

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		:	
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	13472062
		Catalog # :	01012ET3ER256TC-S
Frame	: 254/6TC	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: W-6
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	: 256 lb
Protection degree	: IP55	Moment of inertia (J)	: 2.83 sq.ft.lb
Design	: B		
Output [HP]	10	7.5	7.5
Poles	6	6	6
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	27.6/13.8	25.0/12.5	23.4/12.4
L. R. Amperes [A]	149/74.5	138/68.7	140/74.4
LRC [A]	5.4x(Code G)	5.5x(Code G)	6.0x(Code H)
No load current [A]	14.2/7.12	14.1/7.03	14.3/7.56
Rated speed [RPM]	1175	975	980
Slip [%]	2.08	2.50	2.00
Rated torque [ft.lb]	44.7	40.4	40.2
Locked rotor torque [%]	210	210	250
Breakdown torque [%]	229	250	280
Service factor	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K
Locked rotor time	54s (cold) 30s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	59.0 dB(A)	57.0 dB(A)	57.0 dB(A)
Efficiency (%)	25%	90.0	89.5
	50%	90.2	89.5
	75%	91.0	90.5
	100%	91.0	90.2
Power Factor	25%	0.33	0.31
	50%	0.57	0.54
	75%	0.69	0.66
	100%	0.75	0.74
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 411 lb
		Max. compression	: 668 lb
Lubrication interval	: 19702 h 20000 h		
Lubricant amount	: 13 g 8 g		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 30.5A SF 1.00 SFA 30.5A			
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



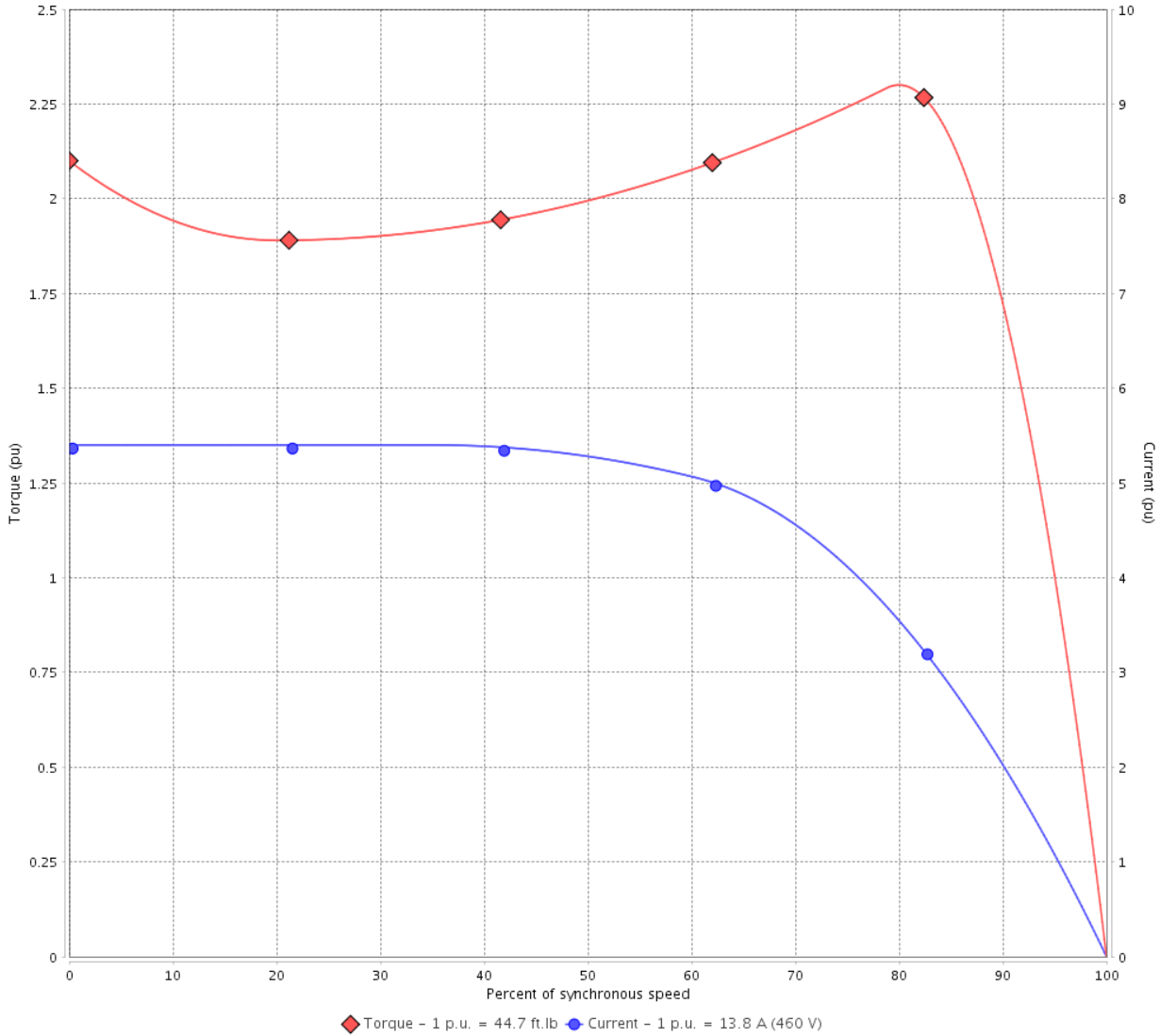
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13472062

Catalog # : 01012ET3ER256TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 27.6/13.8 A	Moment of inertia (J)	: 2.83 sq.ft.lb
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 44.7 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Locked rotor time : 54s (cold) 30s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



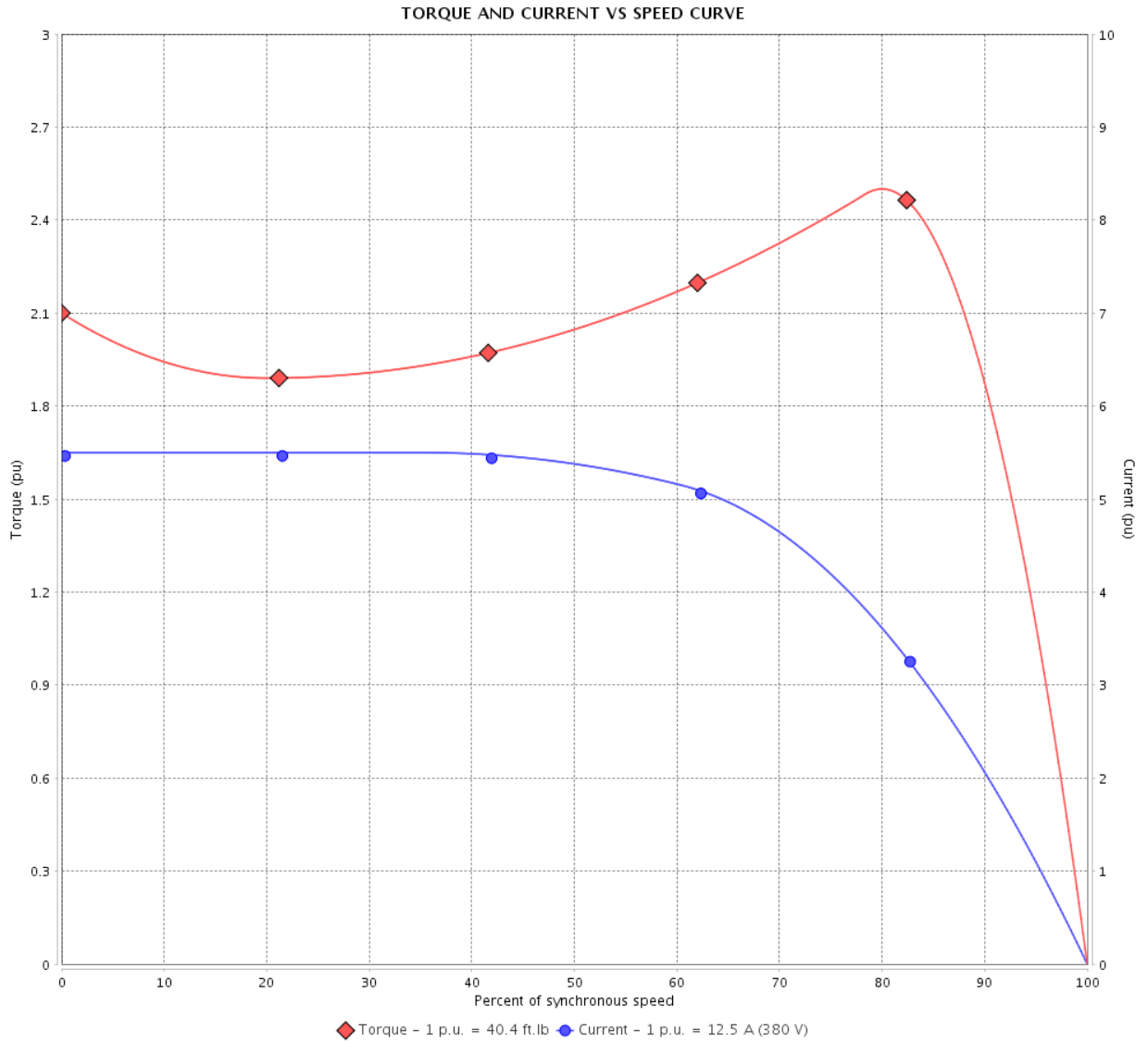
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13472062

Catalog # : 01012ET3ER256TC-S



Performance : 190/380 V 50 Hz 6P

Rated current : 25.0/12.5 A
 LRC : 5.5
 Rated torque : 40.4 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 250 %
 Rated speed : 975 rpm

Moment of inertia (J) : 2.83 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 0s (cold) 0s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



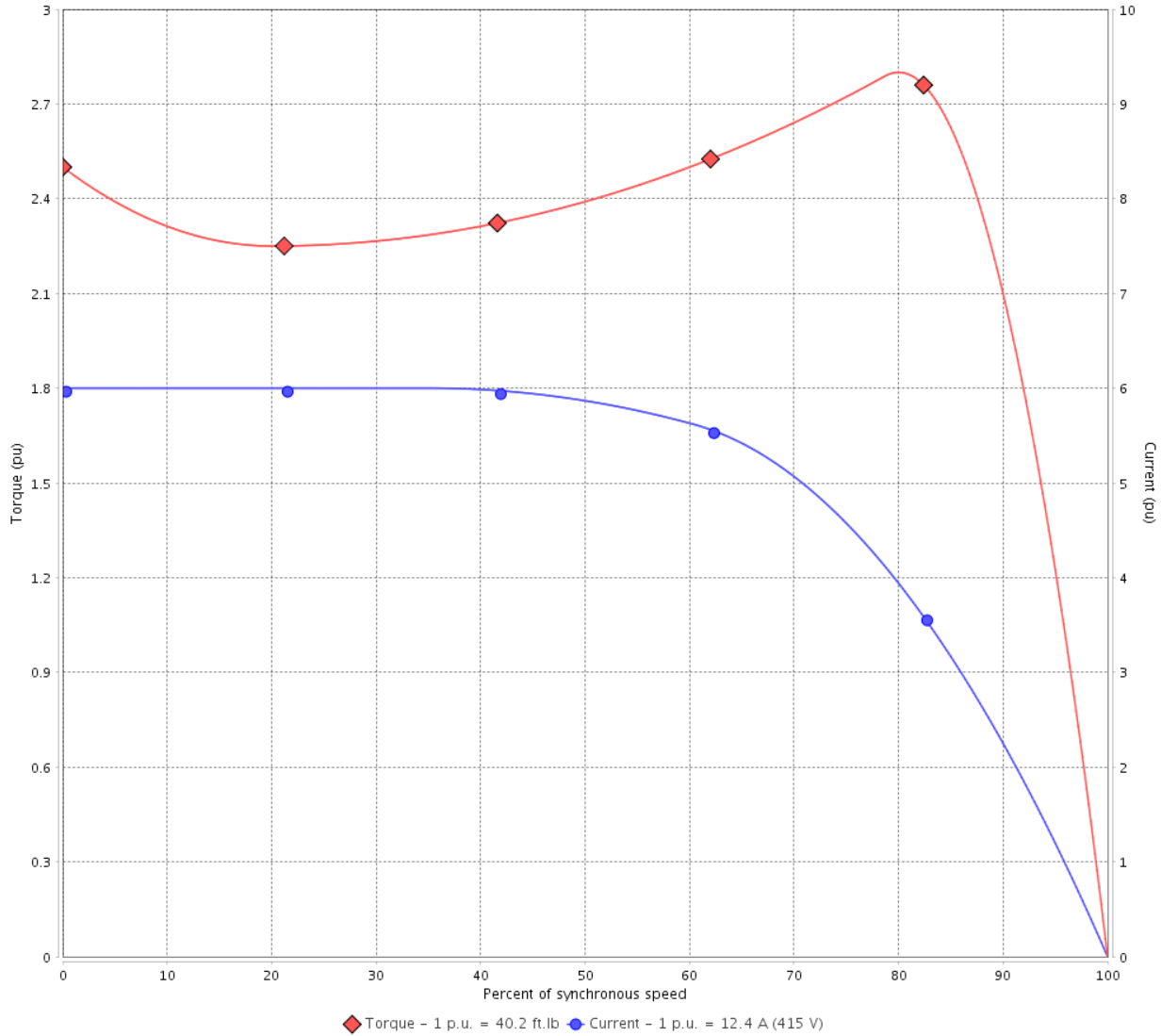
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13472062

Catalog # : 01012ET3ER256TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 23.4/12.4 A	Moment of inertia (J)	: 2.83 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 40.2 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

Locked rotor time : 0s (cold) 0s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

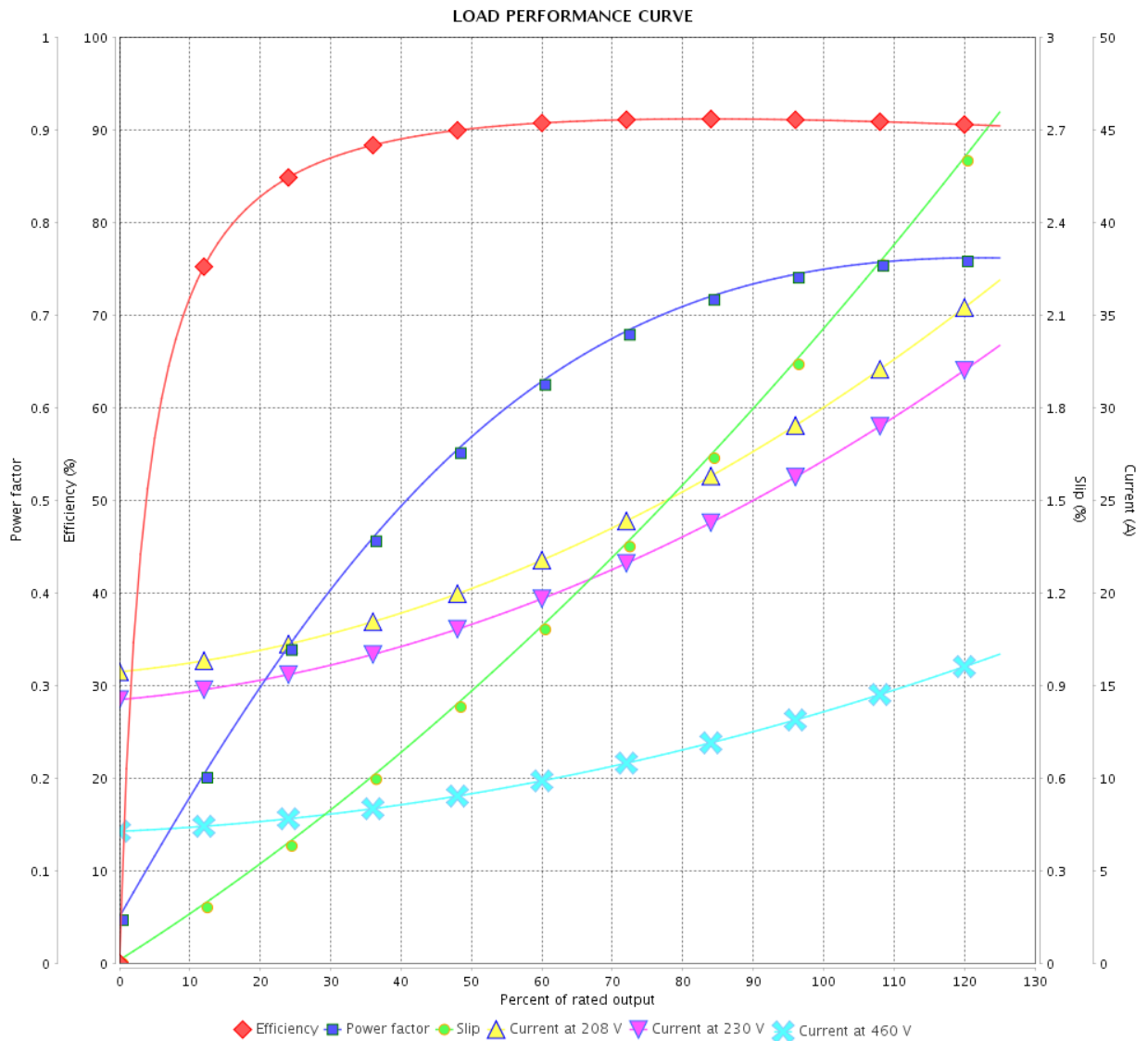


Customer :

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Performance : 230/460 V 60 Hz 6P

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 Breakdown torque : 229 %
 Rated speed : 1175 rpm

Moment of inertia (J) : 2.83 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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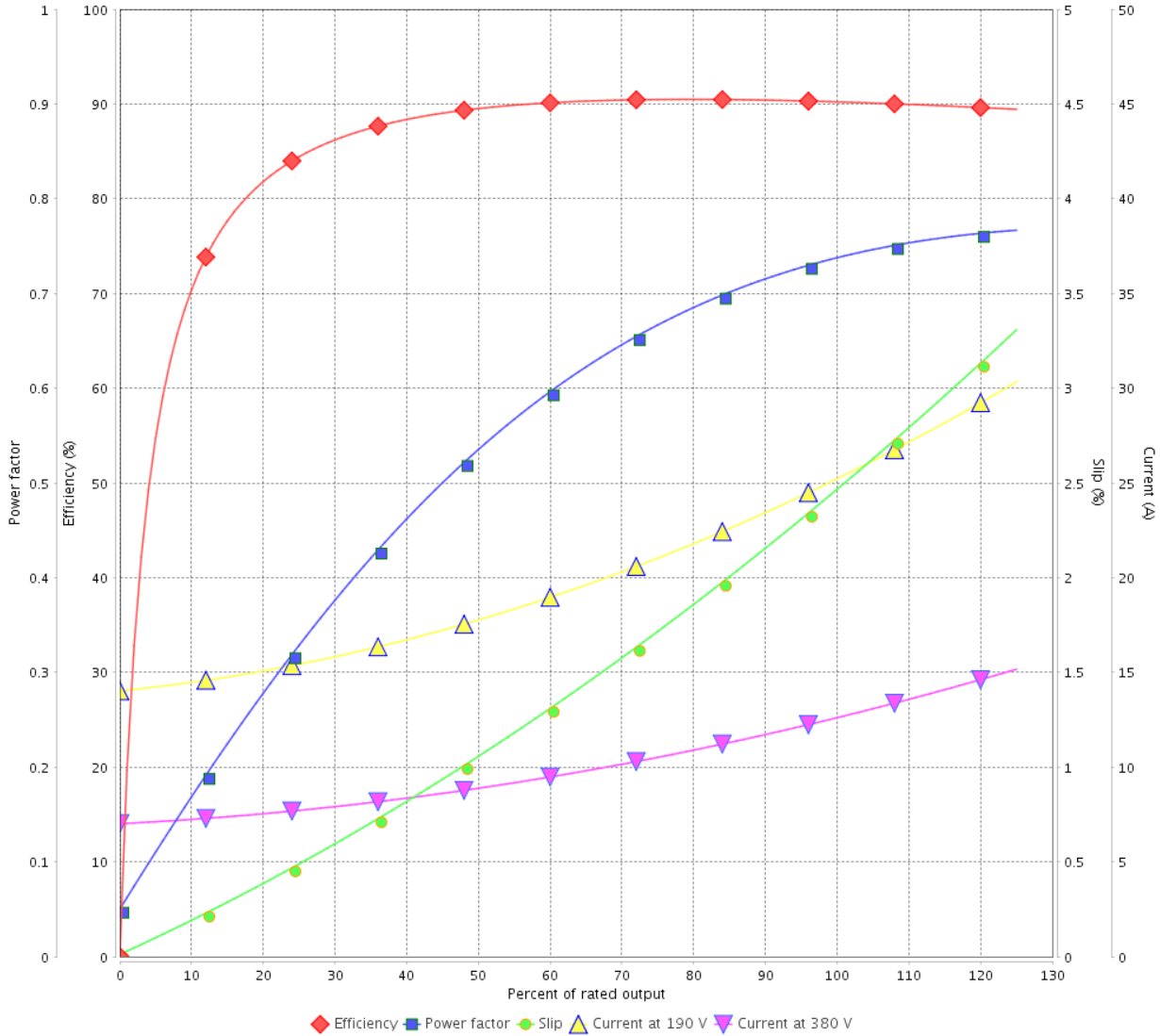
Customer :

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Product code : 13472062

Catalog # : 01012ET3ER256TC-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 25.0/12.5 A
 LRC : 5.5
 Rated torque : 40.4 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 250 %
 Rated speed : 975 rpm

Moment of inertia (J) : 2.83 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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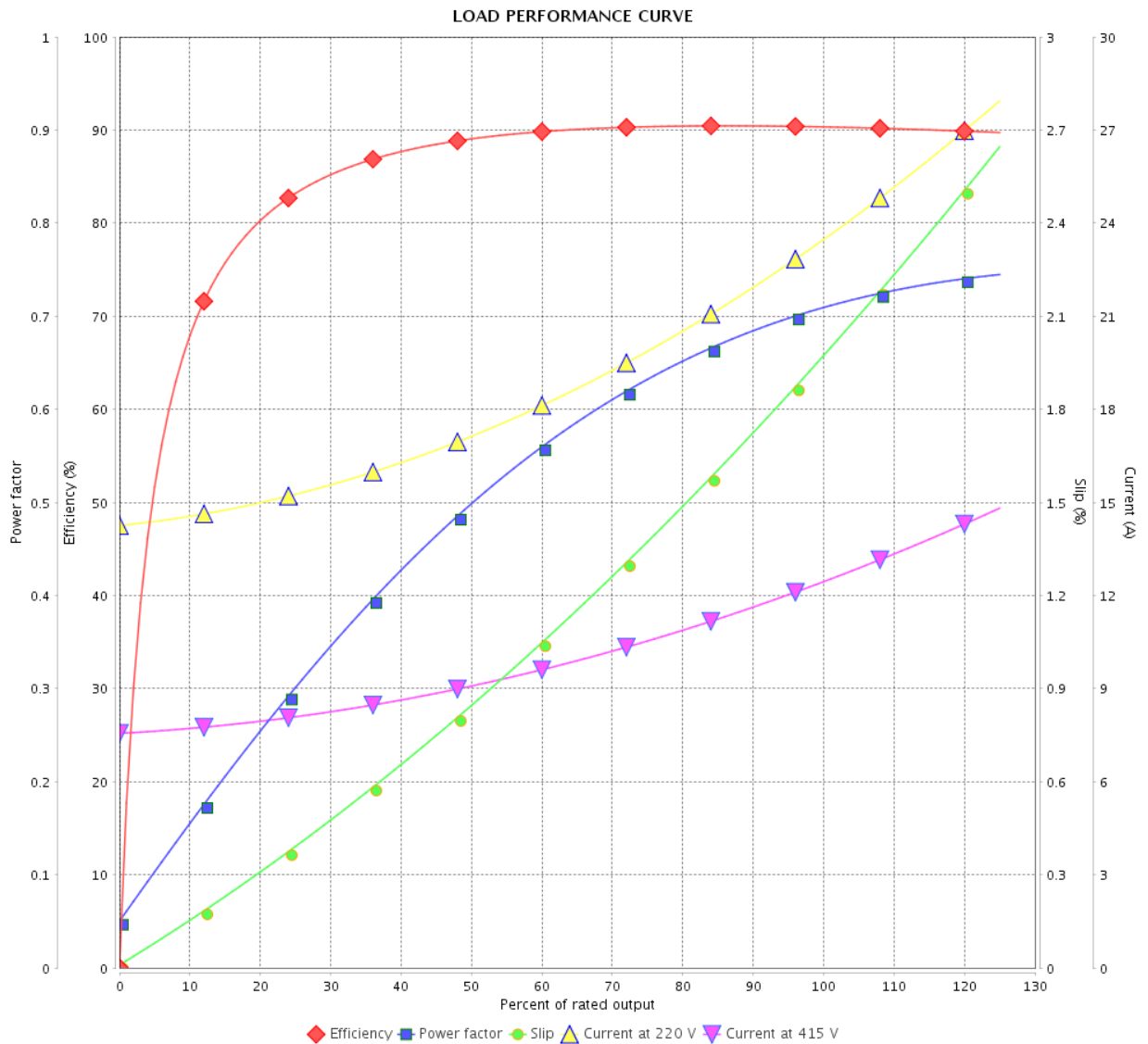


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13472062

Catalog # : 01012ET3ER256TC-S



Performance : 220/415 V 50 Hz 6P

Rated current : 23.4/12.4 A
 LRC : 6.0
 Rated torque : 40.2 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 980 rpm

Moment of inertia (J) : 2.83 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE

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Performance : 230/460 V 60 Hz 6P

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LRC : 5.4	Duty cycle : Cont.(S1)
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Locked rotor torque : 210 %	Service factor : 1.15
Breakdown torque : 229 %	Temperature rise : 80 K
Rated speed : 1175 rpm	Design : B

Heating constant

Cooling constant

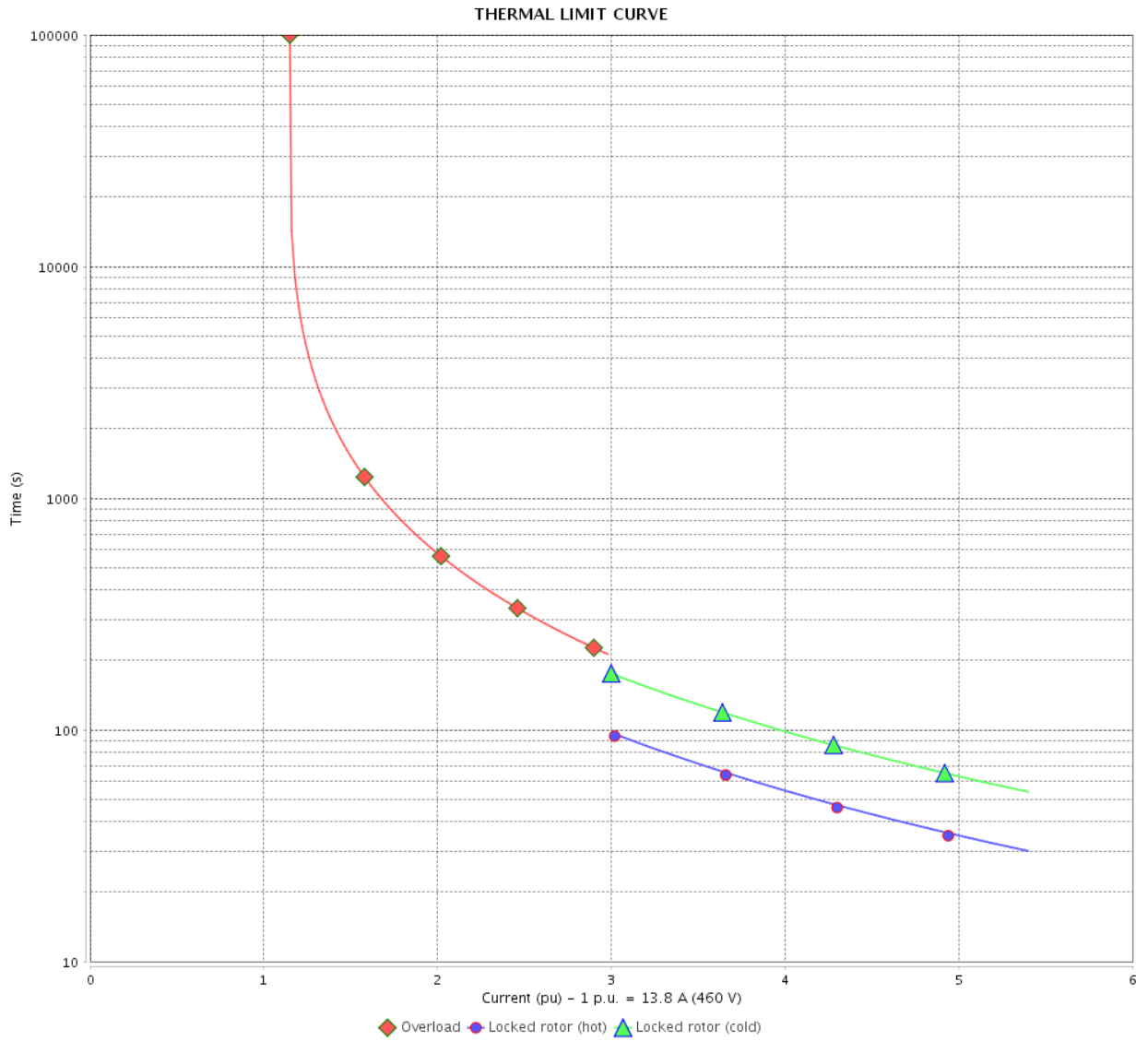
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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THERMAL LIMIT CURVE



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Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 13472062
 Catalog # : 01012ET3ER256TC-S

Performance : 190/380 V 50 Hz 6P

Rated current : 25.0/12.5 A	Moment of inertia (J) : 2.83 sq.ft.lb
LRC : 5.5	Duty cycle : Cont.(S1)
Rated torque : 40.4 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.15
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 975 rpm	Design : B

Heating constant

Cooling constant

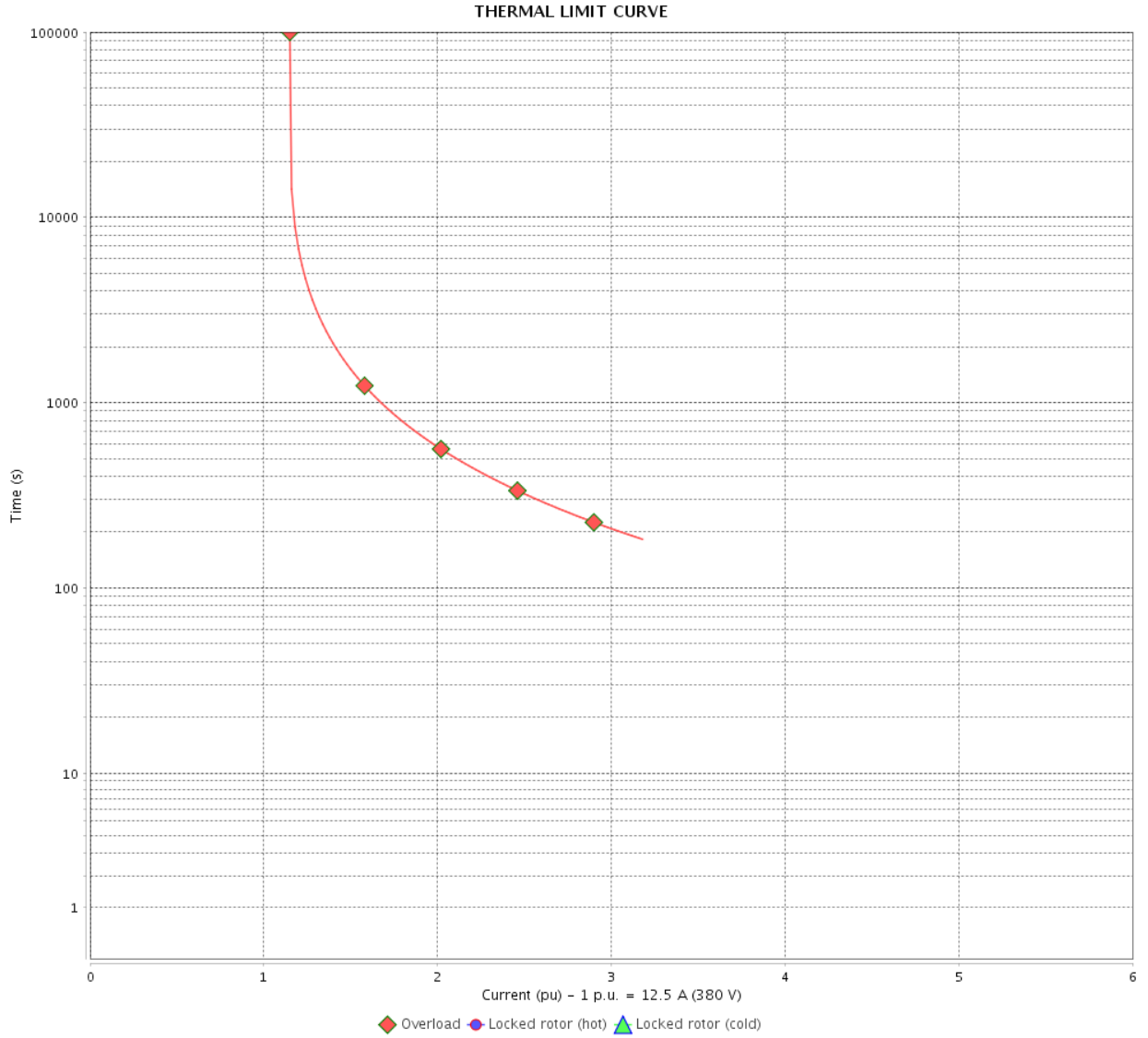
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



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Customer :

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Catalog # : 01012ET3ER256TC-S

Performance : 220/415 V 50 Hz 6P

Rated current	: 23.4/12.4 A	Moment of inertia (J)	: 2.83 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 40.2 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

Heating constant

Cooling constant

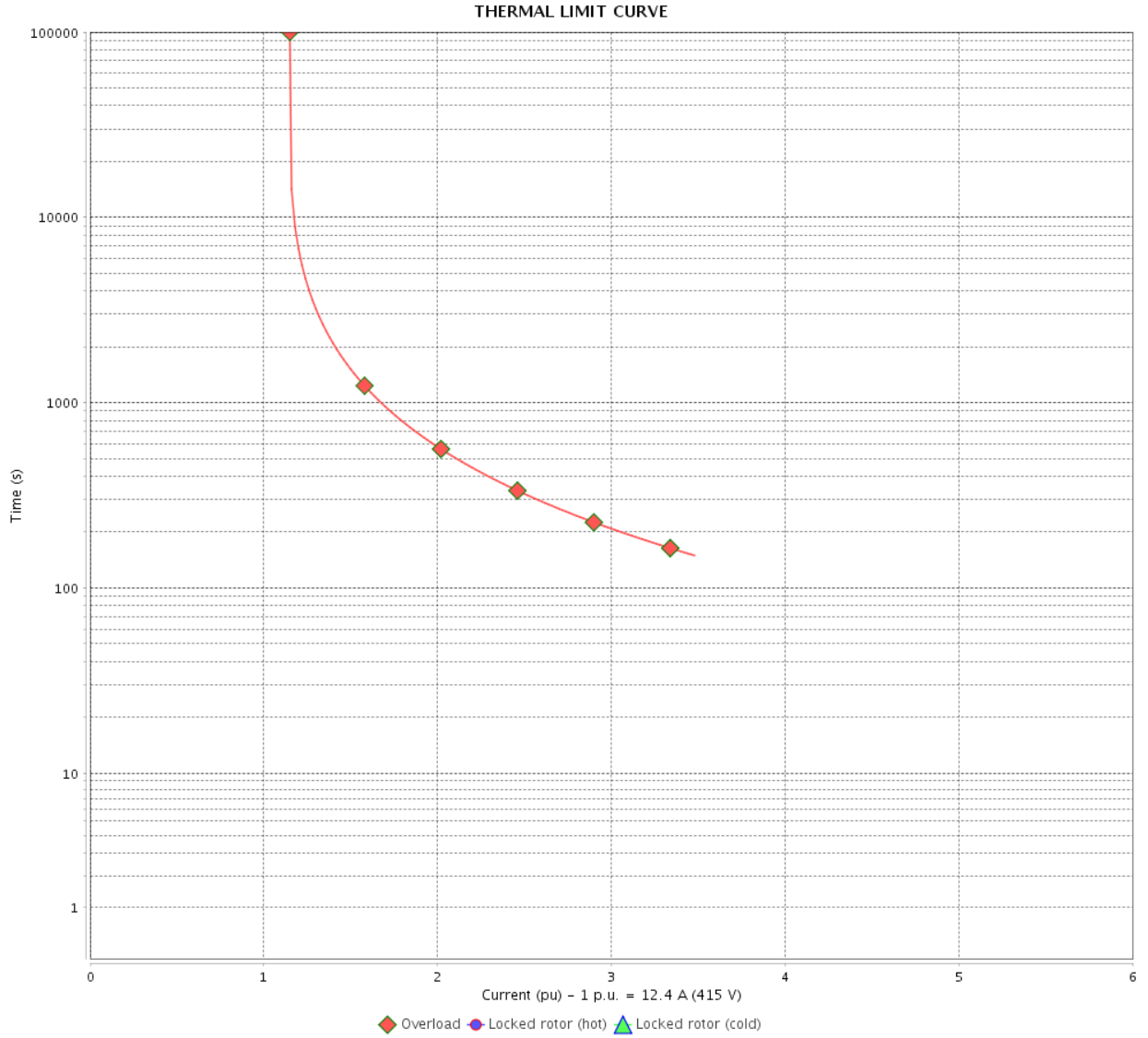
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



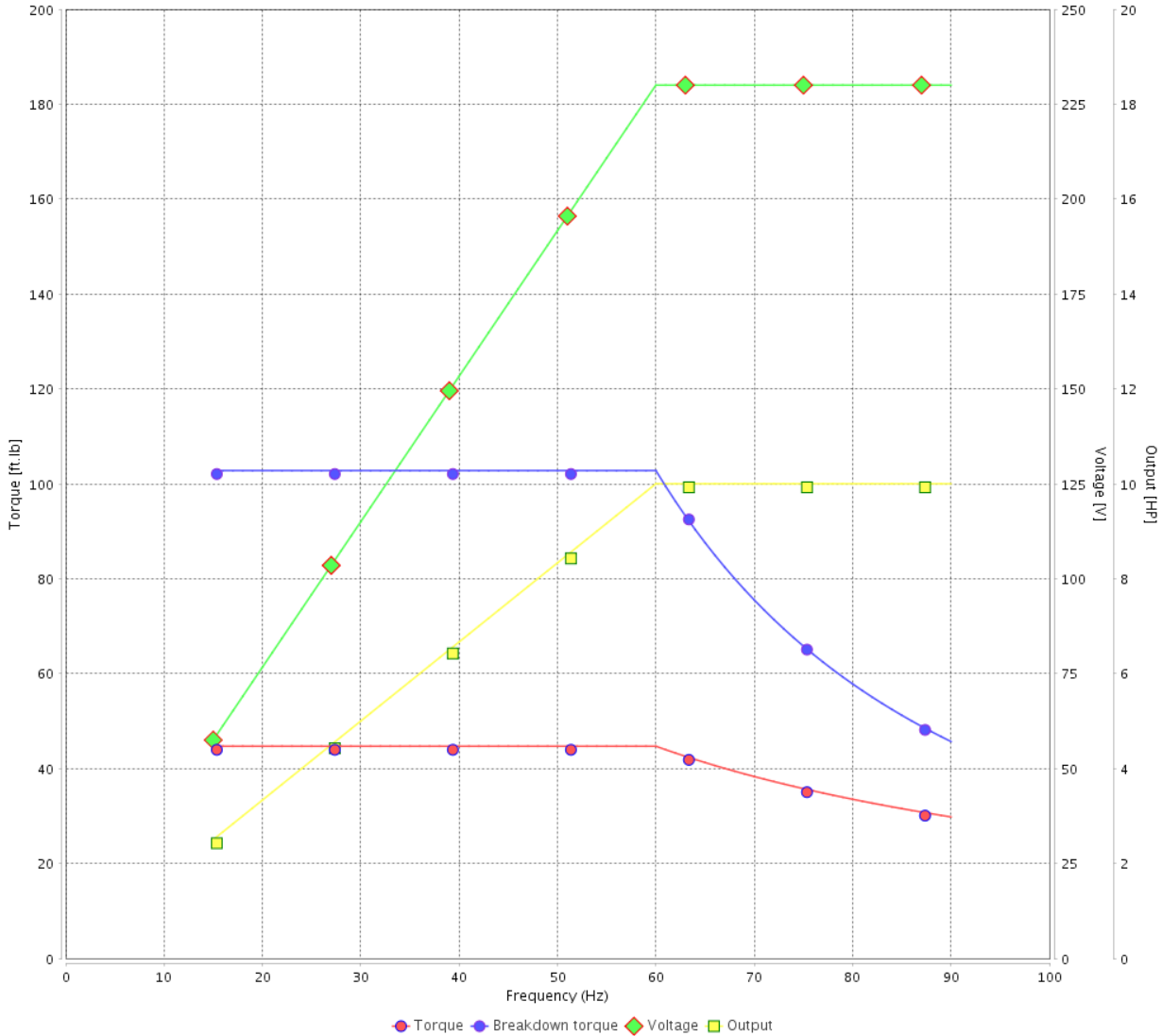
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Product line : NEMA Premium Efficiency Three-Phase

Product code : 13472062

Catalog # : 01012ET3ER256TC-S

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 27.6/13.8 A
 LRC : 5.4
 Rated torque : 44.7 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 229 %
 Rated speed : 1175 rpm

Moment of inertia (J) : 2.83 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

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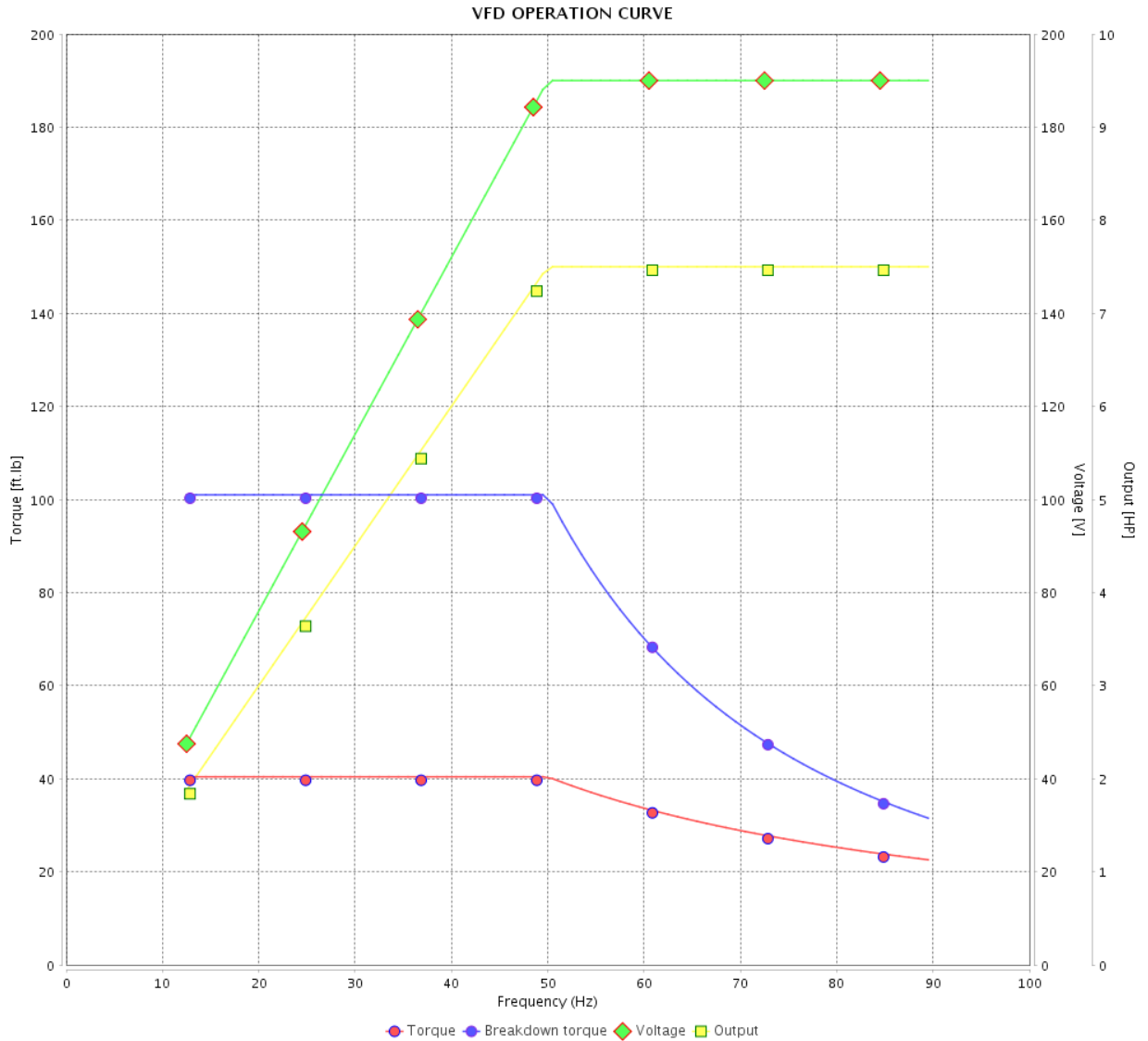


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 Rated speed : 975 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



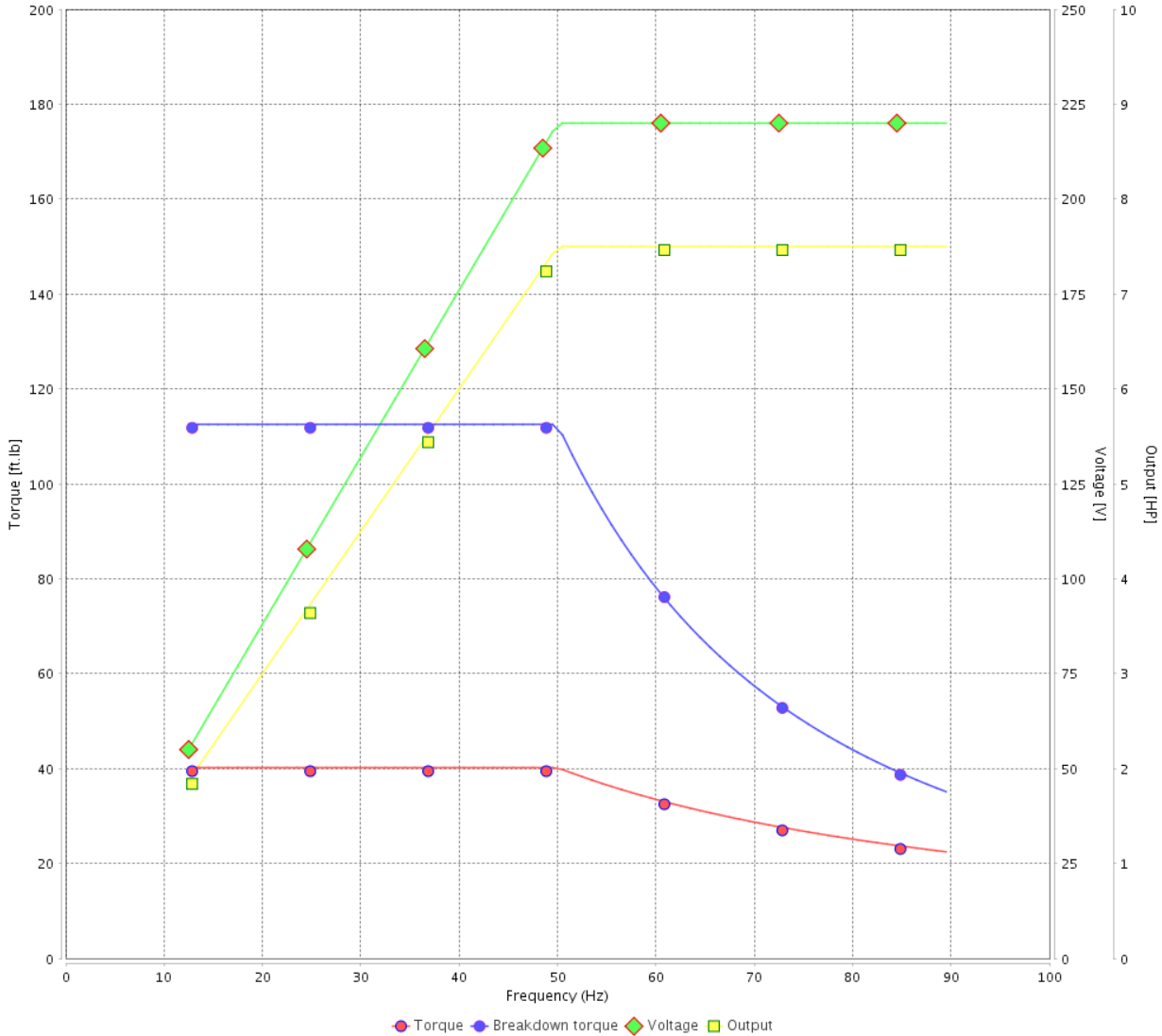
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VFD OPERATION CURVE



Performance : 220/415 V 50 Hz 6P

Rated current : 23.4/12.4 A
 LRC : 6.0
 Rated torque : 40.2 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 980 rpm

Moment of inertia (J) : 2.83 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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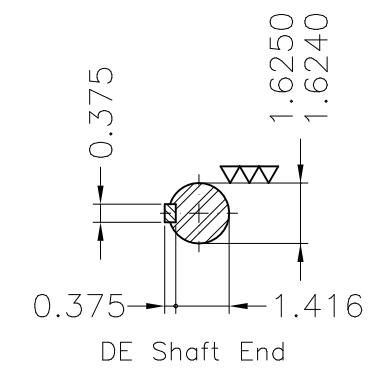
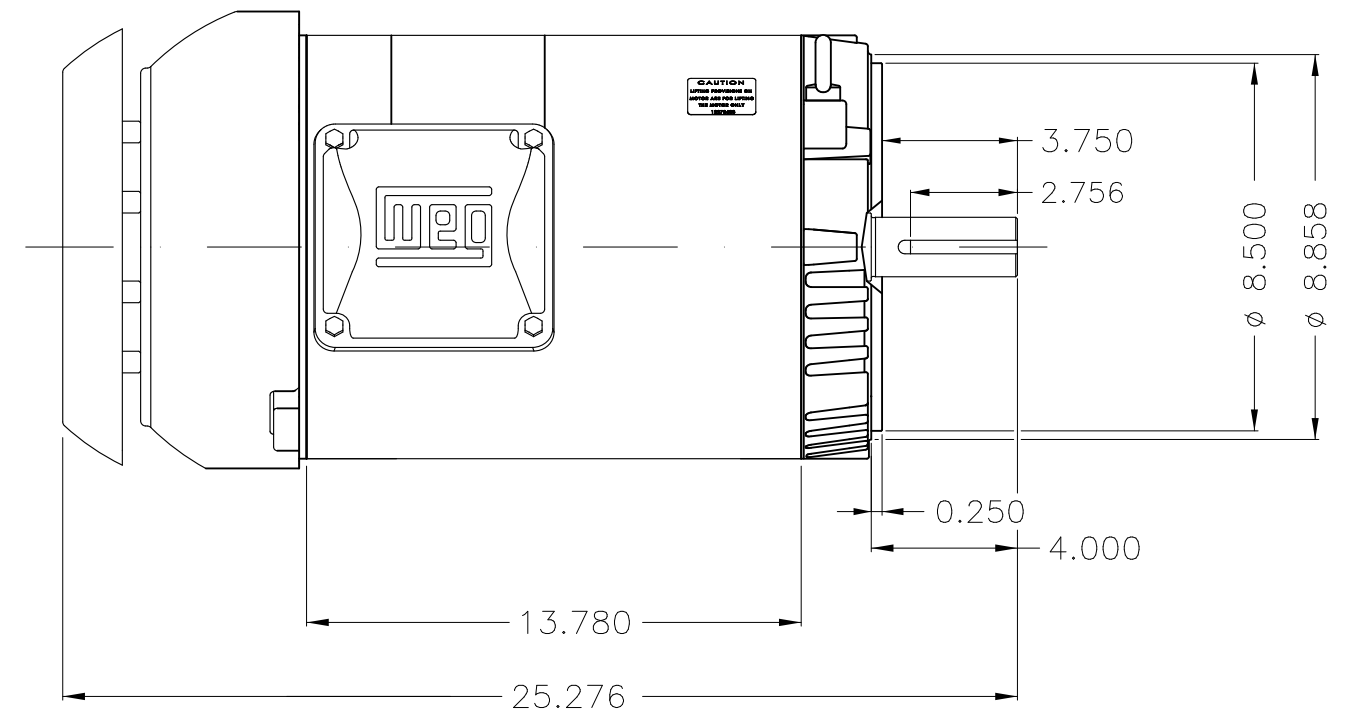
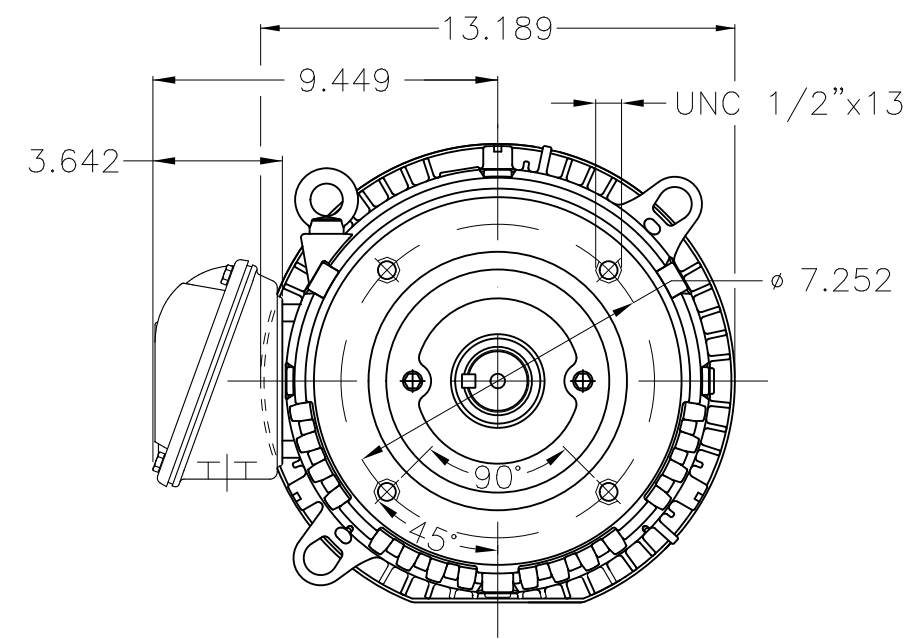
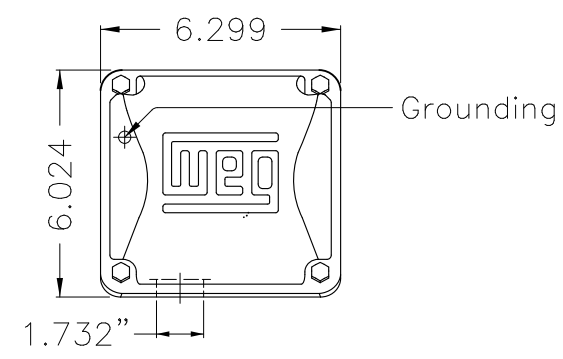
A

B


C

D

E



Dimensions in inches

Color Munsell N 1 matte black									
Painting plan 207N									
Mounting W-6/V18R(D)									
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.			PREVIEW	WDD	SHEET	1 / 1	
CHECKED		FRAME 254/6TC IP55 TEFC							
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering					

10 HP 06 Poles 60 Hz



NEMA
Premium



3PT9



Energy Verified

MADE IN MEXICO

MAT: 13472062 CC029A

W01.TE0IC0X0N

MODEL 01012ET3ER256TC-S

13MAI2021 S/N:

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

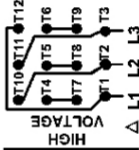
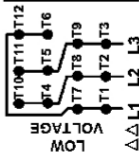
CT 2:1/VT 1000:1

PH 3	Hz 60	HP 10
FR 254/6TC		KW 7.5
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 27.6/13.8
INS CL F AT 80K	IP55	SFA 31.7/15.9
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE G	PF 0.75
USABLE @ 208V 30.5A		RPM 1175
SF1.00		NEMA
		NOM. EFF 91.0%

ALTERNATE RATING: 7.5HP 50Hz 190-220/380-415V SF1.15
25.0-23.4/12.5-12.4A 975RPM EFF 90.2% (IE3) IEC 60034-1

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

DE 6309-Z-C3	ODE 6208-Z-C3	MOBIL POLYREX EM	19702h
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T1-BLU T2-WHT
 T3-ORG T4-YEL
 T5-BLK T6-GRY
 T7-PNK T8-RED
 T9-BRK RED
 T10-CURRY
 T11-GRN T12-VLT

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.

