

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 JM Pump NEMA Premium Efficiency Three-Phase	Product code :	14484817		
		Catalog # :	05036OT3G324JM-W40		
Frame	: 324JM	Cooling method	: IC01 - ODP		
Insulation class	: F	Mounting	: F-1		
Duty cycle	: Cont.(S1)	Rotation ¹	: Both (CW and CCW)		
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line		
Altitude	: 1000 m.a.s.l.	Approx. weight ²	: 430 lb		
Protection degree	: IP23	Moment of inertia (J)	: 3.02 sq.ft.lb		
Design	: B				
Output [HP]	50	40	40	40	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	59.4	57.5	56.6	56.6	
L. R. Amperes [A]	374	368	374	385	
LRC [A]	6.3x(Code G)	6.4x(Code G)	6.6x(Code H)	6.8x(Code H)	
No load current [A]	22.5	20.5	24.0	27.0	
Rated speed [RPM]	3560	2960	2965	2965	
Slip [%]	1.11	1.33	1.17	1.17	
Rated torque [ft.lb]	73.8	71.0	70.8	70.8	
Locked rotor torque [%]	200	200	229	240	
Breakdown torque [%]	220	220	240	260	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	19s (cold) 11s (hot)	21s (cold) 12s (hot)	19s (cold) 11s (hot)	
Noise level ²	75.0 dB(A)				
Efficiency (%)	25%	91.5	88.3	88.4	88.5
	50%	91.7	90.0	90.0	90.1
	75%	93.0	91.6	91.7	91.7
	100%	93.0	93.3	93.3	93.3
Power Factor	25%	0.46	0.48	0.42	0.37
	50%	0.72	0.73	0.67	0.60
	75%	0.81	0.82	0.77	0.73
	100%	0.84	0.85	0.82	0.79
Bearing type	: <u>Drive end</u> 6312 Z C3	<u>Non drive end</u> 6211 Z C3	Foundation loads		
Sealing	: Without	Without	Max. traction		
	Bearing Seal	Bearing Seal	Max. compression		
Lubrication interval	: 19658 h	20000 h			
Lubricant amount	: 21 g	11 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



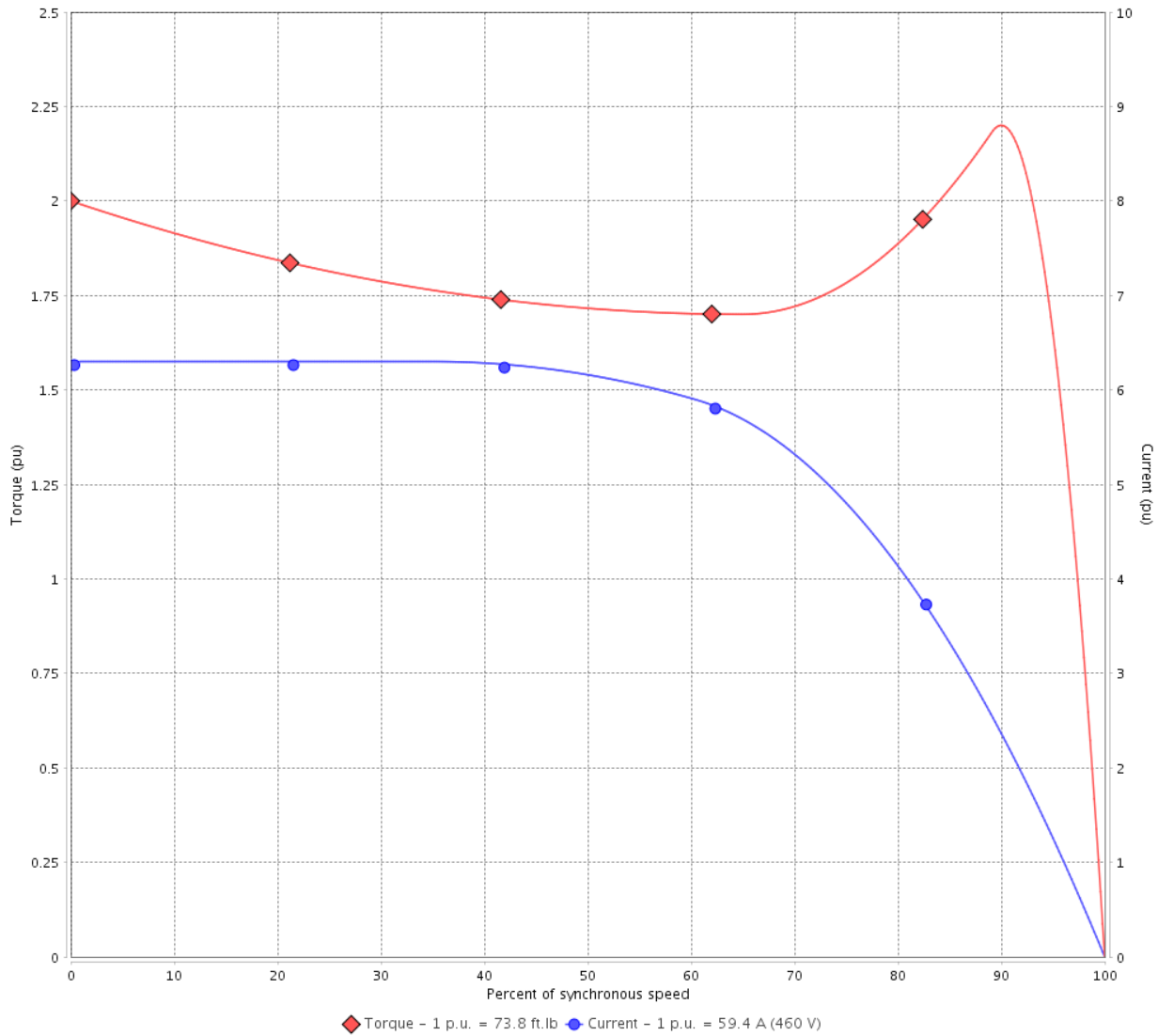
Customer :

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

Product code : 14484817

Catalog # : 05036OT3G324JM-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 2P

Rated current	: 59.4 A	Moment of inertia (J)	: 3.02 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 73.8 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



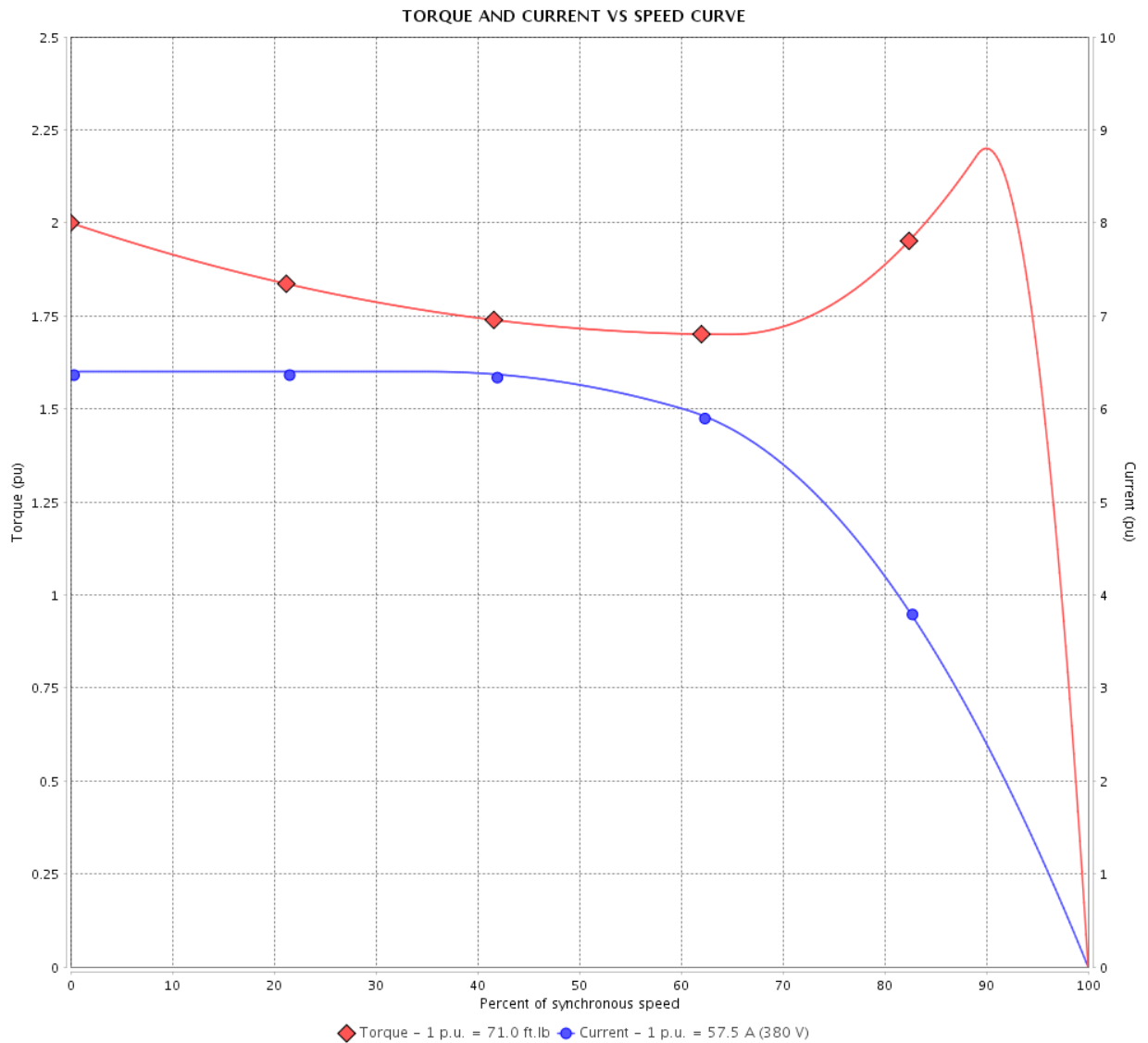
Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14484817

Catalog # : 05036OT3G324JM-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 57.5 A
 LRC : 6.4
 Rated torque : 71.0 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 220 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 3.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 19s (cold) 11s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



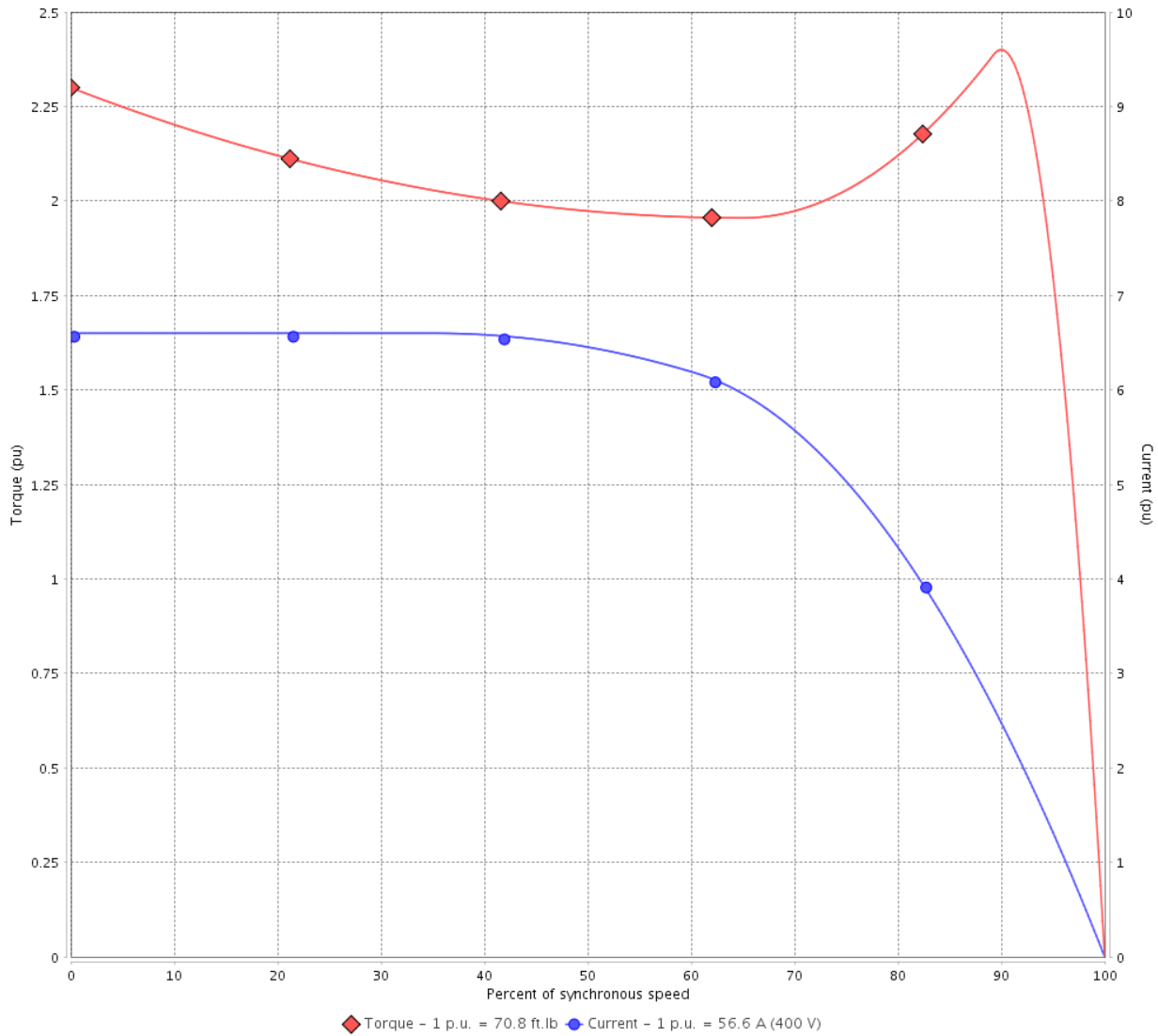
Customer :

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

Product code : 14484817

Catalog # : 05036OT3G324JM-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 56.6 A	Moment of inertia (J)	: 3.02 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 70.8 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



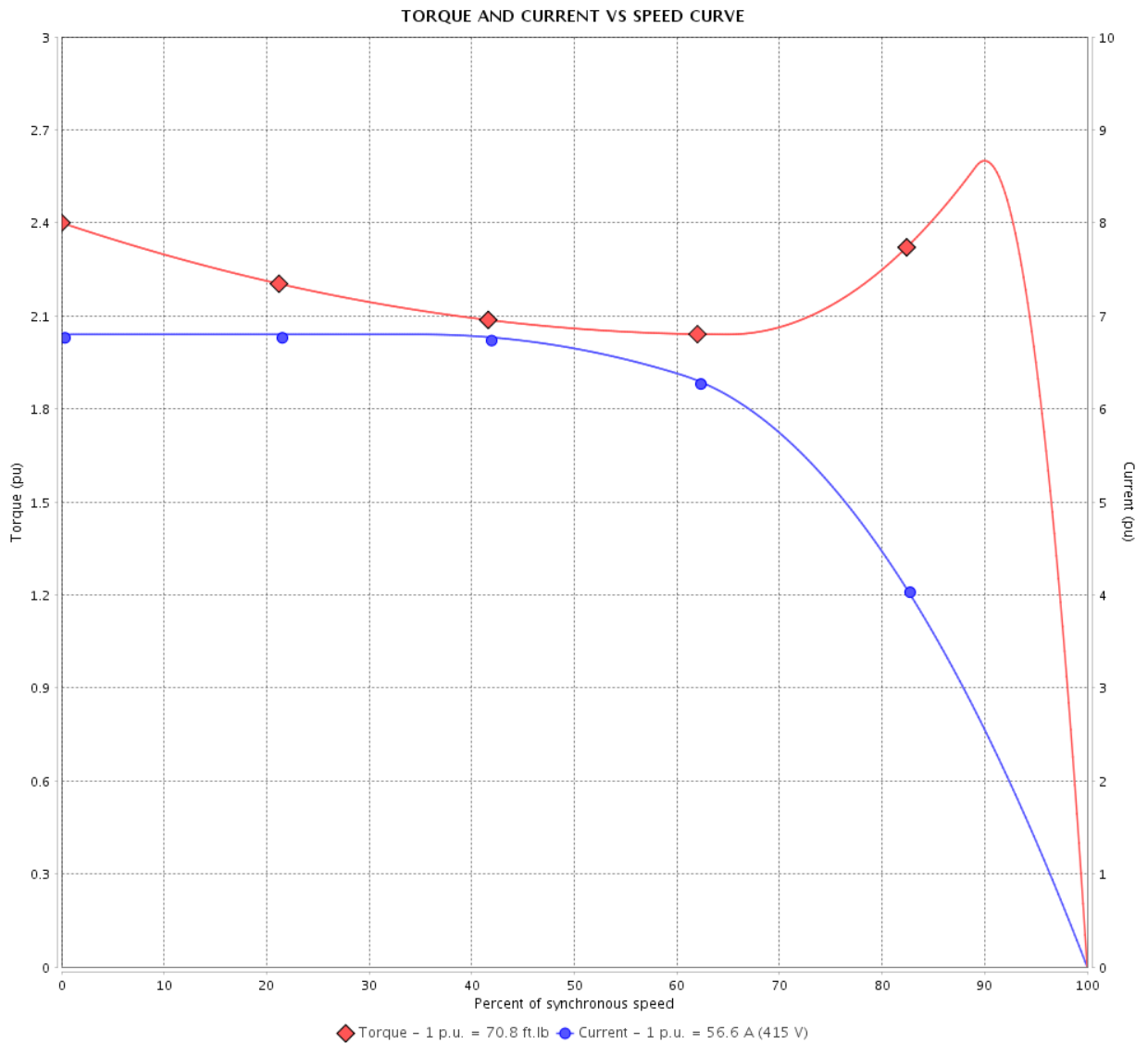
Three Phase Induction Motor - Squirrel Cage

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Catalog # : 05036OT3G324JM-W40



Performance : 415 V 50 Hz 2P IE3

Rated current : 56.6 A
 LRC : 6.8
 Rated torque : 70.8 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 2965 rpm

Moment of inertia (J) : 3.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 19s (cold) 11s (hot)

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Three Phase Induction Motor - Squirrel Cage



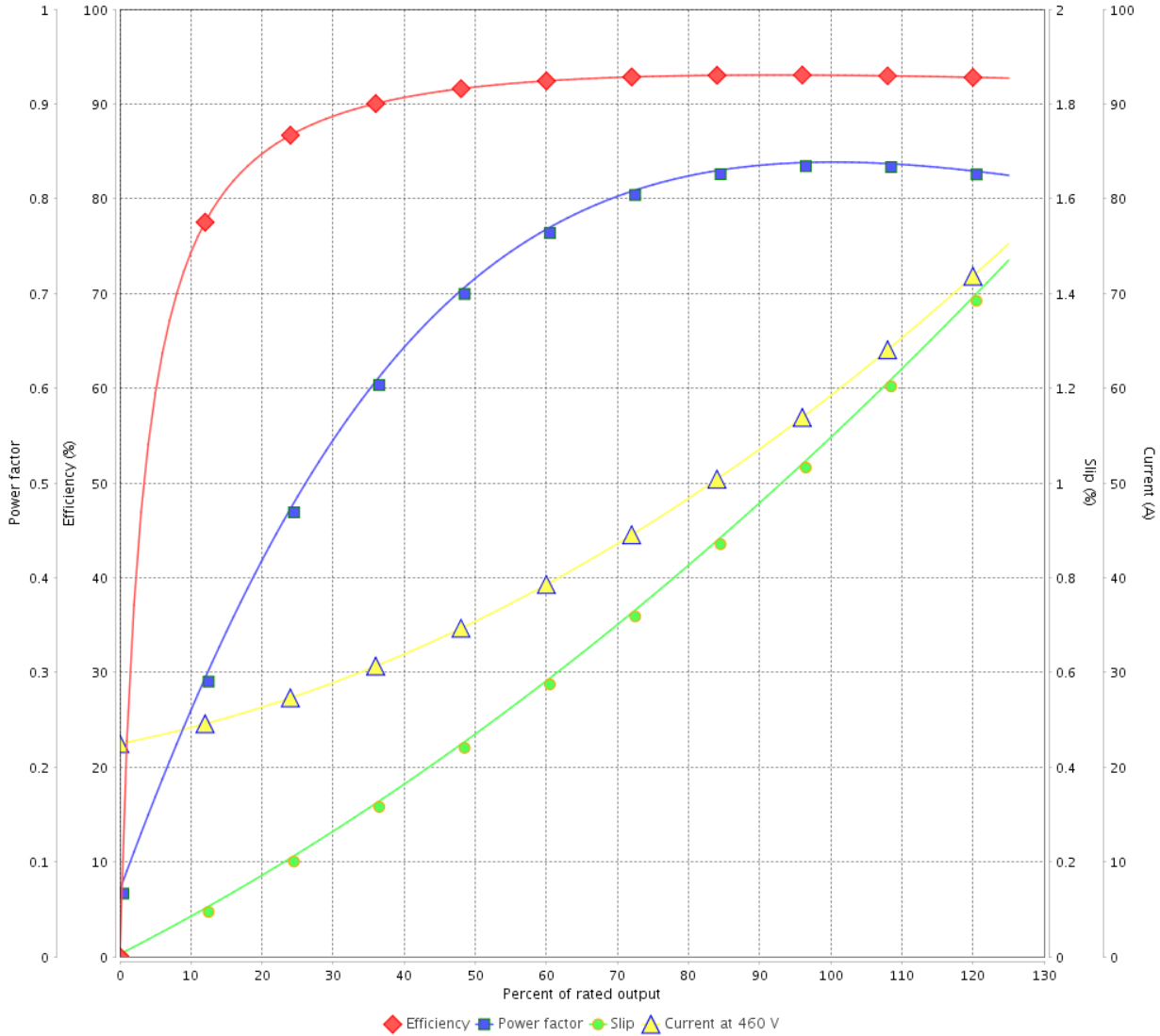
Customer :

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

Product code : 14484817

Catalog # : 05036OT3G324JM-W40

LOAD PERFORMANCE CURVE



Performance : 460 V 60 Hz 2P

Rated current : 59.4 A
 LRC : 6.3
 Rated torque : 73.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 220 %
 Rated speed : 3560 rpm

Moment of inertia (J) : 3.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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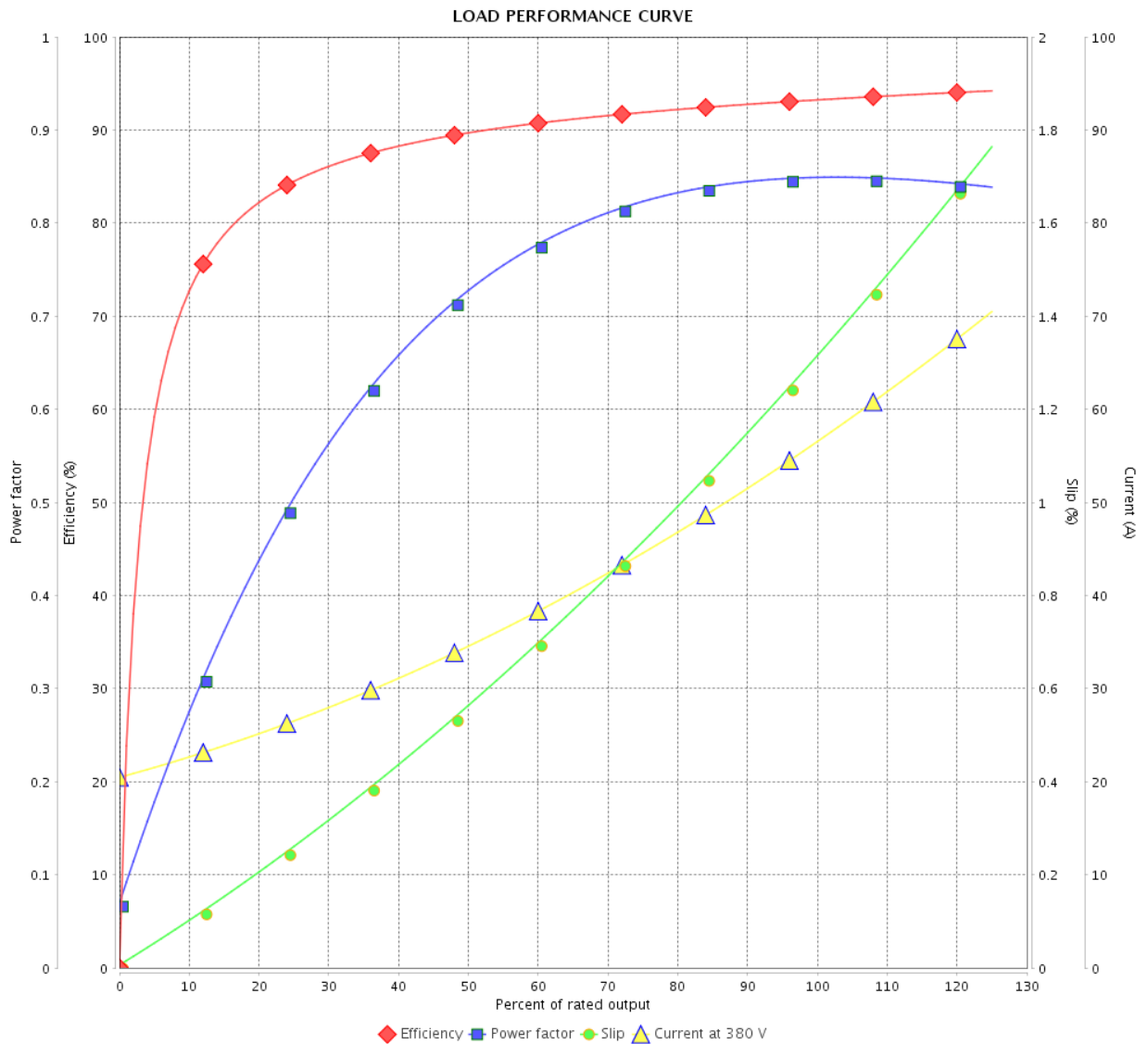


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Product code : 14484817

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Performance : 380 V 50 Hz 2P IE3

Rated current : 57.5 A
LRC : 6.4
Rated torque : 71.0 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 220 %
Rated speed : 2960 rpm

Moment of inertia (J) : 3.02 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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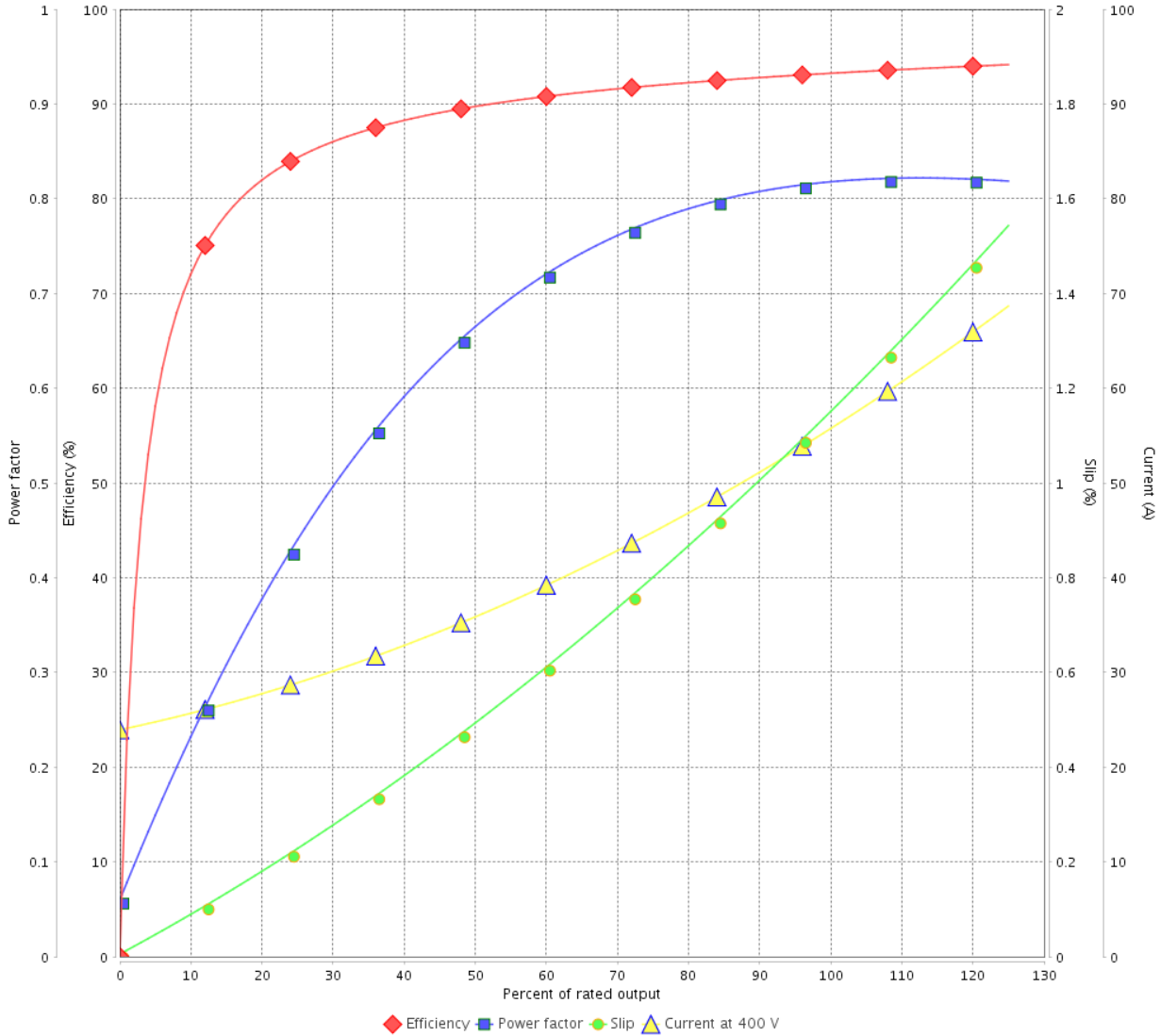
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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 56.6 A
 LRC : 6.6
 Rated torque : 70.8 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 2965 rpm

Moment of inertia (J) : 3.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

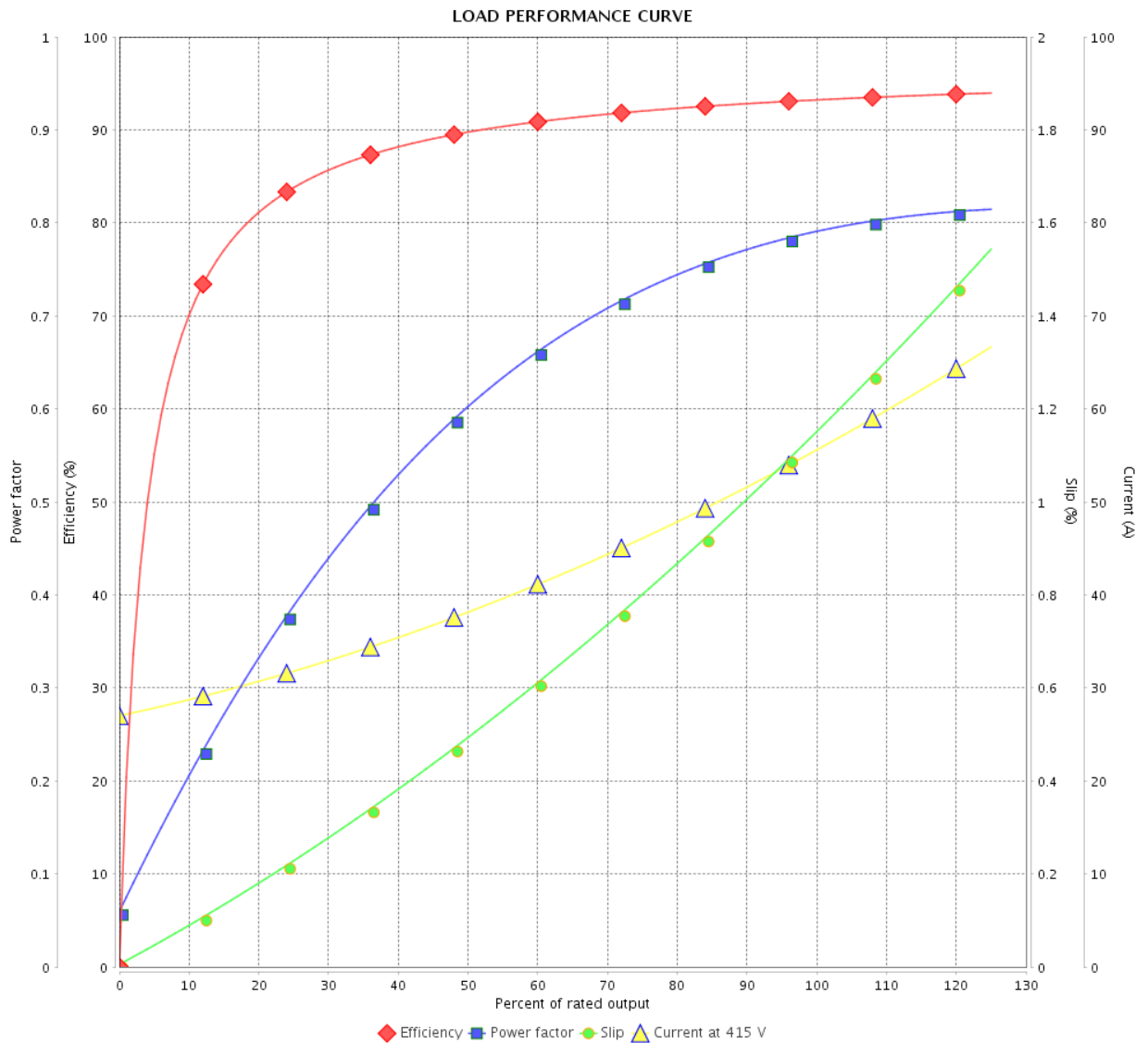


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Product code : 14484817

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Performance : 415 V 50 Hz 2P IE3

Rated current : 56.6 A
LRC : 6.8
Rated torque : 70.8 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 260 %
Rated speed : 2965 rpm

Moment of inertia (J) : 3.02 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
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B

Heating constant

Cooling constant

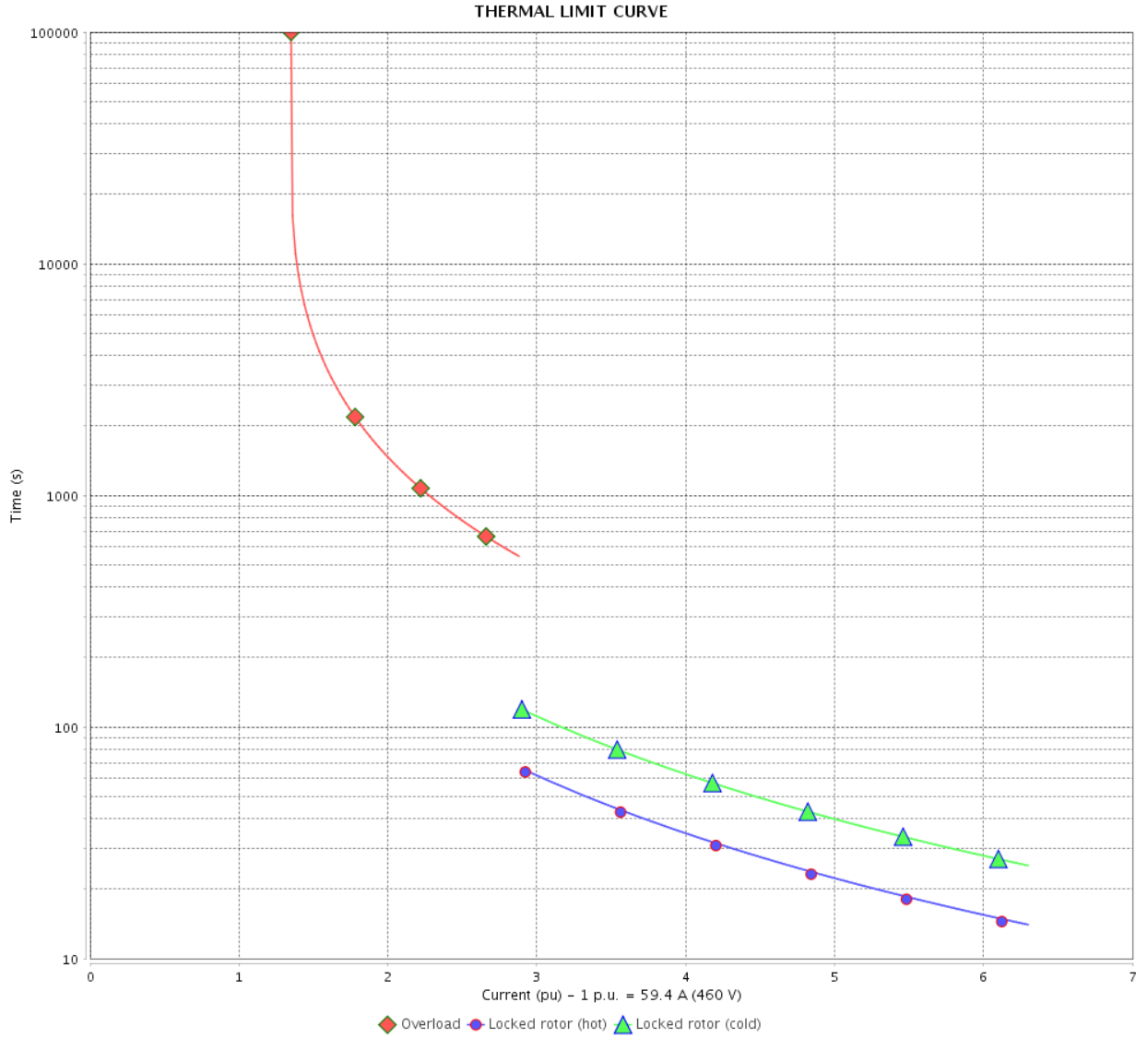
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Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 2P IE3

Rated current : 57.5 A	Moment of inertia (J) : 3.02 sq.ft.lb
LRC : 6.4	Duty cycle : Cont.(S1)
Rated torque : 71.0 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.00
Breakdown torque : 220 %	Temperature rise : 80 K
Rated speed : 2960 rpm	Design : B

Heating constant

Cooling constant

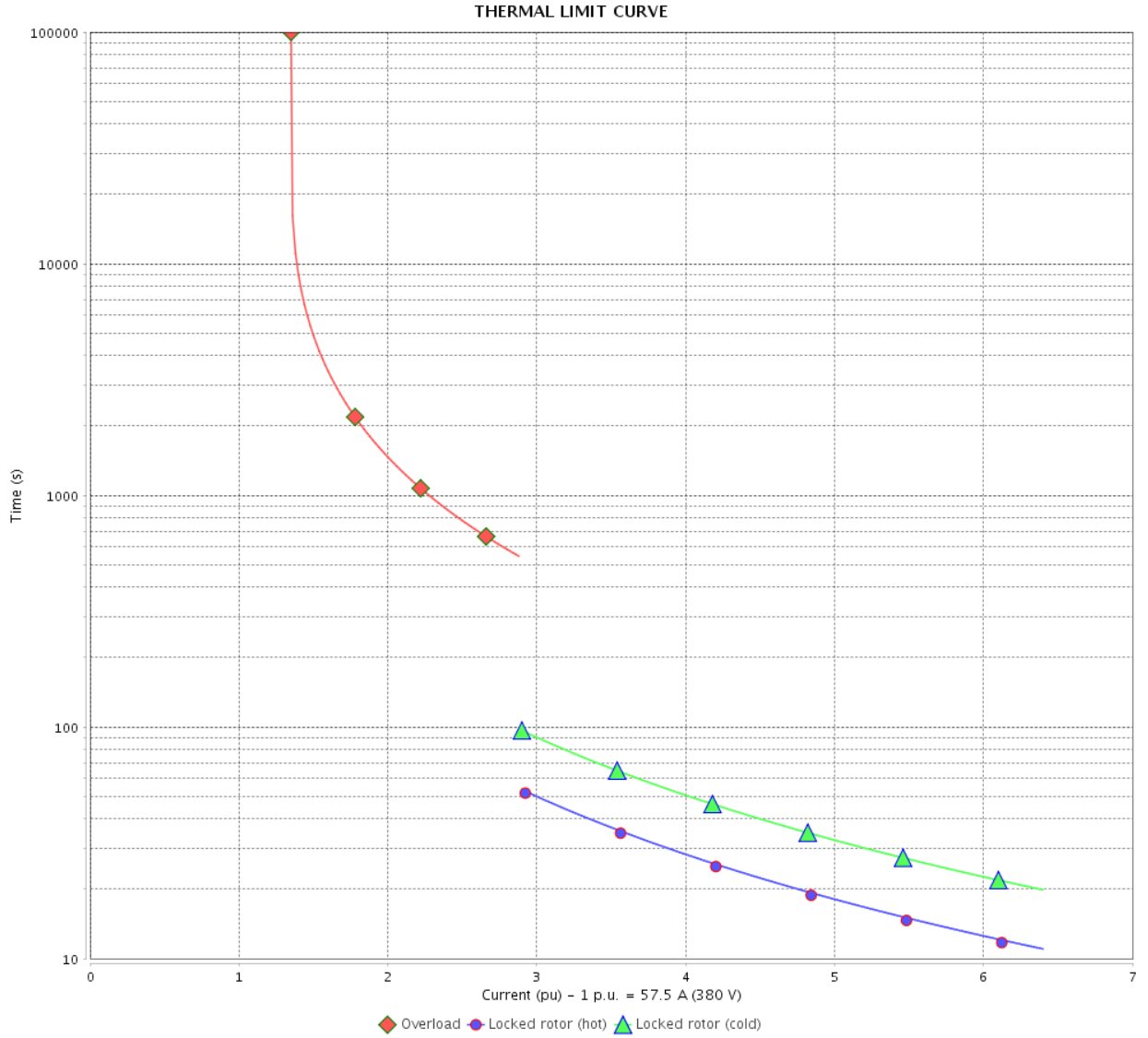
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LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 70.8 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
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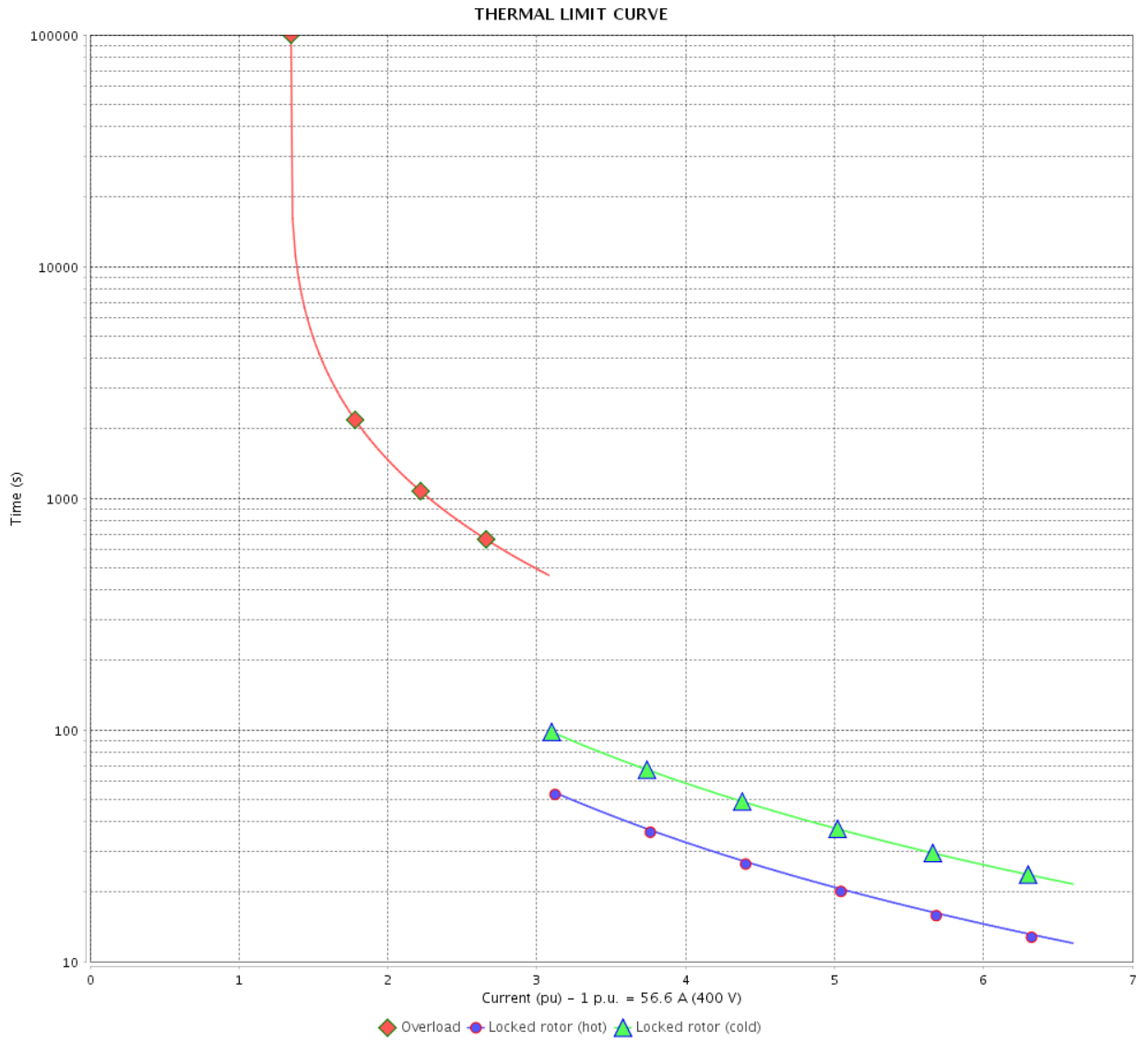
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Checked by			Page	Revision
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Three Phase Induction Motor - Squirrel Cage



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Locked rotor torque : 240 %	Service factor : 1.00
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 2965 rpm	Design : B

Heating constant

Cooling constant

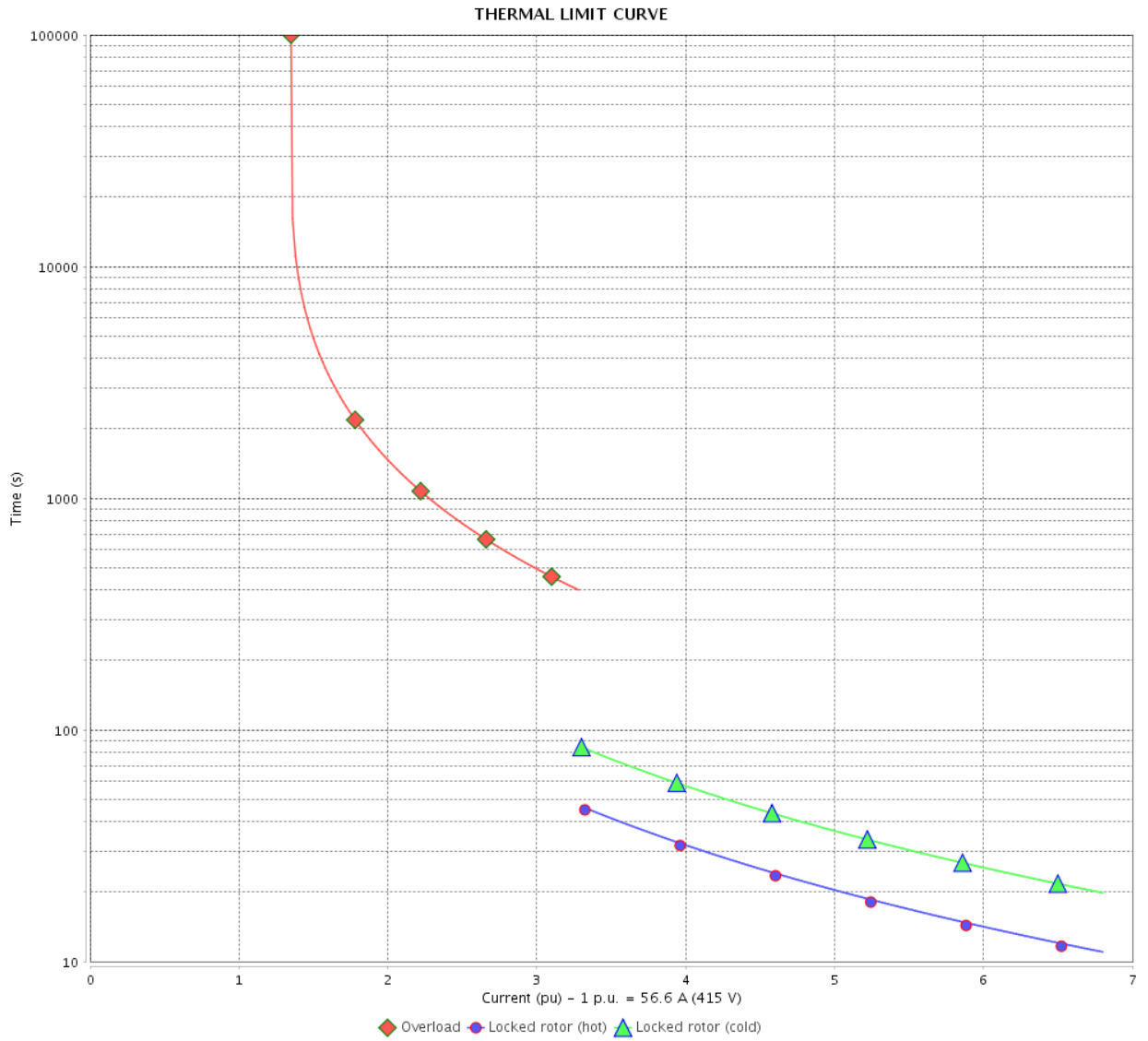
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

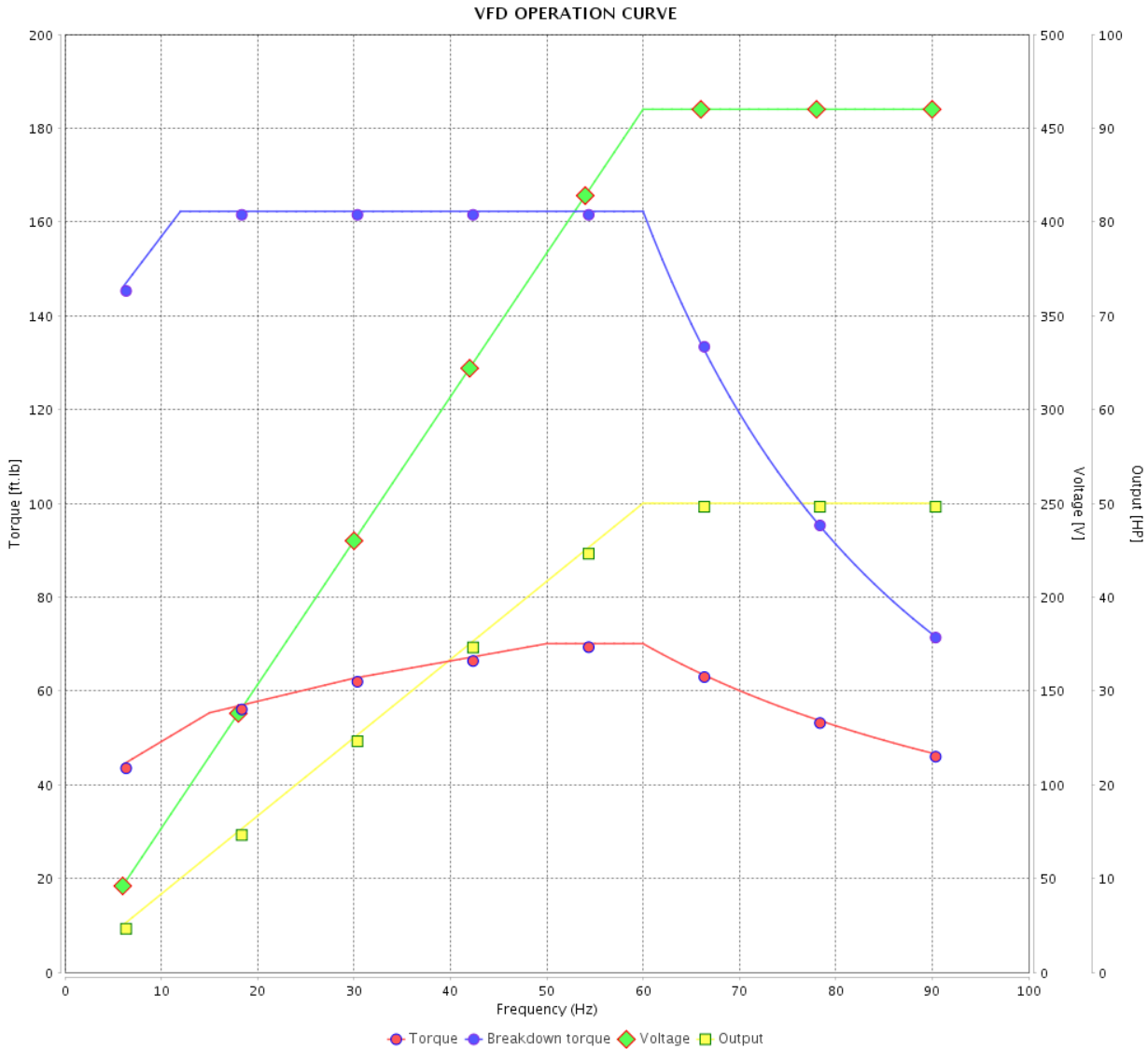


Customer :

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

Product code : 14484817

Catalog # : 05036OT3G324JM-W40



Performance : 460 V 60 Hz 2P

Rated current : 59.4 A
 LRC : 6.3
 Rated torque : 73.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 220 %
 Rated speed : 3560 rpm

Moment of inertia (J) : 3.02 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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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

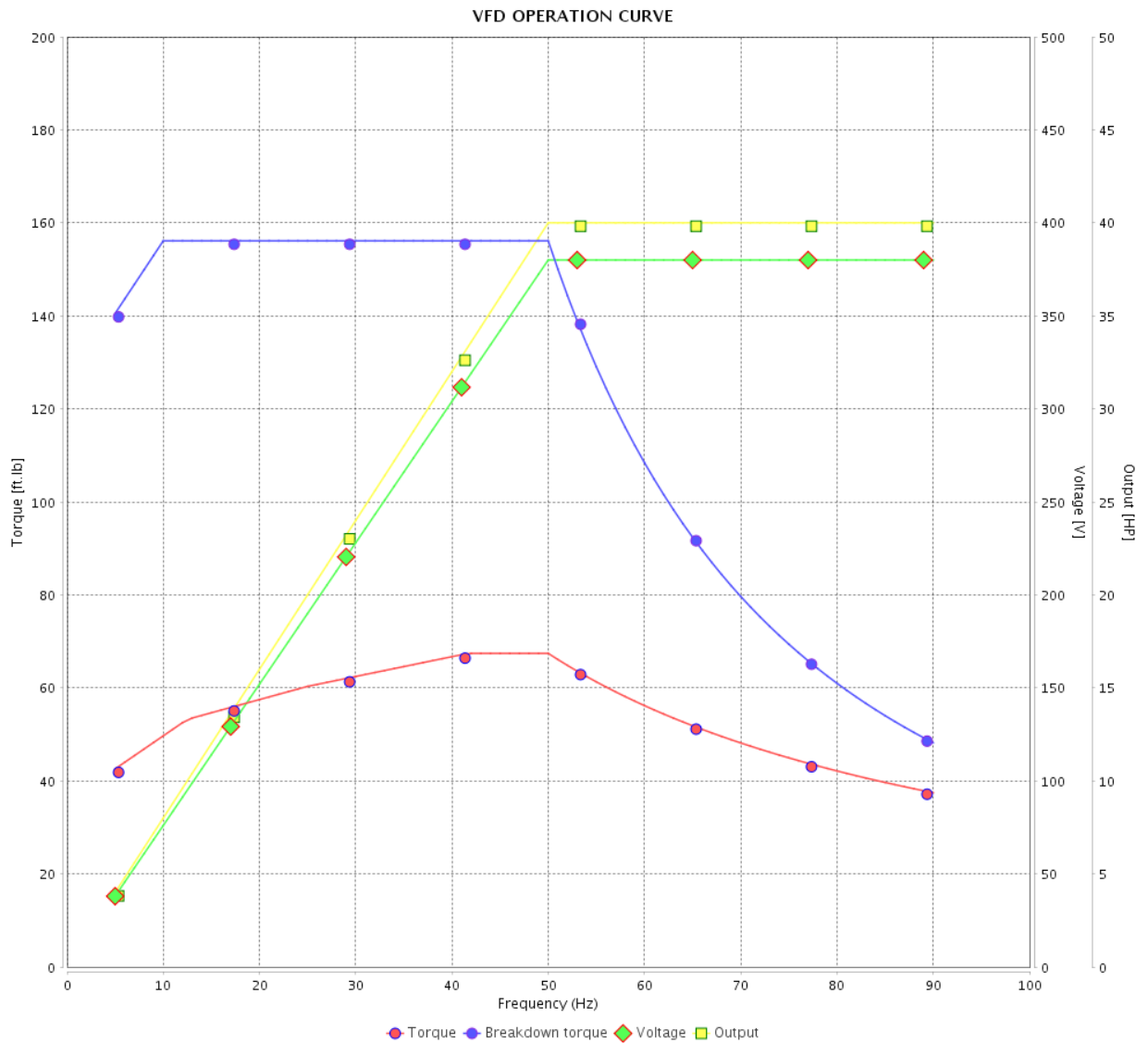


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Performance : 380 V 50 Hz 2P IE3

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 Breakdown torque : 220 %
 Rated speed : 2960 rpm

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



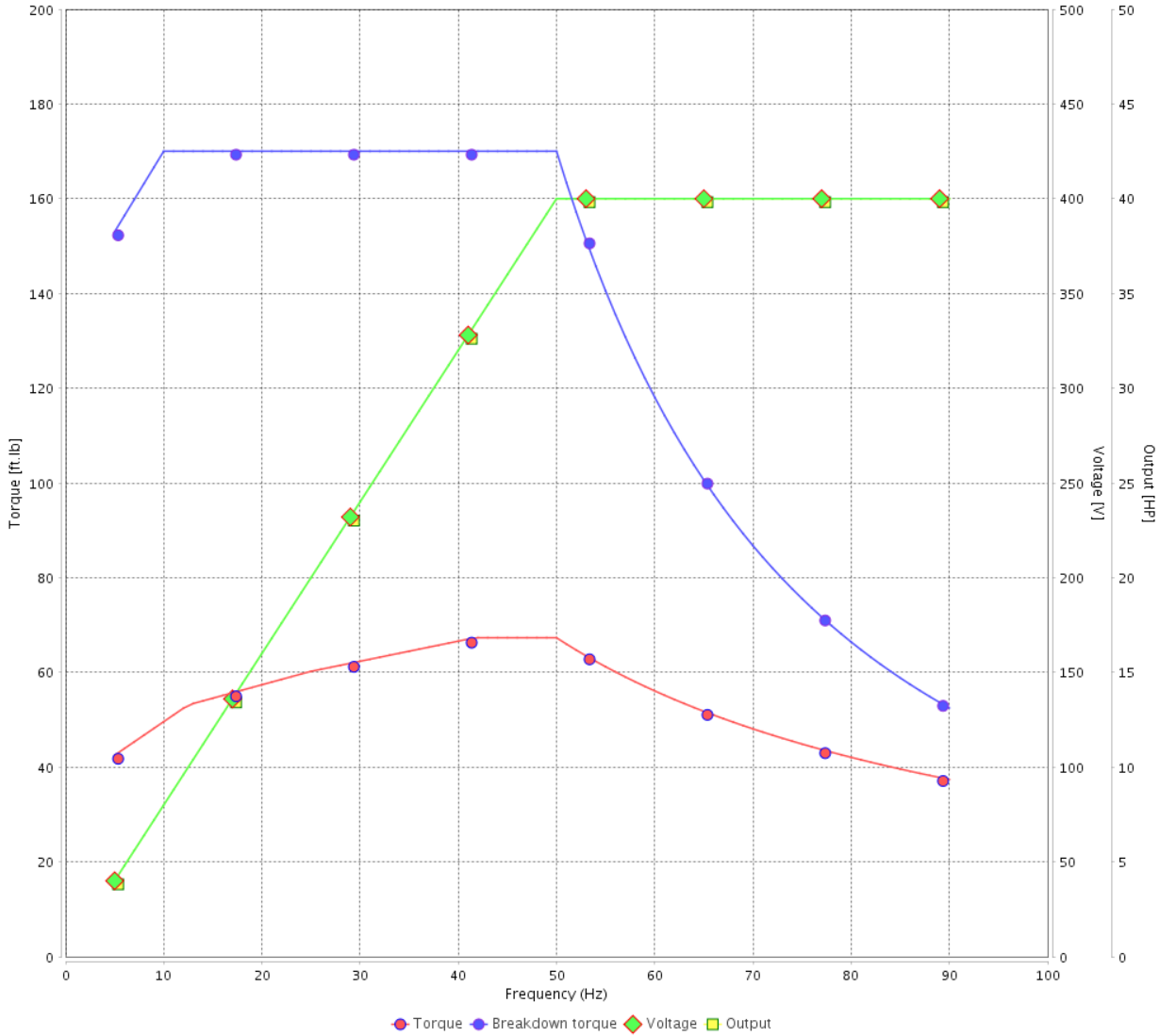
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VFD OPERATION CURVE



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

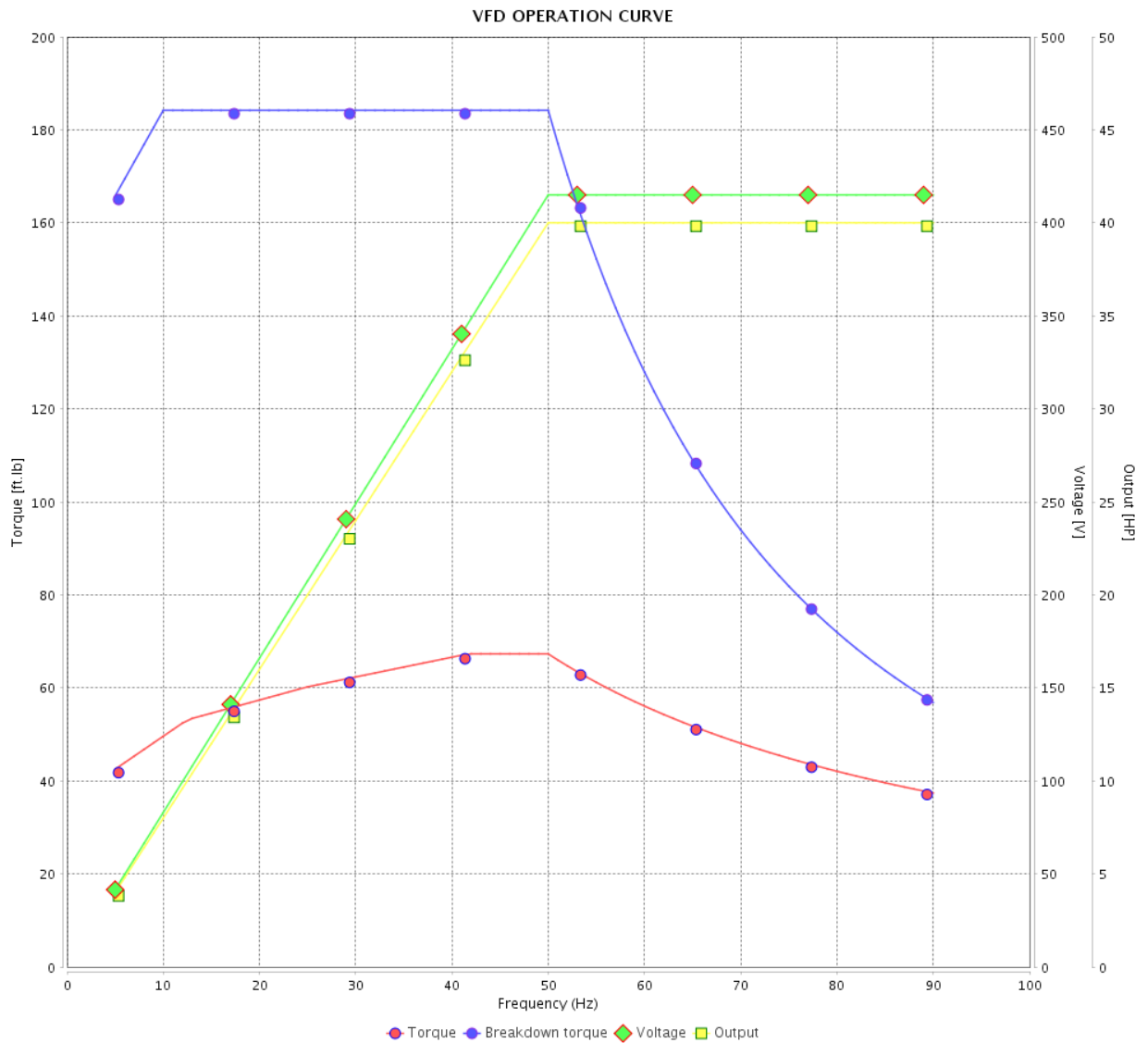


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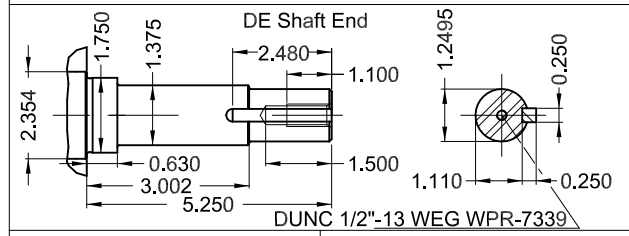
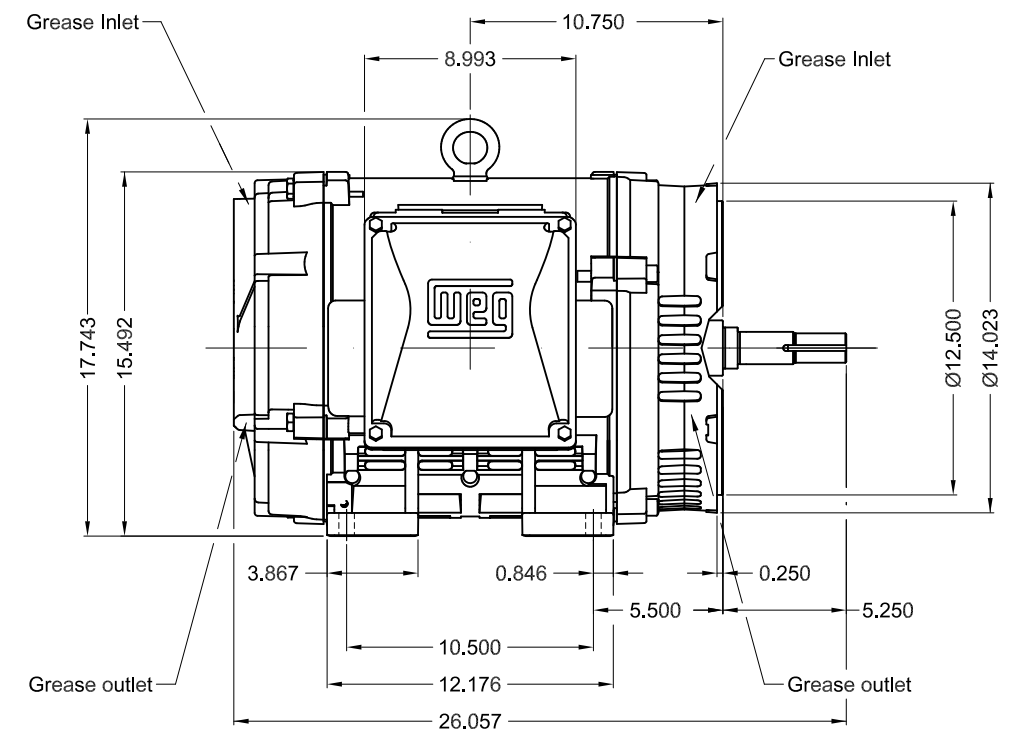
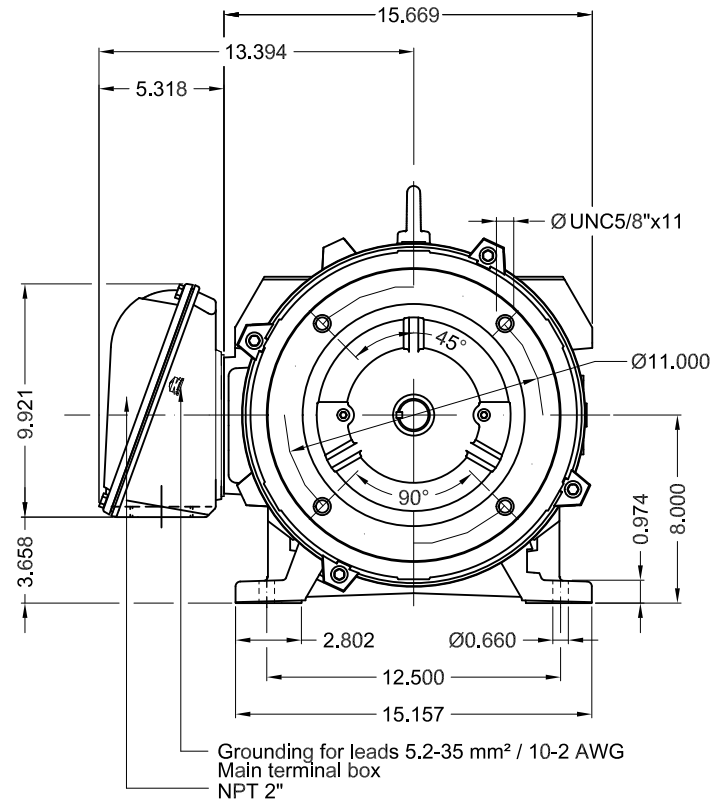


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 Design : B

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Date				



50 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 JM TYPE PREM-EST.					
CHECKED		FRAME 324JM IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

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

PREVIEW



MODEL 050360T3G324JM-W40
MADE IN BRAZIL
14484817

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

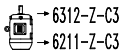
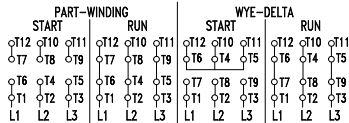


IEC 60034-1
MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 3:1, 1.0SF

PH 3	FR 324JM	HP(kW) 50(37)	Hz 60
V 460	A 59.4	IP23	
NEMA NOM EFF	93.0 %	RPM 3560	
ENCL ODP	DUTY CONT.	INS. CL. F ΔT 80 K	
PF 0.84	DES B	CODE G	AMB. 40°C
SF 1.25	SFA 74.3	ALT 1000 m.a.s.l.	
40HP 30kW 50Hz 380V 57.5A 2960RPM SF1.00 EFF 93.3% (IE3)			



MOBIL POLYREX EM
21 g 19658 h

430 Lbs