

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line : W22 Tru-Metric IE3 Three-Phase		Product code : 11567431		Catalog # : 02212ET3Y200L-W22	
Frame : 200L	Insulation class : F	Duty cycle : S1	Ambient temperature : -20°C to +40°C	Altitude : 1000 m.a.s.l.	
Protection degree : IP55	Design : N	Cooling method : IC411 - TEFC	Mounting : B3L(E)	Rotation <sup>1</sup> : Both (CW and CCW)	
		Starting method : Direct On Line	Approx. weight <sup>3</sup> : 563 lb	Moment of inertia (J) : 10.8 sq.ft.lb	
Output [HP]	30	30	30	30	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	37.1	43.4	42.2	41.7	
L. R. Amperes [A]	271	269	283	300	
LRC [A]	7.3	6.2	6.7	7.2	
No load current [A]	18.4	18.2	20.0	21.6	
Rated speed [RPM]	1184	980	980	983	
Slip [%]	1.33	2.00	2.00	1.70	
Rated torque [ft.lb]	133	161	161	160	
Locked rotor torque [%]	280	200	229	250	
Breakdown torque [%]	330	260	290	320	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	41s (cold) 23s (hot)	32s (cold) 18s (hot)	45s (cold) 25s (hot)	43s (cold) 24s (hot)	
Noise level <sup>2</sup>	62.0 dB(A)	60.0 dB(A)	60.0 dB(A)	60.0 dB(A)	
Efficiency (%)	25%	91.0	92.3	91.5	90.8
	50%	91.7	92.5	92.0	91.4
	75%	92.4	92.7	92.6	92.4
	100%	93.0	92.7	92.9	92.9
Power Factor	25%	0.37	0.42	0.39	0.36
	50%	0.62	0.68	0.65	0.61
	75%	0.74	0.78	0.75	0.73
	100%	0.80	0.83	0.81	0.79
Bearing type	: Drive end : 6312 C3	: Non drive end : 6212 C3	Foundation loads		
Sealing	: V'Ring	: V'Ring	Max. traction	: 1684 lb	
Lubrication interval	: 20000 h	: 20000 h	Max. compression	: 2247 lb	
Lubricant amount	: 21 g	: 13 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 : W22 Tru-Metric IE3 Three-Phase

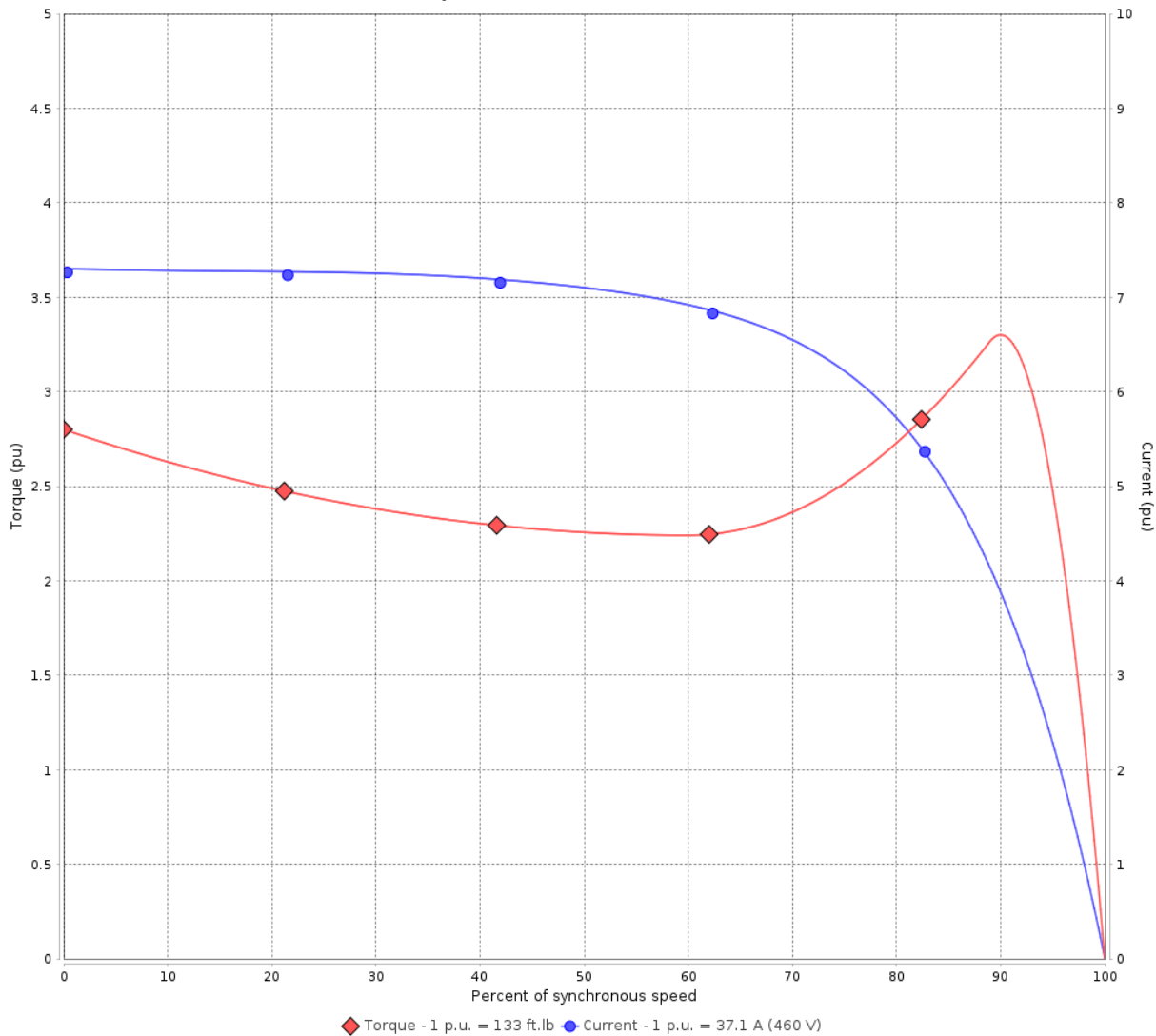
Product code :

11567431

Catalog # :

02212ET3Y200L-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 6P

Rated current	: 37.1 A	Moment of inertia (J)	: 10.8 sq.ft.lb
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.25
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1184 rpm	Design	: N

Locked rotor time : 41s (cold) 23s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

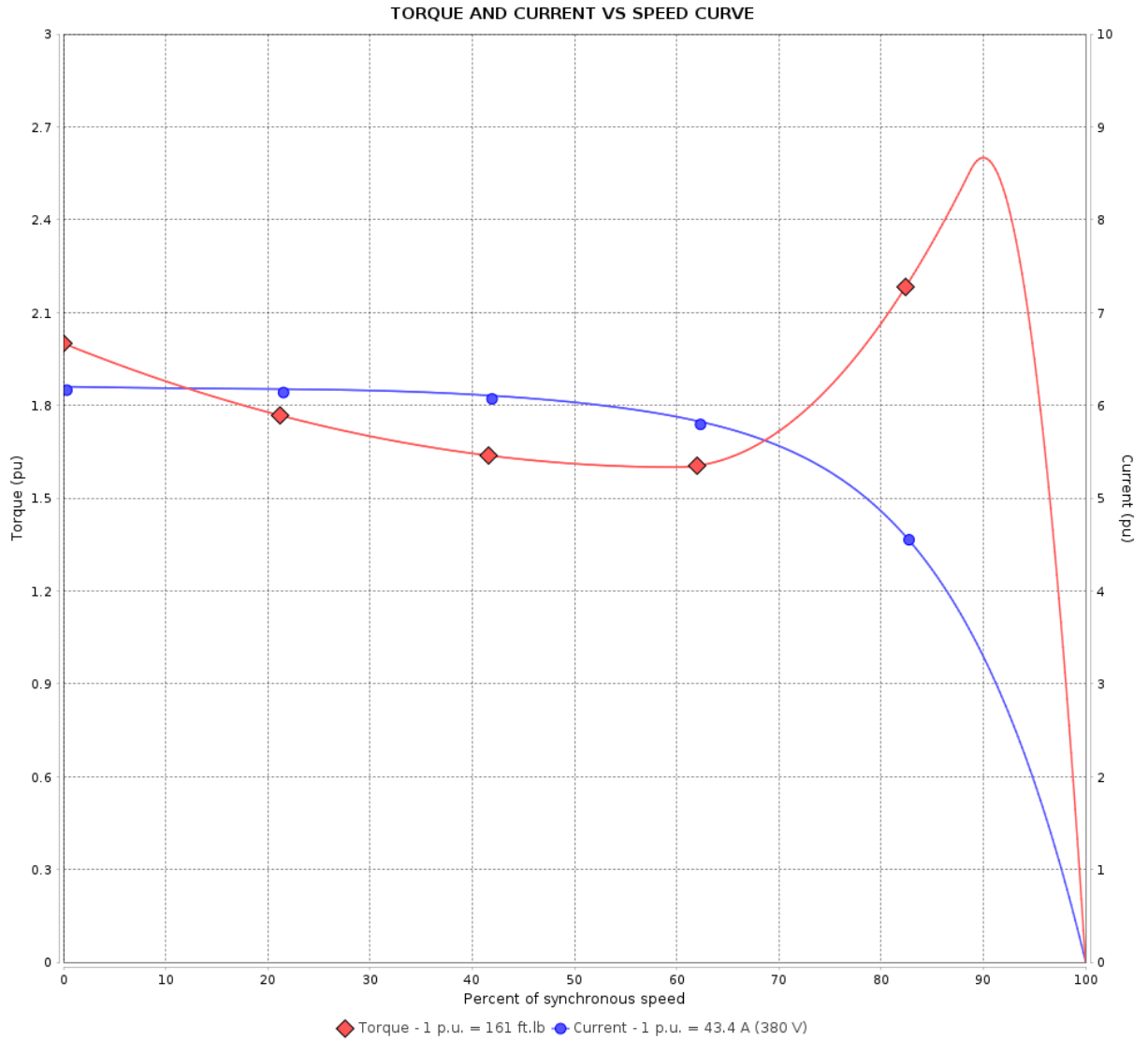
Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

11567431

Catalog # :

02212ET3Y200L-W22



Performance : 380 V 50 Hz 6P IE3

Rated current	: 43.4 A	Moment of inertia (J)	: 10.8 sq.ft.lb
LRC	: 6.2	Duty cycle	: S1
Rated torque	: 161 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: N

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 : W22 Tru-Metric IE3 Three-Phase

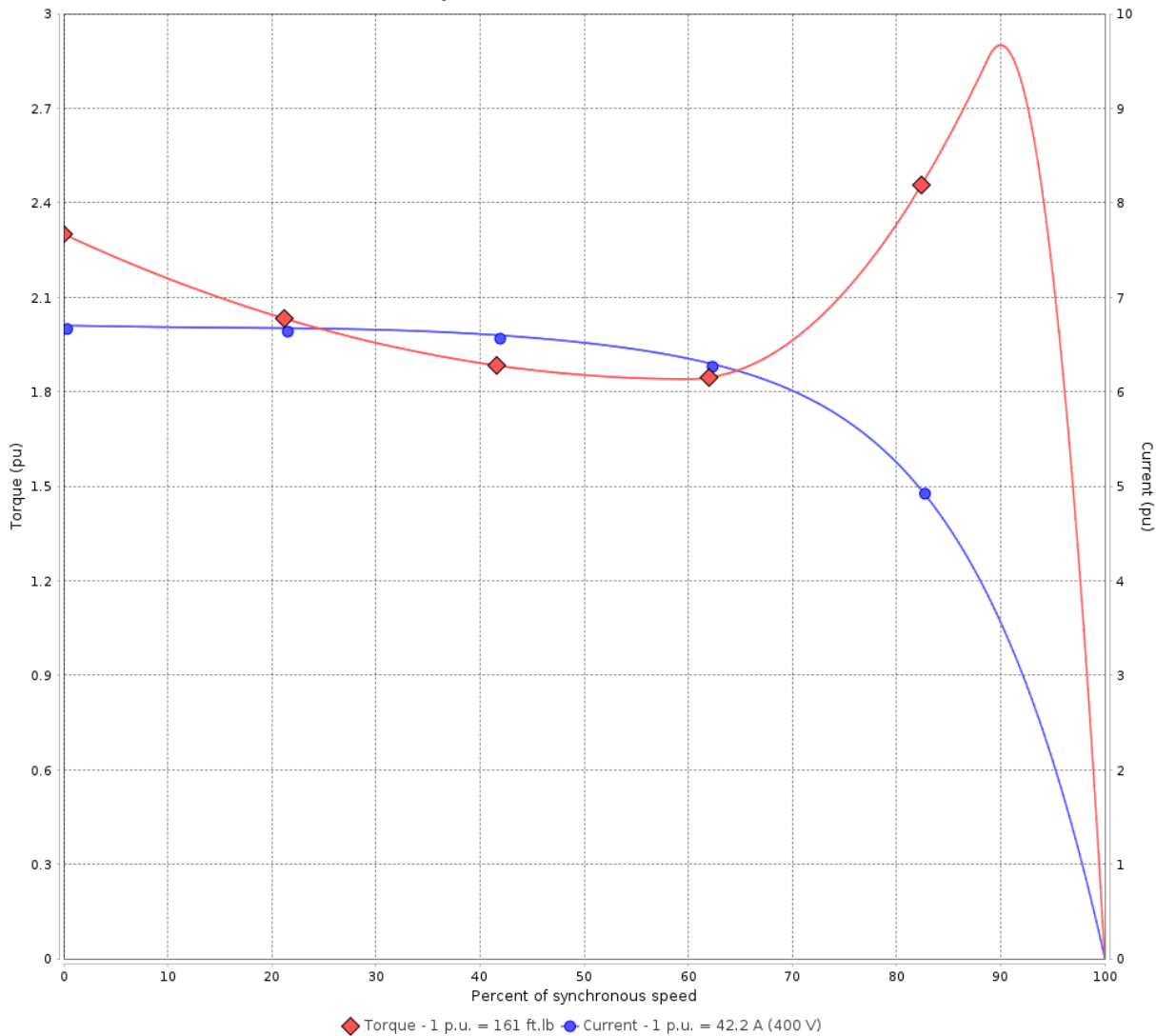
Product code :

11567431

Catalog # :

02212ET3Y200L-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 42.2 A	Moment of inertia (J)	: 10.8 sq.ft.lb
LRC	: 6.7	Duty cycle	: S1
Rated torque	: 161 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: N

Locked rotor time : 45s (cold) 25s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

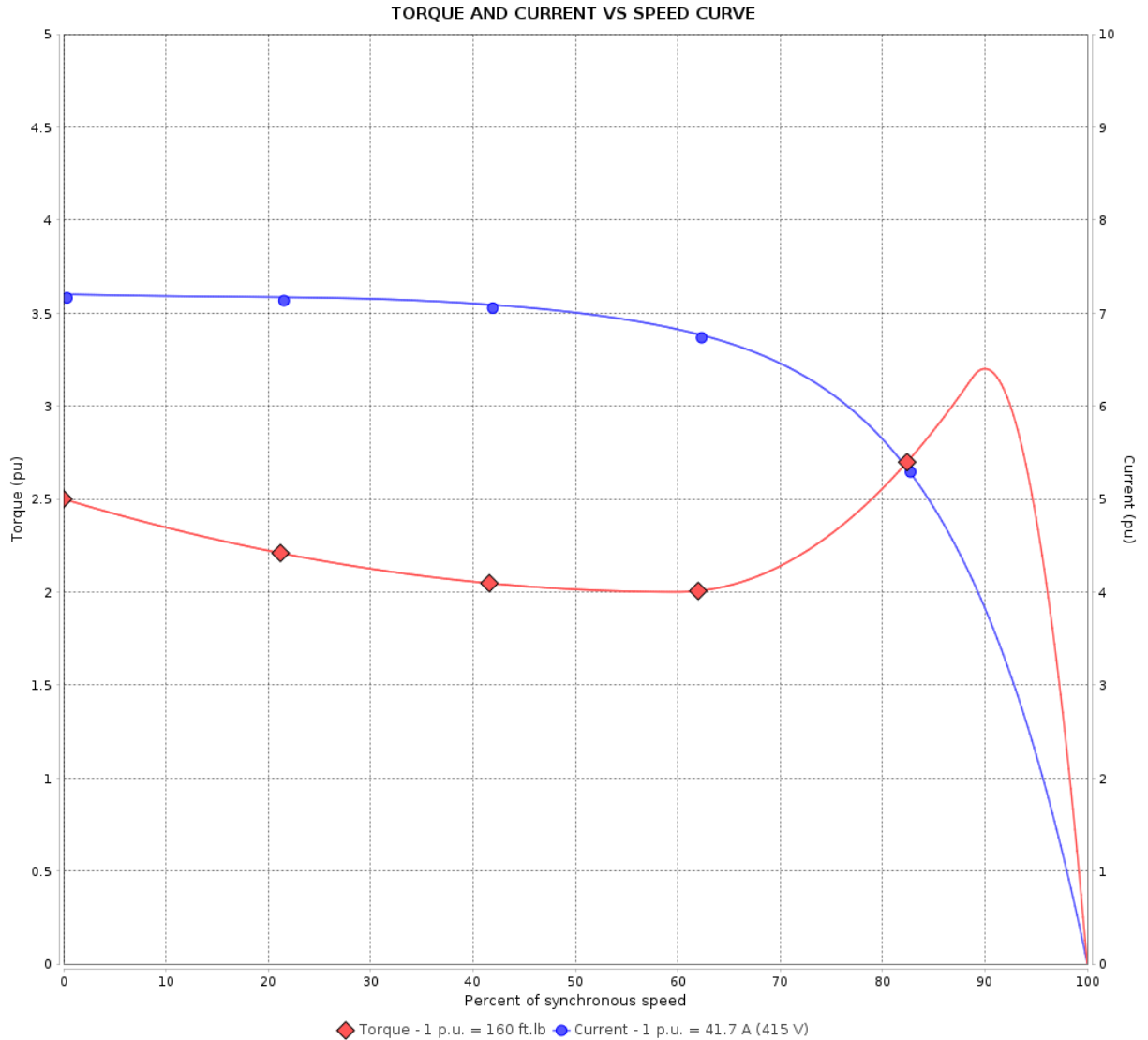
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Product code :

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Catalog # :

02212ET3Y200L-W22



Performance : 415 V 50 Hz 6P IE3

Rated current	: 41.7 A	Moment of inertia (J)	: 10.8 sq.ft.lb
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 160 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 983 rpm	Design	: N

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

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

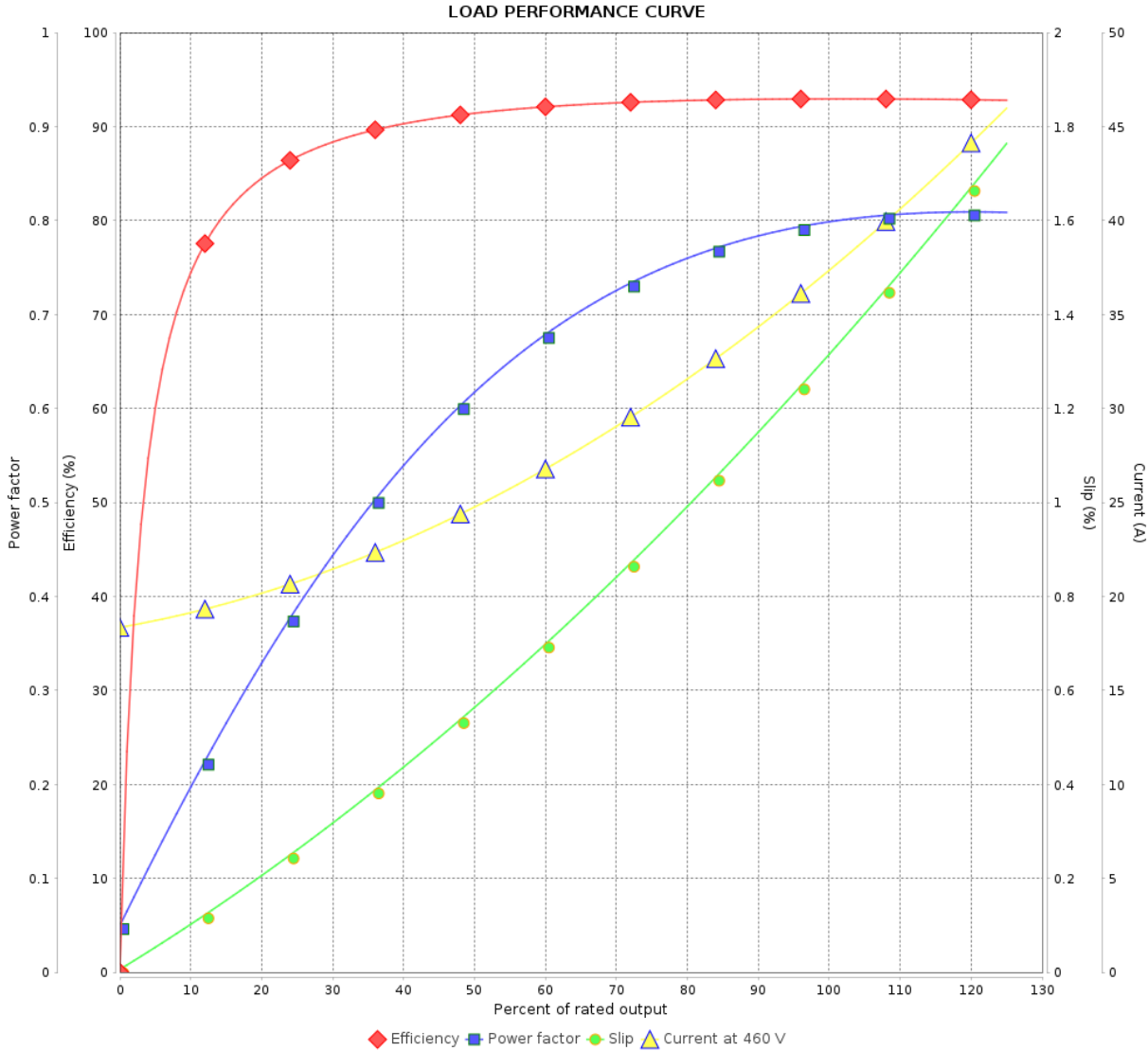
Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

11567431

Catalog # :

02212ET3Y200L-W22



Performance : 460 V 60 Hz 6P

Rated current	: 37.1 A	Moment of inertia (J)	: 10.8 sq.ft.lb
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.25
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1184 rpm	Design	: N

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

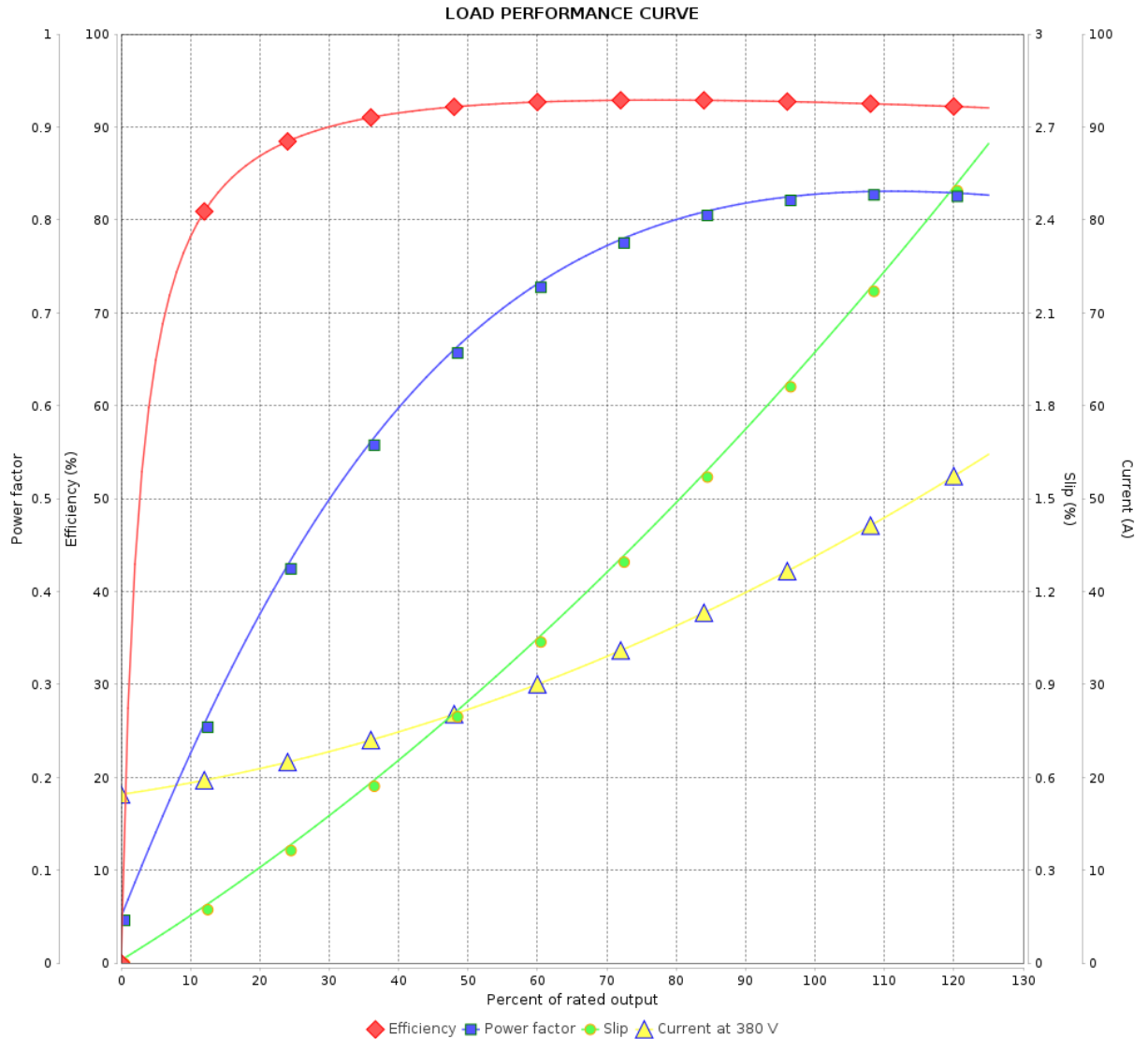
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Catalog # :

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Performance : 380 V 50 Hz 6P IE3

Rated current : 43.4 A  
 LRC : 6.2  
 Rated torque : 161 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 260 %  
 Rated speed : 980 rpm

Moment of inertia (J) : 10.8 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

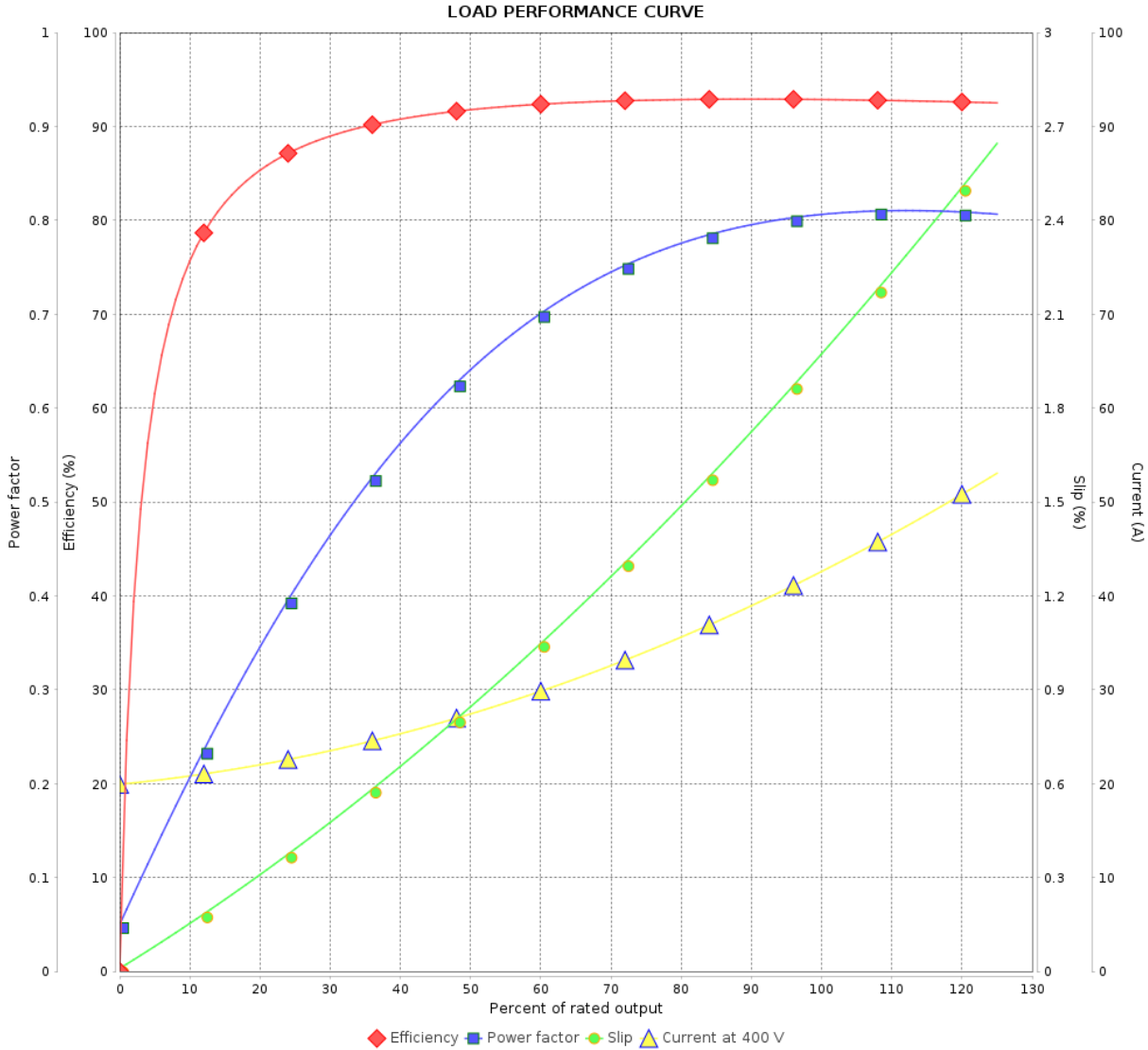
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Performance : 400 V 50 Hz 6P IE3

Rated current : 42.2 A  
 LRC : 6.7  
 Rated torque : 161 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 290 %  
 Rated speed : 980 rpm

Moment of inertia (J) : 10.8 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

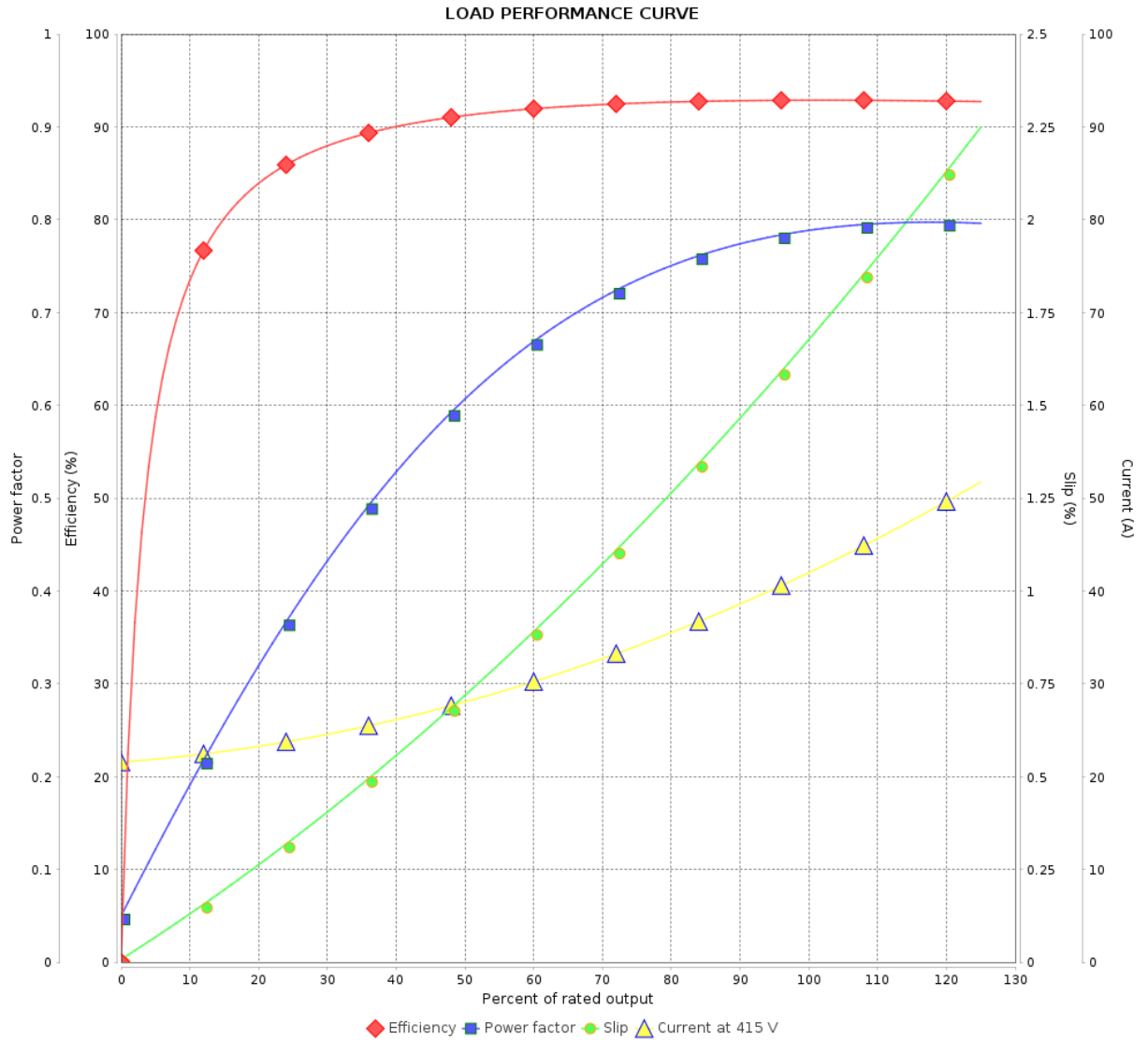
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 Locked rotor torque : 250 %  
 Breakdown torque : 320 %  
 Rated speed : 983 rpm

Moment of inertia (J) : 10.8 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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

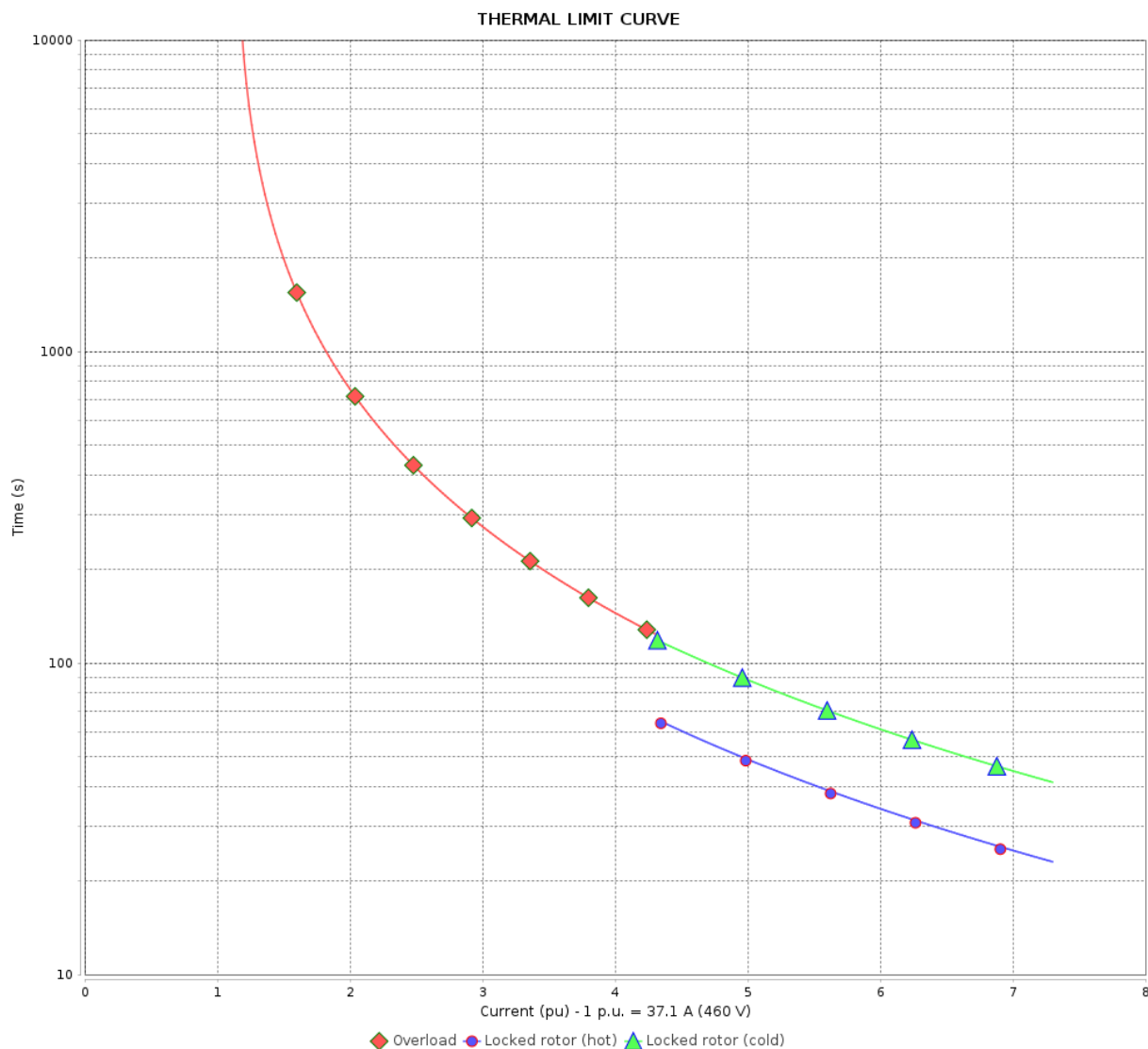
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Performance : 460 V 60 Hz 6P

Rated current	: 37.1 A	Moment of inertia (J)	: 10.8 sq.ft.lb
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.25
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1184 rpm	Design	: N

Heating constant

Cooling constant

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Performed by			Page	Revision
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Date				

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

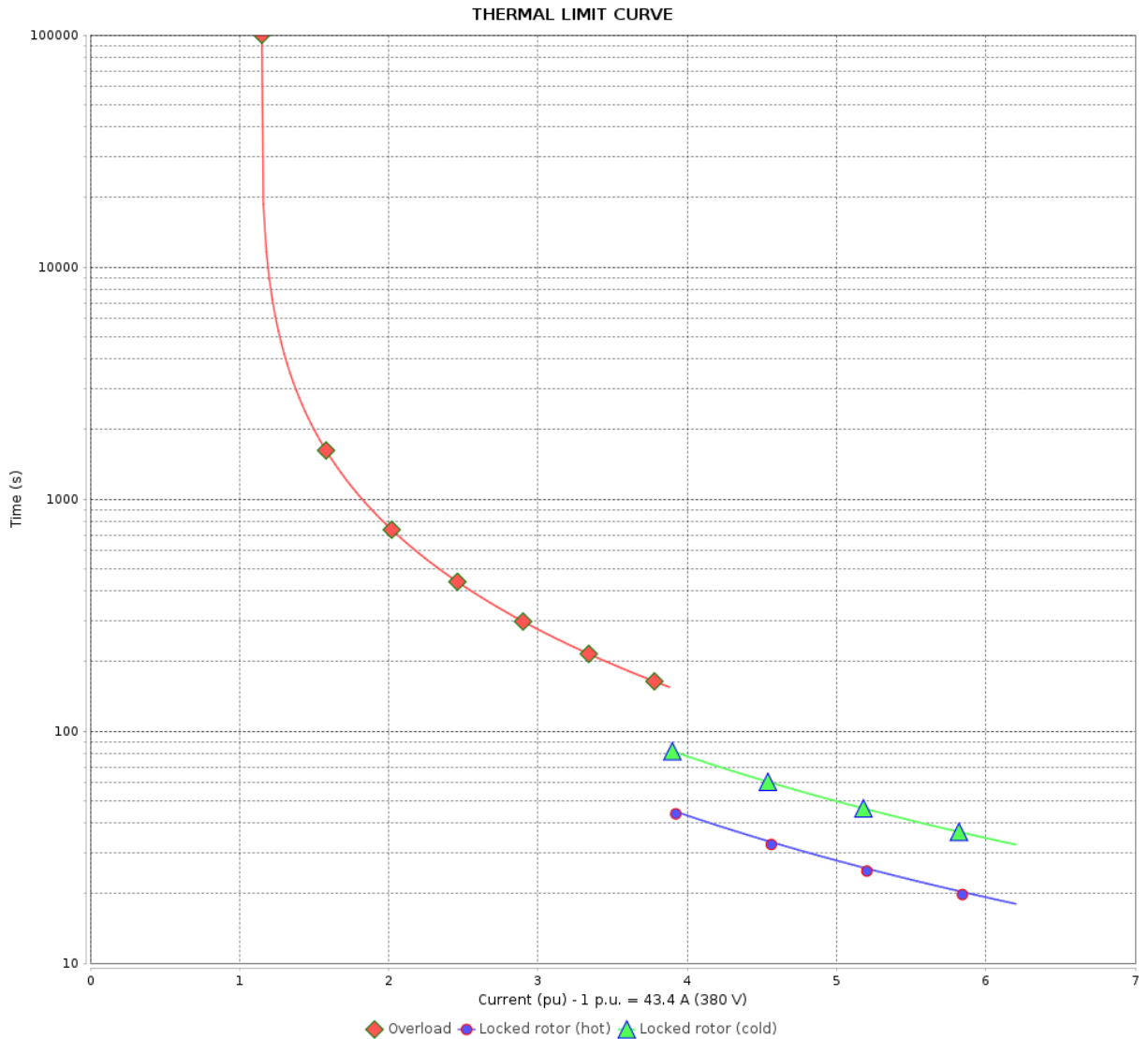
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Rated current : 43.4 A  
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 Rated torque : 161 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 260 %  
 Rated speed : 980 rpm

Moment of inertia (J) : 10.8 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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Checked by				
Date				
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# THERMAL LIMIT CURVE

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Customer :

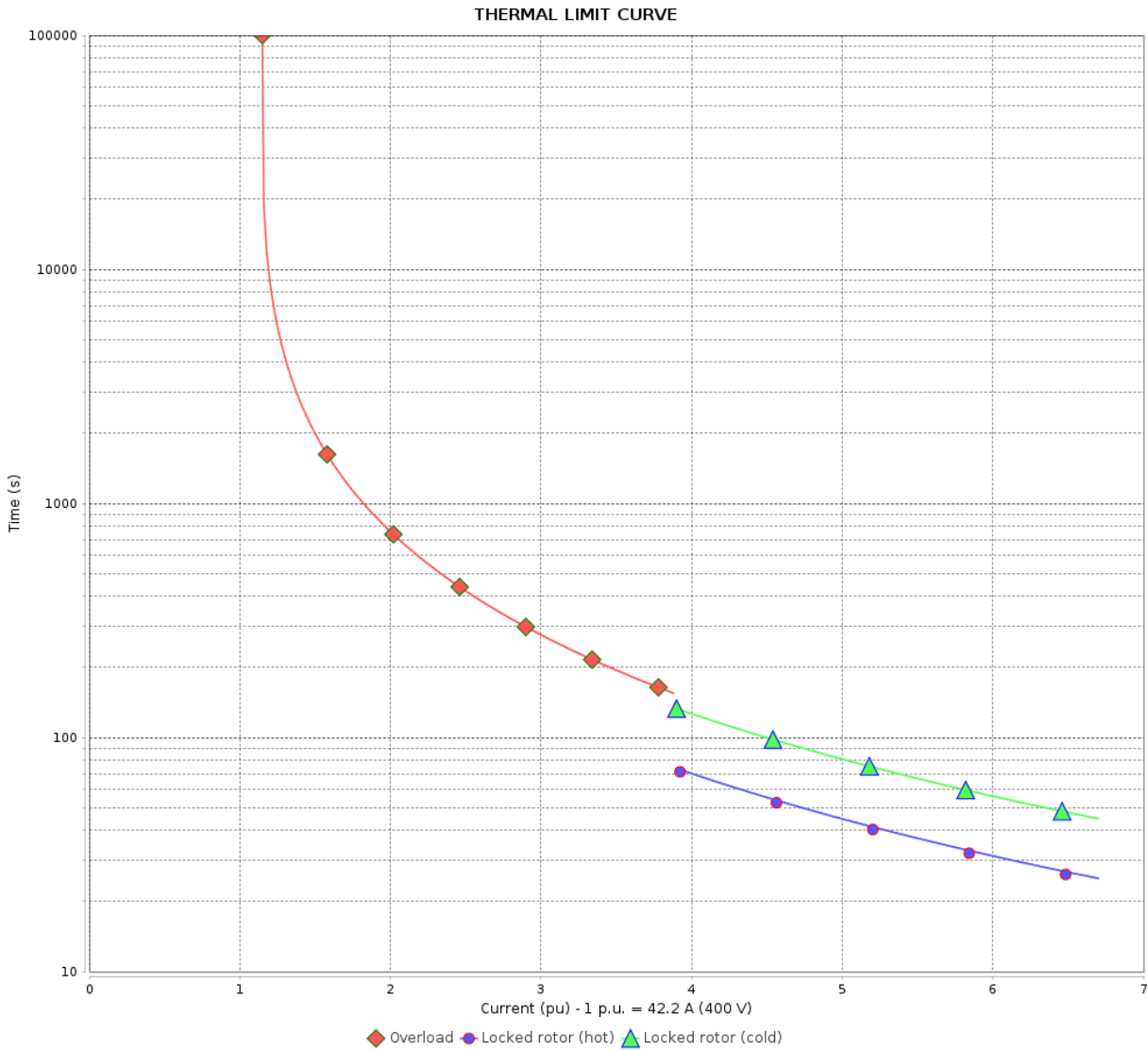
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 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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Date				

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

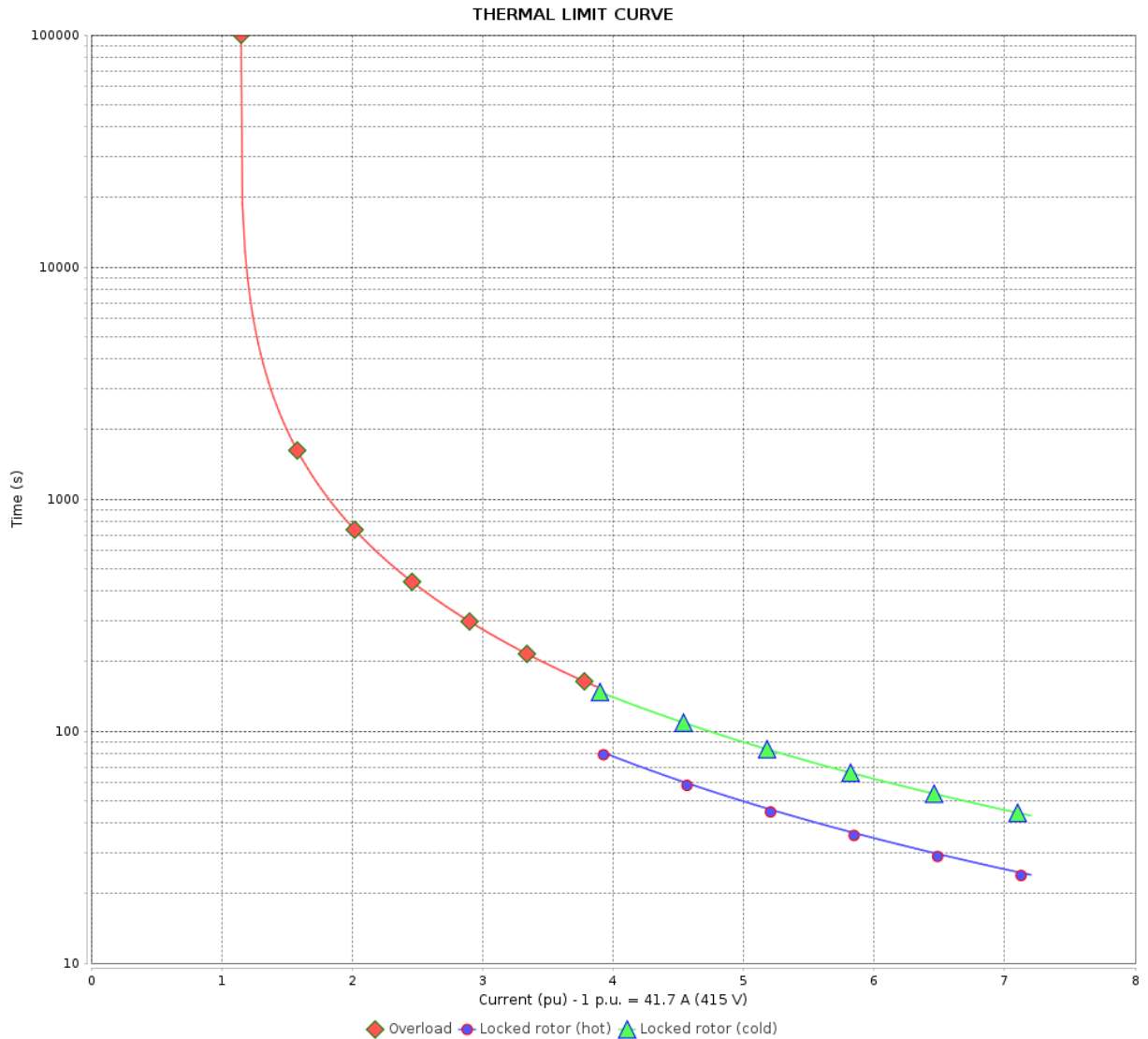
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 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

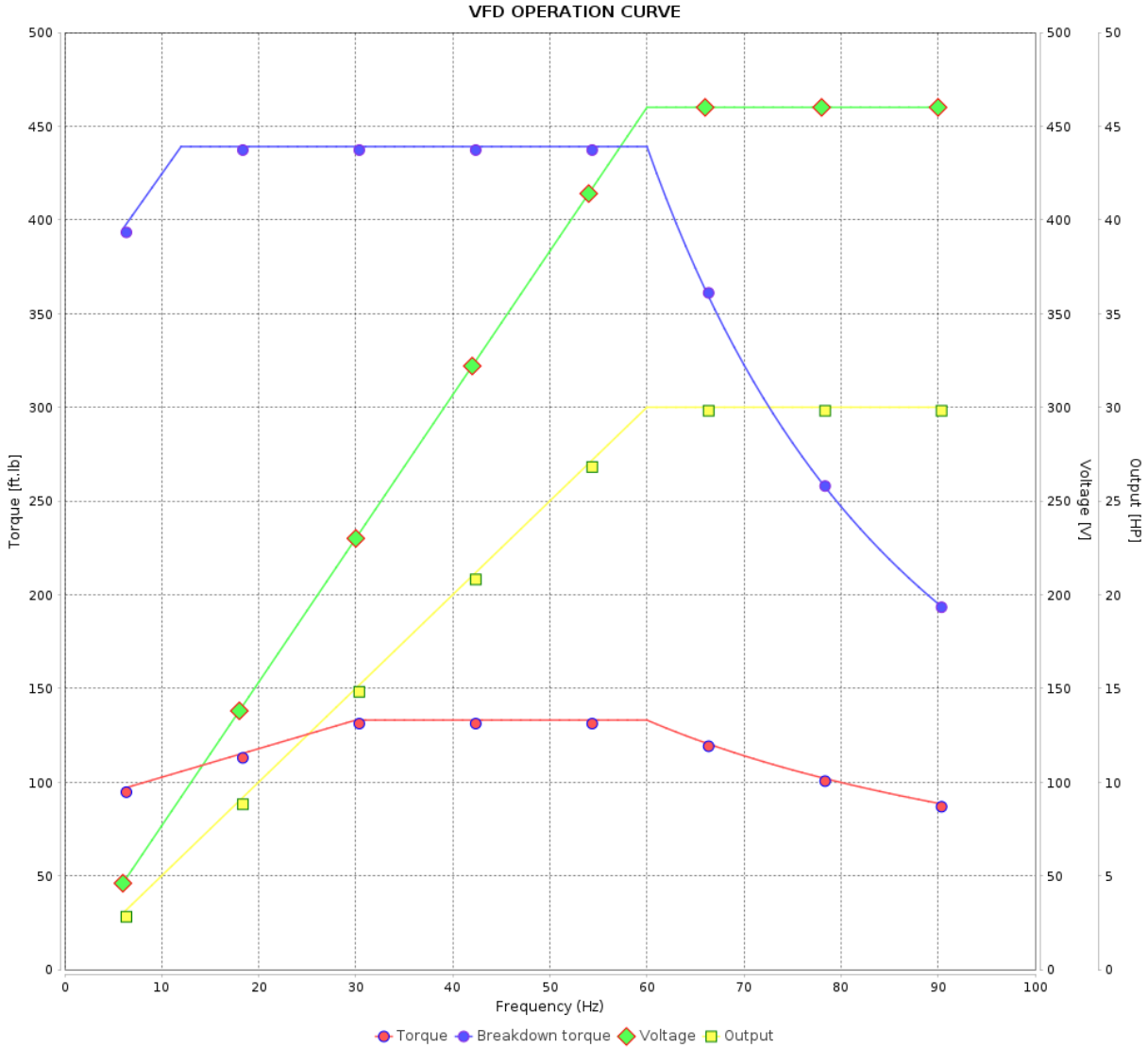
Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

11567431

Catalog # :

02212ET3Y200L-W22



Performance : 460 V 60 Hz 6P

Rated current : 37.1 A  
 LRC : 7.3  
 Rated torque : 133 ft.lb  
 Locked rotor torque : 280 %  
 Breakdown torque : 330 %  
 Rated speed : 1184 rpm

Moment of inertia (J) : 10.8 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
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Checked by				
Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

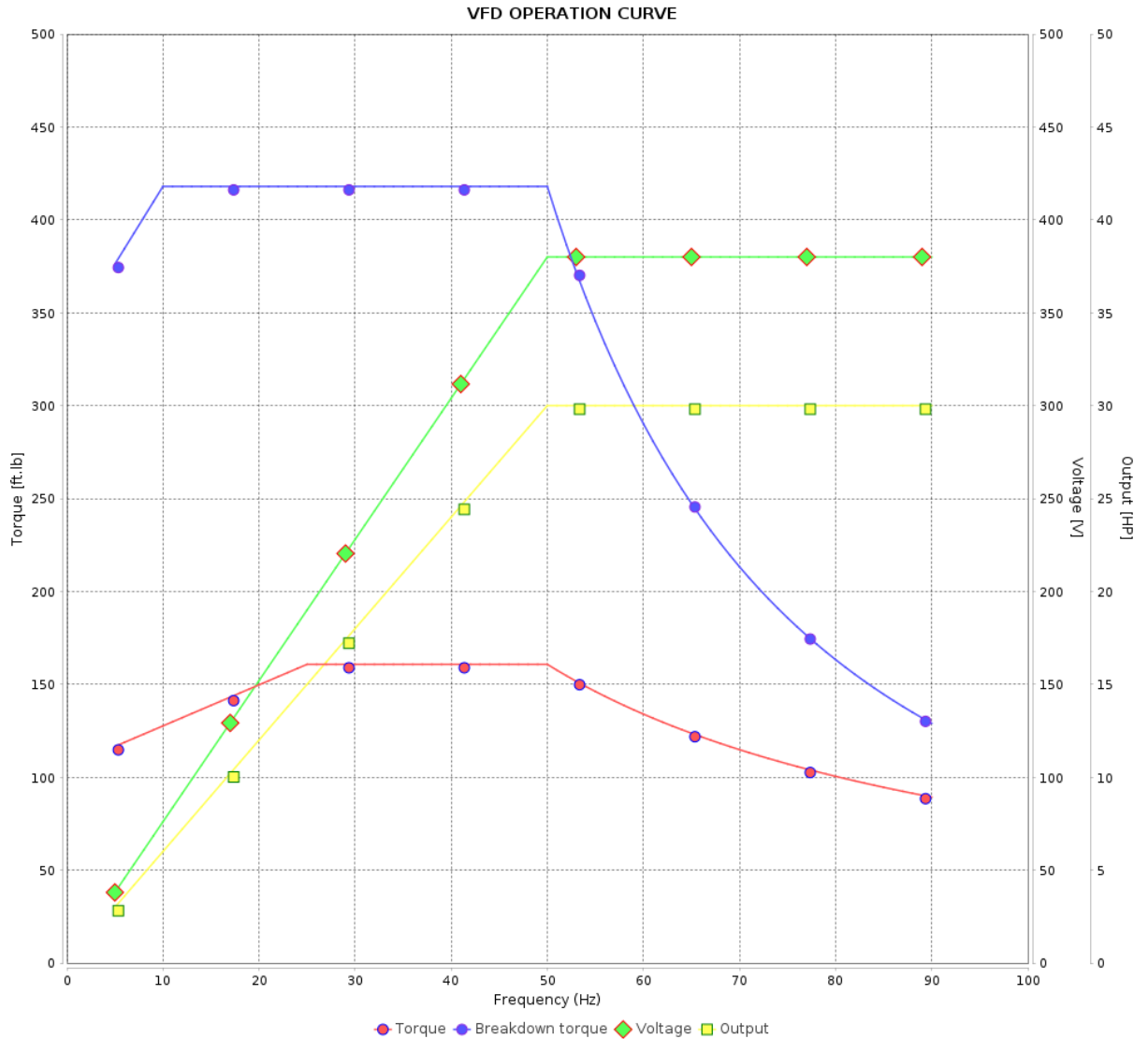
Product line : W22 Tru-Metric IE3 Three-Phase

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11567431

Catalog # :

02212ET3Y200L-W22



Performance : 380 V 50 Hz 6P IE3

Rated current : 43.4 A  
 LRC : 6.2  
 Rated torque : 161 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 260 %  
 Rated speed : 980 rpm

Moment of inertia (J) : 10.8 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
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Date	15/09/2022			

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



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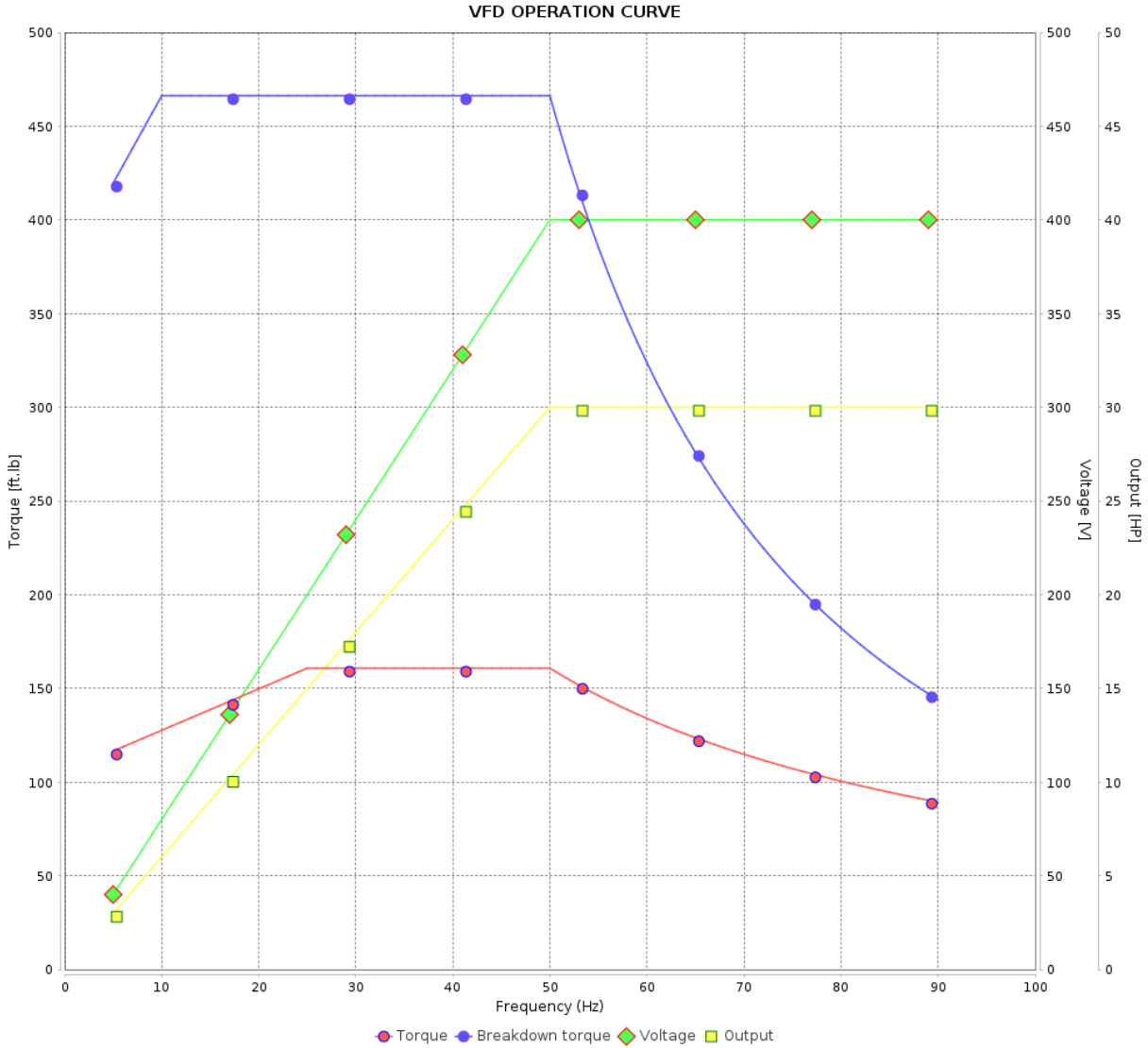
Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

11567431

Catalog # :

02212ET3Y200L-W22



Performance : 400 V 50 Hz 6P IE3

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 LRC : 6.7  
 Rated torque : 161 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 290 %  
 Rated speed : 980 rpm

Moment of inertia (J) : 10.8 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

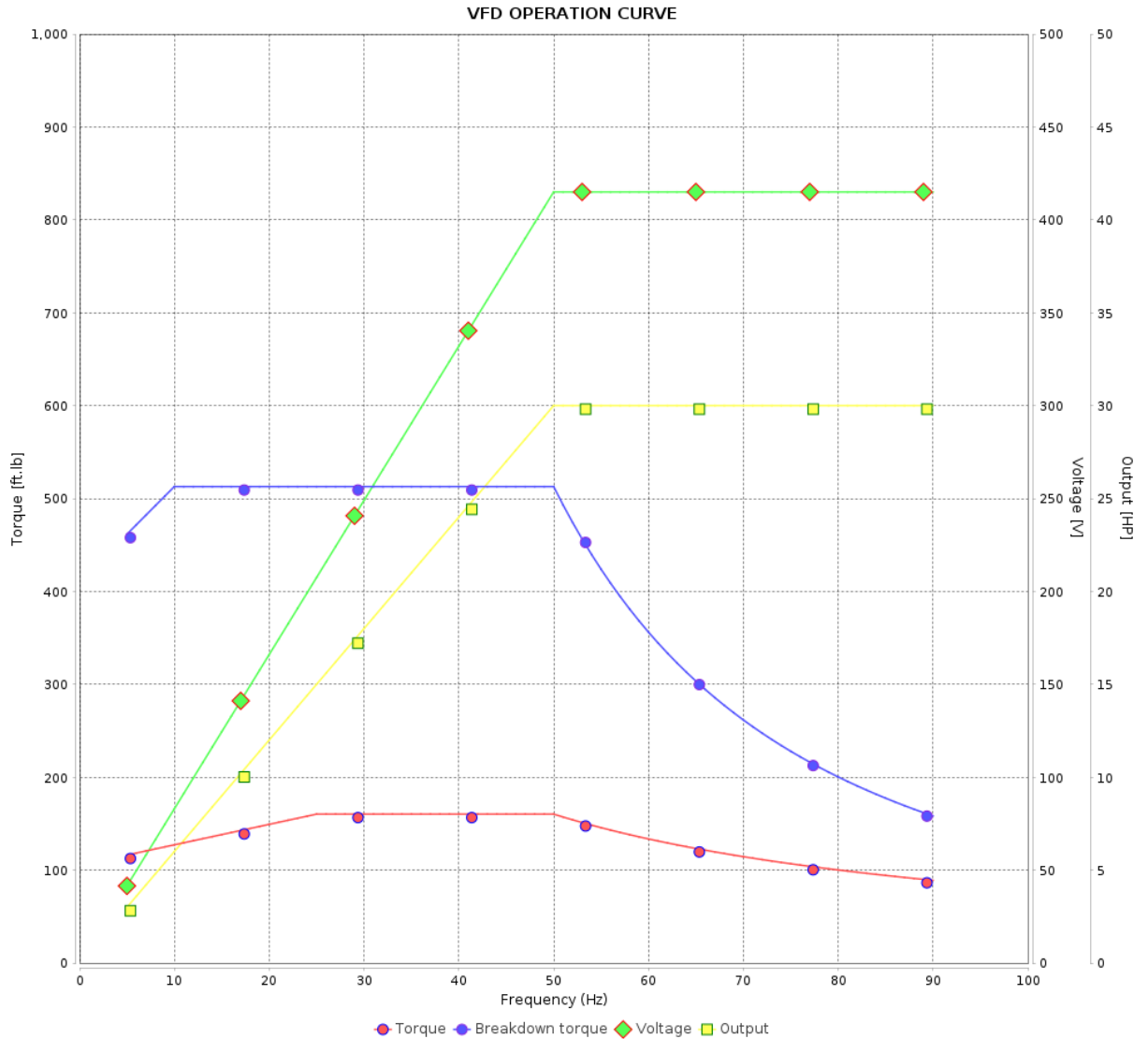
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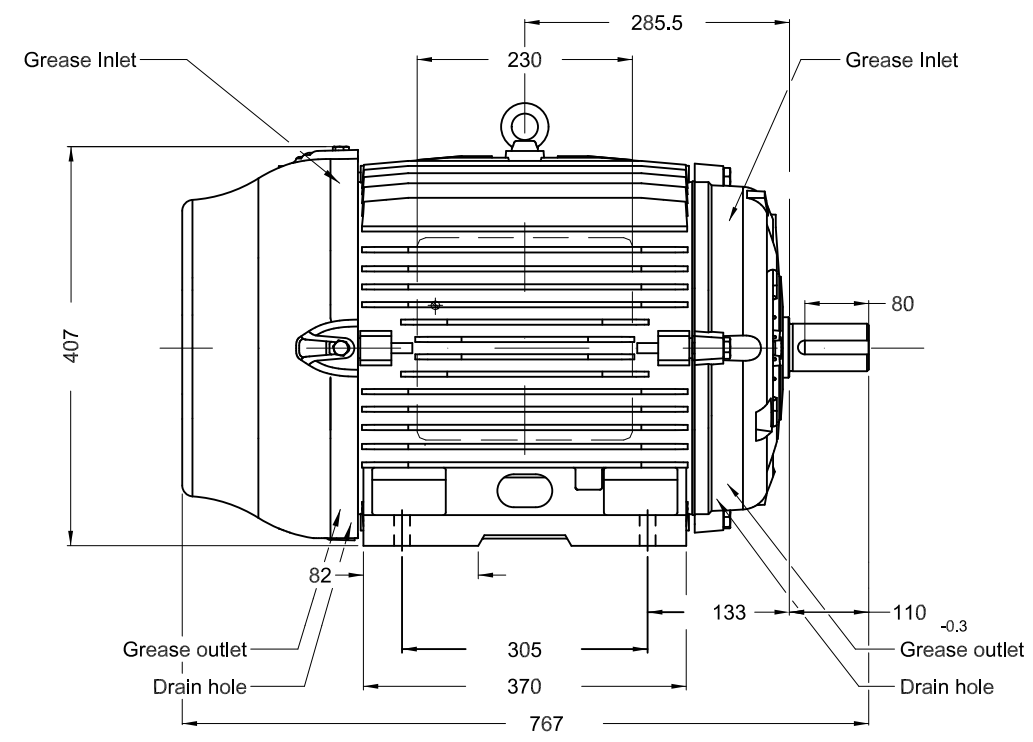
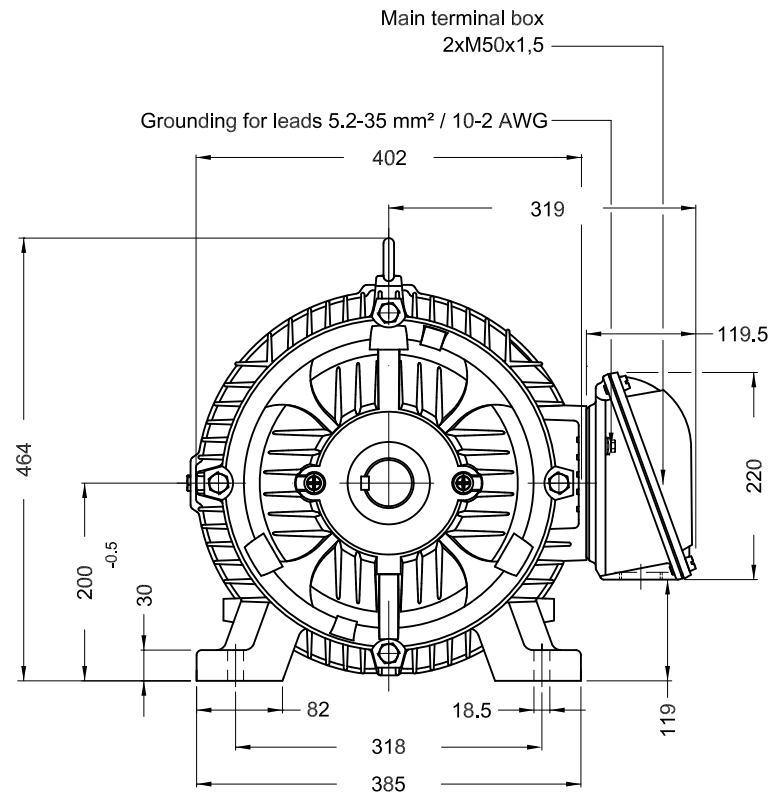
Rev.	Changes Summary	Performed	Checked	Date
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Date				

1 2 3 4 5 6

A

B

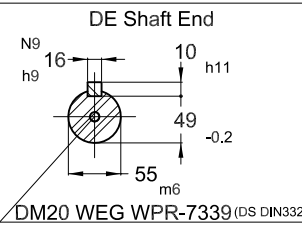
C



D

E

Without vertical jackscrews  
 Color RAL 5009  
 Painting plan 203A  
 Mounting B3L(E)



30 HP 06 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR W22 IE3					
CHECKED		FRAME 200L IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

**PREVIEW**  
 WDD



SHEET 1 / 1

MADE IN BRAZIL  
11567431



Premium

W22 Tru-metric

MODEL 02212ET3Y200L-W22

Inverter Duty Motor  
Severe Duty

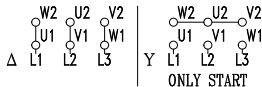


FOR SAFE AREA  
Mod. TE1BFOX0\$  
CC029A

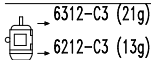


For use on 60Hz  
Class I, Div 2, Gr A, B, C and D - T3  
Class I, Zone 2, IIC - T3  
Class II, Div 2, Gr F and G - T4  
For use on PWM: Gr. A, B, C, D and F,  
VT 1000:1, CT 20:1, 1.00SF - T3A

PH3 Fr. 200L DUTY CONT. IP55 DES N Code J IEC 60034-1  
562lb 1000m.a.s.l. INS cl. F DT 80K AMB 40°C SF 1.25//1.00



V	Hz	kW	HP	RPM	A	SFA	PF	IE code	NEMA NOM EFF $\eta$ 100%/75%/50%			
460 $\Delta$	-	60	22	30	1184	37.1	-	46.4	-	0.80	IE3	93.0/92.4/91.7
380 $\Delta$	-	50	22	30	980	43.4	-	43.4	-	0.83	IE3	92.7/92.7/92.5
415 $\Delta$	-	50	22	30	983	41.7	-	41.7	-	0.79	IE3	92.9/92.4/91.4
-	-	-	-	-	-	-	-	-	-	-	-	-



MOBIL POLYREX EM (20000h)