ABB BALDOR RELIANCE

Customer information packet

1458

5HP, 1500/1800RPM, 3PH, 50/60HZ, 3735M, BUFF

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Specifications

Enclosure	TENV
Frame Material	Steel
Frequency	50.00 Hz
	60.00 Hz
	50.00 Hz
	60.00 Hz
Motor Letter Type	Three Phase
Nameplate Output	5
Number of Poles	4
	4
Output @ Frequency	5.000 HP @ 60 HZ
	5.000 HP @ 50 HZ
Phase	3
	3
Product Style	GRINDER
Speed	1500 rpm
	1800 rpm
	1500 rpm
	1800 rpm
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage	208 V
	230 V
	460 V
Voltage @ Frequency	208.0 V @ 60 HZ
	230.0 V @ 50 HZ
	230.0 V @ 60 HZ
	460.0 V @ 50 HZ
	460.0 V @ 60 HZ
	208.0 V @ 50 HZ
Agency Approvals	CSA
	UR
Ambient Temperature	40 °C
Base Indicator	Rigid

Part Detail

Revision	Y
Type	AC
Mech. spec.	G14-117
Base	
Status	PRD/A
Elec. spec.	G4WG0036
Layout	G4LY0117
Eff. date	02-11-2022
CD Diagram	CD0258
Poles	04
Leads	9#14 11"FROM ENDTURN Y
Proprietary	False
Created date	01-01-0001

Current @ Voltage	6.800 A @ 460.0 V 6.800 A @ 230.0 V 15.000 A @ 208.0 V 13.600 A @ 230.0 V
Design Code	B
Duty Rating	CONT
Insulation Class	B
KVA Code	H
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Standards	Other
Motor Type	3735M
Mounting Arrangement	F1
Product Family	Buffer
Service Factor	1.00
Shaft Extension Location	Double Shaft
Shaft Rotation	Phase Seq-Opp Std Rot (CWODE)
Speed Code	Single Speed
Starting Method	Direct on line

Nameplate

NP3411L				
CAT.NO.	1458			
HP	5	**VOLTS**		230
PHASE	3	**AMPS**	13.6	
HZ	50//60	**RPM**	1500//1800	
SER.NO				
SPEC.	G14-117C-0036G1			
BLANK				

Accessories

Part number	Description	Multiplier
GA20	PEDESTAL INDUSTRIAL, CAST IRON 8"-14"	A8

AC Induction Motor Performance Data
Record # 23658
Preliminary Data Sheet

Winding: G4WG0036-R001	**Type:** 3735M	**Enclosure:** TENV

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			5	**Full Load Torque**	15.1 LB-FT
Volts			208-230/460	**Start Configuration**	direct on line
Full Load Amps			15-13.6/6.8//15/6.8	**Breakdown Torque**	50.4 LB-FT
R.P.M.			1500//1800	**Pull-up Torque**	21.4 LB-FT
Hz	50//60	**Phase**	3	**Locked-rotor Torque**	29.1 LB-FT
NEMA Design Code	B	**KVA Code**	H	**Starting Current**	38.7 A
Service Factor (S.F.)			1	**No-load Current**	2.43 A
NEMA Nom. Eff.	0	**Power Factor**	0	**Line-line Res. @ 25ºC**	2.24 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	
				Locked-rotor Power Factor	40
				Rotor inertia	0.74 LB-FT2

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	53	74	83	87	90	90
Efficiency	76.9	84.7	86.7	87.1	86.5	85.5
Speed	1784	1770	1755	1739	1721	1702
Line amperes	2.87	3.74	4.87	6.15	7.56	9.09

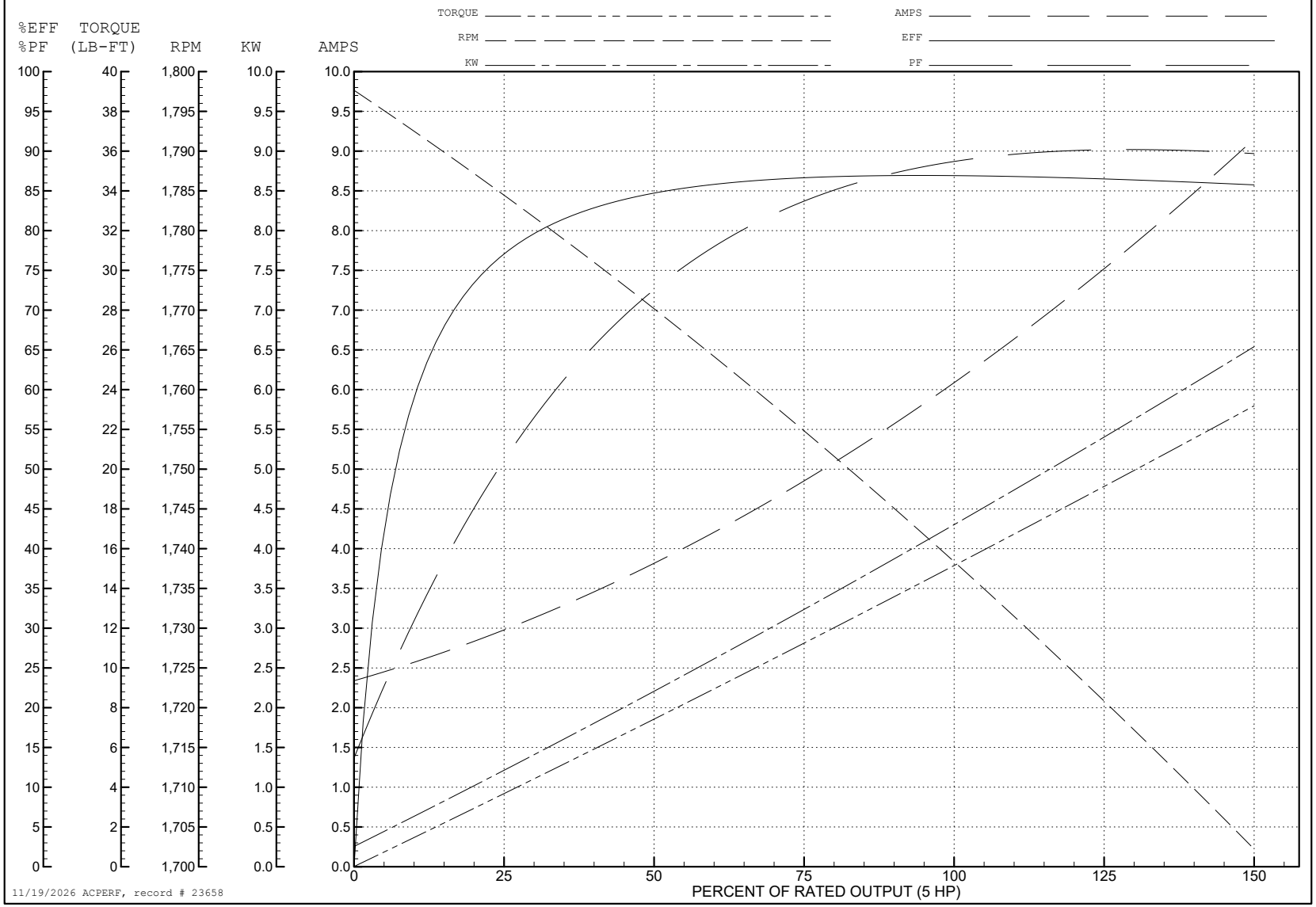
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WINDING # G4WG0036

5 HP 3 PH 60 HZ 1739 RPM 460 V 3735M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=50.4 PU=21.4 LR=29.1 LRA=38.7



AC Induction Motor Performance Data
Record # 23659
Preliminary Data Sheet

Winding: G4WG0036-R001	**Type:** 3735M	**Enclosure:** TENV

Nameplate Data				**460 V, 50 Hz: High Voltage Connection**	
Rated Output (HP)			5	**Full Load Torque**	18.1 LB-FT
Volts			208-230/460	**Start Configuration**	direct on line
Full Load Amps			15-13.6/6.8//15/6.8	**Breakdown Torque**	71.6 LB-FT
R.P.M.			1500//1800	**Pull-up Torque**	35.3 LB-FT
Hz	50//60	**Phase**	3	**Locked-rotor Torque**	47.8 LB-FT
NEMA Design Code	B	**KVA Code**	H	**Starting Current**	46 A
Service Factor (S.F.)			1	**No-load Current**	3.33 A
NEMA Nom. Eff.	0	**Power Factor**	0	**Line-line Res. @ 25ºC**	2.24 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	
				Locked-rotor Power Factor	47
				Rotor inertia	0.74 LB-FT2

Load Characteristics 460 V, 50 Hz, 5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	43	64	76	83	86	88
Efficiency	73.7	82.7	85.4	86	85.7	84.9
Speed	1487	1475	1462	1449	1434	1419
Line amperes	3.67	4.4	5.4	6.58	7.91	9.36

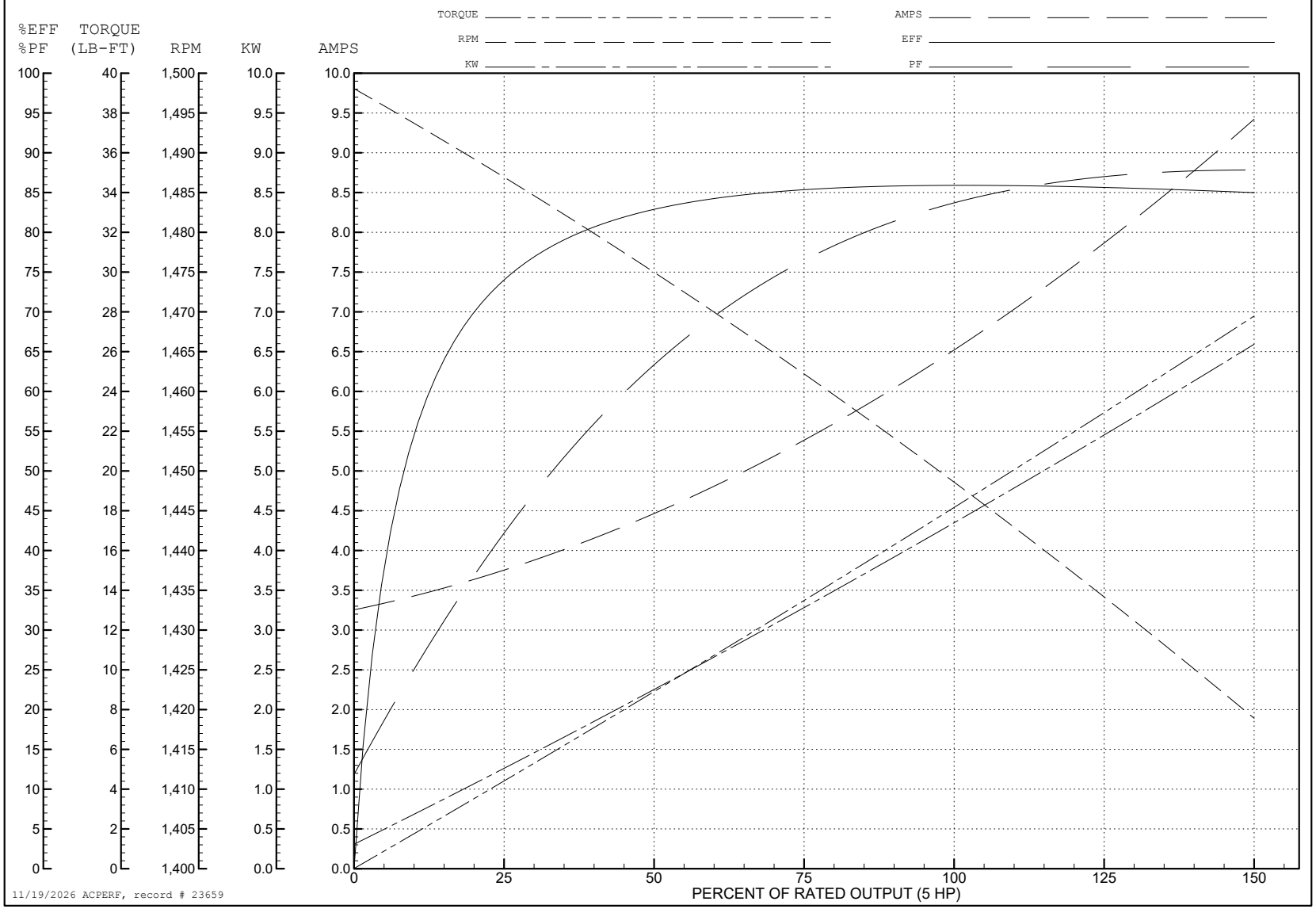
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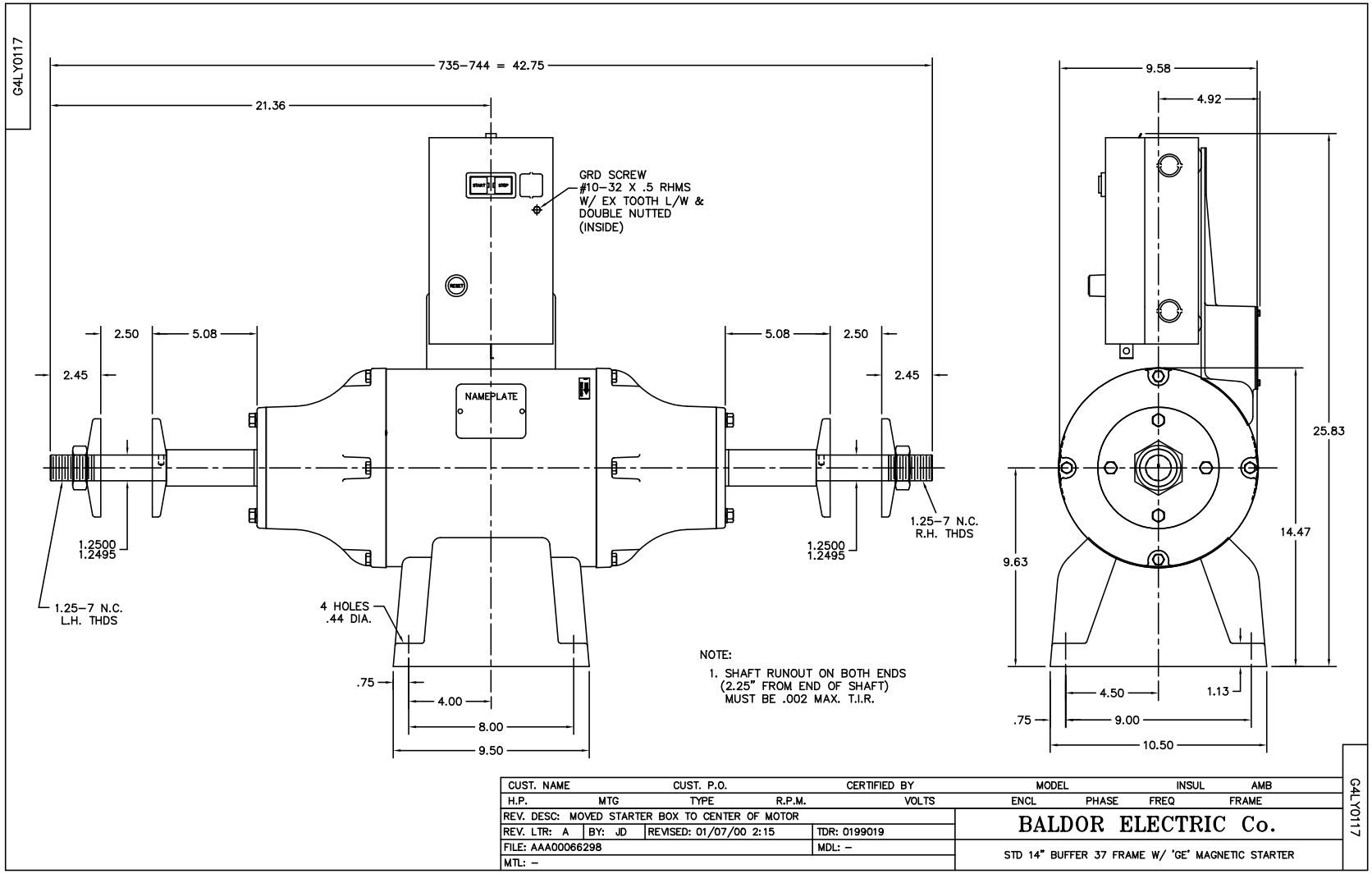
WINDING # G4WG0036

5 HP 3 PH 50 HZ 1449 RPM 460 V 3735M

Typical performance - not guaranteed values.

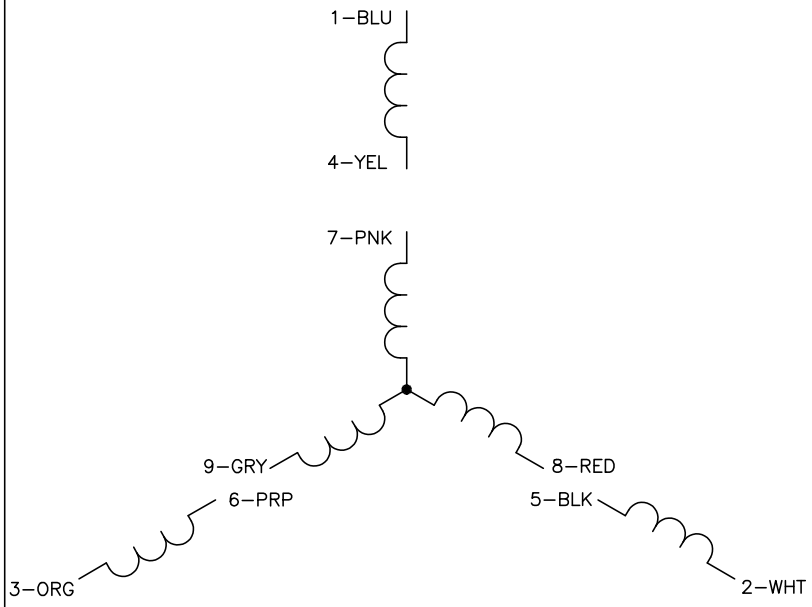
TORQUES(LB-FT): PO=71.6 PU=35.3 LR=47.8 LRA=46




G4LY0117
735-744 = 42.75
21.36
GRD SCREW
#10-32 X .5 RHMS
W/ EX TOOTH L/W &
DOUBLE NUTTED
(INSIDE)
2.50
5.08
2.45
NAMEPLATE
5.08
2.50
2.45
1.2500
1.2495
1.25-7 N.C.
L.H. THDS
1.25-7 N.C.
R.H. THDS
1.2500
1.2495
4 HOLES
.44 DIA.
.75
4.00
8.00
9.50
NOTE:
1. SHAFT RUNOUT ON BOTH ENDS
(2.25" FROM END OF SHAFT)
MUST BE .002 MAX. T.I.R.
9.58
4.92
25.83
14.47
9.63
4.50
1.13
.75
9.00
10.50
CUST. NAME
CUST. P.O.
CERTIFIED BY
MODEL
INSUL
AMB
H.P.
MTG
TYPE
R.P.M.
VOLTS
ENCL
PHASE
FREQ
FRAME
REV. DESC: MOVED STARTER BOX TO CENTER OF MOTOR
REV. LTR: A
BY: JD
REVISED: 01/07/00 2:15
TDR: 0199019
FILE: AAA00066298
MDL: -
MTL: -
BALDOR ELECTRIC Co.
STD 14" BUFFER 37 FRAME W/ 'GE' MAGNETIC STARTER
G4LY0117

CD0258

MOTOR

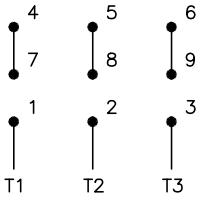


NOTES:

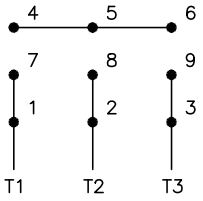
1. GROUND BASE TO BAND.
2. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

STARTER BRACKET CONDUIT BOX

HIGH VOLTAGE



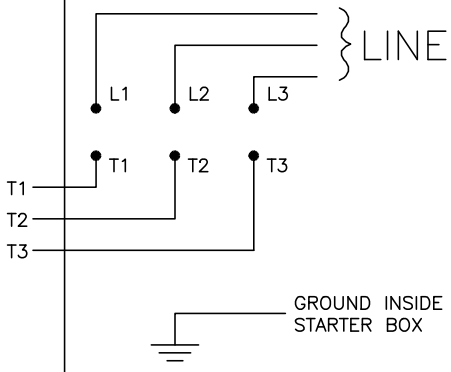
LOW VOLTAGE



NOTE:

THE MOTOR IS FACTORY CONNECTED FOR THE SAME VOLTAGE AS THE MAGNETIC STARTER. A MAGNETIC STARTER FOR THE PROPER VOLTAGE EQUIPPED WITH THE CORRECT HEATER ELEMENTS WILL BE NEEDED FOR A VOLTAGE CONNECTION CHANGE.

STARTER



NOTE:

INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.

CD0258

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: C	BY: EAH	REVISED: 05/05/99 11:35	TDR: 0179909
CD0258		FILE: AAA00051260	MDL: –
		MTL: –	3PH, DV, 9 LEAD, GRINDER OR BUFFER W/MAGNETIC STARTER