

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer : Automation Direct

Product line : Standard Efficiency Three-Phase

Product code : 14796940

Catalog # : .3318ES3E56C-S

Frame : 56C  
Output : 0.33 HP (0.25 kW)  
Poles : 4  
Frequency : 60 Hz  
Rated voltage : 208-230/460 V  
Rated current : 1.38-1.25/0.624 A  
L. R. Amperes : 9.80-8.86/4.43 A  
LRC : 7.1x(Code M)  
No load current : 0.810-0.940/0.470 A  
Rated speed : 1765 rpm  
Slip : 1.94 %  
Rated torque : 0.982 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 300 %  
Insulation class : F  
Service factor : 1.15  
Moment of inertia (J) : 0.0517 sq.ft.lb

Locked rotor time : 55s (cold) 31s (hot)  
Temperature rise : 80 K  
Duty cycle : Cont.(S1)  
Ambient temperature : -20°C to +40°C  
Altitude : 1000 m.a.s.l.  
Protection degree : IP55  
Cooling method : IC411 - TEFC  
Mounting : F-1  
Rotation<sup>1</sup> : Both (CW and CCW)  
Noise level<sup>2</sup> : 52.0 dB(A)  
Starting method : Direct On Line  
Approx. weight<sup>3</sup> : 20.4 lb

Output	25%	50%	75%	100%
Efficiency (%)	62.0	64.0	72.0	74.0
Power Factor	0.26	0.47	0.58	0.68

Foundation loads  
Max. traction : 27 lb  
Max. compression : 47 lb

	Drive end	Non drive end
Bearing type	: 6203 ZZ	: 6202 ZZ
Sealing	: V'Ring	: Without Bearing Seal
Lubrication interval	: -	: -
Lubricant amount	: -	: -
Lubricant type	: Mobil Polyrex EM	

Notes  
USABLE @208V SF 1.00

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 : Automation Direct

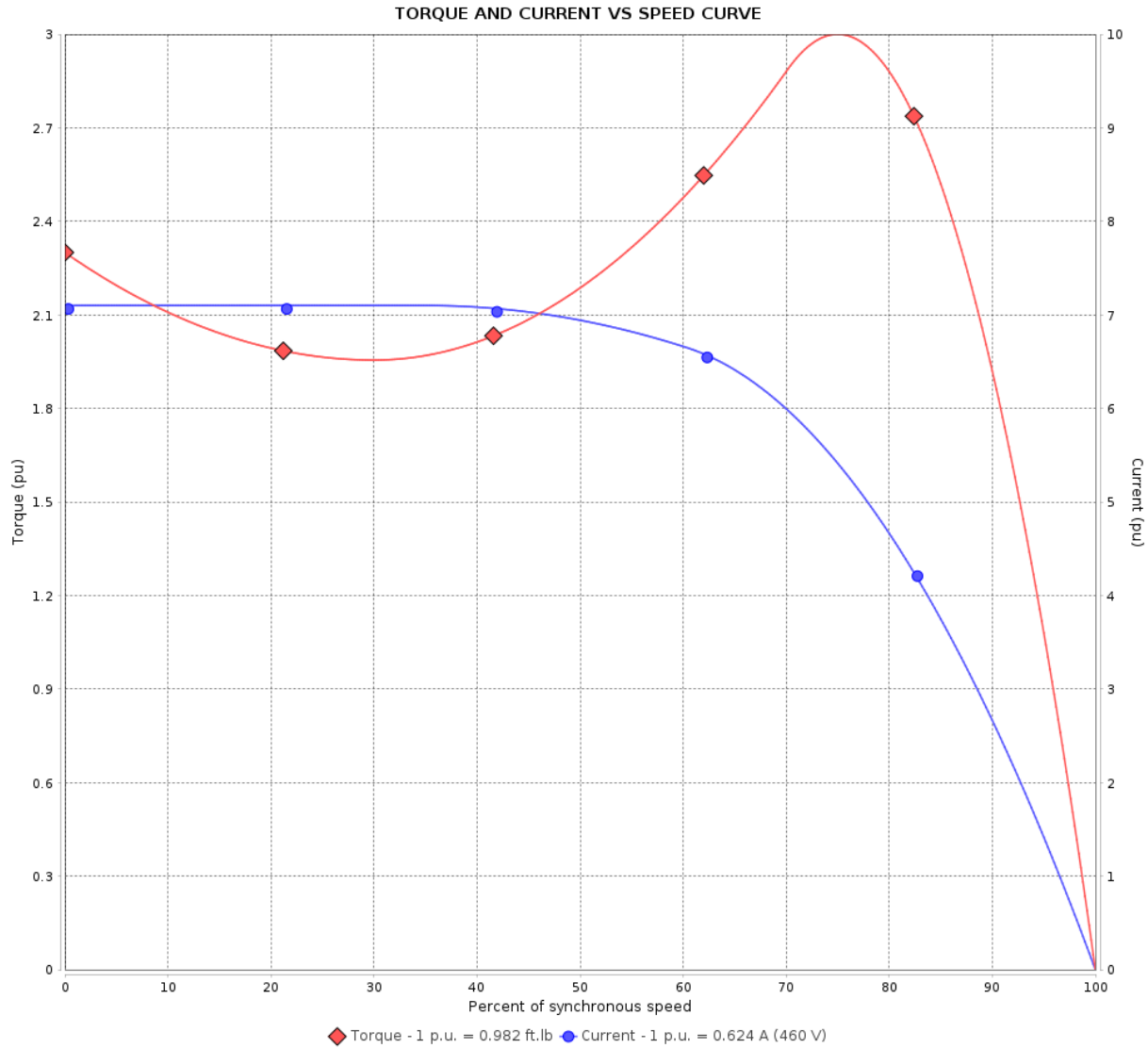
Product line : Standard Efficiency Three-Phase

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LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 0.982 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	:
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm		

Locked rotor time : 55s (cold) 31s (hot)

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# LOAD PERFORMANCE CURVE

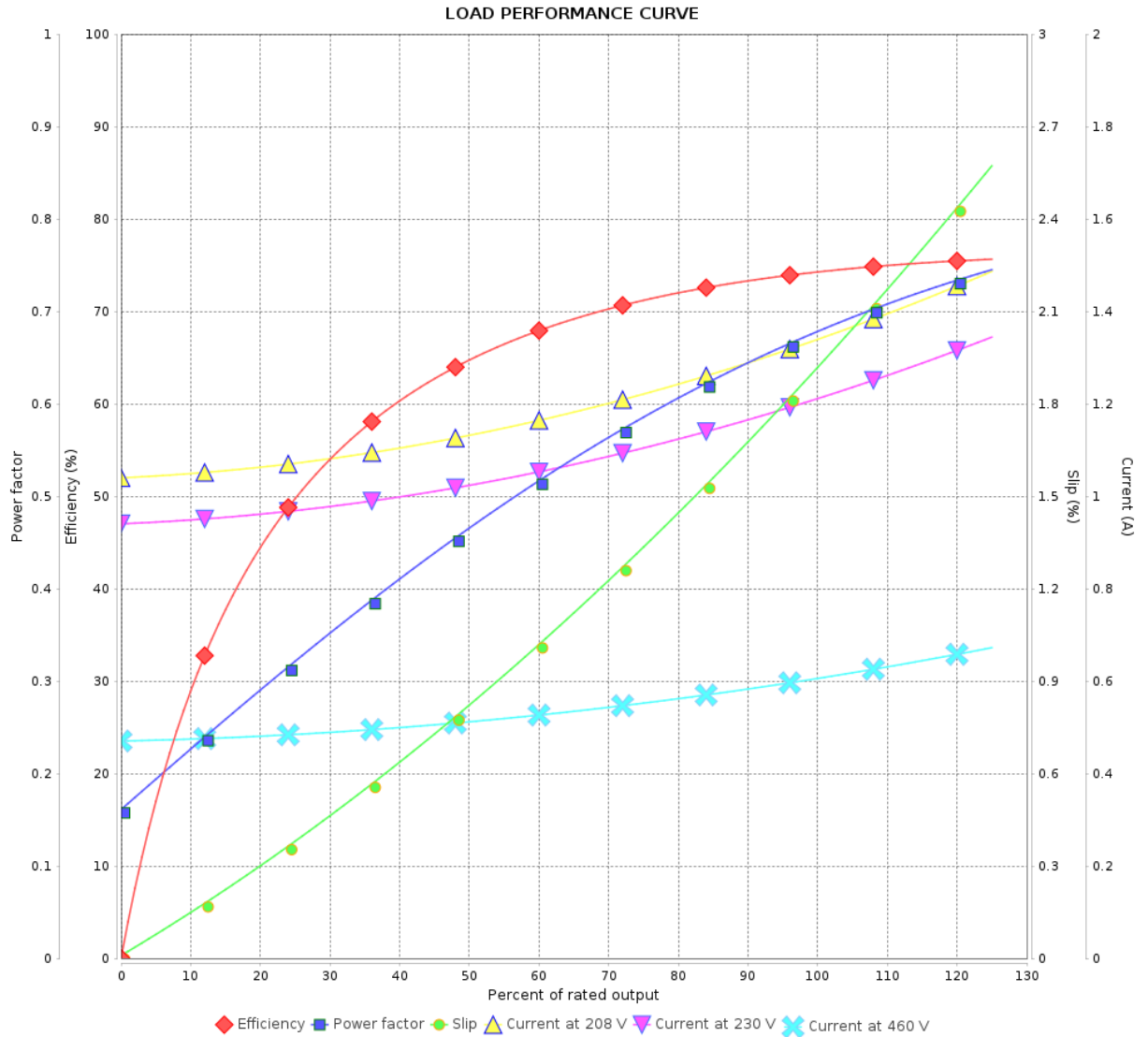
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# THERMAL LIMIT CURVE

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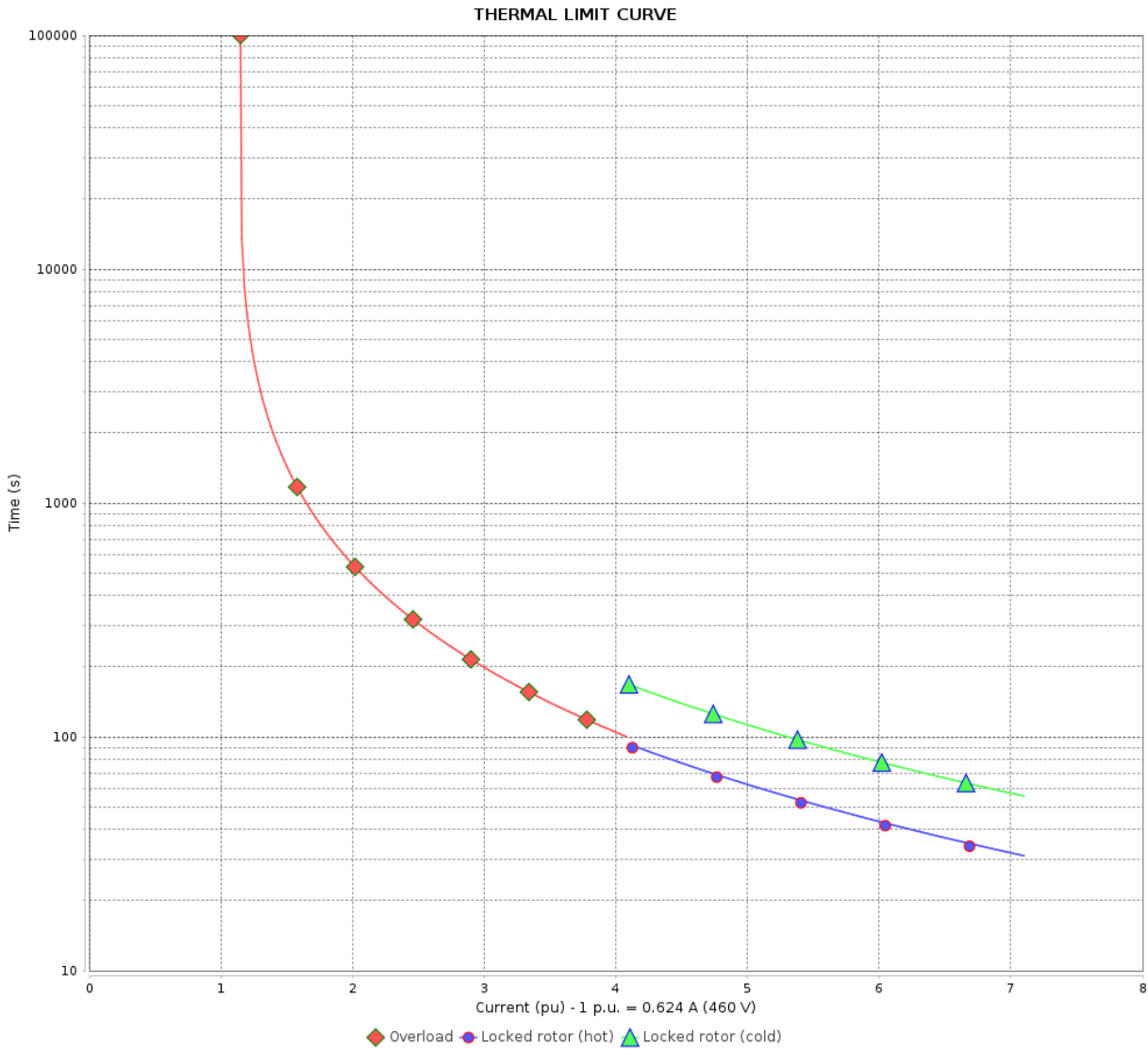
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 Rated torque : 0.982 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 300 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K

Heating constant

Cooling constant

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# VFD OPERATION CURVE

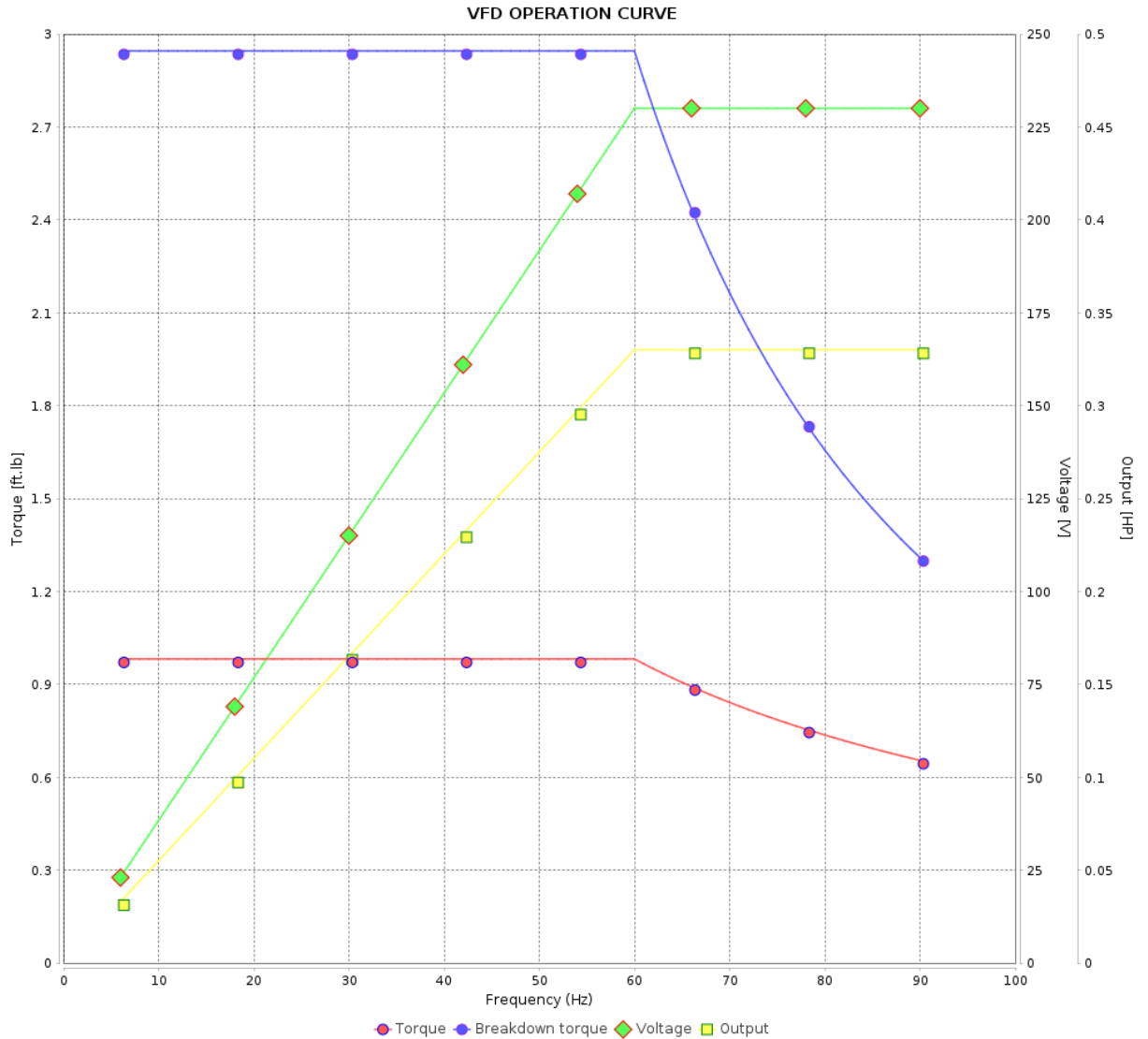
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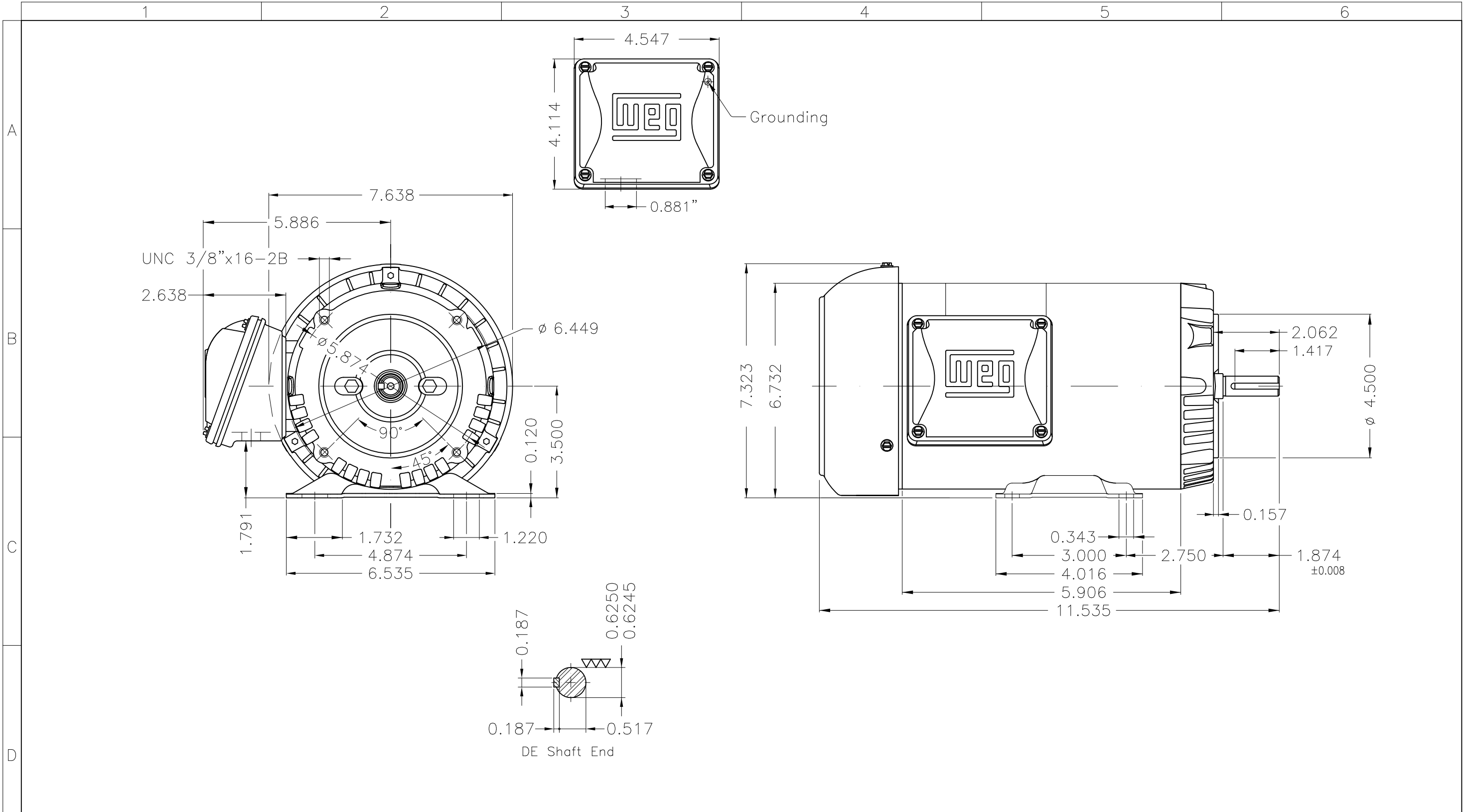


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Fan cover - steel plate									
Color Munsell N 1 matte black									
Painting plan 207N									
Mounting F-1/B34R(D)									
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR ROLLED STEEL			PREVIEW		WDD		
CHECKED		FRAME 56C IP55 TEFC			WDD		WEG		
RELEASED					SHEET		1 / 1		
REL DT.		WMO	Jaragua do Sul	Product Engineering					

0.33 HP 04 Poles 60 Hz



MADE IN BRAZIL

**MAT: 14796940**

**W01.TE0IC0X0X**

**MODEL 3318ES3E56C-S**

**25AUG2022 B/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 0.33
FR 56C		KW 0.25
DUTY CONT.		V 208-230/460
ALT 1000 m.a.s.l.		A 1.38-1.25/0.624
INS CL F AT 80K	IP55	SFA 1.38-1.44/0.718
AMB 40°C	DES -	SF 1.15
ENCL TEFC	CODE M	PF 0.68
USABLE @ 208V SF1.00		RPM 1765
		NEMA NOM. EFF 74.0%

ALTERNATE RATING: 0.33HP 50Hz 190-220/380-415V SF1.00
1.38-1.30/0.678-0.690A 1455RPM EFF 73.1% (IE2) IEC 60034-1

For safe area-Inverter duty motor For 60Hz use on VPWM 1000:1 VT, 10:1 CT

DE 6203-ZZ	ODE 6202-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-BRK RED

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.

