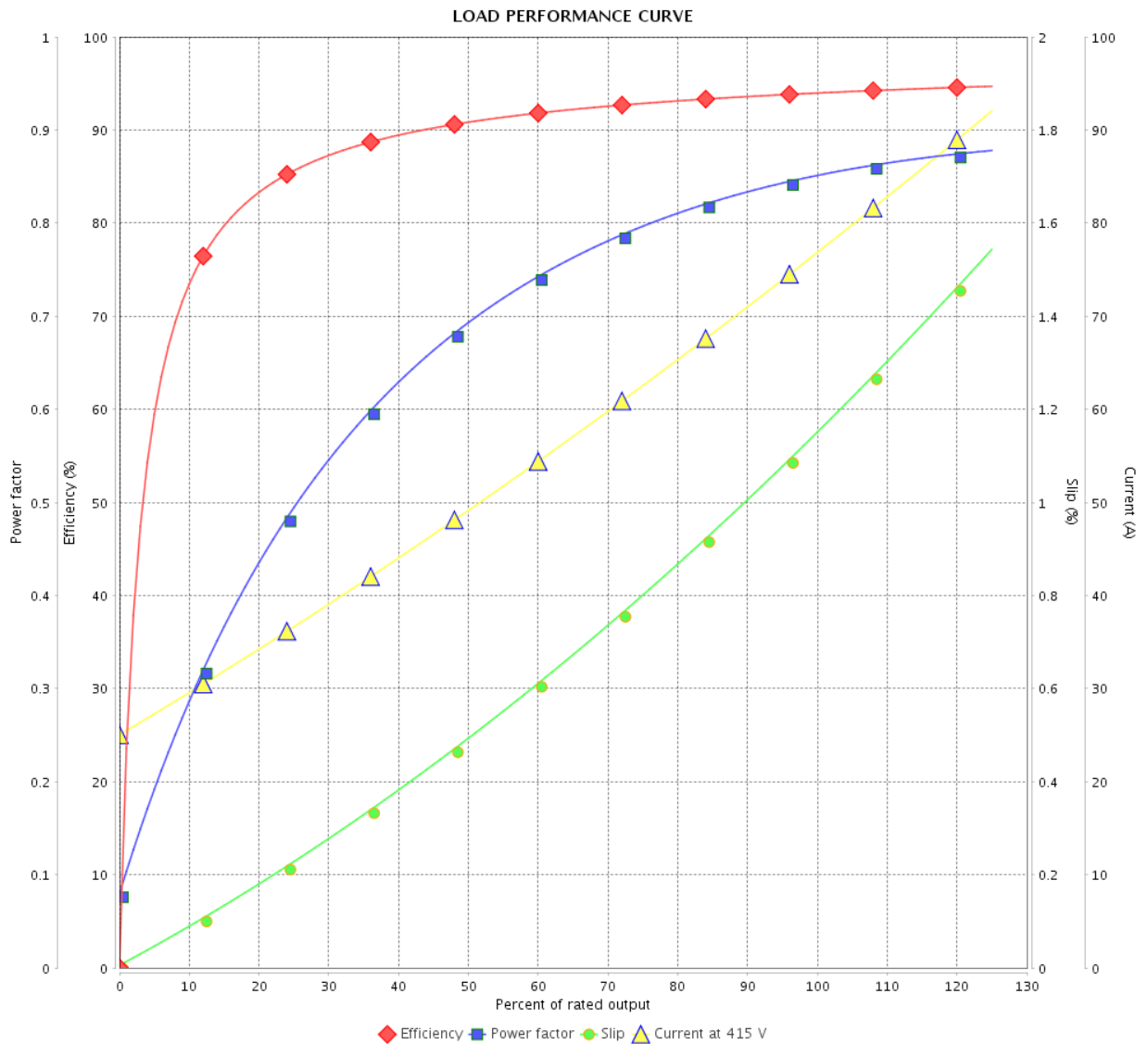


Customer :

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

Product code : 14836796

Catalog # : 07536OT3E364JPV-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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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

Heating constant

Cooling constant

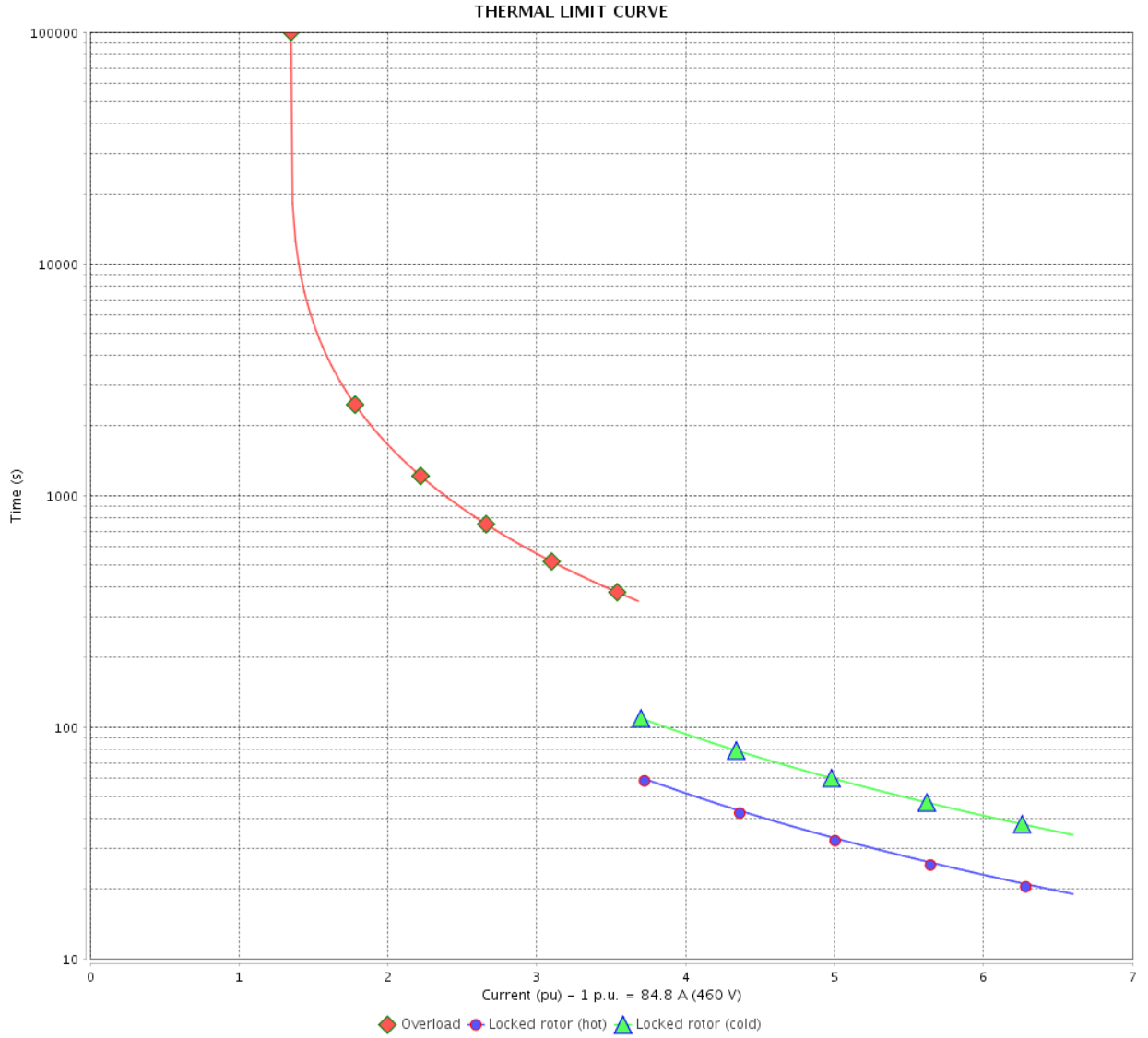
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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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

Heating constant

Cooling constant

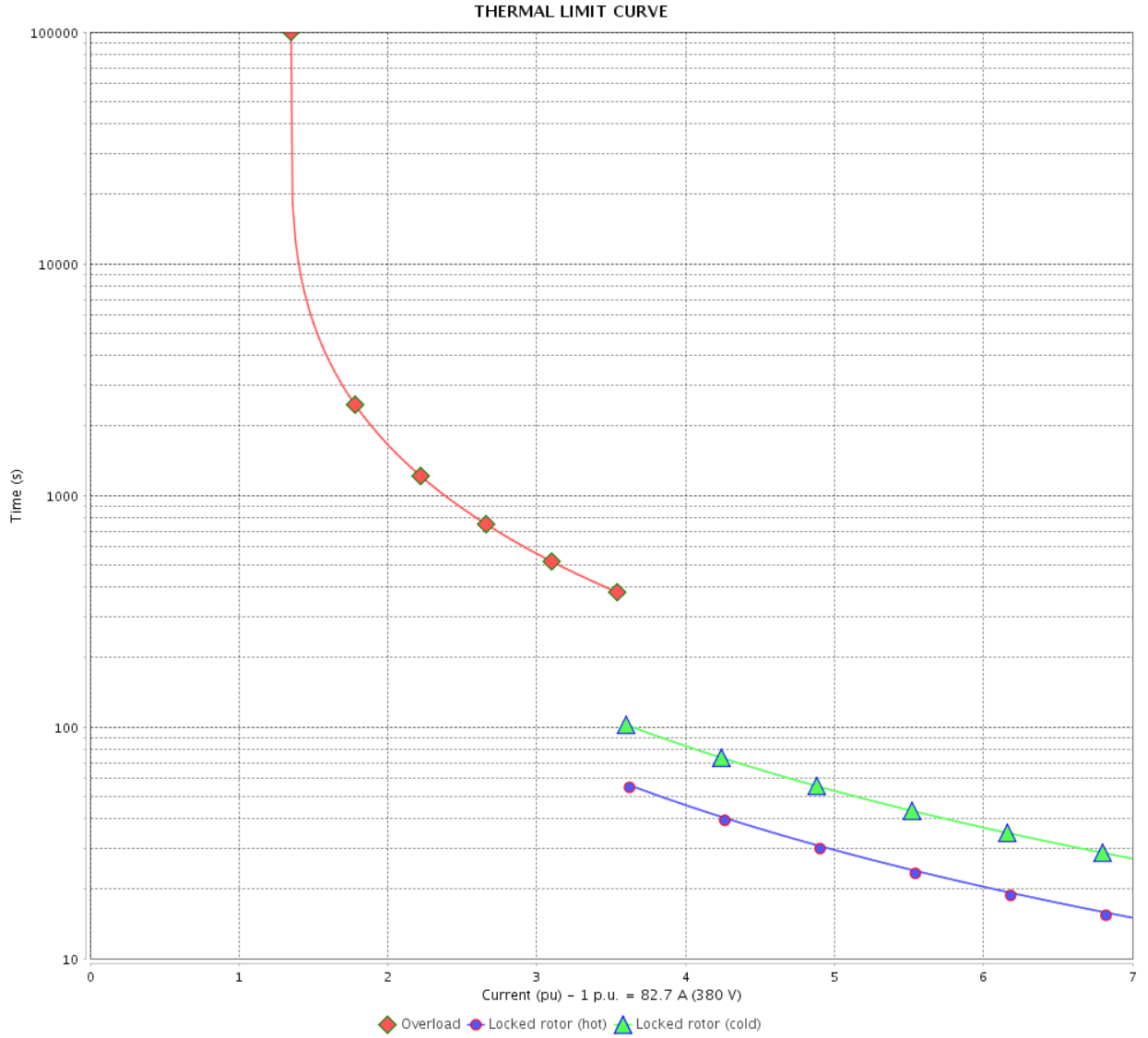
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Date				

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Customer :

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

Product code : 14836796

Catalog # : 07536OT3E364JPV-W40

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

Heating constant

Cooling constant

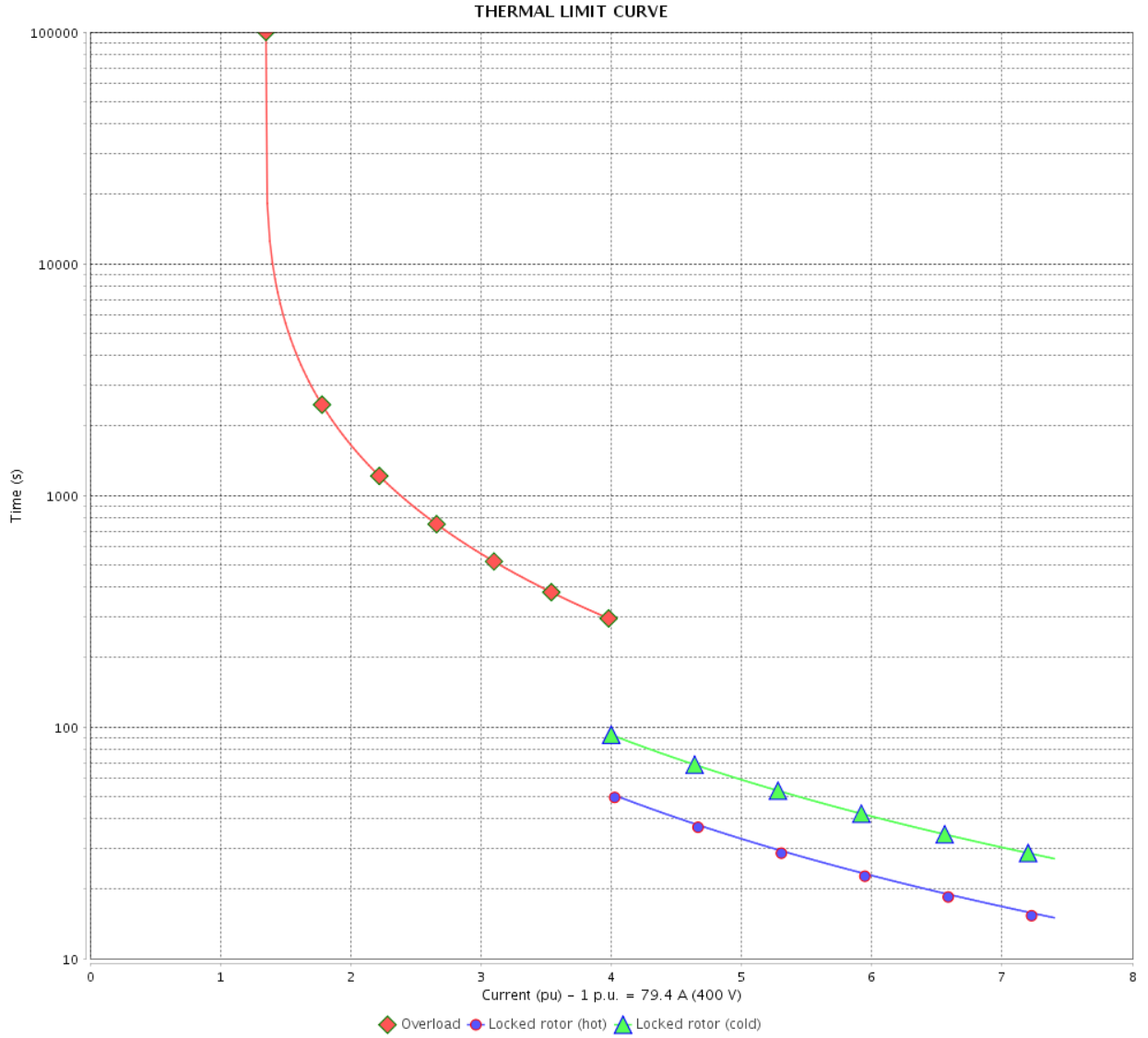
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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

Product code : 14836796

Catalog # : 07536OT3E364JPV-W40

Performance : 415 V 50 Hz 2P IE3

Rated current	: 78.4 A	Moment of inertia (J)	: 6.40 sq.ft.lb
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

Heating constant

Cooling constant

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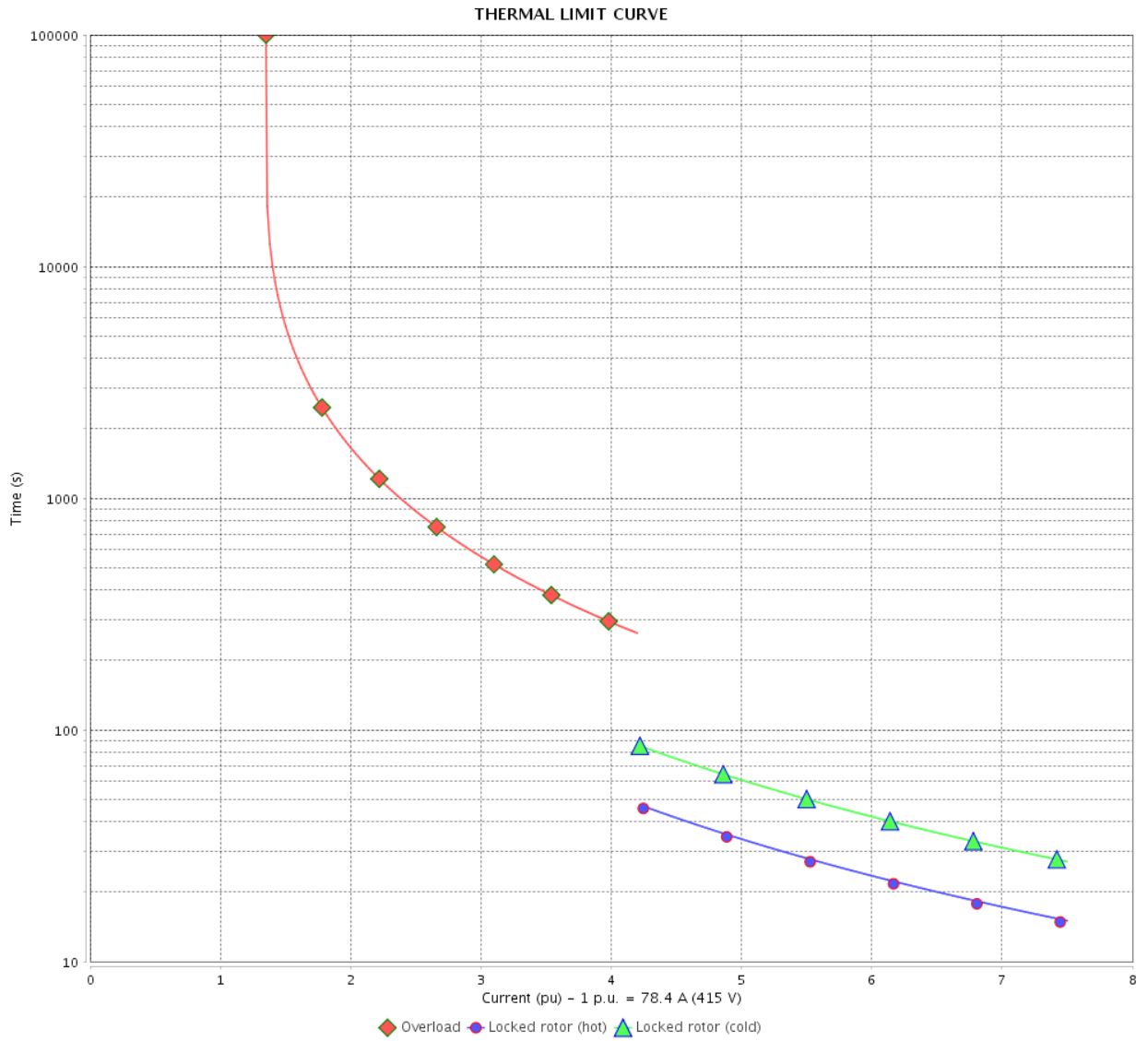


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

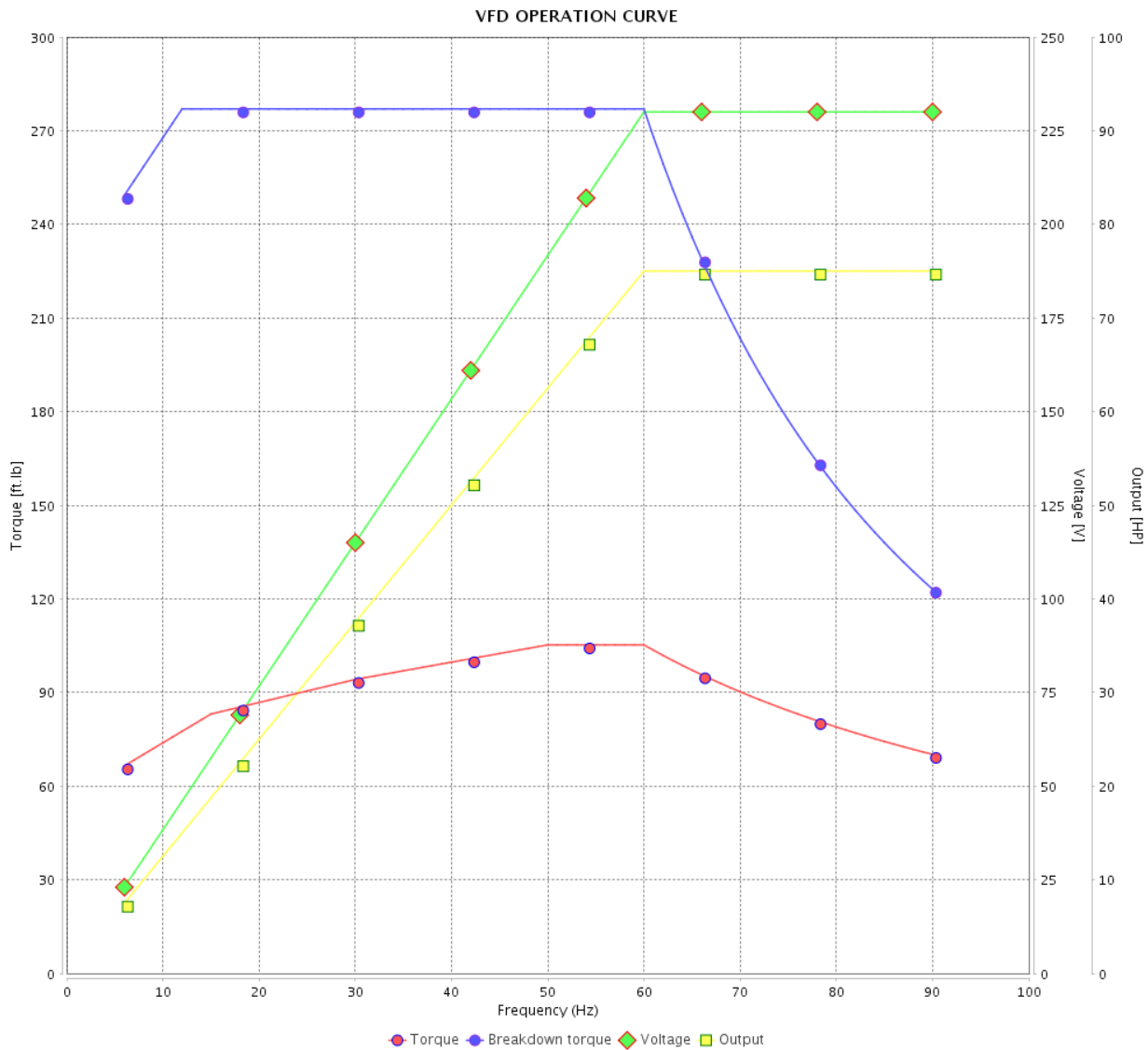


Customer :

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Product code : 14836796

Catalog # : 07536OT3E364JPV-W40



Performance : 230/460 V 60 Hz 2P

Rated current : 170/84.8 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

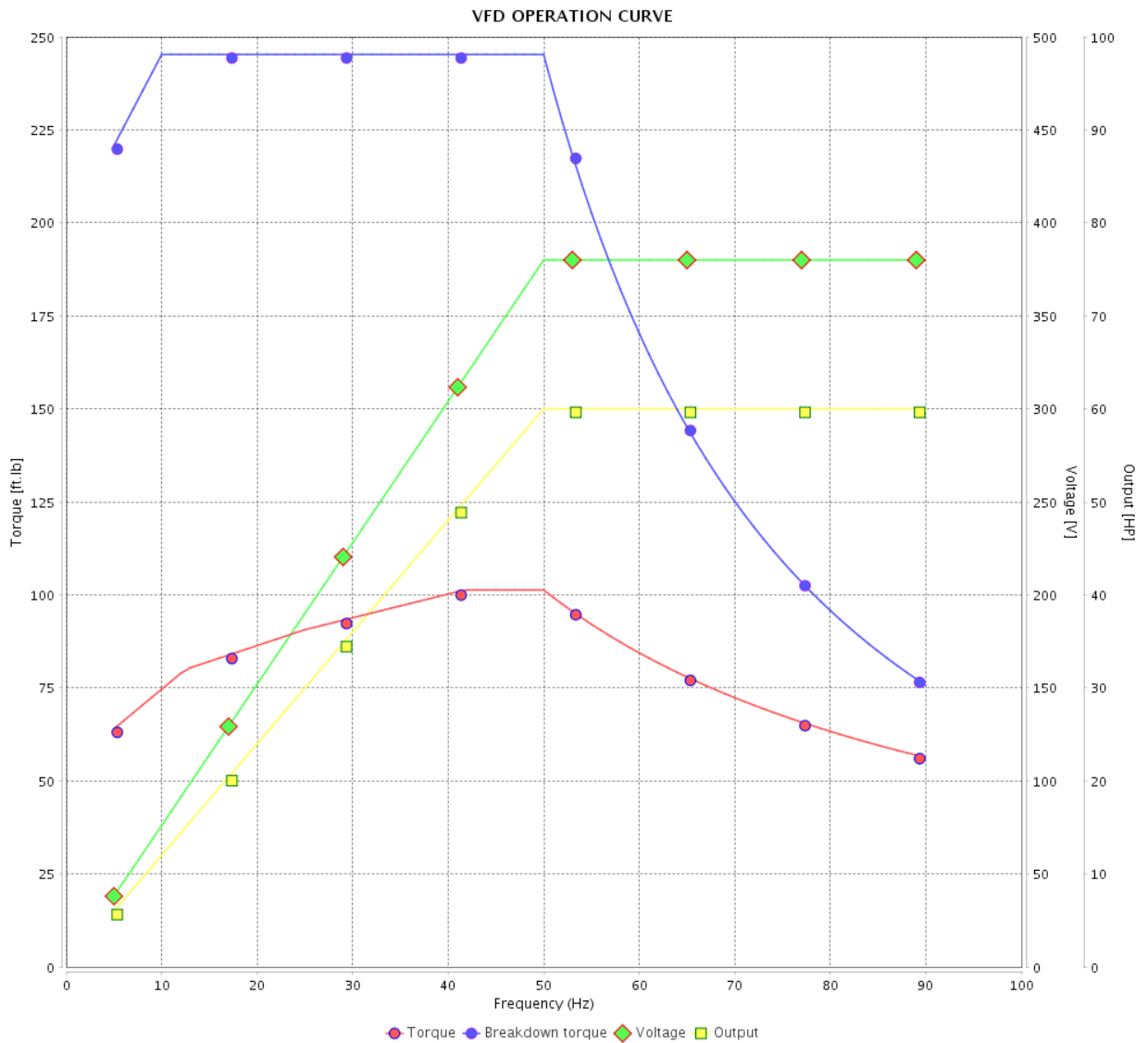


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 Rated speed : 2955 rpm

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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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



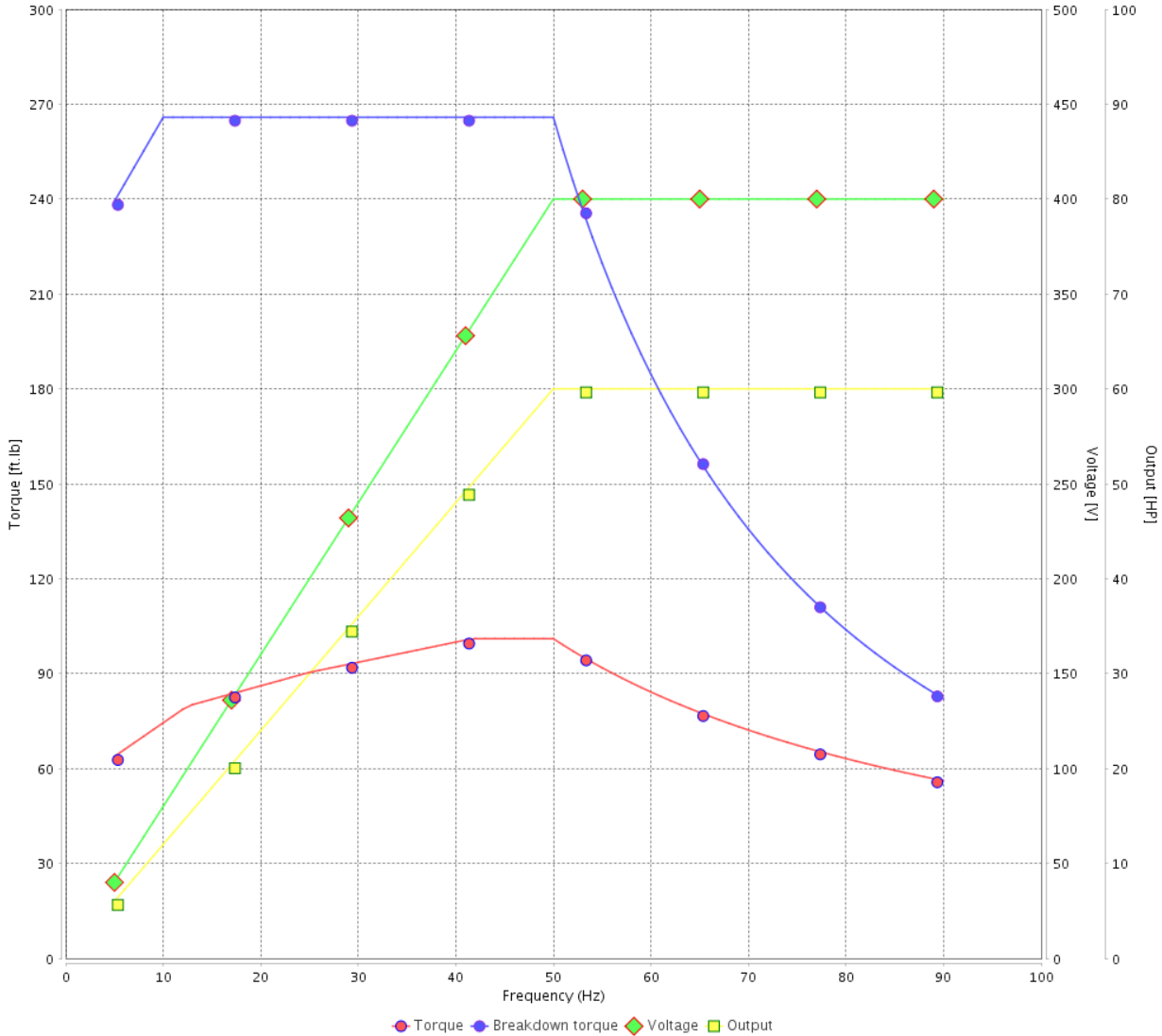
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VFD OPERATION CURVE



Performance : 400 V 50 Hz 2P IE3

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 Breakdown torque : 250 %  
 Rated speed : 2963 rpm

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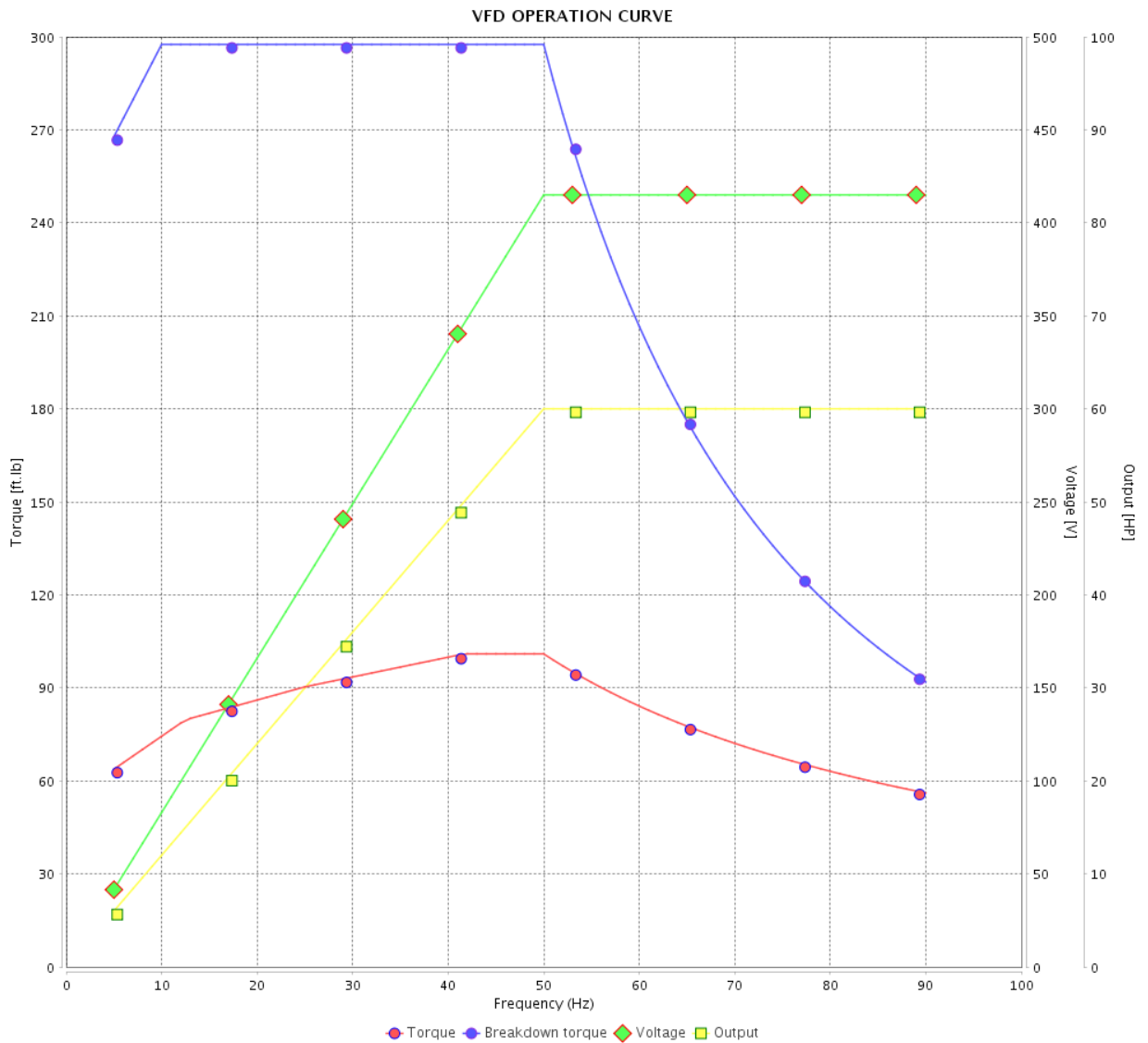


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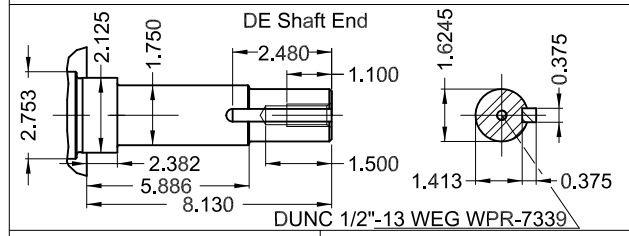
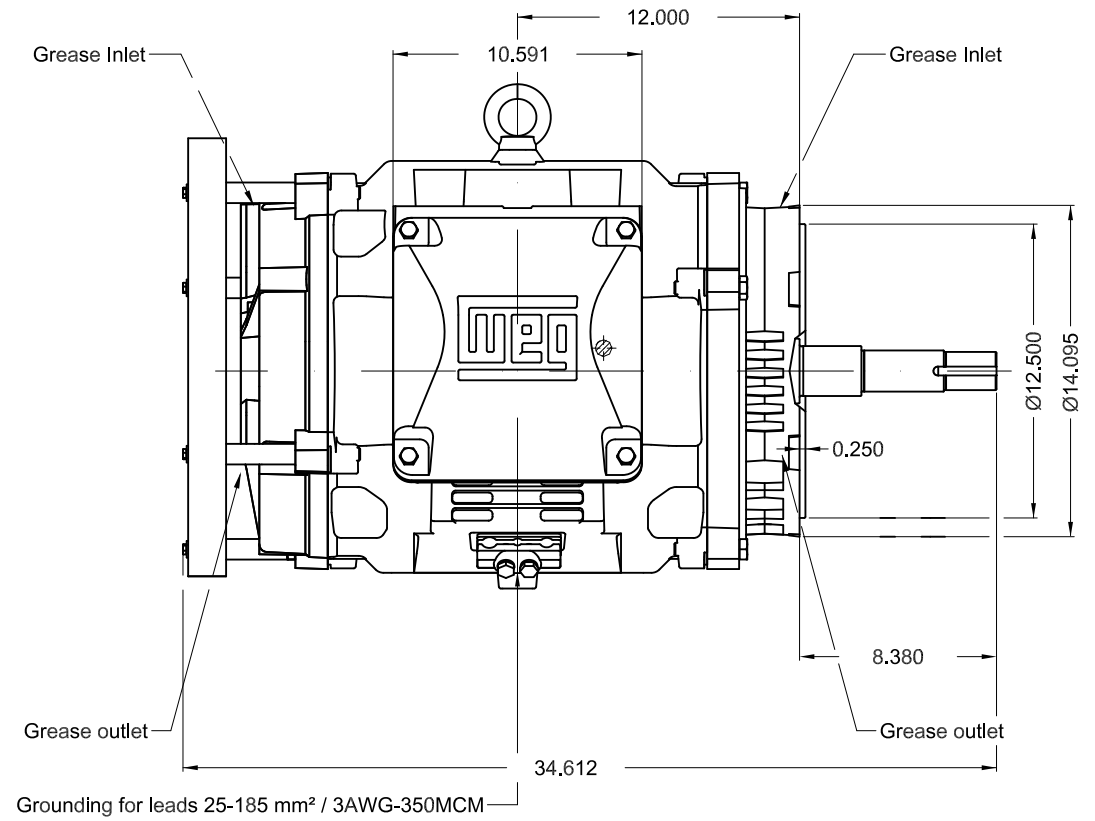
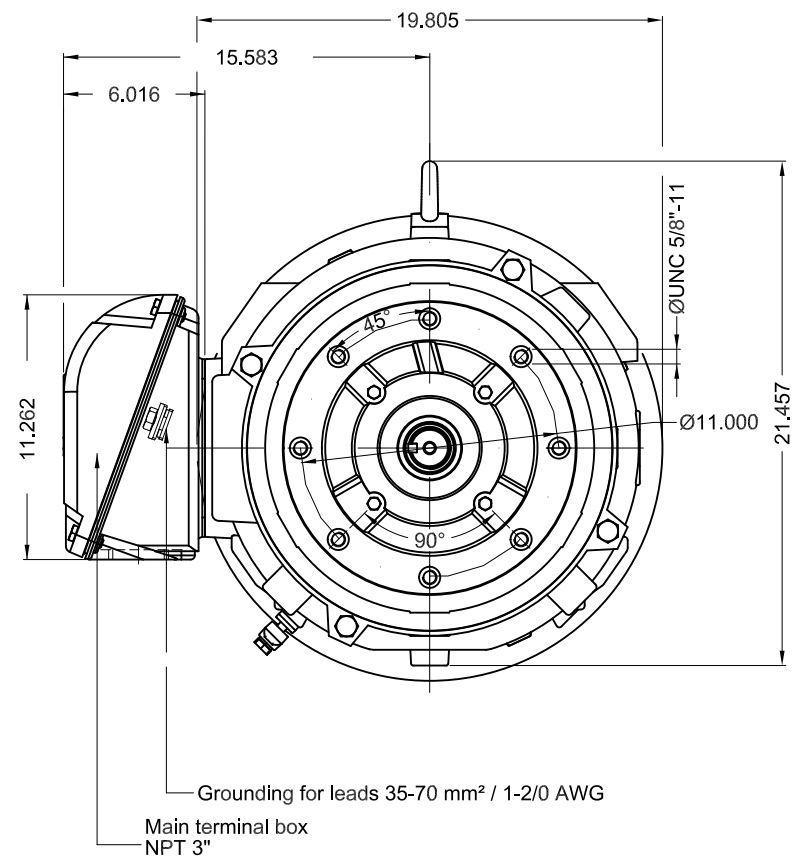


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Rated current : 78.4 A  
 LRC : 7.5  
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 Locked rotor torque : 220 %  
 Breakdown torque : 280 %  
 Rated speed : 2965 rpm

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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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Date				



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 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		

Color RAL 5009  
Painting plan 203A  
Mounting NEMA W-6  
Mounting V18

PREVIEW  
WDD

