

ABB BALDOR RELIANCE III

Customer information packet

VBNM3538-D

.5/.37 KWHP, 1780RPM, 3PH, 60HZ, 56C, 3514M, T

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	56C
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	208.0 V @ 60 HZ 230.0 V @ 60 HZ 460.0 V @ 60 HZ 480.0 V @ 60 HZ
Agency Approvals	C UR US CE CURUS UKCA WEEE
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	2.020 A @ 230.0 V 1.900 A @ 208.0 V 1.070 A @ 480.0 V 1.010 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT

Part Detail

Revision	C
Type	AC
Mech. spec.	35X058
Base	
Status	PRD/A
Elec. spec.	35WGG069
Layout	35LYX058
Eff. date	01-05-2026
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	09-15-2023

Efficiency @ 100% Load	81.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3514M
Mounting Arrangement	F3
Number of Poles	4
Overall Length	15.96 IN
Power Factor	63
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1372L									
CAT.NO.	VBNM3538-D								
SPEC.	35X058G069G3								
HP	.5/.37 KW								
VOLTS	208-230/460-480								
AMP	1.9-2.02/1.01-1.07								
R.P.M. (1/MIN)	1780								
FRAME	56C	HZ		60			PH	3	
SER.F.	1.15	CODE	N	DES	B	CL	F		
NEMA-NOM-EFF	81.5	PF	63						
RATING	40C AMB-S1 CONT								
CC		IP44 KG20 IC410							
DE	6205	ODE		6203					
ENCL	TENV	SN							
	IE2-79.0(75%)74.0(50%)								

Parts List

Part number	Description	Quantity
SA418441	SA 35X058G069G3	1.000 ea
RA410344	RA 35X058G069G3	1.000 ea
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
S/P111-000-002	CORONA TEST, SUPER E MOTORS - FT. SMITH	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB4007	KOBX,W/PRIMER (WAS REL# 79097-49-C)	1.000 ea
35GS3023	GASKET FOR KOBX 35CB4007, CLSD CELL NEOP	1.000 ea
WD4101A13	STEEL CAPLUG,BP-1 1/8, PLUG D3561S	2.000 ea
51XB1016A05	10-16X5/16HX WA SL SR TYB (F/S)	2.000 ea
11XT1032G04	10-32 X 1/4" GRD SCREW	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
35EP3900T25	FR EP FACE MNT ENCL FOR BRAKE	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3307F00	MASTER DE,205 BRG,.998SH,#26 DRN	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
BR2006B01	DBSC SPLINED HUB 5/8 BOR	1.000 ea
35CB4519	CB LID W/BLACK PRIMER	1.000 ea
35GS3020	NEOPRENE GASKET, KOBX LID (602018-31)	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
WD4006A01	WIRE JOINT,T&B RB-4 OR RB-44	1.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1419	CONNECTION LABEL	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1000N49	MUNSELL 8.5BG 3.57/2.0, GLOSS 30, B/G,	0.017 ga
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
46BK0104B01	DBSC-VP-3-MA-230/460 VAC	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea

NP1372L	ALUM UL CE UKCA WEEE CC, A60	1.000 ea
G7PA1000	PKG GRP, PRINT PK1034A07	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 101704

Typical performance - not guaranteed values

Winding: 35WGG069-R095			Type: 3514M		Enclosure: TENV	
Nameplate Data			480 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		.5	Full Load Torque		1.49 LB-FT	
Volts		208-230/460-480	Start Configuration		direct on line	
Full Load Amps		1.9-2.02/1.01-1.07	Breakdown Torque		8.8 LB-FT	
R.P.M.		1780	Pull-up Torque		4.9 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque	5.7 LB-FT	
NEMA Design Code	B	KVA Code	N	Starting Current	8.9 A	
Service Factor (S.F.)		1.15	No-load Current		0.95 A	
NEMA Nom. Eff.	81.5	Power Factor	63	Line-line Res. @ 25°C	30.3 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		20°C	
S.F. Amps			Temp. Rise @ S.F. Load		22°C	
			Locked-rotor Power Factor		67.4	
			Rotor inertia		0.101 lb-ft²	

Load Characteristics 480 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	22	33	44	53	61	67	58
Efficiency	56.5	70.1	76.7	79.2	80.7	80.9	80.1
Speed	1793	1788	1783	1778	1772	1766	1774
Line amperes	0.95	0.98	1.01	1.07	1.16	1.25	1.12

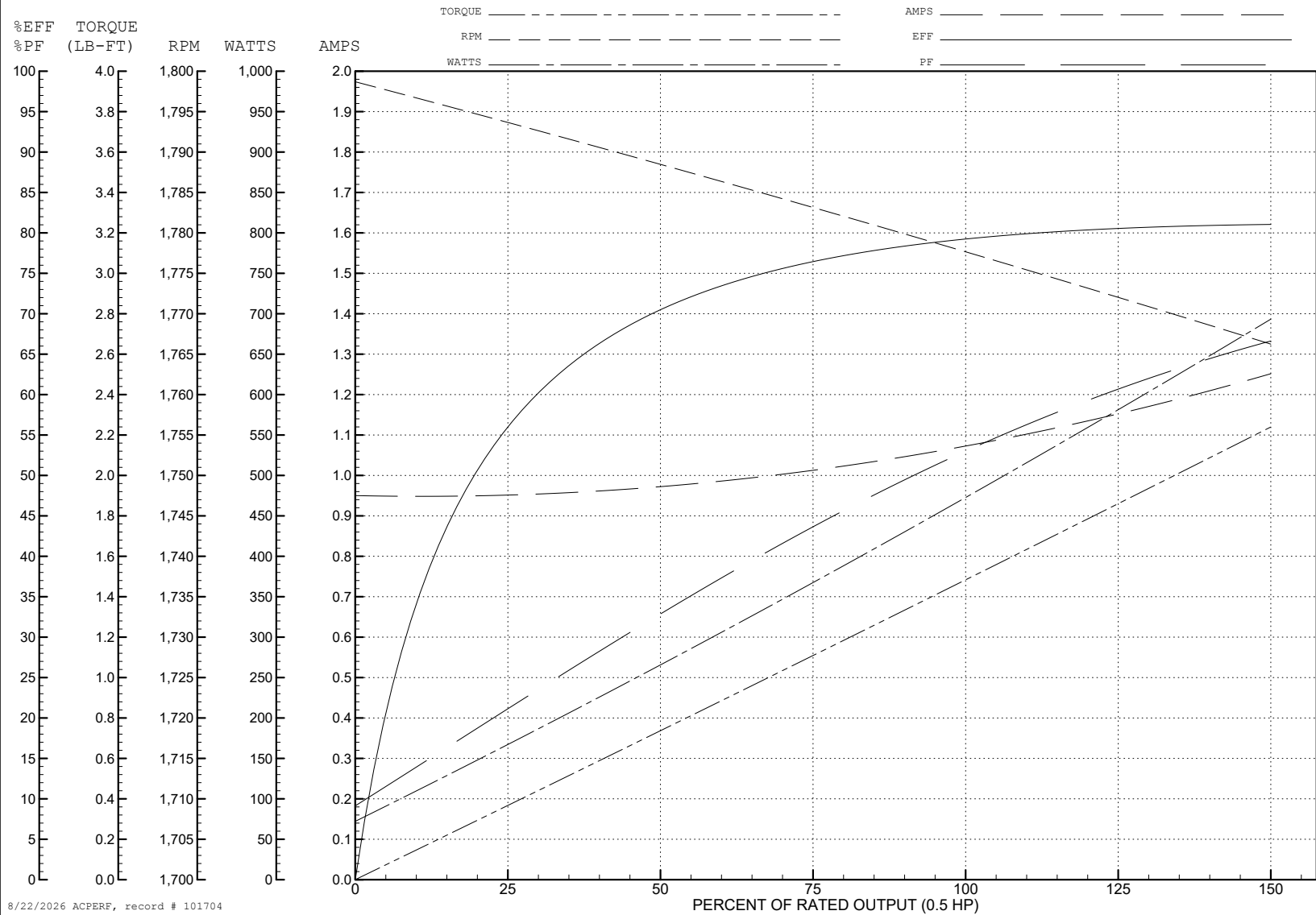
ABB Motors and Mechanical Inc.

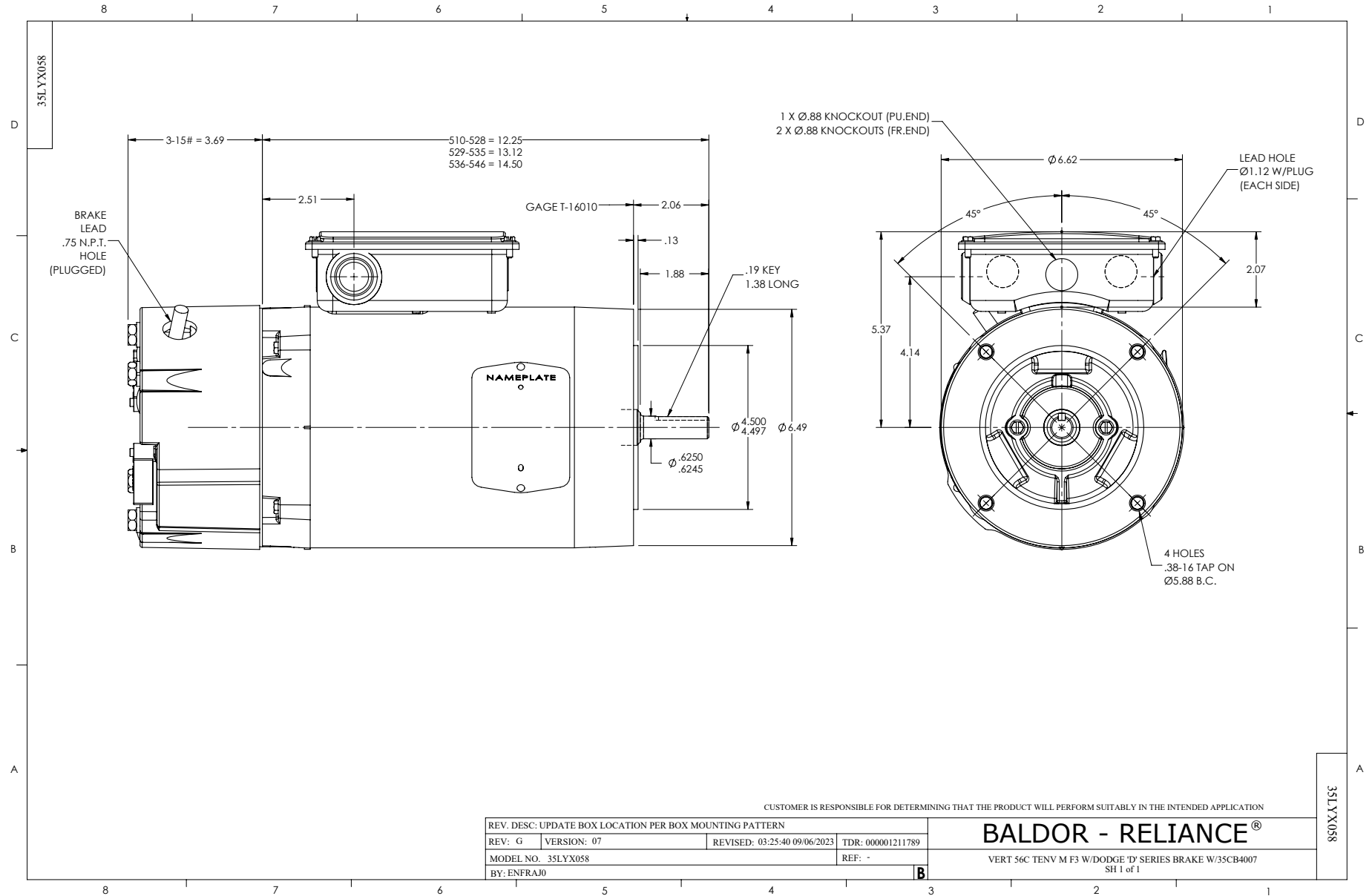
WINDING # 35WGG069

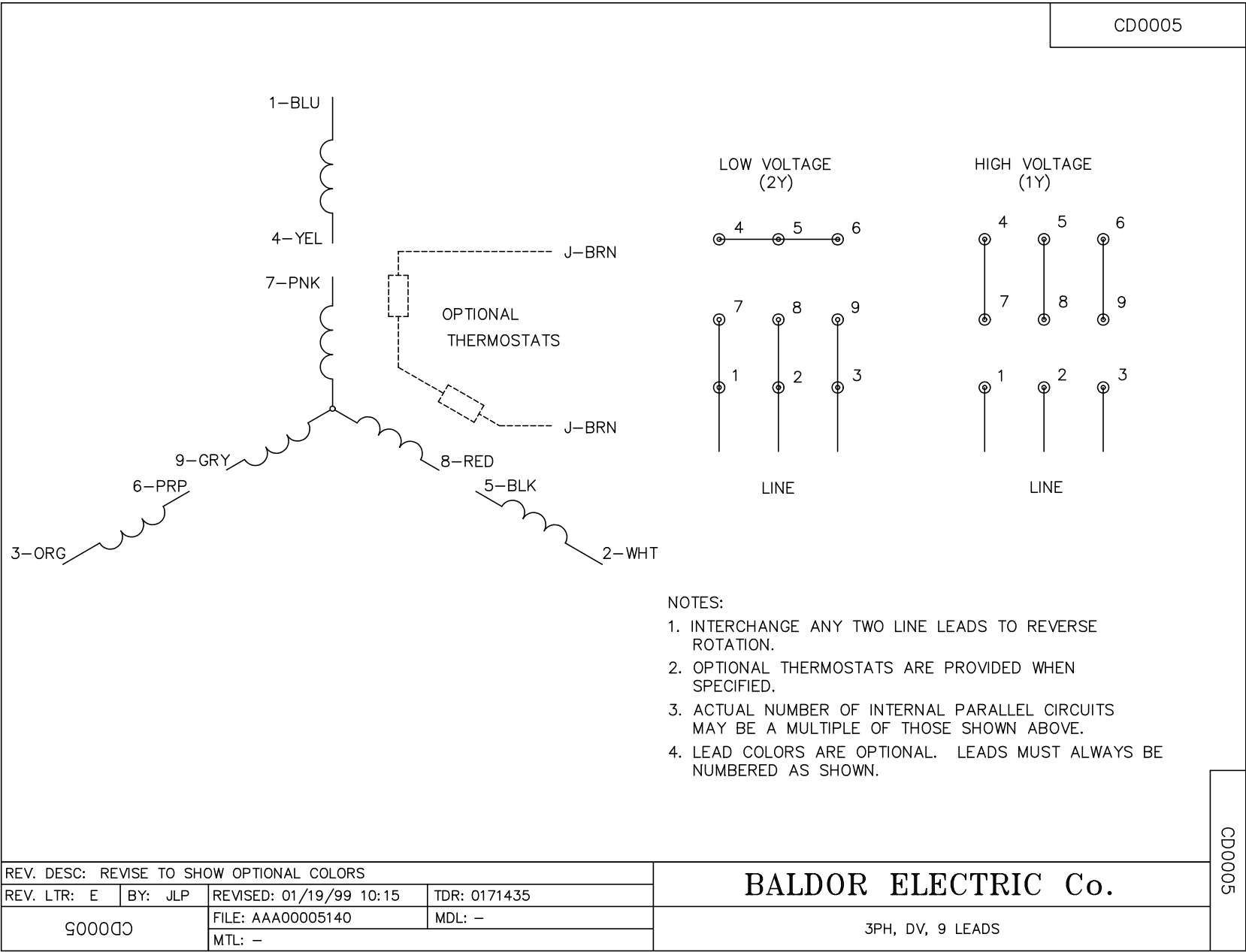
Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1780 RPM 480 V 3514M

TORQUES (LB-FT): PO=8.8 PU=4.9 LR=5.7 LRA=8.9







CD2120

WIRING CONNECTIONS (1 PHASE VAC)

	POWER LINE A	POWER LINE B	CAP TOGETHER	CAP ALONE
AC LOW VOLT.	B1	B2	B3 & B5	B4
AC HIGH VOLT.	B1 & B5	B2	---	B3 CAP ALONE B4 CAP ALONE
DC VOLT.	B1	B2	B3 & B5	B4

B1 WHITE
 B2 BLACK
 B3 GRAY
 B4 BLUE
 B5 RED

CD2120

REV. DESC: NEW		
REV. LTR: -	VERSION: 00	TDR: 000000741785
FILE: \CKA\00037\282	REVISED: 12: 28: 11 04/12/2012	
MTL: -	BY: CKRONSO	

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D-SERIES MOTOR BRAKE 5LD AC\DC
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