

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase Product code : 14122316
Catalog # : 02018ET3E256TC-S

Frame	: 254/6TC	Locked rotor time	: 28s (cold) 16s (hot)
Output	: 20 HP (15 kW)	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 49.4/24.7 A	Protection degree	: IP55
L. R. Amperes	: 331/165 A	Cooling method	: IC411 - TEFC
LRC	: 6.7x(Code H)	Mounting	: W-6
No load current	: 22.2/11.1 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1765 rpm	Noise level ²	: 68.0 dB(A)
Slip	: 1.94 %	Starting method	: Direct On Line
Rated torque	: 59.5 ft.lb	Approx. weight ³	: 254 lb
Locked rotor torque	: 270 %		
Breakdown torque	: 300 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 2.64 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	91.0	91.7	92.4	93.0	Max. traction	: 729 lb
Power Factor	0.40	0.66	0.77	0.82	Max. compression	: 983 lb

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type	: 6309 Z C3	6208 Z C3
Sealing	: V'Ring	V'Ring
Lubrication interval	: 14395 h	16660 h
Lubricant amount	: 13 g	8 g
Lubricant type	: Mobil Polyrex EM	

Notes
USABLE @208V 54.6A SF 1.00 SFA 54.6A

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

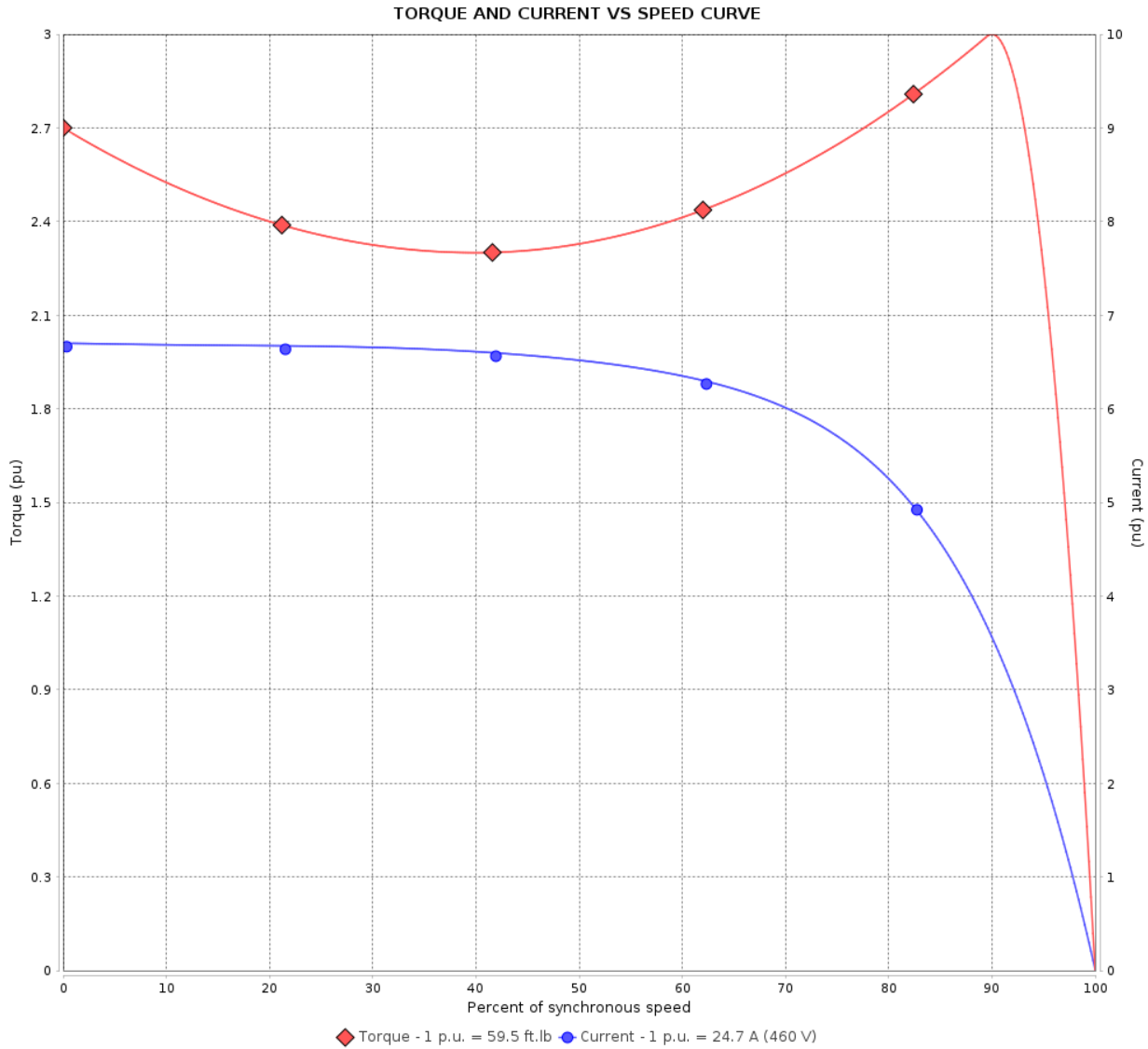


Customer :

Product line : Rolled Steel NEMA Premium Efficiency
Three-Phase

Product code : 14122316

Catalog # : 02018ET3E256TC-S



Performance : 230/460 V 60 Hz 4P

Rated current	: 49.4/24.7 A	Moment of inertia (J)	: 2.64 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 59.5 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

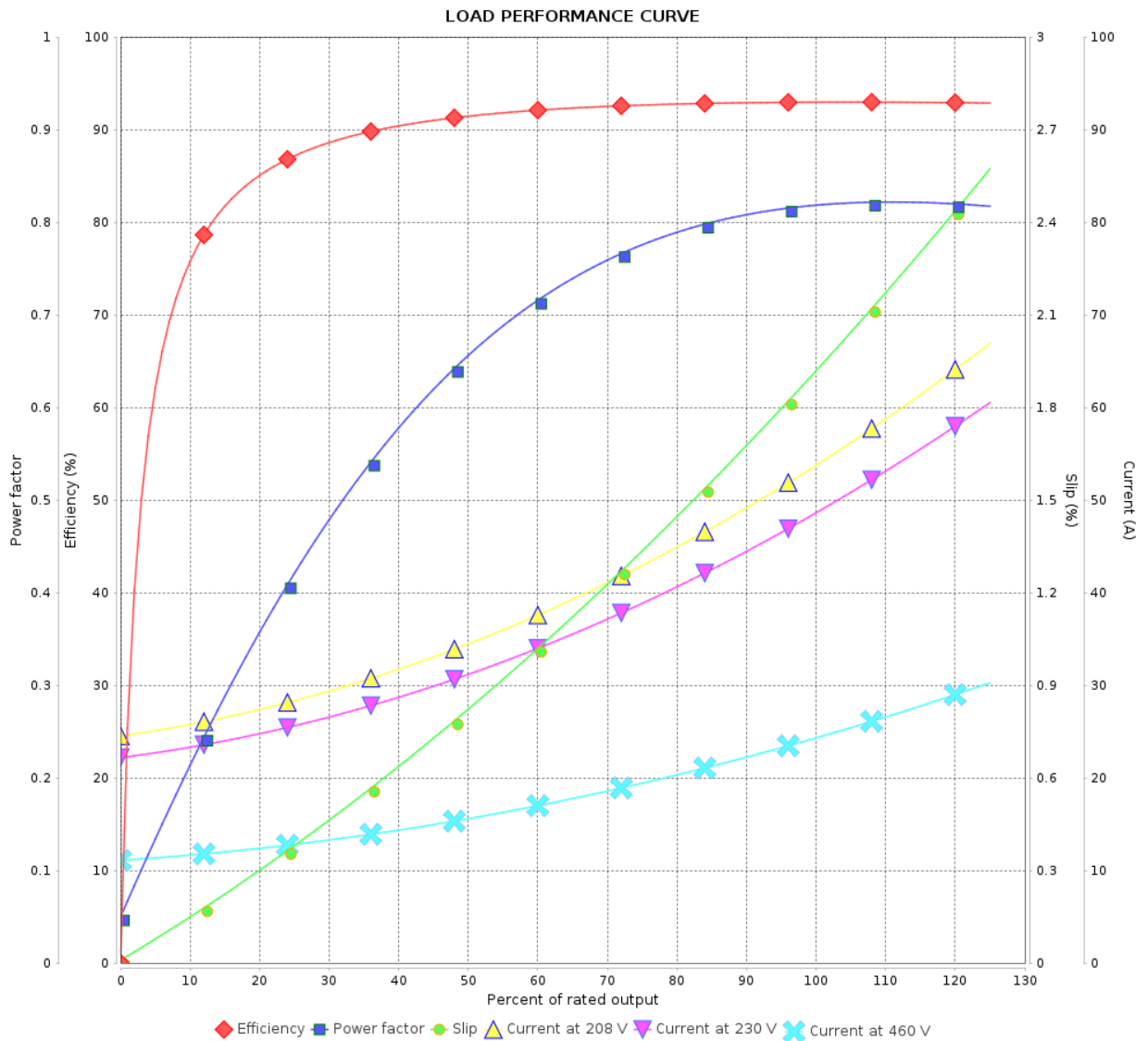


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THERMAL LIMIT CURVE

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Duty cycle : Cont.(S1)
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Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

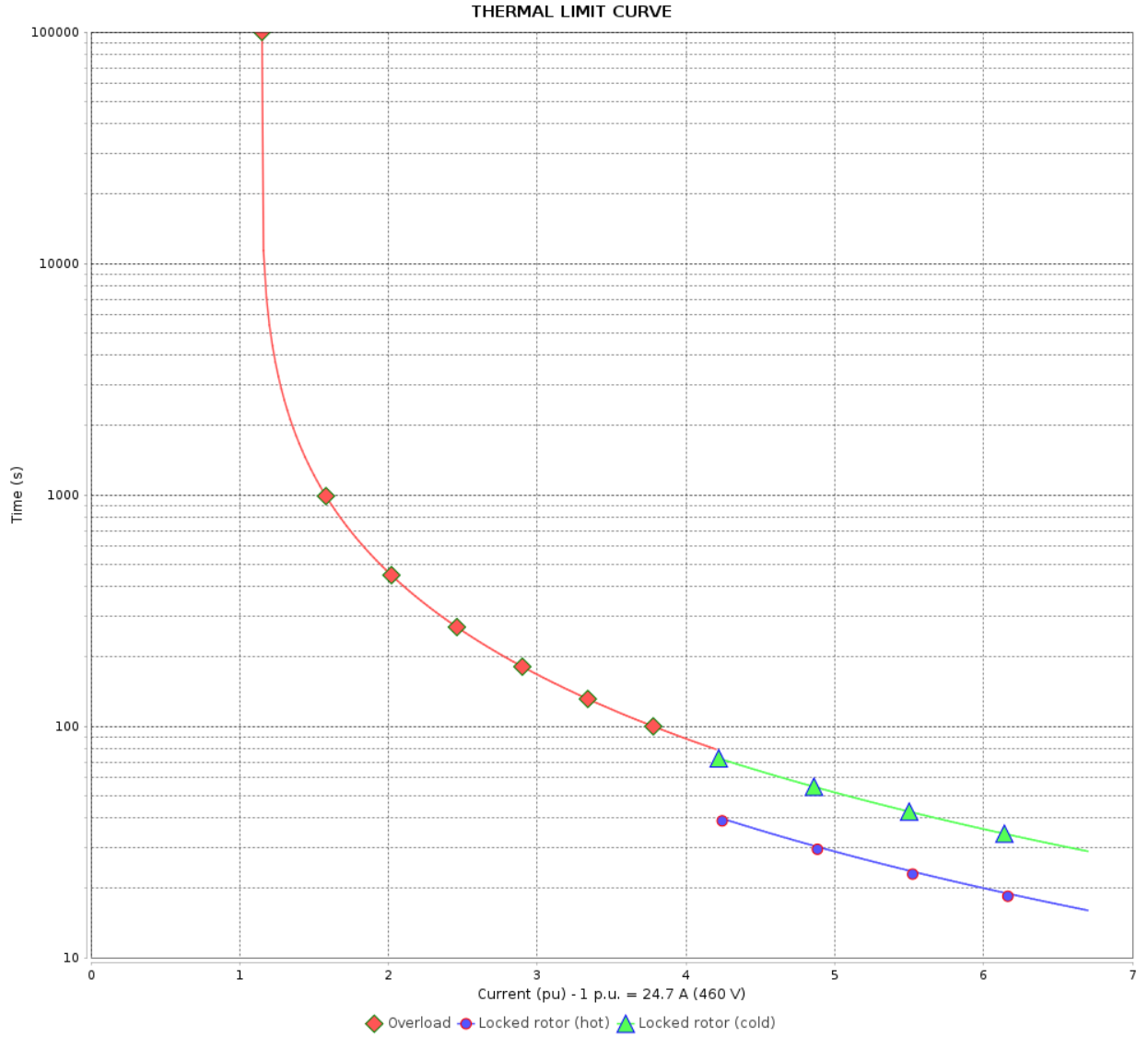
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

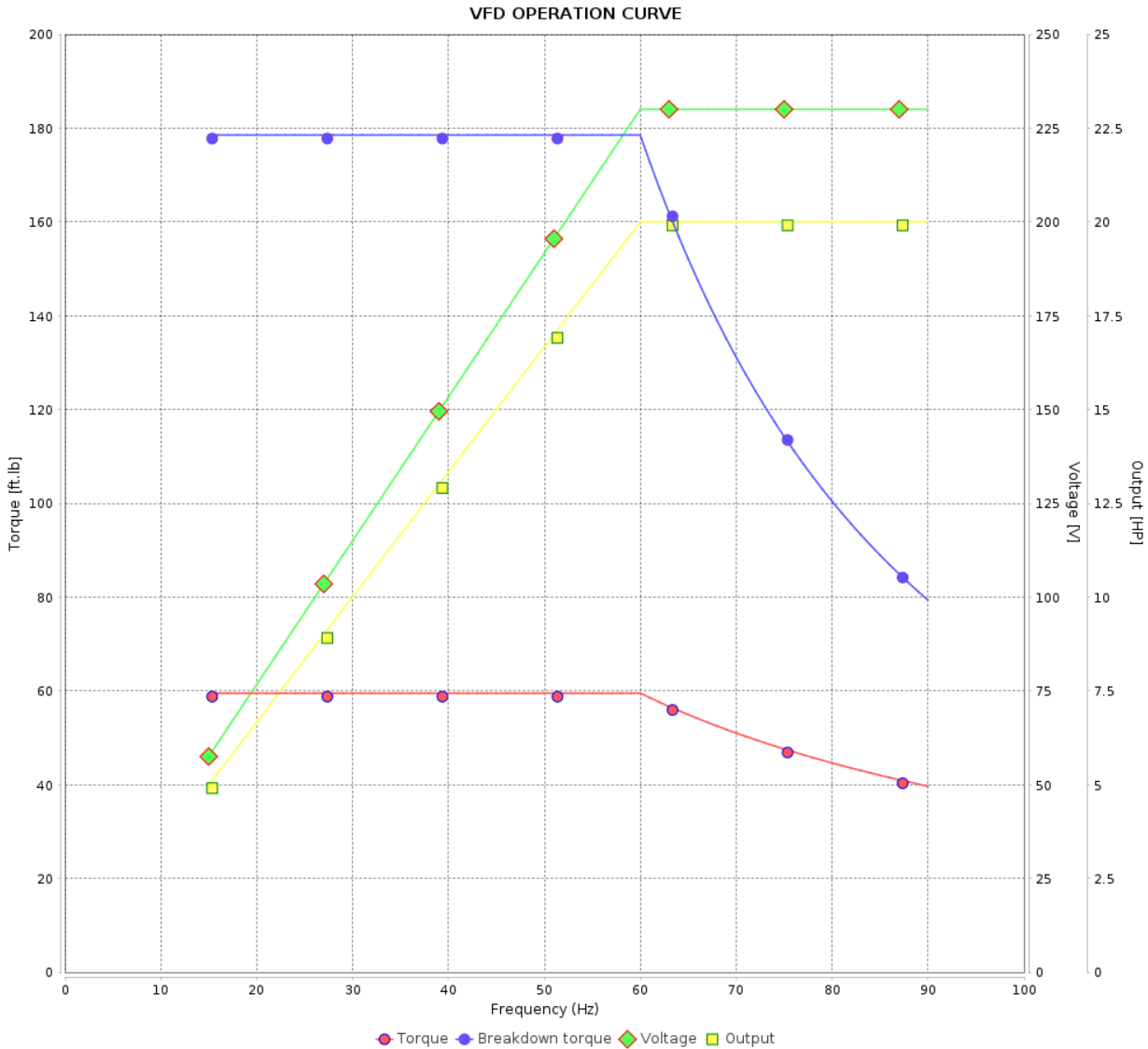


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Three-Phase

Product code : 14122316

Catalog # : 02018ET3E256TC-S



Performance : 230/460 V 60 Hz 4P

Rated current : 49.4/24.7 A
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 Rated torque : 59.5 ft.lb
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Moment of inertia (J) : 2.64 sq.ft.lb
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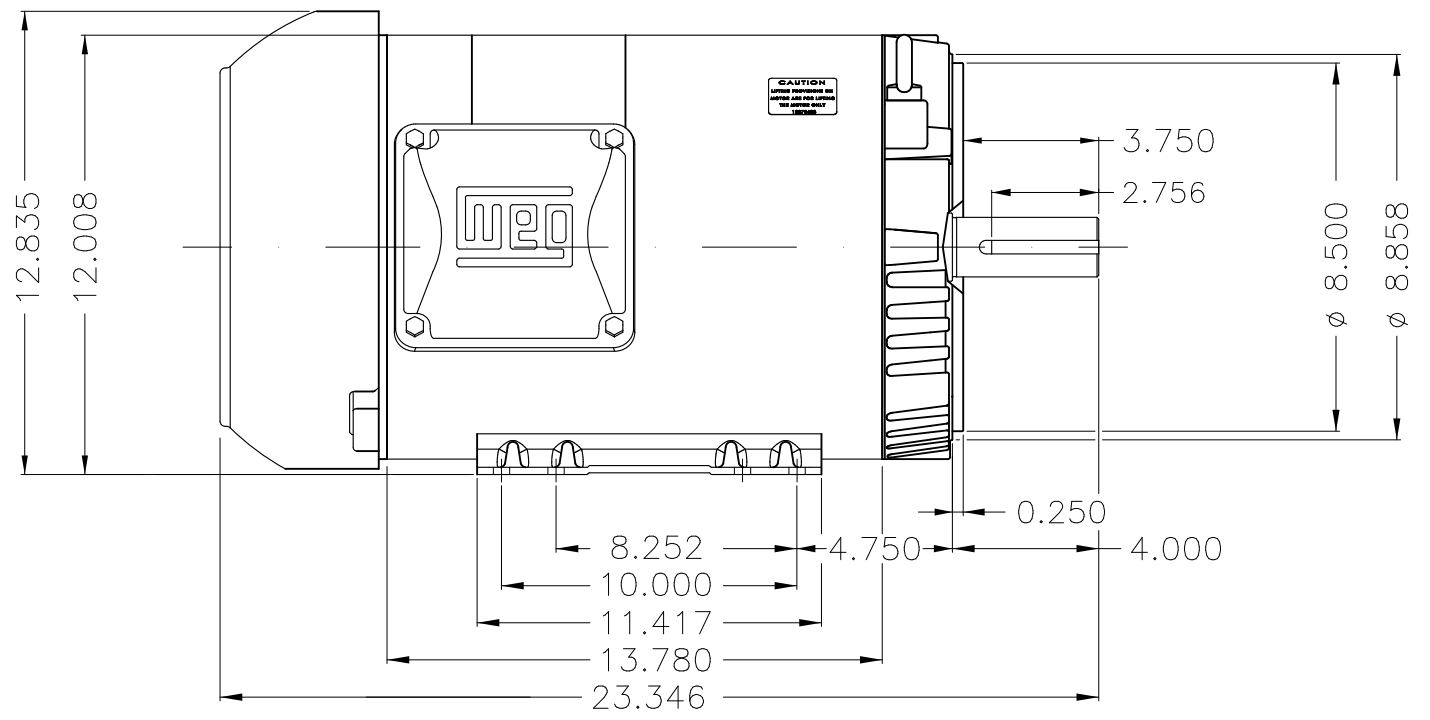
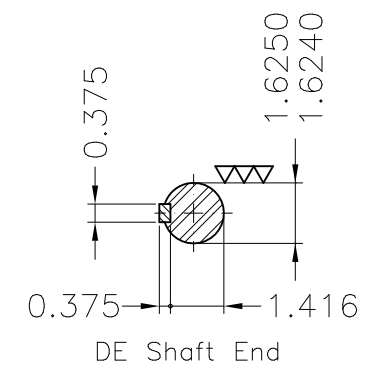
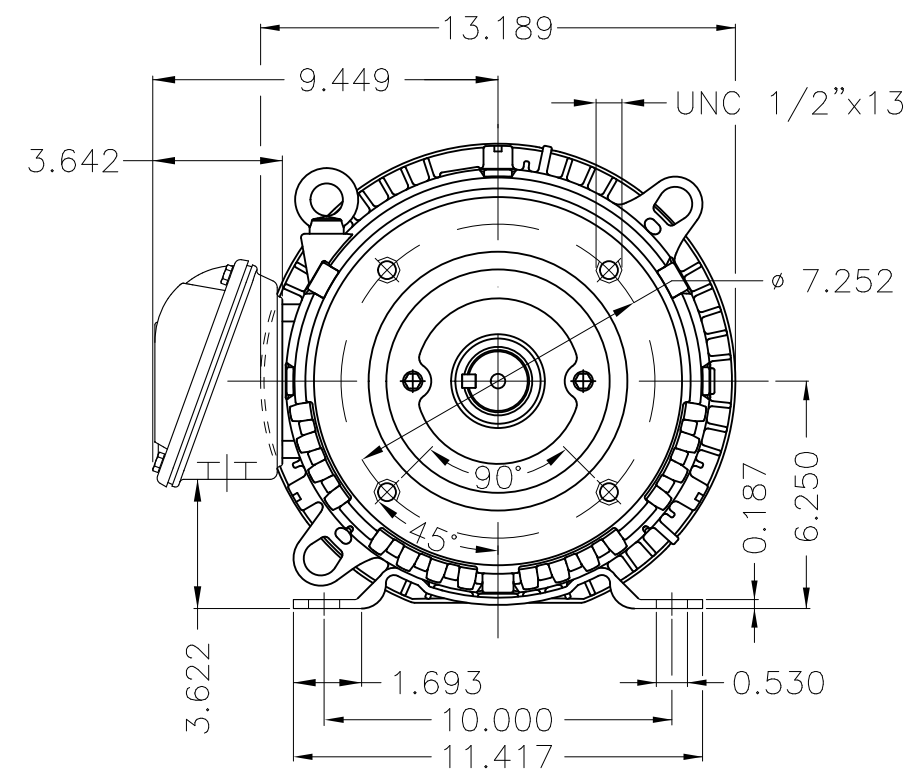
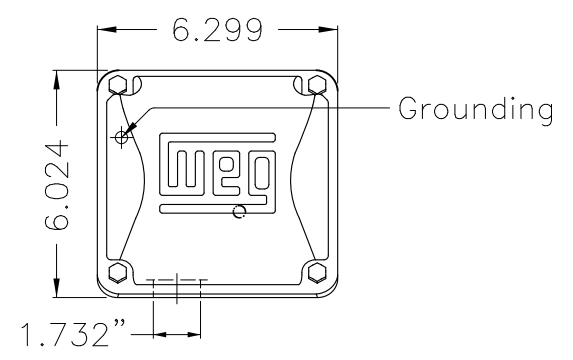
A

B

C

D

E



NDE sealing - V ring										
Color Munsell N 1 matte black										
Painting plan 207N										
Mounting W-6/V17R(D)										
					USERADMIN					
ECM		LOC		SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE
EXECUTED		USERADMIN		THREE PH. MOTOR ROLLED STEEL NEMA PREM. EFF.			EXECUTED	CHECKED	RELEASED	DATE
CHECKED				FRAME 254/6TC IP55 TEFC			EXECUTED	CHECKED	RELEASED	DATE
RELEASED							EXECUTED	CHECKED	RELEASED	DATE
REL. DATE		WMO		Jaragua do Sul			Product Engineering	SHEET	1 / 1	VER
							PREVIEW		00	00
							WDD		00	00
							SHEET		1 / 1	00

20 HP 04 Poles 60 Hz

A

Dimensions in inches XME A3





NEMA
Premium



3PT9

US LISTED



US

Energy Verified

MADE IN MEXICO

MAT: 14122316 CC029A

W01.TE0IC0X0N

MODEL 02018ET3E256TC-S

26OCT2023 S/N:

For 60Hz: Class I, Zone 2, IIC

Class I, Div.2, Gr. A,B,C,D - T3

Class II, Div.2, Gr. F,G - T4

Div 2 Inverter Duty (SF1.00)

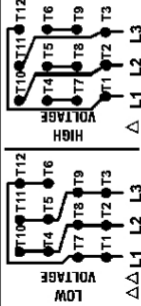
CT 2:1/VT 1000:1

PH 3	Hz 60	HP 20
FR 254/6TC		KW 15
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 49.4/24.7
INS CL F AT 80K	IP55	SFA 56.8/28.4
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE H	PF 0.82
		RPM 1765
		NEMA NOM. EFF 93.0%

ALTERNATE RATING: 15HP	50Hz	190-220/380-415V	SF1.15
44.4-40.7/22.2-21.6A	1470RPM	EFF 91.8%	(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	14395h
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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.

