

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 JP Pump NEMA Premium Efficiency Three-Phase		Product code :	14490300
				Catalog # :	05036OT3G324JP-W40
Frame		: 324JP		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	: 432 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	: Drive end	6312 Z C3	Non drive end	6211 Z C3	Foundation loads Max. traction Max. compression
Sealing	: Without		Without		
		Bearing Seal		Bearing Seal	
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



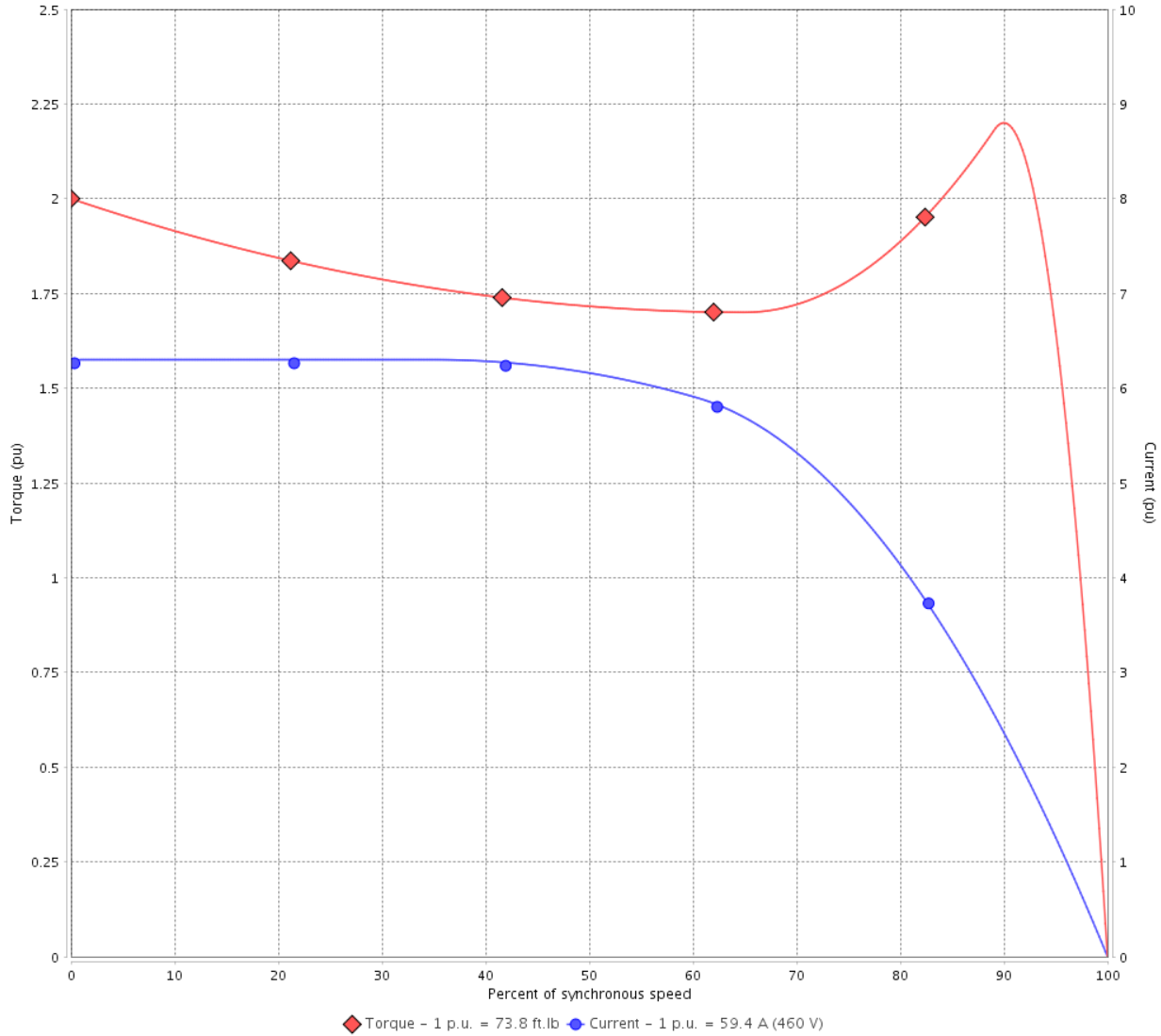
Customer :

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

Product code : 14490300

Catalog # : 05036OT3G324JP-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



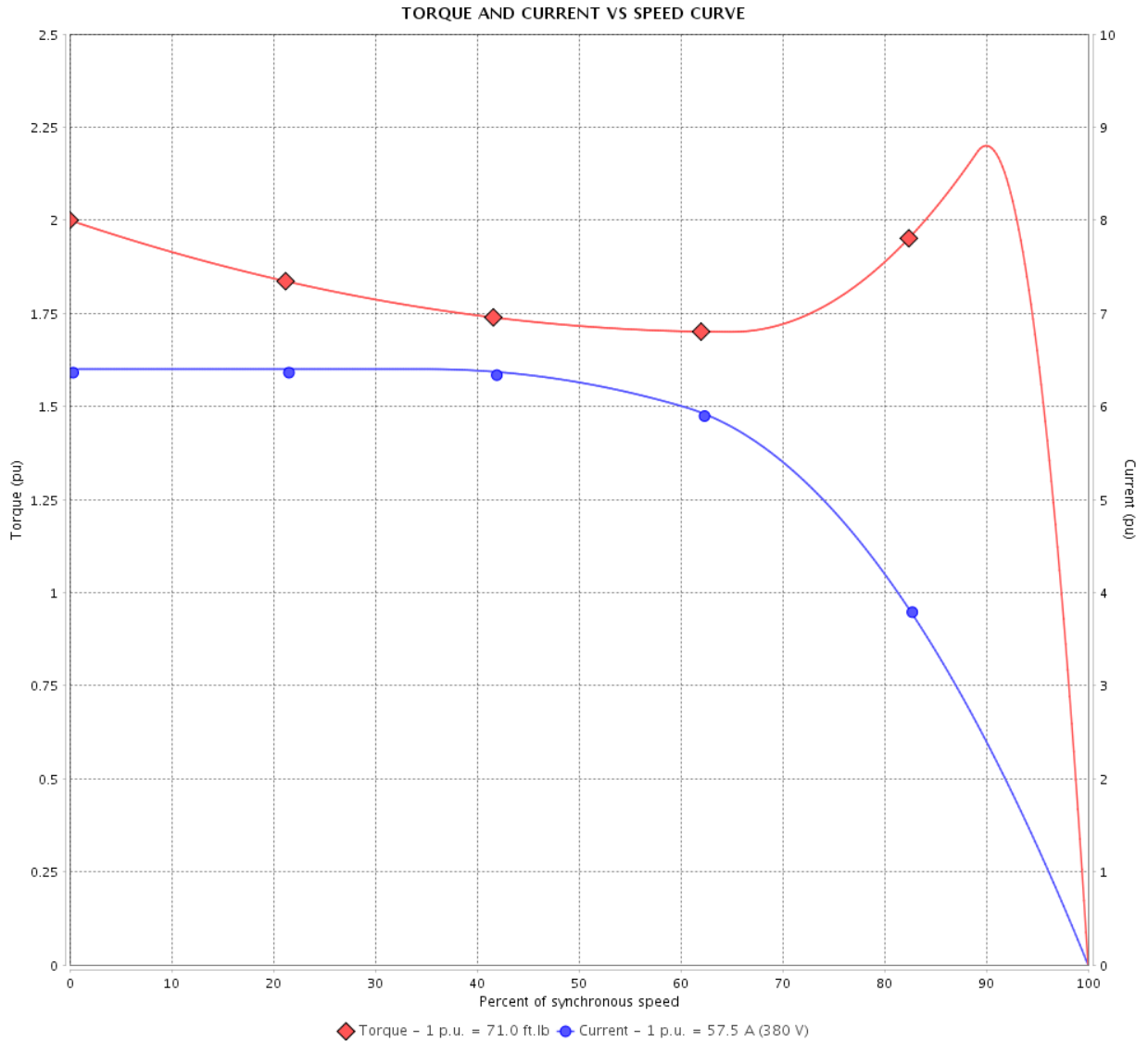
Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14490300

Catalog # : 05036OT3G324JP-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



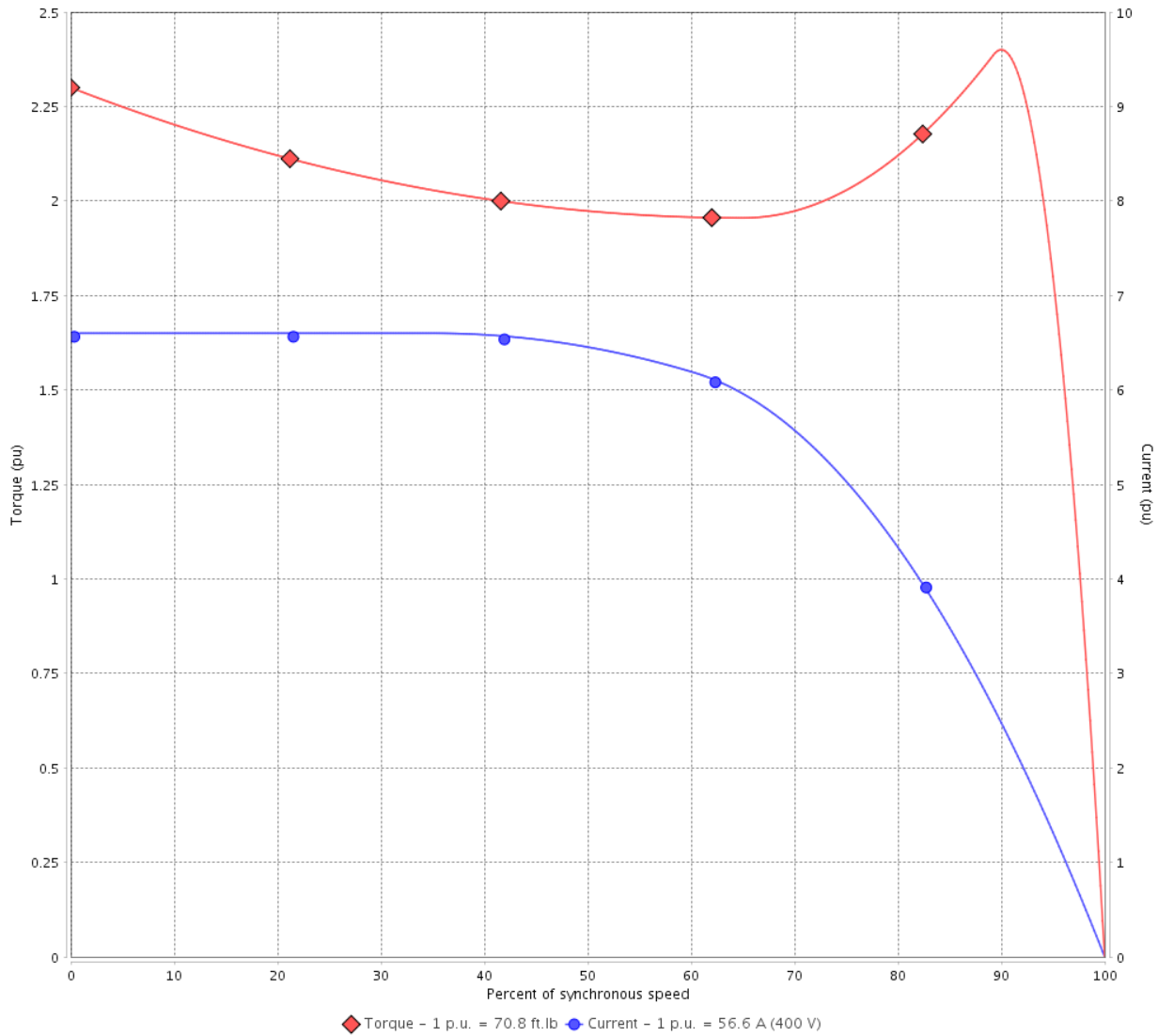
Customer :

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

Product code : 14490300

Catalog # : 05036OT3G324JP-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



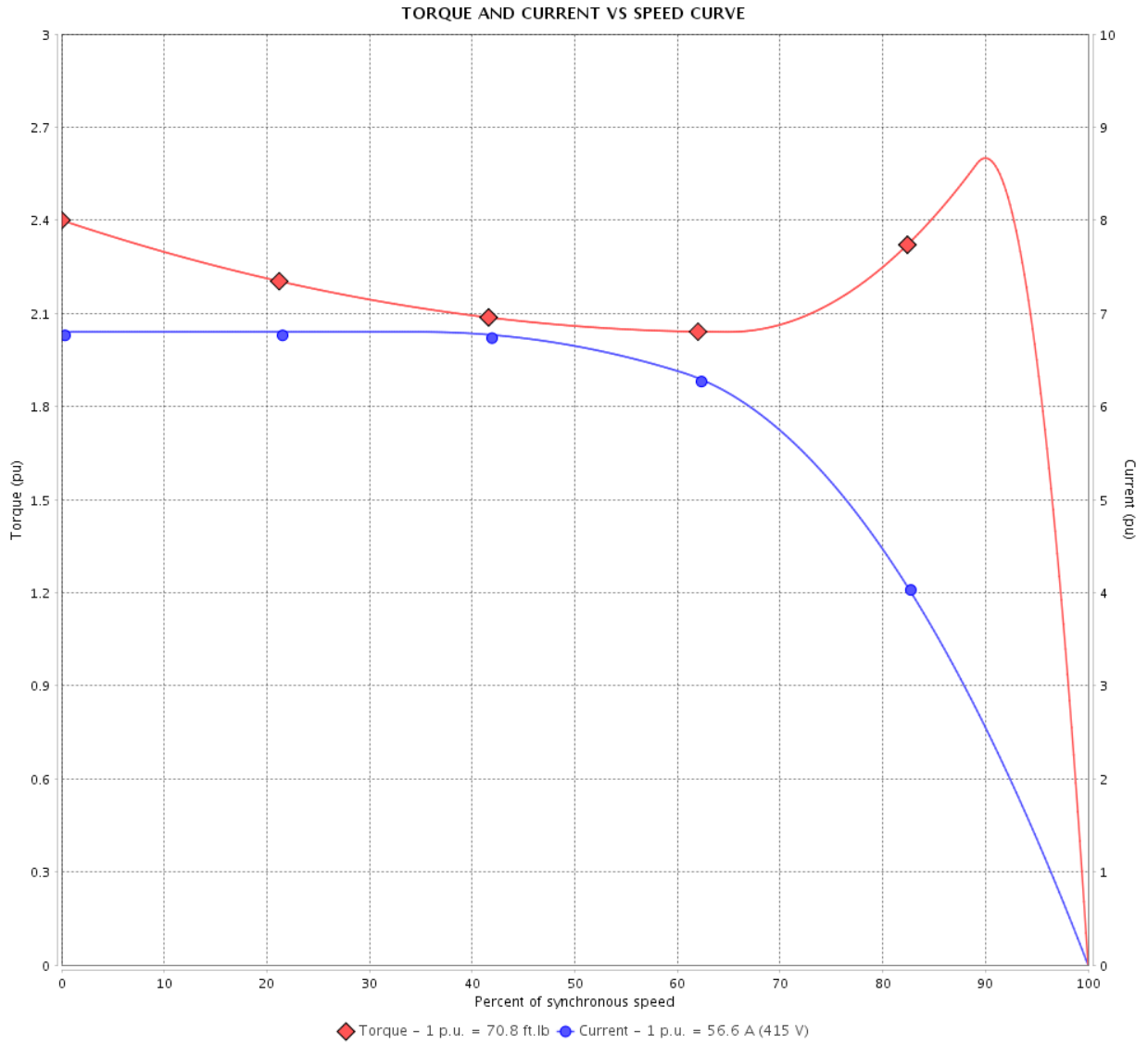
Three Phase Induction Motor - Squirrel Cage

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Catalog # : 05036OT3G324JP-W40



Performance : 415 V 50 Hz 2P IE3

Rated current	: 56.6 A	Moment of inertia (J)	: 3.02 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 70.8 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

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

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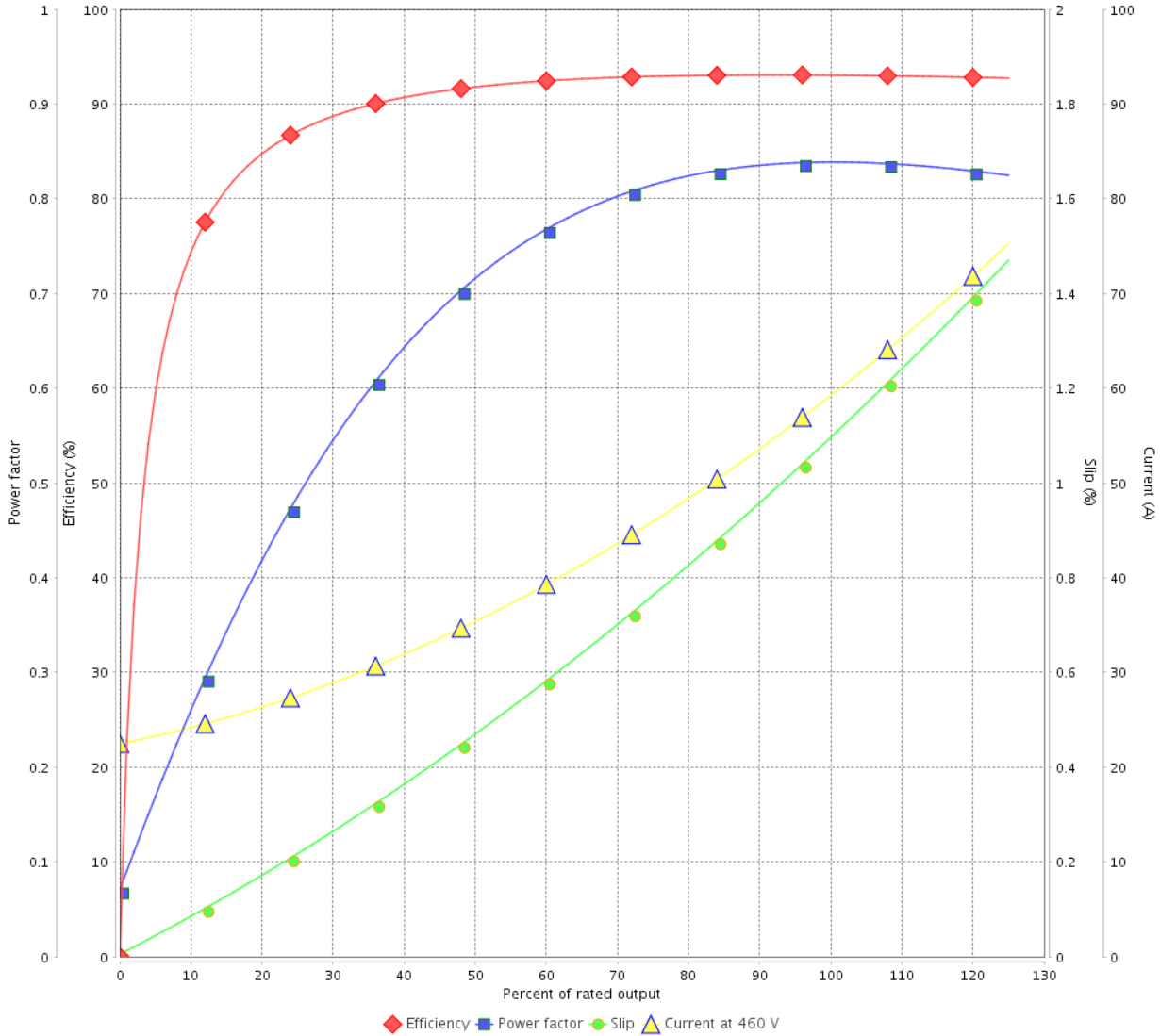
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LOAD PERFORMANCE CURVE



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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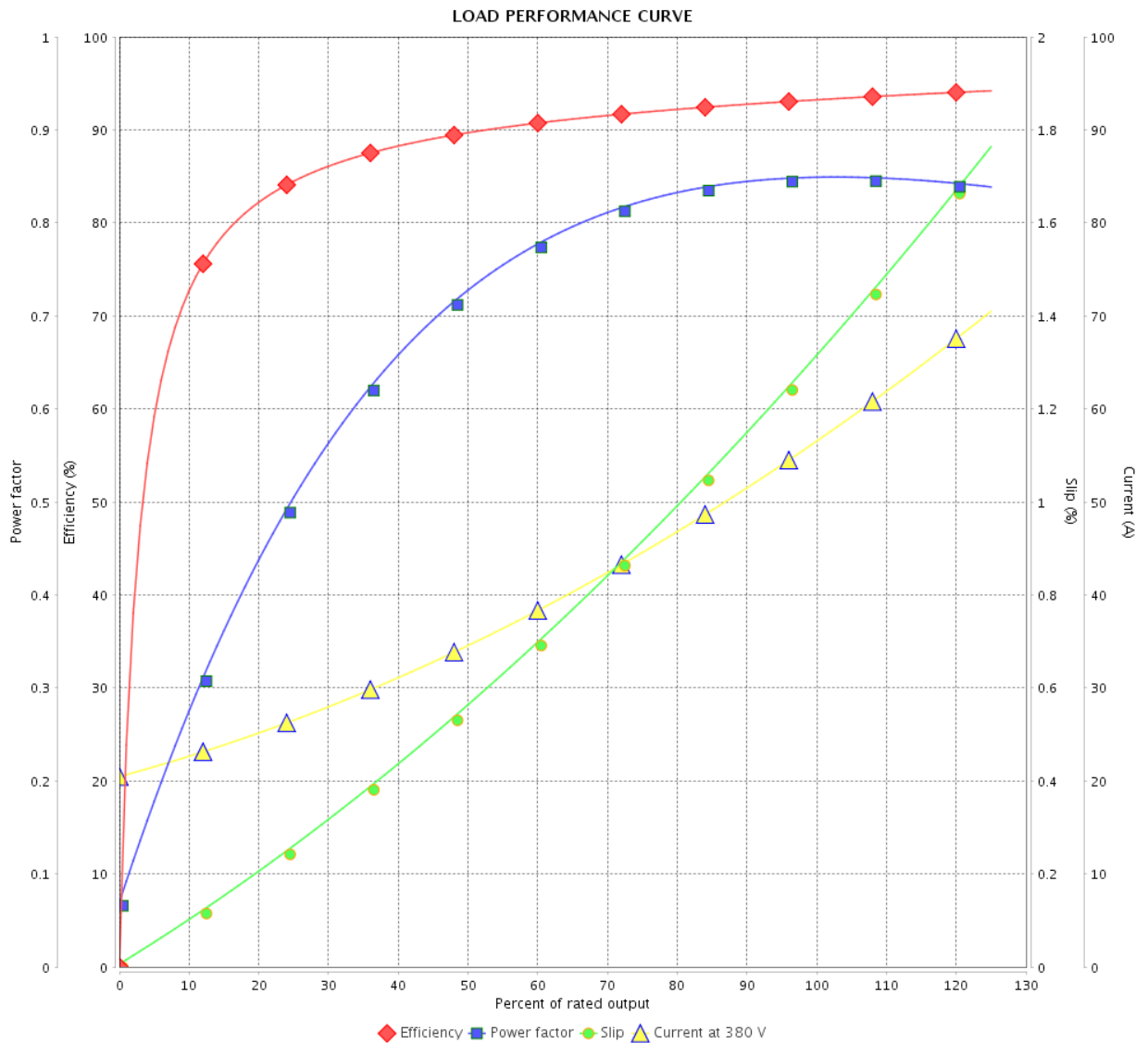


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Catalog # : 05036OT3G324JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 57.5 A
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 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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Three Phase Induction Motor - Squirrel Cage



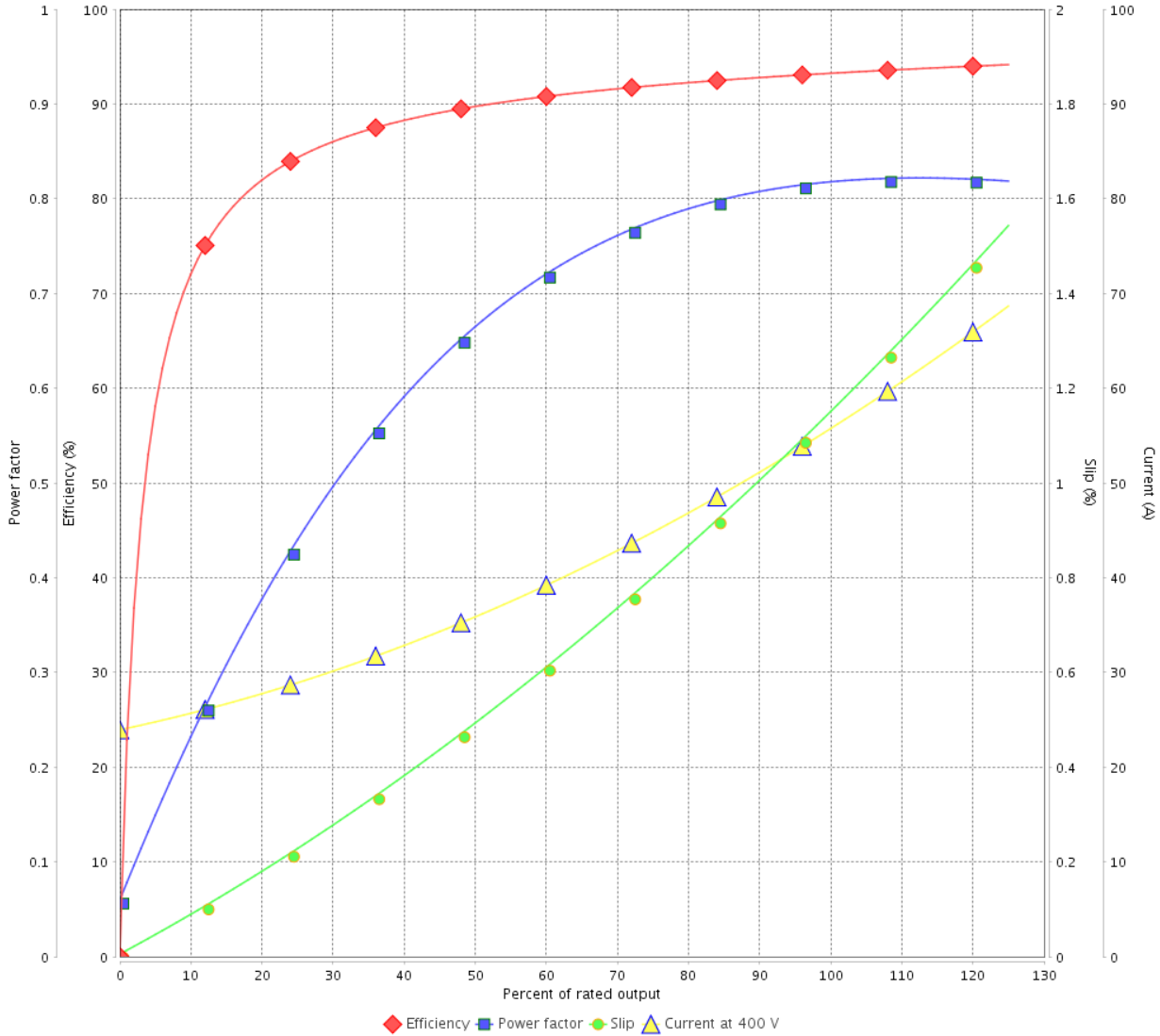
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LOAD PERFORMANCE CURVE



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

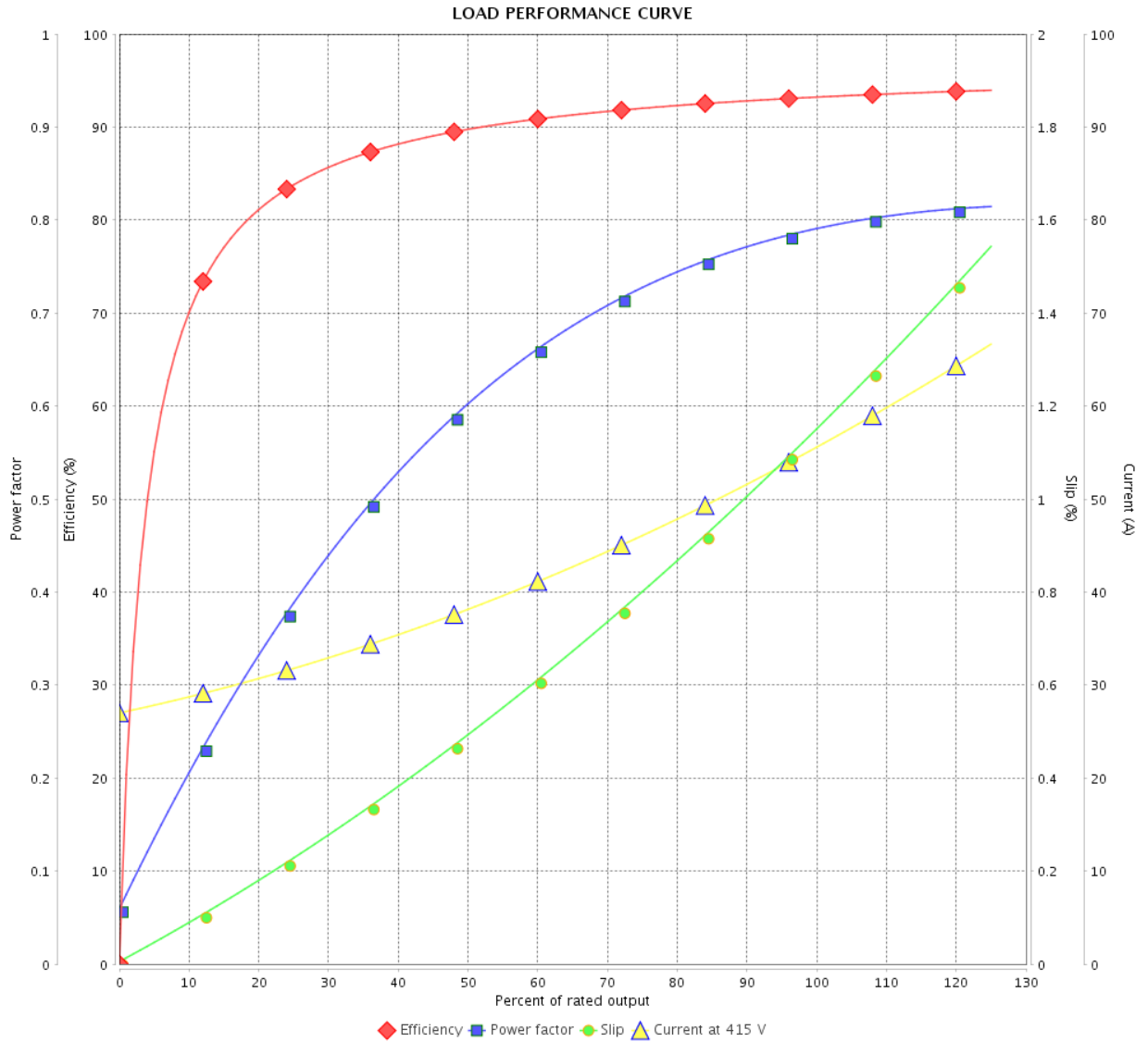


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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THERMAL LIMIT CURVE



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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

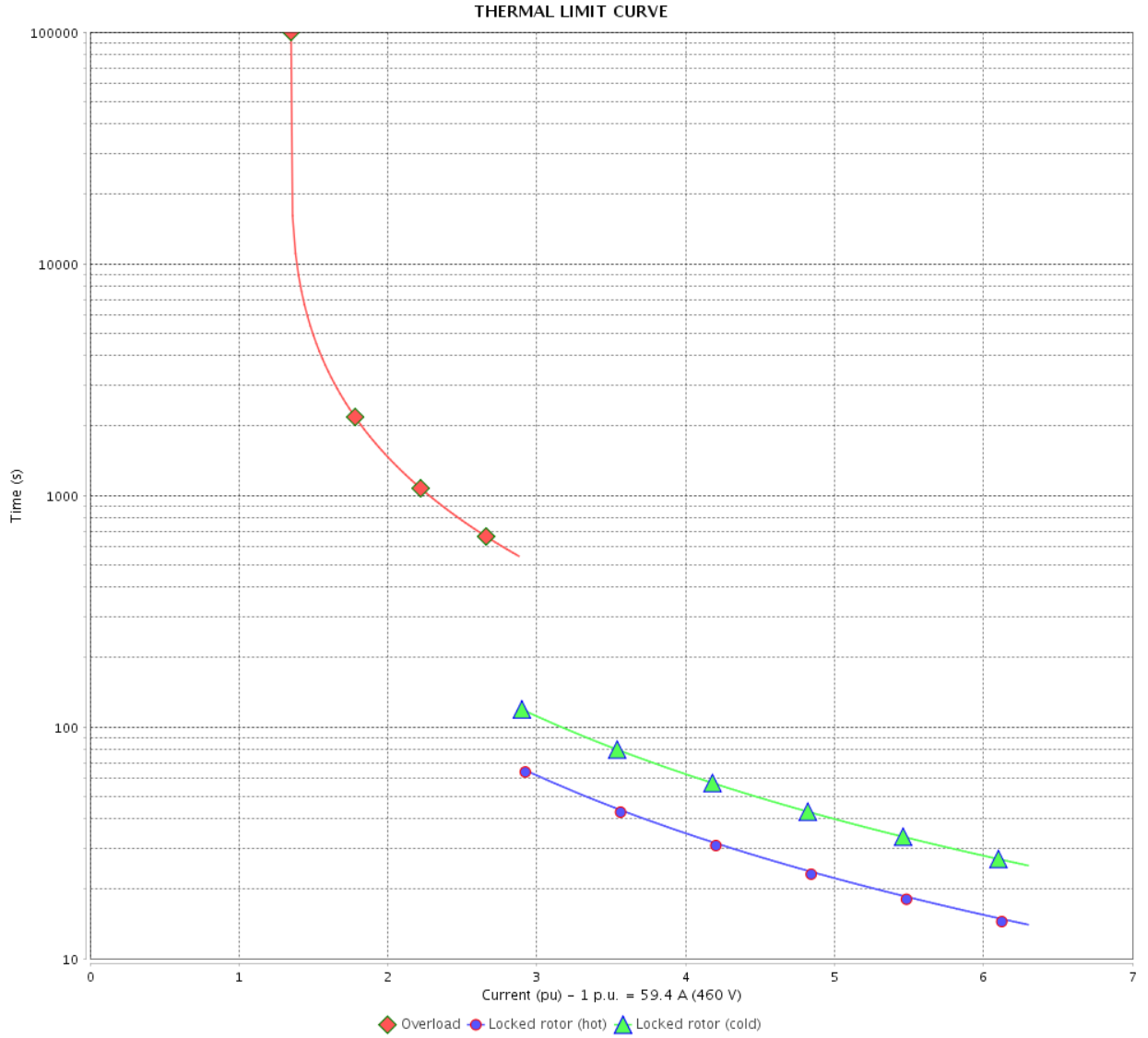
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Three Phase Induction Motor - Squirrel Cage



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Breakdown torque : 220 %
Rated speed : 2960 rpm

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

Heating constant

Cooling constant

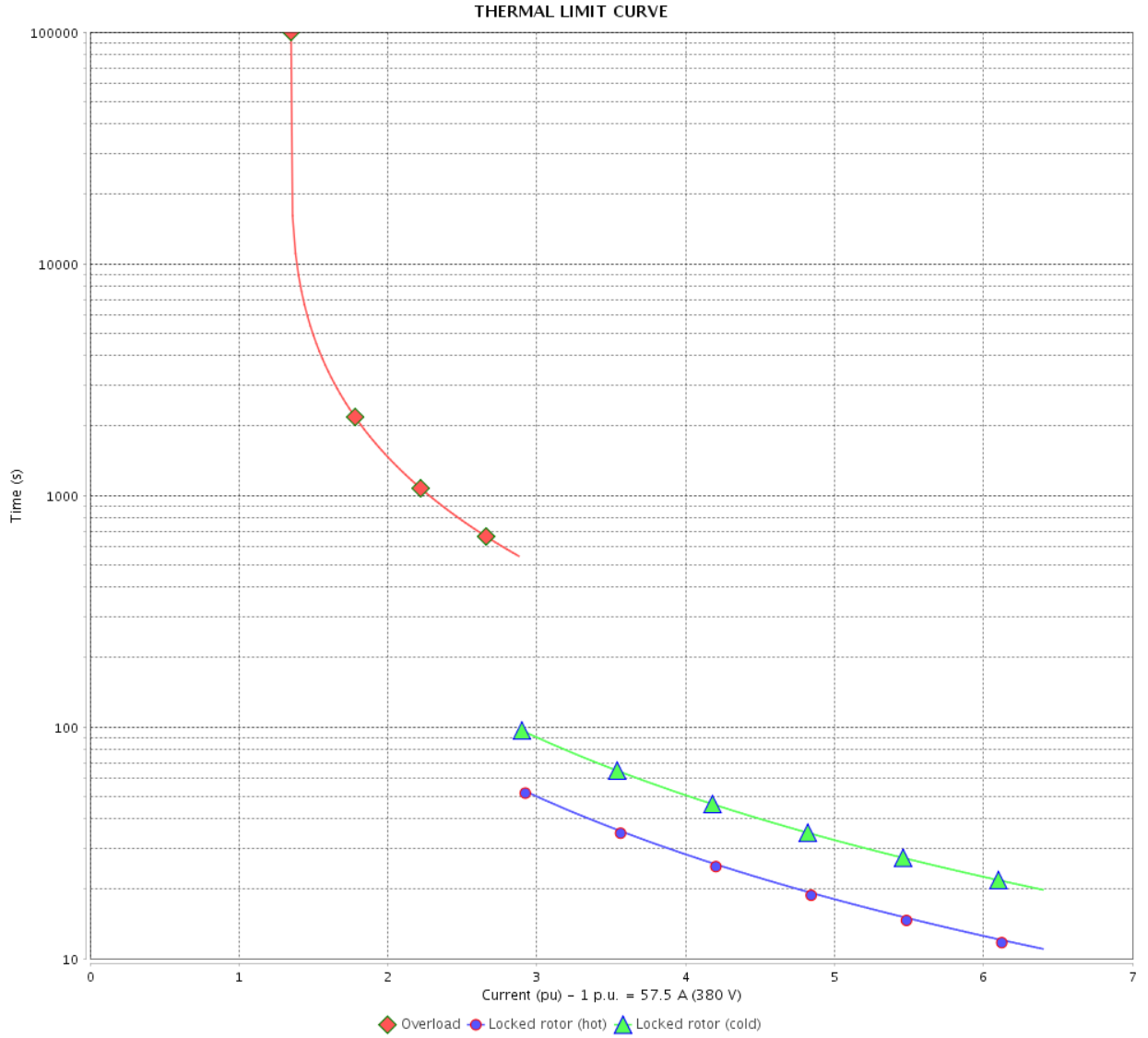
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LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 70.8 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Heating constant

Cooling constant

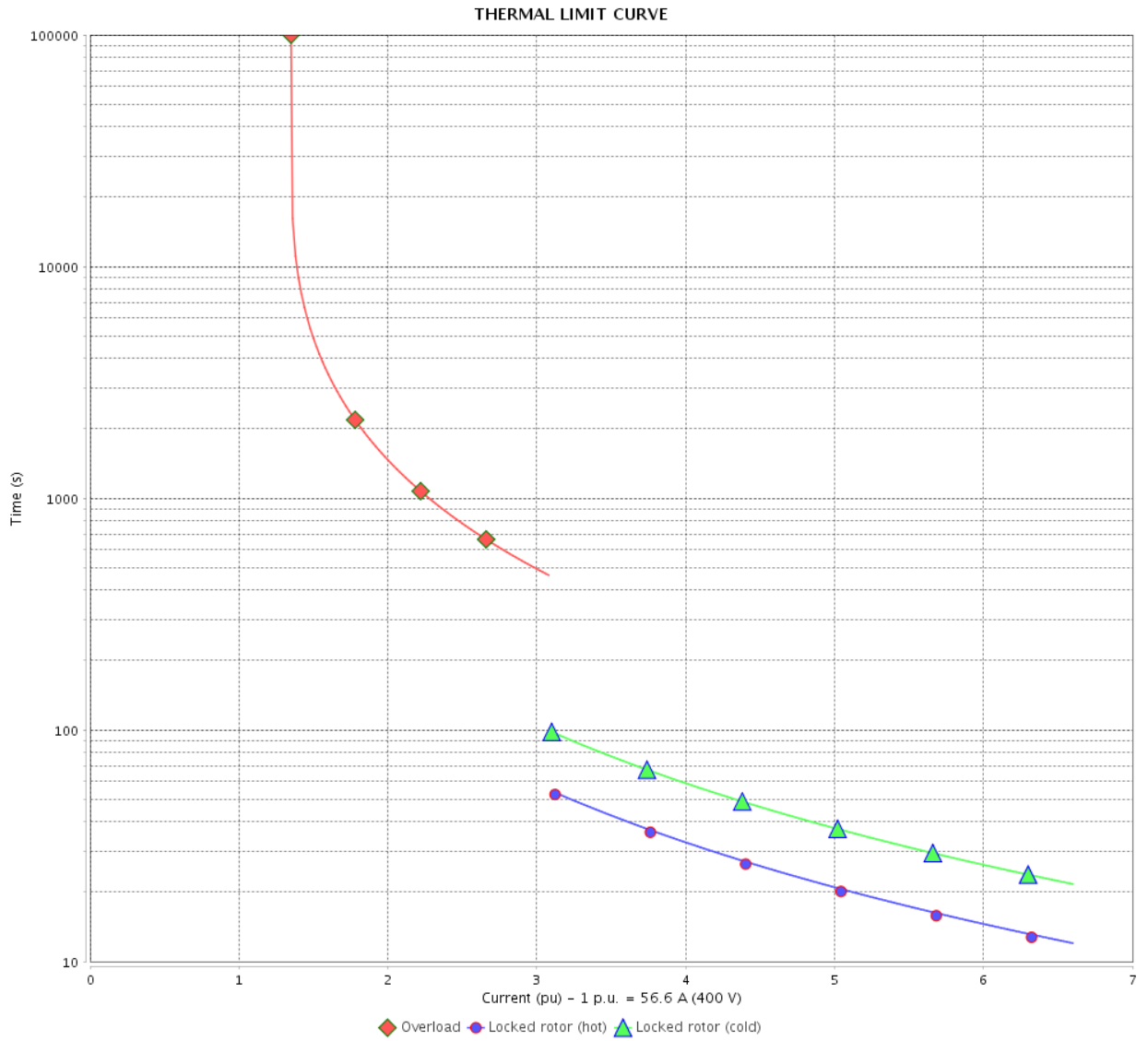
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Customer : _____



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LRC : 6.8	Duty cycle : Cont.(S1)
Rated torque : 70.8 ft.lb	Insulation class : F
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

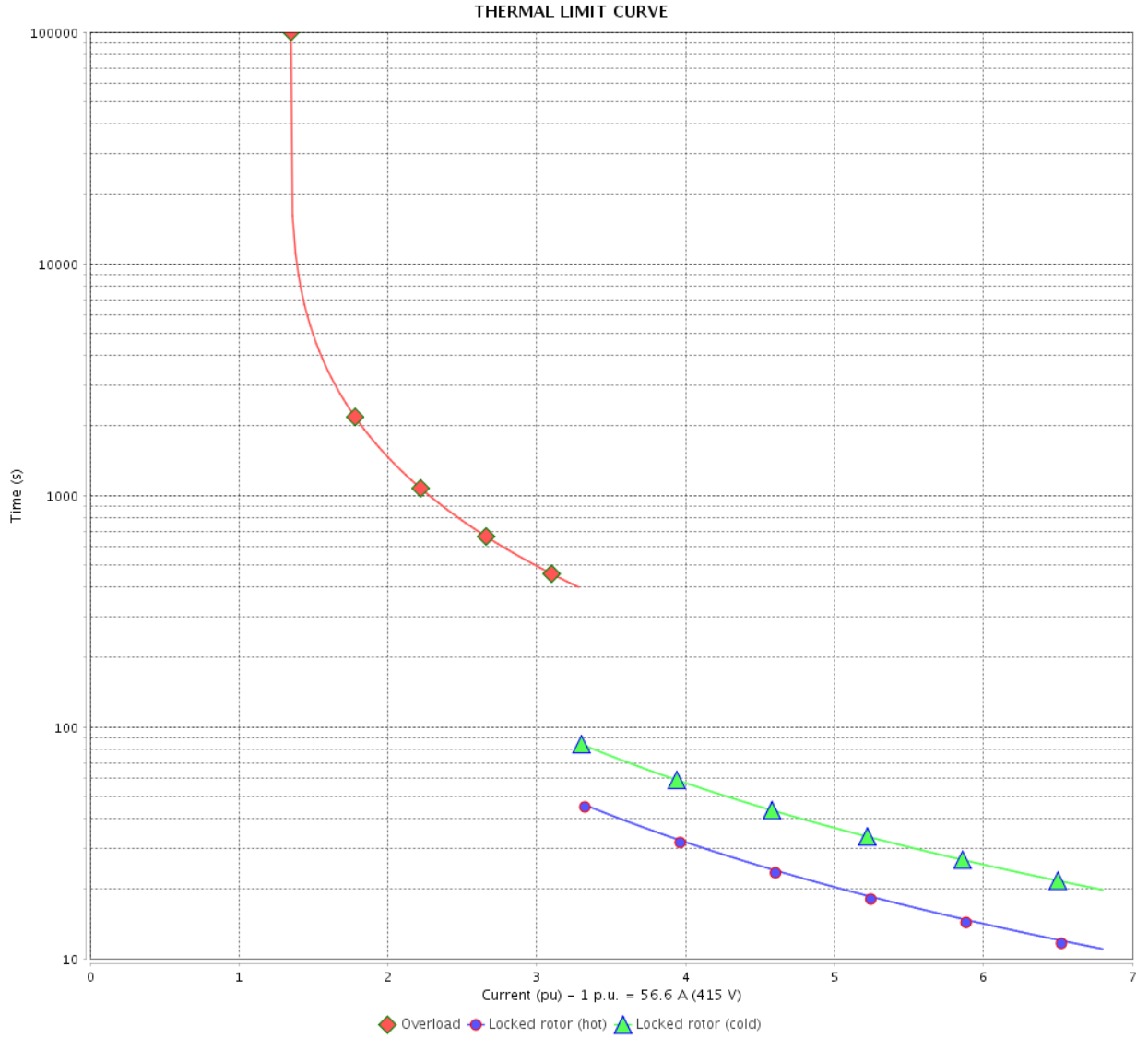
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Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

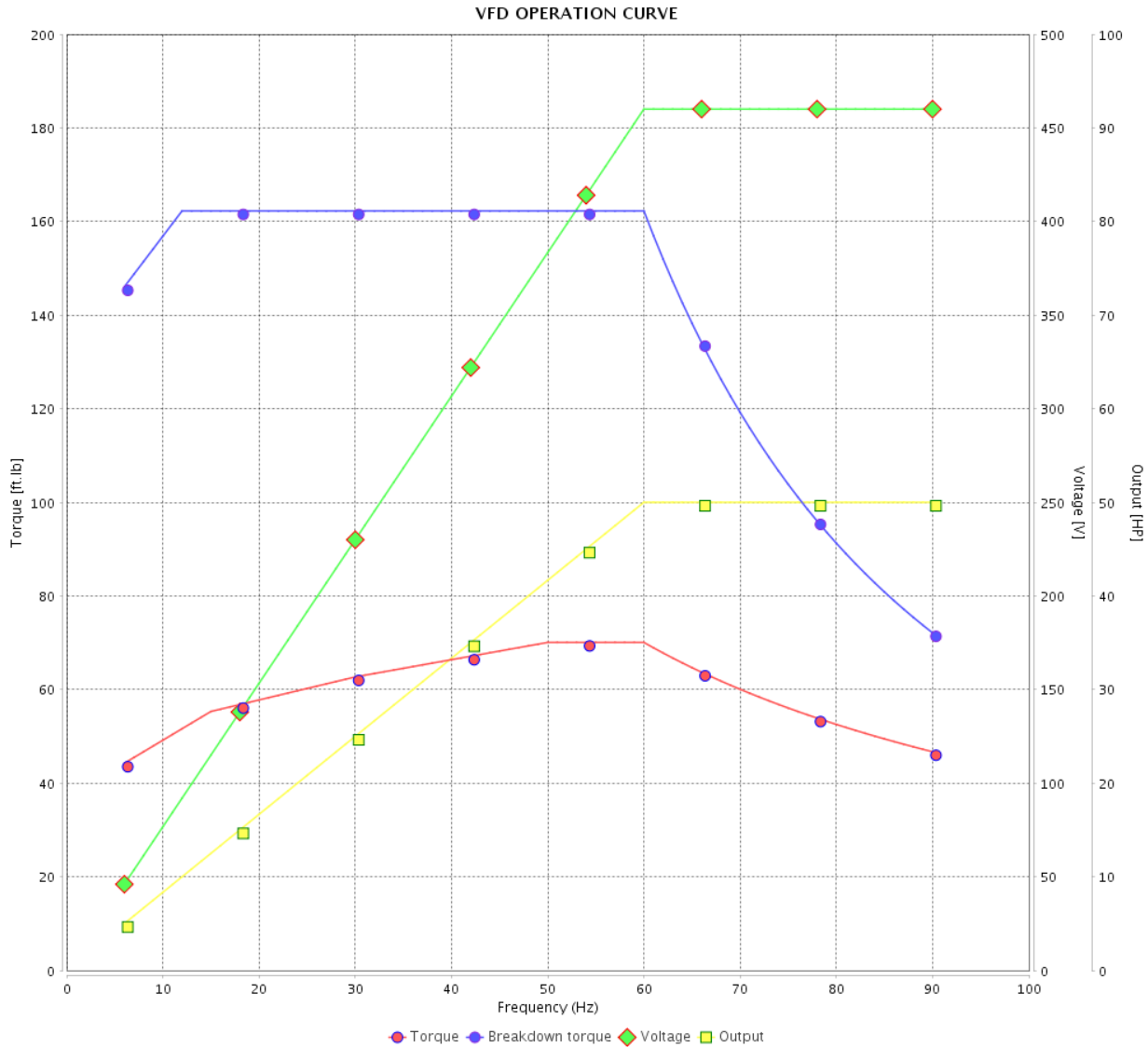


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Performance : 460 V 60 Hz 2P

Rated current : 59.4 A
 LRC : 6.3
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 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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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

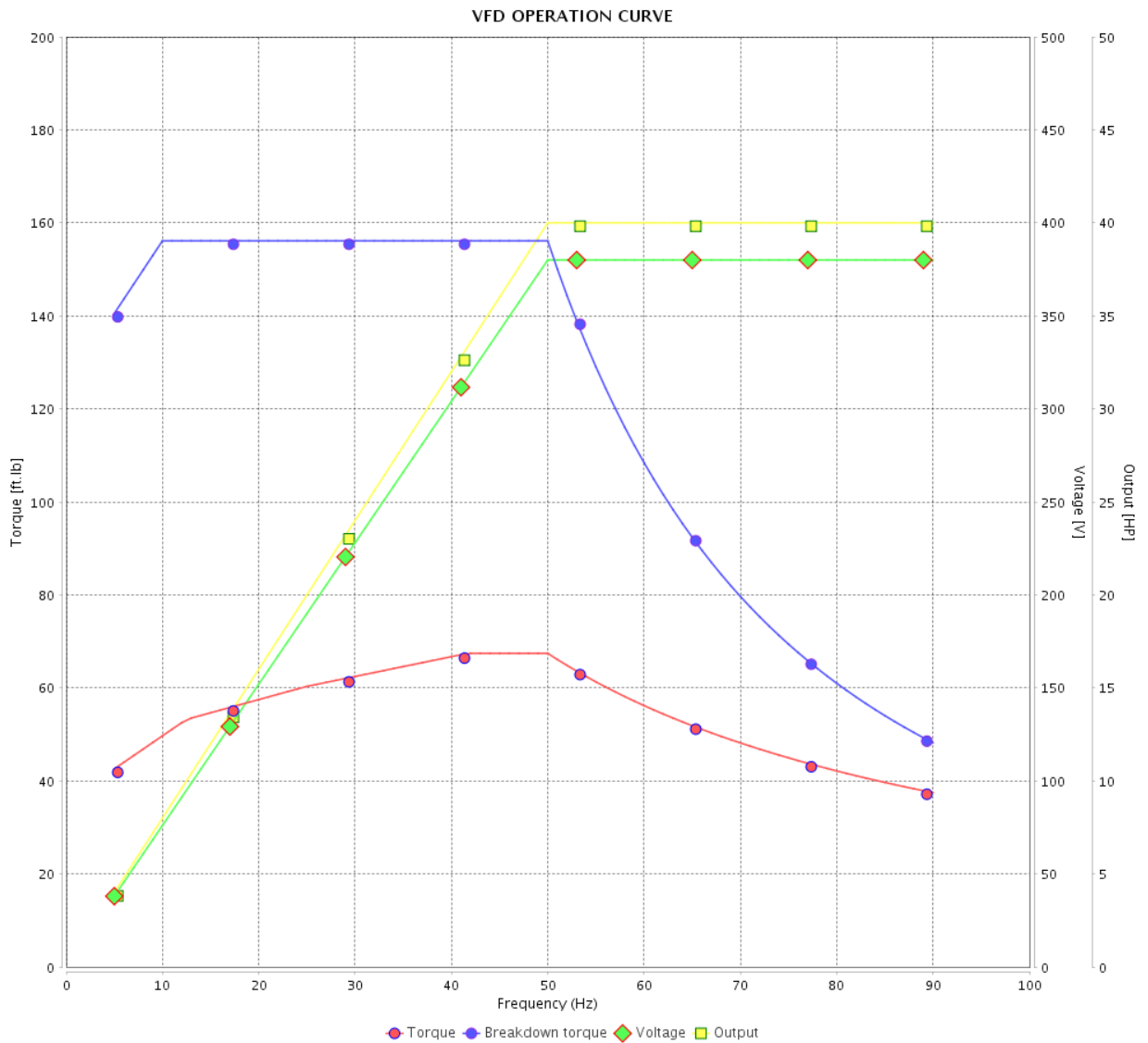


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 Duty cycle : Cont.(S1)
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Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



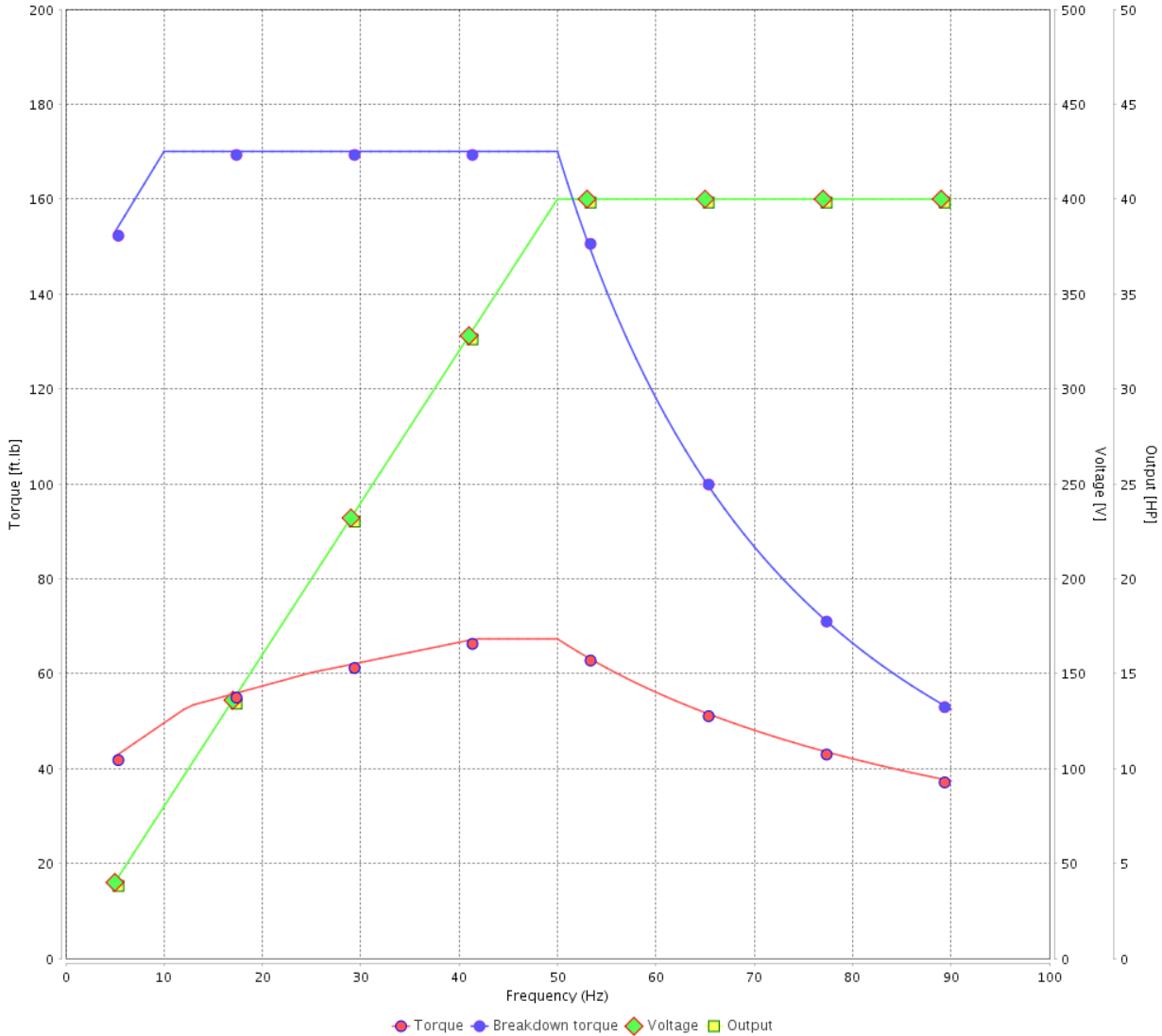
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Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

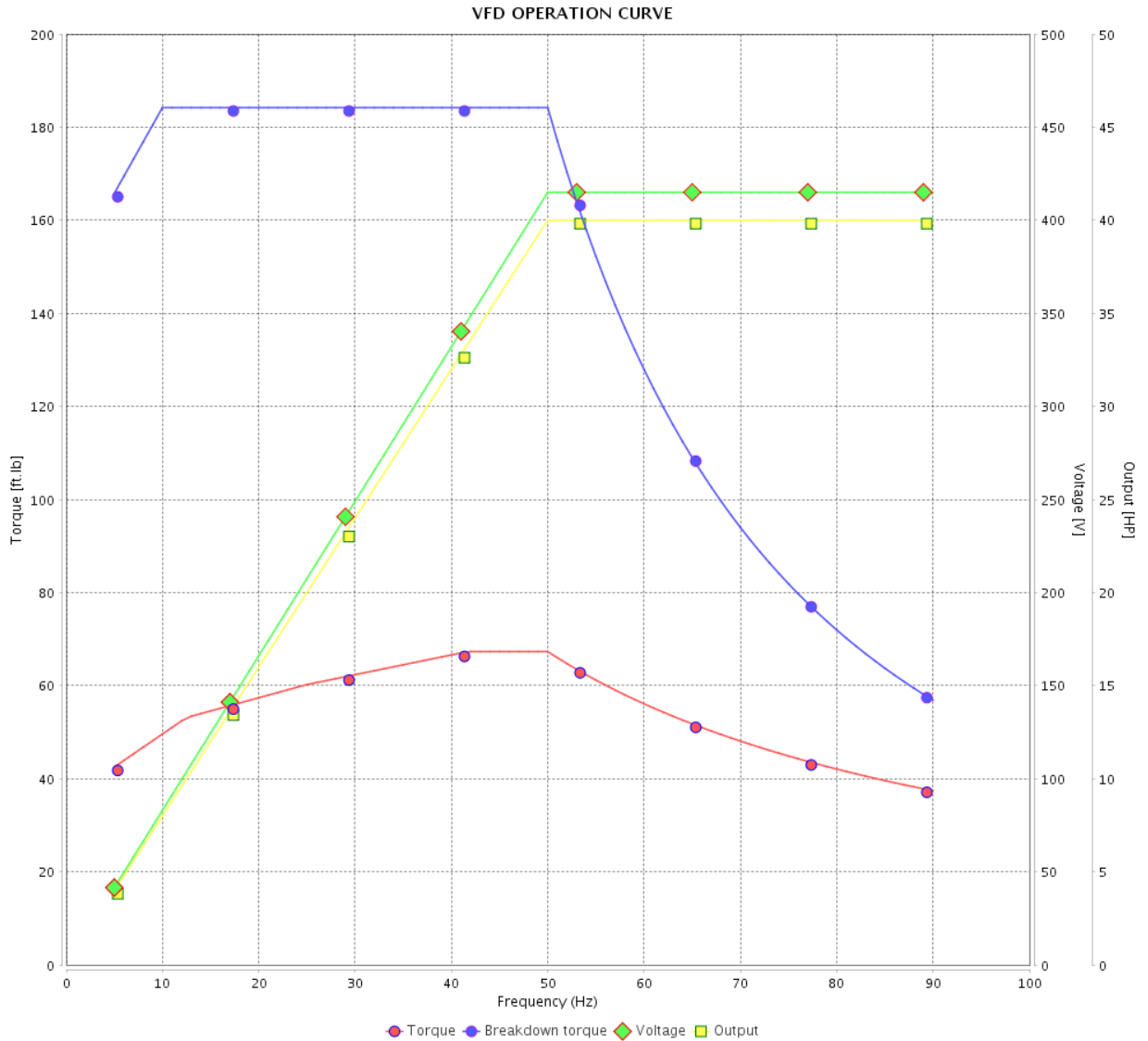


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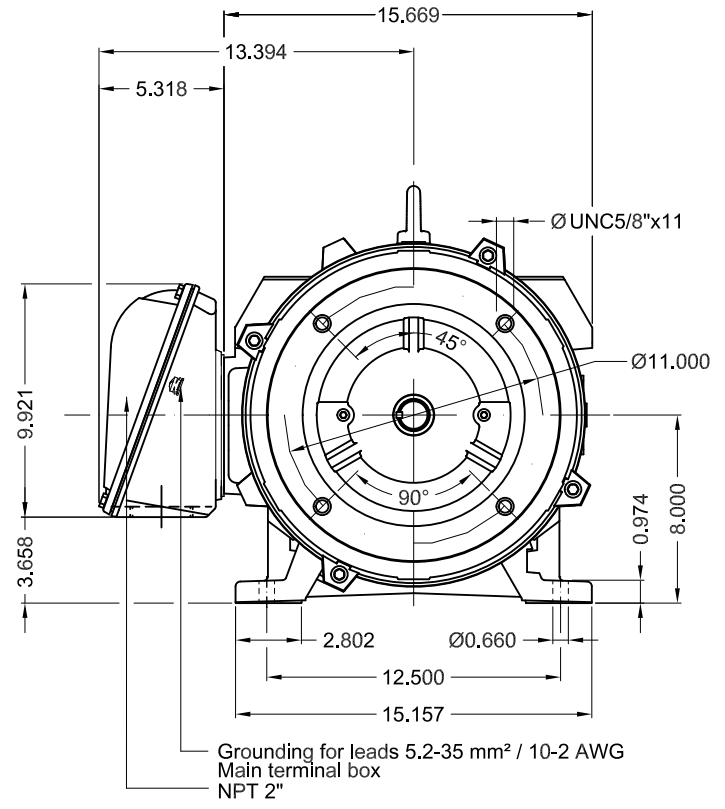


Performance : 415 V 50 Hz 2P IE3

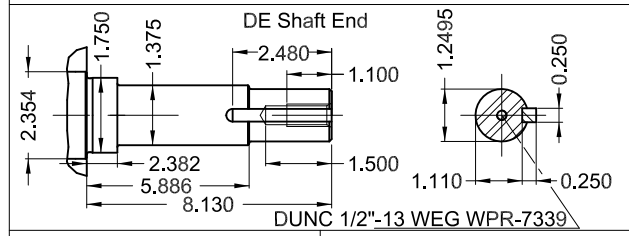
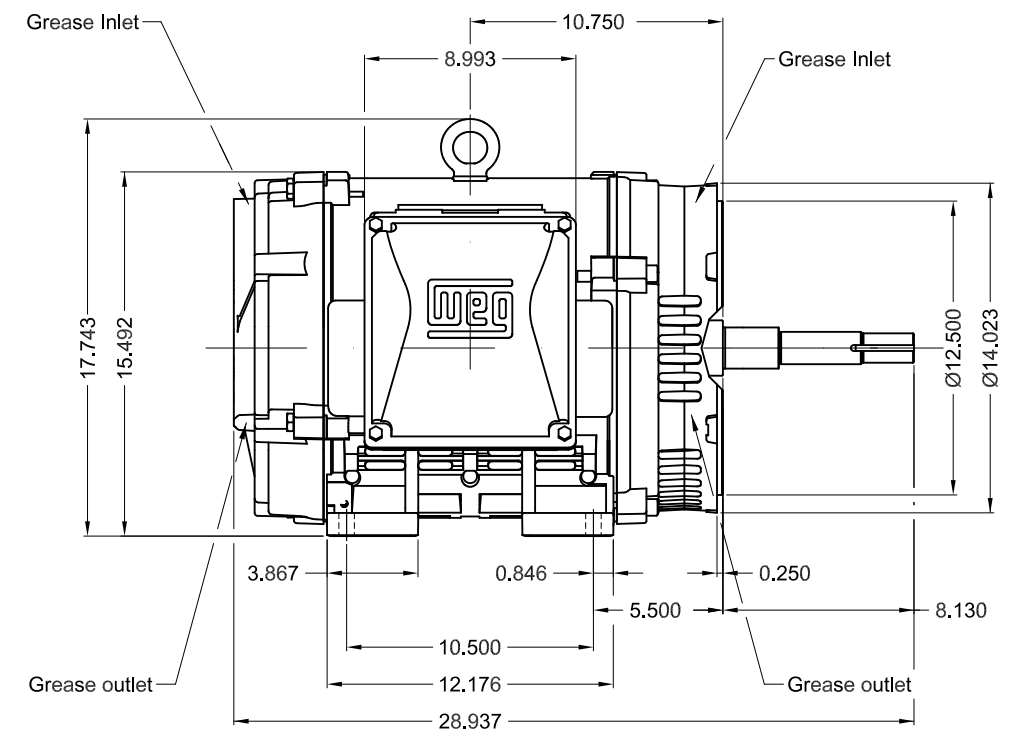
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Grounding for leads 5.2-35 mm² / 10-2 AWG
Main terminal box
NPT 2"



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 JP TYPE PREM. FT. FRAME 324JP IP23 ODP					
CHECKED							
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 050360T3G324JP-W40
MADE IN BRAZIL
14490300

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

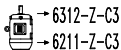
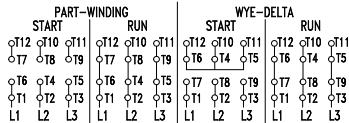


IEC 60034-1
MOD.T01#FOXON



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

PH 3	FR 324JP	HP(kW) 50(37)		Hz 60
V 460		A 58.7		IP23
NEMA NOM EFF		93.0	%	RPM 3560
ENCL ODP	DUTY	CONT.		INS. CL. F ΔT 80 K
PF 0.85		DES B	CODE G	AMB. 40°C
SF 1.25		SFA 73.4		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

443 Lbs