

ABB BALDOR RELIANCE III

Customer information packet

ECP84102T-5

20HP, 1175RPM, 3PH, 60HZ, 286T, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	286T
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	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 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	1.3
Current @ Voltage	21.000 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	841
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C

Part Detail

Revision	M
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	10WGZ466
Layout	10LYH231
Eff. date	09-26-2025
CD Diagram	CD0006
Poles	06
Leads	3#12
Proprietary	False
Created date	12-06-2018

Heater Indicator	No Heater
High Voltage Full Load Amps	21.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	IP56
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1800 rpm
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	28.00 IN
Power Factor	78
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	1175 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.	ECP84102T-5			P/N		ENCLOSURE			TEFC					
SPEC.	10-0000-0400			CC	010A	FRAME	286T	S/N						
HP	20			CLASS	F	HZ	60	ODE BRG	6311	DE BRG	6311			
RPM	1175	RPM MAX	1800	PH	3	DES	B	D.E. BRG.	55BC03X30X					
VOLT	575			KVA-CODE	G		O.D.E. BRG.		55BC03X30X					
AMP	21			MOTOR WEIGHT			443	GREASE	POLYREX EM					
RATING	40C AMB-CONT			MAX. KVAR			7.7	BLANK						
NEMA-NOM-EFF	91.7	# OF ROTOR BARS			42	SER.F.	1.15	IP	56					
G.MIN.EFF	90.2	# OF STATOR SLOTS			54	PF	78	INV.TYPE	PWM					
TEMP CODE	T3C	INVERTER-TEMP-CODE			180									
TEMP =	160	C HP FR	60	C HP TO	90									
CT HZ FROM	1.3	CT HZ TO	60											
HTR-VOLTS		HTR-AMPS		HTR-WATTS			MAX. SPACE HEATER TEMP.				VT HZ FROM	O	VT HZ TO	60

Parts List

Part number	Description	Quantity
SA363737	SA 10-0000-0400	1.000 ea
RA353028	RA 10-0000-0400	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
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
80XN3816J12	3/8-16 X 3/4 SET SCREW, HEX SOC, CUP PT	4.000 ea
10FH1007LP5	FAN COVER, W/MG1025L14, PRIMED CASTING	1.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 ea
10XN3118K20	5/16-18 X 1 1/4 GRADE 5 STEEL ZC PLATED	3.000 ea
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 ea
10EP1110A02GP6	FR ENDPLATE, MACH W/PRIMER & PAINT	1.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HW4601A53	INPRO/SEAL VBXX FOR 311 BEARING/310 FRAM	1.000 ea
HW5100A13	W4627-047 WVY WSHER	1.000 ea
HA4017A02	.125X2.50 GREASER EXTENS.F/S	1.000 ea
HA4017A02	.125X2.50 GREASER EXTENS.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
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 ea

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10EP1110A01P	MACH'D EPOXY PRIMED EP	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW4601A53	INPRO/SEAL VBXX FOR 311 BEARING/310 FRAM	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
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
10CB1000A09P	KOBX, MACH W/1.50 NPT & 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	WILKOFAS, 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
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A07	1.000 ea
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 ea
MJ5004A59	ADHESIVE LOCTITE #401 MSC #88545264	0.010 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

AC Induction Motor Performance Data

Record # 53506

Typical performance - not guaranteed values

Winding: 10WGZ466-R001				Type: 1056M		Enclosure: TEFC	
Nameplate Data				575 V, 60 Hz: Single Voltage Motor			
Rated Output (HP)		20		Full Load Torque		89.1 LB-FT	
Volts		575		Start Configuration		direct on line	
Full Load Amps		21		Breakdown Torque		236 LB-FT	
R.P.M.		1175		Pull-up Torque		95 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		137 LB-FT	
NEMA Design Code		B		KVA Code	G	Starting Current	
Service Factor (S.F.)		1.15		No-load Current		9.28 A	
NEMA Nom. Eff.		91.7	Power Factor	78	Line-line Res. @ 25°C		0.757 Ω
Rating - Duty		40C		AMB-CONT		Temp. Rise @ Rated Load	
S.F. Amps						Temp. Rise @ S.F. Load	
						Locked-rotor Power Factor	
						Rotor inertia	

Load Characteristics 575 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	63	73	78	80	80	79
Efficiency	88.5	92.1	92.4	91.8	91.1	89.1	91.4
Speed	1195	1189	1184	1177	1170	1161	1173
Line amperes	10.5	13.1	16.6	20.9	25.6	31.3	23.7

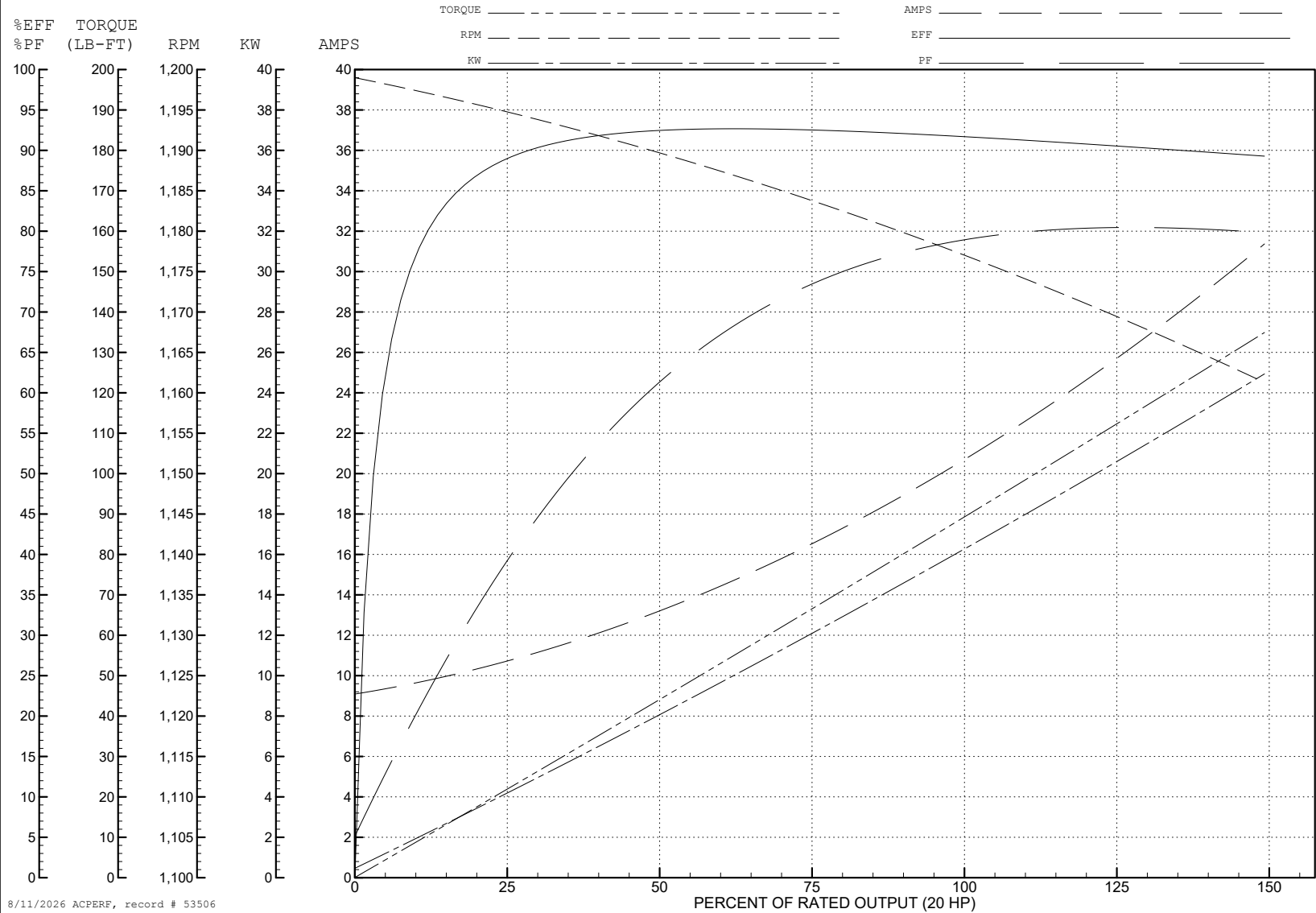
ABB Motors and Mechanical Inc.

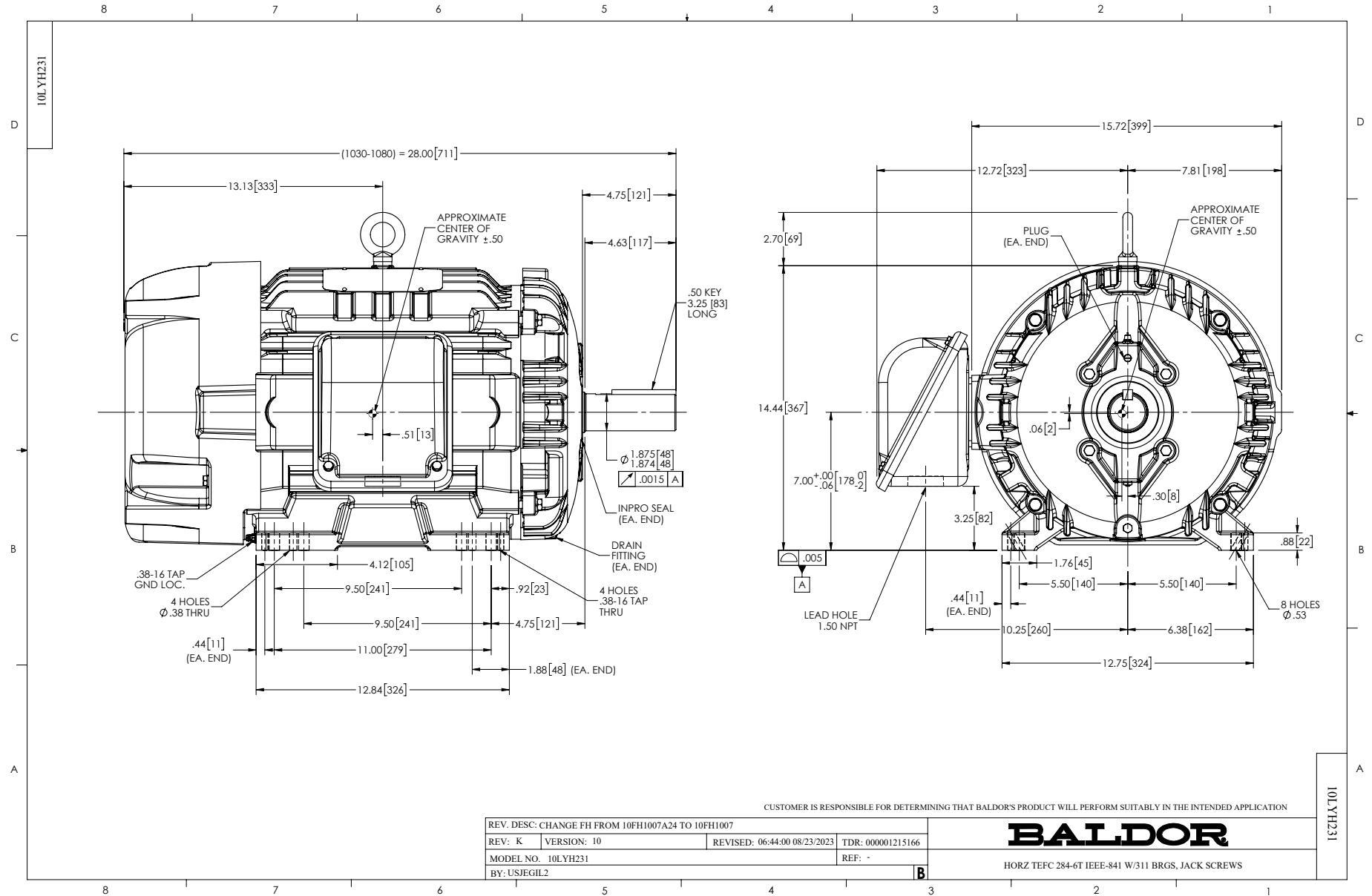
WINDING # 10WGZ466

Typical performance - not guaranteed values.

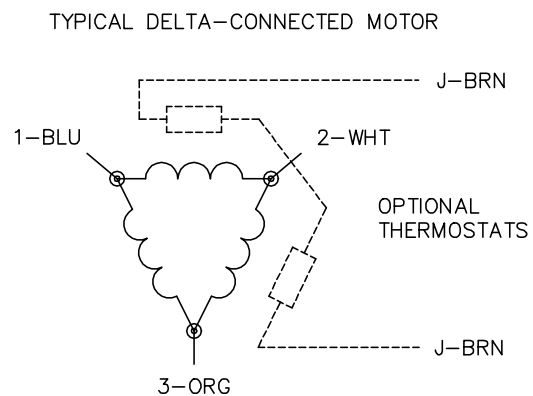
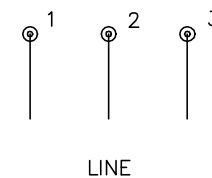
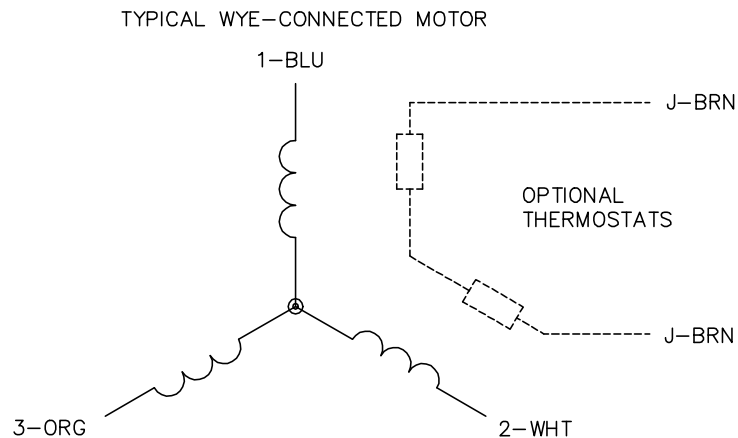
20 HP 3 PH 60 HZ 1175 RPM 575 V 1056M

TORQUES (LB-FT): PO=236 PU=95 LR=137 LRA=114





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

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