

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase		Product code :	11677501
				Catalog # :	00159ST3QIE184T-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)	: 0.5766 sq.ft.lb
Design		: B			
Output [HP]	1.5	1.5	1.5	1.5	1.5
Poles	8	8	8	8	8
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	460	380	400	415	415
Rated current [A]	2.70	3.04	3.01	2.99	2.99
L. R. Amperes [A]	15.9	15.2	16.6	17.9	17.9
LRC [A]	5.9x(Code K)	5.0x(Code H)	5.5x(Code J)	6.0x(Code K)	6.0x(Code K)
No load current [A]	2.00	1.90	2.00	2.10	2.10
Rated speed [RPM]	865	705	710	715	715
Slip [%]	3.89	6.00	5.33	4.67	4.67
Rated torque [ft.lb]	9.11	11.2	11.1	11.0	11.0
Locked rotor torque [%]	290	229	260	290	290
Breakdown torque [%]	340	260	290	320	320
Service factor	1.25	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)
Noise level ²	50.0 dB(A)	46.0 dB(A)	46.0 dB(A)	46.0 dB(A)	46.0 dB(A)
Efficiency (%)	25%				
	50%	80.0	80.0	78.5	77.0
	75%	82.5	80.0	80.0	80.0
	100%	82.5	78.5	80.0	80.0
Power Factor	25%				
	50%	0.43	0.51	0.47	0.44
	75%	0.54	0.62	0.58	0.55
	100%	0.62	0.70	0.66	0.64
Bearing type		Drive end	Non drive end	Foundation loads	
: 6207 C3		6207 C3	6206 C3	Max. traction : 167 lb	
Sealing		Inpro/Seal	Inpro/Seal	Max. compression : 283 lb	
Lubrication interval		20000 h	20000 h		
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



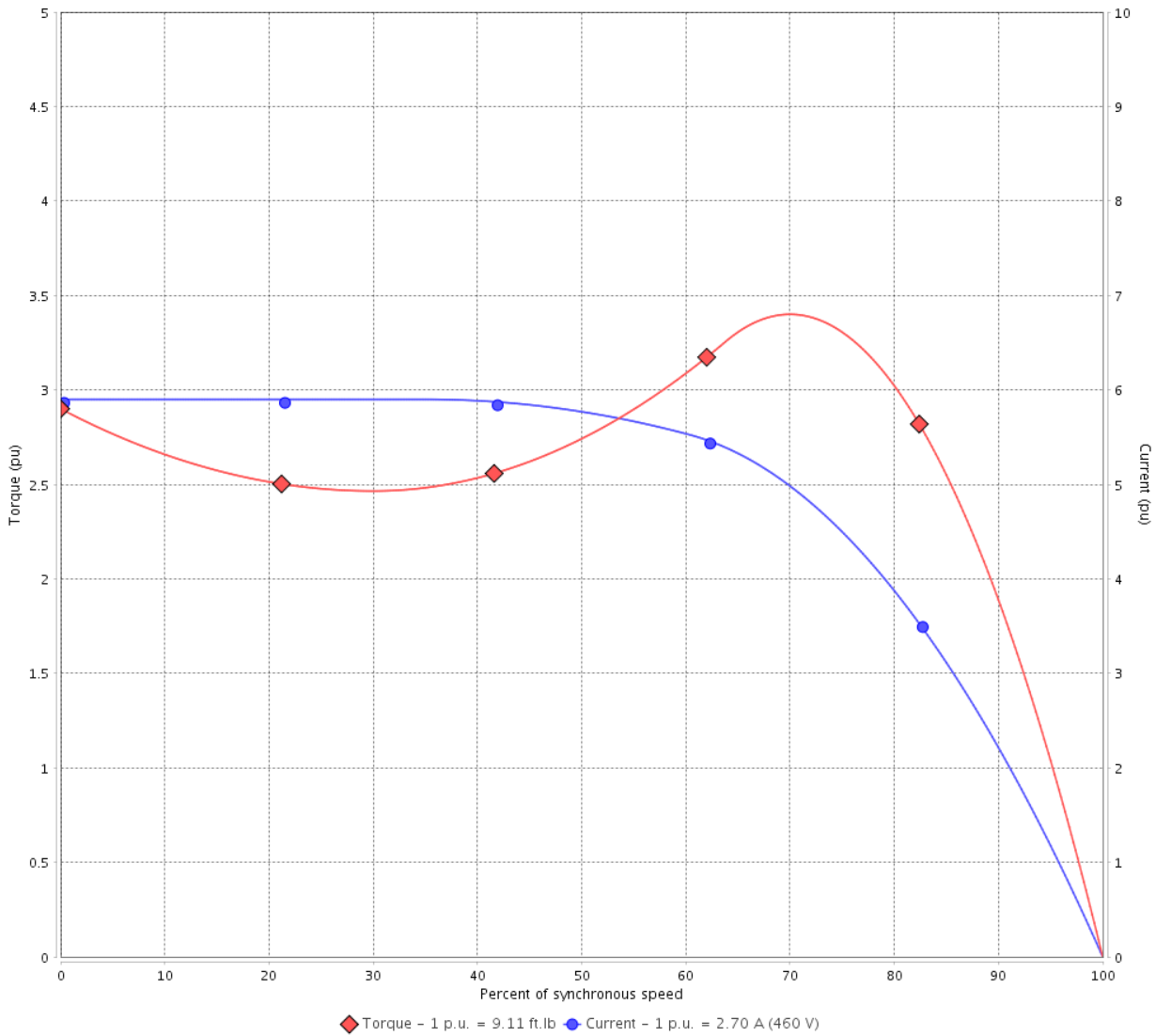
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11677501

Catalog # : 00159ST3QIE184T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 8P

Rated current	: 2.70 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 9.11 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 865 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



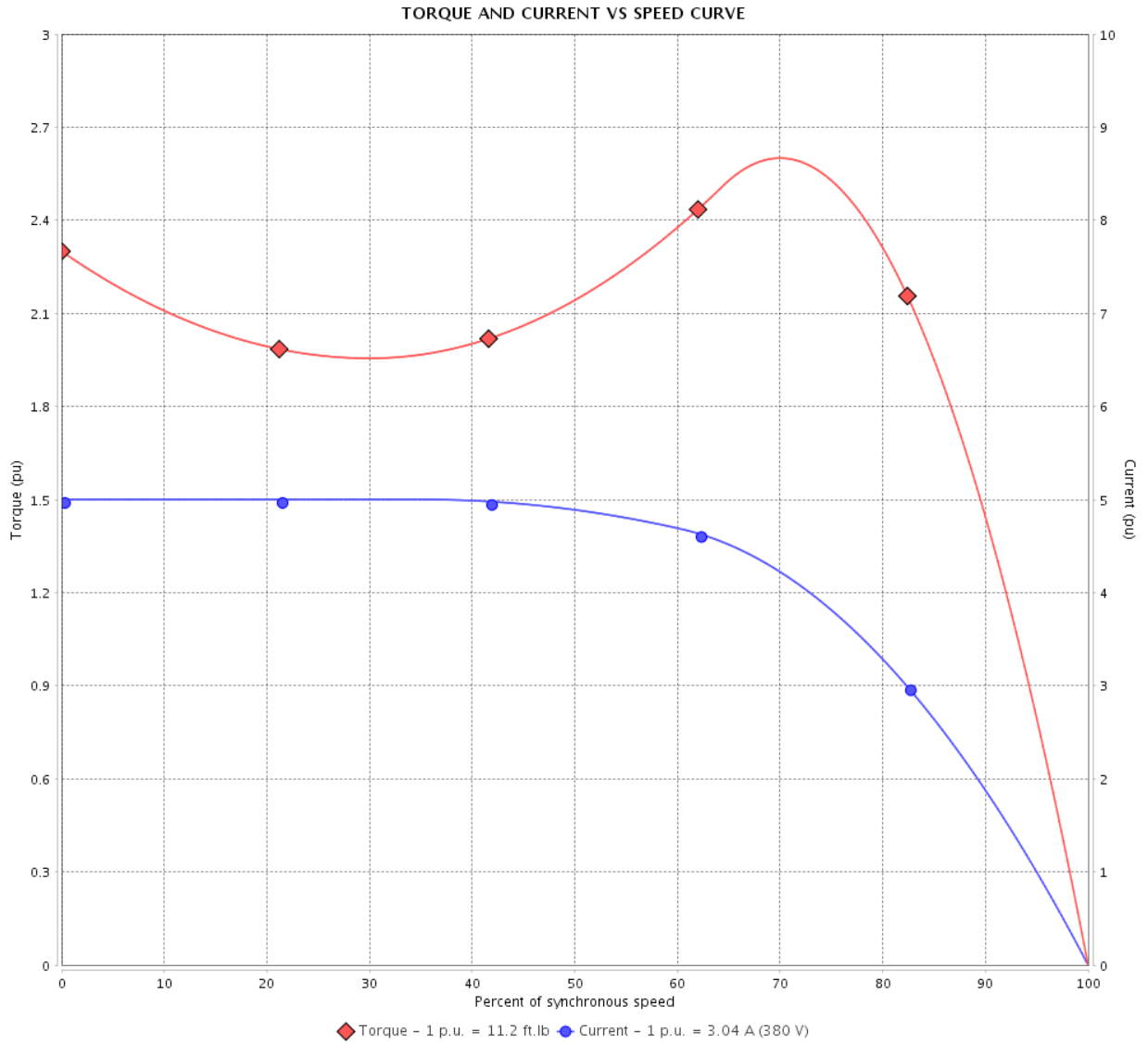
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11677501

Catalog # : 00159ST3QIE184T-W22



Performance : 380 V 50 Hz 8P IE3

Rated current	: 3.04 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 11.2 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 705 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



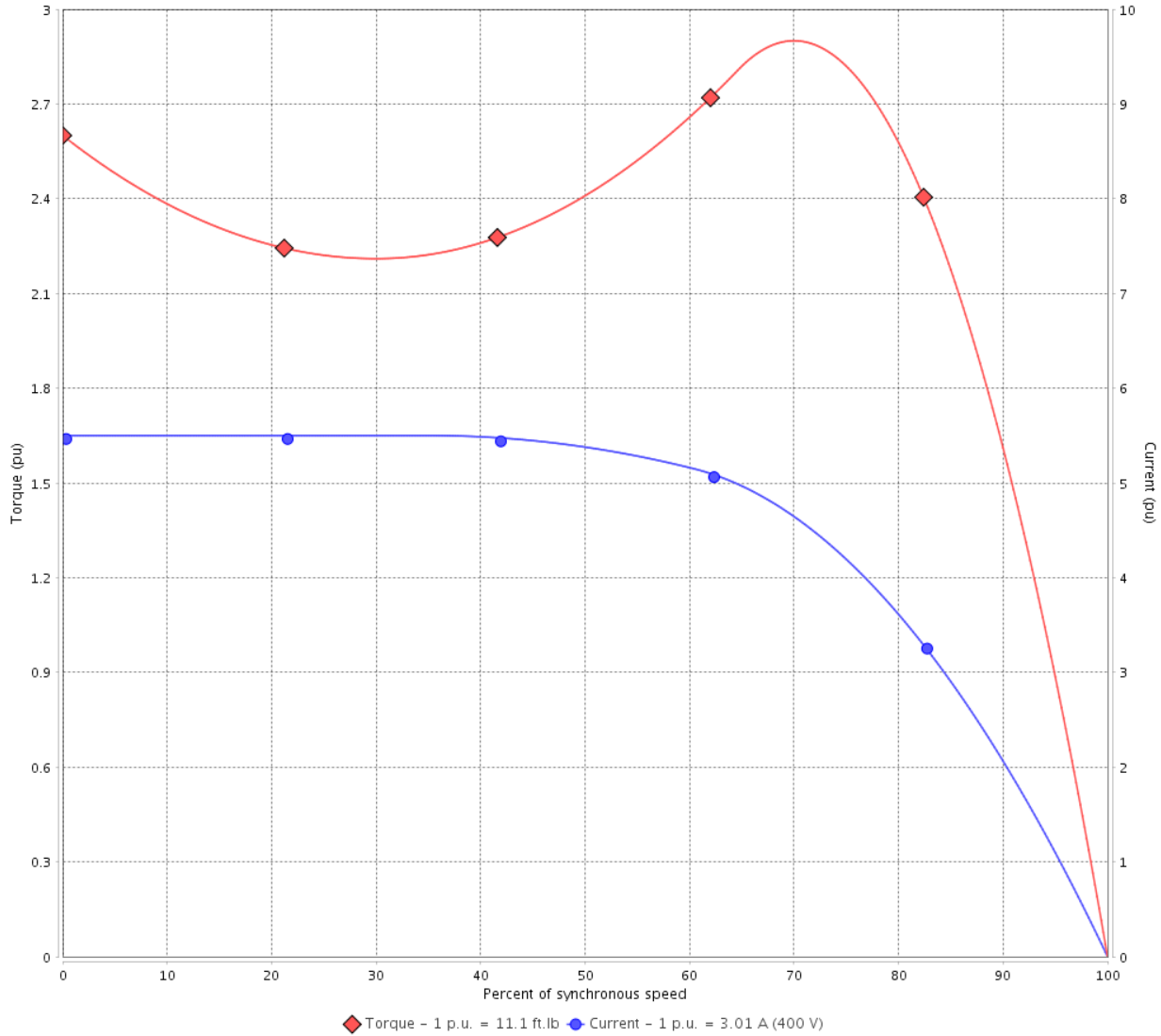
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11677501

Catalog # : 00159ST3QIE184T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 8P IE3

Rated current	: 3.01 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 11.1 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 710 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



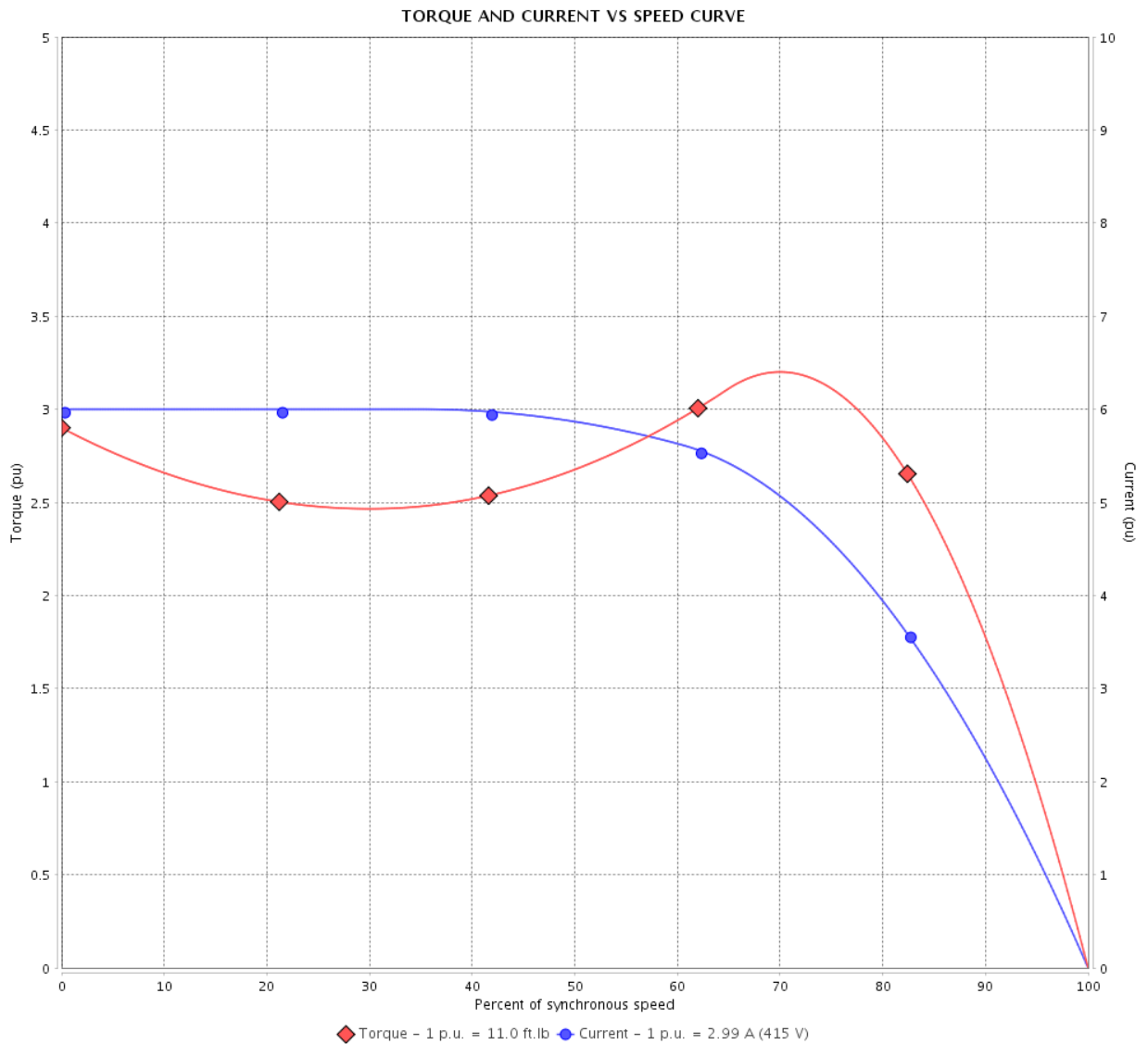
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11677501

Catalog # : 00159ST3QIE184T-W22



Performance : 415 V 50 Hz 8P IE3

Rated current	: 2.99 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 11.0 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 715 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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LOAD PERFORMANCE CURVE

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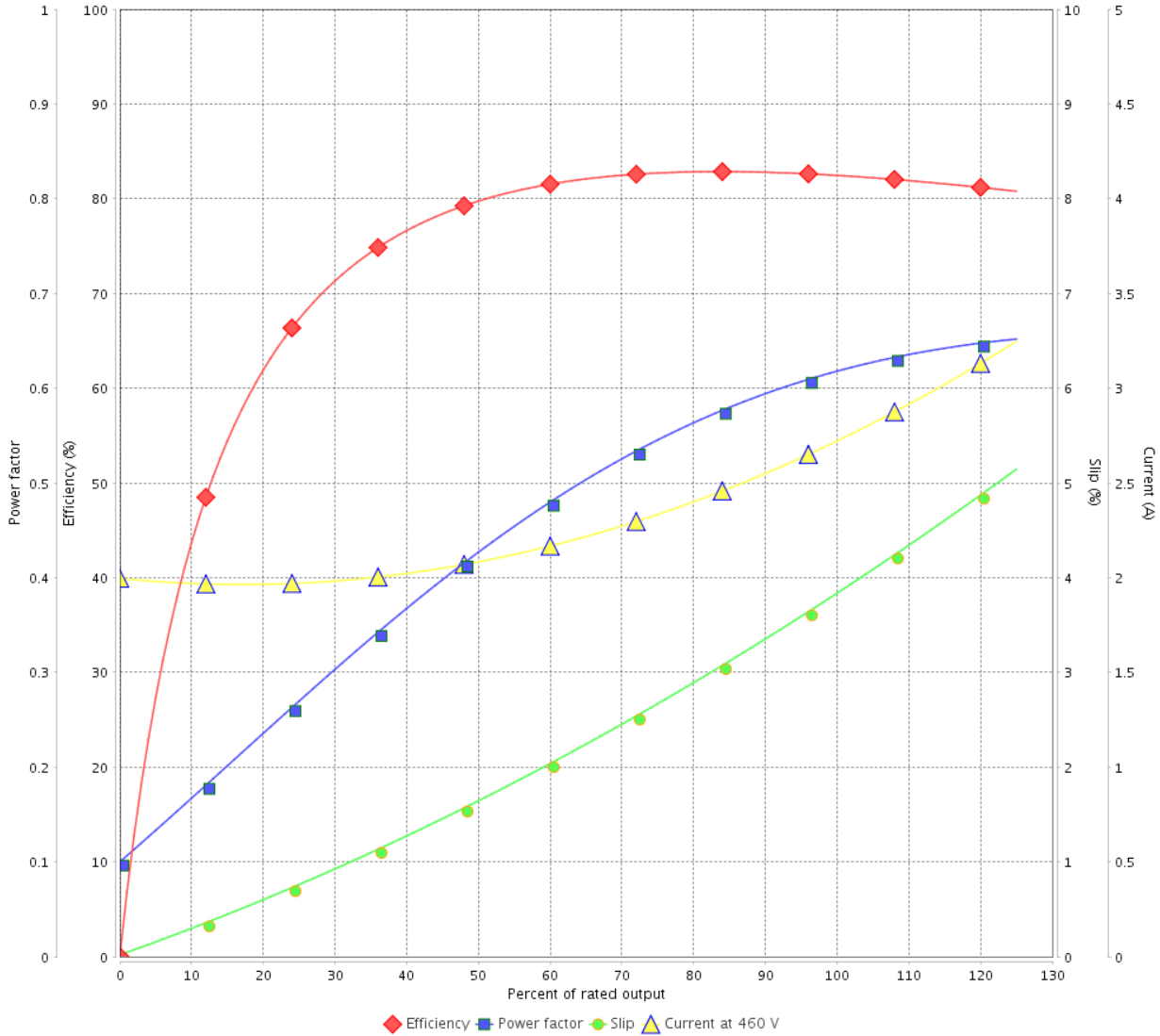
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LOAD PERFORMANCE CURVE



Performance : 460 V 60 Hz 8P

Rated current : 2.70 A
 LRC : 5.9
 Rated torque : 9.11 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 340 %
 Rated speed : 865 rpm

Moment of inertia (J) : 0.5766 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

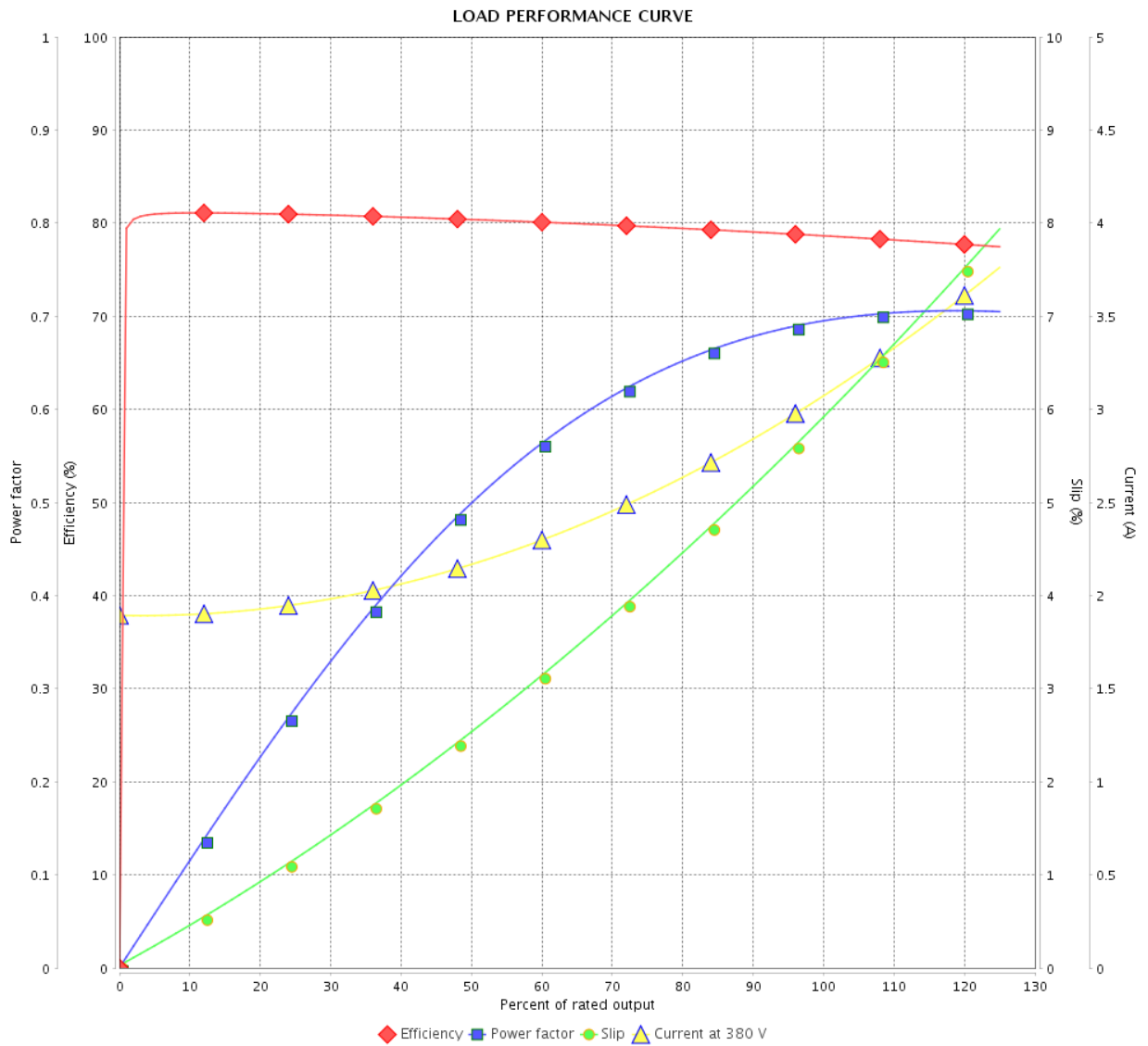


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Performance : 380 V 50 Hz 8P IE3

Rated current : 3.04 A
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 Breakdown torque : 260 %
 Rated speed : 705 rpm

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 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



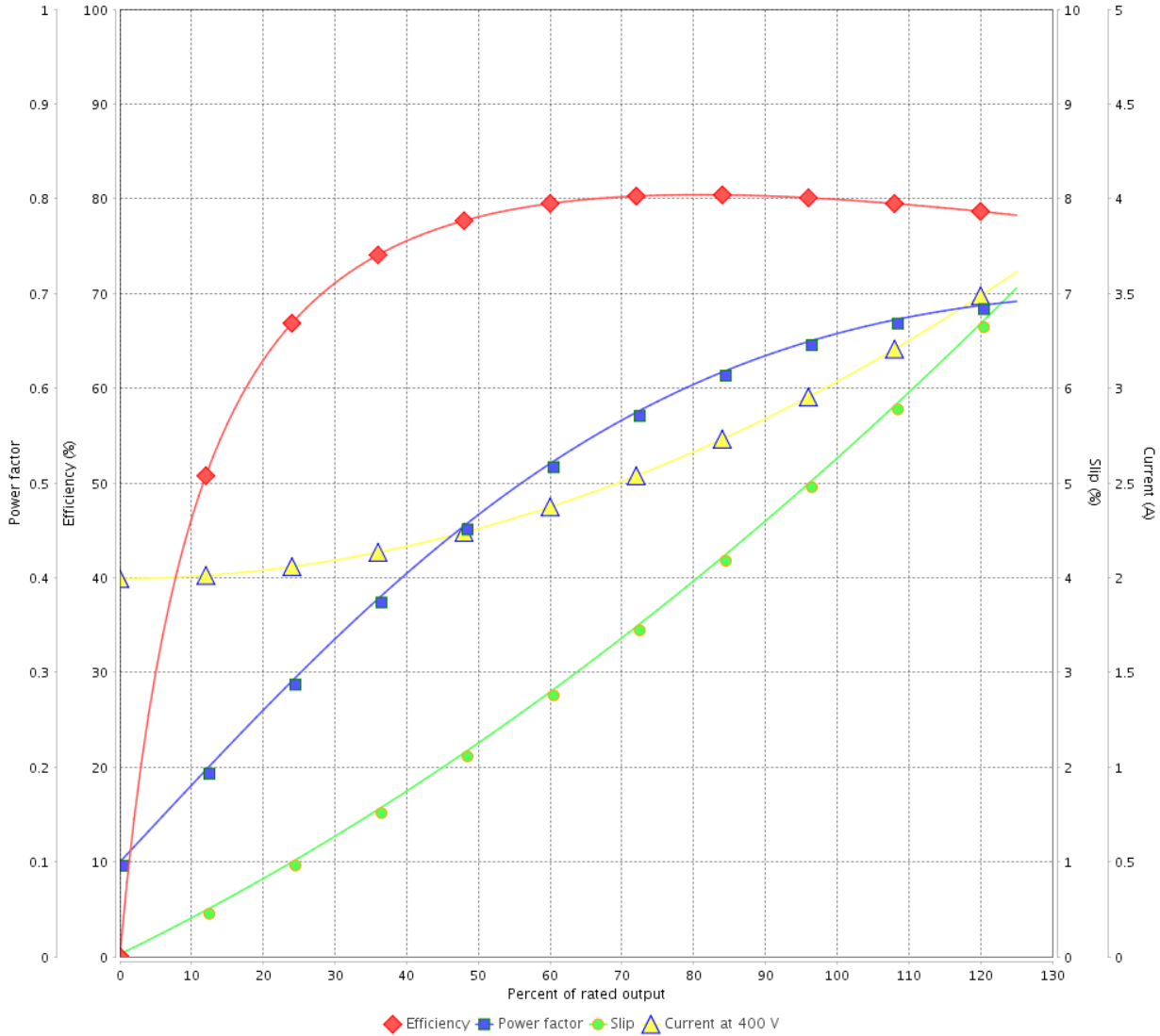
Customer : _____

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Catalog # : 00159ST3QIE184T-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 8P IE3

Rated current : 3.01 A
 LRC : 5.5
 Rated torque : 11.1 ft.lb
 Locked rotor torque : 260 %
 Breakdown torque : 290 %
 Rated speed : 710 rpm

Moment of inertia (J) : 0.5766 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

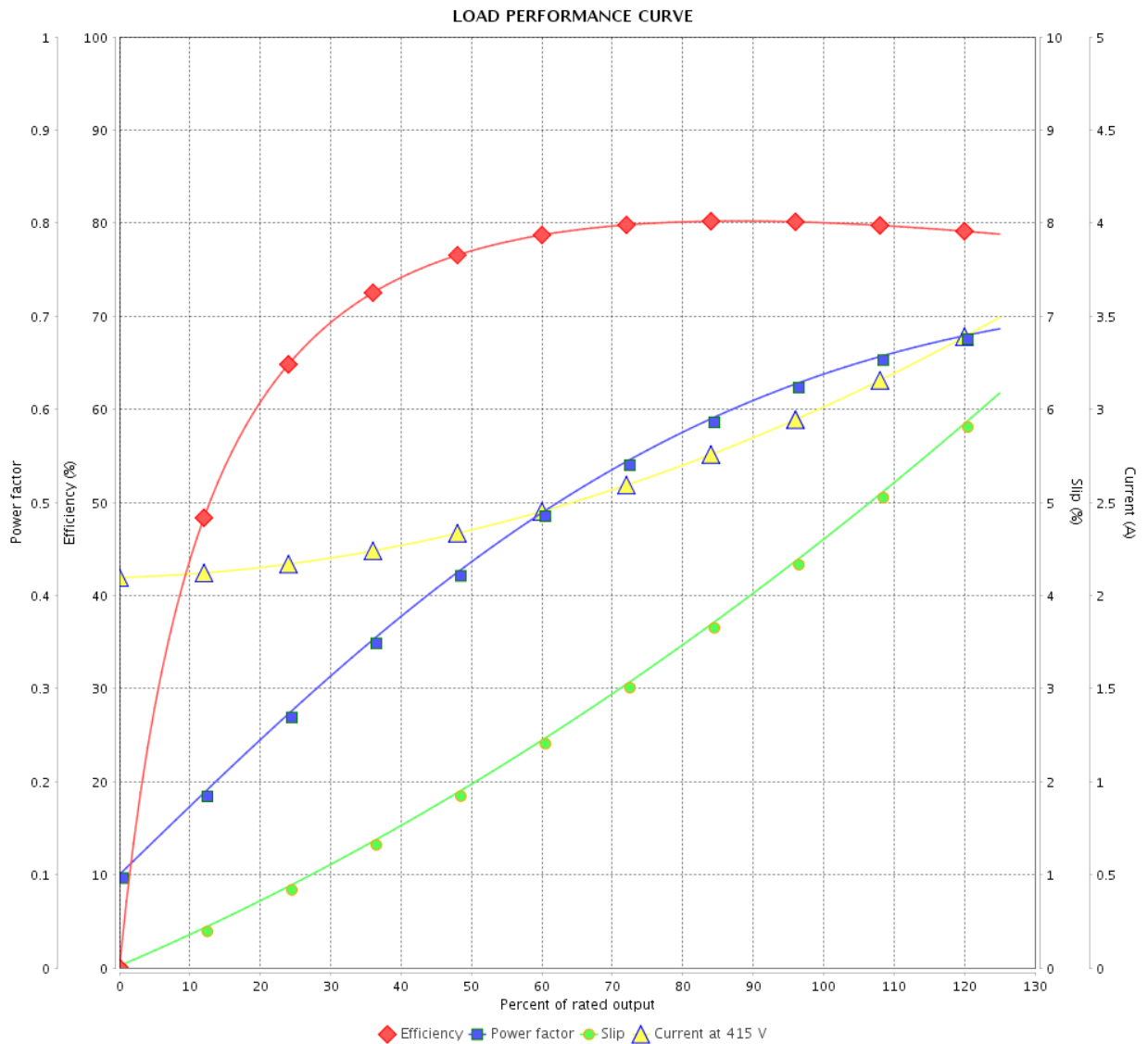


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 Insulation class : F
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THERMAL LIMIT CURVE



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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

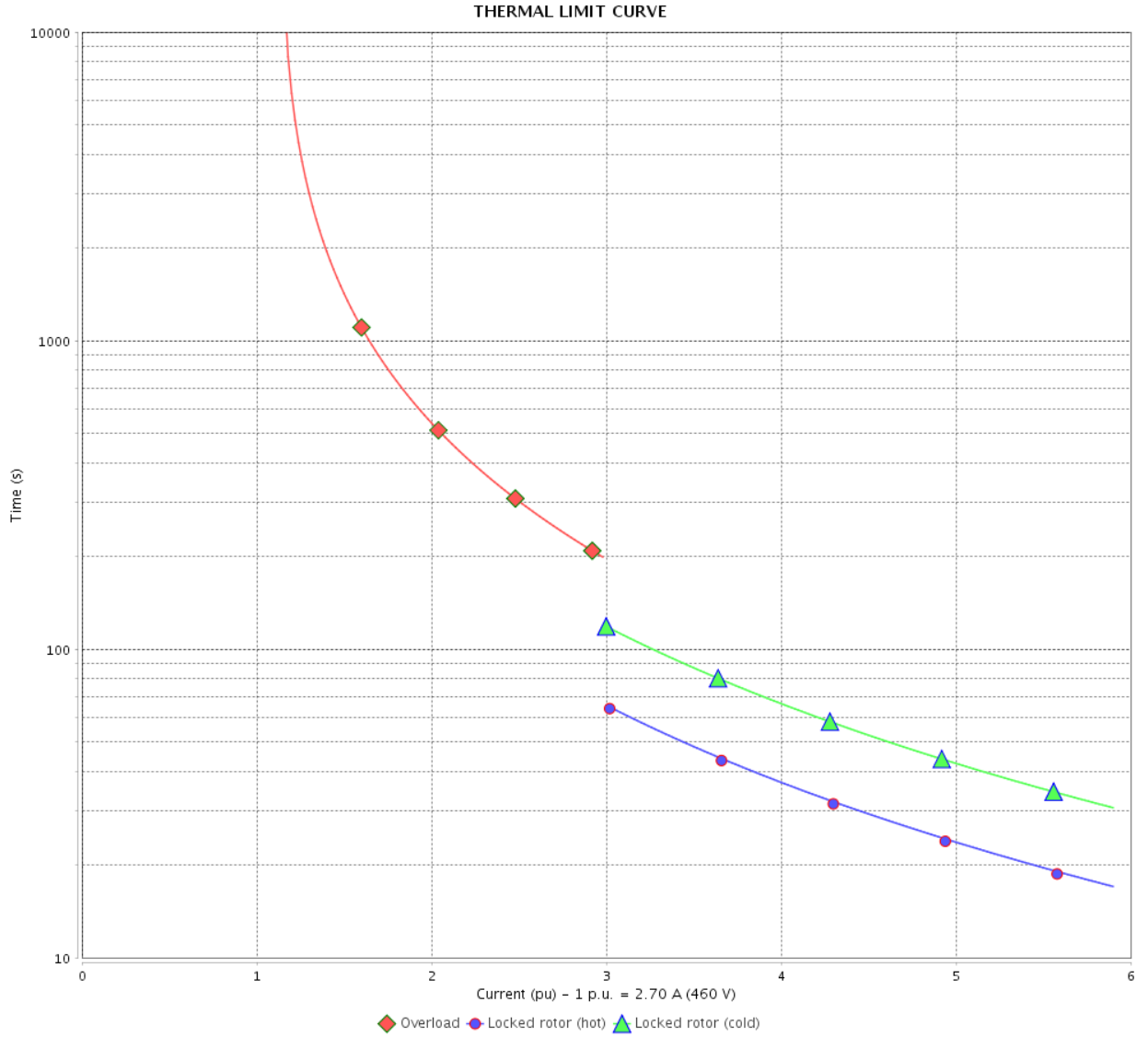
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Locked rotor torque : 229 %	Service factor : 1.00
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 705 rpm	Design : B

Heating constant

Cooling constant

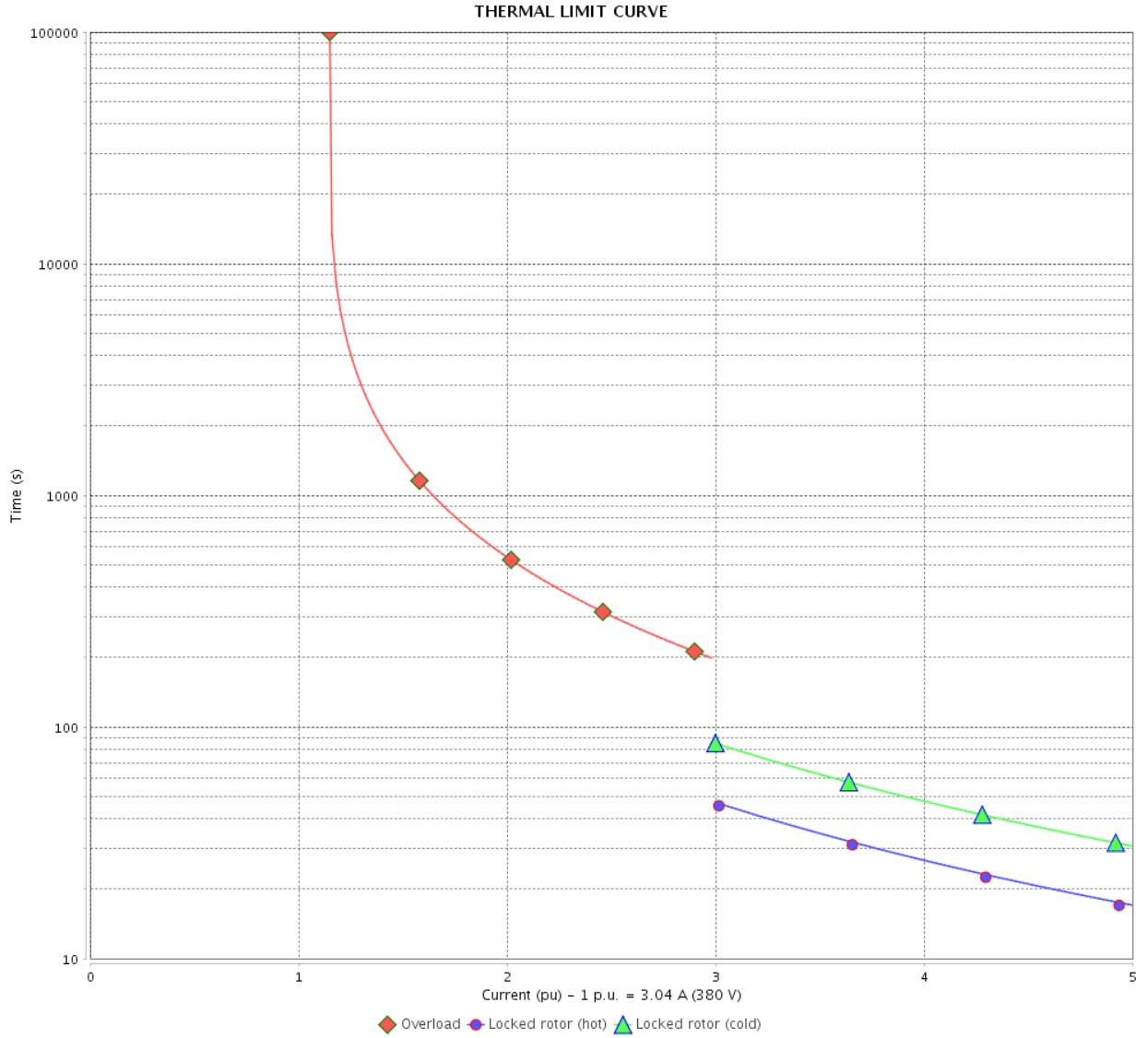
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Performance : 400 V 50 Hz 8P IE3

Rated current	: 3.01 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 11.1 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 710 rpm	Design	: B

Heating constant

Cooling constant

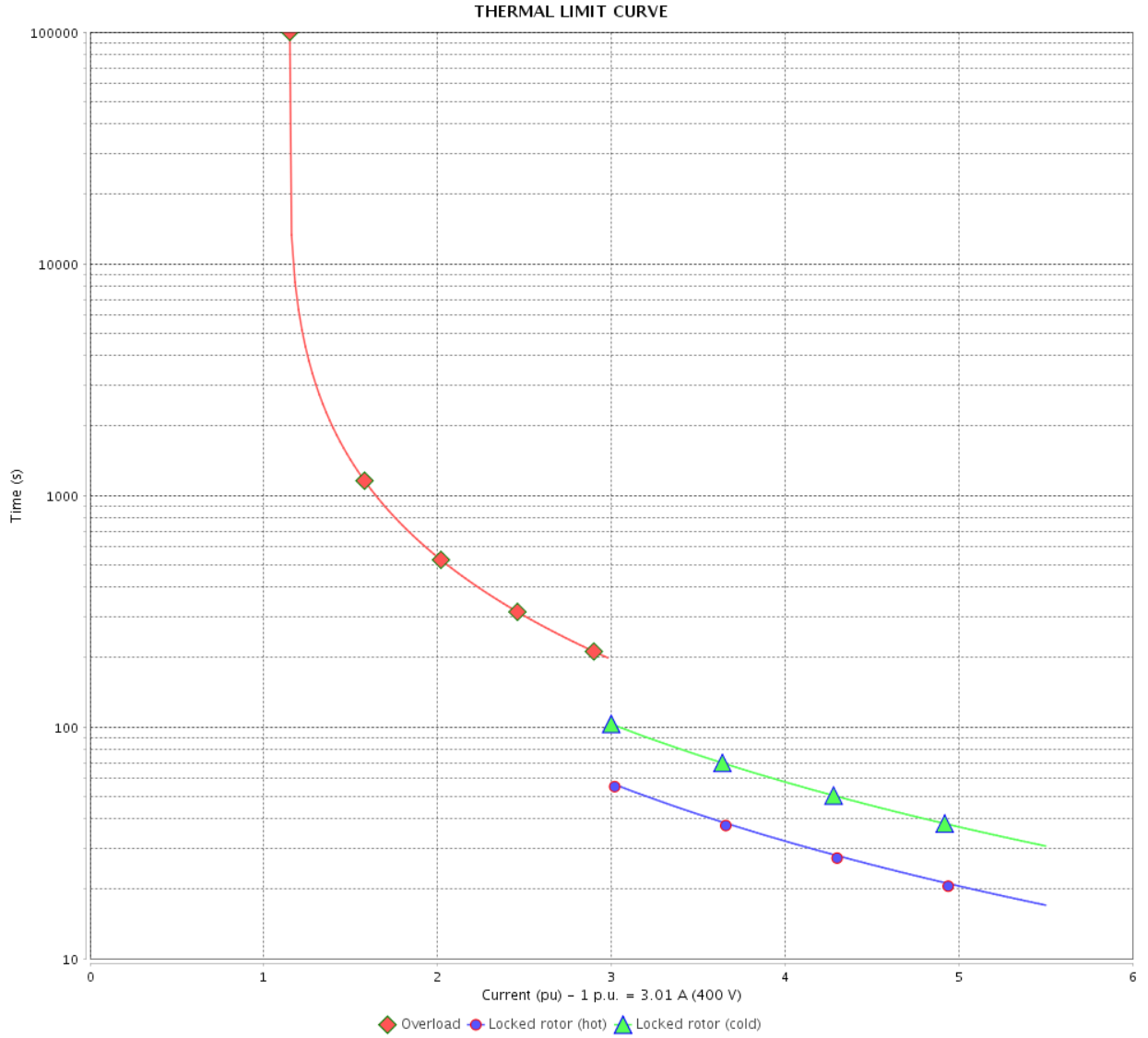
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



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Rated torque : 11.0 ft.lb	Insulation class : F
Locked rotor torque : 290 %	Service factor : 1.00
Breakdown torque : 320 %	Temperature rise : 80 K
Rated speed : 715 rpm	Design : B

Heating constant

Cooling constant

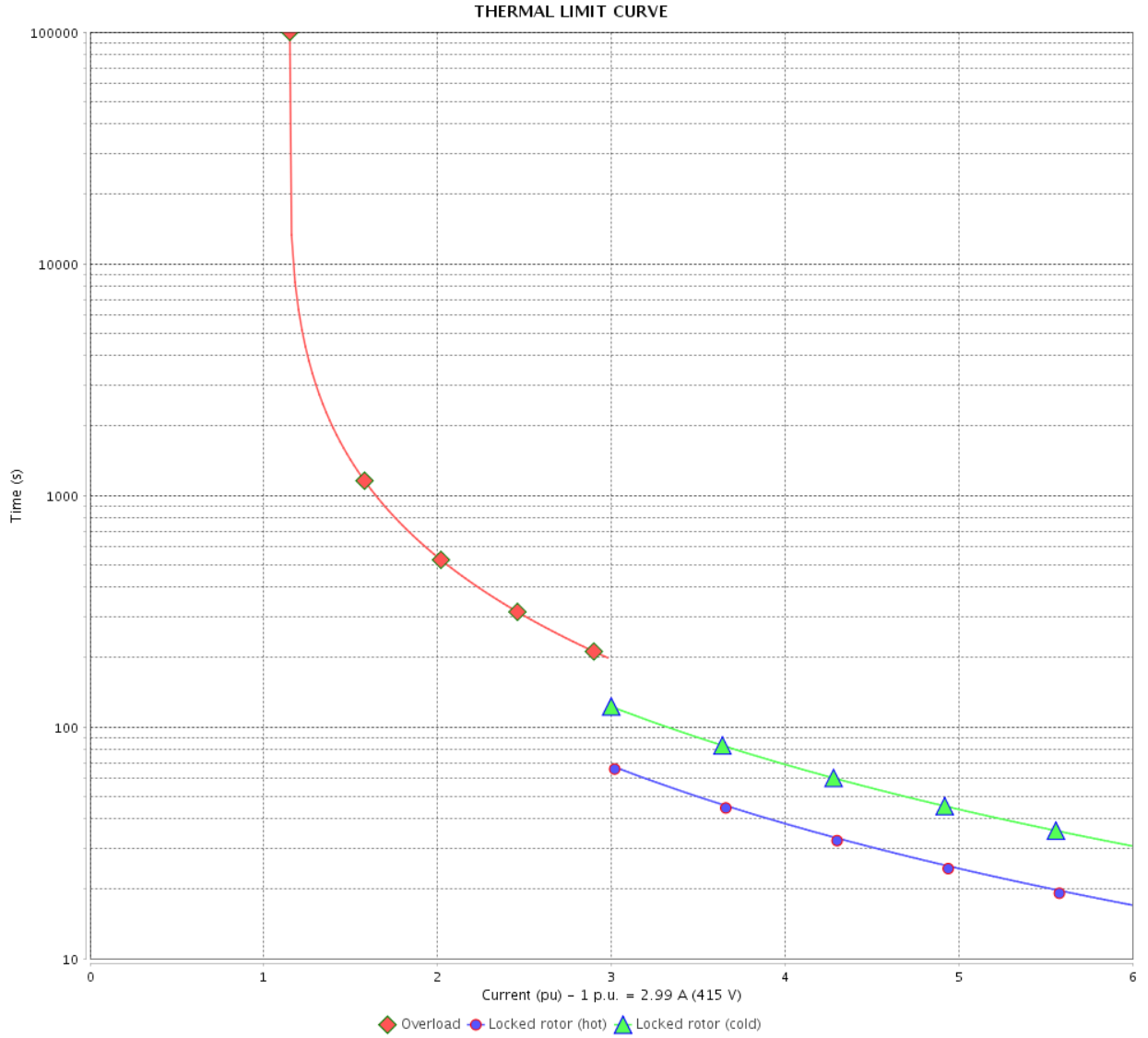
Rev.	Changes Summary	Performed	Checked	Date
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



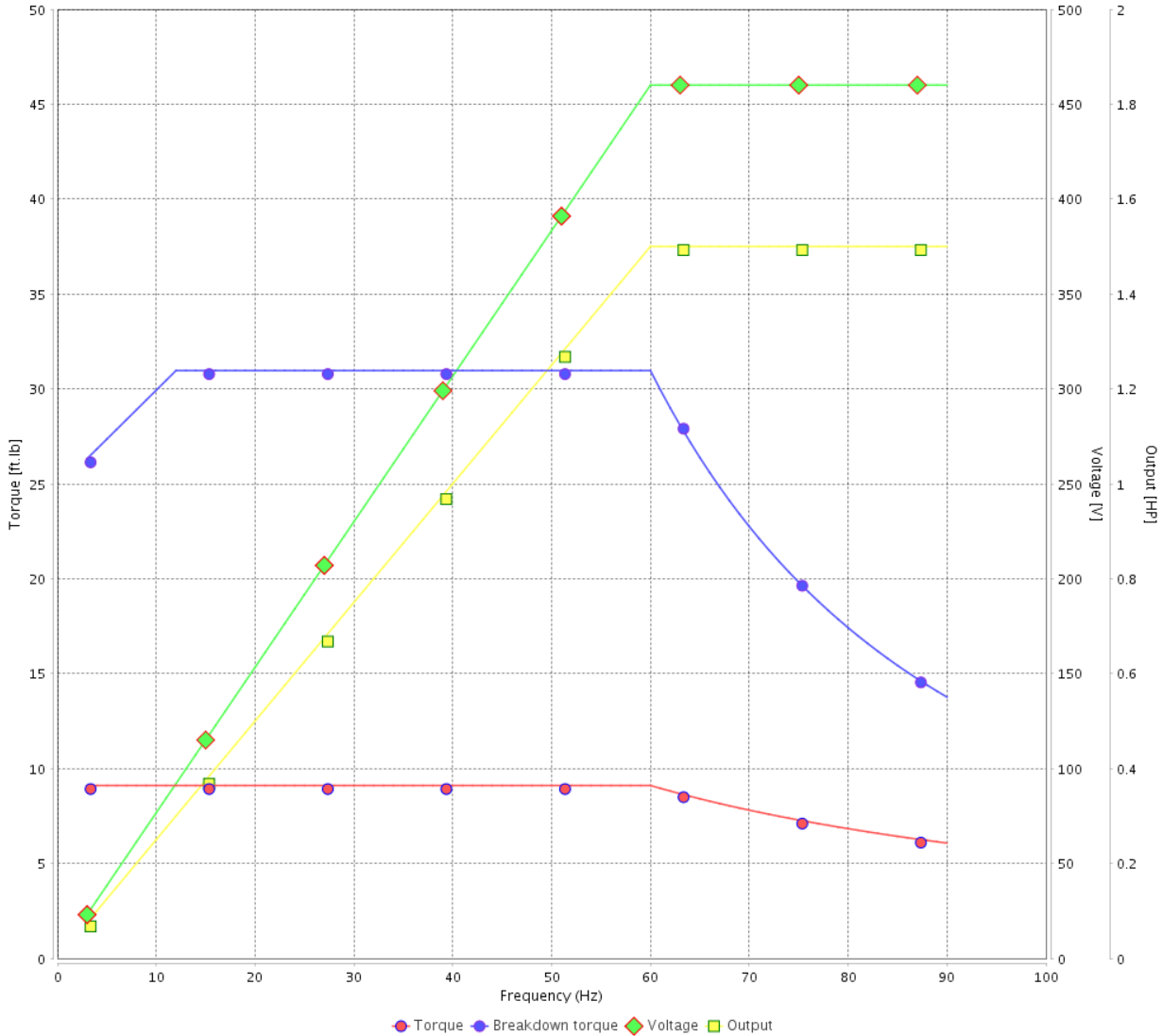
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VFD OPERATION CURVE



Performance : 460 V 60 Hz 8P

Rated current : 2.70 A
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 Breakdown torque : 340 %
 Rated speed : 865 rpm

Moment of inertia (J) : 0.5766 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

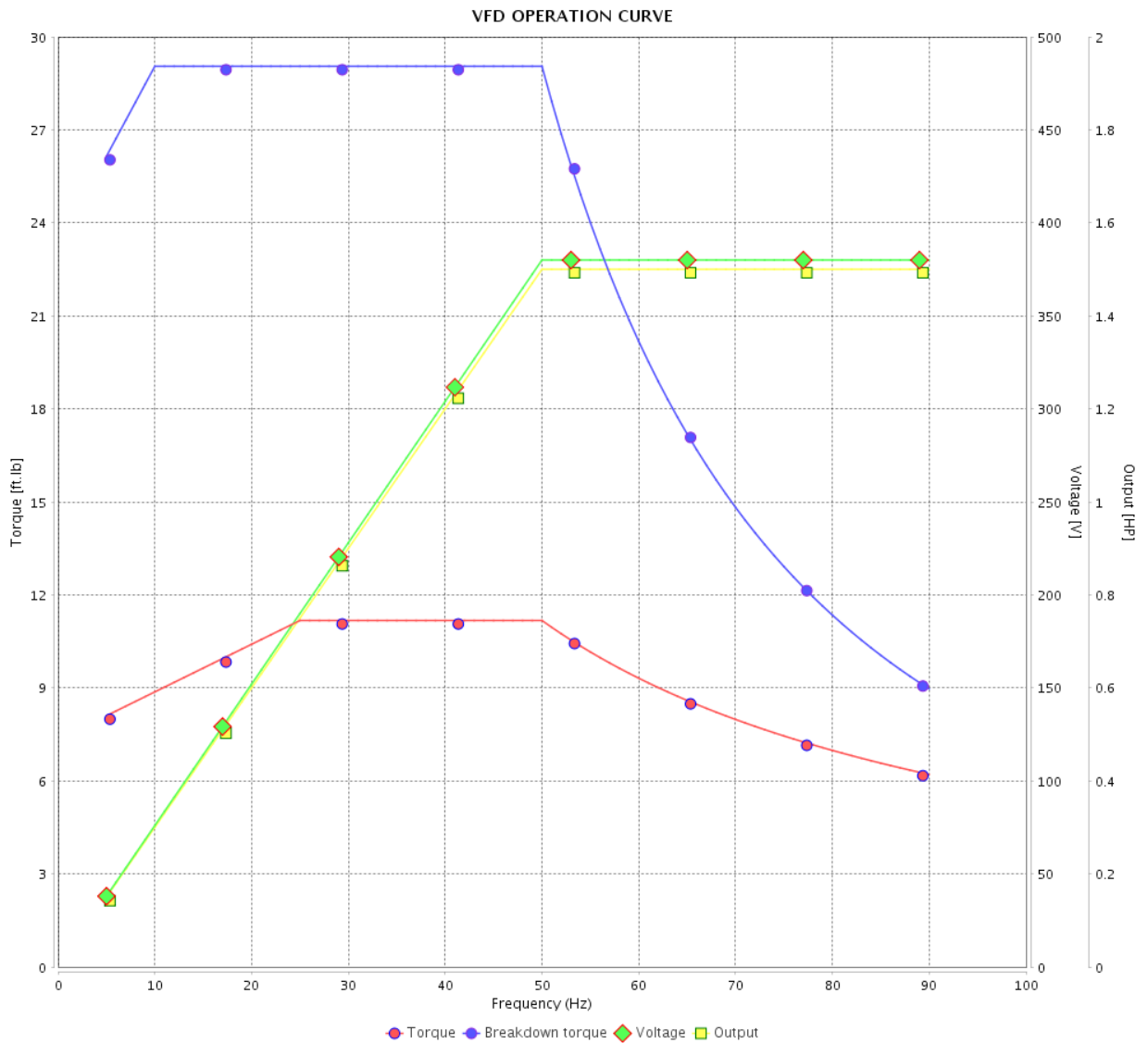


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Product code : 11677501

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Performance : 380 V 50 Hz 8P IE3

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 Locked rotor torque : 229 %
 Breakdown torque : 260 %
 Rated speed : 705 rpm

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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
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

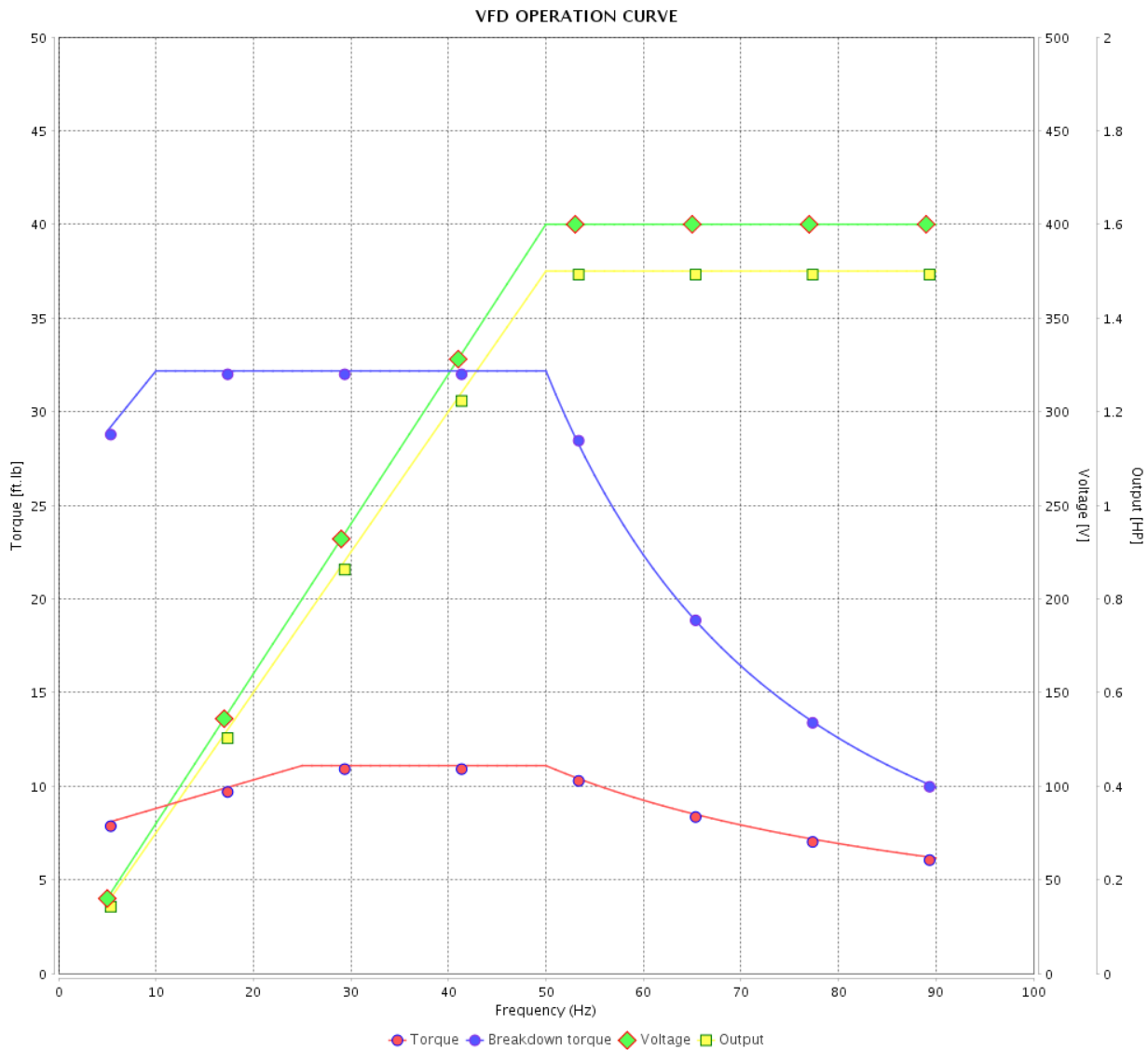


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 Breakdown torque : 290 %
 Rated speed : 710 rpm

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 Duty cycle : Cont.(S1)
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Rev.	Changes Summary	Performed	Checked	Date
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Date	11/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

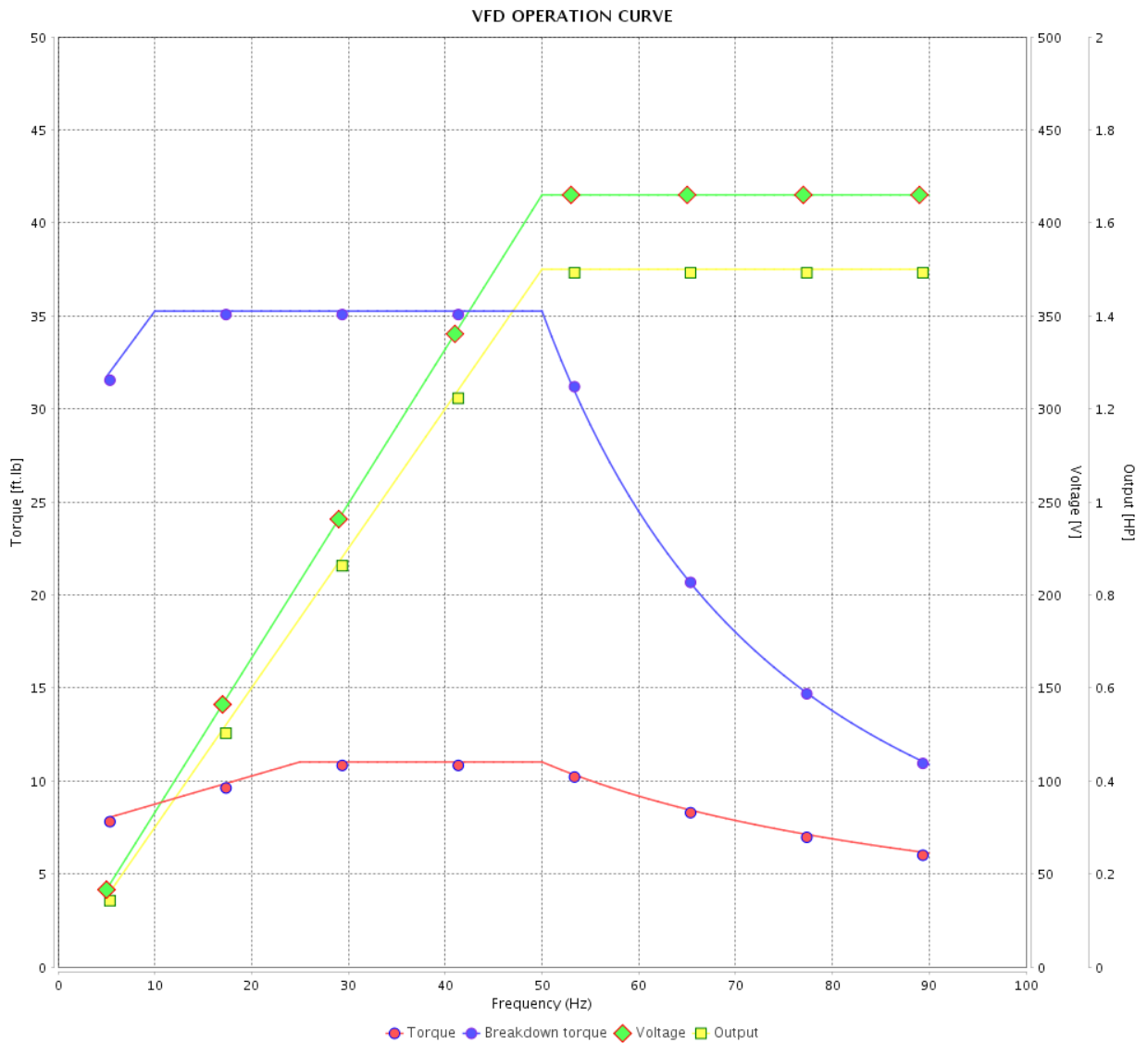


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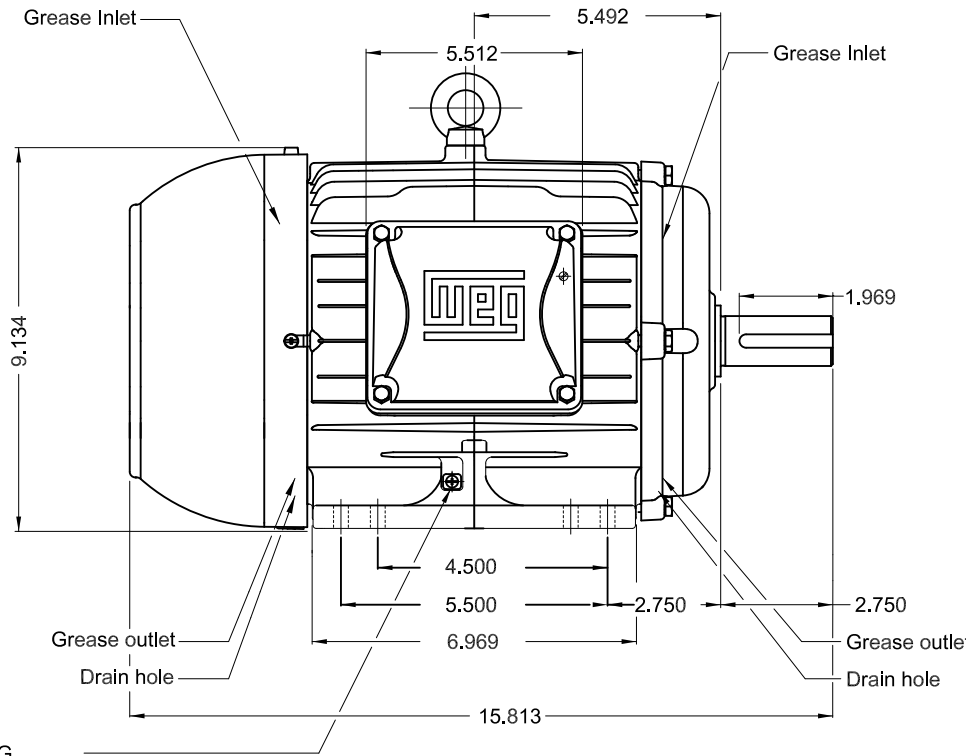
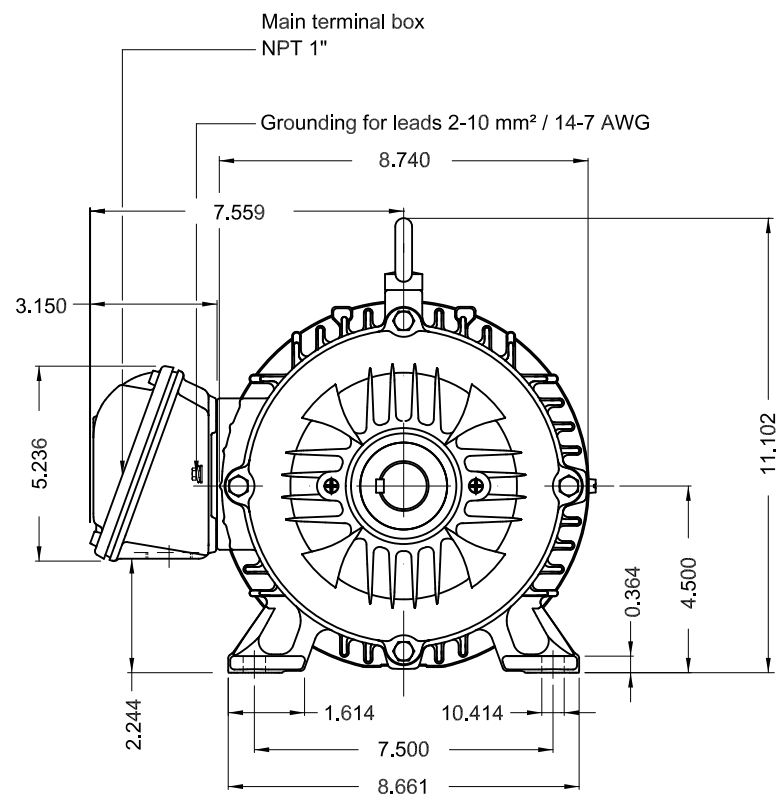
Rev.	Changes Summary	Performed	Checked	Date
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Date	11/04/2022			
				Revision

1 2 3 4 5 6

A

B

C

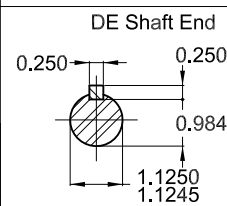


Grounding for leads 2-10 mm² / 14-7 AWG

D

E

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



1.5 HP 08 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



MADE IN BRAZIL
11677501



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 00159ST3QIE184T-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 2.70

HP 1.5

kW 1.1

SF 1.25

SFA 3.38

RPM 865

PF 0.62

AMB 40°C

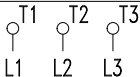
INS cl. F DT80K

NEMA NOM EFF 82.5%

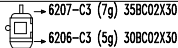
DUTY CONT.

DES B Code K

GUARANT. EFF 80.0%



460V



MOBIL POLYREX EM (20000h)

