

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14338143		
		Catalog # :	00236XT3E145T		
Frame	: 143/5T	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	: 73.7 lb		
Protection degree	: IP55	Moment of inertia (J)	: 0.0551 sq.ft.lb		
Design	: B				
Output [HP]	2	2	2	2	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	5.38/2.69	3.25	3.09	3.05	
L. R. Amperes [A]	49.5/24.7	22.8	23.2	24.4	
LRC [A]	9.2x(Code L)	7.0x(Code J)	7.5x(Code K)	8.0x(Code K)	
No load current [A]	2.40/1.20	1.10	1.20	1.30	
Rated speed [RPM]	3495	2860	2880	2890	
Slip [%]	2.92	4.67	4.00	3.67	
Rated torque [ft.lb]	3.01	3.67	3.65	3.63	
Locked rotor torque [%]	370	270	310	340	
Breakdown torque [%]	420	290	330	360	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	27s (cold) 15s (hot)	37s (cold) 21s (hot)	37s (cold) 21s (hot)	37s (cold) 21s (hot)	
Noise level ²	68.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	
Efficiency (%)	25%	78.4	81.1	82.1	81.0
	50%	80.0	81.5	82.5	81.5
	75%	84.0	82.5	84.5	84.5
	100%	85.5	82.5	84.5	84.5
Power Factor	25%	0.41	0.47	0.43	0.39
	50%	0.64	0.70	0.66	0.62
	75%	0.76	0.81	0.78	0.75
	100%	0.82	0.85	0.83	0.81
Bearing type	: Drive end : 6205 2RS Non drive end : 6204 2RS	Foundation loads	Max. traction : 77 lb Max. compression : 151 lb		
Sealing	: Oil Seal Lip Seal				
Lubrication interval	: - -				
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 5.95A SF 1.15 SFA 6.84A					
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.			
Rev.	Changes Summary	Performed	Checked	Date	
Performed by					
Checked by			Page	Revision	
Date	13/04/2022		1 / 22		

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		2 / 22	

TORQUE AND CURRENT VS SPEED CURVE



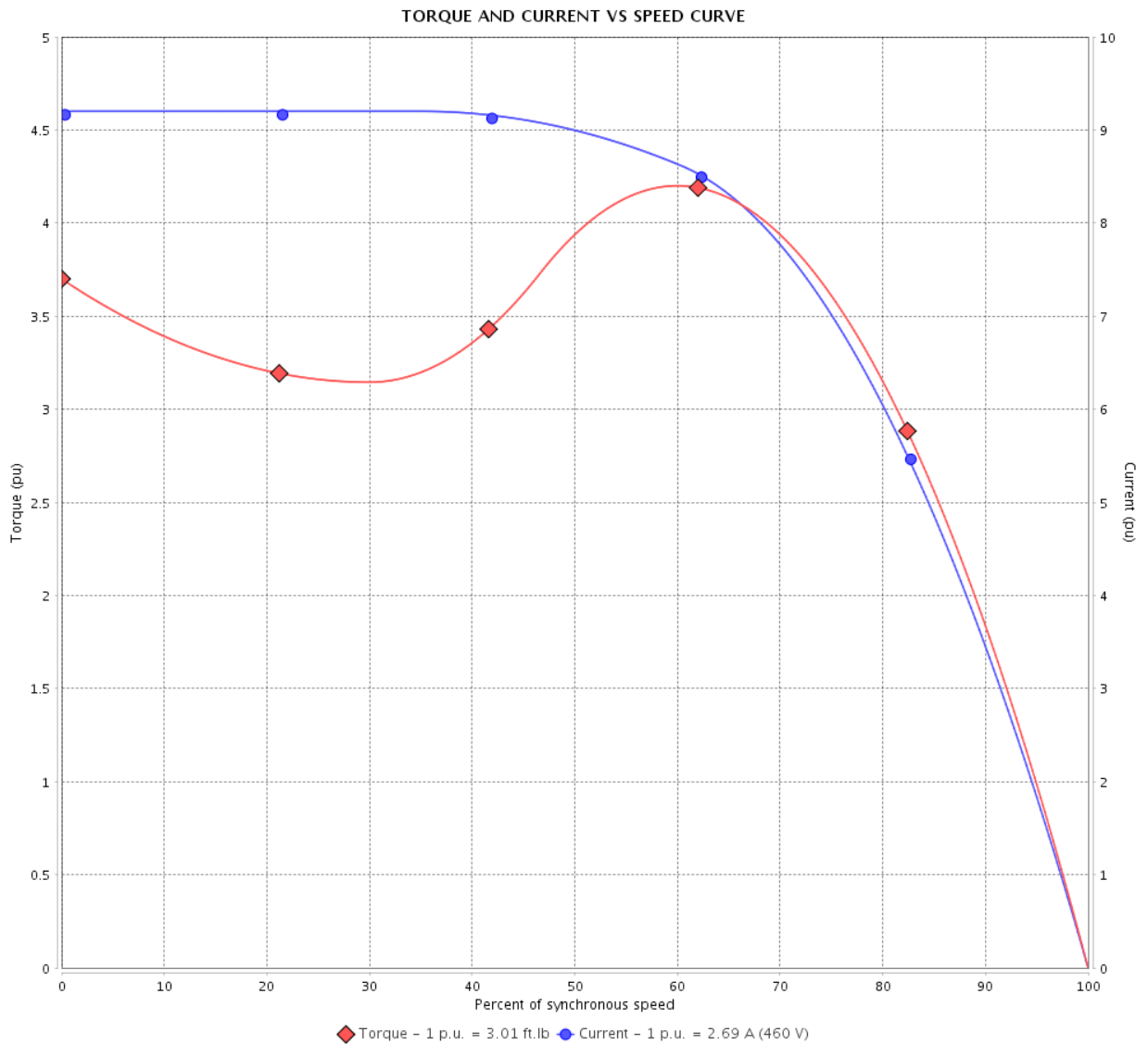
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14338143

Catalog # : 00236XT3E145T



Performance : 230/460 V 60 Hz 2P

Rated current : 5.38/2.69 A
 LRC : 9.2
 Rated torque : 3.01 ft.lb
 Locked rotor torque : 370 %
 Breakdown torque : 420 %
 Rated speed : 3495 rpm

Moment of inertia (J) : 0.0551 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 27s (cold) 15s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 22	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



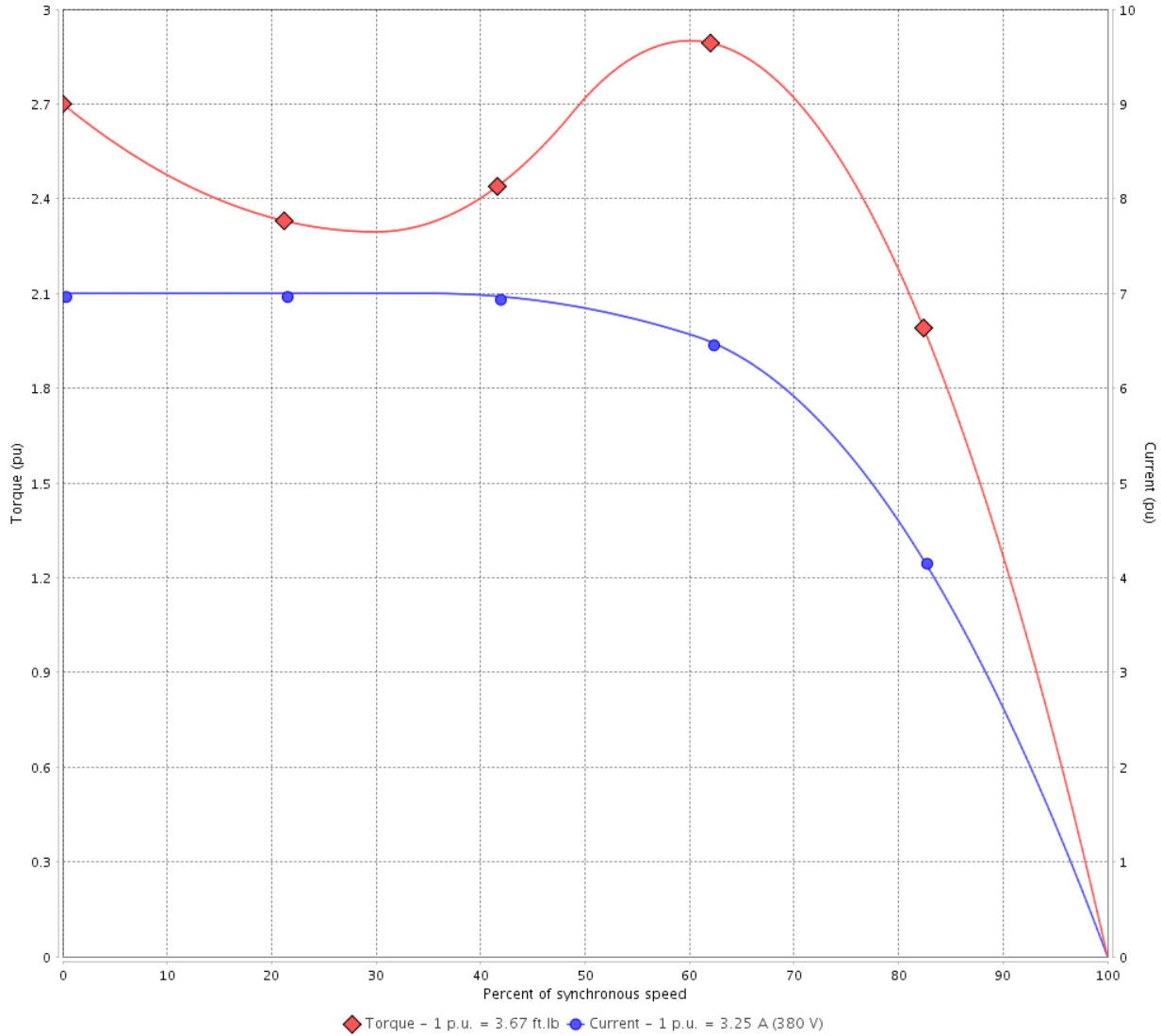
Customer :

Product line : NEMA Premium Efficiency Three-Phase

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TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current	: 3.25 A	Moment of inertia (J)	: 0.0551 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 3.67 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2860 rpm	Design	: B

Locked rotor time : 37s (cold) 21s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 22	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



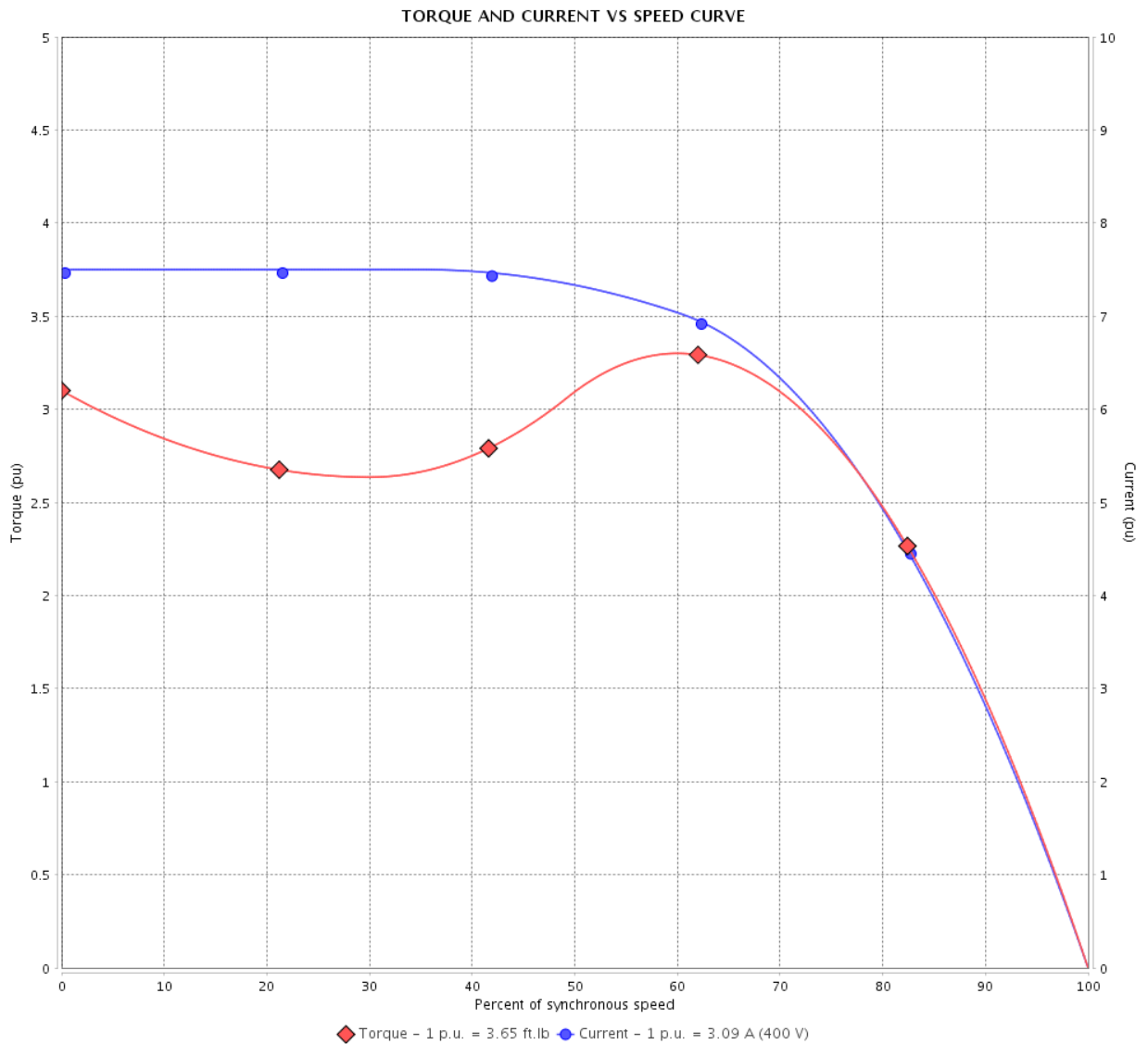
Three Phase Induction Motor - Squirrel Cage

Customer :

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Product code : 14338143

Catalog # : 00236XT3E145T



Performance : 400 V 50 Hz 2P IE3

Rated current : 3.09 A
 LRC : 7.5
 Rated torque : 3.65 ft.lb
 Locked rotor torque : 310 %
 Breakdown torque : 330 %
 Rated speed : 2880 rpm

Moment of inertia (J) : 0.0551 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 37s (cold) 21s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 22	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



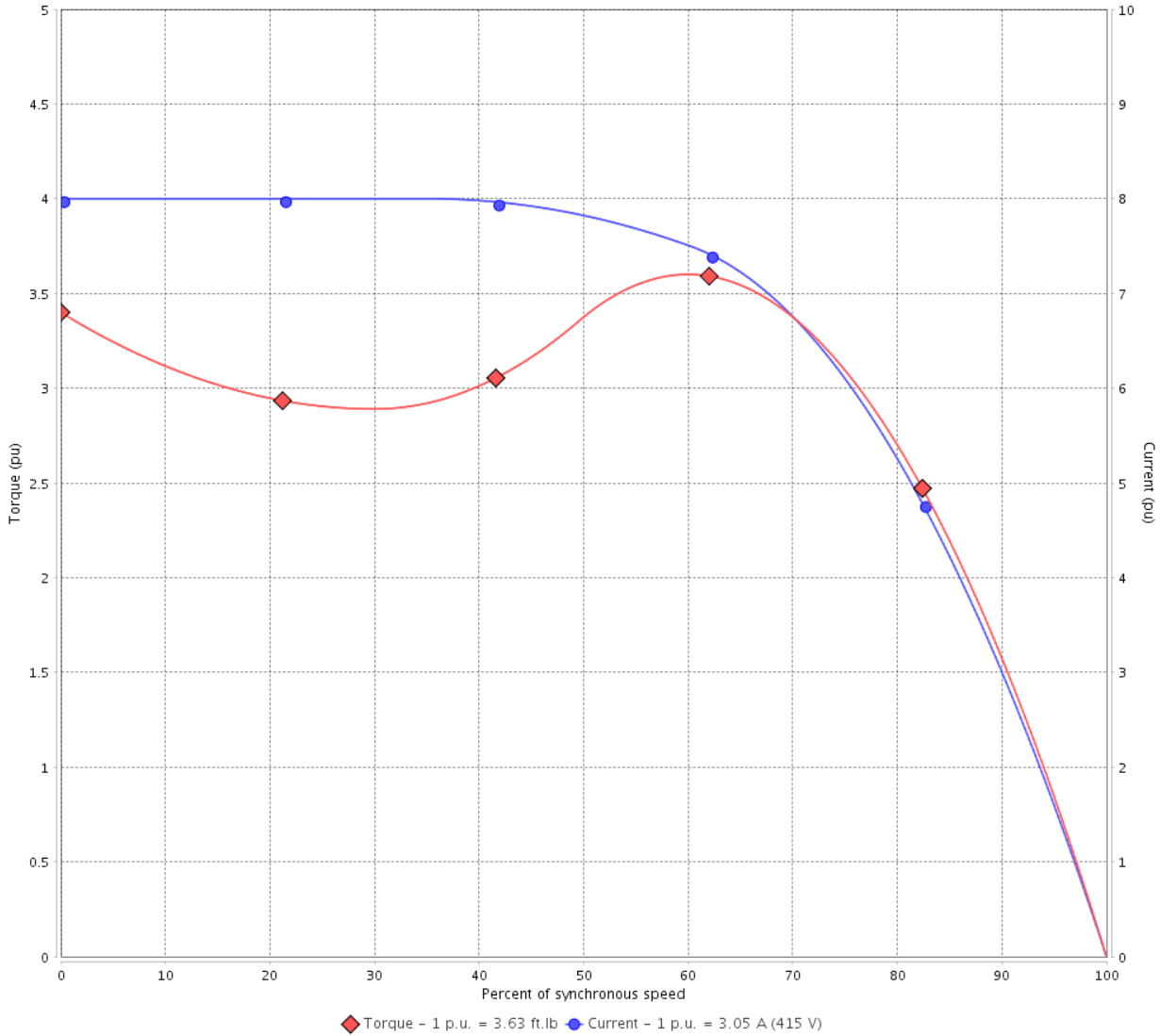
Customer :

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Product code : 14338143

Catalog # : 00236XT3E145T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current	: 3.05 A	Moment of inertia (J)	: 0.0551 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 3.63 ft.lb	Insulation class	: F
Locked rotor torque	: 340 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 2890 rpm	Design	: B

Locked rotor time : 37s (cold) 21s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 22	Revision
Checked by				
Date	13/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

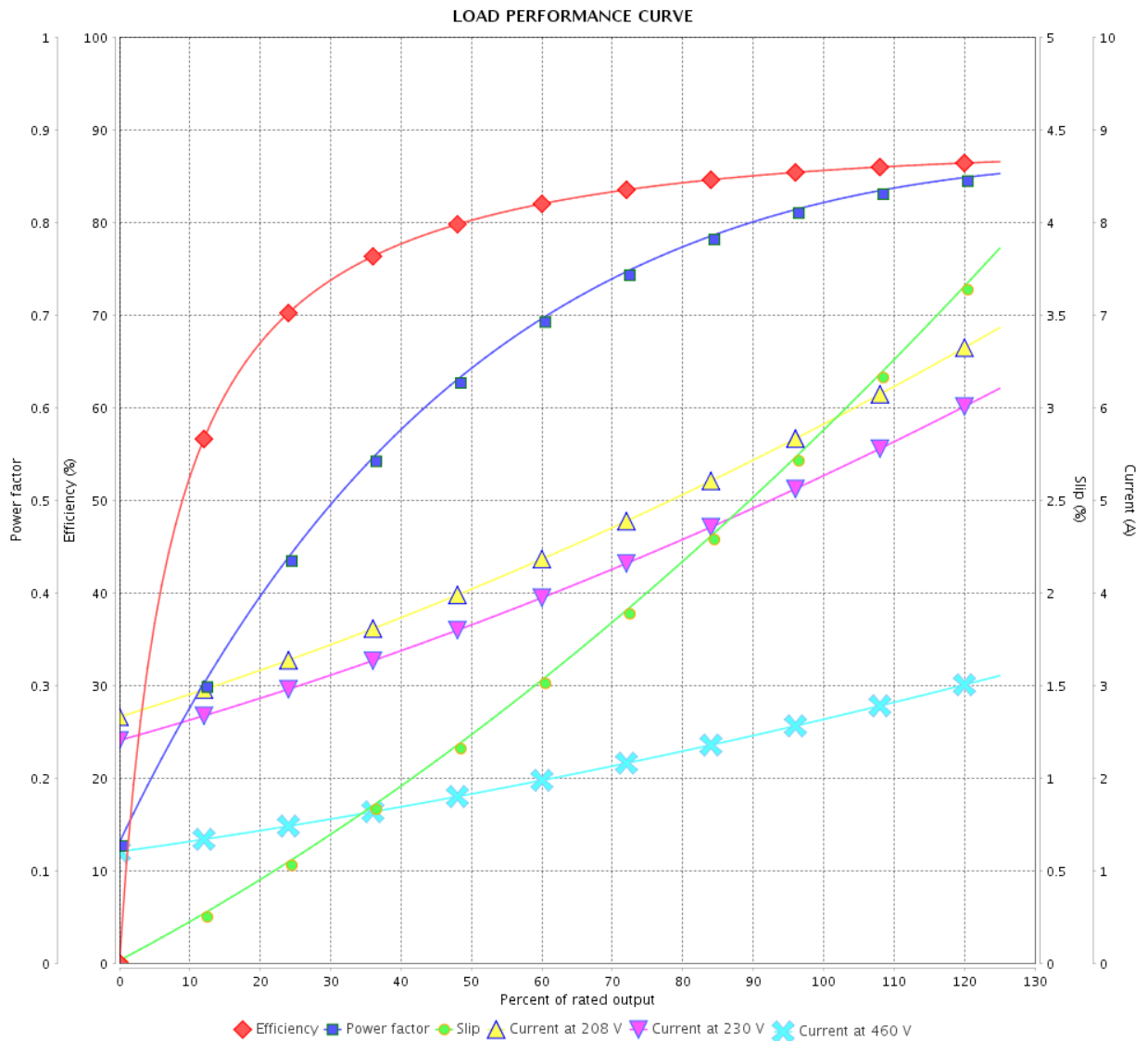


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Performance : 230/460 V 60 Hz 2P

Rated current : 5.38/2.69 A
 LRC : 9.2
 Rated torque : 3.01 ft.lb
 Locked rotor torque : 370 %
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Performed by			Page	Revision
Checked by				
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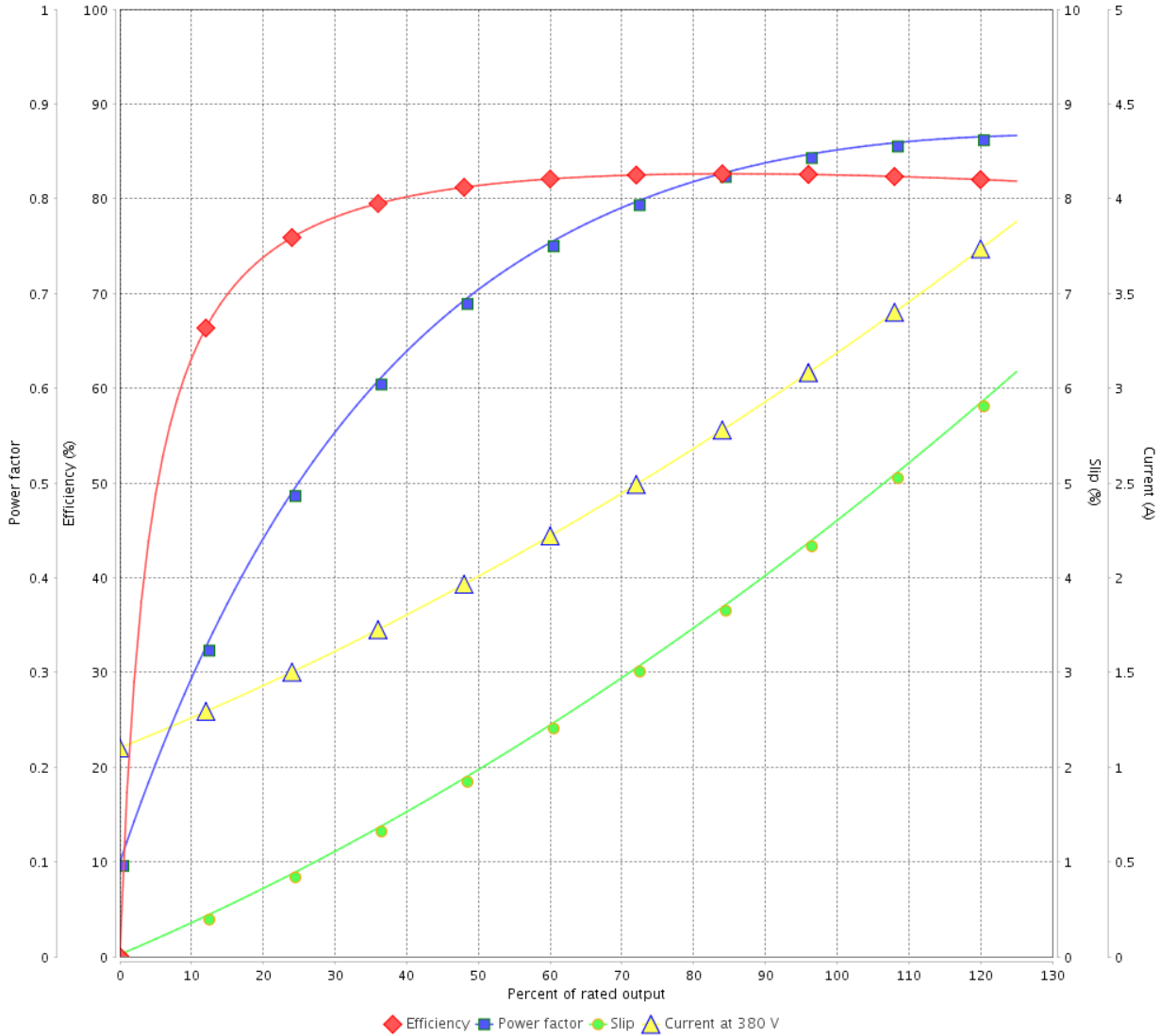
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 Breakdown torque : 290 %
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 22	Revision
Checked by				
Date	13/04/2022			

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Three Phase Induction Motor - Squirrel Cage

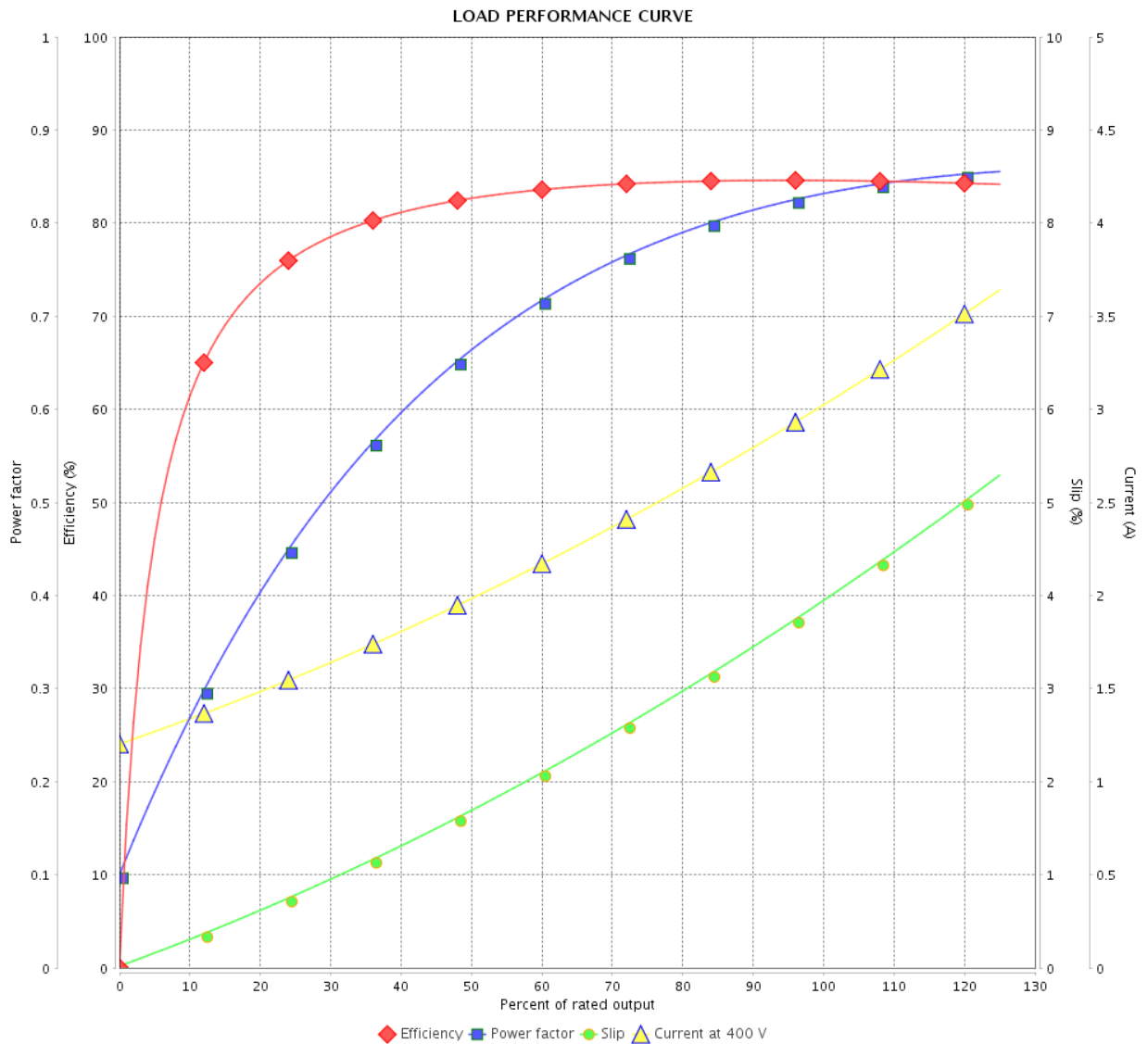


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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		9 / 22		
Date		13/04/2022		

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Three Phase Induction Motor - Squirrel Cage



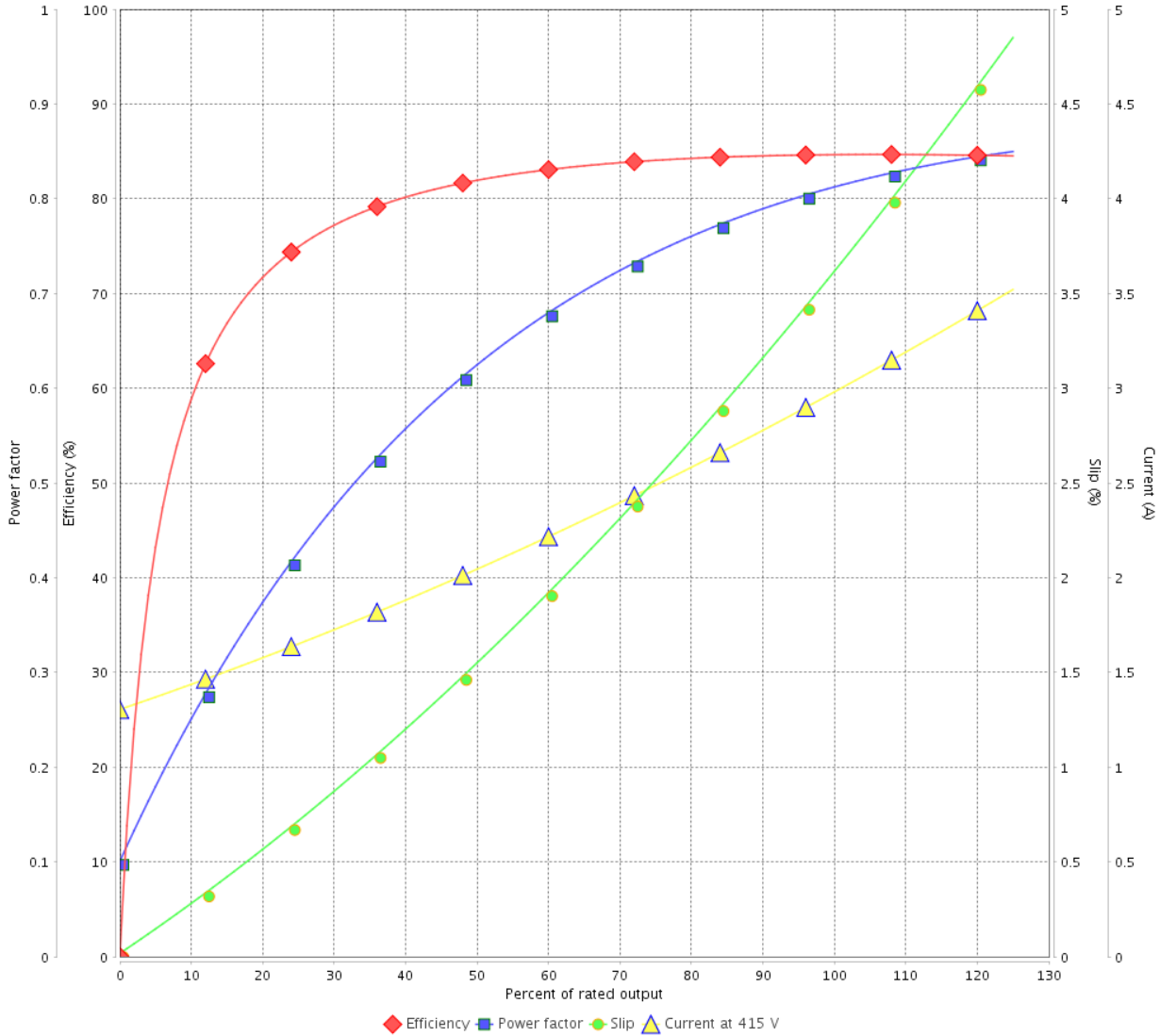
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 Insulation class : F
 Service factor : 1.00
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 10 / 22	Revision
Checked by				
Date	13/04/2022			

THERMAL LIMIT CURVE



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Locked rotor torque : 370 %	Service factor : 1.15
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Rated speed : 3495 rpm	Design : B

Heating constant

Cooling constant

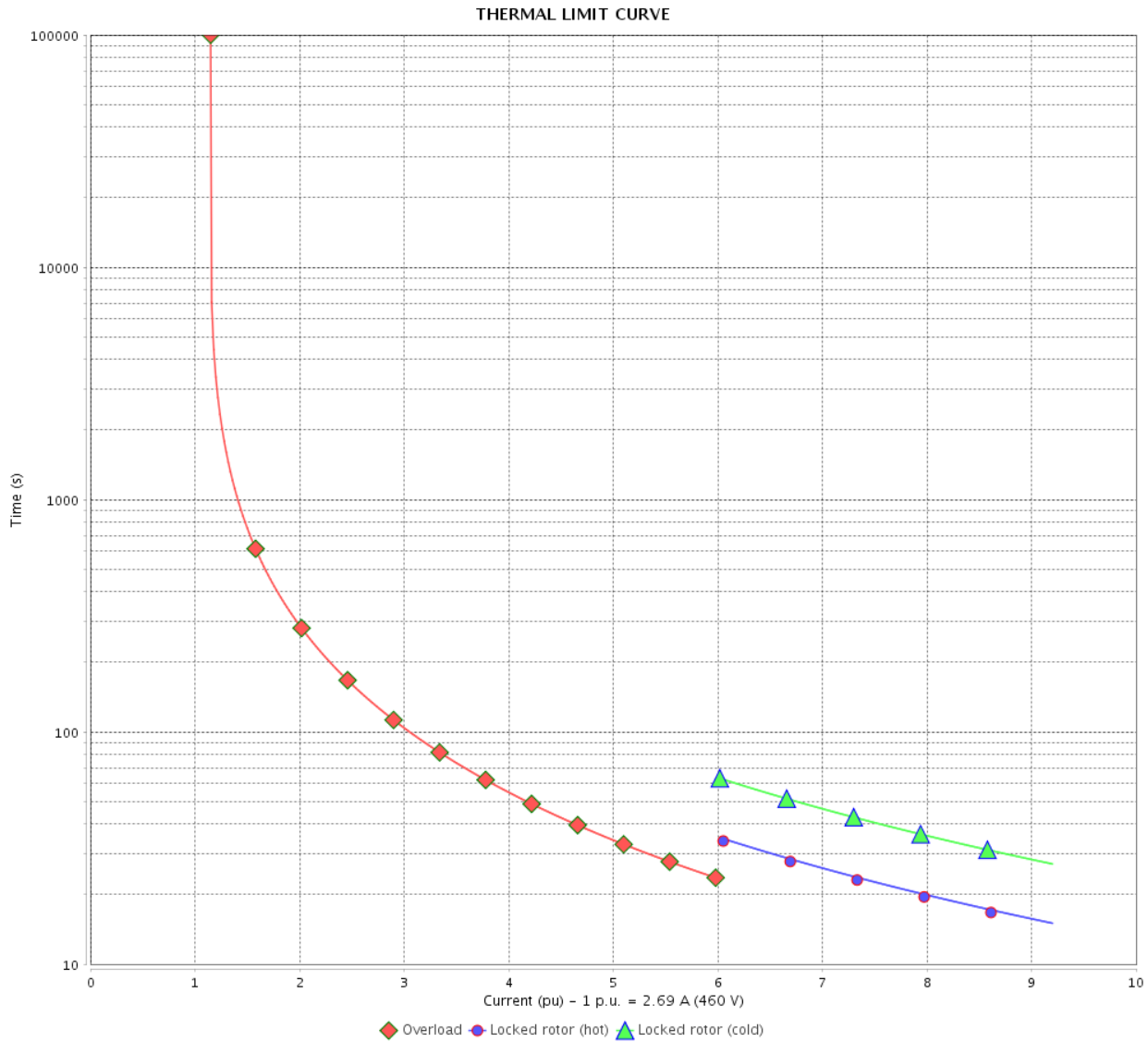
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 11 / 22	Revision
Checked by				
Date	13/04/2022			

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 12 / 22		Revision
Checked by				
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Rated torque : 3.67 ft.lb	Insulation class : F
Locked rotor torque : 270 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 2860 rpm	Design : B

Heating constant

Cooling constant

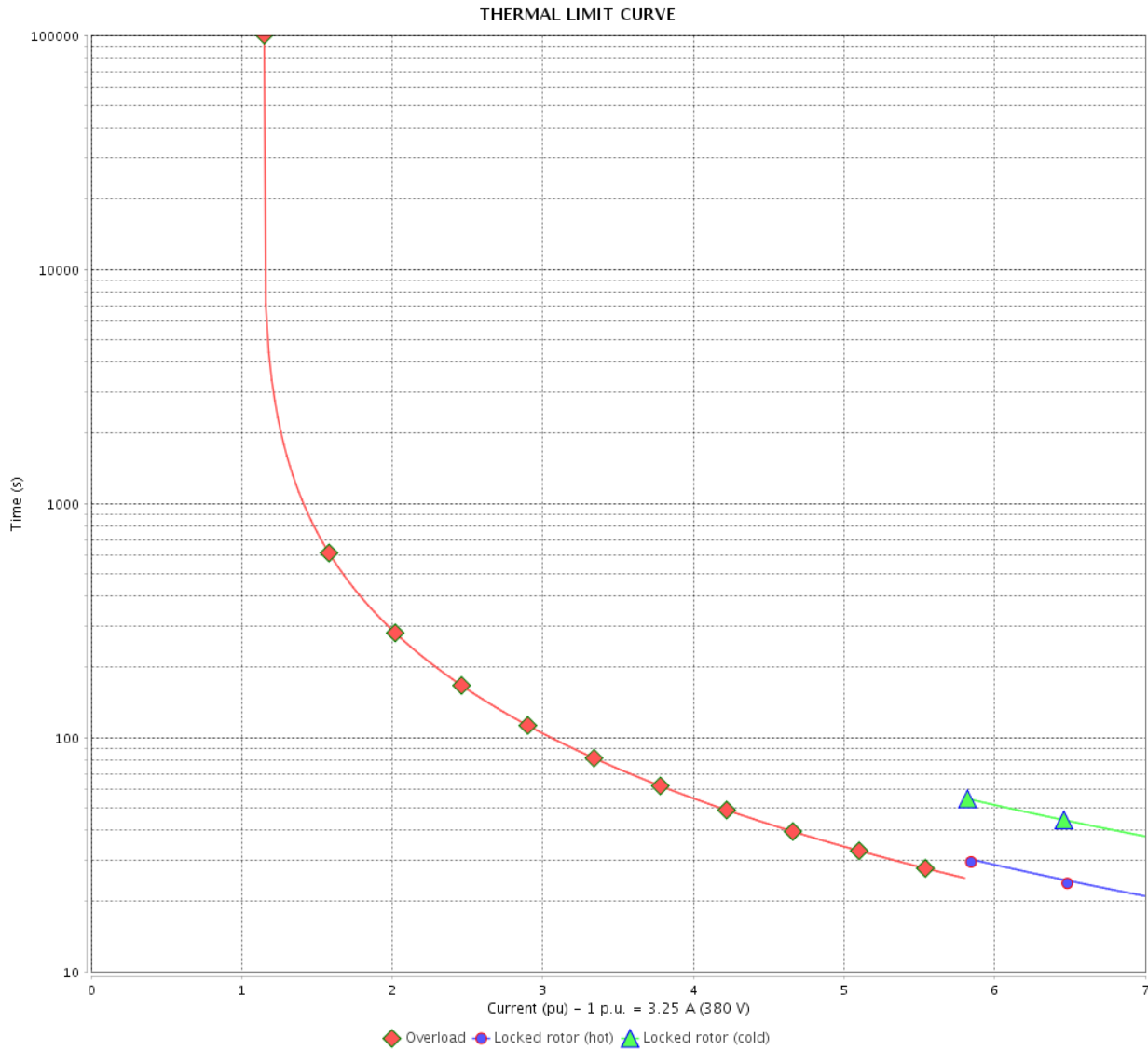
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Performed by			Page 13 / 22	Revision
Checked by				
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THERMAL LIMIT CURVE

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		14 / 22		
Date		13/04/2022		

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LRC : 7.5	Duty cycle : Cont.(S1)
Rated torque : 3.65 ft.lb	Insulation class : F
Locked rotor torque : 310 %	Service factor : 1.00
Breakdown torque : 330 %	Temperature rise : 80 K
Rated speed : 2880 rpm	Design : B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			15 / 22	
Date	13/04/2022			

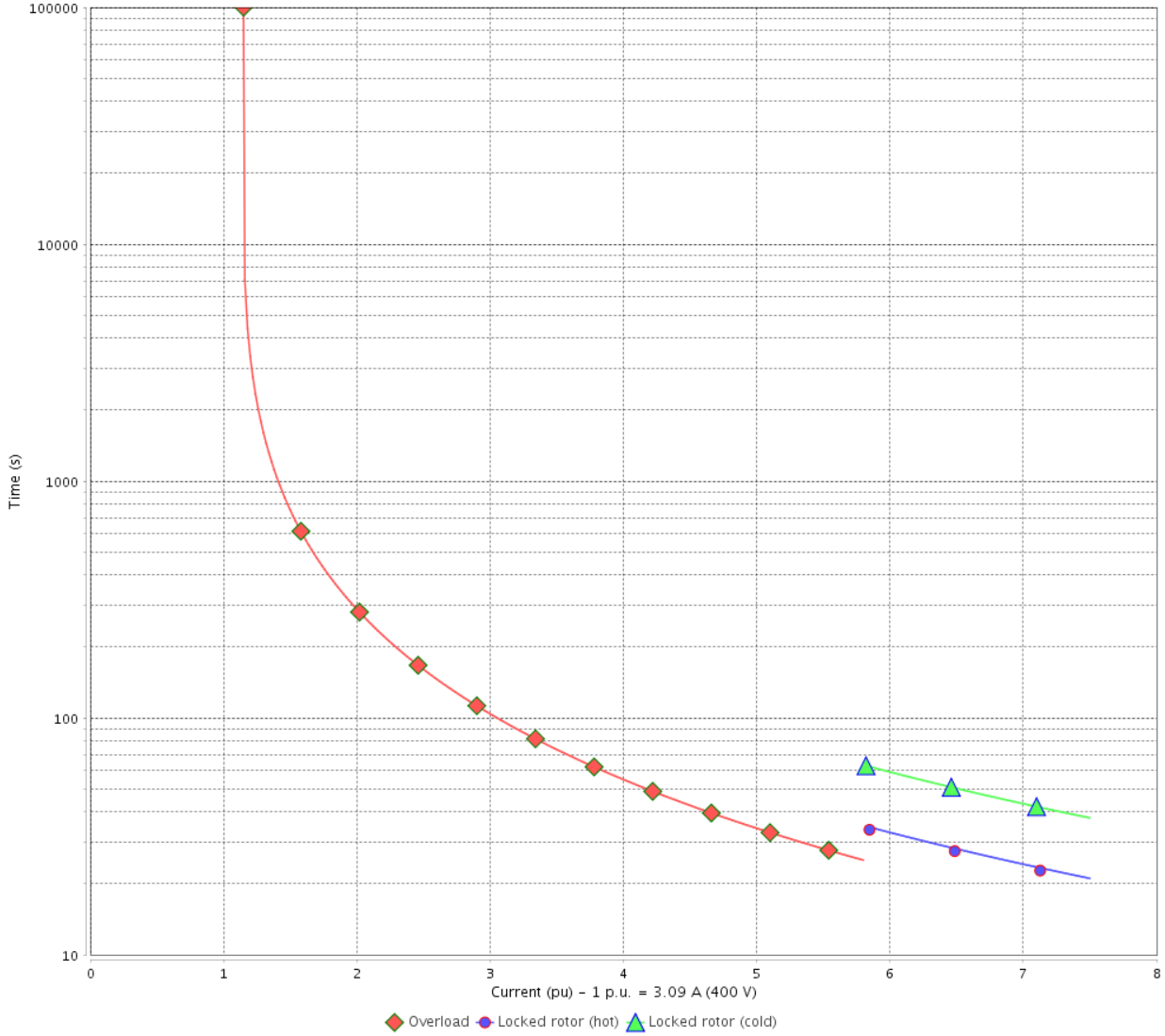
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THERMAL LIMIT CURVE



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		16 / 22		
Date		13/04/2022		

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Rated torque : 3.63 ft.lb	Insulation class : F
Locked rotor torque : 340 %	Service factor : 1.00
Breakdown torque : 360 %	Temperature rise : 80 K
Rated speed : 2890 rpm	Design : B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 17 / 22	Revision
Checked by				
Date	13/04/2022			

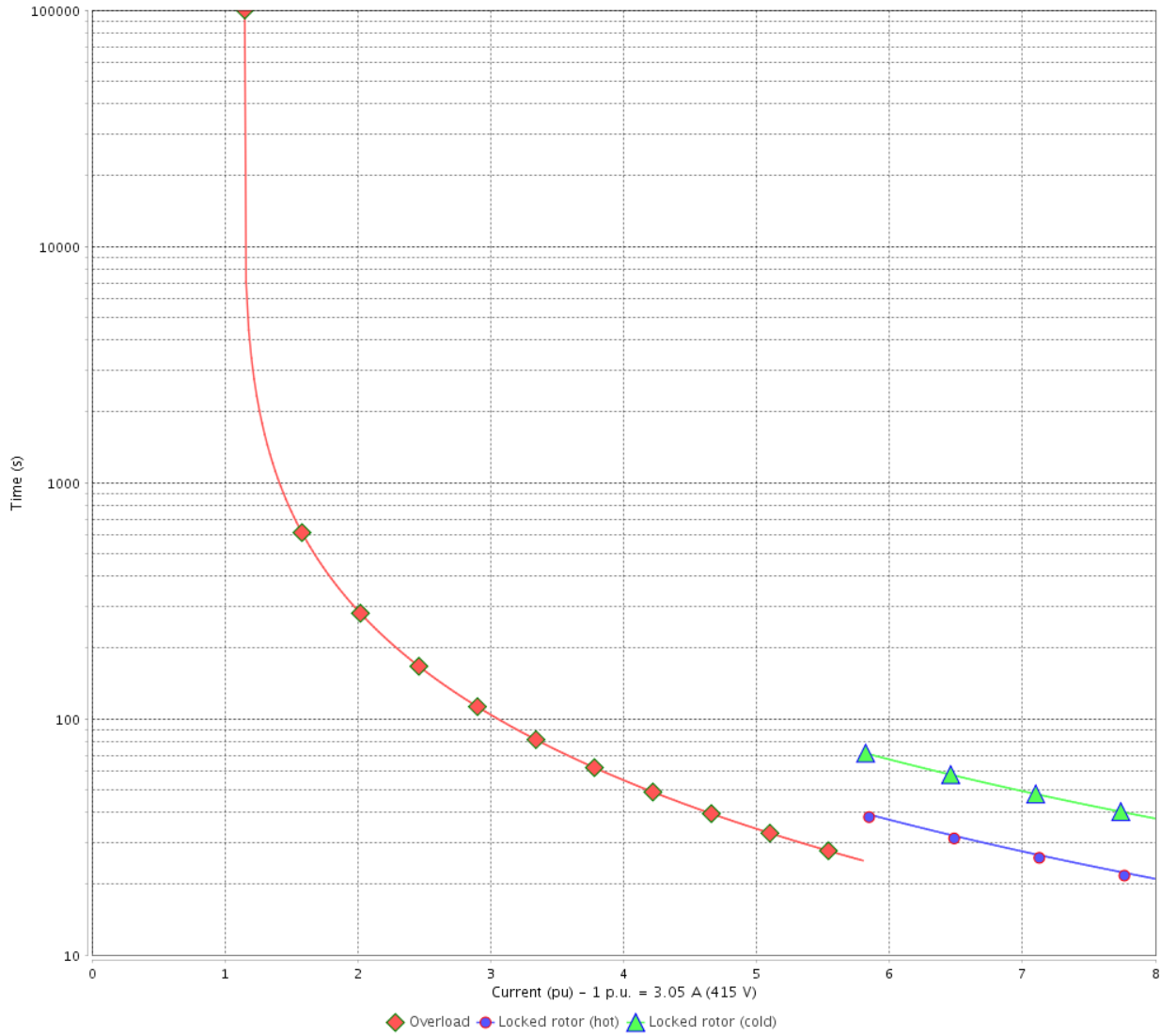
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 18 / 22	Revision
Checked by				
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

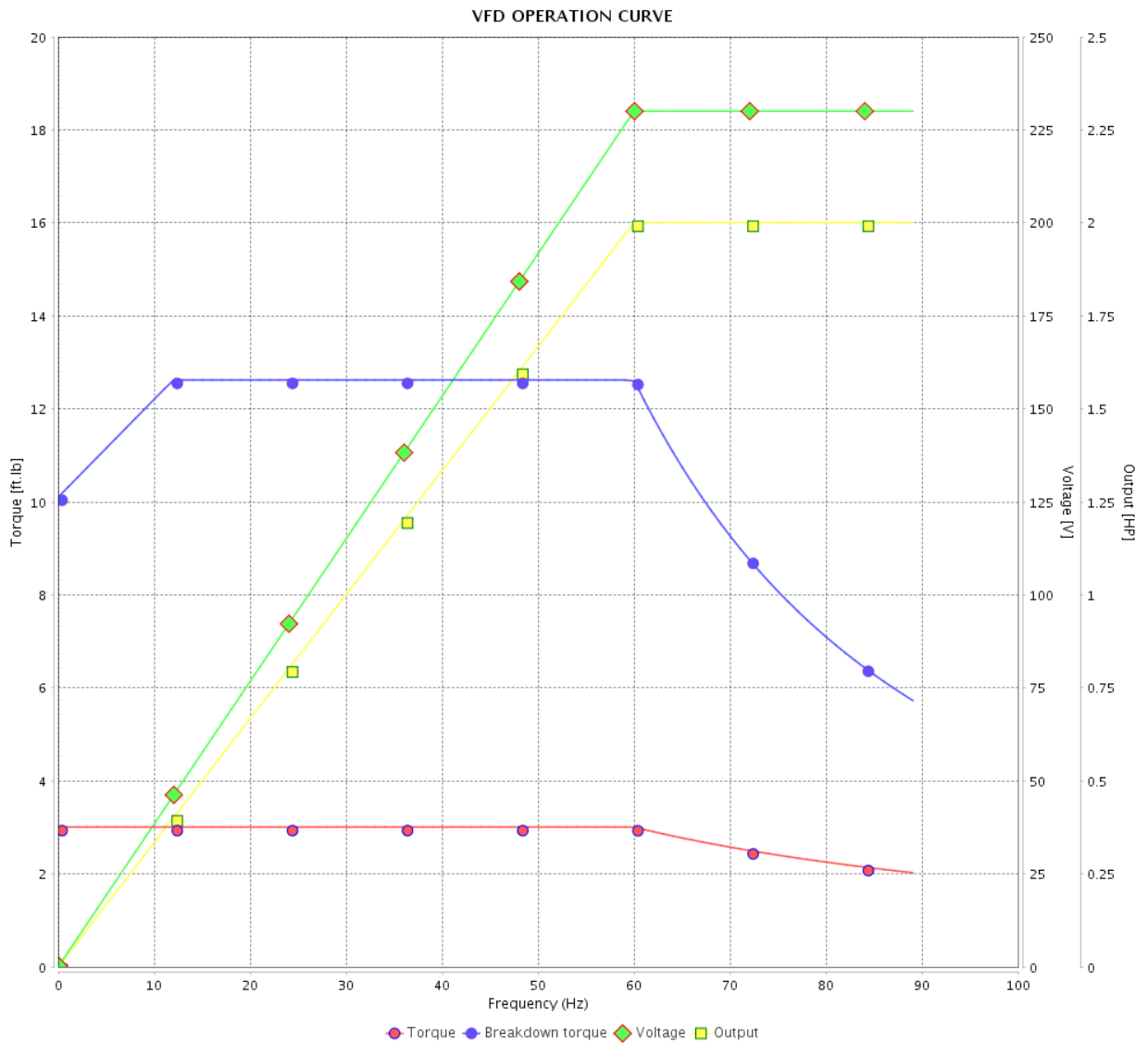


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Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 19 / 22
Checked by				
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



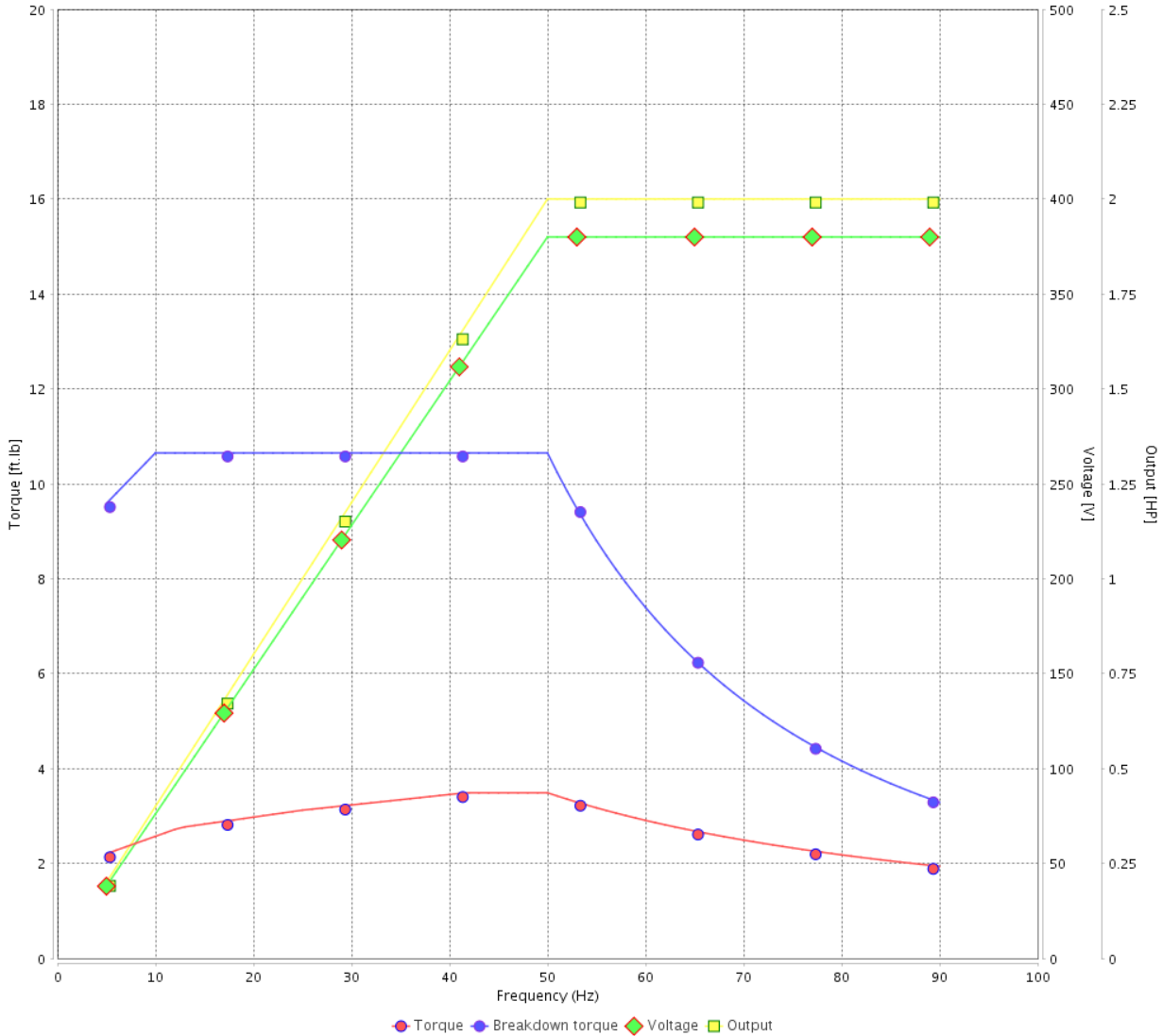
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VFD OPERATION CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current : 3.25 A
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 Locked rotor torque : 270 %
 Breakdown torque : 290 %
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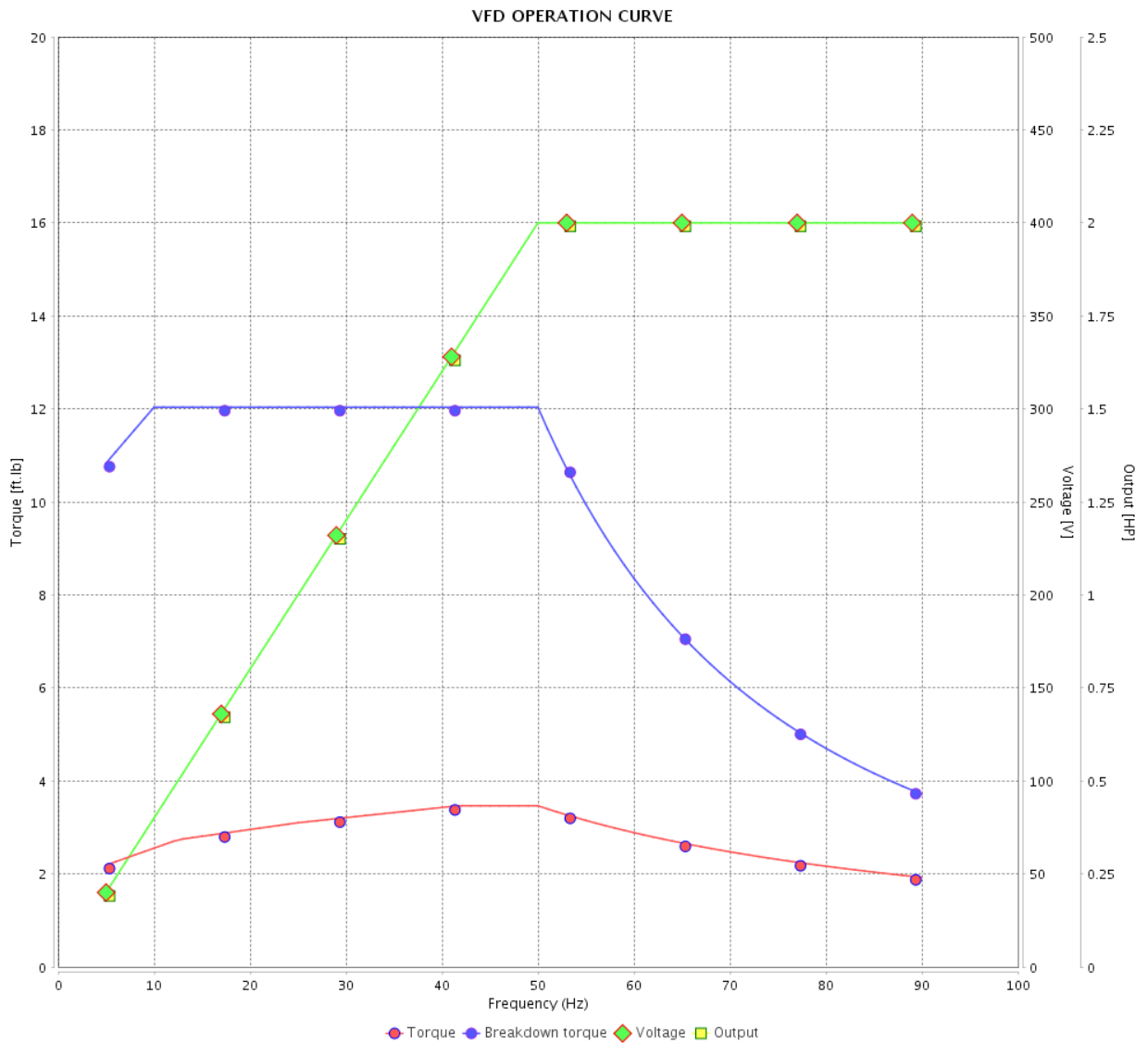


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Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 21 / 22
Checked by				
Date	13/04/2022			
				Revision

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



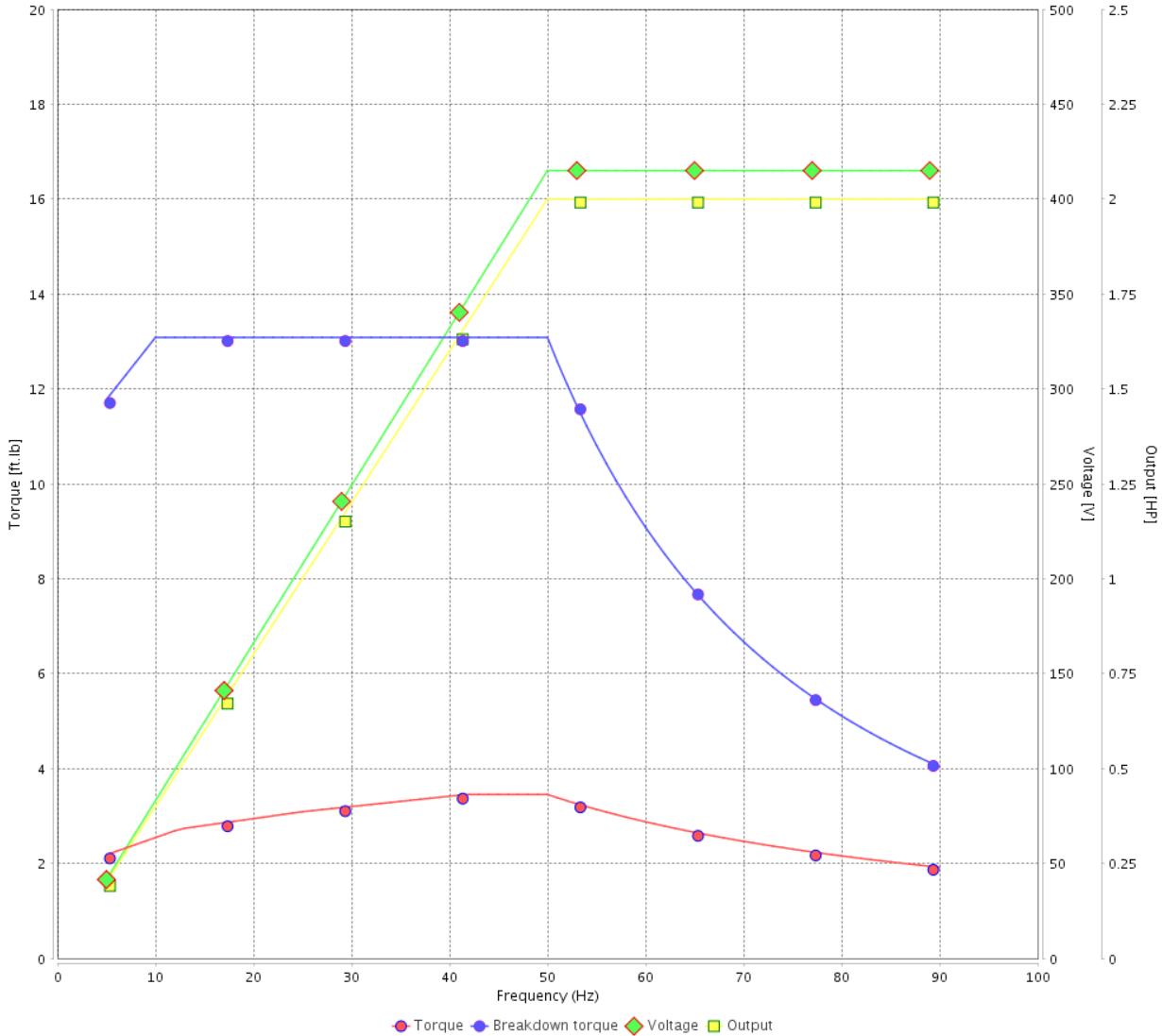
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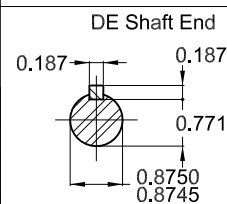
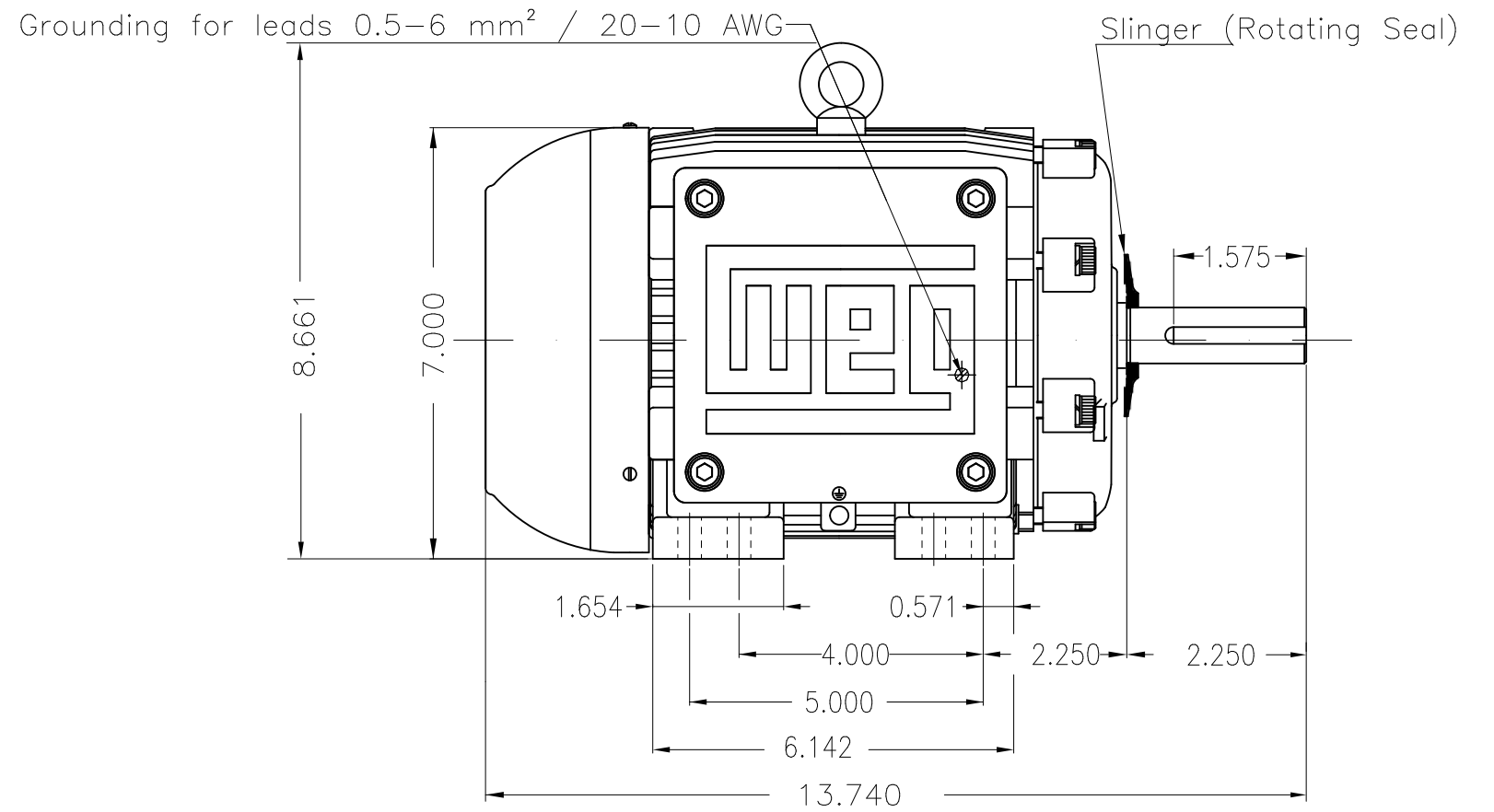
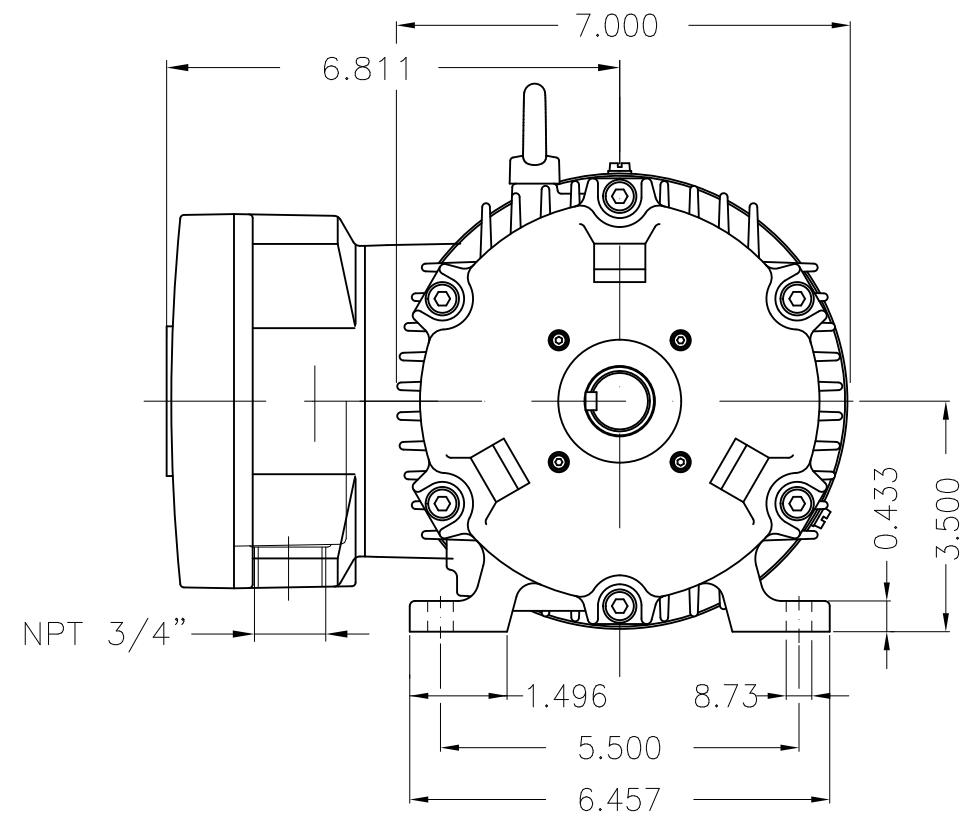


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Performed by			Page	Revision
Checked by				
Date				



Color RAL 5009
Painting plan 202P
Mounting NEMA F-1
Mounting B3R(D)

2 HP 02 Poles 60 Hz

Dimensions in inches

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 143/5T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
WDD



SHEET 1 / 1

MADE IN BRAZIL

**W21X NEMA**
Premium

14338143

CC029A

Inverter Duty Motor
Severe Duty

LISTED

MODEL 00236XT3E145T

PH 3 FR 143/5T

HP(kW) 2.0(1.5)

HZ 60

IP55

V 230/460

A 5.38/2.69

RPM 3495

NEMA NOM EFF 85.5%

PF 0.82

SFA 6.19/3.09

DES B

INS CL F Δ T 80 K SF 1.15

ENCL TEFC

DUTY CONT.

CODE L

ALT 1000

m.a.s.l.

AMB 40°C

USABLE @208V

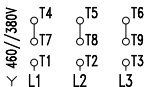
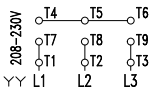
5.95 A

SF 1.15

SFA 6.84

AMB 55°C SF1.0

2.0HP 1.5kW 50Hz 380V 3.25A 2860RPM SF1.00 EFF 82.5% (IE2)



→ 6205-2RS MOBIL POLYREX EM

→ 6204-2RS

73 Lbs

C US
Energy Verified

TEMP CODE T3C

CSA/UL: Class I - Div. 1 - Groups C and D

CSA: Class II - Div. 1 - Groups F and G

CSA: Class I - Zone 1 - IIB

EXPLOSION PROOF MOTOR

FOR USE ON VPWM VFD 1000:1VT, 20:1CT, 1.0SF, T3C, AMB 40°C.