

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line		: NEMA Premium Efficiency Three-Phase		Product code :		11576331	
				Catalog # :		10036ET3G405JM-W22	
Frame : 404/5TCZ Insulation class : F Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : B				Cooling method : IC411 - TEFC Mounting : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Starting method : Direct On Line Approx. weight <sup>2</sup> : 1109 lb Moment of inertia (J) : 13.2 sq.ft.lb			
Output [HP]	100	75	75	75			
Poles	2	2	2	2			
Frequency [Hz]	60	50	50	50			
Rated voltage [V]	460	380	400	415			
Rated current [A]	112	99.6	94.6	92.2			
L. R. Amperes [A]	728	677	719	756			
LRC [A]	6.5x(Code G)	6.8x(Code G)	7.6x(Code H)	8.2x(Code J)	x(Code )	x(Code )	x(Code )
No load current [A]	26.0	25.7	27.5	29.1			
Rated speed [RPM]	3545	2955	2960	2965			
Slip [%]	1.53	1.50	1.33	1.17			
Rated torque [ft.lb]	148	133	133	133			
Locked rotor torque [%]	240	250	280	300			
Breakdown torque [%]	260	280	310	330			
Service factor	1.25	1.00	1.00	1.00			
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)			
Noise level <sup>2</sup>	79.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	dB(A)	dB(A)	dB(A)
Efficiency (%)	25%	92.8	92.4	92.5	93.1		
	50%	93.0	93.0	93.1	93.5		
	75%	94.1	93.8	93.8	94.0		
	100%	94.1	94.3	94.3	94.3		
Power Factor	25%	0.61	0.59	0.55	0.53		
	50%	0.83	0.82	0.80	0.78		
	75%	0.88	0.88	0.86	0.85		
	100%	0.89	0.89	0.89	0.88		
Bearing type		Drive end : 6314 C3	Non drive end : 6314 C3	Foundation loads			
Sealing		: Oil Seal	: Oil Seal	Max. traction		: 761 lb	
Lubrication interval		: 4000 h	: 4000 h	Max. compression		: 1870 lb	
Lubricant amount		: 27 g	: 27 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



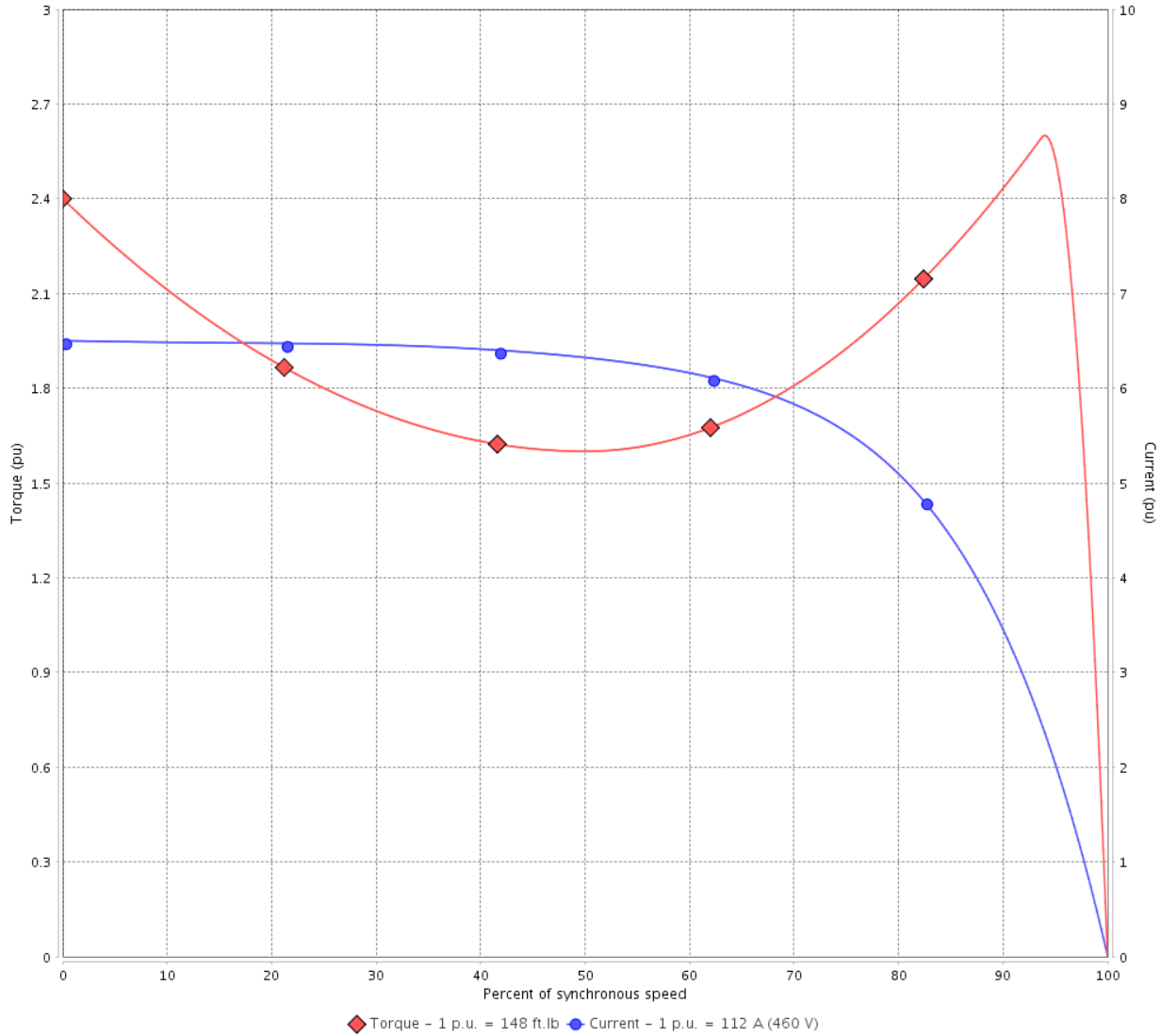
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11576331

Catalog # : 10036ET3G405JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 2P

Rated current	: 112 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 148 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: B

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

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# TORQUE AND CURRENT VS SPEED CURVE



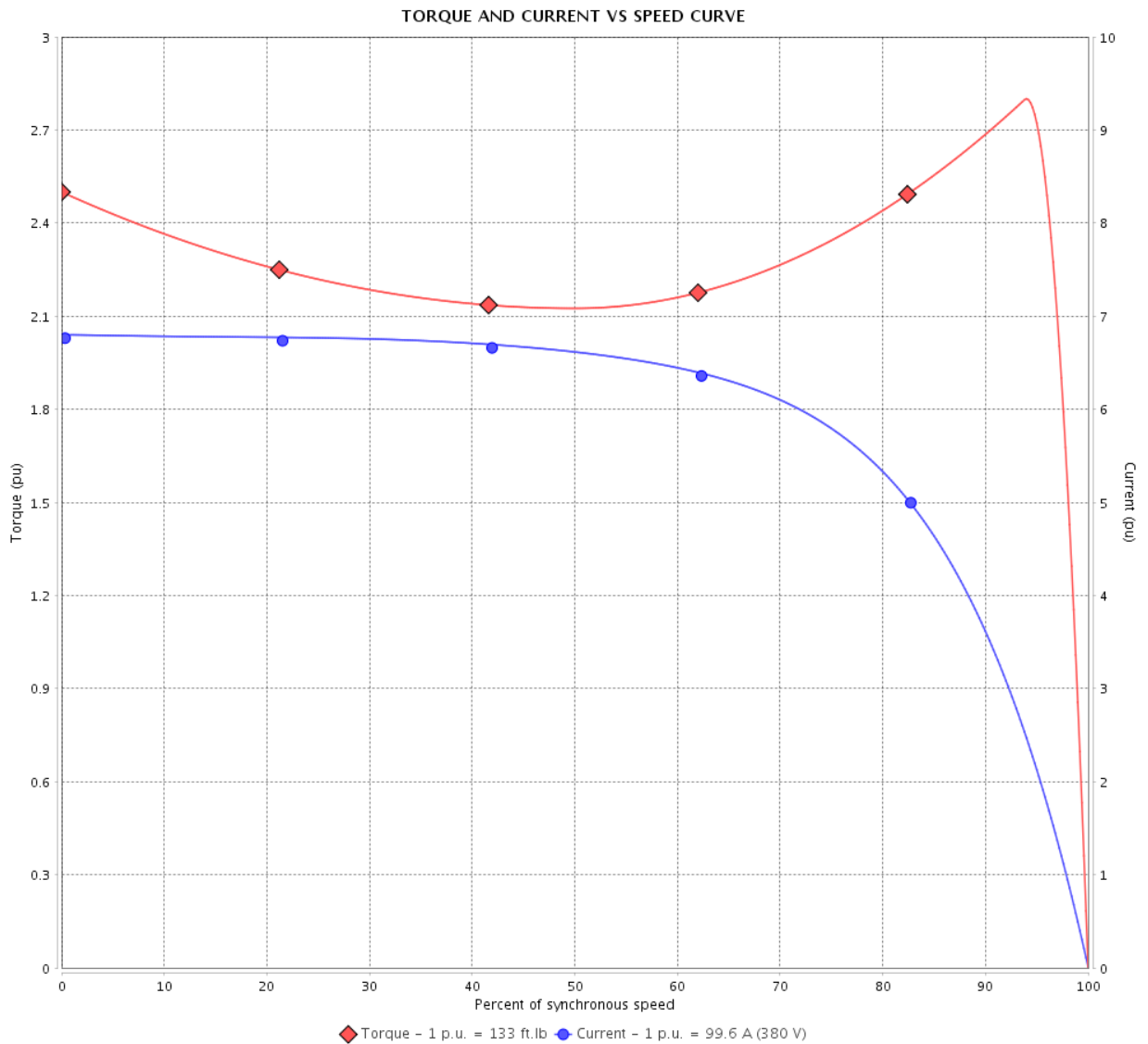
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11576331

Catalog # : 10036ET3G405JM-W22



Performance : 380 V 50 Hz 2P IE3

Rated current	: 99.6 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



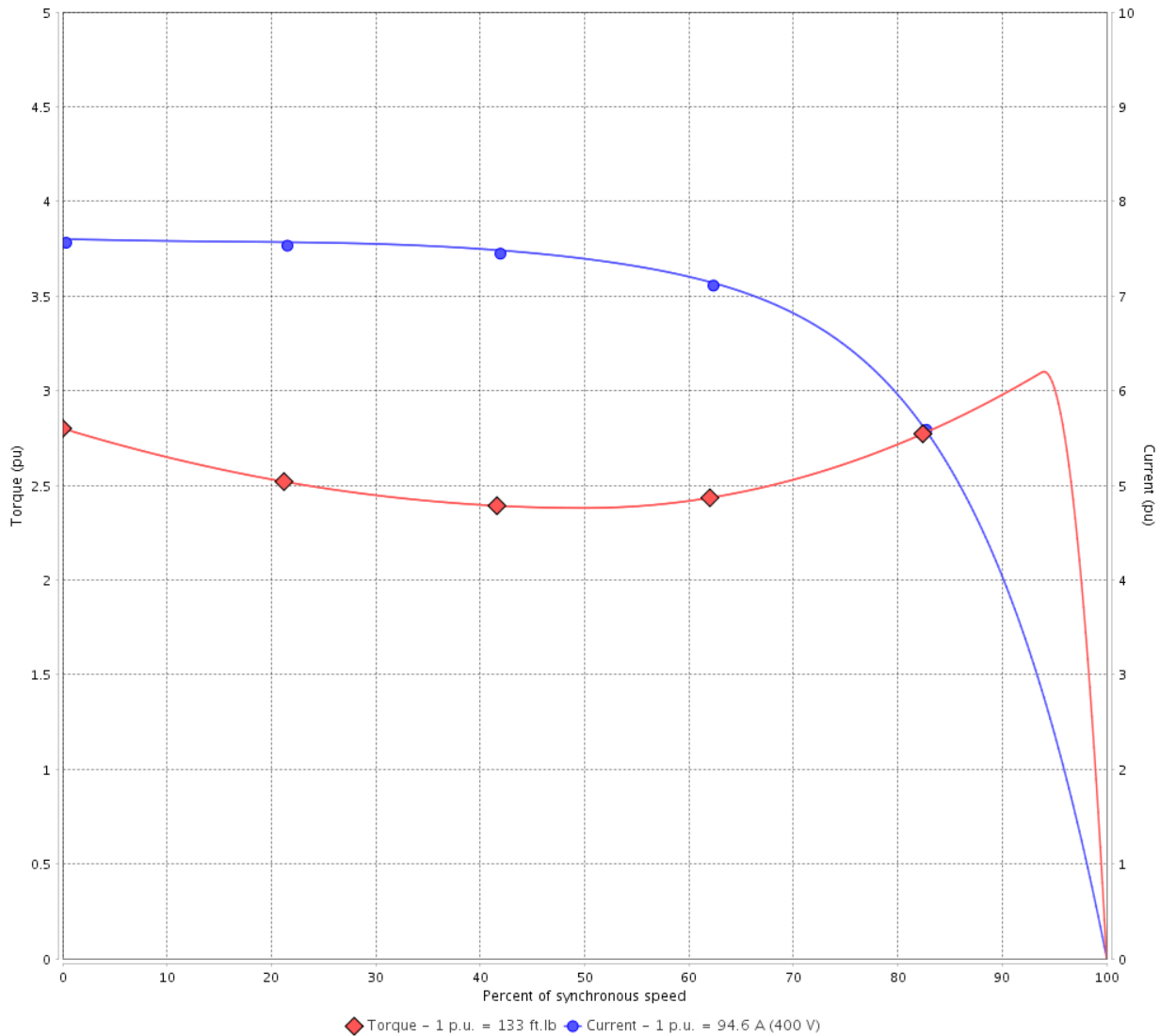
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11576331

Catalog # : 10036ET3G405JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 94.6 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



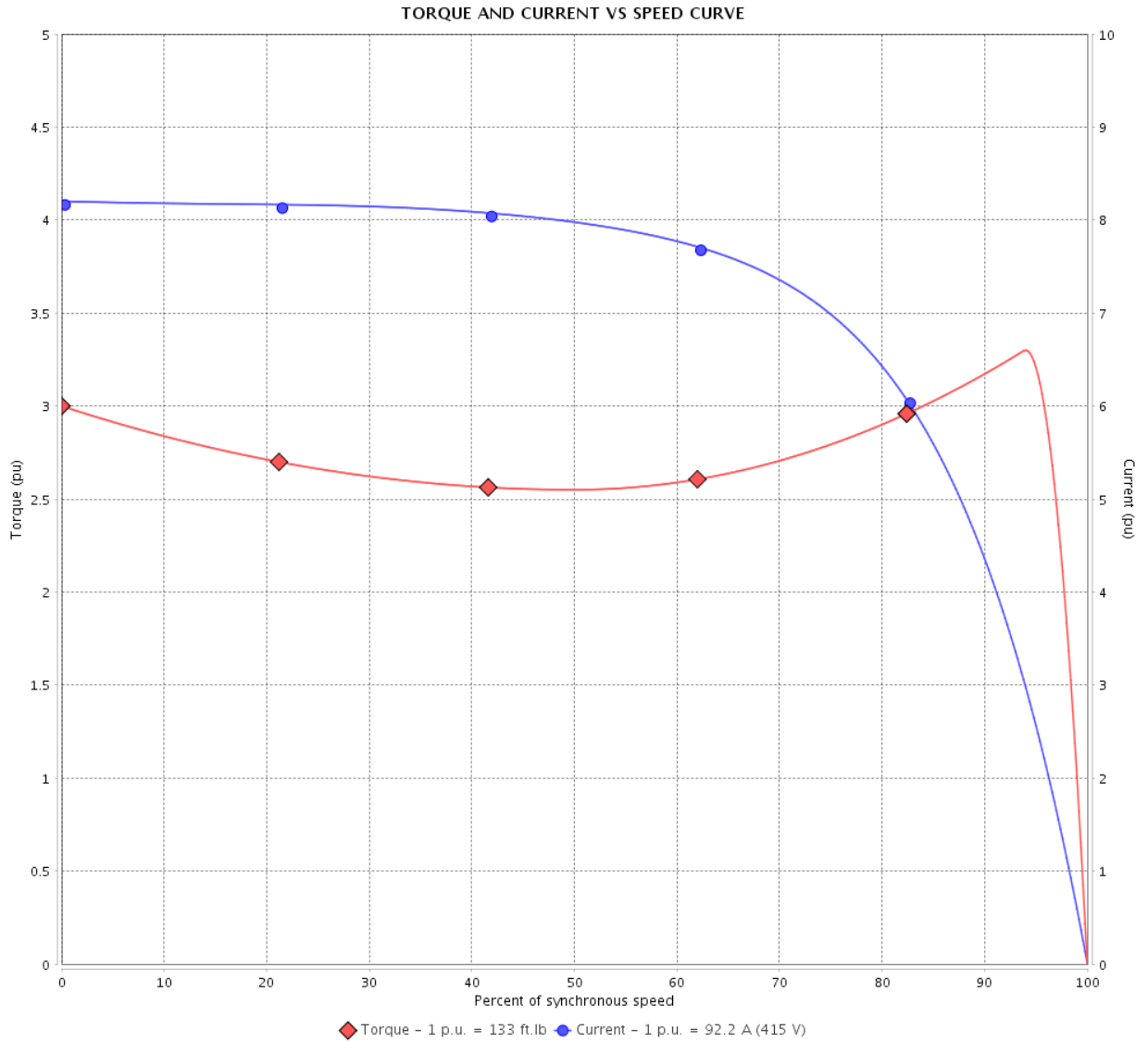
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11576331

Catalog # : 10036ET3G405JM-W22



Performance : 415 V 50 Hz 2P IE3

Rated current	: 92.2 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

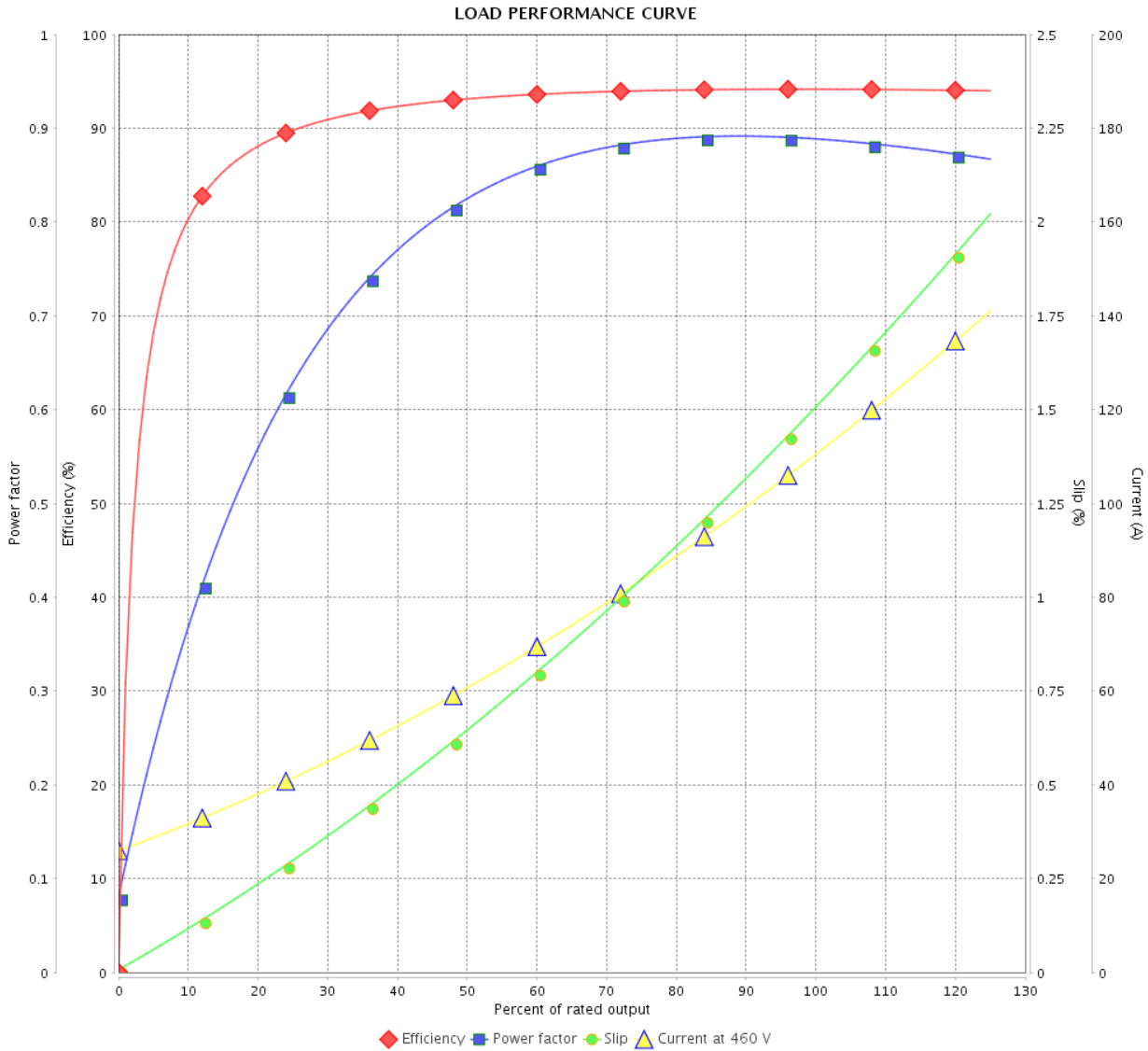


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11576331

Catalog # : 10036ET3G405JM-W22



Performance : 460 V 60 Hz 2P

Rated current : 112 A  
 LRC : 6.5  
 Rated torque : 148 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Rated speed : 3545 rpm

Moment of inertia (J) : 13.2 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

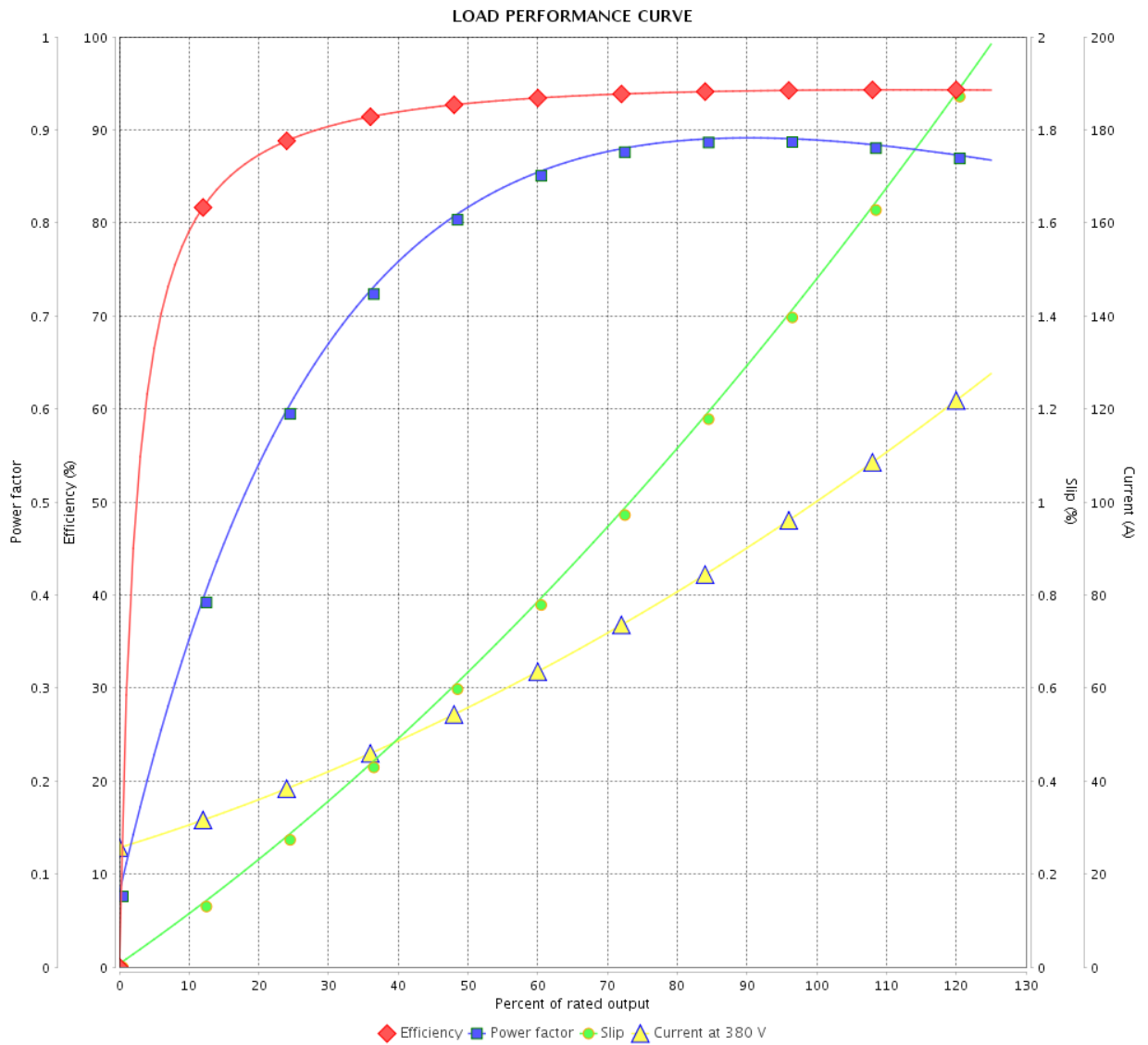


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11576331

Catalog # : 10036ET3G405JM-W22



Performance : 380 V 50 Hz 2P IE3

Rated current : 99.6 A  
 LRC : 6.8  
 Rated torque : 133 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 280 %  
 Rated speed : 2955 rpm

Moment of inertia (J) : 13.2 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



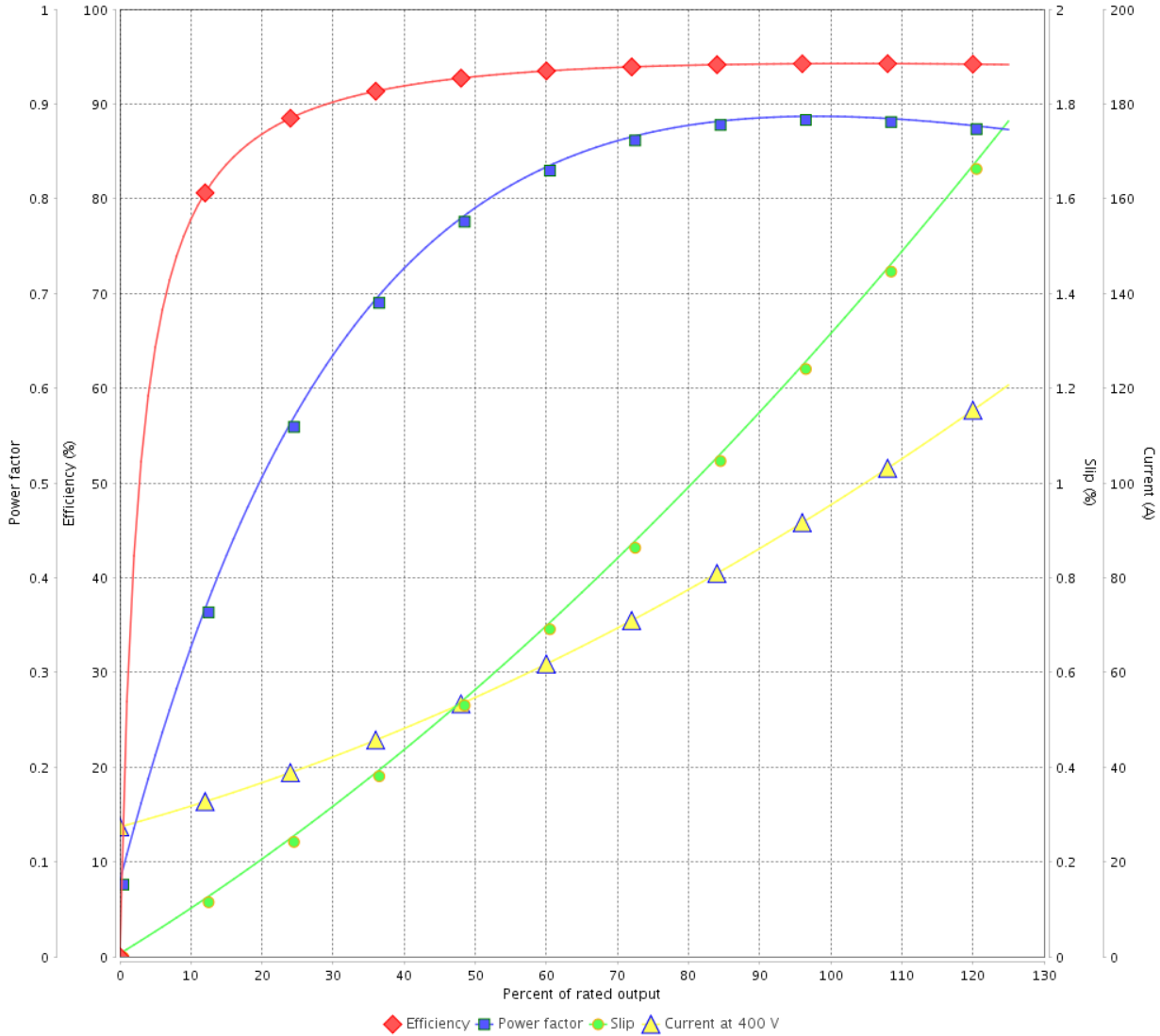
Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11576331

Catalog # : 10036ET3G405JM-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 94.6 A  
 LRC : 7.6  
 Rated torque : 133 ft.lb  
 Locked rotor torque : 280 %  
 Breakdown torque : 310 %  
 Rated speed : 2960 rpm

Moment of inertia (J) : 13.2 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

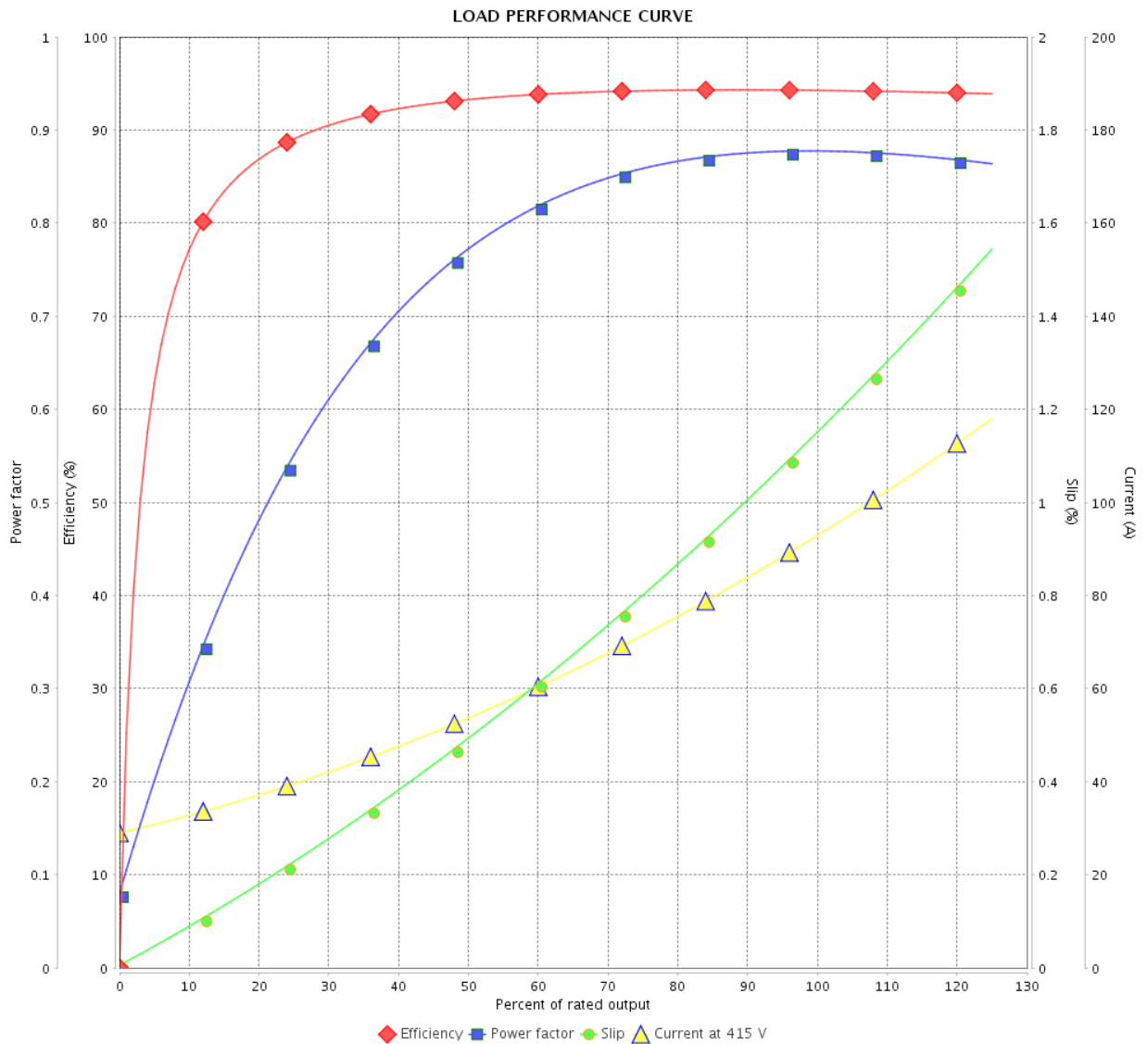


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 11576331

Catalog # : 10036ET3G405JM-W22



Performance : 415 V 50 Hz 2P IE3

Rated current : 92.2 A  
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 Locked rotor torque : 300 %  
 Breakdown torque : 330 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 13.2 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 current : 112 A	Moment of inertia (J) : 13.2 sq.ft.lb
LRC : 6.5	Duty cycle : Cont.(S1)
Rated torque : 148 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.25
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 3545 rpm	Design : B

Heating constant

Cooling constant

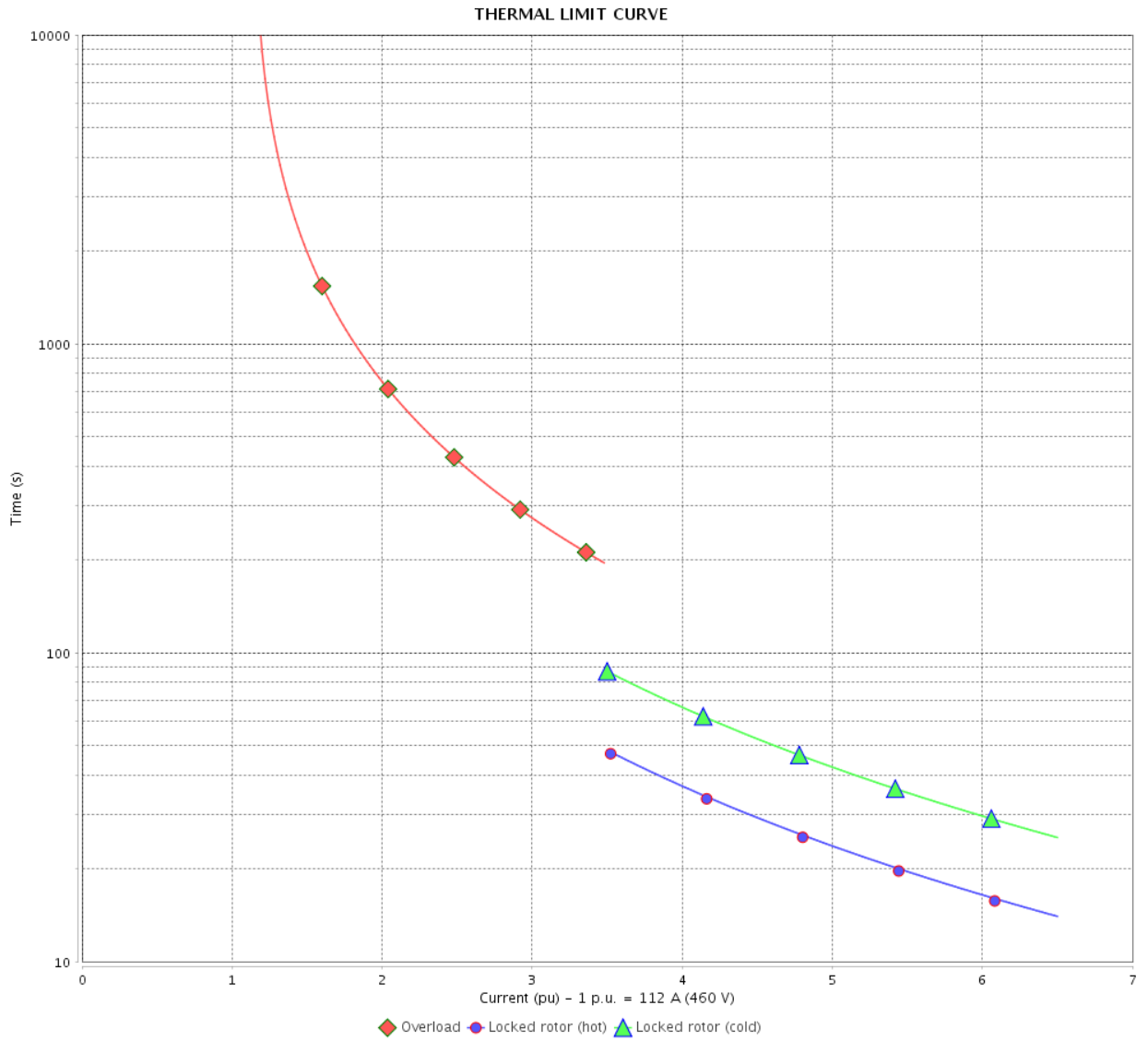
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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Performance : 380 V 50 Hz 2P IE3

Rated current : 99.6 A	Moment of inertia (J) : 13.2 sq.ft.lb
LRC : 6.8	Duty cycle : Cont.(S1)
Rated torque : 133 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 2955 rpm	Design : B

Heating constant

Cooling constant

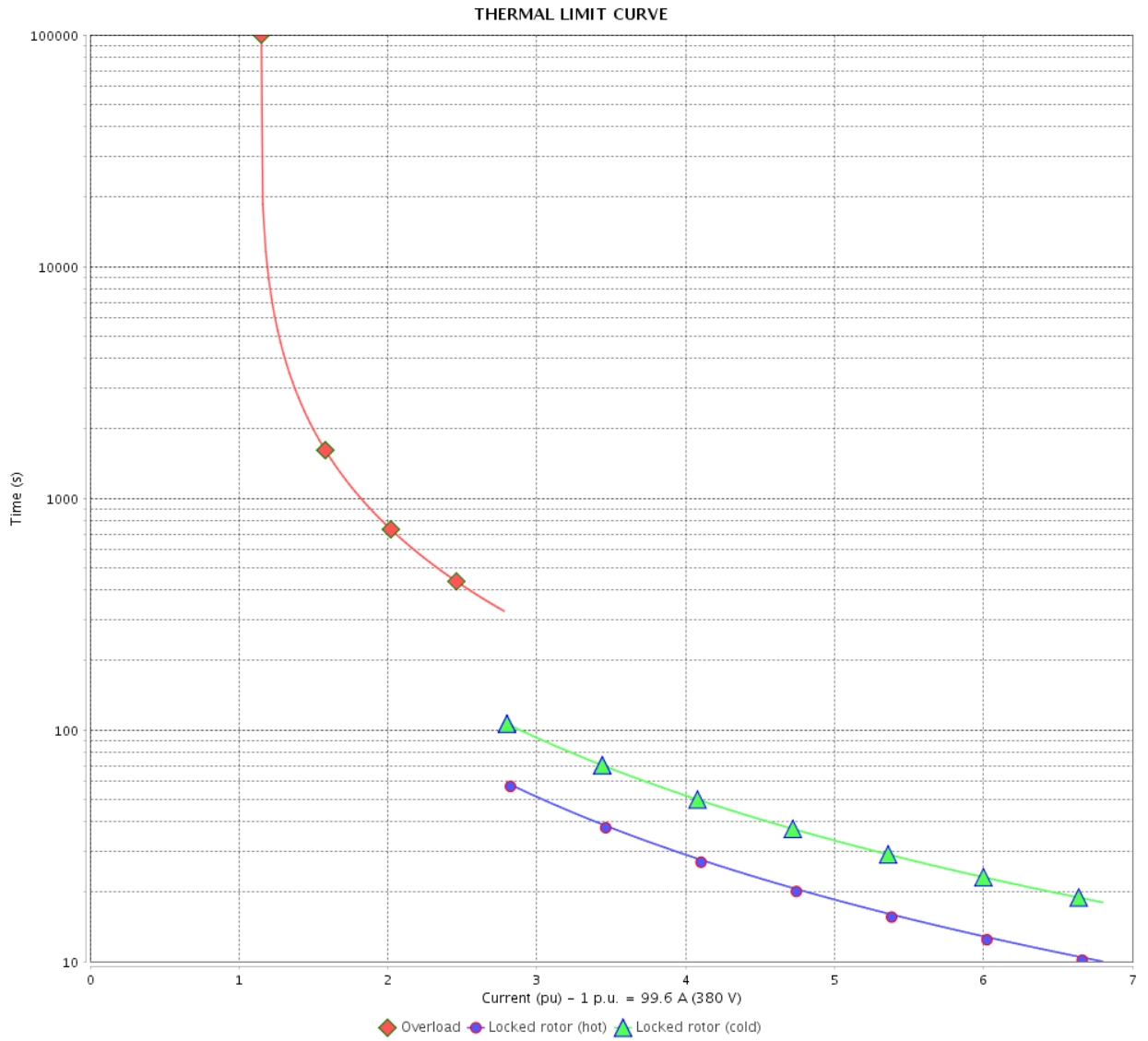
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Three Phase Induction Motor - Squirrel Cage



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Rated current : 94.6 A	Moment of inertia (J) : 13.2 sq.ft.lb
LRC : 7.6	Duty cycle : Cont.(S1)
Rated torque : 133 ft.lb	Insulation class : F
Locked rotor torque : 280 %	Service factor : 1.00
Breakdown torque : 310 %	Temperature rise : 80 K
Rated speed : 2960 rpm	Design : B

Heating constant

Cooling constant

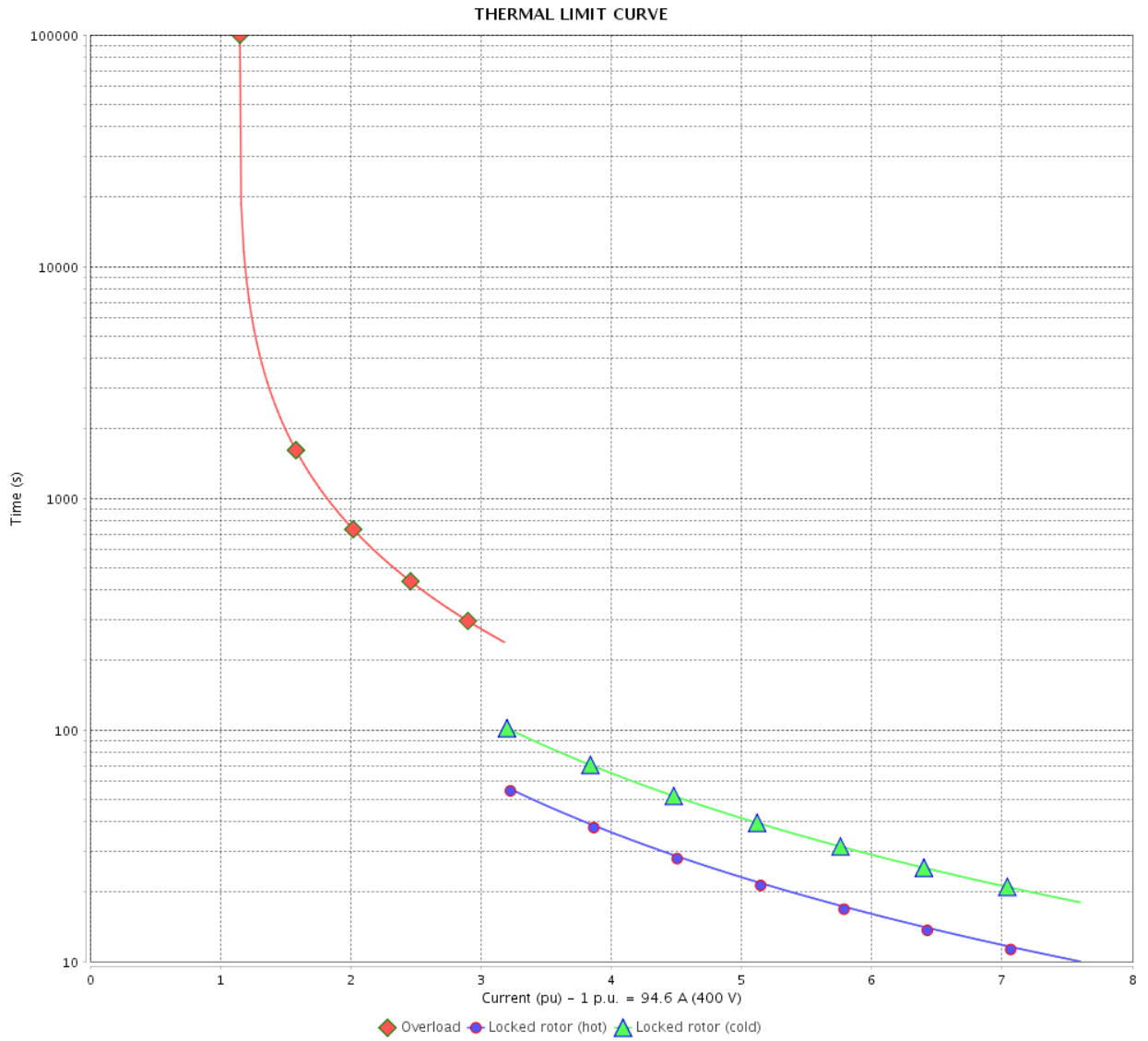
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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Catalog # : 10036ET3G405JM-W22

Performance : 415 V 50 Hz 2P IE3

Rated current	: 92.2 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Heating constant

Cooling constant

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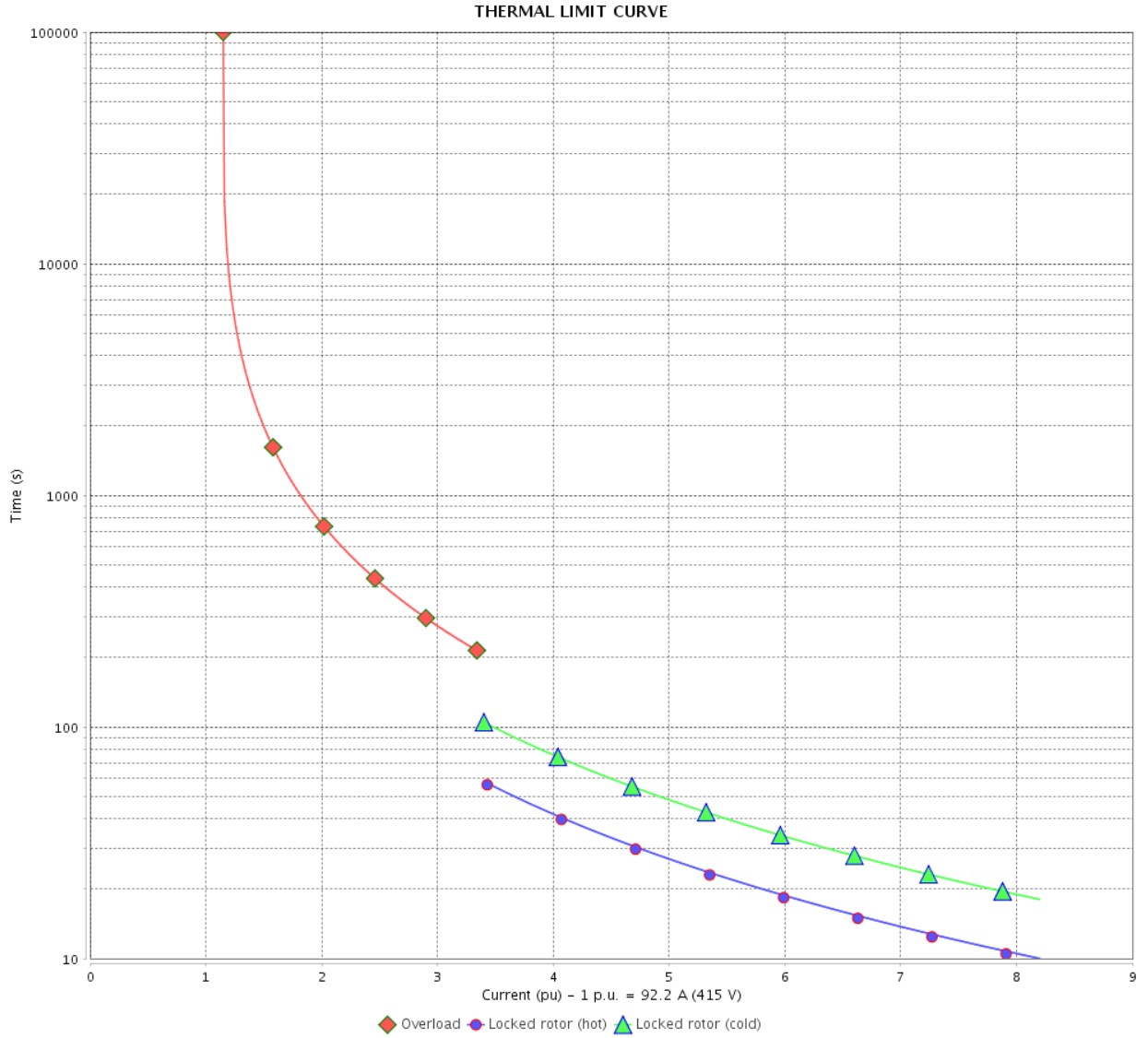


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



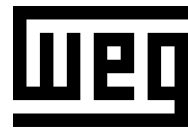
Customer : \_\_\_\_\_



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

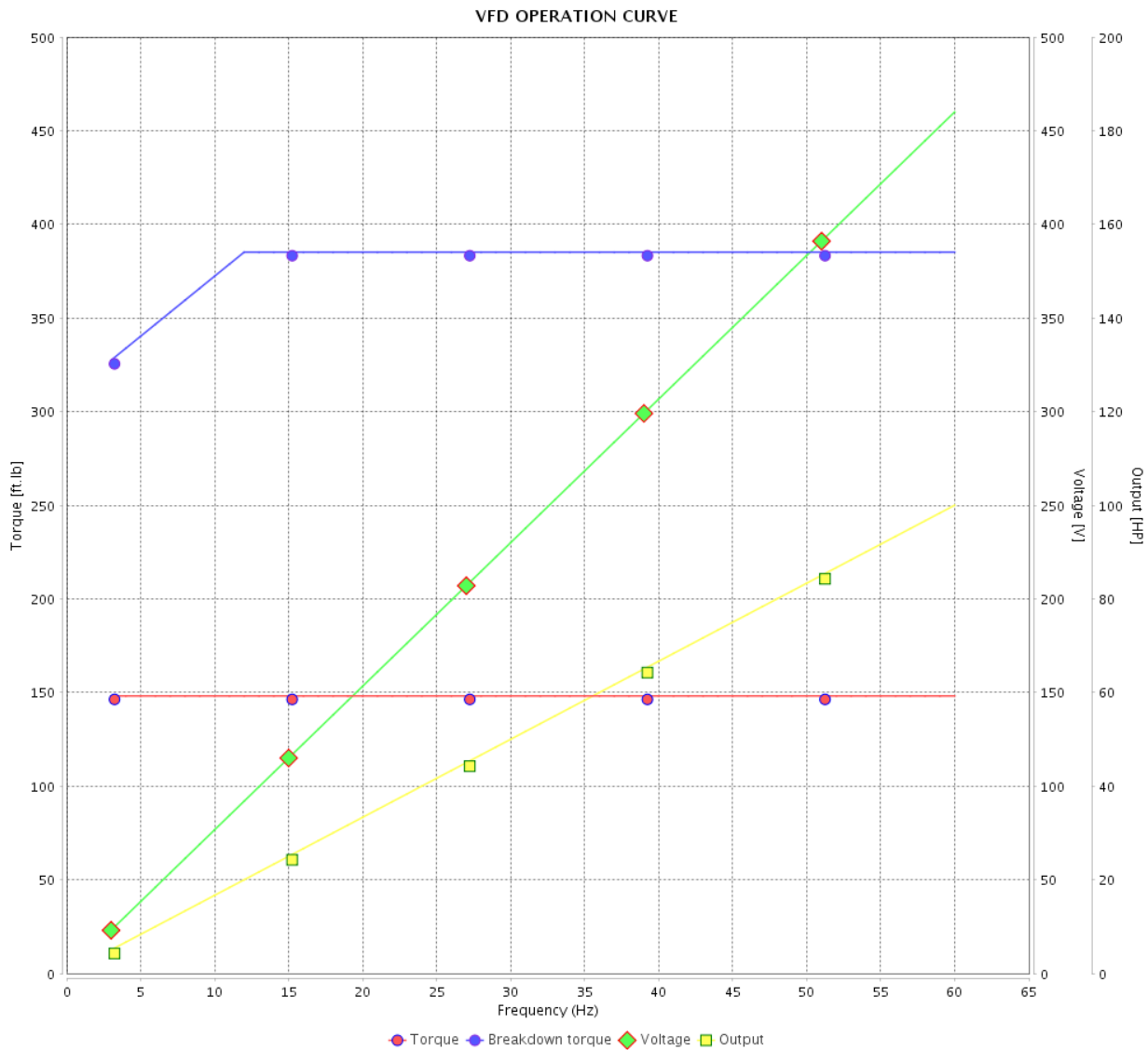


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Catalog # : 10036ET3G405JM-W22



Performance : 460 V 60 Hz 2P

Rated current	: 112 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 148 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: B

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

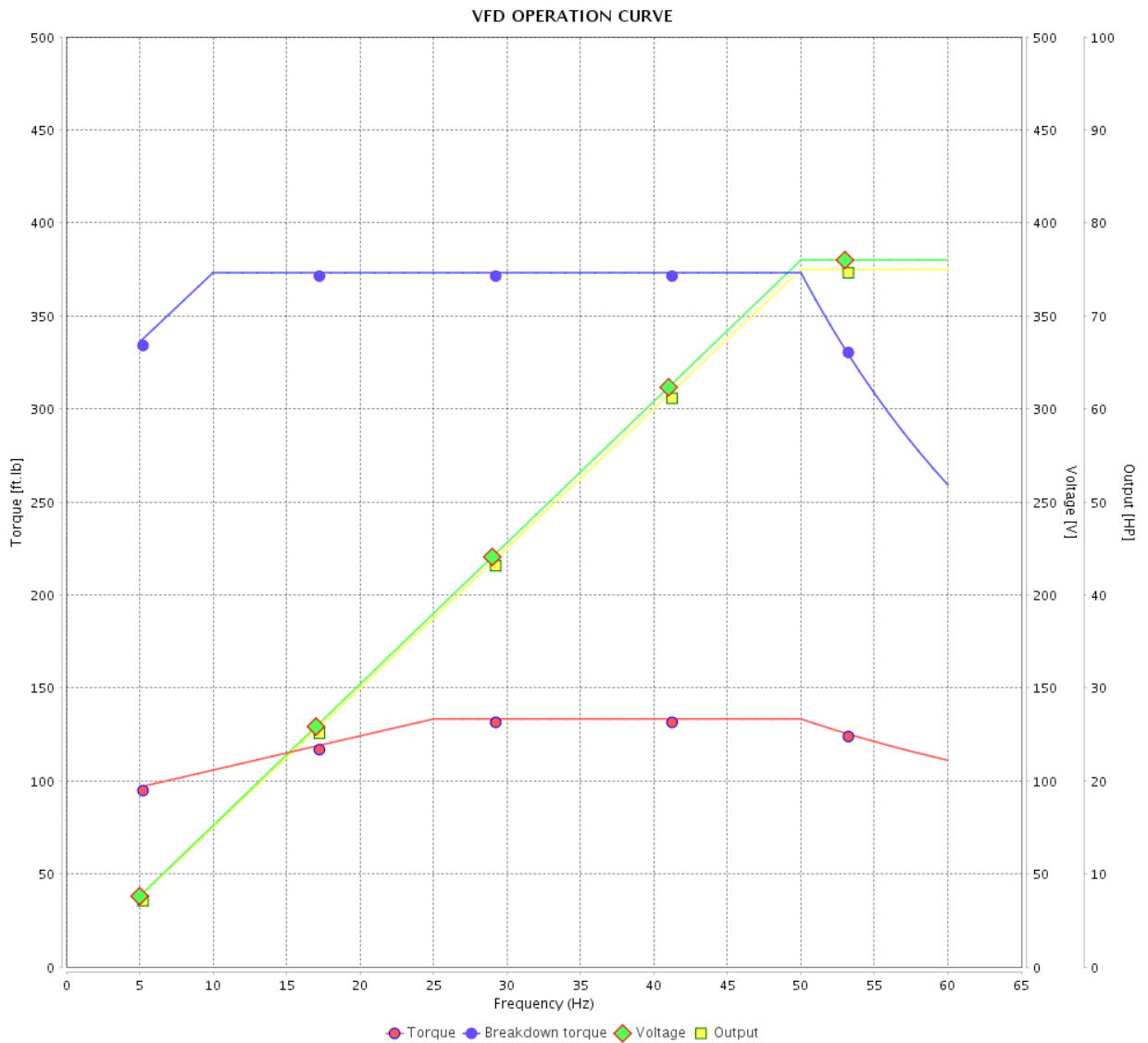


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Catalog # : 10036ET3G405JM-W22



Performance : 380 V 50 Hz 2P IE3

Rated current : 99.6 A  
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 Locked rotor torque : 250 %  
 Breakdown torque : 280 %  
 Rated speed : 2955 rpm

Moment of inertia (J) : 13.2 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

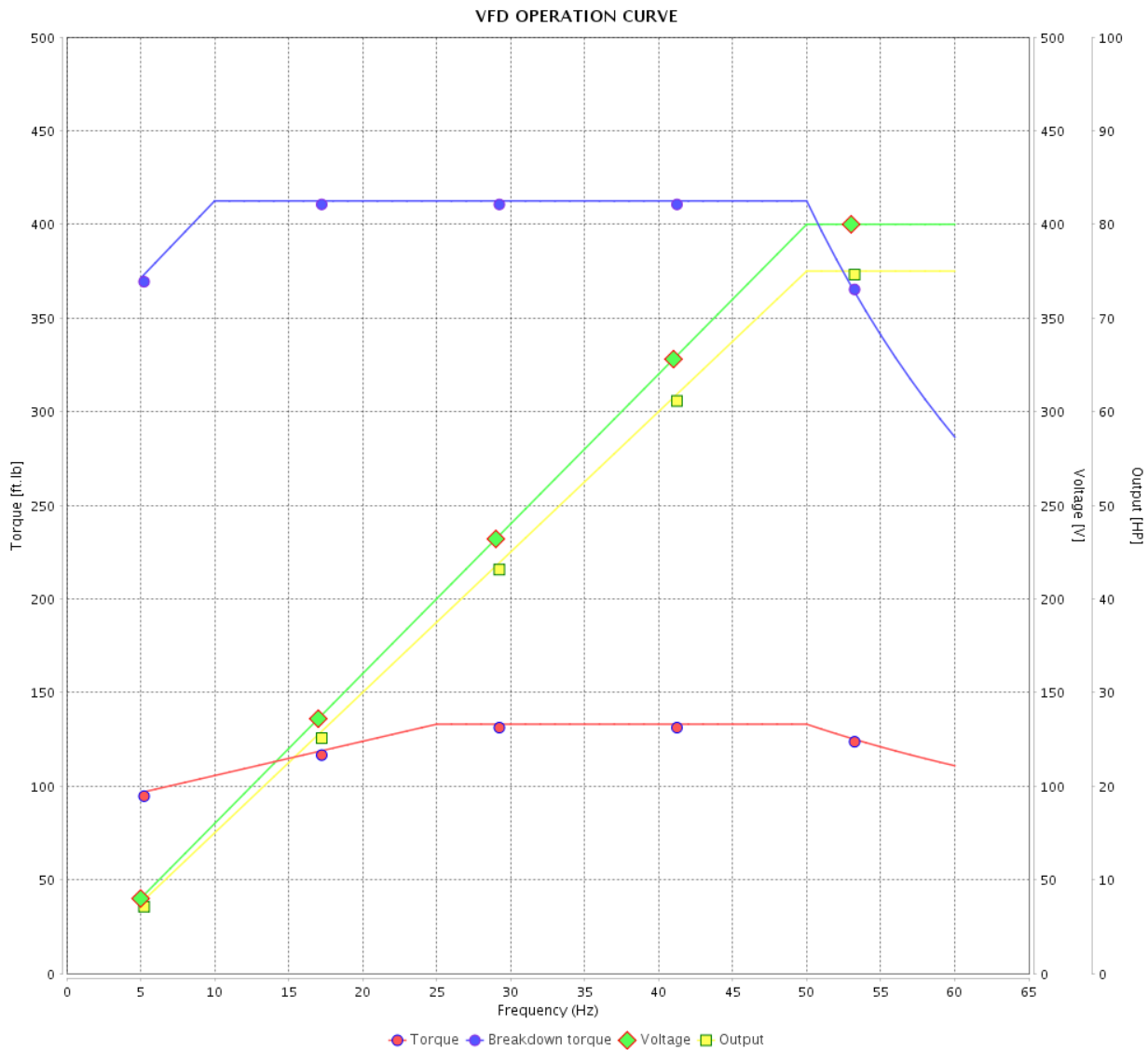


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Catalog # : 10036ET3G405JM-W22



Performance : 400 V 50 Hz 2P IE3

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LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

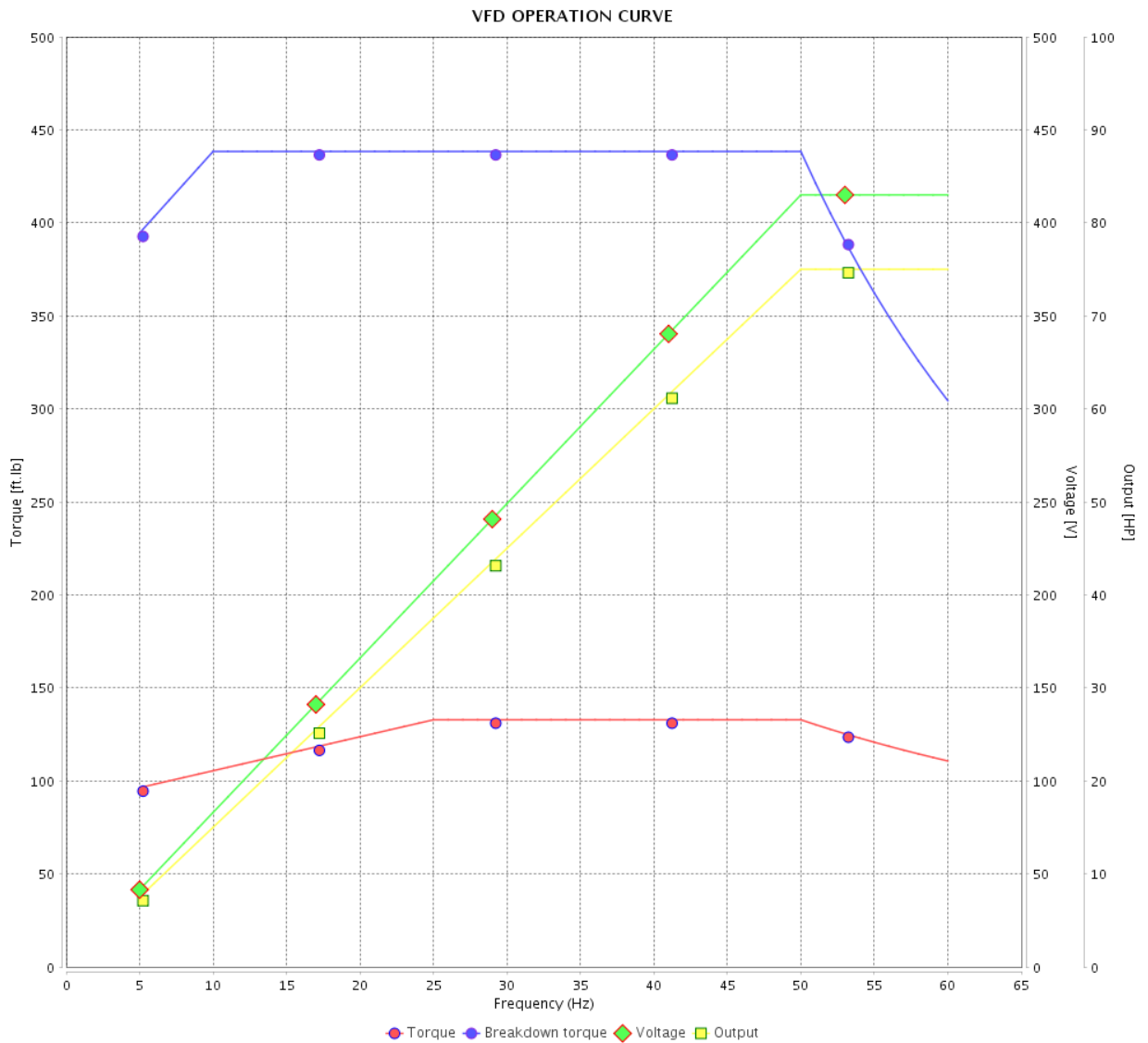


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 11576331

Catalog # : 10036ET3G405JM-W22



Performance : 415 V 50 Hz 2P IE3

Rated current : 92.2 A  
 LRC : 8.2  
 Rated torque : 133 ft.lb  
 Locked rotor torque : 300 %  
 Breakdown torque : 330 %  
 Rated speed : 2965 rpm

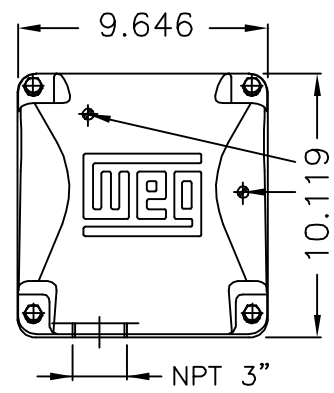
Moment of inertia (J) : 13.2 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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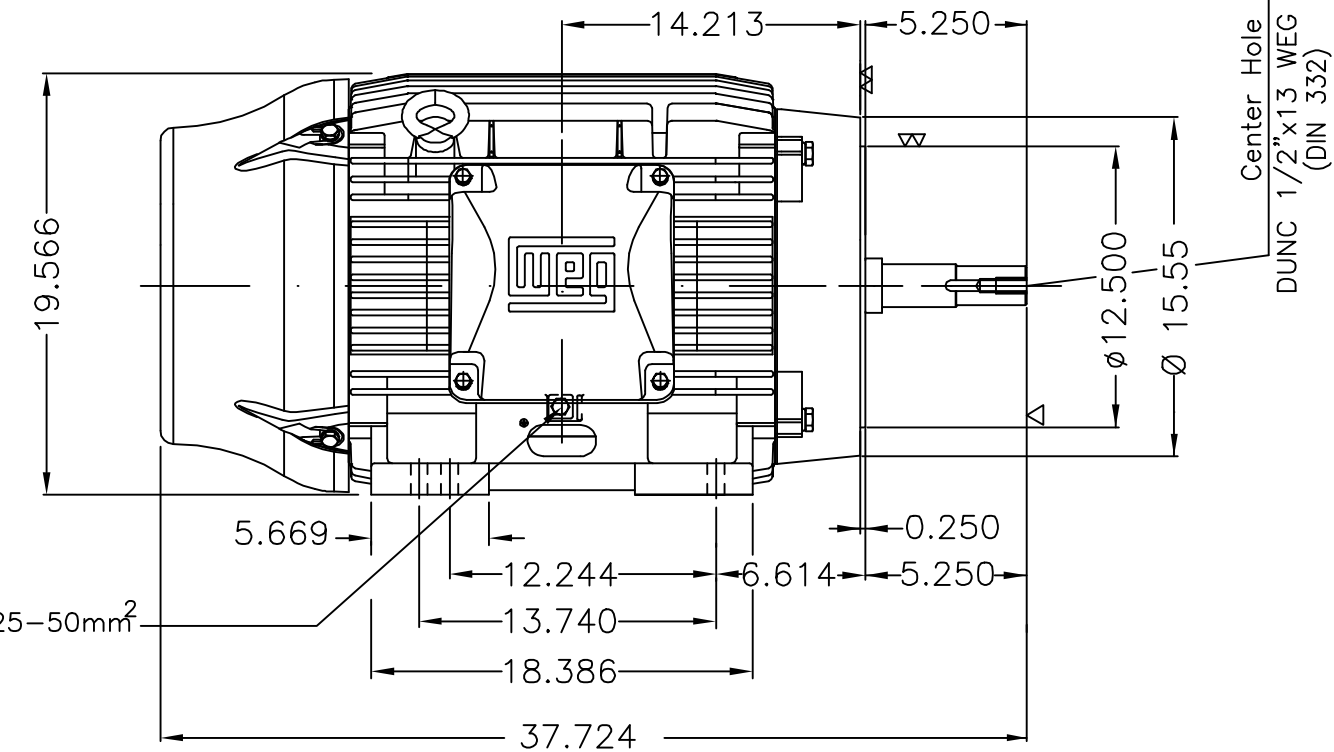
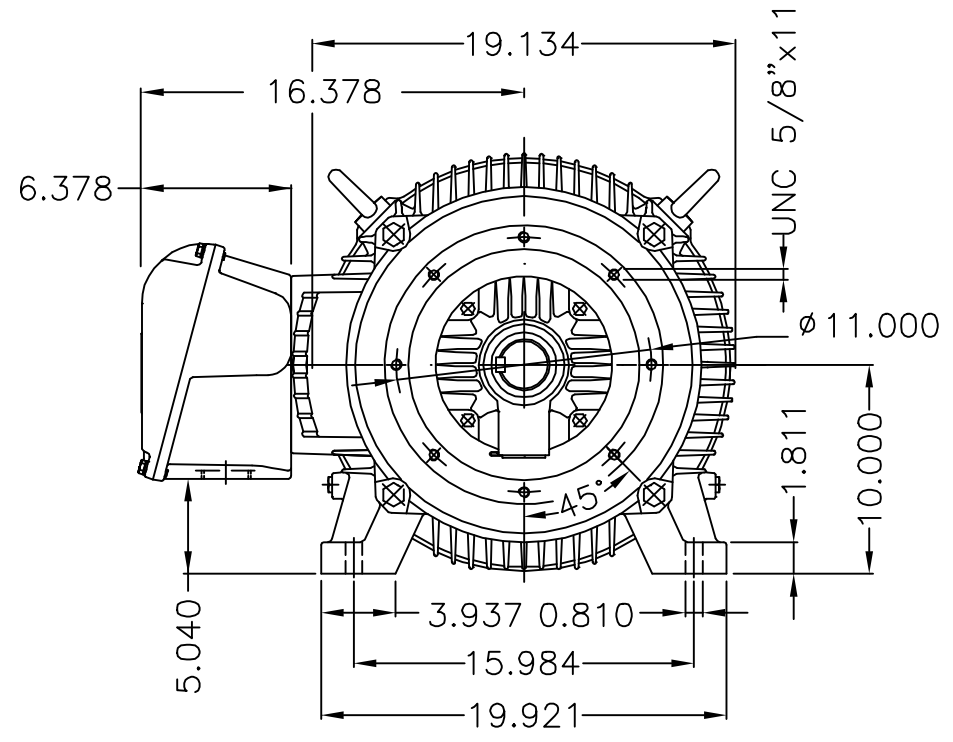
EIXO		Dimensões em polegadas Dimensions in inches
PADRÃO		
OPCIONAL		
ESPECIAL	X	

THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.

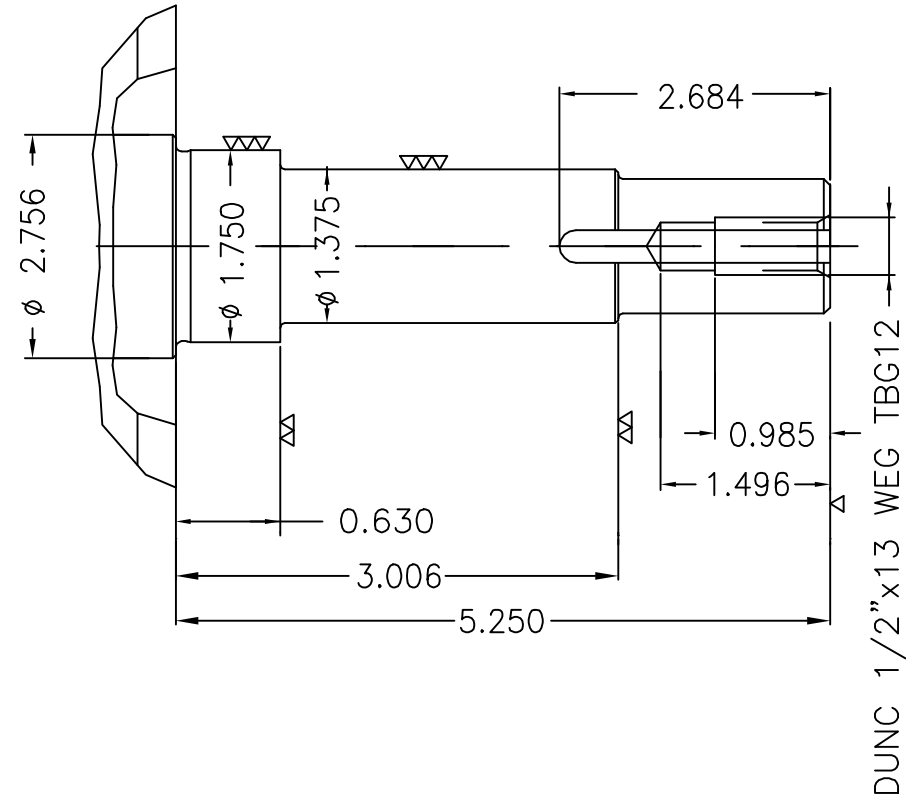


Main terminal box

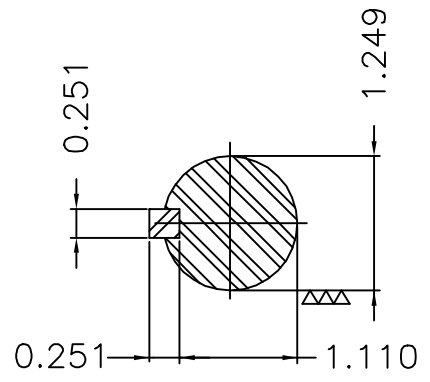
Grounding for leads 25-50mm<sup>2</sup>



Grounding for leads 25-50mm<sup>2</sup>



DUNC 1/2"x13 WEG TBG12



DE Shaft End

Material do eixo - AISI/SAE 4140 / Shaft material - AISI/SAE 4140  
 Vedação - retentor com mola / Sealing - oil seal ring  
 Plano de pintura 203A / Painting plan 203A  
 Forma construtiva B34D / Mounting B34R(D)

**WEG ELECTRIC CORPORATION**

50000376844	ALT. CONF. CLAIM 406441050	SCARMAGNANI	ALCIDESZ	29.10.2010	01			
50000376837	DOCUMENTO NOVO	SCARMAGNANI	ALCIDESZ	25.10.2010	00			
MODIF. NUMBER	LOC	SUMMARY OF MODIFICATIONS		EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	SCARMAGNANI	THREE PHASE W22 MOTOR - NEMA PREMIUM EFF FRAME 404/5TCZ IP55	10001013731					
CHECKED			000	01				
RELEASED	ALCIDESZ							
REL. DATE	25.10.2010	WMO-JGS	JARAGUÁ DO SUL	ENG. MOTORES INDUSTRIAIS	FOL/SHEET	1 / 1		

100 HP 02 Poles 60Hz 406362331/0

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