

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12222432		
		Catalog # :	30018ET3GRB449T-W22		
Frame	: 447/9T	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	: 2886 lb		
Protection degree	: IP55	Moment of inertia (J)	: 89.6 sq.ft.lb		
Design	: B				
Output [HP]	300	250	250	250	250
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	460	380	400	415	415
Rated current [A]	330	337	320	311	311
L. R. Amperes [A]	2145	2056	2144	2239	2239
LRC [A]	6.5x(Code G)	6.1x(Code F)	6.7x(Code G)	7.2x(Code H)	7.2x(Code H)
No load current [A]	105	104	111	116	116
Rated speed [RPM]	1780	1480	1480	1485	1485
Slip [%]	1.11	1.33	1.33	1.00	1.00
Rated torque [ft.lb]	885	887	887	884	884
Locked rotor torque [%]	250	210	240	260	260
Breakdown torque [%]	250	220	250	270	270
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	105 K	105 K	105 K	105 K
Locked rotor time	28s (cold) 16s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)
Noise level ²	75.0 dB(A)	71.0 dB(A)	71.0 dB(A)	71.0 dB(A)	71.0 dB(A)
Efficiency (%)	25%	95.7	95.5	95.8	94.9
	50%	95.8	95.8	95.8	95.4
	75%	96.2	95.8	96.2	95.8
	100%	96.2	96.0	96.0	96.2
Power Factor	25%	0.52	0.53	0.49	0.47
	50%	0.77	0.78	0.75	0.73
	75%	0.84	0.84	0.83	0.82
	100%	0.87	0.87	0.87	0.86
Bearing type	: <u>Drive end</u> NU-322 C3 <u>Non drive end</u> 6319 C3	Foundation loads			
Sealing	: WSeal WSeal	Max. traction : 4921 lb			
Lubrication interval	: 4000 h 8000 h	Max. compression : 7806 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



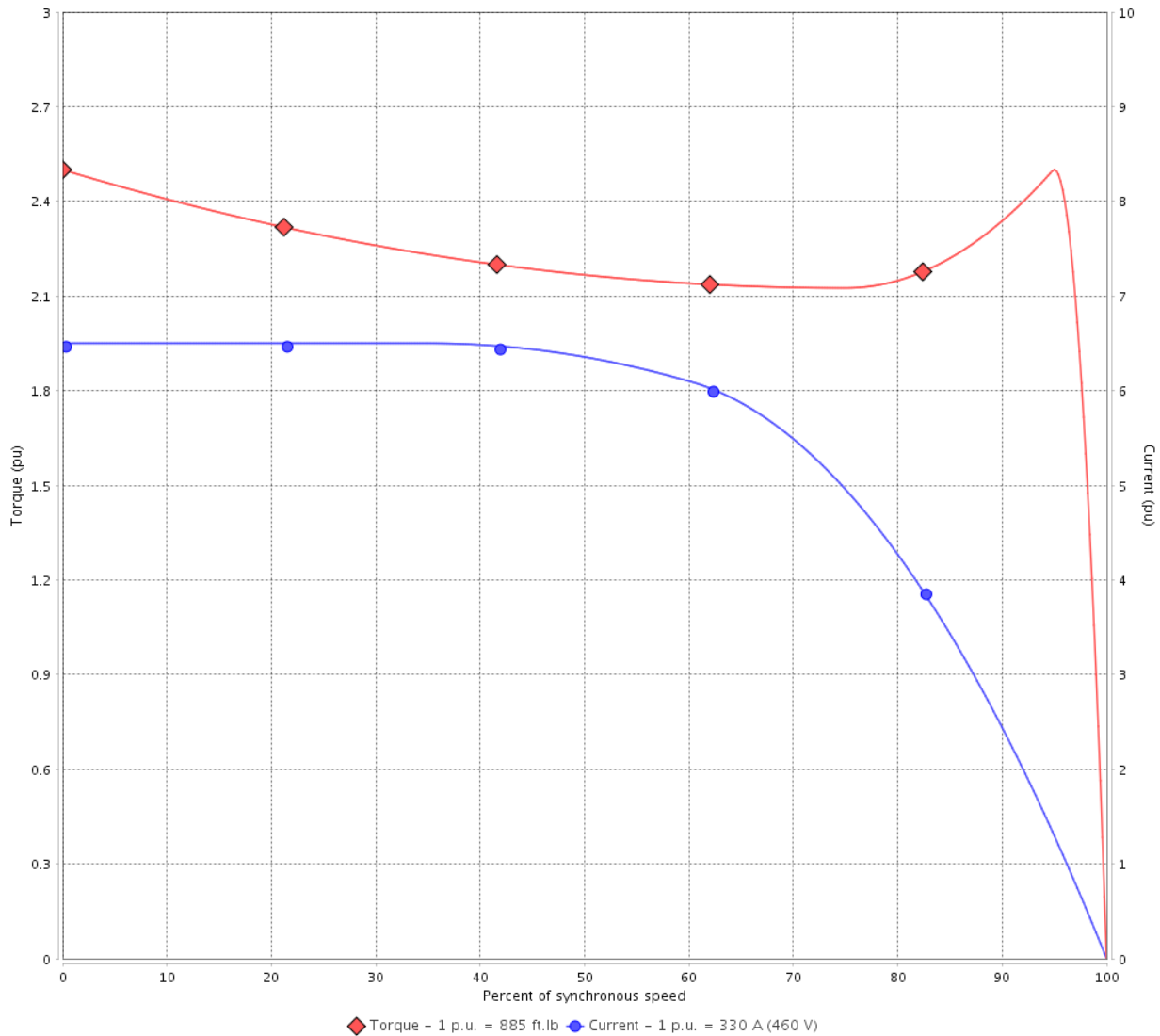
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 1222432

Catalog # : 30018ET3GRB449T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 4P

Rated current	: 330 A	Moment of inertia (J)	: 89.6 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 885 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



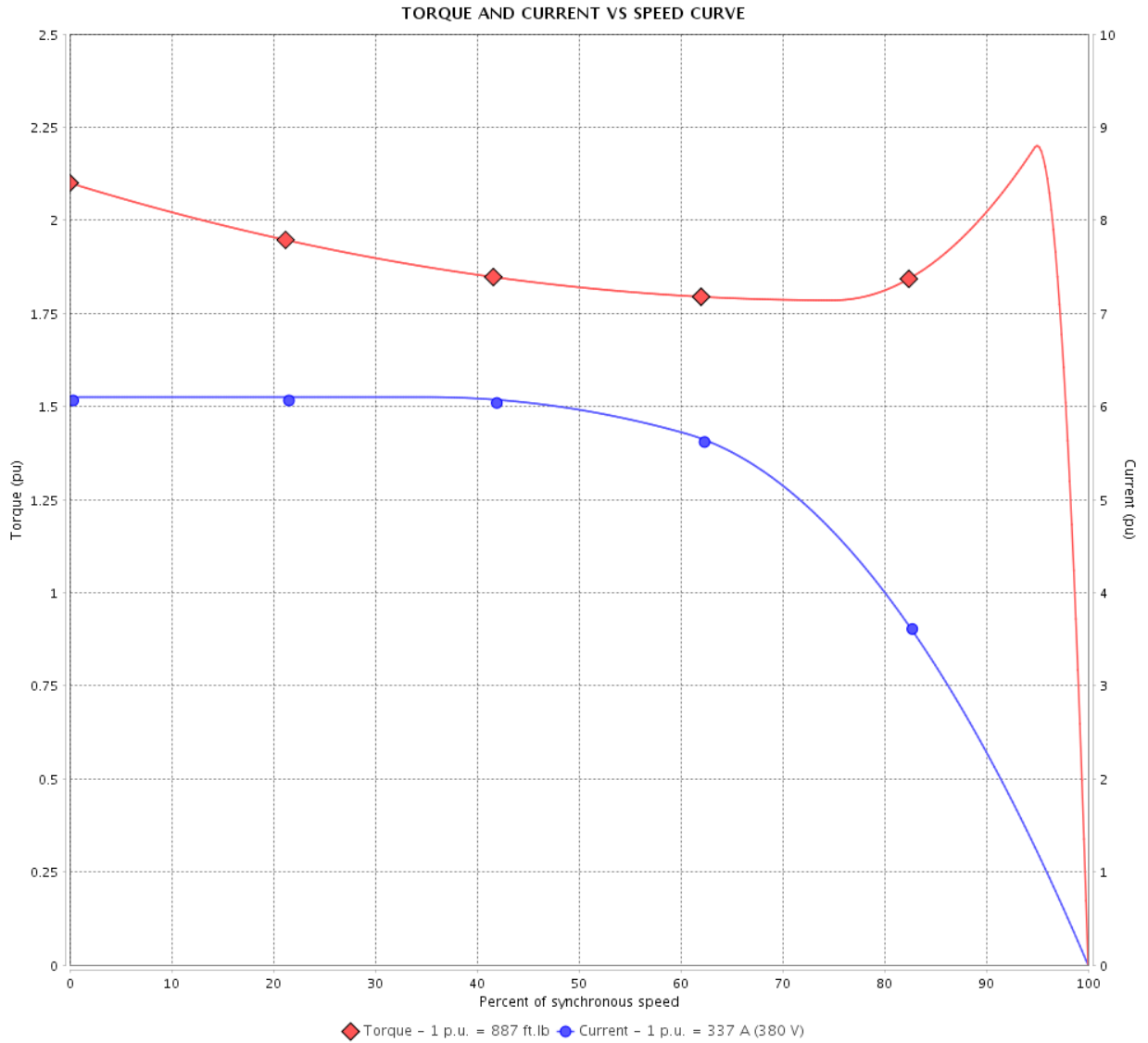
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12222432

Catalog # : 30018ET3GRB449T-W22



Performance : 380 V 50 Hz 4P IE3

Rated current	: 337 A	Moment of inertia (J)	: 89.6 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 887 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 1480 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



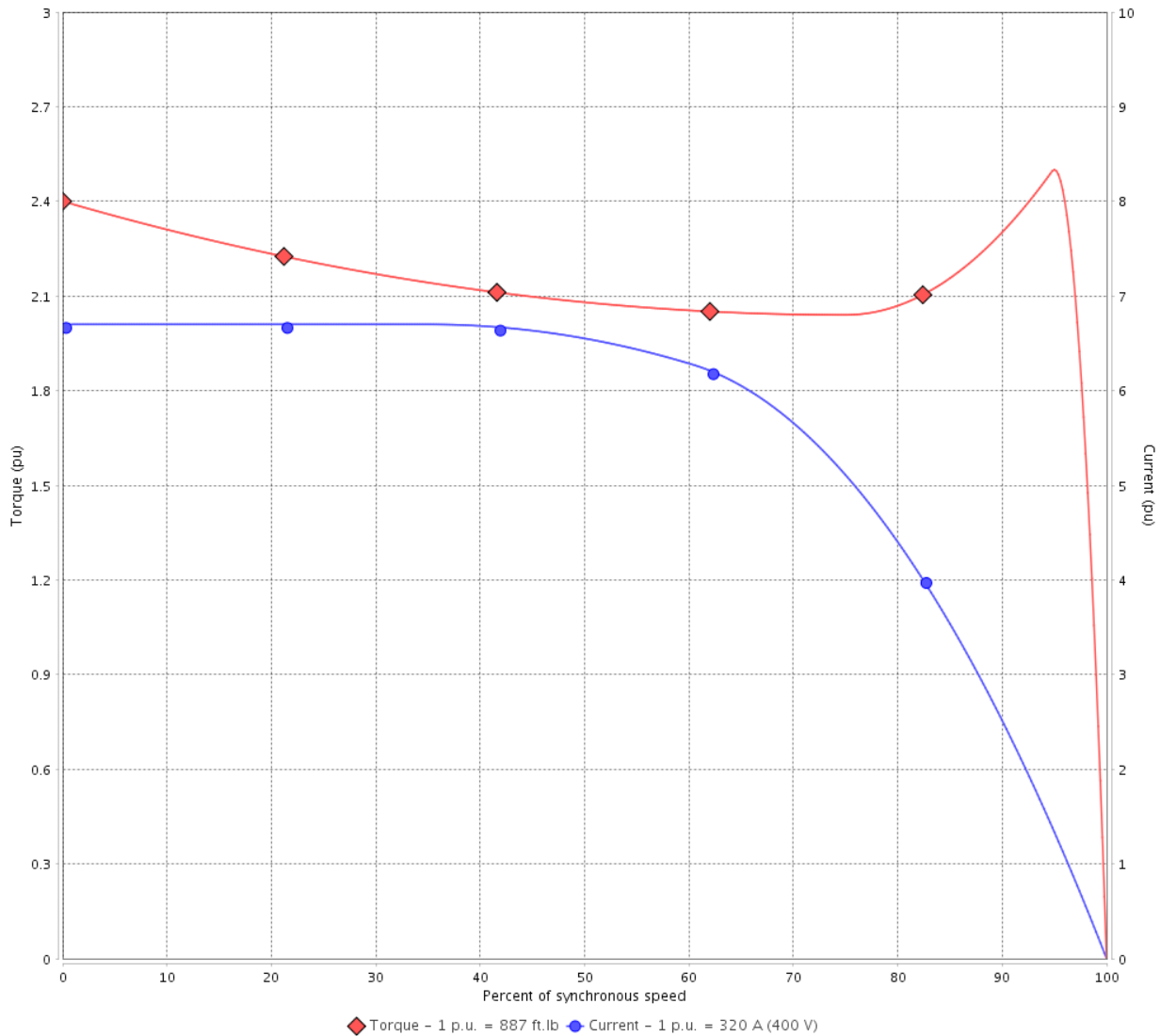
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 1222432

Catalog # : 30018ET3GRB449T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 320 A	Moment of inertia (J)	: 89.6 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 887 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 105 K
Rated speed	: 1480 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



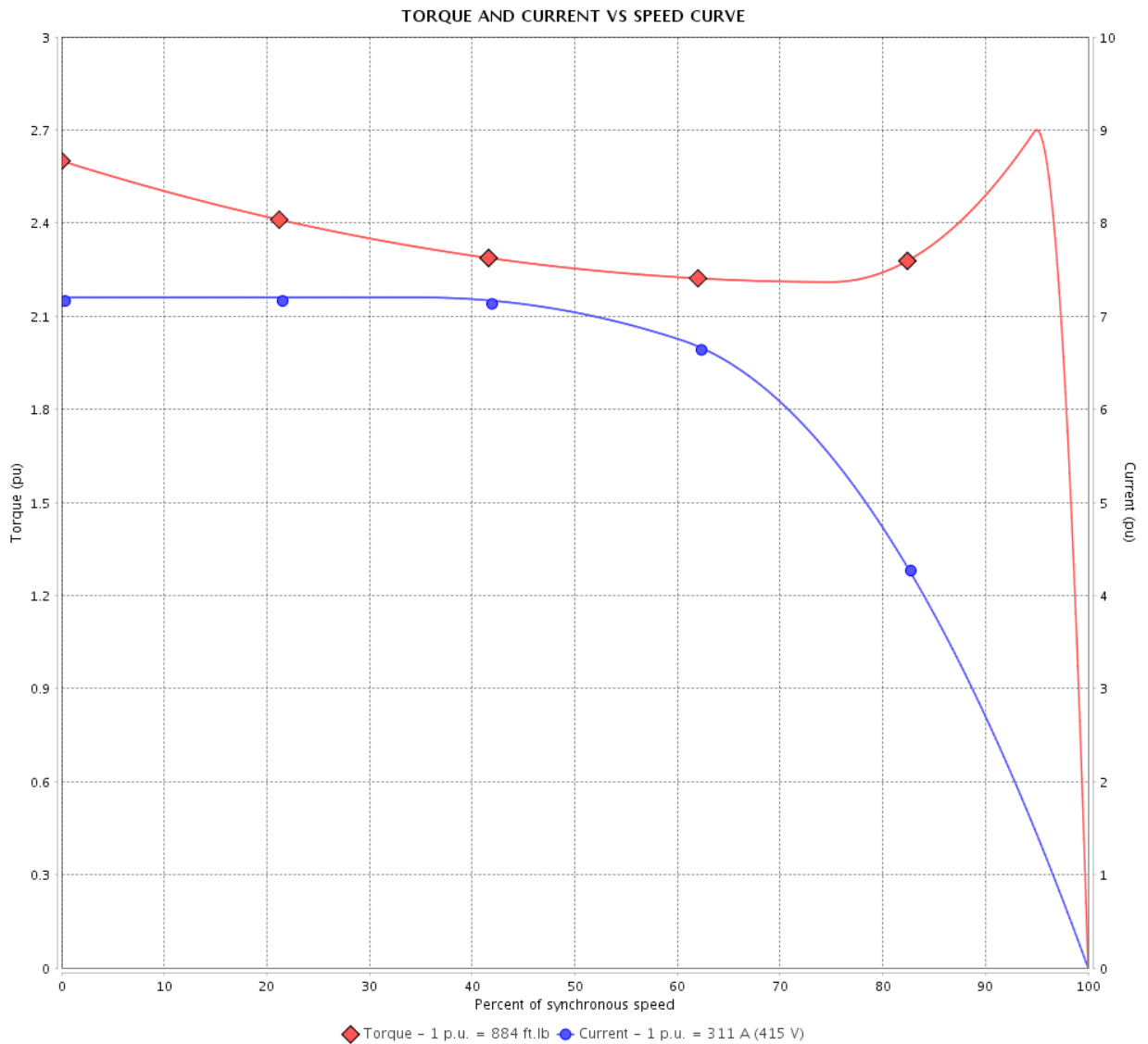
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12222432

Catalog # : 30018ET3GRB449T-W22



Performance : 415 V 50 Hz 4P IE3

Rated current	: 311 A	Moment of inertia (J)	: 89.6 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 884 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 105 K
Rated speed	: 1485 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



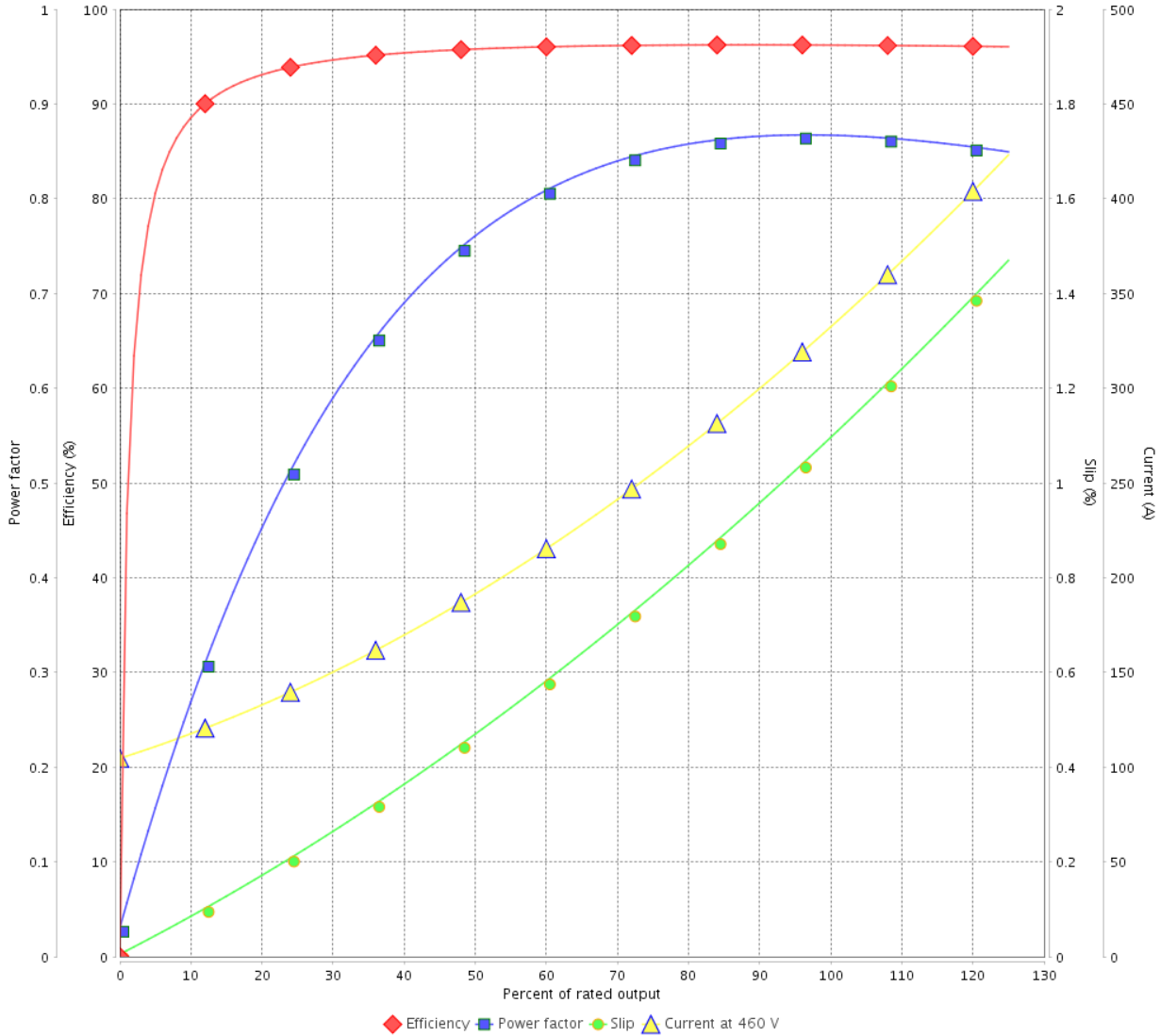
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 1222432

Catalog # : 30018ET3GRB449T-W22

LOAD PERFORMANCE CURVE



Performance : 460 V 60 Hz 4P

Rated current : 330 A
 LRC : 6.5
 Rated torque : 885 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 250 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 89.6 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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Date				

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

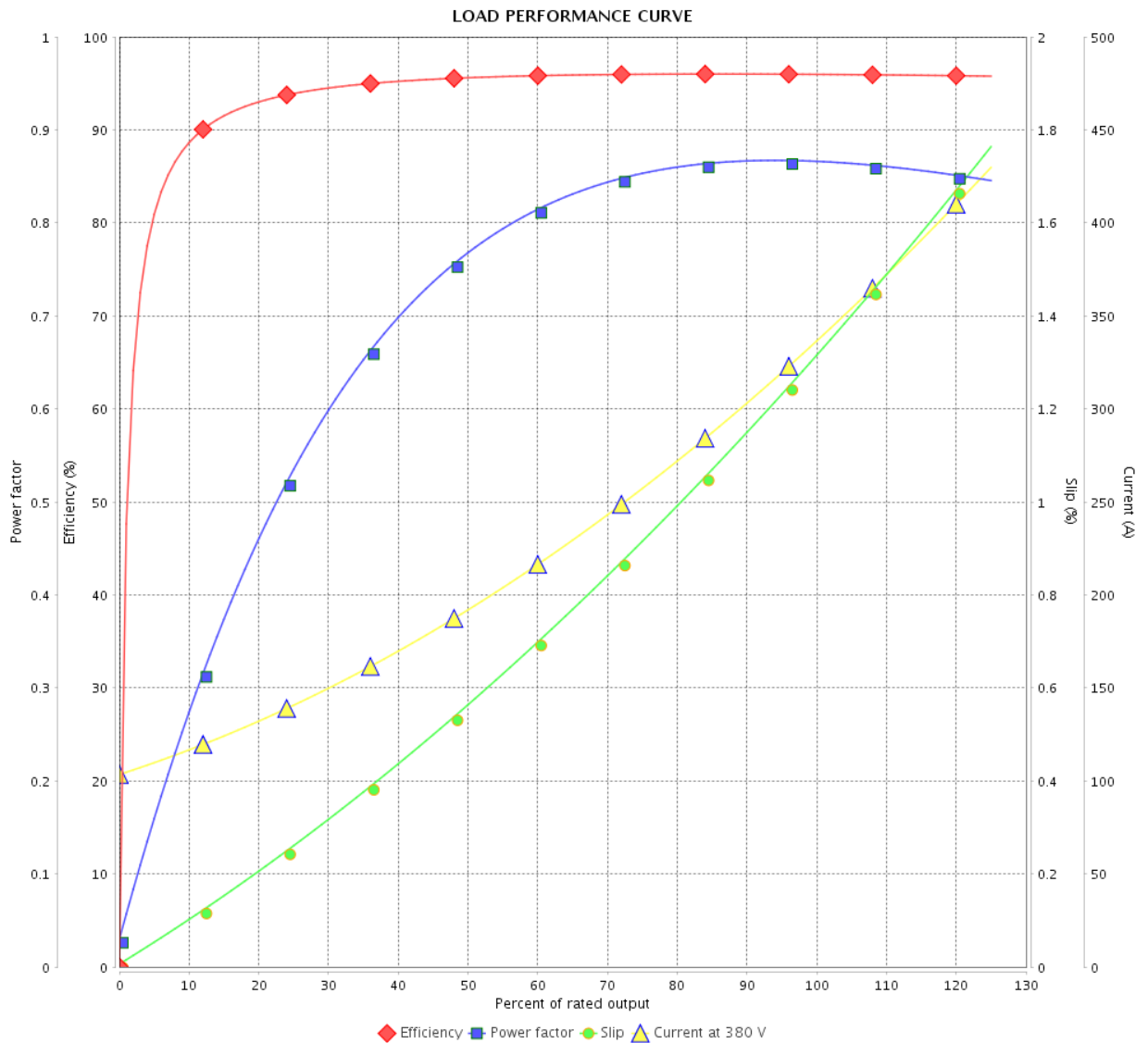


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Performance : 380 V 50 Hz 4P IE3

Rated current : 337 A
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 Locked rotor torque : 210 %
 Breakdown torque : 220 %
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Moment of inertia (J) : 89.6 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

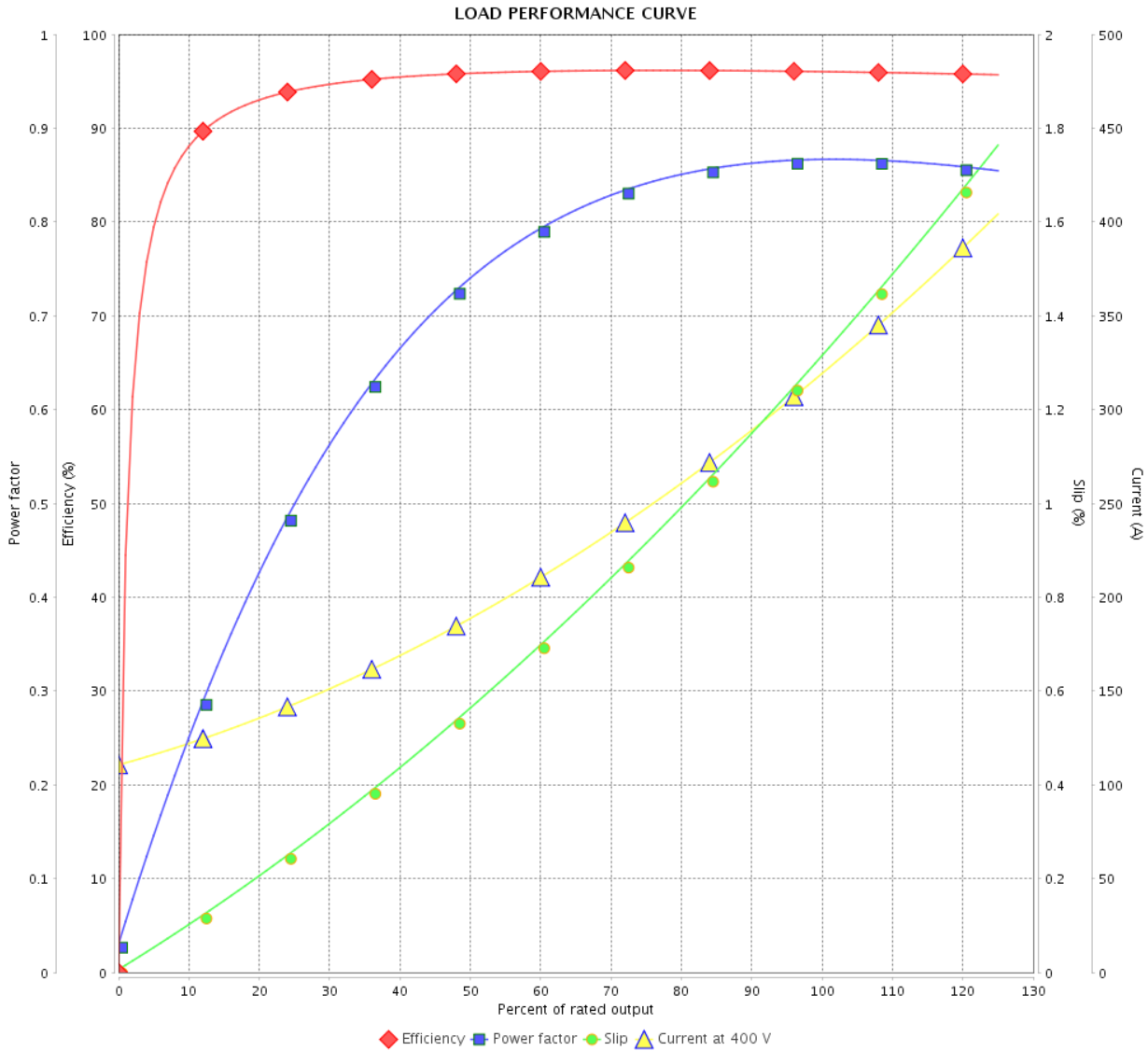


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Performance : 400 V 50 Hz 4P IE3

Rated current : 320 A
 LRC : 6.7
 Rated torque : 887 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 89.6 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

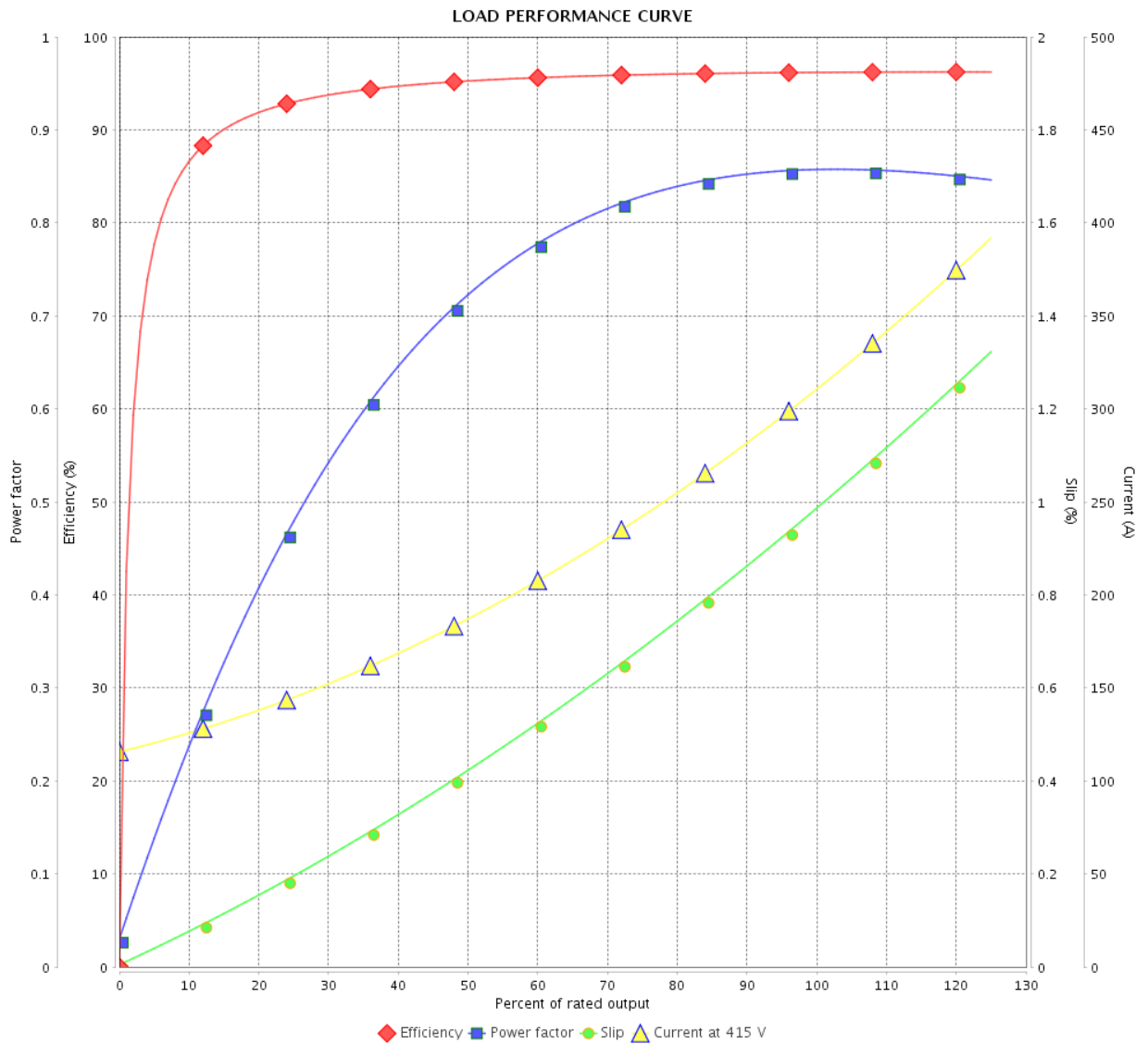


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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THERMAL LIMIT CURVE



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Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Heating constant

Cooling constant

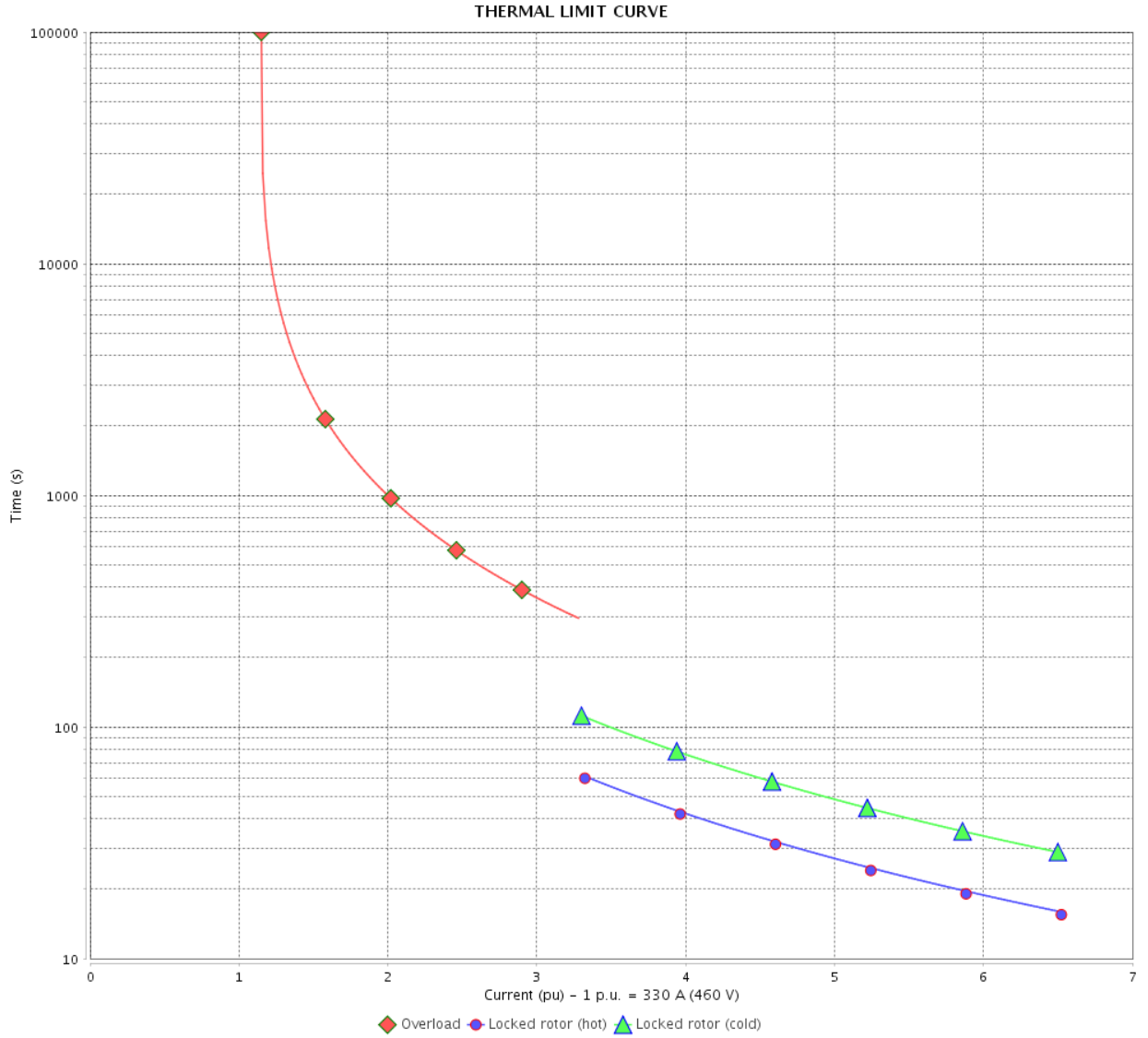
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Three Phase Induction Motor - Squirrel Cage



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Rated torque : 887 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.00
Breakdown torque : 220 %	Temperature rise : 105 K
Rated speed : 1480 rpm	Design : B

Heating constant

Cooling constant

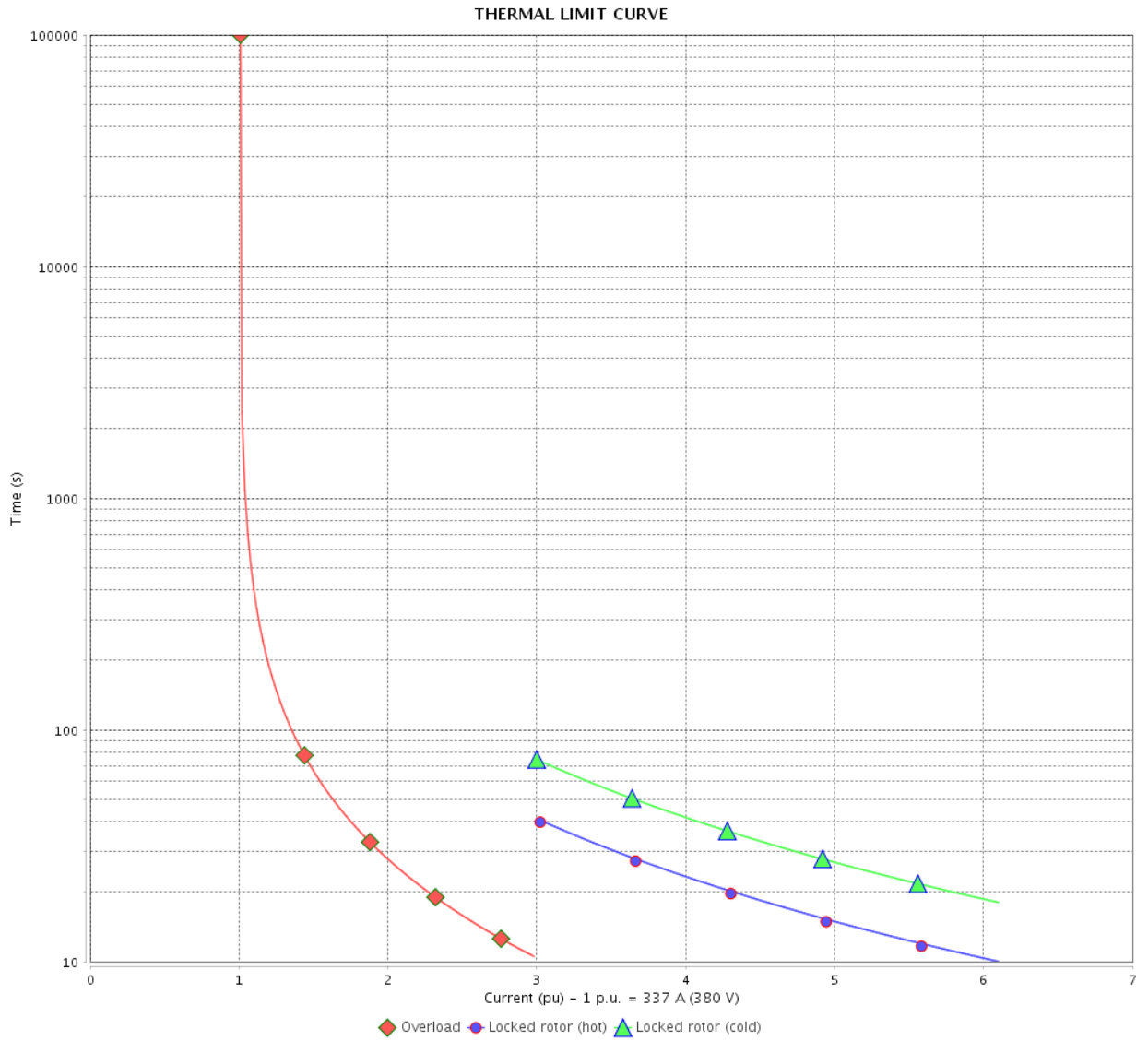
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LRC : 6.7	Duty cycle : Cont.(S1)
Rated torque : 887 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.00
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Rated speed : 1480 rpm	Design : B

Heating constant

Cooling constant

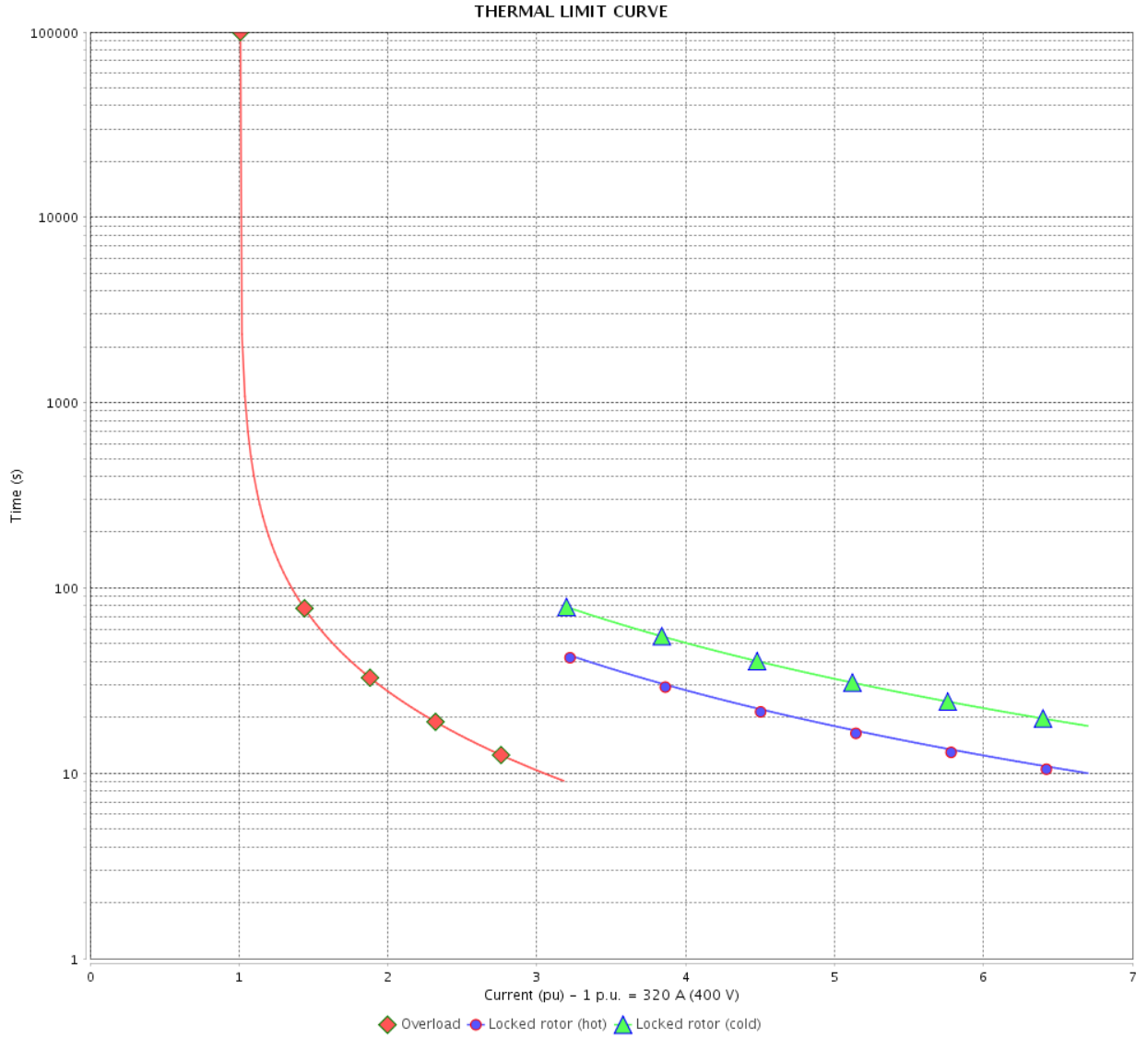
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



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Performance : 415 V 50 Hz 4P IE3

Rated current	: 311 A	Moment of inertia (J)	: 89.6 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 884 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 105 K
Rated speed	: 1485 rpm	Design	: B

Heating constant

Cooling constant

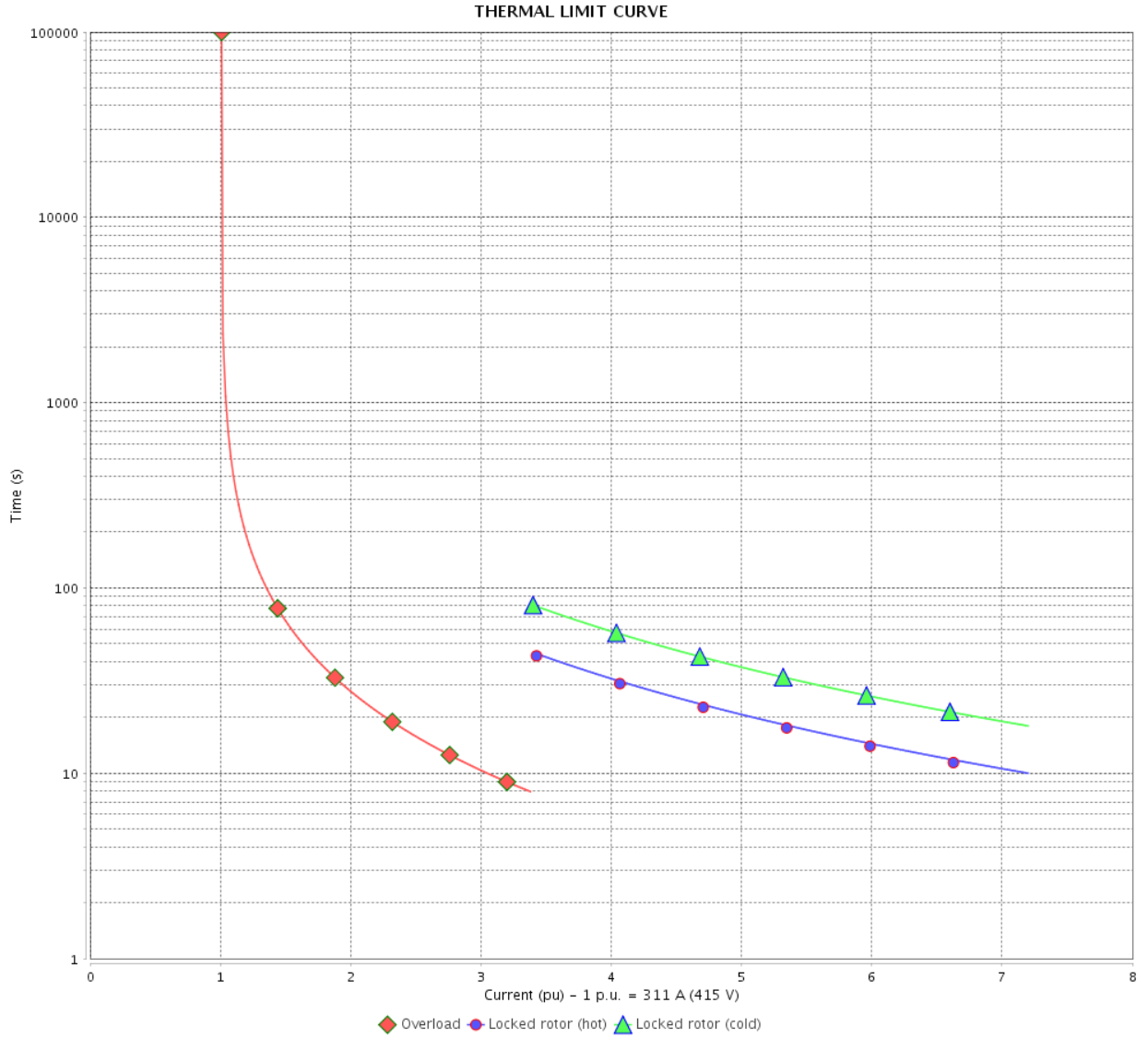
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



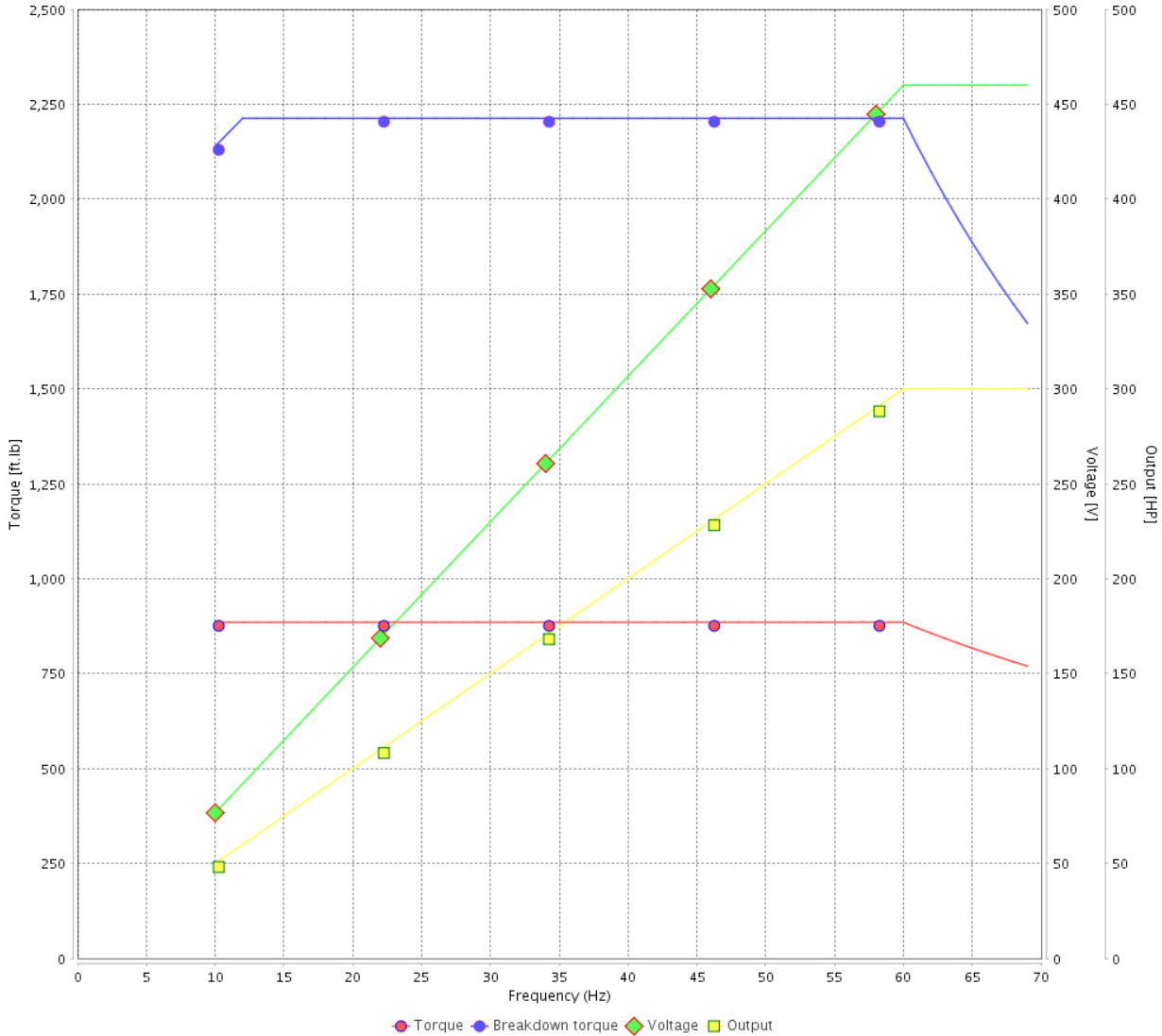
Customer :

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Catalog # : 30018ET3GRB449T-W22

VFD OPERATION CURVE



Performance : 460 V 60 Hz 4P

Rated current	: 330 A	Moment of inertia (J)	: 89.6 sq.ft.lb
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Rated torque	: 885 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
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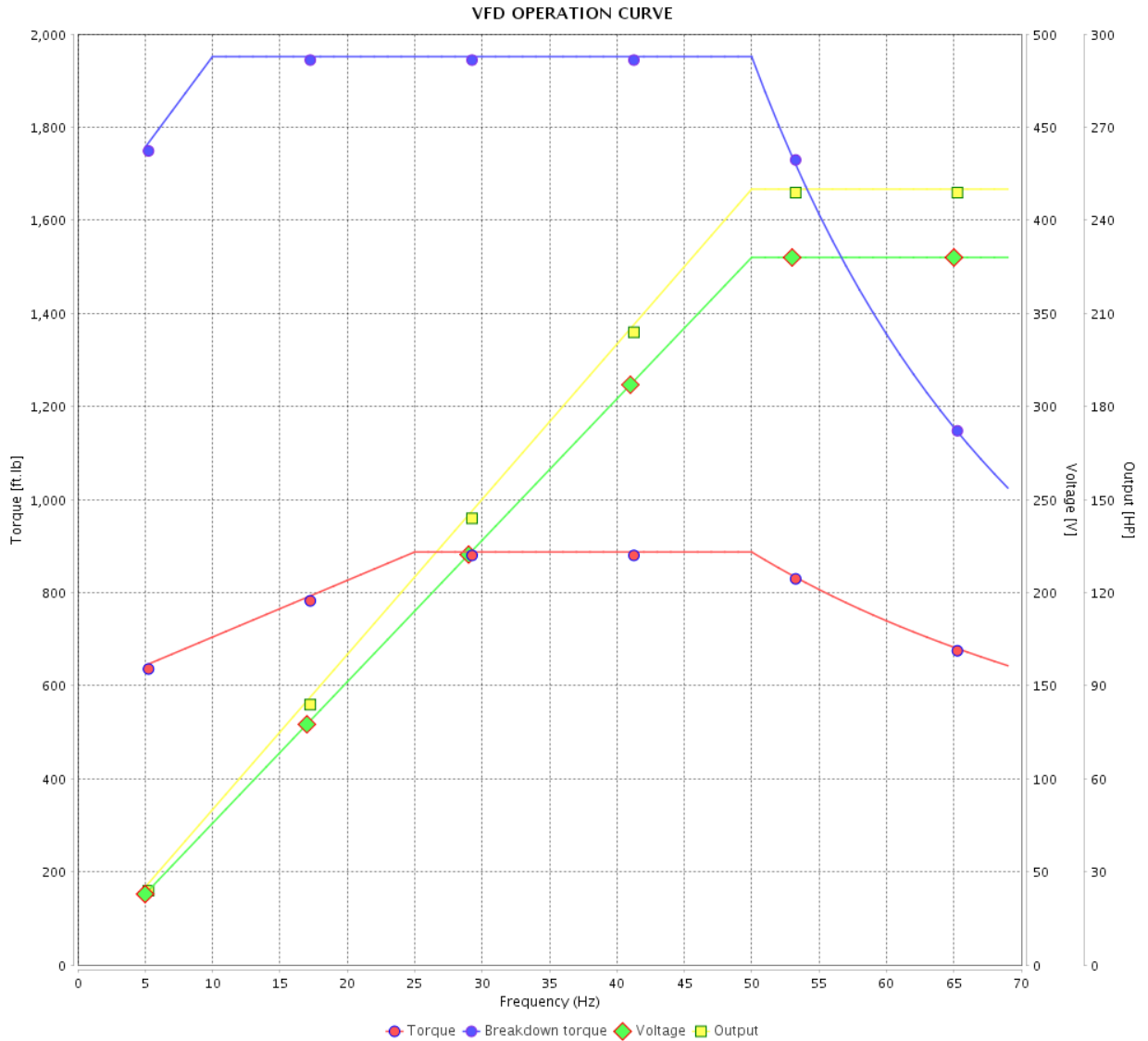
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 4P IE3

Rated current : 337 A	Moment of inertia (J) : 89.6 sq.ft.lb
LRC : 6.1	Duty cycle : Cont.(S1)
Rated torque : 887 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.00
Breakdown torque : 220 %	Temperature rise : 105 K
Rated speed : 1480 rpm	Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

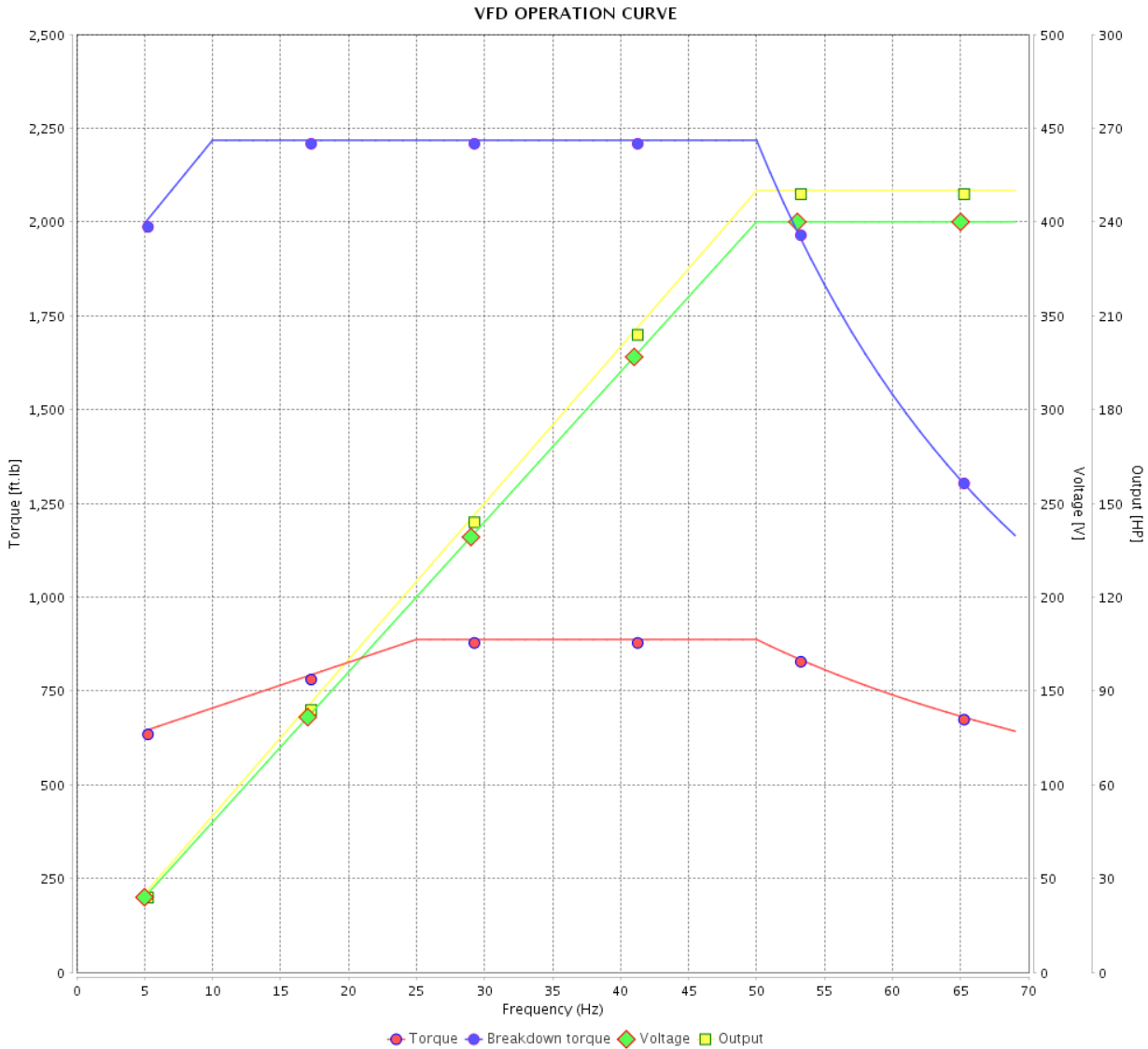


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Performance : 400 V 50 Hz 4P IE3

Rated current : 320 A
 LRC : 6.7
 Rated torque : 887 ft.lb
 Locked rotor torque : 240 %
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Moment of inertia (J) : 89.6 sq.ft.lb
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 Design : B

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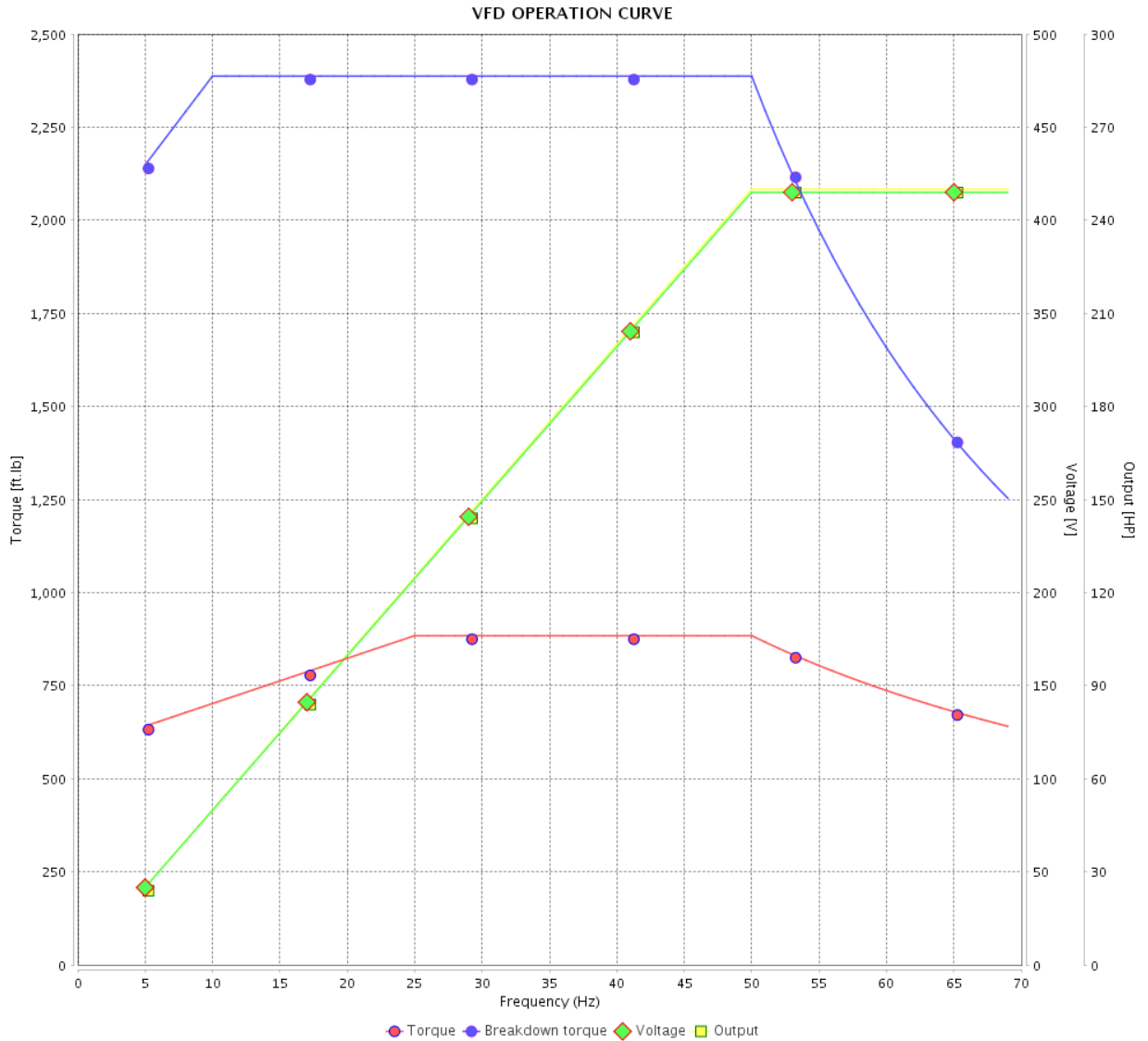
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EIXO/SHAFT	
PADRÃO/STANDARD	X
OPCIONAL/OPTIONAL	
ESPECIAL/SPECIAL	

Dimensões em polegada
Dimensions in inches

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

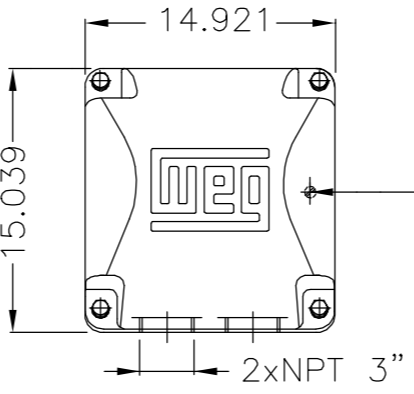
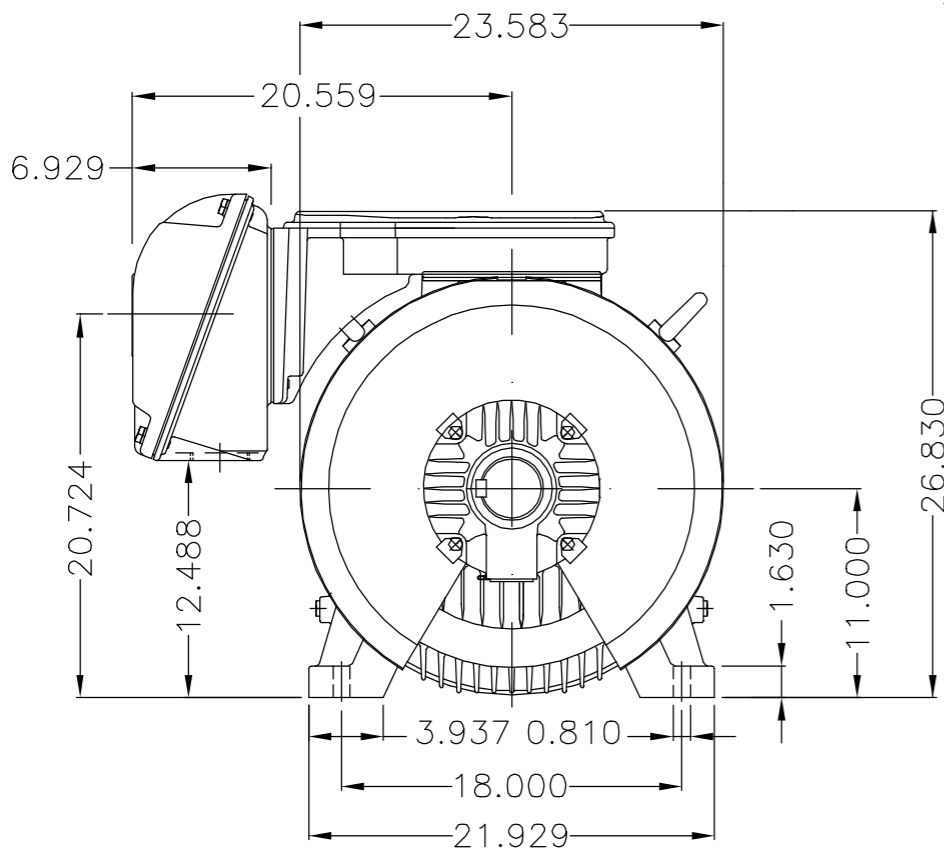
A

B

C

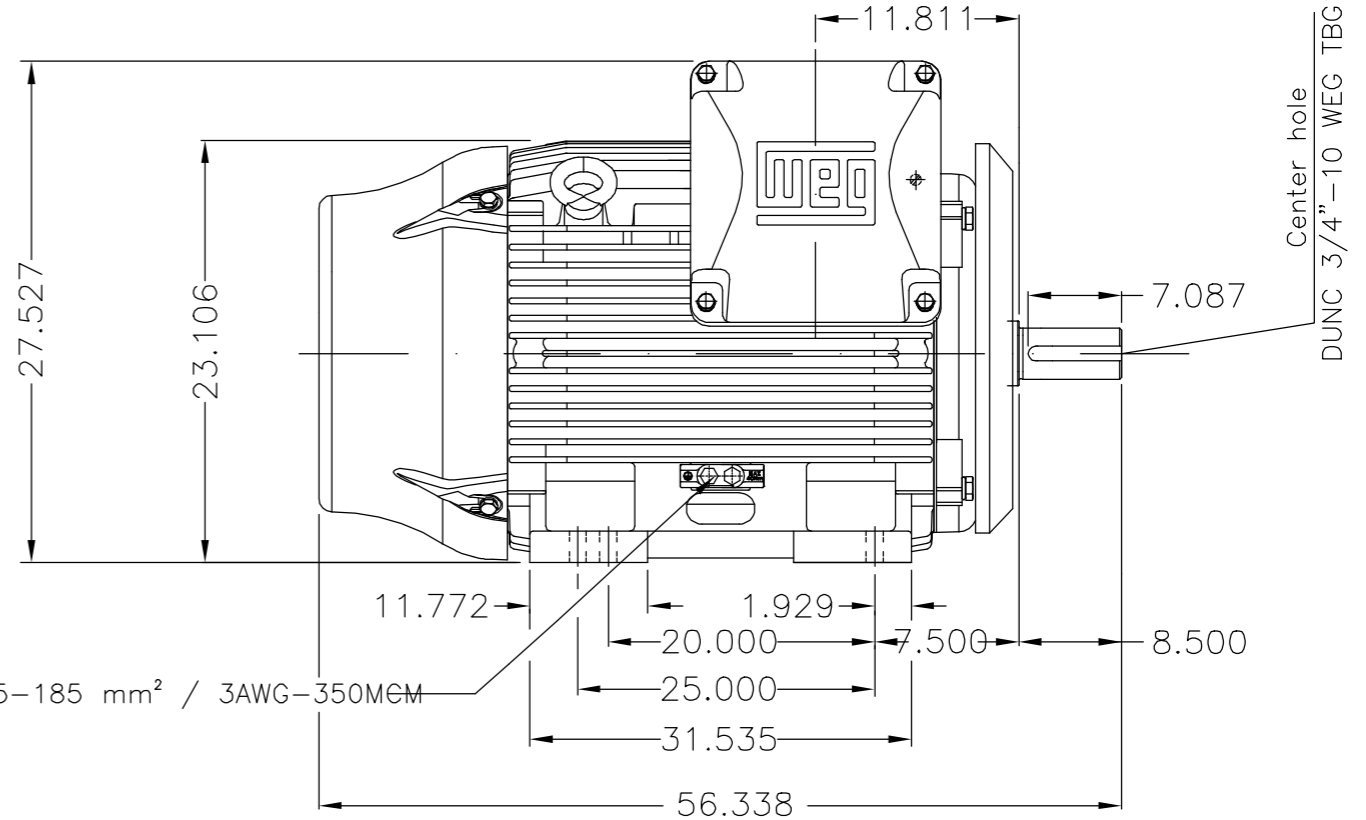
D

E



Main terminal box

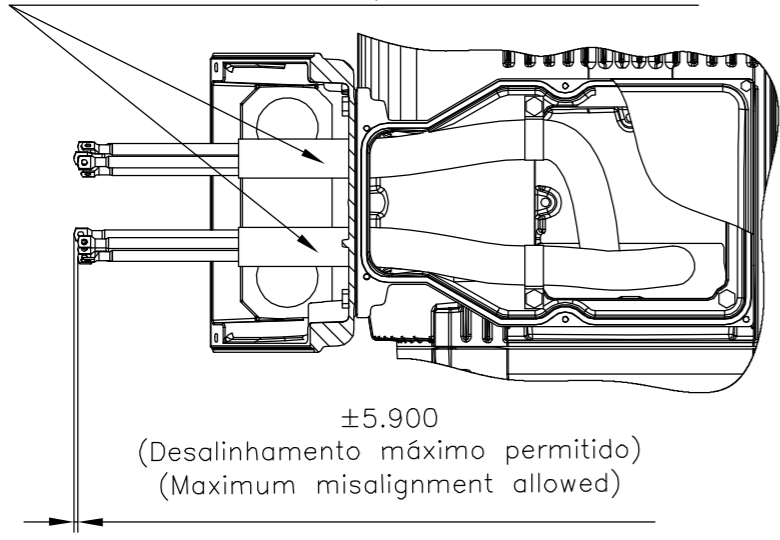
Grounding for leads 35-70 mm² / 1-2/0 AWG



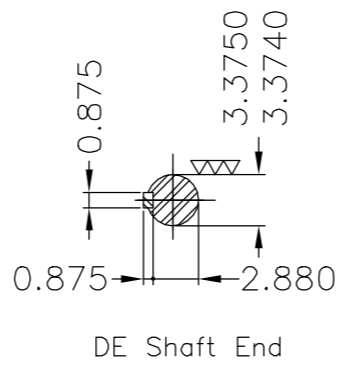
Grounding for leads 25-185 mm² / 3AWG-350MEM

Center hole
DUNC 3/4"-10 WEG TBG12

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



±5.900
(Desalinhamento máximo permitido)
(Maximum misalignment allowed)



DE Shaft End

Linha do motor: Crusher Duty / Motor purpose: Crusher Duty	
Rolamento dianteiro de rolos / DE roller bearing	
Conduíte para cabos no interior do suporte da caixa de ligação	
Cables conduit inside terminal box support	
Dispositivo de travamento de eixo / Shaft locking device	
Cor RAL 5009 / Color RAL 5009	
Plano de pintura 203A / Painting plan 203A	
Forma construtiva B3D / Mounting B3R(D)	
WEG EQUIPAMENTOS ELÉTRICOS S/A	

E	500001474636	RET. LINHAS DE POTÊNCIA INCORRETAS	DCARDOSO	SAORIN	SAORIN	09.07.2018	05		
	500001331189	ADIC.NOTA CONDUITE/ADD NOTE CONDUIT	MENSOR	EANJOS	EANJOS	05.07.2017	04		
D	ECM	LOC	SUMMARY OF MODIFICATIONS		EXECUTED	CHECKED	RELEASED	DATE	VER
C	EXECUTED	GABRIELID	THREE PHASE W22 MOTOR FRAME 447/9T IP55 TEFC		10004923929		000 05		
B	CHECKED	JMANENTE							
A	RELEASED	JMANENTE							
A	REL DT	09.05.2017	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

200 HP	08 Poles	60Hz	414658029
300 HP	06 Poles	60Hz	414658029
250 HP	06 Poles	60Hz	414658029
350 HP	04 Poles	60Hz	414658029
300 HP	04 Poles	60Hz	414658029

MADE IN MEXICO
12222432



NEMA
Premium
W22



FOR SAFE AREA
Mod.TE1BFOXON
CC029A

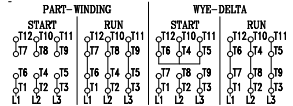




Class I, Div 2, Gr A, B, C and D - T3
Class I, Zone 2, IIC - T3
Class II, Div 2, Gr F and G - T3C
For use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 6:1, 1.00SF - T3


MODEL 30018ET3GRB449T-W22

Inverter Duty Motor
Severe Duty

PH3	60Hz	Fr. 447/9T	1000m.a.s.l.	IP55	TEFC	2888lb
V 460				A 330		
HP 300				kW 220		
SF 1.15				SFA 379		
RPM 1780				PF 0.87		
AMB 40°C				INS cl. F DT80K	NEMA NOM EFF 96.2%	
DUTY CONT.				DES B Code G		



-  → NU-322-C3 (60g)
-  → 6319-C3 (45g)

 MOBIL POLYREX EM (4000h)