

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14504365		
		Catalog # :	00209XT3E213T		
Frame	: 213/5T	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	: 187 lb		
Protection degree	: IP55	Moment of inertia (J)	: 1.31 sq.ft.lb		
Design	: B				
Output [HP]	2	2	2	2	
Poles	8	8	8	8	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	6.90/3.45	3.94	3.80	3.78	
L. R. Amperes [A]	48.3/24.2	26.4	26.6	26.5	
LRC [A]	7.0x(Code L)	6.7x(Code K)	7.0x(Code L)	7.0x(Code L)	
No load current [A]	4.20/2.10	2.10	2.40	2.55	
Rated speed [RPM]	875	710	720	720	
Slip [%]	2.78	5.33	4.00	4.00	
Rated torque [ft.lb]	12.0	14.8	14.6	14.6	
Locked rotor torque [%]	229	210	240	270	
Breakdown torque [%]	280	220	250	280	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	63s (cold) 35s (hot)	63s (cold) 35s (hot)	63s (cold) 35s (hot)	63s (cold) 35s (hot)	
Noise level ²	52.0 dB(A)	48.0 dB(A)	48.0 dB(A)	48.0 dB(A)	
Efficiency (%)	25%	78.4	80.6	81.2	81.2
	50%	80.0	81.0	81.5	81.5
	75%	82.5	81.5	82.5	82.5
	100%	84.0	81.5	82.5	82.5
Power Factor	25%	0.26	0.30	0.27	0.25
	50%	0.45	0.52	0.49	0.46
	75%	0.57	0.61	0.59	0.57
	100%	0.65	0.71	0.69	0.67
Bearing type	: <u>Drive end</u> 6308 2RS <u>Non drive end</u> 6207 2RS	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction	: 137 lb		
Lubrication interval	: - -	Max. compression	: 323 lb		
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 7.63A SF 1.15 SFA 8.77A					
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		

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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



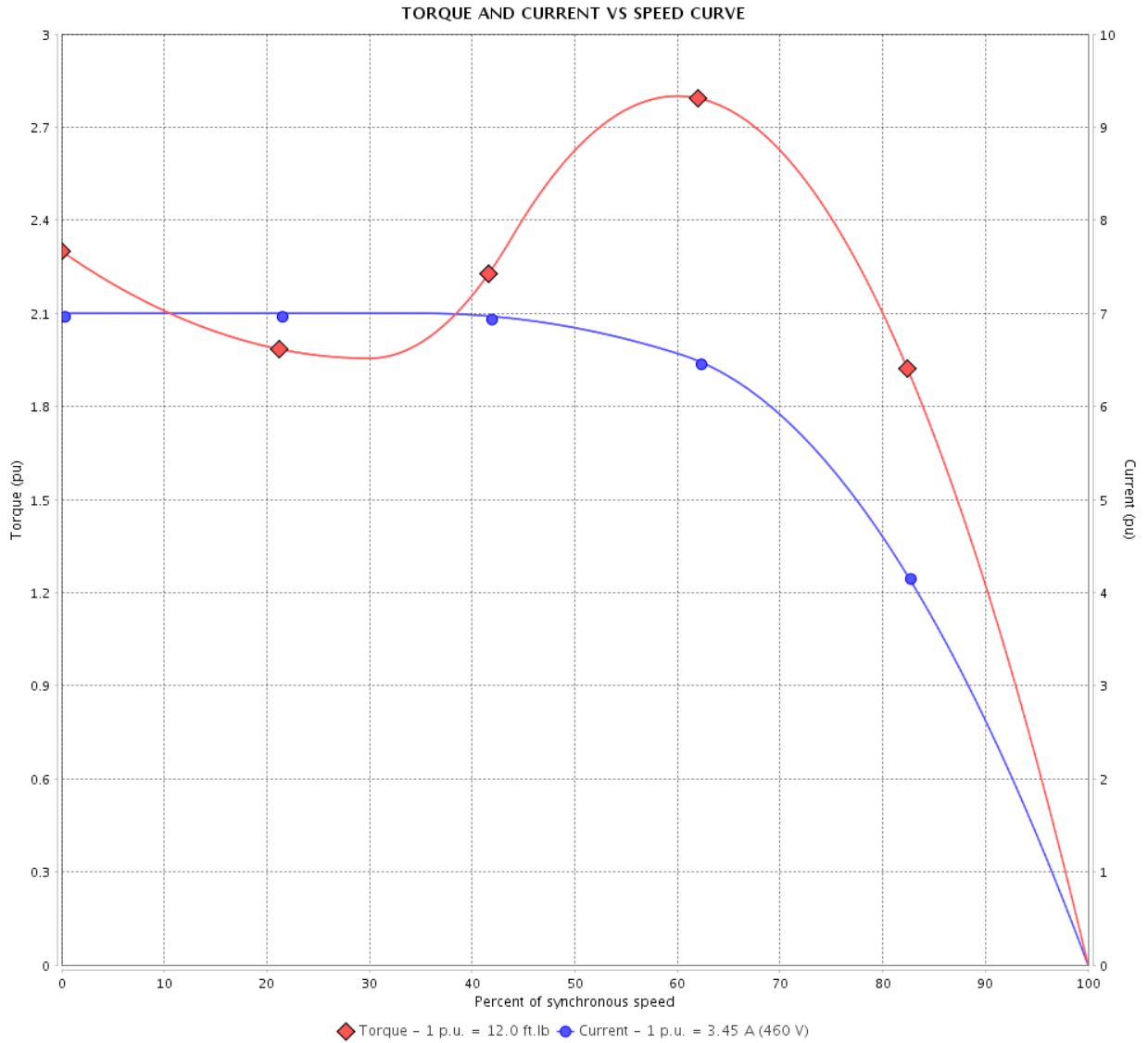
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14504365

Catalog # : 00209XT3E213T



Performance : 230/460 V 60 Hz 8P

Rated current : 6.90/3.45 A
 LRC : 7.0
 Rated torque : 12.0 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 875 rpm

Moment of inertia (J) : 1.31 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 63s (cold) 35s (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



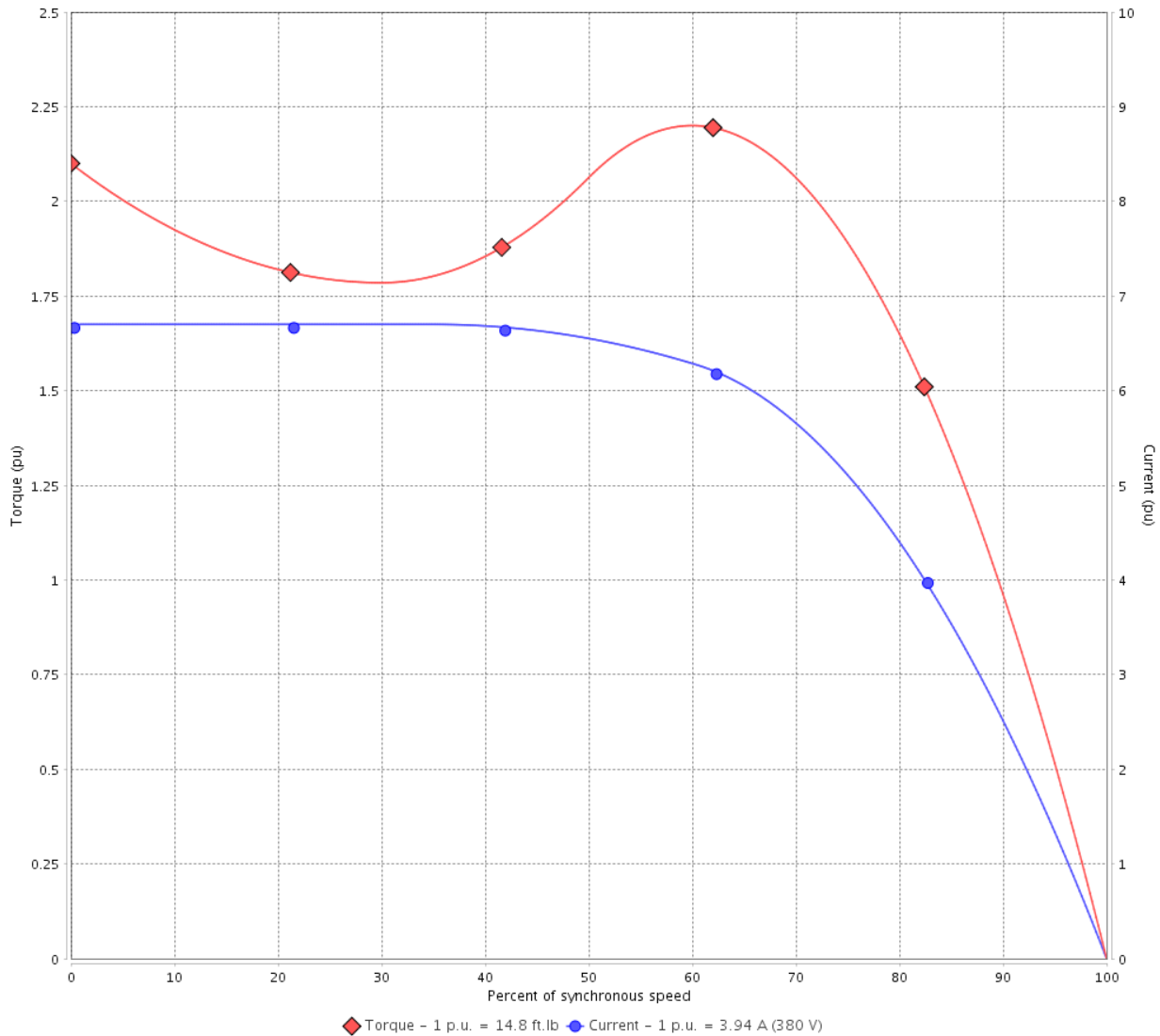
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14504365

Catalog # : 00209XT3E213T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 8P IE3

Rated current	: 3.94 A	Moment of inertia (J)	: 1.31 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 14.8 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 710 rpm	Design	: B

Locked rotor time : 63s (cold) 35s (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



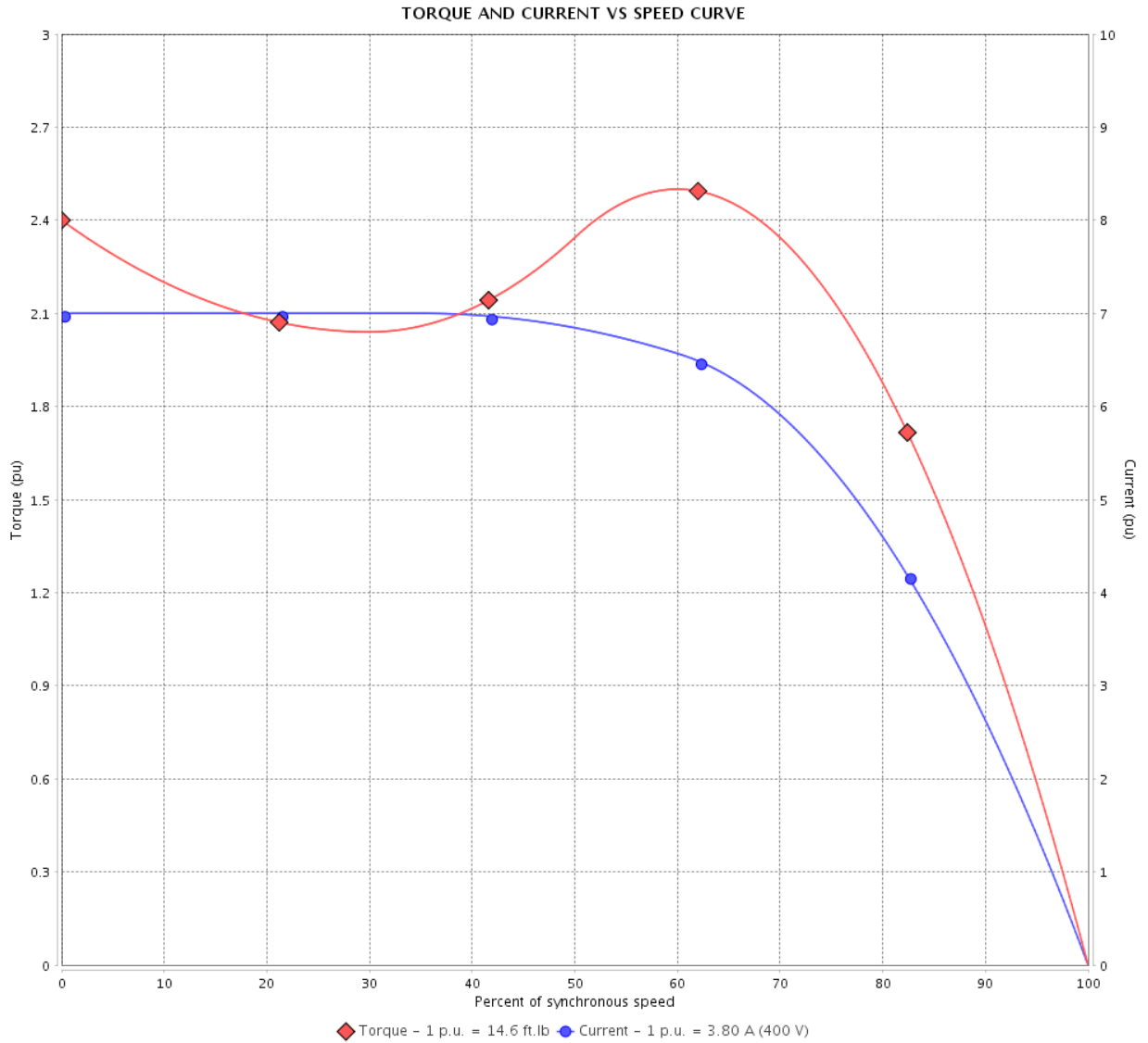
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14504365

Catalog # : 00209XT3E213T



Performance : 400 V 50 Hz 8P IE3

Rated current	: 3.80 A	Moment of inertia (J)	: 1.31 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 14.6 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 720 rpm	Design	: B

Locked rotor time : 63s (cold) 35s (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



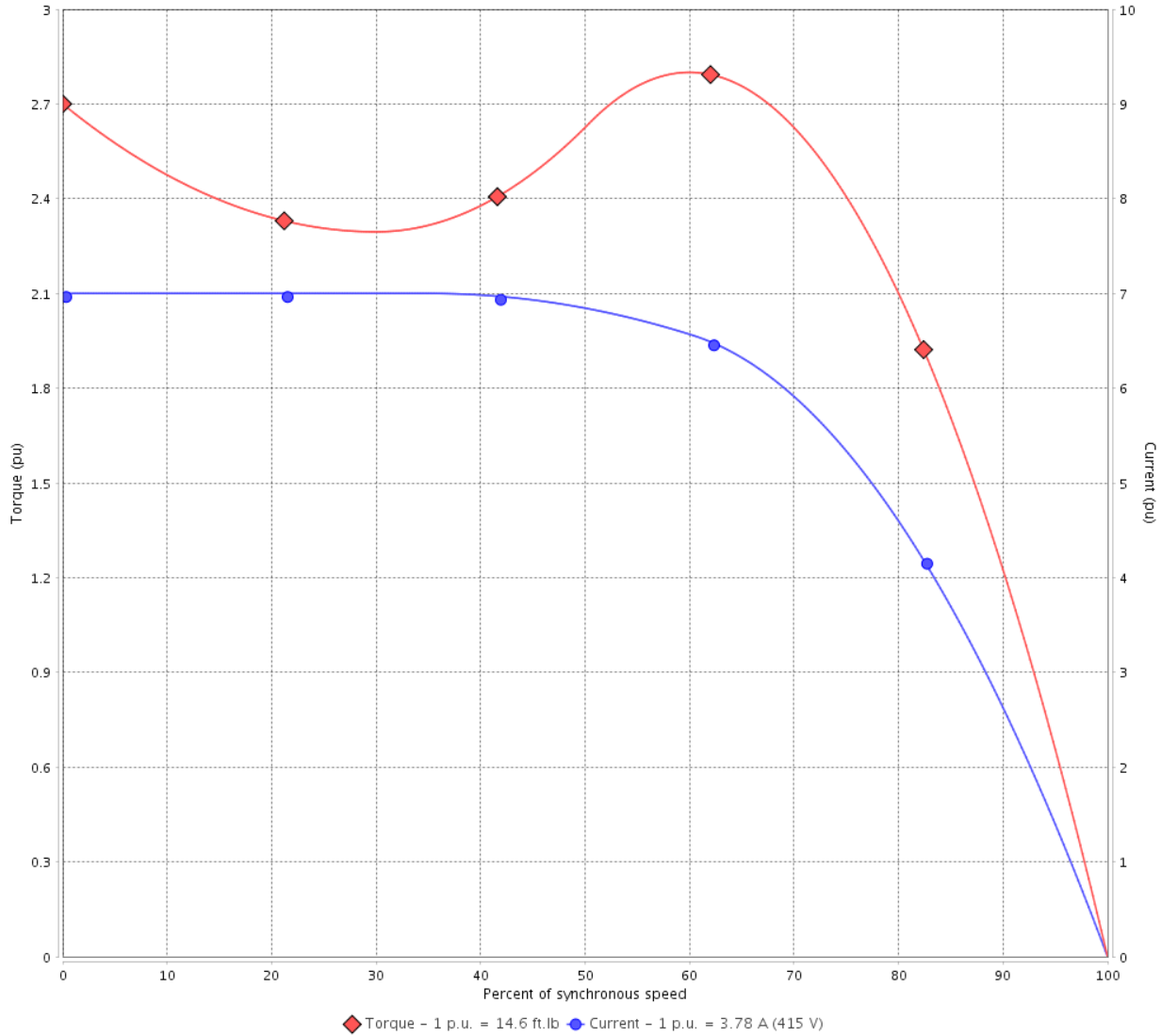
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LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 14.6 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 720 rpm	Design	: B

Locked rotor time : 63s (cold) 35s (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

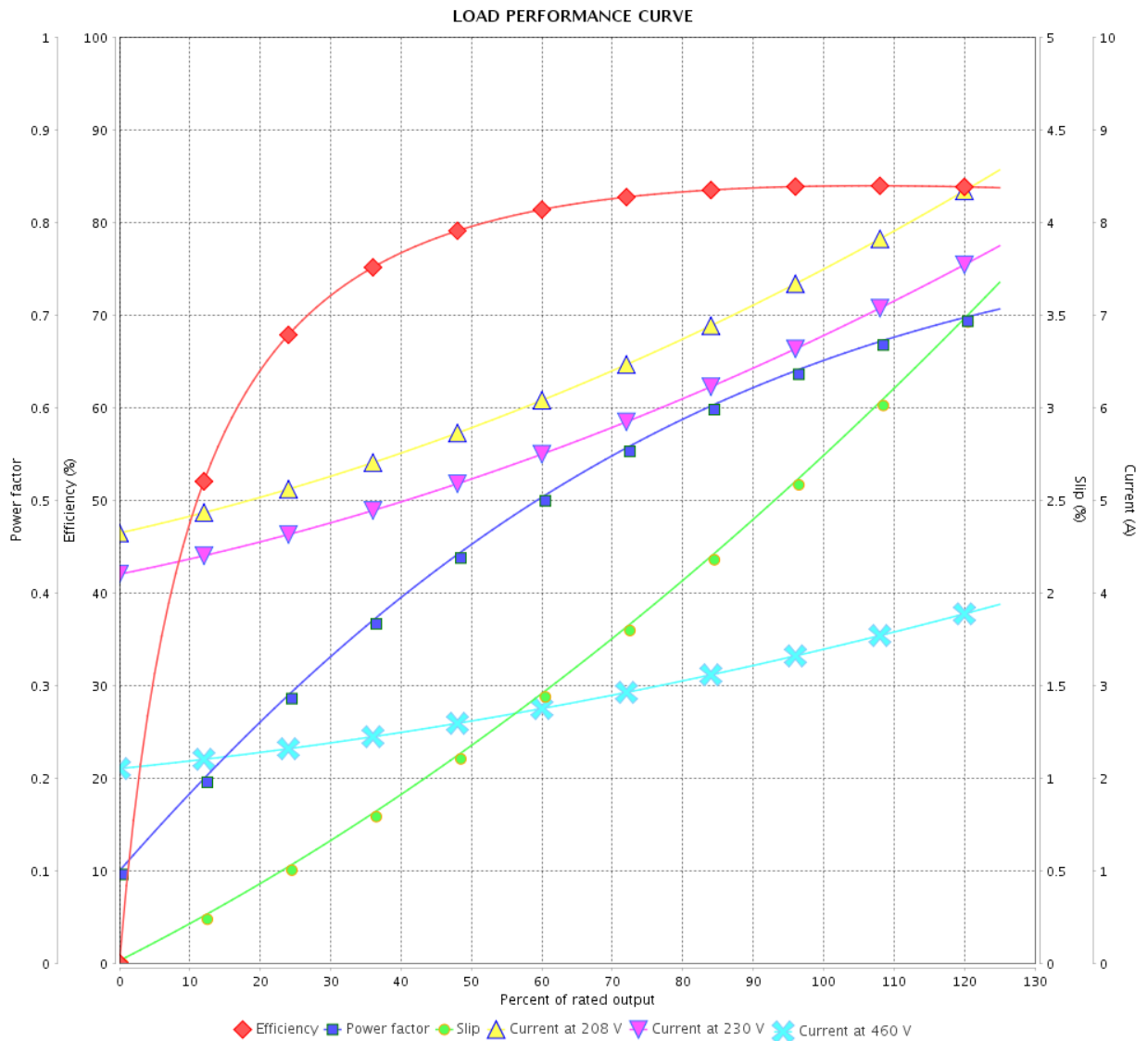


Customer : _____

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Performance : 230/460 V 60 Hz 8P

Rated current : 6.90/3.45 A
 LRC : 7.0
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		7 / 22		
Date		13/04/2022		

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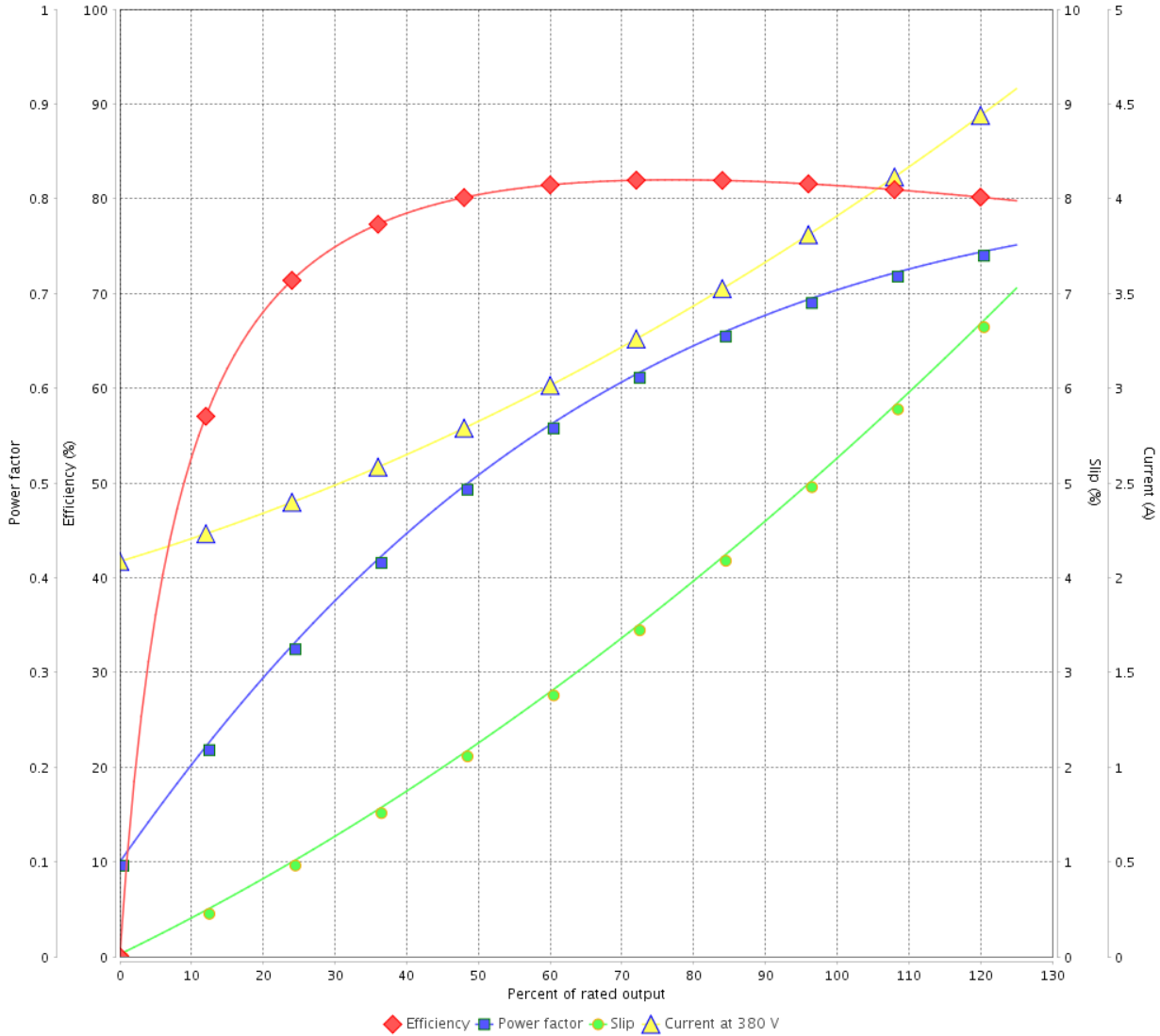
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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

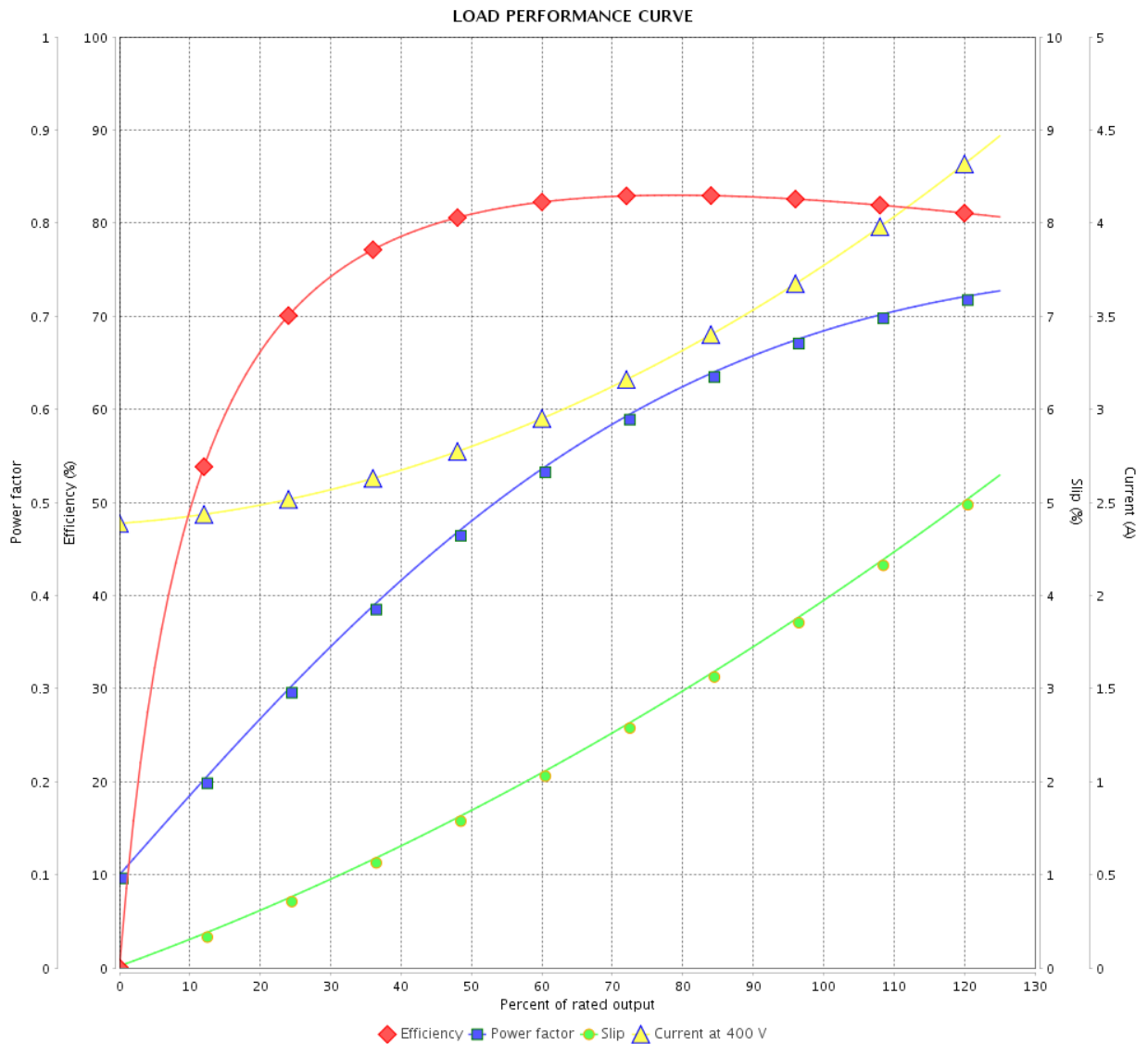


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Performance : 400 V 50 Hz 8P IE3

Rated current : 3.80 A
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 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 720 rpm

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Performed by			Page	Revision
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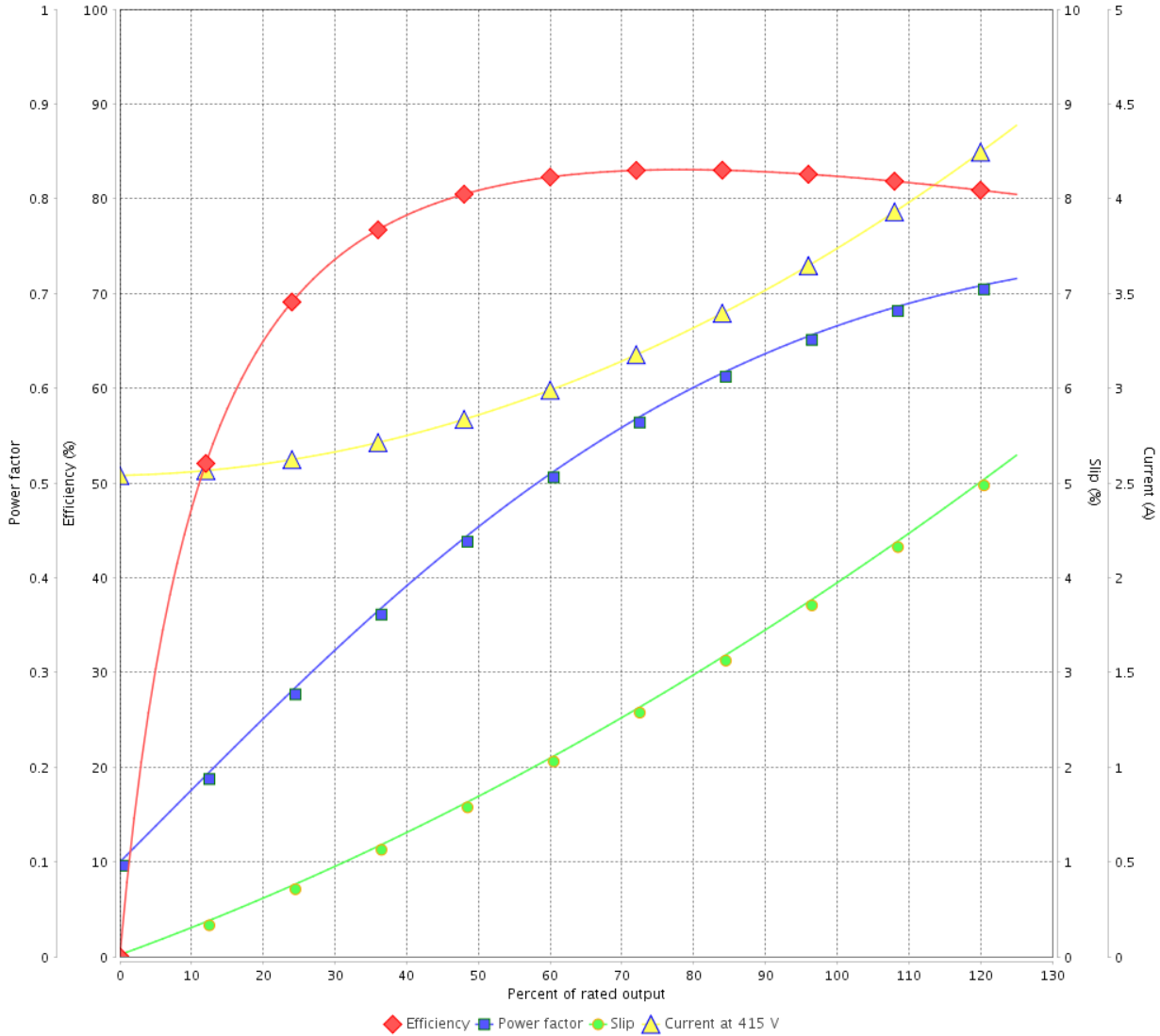
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Performed by			Page	Revision
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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

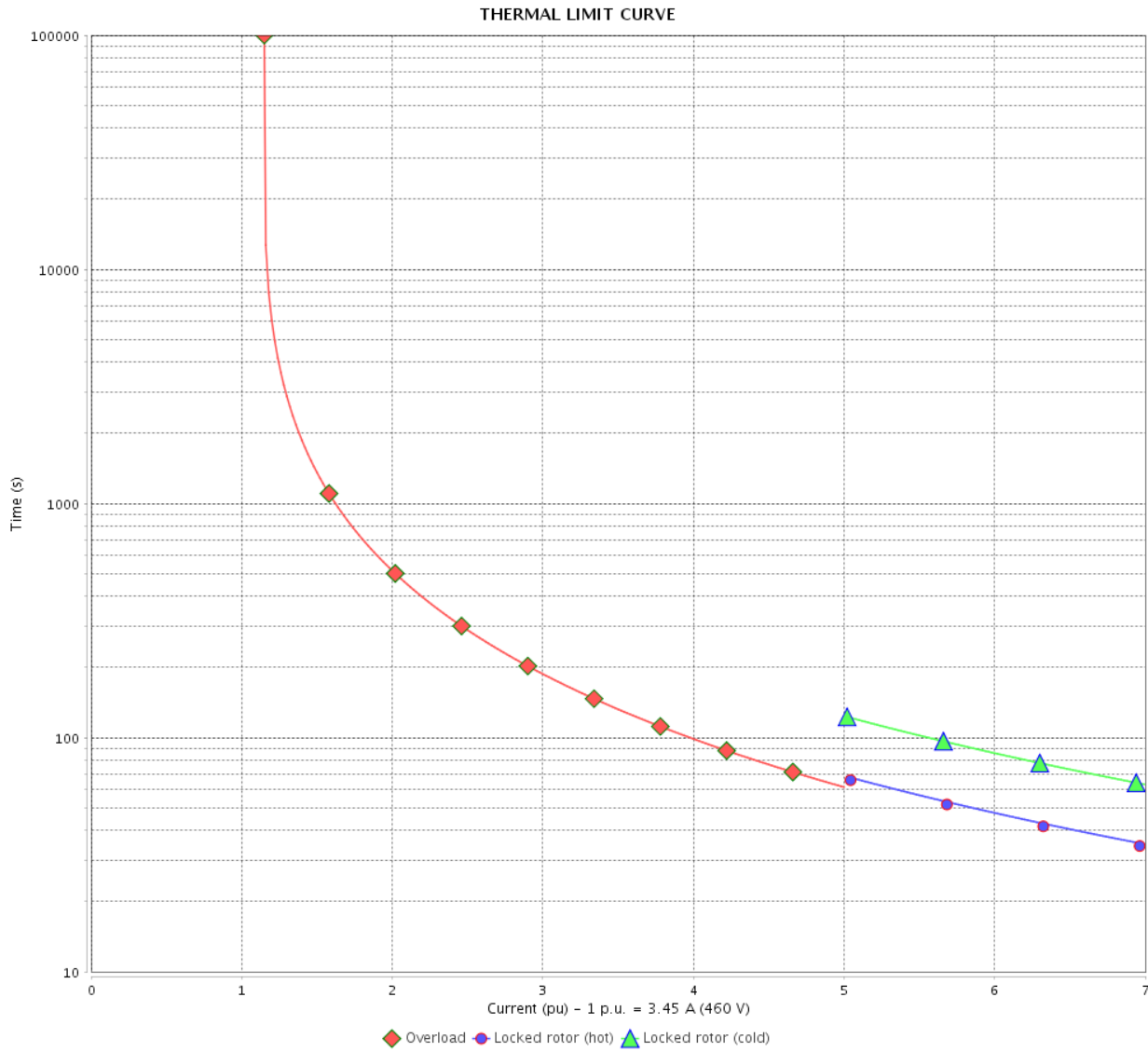
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Performed by			Page	Revision
Checked by				
Date	13/04/2022	11 / 22		

THERMAL LIMIT CURVE

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		12 / 22		
Date		13/04/2022		

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Cooling constant

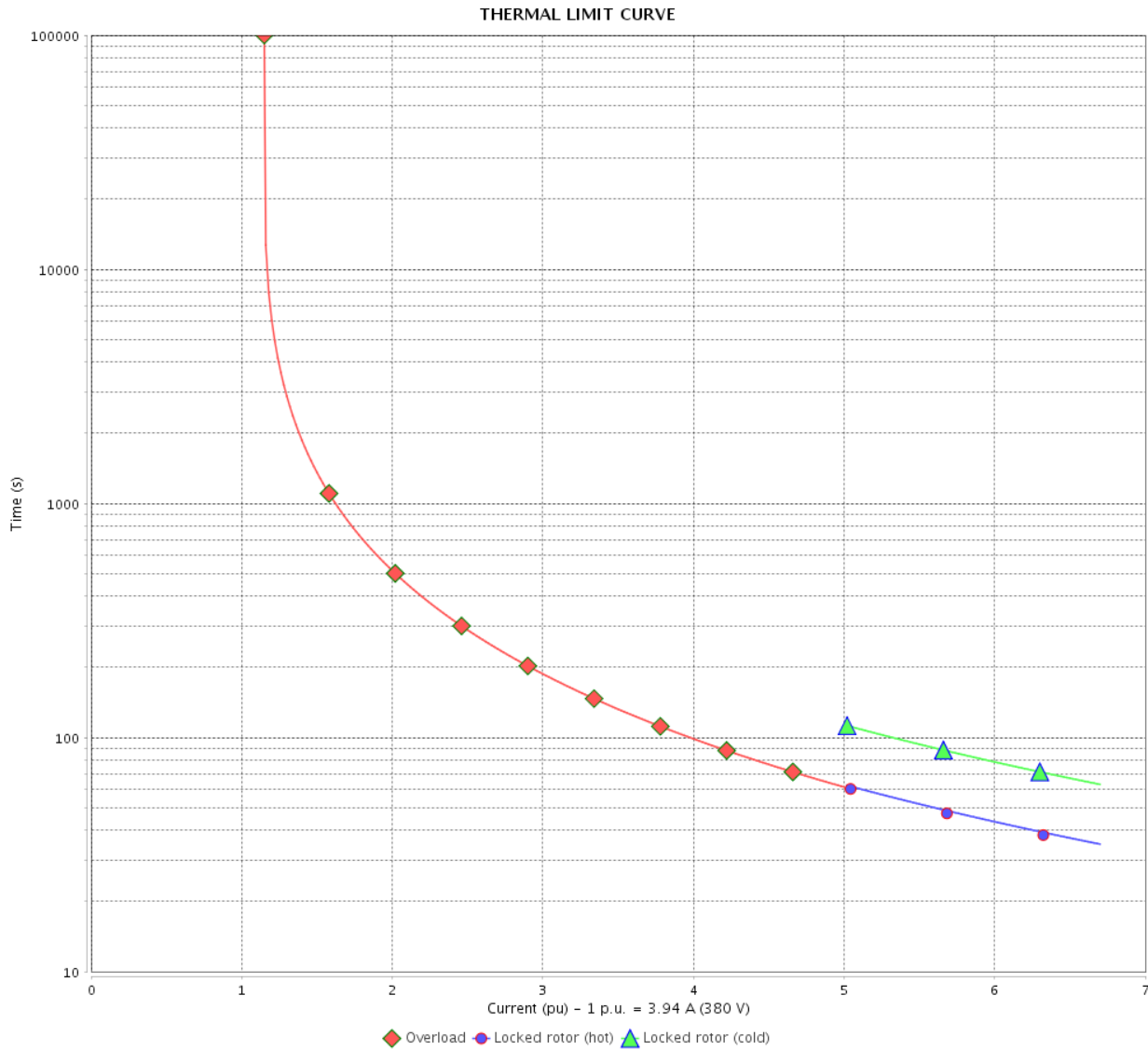
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date	13/04/2022	13 / 22		

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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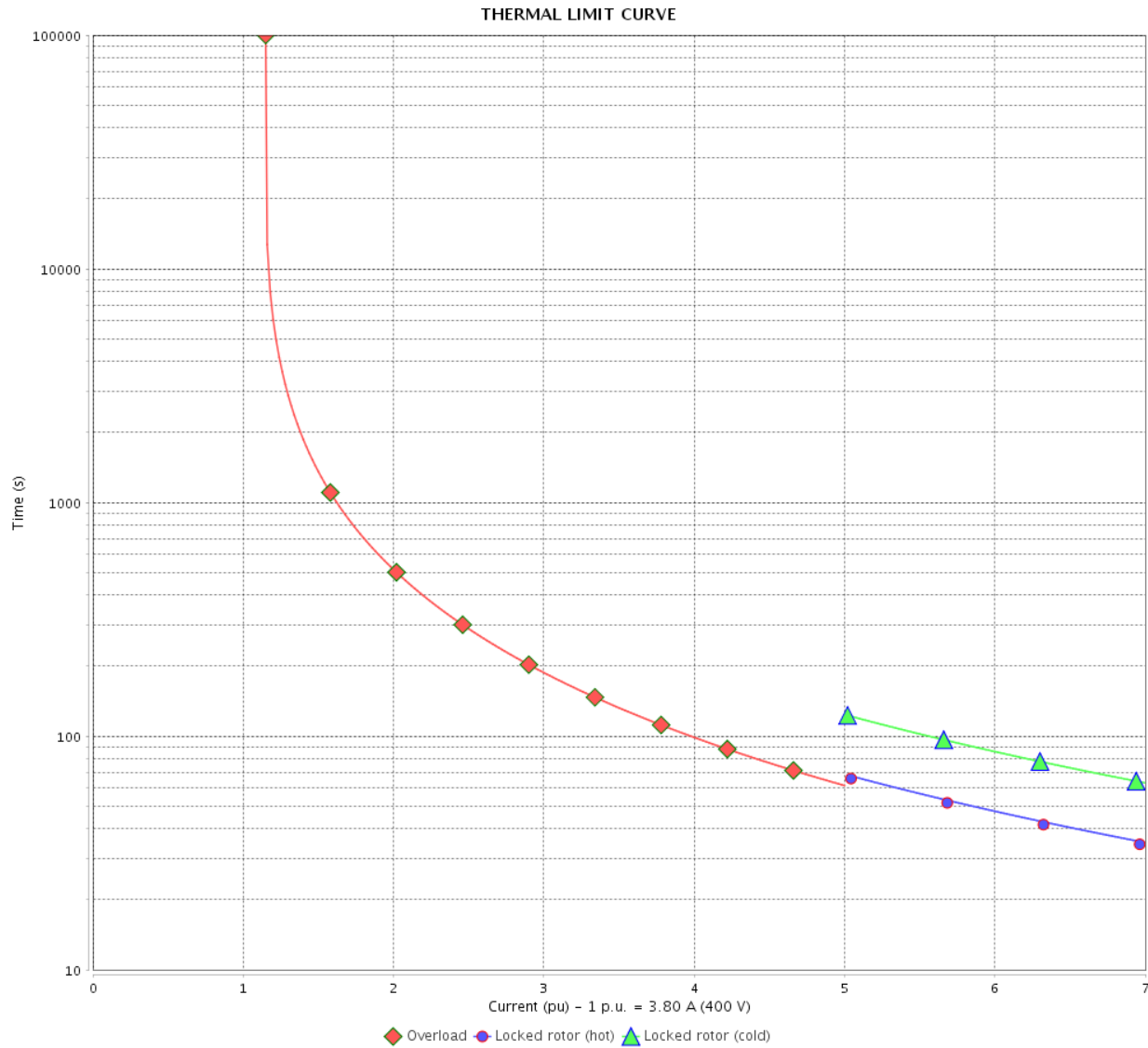
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Performed by			Page 15 / 22	Revision
Checked by				
Date	13/04/2022			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

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Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 720 rpm	Design	: B

Heating constant

Cooling constant

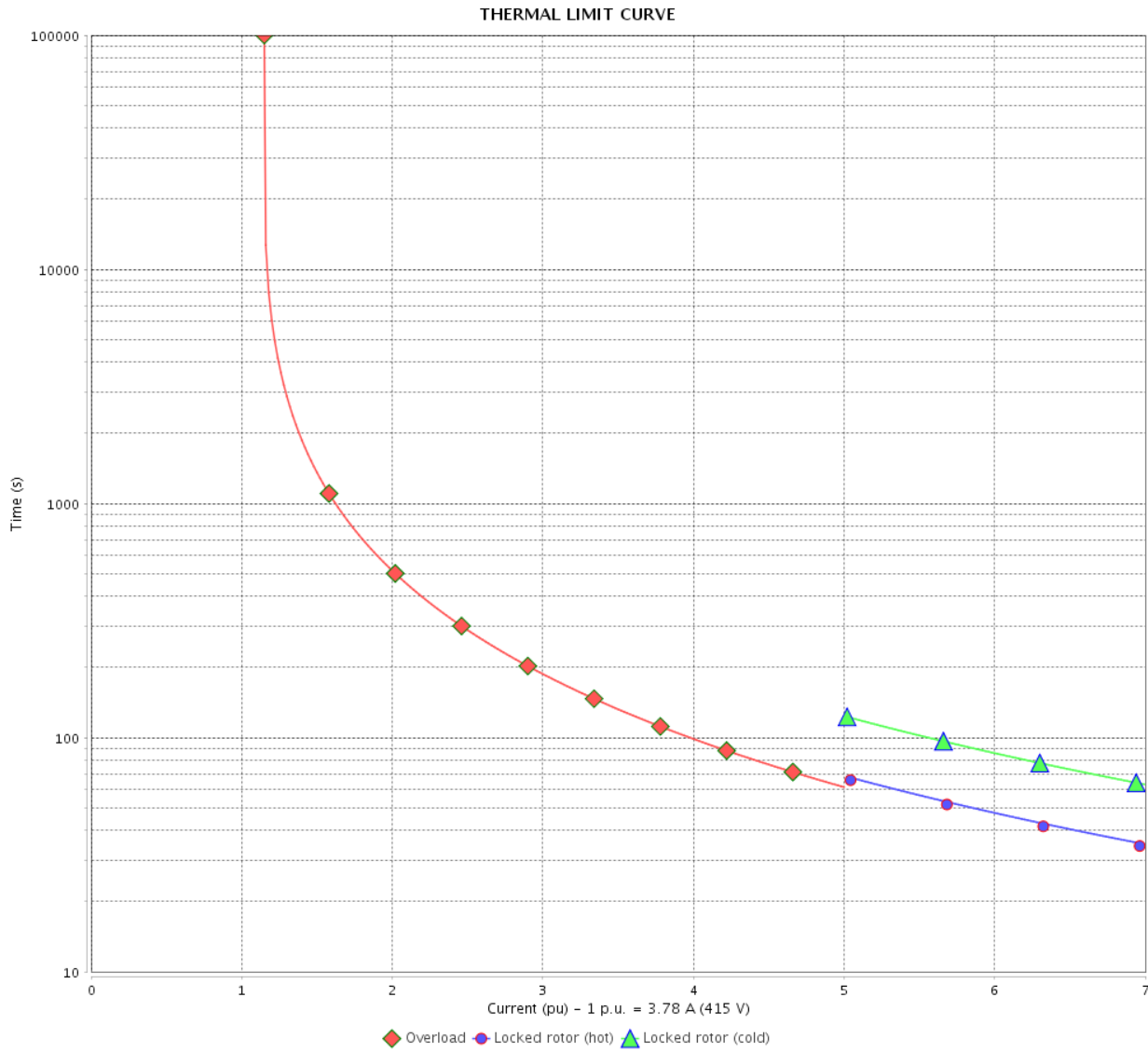
Rev.	Changes Summary	Performed	Checked	Date
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Checked by			Page	Revision
Date	13/04/2022		17 / 22	

THERMAL LIMIT CURVE

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

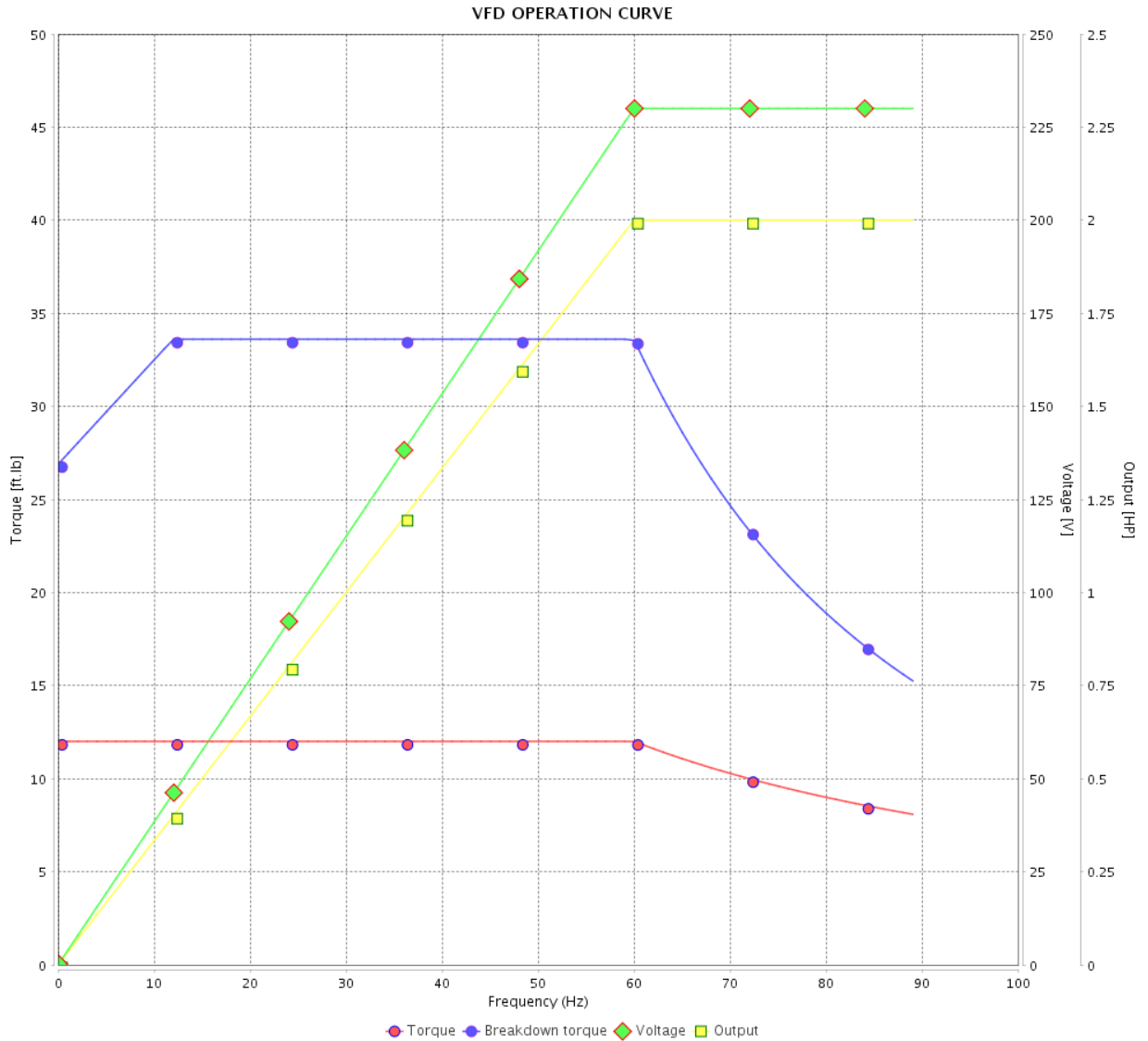
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



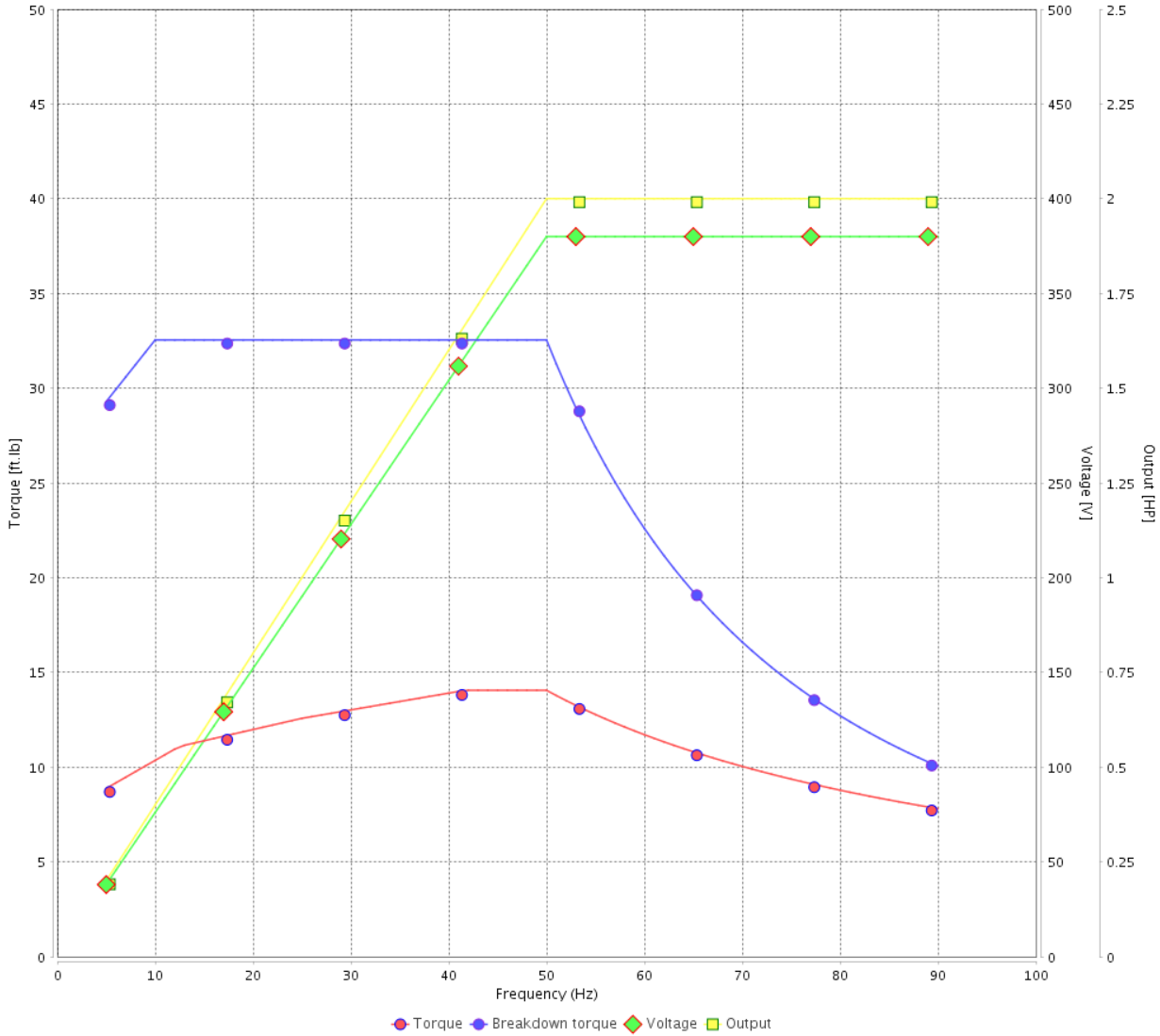
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VFD OPERATION CURVE



Performance : 380 V 50 Hz 8P IE3

Rated current : 3.94 A
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 Rated torque : 14.8 ft.lb
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 Breakdown torque : 220 %
 Rated speed : 710 rpm

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 Insulation class : F
 Service factor : 1.00
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 20 / 22	Revision
Checked by				
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

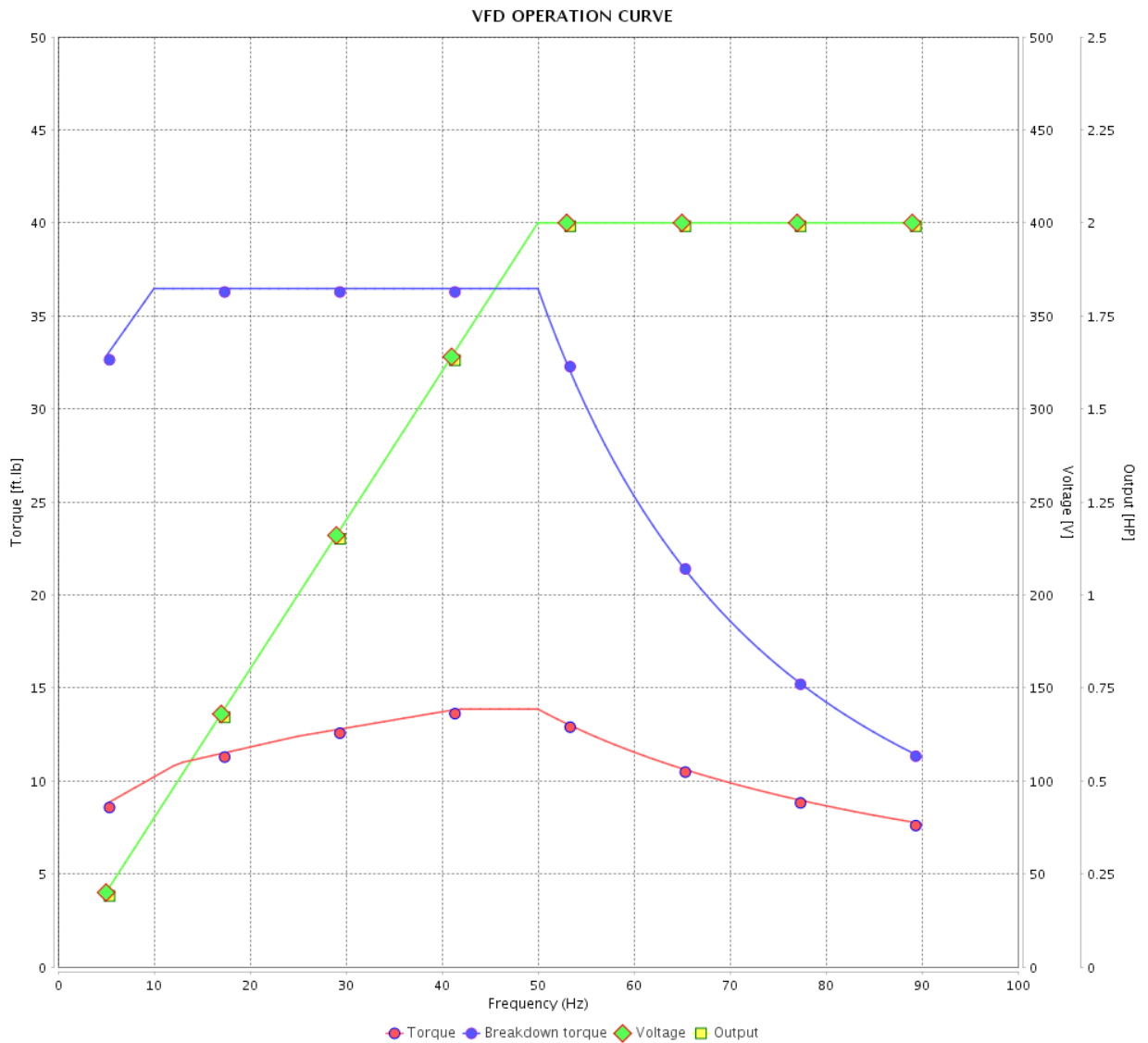


Customer :

Product line : NEMA Premium Efficiency Three-Phase

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Performance : 400 V 50 Hz 8P IE3

Rated current : 3.80 A
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 Breakdown torque : 250 %
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		21 / 22		
Date		13/04/2022		

VFD OPERATION CURVE

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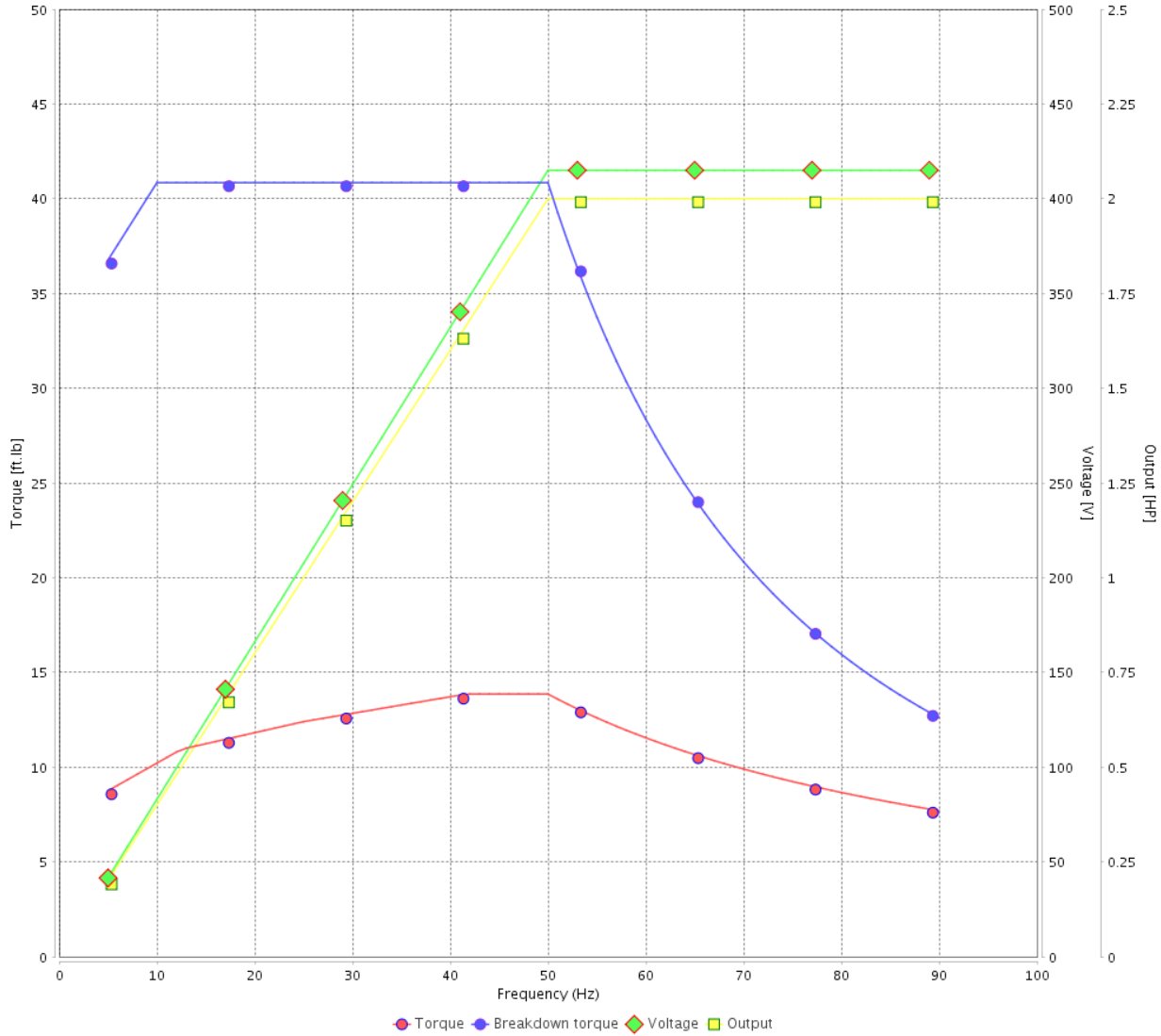
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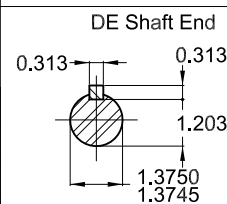
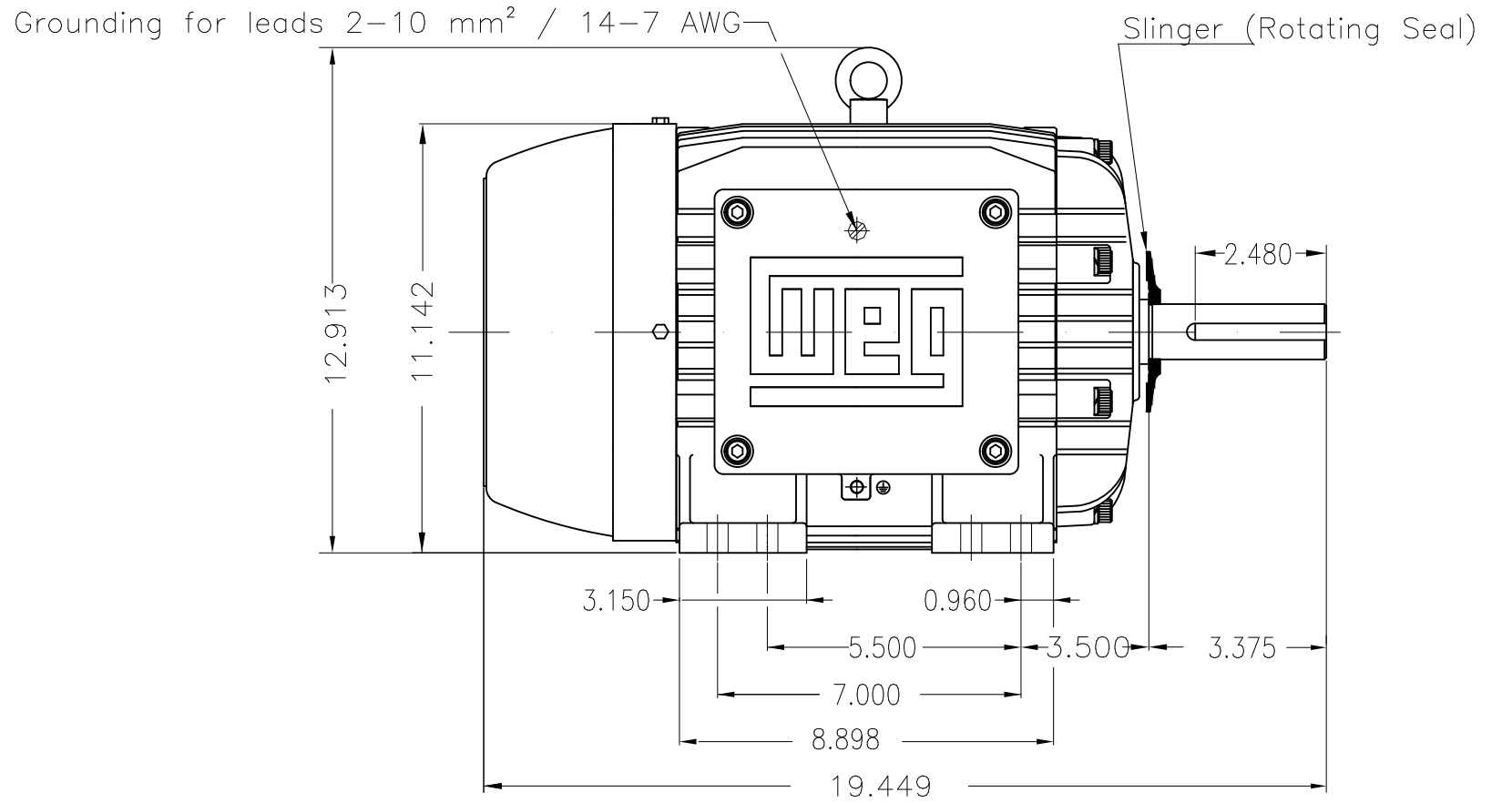
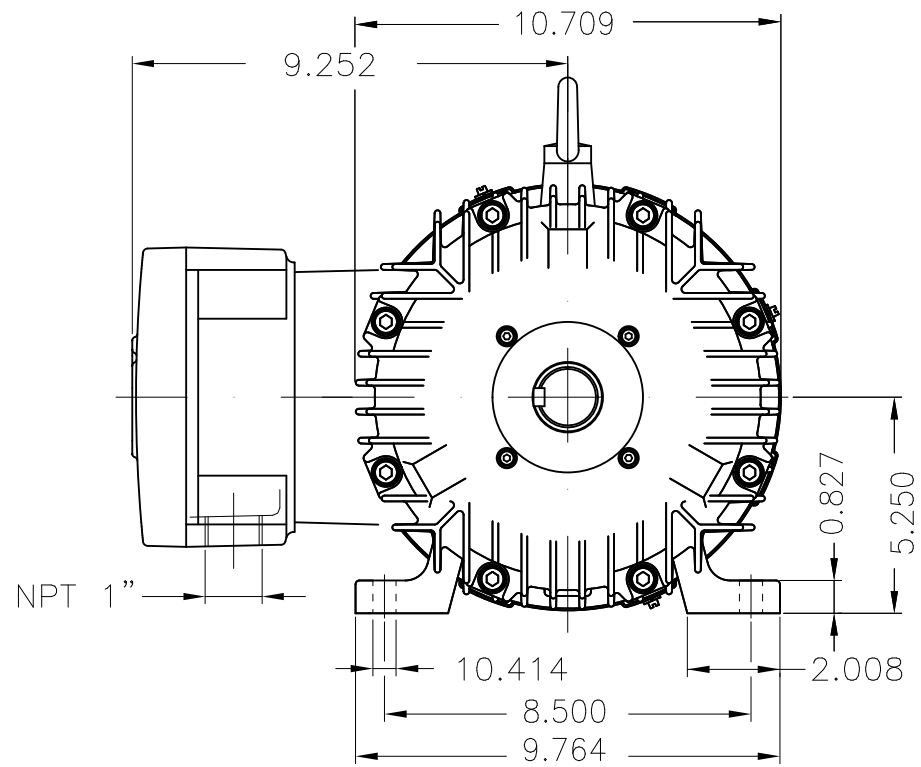
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		22 / 22		
Date	13/04/2022			



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

2 HP 08 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 213/5T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
 WDD



MADE IN BRAZIL

**W21X NEMA**
Premium

14504365

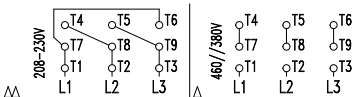
CC029A

Inverter Duty Motor
Severe Duty

LISTED

MODEL 00209XT3E213T

PH 3	FR 213/5T	
HP(kW) 2.0(1.5)		HZ 60 IP55
V 230/460		A 6.90/3.45
RPM 875		NEMA NOM EFF 84.0%
PF 0.65	SFA 7.93/3.97	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	7.63 A SF 1.15 SFA 8.77
AMB 55°C	SF1.0	
2.0HP 1.5kW 50Hz 380V 3.94A 710RPM SF1.00 EFF 81.5% (IE3)		



→ 6308-2RS MOBIL POLYREX EM
→ 6207-2RS

181 Lbs



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.