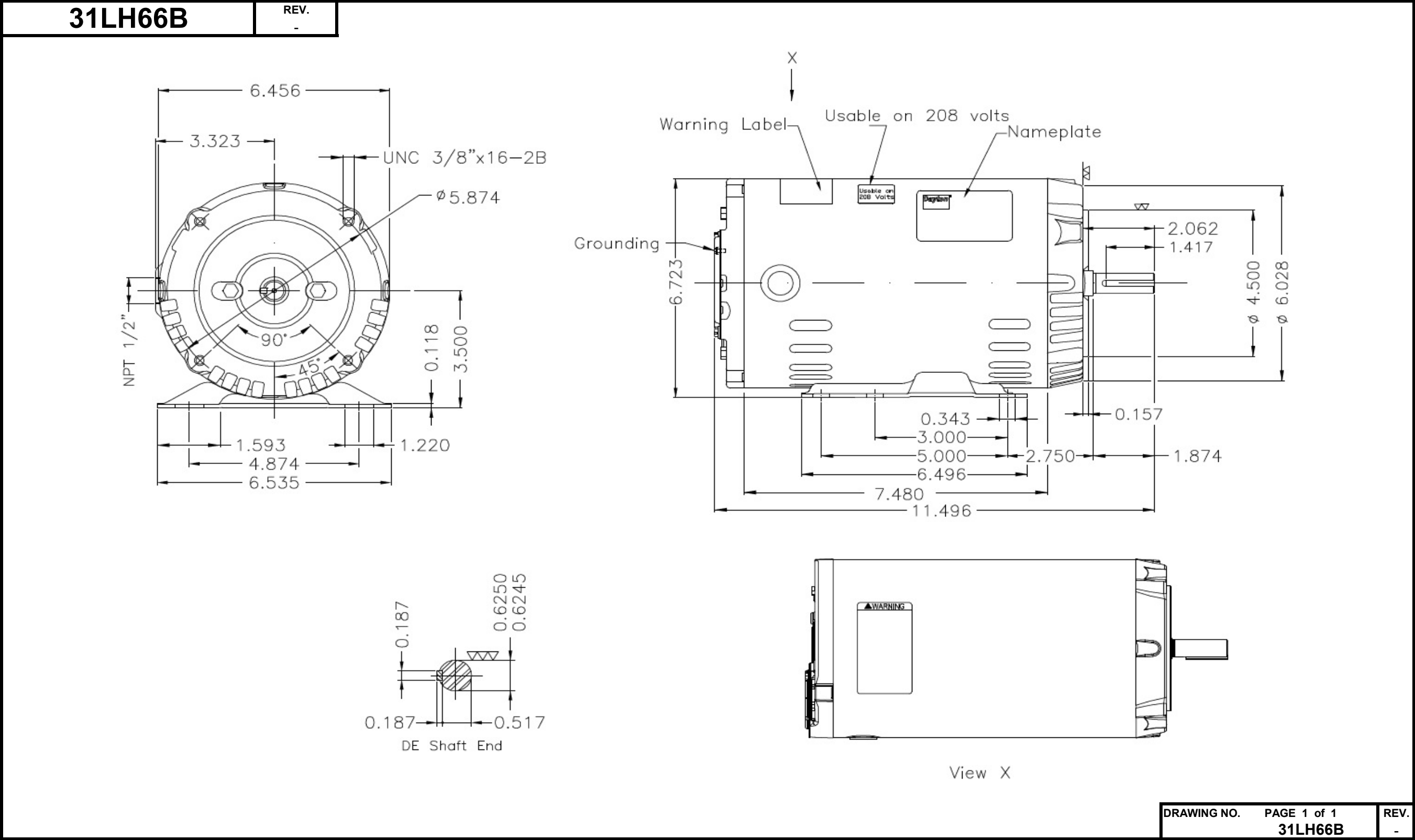


# Dimensional Drawing



DRAWING NO. PAGE 1 of 1 REV.  
31LH66B -

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# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer

Product line : W01 - ODP - Premium Efficiency

Frame	: 56HC	Locked rotor time	: 17 s (hot) 31 s (cold)
Output	: 1 HP (0.75 kW)	Temperature rise <sup>4</sup>	: 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	: 3.14/1.57 A	Cooling method	: IC01 - ODP
L. R. Amperes	: 23.9/11.9 A	Mounting	: F-1
LRC (p.u.)	: 7.6 Code L	Direct of rotation <sup>1</sup>	: Both
No load current	: 2.20/1.10 A	Noise level <sup>2</sup>	: 52.0 dB(A)
Rated speed	: 1760 rpm	Starting method	: Direct On Line
Slip	: 2.22 %	Approx. weight <sup>3</sup>	: 26.2 lb
Rated torque	: 2.98 ft.lb	Design	: B
Locked rotor torque	: 280 %		
Pull up torque	: 235 %		
Breakdown torque	: 320 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 0.0854 sq.ft.lb		

Output	Start	50%	75%	100%	Load type: -
Efficiency (%)	-	78.5	82.5	83.5	Load torque: -
Power factor	0.68	0.49	0.63	0.72	Load inertia (J=GD <sup>2</sup> /4): -

	Drive end	Non drive end
Bearing type	6204-ZZ	6202-ZZ
Lubrication interval	-	-
Lubricant amount	-	-
Lubricant type	MOBIL POLYREX EM	

**Notes:**

- \* Dayton # 31LH66B
- \* 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				181289/2016-A
Checked by	marian				Page Revision
Date	05/10/2017				1/2 1

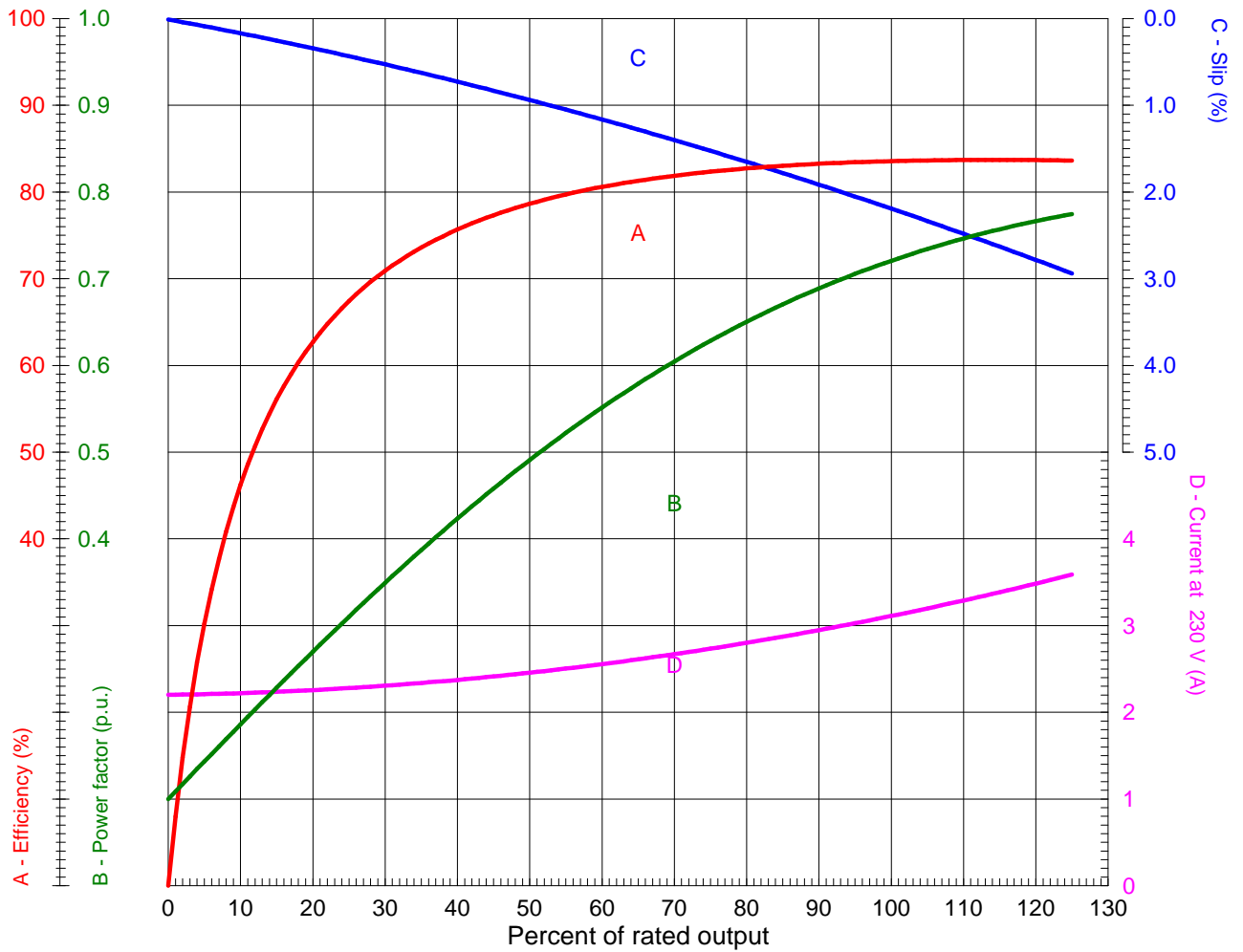
# LOAD PERFORMANCE CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer

Product line : W01 - ODP - Premium Efficiency



Performance : 1 HP (0.75 kW) 230/460 V 60 Hz 4P 56HC

Rated current	: 3.14/1.57 A	Moment of inertia (J)	: 0.0854 sq.ft.lb
LRC (p.u.)	: 7.6 Code L	Duty cycle	: Cont.(S1)
Rated torque	: 2.98 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

Rev.	Summary of changes		Performed	Checked	Date
Performed by	mrsanchez			181289/2016-A1	
Checked by	marian			Page	Revision
Date	05/10/2017			1/1	1

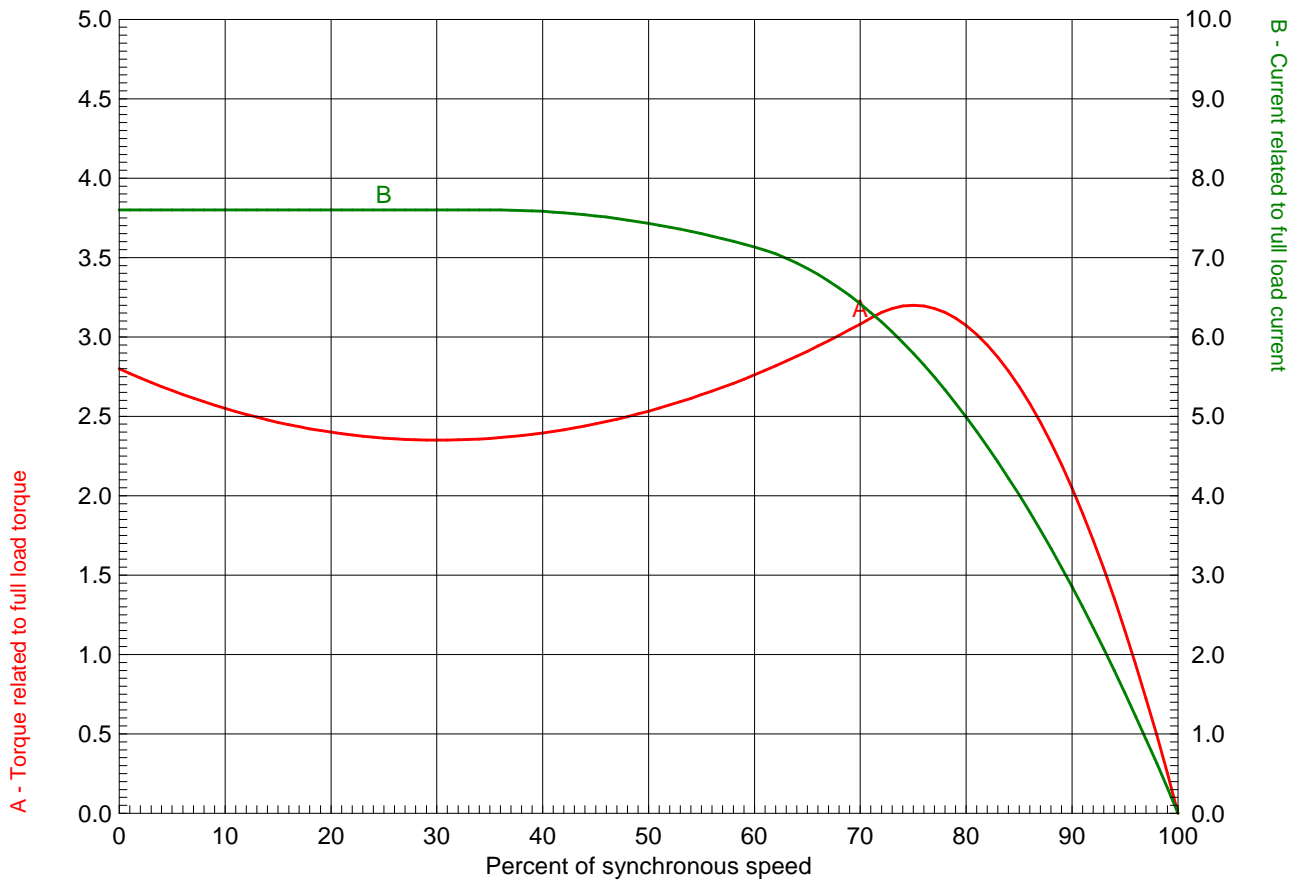
# TORQUE AND CURRENT X SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer

Product line : W01 - ODP - Premium Efficiency



Performance : 1 HP (0.75 kW) 230/460 V 60 Hz 4P 56HC

Rated current	: 3.14/1.57 A	Moment of inertia (J)	: 0.0854 sq.ft.lb
LRC (p.u.)	: 7.6 Code L	Duty cycle	: Cont.(S1)
Rated torque	: 2.98 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

Locked rotor time 100% : 17 s (hot) 31 s (cold)  
 Load inertia (J=GD<sup>2</sup>/4) : 0.0854 sq.ft.lb

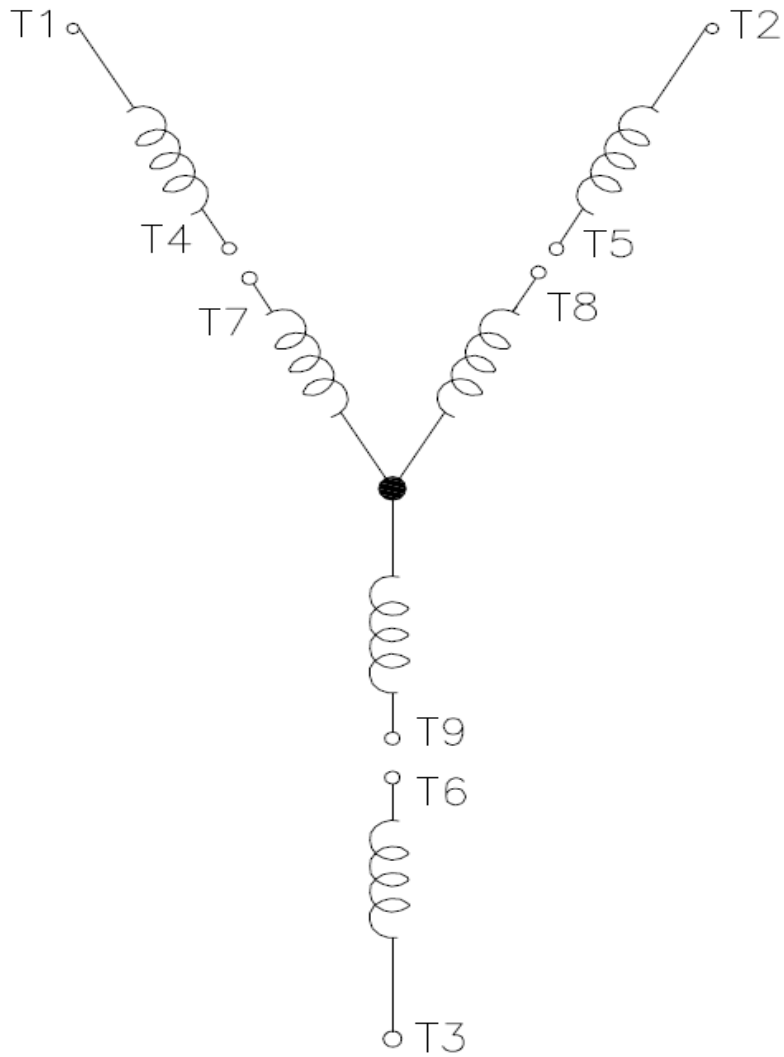
Rev.	Summary of changes	Performed	Checked	Date
Performed by	mrsanchez			181289/2016-A1
Checked by	marian			Page Revision
Date	05/10/2017			1/1 1

# Wiring Diagram

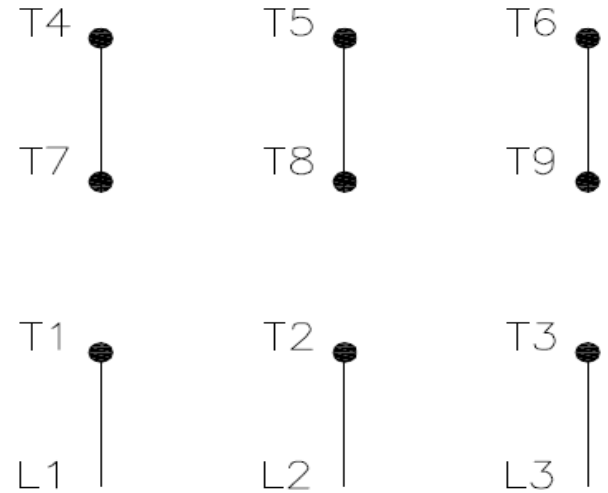


**31LH66B**

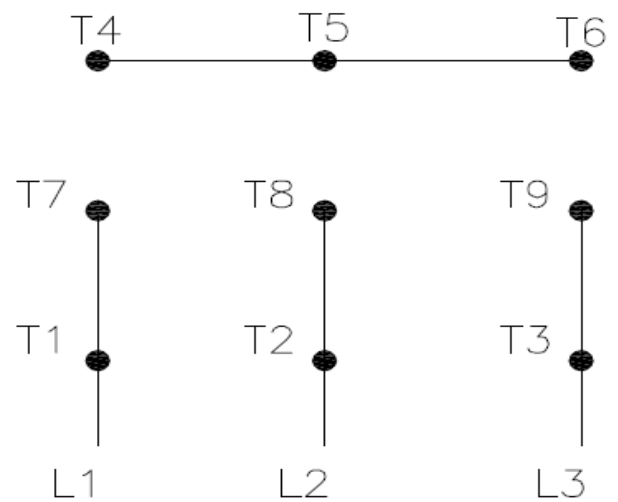
REV.  
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High Voltage ( Y )



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.
31LH66B		0

14NOV19

**Dayton**®

MADE IN MEXICO

**NEMA**  
**Premium**®

MODEL NO.

**CE**® **US****CSA**®  
C US**31LH66B**

TO0IC0X0X0000401334

MAT: 13827828

PH 3 HP (kW) 1.0(0.75)

HZ 60 V 230/460

RPM 1760 A 3.14/1.57

FR 56HC DES B

IP 21 ENCL ODP

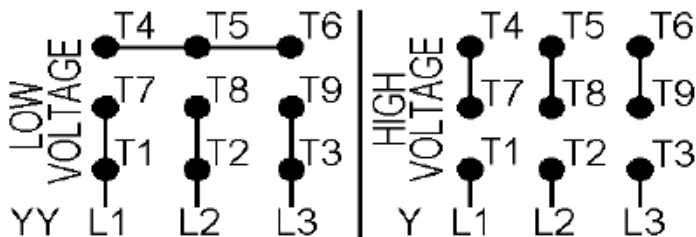
AMB 40 °C CODE L

SF 1.15 INS F  $\Delta T$  80 K

SFA 3.6/1.8 A PF 0.72

DUTY CONT

AVG F.L. EFF. 83.5%



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**  
1.0HP 3.54-3.34/1.77-1.77 A 1440 RPM S.F.1.15

S/N:

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