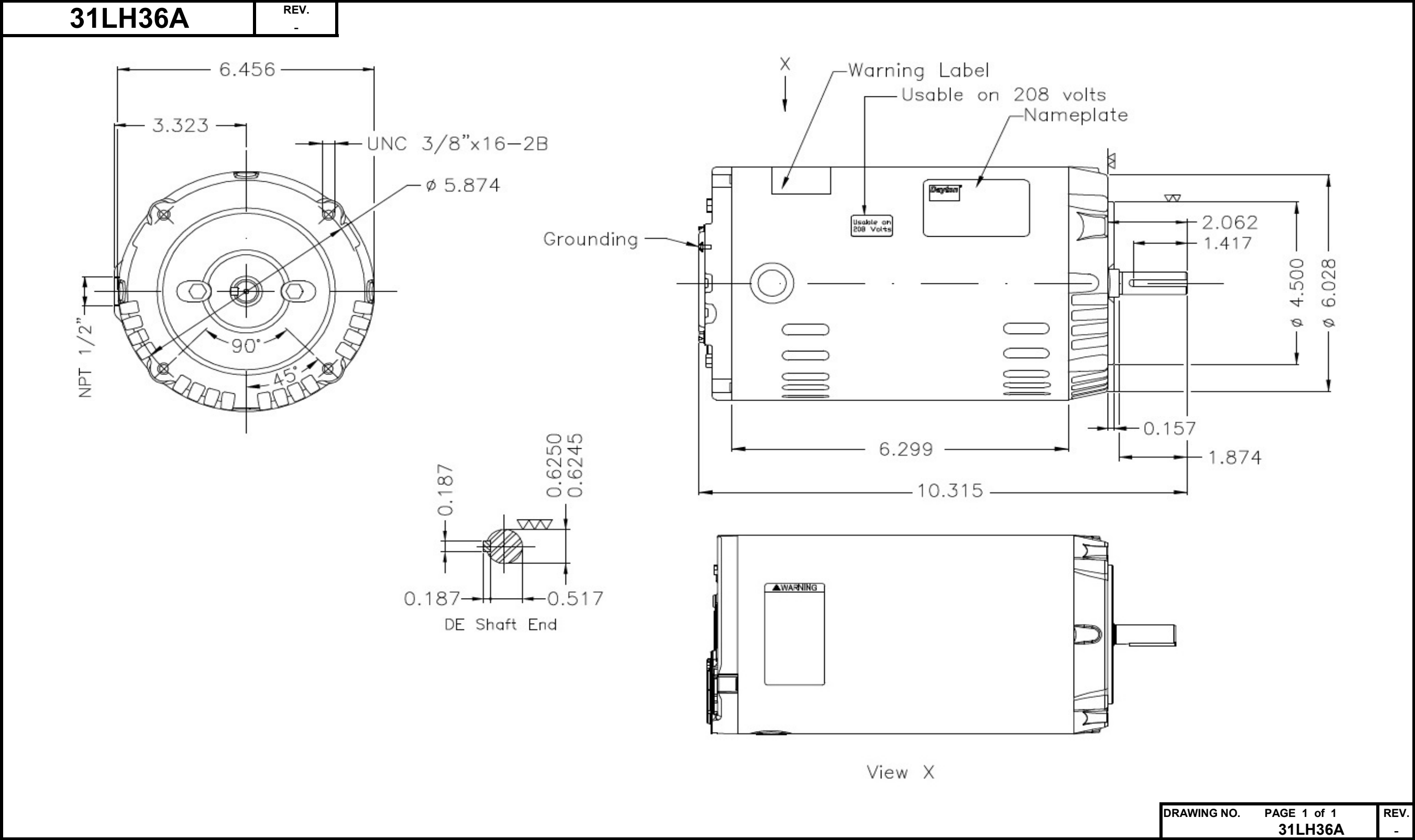


# Dimensional Drawing



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

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer	:	
Sales document	:	20794403 - 380
Product line	:	

Frame	:	56C	Locked rotor time	:	20 s (hot) 36 s (cold)
Output	:	0.25 HP (0.18 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	:	0.800/0.400 A	Cooling method	:	IC01 - ODP
L. R. Amperes	:	6.50/3.30 A	Mounting	:	F-1
LRC (p.u.)	:	7.5 Code L	Direct of rotation <sup>1</sup>	:	Both
No load current	:	0.500/0.250 A	Noise level <sup>2</sup>	:	-
Rated speed	:	3520 rpm	Vibration class	:	A
Slip	:	2.22 %	Starting method	:	Direct On Line
Rated torque	:	0.052 kgfm	Coupling	:	Direct
Locked rotor torque	:	270 %	Approx. weight <sup>3</sup>	:	7.5 kg
Pull up torque	:	225 %	Painting plan	:	207N
Breakdown torque	:	400 %	Color	:	RAL 7021
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 (%)	-	62.2	69.5	72.0	Load torque: -
Power factor	-	0.61	0.72	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 # 31LH36A  
 \* 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 without tolerance  
 (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				177798/2016-A
Checked by	mmoctezuma				Page Revision
Date	20/02/2018				1/2 3

# LOAD PERFORMANCE CURVE

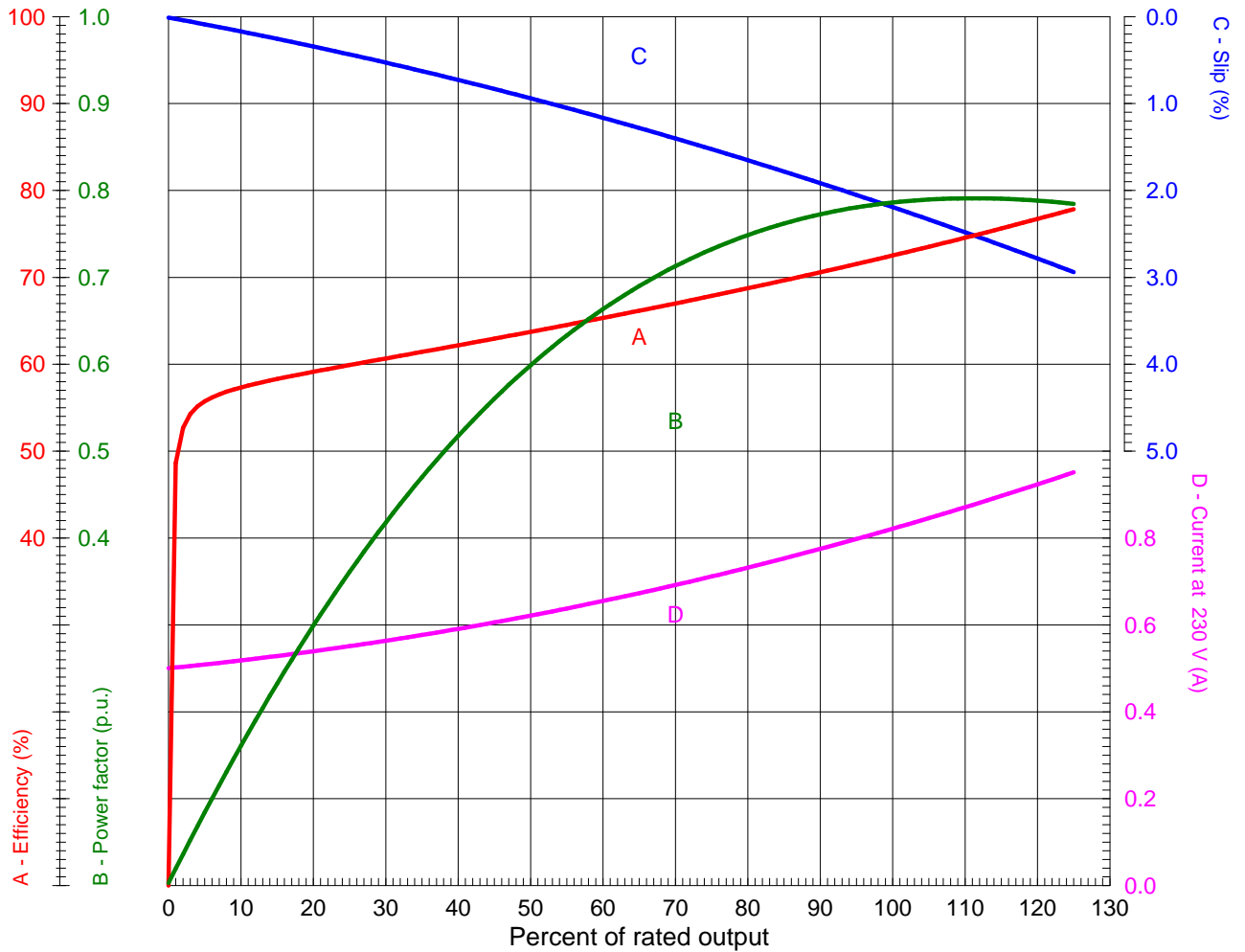


## Three Phase Induction Motor - Squirrel Cage

Customer :

Sales document : 20794403 - 380

Product line :



Performance : 0.25 HP (0.18 kW) 230/460 V 60 Hz 2P 56C

Rated current : 0.800/0.400 A  
 LRC (p.u.) : 7.5 Code L  
 Rated torque : 0.052 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 400 %  
 Rated speed : 3520 rpm

Moment of inertia (J) : 0.0016 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.35  
 Temperature rise : 80 K

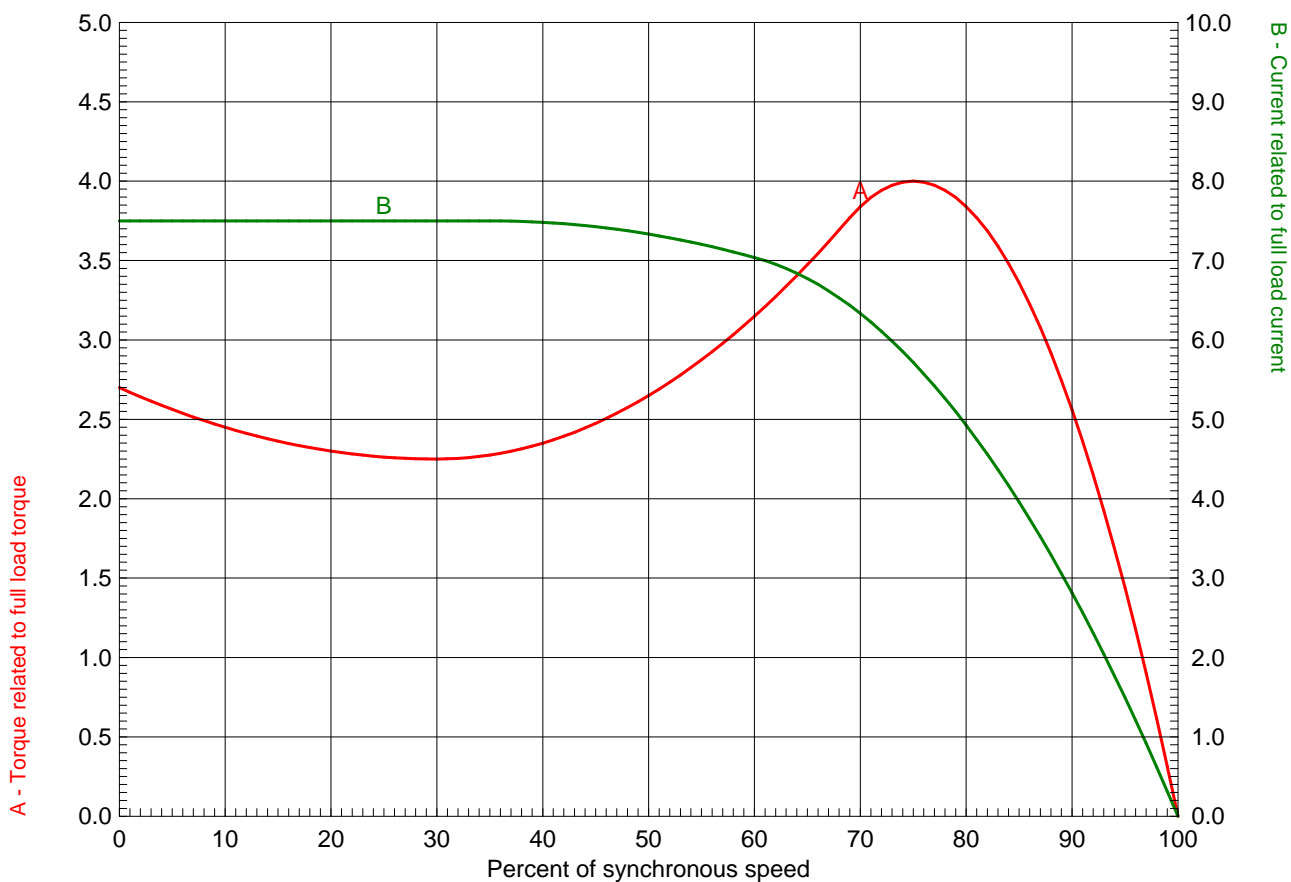
Rev.	Summary of changes		Performed	Checked	Date
Performed by	mrsanchez			177798/2016-A1	
Checked by	mmoctezuma			Page	Revision
Date	20/02/2018			1/1	3

# TORQUE AND CURRENT X SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :  
 Sales document : 20794403 - 380  
 Product line :



Performance	: 0.25 HP (0.18 kW) 230/460 V 60 Hz 2P 56C		
Rated current	: 0.800/0.400 A	Moment of inertia (J)	: 0.0016 kgm <sup>2</sup>
LRC (p.u.)	: 7.5 Code L	Duty cycle	: Cont.(S1)
Rated torque	: 0.052 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.35
Breakdown torque	: 400 %	Temperature rise	: 80 K
Rated speed	: 3520 rpm		
Locked rotor time 100%	: 20 s (hot) 36 s (cold)		
Load inertia (J=GD <sup>2</sup> /4)	: 0.0016 kgm <sup>2</sup>		

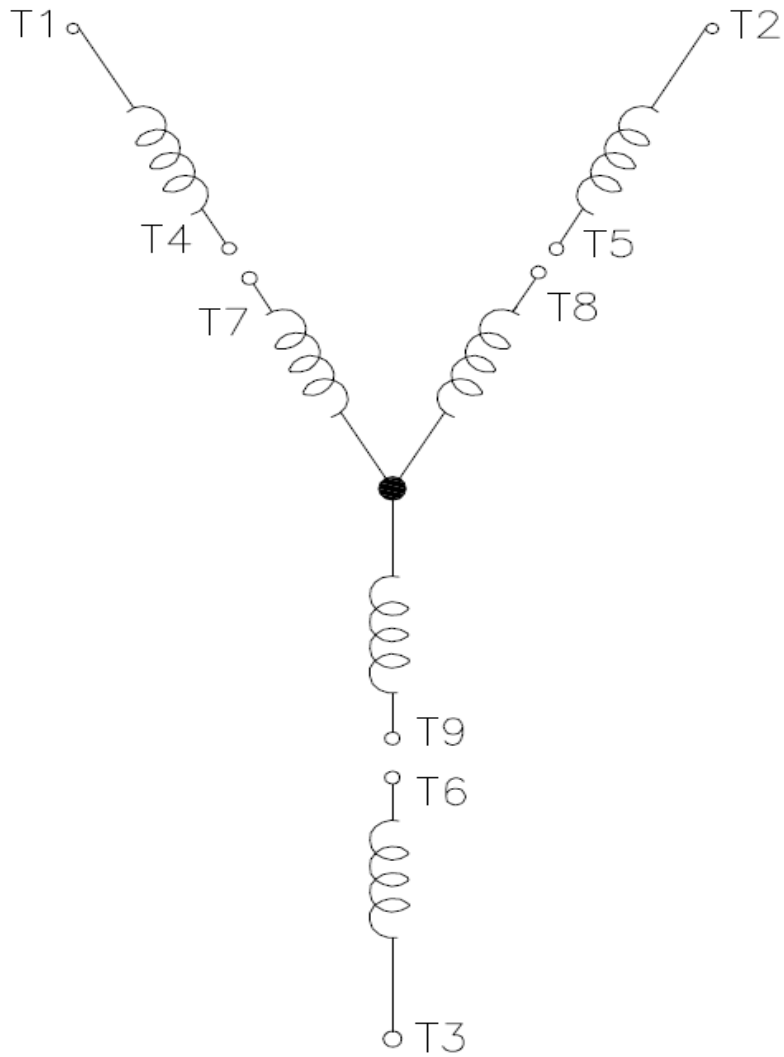
Rev.	Summary of changes	Performed	Checked	Date
Performed by	mrsanchez			177798/2016-A1
Checked by	mmoctezuma			Page Revision
Date	20/02/2018			1/1 3

# Wiring Diagram

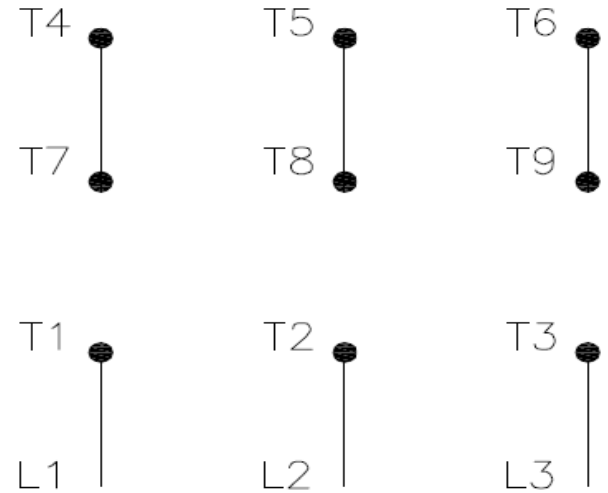


**31LH36A**

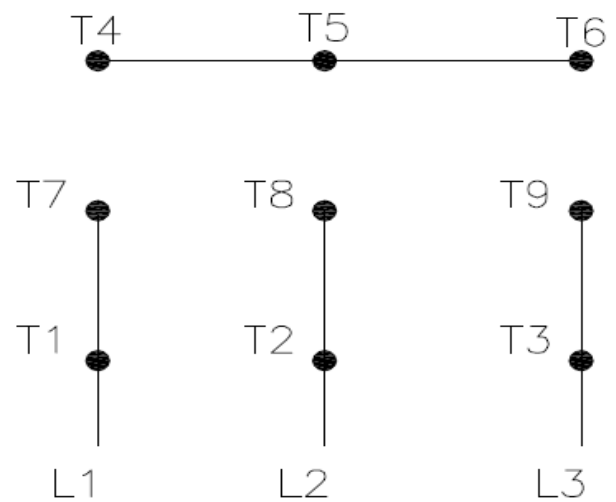
REV.  
0



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.
31LH36A		0

17JUL18

**Dayton**®

MADE IN MEXICO

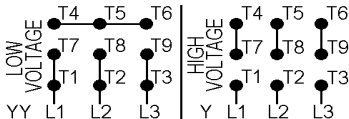
**NEMA**  
**Premium**®

MODEL NO.

**cRU**® **US****CE****SP**®  
**US****31LH36A**

TO0IC0X0X0000100172

MAT:13767658

PH 3 HP (kW) **0.25(0.18)**HZ **60** V **230/460**RPM **3520** A **0.80/0.40**FR **56C** DES **B**IP **21** ENCL **ODP**AMB **40 °C** CODE **L**SF **1.15** INS **F**  $\Delta T$  **80 K**SFA **0.9/0.4 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**  
**0.25HP 0.90-0.91/0.45-0.45 A 2900 RPM S.F.1.15**

S/N:

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