

ABB BALDOR RELIANCE III

Customer information packet

VLECP4106T

20HP, 3540RPM, 3PH, 60HZ, 256LP, 0944M, TEFC, F

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	256LP
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA CSA EEV UR
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	6
Current @ Voltage	48.000 A @ 208.0 V 44.000 A @ 230.0 V 22.000 A @ 460.0 V
Design Code	A
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard

Part Detail

Revision	U
Type	AC
Mech. spec.	09T01
Base	
Status	PRD/A
Elec. spec.	09WGY799
Layout	09LYT001
Eff. date	02-01-2024
CD Diagram	CD0180
Poles	02
Leads	9#12
Proprietary	False
Created date	07-13-2015

Front Shaft Indicator	None
Haz Area Temp Code	T3
Heater Indicator	No Heater
High Voltage Full Load Amps	22.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Vertical Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0944M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	25.73 IN
Power Factor	92
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Thrust
Pulley Face Code	P-Base
Pulley Shaft Indicator	P-Base Groove & Key
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3540 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
NP3241

CAT.NO.	VLECP4106T			P/N			ENCLOSURE			TEFC				
SPEC.	09T001Y799G1			CC	010A	FRAME	256LP		S/N					
HP	20			CLASS	F	HZ	60	DES	A					
RPM	3540			RPM MAX		5400		PH	3	KVA-CODE	J			
VOLT	230/460			MOTOR WEIGHT			335							
AMP	44/22			SER.F.	1.15	PF	92	ODE BRG		6208	DE BRG	QJ213		
RATING	40C AMB-CONT			NEMA-NOM-EFF			91.7		GREASE	POLYREX EM				
							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
SA303808	SA 09T001Y799G1	1.000 ea
RA290949	RA 09T001Y799G1	1.000 ea
37FN3002C02	EXFN, PLASTIC, 6.00 OD, 1.503 ID	1.000 ea
09CB1002A13P	KOBX W/1.50 NPT LEAD HL,2.38 MTG HL PATT	1.000 ea
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
HA3400A33	STUD- 3/8-16 X 4.96 HEX	4.000 ea
12CB1503P	CONDUIT BOX LID, CAST W/EPOXY PRIMER	1.000 ea
12GS1002	GASKET, CONDUIT BOX LID, NEOP	1.000 ea
MJ5001A14	DYNAPRO SEALANT, CP MTR VC#2508050 (603	0.001 ea
10XN3118K18	5/16-18X1-1/8 HEX HD GR5	2.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 ea
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 ea
HW4600B43	V-RING SLINGER 2.875 X 3.355 X .35 VITON	1.000 ea
10XN2520K28	1/4-20 X 1.75" HX HD SCRWGRADE 5, ZINC P	2.000 ea
10XN3118K56	5/16-18 X 3.50" HEX HD, GRADE 5	4.000 ea
09EP1505A02P	PULLEY ENDPLATE, MACH W/EPOXY PRIMER	1.000 ea
10XN3816K24	3/8-16 X 1.50 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HW4600B42	V-RING SLINGER 2.375 X 3.070 X .28 VITON	1.000 ea
09FH1000A11P	FAN COVER, MACH P-BASE W/EPOXY PRIMER	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	4.000 ea
HA6387P	EYE BRACKET PRIMED	2.000 ea

10XN3816K20	3/8-16 X 1.25 HEX HD CAP GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	4.000 ea
09FH1500A01P	DRIP COVER, MACH W/EPOXY PRIMER	1.000 ea
10XN2520K30	STD.25X20 THD HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1000A25	1/4 SAE FLAT WASHER (FS)	4.000 ea
HW2501G18	SQUARE STEEL KEY .375 X 2.00 LONG	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
MJ5001A14	DYNAPRO SEALANT, CP MTR VC#2508050 (603	0.023 ea
LB1182	WARNING LABEL FOR MOTORS WITH EYENUTS	2.000 ea
PK6014	STEEL STRAP FOR 309-312 BASELESS MOTORS	4.000 ea
19XW3118A08	.31-18 X .50 HEX WASHER HEAD TAPTITE II	4.000 ea
09EP1100A28LP5	FRONT ENDPLATE, MACH W/BLACK EPOXY PRIM	1.000 ea
HW4500A05	1669B ALEM/UNIV860 GR FTG X	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.080 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.050 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3241	SS SUPER-E INV UL CSA-EEV PREM CC	1.000 ea
18PA1014	PKG. GRP., 09-10 VERTICAL MOUNT	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LD7020D09	LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS	1.000 ea

AC Induction Motor Performance Data

Record # 47264

Typical performance - not guaranteed values

Winding: 09WGY799-R020				Type: 0944M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		20		Full Load Torque		29.76 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		44/22		Breakdown Torque		121 LB-FT	
R.P.M.		3540		Pull-up Torque		49.4 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		62.2 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		183 A
Service Factor (S.F.)		1.15		No-load Current		6.12 A	
NEMA Nom. Eff.		91.7	Power Factor	92	Line-line Res. @ 25°C		0.377 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		62°C	
S.F. Amps				Temp. Rise @ S.F. Load		76°C	
				Locked-rotor Power Factor		27.8	
				Rotor inertia		1.12 LB-FT2	

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	63	83	90	92	93	93	93
Efficiency	88.7	92.8	93.2	93.2	92.6	91.8	92.8
Speed	3583	3567	3551	3534	3516	3497	3523
Line amperes	8.14	12.12	16.69	21.89	27.18	33.06	25.1

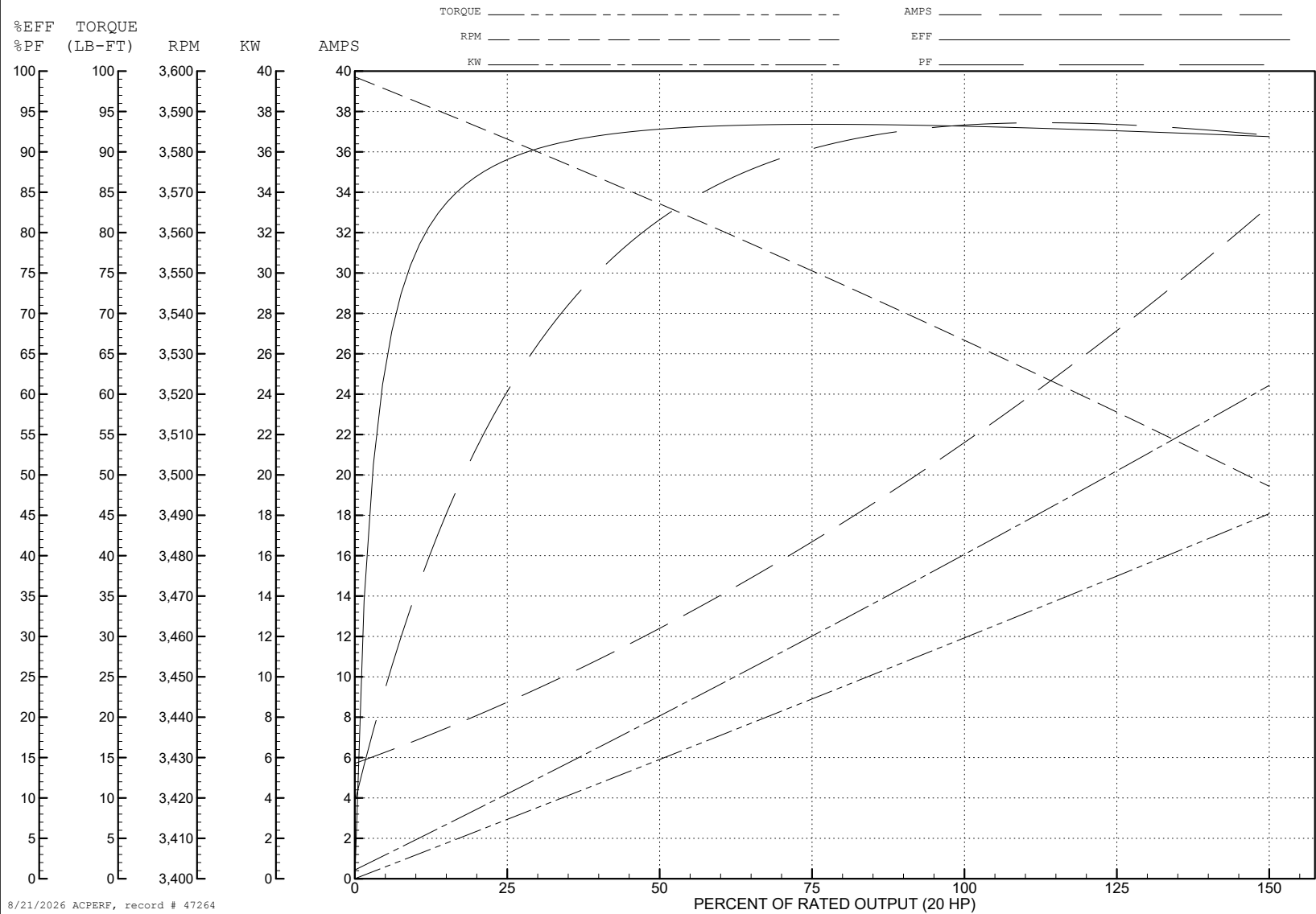
ABB Motors and Mechanical Inc.

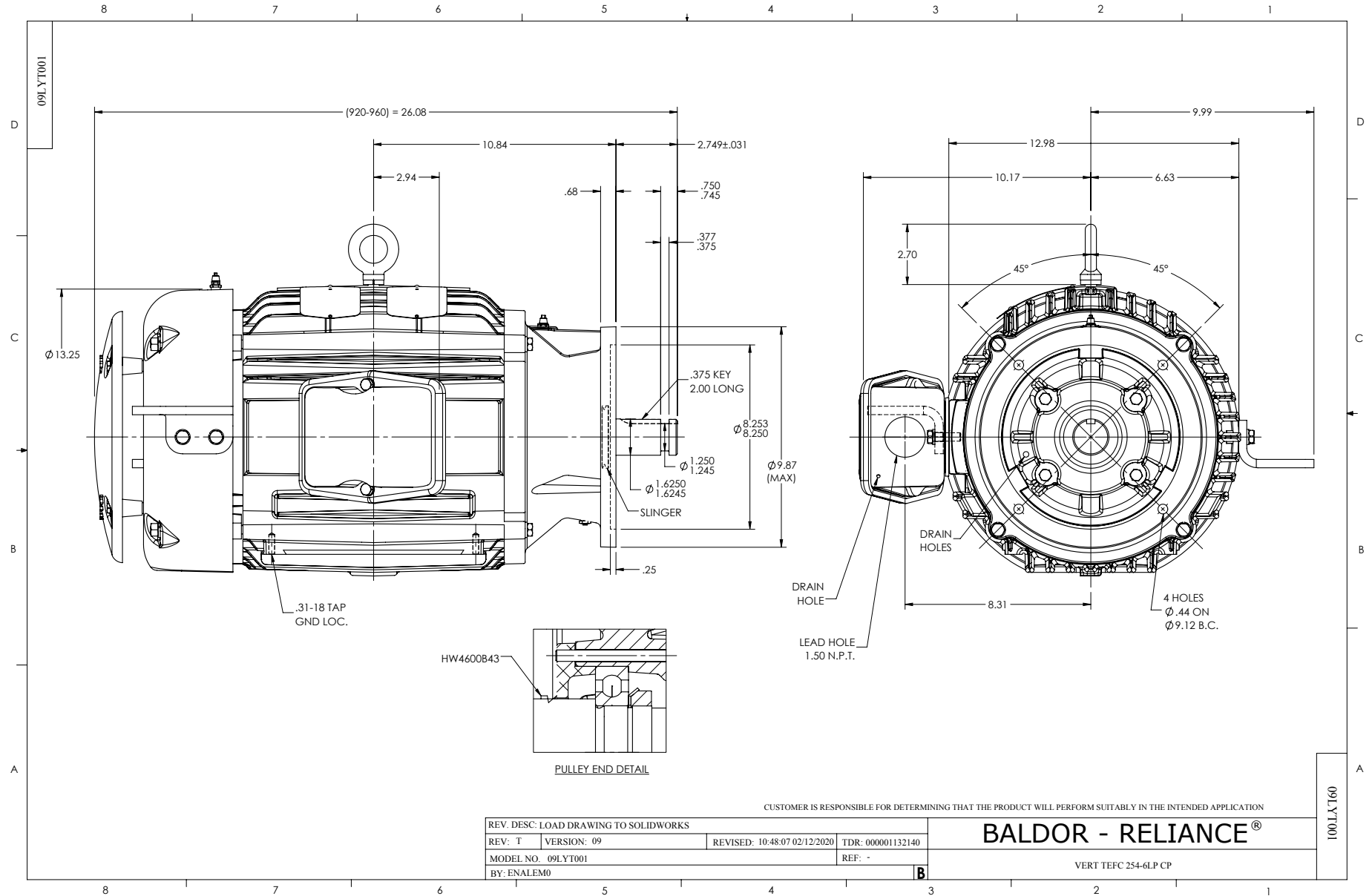
WINDING # 09WGY799

Typical performance - not guaranteed values.

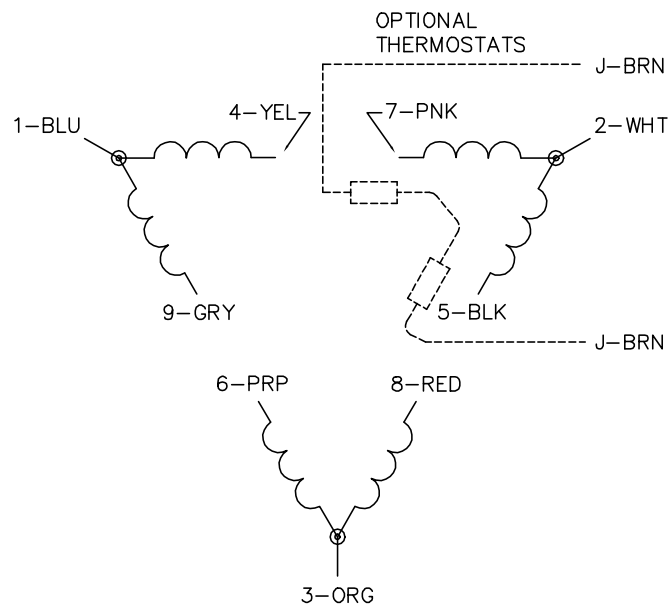
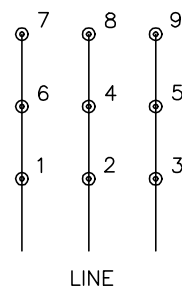
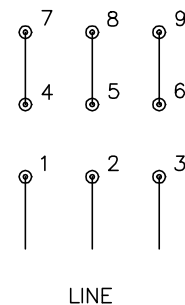
20 HP 3 PH 60 HZ 3540 RPM 460 V 0944M

TORQUES (LB-FT): PO=121 PU=49.4 LR=62.2 LRA=183





CD0180


LOW VOLTAGE
(2D)

HIGH VOLTAGE
(1D)

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -


BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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