

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	11408909		
		Catalog # :	40012ET3GRB449T-W22		
Frame	: L447/9T	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	: 3653 lb		
Protection degree	: IP55	Moment of inertia (J)	: 278 sq.ft.lb		
Output [HP]	400	350	350	350	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	477	497	478	472	
L. R. Amperes [A]	3291	3081	3346	3540	
LRC [A]	6.9x(Code H)	6.2x(Code G)	7.0x(Code H)	7.5x(Code J)	
No load current [A]	200	190	210	225	
Rated speed [RPM]	1190	990	990	990	
Slip [%]	0.83	1.00	1.00	1.00	
Rated torque [ft.lb]	1770	1860	1860	1860	
Locked rotor torque [%]	240	200	220	240	
Breakdown torque [%]	250	240	260	280	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	105 K	105 K	105 K	105 K	
Locked rotor time	23s (cold) 13s (hot)	32s (cold) 18s (hot)	28s (cold) 16s (hot)	25s (cold) 14s (hot)	
Noise level ²	71.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	
Efficiency (%)	25%	95.3	95.3	95.3	94.5
	50%	95.4	95.4	95.4	95.0
	75%	95.8	95.8	95.8	95.4
	100%	95.8	95.8	95.8	95.8
Power Factor	25%	0.42	0.45	0.40	0.37
	50%	0.68	0.70	0.66	0.62
	75%	0.78	0.80	0.77	0.74
	100%	0.82	0.83	0.82	0.80
Bearing type	: <u>Drive end</u> NU-322 C3 <u>Non drive end</u> 6319 C3	Foundation loads			
Sealing	: WSeal WSeal	Max. traction	: 12032 lb		
Lubrication interval	: 7000 h 13000 h	Max. compression	: 15685 lb		
Lubricant amount	: 60 g 45 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



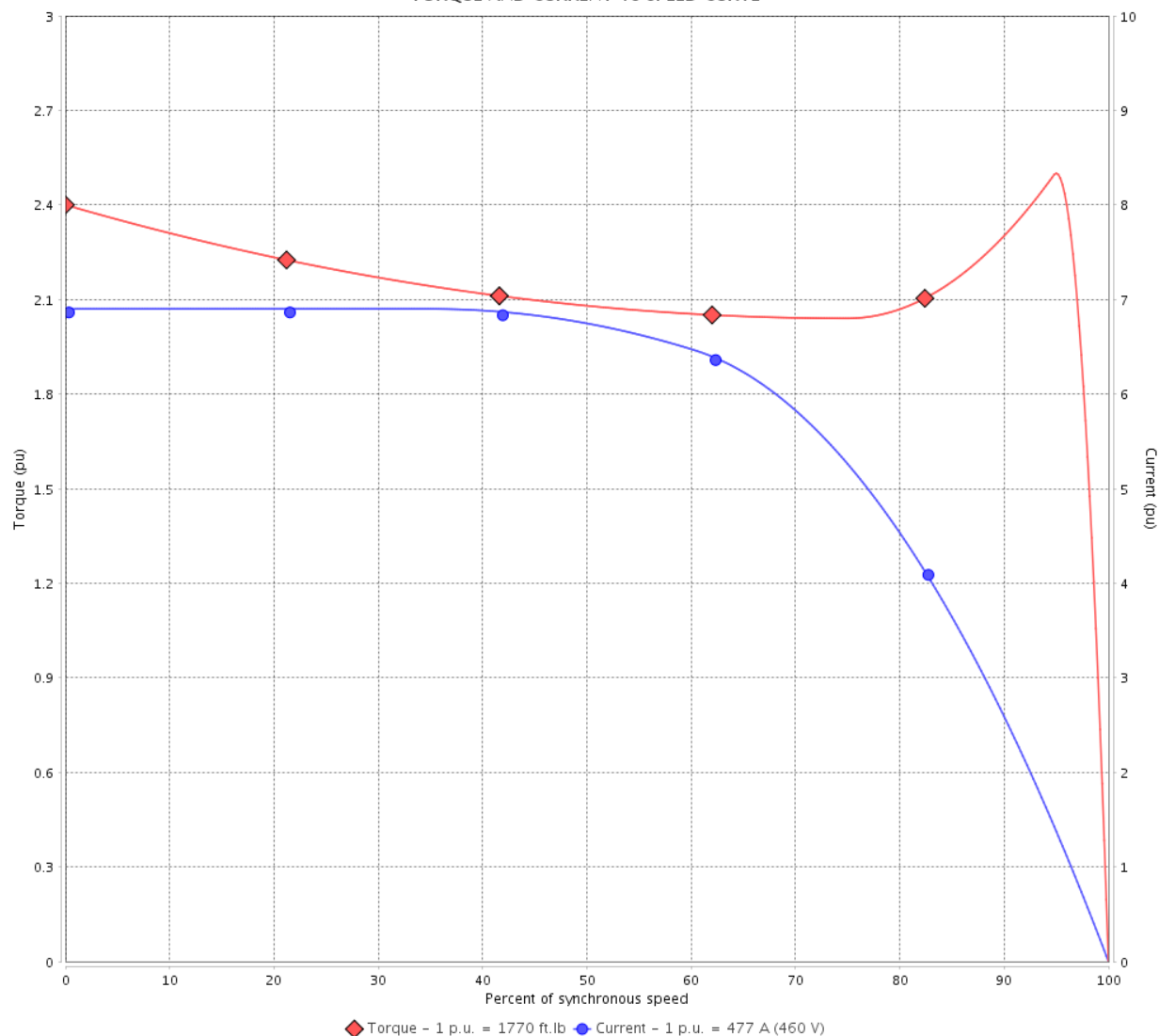
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408909

Catalog # : 40012ET3GRB449T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 6P

Rated current	: 477 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 1770 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 105 K
Rated speed	: 1190 rpm		

Locked rotor time : 23s (cold) 13s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



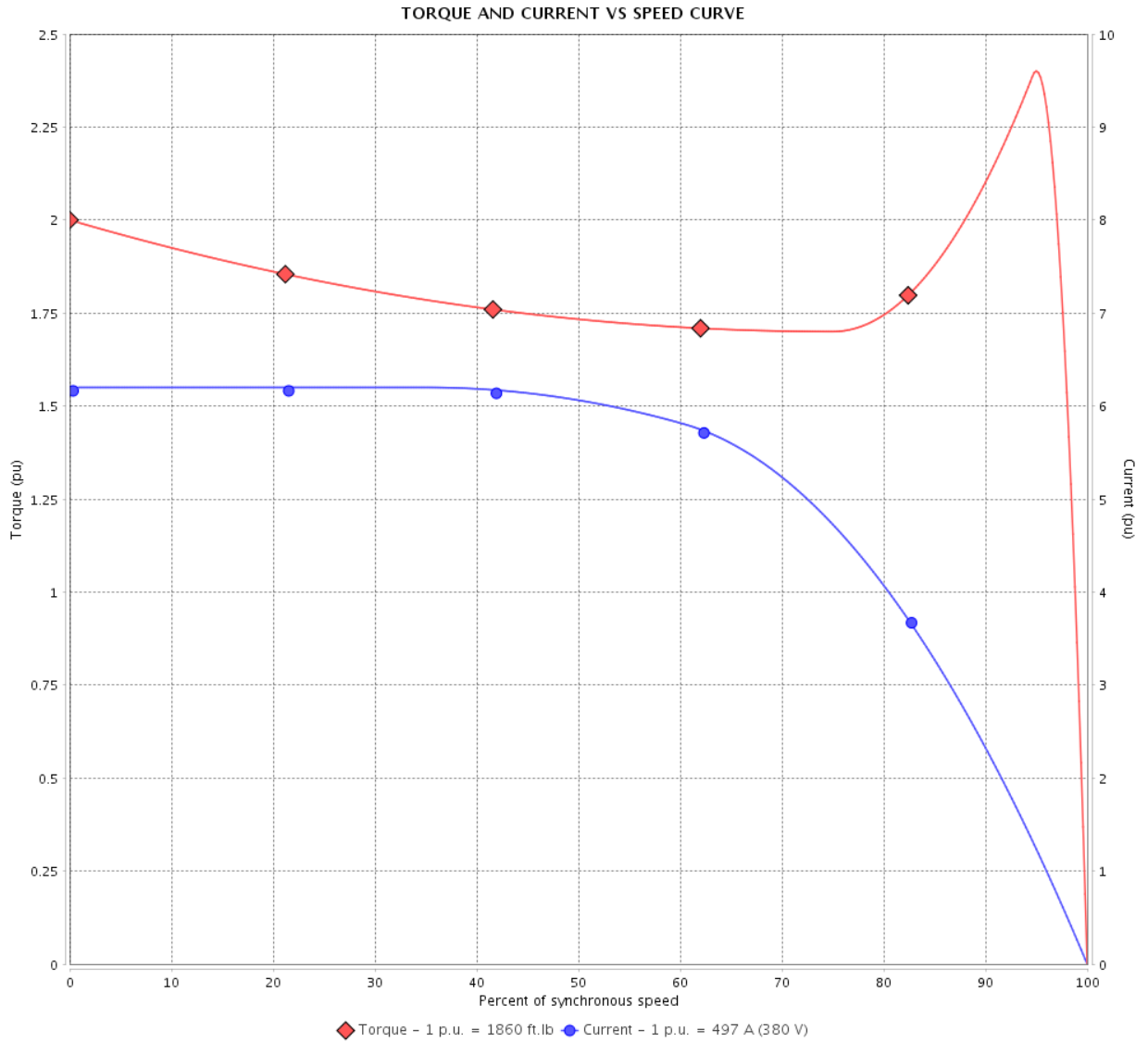
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408909

Catalog # : 40012ET3GRB449T-W22



Performance : 380 V 50 Hz 6P IE3

Rated current	: 497 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 1860 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 990 rpm		

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



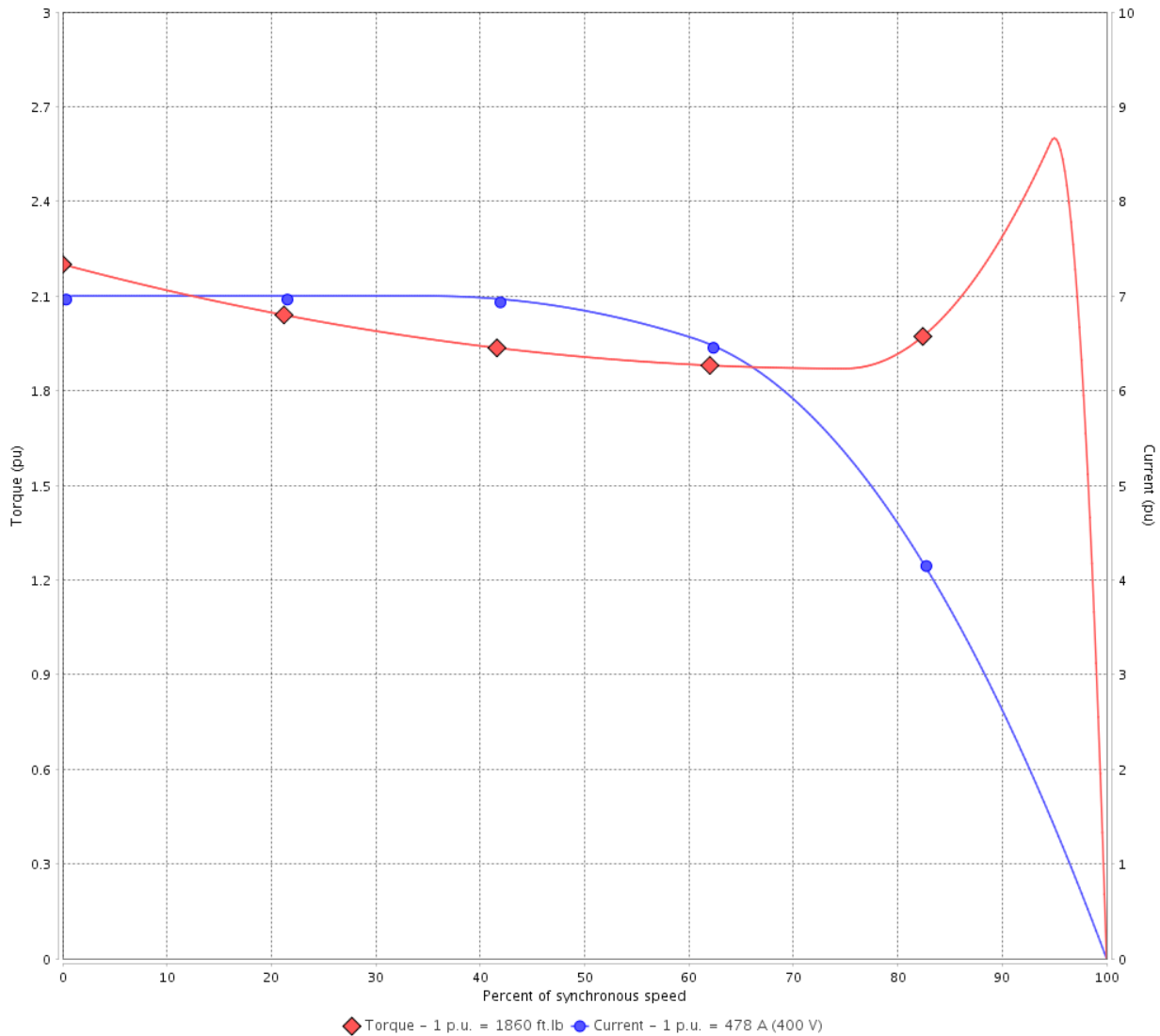
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408909

Catalog # : 40012ET3GRB449T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 478 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 1860 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 990 rpm		

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

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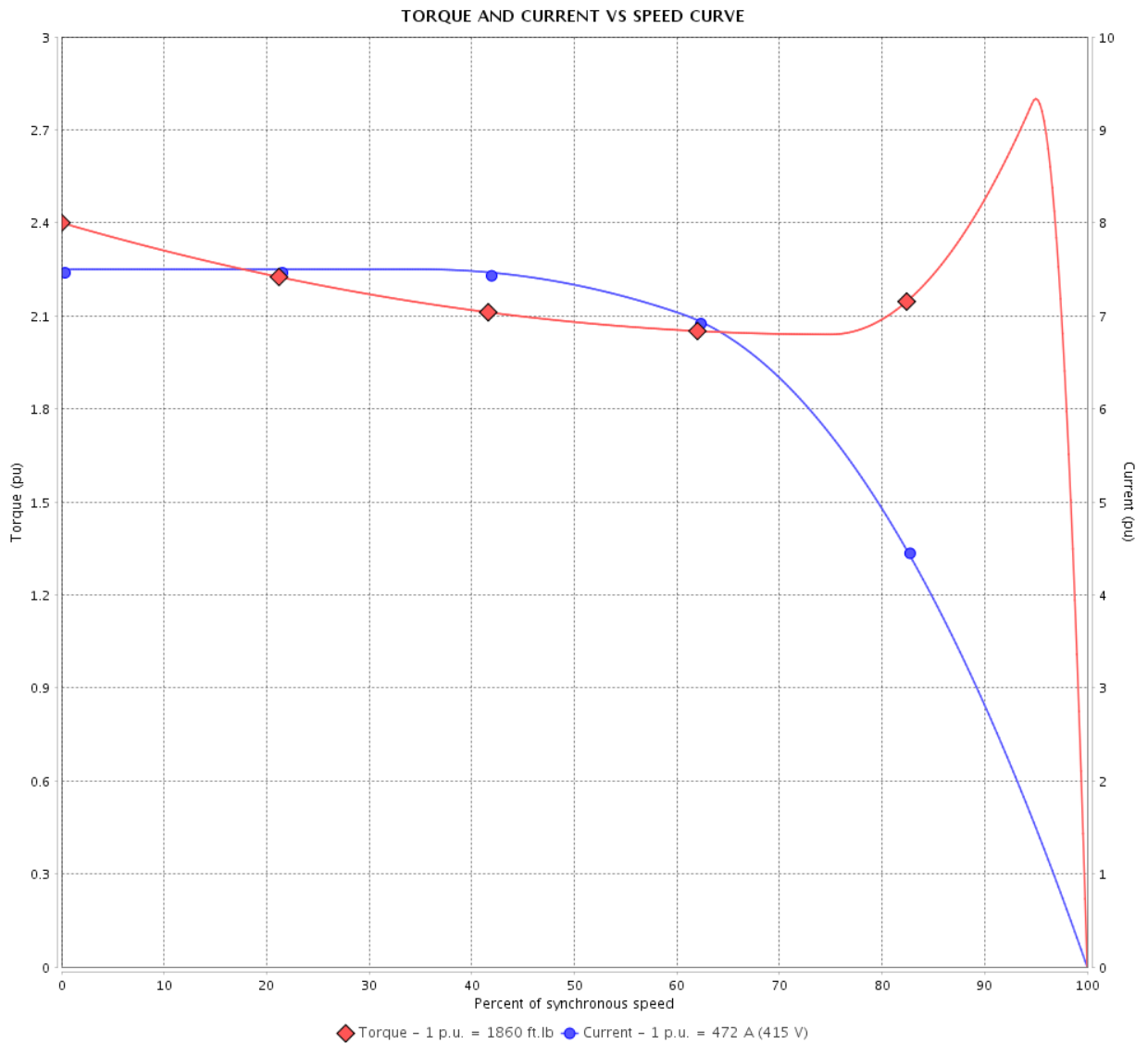
TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase Product code : 11408909
 Catalog # : 40012ET3GRB449T-W22



Performance : 415 V 50 Hz 6P IE3

Rated current : 472 A	Moment of inertia (J) : 278 sq.ft.lb
LRC : 7.5	Duty cycle : Cont.(S1)
Rated torque : 1860 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.00
Breakdown torque : 280 %	Temperature rise : 105 K
Rated speed : 990 rpm	

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

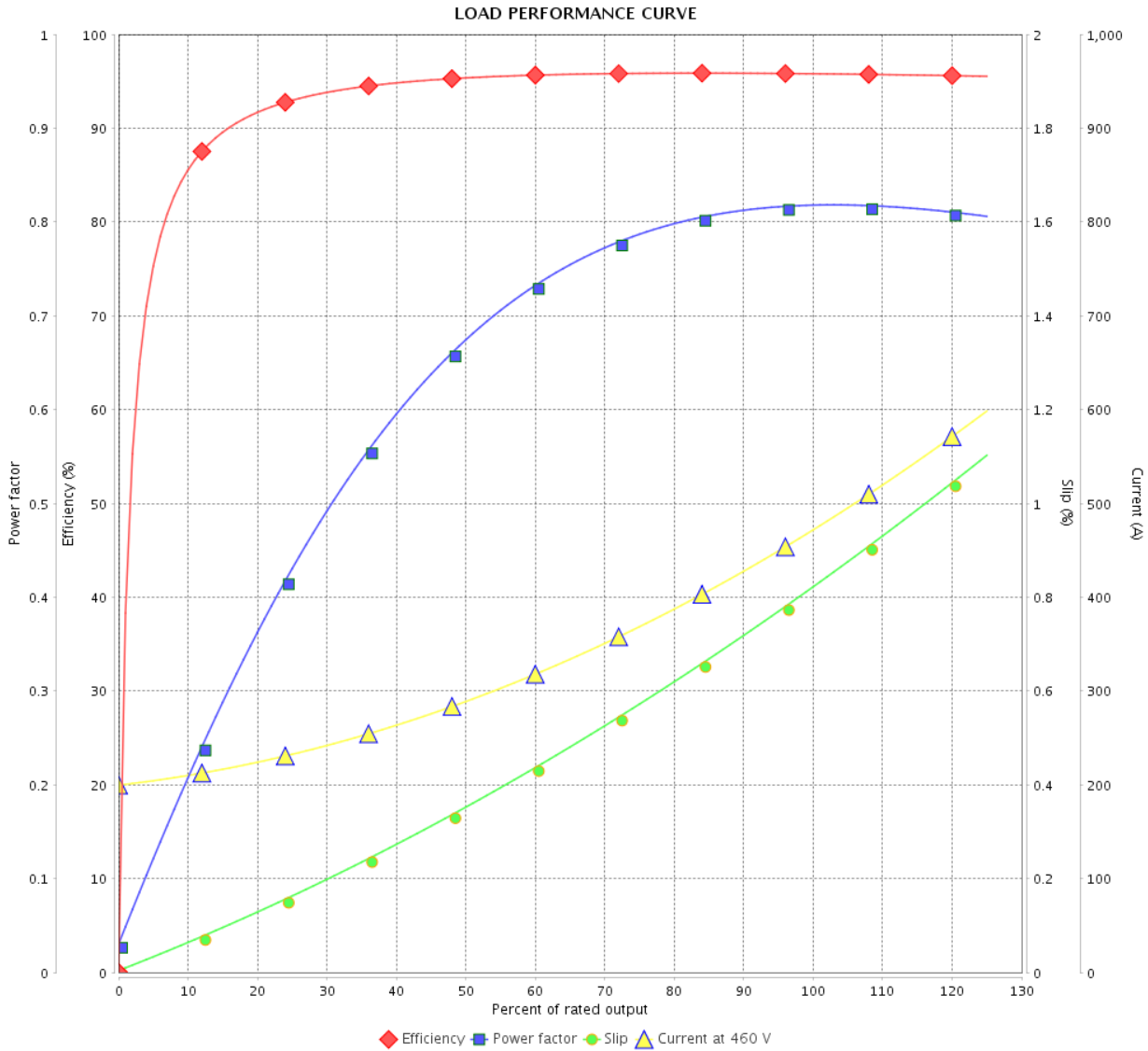


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408909

Catalog # : 40012ET3GRB449T-W22



Performance : 460 V 60 Hz 6P

Rated current : 477 A
 LRC : 6.9
 Rated torque : 1770 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 1190 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

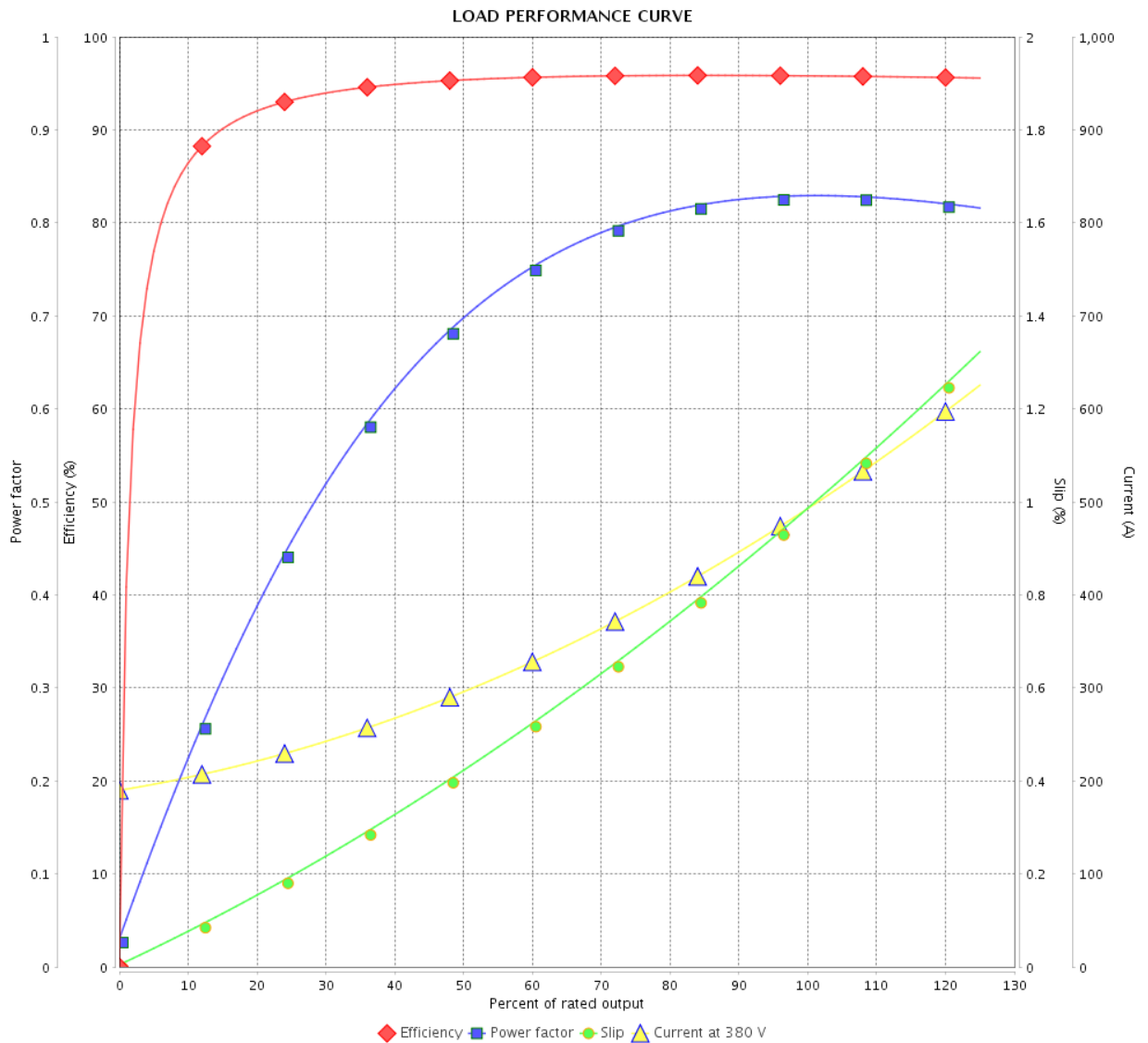


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Performance : 380 V 50 Hz 6P IE3

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 Breakdown torque : 240 %
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Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K

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Three Phase Induction Motor - Squirrel Cage

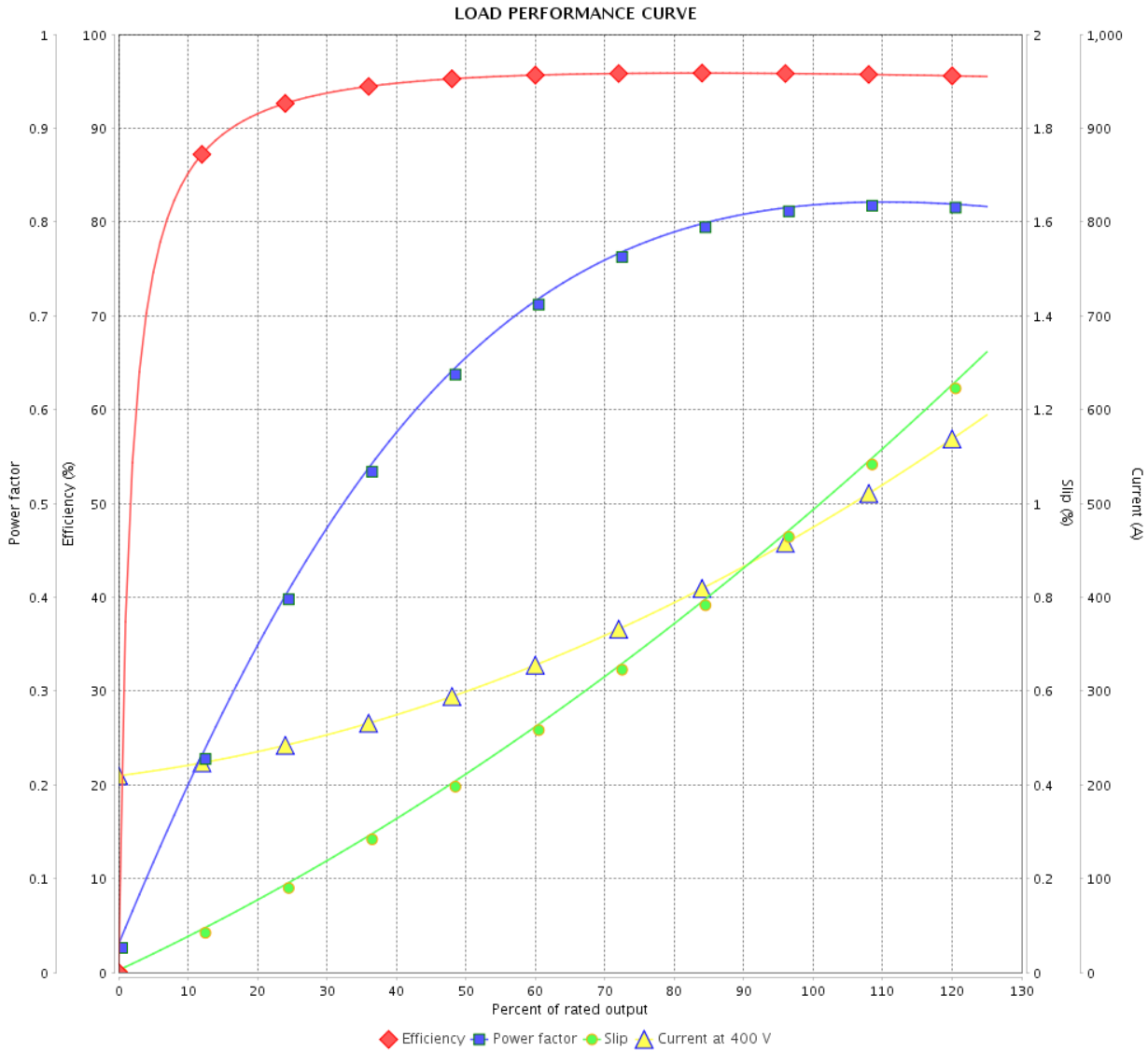


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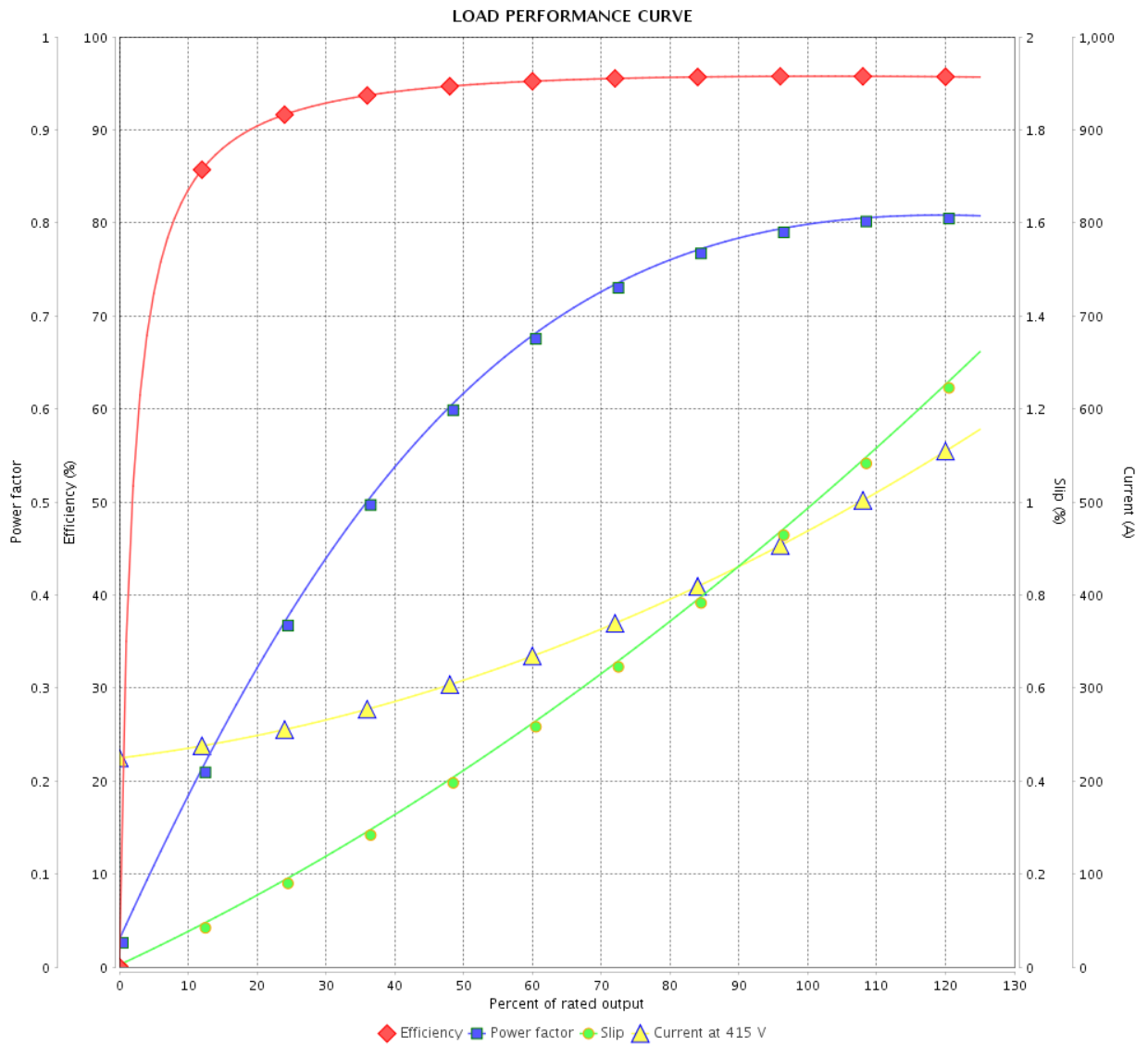


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THERMAL LIMIT CURVE

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Rated speed	: 1190 rpm		

Heating constant

Cooling constant

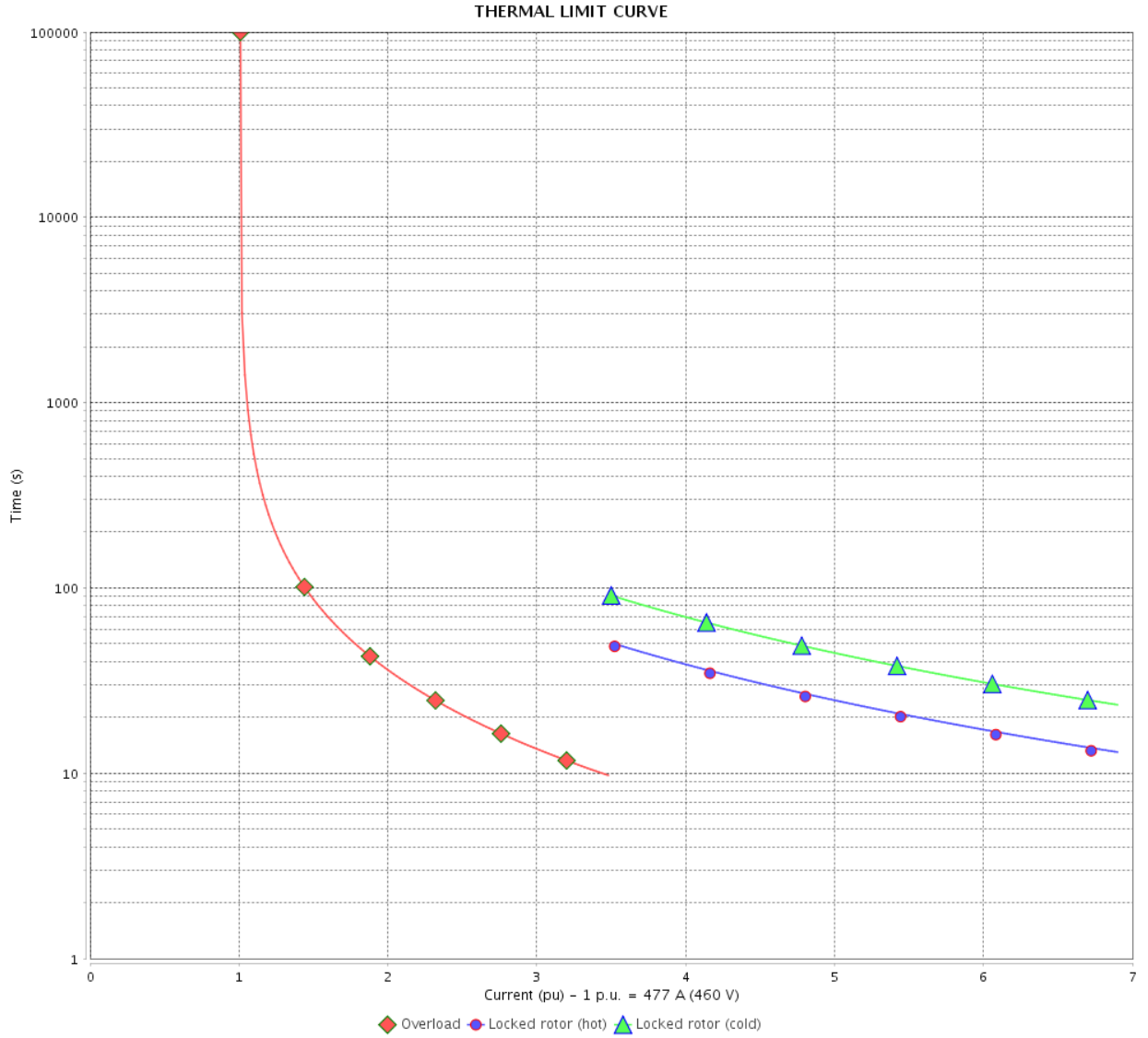
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THERMAL LIMIT CURVE

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Cooling constant

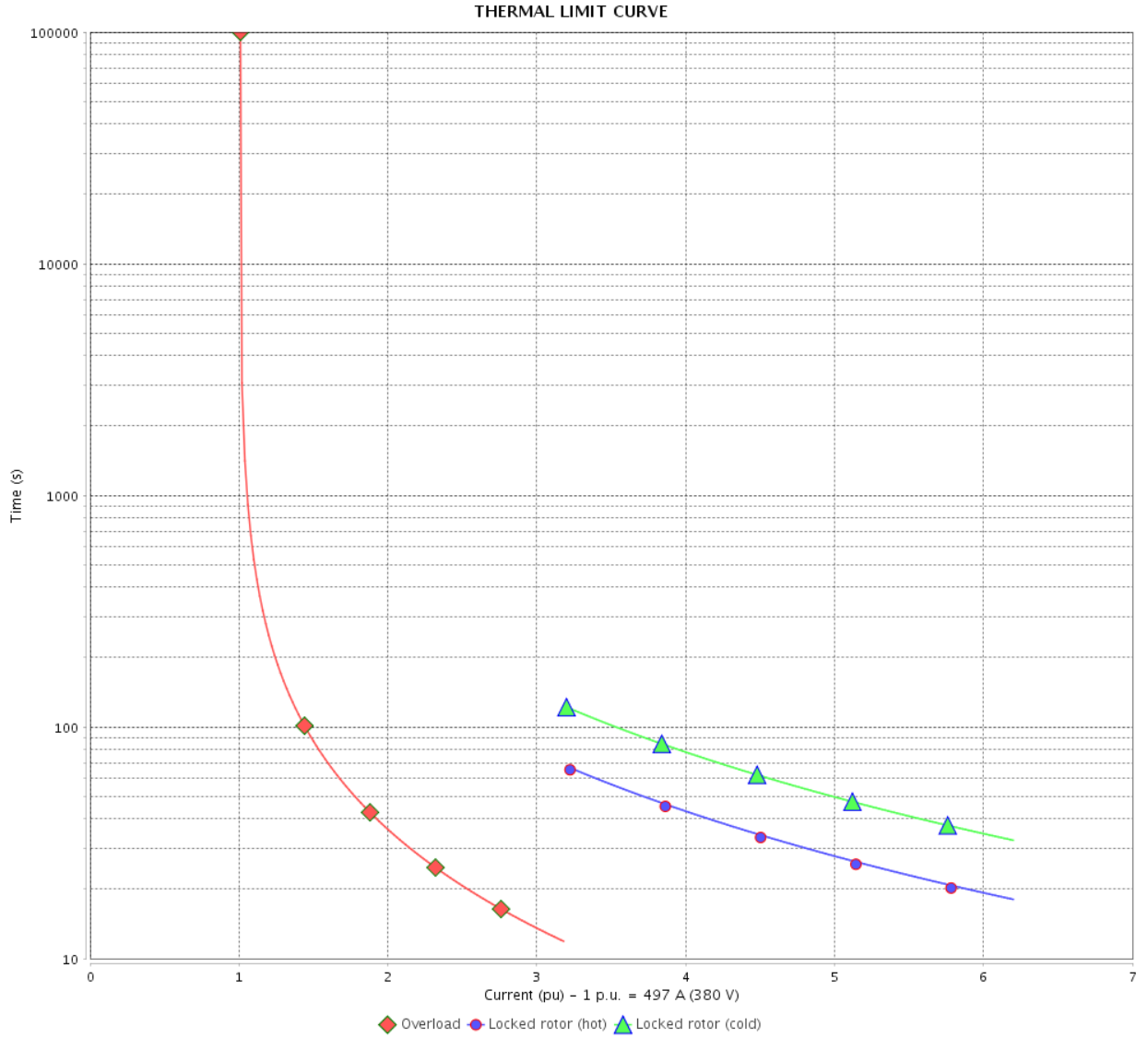
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THERMAL LIMIT CURVE

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Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 990 rpm		

Heating constant

Cooling constant

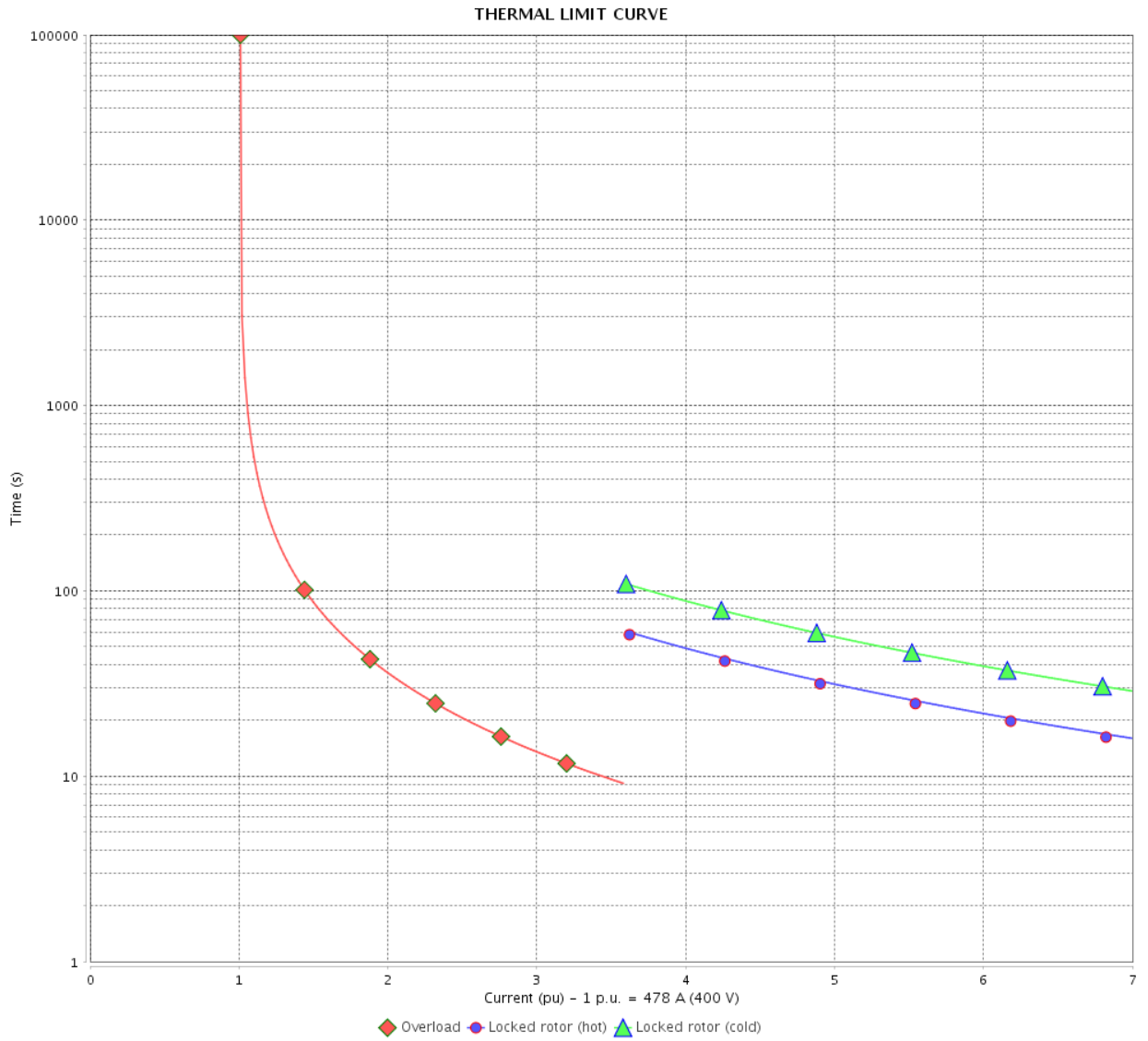
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 105 K
Rated speed	: 990 rpm		

Heating constant

Cooling constant

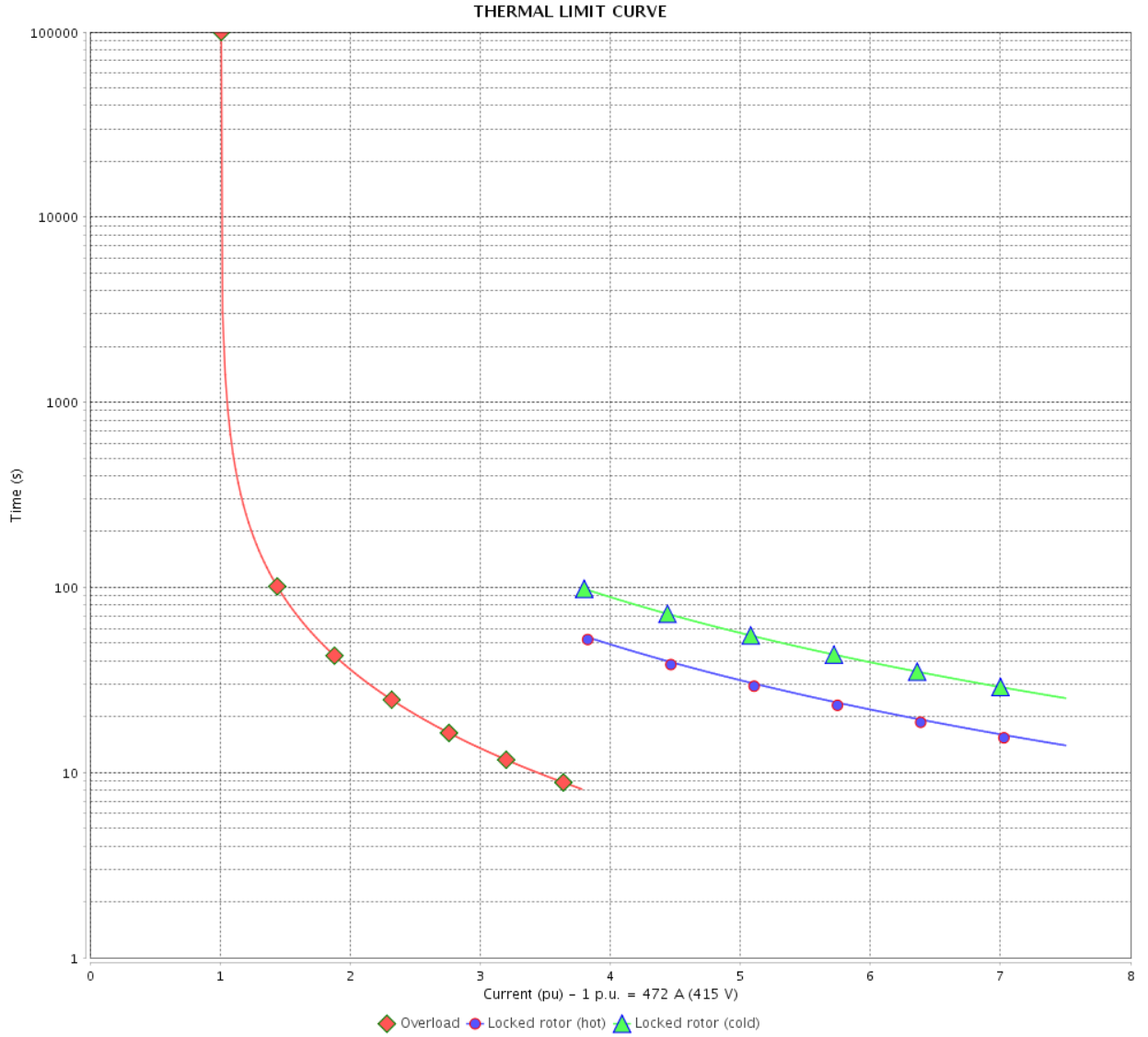
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

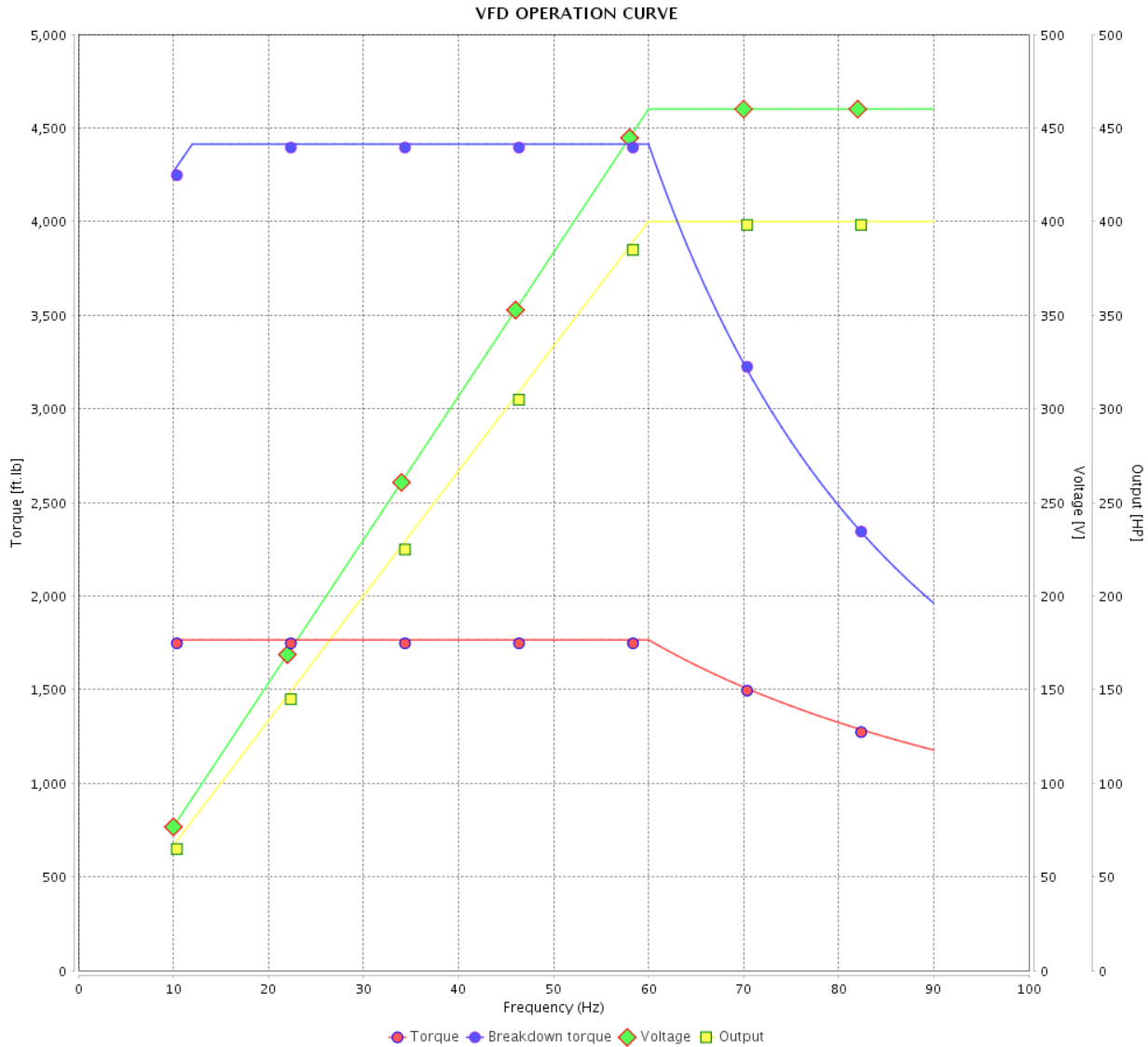


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Performance : 460 V 60 Hz 6P

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VFD OPERATION CURVE

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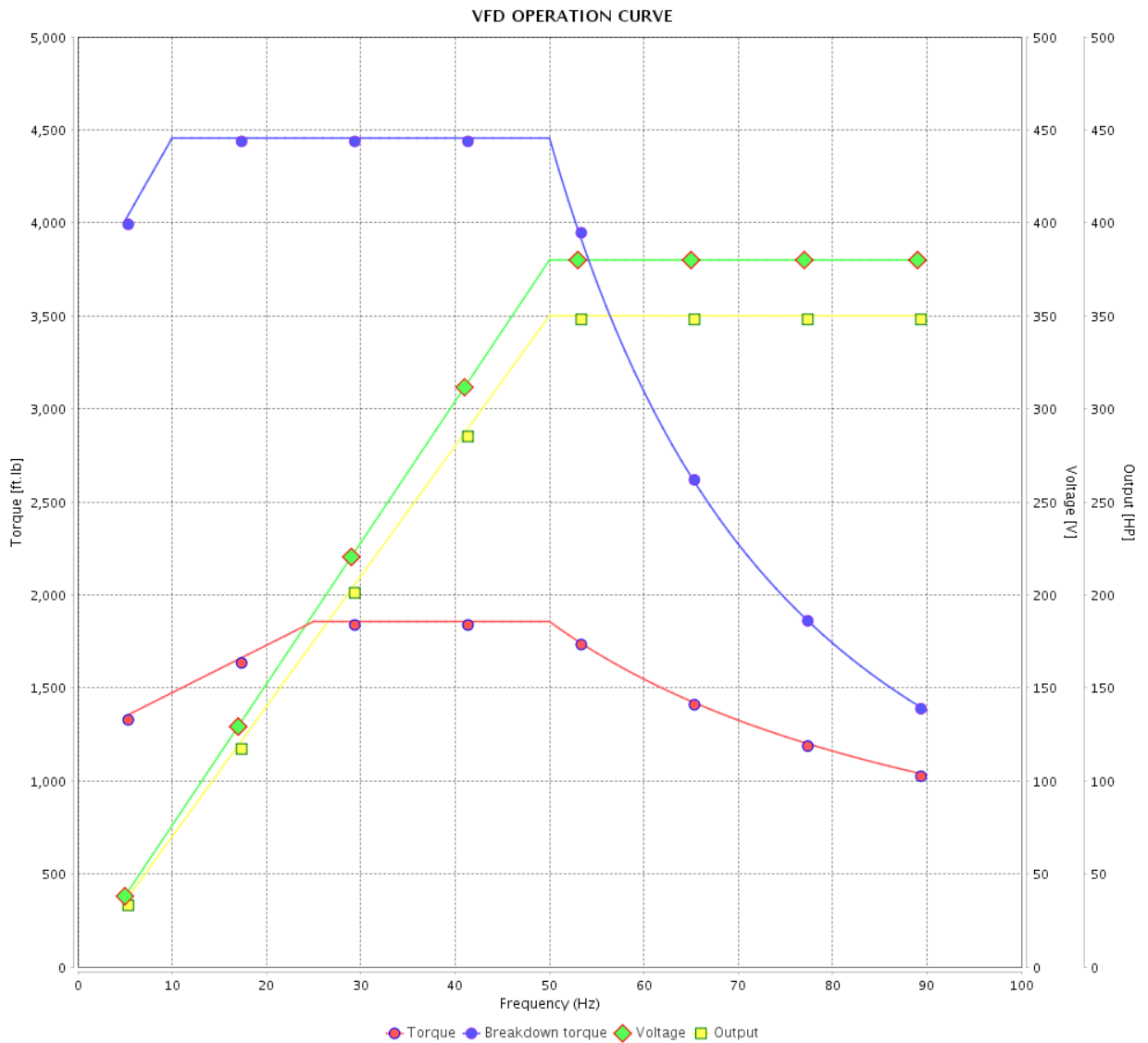


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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

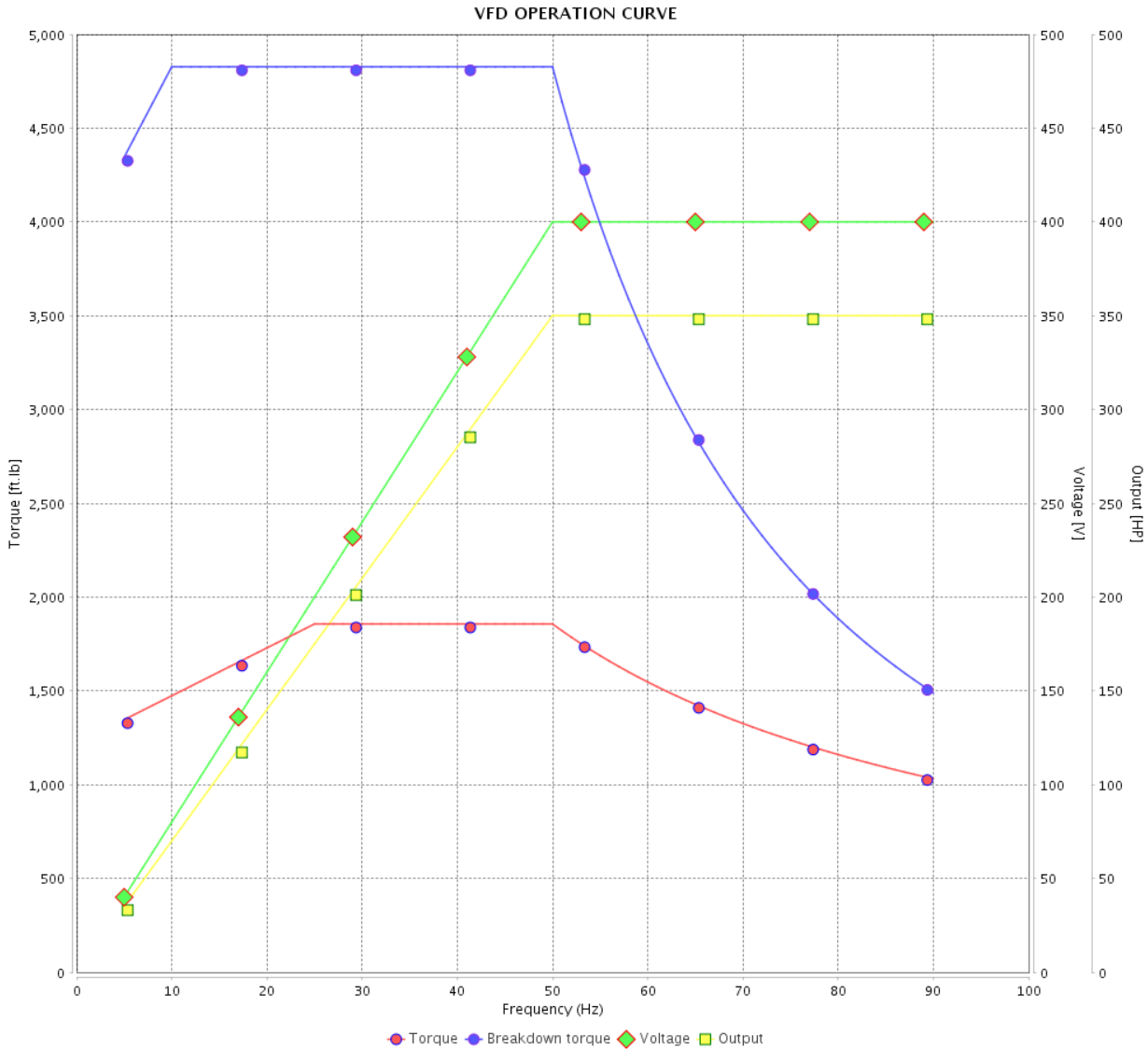


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Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 990 rpm		

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

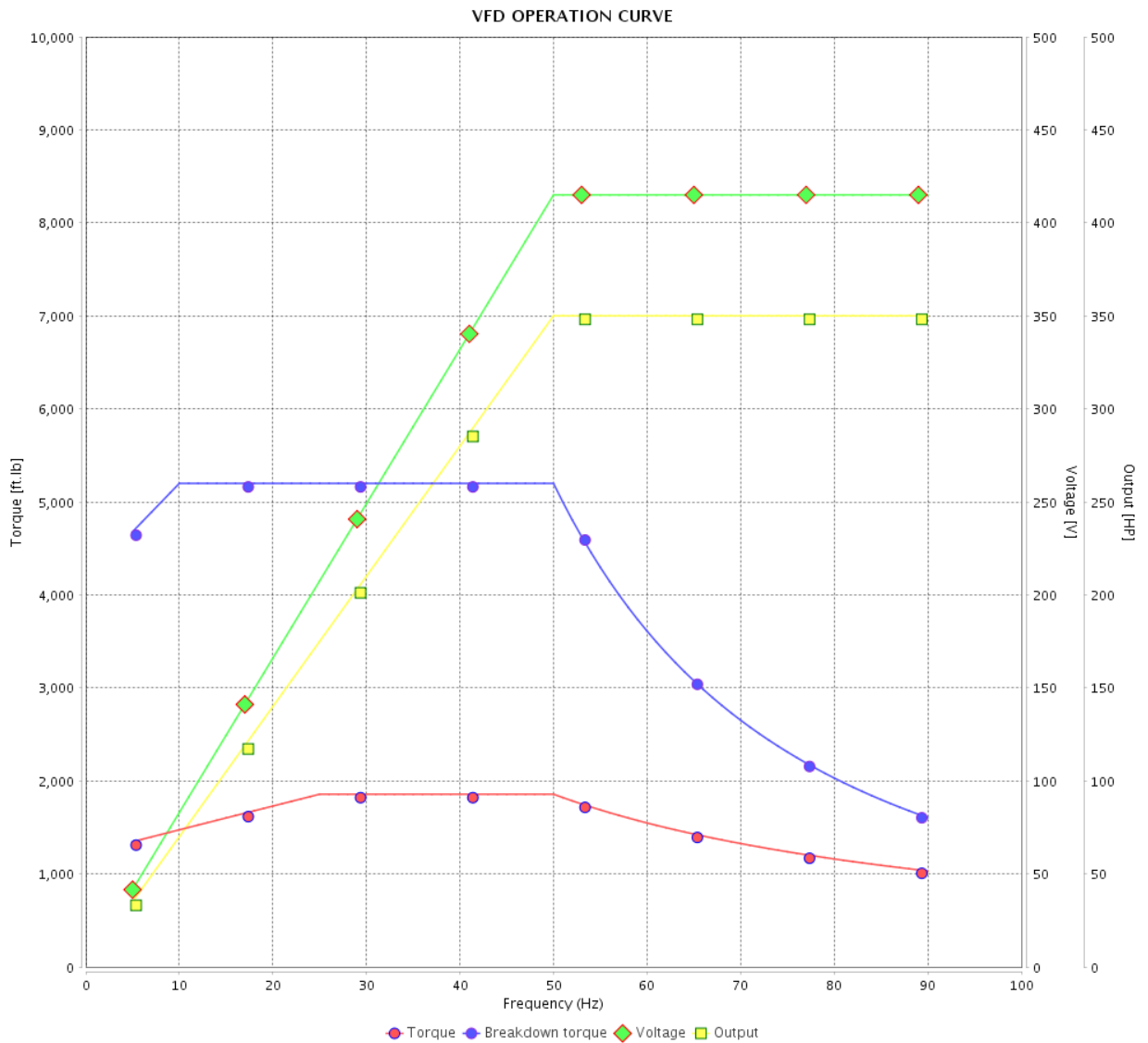


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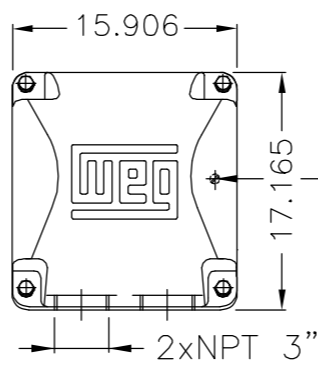
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EIXO/SHAFT	
PADRÃO/STANDARD	X
OPCIONAL/OPTIONAL	
ESPECIAL/SPECIAL	

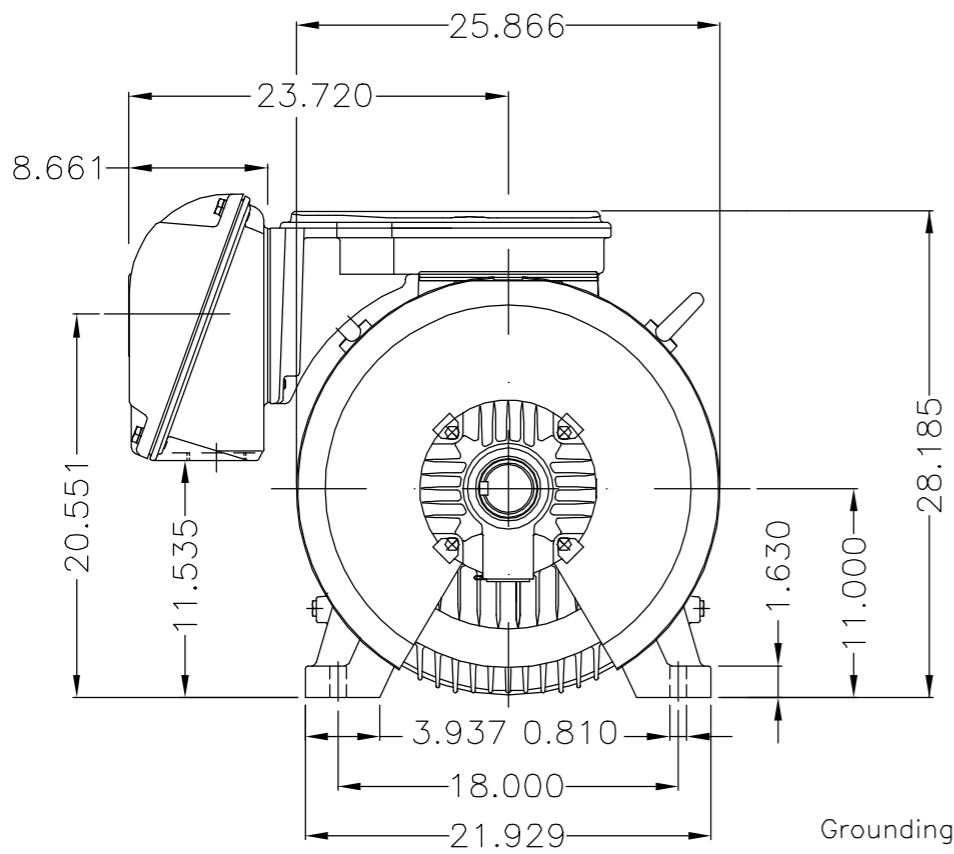
Dimensões em polegada
Dimensions in inches

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

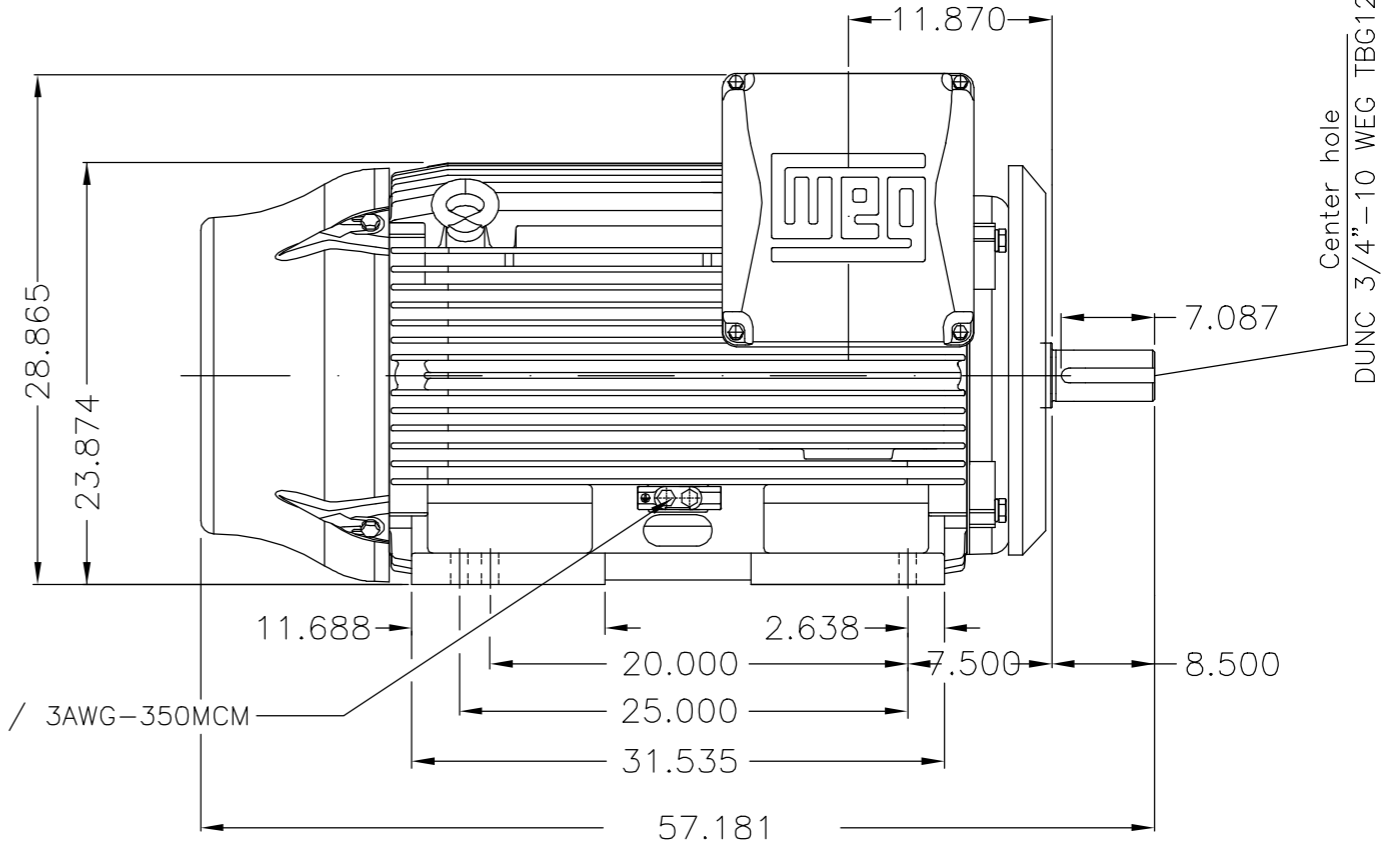


Grounding for leads 35-70 mm² / 1-2/0 AWG

Main terminal box

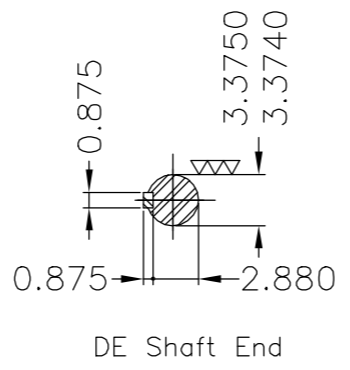
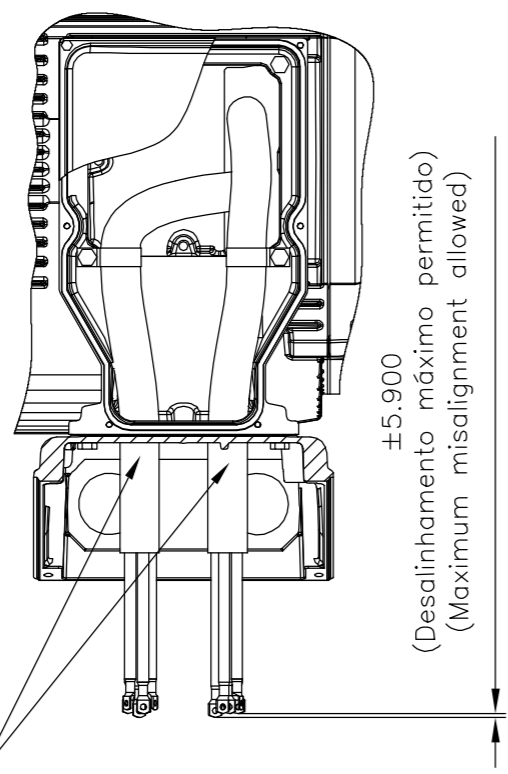


Grounding for leads 25-185 mm² / 3AWG-350MCM



Center hole
DUNC 3/4"-10 WEG TBG12

Fixar o conduto no suporte com abraçadeiras.
Fasten the conduit on support with cables ties.



DE Shaft End

Conduite para cabos no interior do suporte da caixa de ligação						
Cables conduit inside terminal box support						
Linha do motor: Crusher Duty / Motor purpose: Crusher Duty						
Rolamento dianteiro de rolos / DE roller bearing						
Dispositivo de travamento de eixo / Shaft locking device						
Tampa traseira com mancal eletricamente isolado						
NDE endshield with electrically insulated bearing hub						
Defletor de ar dianteiro / Drive-End Air Deflector						
Cor RAL 5009 / Color RAL 5009						
Plano de pintura 203A / Painting plan 203A						
Forma construtiva NEMA F-1 / Mounting NEMA F-1						
Forma construtiva B3D / Mounting B3R(D)						
WEG EQUIPAMENTOS ELÉTRICOS S/A						

500001331189		ADIC.NOTA CONDUITE/ADD NOTE CONDUIT	MENSOR		EANJOS	05.07.2017	03
500001323616		ALTERADO CONFORME CDP 414658625	MENSOR		JMANENTE	20.06.2017	02
ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	GABRIELID	THREE PHASE W22 MOTOR FRAME L447/9T IP55 TEFC					
CHECKED							
RELEASED	JMANENTE						
REL DT	23.05.2017	WMO					

400 HP 06 Poles 60Hz 414668751

A



NEMA
Premium
W22



FOR SAFE AREA
Mod.TE1BFOXON



Class I, Div 2, Gr A, B, C and D - T2D
Class I, Zone 2, IIC - T2D
Class II, Div 2, Gr F and G - T4

MODEL 40012ET3GRB449T-W22

Electric Motor
Severe Duty

PH3 60Hz Fr. L447/9T 1000m.a.s.l. IP55 TEFC 3652lb

V 460

A 477

HP 400

kW 300

SF 1.00

SFA -

RPM 1190

PF 0.82

AMB 40°C

INS cl. F

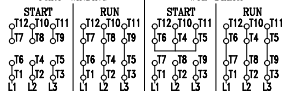
NEMA NOM EFF 95.8%

DUTY CONT.

DES - Code H

PART-WINDING

WYE-DELTA

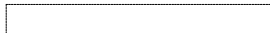


→ NU-322-C3 (60g)

→ 6319-C3 (45g)



MOBIL POLYREX EM (7000h)



MADE IN BRAZIL
11408909