

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line	: NEMA Premium Efficiency Three-Phase	Product code	: 12383642		
		Catalog #	: 00712ET3E254T-W22		
Frame	: 254/6T	Cooling method	: IC411 - TEFC		
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	: 296 lb		
Protection degree	: IP55	Moment of inertia (J)	: 3.92 sq.ft.lb		
Design	: B				
Output [HP]	7.5	7.5	7.5	7.5	7.5
Poles	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	19.0/9.48	11.4	10.8	10.5	10.5
L. R. Amperes [A]	129/64.5	59.3	62.6	65.1	65.1
LRC [A]	6.8x(Code H)	5.2x(Code F)	5.8x(Code G)	6.2x(Code G)	6.2x(Code G)
No load current [A]	9.00/4.50	4.50	4.75	4.95	4.95
Rated speed [RPM]	1175	970	970	975	975
Slip [%]	2.08	3.00	3.00	2.50	2.50
Rated torque [ft.lb]	33.5	40.6	40.6	40.4	40.4
Locked rotor torque [%]	250	170	200	220	220
Breakdown torque [%]	300	220	240	260	260
Service factor	1.25	1.00	1.15	1.15	1.15
Temperature rise	80 K	105 K	105 K	80 K	80 K
Locked rotor time	54s (cold) 30s (hot)	48s (cold) 27s (hot)	48s (cold) 27s (hot)	48s (cold) 27s (hot)	48s (cold) 27s (hot)
Noise level ²	59.0 dB(A)	57.0 dB(A)	57.0 dB(A)	57.0 dB(A)	57.0 dB(A)
Efficiency (%)	25%				
	50%	89.5	89.5	89.5	89.5
	75%	90.2	89.5	89.5	89.5
	100%	91.0	88.5	89.5	90.2
Power Factor	25%				
	50%	0.63	0.70	0.66	0.64
	75%	0.74	0.79	0.77	0.75
	100%	0.80	0.83	0.82	0.81
Bearing type	: Drive end : 6309 C3	Non drive end : 6209 C3	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 356 lb	
Lubrication interval	: 20000 h	20000 h	Max. compression	: 651 lb	
Lubricant amount	: 13 g	9 g			
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 21.0A SF 1.15 SFA 24.1A					
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



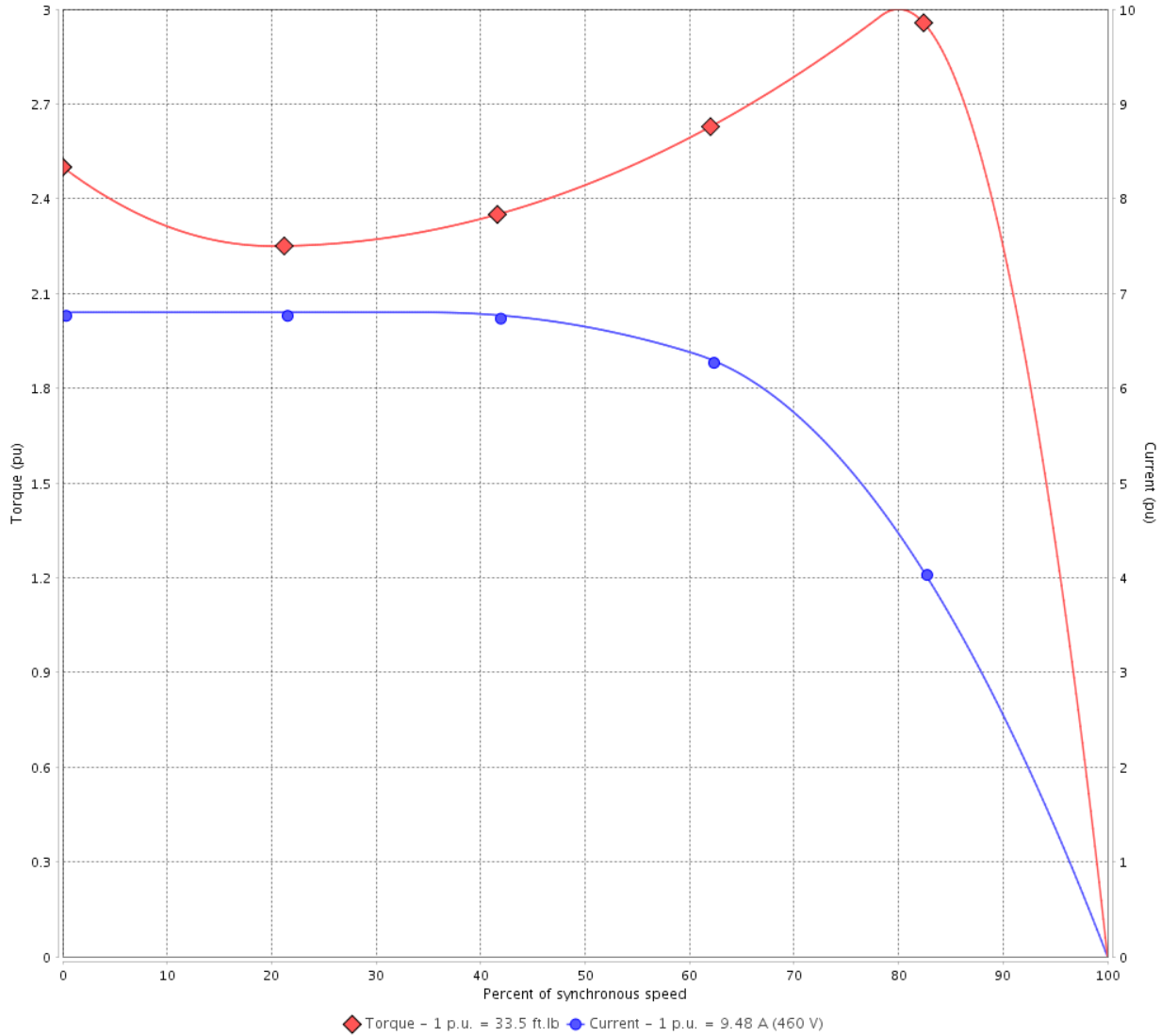
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12383642

Catalog # : 00712ET3E254T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 19.0/9.48 A	Moment of inertia (J)	: 3.92 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 33.5 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Locked rotor time : 54s (cold) 30s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



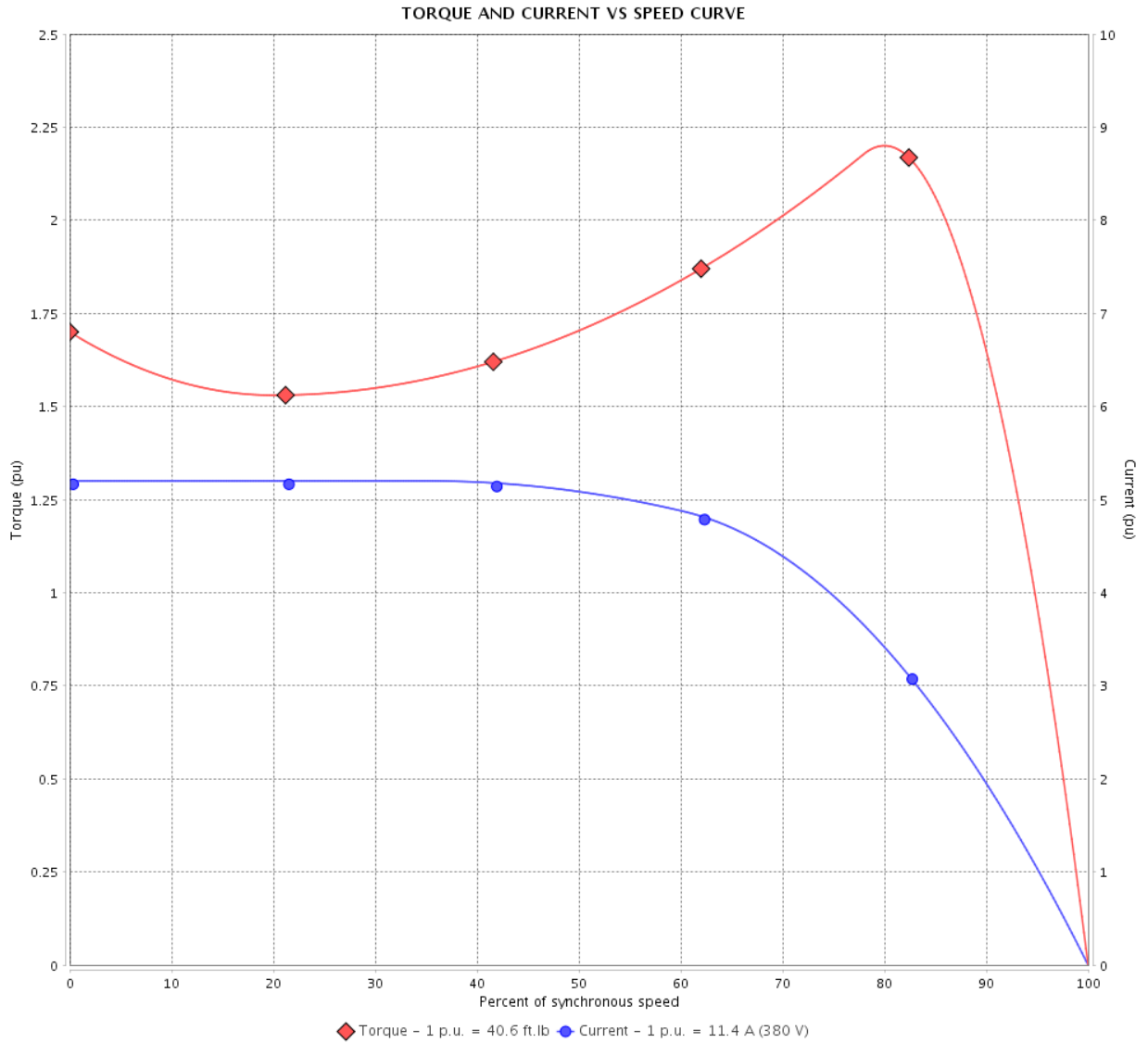
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12383642

Catalog # : 00712ET3E254T-W22



Performance : 380 V 50 Hz 6P IE3

Rated current	: 11.4 A	Moment of inertia (J)	: 3.92 sq.ft.lb
LRC	: 5.2	Duty cycle	: Cont.(S1)
Rated torque	: 40.6 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

Locked rotor time : 48s (cold) 27s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



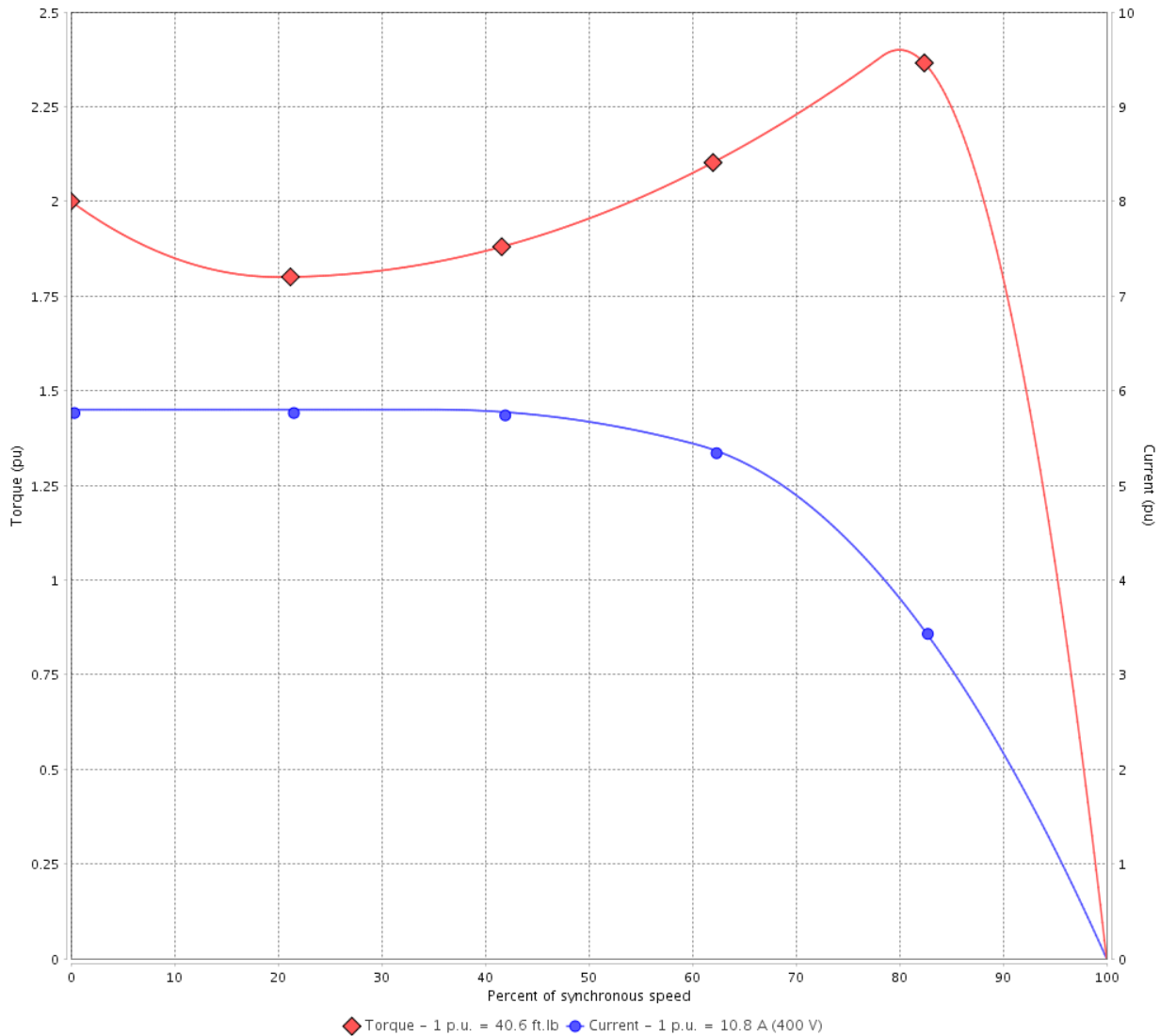
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12383642

Catalog # : 00712ET3E254T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 10.8 A	Moment of inertia (J)	: 3.92 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 40.6 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

Locked rotor time : 48s (cold) 27s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



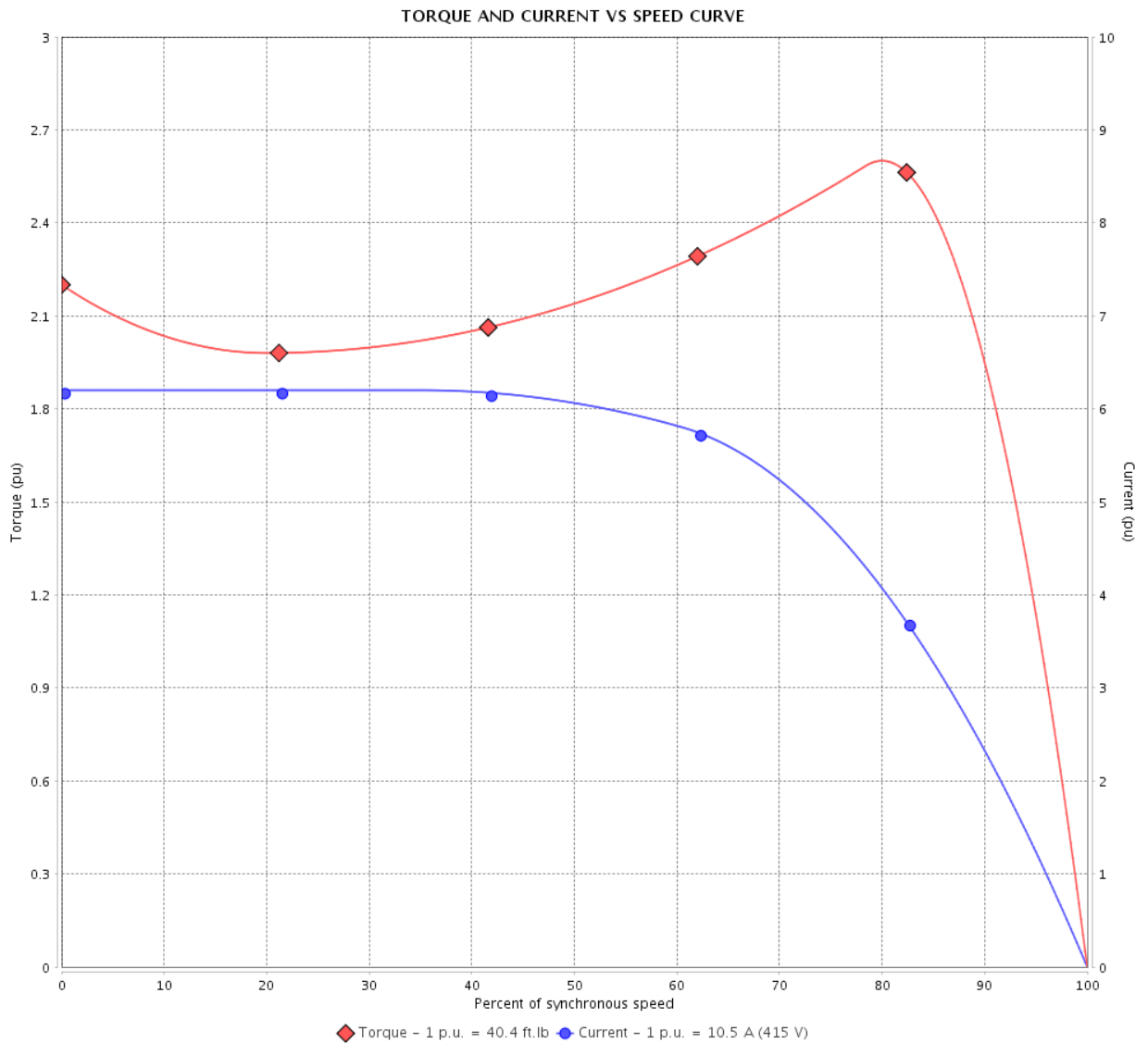
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12383642

Catalog # : 00712ET3E254T-W22



Performance : 415 V 50 Hz 6P IE3

Rated current : 10.5 A
 LRC : 6.2
 Rated torque : 40.4 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 260 %
 Rated speed : 975 rpm

Moment of inertia (J) : 3.92 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 48s (cold) 27s (hot)

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LOAD PERFORMANCE CURVE

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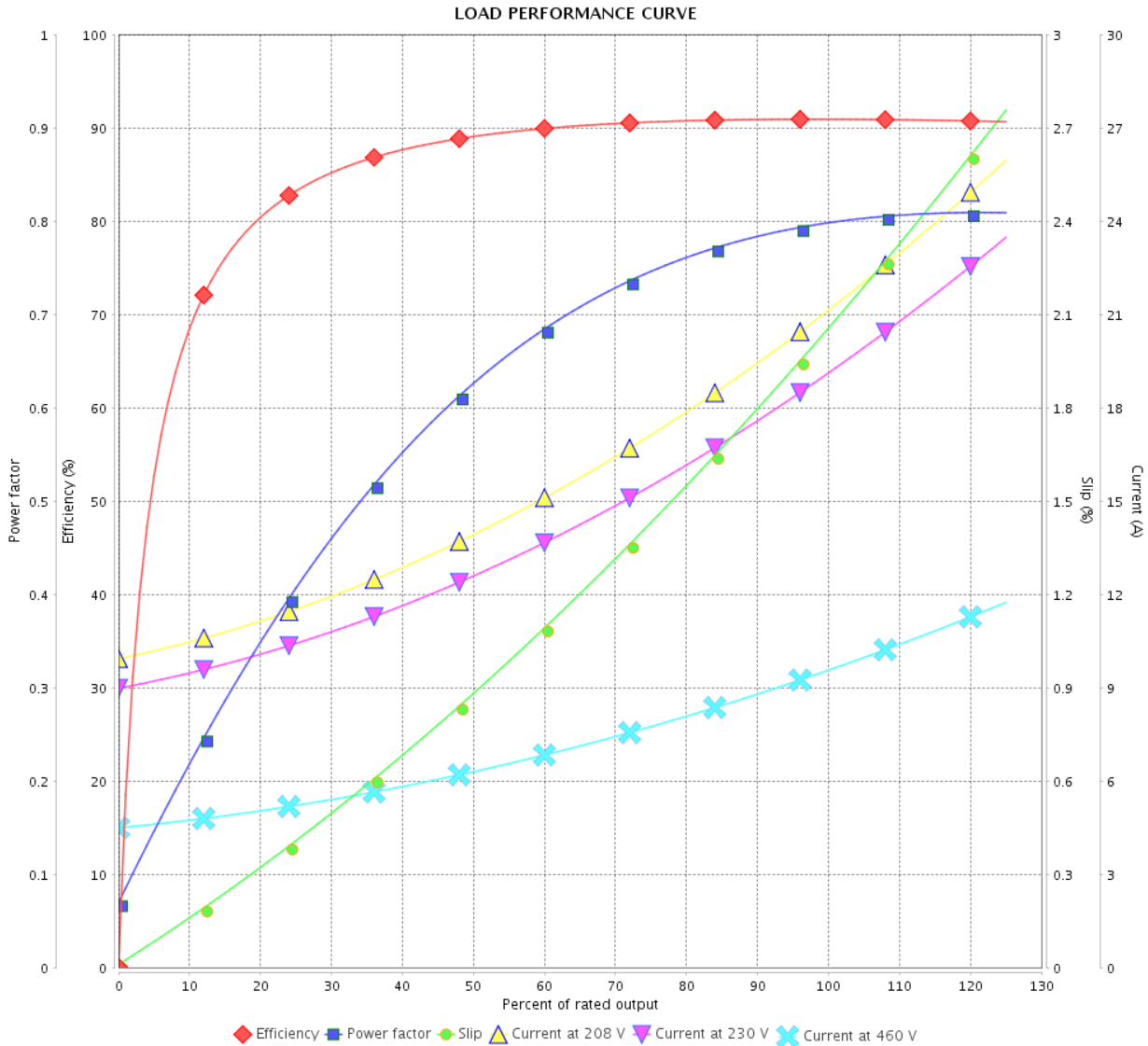


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Performance : 230/460 V 60 Hz 6P

Rated current : 19.0/9.48 A
 LRC : 6.8
 Rated torque : 33.5 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 300 %
 Rated speed : 1175 rpm

Moment of inertia (J) : 3.92 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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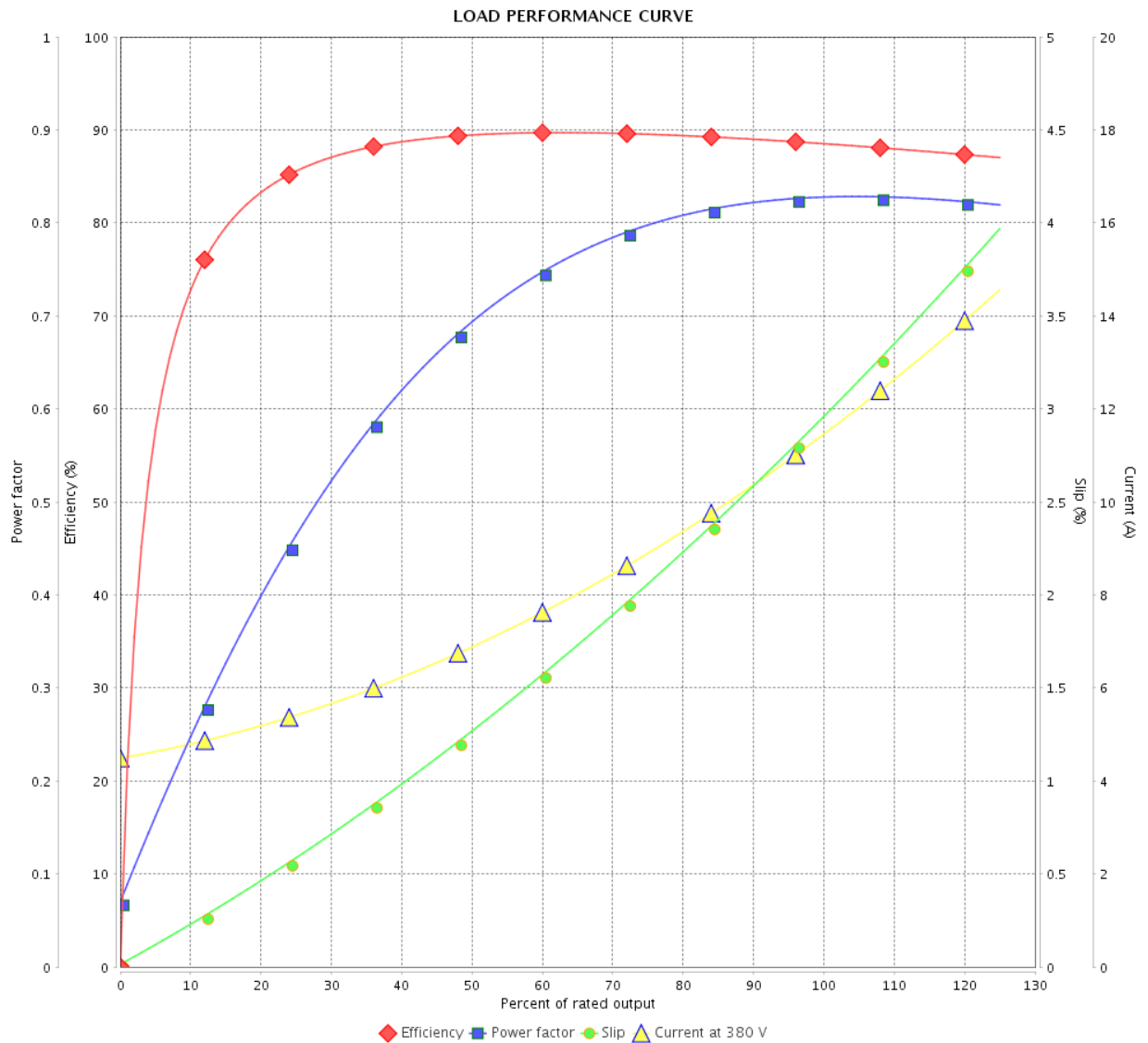


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Performance : 380 V 50 Hz 6P IE3

Rated current : 11.4 A
 LRC : 5.2
 Rated torque : 40.6 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 220 %
 Rated speed : 970 rpm

Moment of inertia (J) : 3.92 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage



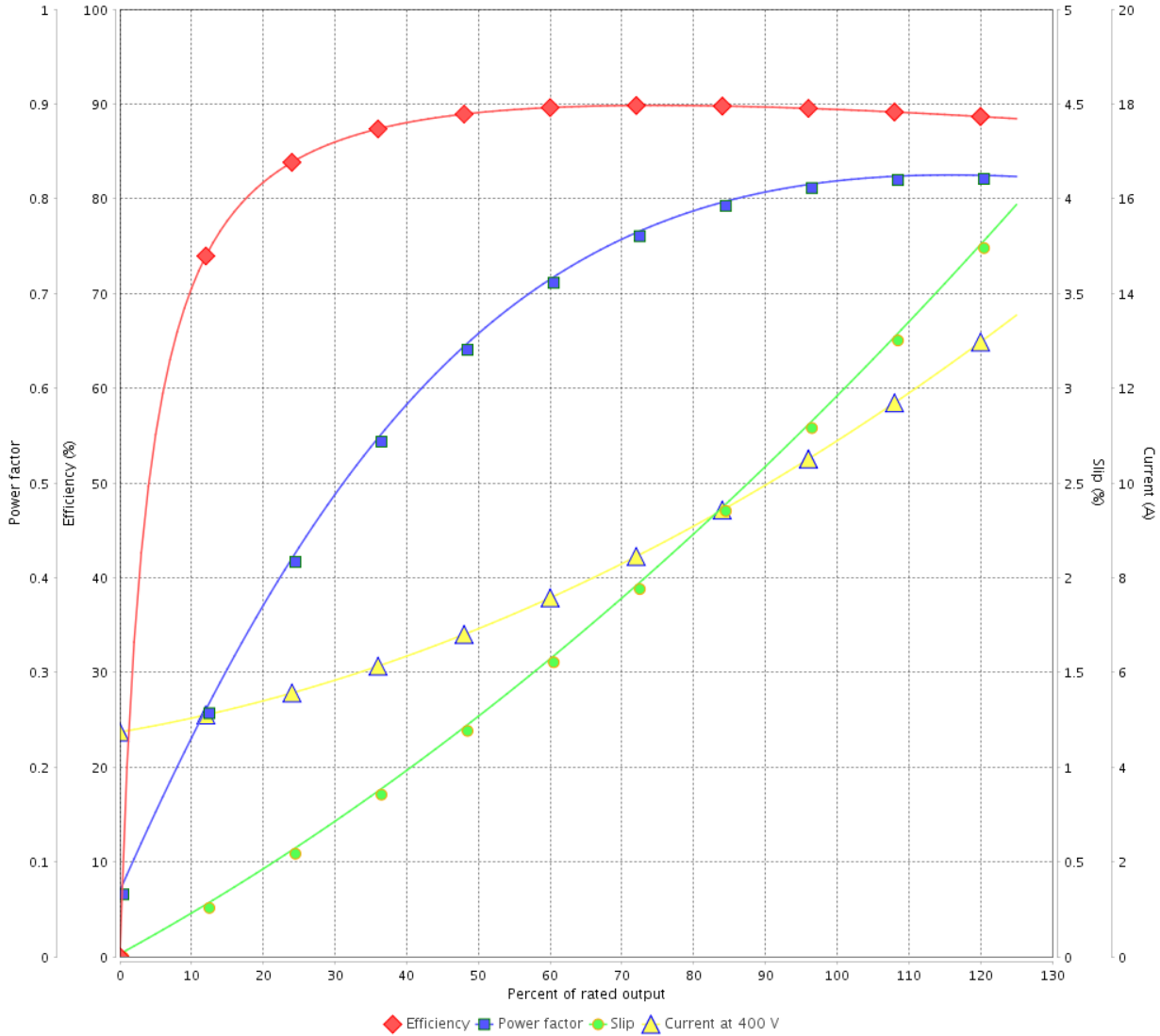
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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current : 10.8 A
 LRC : 5.8
 Rated torque : 40.6 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 970 rpm

Moment of inertia (J) : 3.92 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 105 K
 Design : B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

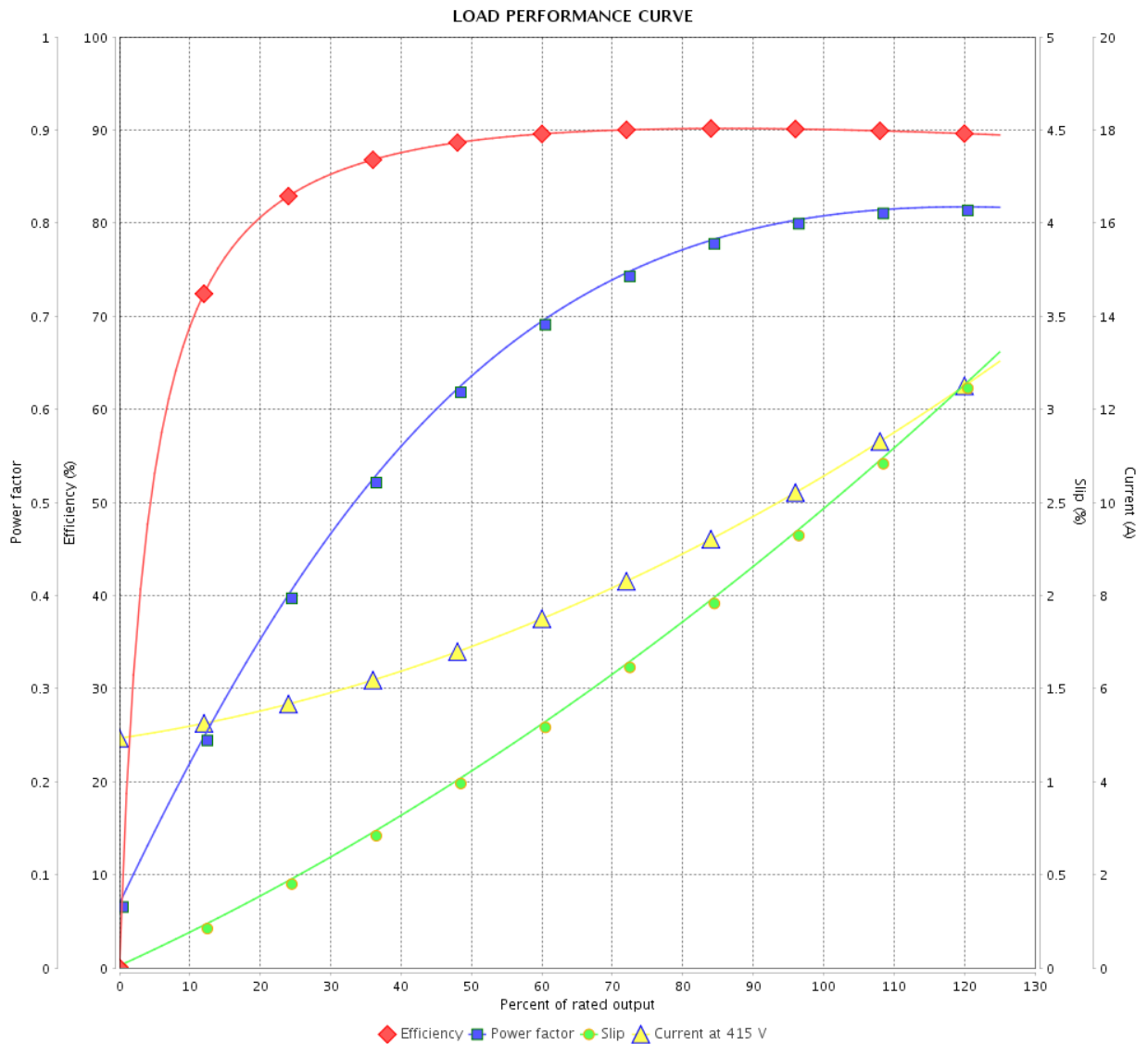


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Rated current : 10.5 A
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 Locked rotor torque : 220 %
 Breakdown torque : 260 %
 Rated speed : 975 rpm

Moment of inertia (J) : 3.92 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



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Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Heating constant

Cooling constant

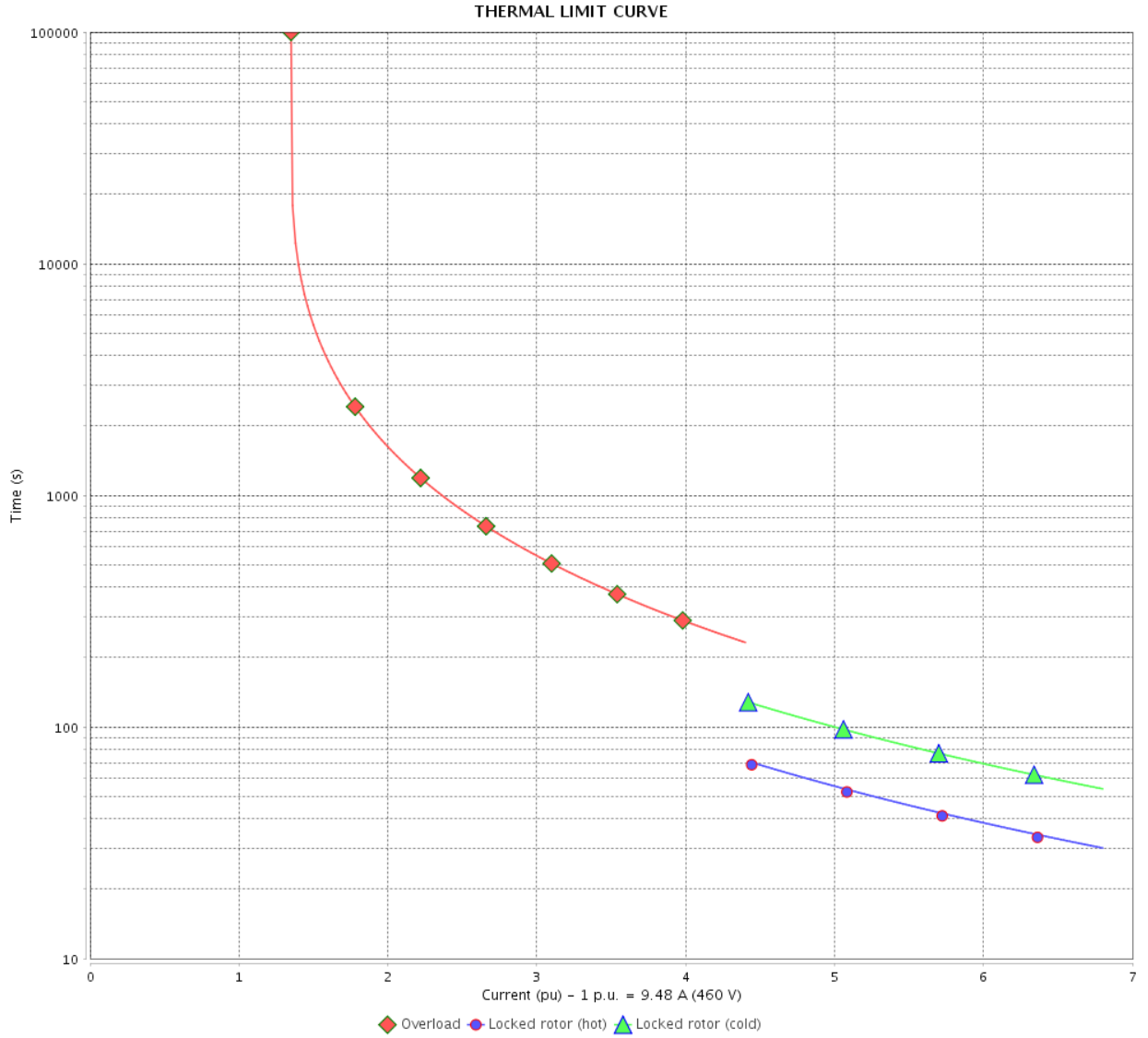
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LRC	: 5.2	Duty cycle	: Cont.(S1)
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Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

Heating constant

Cooling constant

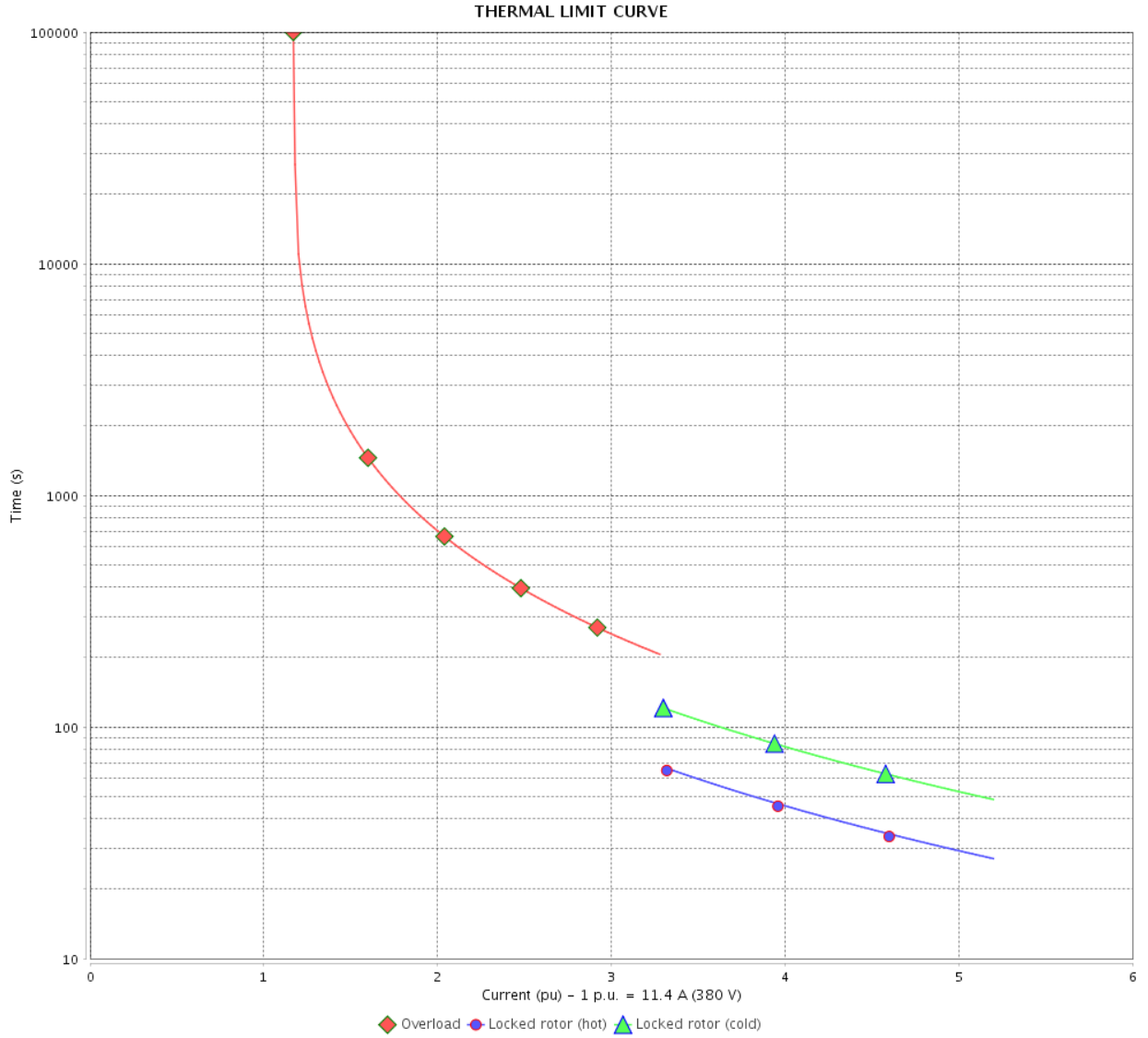
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Performance : 400 V 50 Hz 6P IE3

Rated current	: 10.8 A	Moment of inertia (J)	: 3.92 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 40.6 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

Heating constant

Cooling constant

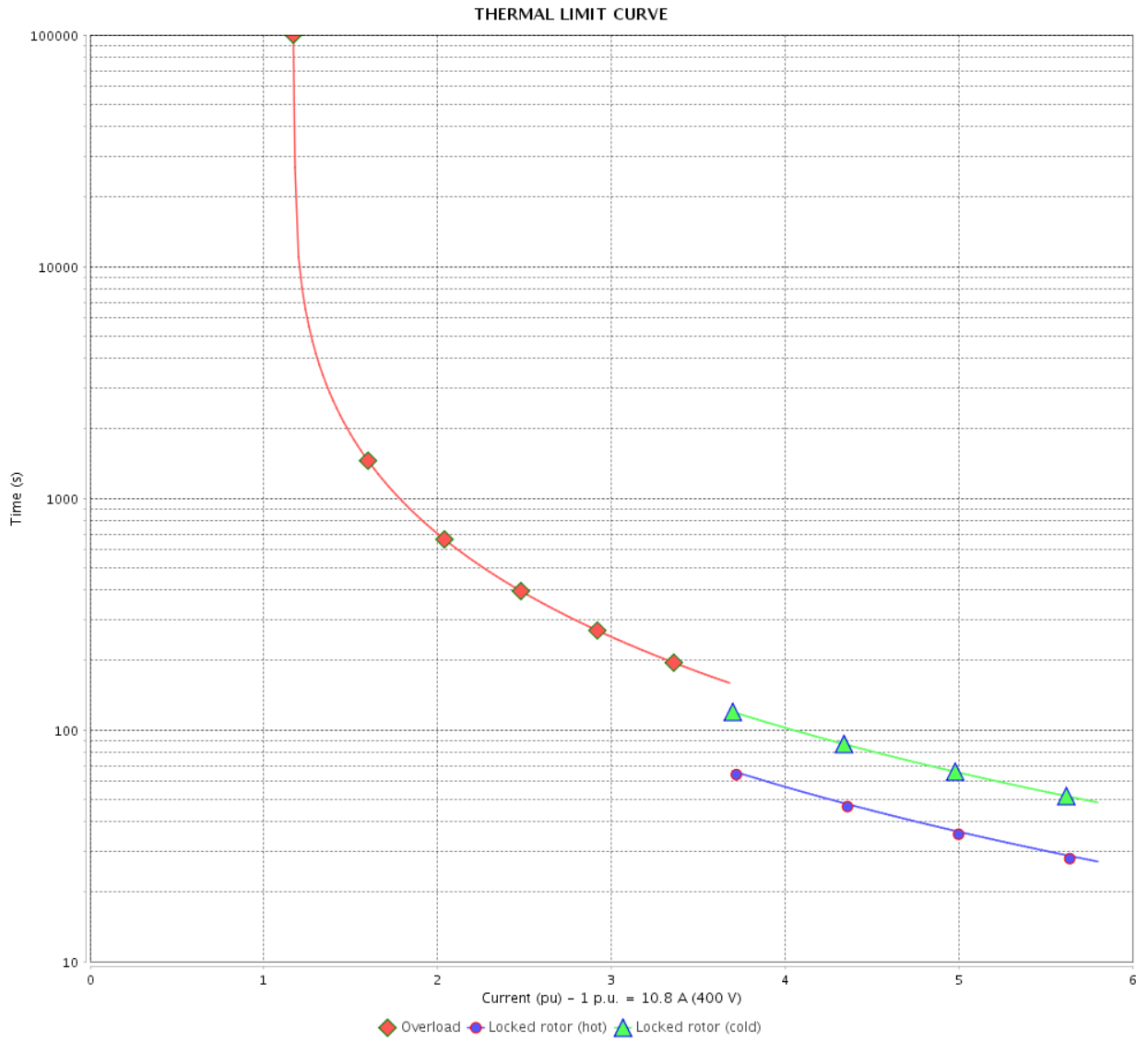
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Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

Heating constant

Cooling constant

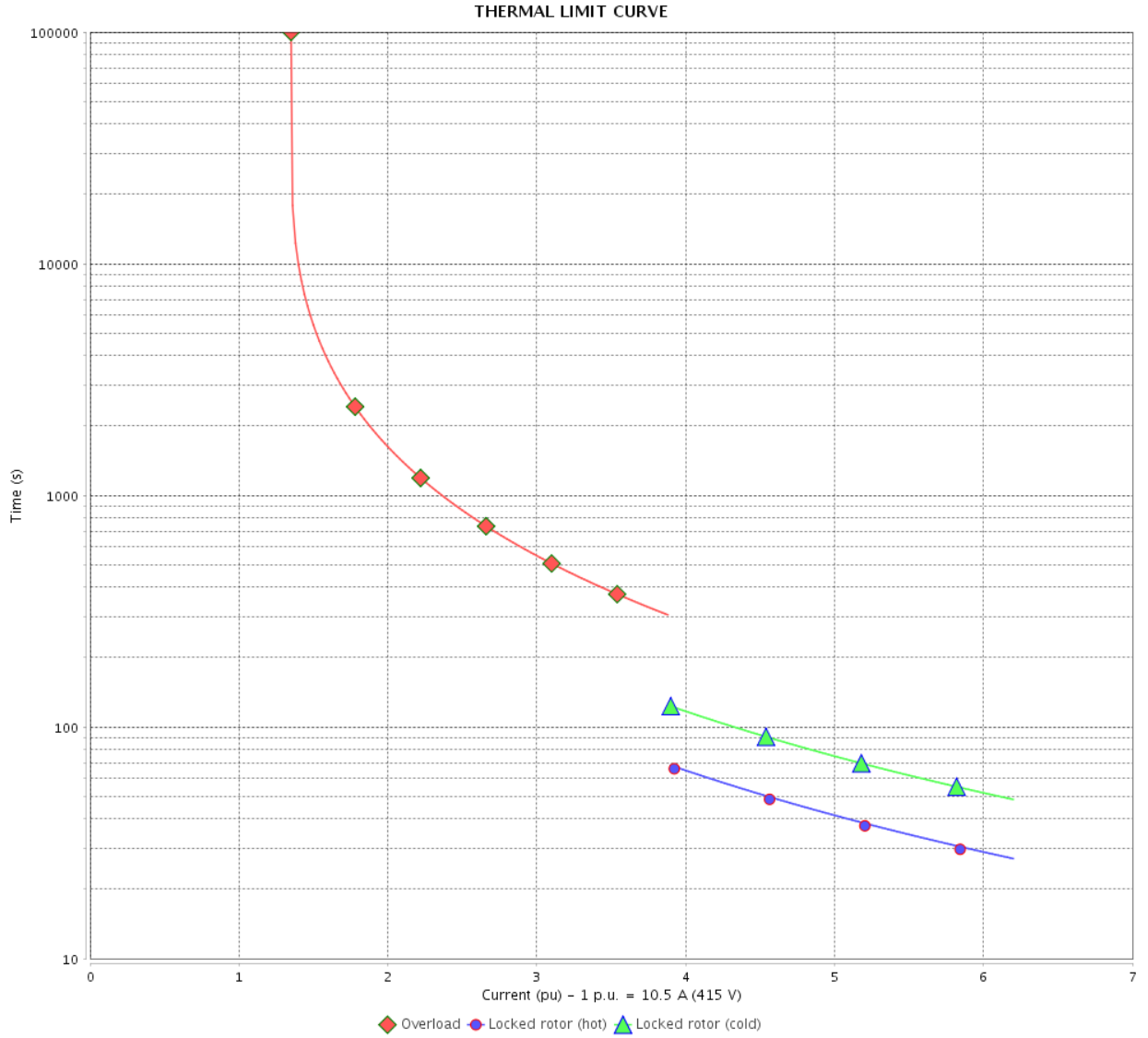
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

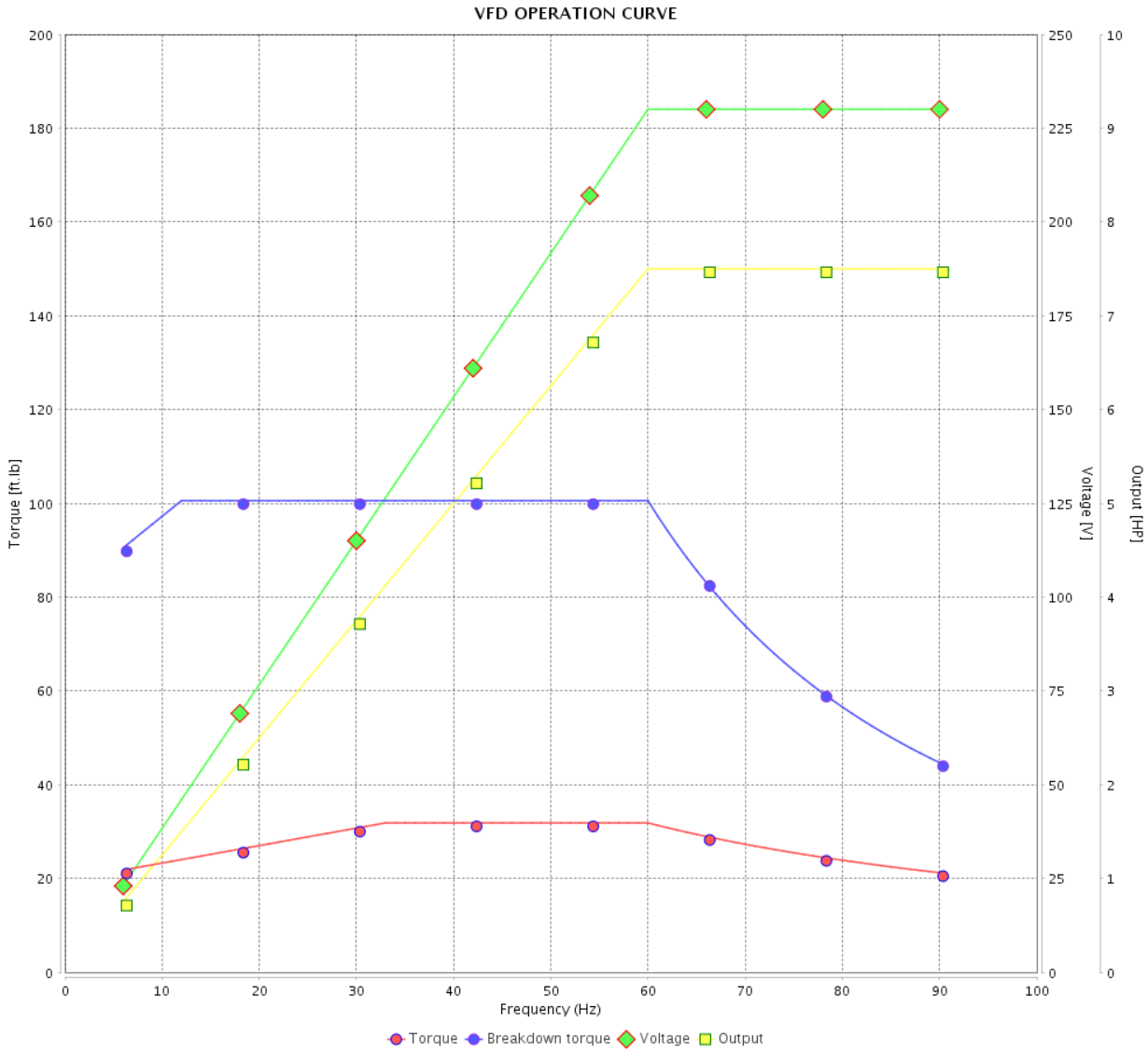


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 Breakdown torque : 300 %
 Rated speed : 1175 rpm

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 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

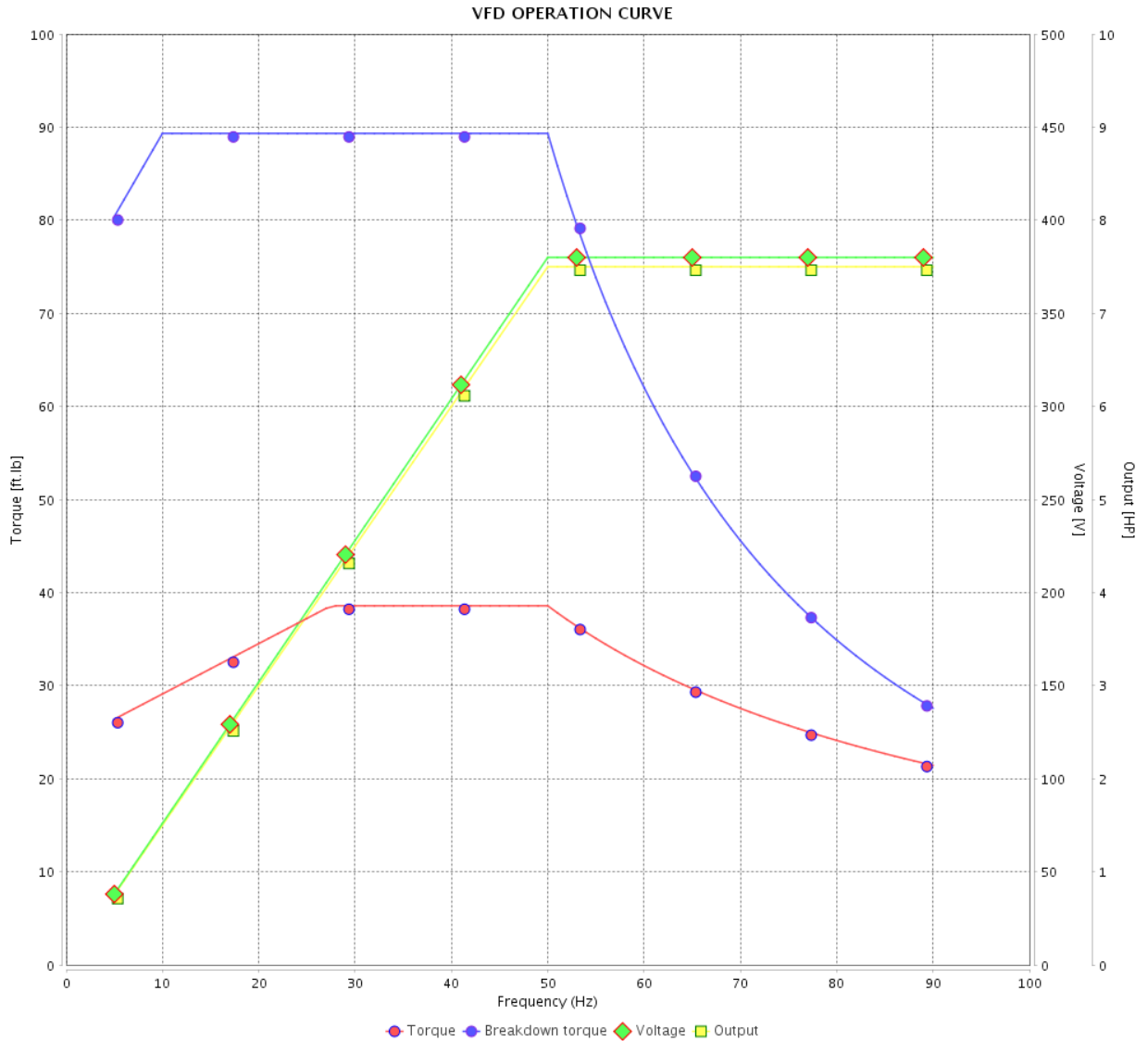


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Performance : 380 V 50 Hz 6P IE3

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 Breakdown torque : 220 %
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

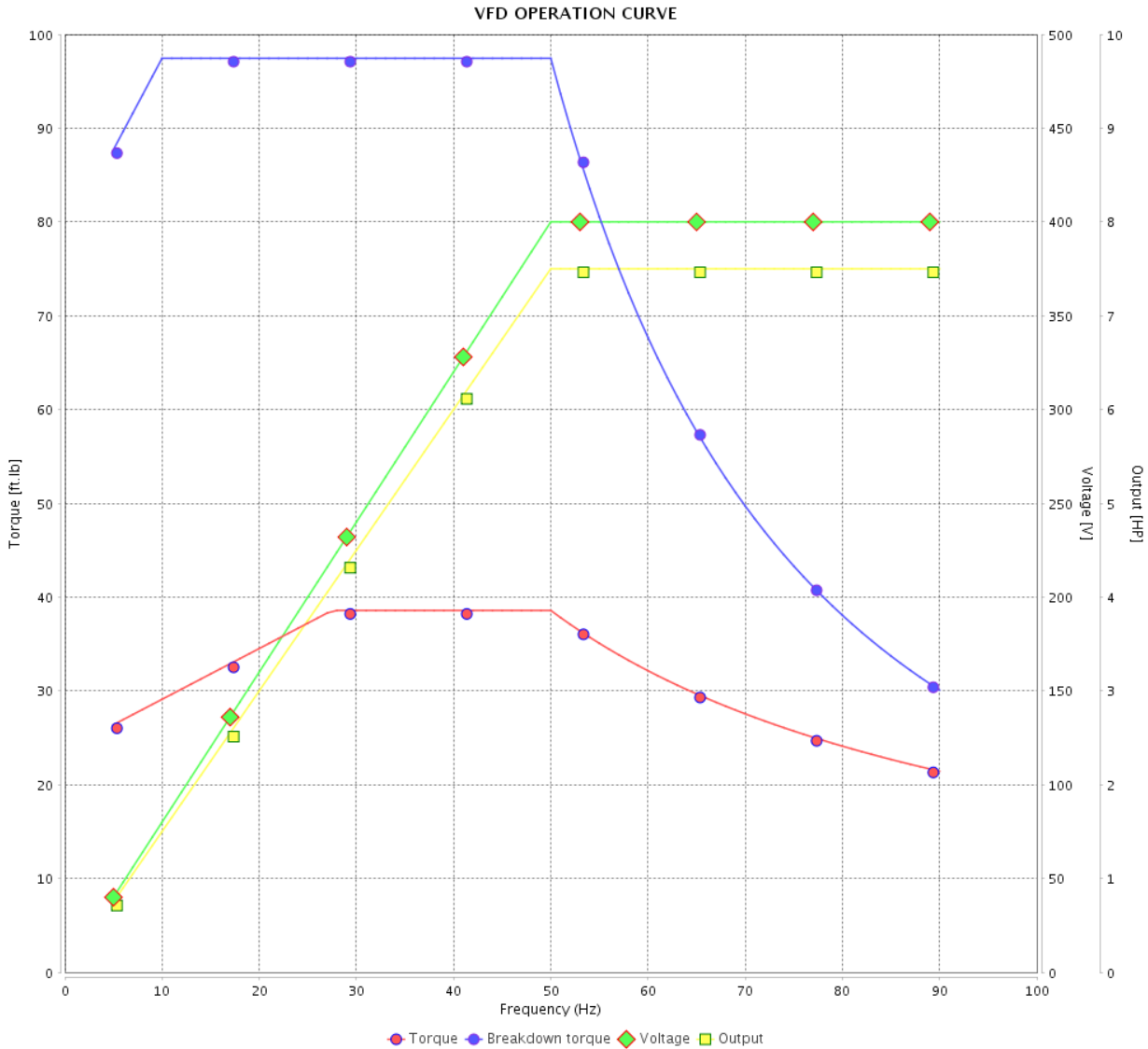


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VFD OPERATION CURVE

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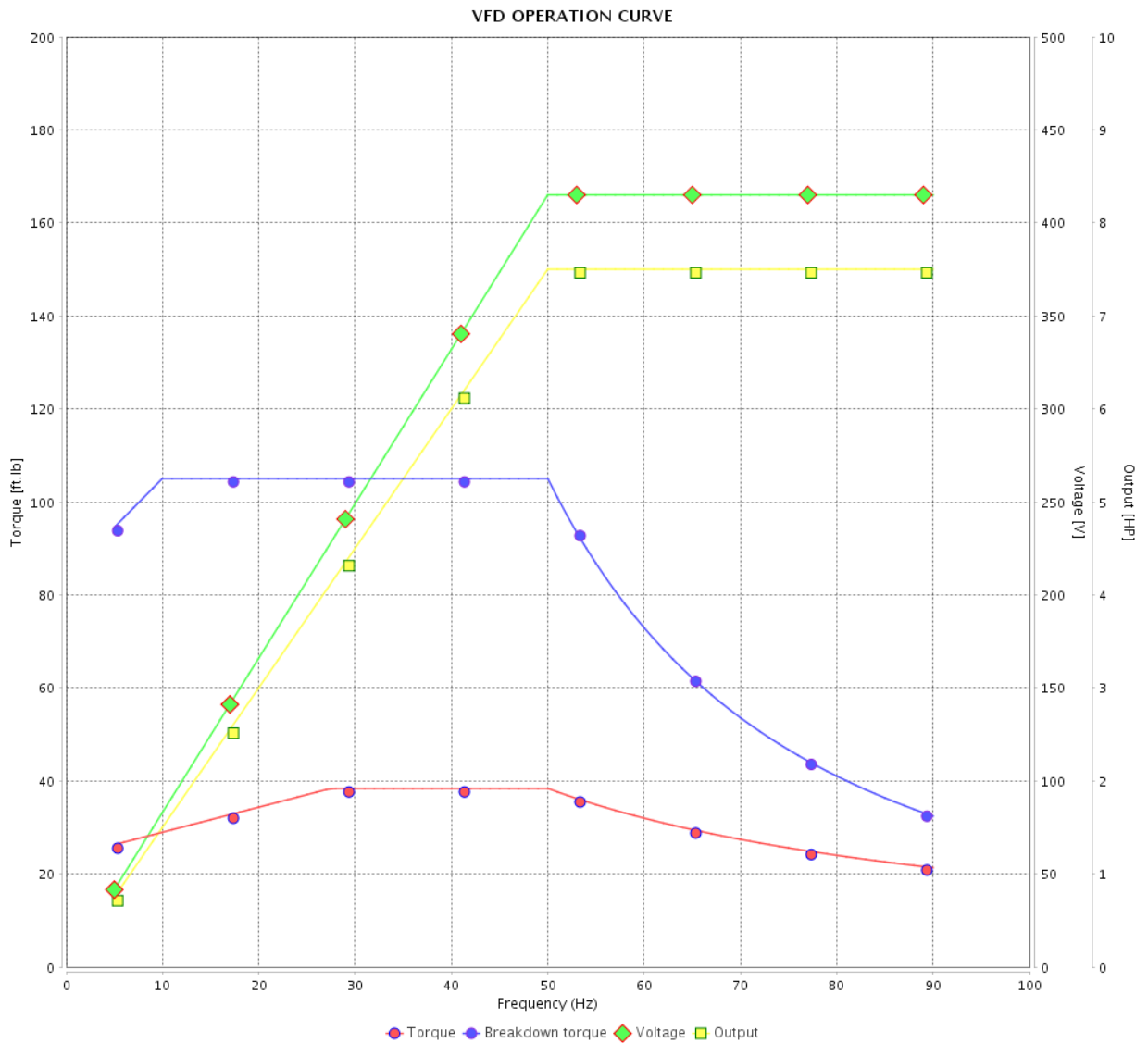


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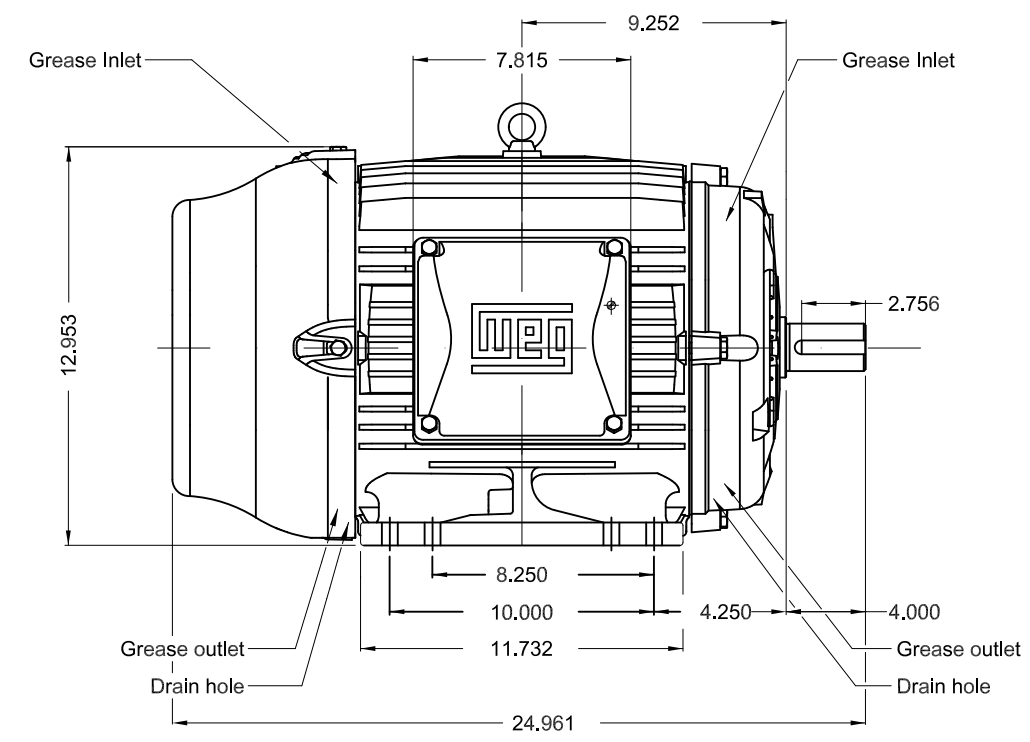
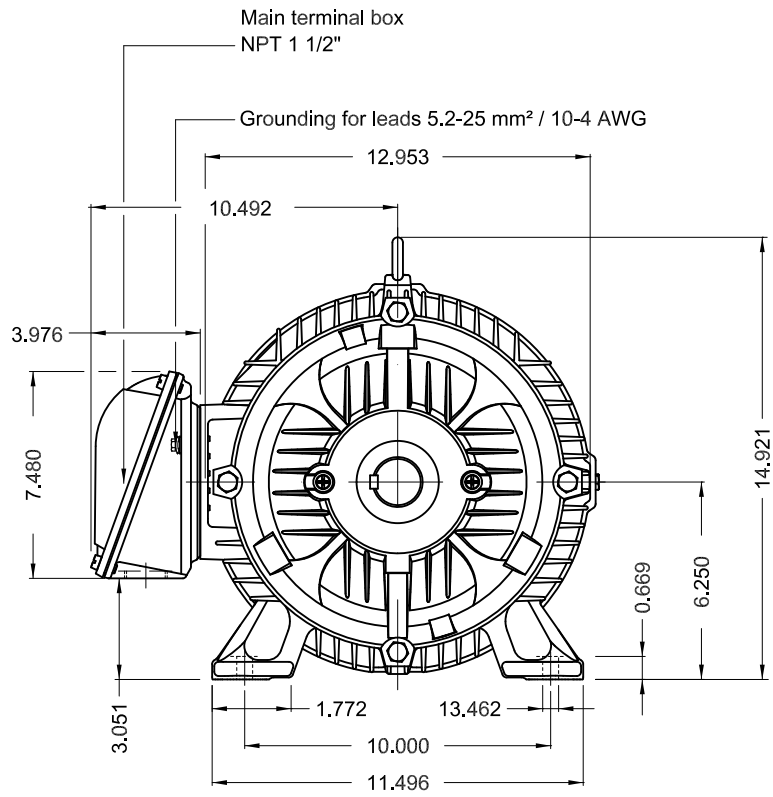
Rev.	Changes Summary	Performed	Checked	Date
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1 2 3 4 5 6

A

B

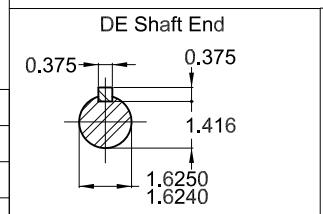
C



D

E

Without vertical jackscrews
 Color RAL 5009
 Painting plan 203A
 Mounting B3R(D)



7.5 HP 06 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 254/6T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
 WDD



SHEET 1 / 1

Dimensions in inches XME A3



FOR SAFE AREA
Mod.TE1BFOXON
CC029A



For use on 60Hz
Class I, Div 2, Gr A, B, C and D - T3
Class I, Zone 2, IIC - T3
Class II, Div 2, Gr F and G - T4
For use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.00SF - T3A

MODEL 00712ET3E254T-W22

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 254/6T 1000m.a.s.l. IP55 TEFC 296lb

V 230/460 A 19.0/9.48

HP 7.5 kW 5.5

SF 1.25 SFA 23.8/11.9

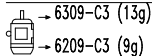
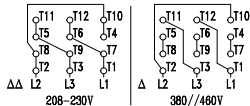
RPM 1175 PF 0.80

AMB 40°C INS cl. F DT80K NEMA NOM EFF 91.0%

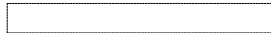
DUTY CONT. DES B Code H

USABLE @208V 21.0A SF 1.15 SFA 24.1

7.5HP 5.5kW 50Hz 380V 11.4A 970RPM SF 1.00 EFF 88.5% (IE3)



MOBIL POLYREX EM (20000h)



MADE IN BRAZIL
12383642