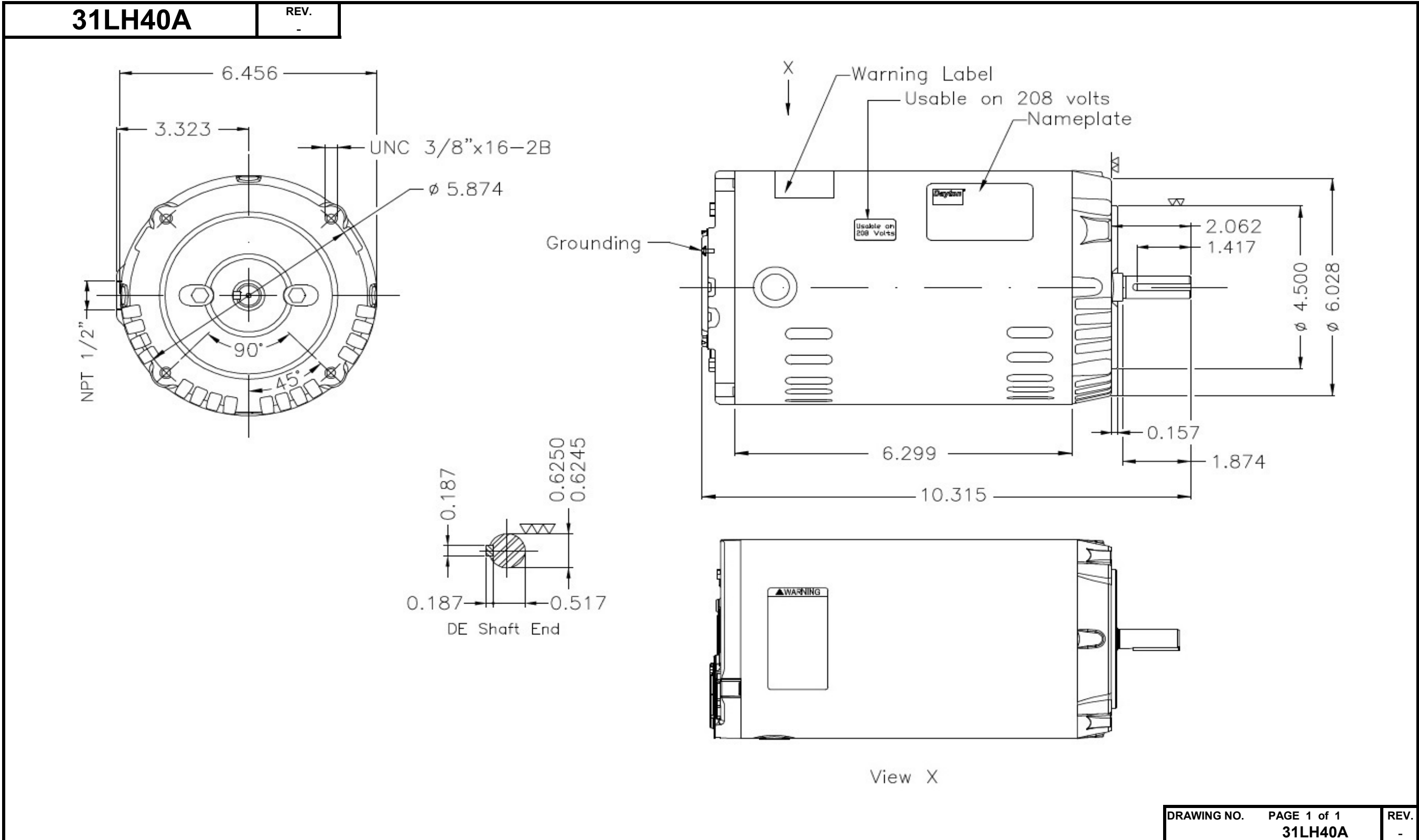


# Dimensional Drawing



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

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W01 - ODP - Premium Efficiency

Frame	: 56C	Locked rotor time	: 36 s (hot) 65 s (cold)
Output	: 0.33 HP (0.25 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	: 1.34/0.668 A	Cooling method	: IC01 - ODP
L. R. Amperes	: 8.28/4.14 A	Mounting	: F-1
LRC (p.u.)	: 6.2 Code M	Direct of rotation <sup>1</sup>	: Both
No load current	: 1.10/0.550 A	Noise level <sup>2</sup>	: 52.0 dB(A)
Rated speed	: 1765 rpm	Vibration class	: A
Slip	: 1.94 %	Starting method	: Direct On Line
Rated torque	: 1.33 Nm	Coupling	: Direct
Locked rotor torque	: 230 %	Approx. weight <sup>3</sup>	: 7.9 kg
Pull up torque	: 195 %	Painting plan	: 207N
Breakdown torque	: 330 %	Color	: RAL 7021
Insulation class	: F		
Service factor	: 1.35		
Moment of inertia (J)	: 0.0019 kgm <sup>2</sup>		

Output	Start	50%	75%	100%	Load type: -
Efficiency (%)	-	62.0	70.0	73.4	Load torque: -
Power factor	0.70	0.44	0.55	0.64	Load inertia (J=GD <sup>2</sup> /4): -

	Drive end	Non drive end	Foundation loads	
Bearing type	6204-ZZ	6202-ZZ	Maximum traction	: 115 N
Lubrication interval	-	-	Maximum compression	: 193 N
Lubricant amount	-	-		
Lubricant type	MOBIL POLYREX EM			

Notes:  
 \* Dayton # 31LH40A  
 \* 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				177432/2016-A
Checked by					Page Revision
Date	21/02/2018				1/2 1

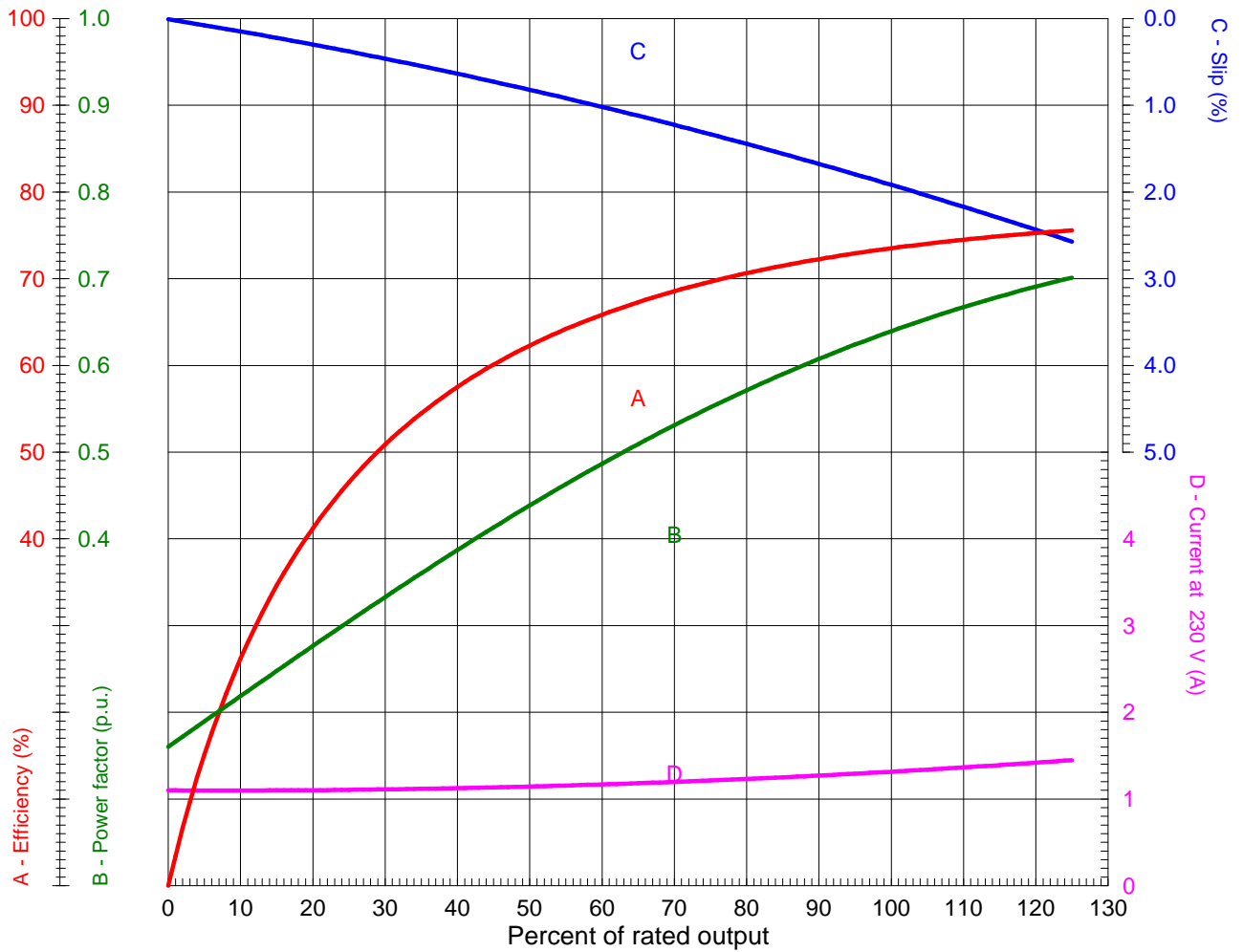
# LOAD PERFORMANCE CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer : \_\_\_\_\_

Product line : W01 - ODP - Premium Efficiency



Performance : 0.33 HP (0.25 kW) 230/460 V 60 Hz 4P 56C

Rated current	: 1.34/0.668 A	Moment of inertia (J)	: 0.0019 kgm <sup>2</sup>
LRC (p.u.)	: 6.2 Code M	Duty cycle	: Cont.(S1)
Rated torque	: 1.33 Nm	Insulation class	: F
Locked rotor torque	: 230 %	Service factor	: 1.35
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm		

Rev.	Summary of changes	Performed	Checked	Date
Performed by	mrsanchez			177432/2016-A1
Checked by				Page Revision
Date	21/02/2018			1/1 1

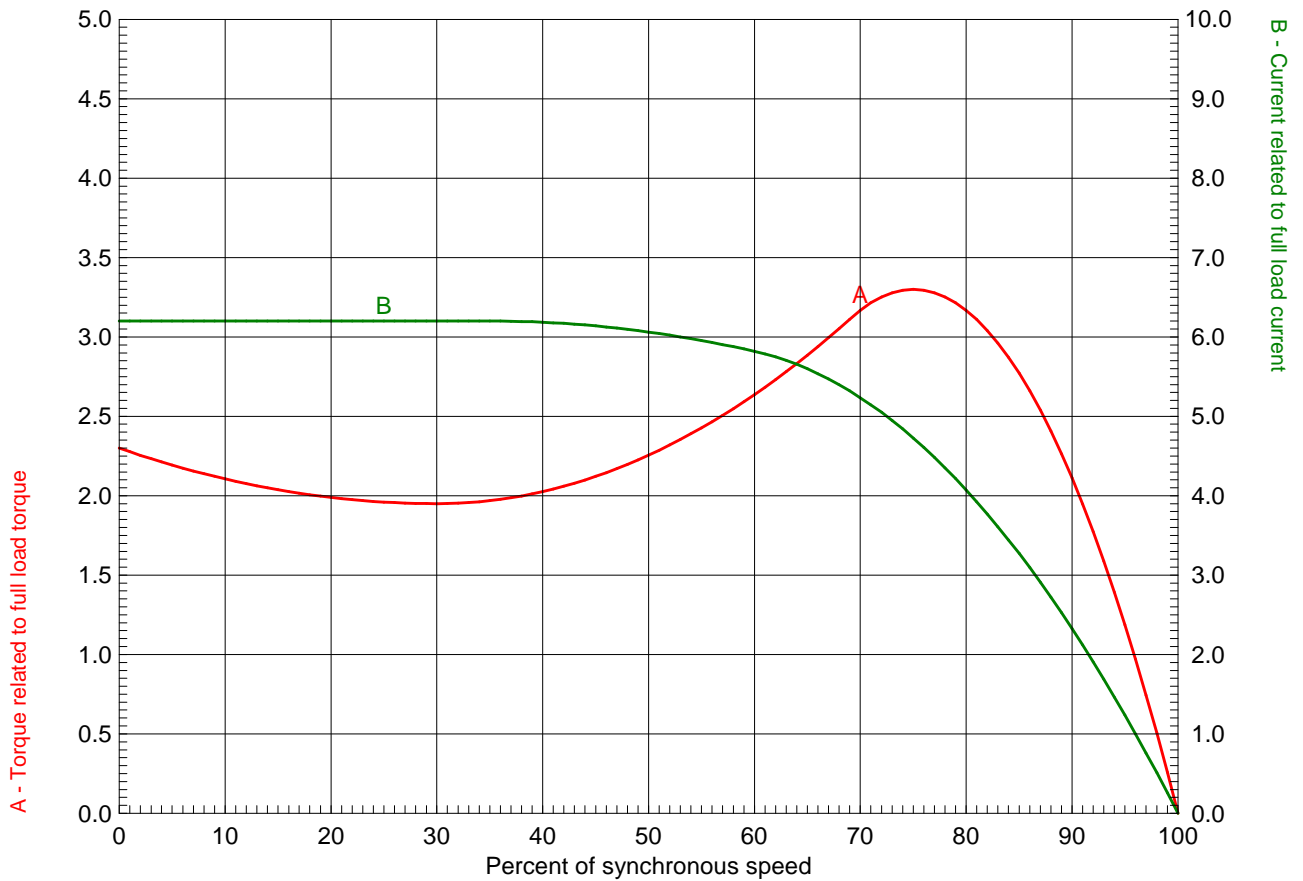
# TORQUE AND CURRENT X SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer : \_\_\_\_\_

Product line : W01 - ODP - Premium Efficiency



Performance : 0.33 HP (0.25 kW) 230/460 V 60 Hz 4P 56C

Rated current : 1.34/0.668 A	Moment of inertia (J) : 0.0019 kgm <sup>2</sup>
LRC (p.u.) : 6.2 Code M	Duty cycle : Cont.(S1)
Rated torque : 1.33 Nm	Insulation class : F
Locked rotor torque : 230 %	Service factor : 1.35
Breakdown torque : 330 %	Temperature rise : 80 K
Rated speed : 1765 rpm	

Locked rotor time 100% : 36 s (hot) 65 s (cold)  
 Load inertia (J=GD<sup>2</sup>/4) : 0.0019 kgm<sup>2</sup>

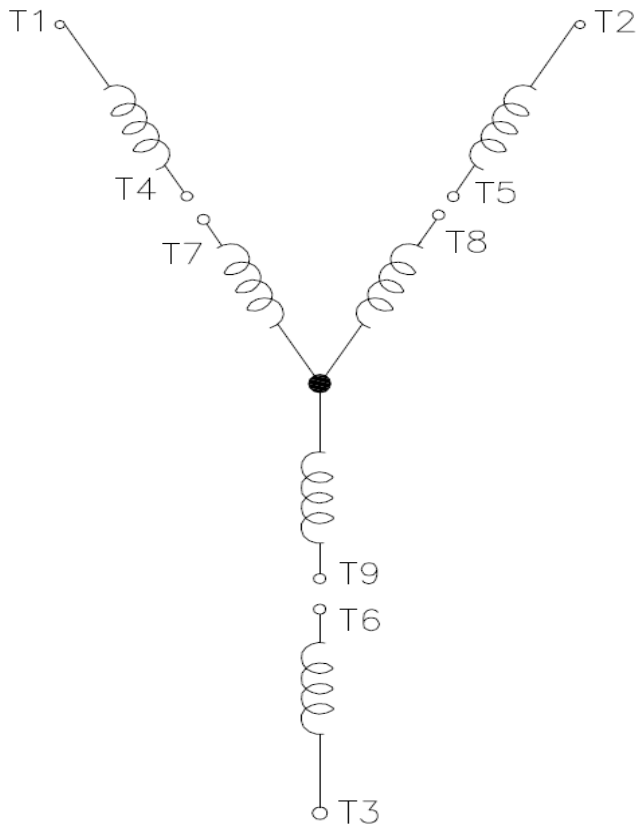
Rev.	Summary of changes	Performed	Checked	Date
Performed by	mrsanchez	177432/2016-A1		Page Revision
Checked by				
Date	21/02/2018			
		1/1	1	

# Wiring Diagram

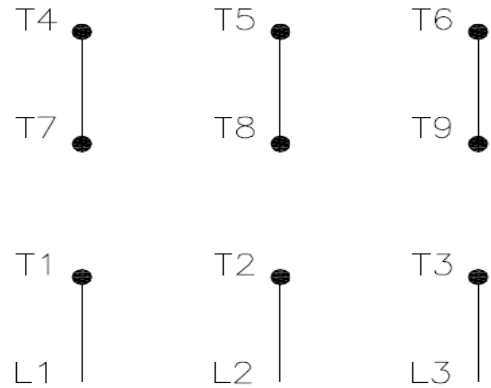


**31LH40A**

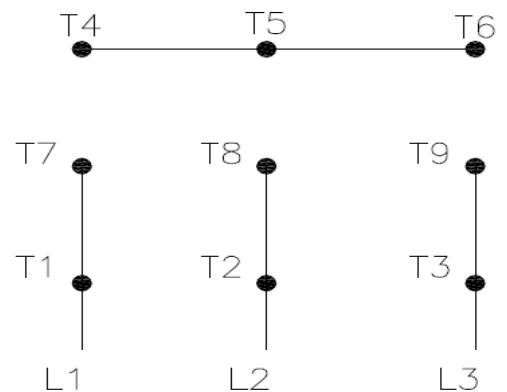
REV.  
0



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.
	<b>31LH40A</b>	0

02MAJ18

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MADE IN MEXICO

**NEMA**  
**Premium**®

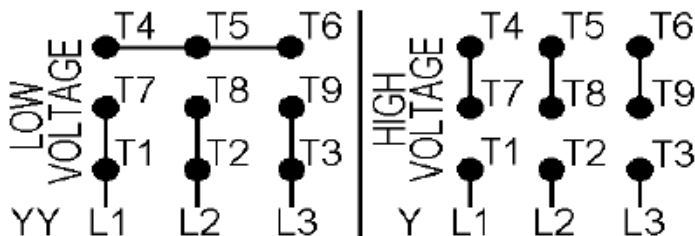
MODEL NO.

**cRU**® **US****CE****SP**®  
c **US****31LH40A**

TO0IC0X0X0000300227

MAT: 13800066

PH 3      HP (kW) **0.33(0.25)**  
 HZ **60**      V **230/460**  
 RPM **1765**    A **1.34/0.66**  
 FR **56C**      DES **B**  
 IP **21**      ENCL **ODP**  
 AMB **40 °C**    CODE **M**  
 SF **1.35**      INS **F ΔT 80 K**  
 SFA **1.8/0.9 A**    PF **0.64**  
 DUTY **CONT**  
 AVG F.L. EFF.    **73.4%**



**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 1.44-1.40/0.71-0.74 A 1450 RPM S.F. 1.35**

S/N:

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