ABB BALDOR RELIANCE

Customer information packet

1409W

40M 4P GRINDER

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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	7.5
Number of Poles	4
	4
Output @ Frequency	7.500 HP @ 50 HZ
	7.500 HP @ 60 HZ
Phase	3
	3
Shaft Diameter	1.250 IN
	1.250 IN
Speed	1500 rpm
	1800 rpm
	1500 rpm
	1800 rpm
Synchronous Speed @ Frequency	1500 RPM @ 50 HZ
Voltage	575 V
Voltage @ Frequency	575.0 V @ 60 HZ
	575.0 V @ 50 HZ
Agency Approvals	CSA
Ambient Temperature	40 °C
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	8.000 A @ 575.0 V
Design Code	B
Duty Rating	CONT
Feedback Device	NO FEEDBACK

Part Detail

Revision	E
Type	AC
Mech. spec.	G14-116
Base	
Status	PRD/A
Elec. spec.	G4WG0120
Layout	G4LY0116
Eff. date	06-05-2026
CD Diagram	CD0252
Poles	04
Leads	3#14
Proprietary	False
Created date	11-20-2020

Insulation Class	B
KVA Code	H
Motor Lead Quantity/Wire Size	3 @ 14 AWG
Motor Standards	Other
Motor Type	3740M
Mounting Arrangement	F1
Overall Length	37.39 IN
Product Family	Grinder
Service Factor	1.00
Shaft Rotation	Phase Seq-Opp Std Rot (CWODE)
Shaft Slinger Indicator	No Slinger
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Winding	None
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3412L			
CAT.NO.	1409W		
HP	7.5	**VOLTS**	575
PHASE	3	**AMPS**	8
HZ	50//60	**RPM**	1500//1800
SER.NO			
SPEC.	G14-116A-0120		
BLANK			

Accessories

Part number	Description	Multiplier
GA20	PEDESTAL INDUSTRIAL, CAST IRON 8"-14"	A8
GA9	PAIR LIGHTED EYESHIELDS	A8
GA9-1	SINGLE LIGHTED EYESHIELD	A8
GA9S	PAIR EYESHIELDS W/ ON-OFF SWITCH	A8
GA11	PAIR EYESHIELDS	A8
B147	14" 30 GRIT GRINDING WHEEL	A8
B148	14" 46 GRIT GRINDING WHEEL	A8
DC14-3	DUST CONTROL FOR 14 IN GRINDER	A8

AC Induction Motor Performance Data
Record # 85539
Preliminary Data Sheet

Winding: G4WG0120-R001	**Type:** G1440M	**Enclosure:** TENV

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			7.5	**Full Load Torque**	22.4 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			8	**Breakdown Torque**	50.6 LB-FT
R.P.M.			1500//1800	**Pull-up Torque**	20 LB-FT
Hz	50//60	**Phase**	3	**Locked-rotor Torque**	25.5 LB-FT
NEMA Design Code	B	**KVA Code**	H	**Starting Current**	31.5 A
Service Factor (S.F.)			1	**No-load Current**	2.28 A
NEMA Nom. Eff.	0	**Power Factor**	0	**Line-line Res. @ 25ºC**	3.79 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	
				Locked-rotor Power Factor	40.1
				Rotor inertia	0.984 lb-ft²

Load Characteristics 575 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	56	78	85	88	89	88
Efficiency	90.1	92.2	91.8	90.8	89.3	87.4
Speed	1791	1783	1773	1763	1751	1737
Line amperes	2.8	3.94	5.39	7.03	8.87	11

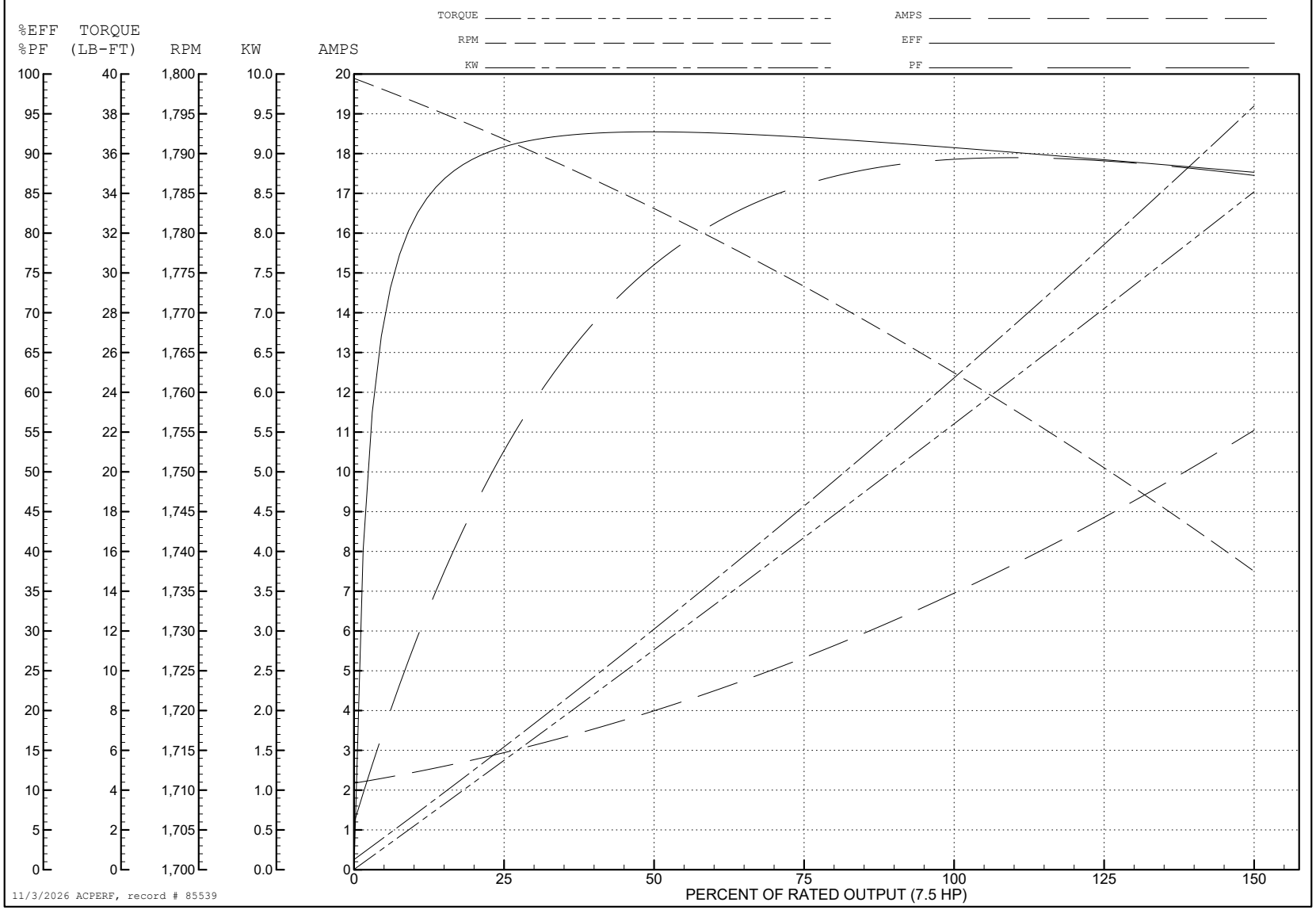
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WINDING # G4WG0120

7.5 HP 3 PH 60 HZ 1763 RPM 575 V G1440M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=50.6 PU=20 LR=25.5 LRA=31.5



AC Induction Motor Performance Data
Record # 85540
Preliminary Data Sheet

Winding: G4WG0120-R001	**Type:** G1440M	**Enclosure:** TENV

Nameplate Data				**575 V, 50 Hz: Single Voltage Motor**	
Rated Output (HP)			7.5	**Full Load Torque**	26.8 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			8	**Breakdown Torque**	71.2 LB-FT
R.P.M.			1500//1800	**Pull-up Torque**	20 LB-FT
Hz	50//60	**Phase**	3	**Locked-rotor Torque**	39.8 LB-FT
NEMA Design Code	B	**KVA Code**	H	**Starting Current**	37.7 A
Service Factor (S.F.)			1	**No-load Current**	3.14 A
NEMA Nom. Eff.	0	**Power Factor**	0	**Line-line Res. @ 25ºC**	3.79 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	
				Locked-rotor Power Factor	45.7
				Rotor inertia	0.984 lb-ft²

Load Characteristics 575 V, 50 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	45	69	80	85	87	88
Efficiency	88	91	91.1	90.3	89	87.3
Speed	1493	1485	1478	1469	1460	1449
Line amperes	3.52	4.5	5.8	7.34	9.07	11

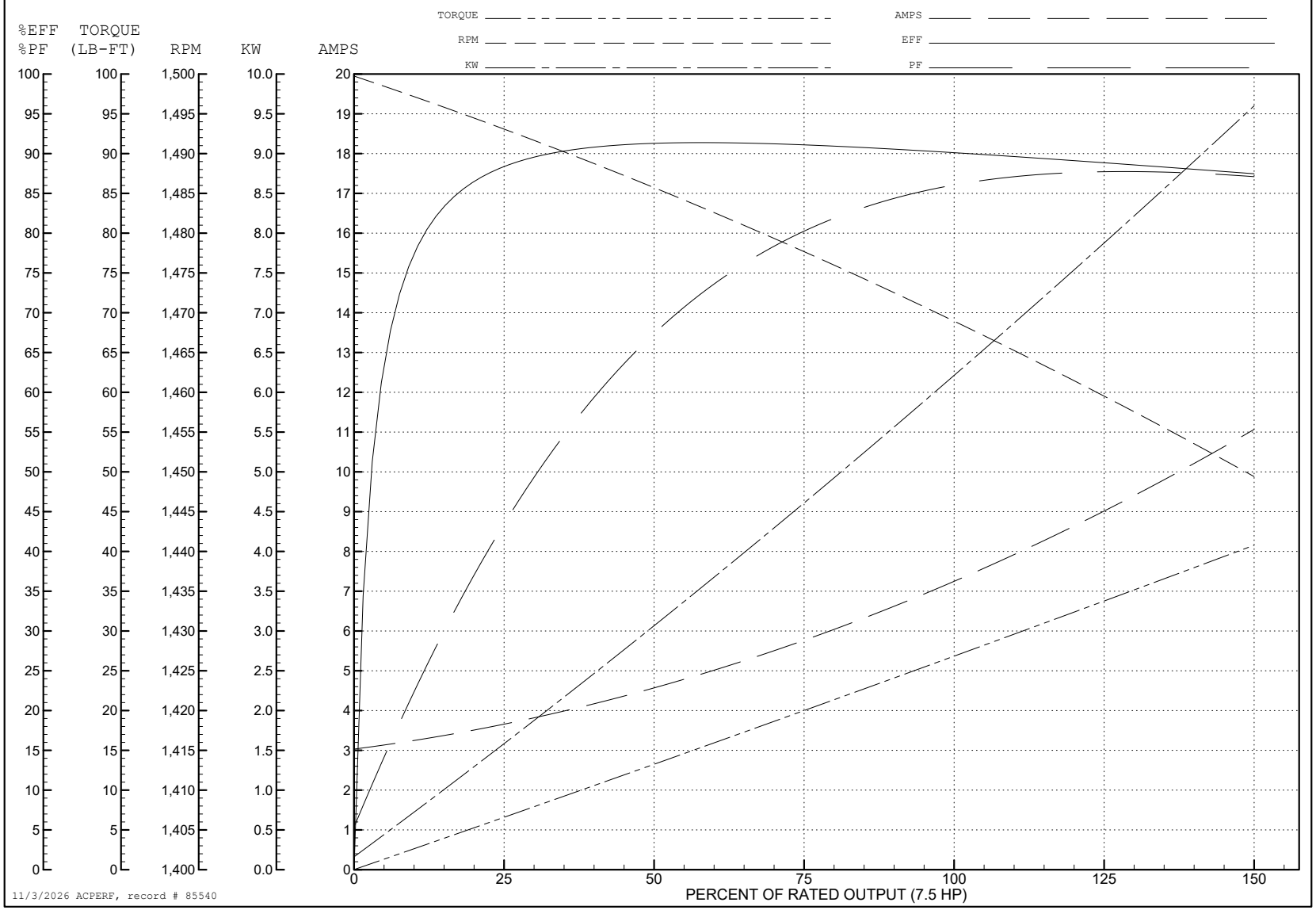
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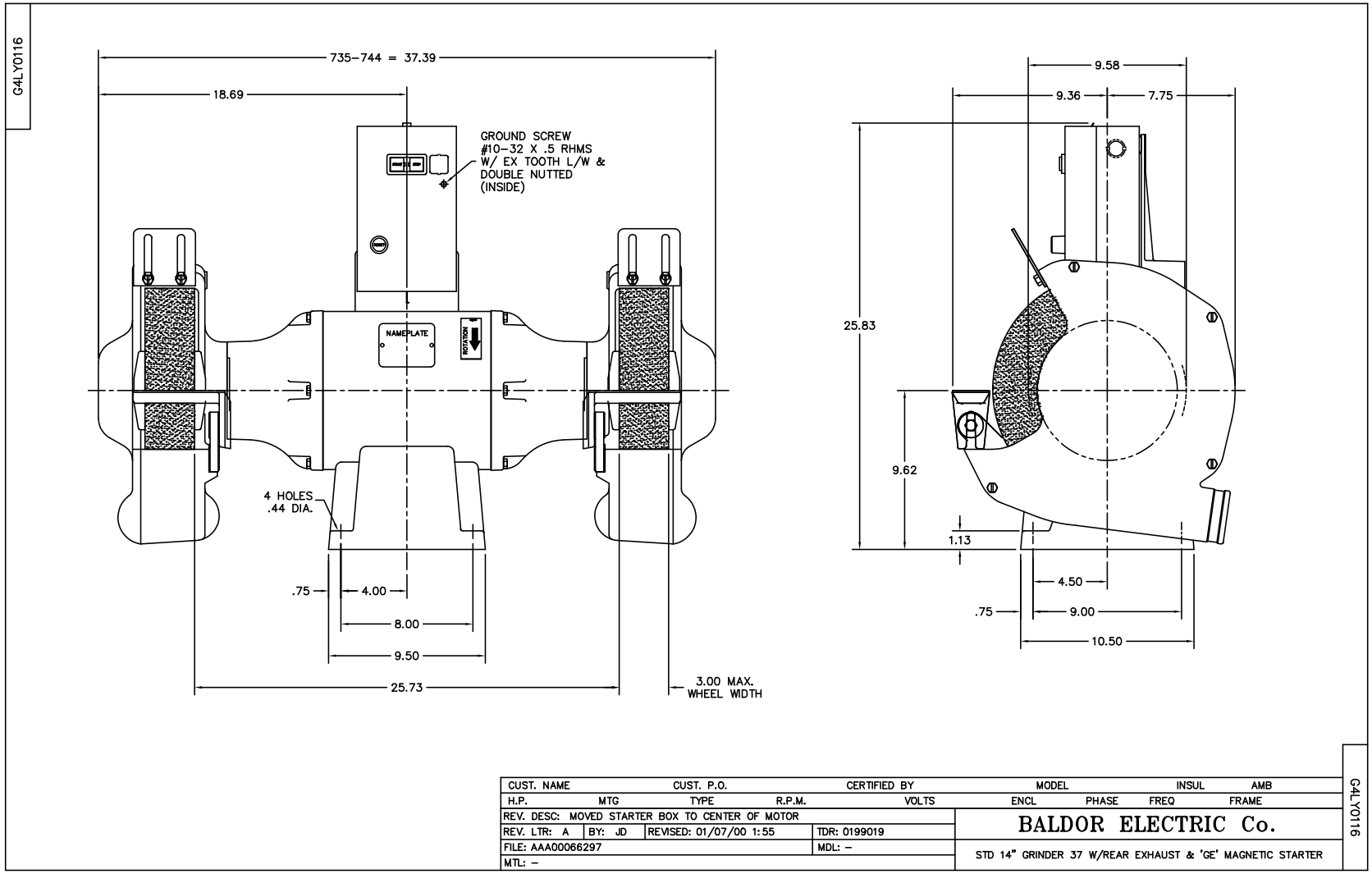
WINDING # G4WG0120

7.5 HP 3 PH 50 HZ 1469 RPM 575 V G1440M

Typical performance - not guaranteed values.

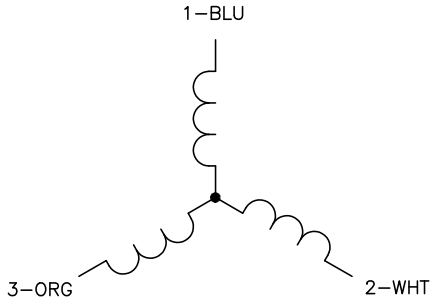
TORQUES(LB-FT): PO=71.2 PU=20 LR=39.8 LRA=37.7




G4LY0116
735–744 = 37.39
18.69
GROUND SCREW
#10–32 X .5 RHMS
W/ EX TOOTH L/W &
DOUBLE NUTTED
(INSIDE)
NAMEPLATE
ROTATION
4 HOLES
.44 DIA.
.75
4.00
8.00
9.50
25.73
3.00 MAX.
WHEEL WIDTH
9.58
9.36
7.75
25.83
9.62
1.13
4.50
.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 1:55
TDR: 0199019
FILE: AAA00066297
MDL: –
MTL: –
BALDOR ELECTRIC Co.
STD 14" GRINDER 37 W/REAR EXHAUST & 'GE' MAGNETIC STARTER
G4LY0116

CD0252

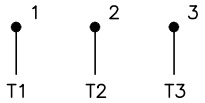
MOTOR



NOTES:

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

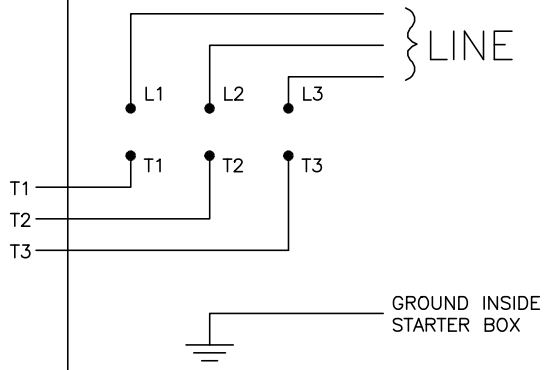
STARTER BRACKET CONDUIT BOX



NOTE:

THE MOTOR VOLTAGE IS MATCHED TO THE MAGNETIC STARTER.

STARTER

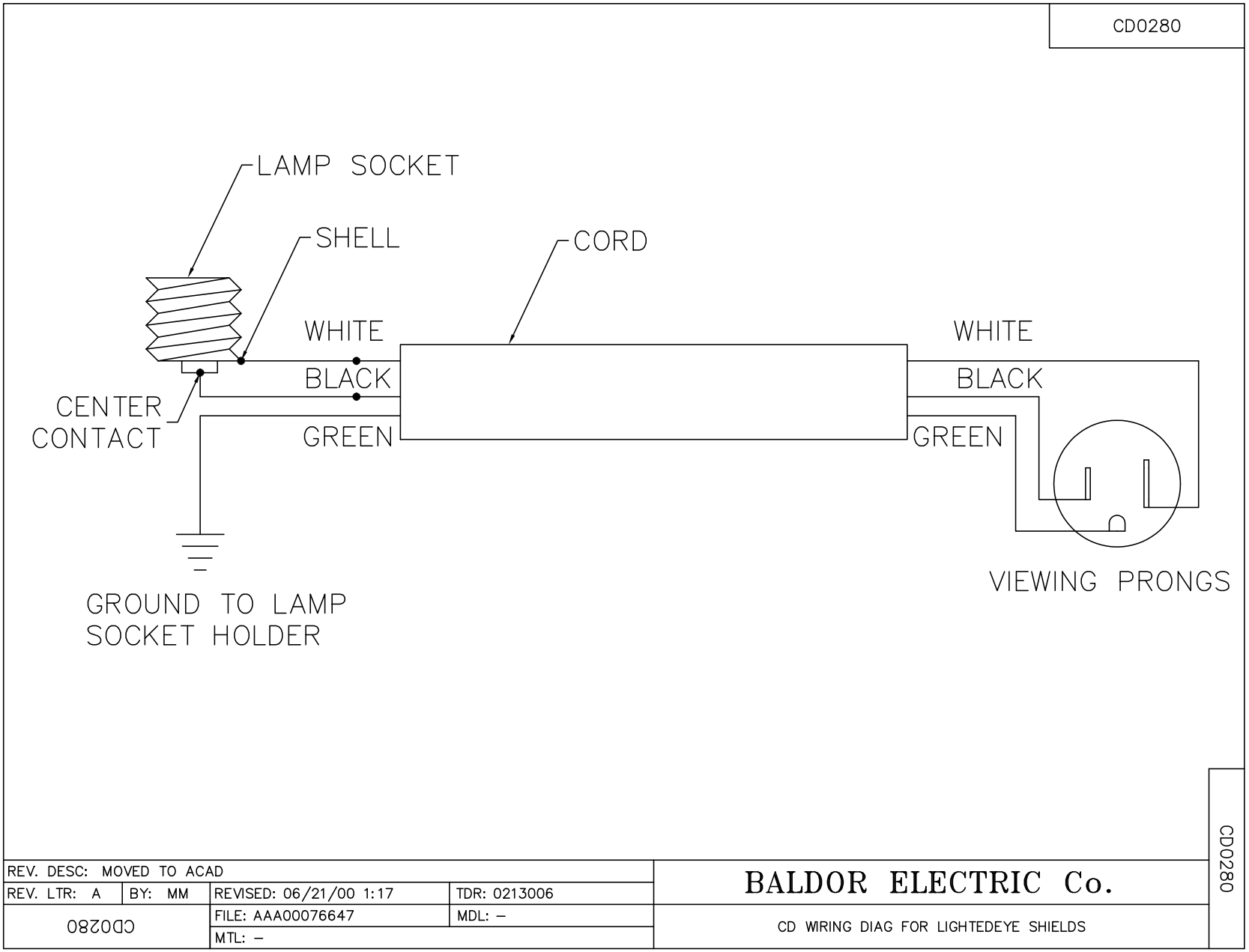


NOTE:

INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.

CD0252

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: B	BY: EAH	REVISED: 05/05/99 10:02	TDR: 0179909
CD0252		FILE: AAA00051767	MDL: –
		MTL: –	3PH, SV, 3 LEAD, GRINDER OR BUFFER W/MAGNETIC STARTER


CD0280
LAMP SOCKET
SHELL
CORD
WHITE
BLACK
GREEN
CENTER CONTACT
WHITE
BLACK
GREEN
GROUND TO LAMP SOCKET HOLDER
VIEWING PRONGS
CD0280
REV. DESC: MOVED TO ACAD
REV. LTR: A
BY: MM
REVISED: 06/21/00 1:17
TDR: 0213006
FILE: AAA00076647
MDL: –
MTL: –
CD0280
BALDOR ELECTRIC Co.
CD WIRING DIAG FOR LIGHTEDEYE SHIELDS