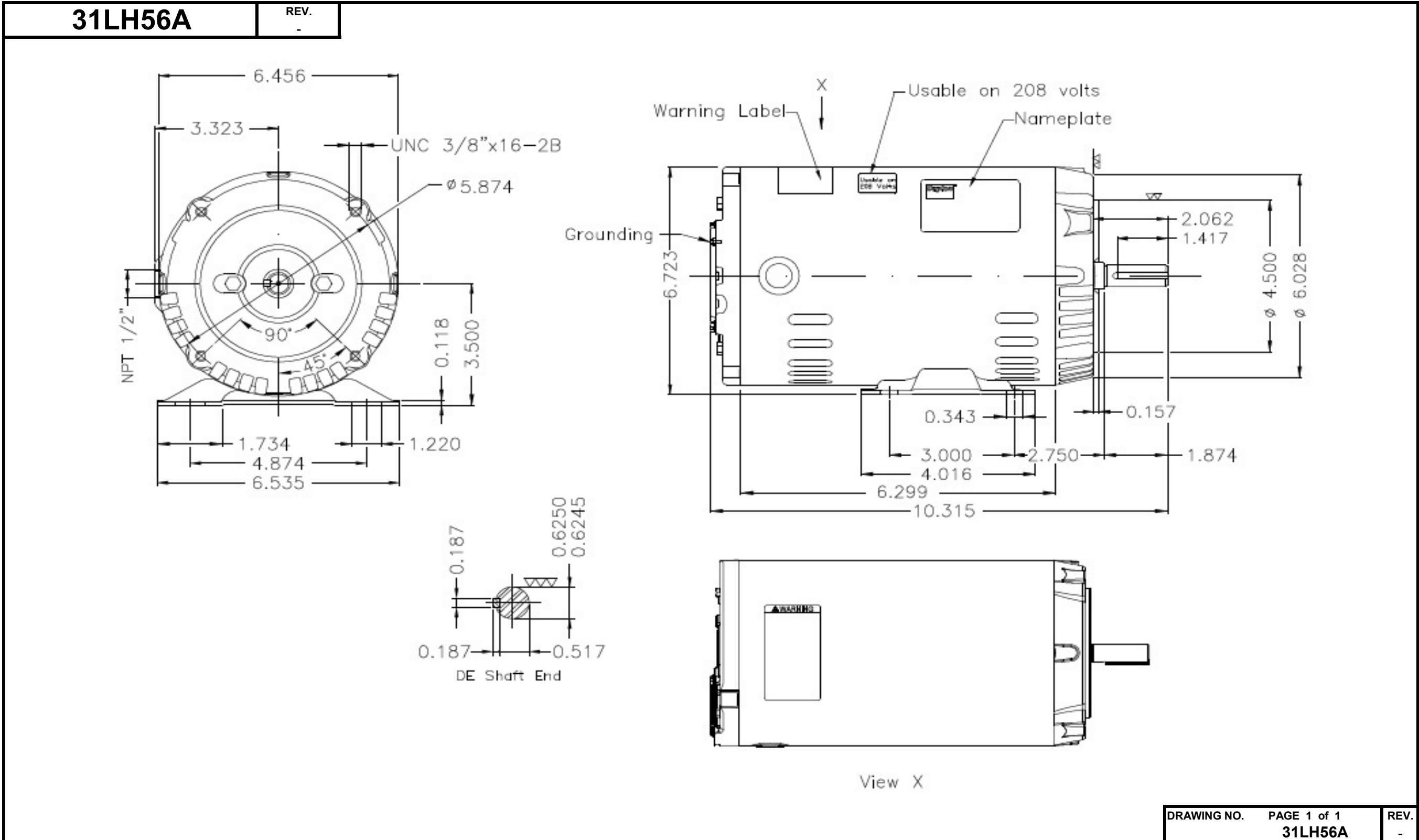


# Dimensional Drawing



Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer

Product line :

Frame	: 56C	Locked rotor time	: 38 s (hot) 68 s (cold)
Output	: 0.33 HP (0.25 kW)	Temperature rise <sup>4</sup>	: 80 K
Poles	: 2	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	: 1.10/0.552 A	Cooling method	: IC01 - ODP
L. R. Amperes	: 8.06/4.03 A	Mounting	: F-1
LRC (p.u.)	: 7.3 Code L	Direct of rotation <sup>1</sup>	: Both
No load current	: 0.700/0.350 A	Noise level <sup>2</sup>	: 62.0 dB(A)
Rated speed	: 3510 rpm	Starting method	: Direct On Line
Slip	: 2.50 %	Approx. weight <sup>3</sup>	: 7.4 kg
Rated torque	: 0.068 kgfm		
Locked rotor torque	: 270 %		
Pull up torque	: 225 %		
Breakdown torque	: 400 %		
Insulation class	: F		
Service factor	: 1.35		
Moment of inertia (J)	: 0.0016 kgm <sup>2</sup>		

Output	Start	50%	75%	100%	Load type: -
Efficiency (%)	-	65.2	71.4	72.0	Load torque: -
Power factor	-	0.58	0.70	0.79	Load inertia (J=GD <sup>2</sup> /4): -

	Drive end	Non drive end
Bearing type	6203-ZZ	6202-ZZ
Lubrication interval	-	-
Lubricant amount	-	-
Lubricant type	MOBIL POLYREX EM	

**Notes:**

- \* Dayton # 31LH56A
- \* Connection YY/Y - Document 10003174687

Standards	Specification	: MG1 - Part 10	Vibration	: MG1 - Part 7
	Tests	: MG1 - Part 12	Tolerance	: MG1 - Part 12
	Noise	: MG1 - Part 9		

This revision replaces and cancels the previous one, which must be eliminated.

- (1) When viewed from the drive end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At the rated point.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG 1-12.

Rev.	Summary of changes	Performed	Checked	Date
Performed by	mrsanchez			196290/2016-A
Checked by	mmoctezuma			Page Revision
Date	20/02/2018			1/2 4

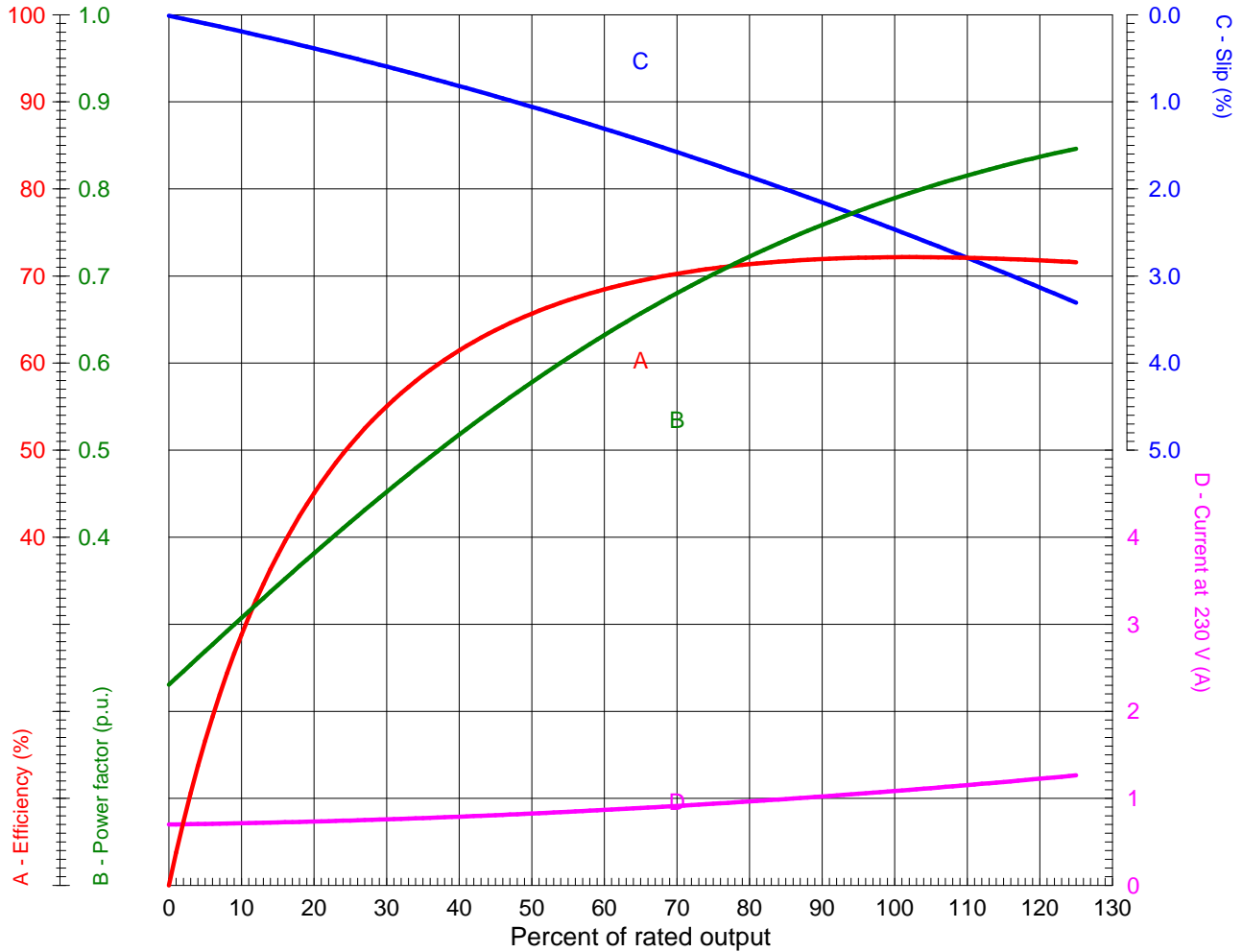
# LOAD PERFORMANCE CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer

Product line :



Performance : 0.33 HP (0.25 kW) 230/460 V 60 Hz 2P 56C

Rated current	: 1.10/0.552 A	Moment of inertia (J)	: 0.0016 kgm <sup>2</sup>
LRC (p.u.)	: 7.3 Code L	Duty cycle	: Cont.(S1)
Rated torque	: 0.068 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.35
Breakdown torque	: 400 %	Temperature rise	: 80 K
Rated speed	: 3510 rpm		

Rev.	Summary of changes	Performed	Checked	Date
Performed by	mrsanchez	196290/2016-A1		Page Revision
Checked by	mmoctezuma			
Date	20/02/2018			
		1/1	4	

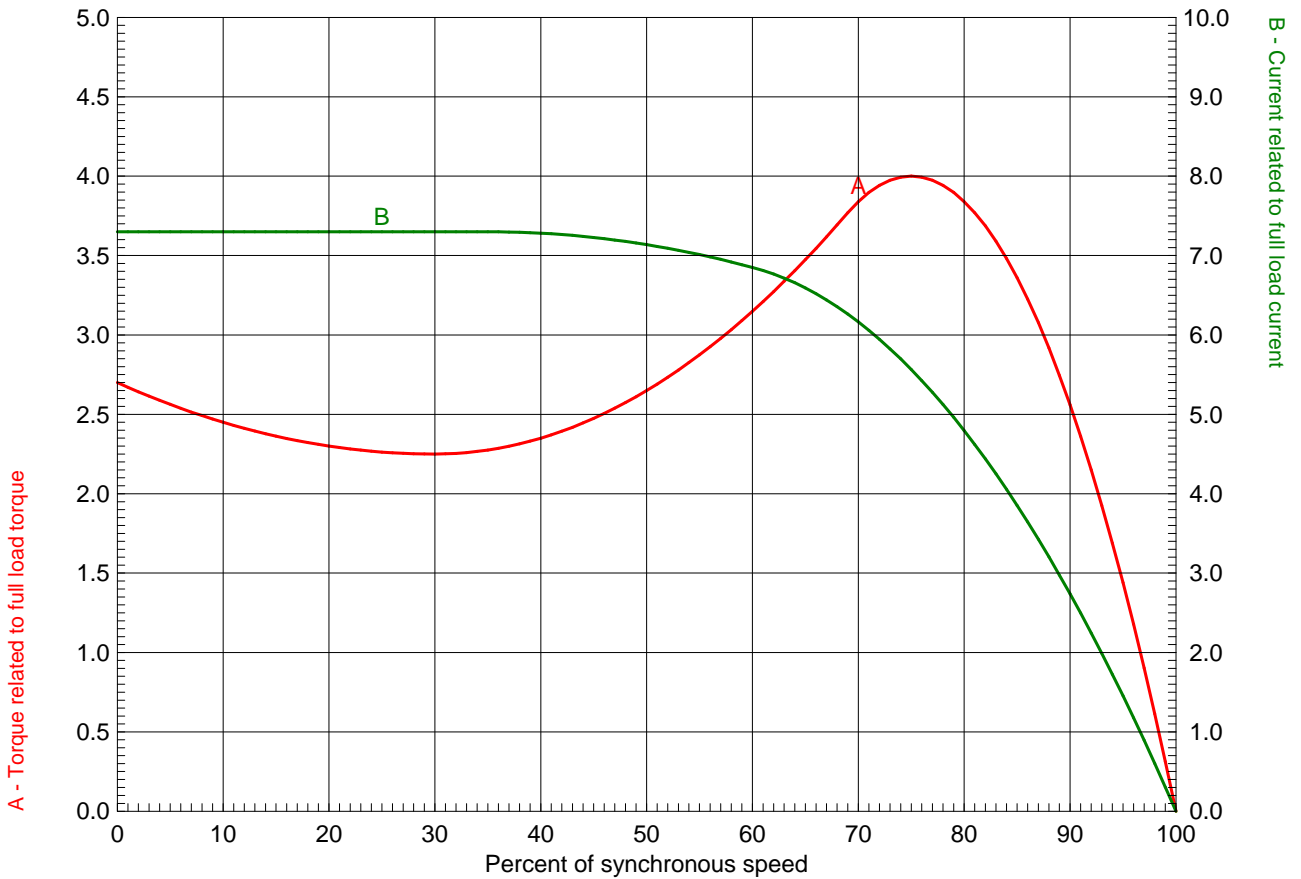
# TORQUE AND CURRENT X SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer

Product line :



Performance : 0.33 HP (0.25 kW) 230/460 V 60 Hz 2P 56C

Rated current : 1.10/0.552 A	Moment of inertia (J) : 0.0016 kgm <sup>2</sup>
LRC (p.u.) : 7.3 Code L	Duty cycle : Cont.(S1)
Rated torque : 0.068 kgfm	Insulation class : F
Locked rotor torque : 270 %	Service factor : 1.35
Breakdown torque : 400 %	Temperature rise : 80 K
Rated speed : 3510 rpm	

Locked rotor time 100% : 38 s (hot) 68 s (cold)  
 Load inertia (J=GD<sup>2</sup>/4) : 0.0016 kgm<sup>2</sup>

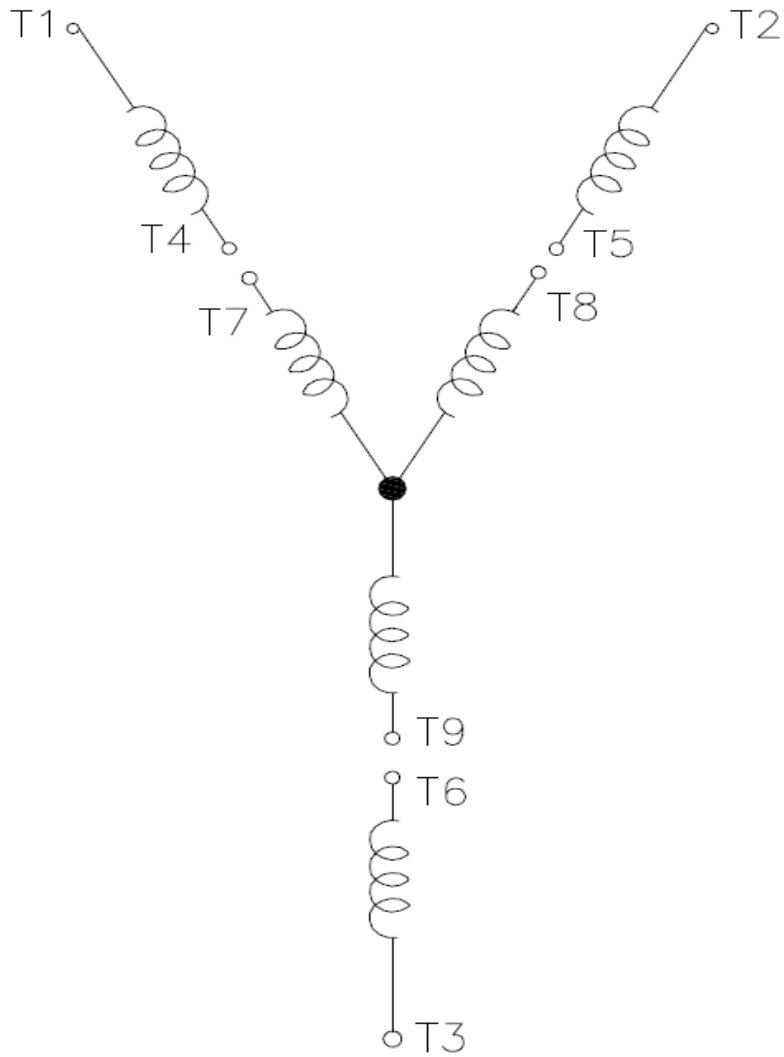
Rev.	Summary of changes	Performed	Checked	Date
Performed by	mrsanchez			196290/2016-A1
Checked by	mmoctezuma			Page Revision
Date	20/02/2018			1/1 4

# Wiring Diagram

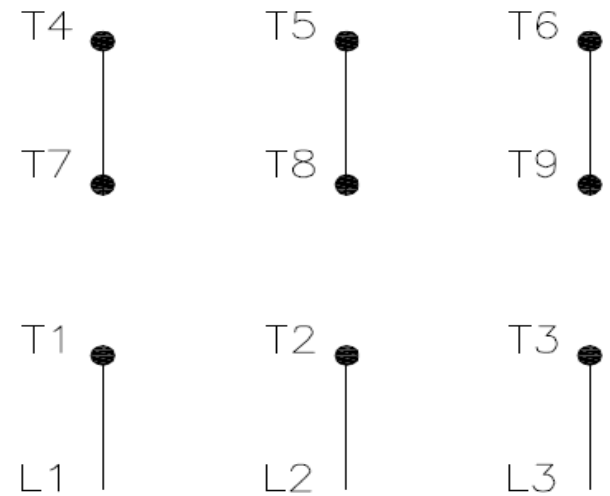


**31LH56A**

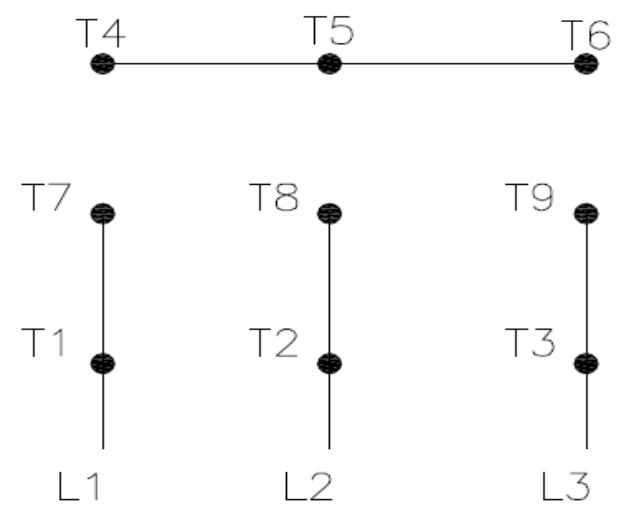
REV.  
0



High Voltage ( Y )



Low Voltage ( YY )



- T1 — Blue
- T2 — White
- T3 — Orange
- T4 — Yellow
- T5 — Black
- T6 — Gray
- T7 — Pink
- T8 — Red
- T9 — Brick Red

Interchange any two line wires to reverse rotation.

DRAWING NO.	PAGE 1 of 1	REV.
31LH56A		0

**Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA**

20MAR18

**Dayton**®

MADE IN MEXICO

**NEMA**  
**Premium**®

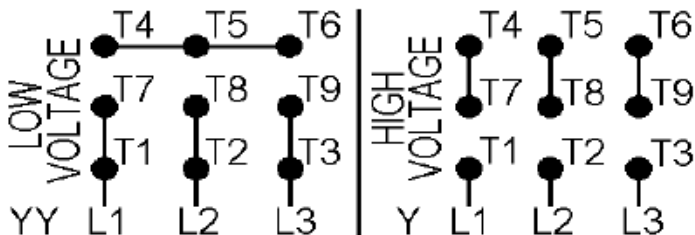
MODEL NO.

**CEC**® **US****CE****SP**®  
C **US**  
Energy Verified**31LH56A**

TO0IC0X0X0000100227

MAT: 13800050

PH 3      HP (kW) **0.33(0.25)**  
 HZ **60**      V **230/460**  
 RPM **3510**    A **1.10/0.55**  
 FR **56C**      DES **B**  
 IP **21**      ENCL **ODP**  
 AMB **40 °C**    CODE **L**  
 SF **1.35**      INS **F ΔT 80 K**  
 SFA **1.49/0.74 A** PF **0.79**  
 DUTY **CONT**  
 AVG. F.L. EFF.    **72.0%**



**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 ROTATION

**ALT. RATING: 190-220/380-415V 50Hz**  
**0.33HP 1.20-1.10/0.60-0.58 A 2890 RPM S.F. 1.35**

S/N:

Mfd. for Dayton Electric Mfg. Co., Lake Forest, IL 60045 USA