

ABB BALDOR RELIANCE III

Customer information packet

ECP84109T-5

40HP, 3530RPM, 3PH, 60HZ, 324TS, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	324TS
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	35.000 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	841
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3

Part Detail

Revision	H
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	12WGY682
Layout	12LYF808
Eff. date	11-03-2025
CD Diagram	CD0006
Poles	02
Leads	3#10
Proprietary	False
Created date	12-12-2018

Heater Indicator	No Heater
High Voltage Full Load Amps	35.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	IP56
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	1256M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	29.24 IN
Power Factor	91
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	3530 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
NP4332

CAT.NO.	ECP84109T-5				P/N		ENCLOSURE				TEFC			
SPEC.	12-0000-0370			CC	010A	FRAME	324TS		S/N					
HP	40			CLASS	F	HZ	60	ODE BRG	6312	DE BRG	6312			
RPM	3530	RPM MAX	5400	PH	3	DES	B	D.E. BRG.	60BC03X30X					
VOLT	575			KVA-CODE	F		O.D.E. BRG.		60BC03X30X					
AMP	35			MOTOR WEIGHT			624	GREASE	POLYREX EM					
RATING	40C AMB-CONT				MAX. KVAR		4	BLANK						
NEMA-NOM-EFF	92.4	# OF ROTOR BARS			28	SER.F.	1.15	IP	56					
G.MIN.EFF	91	# OF STATOR SLOTS			36	PF	91	INV.TYPE	PWM					
TEMP CODE	T3	INVERTER-TEMP-CODE			200									
TEMP =	200	C HP FR	60	C HP TO	90									
CT HZ FROM	6	CT HZ TO	60											
HTR-VOLTS		HTR-AMPS		HTR-WATTS			MAX. SPACE HEATER TEMP.				VT HZ FROM	3	VT HZ TO	60

Parts List

Part number	Description	Quantity
SA363945	SA 12-0000-0370	1.000 ea
RA353248	RA 12-0000-0370	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
NP4332	SS IEEE841-2021 INV DIV-2 UL CSA-C US EE	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
WD1000B49	T&B C73,RING TERMINAL 10-12 AWG 3/8 STUD	3.000 ea
WD1000B19	TERMINAL BURNDY L250HP	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	1.000 ea
80XN3816J12	3/8-16 X 3/4 SET SCREW, HEX SOC, CUP PT	4.000 ea
12FH1002A15GP6	FAN COVER, MACH, W/PRIMER W/MG1025N19	1.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 ea
37FN3002B04	EXFN, PLASTIC, 7.50 OD, 2.003 ID	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
10XN3816K08	3/8-16 X .50 HEX HD CAP SCREW GRADE 5	1.000 ea
12EP1111A02GP6	FR ENDPLATE, MACH W/EPOXY PRIMER & RELIA	1.000 ea
HA3400A32	STUD, 1/2-13 X 7.38	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HW4601A55	INPRO/SEAL #1698-A-M0022-0 VBXX 312 BRG/	1.000 ea
HW5100A15	W4997-050 WVY WSHR (WB)	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4017A02	.125X2.50 GREASER EXTENS.F/S	1.000 ea
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 ea
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea

HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 ea
12EP1111A01P	SPL PUEP 312 BRG FOR INPRO SEAL W/EPOXY	1.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT, .879 OD, .509 I	4.000 ea
10XN5013K28	1/2-13 X 1.75 HEX HEAD MACH SCREW, GRAD	4.000 ea
HW4601A55	INPRO/SEAL #1698-A-M0022-0 VBXX 312 BRG/	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 ea
10CB1000A04P	KO BOX, MACH W/2.00 NPT W/EPOXY PRIMER	1.000 ea
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 ea
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
59XW2520G07	.25-20X.44, HEX SER WSHR, TAPTITE 2, GREEN	1.000 ea
10CB1503P	CONDUIT BOX LIPPED, CAST W/EPOXY PRIMER	1.000 ea
14GS1003	GASKET CONDUIT BOX LID, NEOP	1.000 ea
10XN2520K16	1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
MG1025N19	WILKOFEST, 778.50, RELIANCE BLUE-GREEN 8	0.125 ga
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.033 ea
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
12PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea
HW2501H18	KEY, 1/2 SQ X 2.000	1.000 ea
MJ5004A59	ADHESIVE LOCTITE #401 MSC #88545264	0.010 ea

AC Induction Motor Performance Data

Record # 47229

Typical performance - not guaranteed values

Winding: 12WGY682-R001			Type: 1256M		Enclosure: TEFC	
Nameplate Data			575 V, 60 Hz: Single Voltage Motor			
Rated Output (HP)		40	Full Load Torque		59.4 LB-FT	
Volts		575	Start Configuration		direct on line	
Full Load Amps		35	Breakdown Torque		173 LB-FT	
R.P.M.		3530	Pull-up Torque		60.3 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		78.3 LB-FT
NEMA Design Code		B	KVA Code	F	Starting Current	
Service Factor (S.F.)		1.15	No-load Current		7.75 A	
NEMA Nom. Eff.		92.4	Power Factor	91	Line-line Res. @ 25°C	
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load	
S.F. Amps		41	Temp. Rise @ S.F. Load		79°C	
			Locked-rotor Power Factor		20.5	
			Rotor inertia		4.38 lb-ft²	

Load Characteristics 575 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	72	86	90	91	91	90	91
Efficiency	89.7	92.7	93.1	92.8	92.1	91.1	92.4
Speed	3583	3568	3553	3537	3518	3497	3526
Line amperes	11.9	18.9	26.7	35.3	44.8	54.7	41

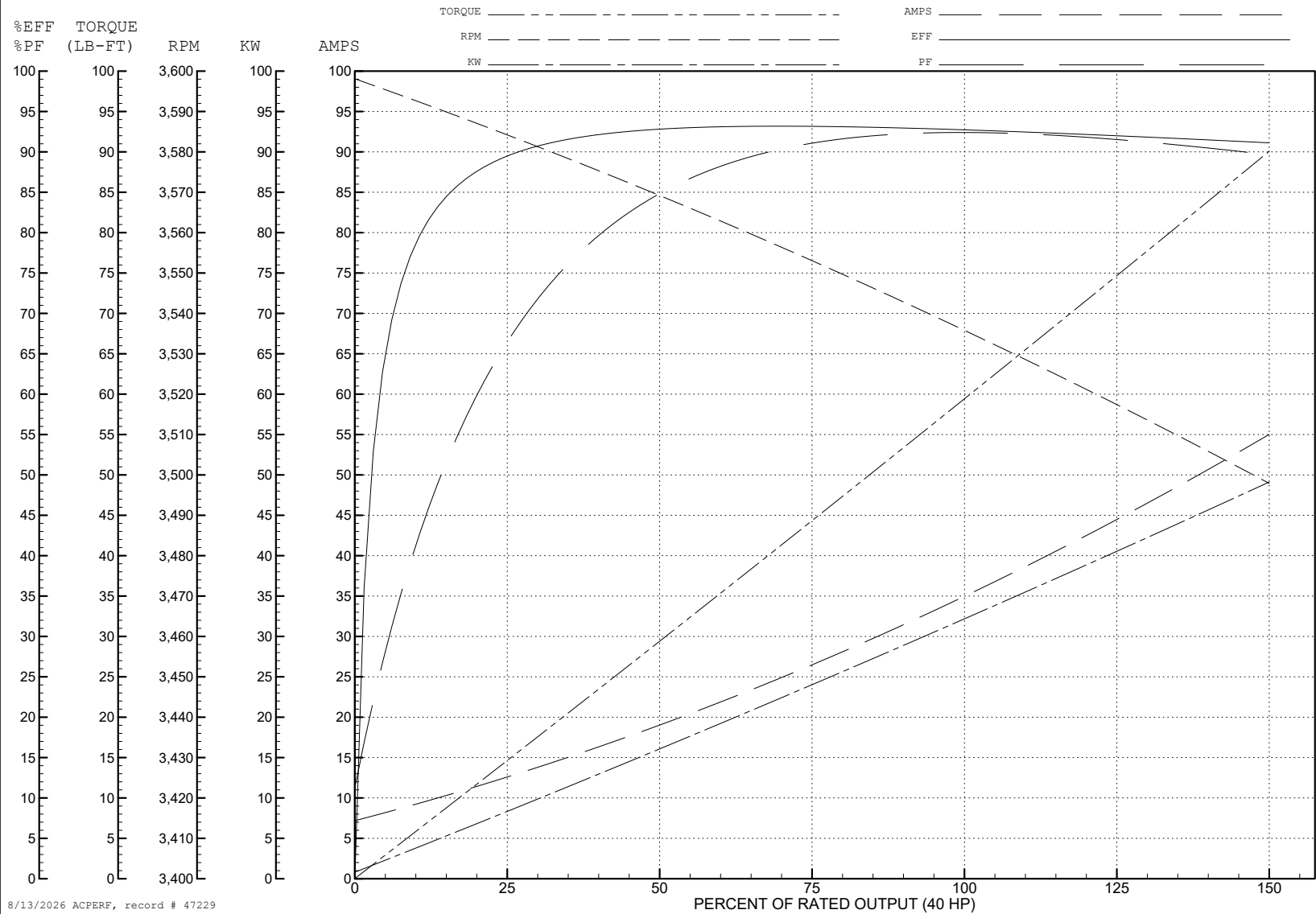
ABB Motors and Mechanical Inc.

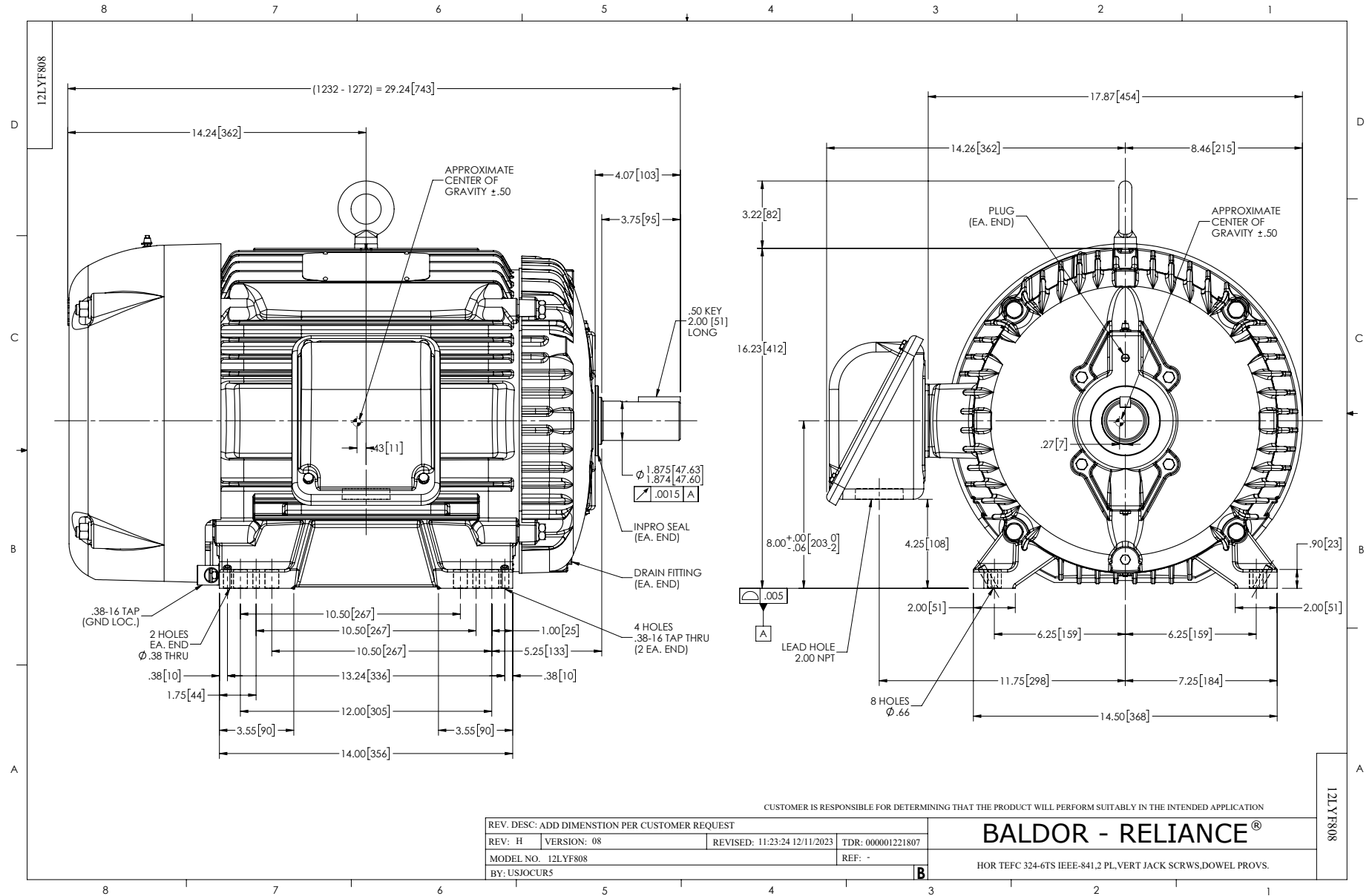
WINDING # 12WGY682

Typical performance - not guaranteed values.

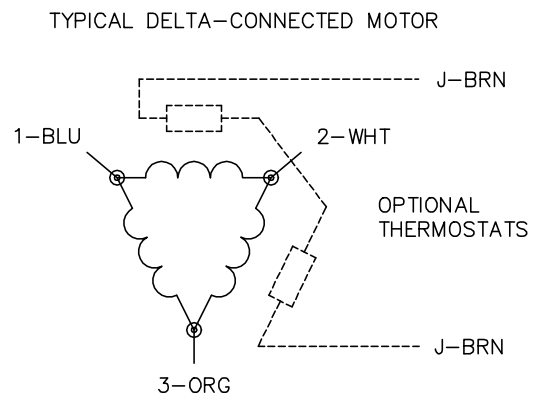
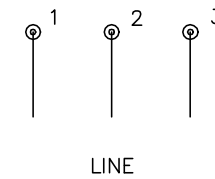
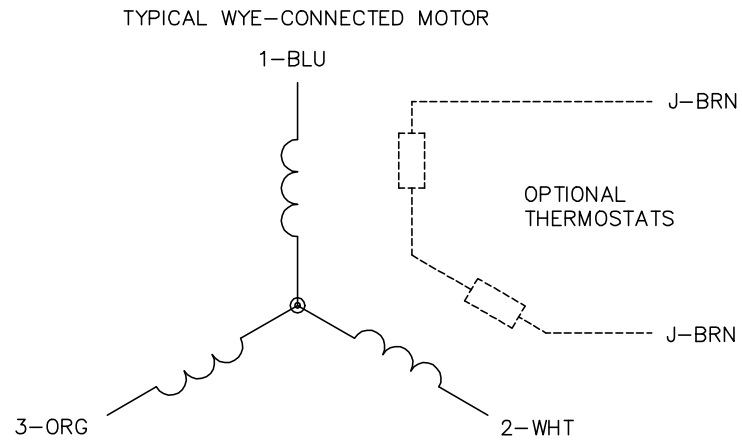
40 HP 3 PH 60 HZ 3530 RPM 575 V 1256M

TORQUES (LB-FT): PO=173 PU=60.3 LR=78.3 LRA=224





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