

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :	12373790	
			Catalog # :	00152ST3QIE182TC-W22	
Frame		: 182/4TC	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 : 106 lb		
Protection degree		: IP55	Moment of inertia (J) : 0.4879 sq.ft.lb		
Design		: B			
Output [HP]	1.5	1.5	1.5	1.5	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	2.54	2.68	2.62	2.64	
L. R. Amperes [A]	19.8	16.9	18.1	19.5	
LRC [A]	7.8x(Code M)	6.3x(Code J)	6.9x(Code K)	7.4x(Code L)	
No load current [A]	1.63	1.60	1.71	1.80	
Rated speed [RPM]	1170	955	960	965	
Slip [%]	2.50	4.50	4.00	3.50	
Rated torque [ft.lb]	6.73	8.25	8.21	8.16	
Locked rotor torque [%]	320	250	300	330	
Breakdown torque [%]	400	290	330	370	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	28s (cold) 16s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	
Efficiency (%)	25%	82.8	86.0	84.1	82.8
	50%	84.0	85.5	84.5	84.0
	75%	86.5	86.5	86.5	85.5
	100%	87.5	85.5	86.5	86.5
Power Factor	25%	0.25	0.29	0.27	0.25
	50%	0.45	0.52	0.48	0.45
	75%	0.54	0.63	0.60	0.57
	100%	0.62	0.73	0.70	0.67
Bearing type		Drive end : 6207 C3	Non drive end : 6206 C3	Foundation loads	
Sealing		: Inpro/Seal	: Inpro/Seal	Max. traction : 140 lb	
Lubrication interval		: 20000 h	: 20000 h	Max. compression : 246 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



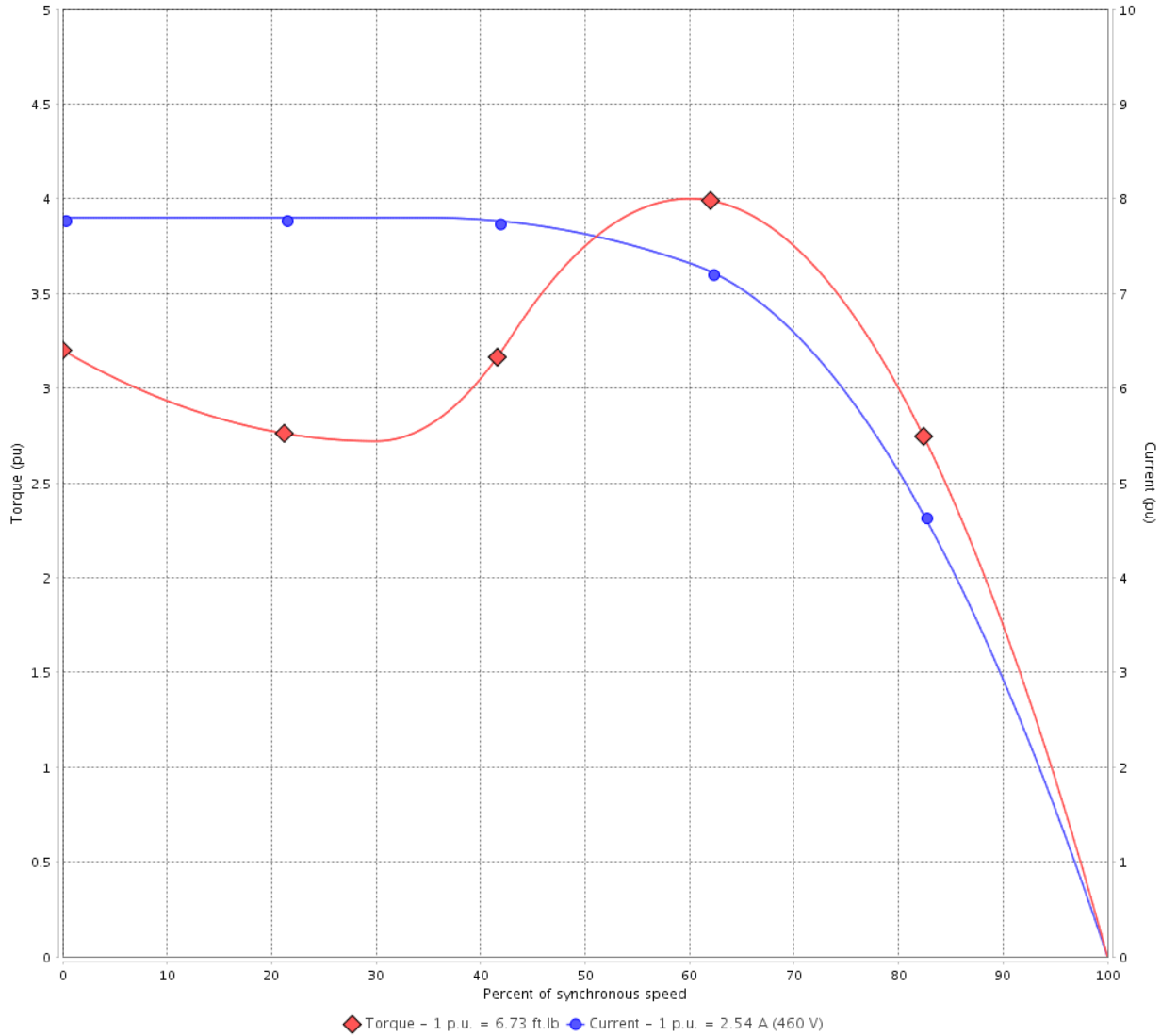
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373790

Catalog # : 00152ST3QIE182TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 6P

Rated current	: 2.54 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 6.73 ft.lb	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.25
Breakdown torque	: 400 %	Temperature rise	: 80 K
Rated speed	: 1170 rpm	Design	: B

Locked rotor time : 28s (cold) 16s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



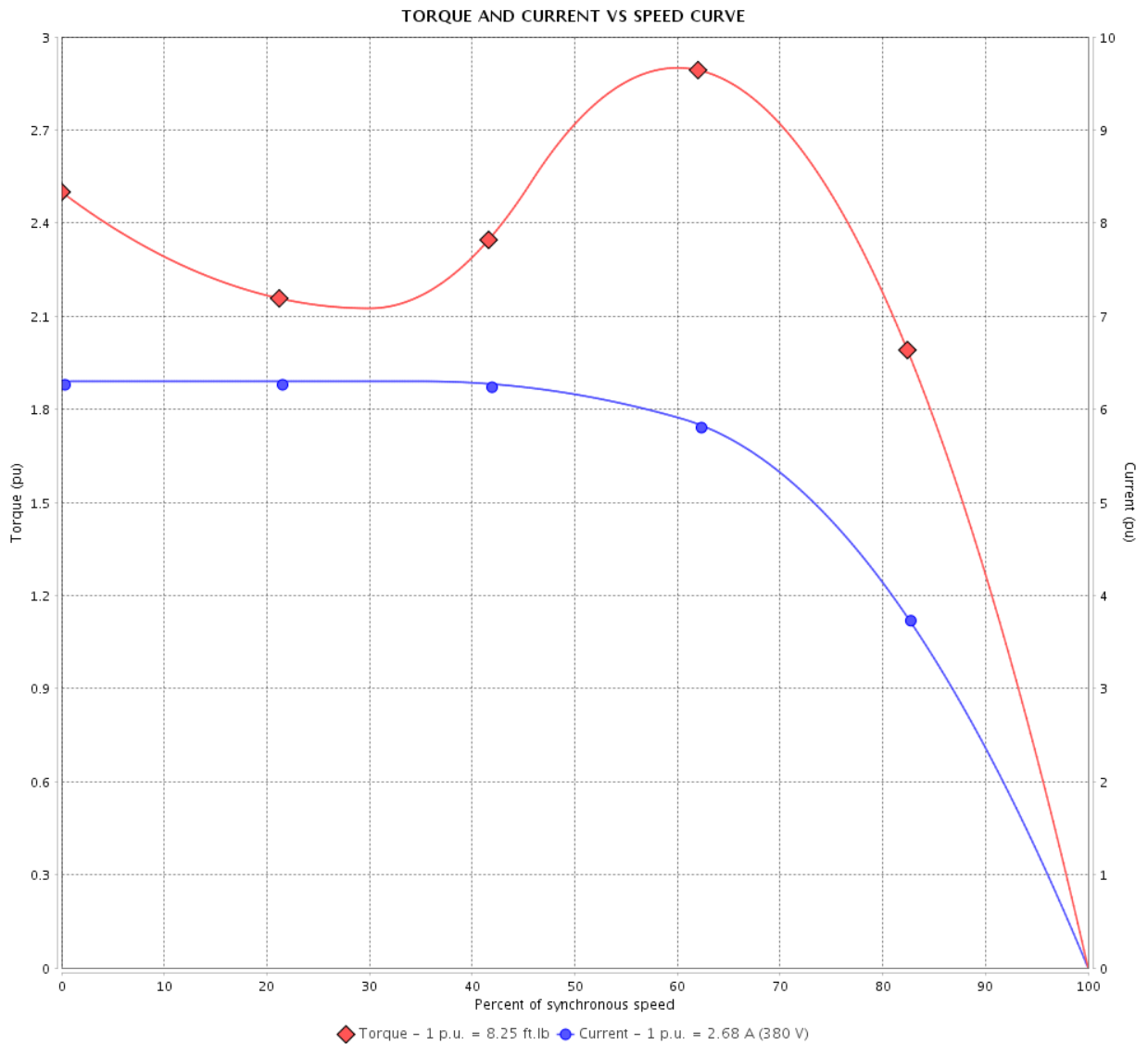
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373790

Catalog # : 00152ST3QIE182TC-W22



Performance : 380 V 50 Hz 6P IE4

Rated current	: 2.68 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 8.25 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 955 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



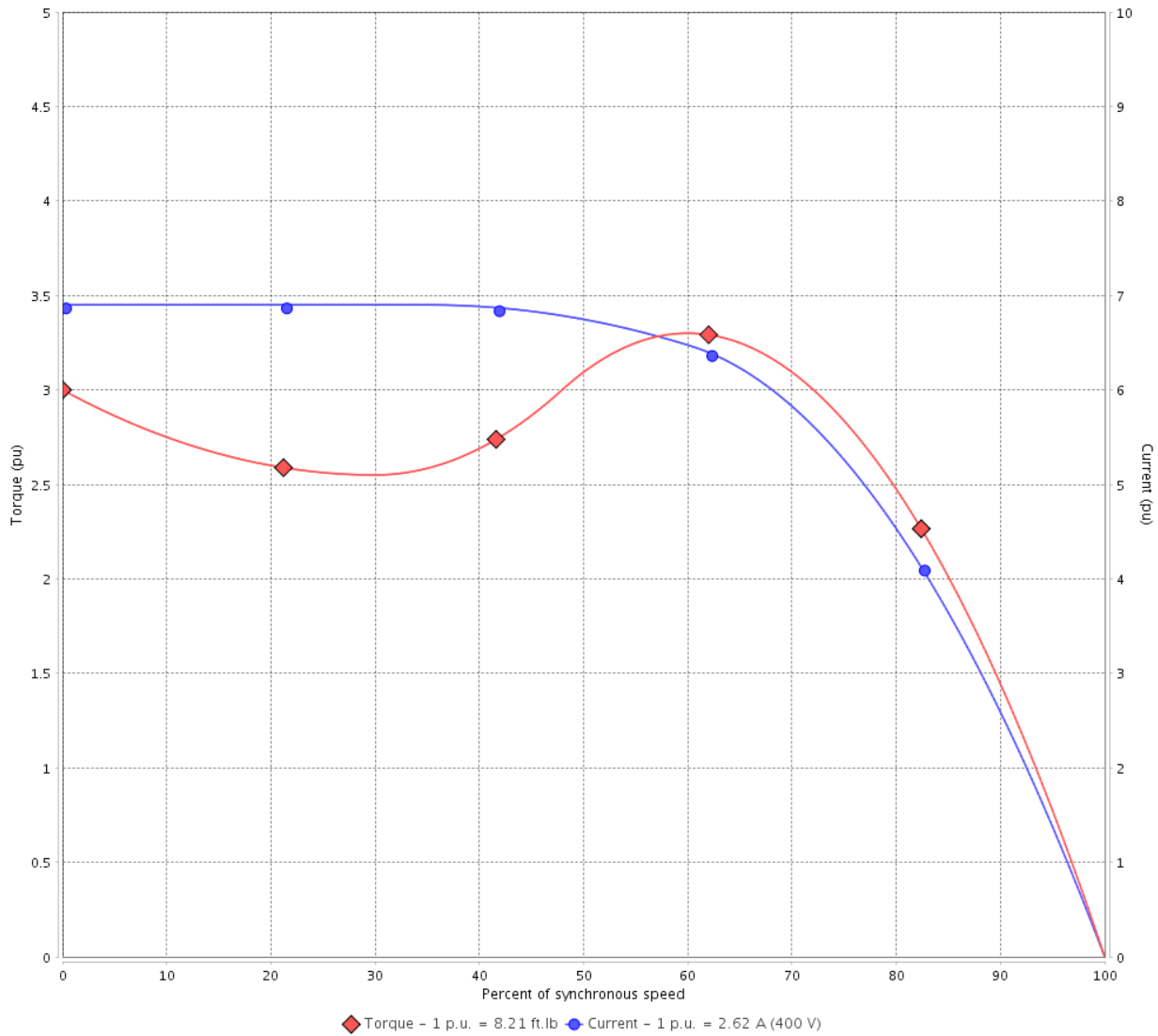
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373790

Catalog # : 00152ST3QIE182TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE4

Rated current	: 2.62 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 8.21 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



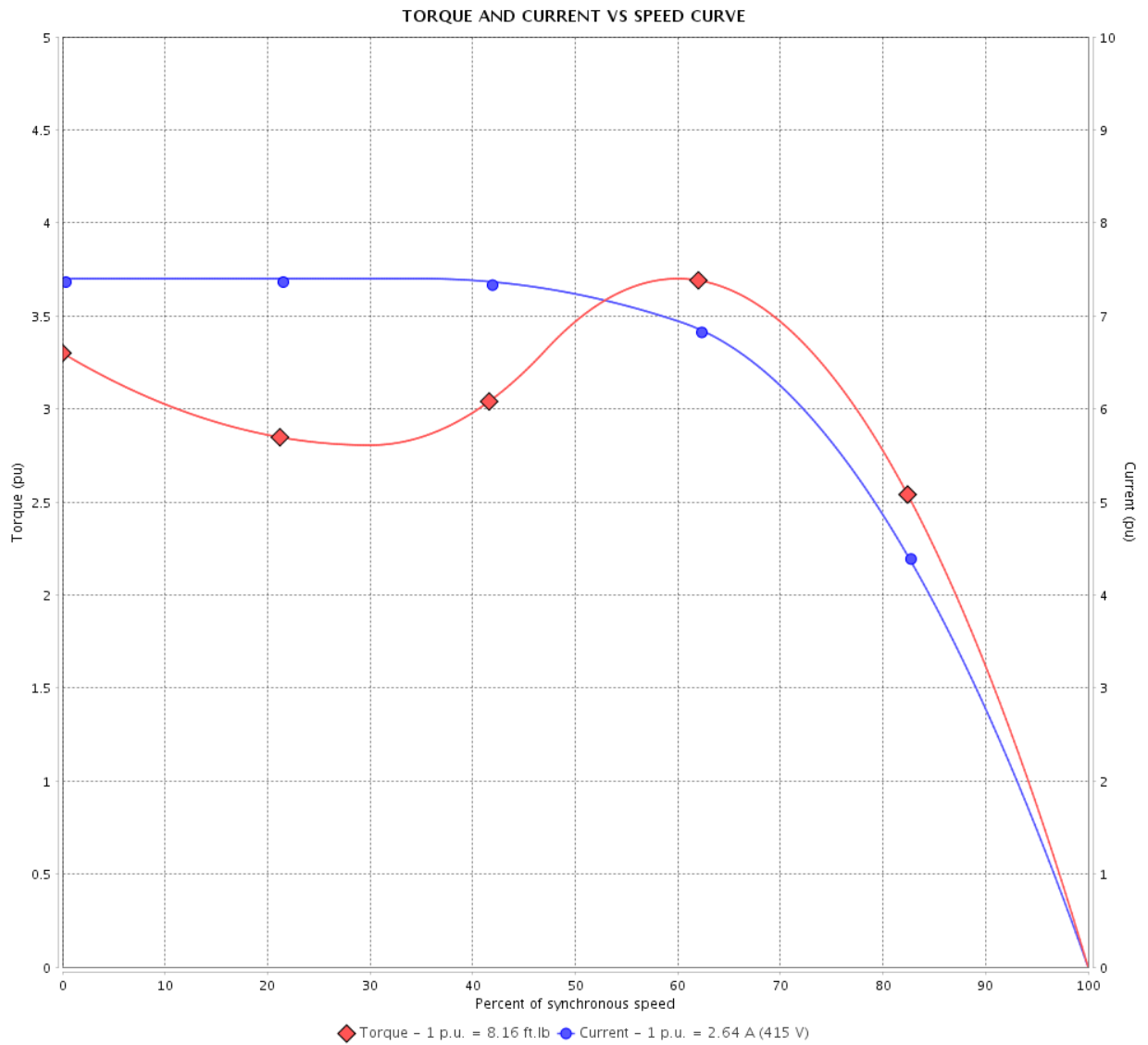
Three Phase Induction Motor - Squirrel Cage

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Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373790

Catalog # : 00152ST3QIE182TC-W22



Performance : 415 V 50 Hz 6P IE4

Rated current	: 2.64 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 8.16 ft.lb	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



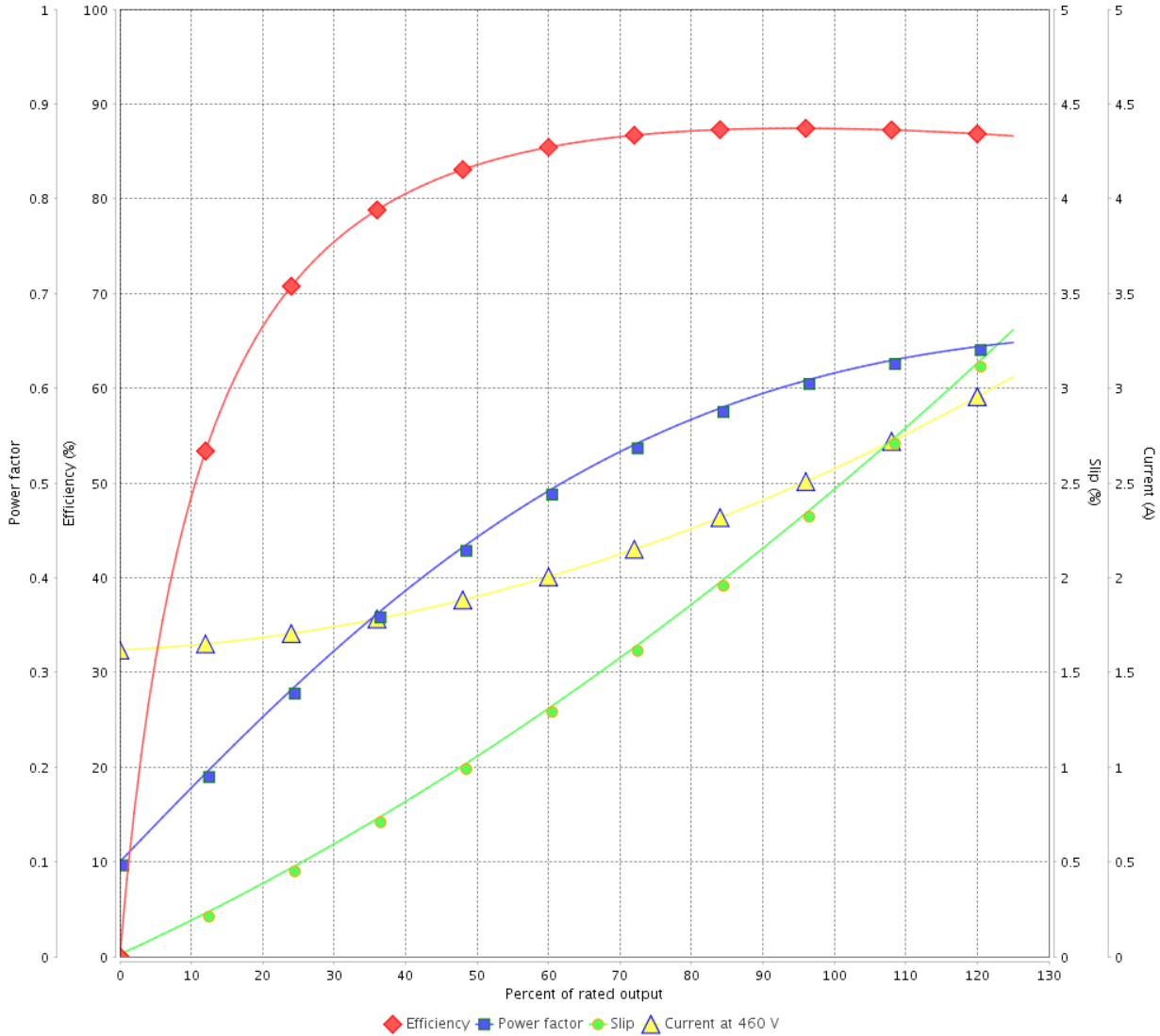
Customer :

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Product code : 12373790

Catalog # : 00152ST3QIE182TC-W22

LOAD PERFORMANCE CURVE



Performance : 460 V 60 Hz 6P

Rated current : 2.54 A
 LRC : 7.8
 Rated torque : 6.73 ft.lb
 Locked rotor torque : 320 %
 Breakdown torque : 400 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.4879 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

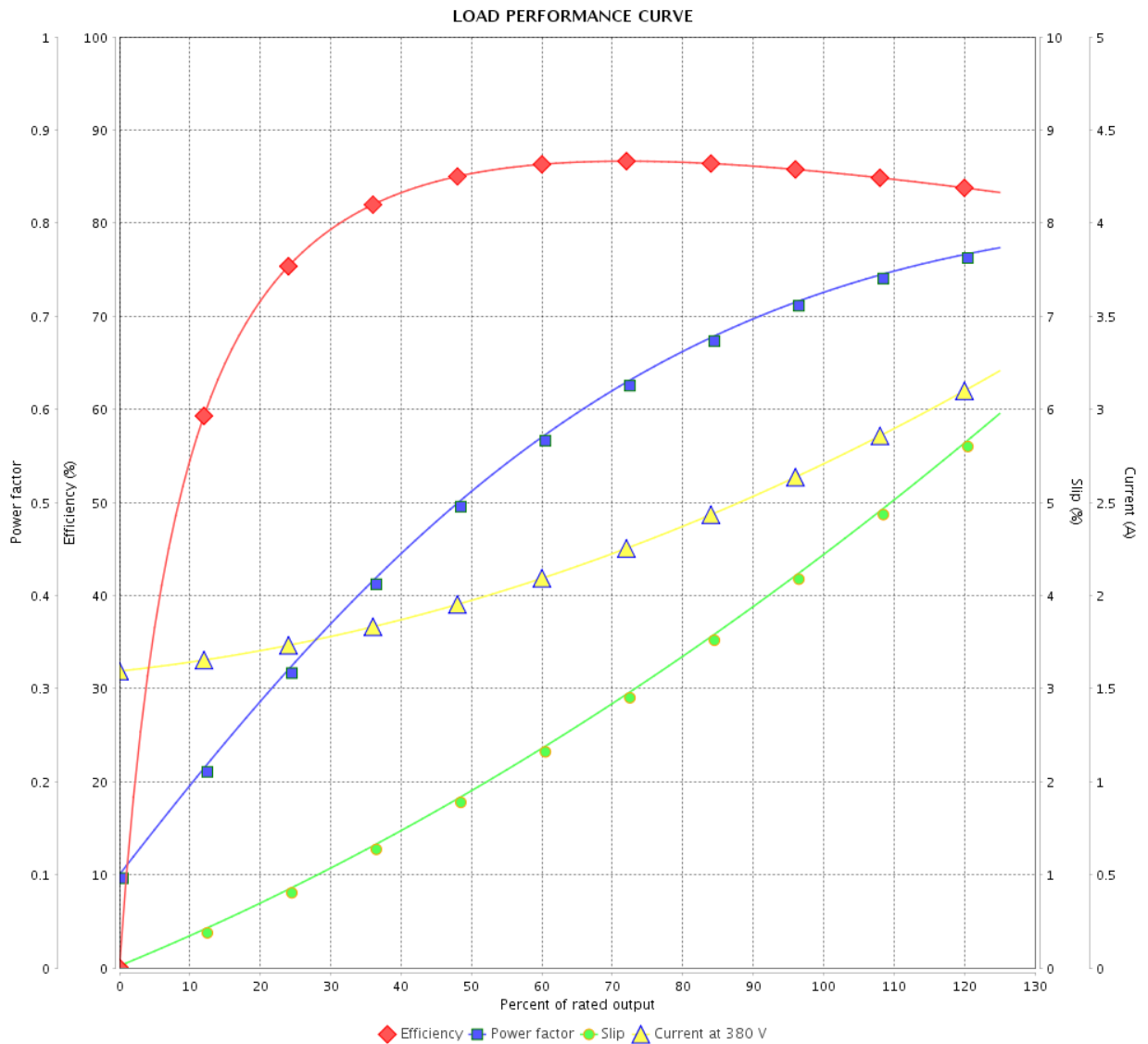


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Product code : 12373790

Catalog # : 00152ST3QIE182TC-W22



Performance : 380 V 50 Hz 6P IE4

Rated current : 2.68 A
 LRC : 6.3
 Rated torque : 8.25 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 955 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



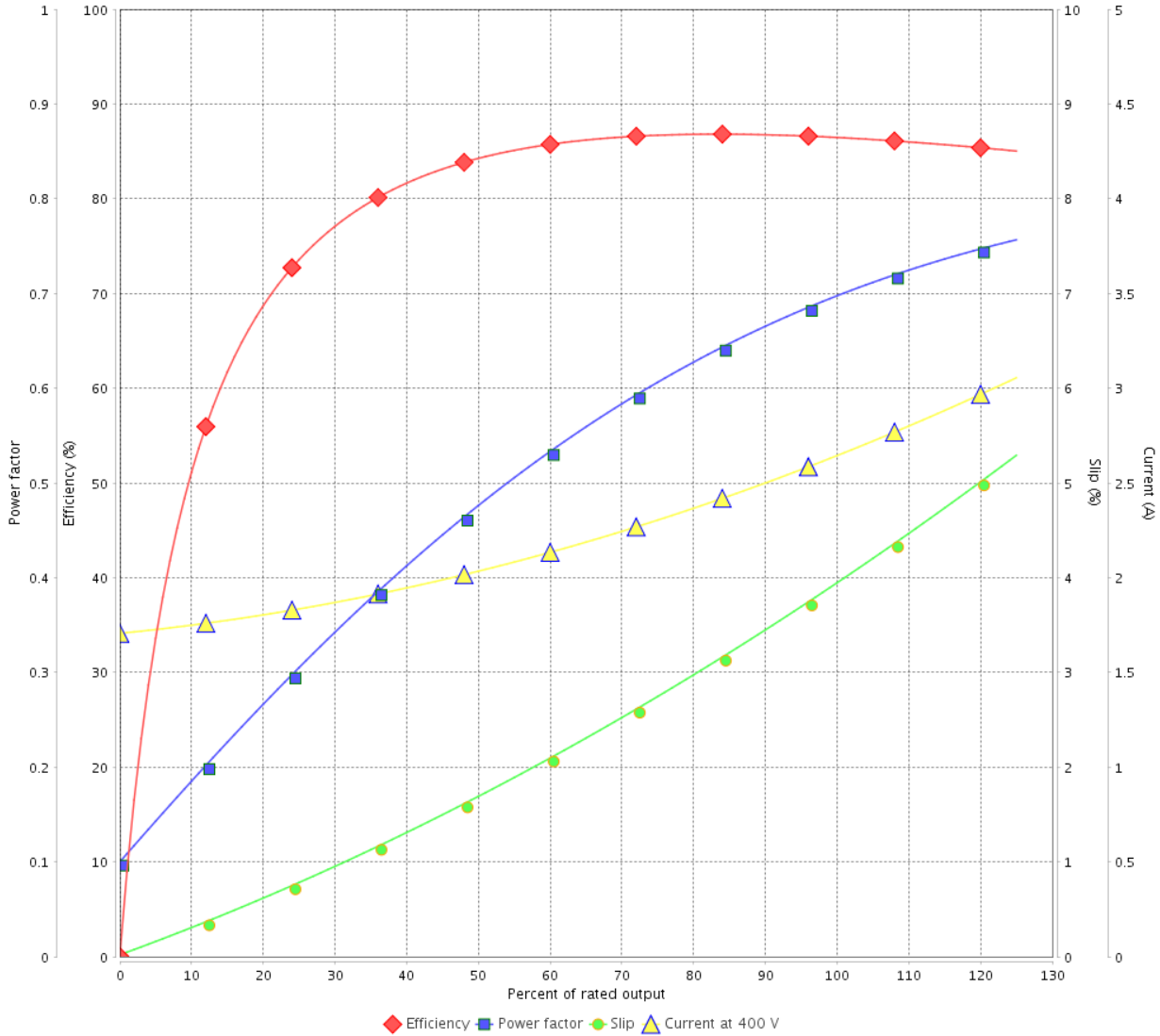
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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 6P IE4

Rated current : 2.62 A
 LRC : 6.9
 Rated torque : 8.21 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

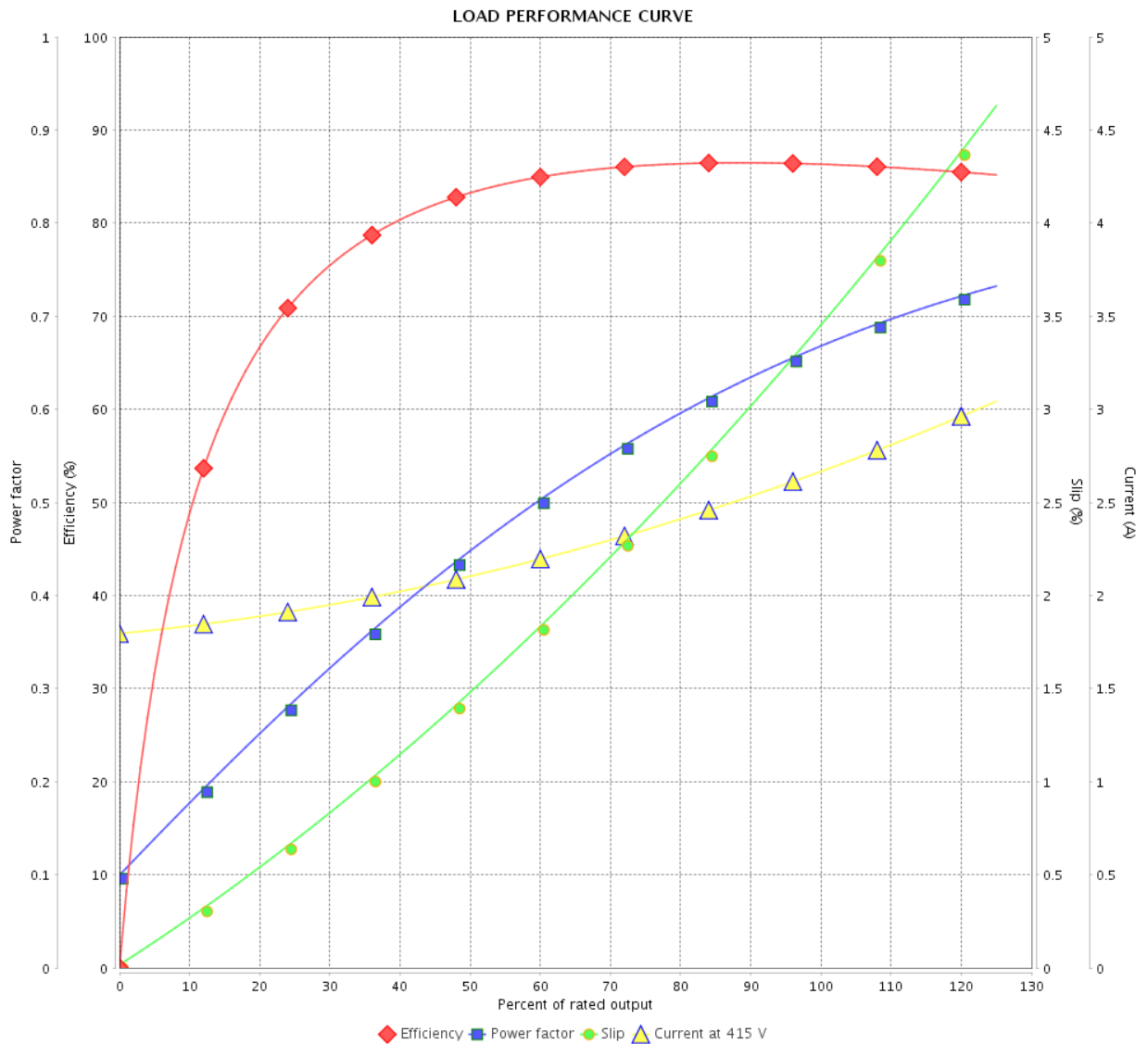


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 Breakdown torque : 370 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.4879 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



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Rated torque	: 6.73 ft.lb	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.25
Breakdown torque	: 400 %	Temperature rise	: 80 K
Rated speed	: 1170 rpm	Design	: B

Heating constant

Cooling constant

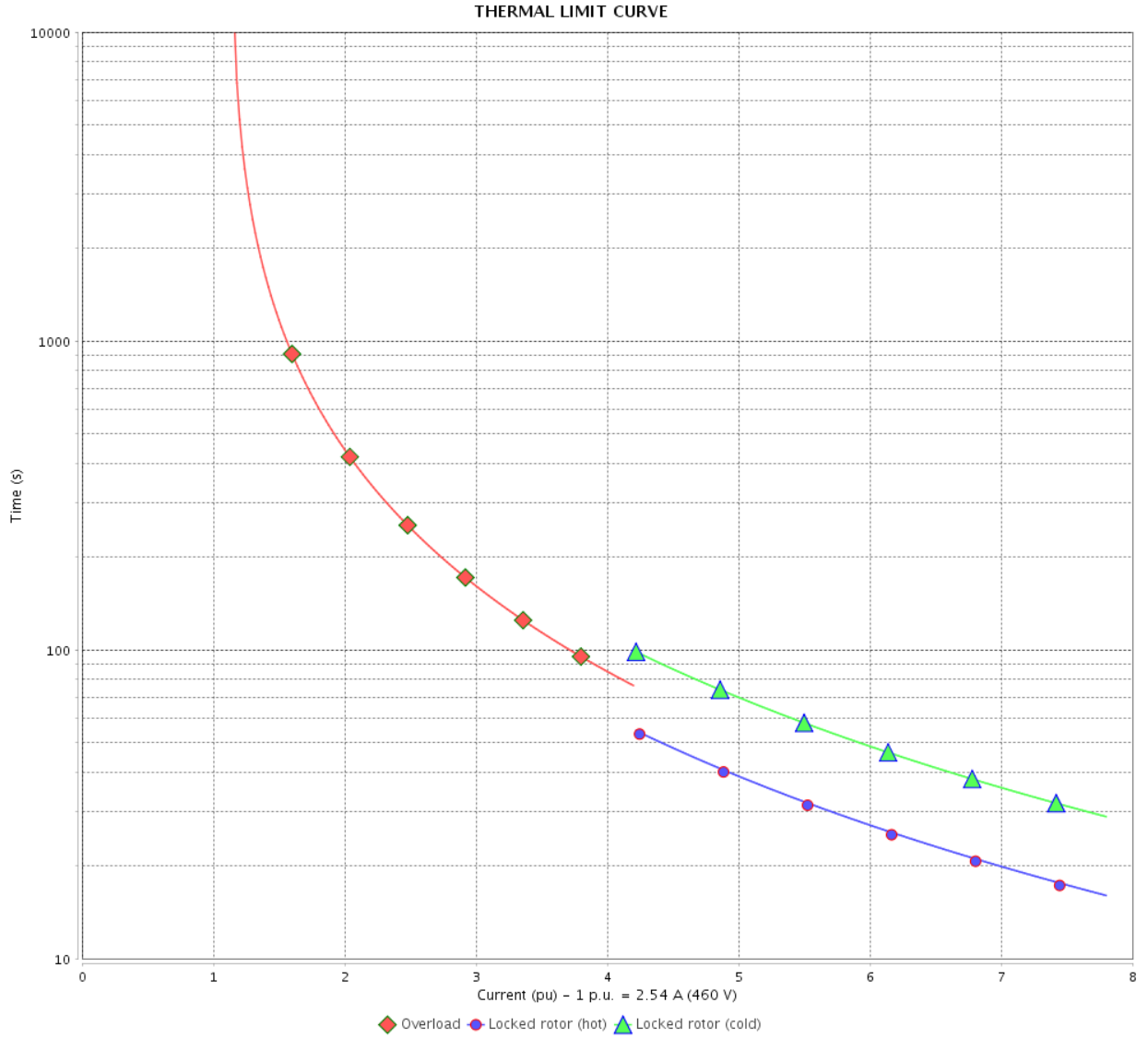
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 8.25 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 955 rpm	Design	: B

Heating constant

Cooling constant

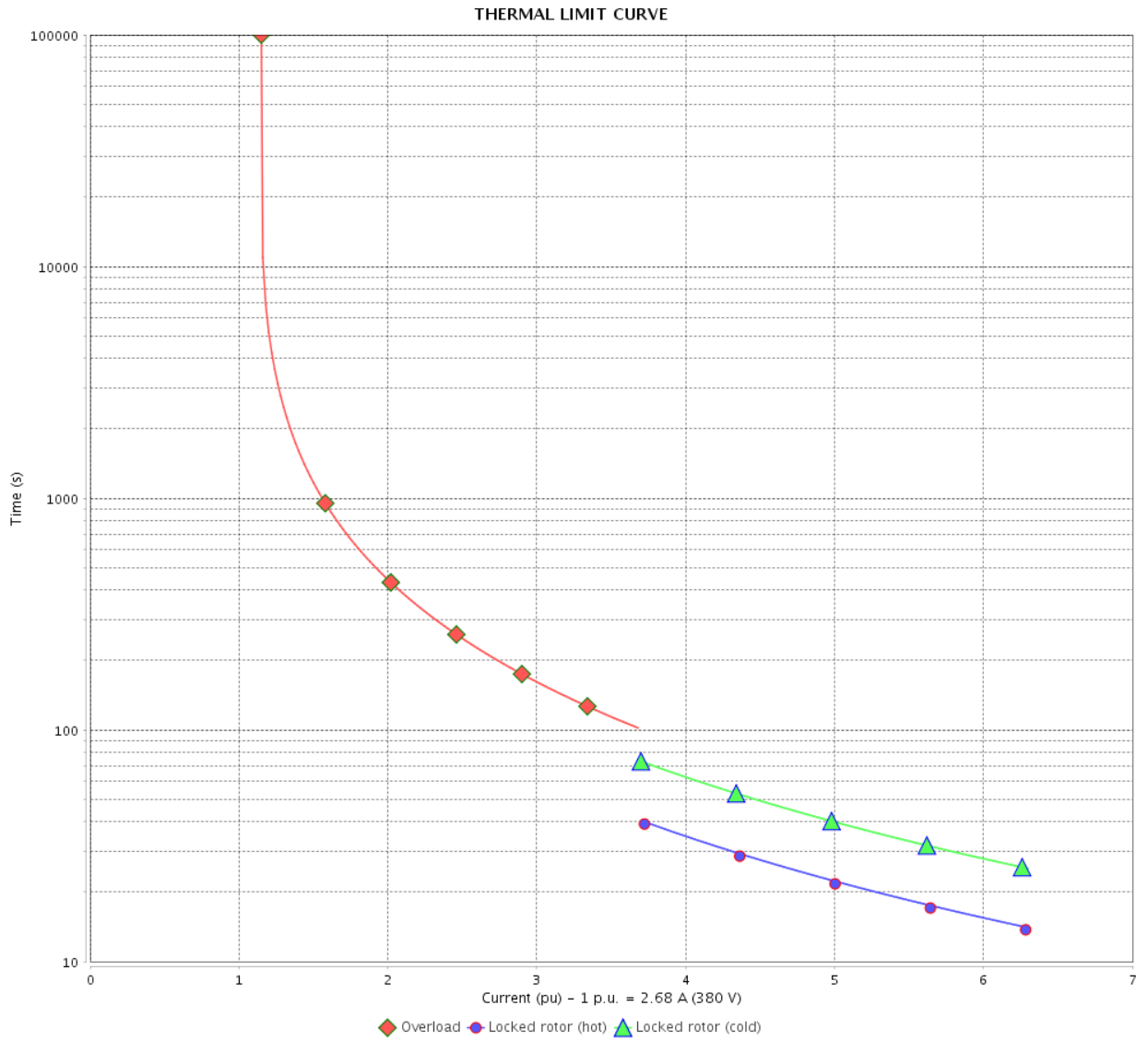
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

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Three Phase Induction Motor - Squirrel Cage

Customer :

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Catalog # : 00152ST3QIE182TC-W22

Performance : 400 V 50 Hz 6P IE4

Rated current	: 2.62 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 8.21 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

Heating constant

Cooling constant

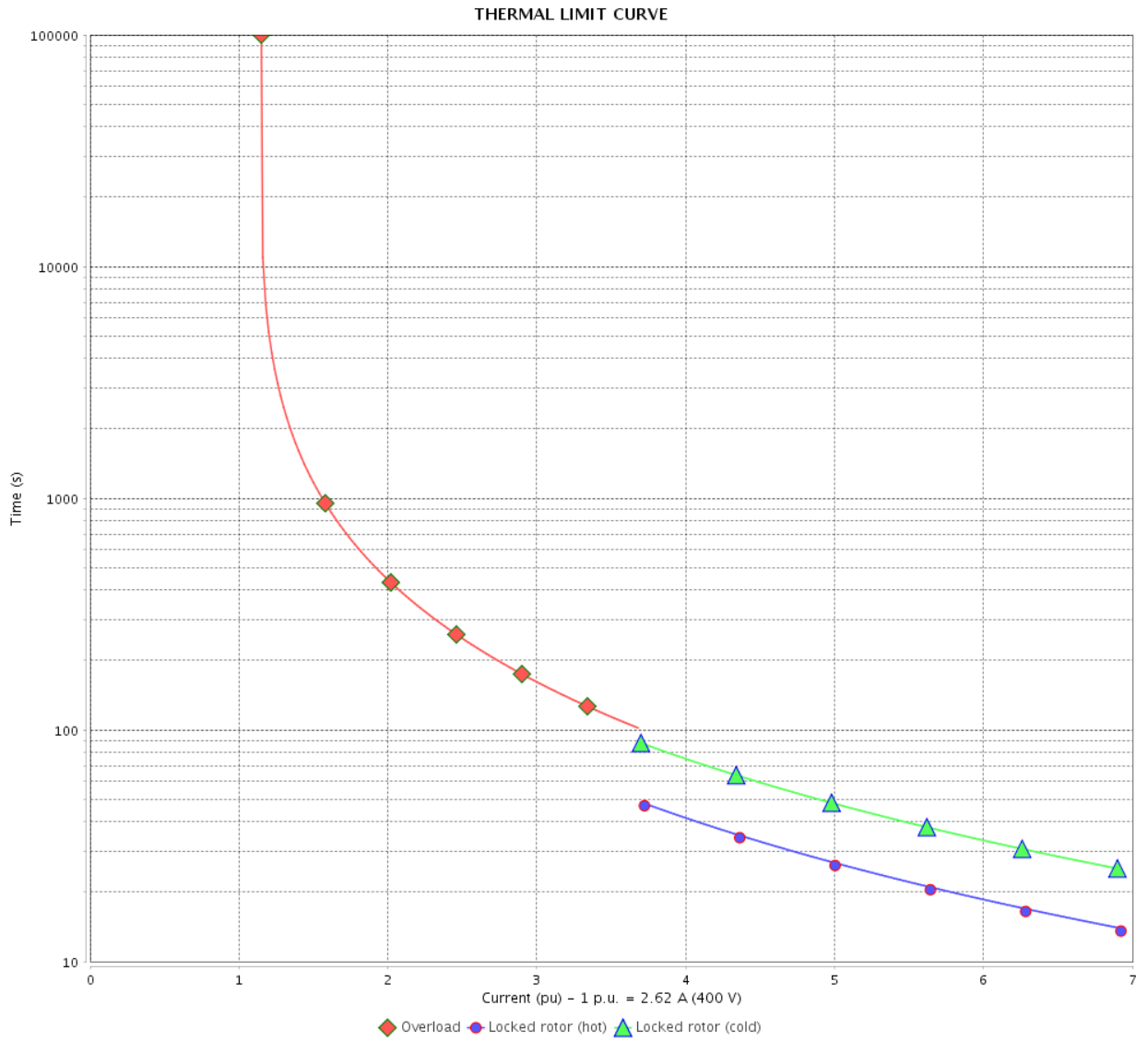
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



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Product code : 12373790
Catalog # : 00152ST3QIE182TC-W22

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Rated current	: 2.64 A	Moment of inertia (J)	: 0.4879 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 8.16 ft.lb	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

Heating constant

Cooling constant

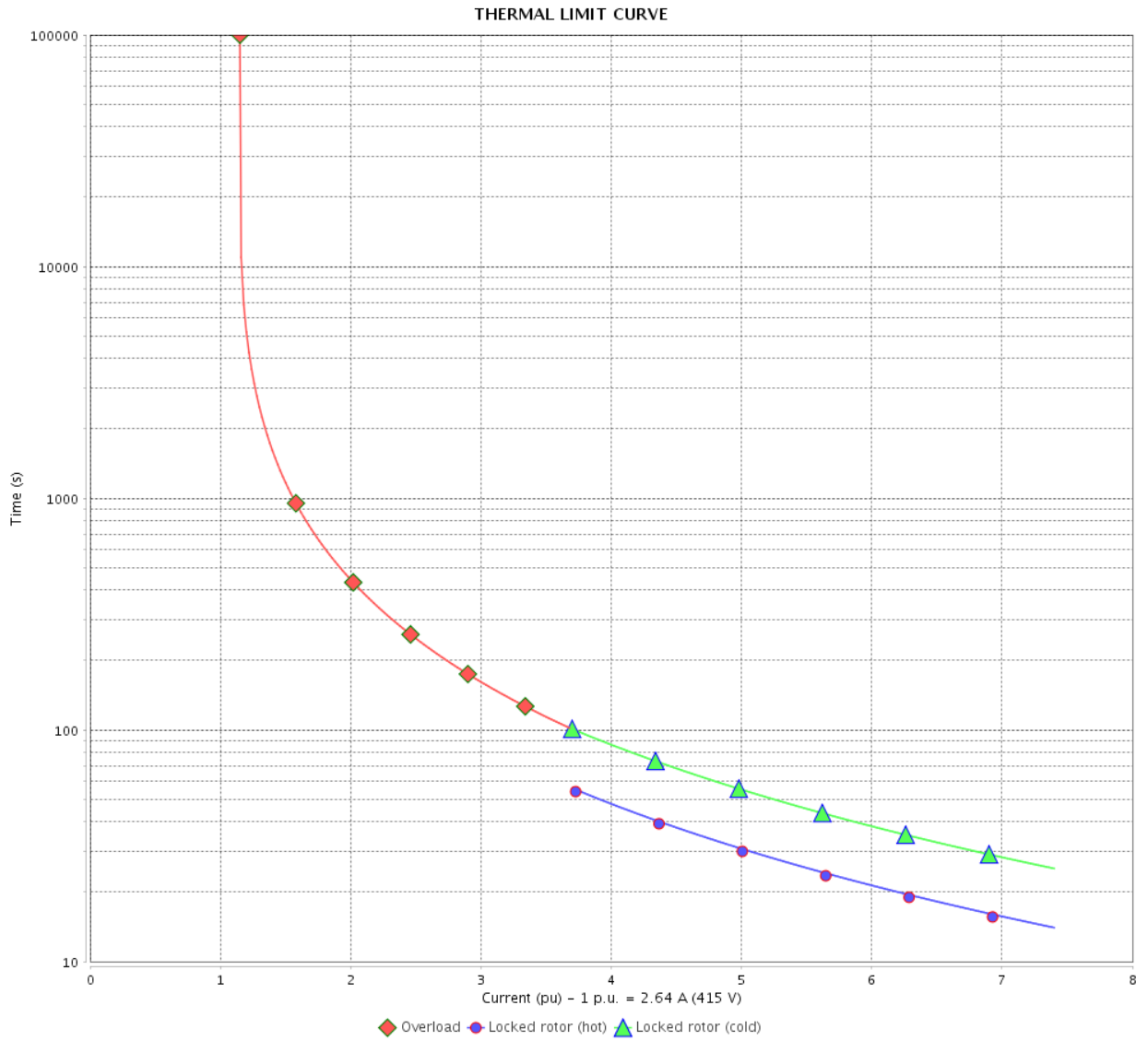
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

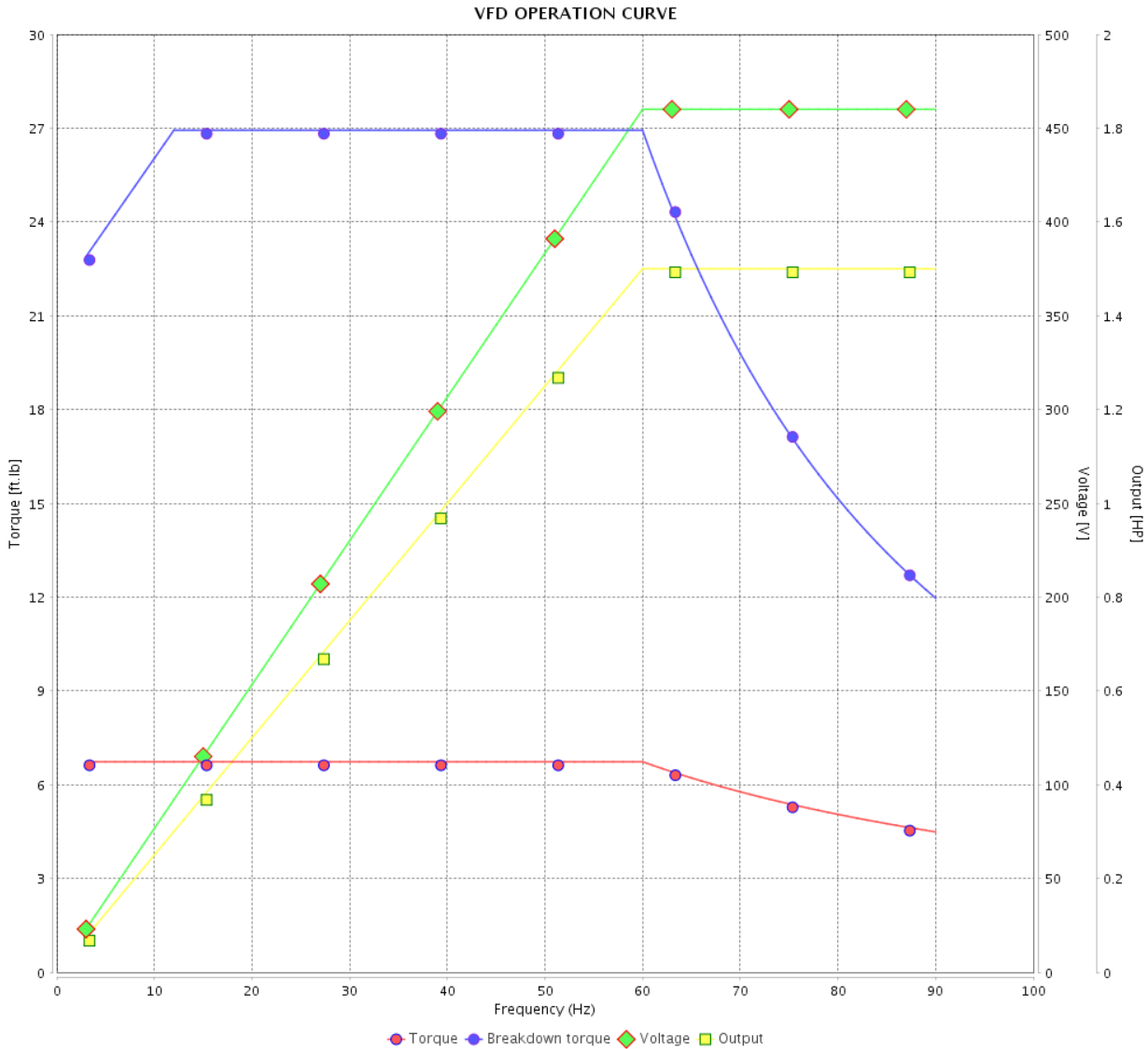


Customer :

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Catalog # : 00152ST3QIE182TC-W22



Performance : 460 V 60 Hz 6P

Rated current : 2.54 A
 LRC : 7.8
 Rated torque : 6.73 ft.lb
 Locked rotor torque : 320 %
 Breakdown torque : 400 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.4879 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
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Checked by				
Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

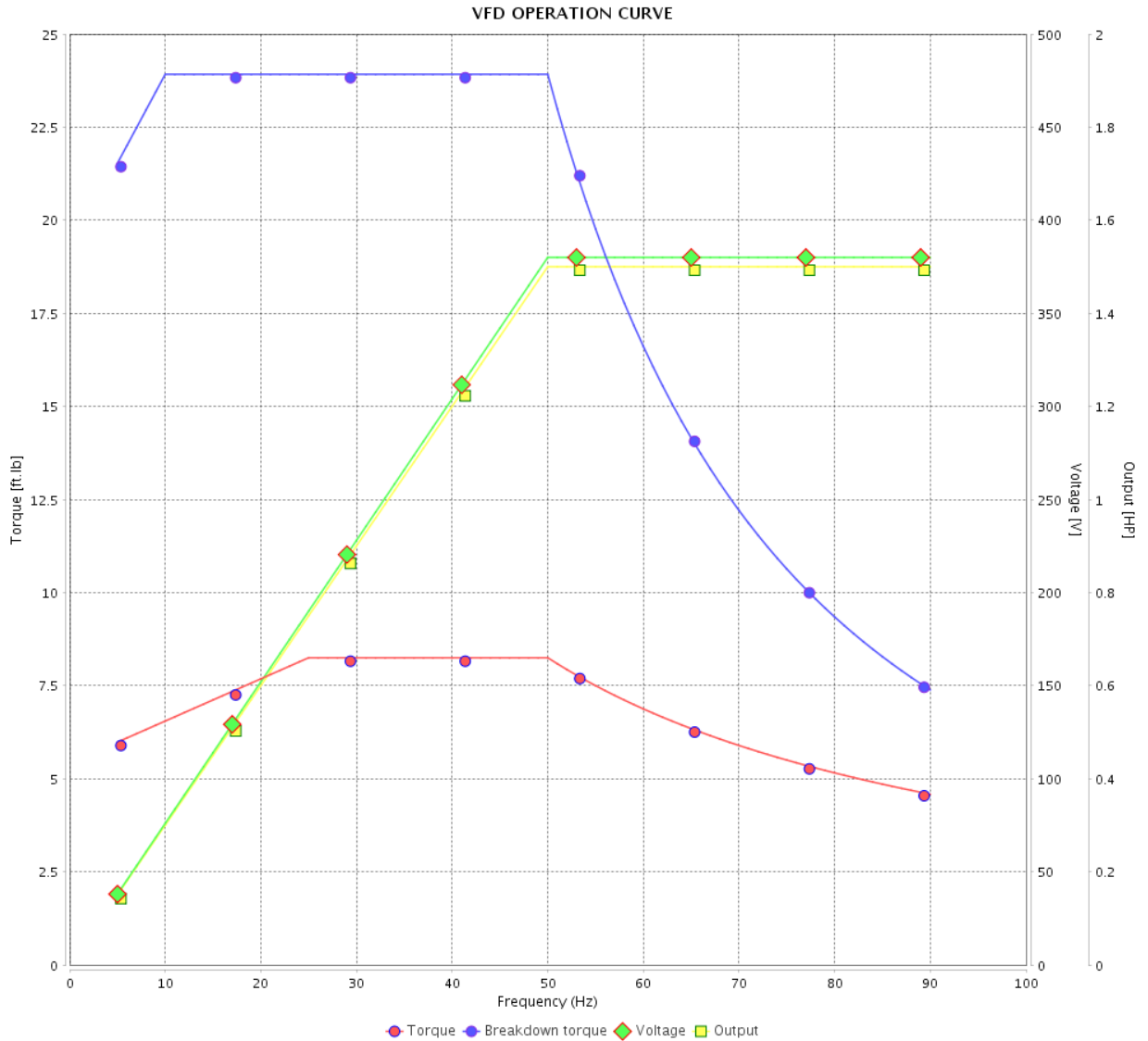


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Product code : 12373790

Catalog # : 00152ST3QIE182TC-W22



Performance : 380 V 50 Hz 6P IE4

Rated current : 2.68 A
 LRC : 6.3
 Rated torque : 8.25 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 955 rpm

Moment of inertia (J) : 0.4879 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



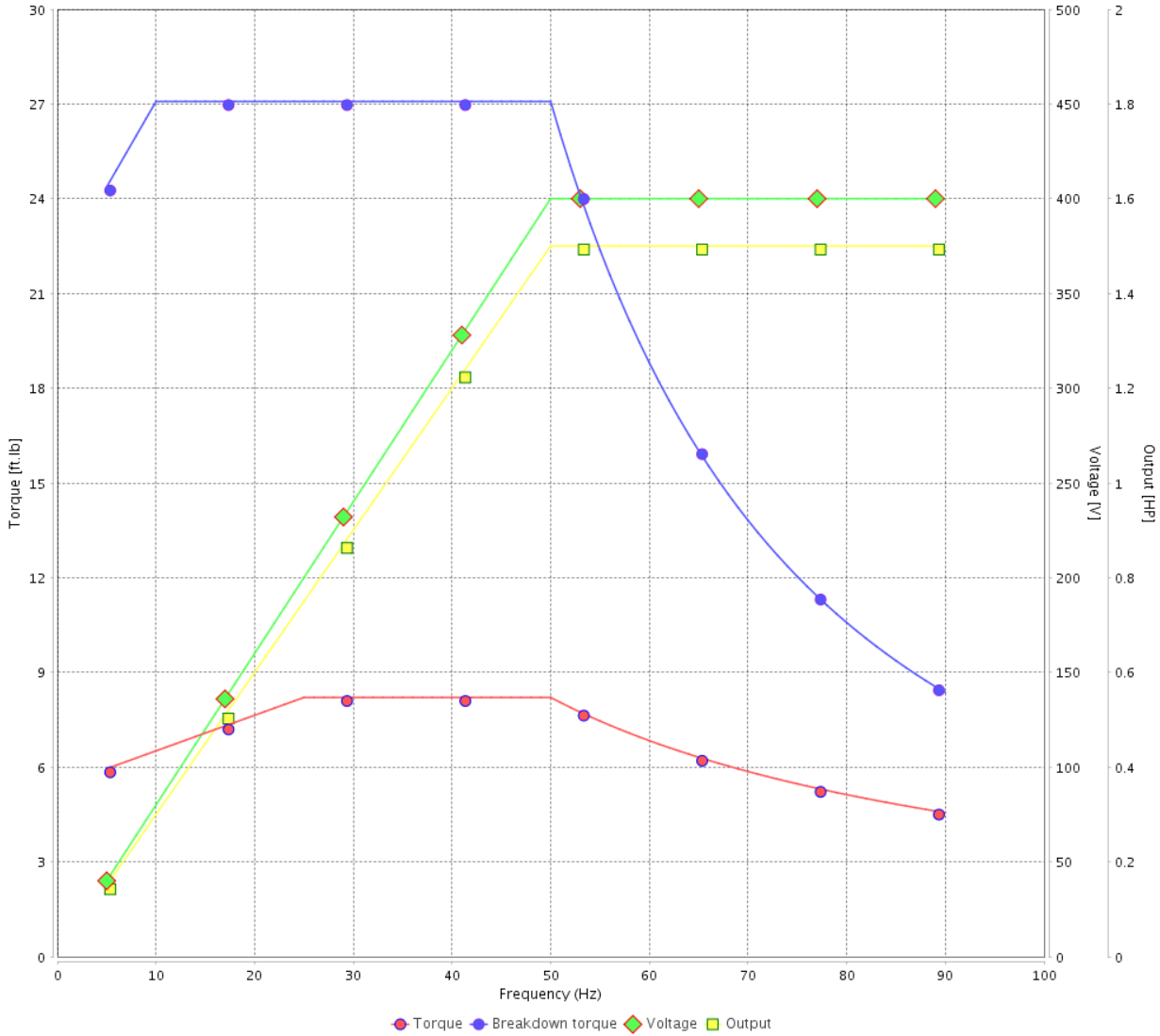
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373790

Catalog # : 00152ST3QIE182TC-W22

VFD OPERATION CURVE



Performance : 400 V 50 Hz 6P IE4

Rated current : 2.62 A
 LRC : 6.9
 Rated torque : 8.21 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.4879 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

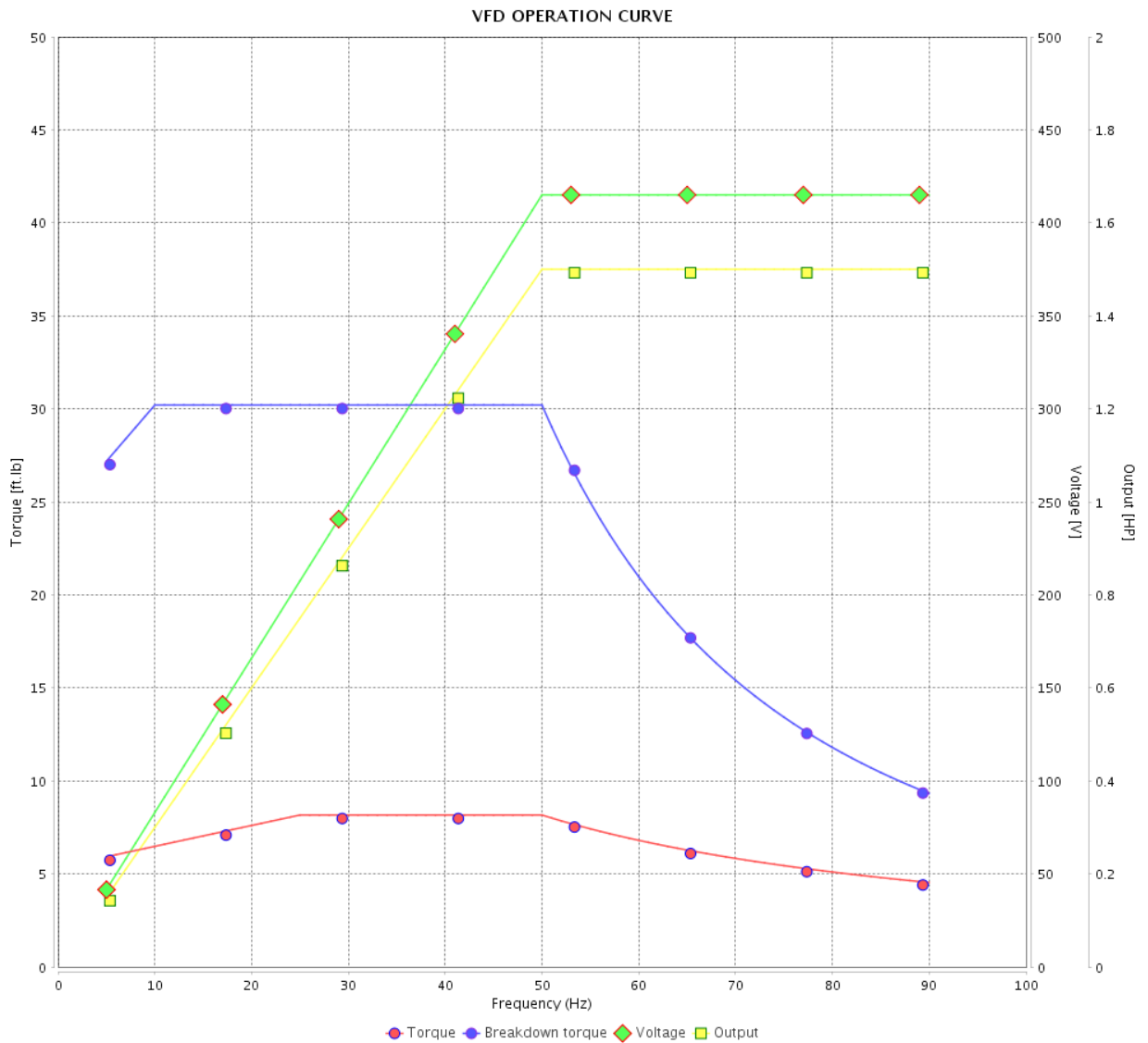


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 Locked rotor torque : 330 %
 Breakdown torque : 370 %
 Rated speed : 965 rpm

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 Service factor : 1.00
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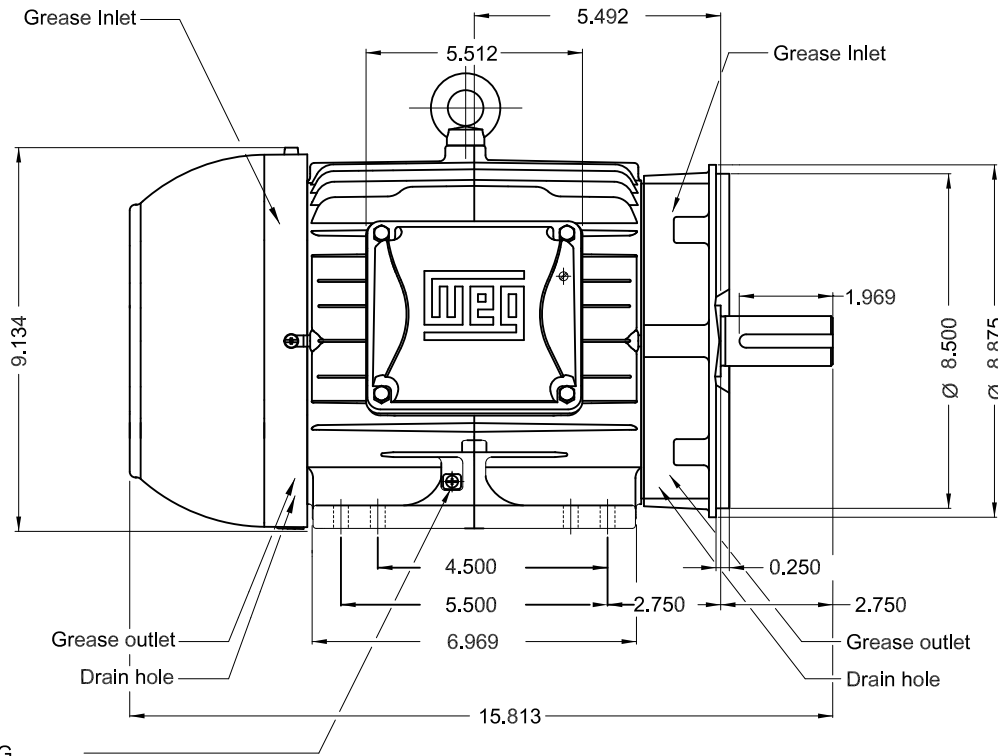
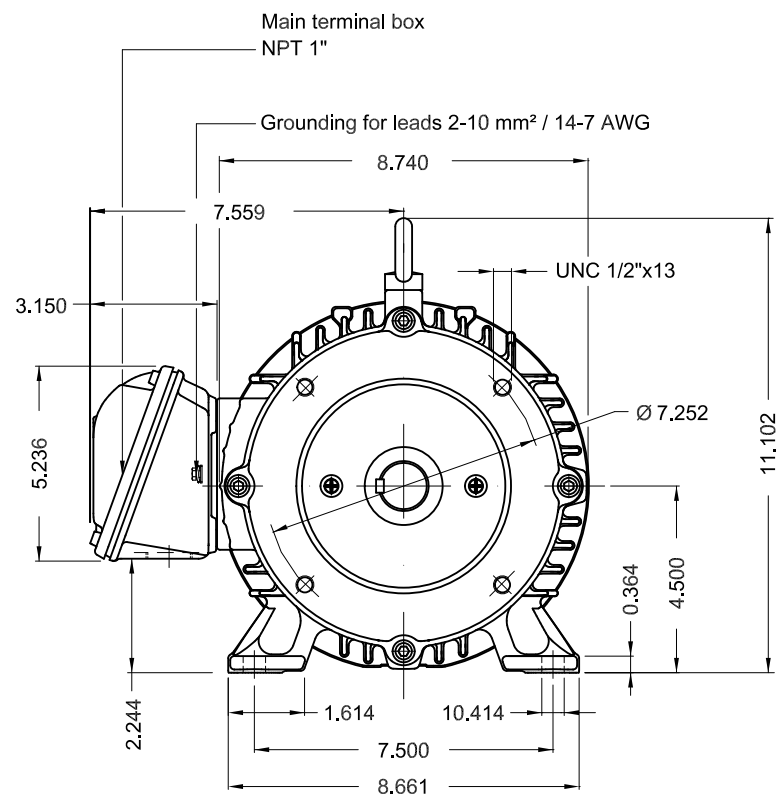
Rev.	Changes Summary	Performed	Checked	Date
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1 2 3 4 5 6

A

B

C

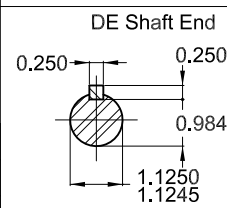


Grounding for leads 2-10 mm² / 14-7 AWG

D

E

Color RAL 5009
Painting plan 202E
Mounting B34R(D)



1.5 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 182/4TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



MADE IN BRAZIL
12373790



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 00152ST3QIE182TC-W22

Inverter Duty Motor
Severe Duty

IEEE
841-2009



FOR SAFE AREA
Mod. TE1BFOXON
CC029A

PH3 60Hz Fr. 182/4TC 1000m.a.s.l. IP55 TEFC 110lb

V 460

A 2.54

HP 1.5

kW 1.1

SF 1.25

SFA 3.17

RPM 1170

PF 0.62

AMB 40°C

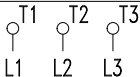
INS cl. F DT80K

NEMA NOM EFF 87.5%

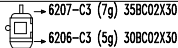
DUTY CONT.

DES B Code M

GUARANT. EFF 85.5%



460V



MOBIL POLYREX EM (20000h)

