

ABB BALDOR RELIANCE III

Customer information packet

VECP83770T-4

7.5HP, 1765RPM, 3PH, 60HZ, 213TC, 0740M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	213TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CL I GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CSA EEV NEMA PREMIUM NEMA_PREMIUM UR CCSA US
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
Constant Torque Speed Range	1.2
Current @ Voltage	9.500 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	AM
Type	AC
Mech. spec.	07M323
Base	
Status	PRD/A
Elec. spec.	07WGX814
Layout	07LYM323
Eff. date	10-01-2025
CD Diagram	CD0006
Poles	04
Leads	3#14
Proprietary	False
Created date	08-21-2012

Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0740M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	20.24 IN
Power Factor	82
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1765 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

NP4328									
CAT.NO.	VECP83770T-4								
SPEC.	07M323X814G1								
HP	7.5 TE				IP	56			
VOLTS	460								
AMPS	9.5								
R.P.M.	1765								
FRAME	213TC		HZ		60		PH	3	
SER.F.	1.15	CODE	H	DES.	B	CLASS		F	
RATING	40C AMB-CONT								
SN									
DE	6307		ODE		6307				
NEMA NOM. EFF.	91.7		P.F.		82				
GUAR. MIN. EFF.	90.2		CC	010A					
T. CODE	T3C		TEMP=		160				

NP3186							
SPEC.	07M323X814G1						
ABMA DE BRG	35BC03X30X						
ABMA ODE BRG	35BC03X30X						
GREASE	POLYREX EM						
MOTOR WEIGHT	211	ROTOR BARS		28	STATOR BARS		36
MAX. R.P.M.	2700	MAX. KVAR		1.3			
INV.TYPE	PWM						
T=	160						
CHP	60	TO	90				
CT	1.2	TO	60				
VT	0-	TO	60				
HTR-VOLTS	N/A	HTR-AMPS		N/A			
HTR-WATTS		MAX. SPACE HEATER TEMP.					N/A

Parts List

Part number	Description	Quantity
SA250236	SA 07M323X814G1	1.000 ea
RA237092	RA 07M323X814G1	1.000 ea
37FN3002C01	EXFN, PLASTIC, 6.00 OD, 1.155 ID	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
09CB1002A05G	CONDUIT BOX, 1.00 N.P.T. (GRAY)	1.000 ea
RM1017	LEAD SEPERATOR GASKET MODEL 307 1/8" THK	1.000 ea
19XW2520A16	SCREW,1/4-20X1 TAPTITE-II OR ROLOC 91	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
10XN2520S06	1/4 20X3/8 HX HD CAP S.S.	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
07EP1119A02G	307 BRG,C.I.FH,GRSR,RLF,DRAIN FITTING,IN	1.000 ea
HW4601A25	INPRO SEAL, 307 BRG, VBX,	1.000 ea
10XN2520A26	1/4-20X 1 5/8 HEX HD	4.000 ea
HW4500A32	FIT./EXT 1698-B (ALEMITE)GREASE FITTING	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4010A01	T-DRAIN PLUG,416 S.S.,W/ 1/4-28 THD & .0	1.000 ea
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 ea
37EP1314A01G	PU ENDPLATE, MACH GRAY	1.000 ea
HW4601A25	INPRO SEAL, 307 BRG, VBX,	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 ea
10XN2520A30	HEX HD CAP SCREW-STD THD-.25 X 20 THD PE	4.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
07FH1001A01G	SPL FAN HOUSING, 307, W/GREASER, GRAY EP	1.000 ea
10XN2520A28	1/4-20X 1 3/4 HEX HD	3.000 ea
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 ea

12CB1503G	CONDUIT BOX CAST. (GRAY)	1.000 ea
09GS1013A01	09 GS FOR 09CB3501 LID - BLACK NEOPRENE	1.000 ea
10XN2520A12	1/4-20 X 3/4 HEX HEAD CAP	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
MJ5001A02	732 CL SEALANT 3 OZ DIXIE BEARING 289100	0.010 ea
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 ea
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt
MJ1000A73	INPRO P-80 ASSEMBLY LUB./ 1 QT. CONTAIN	0.001 qt
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LT0019A00	MOTOR NO-LOAD PERFORMANCE DATA SHEET	1.000 ea
WD1000D21	TRM,T&B #B71M,RING,18-14,.25,NON-INSL	3.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.036 ga
HA3104A32	THRUBOLT- 5/16-18 X12.750	4.000 ea
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
NP4328	SS IEEE841-2021 DIV-2 UL EEV CSA-C US	1.000 ea
NP3186	SS IEEE841 INV AUX DATA INFORMATION	1.000 ea
07PA1011	PKG GRP, 07 CAST IRON PK1181	1.000 ea
07PA1095	PKG GRP, VER 07 CAST IRON	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data

Record # 92344

Typical performance - not guaranteed values

Winding: 07WGX814-R056			Type: 0740M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: Single Voltage Motor					
Rated Output (HP)		7.5	Full Load Torque		22.32 LB-FT			
Volts		460	Start Configuration		direct on line			
Full Load Amps		9.5	Breakdown Torque		66.8 LB-FT			
R.P.M.		1765	Pull-up Torque		30 LB-FT			
Hz		60	Phase		3	Locked-rotor Torque	39.7 LB-FT	
NEMA Design Code		B	KVA Code		H	Starting Current		63.5 A
Service Factor (S.F.)		1.15	No-load Current		3.71 A			
NEMA Nom. Eff.		91.7	Power Factor		81	Line-line Res. @ 25°C		1.485 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		54°C		
S.F. Amps				Temp. Rise @ S.F. Load		67°C		
				Locked-rotor Power Factor		36.2		

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	46	68	78	82	84	85	83
Efficiency	88.6	92.1	92.4	91.7	90.7	89.3	91.1
Speed	1789.9	1782.7	1774.5	1765.4	1755.6	1743.7	1760
Line amperes	4.3	5.61	7.32	9.31	11.5	13.9	10.6

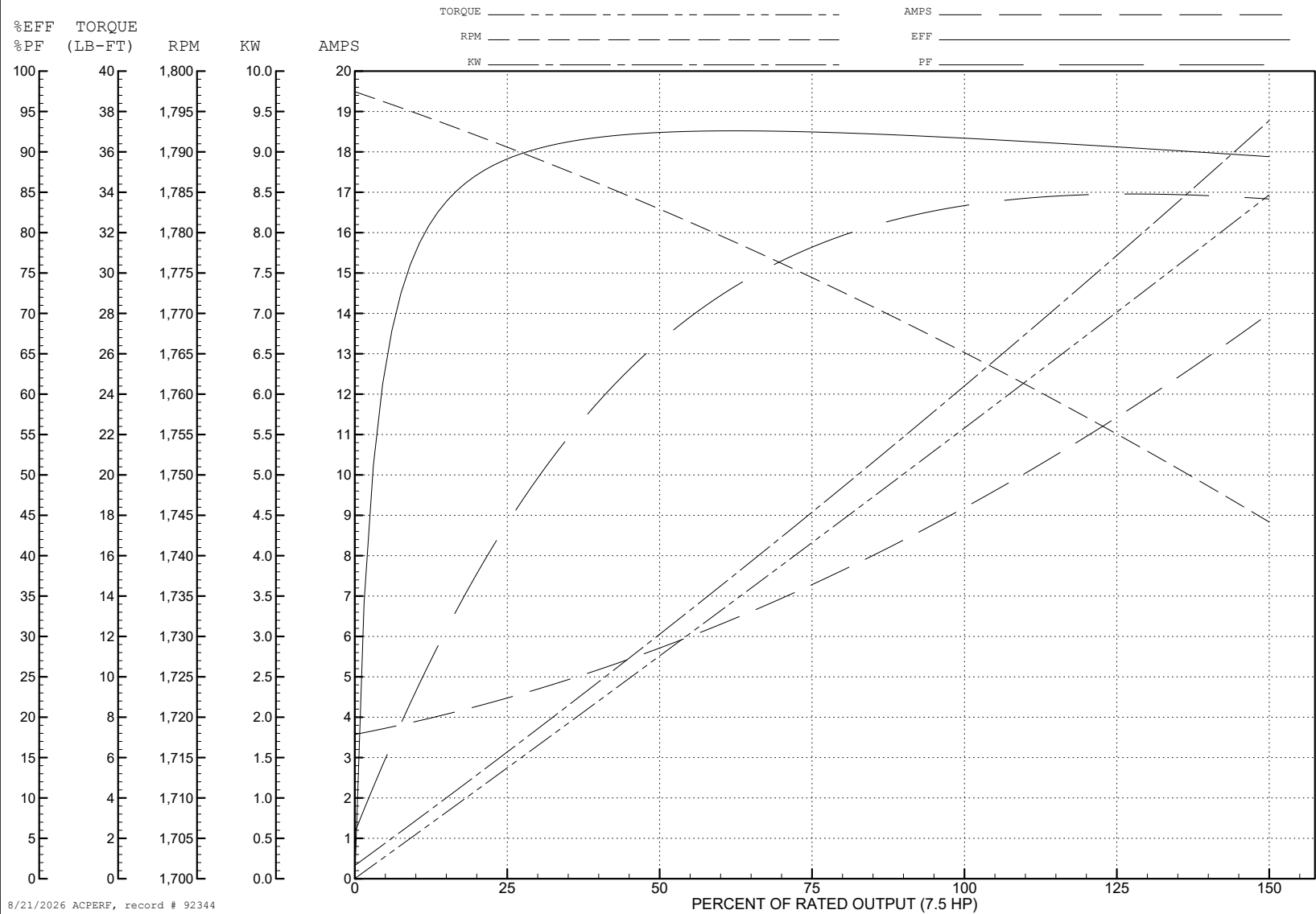
ABB Motors and Mechanical Inc.

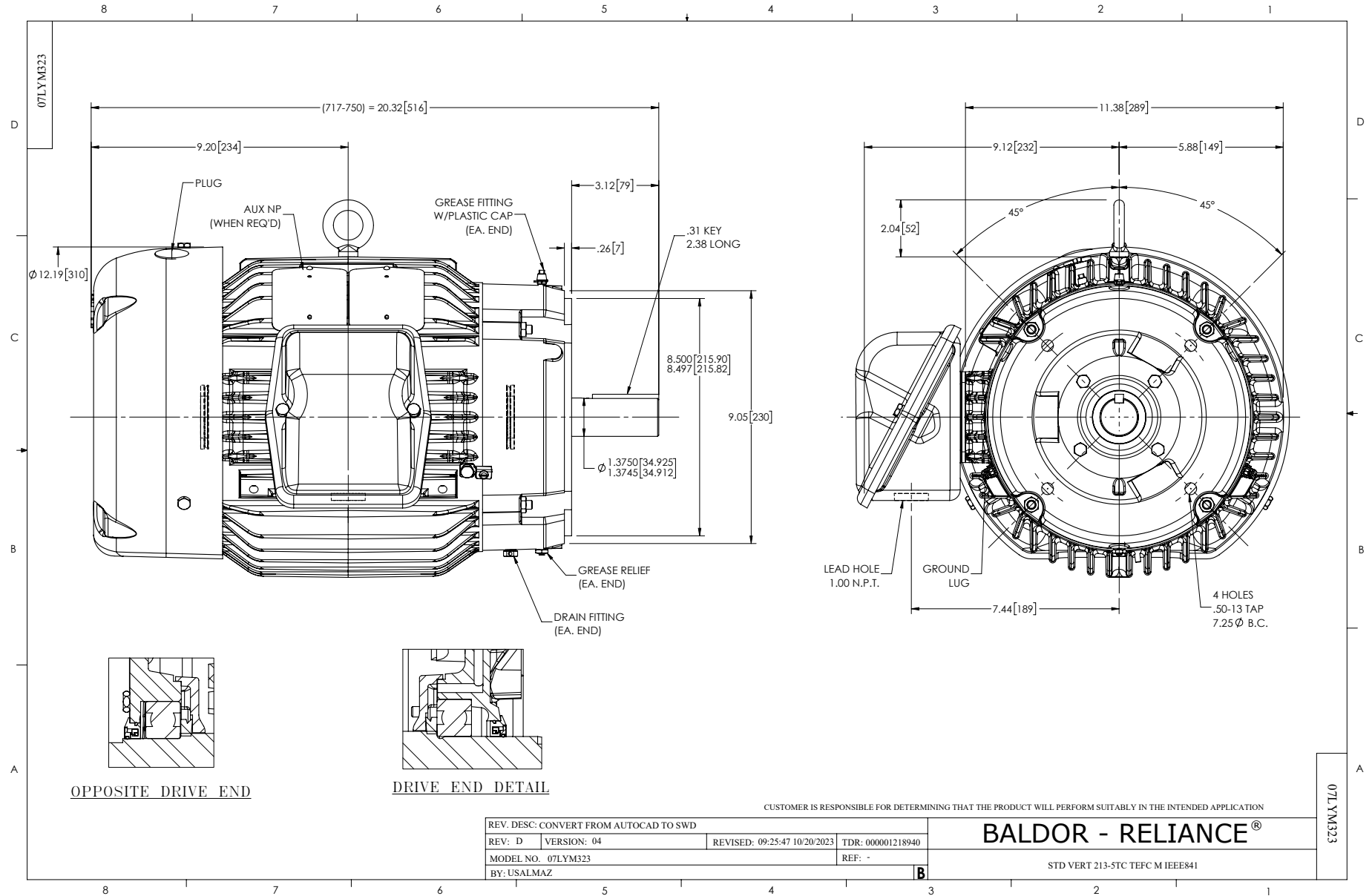
WINDING # 07WGX814

Typical performance - not guaranteed values.

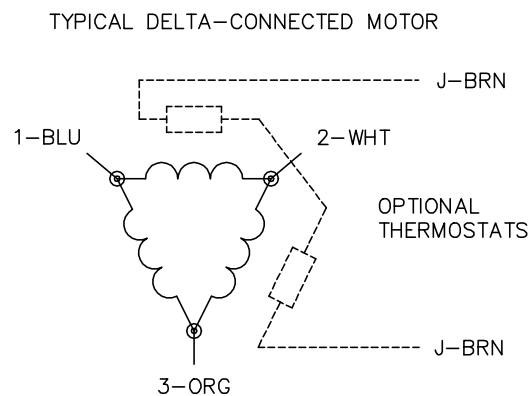
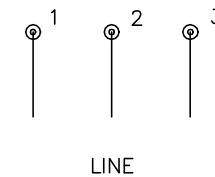
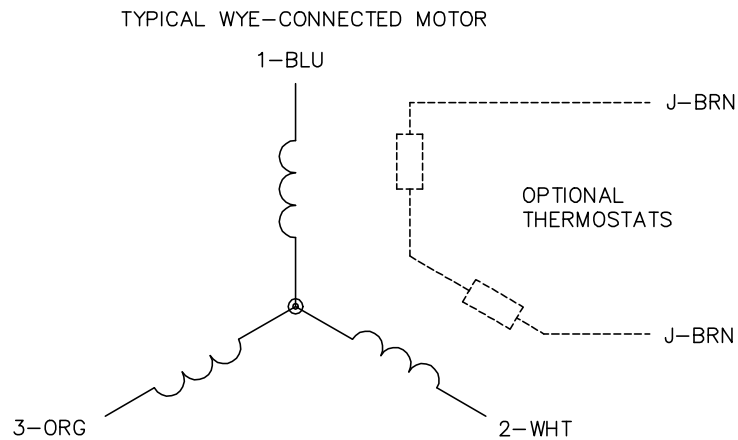
7.5 HP 3 PH 60 HZ 1765 RPM 460 V 0740M

TORQUES (LB-FT): PO=66.8 PU=30 LR=39.7 LRA=63.5





CD0006


NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10:24:49 02/19/2019

BY: ENBRIRO

MTL: -


BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1