

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11723870		
		Catalog # :	00318ET3E182T-W22		
Frame	: 182/4T	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>	: 86.0 lb		
Protection degree	: IP55	Moment of inertia (J)	: 0.3401 sq.ft.lb		
Design	: B				
Output [HP]	3	3	3	3	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	7.82/3.91	4.78	4.54	4.43	
L. R. Amperes [A]	63.3/31.7	30.1	32.2	33.7	
LRC [A]	8.1x(Code K)	6.3x(Code H)	7.1x(Code J)	7.6x(Code K)	
No load current [A]	4.00/2.00	2.00	2.10	2.25	
Rated speed [RPM]	1760	1445	1450	1455	
Slip [%]	2.22	3.67	3.33	3.00	
Rated torque [ft.lb]	8.95	10.9	10.9	10.8	
Locked rotor torque [%]	220	220	220	240	
Breakdown torque [%]	330	250	290	320	
Service factor	1.25	1.25	1.25	1.25	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	41s (cold) 23s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	
Noise level <sup>2</sup>	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	
Efficiency (%)	25%				
	50%	87.5	87.5	87.5	
	75%	88.5	87.5	87.5	
	100%	89.5	87.5	87.5	
Power Factor	25%				
	50%	0.61	0.68	0.64	
	75%	0.71	0.77	0.75	
	100%	0.79	0.80	0.80	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	11.0	13.4	13.4	13.4
	P2 (0,5;1,0)	8.9	10.8	10.8	10.8
	P3 (0,25;1,0)	8.8	10.7	10.7	10.7
	P4 (0,9;0,5)	6.1	7.4	7.4	7.4
	P5 (0,5;0,5)	4.0	4.9	4.9	4.9
	P6 (0,5;0,25)	3.0	3.6	3.6	3.6
	P7 (0,25;0,25)	2.1	2.6	2.6	2.6
Bearing type	: Drive end : 6207 ZZ	Non drive end : 6206 ZZ	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 178 lb	
Lubrication interval	: -	-	Max. compression	: 264 lb	
Lubricant amount	: -	-			
Lubricant type	: Mobil Polyrex EM				
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).			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
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# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

Notes  
USABLE @208V 8.65A SF 1.15 SFA 9.95A

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# TORQUE AND CURRENT VS SPEED CURVE



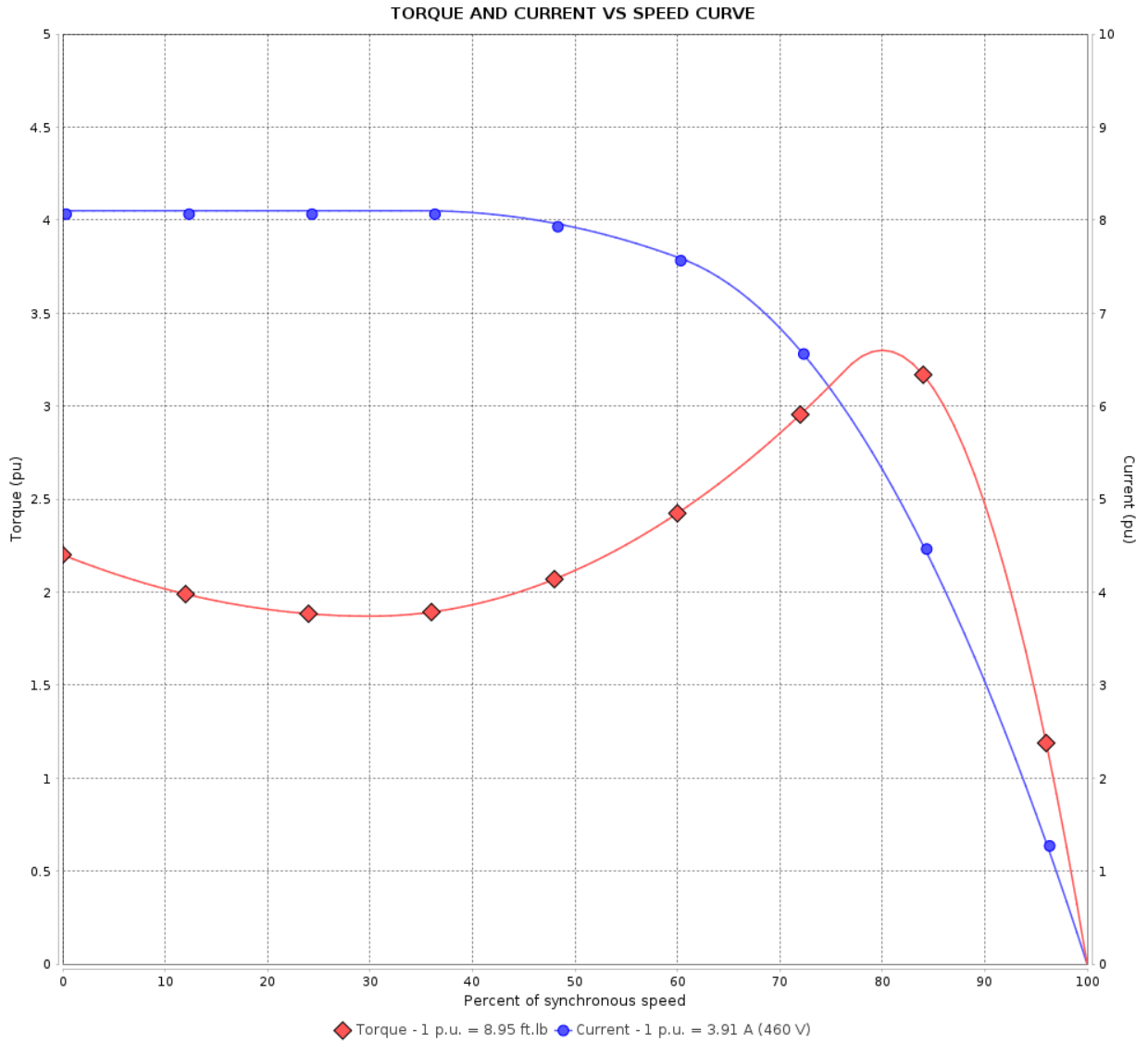
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22



Performance : 230/460 V 60 Hz 4P

Rated current : 7.82/3.91 A  
 LRC : 8.1  
 Rated torque : 8.95 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 330 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.3401 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



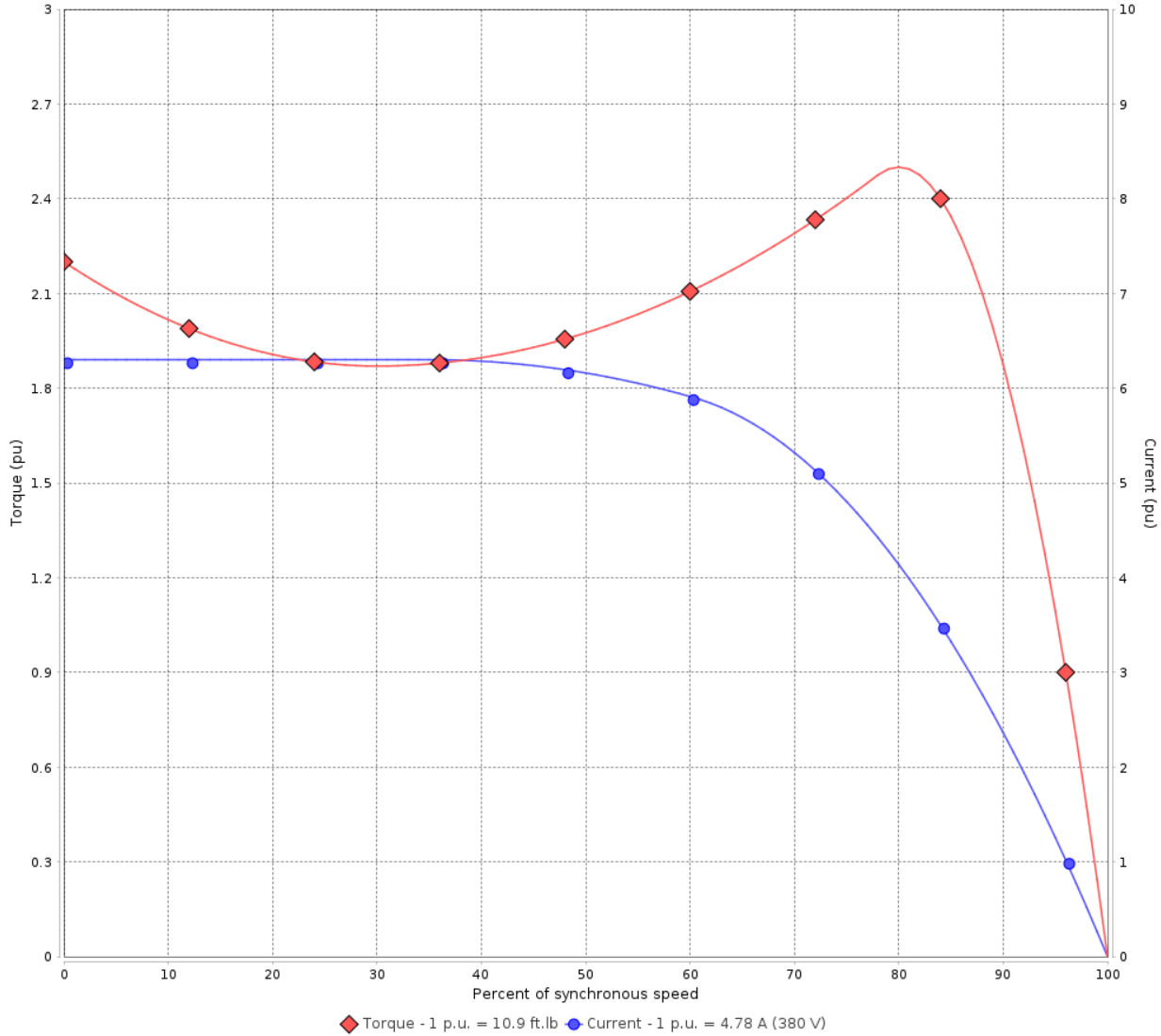
Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current	: 4.78 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: B

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

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# TORQUE AND CURRENT VS SPEED CURVE



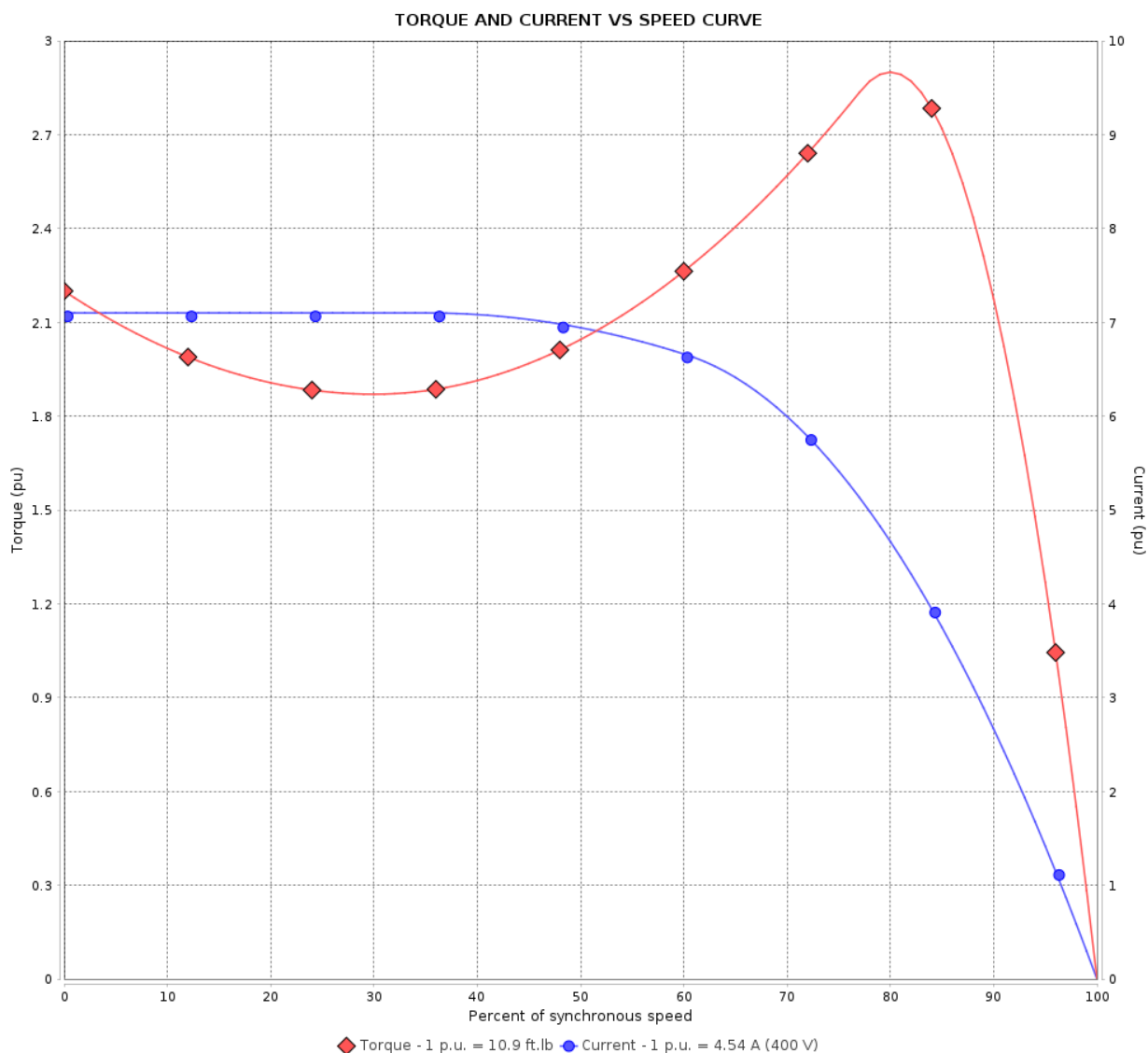
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22



Performance : 400 V 50 Hz 4P IE3

Rated current	: 4.54 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1450 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

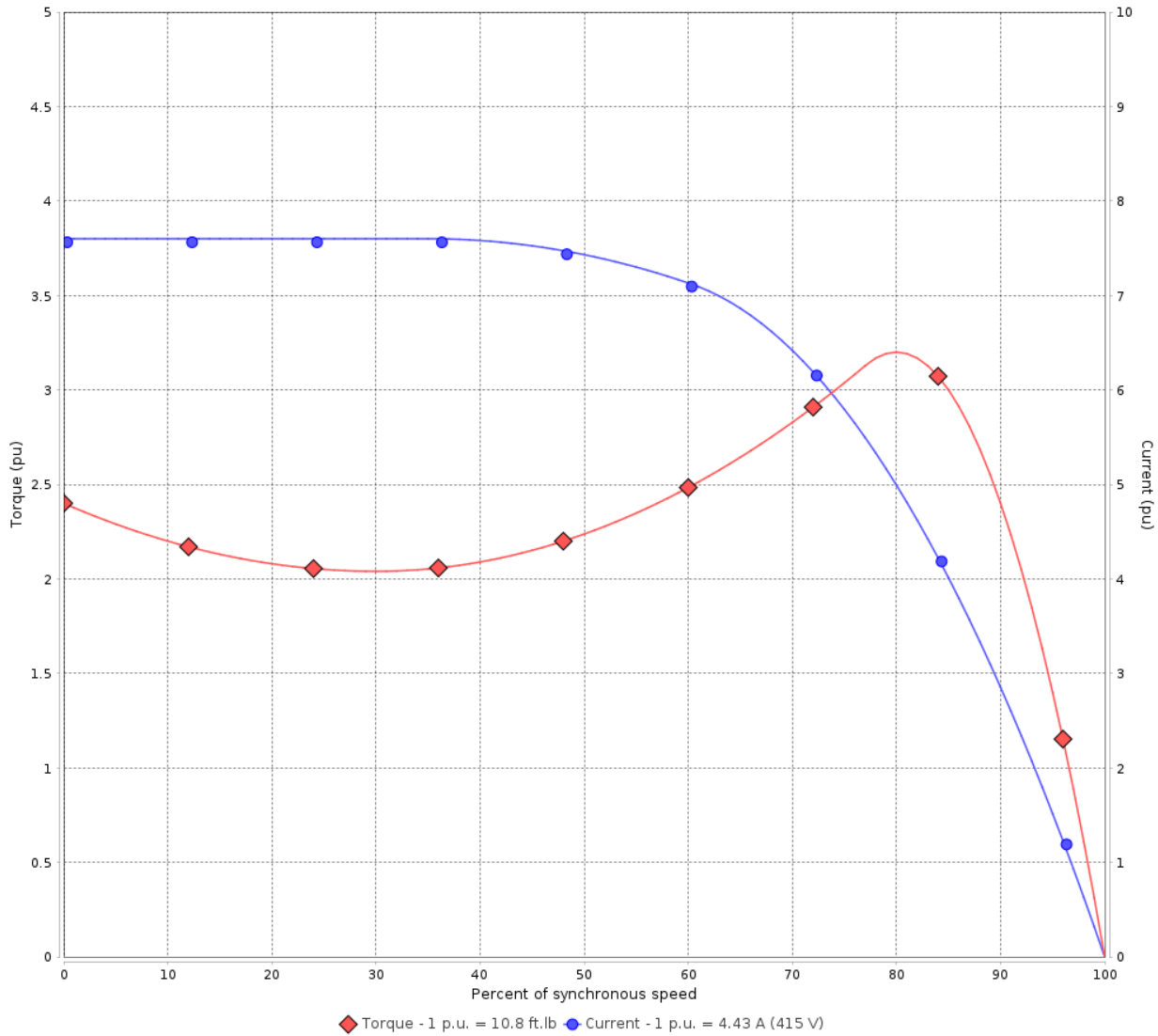
Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE3

Rated current	: 4.43 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

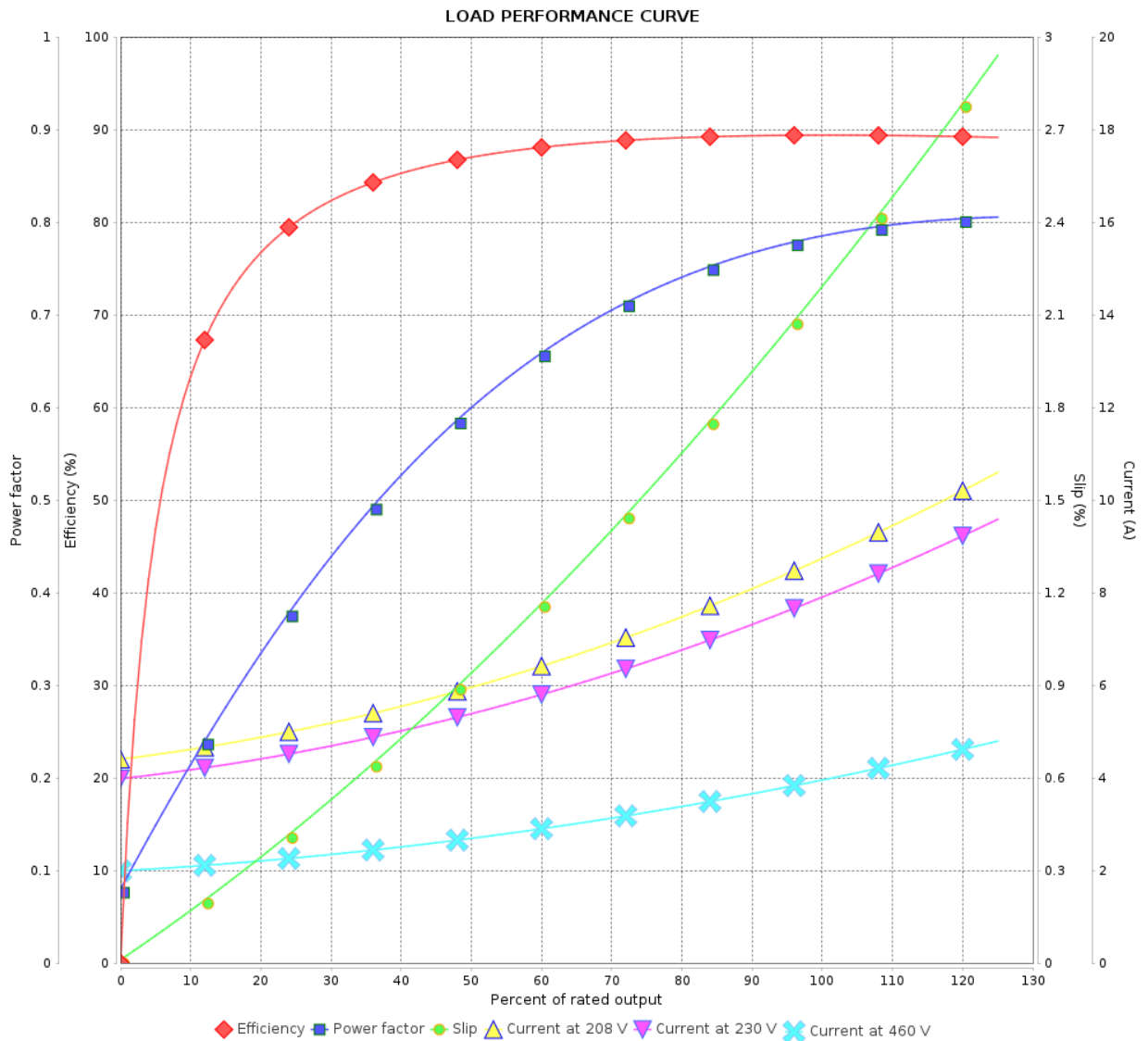


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22



Performance : 230/460 V 60 Hz 4P

Rated current : 7.82/3.91 A  
 LRC : 8.1  
 Rated torque : 8.95 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 330 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.3401 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

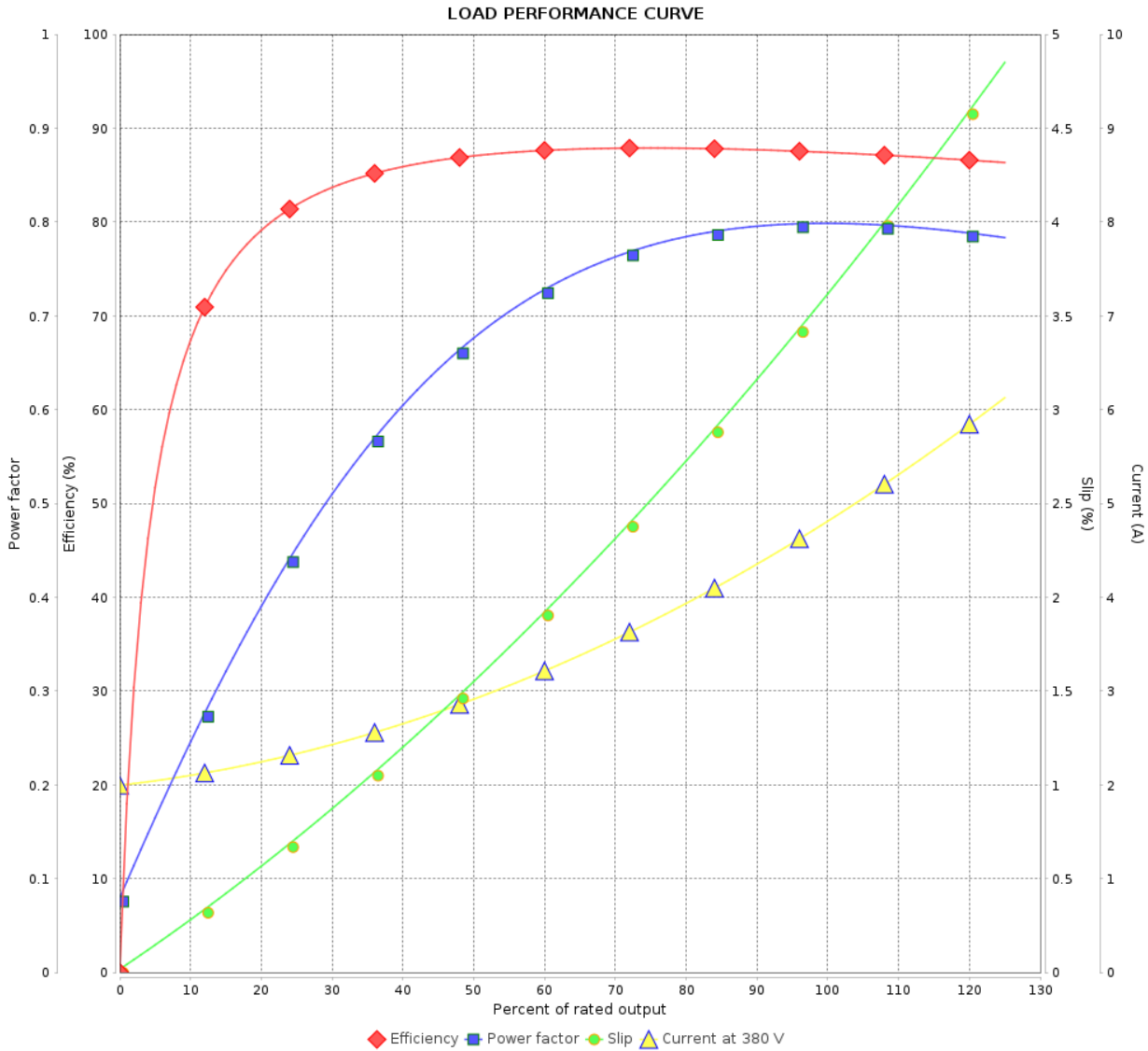


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22



Performance : 380 V 50 Hz 4P IE3

Rated current : 4.78 A  
 LRC : 6.3  
 Rated torque : 10.9 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.3401 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

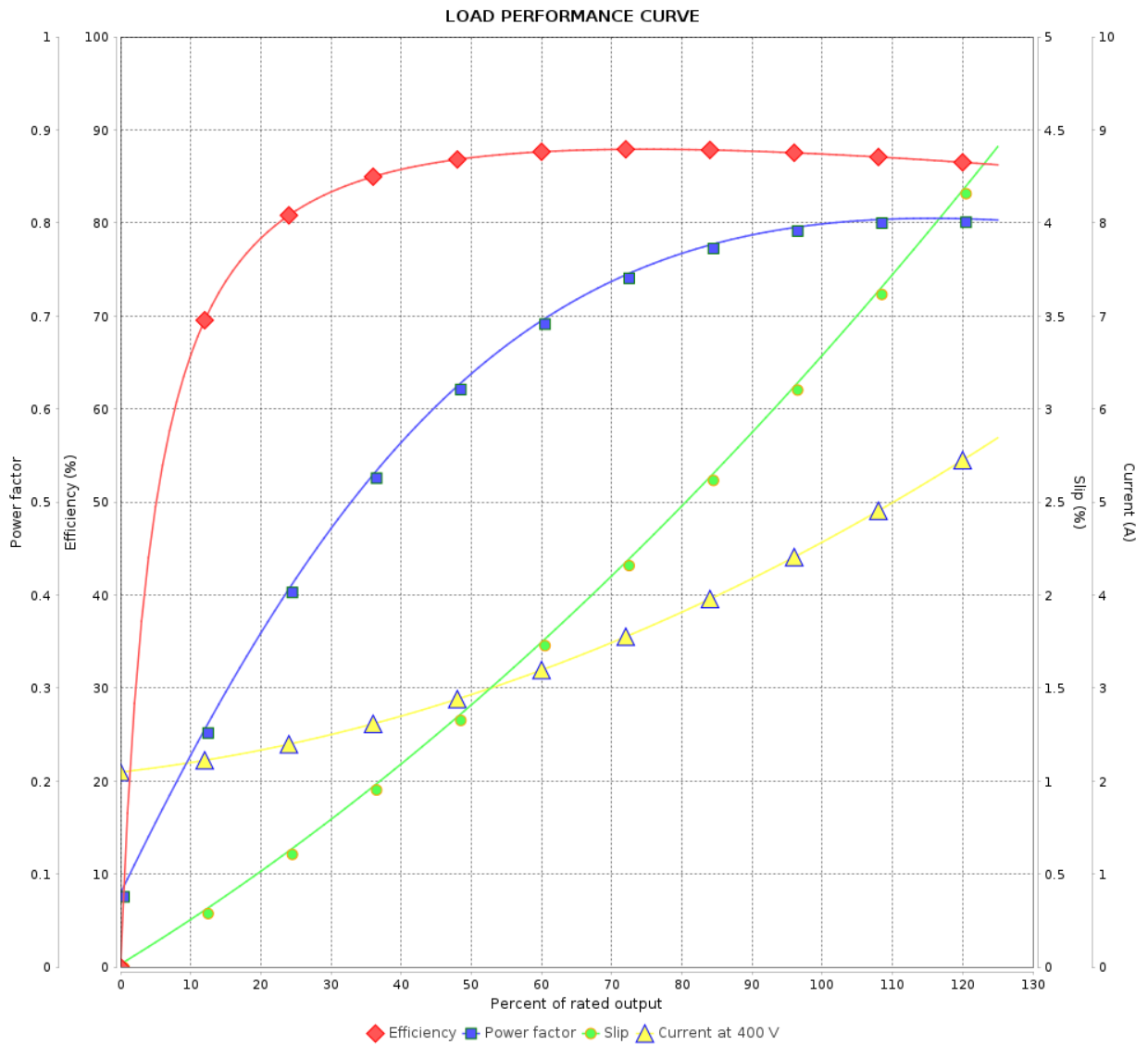


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22



Performance : 400 V 50 Hz 4P IE3

Rated current : 4.54 A  
 LRC : 7.1  
 Rated torque : 10.9 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 290 %  
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.3401 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



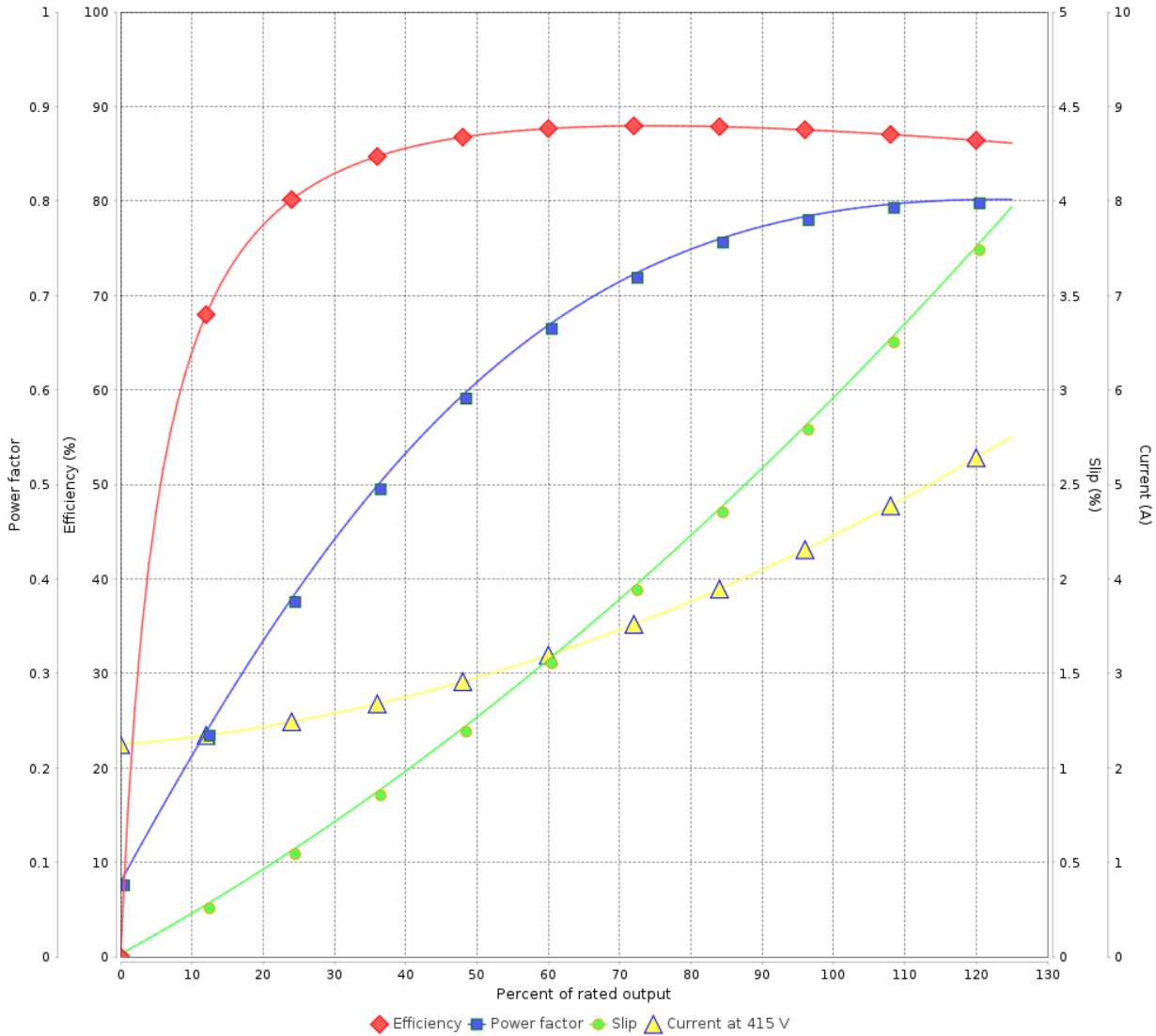
Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 4P IE3

Rated current : 4.43 A  
 LRC : 7.6  
 Rated torque : 10.8 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 320 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.3401 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase  
Product code : 11723870  
Catalog # : 00318ET3E182T-W22

Performance : 230/460 V 60 Hz 4P

Rated current : 7.82/3.91 A	Moment of inertia (J) : 0.3401 sq.ft.lb
LRC : 8.1	Duty cycle : Cont.(S1)
Rated torque : 8.95 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.25
Breakdown torque : 330 %	Temperature rise : 80 K
Rated speed : 1760 rpm	Design : B

Heating constant

Cooling constant

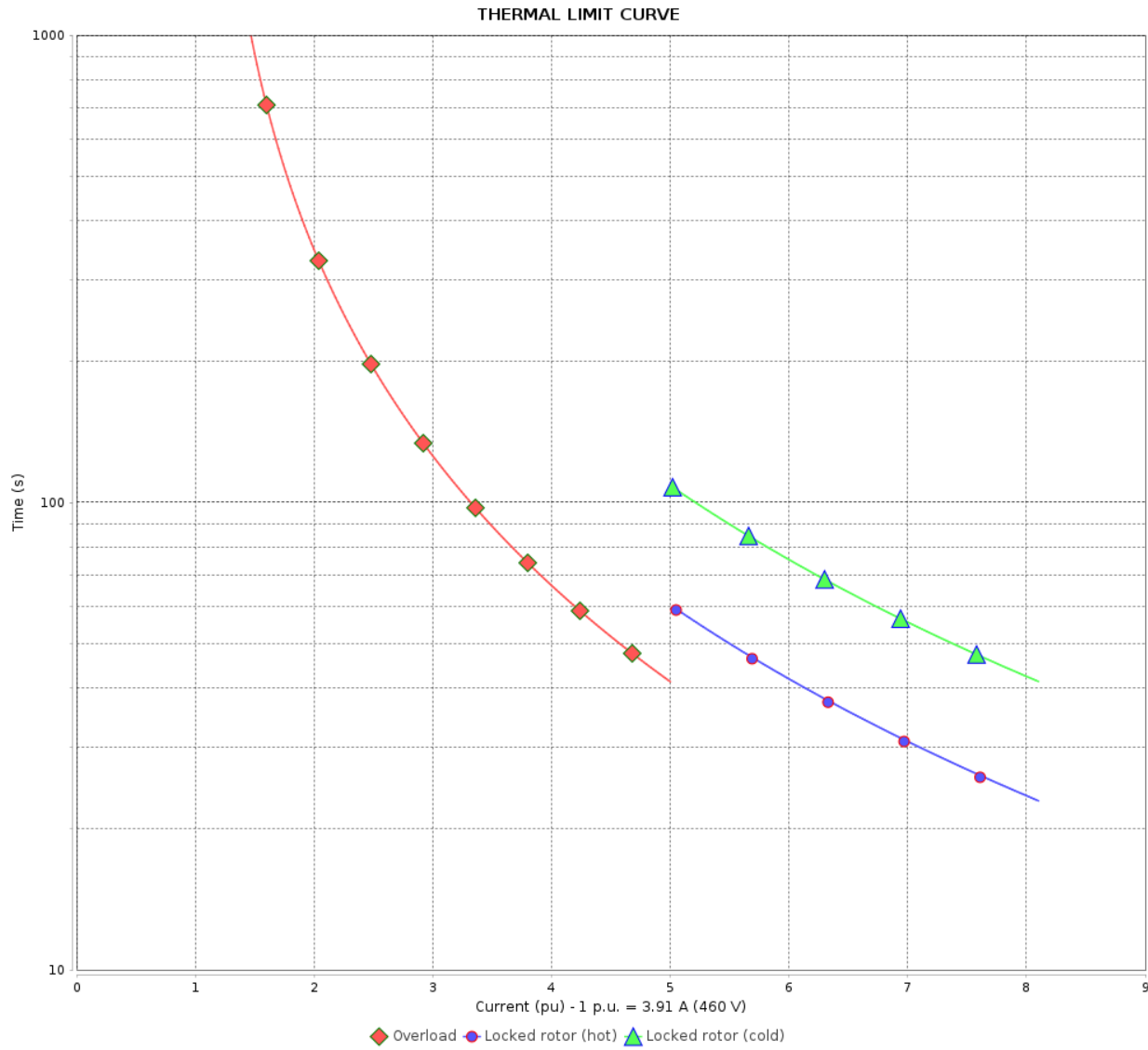
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Date				

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase  
Product code : 11723870  
Catalog # : 00318ET3E182T-W22

Performance : 380 V 50 Hz 4P IE3

Rated current	: 4.78 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: B

Heating constant

Cooling constant

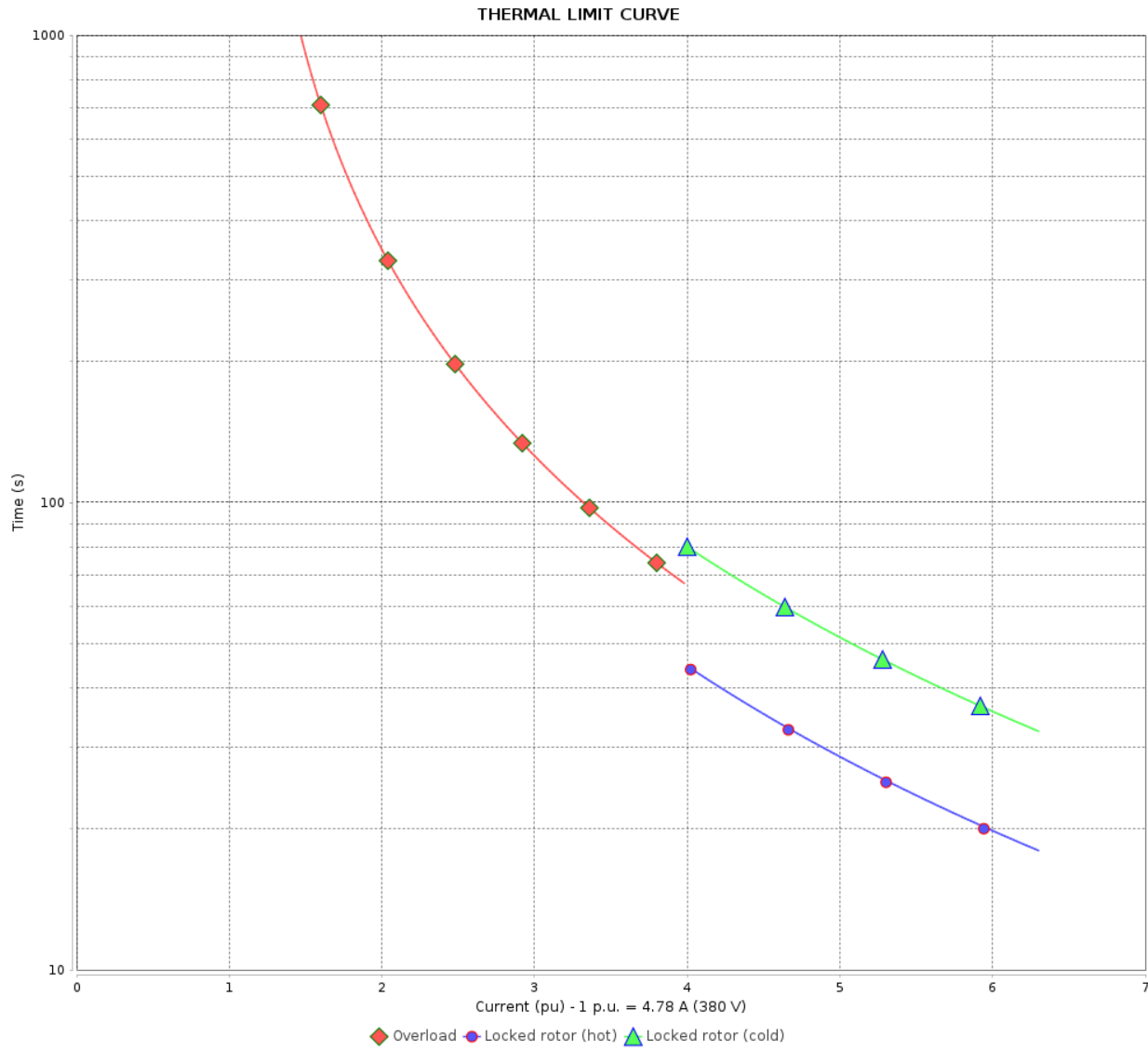
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase  
Product code : 11723870  
Catalog # : 00318ET3E182T-W22

Performance : 400 V 50 Hz 4P IE3

Rated current	: 4.54 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

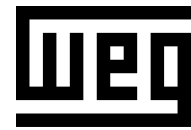
Heating constant

Cooling constant

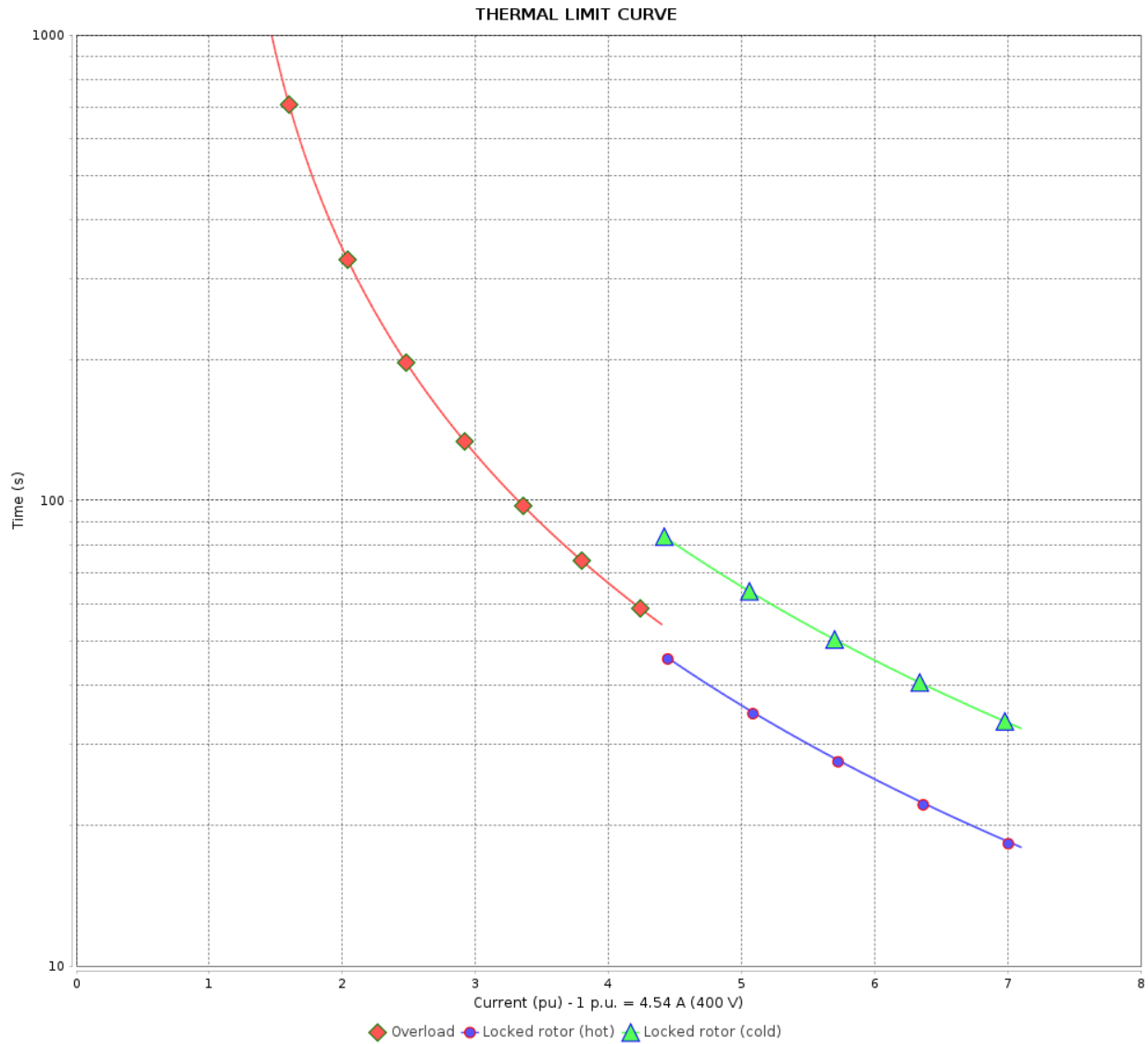
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase  
Product code : 11723870  
Catalog # : 00318ET3E182T-W22

Performance : 415 V 50 Hz 4P IE3

Rated current : 4.43 A	Moment of inertia (J) : 0.3401 sq.ft.lb
LRC : 7.6	Duty cycle : Cont.(S1)
Rated torque : 10.8 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.25
Breakdown torque : 320 %	Temperature rise : 80 K
Rated speed : 1455 rpm	Design : B

Heating constant

Cooling constant

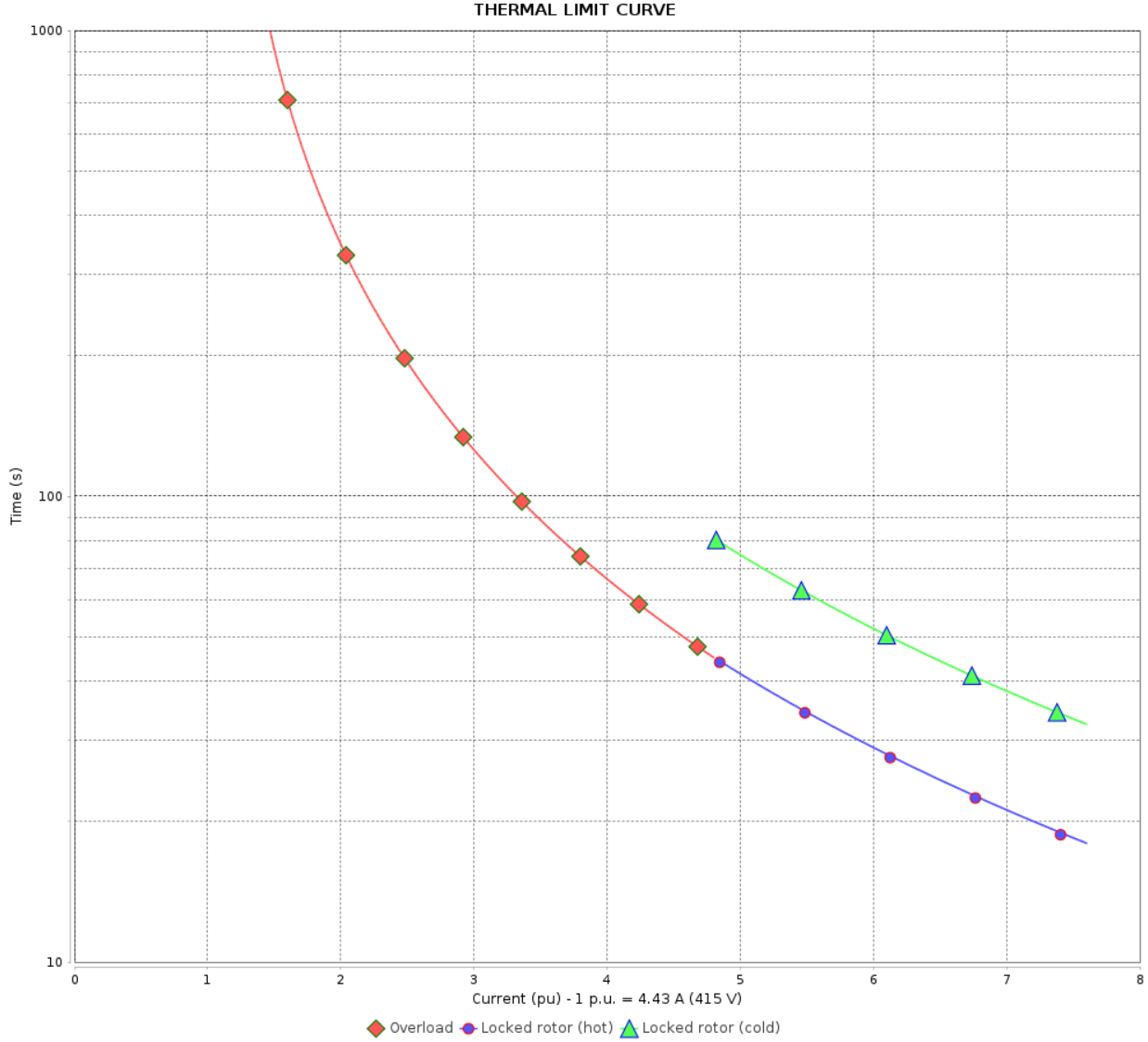
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

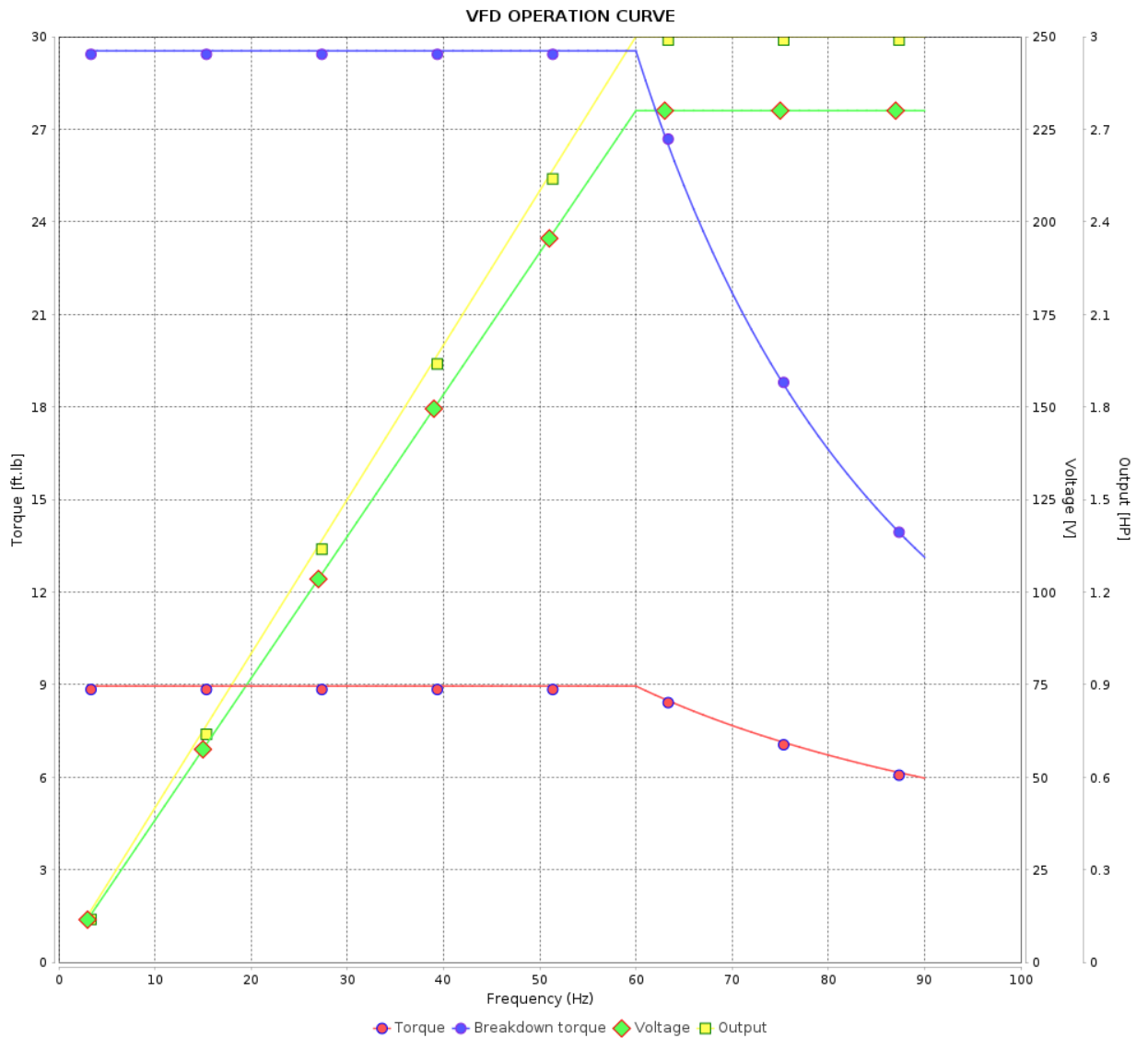


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22



Performance : 230/460 V 60 Hz 4P

Rated current : 7.82/3.91 A  
 LRC : 8.1  
 Rated torque : 8.95 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 330 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.3401 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				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

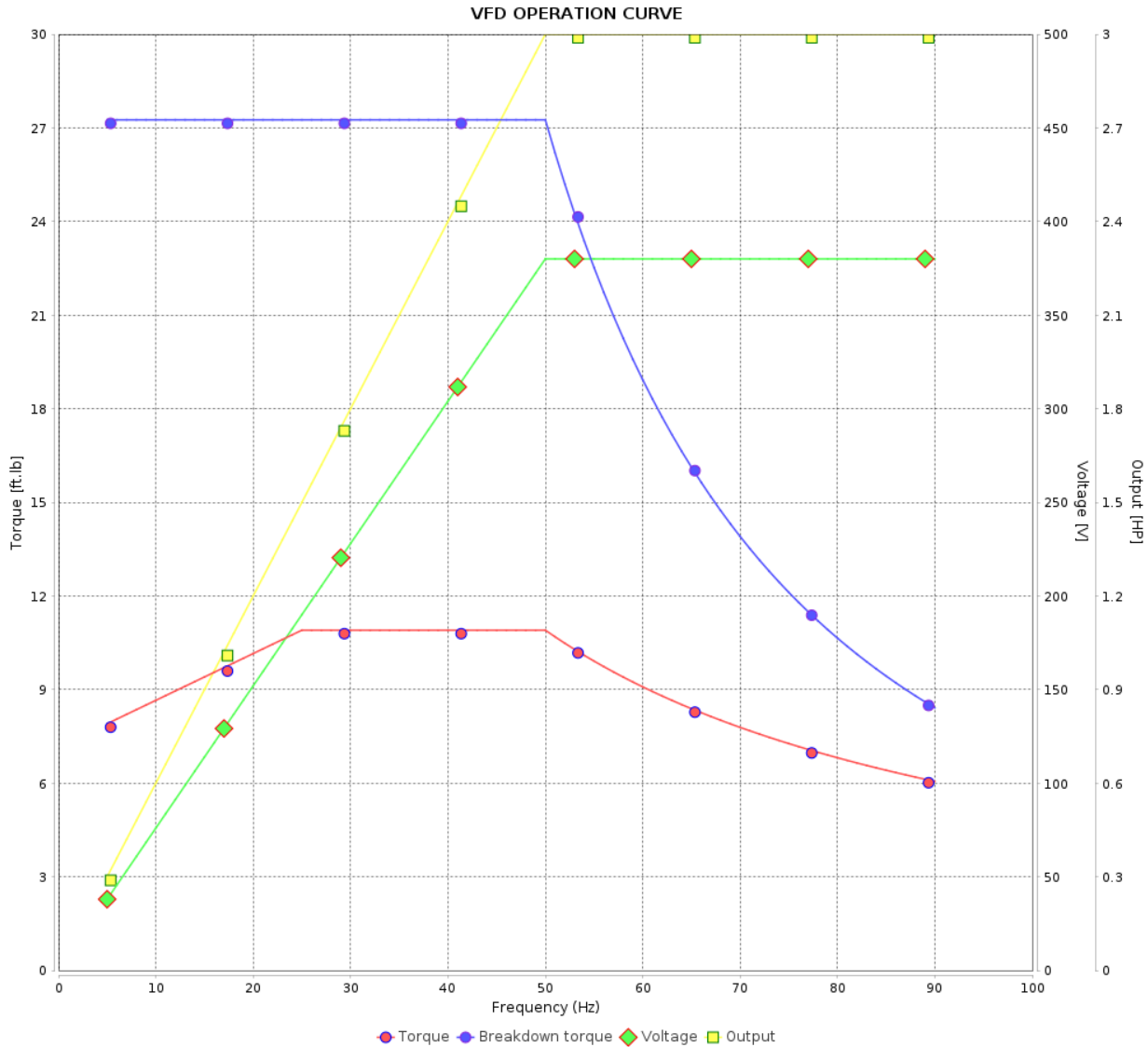


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22



Performance : 380 V 50 Hz 4P IE3

Rated current : 4.78 A  
 LRC : 6.3  
 Rated torque : 10.9 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.3401 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				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

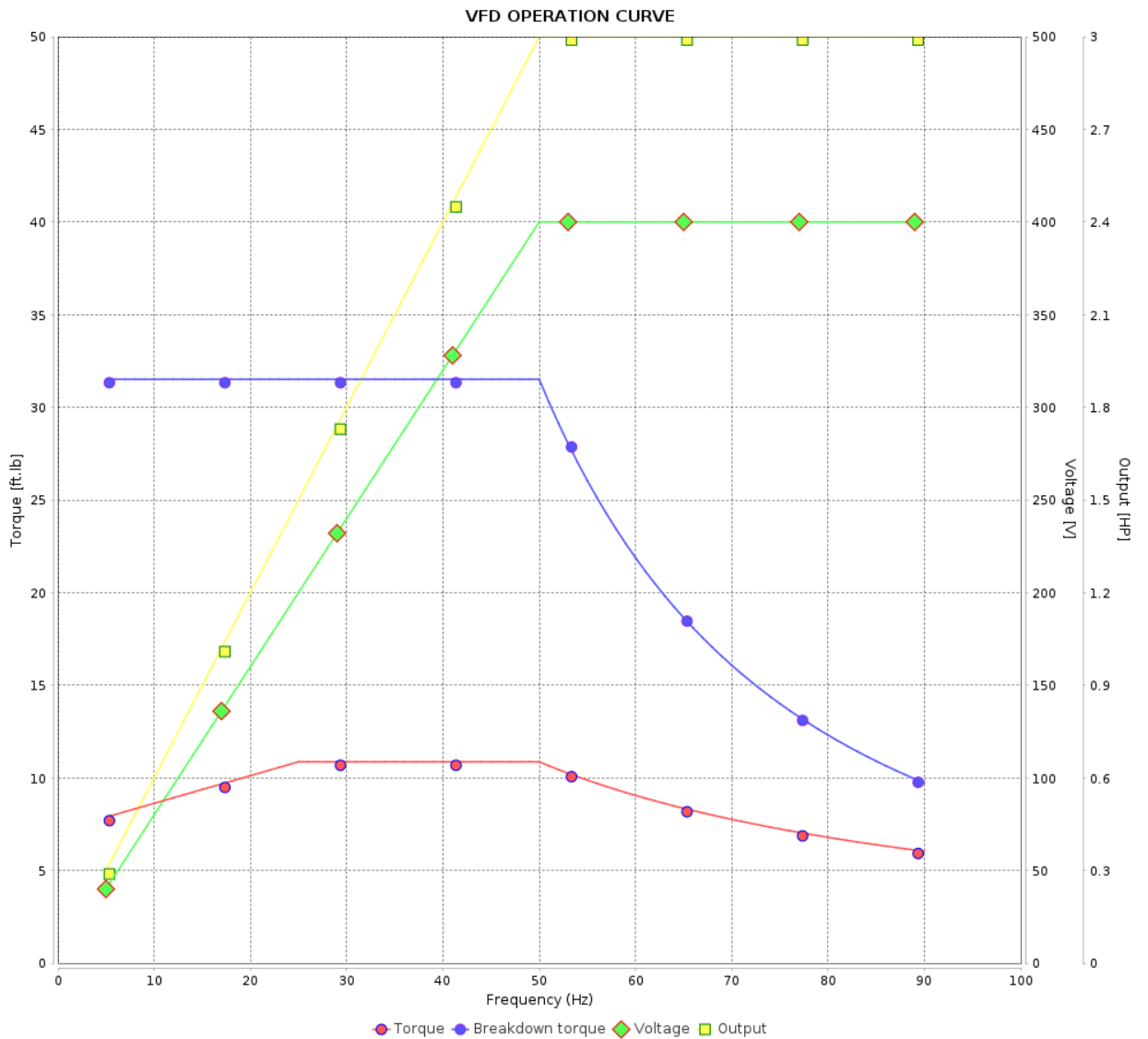


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22



Performance : 400 V 50 Hz 4P IE3

Rated current : 4.54 A  
LRC : 7.1  
Rated torque : 10.9 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 290 %  
Rated speed : 1450 rpm

Moment of inertia (J) : 0.3401 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

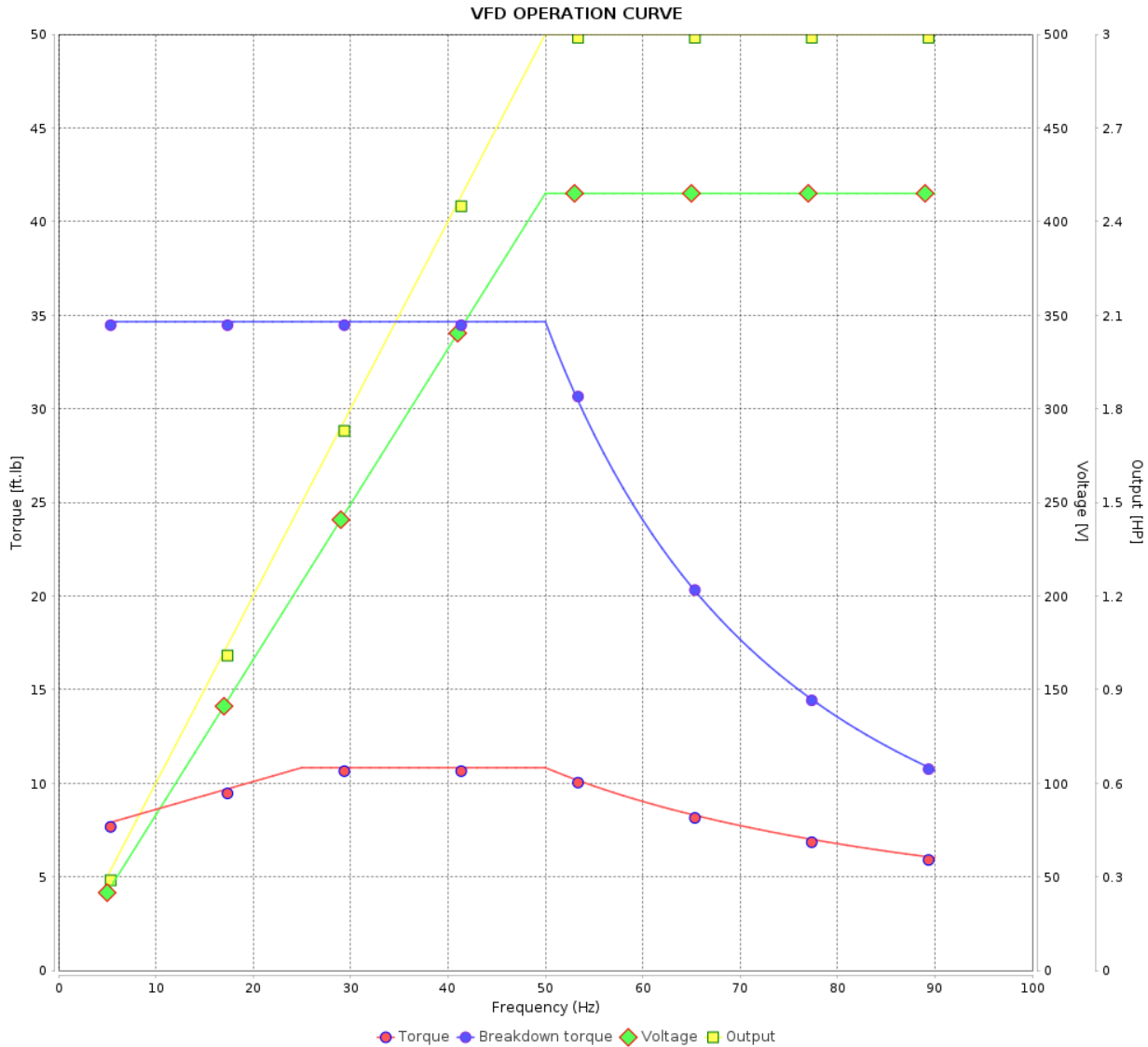


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11723870

Catalog # : 00318ET3E182T-W22

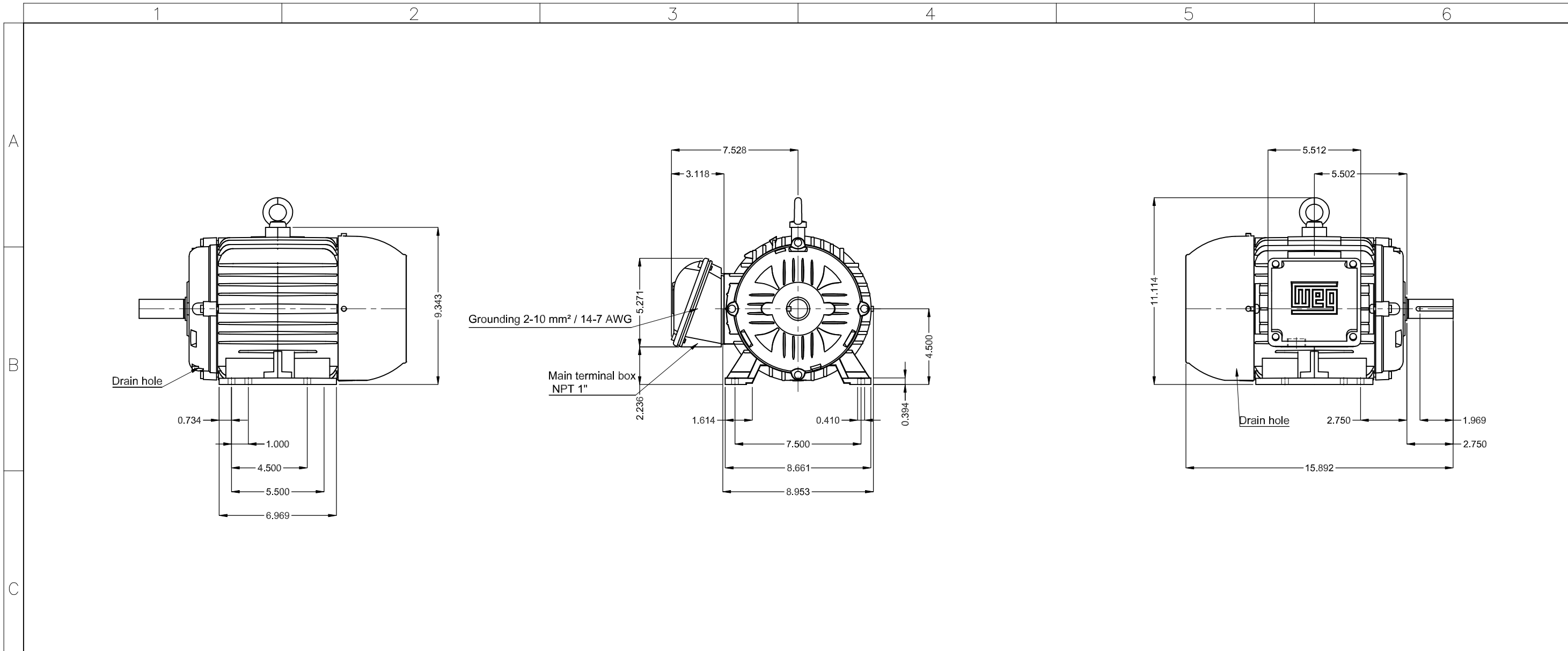


Performance : 415 V 50 Hz 4P IE3

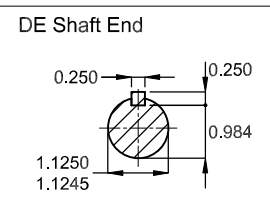
Rated current : 4.43 A  
LRC : 7.6  
Rated torque : 10.8 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 320 %  
Rated speed : 1455 rpm

Moment of inertia (J) : 0.3401 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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Color RAL 5009  
 Painting plan 207A  
 Mounting B3R(D)



3 HP 04 Poles 60 Hz										A
								Scale	1 : 6	
								HYBRISUSER		00
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR W22 NEMA PREM. EFF. FRAME 182/4T IP55 TEFC				PREVIEW				
CHECKED						WDD		00		
RELEASED						SHEET		1 / 1		
REL. DATE										

Dimensions in inches A3



W22

MODEL 00318ET3E182T-W22

Inverter Duty Motor  
Severe Duty  
IEC 60034-1



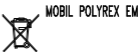
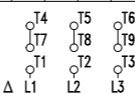
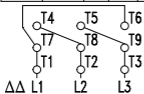
For use on 60Hz  
Class I, Div 2, Gr A, B, C and D - T3  
Class I, Zone 2, IIC - T3  
Class II, Div 2, Gr F and G - T5  
For use on PWM: Gr. A, B, C, D, F and G,  
VT 1000:1, CT 20:1, 1.00SF - T4A



FOR SAFE AREA  
Mod. TE1BFOXON  
CC029A

PH3 Fr. 182/4T DUTY CONT. TEFC IP55 DES B(N) Code K  
86lb 1000m.a.s.l. INS cl. F DT 80K AMB 40°C SF 1.25//1.25

V		Hz	kW	HP	RPM	A		SFA		PF	IE code	NEMA NOM EFF $\eta$ 100%/75%/50%
230 $\Delta\Delta$	460 $\Delta$	60	2.2	3.0	1760	7.82	3.91	9.78	4.89	0.79	IE3	89.5/88.5/87.5
380 $\Delta$	-	50	2.2	3.0	1445	4.78	-	5.98	-	0.80	IE3	87.5/87.5/87.5
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