

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :		11431639
			Catalog # :		00212ST3QIE184T-W22
Frame		: 182/4T	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		: 116 lb
Protection degree		: IP55	Moment of inertia (J)		: 0.6210 sq.ft.lb
Design		: B			
Output [HP]	2	2	2	2	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	3.22	3.66	3.61	3.58	
L. R. Amperes [A]	24.2	22.0	24.2	25.4	
LRC [A]	7.5x(Code L)	6.0x(Code J)	6.7x(Code K)	7.1x(Code L)	
No load current [A]	1.90	1.90	2.05	2.15	
Rated speed [RPM]	1170	960	965	965	
Slip [%]	2.50	4.00	3.50	3.50	
Rated torque [ft.lb]	8.98	10.9	10.9	10.9	
Locked rotor torque [%]	300	229	280	310	
Breakdown torque [%]	350	260	310	340	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	55s (cold) 31s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	
Efficiency (%)	25%				
	50%	86.5	85.5	85.5	85.0
	75%	87.5	86.0	86.5	86.5
	100%	88.5	86.5	87.0	87.0
Power Factor	25%				
	50%	0.46	0.53	0.49	0.46
	75%	0.58	0.65	0.62	0.59
	100%	0.66	0.72	0.69	0.67
Bearing type		Drive end : 6207 C3	Non drive end : 6206 C3	Foundation loads	
Sealing		: Inpro/Seal	: Inpro/Seal	Max. traction : 178 lb	
Lubrication interval		: 20000 h	: 20000 h	Max. compression : 294 lb	
Lubricant amount		: 7 g	: 5 g		
Lubricant type		: Mobil Polyrex EM			
Notes					
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



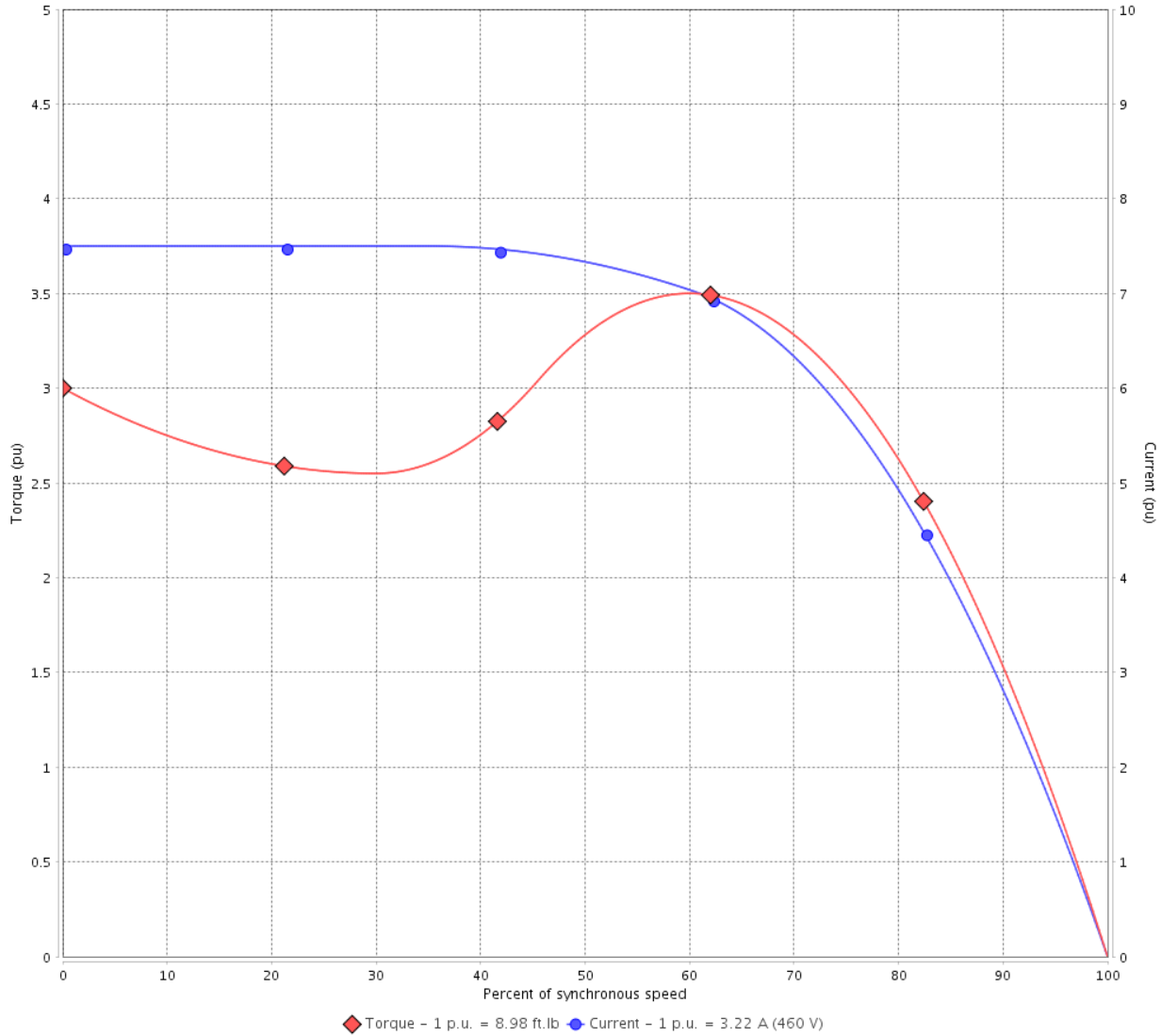
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 6P

Rated current	: 3.22 A	Moment of inertia (J)	: 0.6210 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 8.98 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.25
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1170 rpm	Design	: B

Locked rotor time : 55s (cold) 31s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



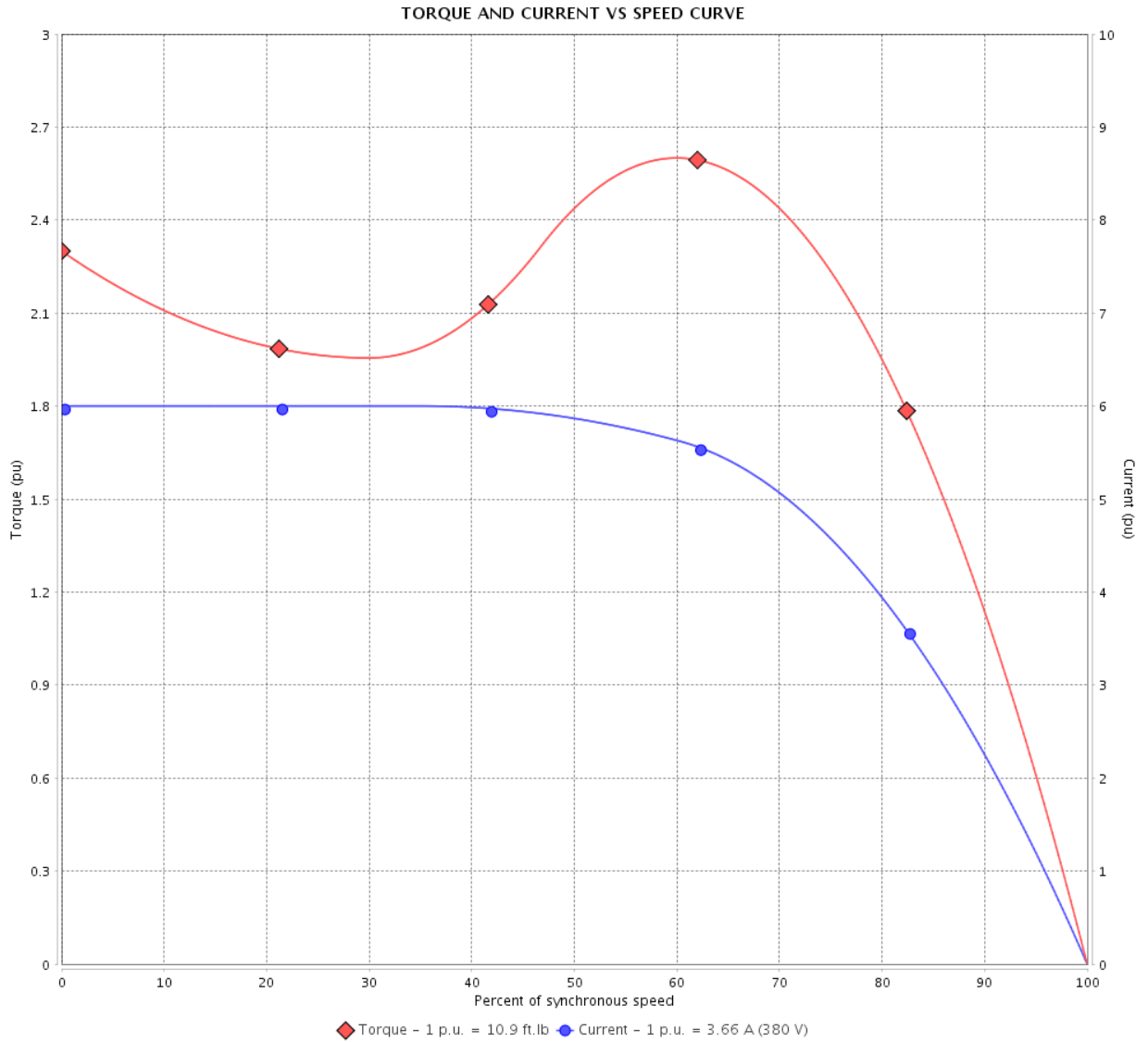
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22



Performance : 380 V 50 Hz 6P IE4

Rated current	: 3.66 A	Moment of inertia (J)	: 0.6210 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



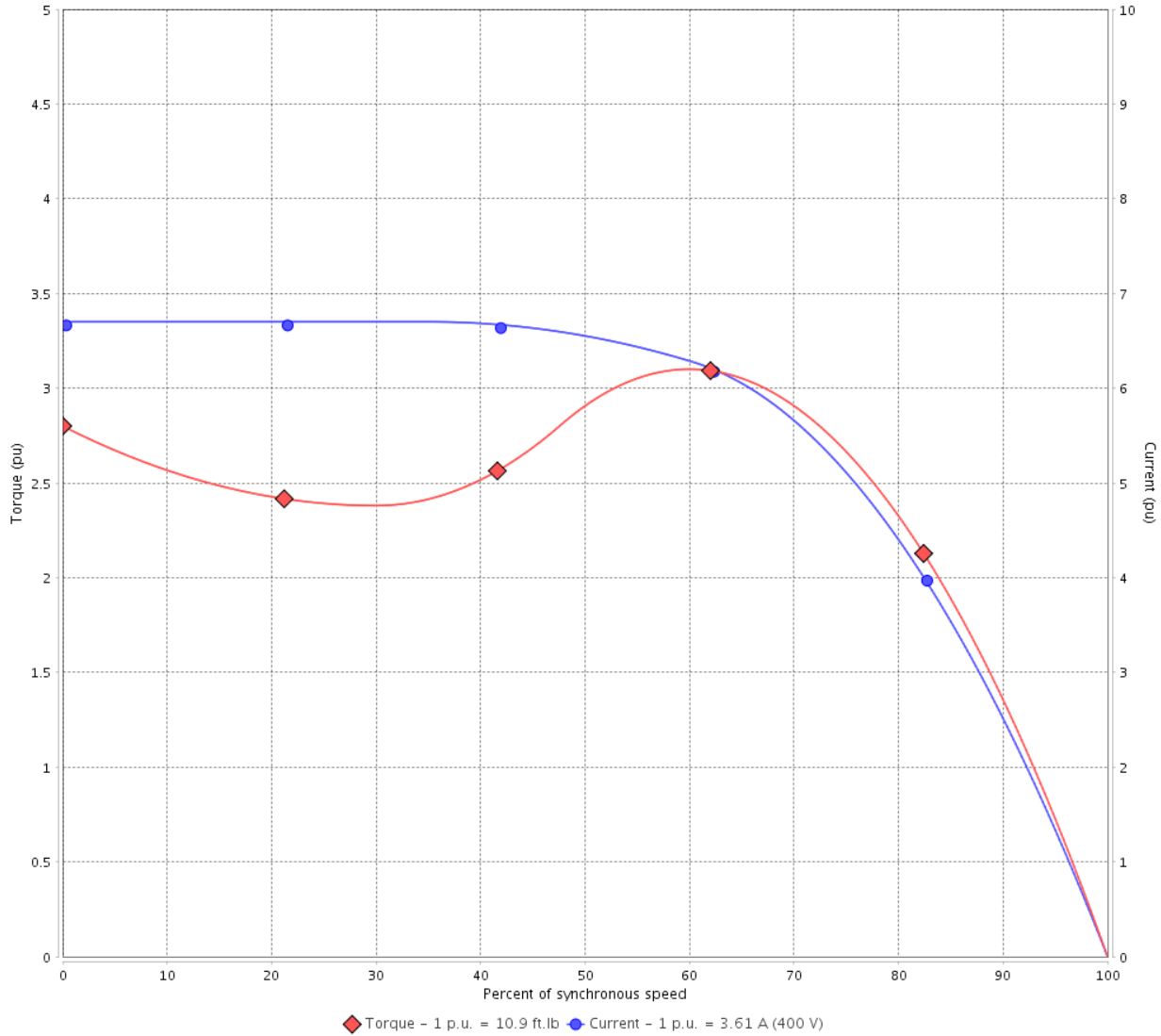
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE4

Rated current	: 3.61 A	Moment of inertia (J)	: 0.6210 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



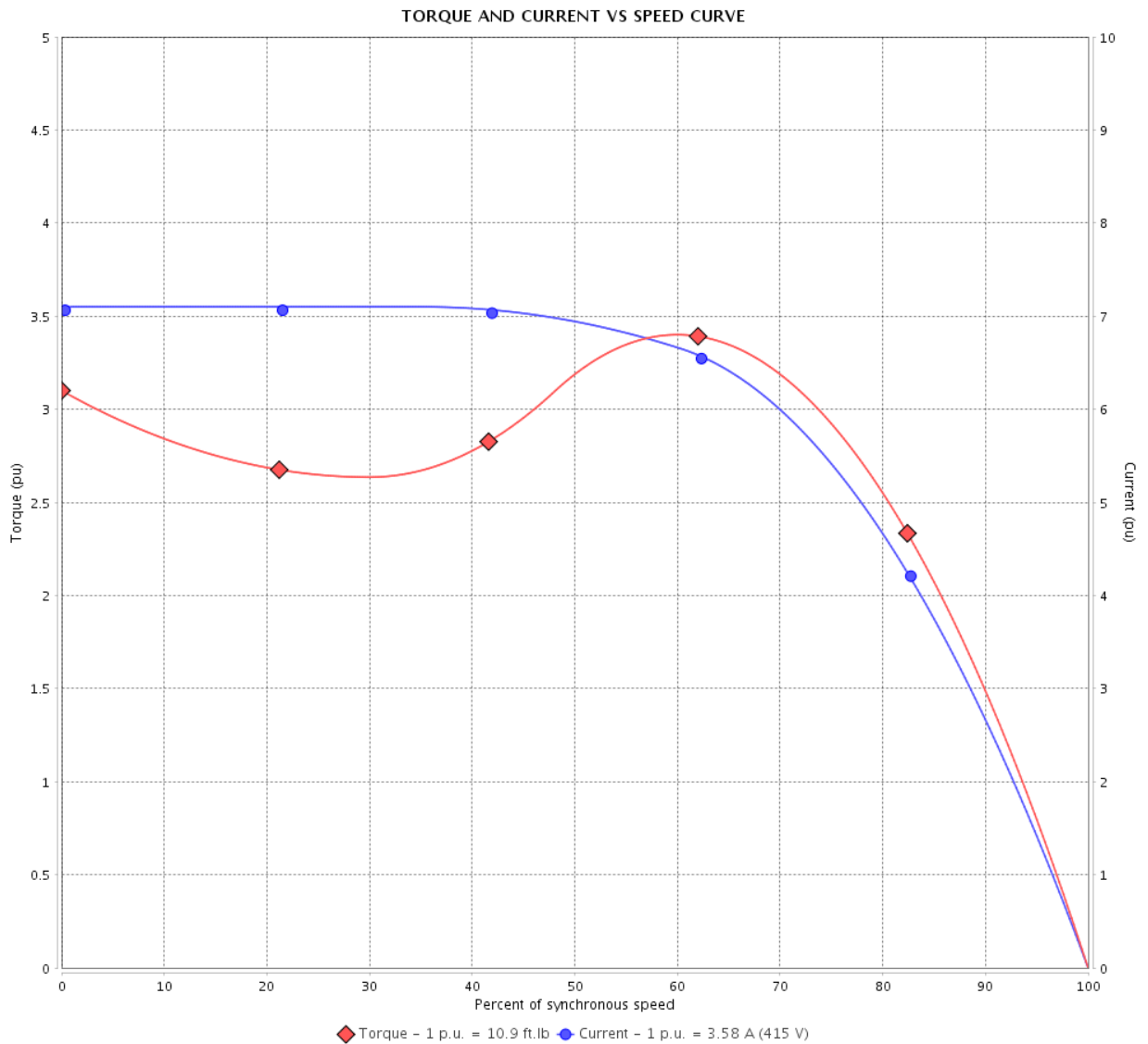
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22



Performance : 415 V 50 Hz 6P IE4

Rated current	: 3.58 A	Moment of inertia (J)	: 0.6210 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 310 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



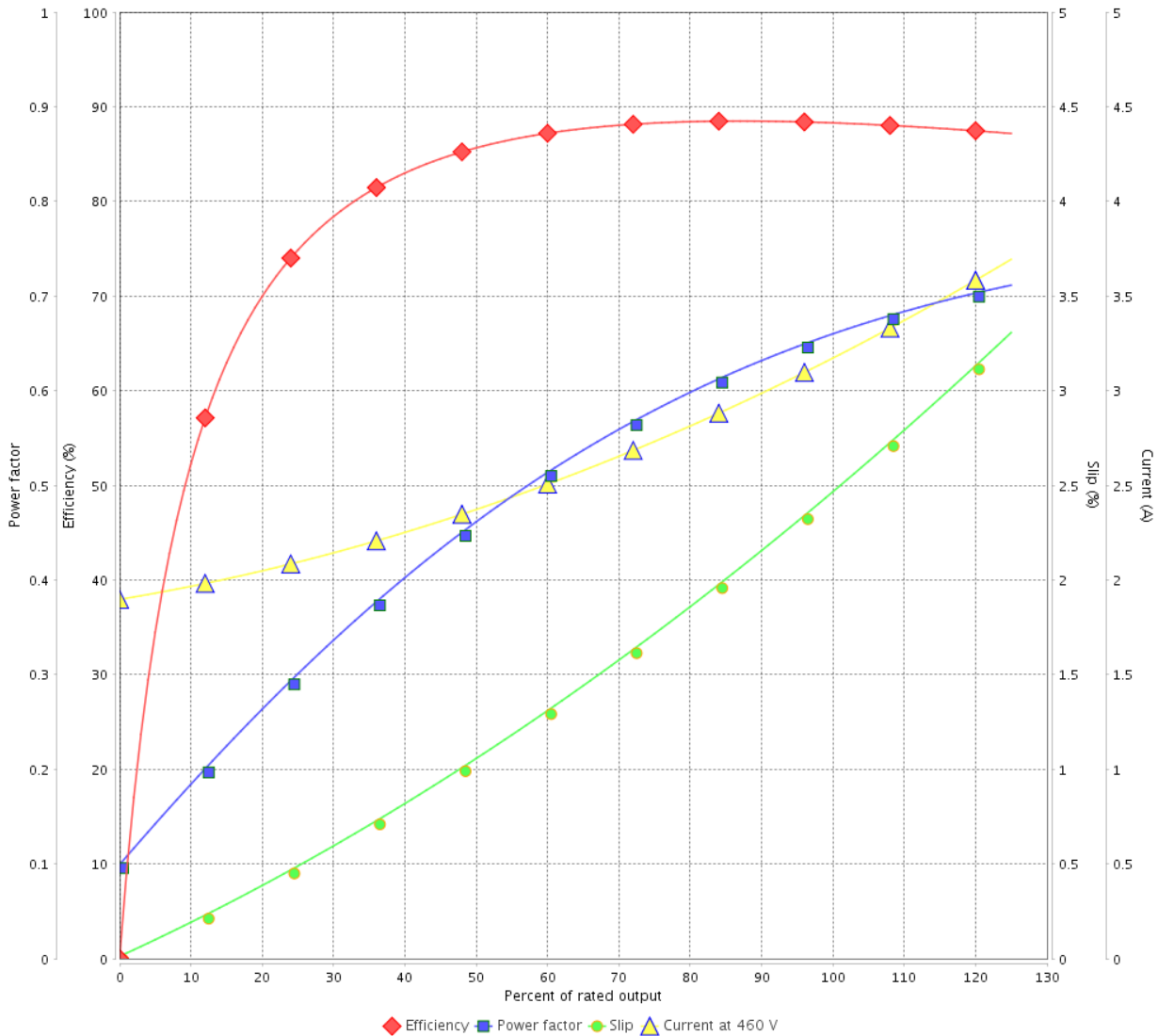
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22

LOAD PERFORMANCE CURVE



Performance : 460 V 60 Hz 6P

Rated current : 3.22 A
 LRC : 7.5
 Rated torque : 8.98 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 350 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.6210 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

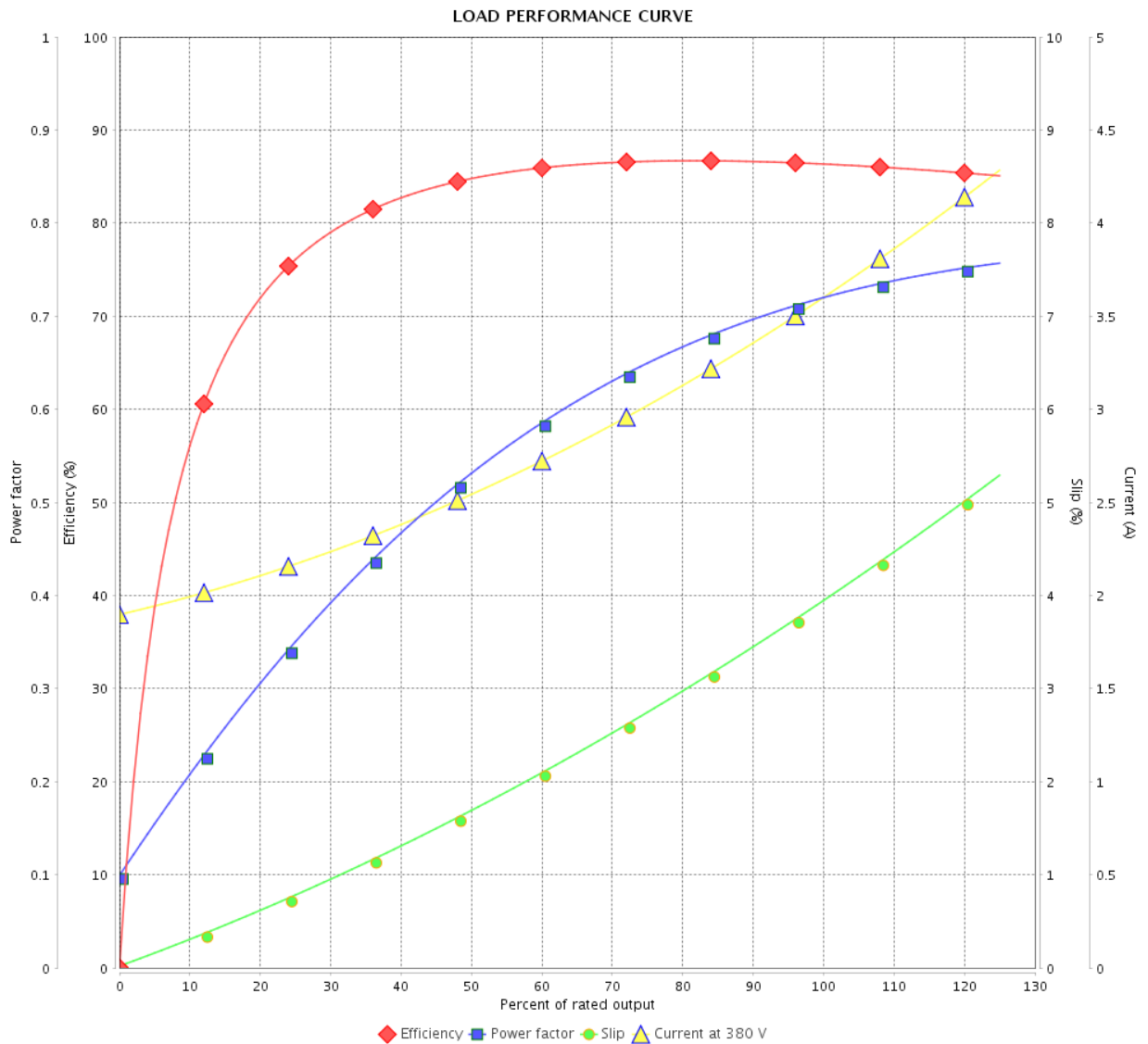


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22



Performance : 380 V 50 Hz 6P IE4

Rated current : 3.66 A
 LRC : 6.0
 Rated torque : 10.9 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 260 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.6210 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage



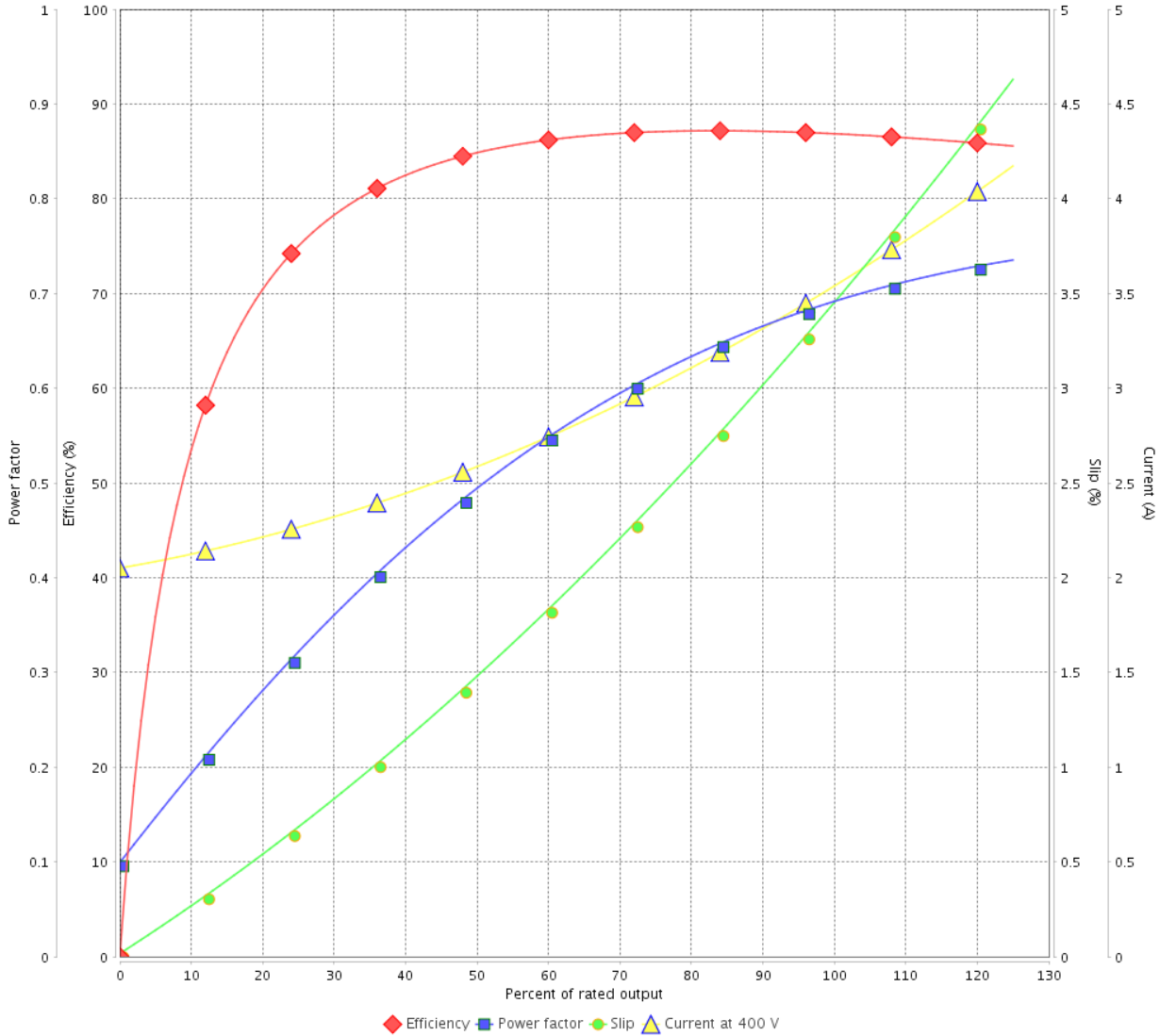
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 6P IE4

Rated current : 3.61 A
 LRC : 6.7
 Rated torque : 10.9 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.6210 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

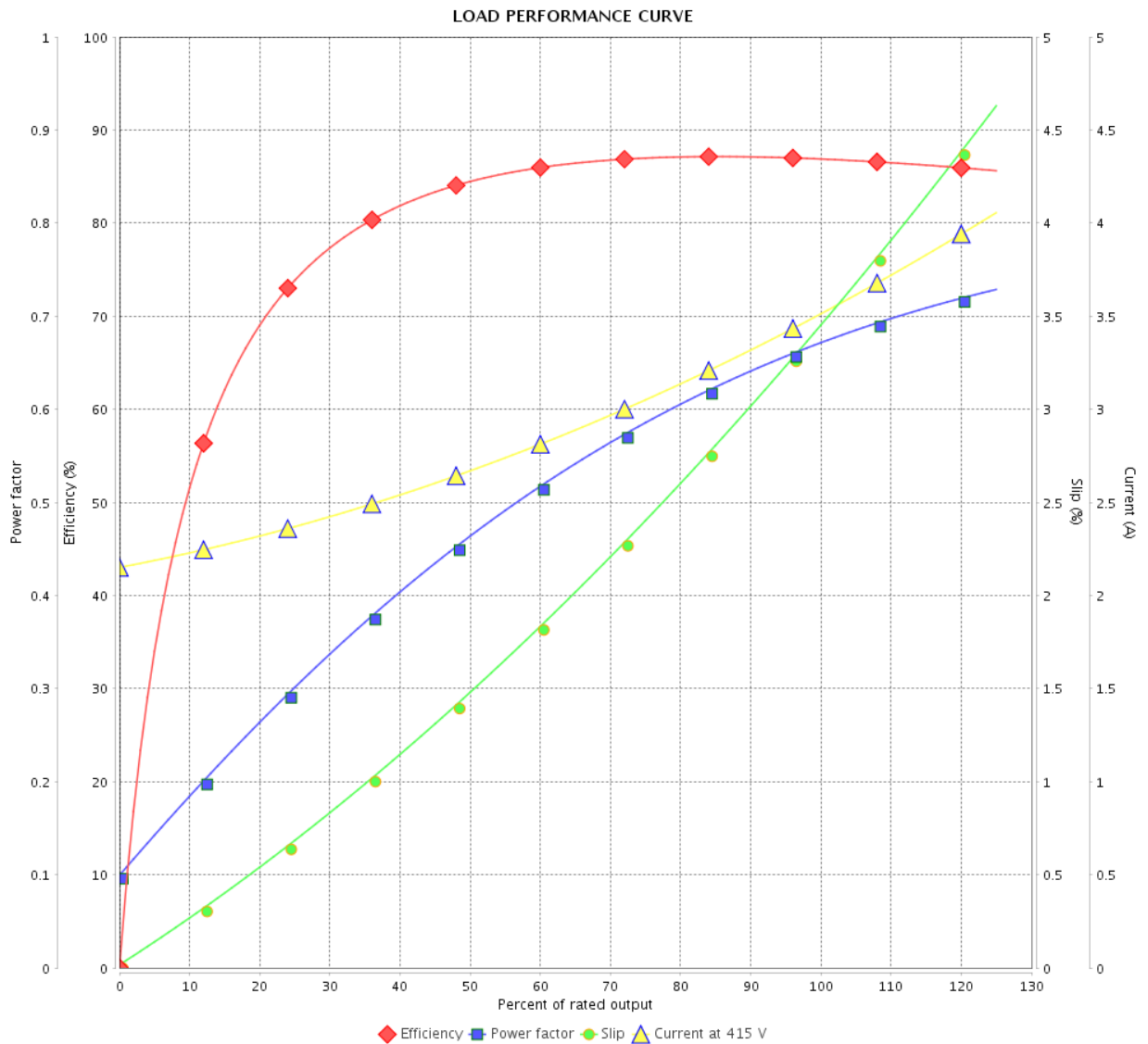


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22



Performance : 415 V 50 Hz 6P IE4

Rated current : 3.58 A
 LRC : 7.1
 Rated torque : 10.9 ft.lb
 Locked rotor torque : 310 %
 Breakdown torque : 340 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.6210 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



Three Phase Induction Motor - Squirrel Cage

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Performance : 460 V 60 Hz 6P

Rated current	: 3.22 A	Moment of inertia (J)	: 0.6210 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 8.98 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.25
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1170 rpm	Design	: B

Heating constant

Cooling constant

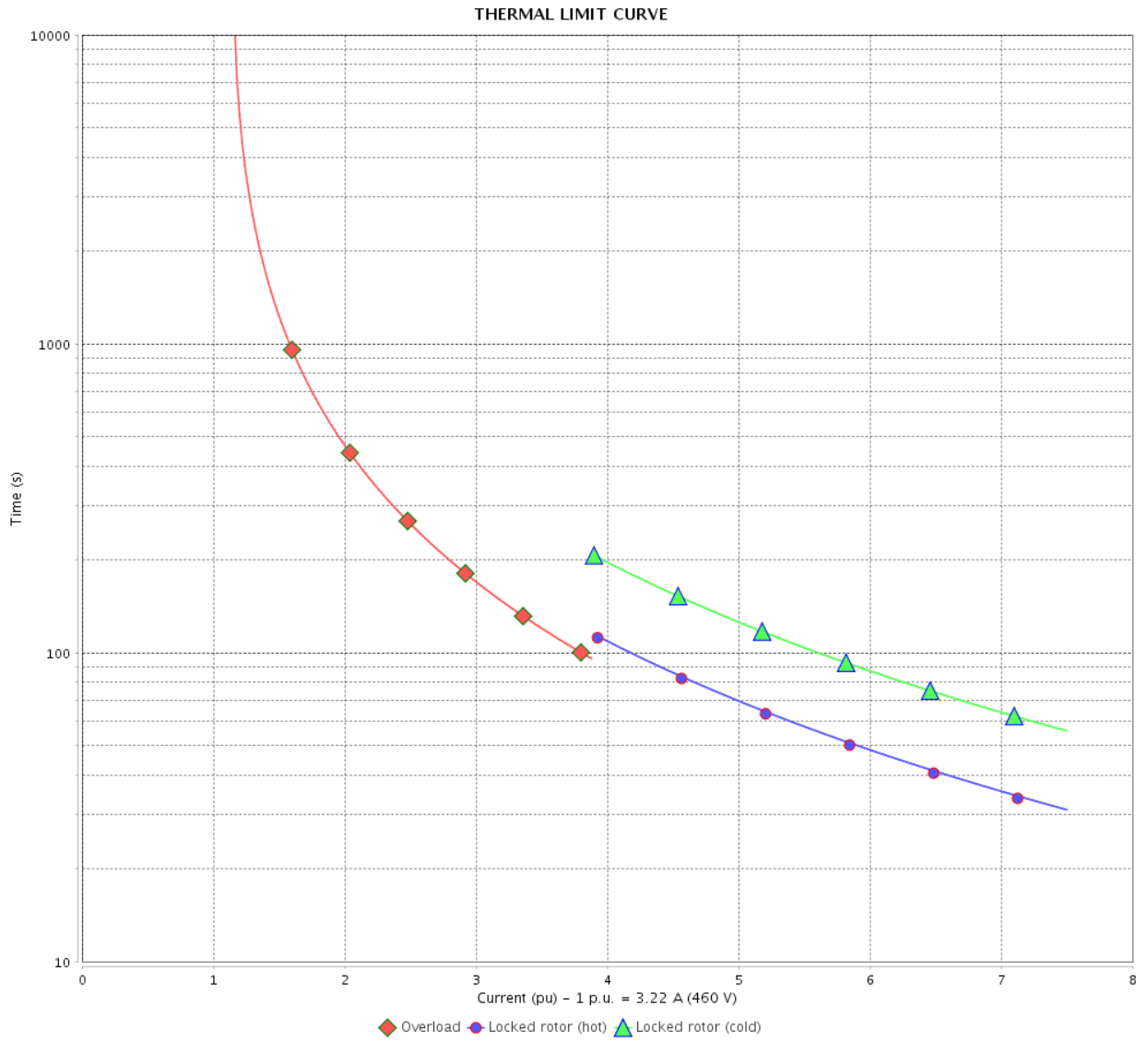
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11431639
Catalog # : 00212ST3QIE184T-W22

Performance : 380 V 50 Hz 6P IE4

Rated current	: 3.66 A	Moment of inertia (J)	: 0.6210 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

Heating constant

Cooling constant

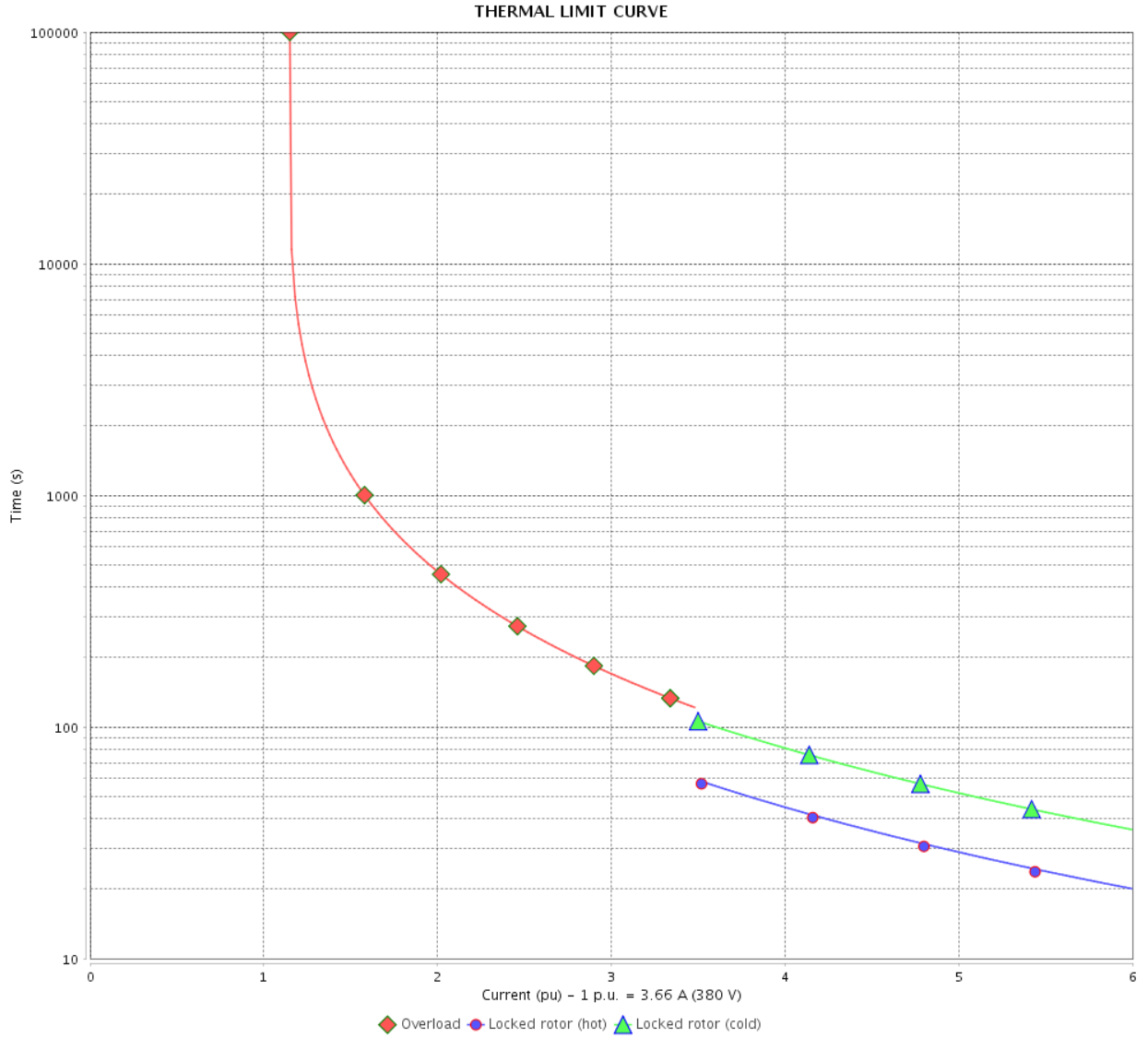
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22

Performance : 400 V 50 Hz 6P IE4

Rated current : 3.61 A
LRC : 6.7
Rated torque : 10.9 ft.lb
Locked rotor torque : 280 %
Breakdown torque : 310 %
Rated speed : 965 rpm

Moment of inertia (J) : 0.6210 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

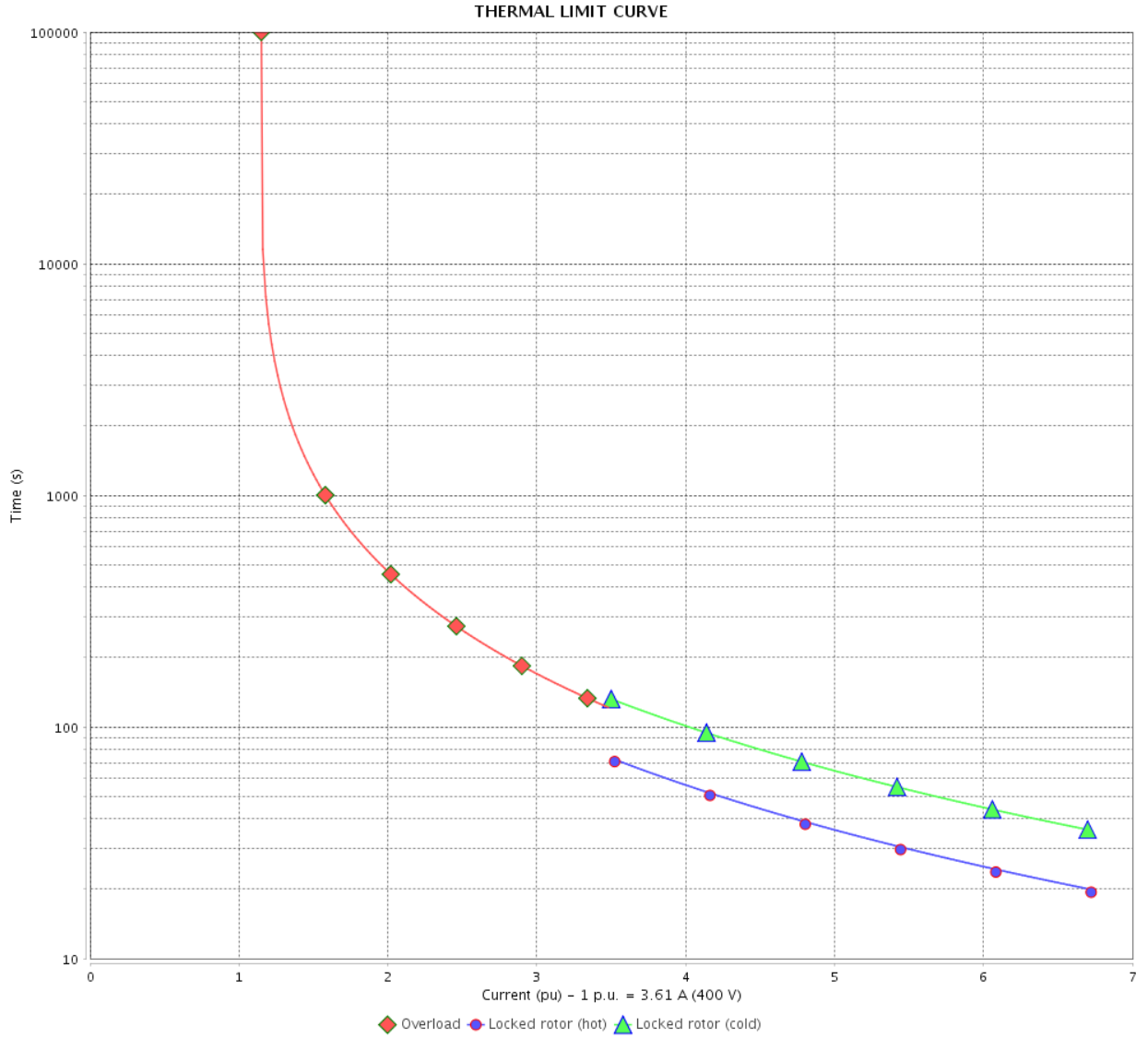
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 11431639
 Catalog # : 00212ST3QIE184T-W22

Performance : 415 V 50 Hz 6P IE4

Rated current : 3.58 A	Moment of inertia (J) : 0.6210 sq.ft.lb
LRC : 7.1	Duty cycle : Cont.(S1)
Rated torque : 10.9 ft.lb	Insulation class : F
Locked rotor torque : 310 %	Service factor : 1.00
Breakdown torque : 340 %	Temperature rise : 80 K
Rated speed : 965 rpm	Design : B

Heating constant

Cooling constant

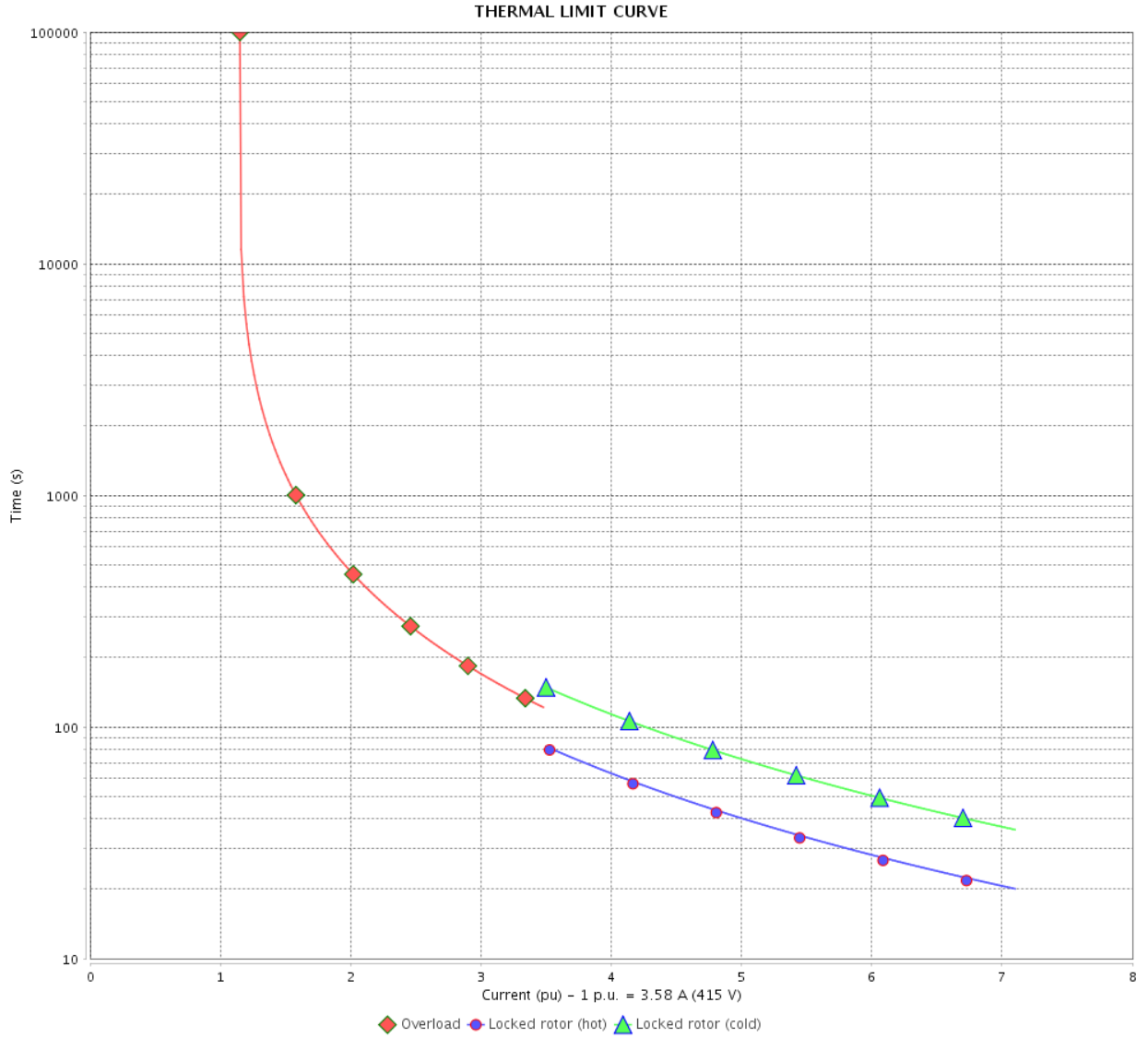
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Date	14/04/2022			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

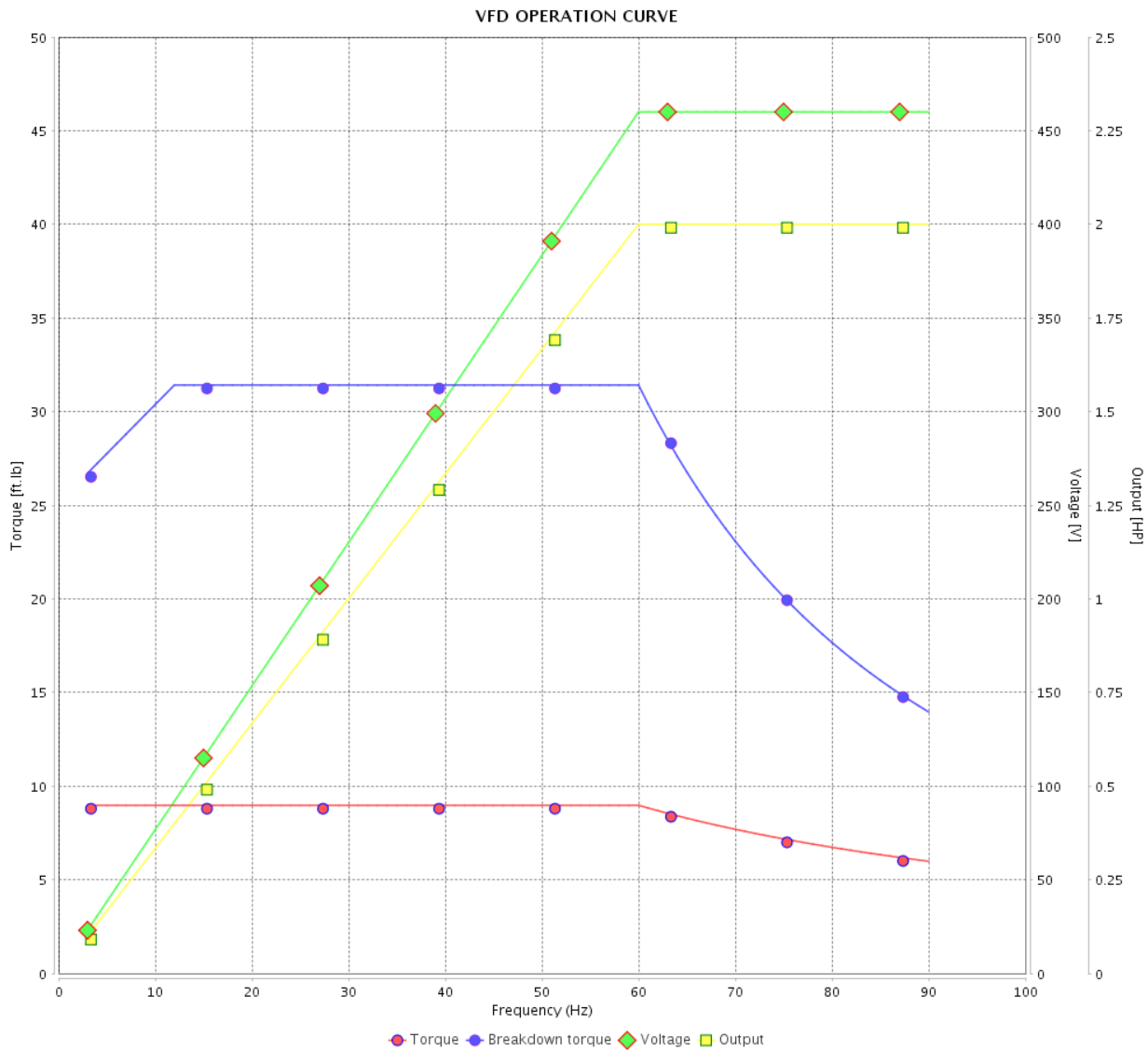


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22



Performance : 460 V 60 Hz 6P

Rated current : 3.22 A
 LRC : 7.5
 Rated torque : 8.98 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 350 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.6210 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 18 / 21	Revision
Checked by				
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

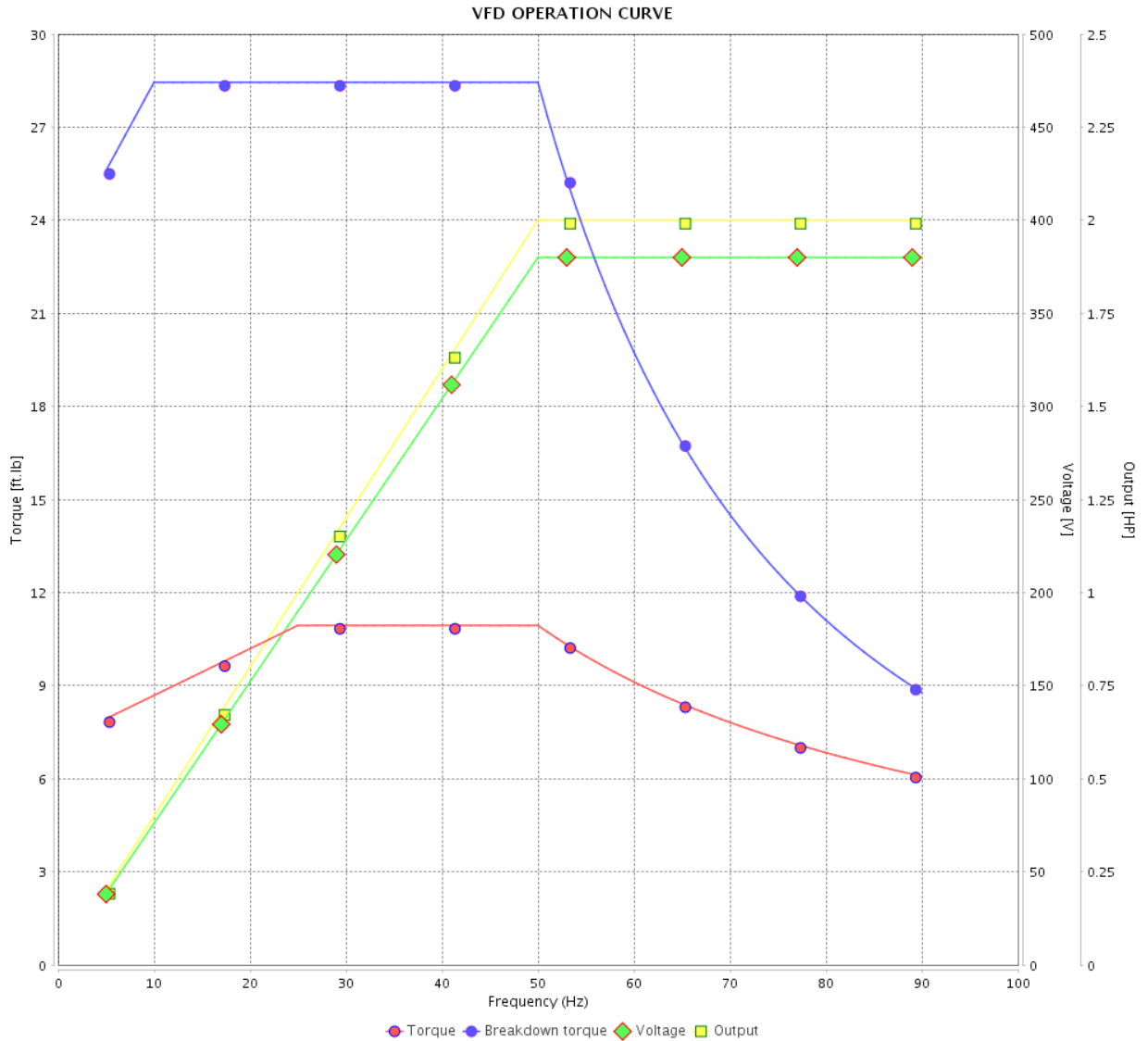


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22



Performance : 380 V 50 Hz 6P IE4

Rated current : 3.66 A
 LRC : 6.0
 Rated torque : 10.9 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 260 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.6210 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



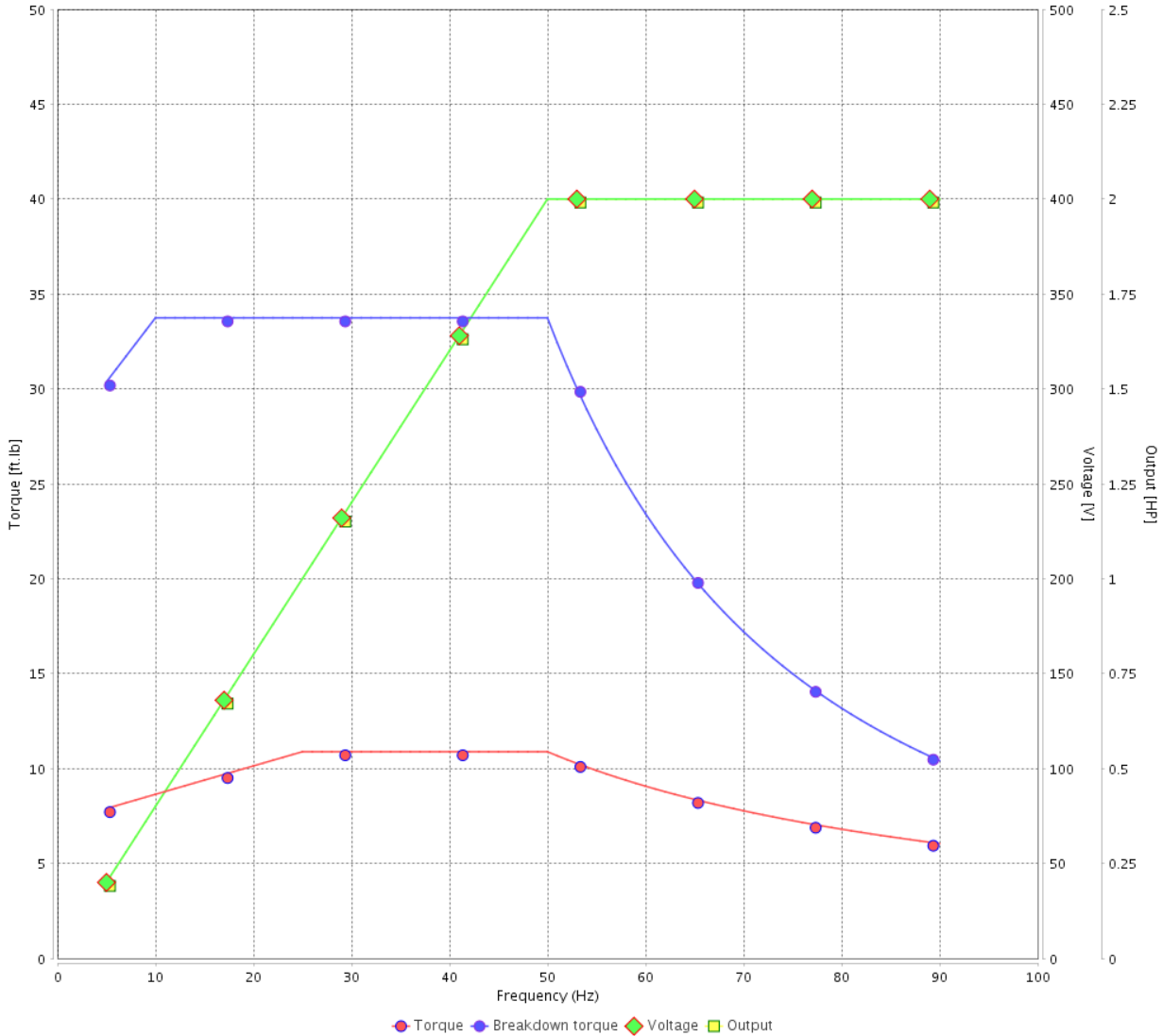
Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22

VFD OPERATION CURVE



Performance : 400 V 50 Hz 6P IE4

Rated current : 3.61 A
 LRC : 6.7
 Rated torque : 10.9 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.6210 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Date	14/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

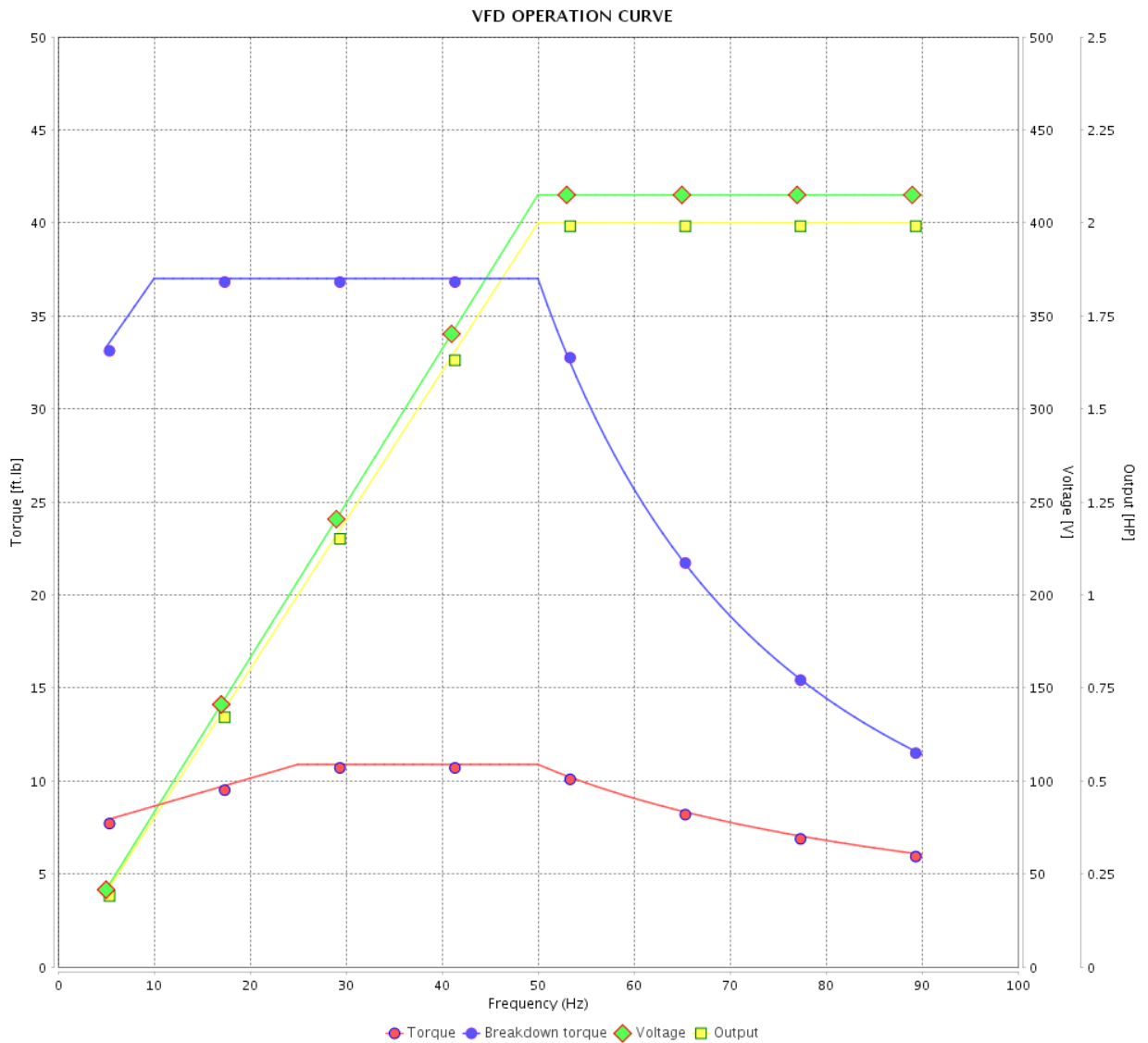


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11431639

Catalog # : 00212ST3QIE184T-W22



Performance : 415 V 50 Hz 6P IE4

Rated current : 3.58 A
 LRC : 7.1
 Rated torque : 10.9 ft.lb
 Locked rotor torque : 310 %
 Breakdown torque : 340 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.6210 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

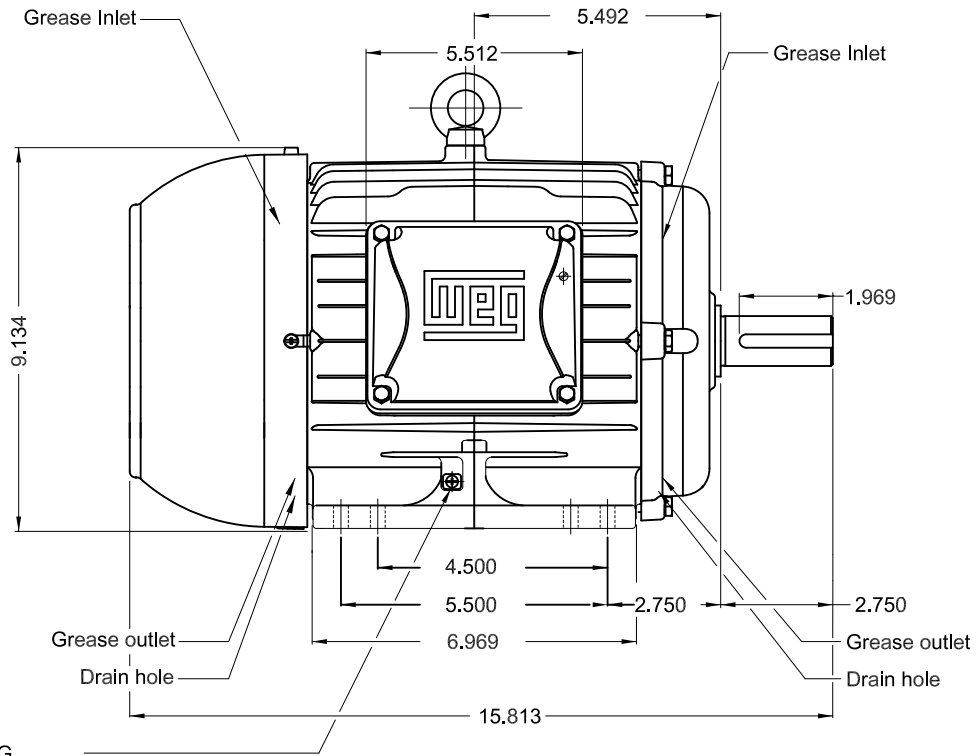
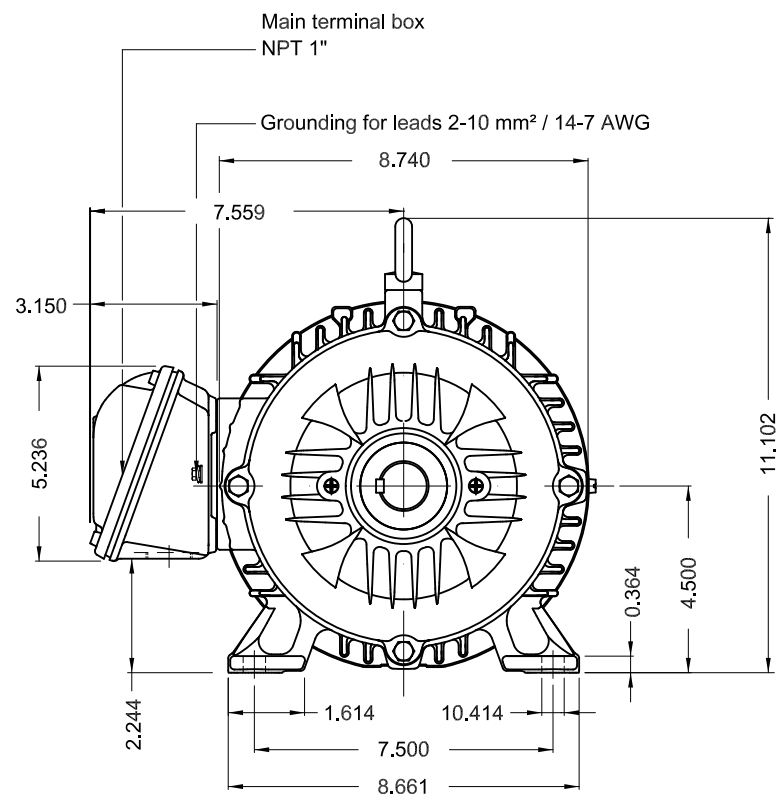
Rev.	Changes Summary	Performed	Checked	Date
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Date		14/04/2022		

1 2 3 4 5 6

A

B

C

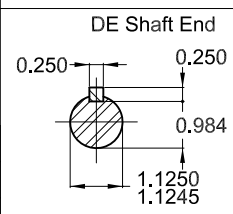


Grounding for leads 2-10 mm² / 14-7 AWG

D

E

Color RAL 5009
 Painting plan 202E
 Mounting B3R(D)



2 HP 06 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR IEEE 841 W22 PREM. EFF.					
CHECKED		FRAME 182/4T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
 WDD



Dimensions in inches XME A3

MADE IN BRAZIL
11431639



NEMA
Premium



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,
VT 1000:1, CT 20:1, 1.00SF - T4A

MODEL 00212ST3QIE184T-W22

Inverter Duty Motor
Severe Duty

IEEE
841-2009



FOR SAFE AREA
Mod. TE1BFOXON
CC029A

PH3 60Hz Fr. 182/4T 1000m.a.s.l. IP55 TEFC 116lb

V 460

A 3.22

HP 2.0

kW 1.5

SF 1.25

SFA 4.03

RPM 1170

PF 0.66

AMB 40°C

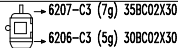
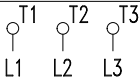
INS cl. F DT80K

NEMA NOM EFF 88.5%

DUTY CONT.

DES B Code L

GUARANT. EFF 86.5%



MOBIL POLYREX EM (20000h)

