

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :			
Product line	: Rolled Steel NEMA Premium Efficiency Three-Phase	Product code :	12675365
		Catalog # :	00518ET3E184TC-S
Frame	: 182/4TC	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>	: 83.7 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.3080 sq.ft.lb
Design	: B		
Output [HP]	5	5	5
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190-220/380	415
Rated current [A]	13.0/6.49	15.8-13.6/7.88	7.47
L. R. Amperes [A]	90.9/45.4	91.4-78.9/45.7	50.8
LRC [A]	7.0x(Code J)	5.8x(Code G)	6.8x(Code J)
No load current [A]	6.89/3.44	6.74-5.82/3.37	4.16
Rated speed [RPM]	1750	1425	1440
Slip [%]	2.78	5.00	4.00
Rated torque [ft.lb]	15.0	18.4	18.2
Locked rotor torque [%]	220	170	220
Breakdown torque [%]	300	229	290
Service factor	1.15	1.00	1.00
Temperature rise	80 K	105 K	105 K
Locked rotor time	28s (cold) 16s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level <sup>2</sup>	56.0 dB(A)	53.0 dB(A)	53.0 dB(A)
Efficiency (%)	25%		
	50%	88.5	87.9
	75%	89.5	87.2
	100%	89.5	84.9
Power Factor	25%		
	50%	0.60	0.68
	75%	0.73	0.80
	100%	0.80	0.84
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 296 lb
		Max. compression	: 380 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 14.4A SF 1.00 SFA 14.4A			
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



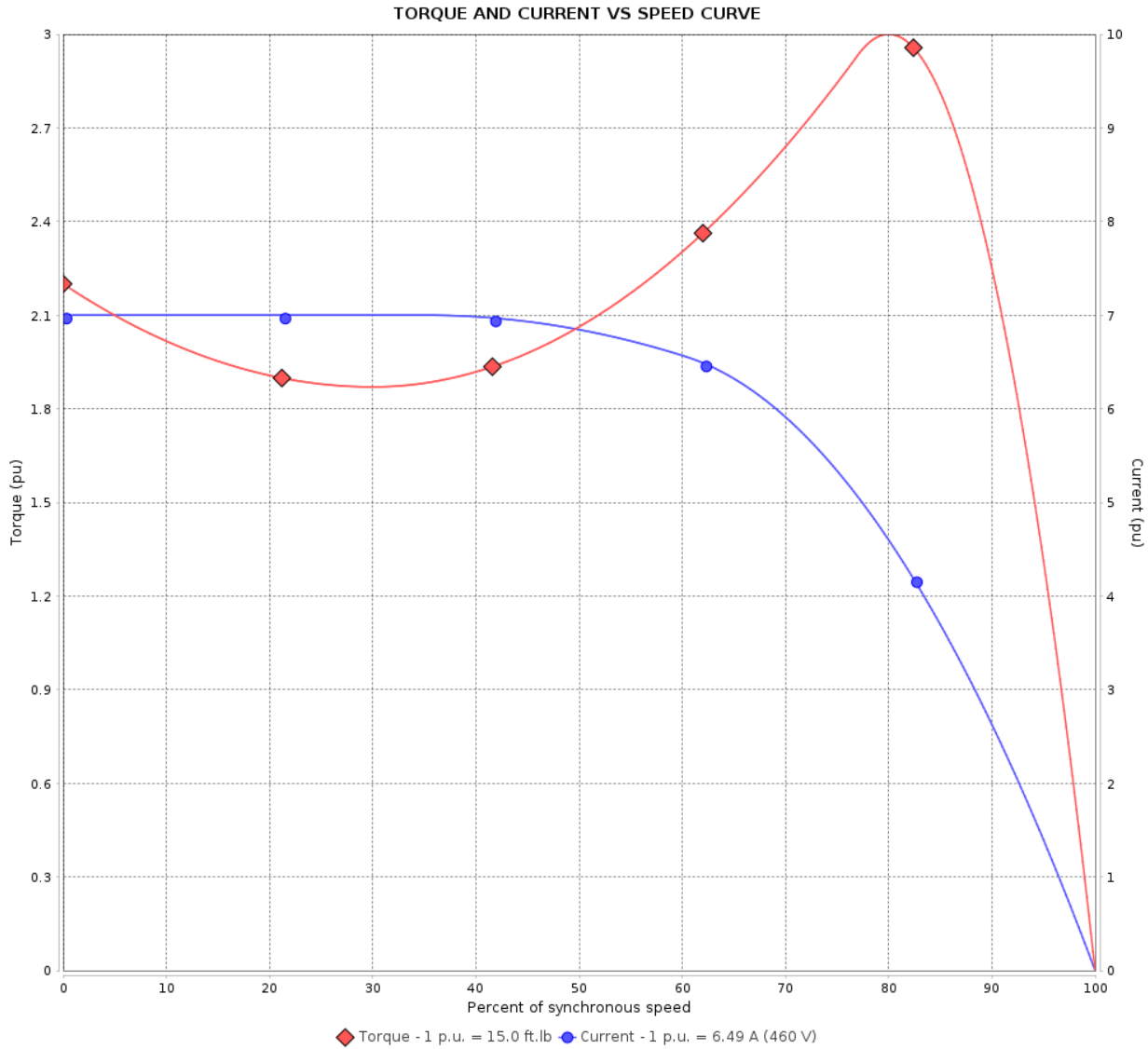
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Rolled Steel NEMA Premium Efficiency  
Three-Phase

Product code : 12675365

Catalog # : 00518ET3E184TC-S



Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A  
LRC : 7.0  
Rated torque : 15.0 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 300 %  
Rated speed : 1750 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

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

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# TORQUE AND CURRENT VS SPEED CURVE



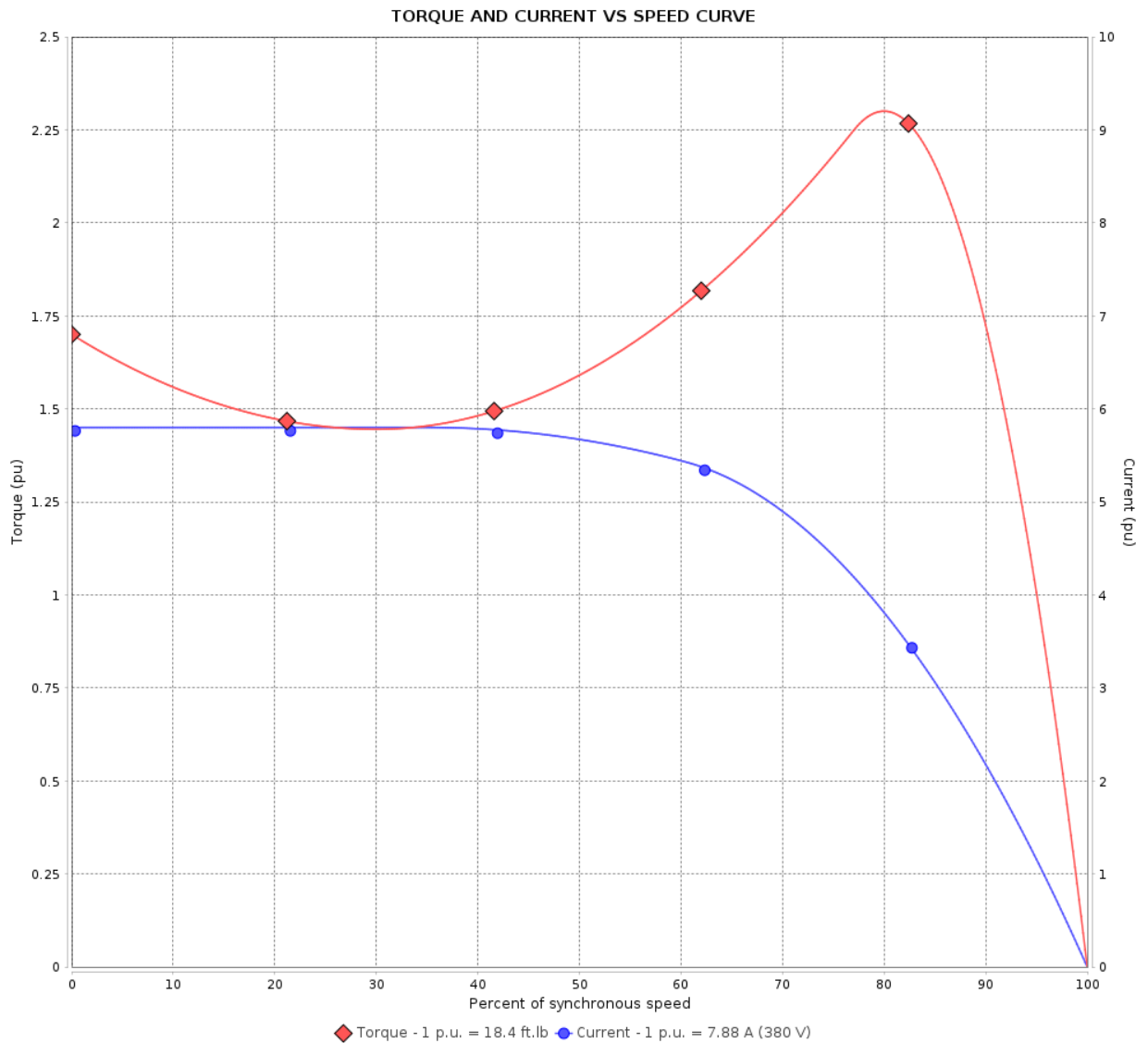
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Rolled Steel NEMA Premium Efficiency  
Three-Phase

Product code : 12675365

Catalog # : 00518ET3E184TC-S



Performance : 190-220/380 V 50 Hz 4P

Rated current	: 15.8-13.6/7.88 A	Moment of inertia (J)	: 0.3080 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 18.4 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 1425 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



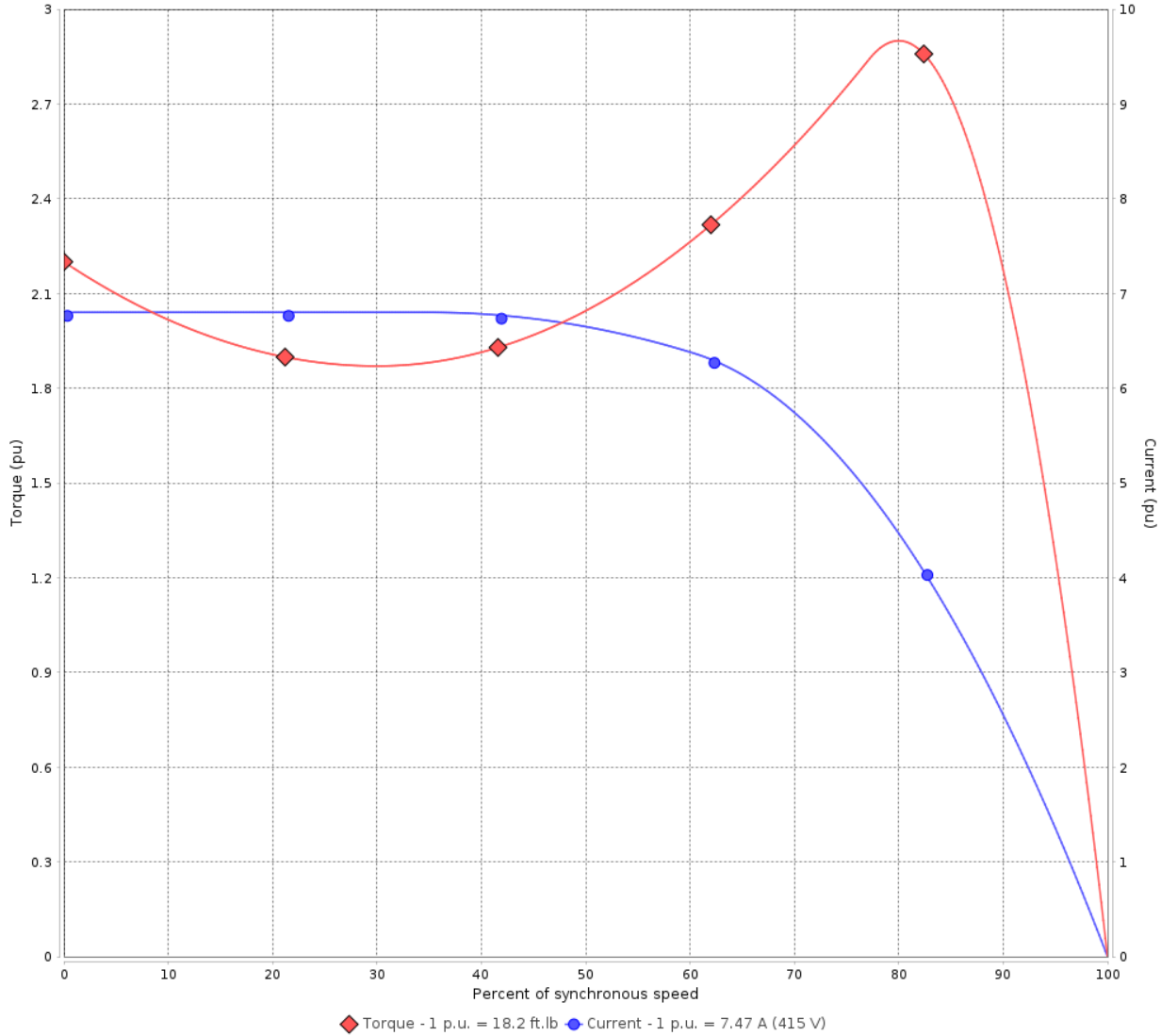
Customer :

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Three-Phase

Product code : 12675365

Catalog # : 00518ET3E184TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P

Rated current	: 7.47 A	Moment of inertia (J)	: 0.3080 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 18.2 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 105 K
Rated speed	: 1440 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

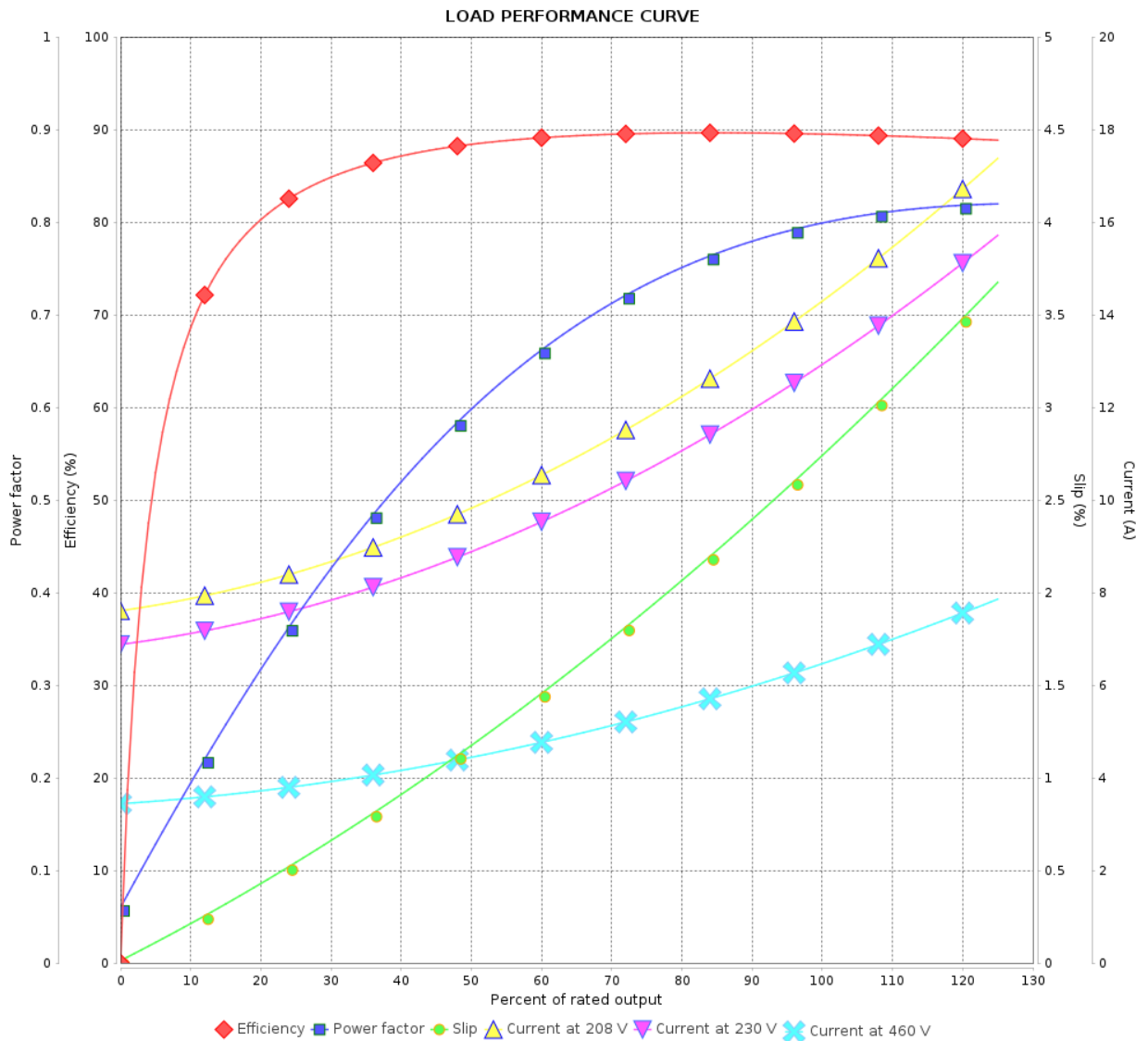


Customer :

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Product code : 12675365

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Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A  
 LRC : 7.0  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

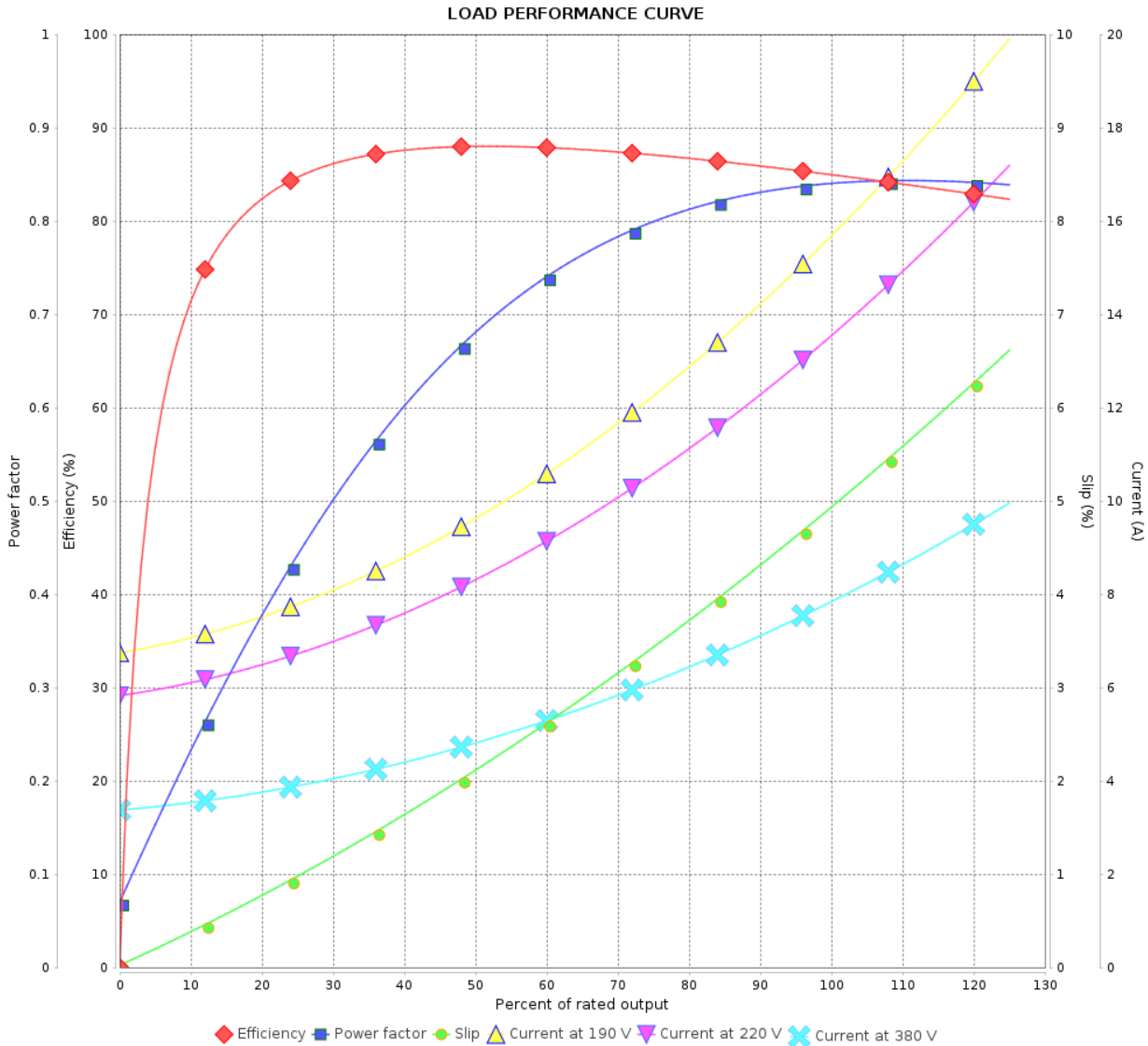


Customer :

Product line : Rolled Steel NEMA Premium Efficiency  
Three-Phase

Product code : 12675365

Catalog # : 00518ET3E184TC-S



Performance : 190-220/380 V 50 Hz 4P

Rated current : 15.8-13.6/7.88 A  
LRC : 5.8  
Rated torque : 18.4 ft.lb  
Locked rotor torque : 170 %  
Breakdown torque : 229 %  
Rated speed : 1425 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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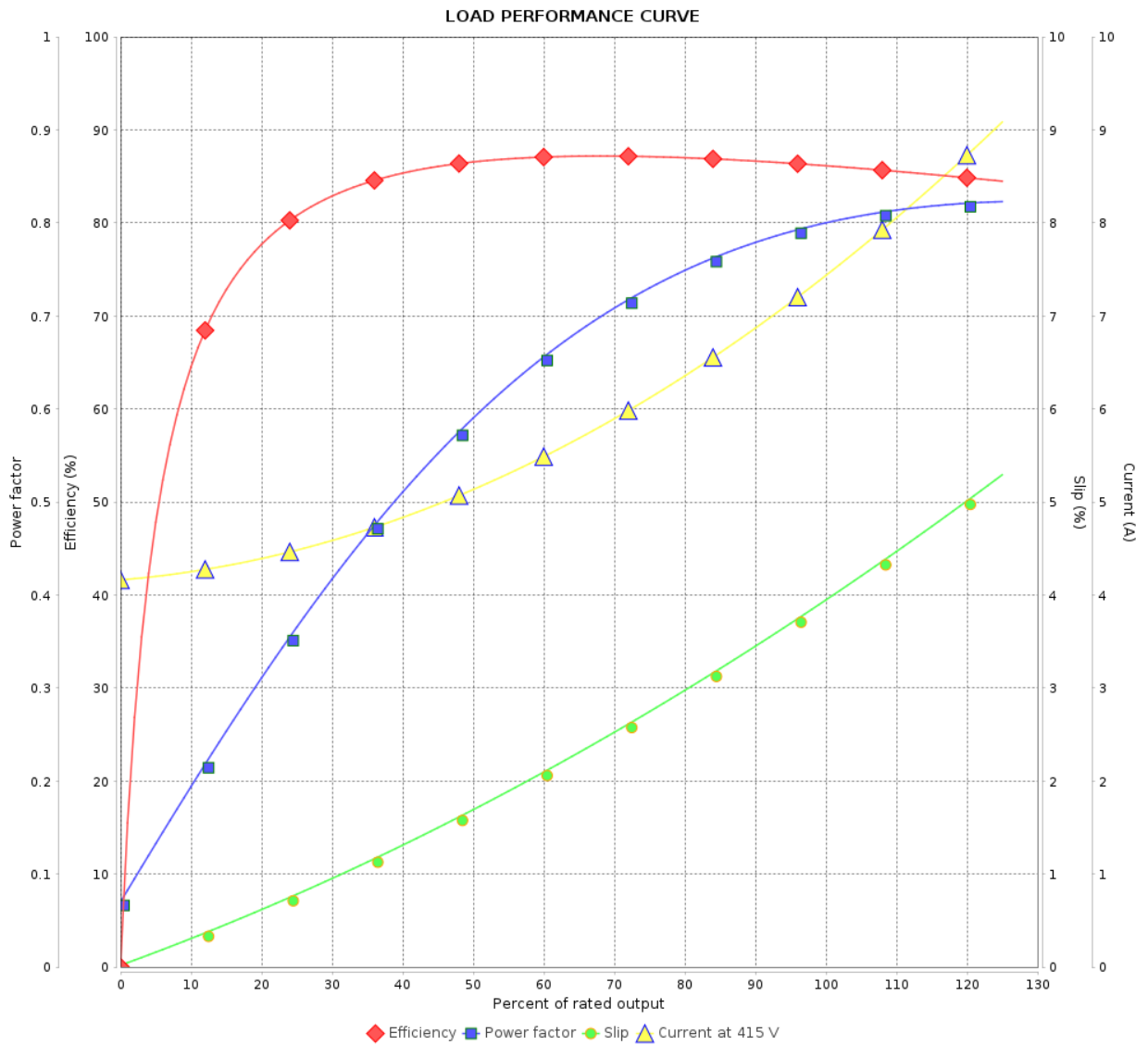


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Product code : 12675365

Catalog # : 00518ET3E184TC-S



Performance : 415 V 50 Hz 4P

Rated current : 7.47 A  
 LRC : 6.8  
 Rated torque : 18.2 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 290 %  
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# THERMAL LIMIT CURVE

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Three-Phase

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Performance : 230/460 V 60 Hz 4P

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Rated torque : 15.0 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 300 %  
Rated speed : 1750 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

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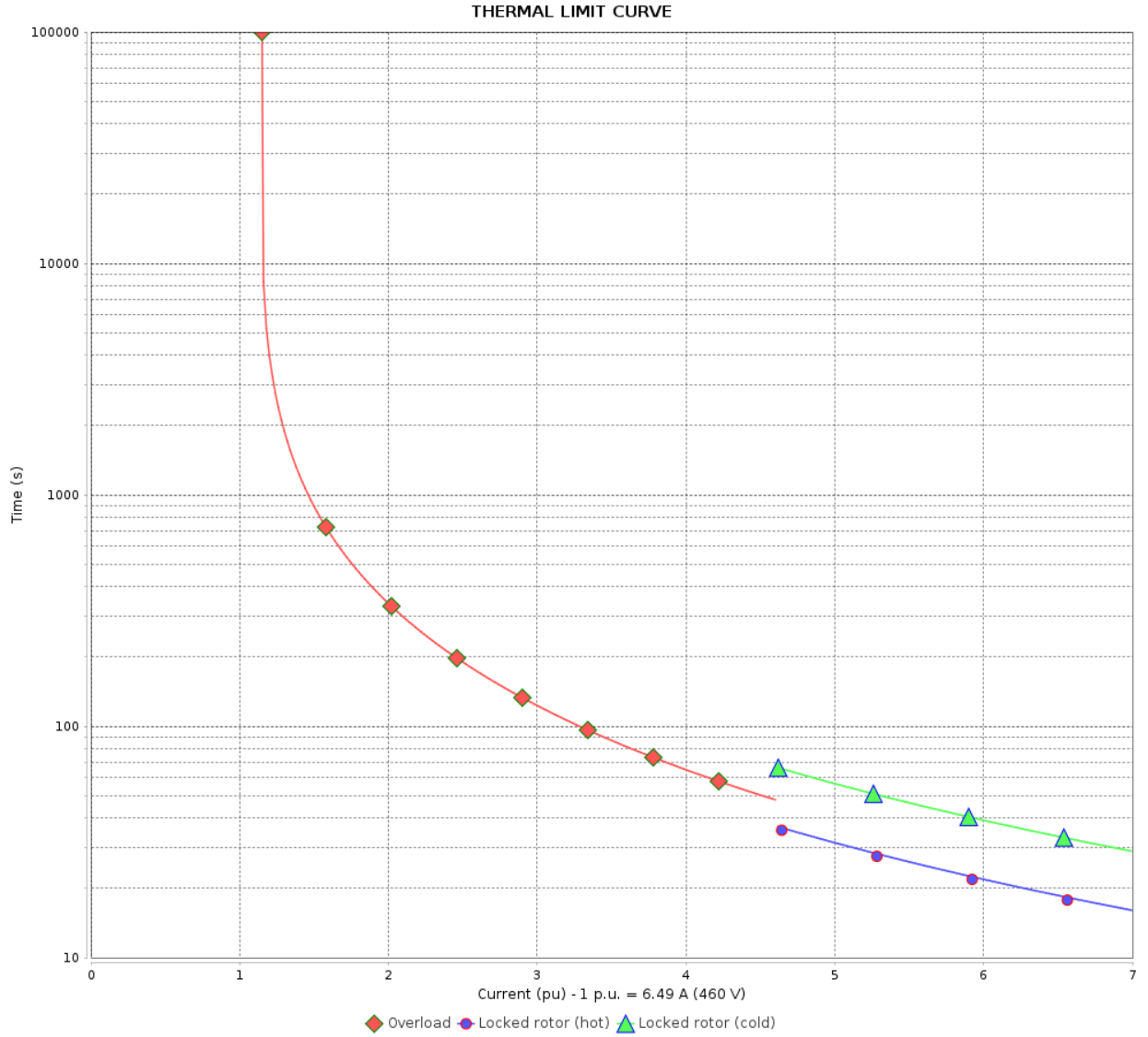


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Three Phase Induction Motor - Squirrel Cage



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Performance : 190-220/380 V 50 Hz 4P

Rated current : 15.8-13.6/7.88 A  
LRC : 5.8  
Rated torque : 18.4 ft.lb  
Locked rotor torque : 170 %  
Breakdown torque : 229 %  
Rated speed : 1425 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb  
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Service factor : 1.00  
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Heating constant

Cooling constant

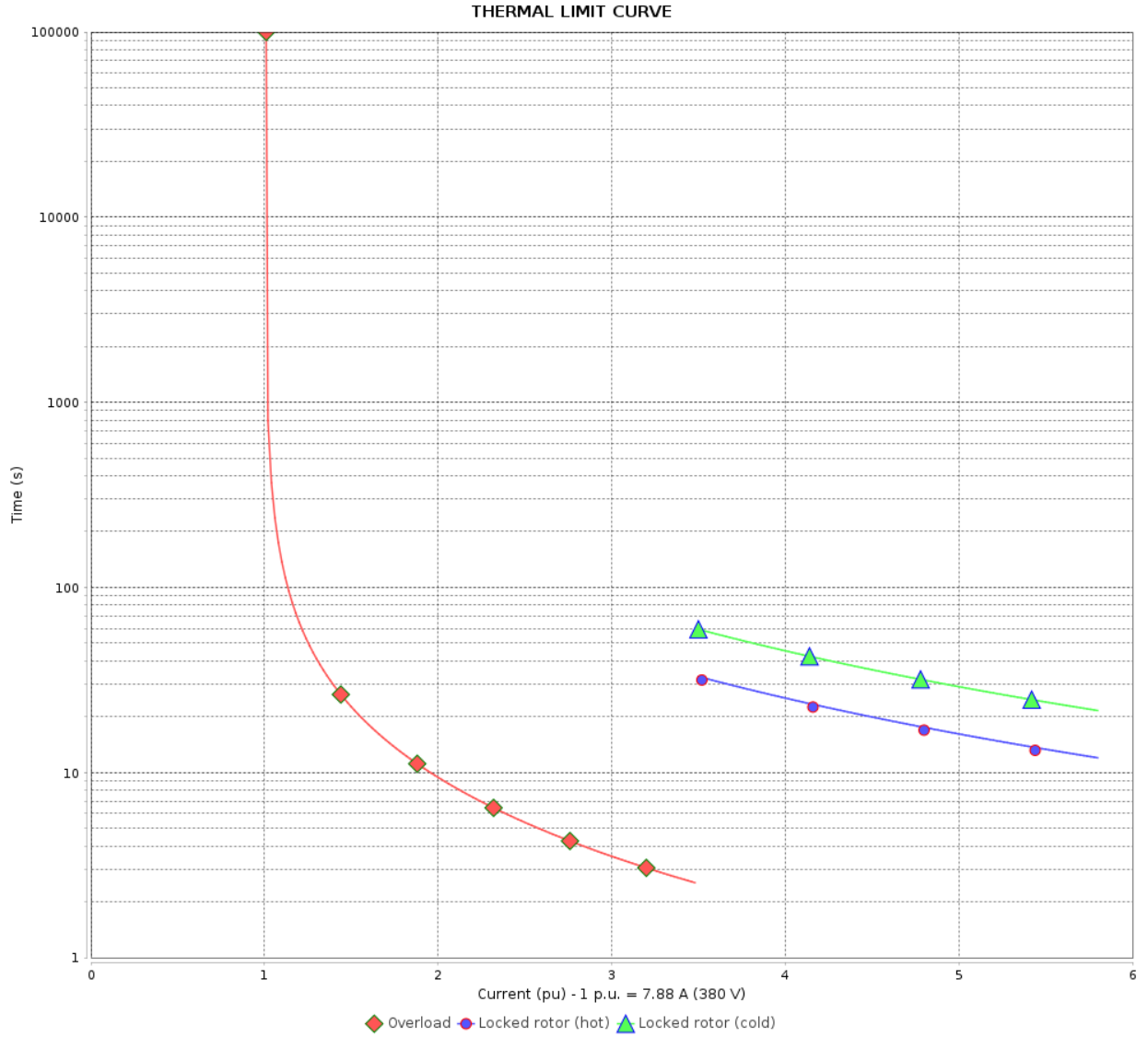
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Heating constant

Cooling constant

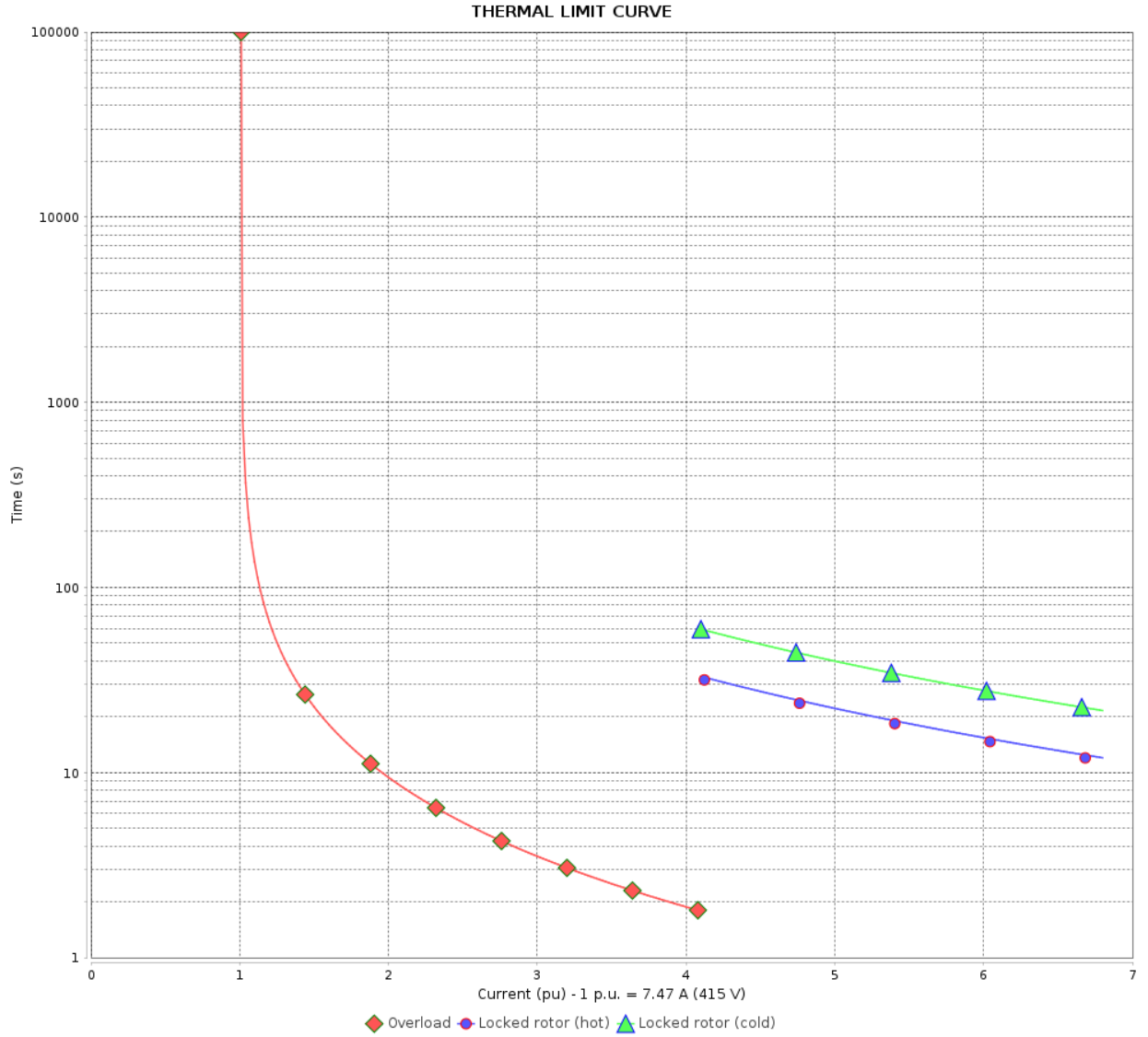
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

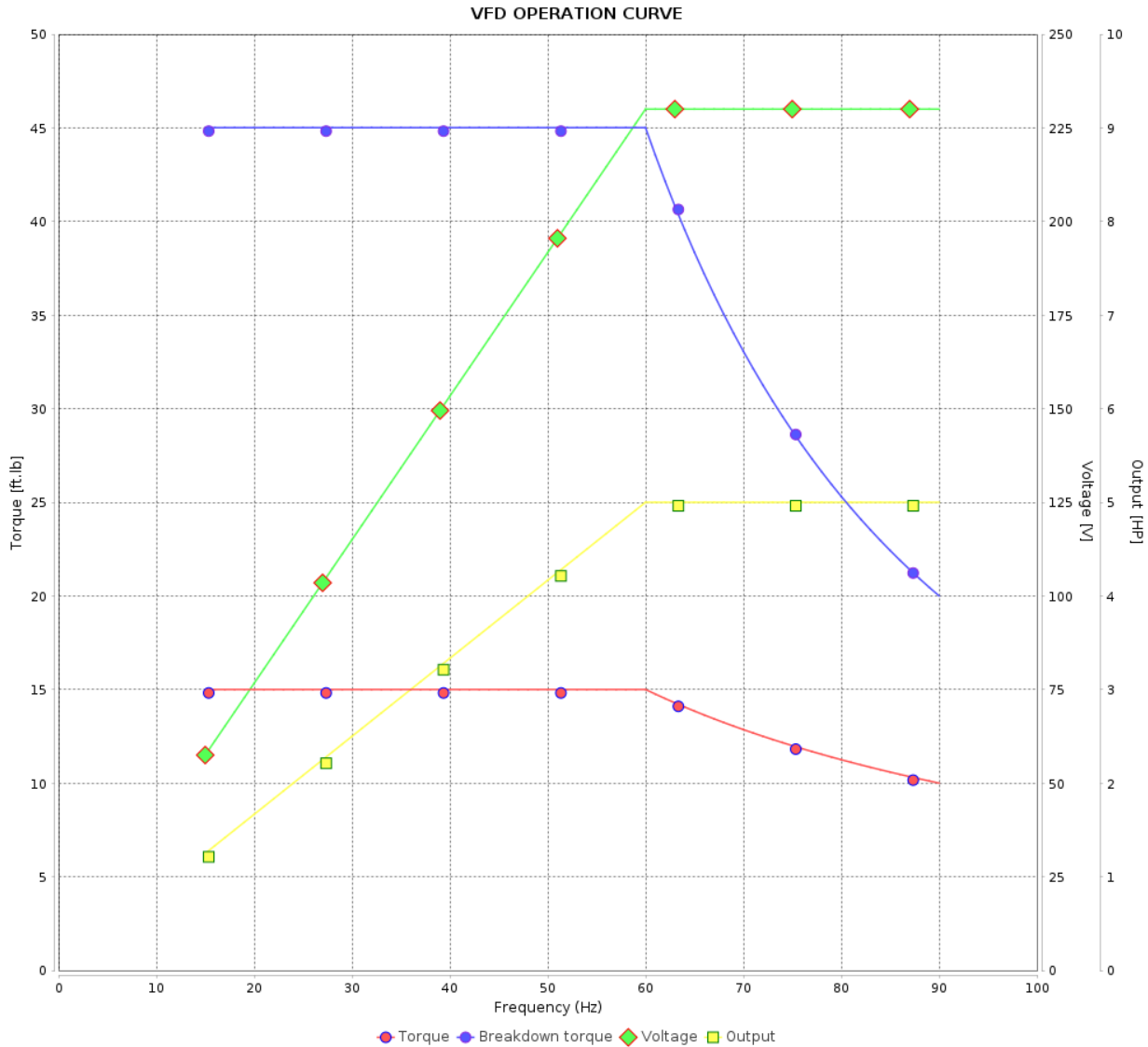


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Performance : 230/460 V 60 Hz 4P

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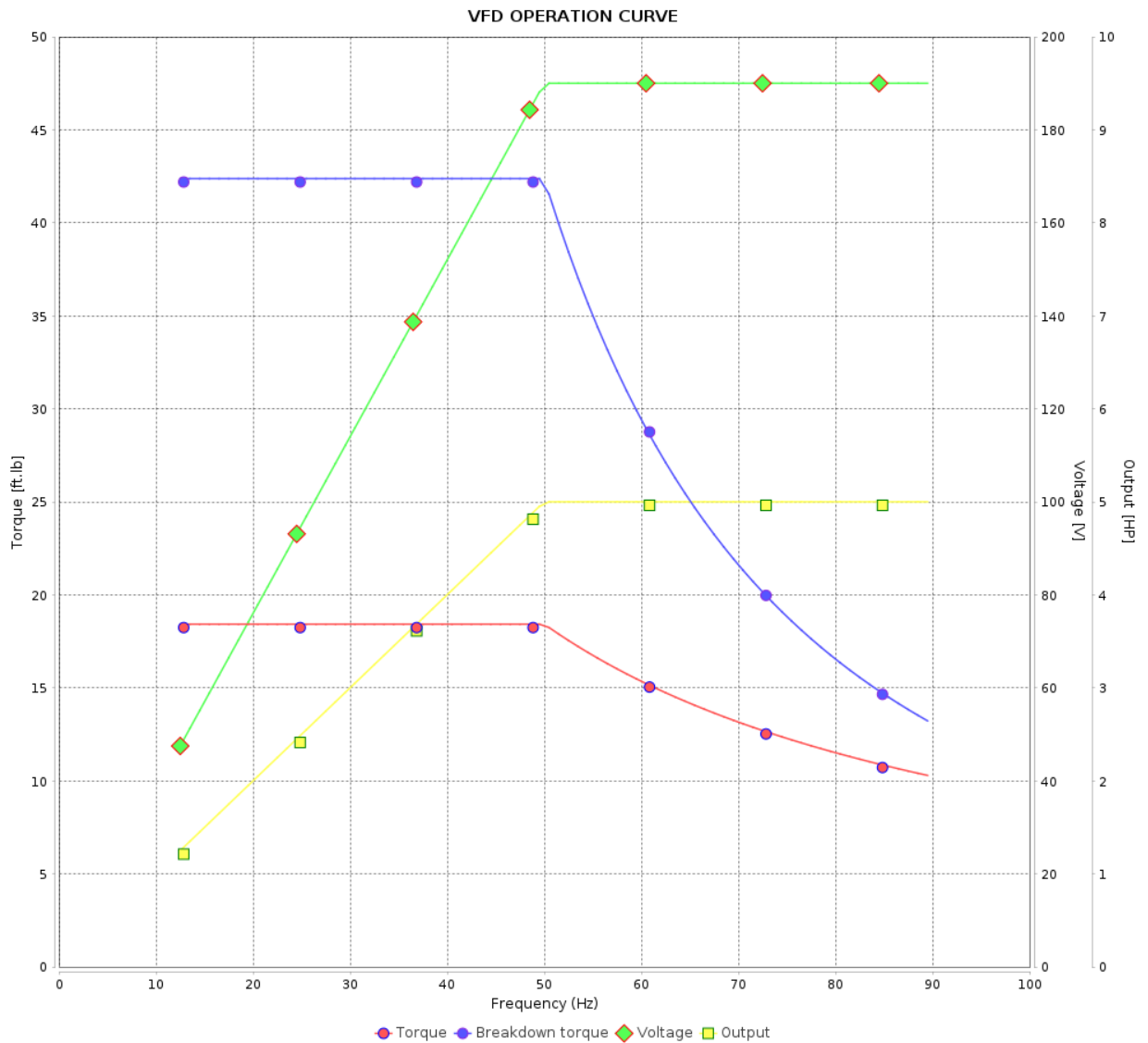


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 Service factor : 1.00  
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Three Phase Induction Motor - Squirrel Cage



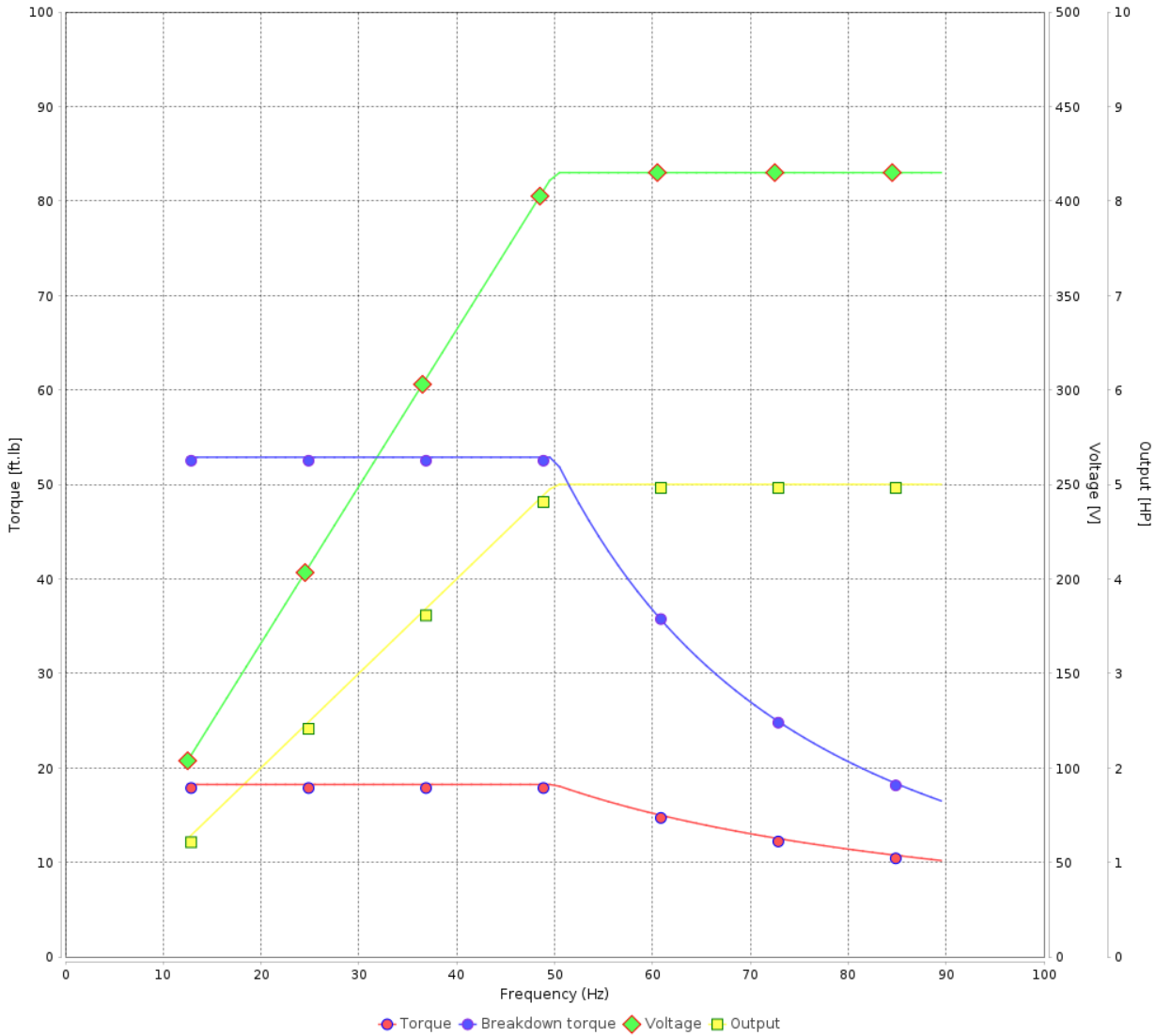
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Product code : 12675365

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VFD OPERATION CURVE



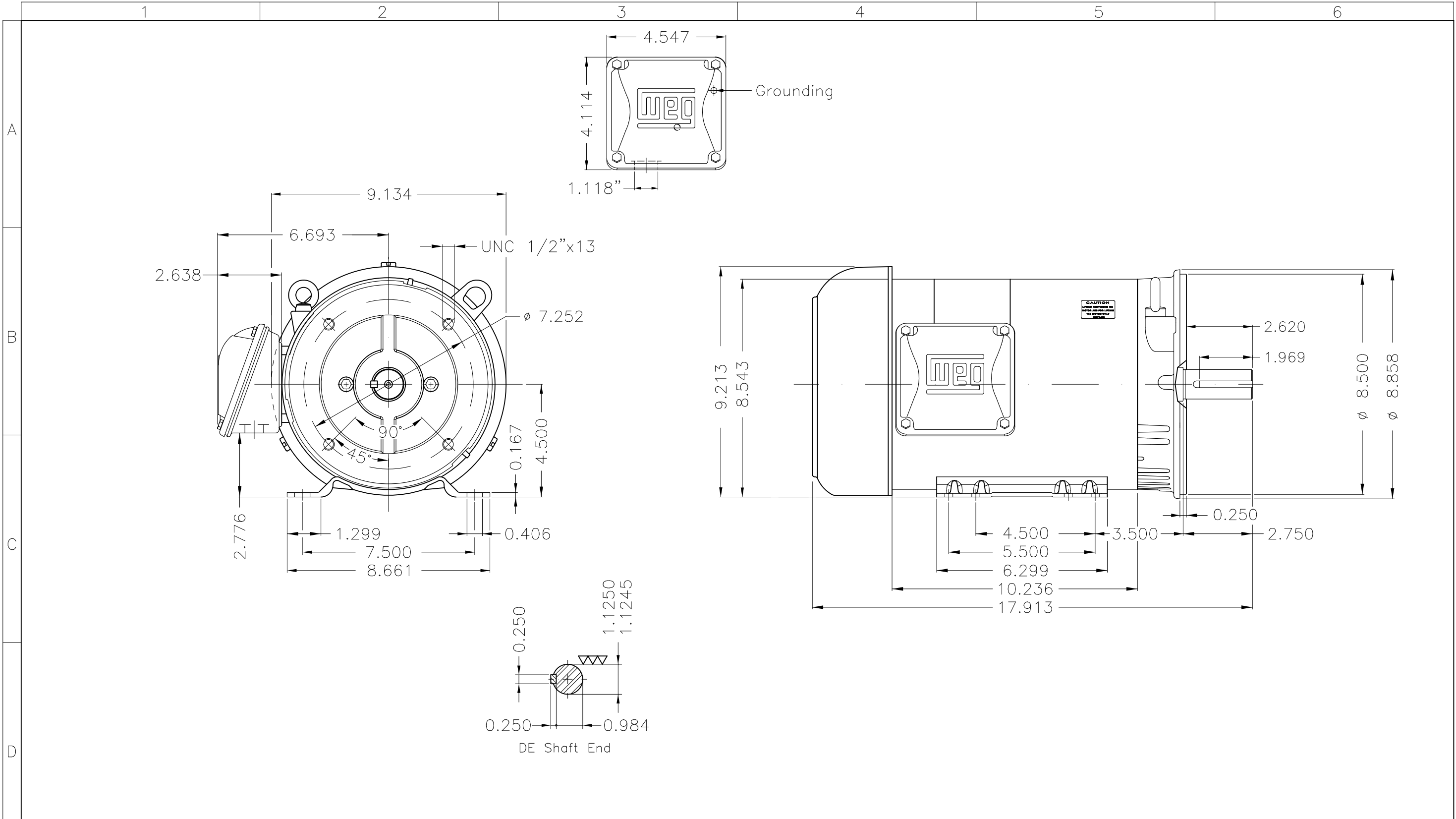
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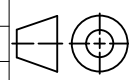

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A  
B  
C  
D  
E

Dimensions in inches XME A3

Color Munsell N 1 matte black										
Painting plan 207N										
Mounting F-1/B34R(D)										
					USERADMIN	00				
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER	
EXECUTED	USERADMIN	 THREE PH. MOTOR ROLLED STEEL NEMA PREM. EFF. FRAME 182/4TC IP55 TEFC			<b>PREVIEW</b> WDD   00					
CHECKED					SHEET				1 / 1	
RELEASED										
REL. DATE		WMO	Jaragua do Sul	Product Engineering						

5 HP 04 Poles 60 Hz

A



**NEMA**  
**Premium**



3PT9



Energy Verified

MADE IN MEXICO

**MAT: 12675365 CC029A**

**W01.TE0IC0X0N**

**MODEL 00518ET3E184TC-S**

For 60Hz: Class I, Zone 2, IIC  
Class I, Div.2, Gr. A,B,C,D - T3  
DIP 2 Inverter Duty (SF1.00)

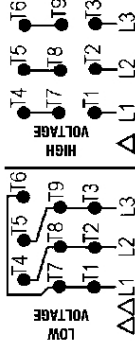
CT 2:1/VT 1000:1

PH 3	Hz 60	HP 5.0
FR 182/4TC		KW 3.7
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 13.0/6.49
INS CL F AT 80K	IP55	SFA 14.9/7.46
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE J	PF 0.80
		RPM 1750
		NEMA NOM. EFF 89.5%

ALTERNATE RATING: 5.0HP	50Hz	190-220/380-415V	SF1.00
15.8-14.17.88-7.47A	1425RPM	EFF 84.9%	(IE1) IEC 60034-1

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 4:1 CT

DE 6206-ZZ	ODE 6205-ZZ	MOBIL POLYREX EM
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T1-BLU	T2-WHT
T3-ORG	T4-YEL
T5-BLK	T6-GRY
T7-PNK	T8-RED
T9-RED BRK	

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

**WARNING:** Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.



**AVERTISSEMENT:** Le moteur doit être mis à la terre conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

