

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12709736				
		Catalog # :	01036ST3QIE215TC-W22				
Frame	: 213/5TC	Cooling method	: IC411 - TEFC				
Insulation class	: F	Mounting	: F-1				
Duty cycle	: Cont.(S1)	Rotation <sup>1</sup>	: Both (CW and CCW)				
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line				
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>2</sup>	: 176 lb				
Protection degree	: IP55	Moment of inertia (J)	: 0.6362 sq.ft.lb				
Design	: B						
Output [HP]	10	7.5	7.5	7.5	10	10	10
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	11.6	10.4	10.1	9.91	14.1	13.4	13.1
L. R. Amperes [A]	83.5	77.0	84.8	90.2	79.0	85.8	90.4
LRC [A]	7.2x(Code H)	7.4x(Code H)	8.4x(Code J)	9.1x(Code K)	5.6x(Code F)	6.4x(Code G)	6.9x(Code H)
No load current [A]	3.40	3.40	3.70	3.90	3.40	3.70	3.90
Rated speed [RPM]	3510	2925	2935	2940	2870	2890	2900
Slip [%]	2.50	2.50	2.17	2.00	4.33	3.67	3.33
Rated torque [ft.lb]	15.0	13.5	13.4	13.4	18.3	18.2	18.1
Locked rotor torque [%]	220	240	270	290	170	200	220
Breakdown torque [%]	290	300	340	360	220	250	270
Service factor	1.25	1.25	1.25	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	105 K
Locked rotor time	43s (cold) 24s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level <sup>2</sup>	68.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)
Efficiency (%)	25%	89.3	88.4	88.2	87.2	90.1	90.2
	50%	89.5	88.6	88.4	87.7	89.5	89.5
	75%	90.2	89.6	89.6	89.5	89.5	89.5
	100%	90.2	89.5	89.5	89.8	88.5	88.5
Power Factor	25%	0.54	0.51	0.47	0.45	0.60	0.54
	50%	0.79	0.75	0.72	0.70	0.83	0.79
	75%	0.87	0.86	0.83	0.82	0.90	0.87
	100%	0.90	0.90	0.88	0.86	0.91	0.90
Bearing type	: Drive end : 6308 C3	Non drive end : 6207 C3	Foundation loads				
Sealing	: Inpro/Seal	Inpro/Seal	Max. traction	: 187 lb			
Lubrication interval	: 20000 h	20000 h	Max. compression	: 364 lb			
Lubricant amount	: 11 g	7 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



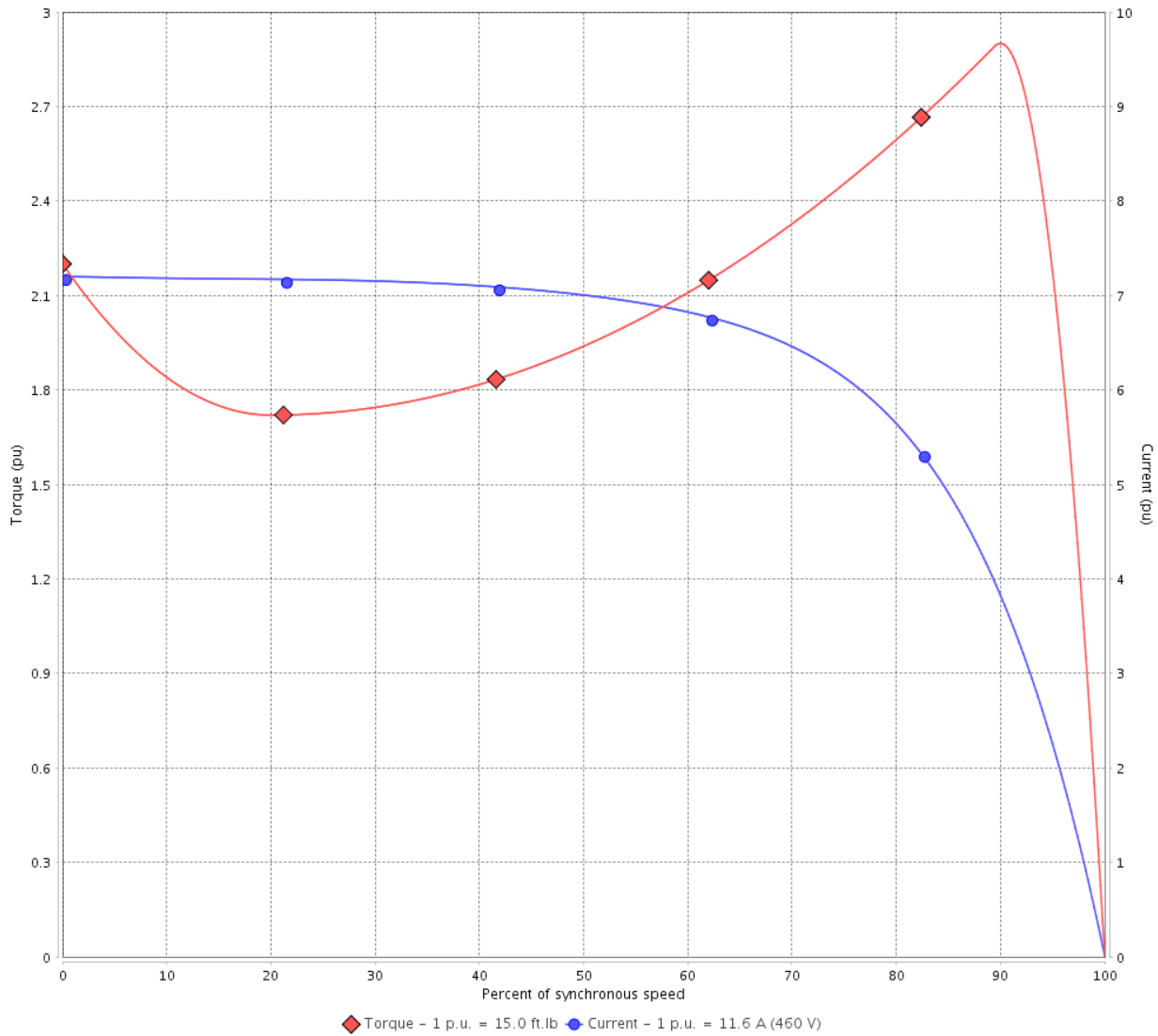
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 2P

Rated current	: 11.6 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 15.0 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 3510 rpm	Design	: B

Locked rotor time : 43s (cold) 24s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



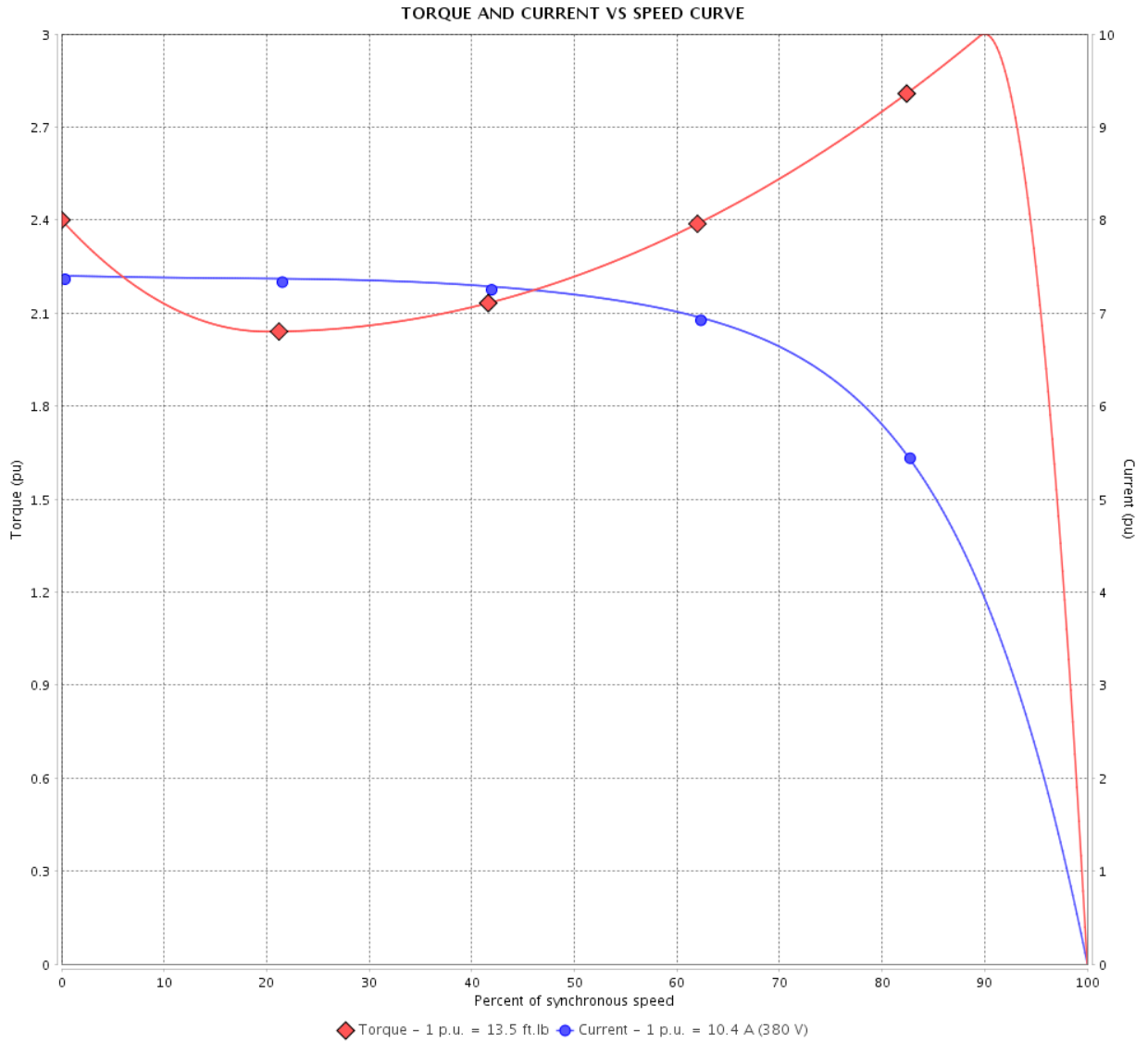
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 380 V 50 Hz 2P IE3

Rated current	: 10.4 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 13.5 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2925 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



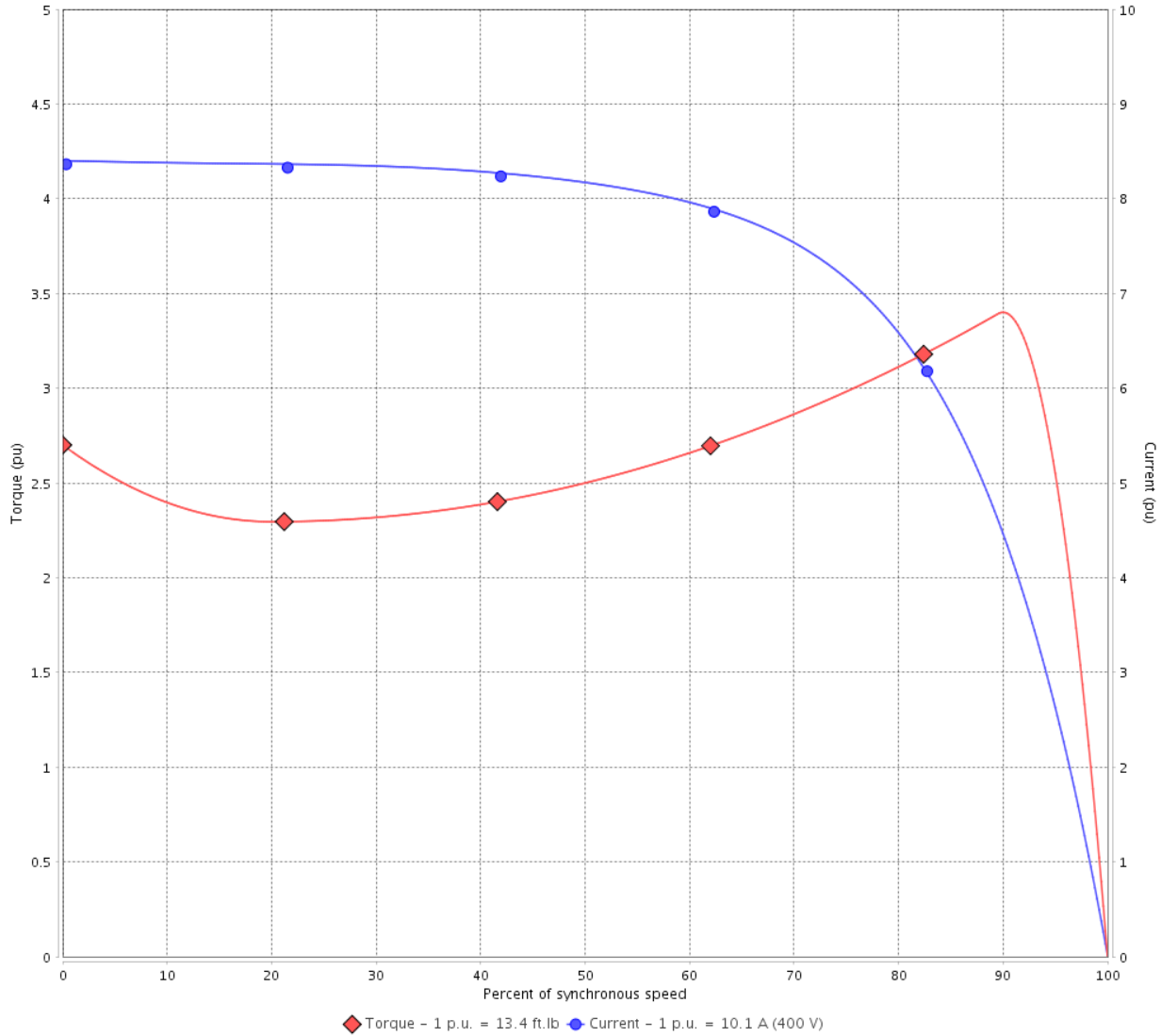
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 10.1 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 13.4 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 2935 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



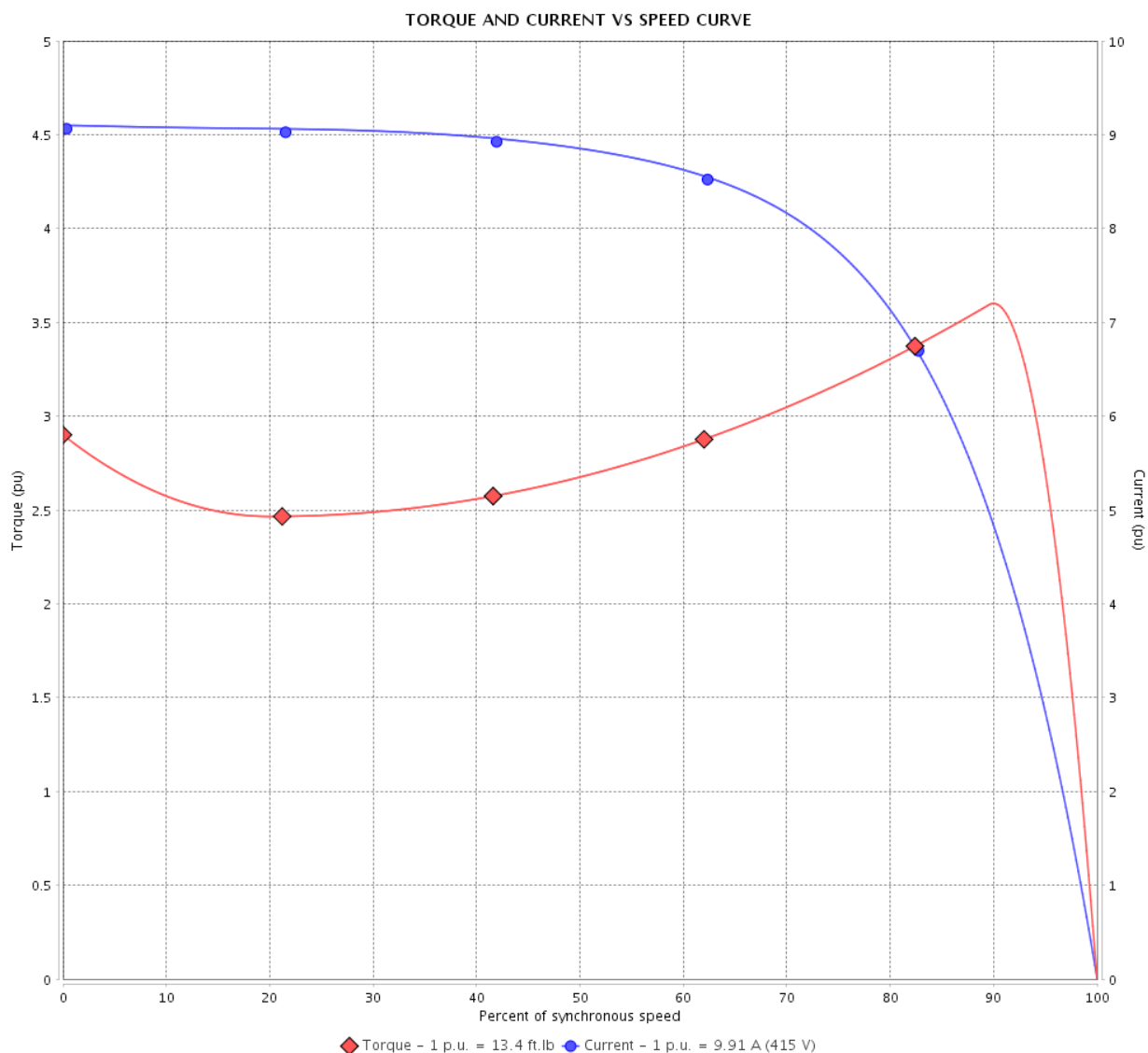
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 415 V 50 Hz 2P IE3

Rated current	: 9.91 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 9.1	Duty cycle	: Cont.(S1)
Rated torque	: 13.4 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.25
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 2940 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



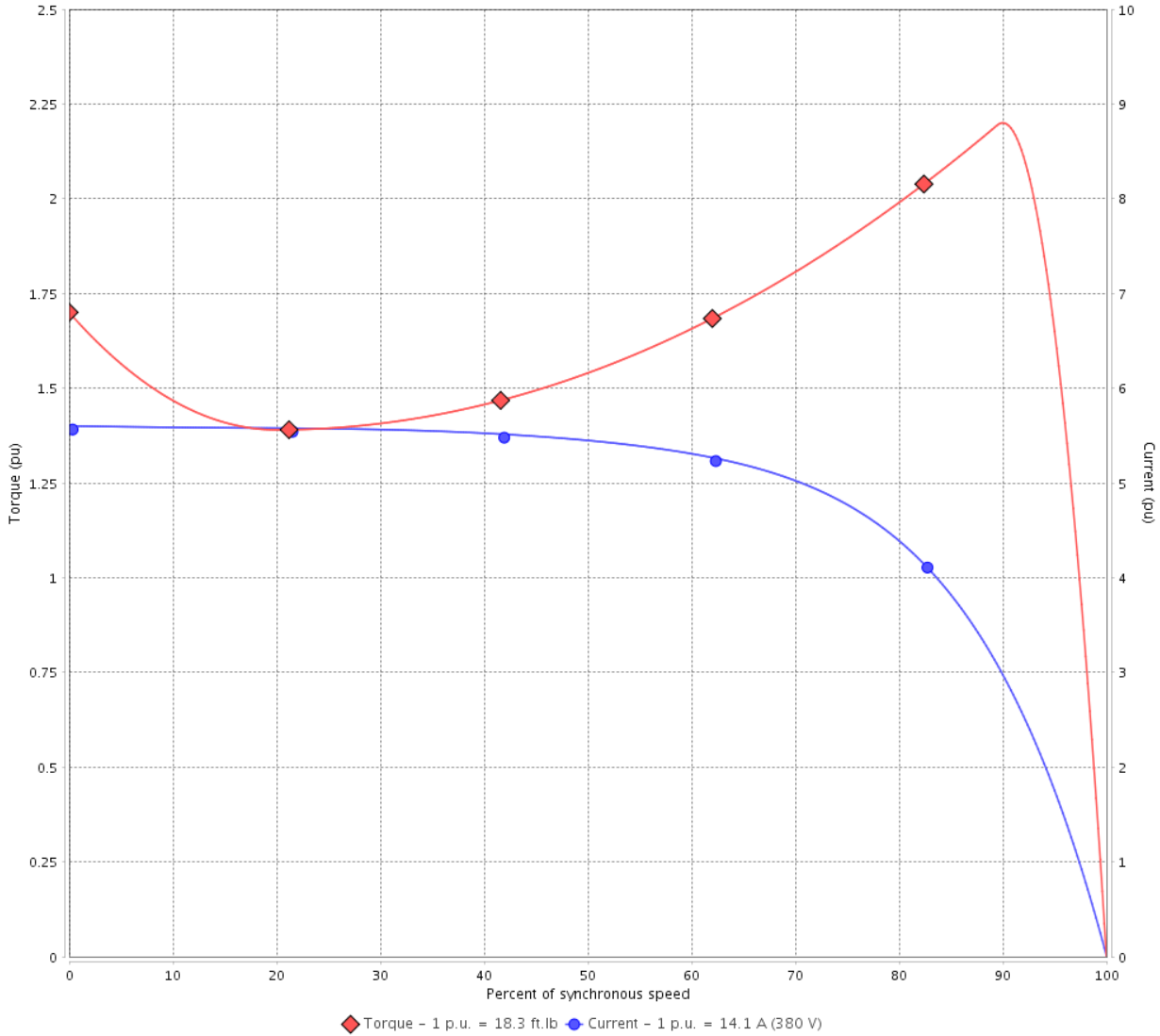
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current	: 14.1 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 18.3 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 2870 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



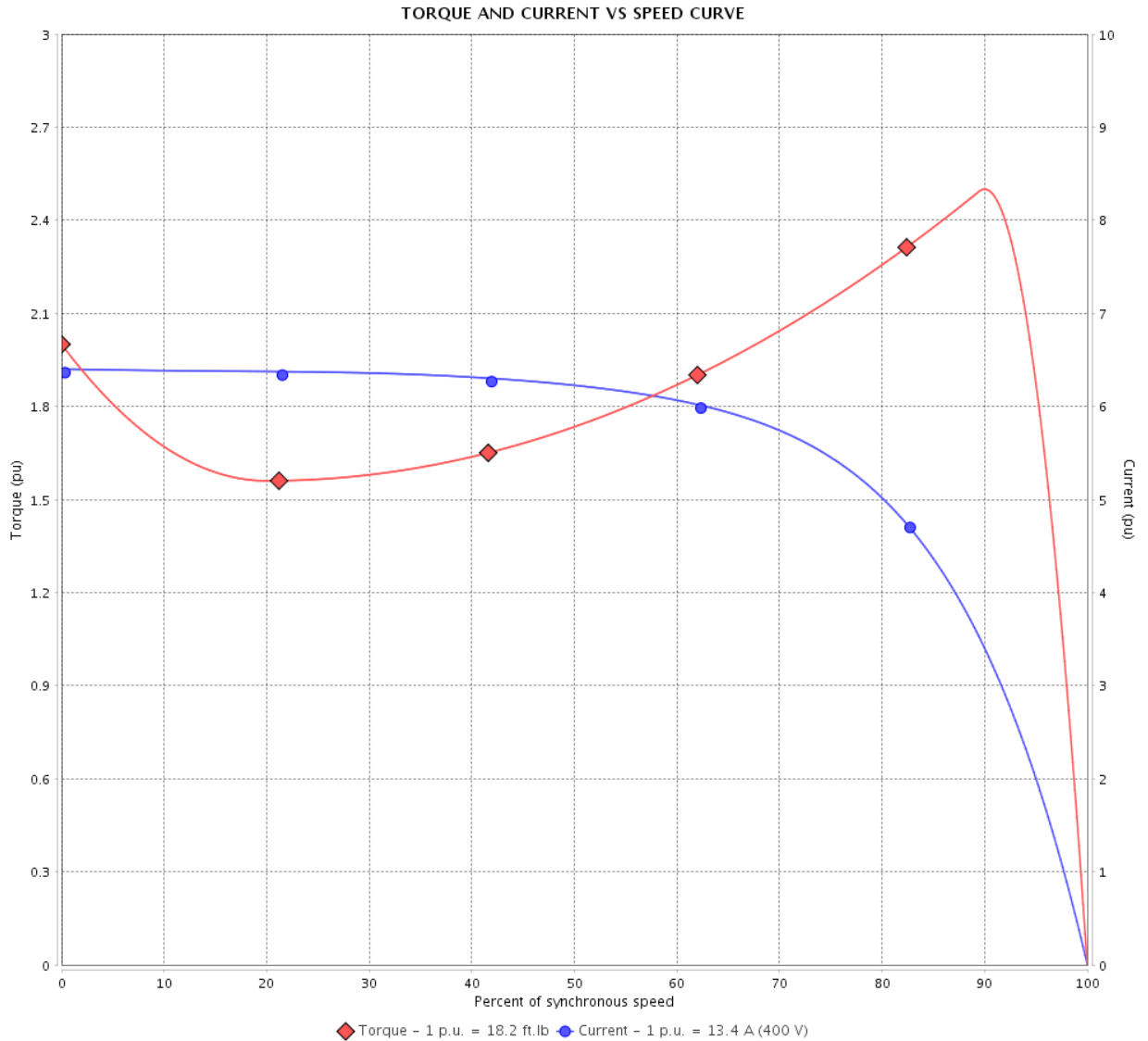
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 400 V 50 Hz 2P IE2

Rated current	: 13.4 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 18.2 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 105 K
Rated speed	: 2890 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



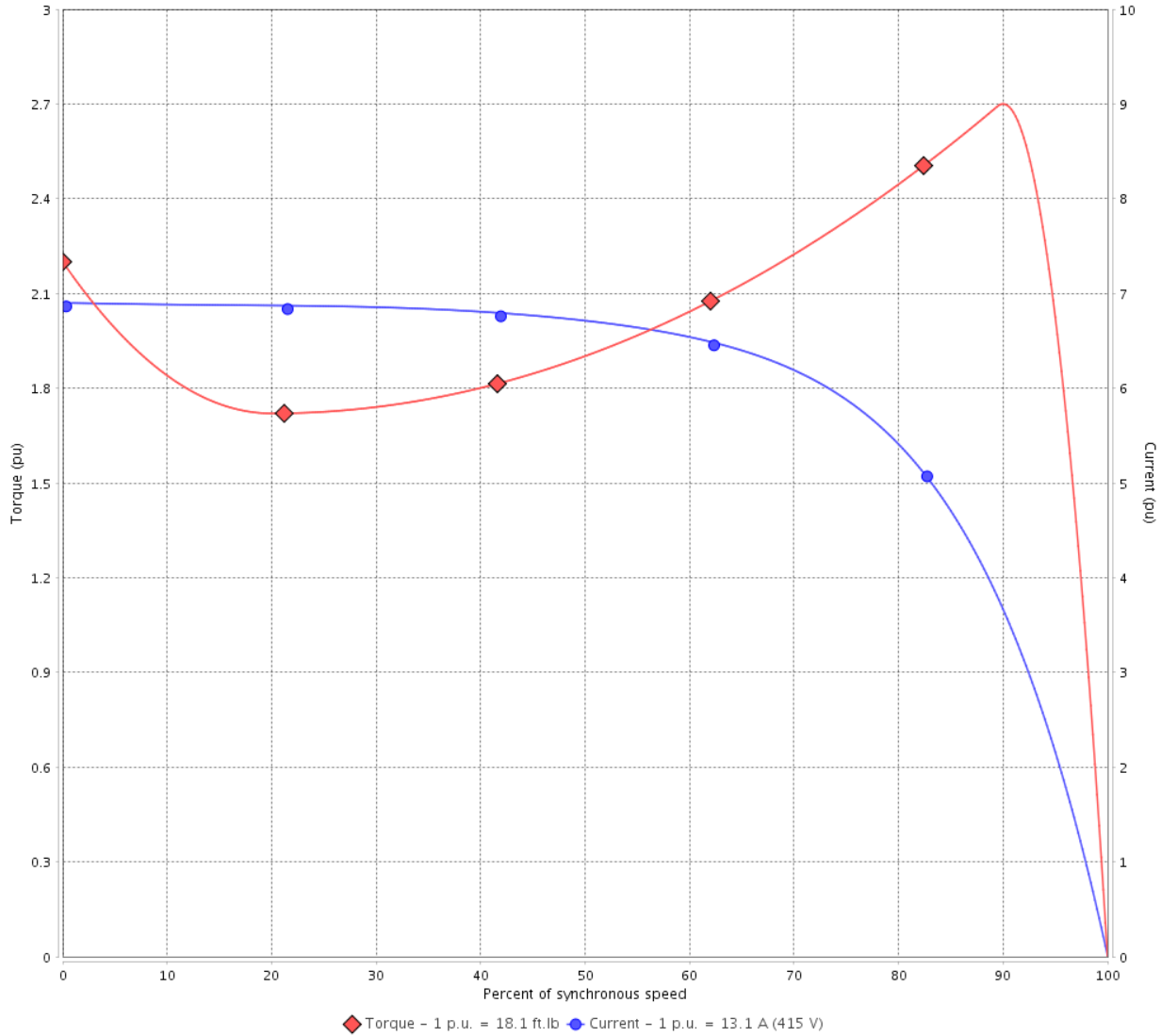
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P IE2

Rated current	: 13.1 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 18.1 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 105 K
Rated speed	: 2900 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

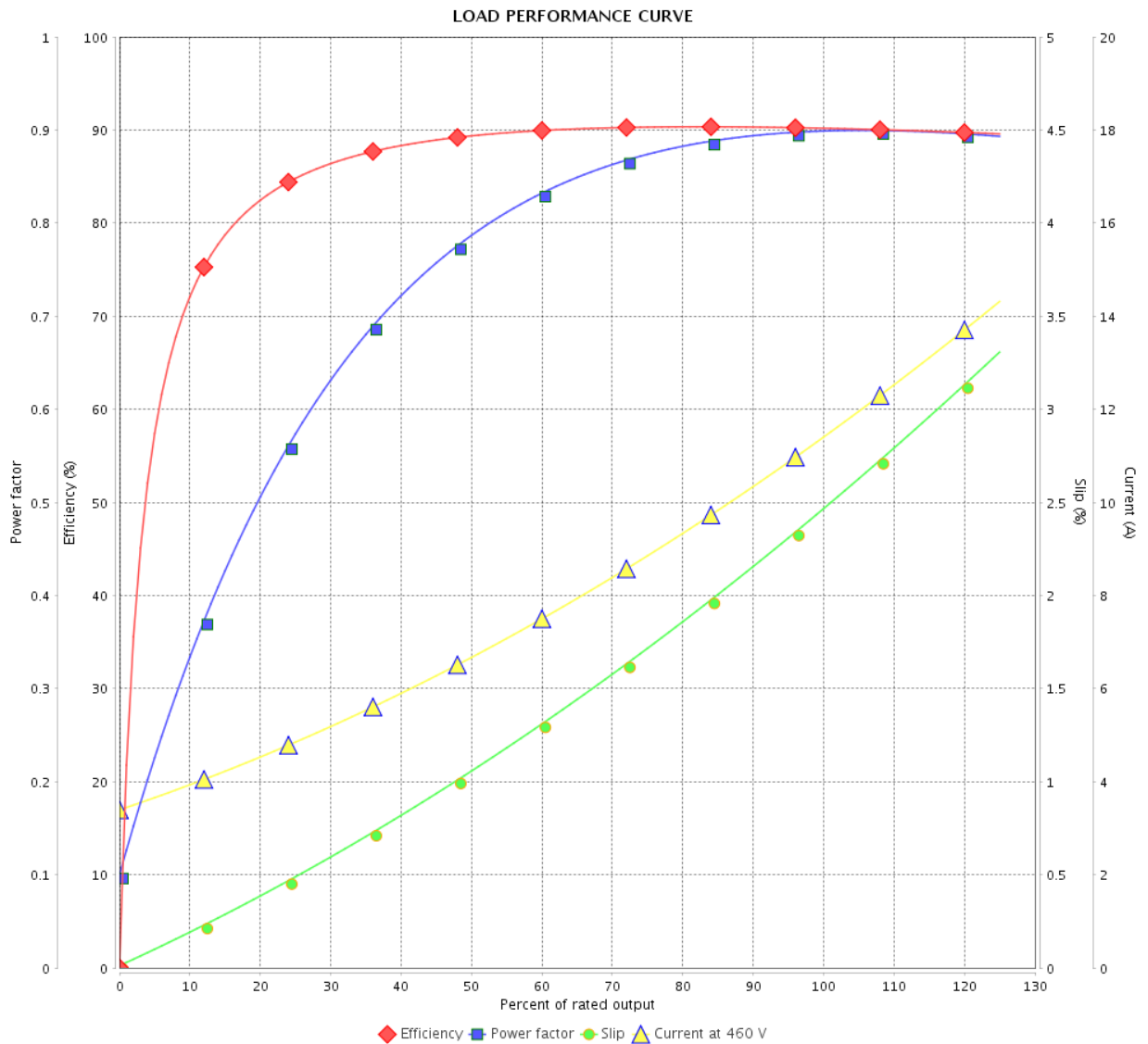


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 460 V 60 Hz 2P

Rated current : 11.6 A  
 LRC : 7.2  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 290 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



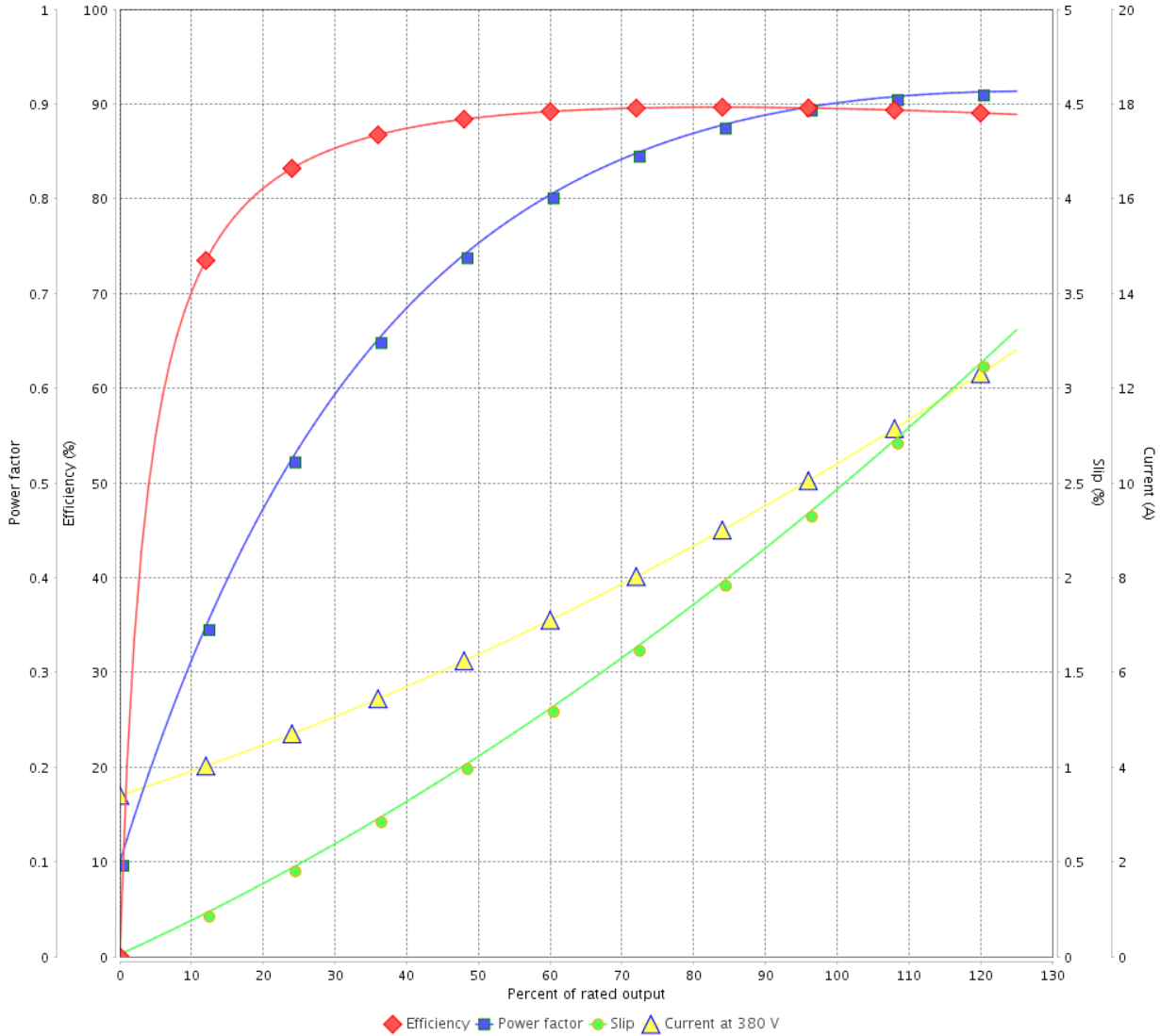
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 2P IE3

Rated current : 10.4 A  
 LRC : 7.4  
 Rated torque : 13.5 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 300 %  
 Rated speed : 2925 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

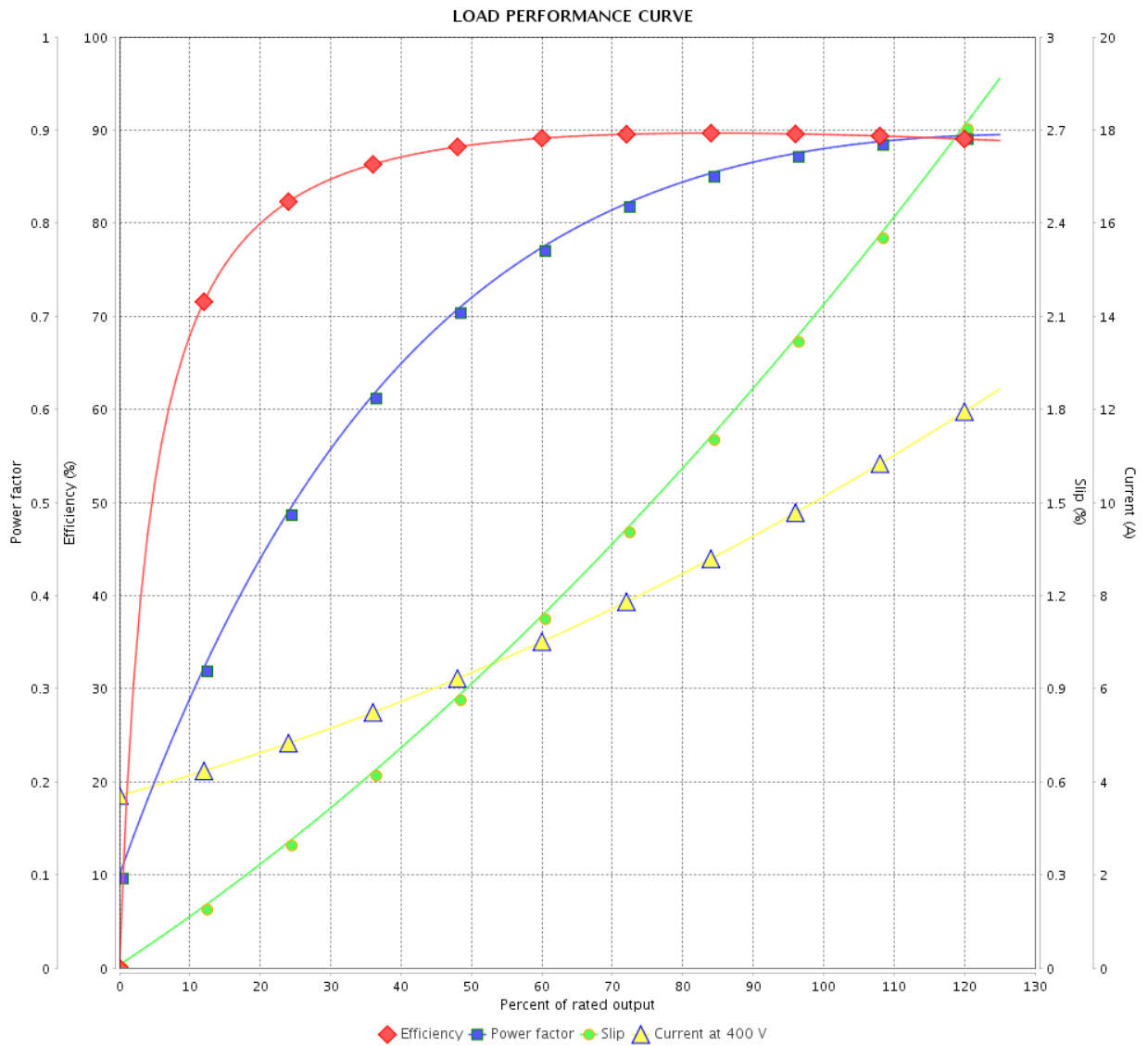


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 400 V 50 Hz 2P IE3

Rated current : 10.1 A  
 LRC : 8.4  
 Rated torque : 13.4 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 340 %  
 Rated speed : 2935 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



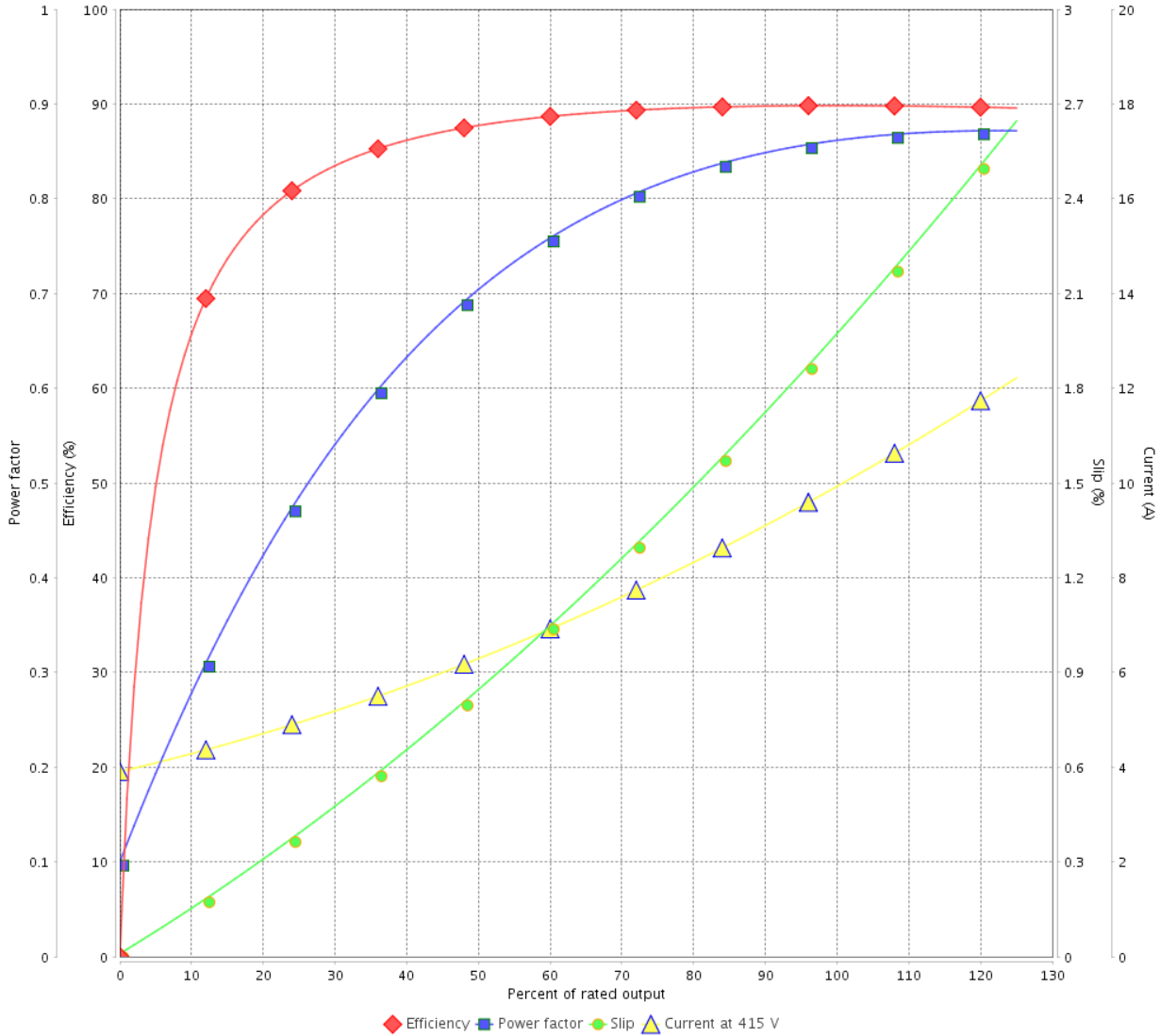
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current : 9.91 A  
 LRC : 9.1  
 Rated torque : 13.4 ft.lb  
 Locked rotor torque : 290 %  
 Breakdown torque : 360 %  
 Rated speed : 2940 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

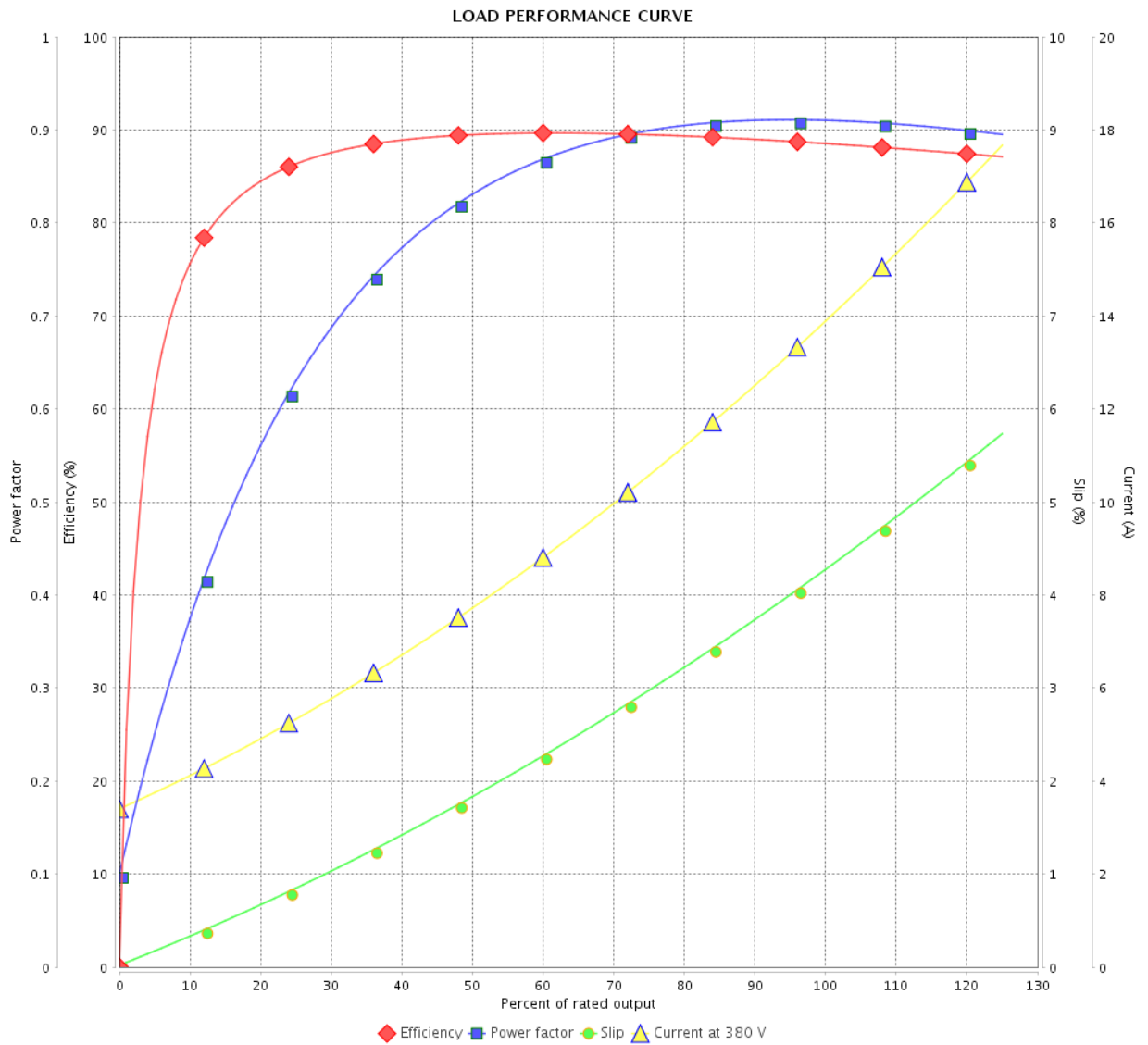


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 380 V 50 Hz 2P IE2

Rated current : 14.1 A  
 LRC : 5.6  
 Rated torque : 18.3 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 220 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



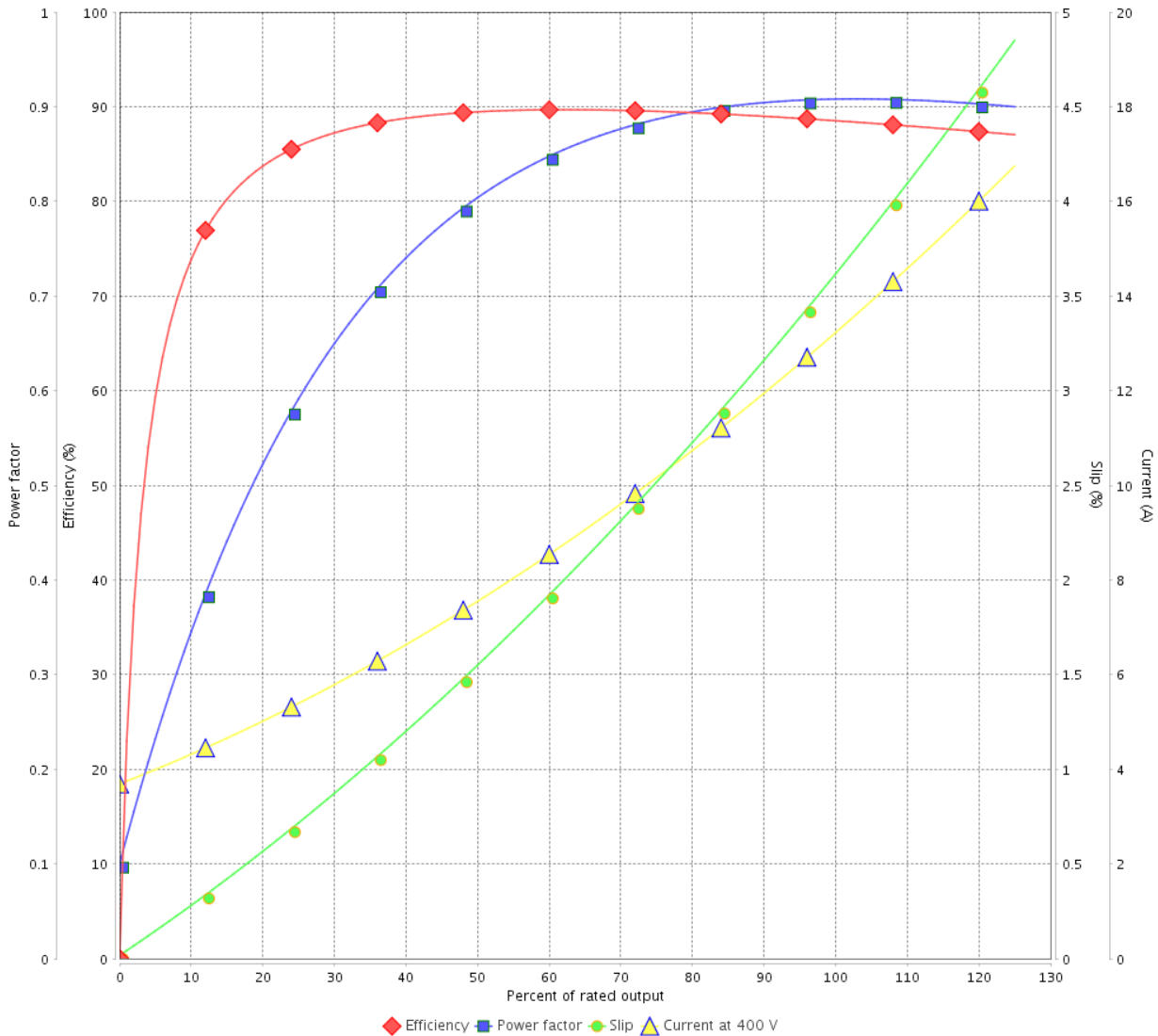
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE2

Rated current : 13.4 A  
 LRC : 6.4  
 Rated torque : 18.2 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 2890 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

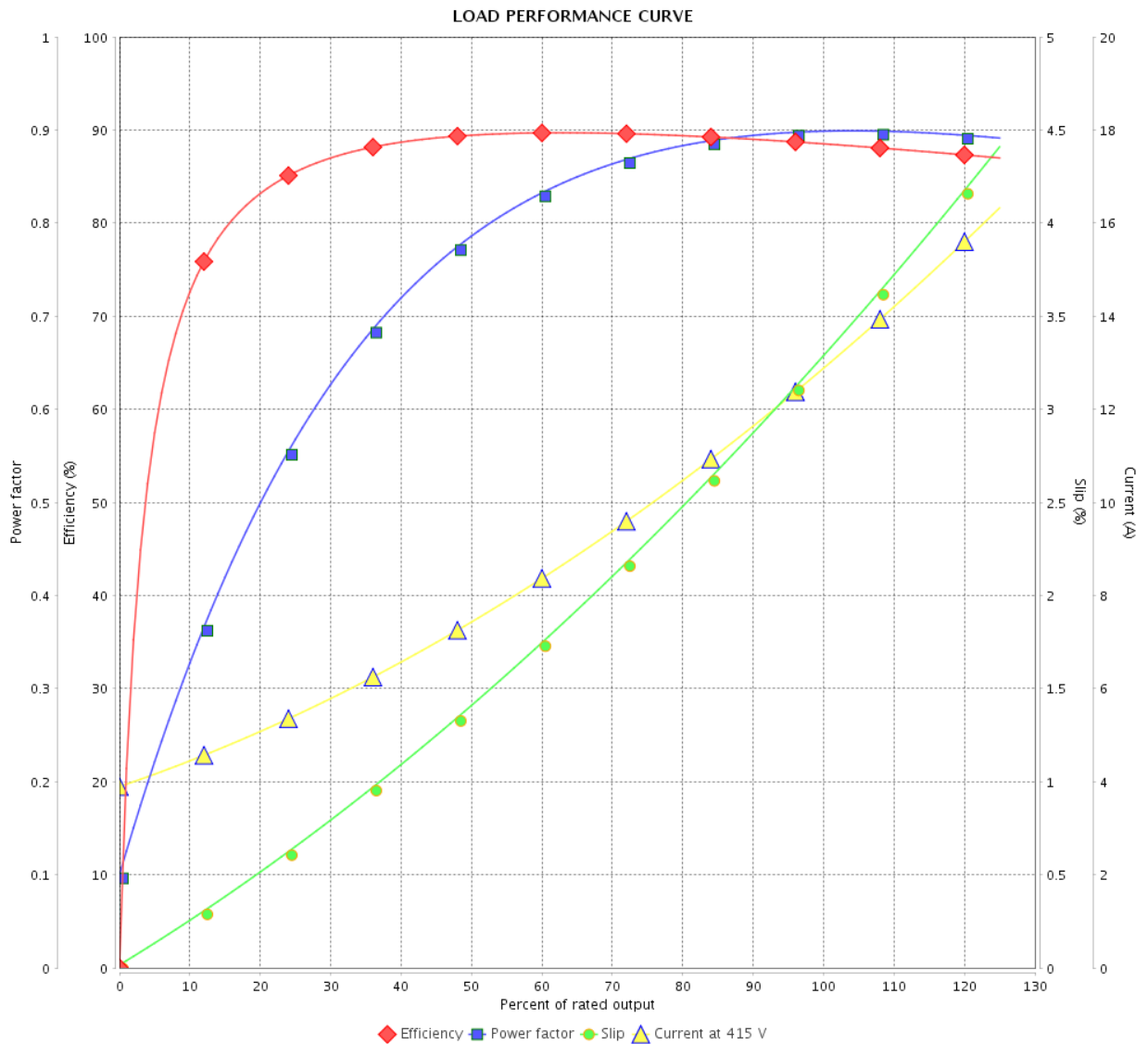


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 415 V 50 Hz 2P IE2

Rated current : 13.1 A  
 LRC : 6.9  
 Rated torque : 18.1 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 270 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 12709736  
 Catalog # : 01036ST3QIE215TC-W22

Performance : 460 V 60 Hz 2P

Rated current : 11.6 A	Moment of inertia (J) : 0.6362 sq.ft.lb
LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 15.0 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.25
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 3510 rpm	Design : B

Heating constant

Cooling constant

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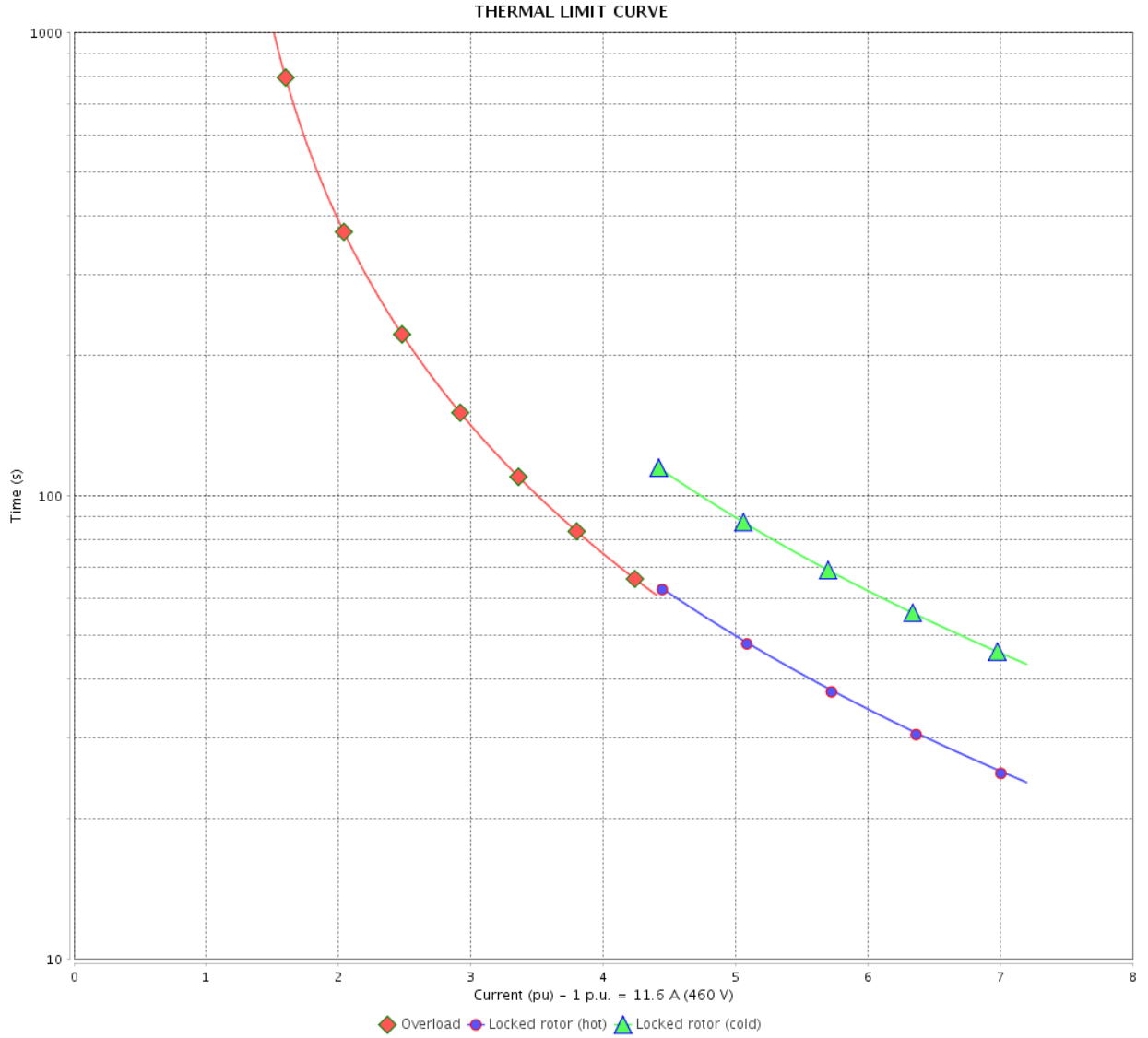


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12709736  
Catalog # : 01036ST3QIE215TC-W22

Performance : 380 V 50 Hz 2P IE3

Rated current	: 10.4 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 13.5 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2925 rpm	Design	: B

Heating constant

Cooling constant

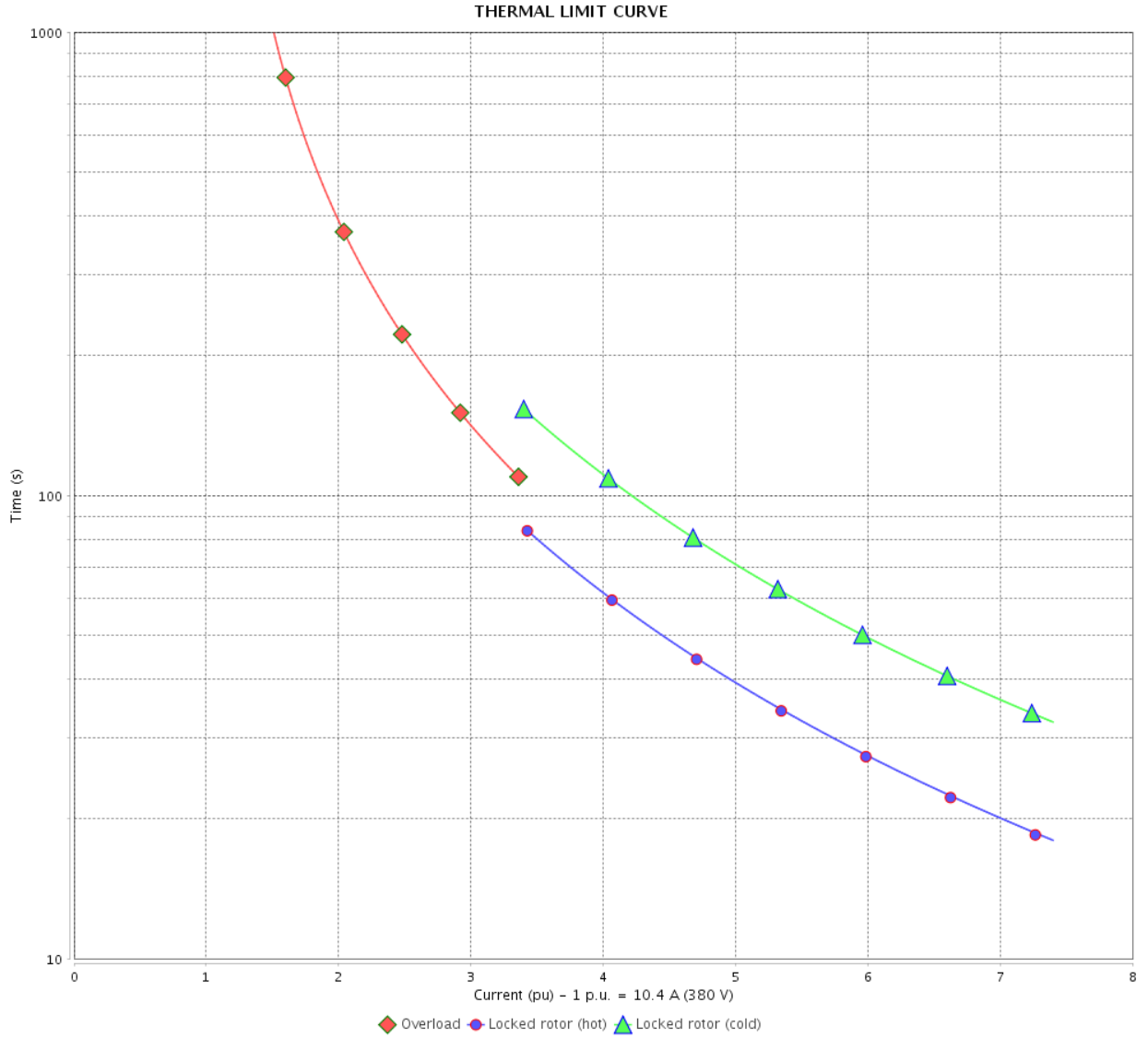
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

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Product code : 12709736  
Catalog # : 01036ST3QIE215TC-W22

Performance : 400 V 50 Hz 2P IE3

Rated current	: 10.1 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 13.4 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 2935 rpm	Design	: B

Heating constant

Cooling constant

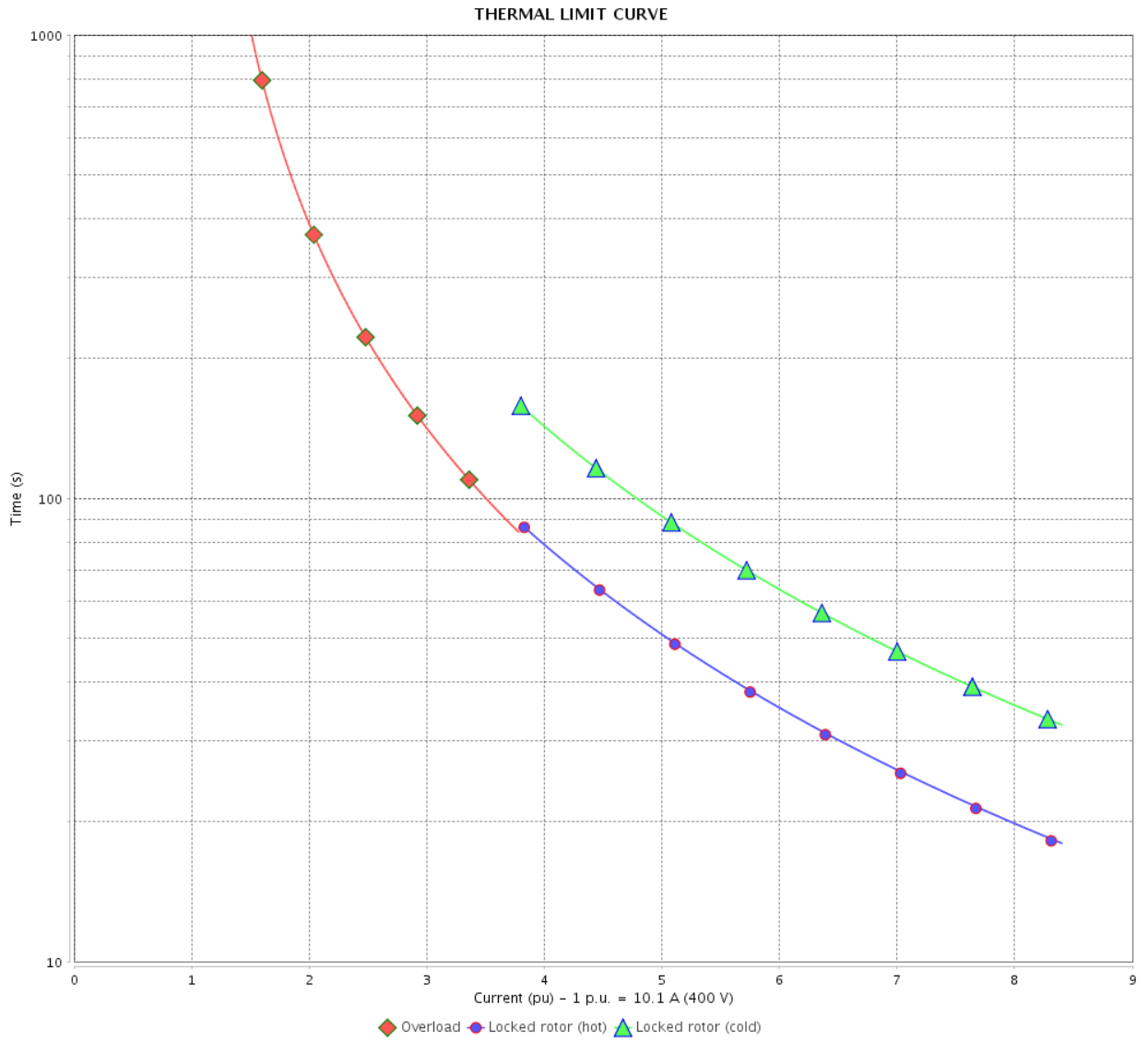
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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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Product code : 12709736  
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Performance : 415 V 50 Hz 2P IE3

Rated current	: 9.91 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 9.1	Duty cycle	: Cont.(S1)
Rated torque	: 13.4 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.25
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 2940 rpm	Design	: B

Heating constant

Cooling constant

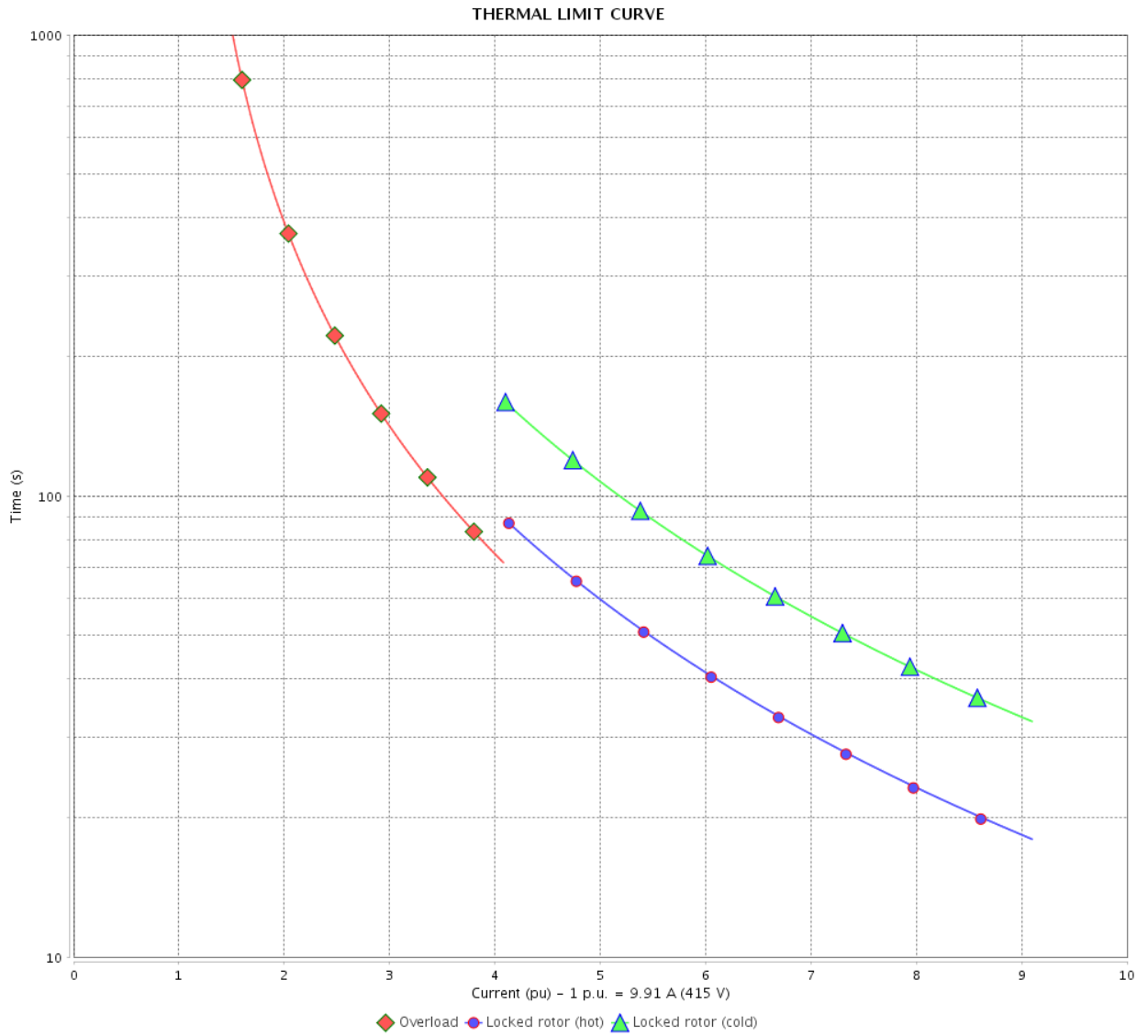
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12709736  
Catalog # : 01036ST3QIE215TC-W22

Performance : 380 V 50 Hz 2P IE2

Rated current	: 14.1 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 18.3 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 2870 rpm	Design	: B

Heating constant

Cooling constant

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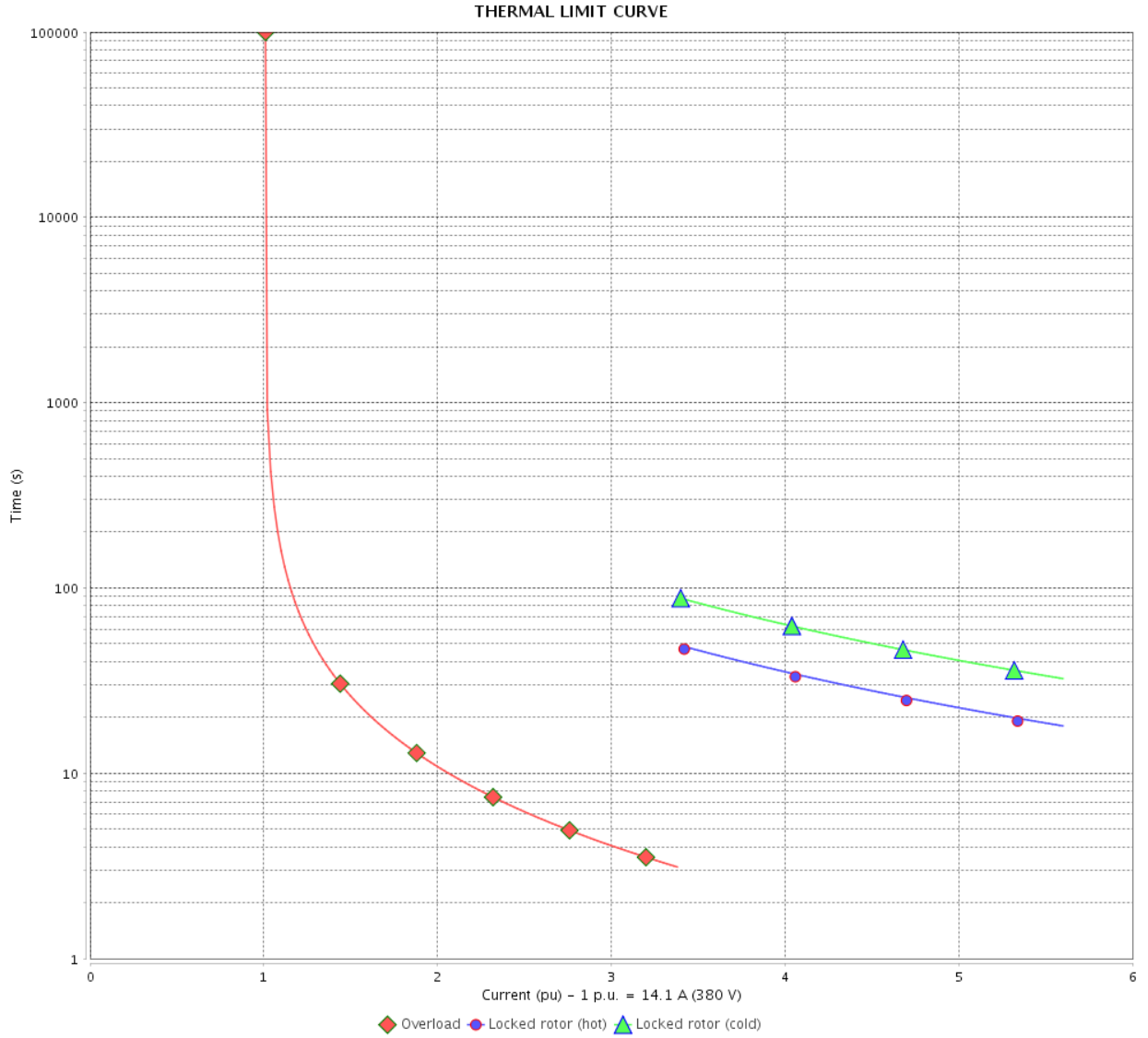


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
			Page	Revision
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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 12709736  
 Catalog # : 01036ST3QIE215TC-W22

Performance : 400 V 50 Hz 2P IE2

Rated current : 13.4 A	Moment of inertia (J) : 0.6362 sq.ft.lb
LRC : 6.4	Duty cycle : Cont.(S1)
Rated torque : 18.2 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 105 K
Rated speed : 2890 rpm	Design : B

Heating constant

Cooling constant

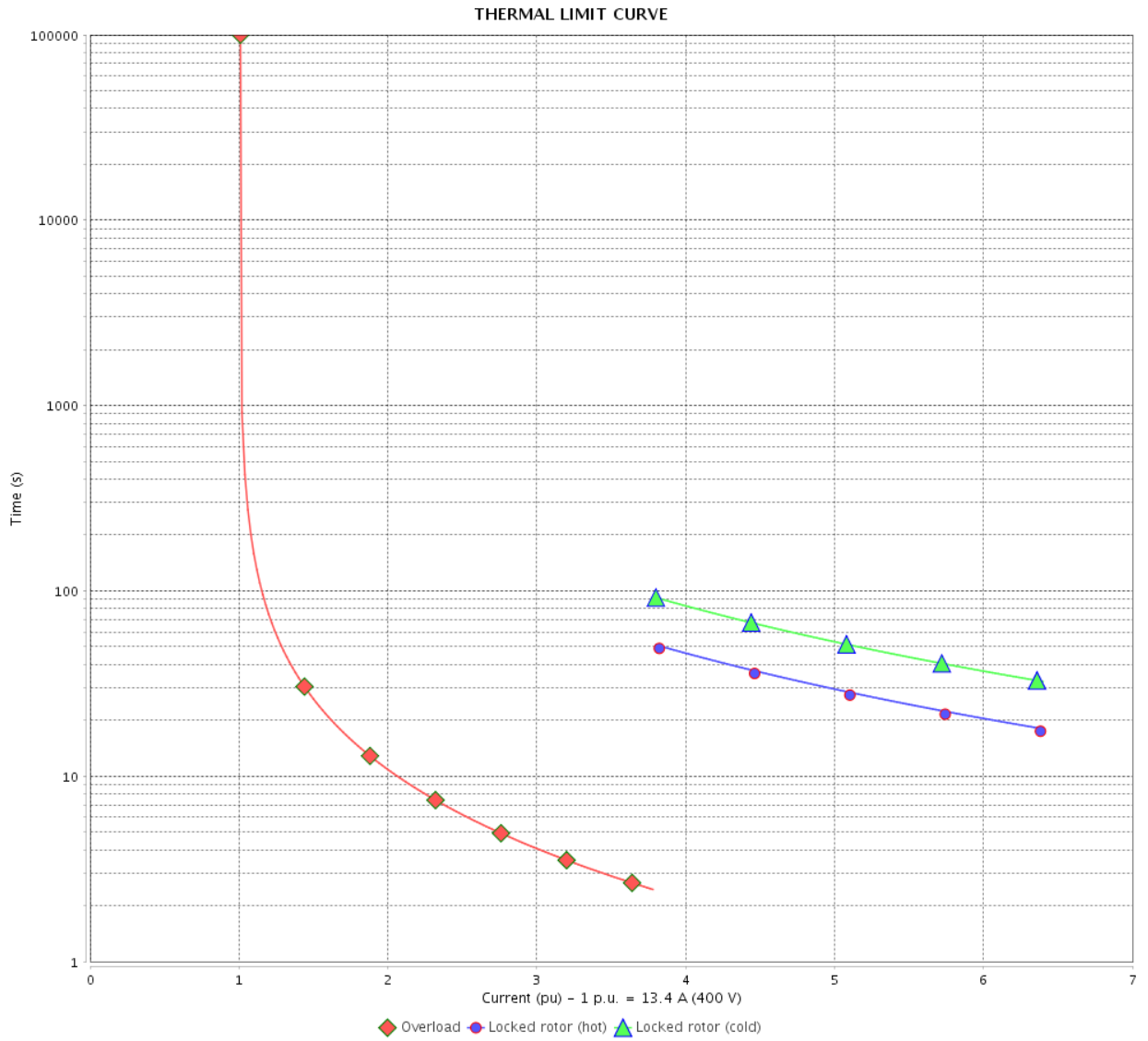
Rev.	Changes Summary	Performed	Checked	Date
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Date	12/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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Performed by		Page		Revision
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Date		12/04/2022		

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12709736  
Catalog # : 01036ST3QIE215TC-W22

Performance : 415 V 50 Hz 2P IE2

Rated current	: 13.1 A	Moment of inertia (J)	: 0.6362 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 18.1 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 105 K
Rated speed	: 2900 rpm	Design	: B

Heating constant

Cooling constant

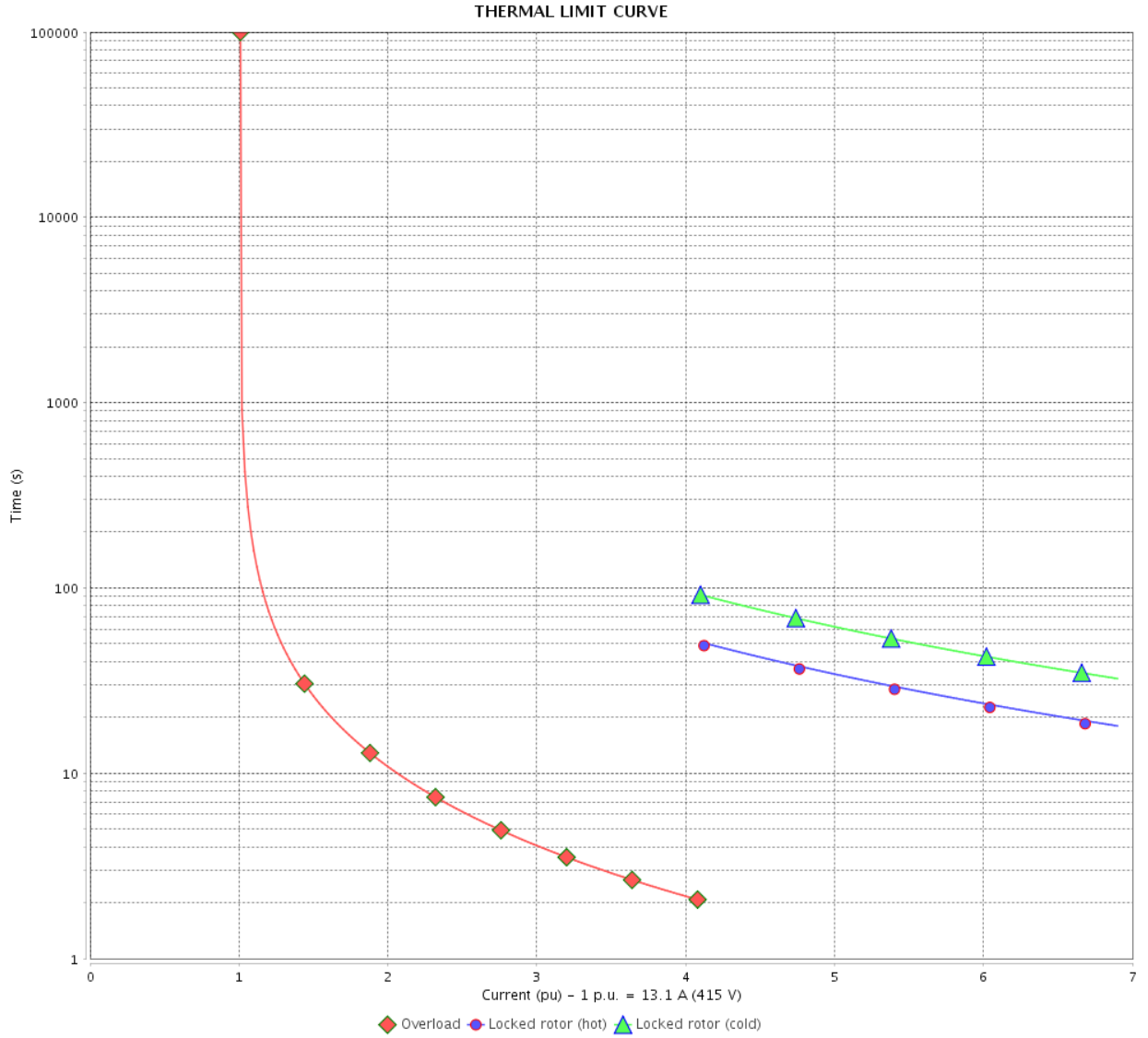
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		28 / 36	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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Performed by				
Checked by				
Date				
		Page 29 / 36	Revision	

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



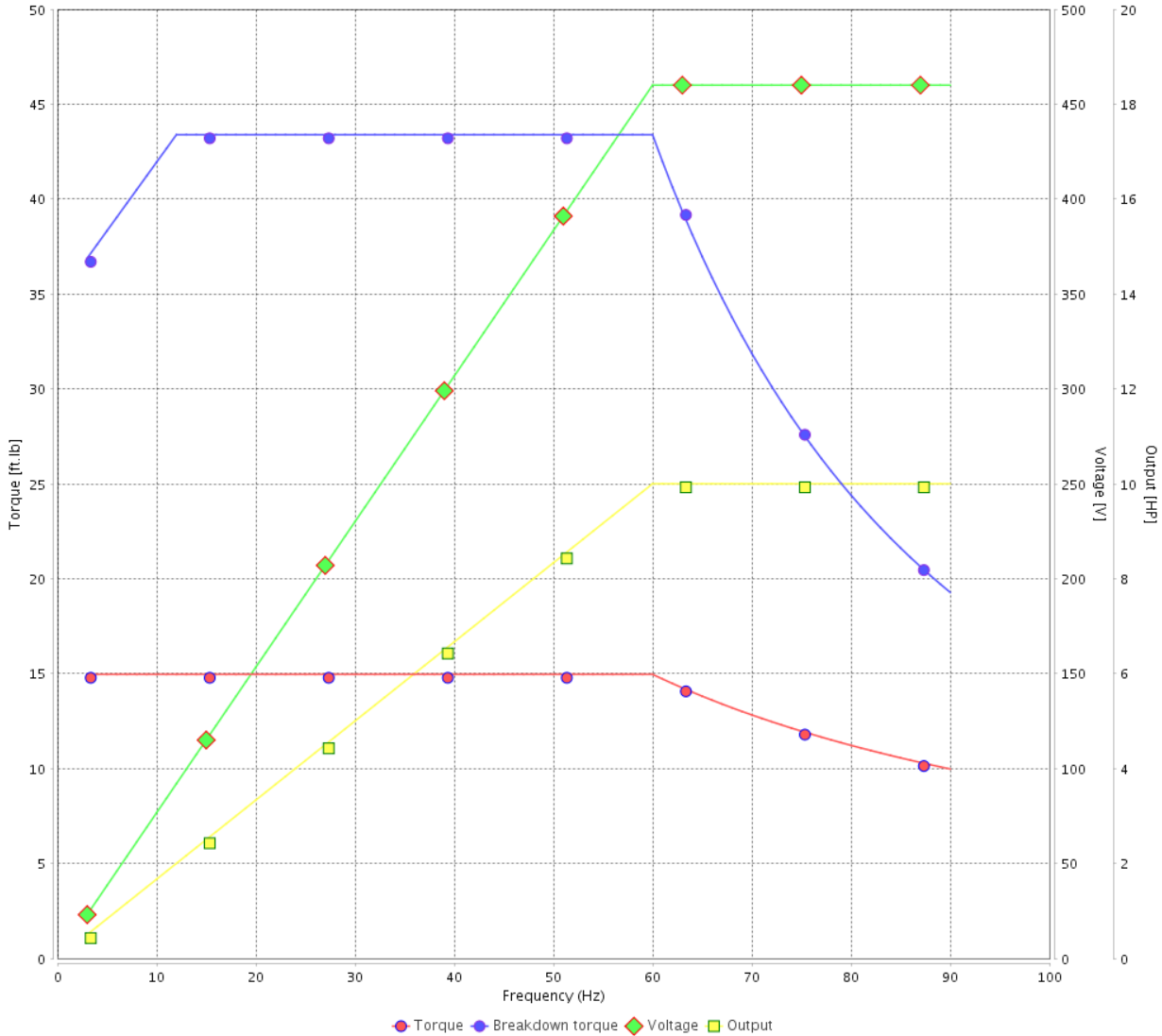
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

VFD OPERATION CURVE



Performance : 460 V 60 Hz 2P

Rated current : 11.6 A  
 LRC : 7.2  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 290 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.6362 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

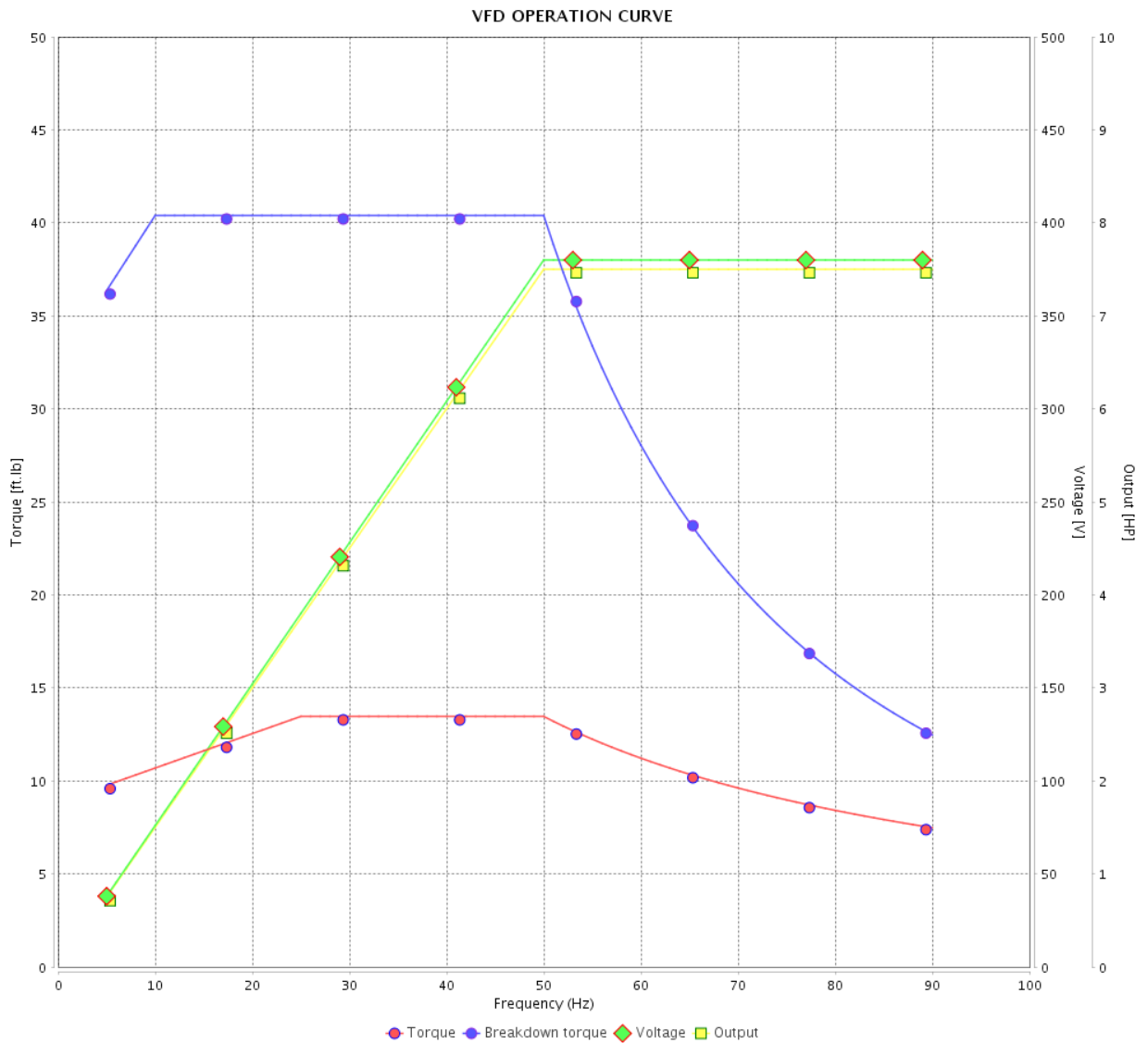


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 380 V 50 Hz 2P IE3

Rated current : 10.4 A  
 LRC : 7.4  
 Rated torque : 13.5 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 300 %  
 Rated speed : 2925 rpm

Moment of inertia (J) : 0.6362 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	Revision
Checked by				
Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



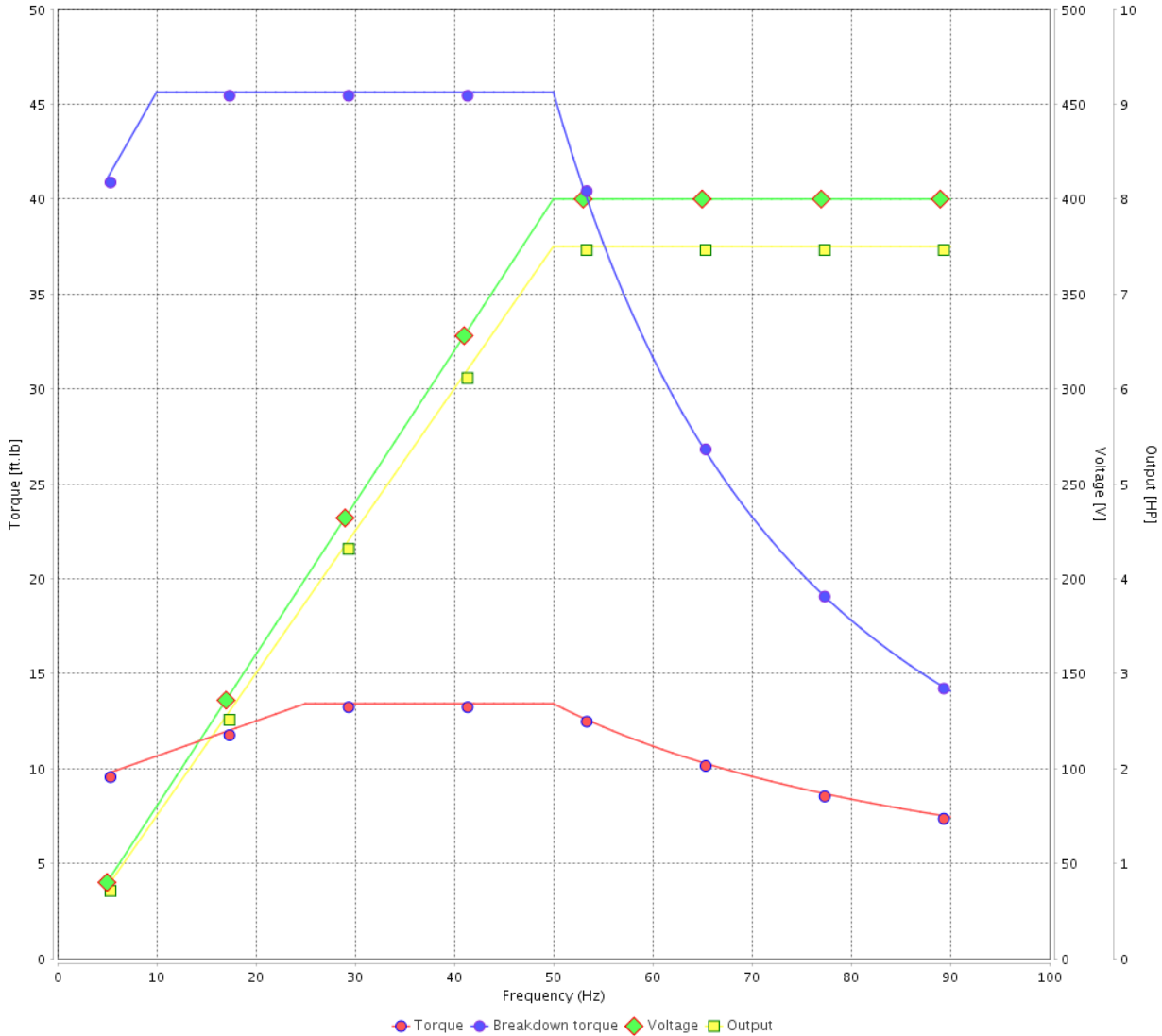
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

VFD OPERATION CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 10.1 A  
 LRC : 8.4  
 Rated torque : 13.4 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 340 %  
 Rated speed : 2935 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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Performed by			Page 32 / 36	Revision
Checked by				
Date	12/04/2022			



# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

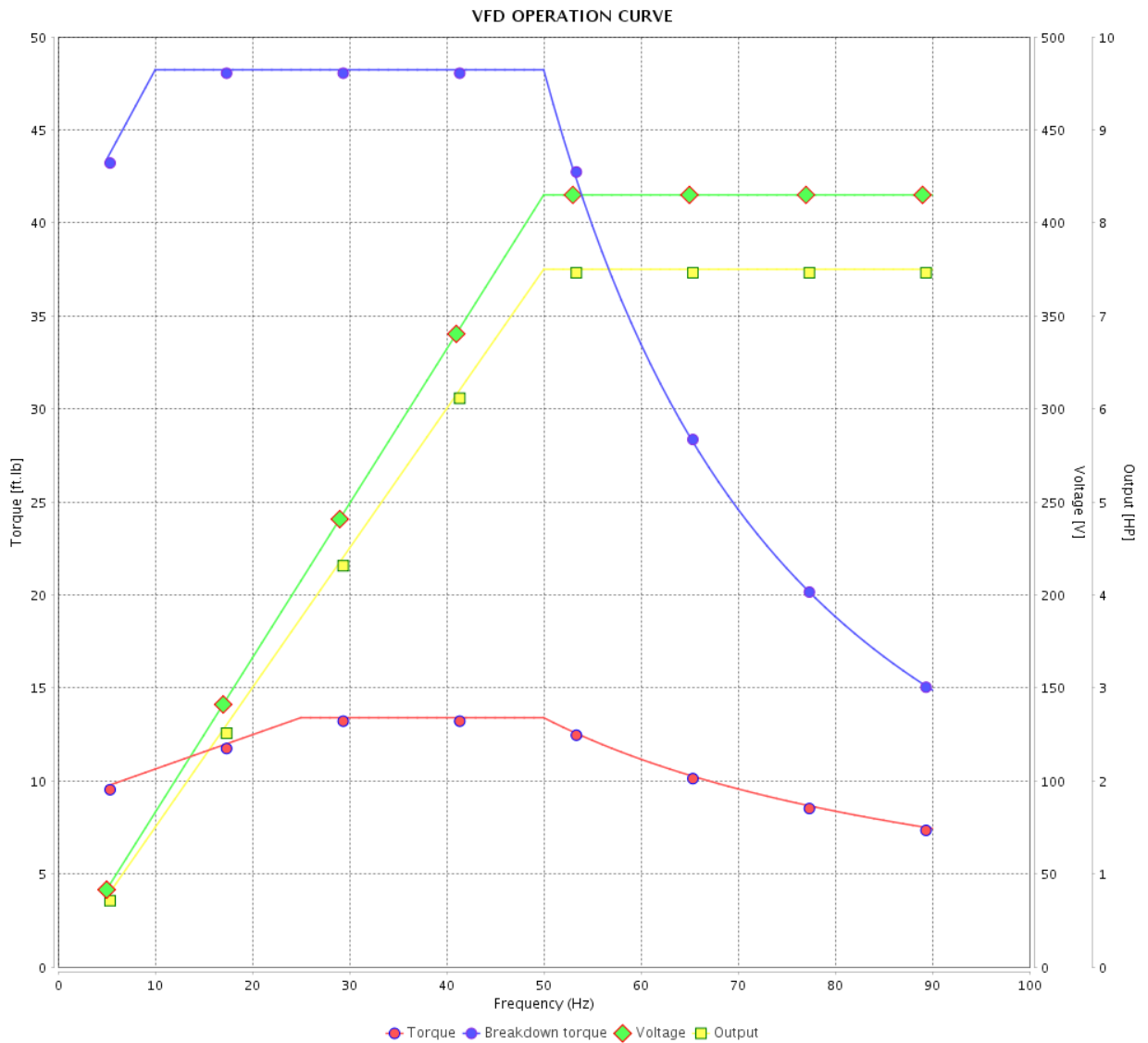


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 415 V 50 Hz 2P IE3

Rated current : 9.91 A  
 LRC : 9.1  
 Rated torque : 13.4 ft.lb  
 Locked rotor torque : 290 %  
 Breakdown torque : 360 %  
 Rated speed : 2940 rpm

Moment of inertia (J) : 0.6362 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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Date		12/04/2022		

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



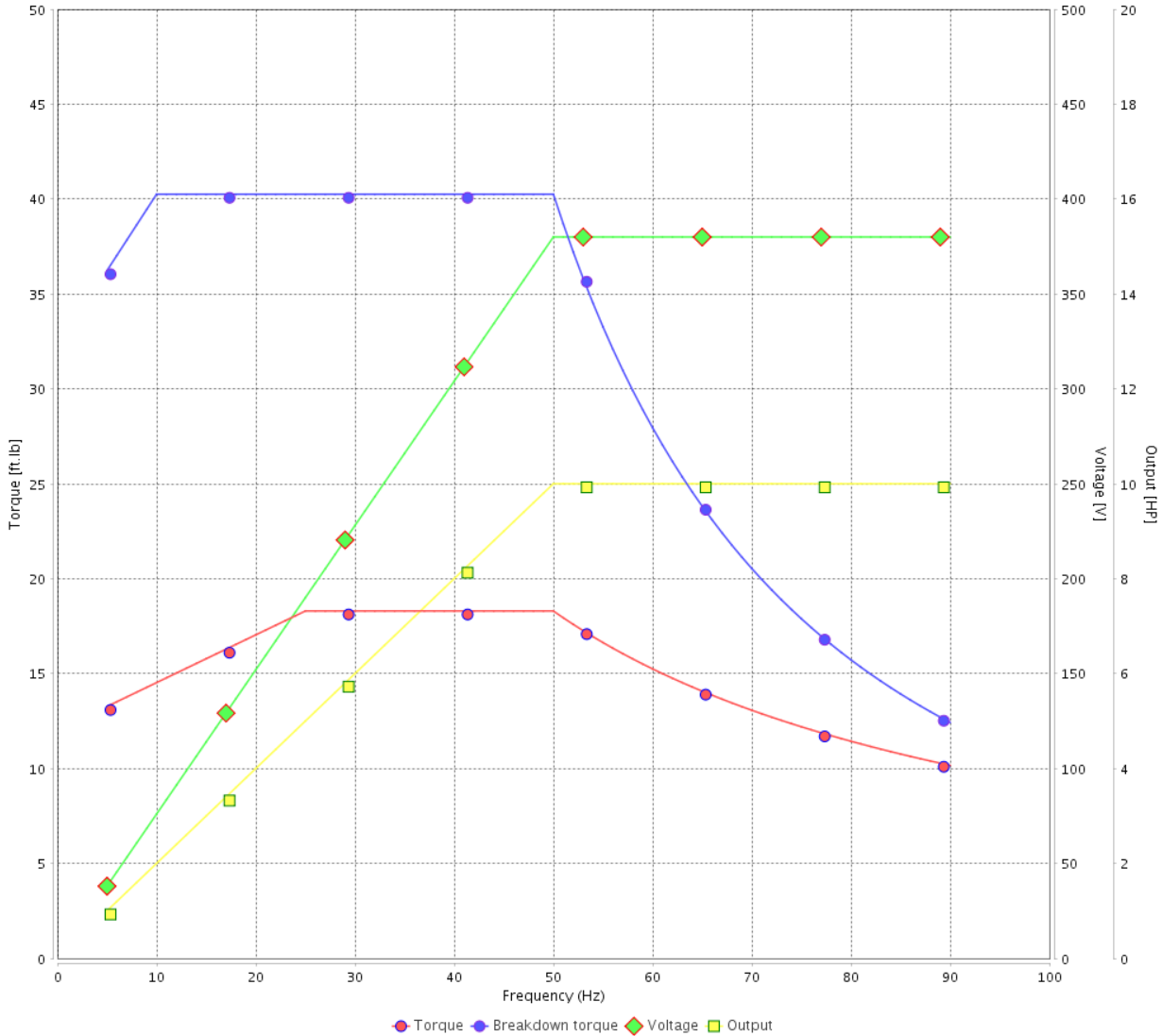
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22

VFD OPERATION CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current : 14.1 A  
 LRC : 5.6  
 Rated torque : 18.3 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 220 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Date	12/04/2022			

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

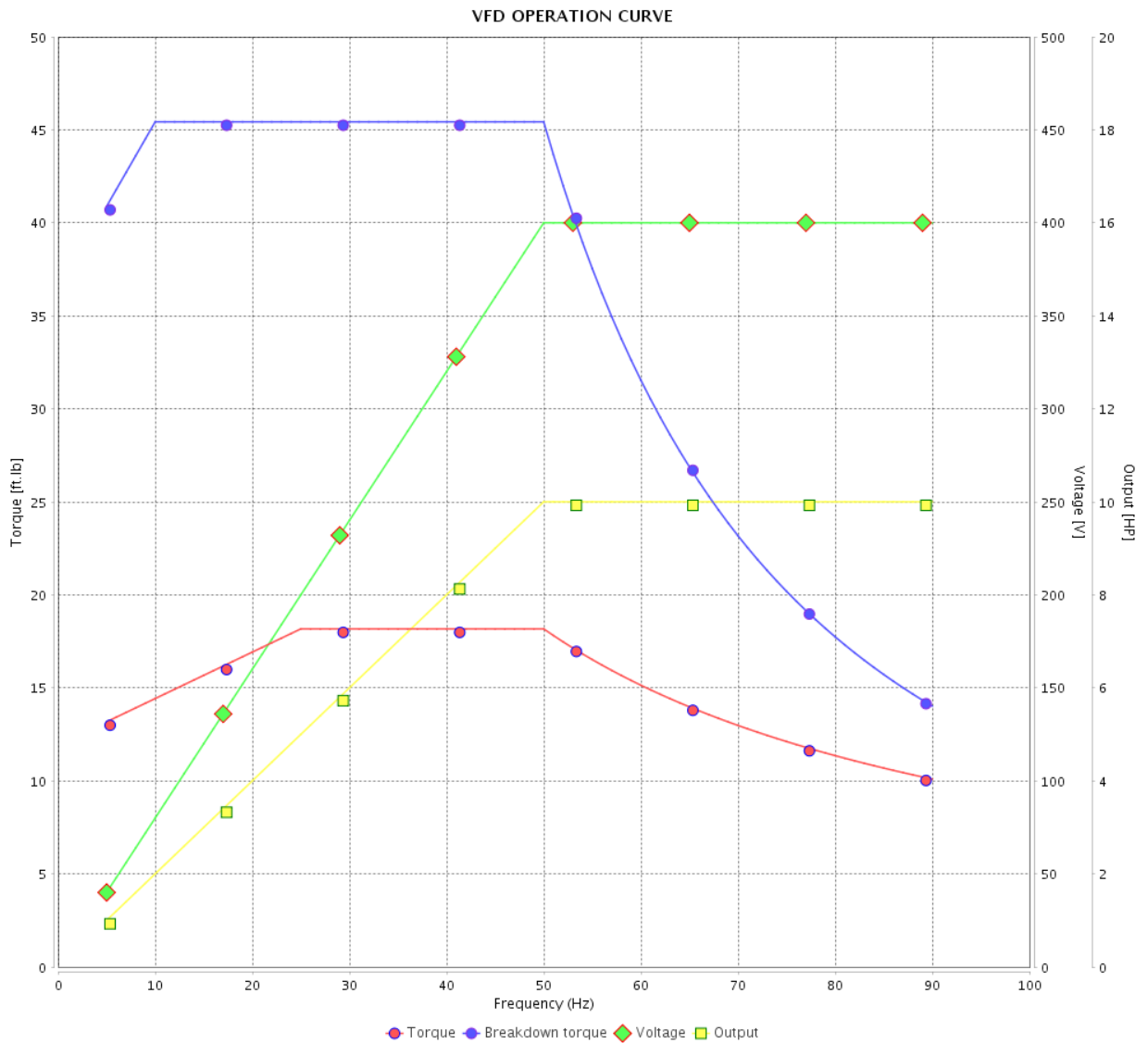


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 400 V 50 Hz 2P IE2

Rated current : 13.4 A  
 LRC : 6.4  
 Rated torque : 18.2 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 2890 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

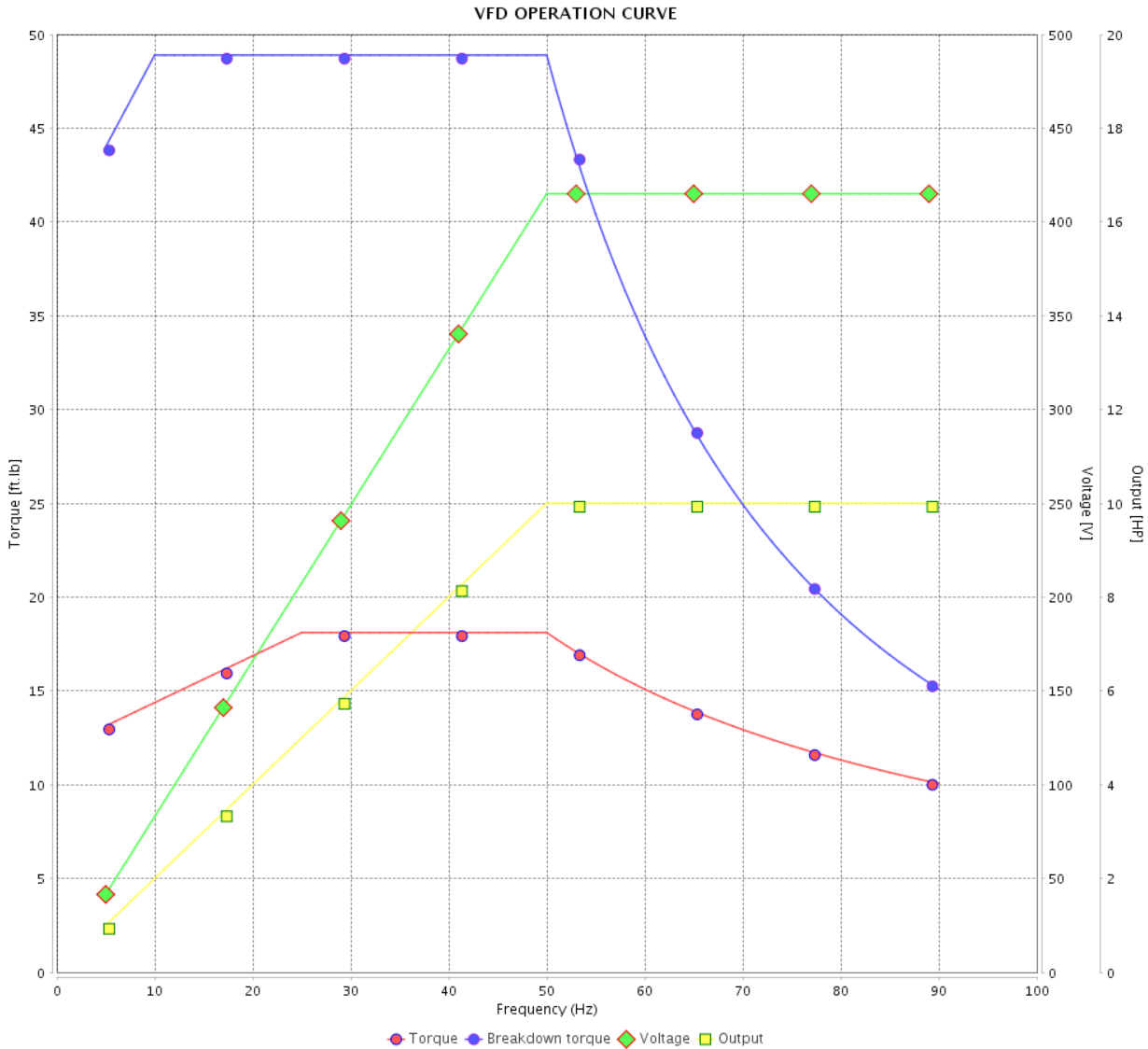


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12709736

Catalog # : 01036ST3QIE215TC-W22



Performance : 415 V 50 Hz 2P IE2

Rated current : 13.1 A  
 LRC : 6.9  
 Rated torque : 18.1 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 270 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.6362 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

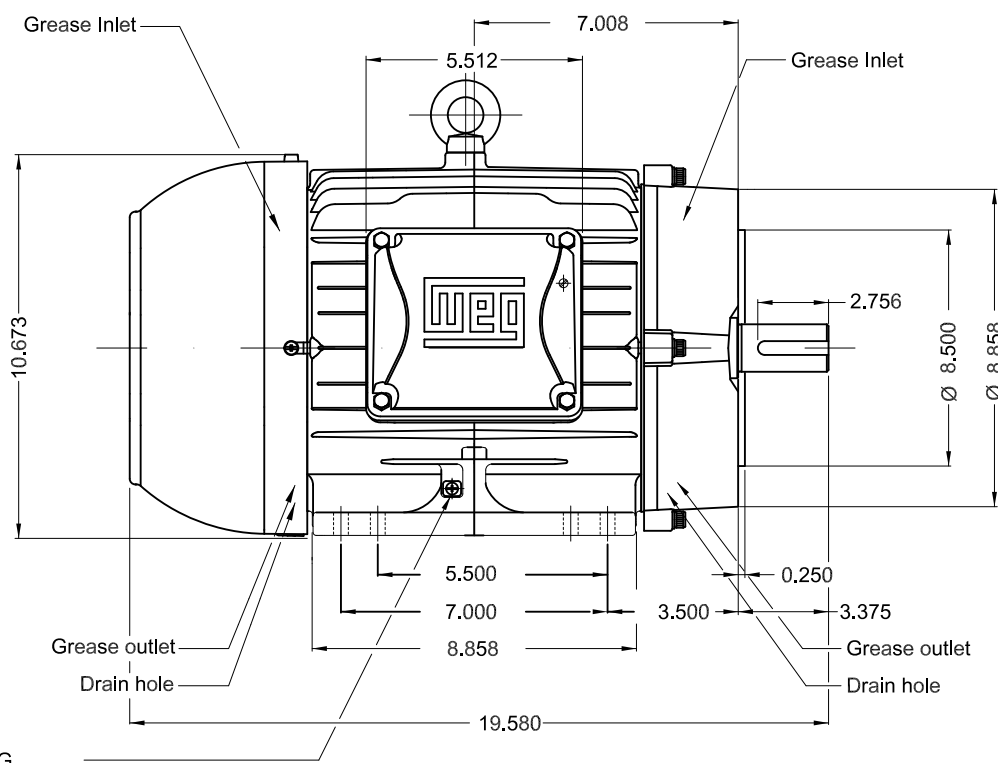
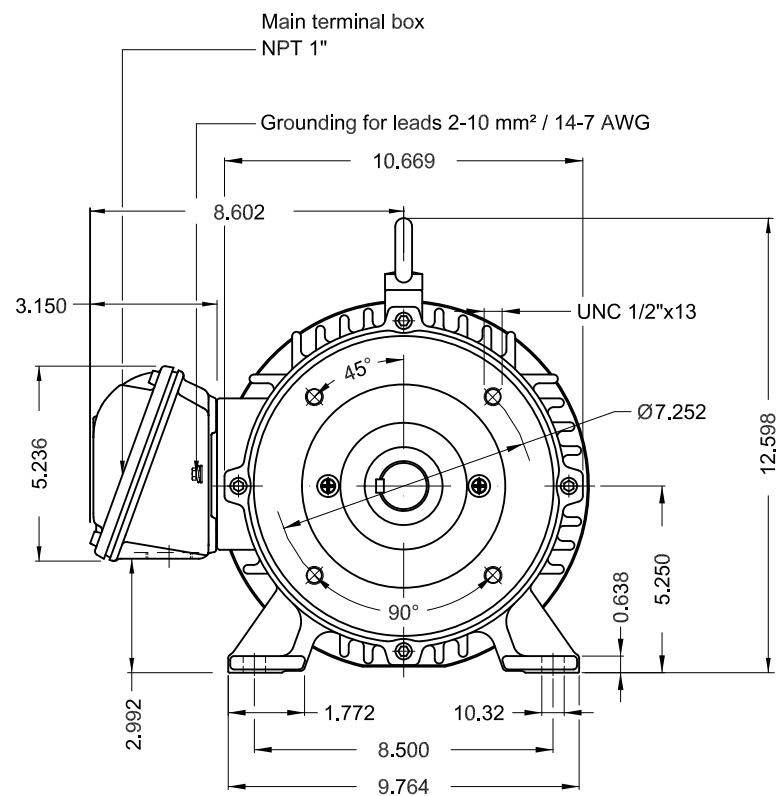
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 36 / 36	Revision
Checked by				
Date	12/04/2022			

1 2 3 4 5 6

A

B

C

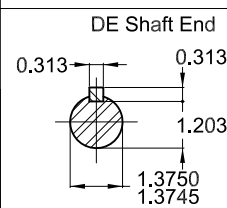


Grounding for leads 2-10 mm² / 14-7 AWG

D

E

Color RAL 5009  
 Painting plan 202E  
 Mounting NEMA F-1  
 Mounting B34R(D)



10 HP 02 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 213/5TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW  
 WDD



MADE IN BRAZIL  
12709736



**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 - T4  
For use on PWM: Gr. A, B, C, D and F,  
VT 1000:1, CT 20:1, 1.00SF - T3A

MODEL 01036ST3QIE215TC-W22

Inverter Duty Motor  
Severe Duty

**IEEE**  
841-2009



FOR SAFE AREA  
Mod. TE1BFOXON  
CC029A

PH3 60Hz Fr. 213/5TC 1000m.a.s.l. IP55 TEFC 171lb

V 460

A 11.6

HP 10

kW 7.5

SF 1.25

SFA 14.5

RPM 3520

PF 0.90

AMB 40°C

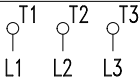
INS cl. F DT80K

NEMA NOM EFF 90.2%

DUTY CONT.

DES B Code H

GUARANT. EFF 88.5%



460V



→ 6308-C3 (11g) 40BC03X30

→ 6207-C3 (7g) 35BC02X30

MOBIL POLYREX EM (20000h)

