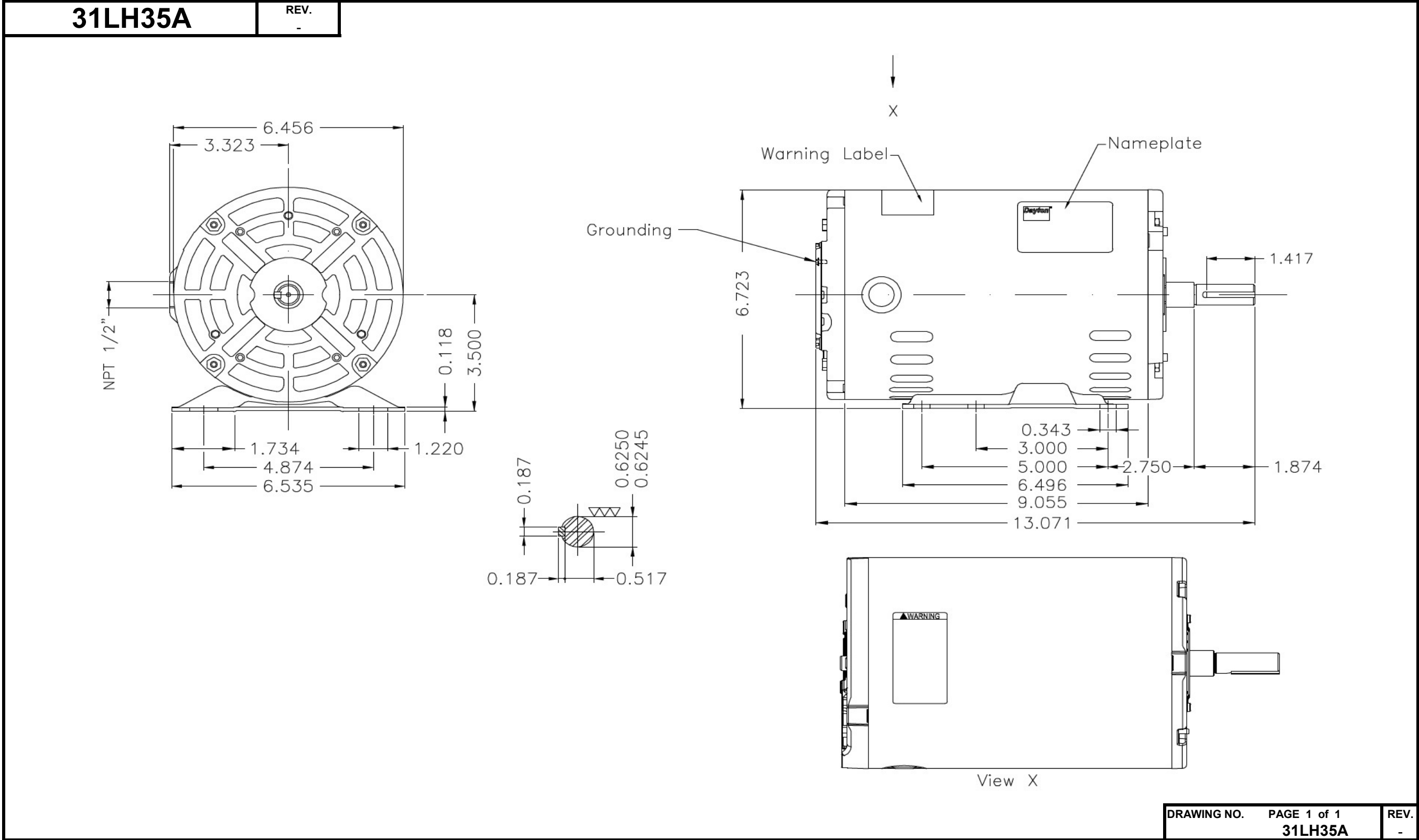


Dimensional Drawing



DRAWING NO.	PAGE 1 of 1	REV.
31LH35A		-

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

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DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer

Product line : W01 - ODP - Premium Efficiency

Frame	: 56H	Locked rotor time	: 12 s (hot) 22 s (cold)
Output	: 3 HP (2.2 kW)	Temperature rise ⁴	: 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	: 7.94/3.97 A	Cooling method	: IC01 - ODP
L. R. Amperes	: 60.3/30.2 A	Mounting	: F-1
LRC (p.u.)	: 7.6 Code K	Direct of rotation ¹	: Both
No load current	: 4.20/2.10 A	Noise level ²	: 52.0 dB(A)
Rated speed	: 1735 rpm	Starting method	: Direct On Line
Slip	: 3.61 %	Approx. weight ³	: 19.5 kg
Rated torque	: 12.3 Nm	Design	: B
Locked rotor torque	: 270 %		
Pull up torque	: 230 %		
Breakdown torque	: 300 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 0.0060 kgm ²		

Output	Start	50%	75%	100%	Load type: -
Efficiency (%)	-	86.5	86.5	86.9	Load torque: -
Power factor	0.60	0.59	0.72	0.80	Load inertia (J=GD ² /4): -

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

Notes:
 * Dayton # 31LH35A
 * 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				181303/2016-A
Checked by	marian				Page Revision
Date	15/09/2017				1/2 1

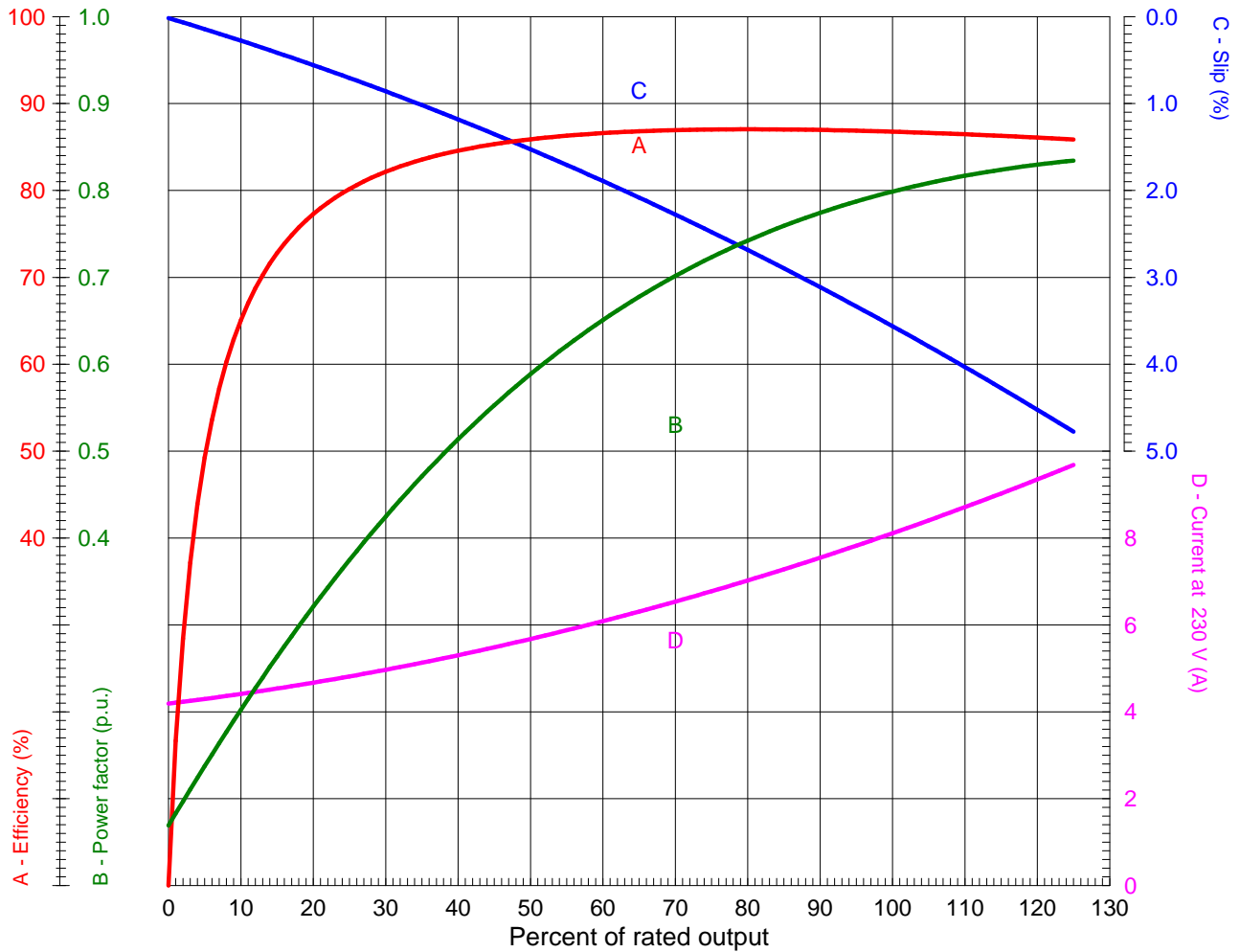
LOAD PERFORMANCE CURVE



Three Phase Induction Motor - Squirrel Cage

Customer

Product line : W01 - ODP - Premium Efficiency



Performance : 3 HP (2.2 kW) 230/460 V 60 Hz 4P 56H

Rated current	: 7.94/3.97 A	Moment of inertia (J)	: 0.0060 kgm ²
LRC (p.u.)	: 7.6 Code K	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 Nm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1735 rpm	Design	: B

Rev.	Summary of changes	Performed	Checked	Date
Performed by	mrsanchez	181303/2016-A1		Page 1/1
Checked by	marian			
Date	15/09/2017			
				Revision 1

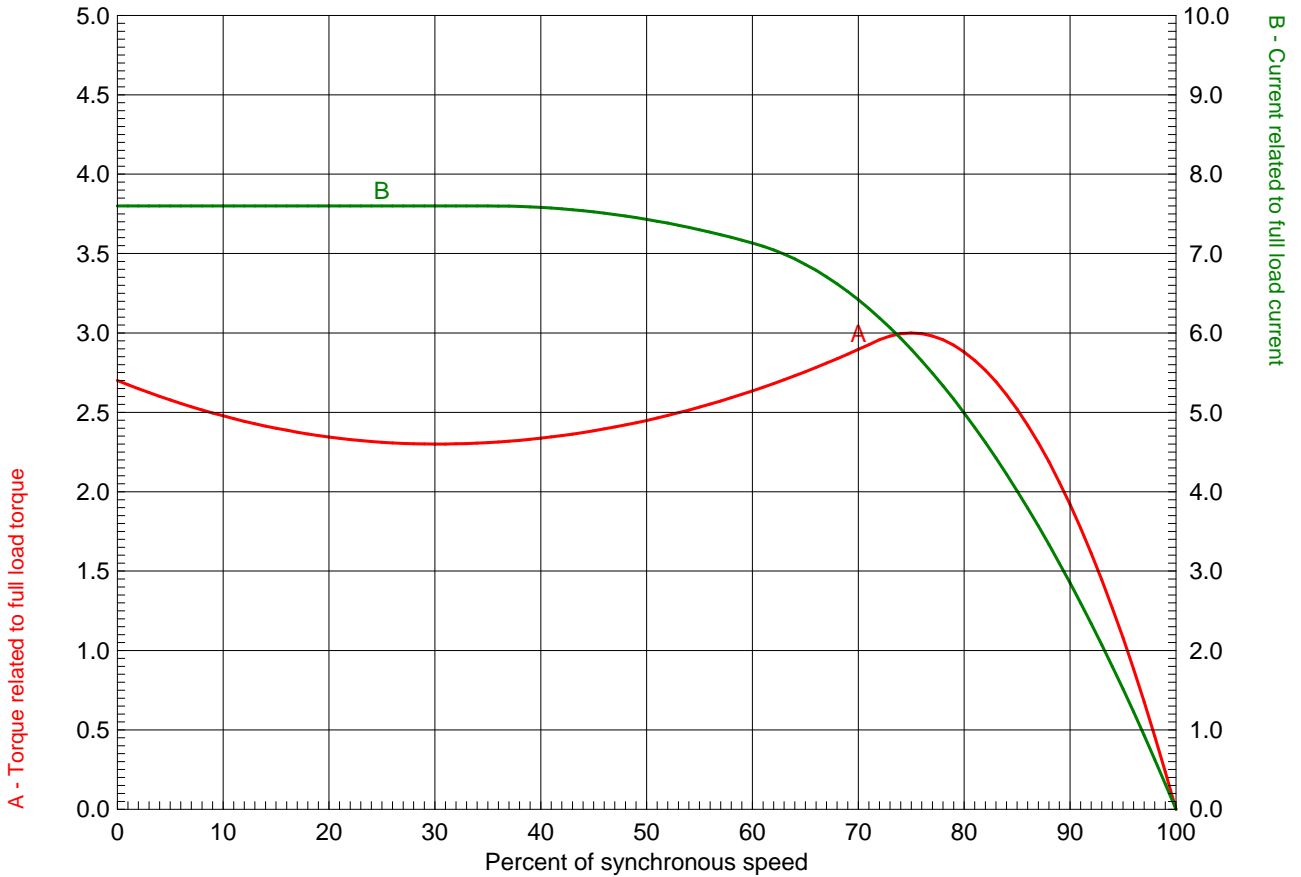
TORQUE AND CURRENT X SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

Customer

Product line : W01 - ODP - Premium Efficiency



Performance : 3 HP (2.2 kW) 230/460 V 60 Hz 4P 56H

Rated current	: 7.94/3.97 A	Moment of inertia (J)	: 0.0060 kgm ²
LRC (p.u.)	: 7.6 Code K	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 Nm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1735 rpm	Design	: B

Locked rotor time 100% : 12 s (hot) 22 s (cold)
 Load inertia (J=GD²/4) : 0.006 kgm²

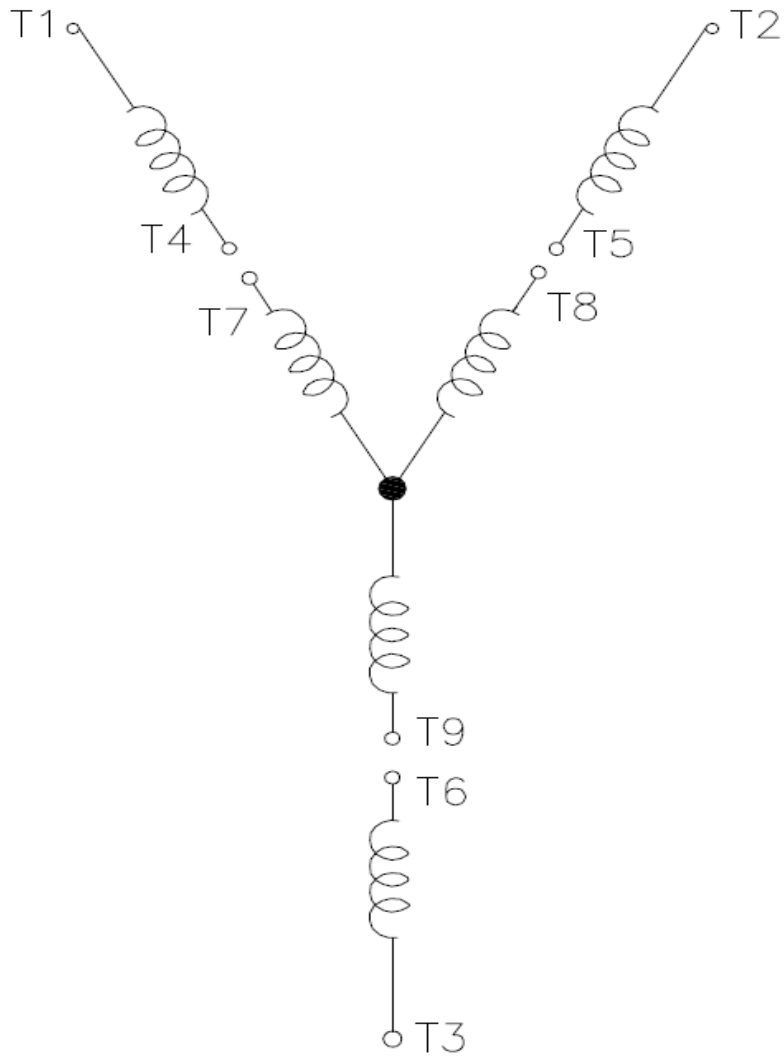
Rev.	Summary of changes	Performed	Checked	Date
Performed by	mrsanchez	181303/2016-A1		
Checked by	marian	Page	Revision	
Date	15/09/2017	1/1	1	

Wiring Diagram

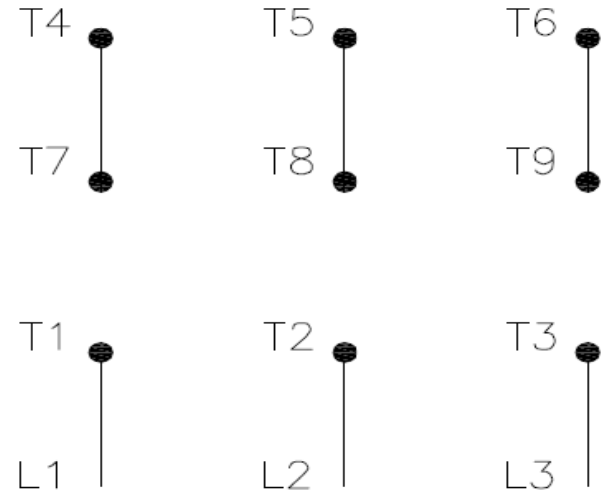


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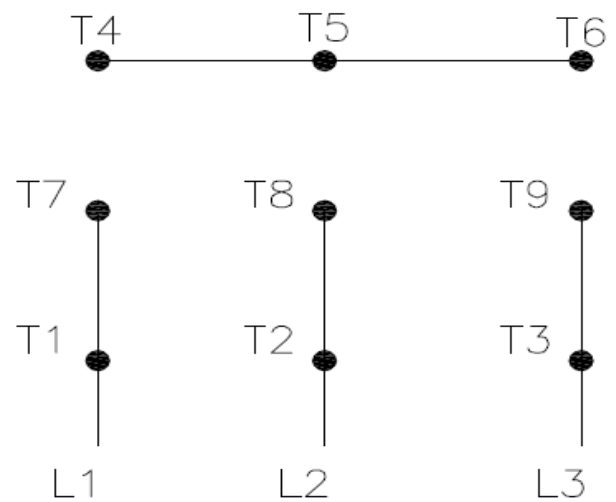
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High Voltage (Y)



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.
31LH35A		0

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NEMA
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MODEL NO.

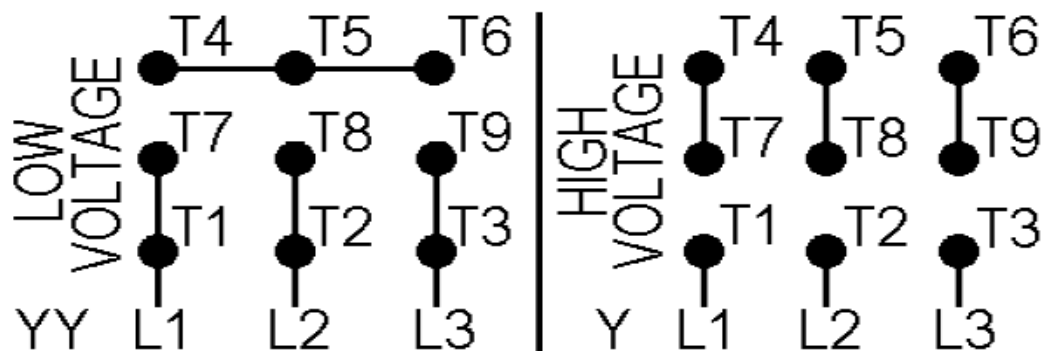
CEC® **US****CE****CSA**®
C US**31LH35A**

T00IC0X0X0000302084

MAT: 13827734

PH 3	HP (kW) 3.0(2.2)
HZ 60	V 230/460
RPM 1735	A 7.94/3.97
FR 56H	DES B
IP21	ENCL ODP
AMB 40 °C	CODE K
SF 1.15	INS F ΔT 80 K
SFA 9.1/4.5 A	PF 0.80
DUTY CONT	
AVG F.L. EFF.	86.9%

S/N:



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
2.0HP 6.96-6.75/3.48-3.58 A 1445 RPM S.F.1.15

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