

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 JP Pump NEMA Premium Efficiency Three-Phase	Product code :	14367673		
		Catalog # :	05018OT3E326JP-W40		
Frame	: 324/6JP	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>	: 526 lb		
Protection degree	: IP23	Moment of inertia (J)	: 7.08 sq.ft.lb		
Design	: B				
Output [HP]	50	40	40	40	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	117/58.5	58.0	56.4	55.7	
L. R. Amperes [A]	737/369	383	389	401	
LRC [A]	6.3x(Code G)	6.6x(Code G)	6.9x(Code H)	7.2x(Code J)	
No load current [A]	46.4/23.2	22.8	25.2	27.0	
Rated speed [RPM]	1775	1475	1475	1480	
Slip [%]	1.39	1.67	1.67	1.33	
Rated torque [ft.lb]	148	142	142	142	
Locked rotor torque [%]	240	220	250	270	
Breakdown torque [%]	240	240	270	300	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	19s (cold) 11s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	
Noise level <sup>2</sup>	66.0 dB(A)				
Efficiency (%)	25%	94.0	92.9	92.9	92.9
	50%	94.1	93.1	93.1	93.1
	75%	94.5	93.5	93.5	93.5
	100%	94.5	93.6	93.6	93.6
Power Factor	25%	0.44	0.44	0.40	0.37
	50%	0.70	0.70	0.66	0.62
	75%	0.80	0.80	0.77	0.74
	100%	0.84	0.84	0.82	0.80
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	: 20000 h 20000 h				
Lubricant amount	: 21 g 11 g				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 129A SF 1.15 SFA 149A					
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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Checked by				Page	Revision
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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



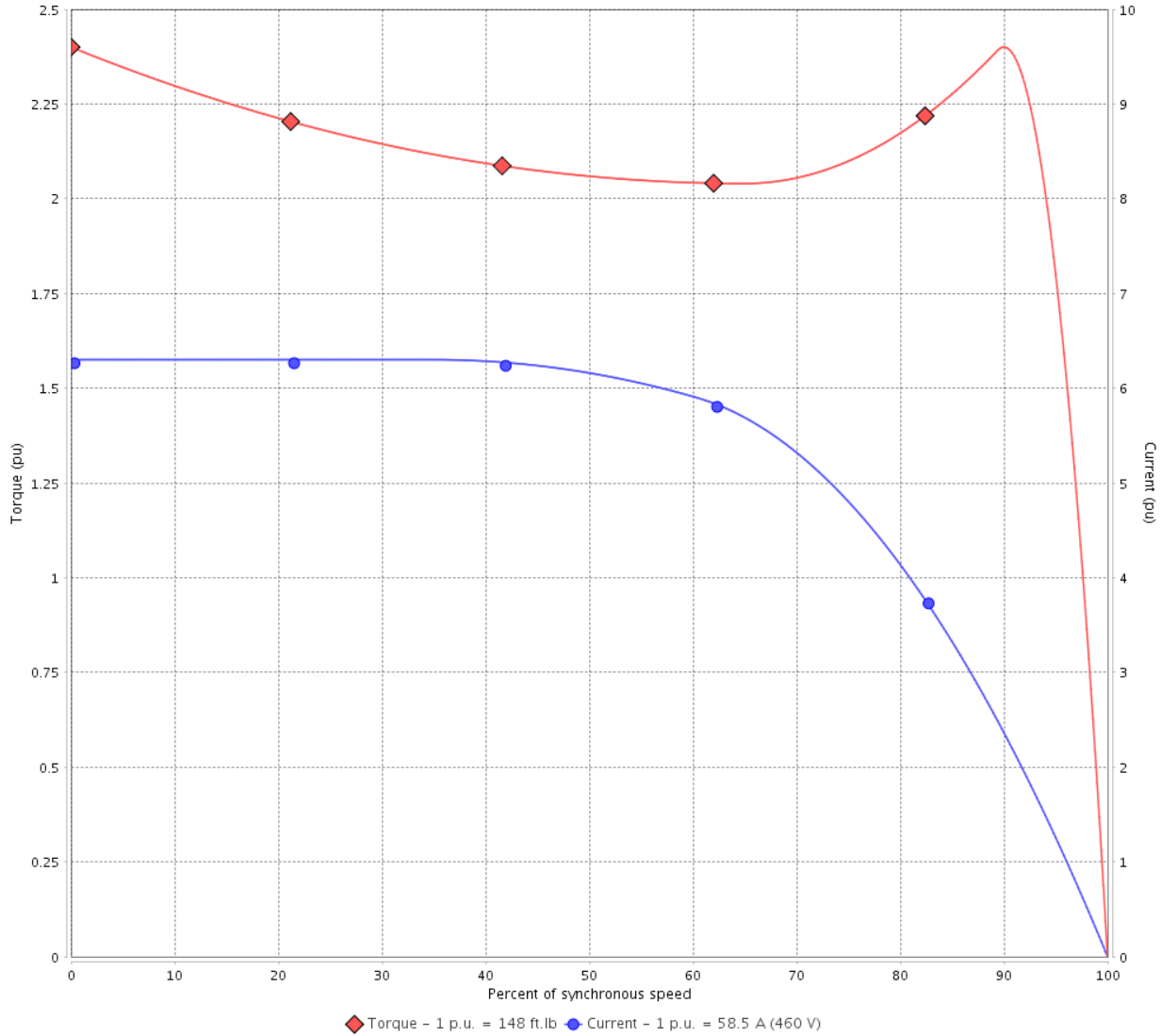
Customer :

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

Product code : 14367673

Catalog # : 05018OT3E326JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 117/58.5 A  
 LRC : 6.3  
 Rated torque : 148 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 240 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 7.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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

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# TORQUE AND CURRENT VS SPEED CURVE



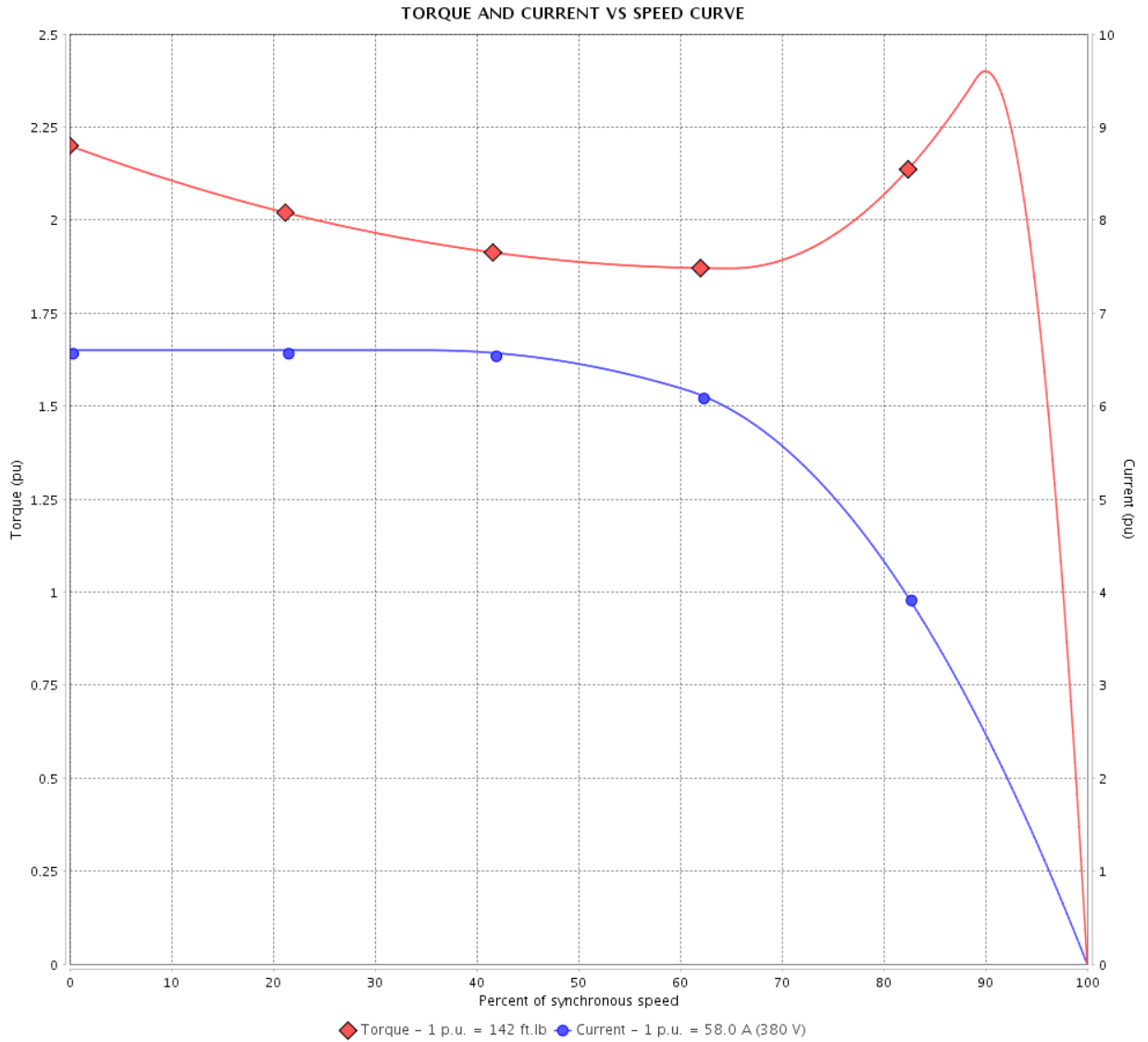
## Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14367673

Catalog # : 05018OT3E326JP-W40



Performance : 380 V 50 Hz 4P IE3

Rated current : 58.0 A  
 LRC : 6.6  
 Rated torque : 142 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 240 %  
 Rated speed : 1475 rpm

Moment of inertia (J) : 7.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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

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Date	12/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



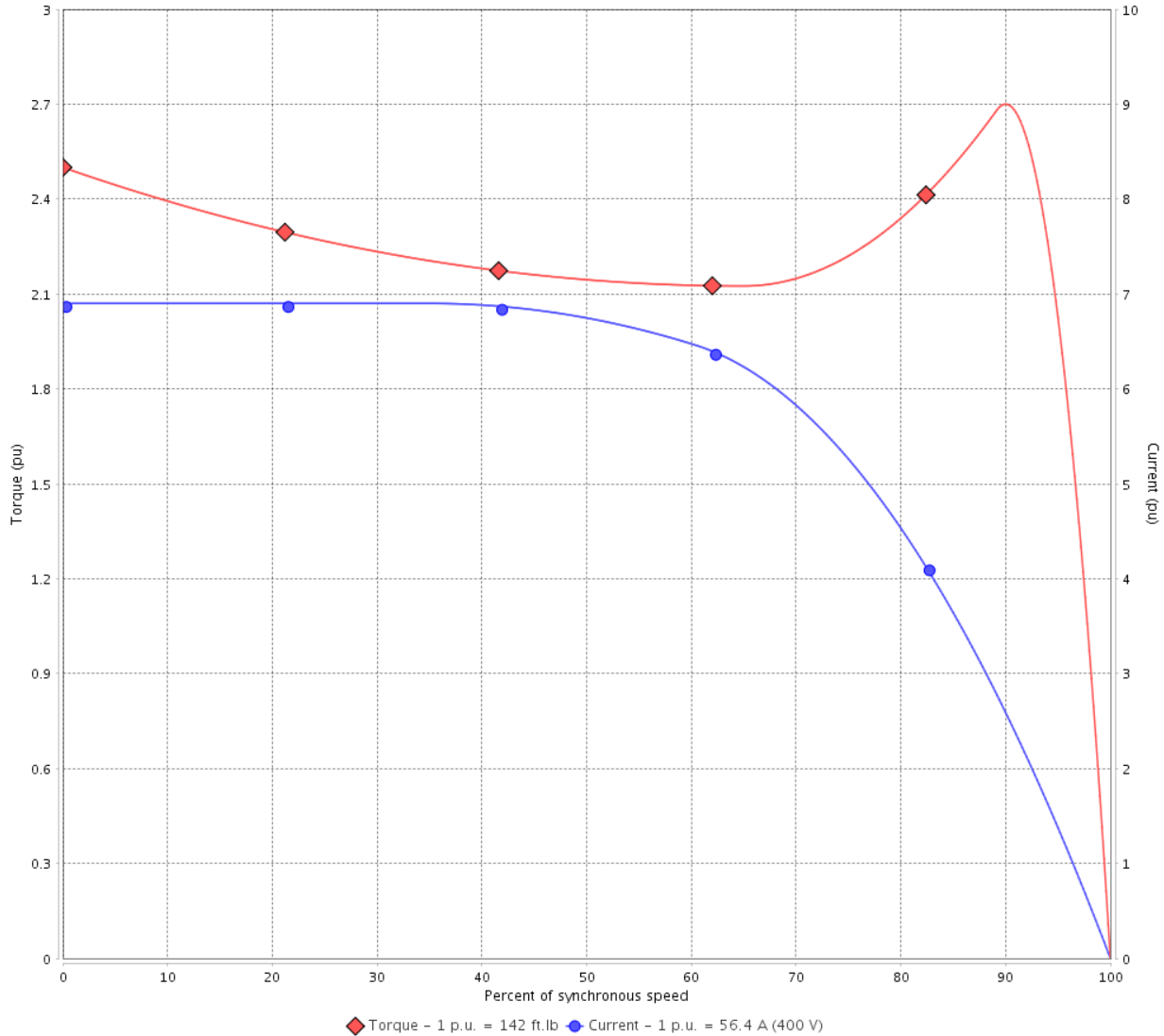
Customer :

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

Product code : 14367673

Catalog # : 05018OT3E326JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 56.4 A	Moment of inertia (J)	: 7.08 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 142 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

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

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# TORQUE AND CURRENT VS SPEED CURVE



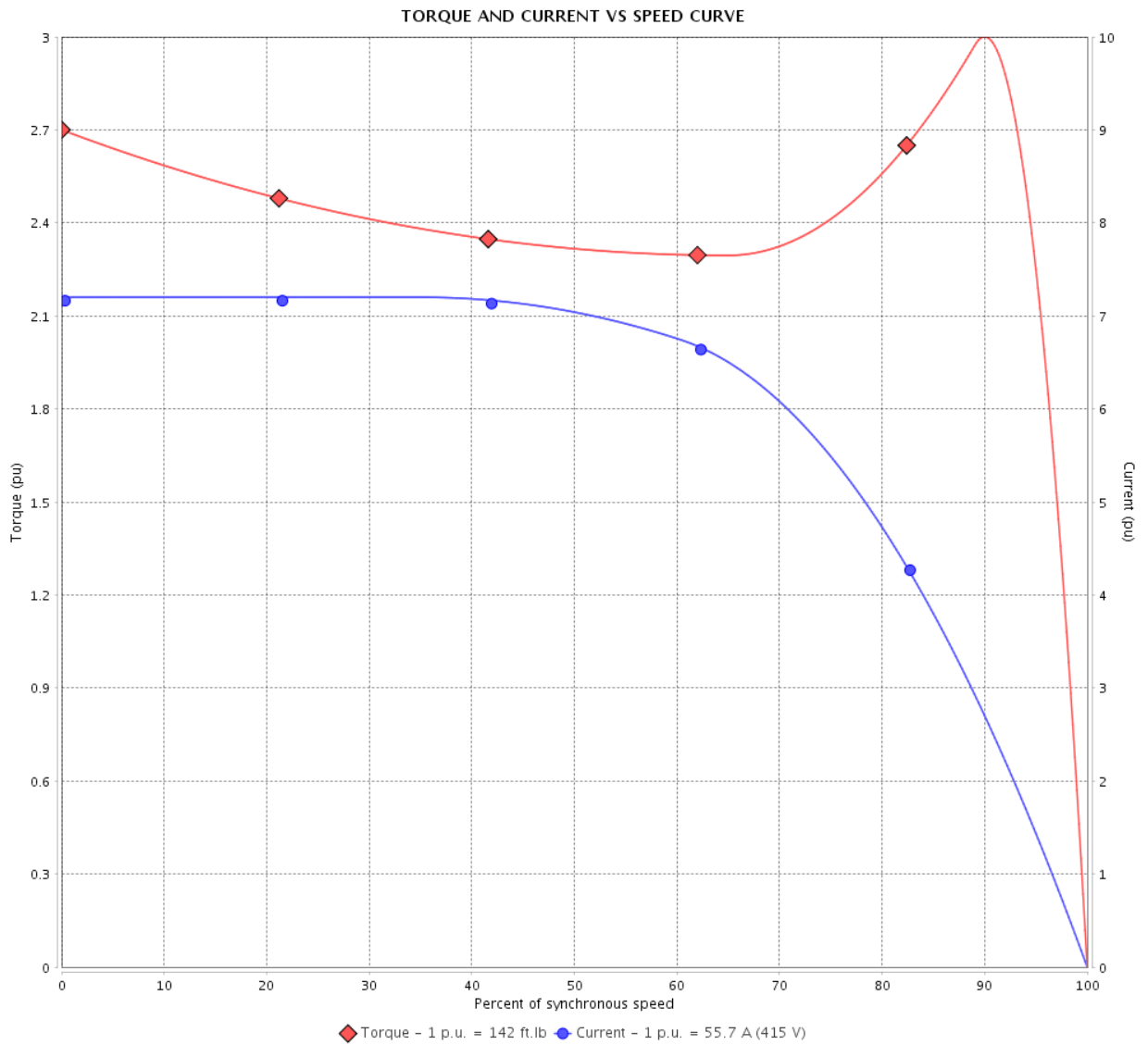
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LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 142 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

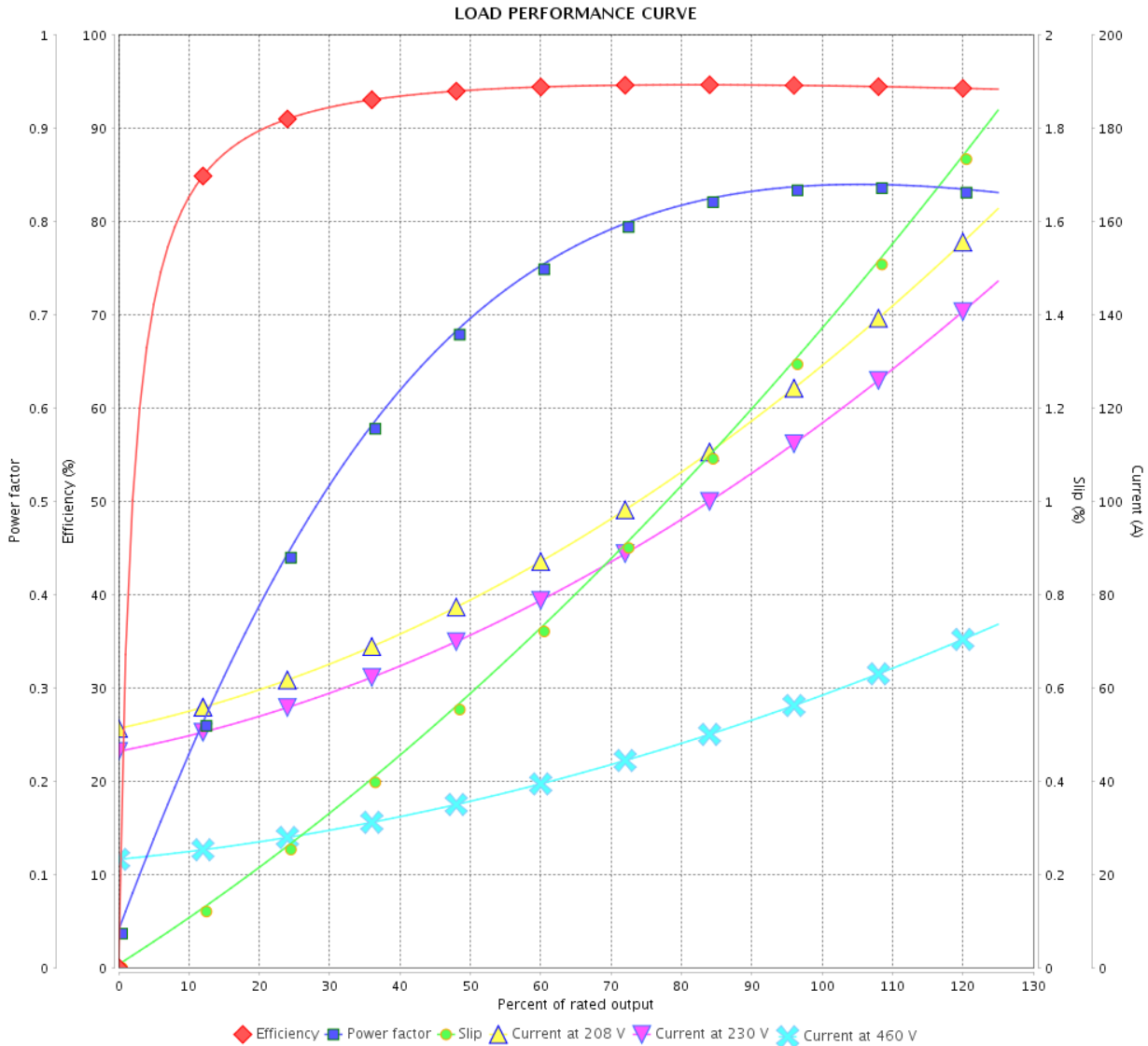


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Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14367673

Catalog # : 05018OT3E326JP-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 117/58.5 A  
 LRC : 6.3  
 Rated torque : 148 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 240 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 7.08 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

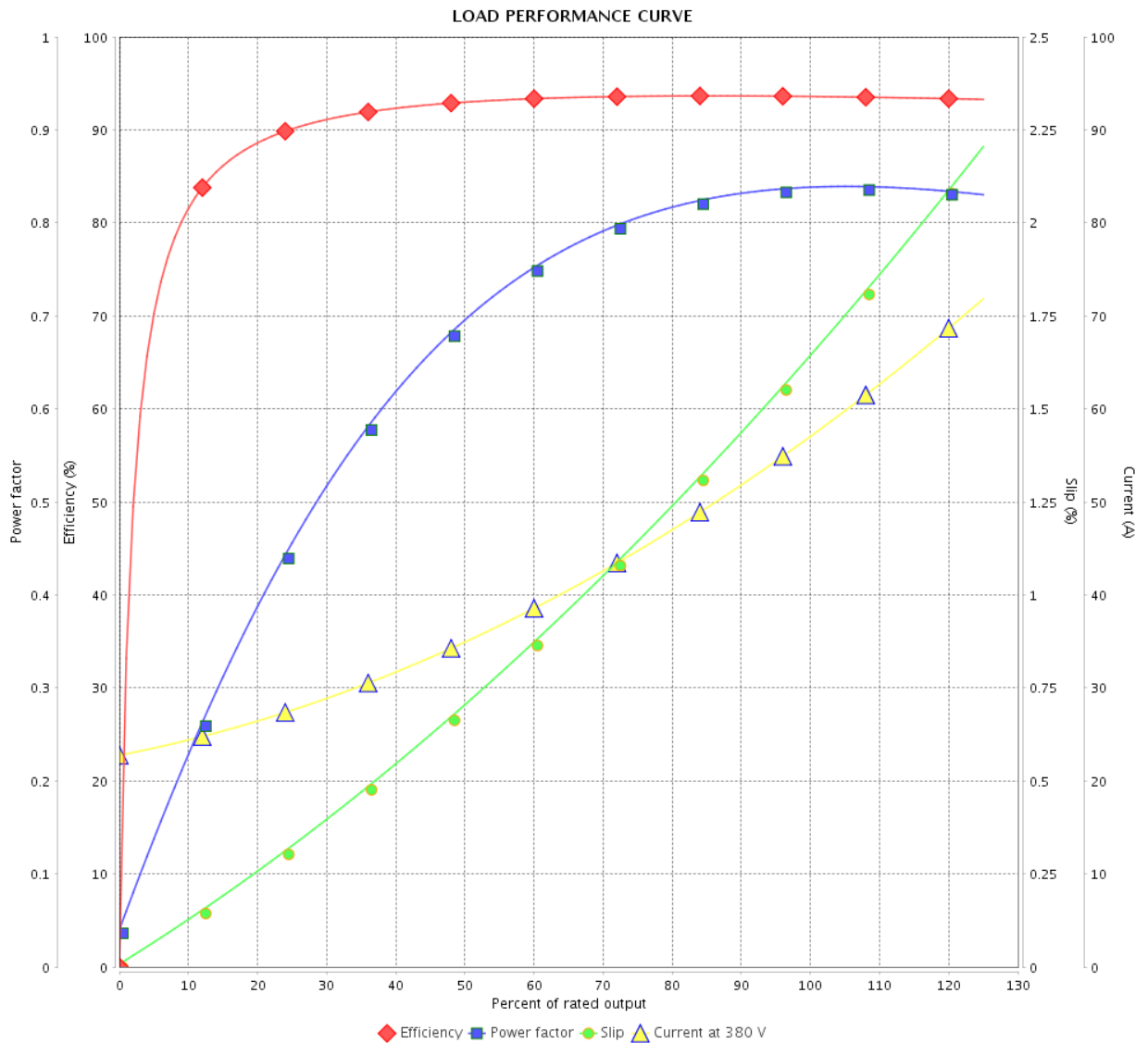


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Product code : 14367673

Catalog # : 05018OT3E326JP-W40



Performance : 380 V 50 Hz 4P IE3

Rated current : 58.0 A  
 LRC : 6.6  
 Rated torque : 142 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 240 %  
 Rated speed : 1475 rpm

Moment of inertia (J) : 7.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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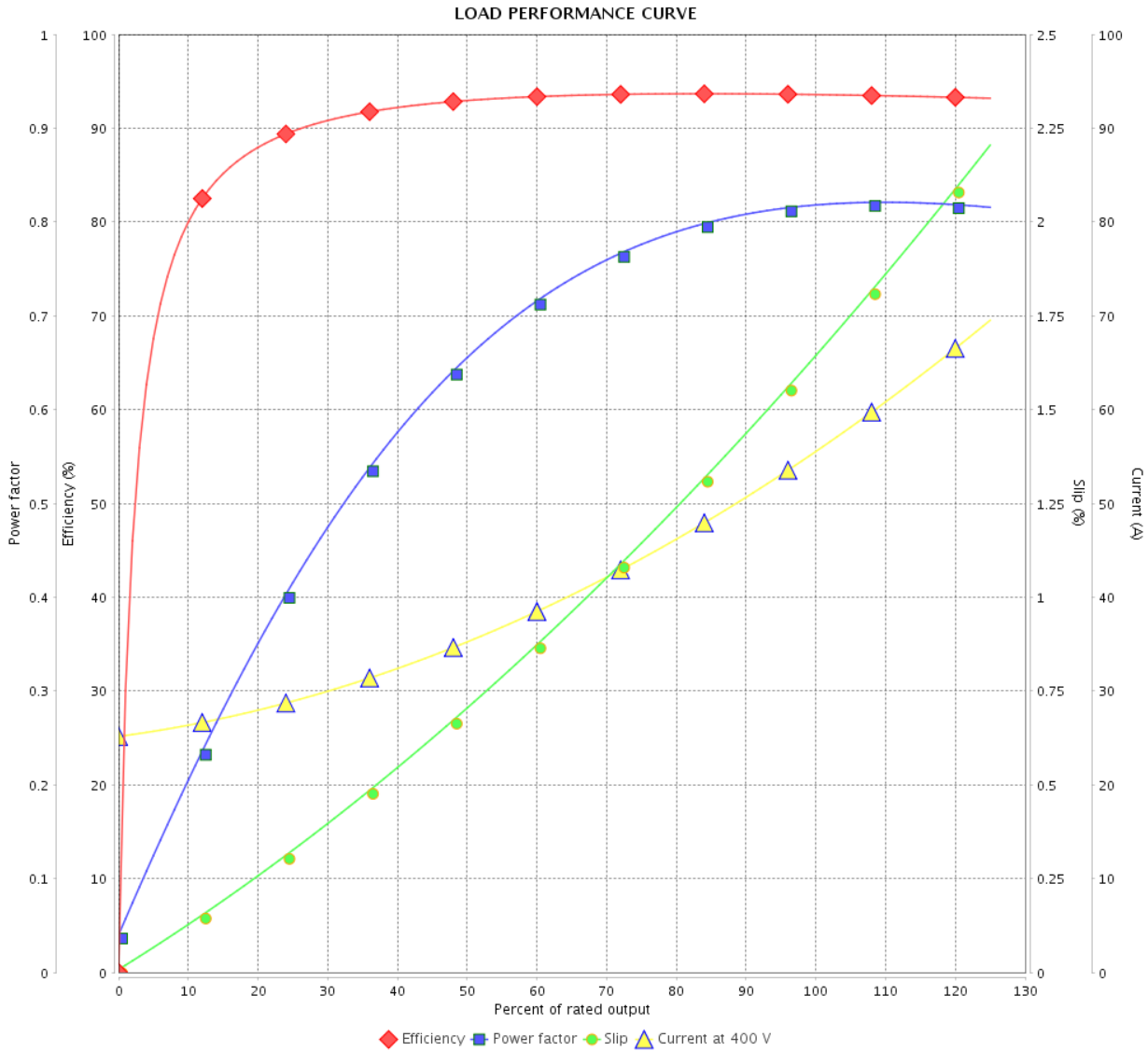


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Efficiency Three-Phase

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Catalog # : 05018OT3E326JP-W40



Performance : 400 V 50 Hz 4P IE3

Rated current	: 56.4 A	Moment of inertia (J)	: 7.08 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 142 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

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## Three Phase Induction Motor - Squirrel Cage

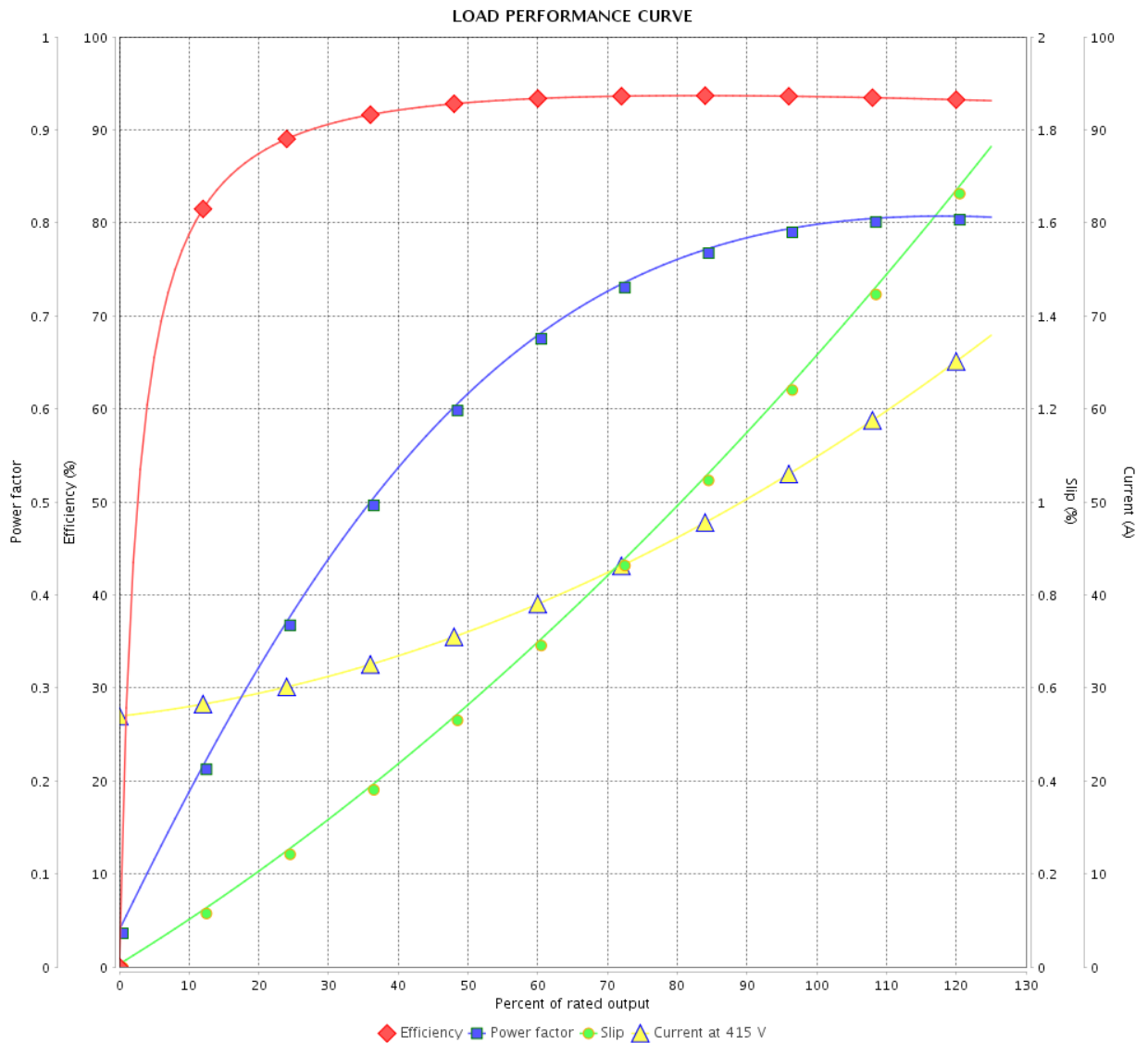


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Product code : 14367673

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Performance : 415 V 50 Hz 4P IE3

Rated current : 55.7 A  
 LRC : 7.2  
 Rated torque : 142 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 300 %  
 Rated speed : 1480 rpm

Moment of inertia (J) : 7.08 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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Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

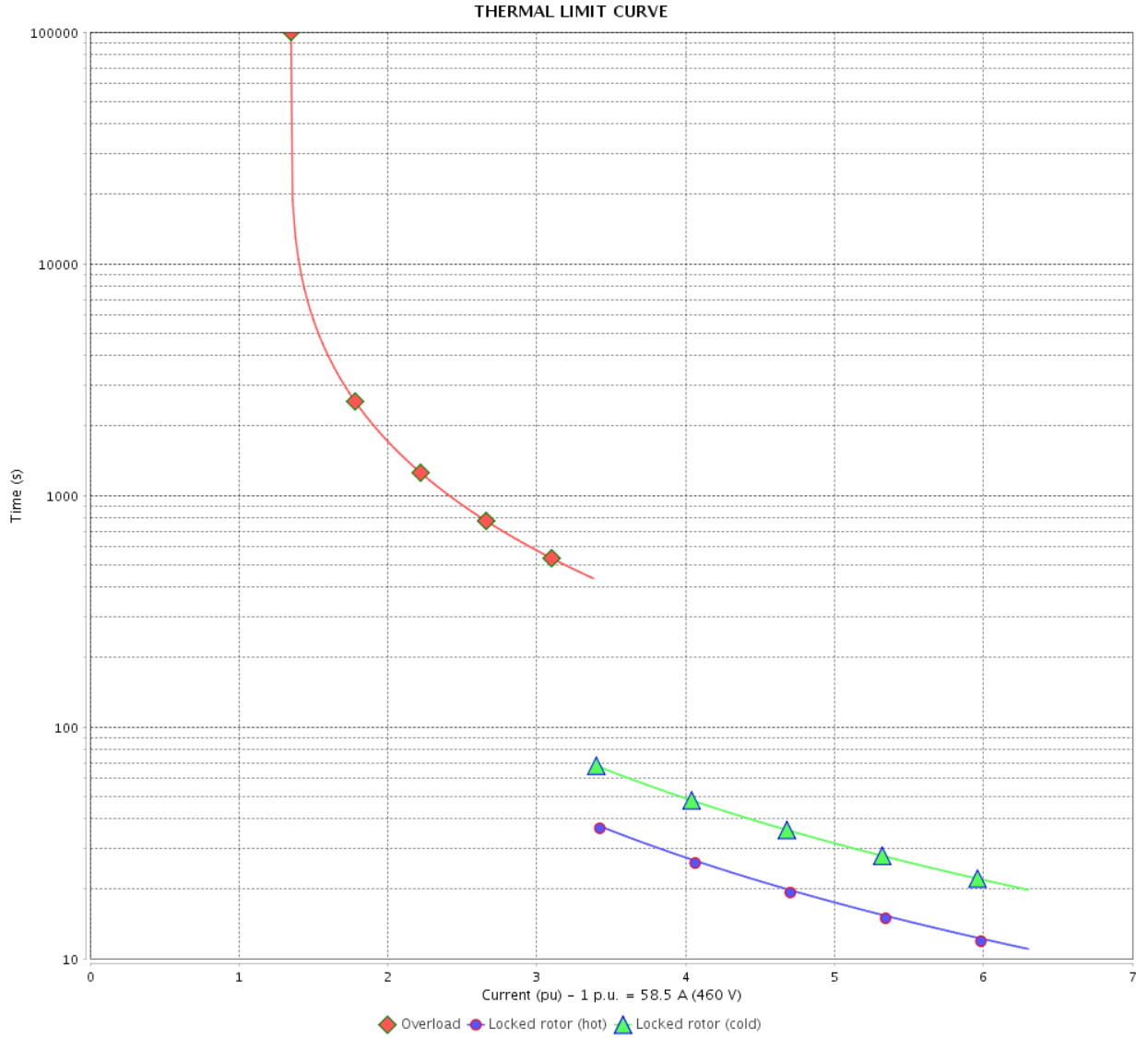
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Performance : 380 V 50 Hz 4P IE3

Rated current	: 58.0 A	Moment of inertia (J)	: 7.08 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 142 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

Heating constant

Cooling constant

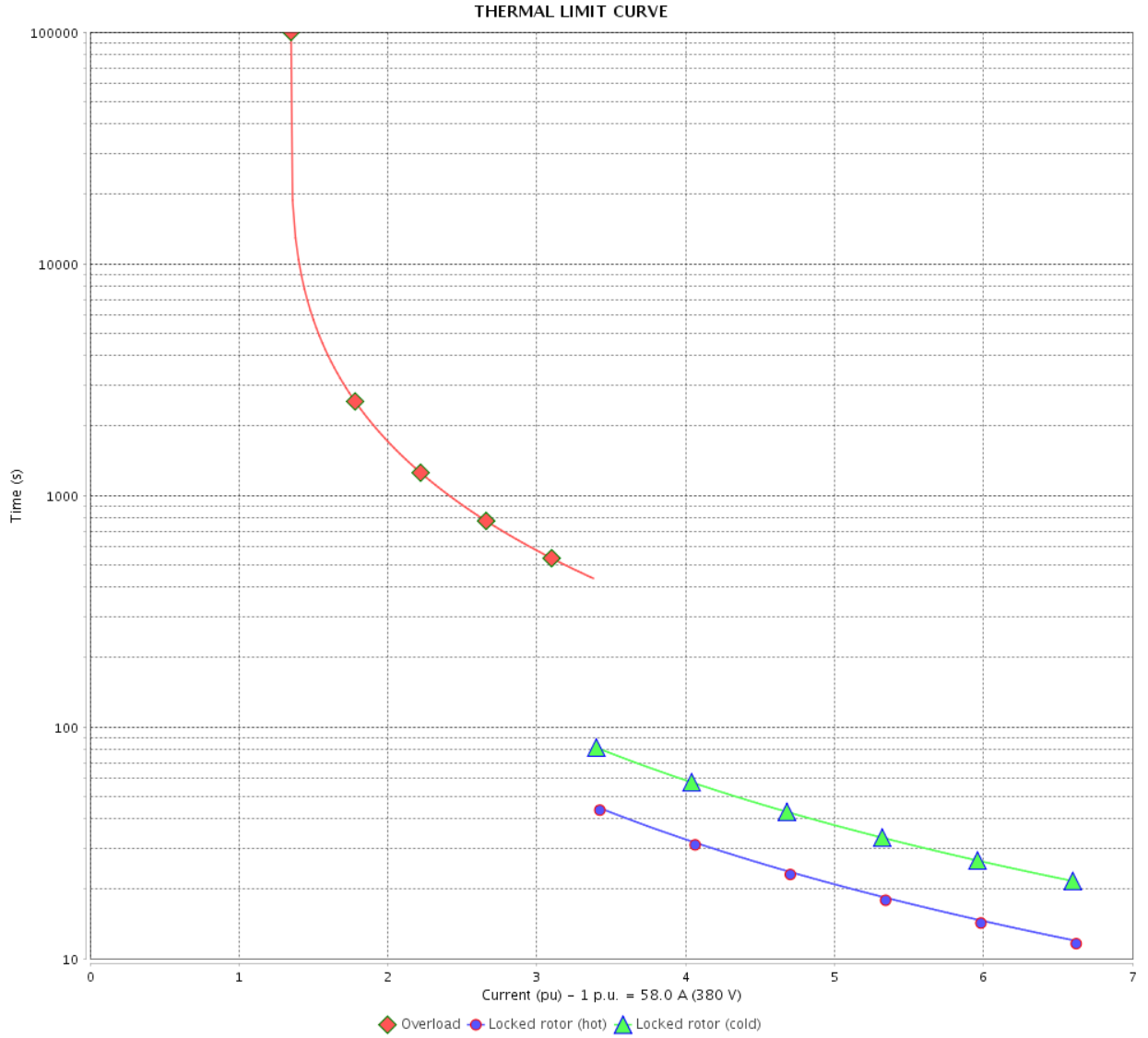
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Performance : 400 V 50 Hz 4P IE3

Rated current	: 56.4 A	Moment of inertia (J)	: 7.08 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
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Locked rotor torque	: 250 %	Service factor	: 1.00
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Heating constant

Cooling constant

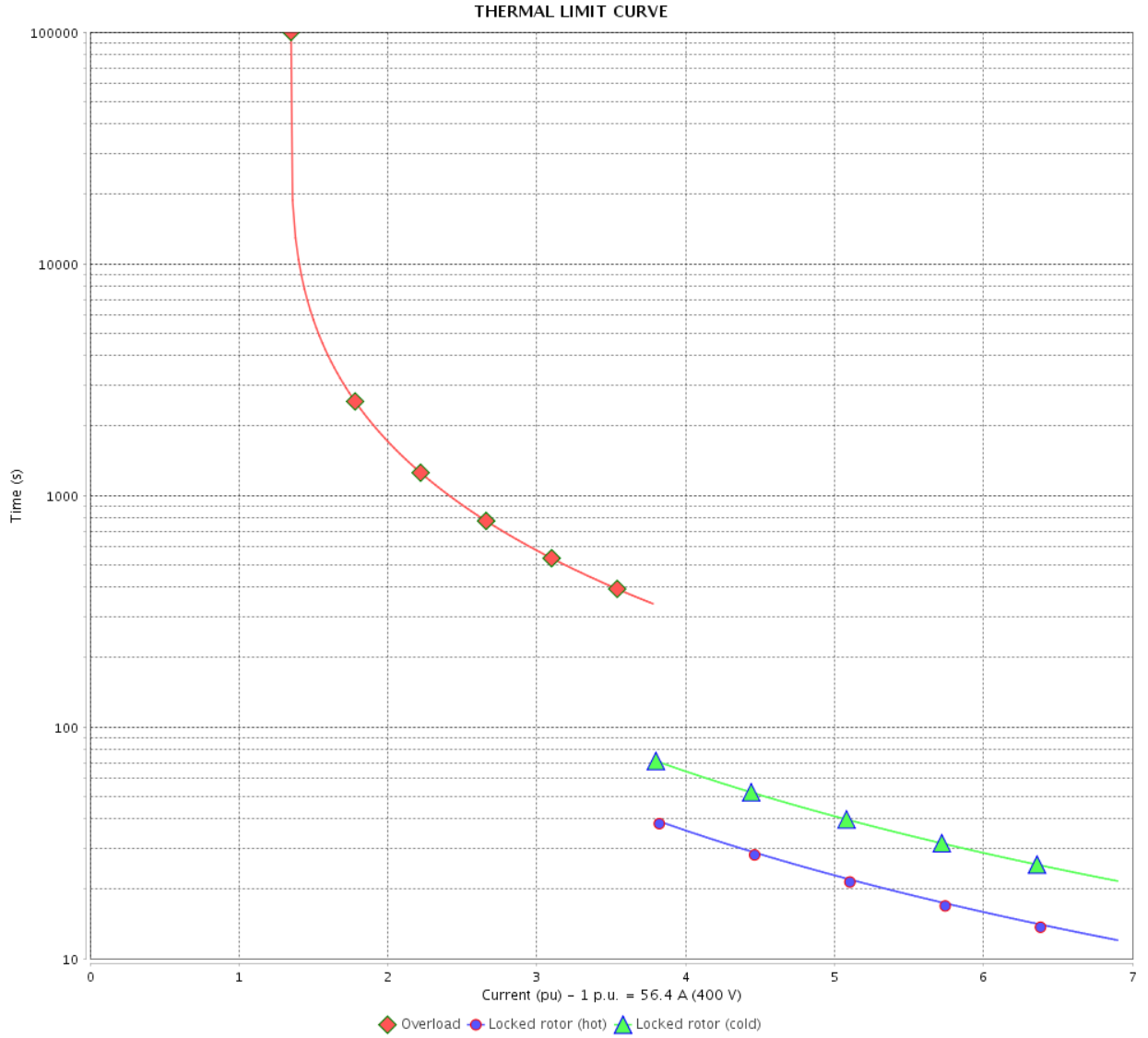
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Performed by				
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# THERMAL LIMIT CURVE



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Product code : 14367673

Catalog # : 05018OT3E326JP-W40

Performance : 415 V 50 Hz 4P IE3

Rated current : 55.7 A	Moment of inertia (J) : 7.08 sq.ft.lb
LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 142 ft.lb	Insulation class : F
Locked rotor torque : 270 %	Service factor : 1.00
Breakdown torque : 300 %	Temperature rise : 80 K
Rated speed : 1480 rpm	Design : B

Heating constant

Cooling constant

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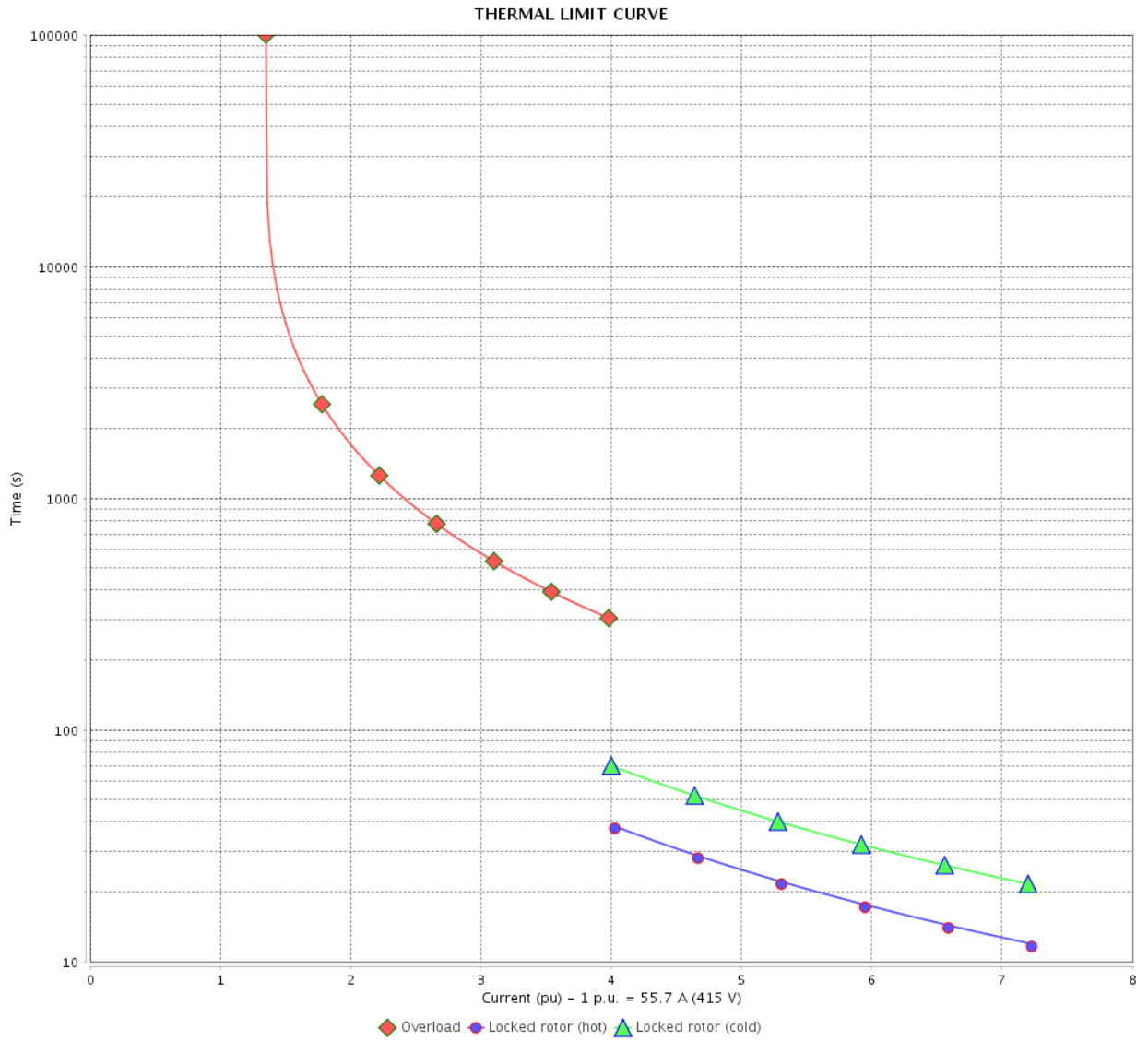


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Rev.	Changes Summary	Performed	Checked	Date
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Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



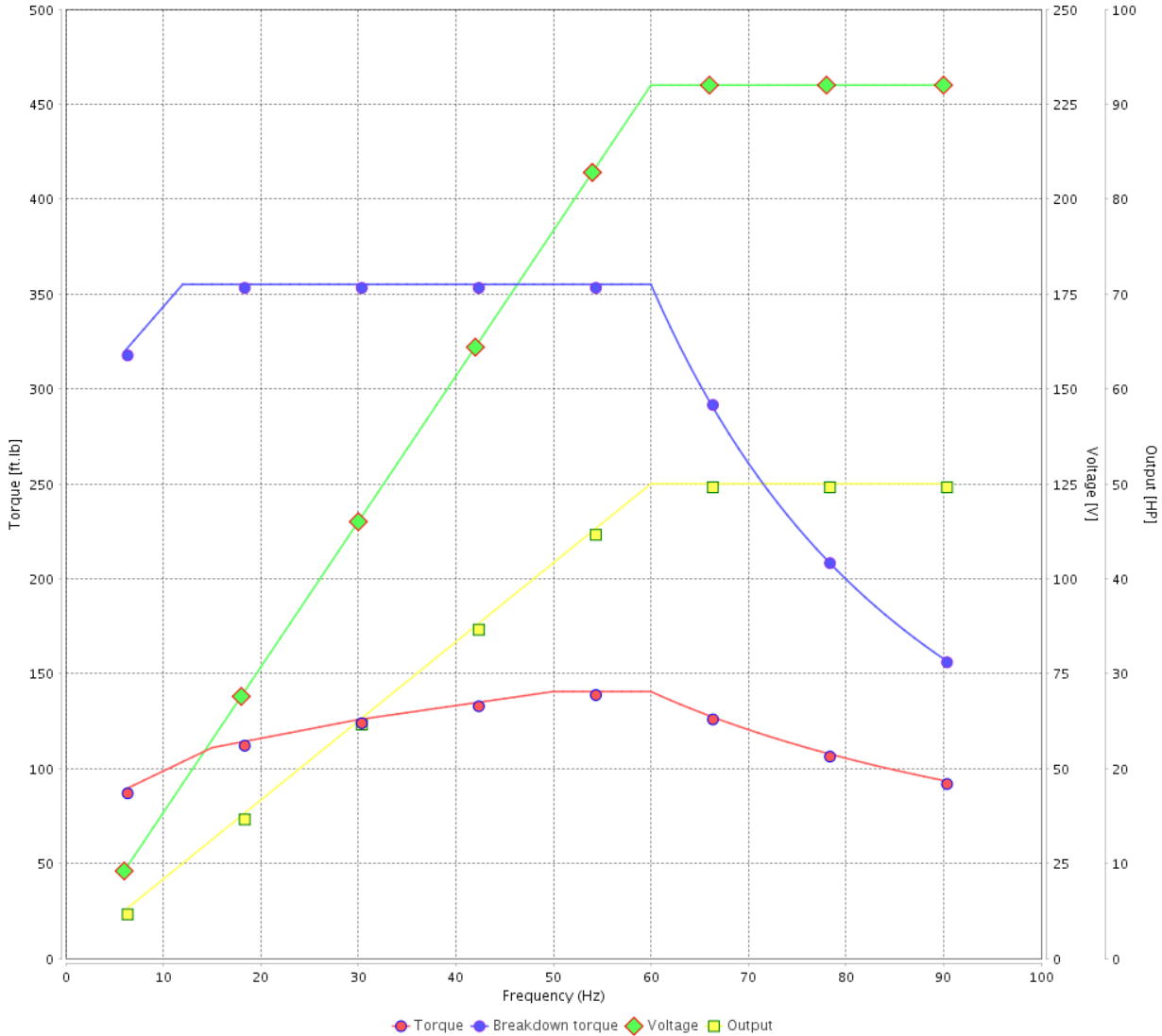
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VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 117/58.5 A  
 LRC : 6.3  
 Rated torque : 148 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 240 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 7.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
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Three Phase Induction Motor - Squirrel Cage

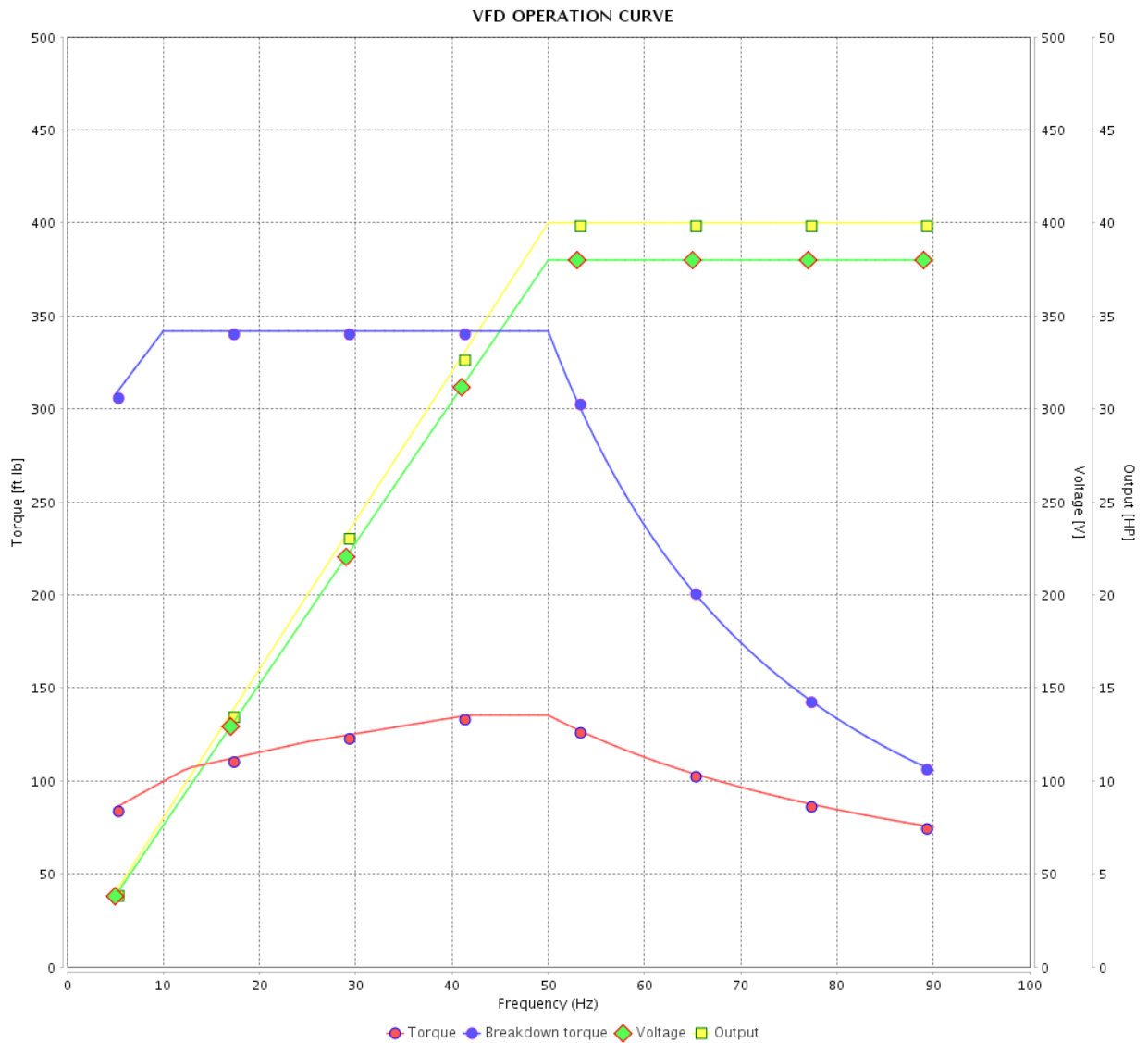


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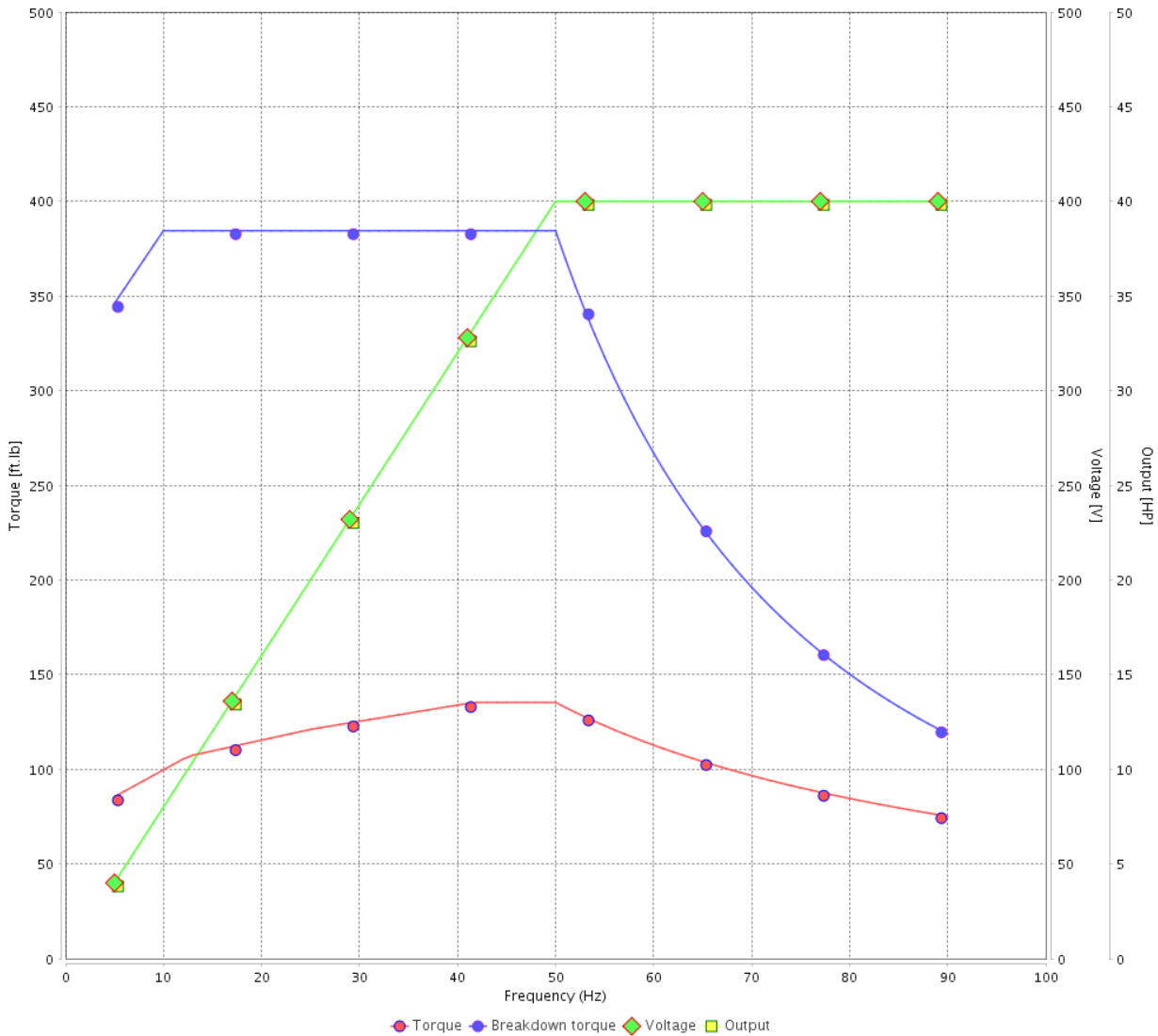
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## Three Phase Induction Motor - Squirrel Cage

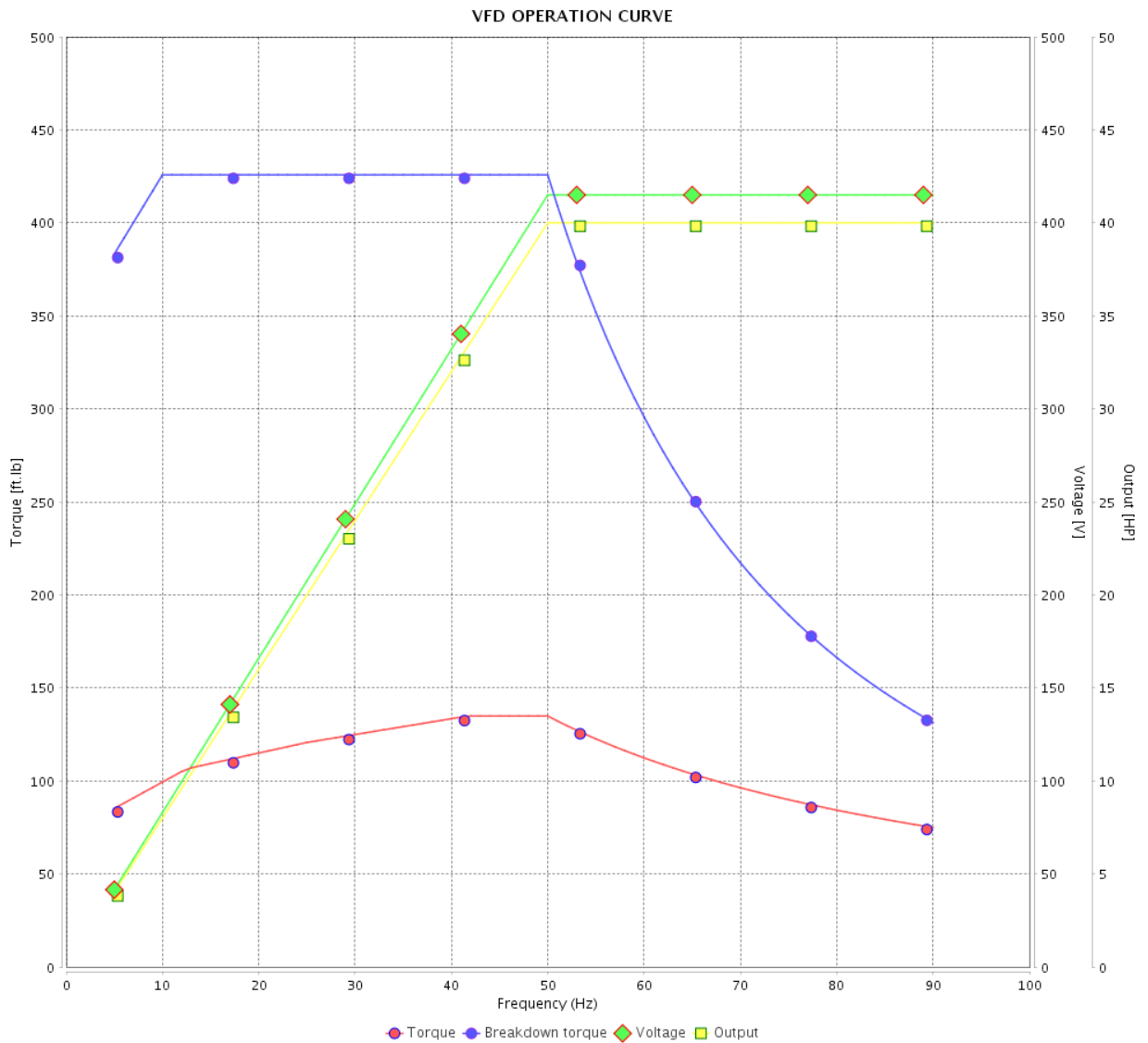


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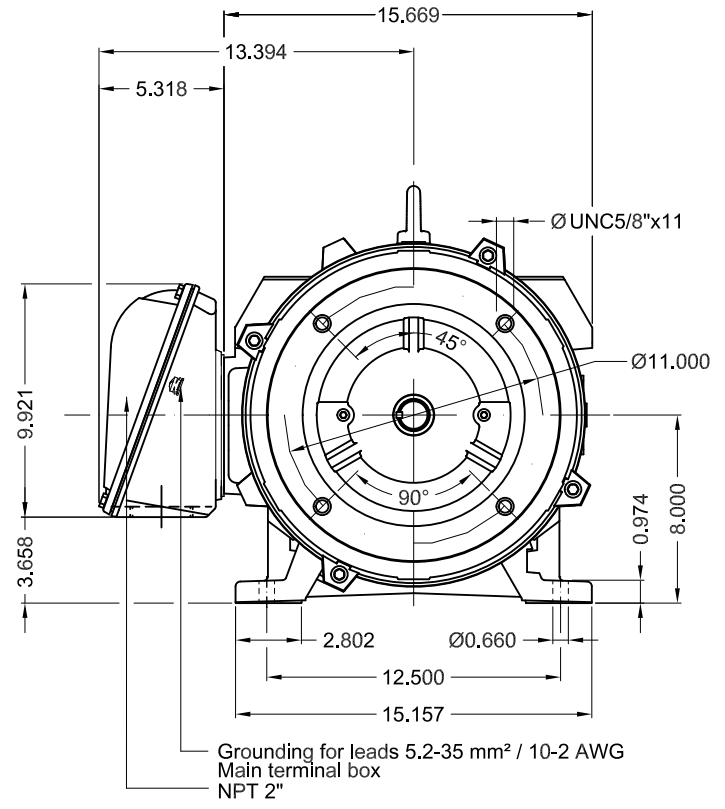


Performance : 415 V 50 Hz 4P IE3

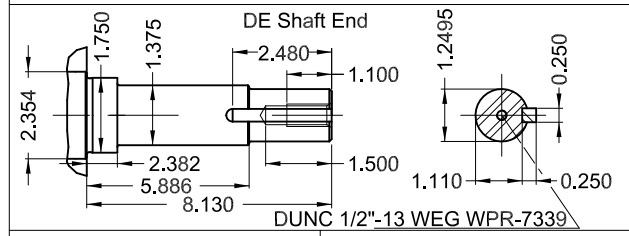
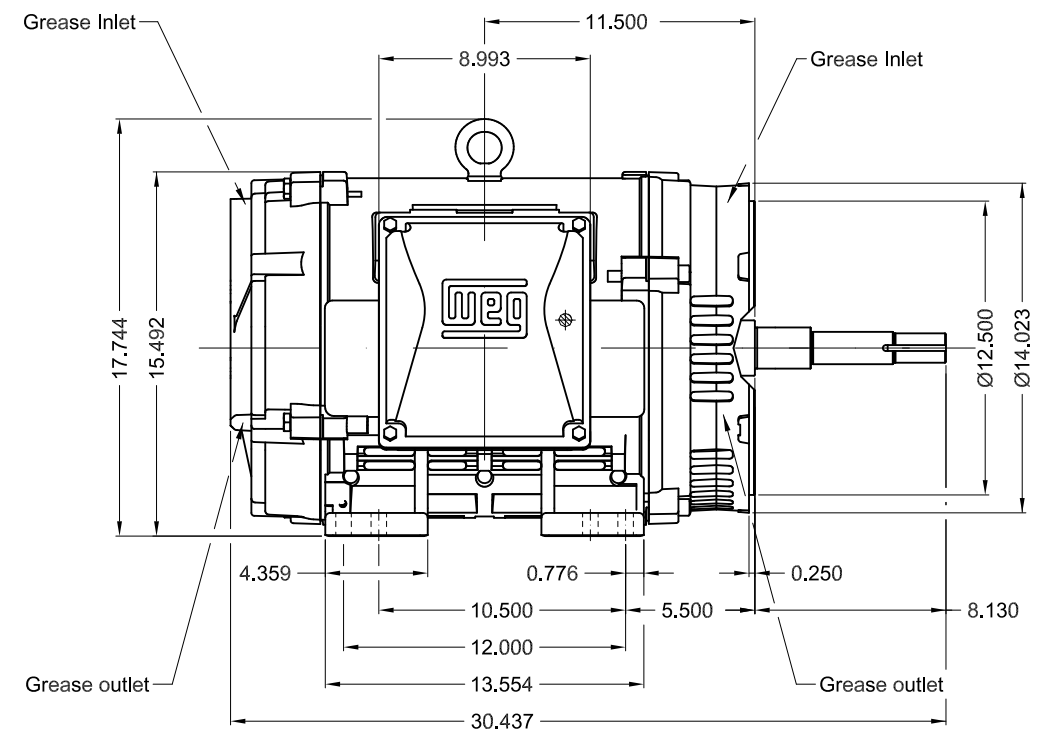
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Grounding for leads 5.2-35 mm<sup>2</sup> / 10-2 AWG  
Main terminal box  
NPT 2"



50 HP 04 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 324/6JP 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



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



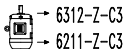
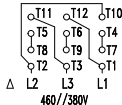
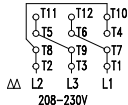
IEC 60034-1  
 MOD.T01#FOXON



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

MODEL 050180T3E326JP-W40  
 MADE IN BRAZIL  
 14367673

PH 3	FR 324/6JP	HP(kW) 50.0(37.0)	Hz 60
V 230/460	A 117/58.5	RPM 1775	DES B
NEMA NOM EFF 94.5 %	INS. CL. F $\Delta$ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.84	SF 1.25	SFA 146/73.1
USABLE @208V 129 A	SF 1.15	SFA 148	
40HP 30kW 50Hz 380V 58.0A 1475RPM SF1.00 EFF 93.6% (IE3)	ALT 1000 m.a.s.l.	527 Lbs	



MOBIL POLYREX EM  
 21 g 20000 h