

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 JP Pump NEMA Premium Efficiency Three-Phase	Product code :	14270420		
		Catalog # :	06012OT3E404JP-W40		
Frame	: 404/5JP	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	: 975 lb		
Protection degree	: IP23	Moment of inertia (J)	: 29.4 sq.ft.lb		
Design	: B				
Output [HP]	60	50	50	50	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	141/70.3	70.0	67.3	65.6	
L. R. Amperes [A]	942/471	490	478	499	
LRC [A]	6.7x(Code G)	7.0x(Code H)	7.1x(Code H)	7.6x(Code J)	
No load current [A]	50.0/25.0	24.8	26.8	28.3	
Rated speed [RPM]	1185	985	985	985	
Slip [%]	1.25	1.50	1.50	1.50	
Rated torque [ft.lb]	266	267	267	267	
Locked rotor torque [%]	240	220	250	280	
Breakdown torque [%]	250	250	290	310	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	28s (cold) 16s (hot)	27s (cold) 15s (hot)	30s (cold) 17s (hot)	28s (cold) 16s (hot)	
Noise level ²	68.0 dB(A)				
Efficiency (%)	25%	91.4	92.9	92.9	92.9
	50%	91.7	93.0	93.0	93.0
	75%	94.5	93.4	93.4	93.4
	100%	94.5	93.4	93.4	93.4
Power Factor	25%	0.48	0.48	0.44	0.42
	50%	0.73	0.74	0.70	0.68
	75%	0.82	0.83	0.80	0.79
	100%	0.85	0.86	0.85	0.84
Bearing type	: <u>Drive end</u> 6314 C3 <u>Non drive end</u> 6212 Z C3	Foundation loads			
Sealing	: Without Without	Max. traction	: 1990 lb		
	: Bearing Seal Bearing Seal	Max. compression	: 2966 lb		
Lubrication interval	: 20000 h 20000 h				
Lubricant amount	: 27 g 13 g				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 155A SF 1.15 SFA 179A					
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



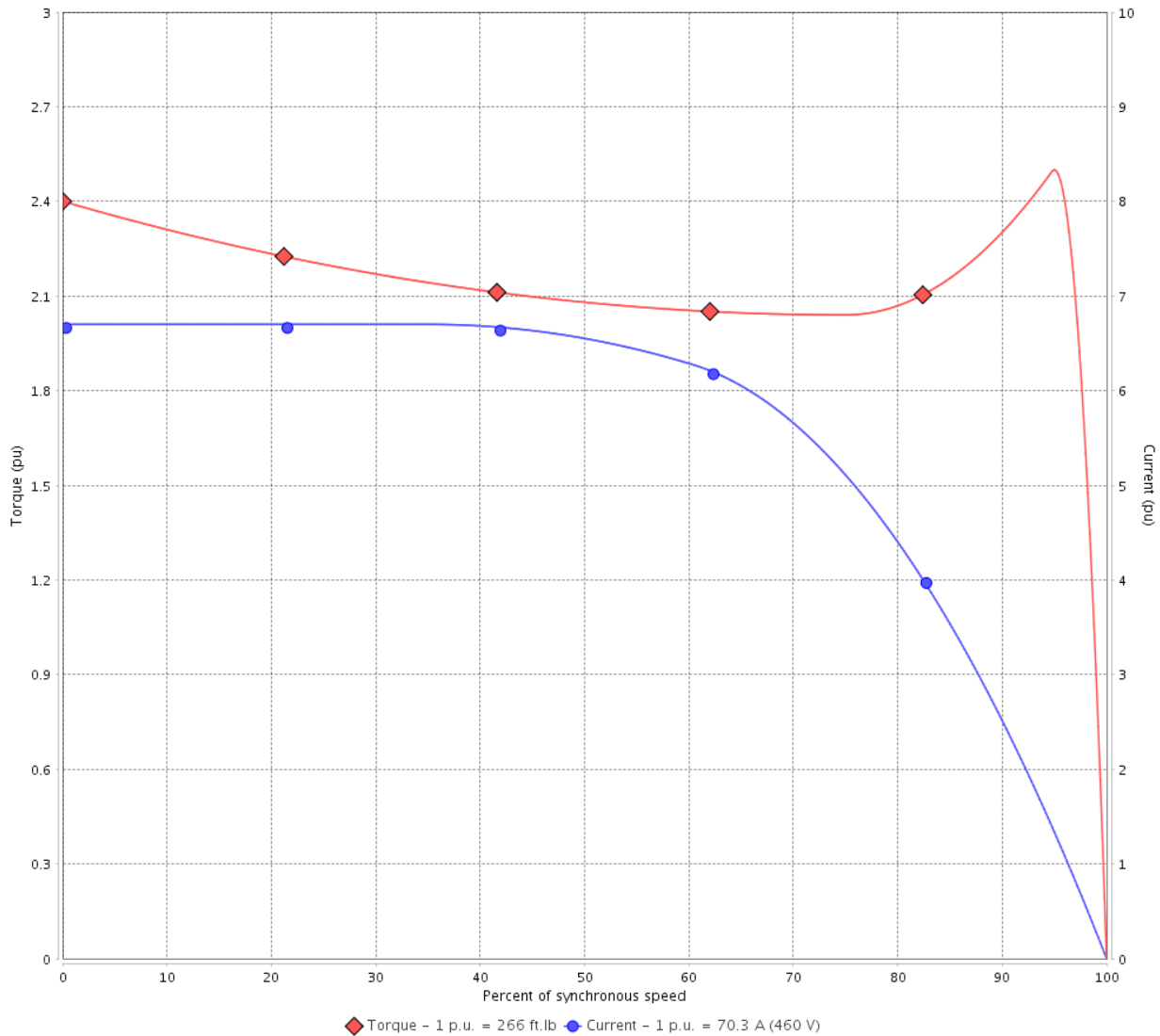
Customer :

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

Product code : 14270420

Catalog # : 06012OT3E404JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 141/70.3 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 266 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1185 rpm	Design	: B

Locked rotor time : 28s (cold) 16s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



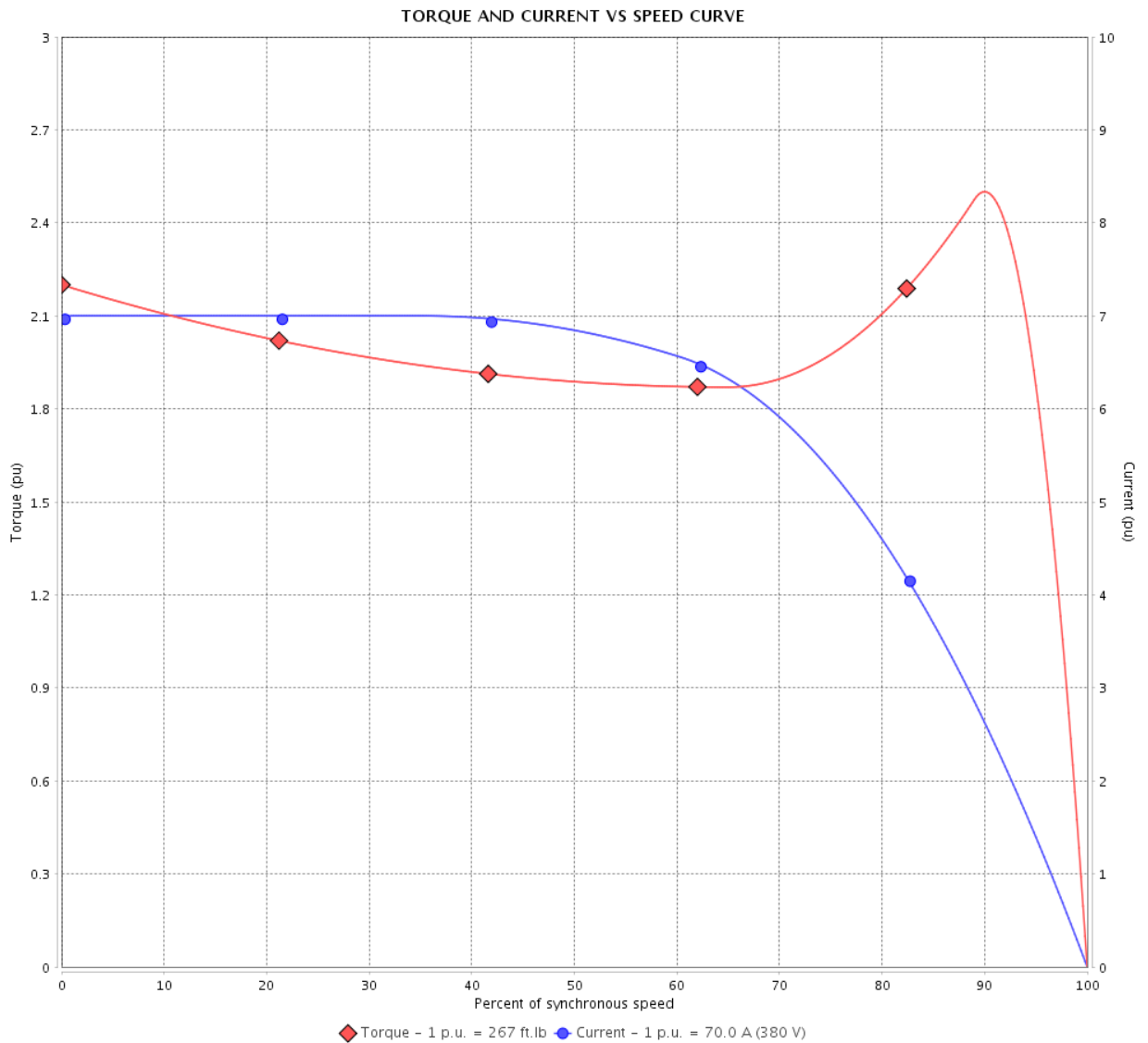
Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14270420

Catalog # : 06012OT3E404JP-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 70.0 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 985 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



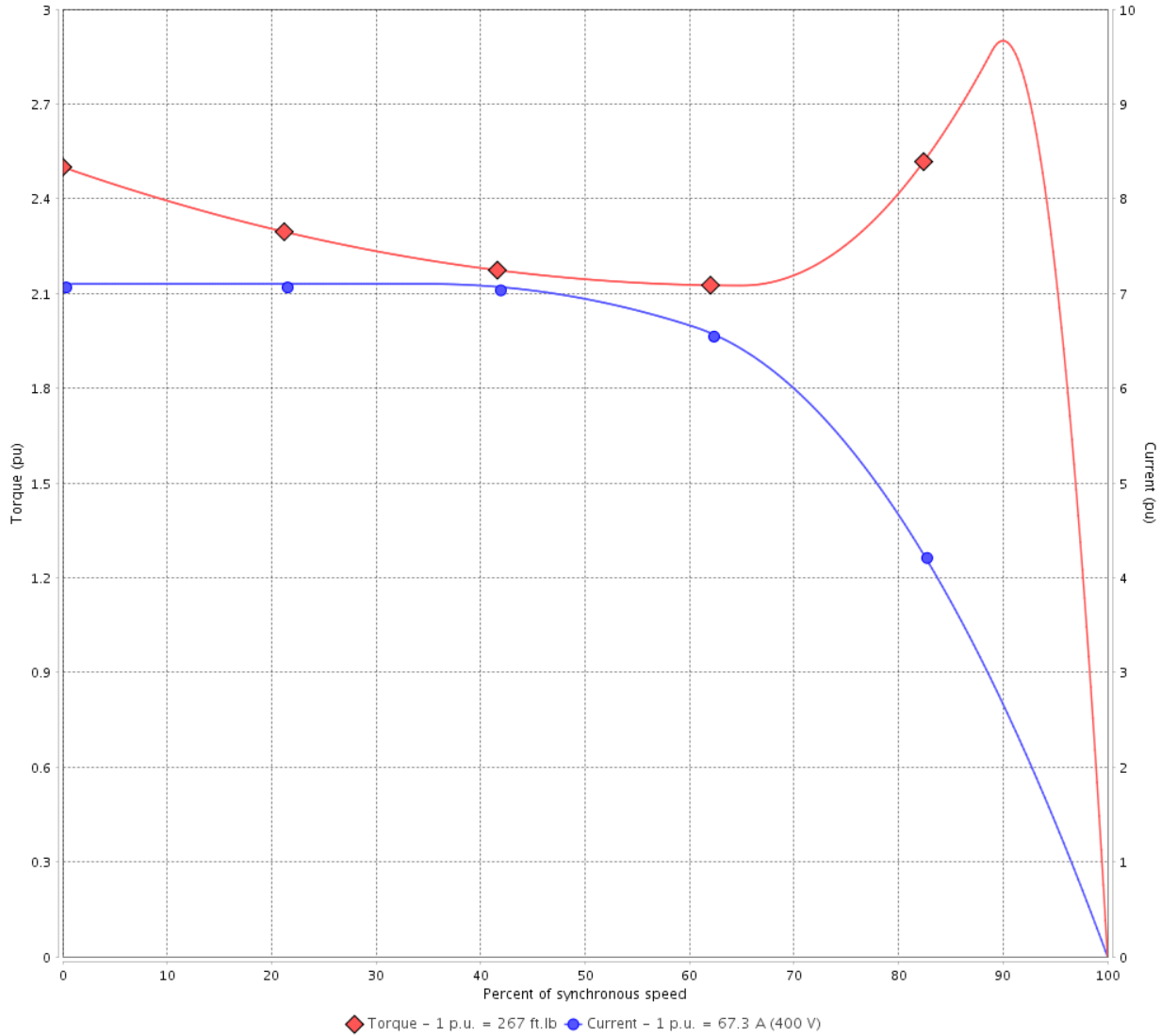
Customer :

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

Product code : 14270420

Catalog # : 06012OT3E404JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 67.3 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



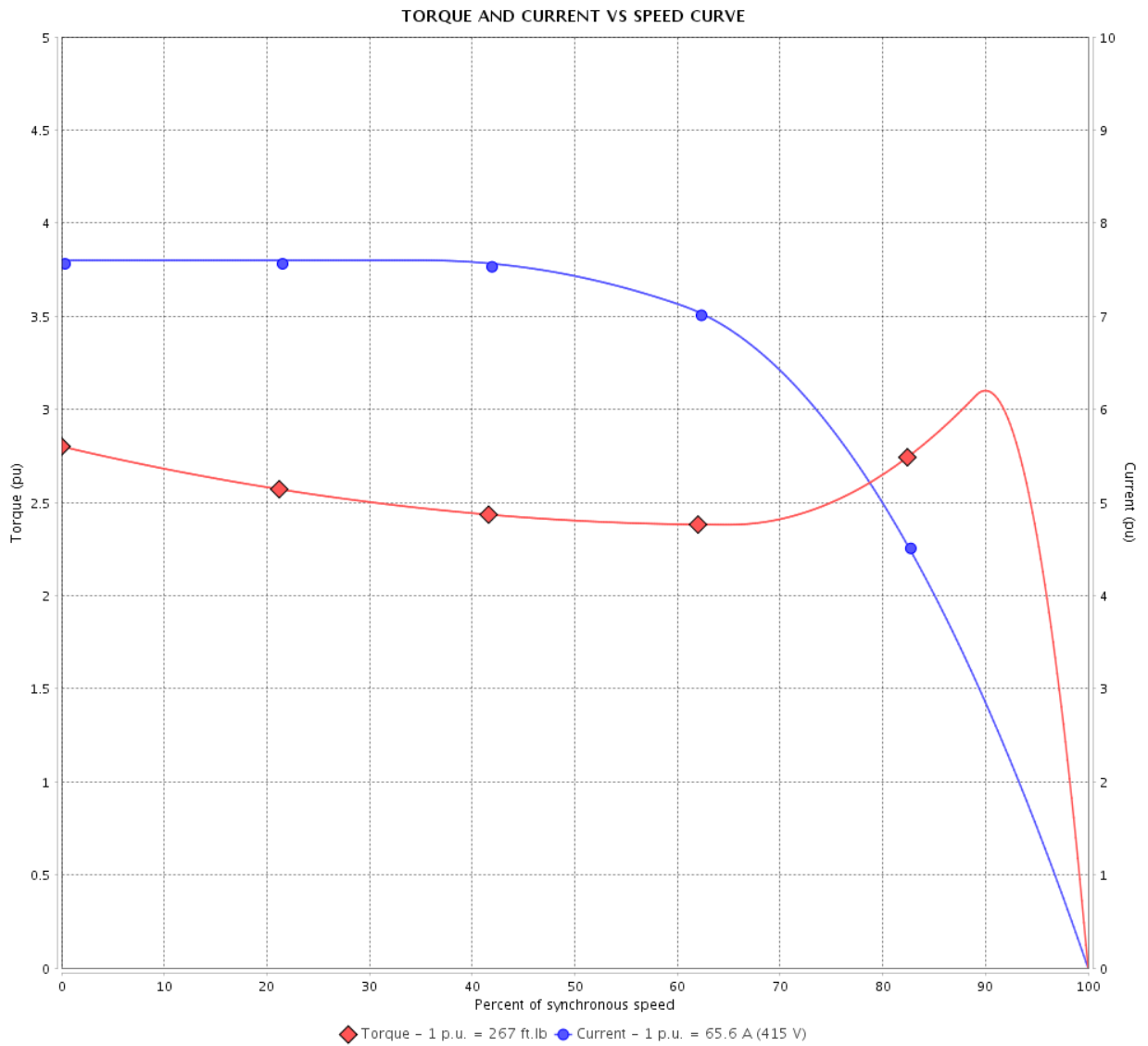
Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14270420

Catalog # : 06012OT3E404JP-W40



Performance : 415 V 50 Hz 6P IE3

Rated current	: 65.6 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 28s (cold) 16s (hot)

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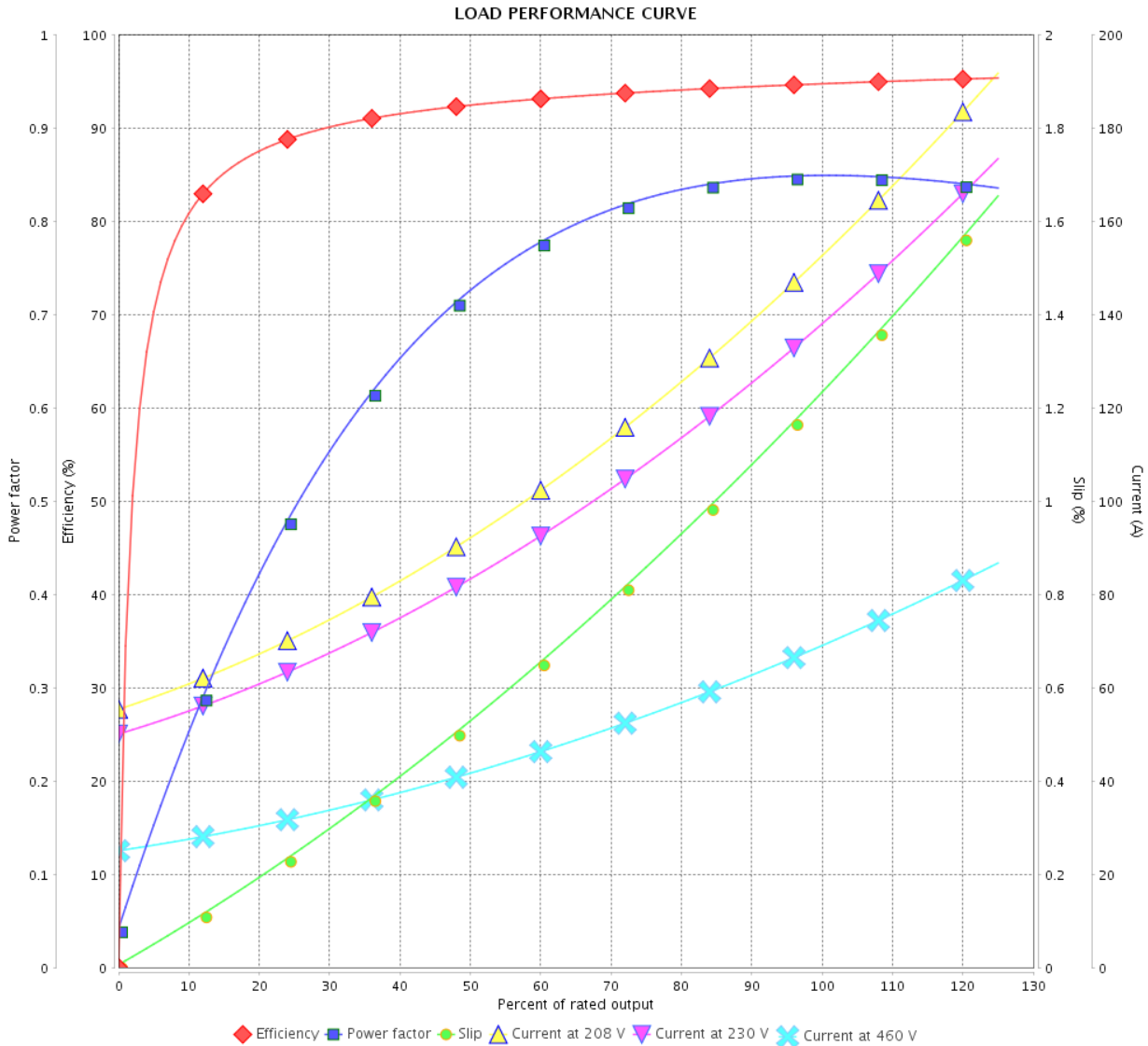


Customer :

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

Product code : 14270420

Catalog # : 060120T3E404JP-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 141/70.3 A
 LRC : 6.7
 Rated torque : 266 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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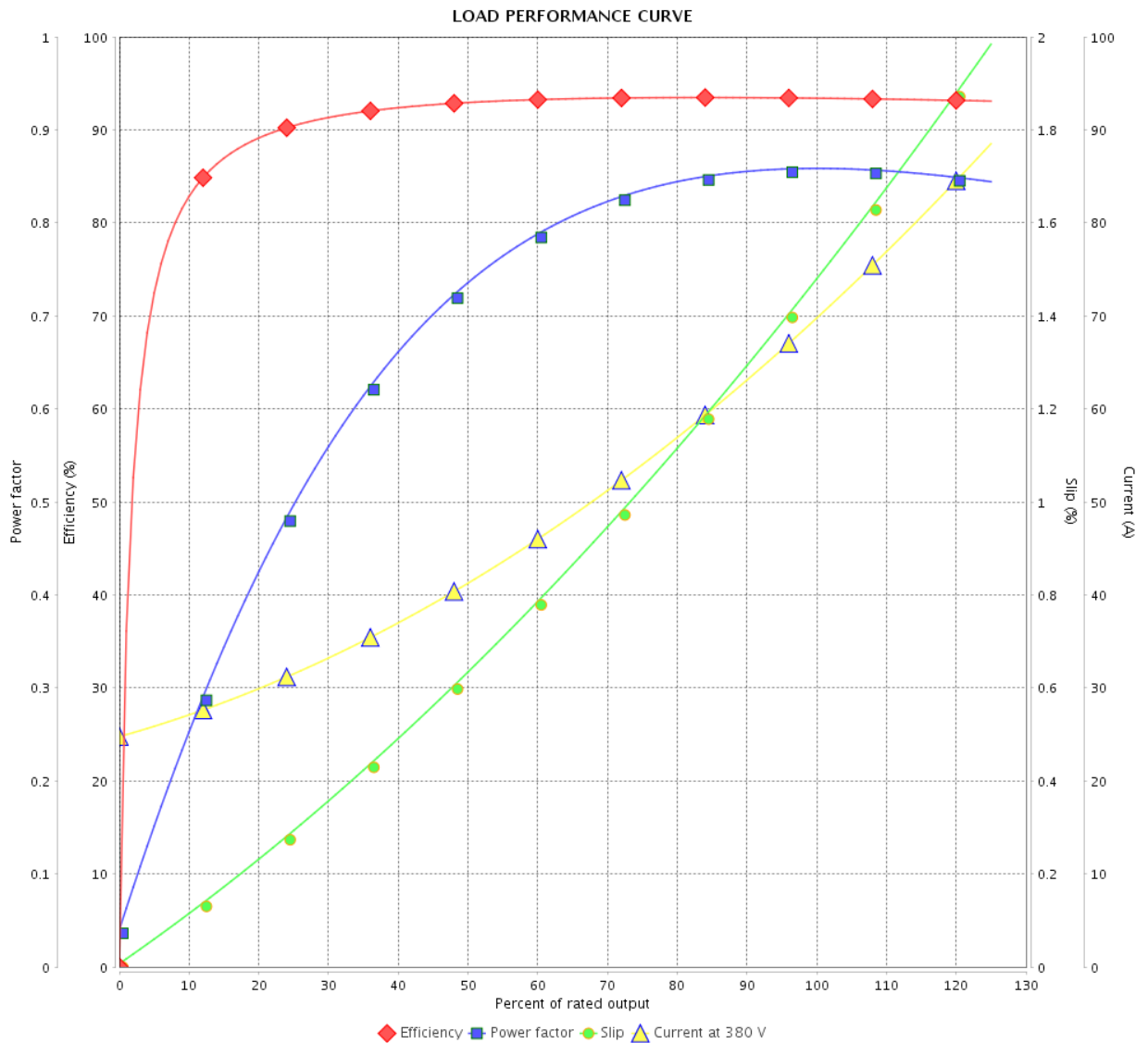


Customer :

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

Product code : 14270420

Catalog # : 06012OT3E404JP-W40



Performance : 380 V 50 Hz 6P IE3

Rated current : 70.0 A
 LRC : 7.0
 Rated torque : 267 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 985 rpm

Moment of inertia (J) : 29.4 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

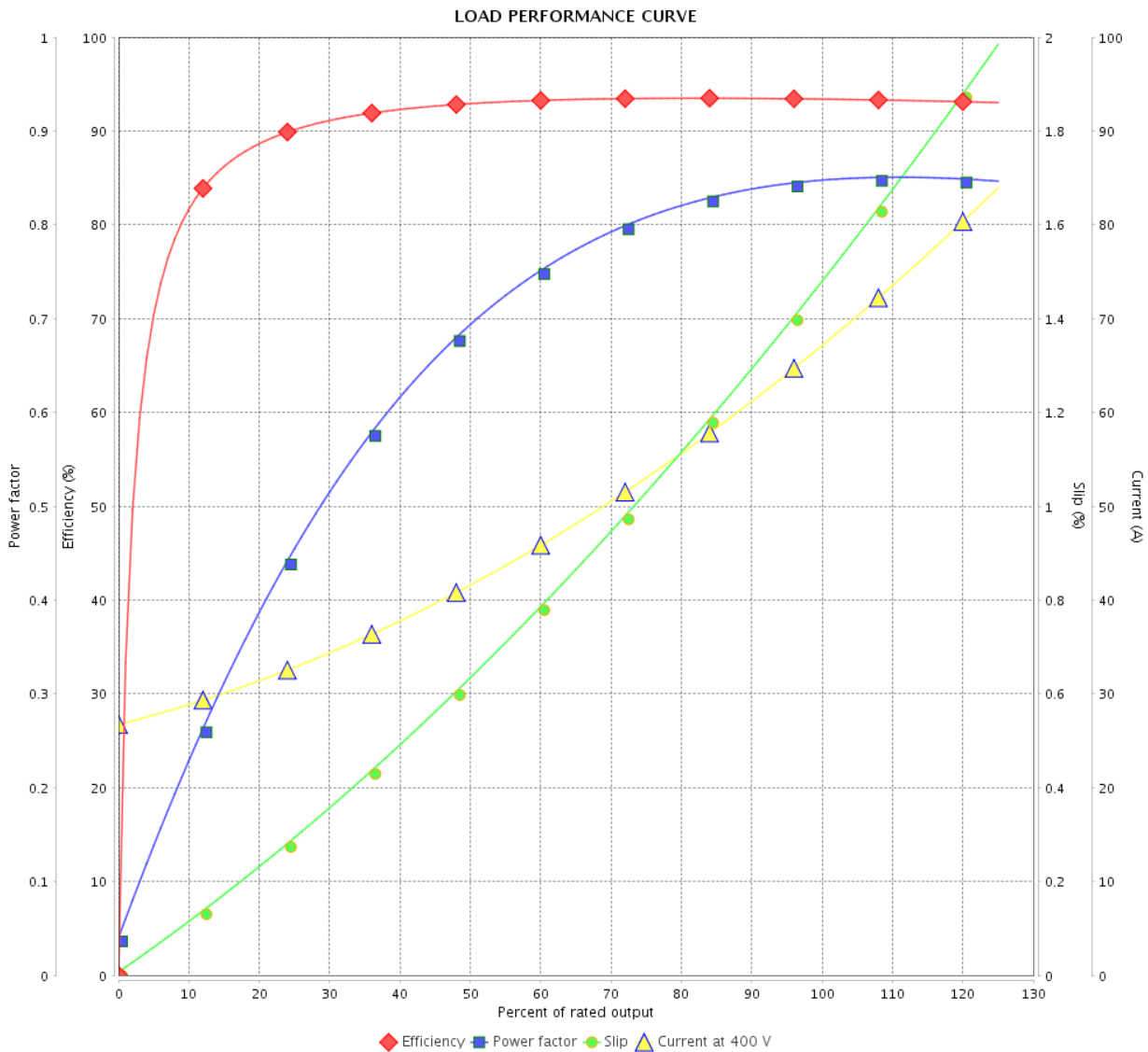


Customer :

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

Product code : 14270420

Catalog # : 060120T3E404JP-W40



Performance : 400 V 50 Hz 6P IE3

Rated current	: 67.3 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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Three Phase Induction Motor - Squirrel Cage

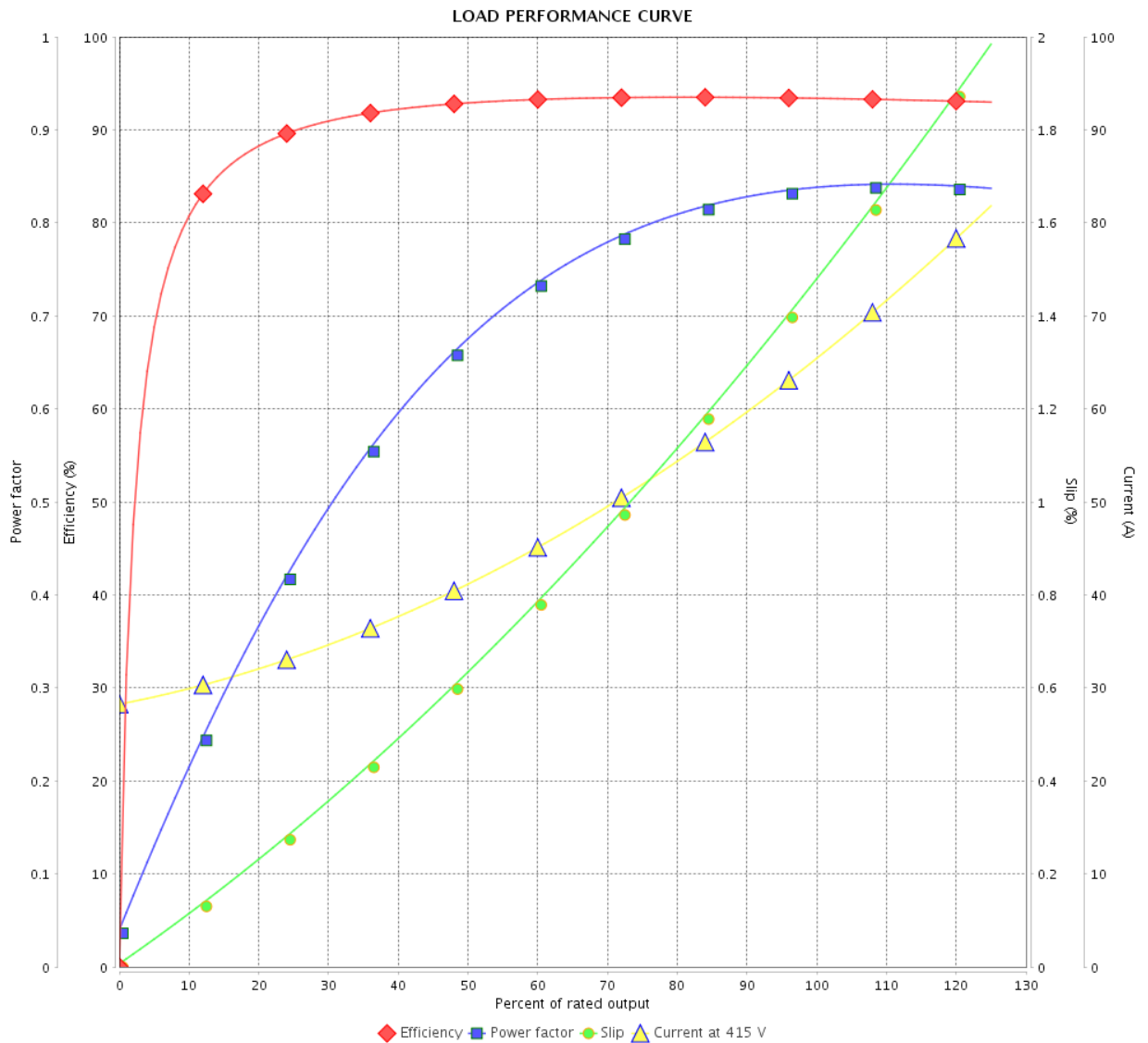


Customer :

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

Product code : 14270420

Catalog # : 06012OT3E404JP-W40



Performance : 415 V 50 Hz 6P IE3

Rated current : 65.6 A
 LRC : 7.6
 Rated torque : 267 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 985 rpm

Moment of inertia (J) : 29.4 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



Three Phase Induction Motor - Squirrel Cage

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Locked rotor torque : 240 %
Breakdown torque : 250 %
Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

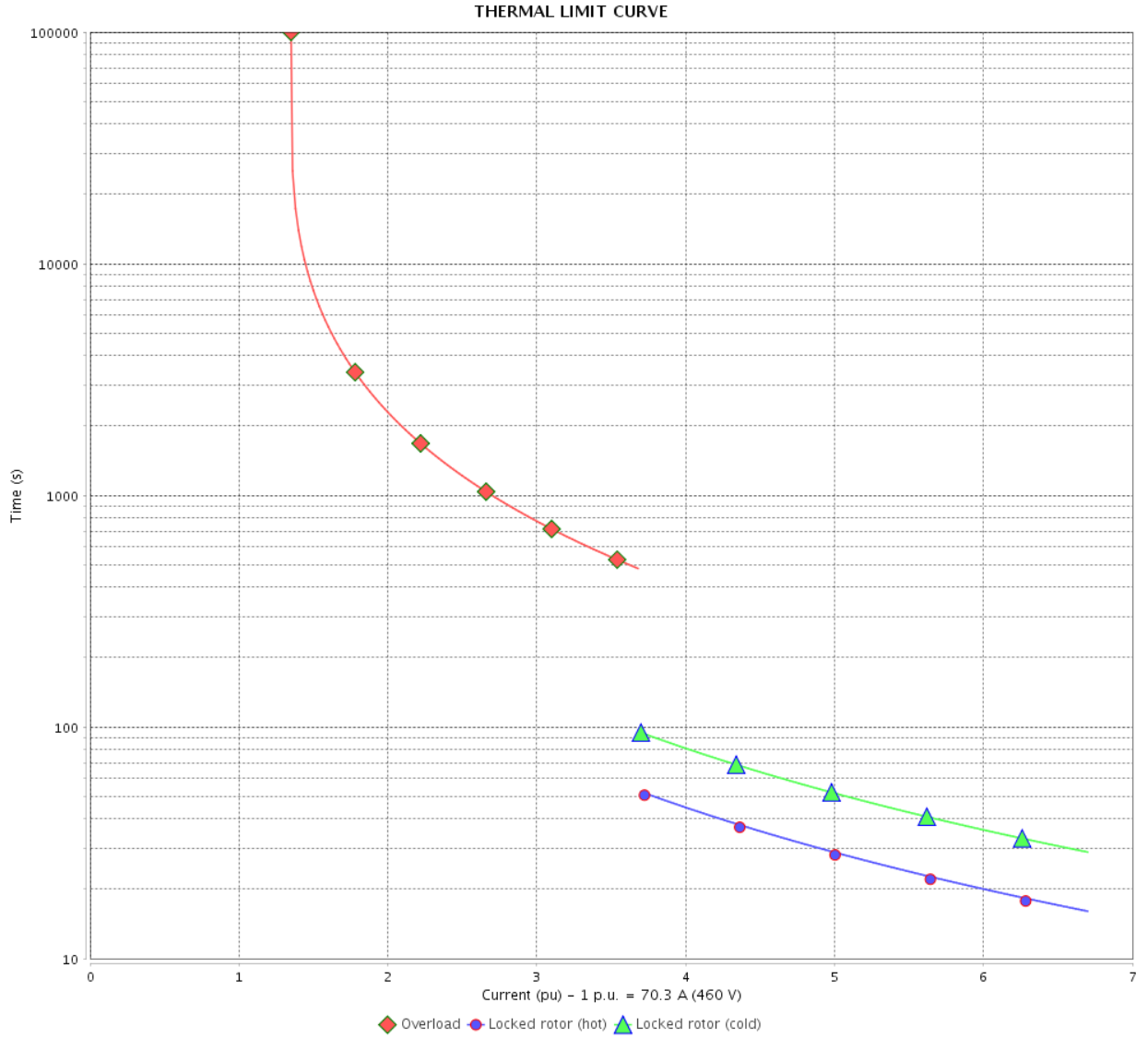
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

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Efficiency Three-Phase

Product code : 14270420

Catalog # : 06012OT3E404JP-W40

Performance : 380 V 50 Hz 6P IE3

Rated current : 70.0 A	Moment of inertia (J) : 29.4 sq.ft.lb
LRC : 7.0	Duty cycle : Cont.(S1)
Rated torque : 267 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 985 rpm	Design : B

Heating constant

Cooling constant

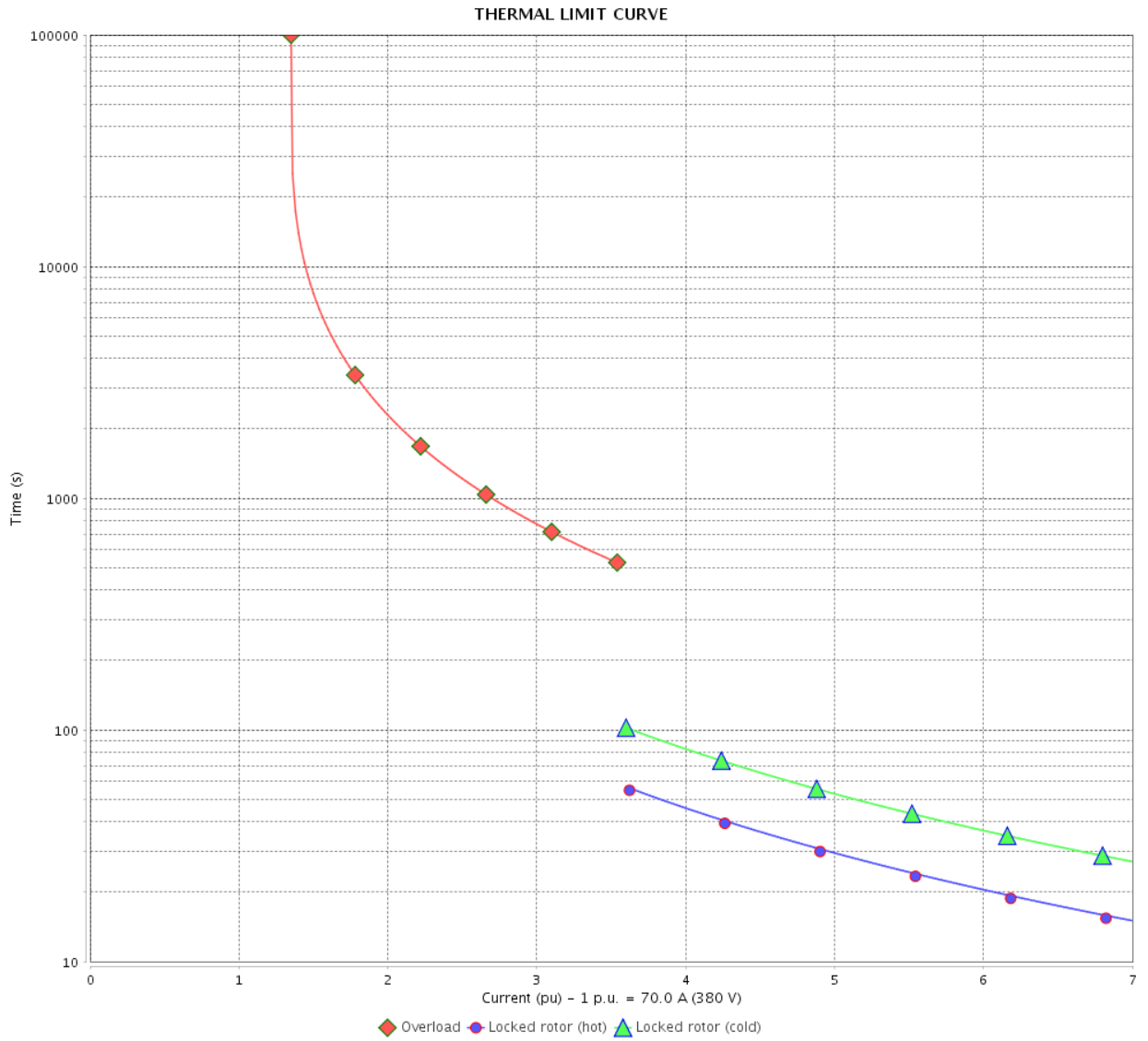
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Customer : _____



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Three Phase Induction Motor - Squirrel Cage

Customer :

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Efficiency Three-Phase

Product code : 14270420

Catalog # : 06012OT3E404JP-W40

Performance : 400 V 50 Hz 6P IE3

Rated current : 67.3 A	Moment of inertia (J) : 29.4 sq.ft.lb
LRC : 7.1	Duty cycle : Cont.(S1)
Rated torque : 267 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 985 rpm	Design : B

Heating constant

Cooling constant

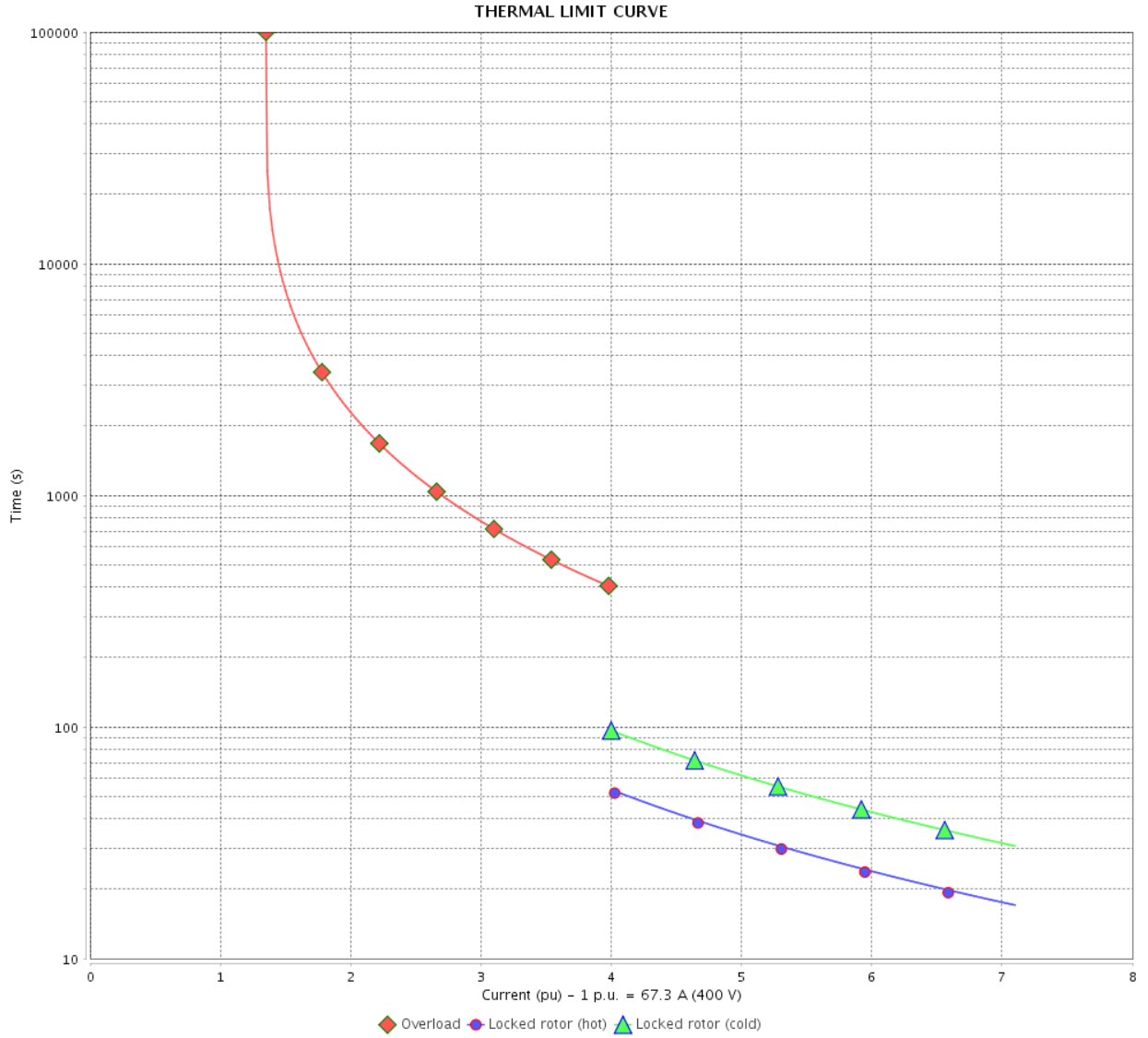
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14270420

Catalog # : 06012OT3E404JP-W40

Performance : 415 V 50 Hz 6P IE3

Rated current	: 65.6 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Heating constant

Cooling constant

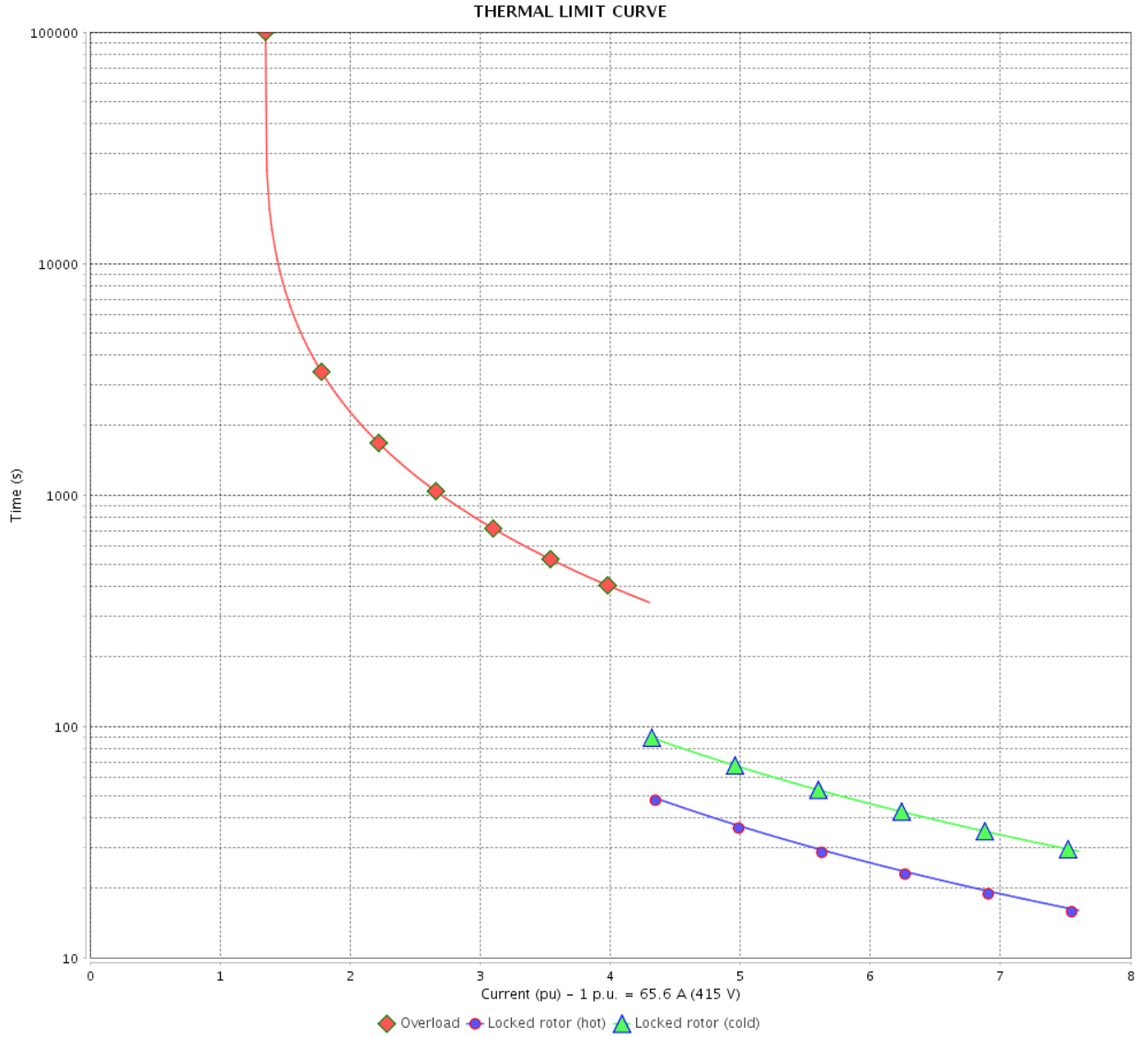
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



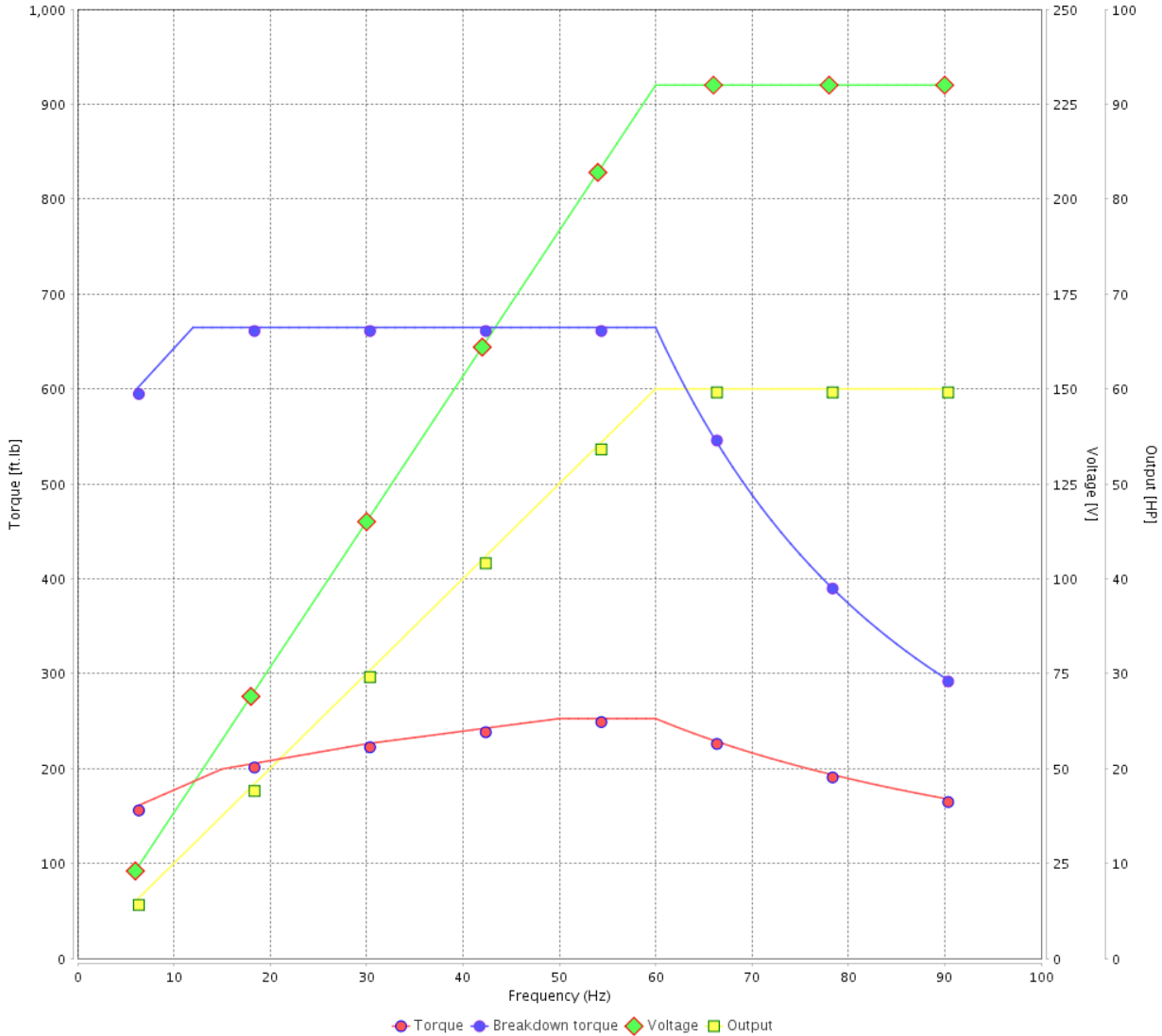
Customer :

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

Product code : 14270420

Catalog # : 06012OT3E404JP-W40

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 141/70.3 A
 LRC : 6.7
 Rated torque : 266 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

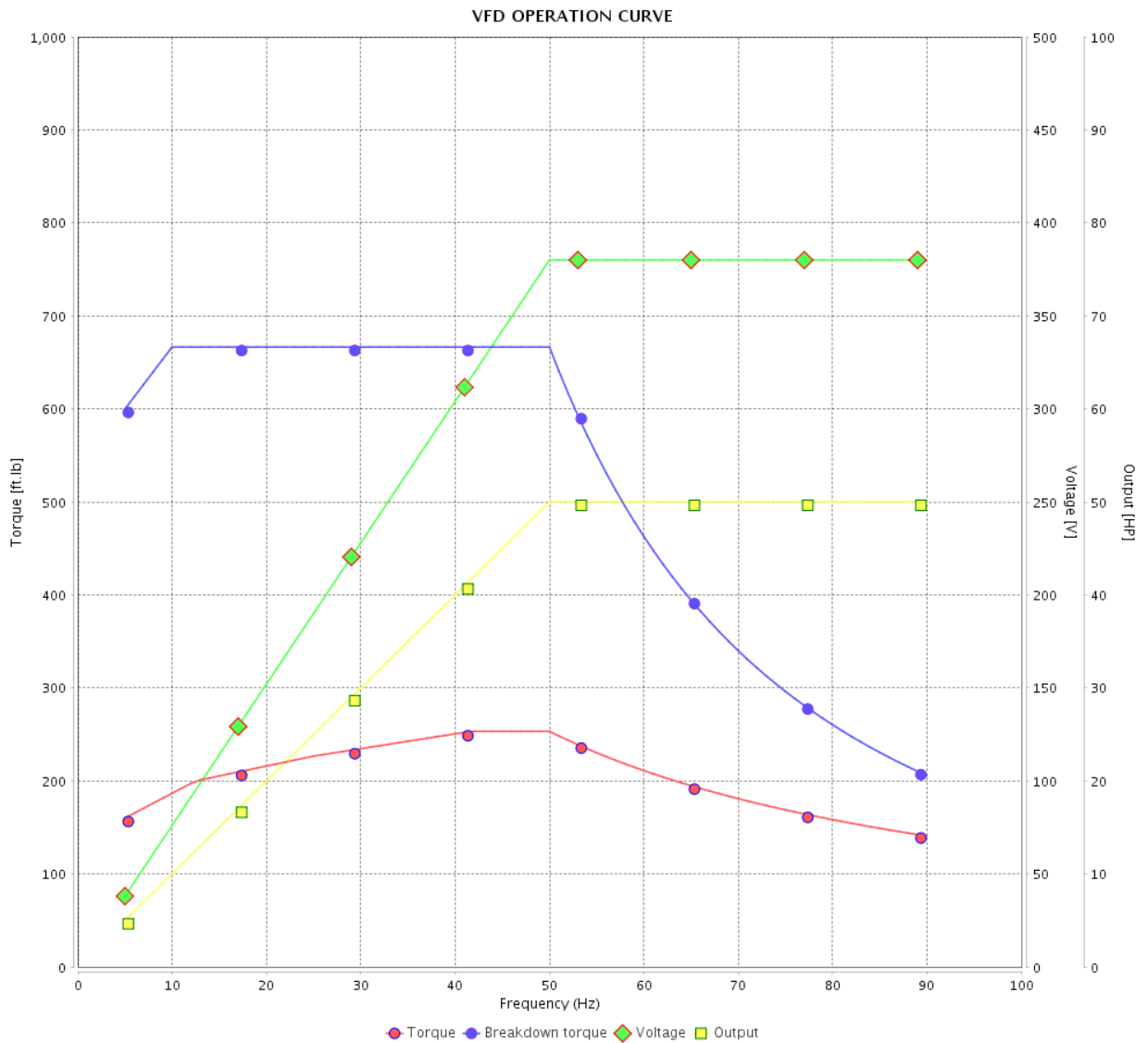


Customer :

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

Product code : 14270420

Catalog # : 06012OT3E404JP-W40



Performance : 380 V 50 Hz 6P IE3

Rated current : 70.0 A
 LRC : 7.0
 Rated torque : 267 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 985 rpm

Moment of inertia (J) : 29.4 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



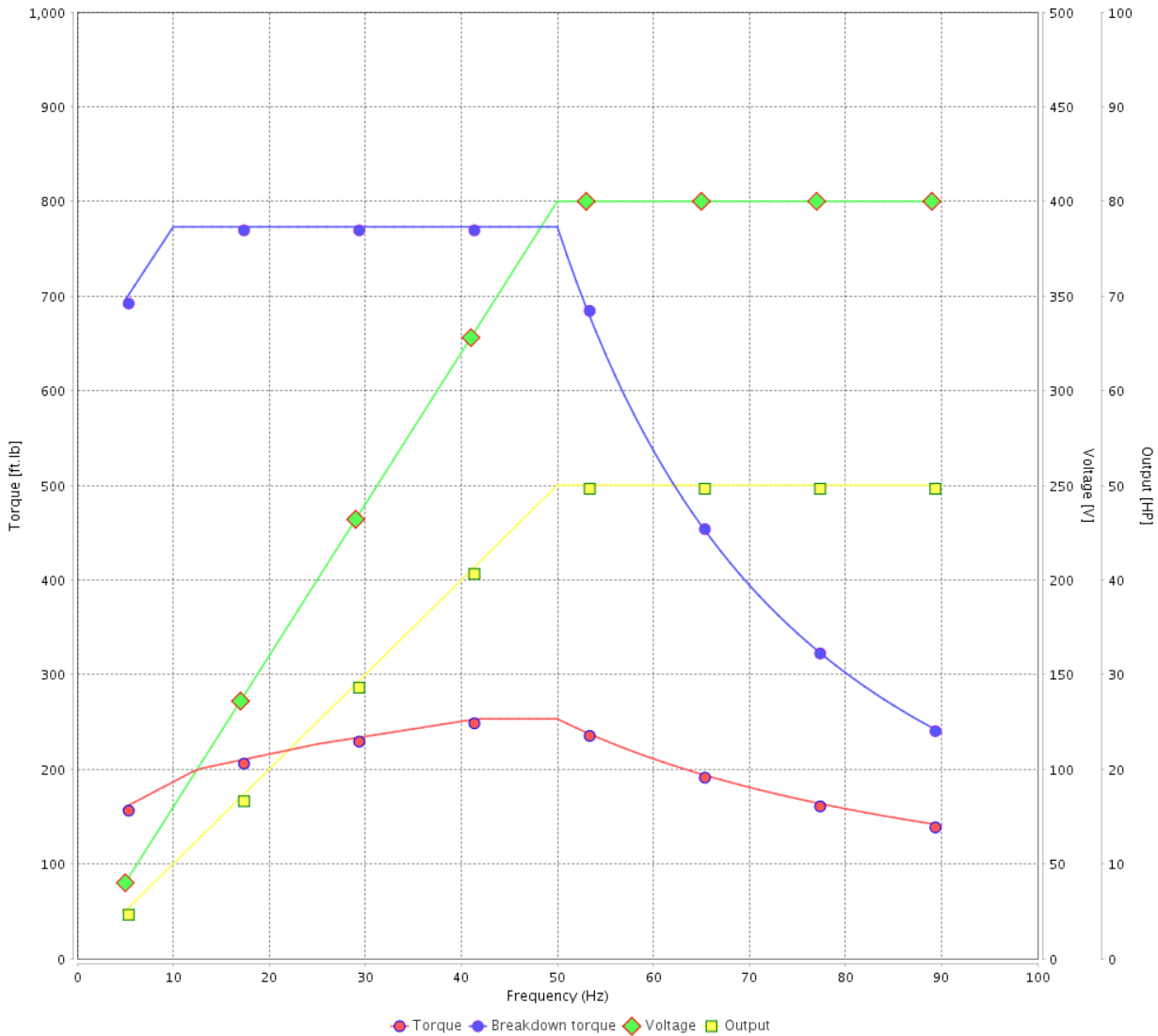
Customer :

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Product code : 14270420

Catalog # : 06012OT3E404JP-W40

VFD OPERATION CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current : 67.3 A
 LRC : 7.1
 Rated torque : 267 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 985 rpm

Moment of inertia (J) : 29.4 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

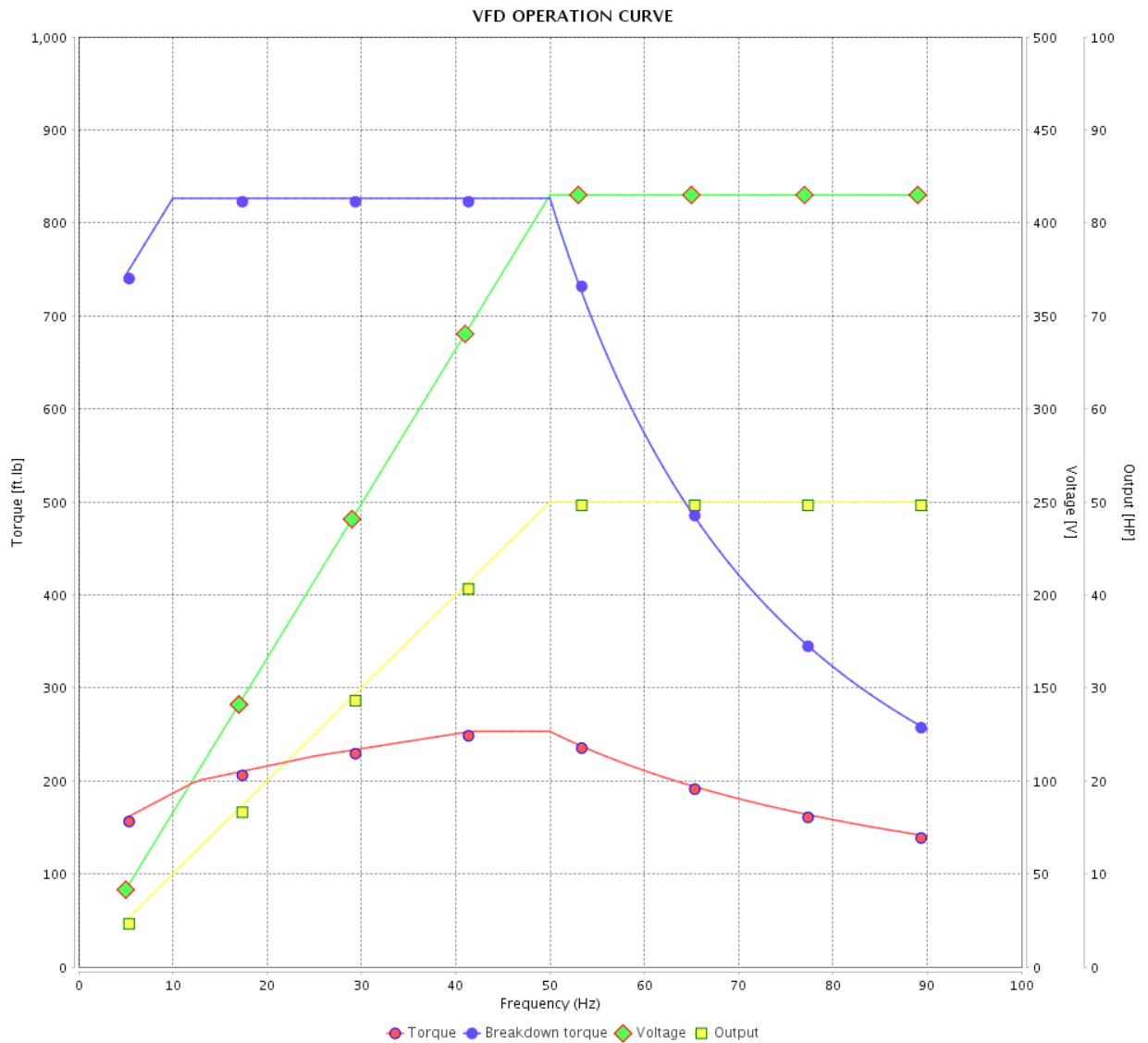


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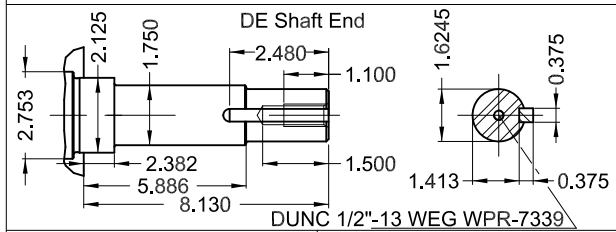
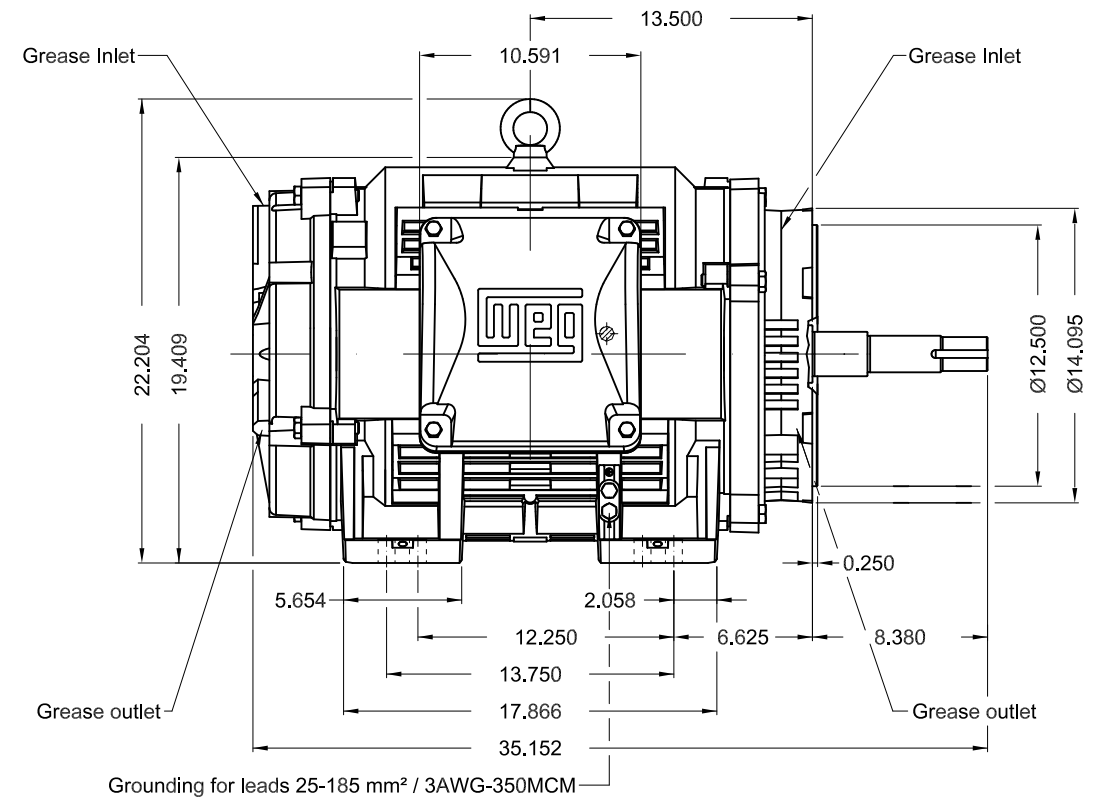
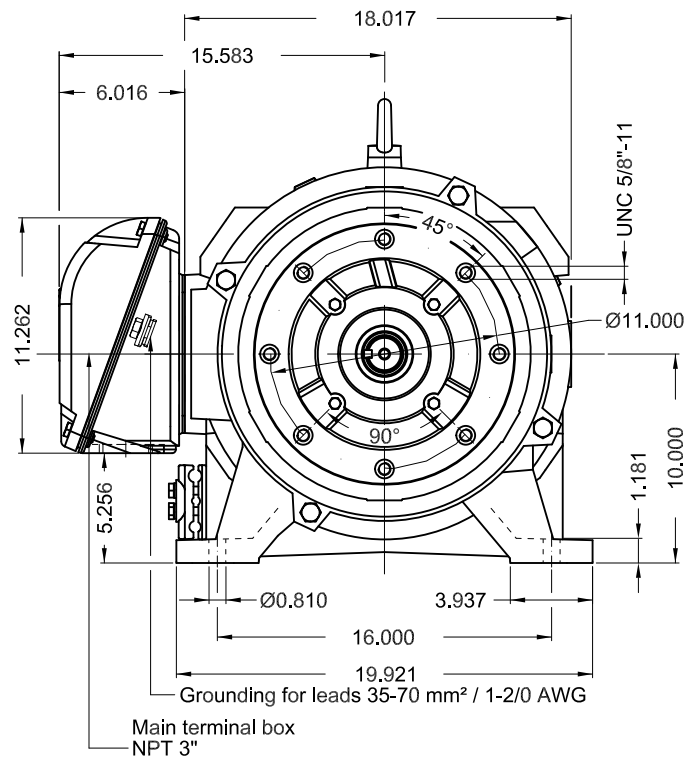


Performance : 415 V 50 Hz 6P IE3

Rated current : 65.6 A
 LRC : 7.6
 Rated torque : 267 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 985 rpm

Moment of inertia (J) : 29.4 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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60 HP 06 Poles 60 Hz

Dimensions in inches

1:9

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 404/5JP IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

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

PREVIEW
 WDD

