

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	11523675		
		Catalog # :	00158ET3E145JM-W22		
Frame	: 143/5JM	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	: 53.9 lb		
Protection degree	: IP55	Moment of inertia (J)	: 0.1431 sq.ft.lb		
Design	: B				
Output [HP]	1.5	1.5	1.5	1.5	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	4.04/2.02	2.42	2.33	2.30	
L. R. Amperes [A]	33.9/17.0	15.5	16.3	17.0	
LRC [A]	8.4x(Code L)	6.4x(Code H)	7.0x(Code J)	7.4x(Code K)	
No load current [A]	2.20/1.10	1.10	1.20	1.30	
Rated speed [RPM]	1755	1440	1445	1450	
Slip [%]	2.50	4.00	3.67	3.33	
Rated torque [ft.lb]	4.49	5.47	5.45	5.43	
Locked rotor torque [%]	290	220	250	280	
Breakdown torque [%]	350	250	290	320	
Service factor	1.25	1.25	1.25	1.25	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level ²	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	
Efficiency (%)	25%	81.3	82.0	82.1	80.5
	50%	82.5	82.5	82.5	81.0
	75%	85.5	84.0	84.0	84.0
	100%	86.5	84.1	84.1	84.1
Power Factor	25%	0.35	0.41	0.37	0.34
	50%	0.60	0.67	0.63	0.60
	75%	0.70	0.76	0.74	0.70
	100%	0.79	0.82	0.81	0.79
Bearing type	: Drive end : 6206 ZZ Non drive end : 6204 ZZ	Foundation loads			
Sealing	: V'Ring V'Ring	Max. traction	: 124 lb		
Lubrication interval	: - -	Max. compression	: 178 lb		
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 4.36A SF 1.15 SFA 5.01A					
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



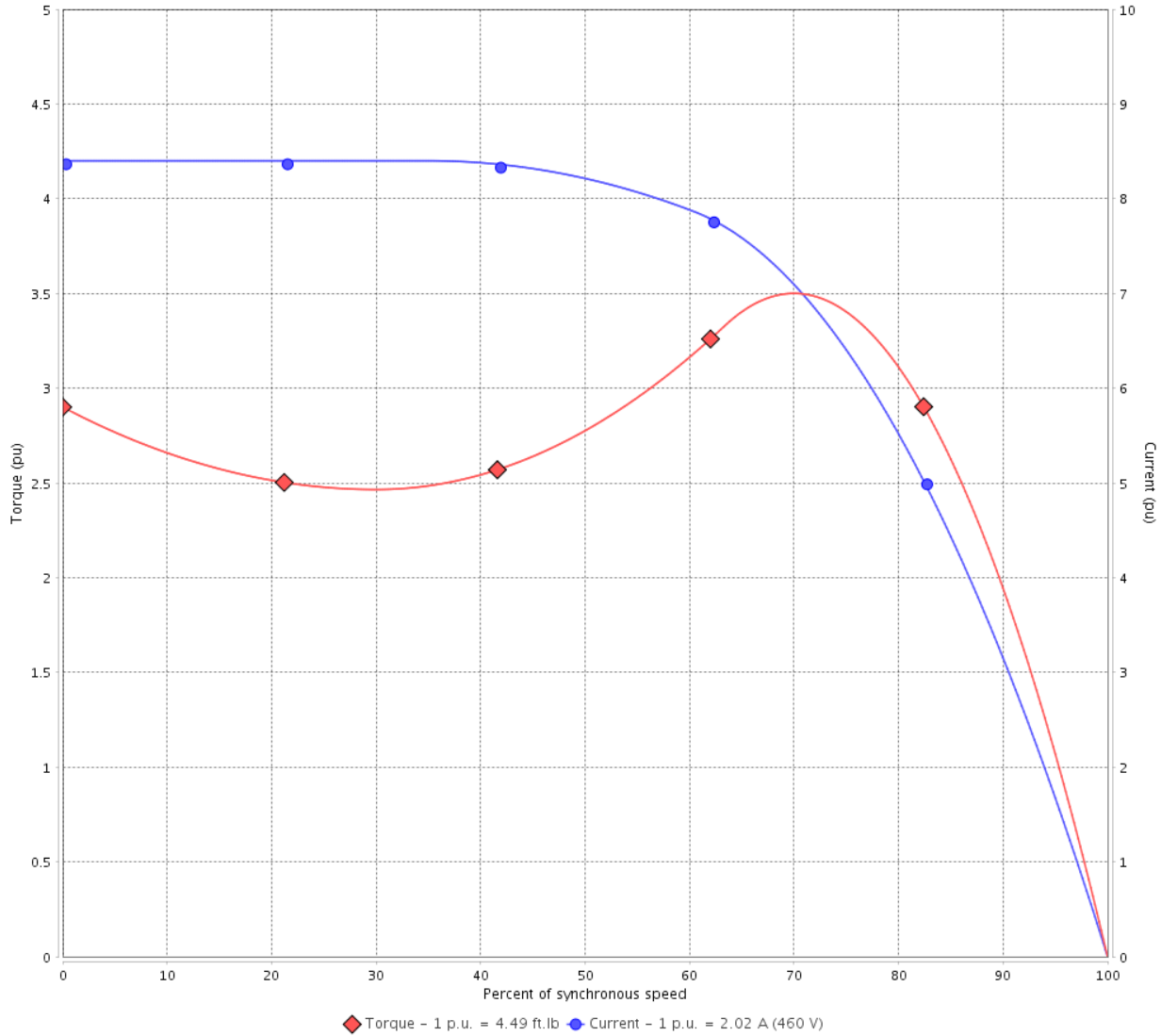
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11523675

Catalog # : 00158ET3E145JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 4.04/2.02 A
 LRC : 8.4
 Rated torque : 4.49 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 350 %
 Rated speed : 1755 rpm

Moment of inertia (J) : 0.1431 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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

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TORQUE AND CURRENT VS SPEED CURVE



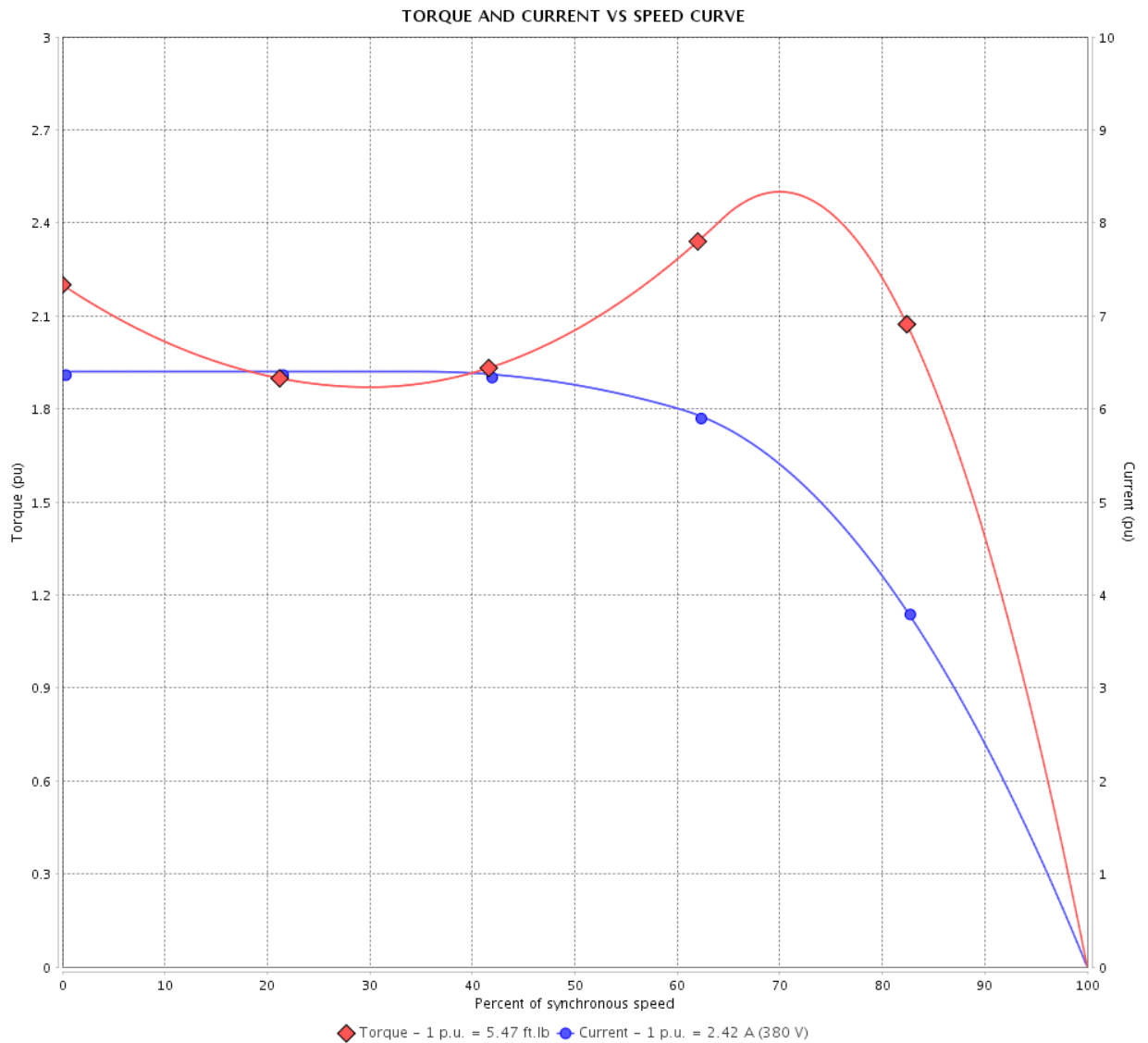
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11523675

Catalog # : 00158ET3E145JM-W22



Performance : 380 V 50 Hz 4P IE3

Rated current	: 2.42 A	Moment of inertia (J)	: 0.1431 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 5.47 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1440 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



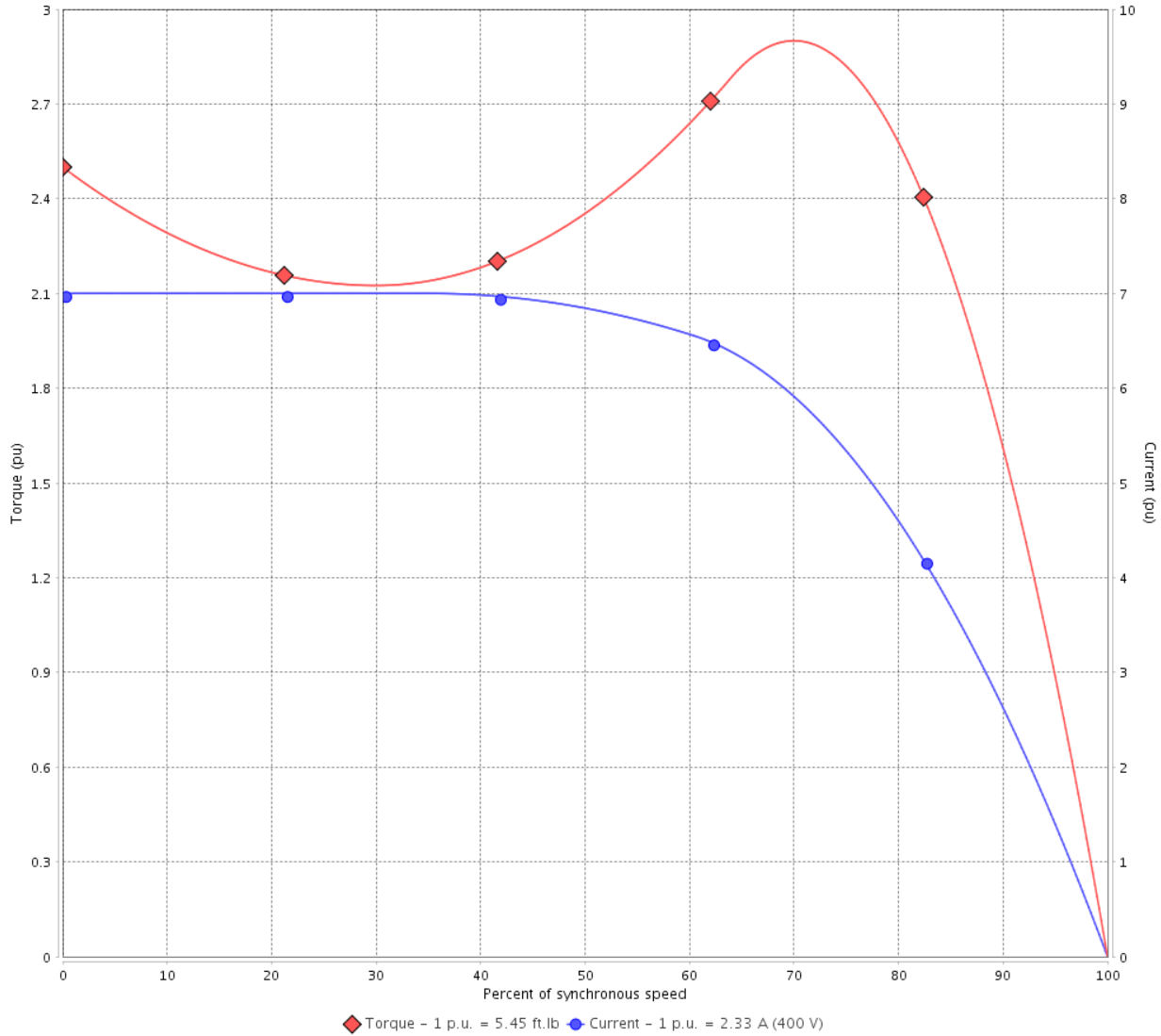
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11523675

Catalog # : 00158ET3E145JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 2.33 A	Moment of inertia (J)	: 0.1431 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 5.45 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



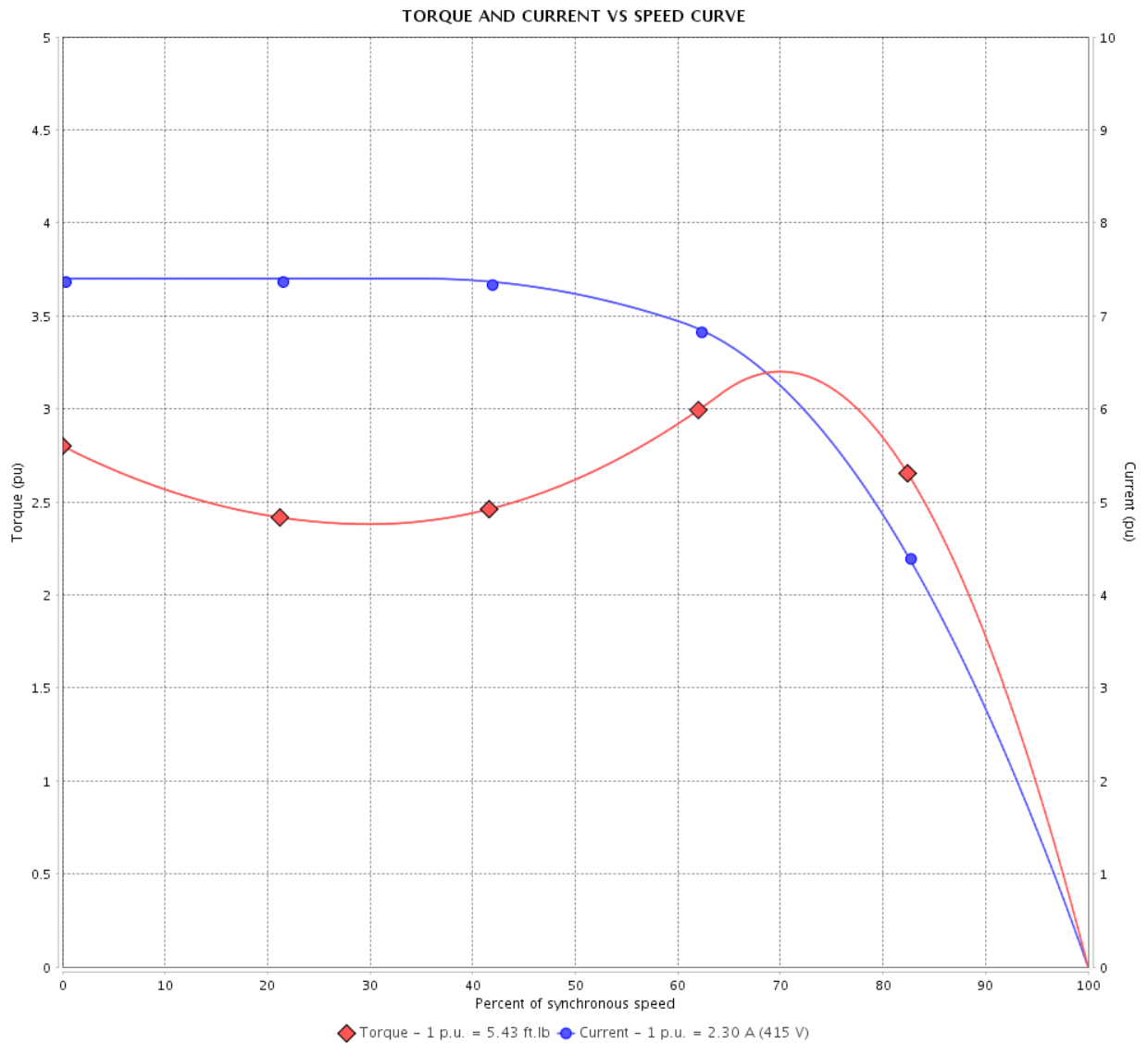
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11523675

Catalog # : 00158ET3E145JM-W22



Performance : 415 V 50 Hz 4P IE3

Rated current : 2.30 A
 LRC : 7.4
 Rated torque : 5.43 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 320 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.1431 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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

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LOAD PERFORMANCE CURVE

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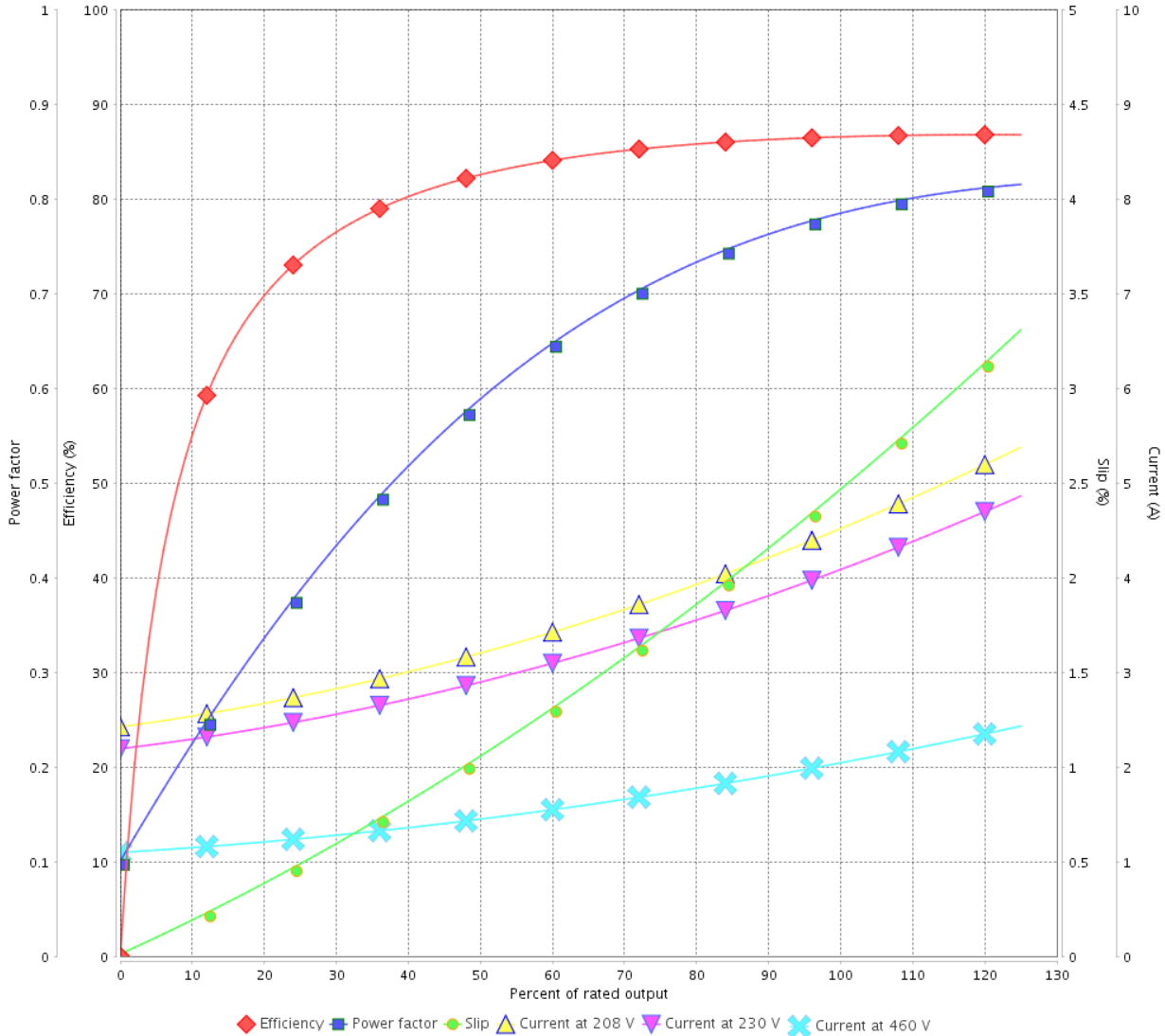
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LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 4.04/2.02 A
 LRC : 8.4
 Rated torque : 4.49 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 350 %
 Rated speed : 1755 rpm

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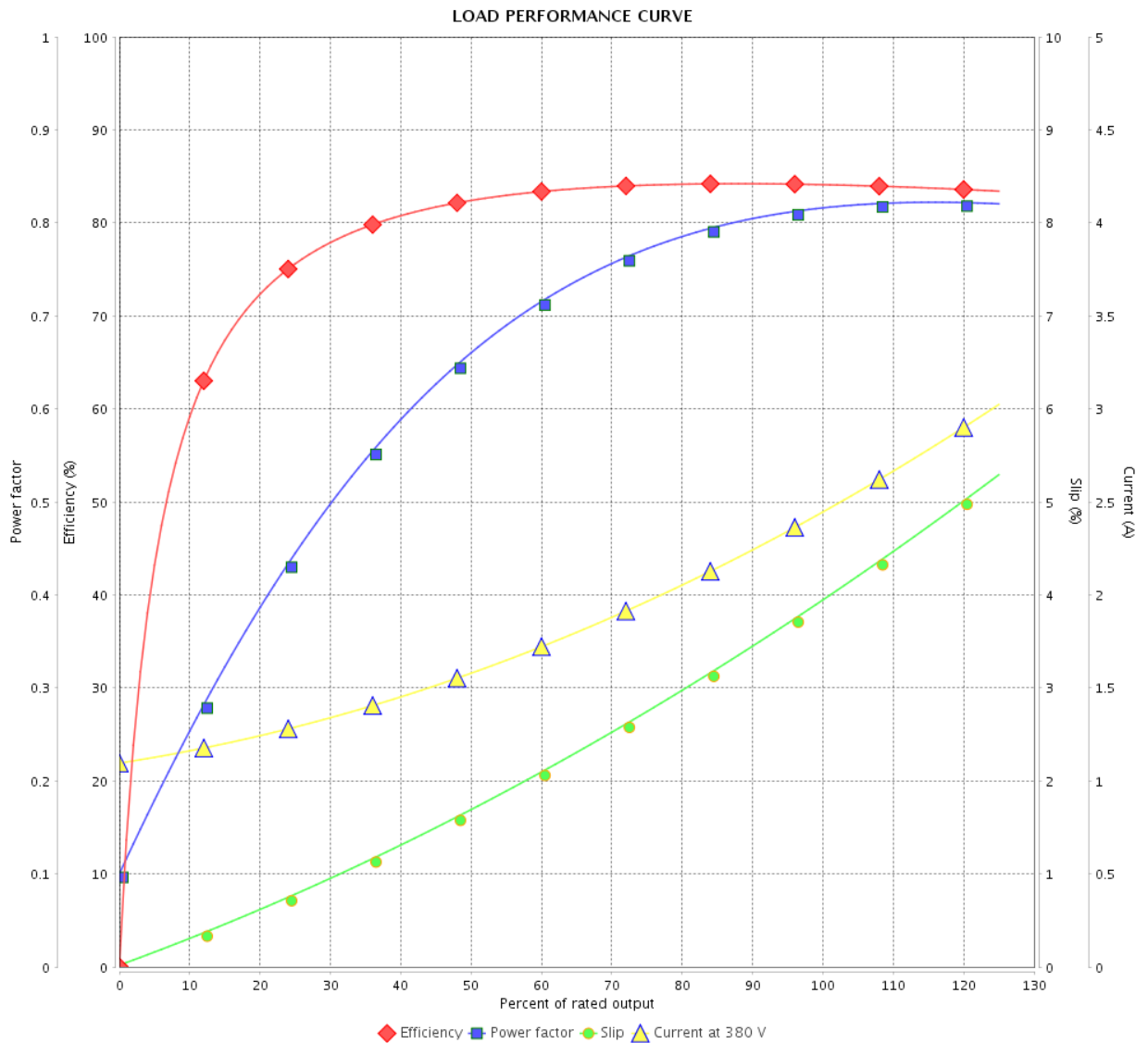


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Performance : 380 V 50 Hz 4P IE3

Rated current : 2.42 A
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 Breakdown torque : 250 %
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Three Phase Induction Motor - Squirrel Cage



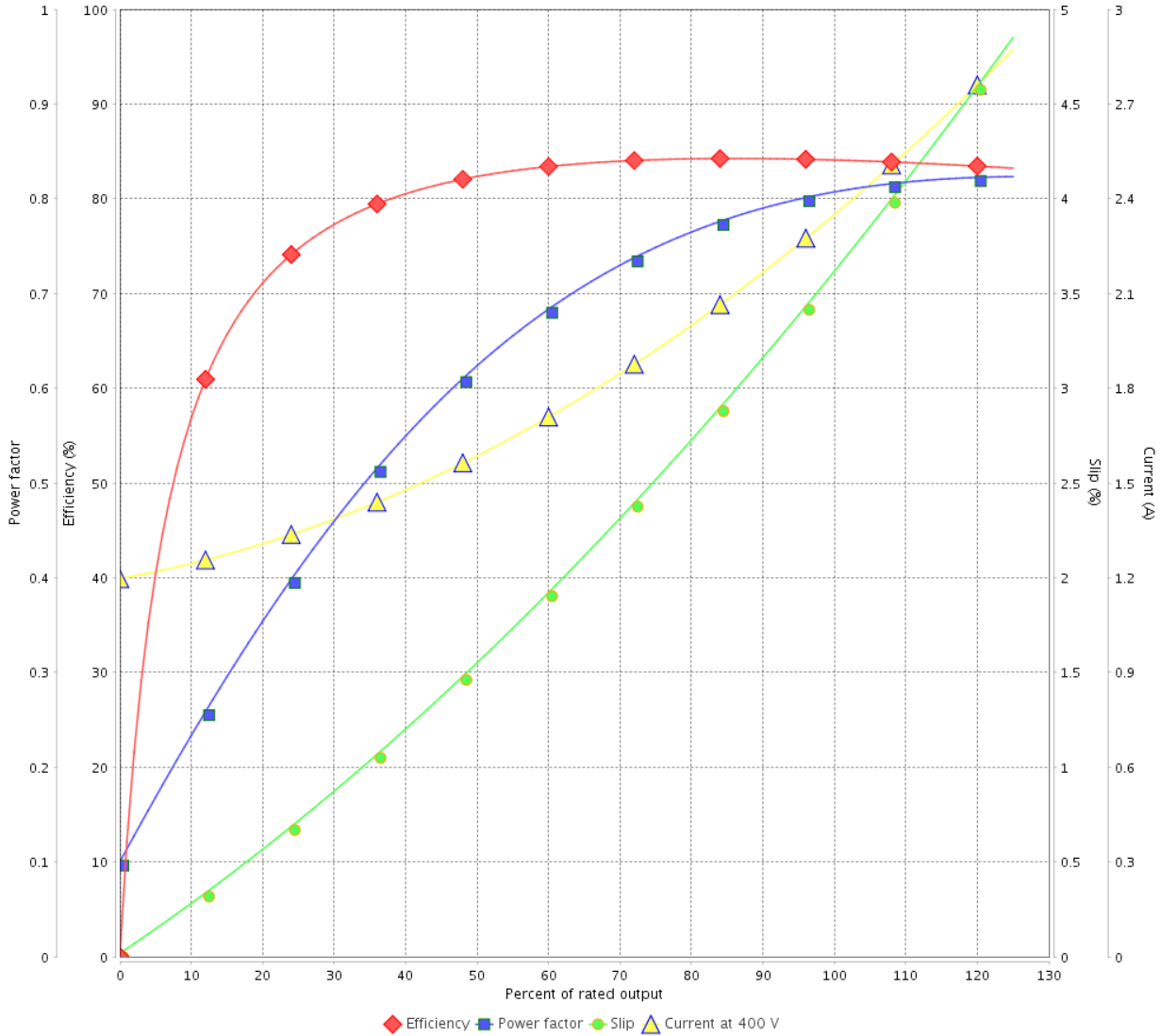
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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current : 2.33 A
 LRC : 7.0
 Rated torque : 5.45 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.1431 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

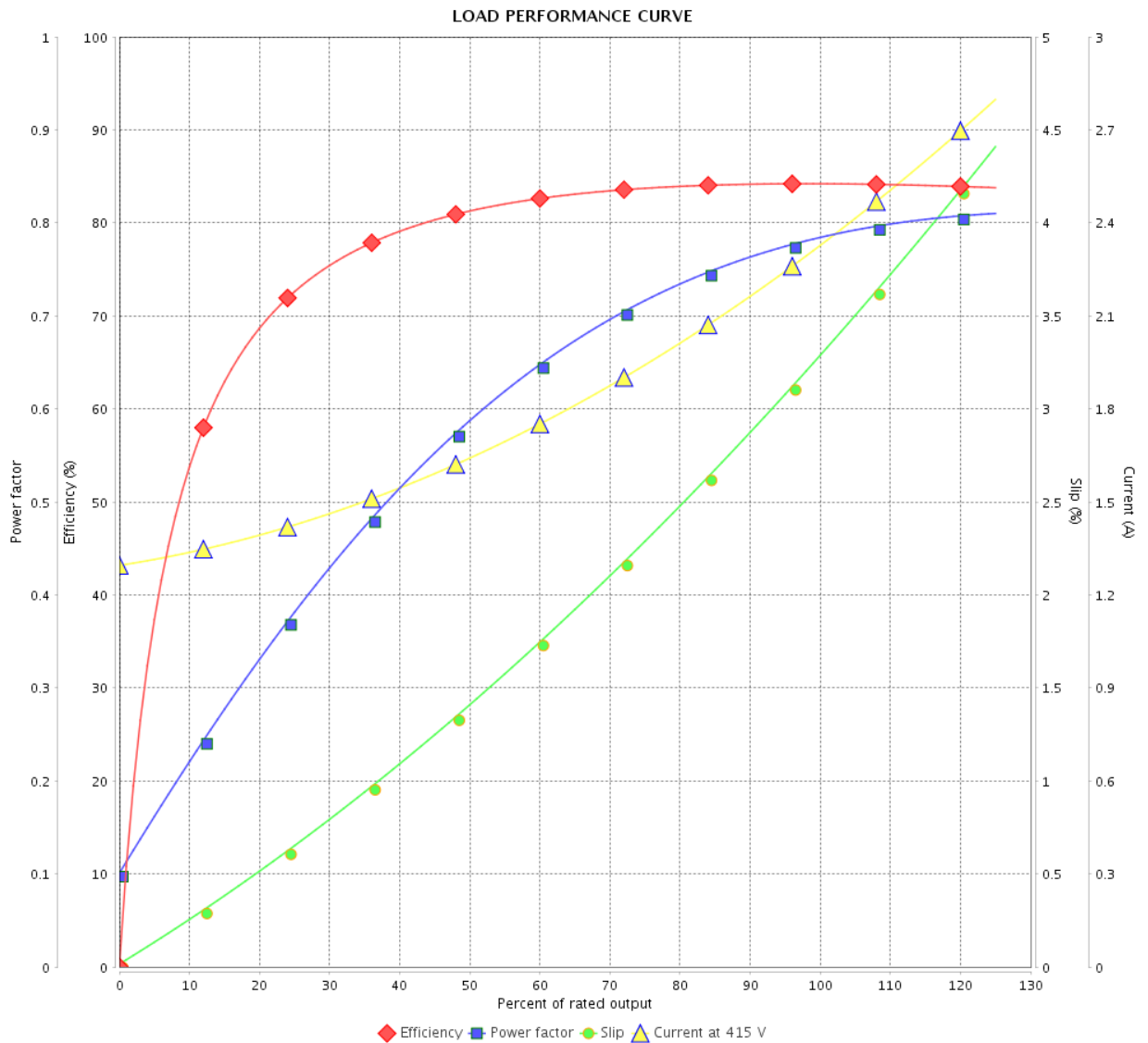


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THERMAL LIMIT CURVE



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Breakdown torque : 350 %	Temperature rise : 80 K
Rated speed : 1755 rpm	Design : B

Heating constant

Cooling constant

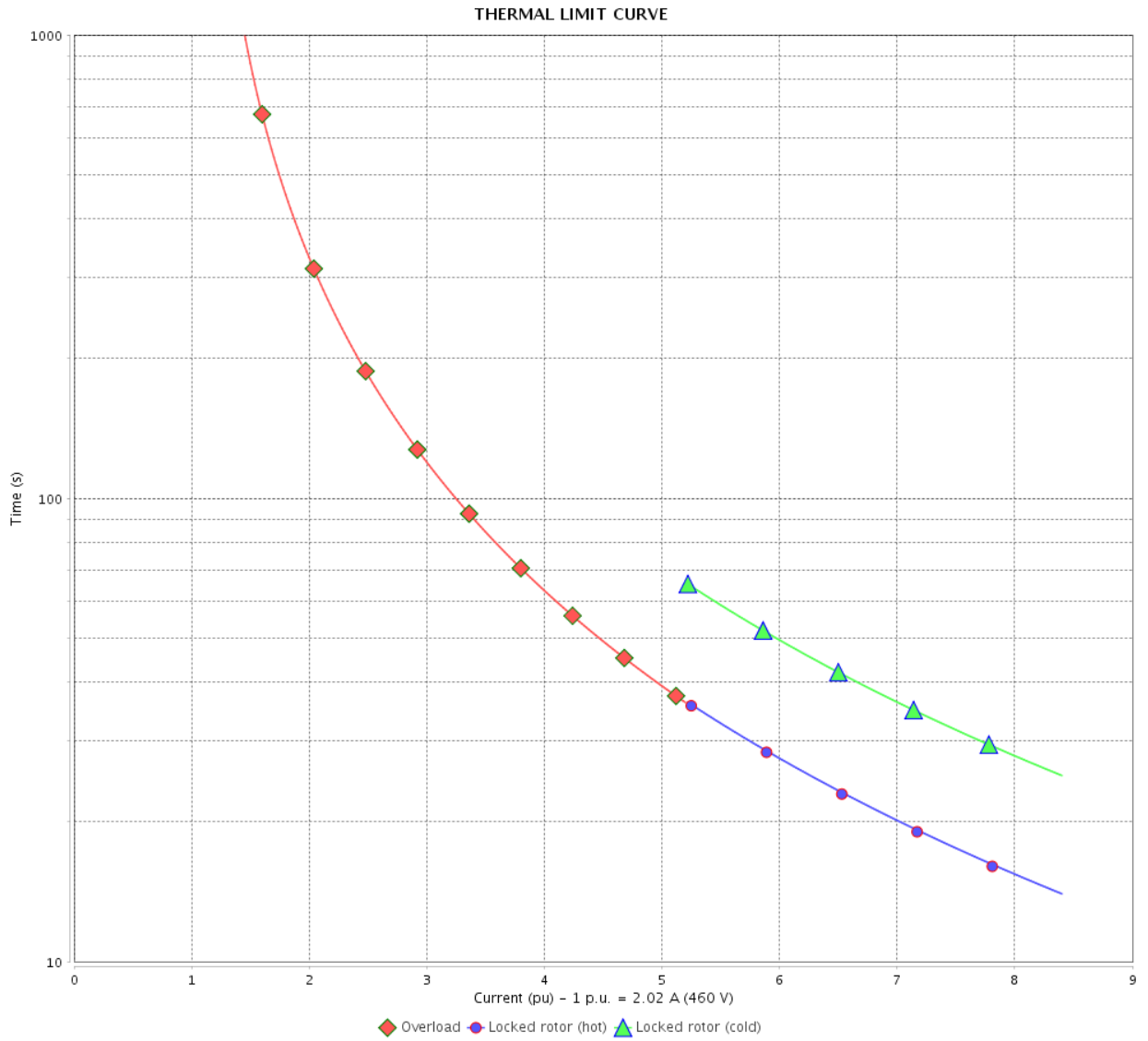
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Rated torque	: 5.47 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1440 rpm	Design	: B

Heating constant

Cooling constant

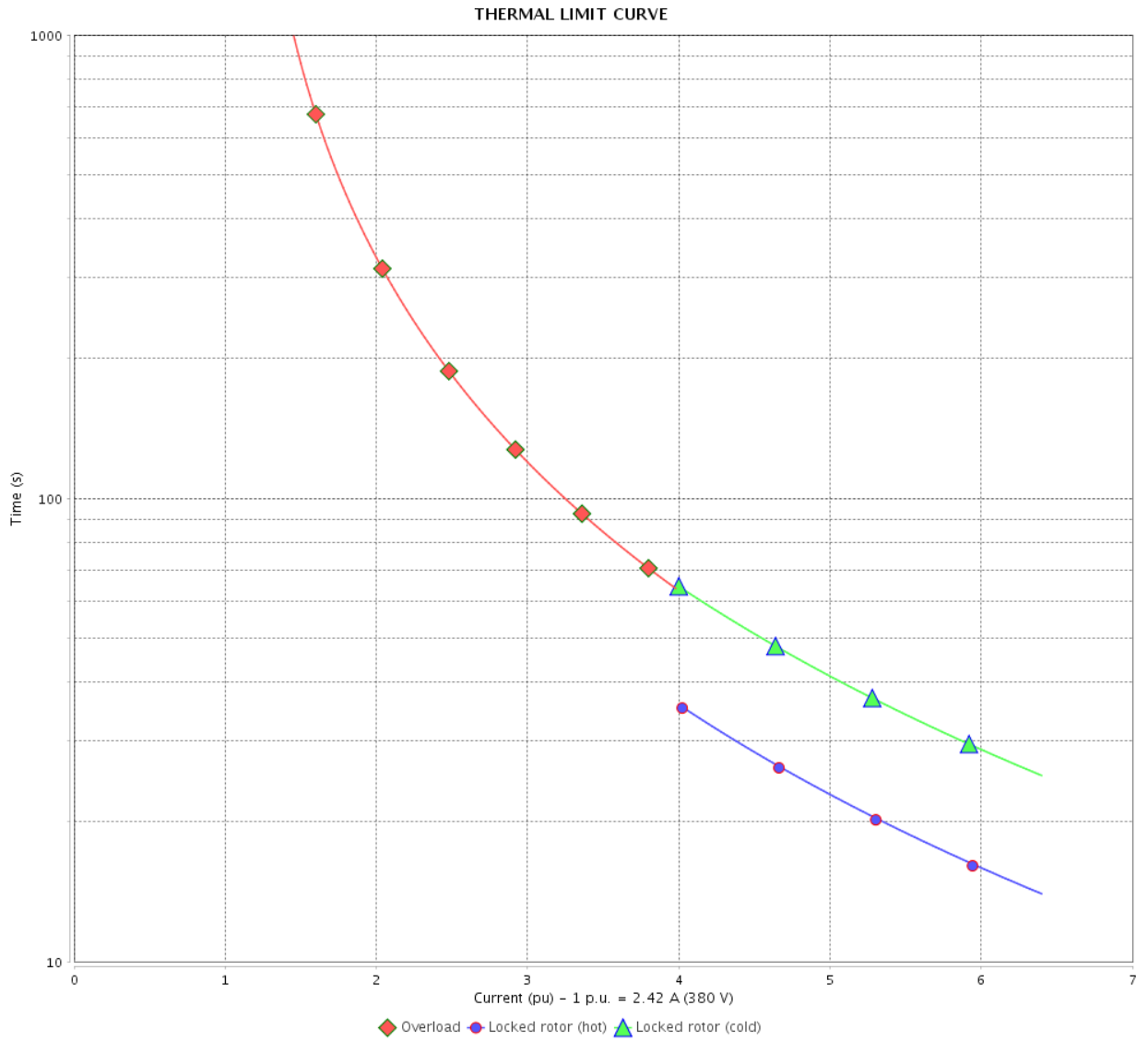
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Locked rotor torque : 250 %	Service factor : 1.25
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Cooling constant

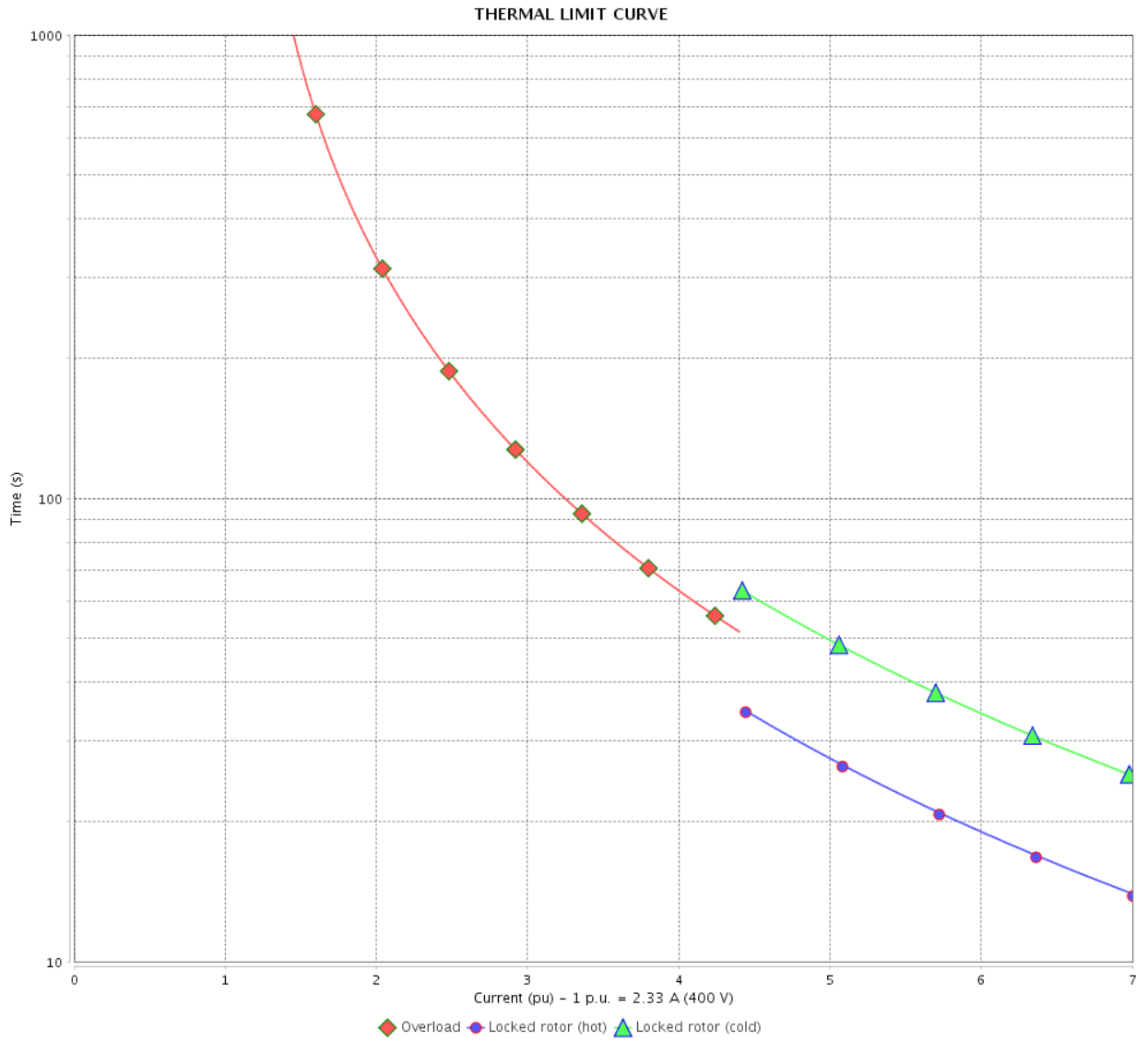
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

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Three Phase Induction Motor - Squirrel Cage



Customer :

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Product code : 11523675
Catalog # : 00158ET3E145JM-W22

Performance : 415 V 50 Hz 4P IE3

Rated current	: 2.30 A	Moment of inertia (J)	: 0.1431 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 5.43 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

Heating constant

Cooling constant

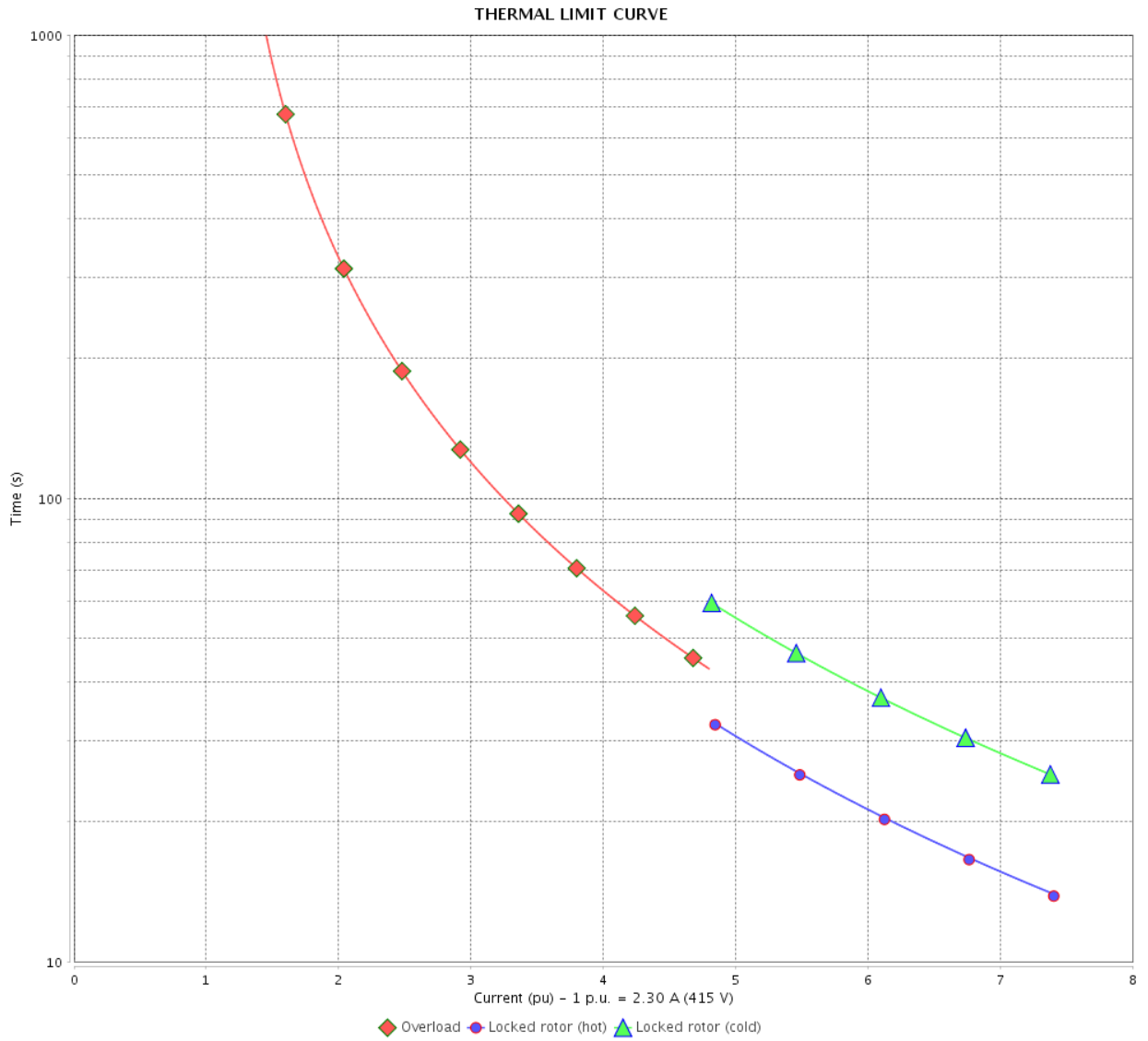
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

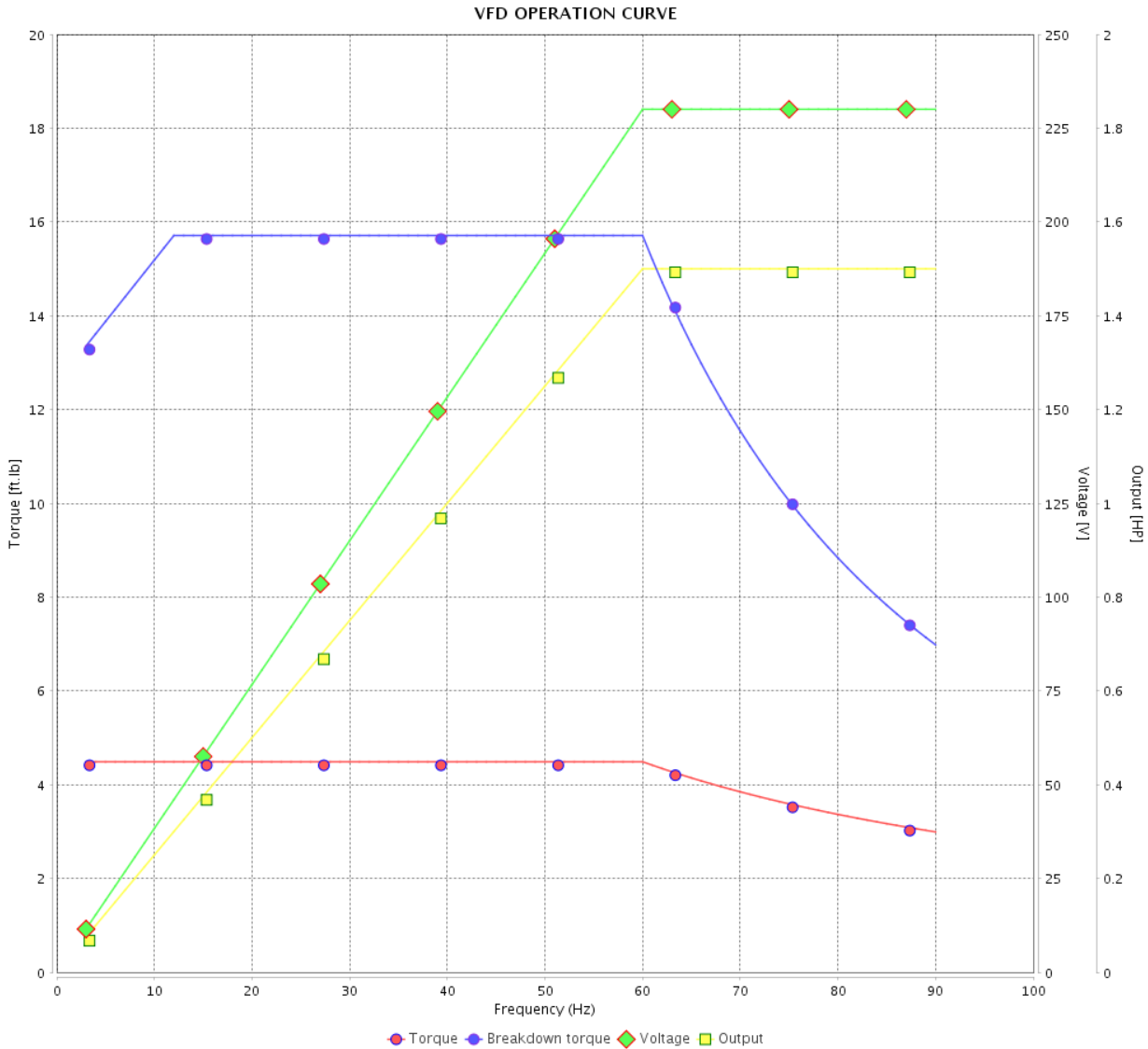


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11523675

Catalog # : 00158ET3E145JM-W22



Performance : 230/460 V 60 Hz 4P

Rated current : 4.04/2.02 A
 LRC : 8.4
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 Breakdown torque : 350 %
 Rated speed : 1755 rpm

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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

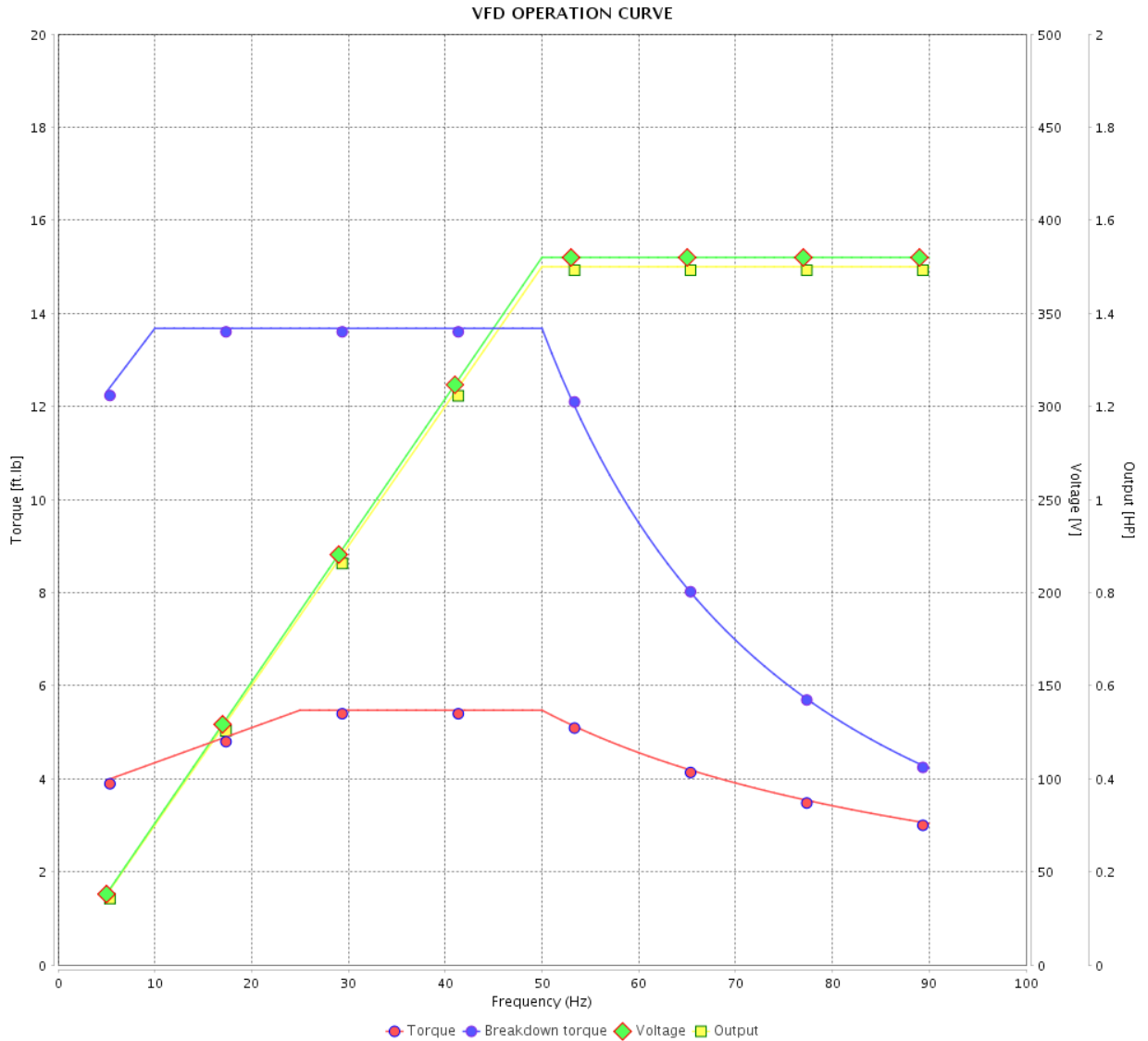


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Product line : NEMA Premium Efficiency Three-Phase

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Performance : 380 V 50 Hz 4P IE3

Rated current : 2.42 A
 LRC : 6.4
 Rated torque : 5.47 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.1431 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



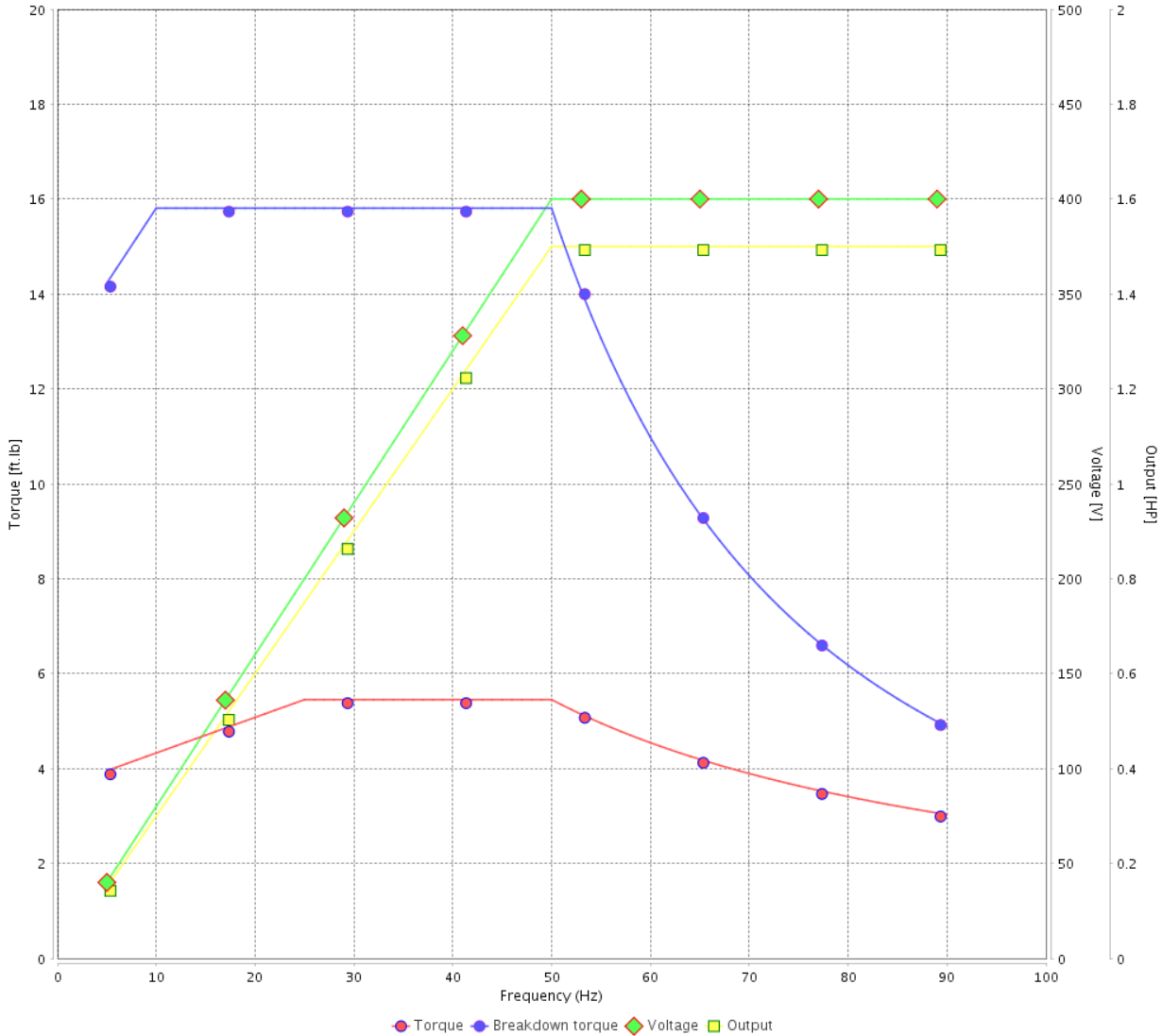
Customer : _____

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Catalog # : 00158ET3E145JM-W22

VFD OPERATION CURVE



Performance : 400 V 50 Hz 4P IE3

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

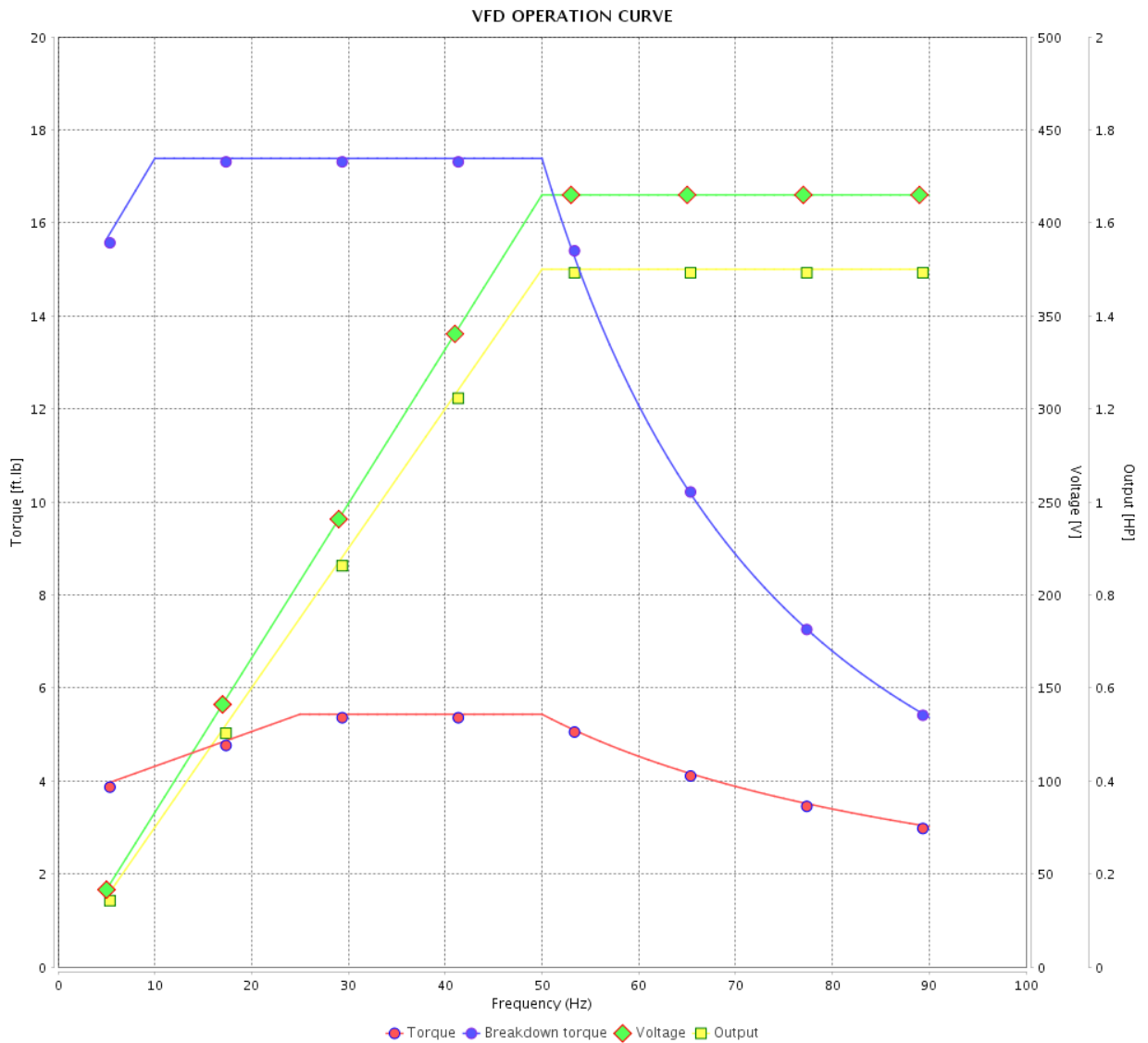


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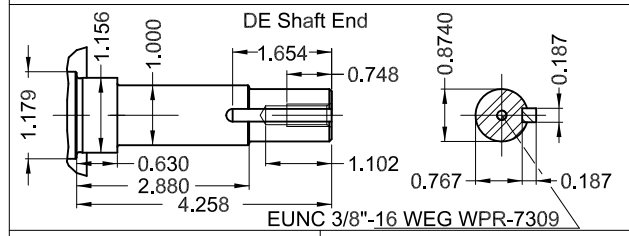
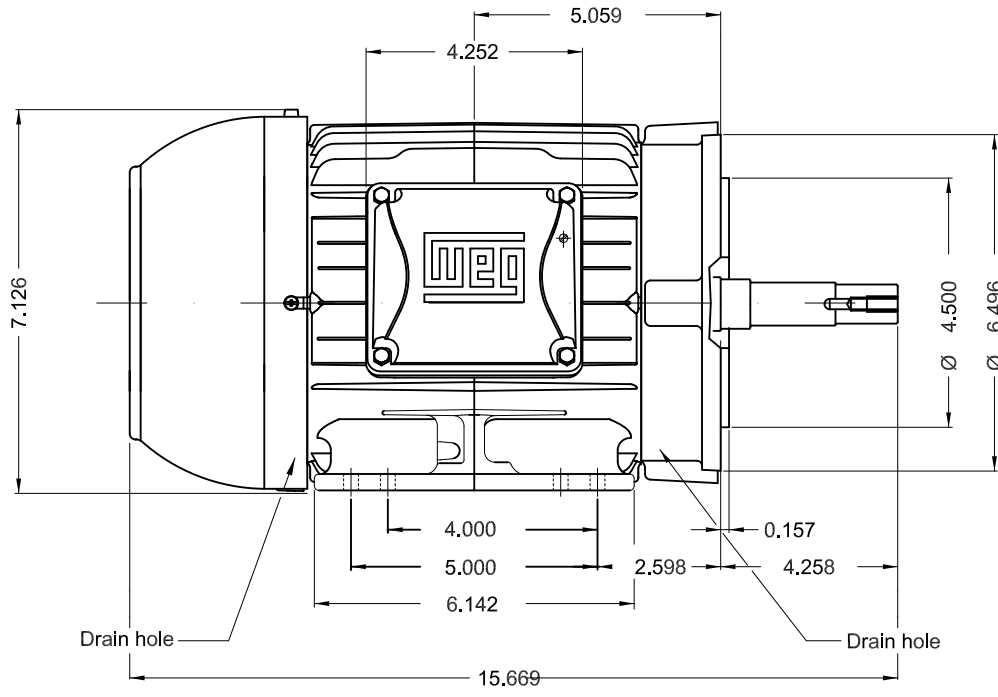
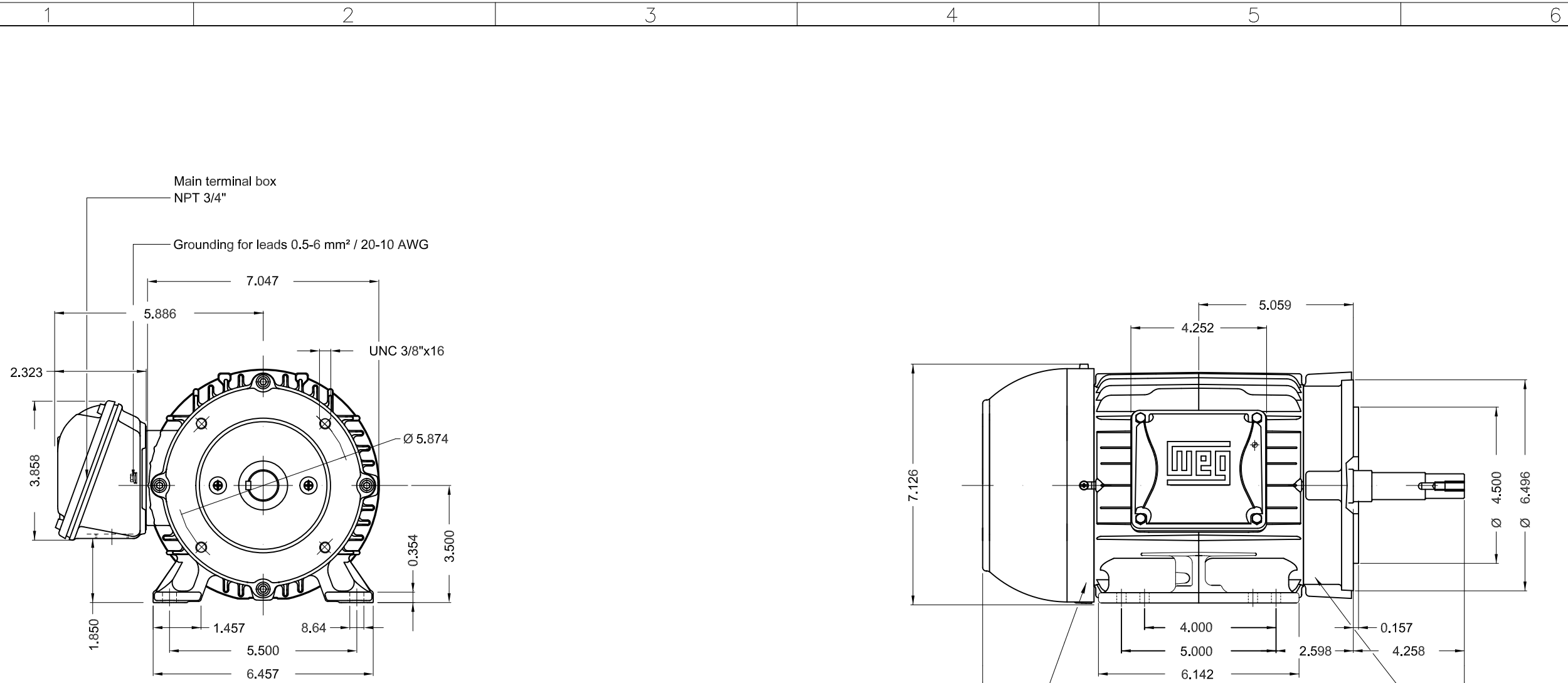


Performance : 415 V 50 Hz 4P IE3

Rated current : 2.30 A
 LRC : 7.4
 Rated torque : 5.43 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 320 %
 Rated speed : 1450 rpm

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 Service factor : 1.25
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1.5 HP 04 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR JM/JP/JET PUMP W22 PREM. EFF. FRAME 143/5JM IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO		Jaragua do Sul	Product Engineering	SHEET	1 / 1	

Color RAL 5009
 Painting plan 207A
 Mounting B34R(D)

PREVIEW

WDD

Dimensions in inches XME A3

**W22**

CC029A

® Inverter Duty Motor
Severe Duty

11523675

MADE IN BRAZIL MODEL 00158ET3E145JM-W22

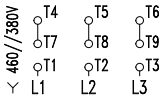
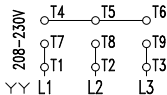
PH 3 | FR 143/5JM | HP(kw) 1.5(1.1) | Hz 60 | SF 1.25 | PF 0.79

V 230/460 | A 4.04/2.02 | RPM 1755 | INS. CL. F ΔT 80 K | IP55

NEMA NOM EFF 86.5 % | DES B | DUTY CONT. | AMB 40°C

ENCL TEFC | SFA 5.05/2.52 | USABLE @208V 4.36 A | SF 1.15 SFA 5.01

1.5HP 1.1kW 50Hz 380V 2.42A 1440RPM SF1.25 EFF 84.1% (IE3) | CODE L



→6206-ZZ

→6204-ZZ

MOBIL POLYREX EM

ALT 1000 m.a.s.l. | 55 Lbs

For 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 - T5

For use on PWM, Gr. A, B, C, D, F and G

VT1000:1, CT20:1, 1.0SF, T4A

C US
Energy Verified3PT9
US LISTEDFOR SAFE AREA
MOD.TE1BFOXON