

BALDOR® • RELIANCE 

Product Information Packet

EM7081T

50//40HP,3540//2940RPM,3PH,60//50HZ,326T

Part Detail							
Revision:	N	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	12WGY291	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	12M049	Layout:	12LYM049	Poles:	02	Created Date:	06-28-2010
Base:	RG	Eff. Date:	12-19-2017	Leads:	9#8		

Specs			
Catalog Number:	EM7081T	Front Shaft Indicator:	None
Enclosure:	XPFC	Heater Indicator:	No Heater
Frame:	326TS	Insulation Class:	F
Frame Material:	Iron	Inverter Code:	Not Inverter
Output @ Frequency:	50.000 HP @ 60 HZ	KVA Code:	H
	40.000 HP @ 50 HZ	Lifting Lugs:	Standard Lifting Lugs
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 8 AWG
	190.0 V @ 50 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
	380.0 V @ 50 HZ	Motor Type:	X1252M
XP Class and Group:	CLI GP D; CLII GP F,G	Mounting Arrangement:	F1
XP Division:	Division I	Power Factor:	90
Agency Approvals:	UL	Product Family:	General Purpose
	CSA	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None

Bearing Grease Type:	Polyrex EM (-20F +300F)	RoHS Status:	ROHS COMPLIANT
Blower:	None	Shaft Extension Location:	Pulley End
Current @ Voltage:	110.000 A @ 190.0 V	Shaft Ground Indicator:	No Shaft Grounding
	112.000 A @ 230.0 V	Shaft Rotation:	Reversible
	122.000 A @ 208.0 V	Shaft Slinger Indicator:	No Slinger
	55.000 A @ 380.0 V	Speed Code:	Single Speed
	56.000 A @ 460.0 V	Motor Standards:	NEMA
Design Code:	A	Starting Method:	Direct on line
Drip Cover:	No Drip Cover	Thermal Device - Bearing:	None
Duty Rating:	CONT	Thermal Device - Winding:	Normally Closed Thermostat
Electrically Isolated Bearing:	Not Electrically Isolated	Vibration Sensor Indicator:	No Vibration Sensor
Feedback Device:	NO FEEDBACK	Winding Thermal 1:	None
Front Face Code:	Standard	Winding Thermal 2:	None
		XP Temp Code:	T3C

Nameplate NP1426XPSLEV	
NO.	[] CC 010A []
SER.	[]
SPEC.	12M049Y291G1
CAT.NO.	EM7081T
HP	50//40 T. CODE T3C []
VOLTS	230/460//190/380
AMPS	112/56//110/55
RPM	3540//2940
HZ	60//50 PH 3 [] CL F []
SER.F.	1.00 DES A [] CODE H []
RATING	40C AMB-CONT
FRAME	326TS NEMA-NOM-EFF 93 []
USABLE AT 208V	122 PF 90 []
BLANK	[]

Parts List		
Part Number	Description	Quantity
SA198989	SA 12M049Y291G1	1.000 EA
RA186340	RA 12M049Y291G1	1.000 EA
37FN3002C04	EXFN, PLASTIC, 6.00 OD, 2.003 ID	1.000 EA
12CB1001A01	K.O.BOX, MACH X-PROOF, 1.50 NPT HOLE	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
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 EA
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	1.000 EA
12EP1705A01	ENDPLATE, MACH. 312 - EXPLOSION PROOF 31	1.000 EA
HA3051A03	1/2-13X2.75 BLT GR8 1.75 TO E NC F/S	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I	4.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
12EP1706A01	ENDPLATE, MACH. 312 - EXPLOSION PROOF 31	1.000 EA
10XN3118K44	5/16-18 X 2.75" HEX HD, GRADE 5	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
HA3051A03	1/2-13X2.75 BLT GR8 1.75 TO E NC F/S	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I	4.000 EA
12FH1001A01	FAN HOUSING 312 EXPLOSION PROOF MOTORS	1.000 EA
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	3.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 EA
12CB1501A01	COND.BOX LID, MACH., X-PROOF, 310,312	1.000 EA
10XN3816K20	3/8-16 X 1.25 HEX HD CAP GRADE 5	6.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	6.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HW2501H18	KEY, 1/2 SQ X 2.000	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	2.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.200 LB
HW4500A20	1/8NPT SL PIPE PLUG	2.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA
MG1025G05	WILKOFAS, 789.227, MED. GRAY CHAR. MET.	0.125 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	6.000 EA
LB1073	ALUM XP CAUTION LABEL	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP1426XPSLEV	SS XP UL CSA-EEV CC CL-I GP-D	1.000 EA
14PA1036	PKGP 360 FRAME NO CARTON	1.000 EA

AC Induction Motor Performance Data

Record # 31650 - Typical performance - not guaranteed values

Winding: 12WGY291-R002	Type: 1252M	Enclosure: XPFC
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	50//40			Full Load Torque	74.4 LB-FT
Volts	230/460//190/380			Start Configuration	direct on line
Full Load Amps	112/56//110/55			Breakdown Torque	292 LB-FT
R.P.M.	3540//2940			Pull-up Torque	112 LB-FT
Hz	60//50	Phase	3	Locked-rotor Torque	139 LB-FT
NEMA Design Code	A	KVA Code	H	Starting Current	408 A
Service Factor (S.F.)	1			No-load Current	14.9 A
NEMA Nom. Eff.	93	Power Factor	90	Line-line Res. @ 25°C	0.11257 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	77°C
				Locked-rotor Power Factor	20.9
				Rotor inertia	4.07 LB-FT ²

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	66	82	88	90	91	90
Efficiency	91.1	93.8	94.2	93.9	93.2	92.3
Speed	3584.1	3571.8	3558.2	3544.1	3528.2	3511.2
Line amperes	20.4	30.8	42.9	55.8	69.5	84.6

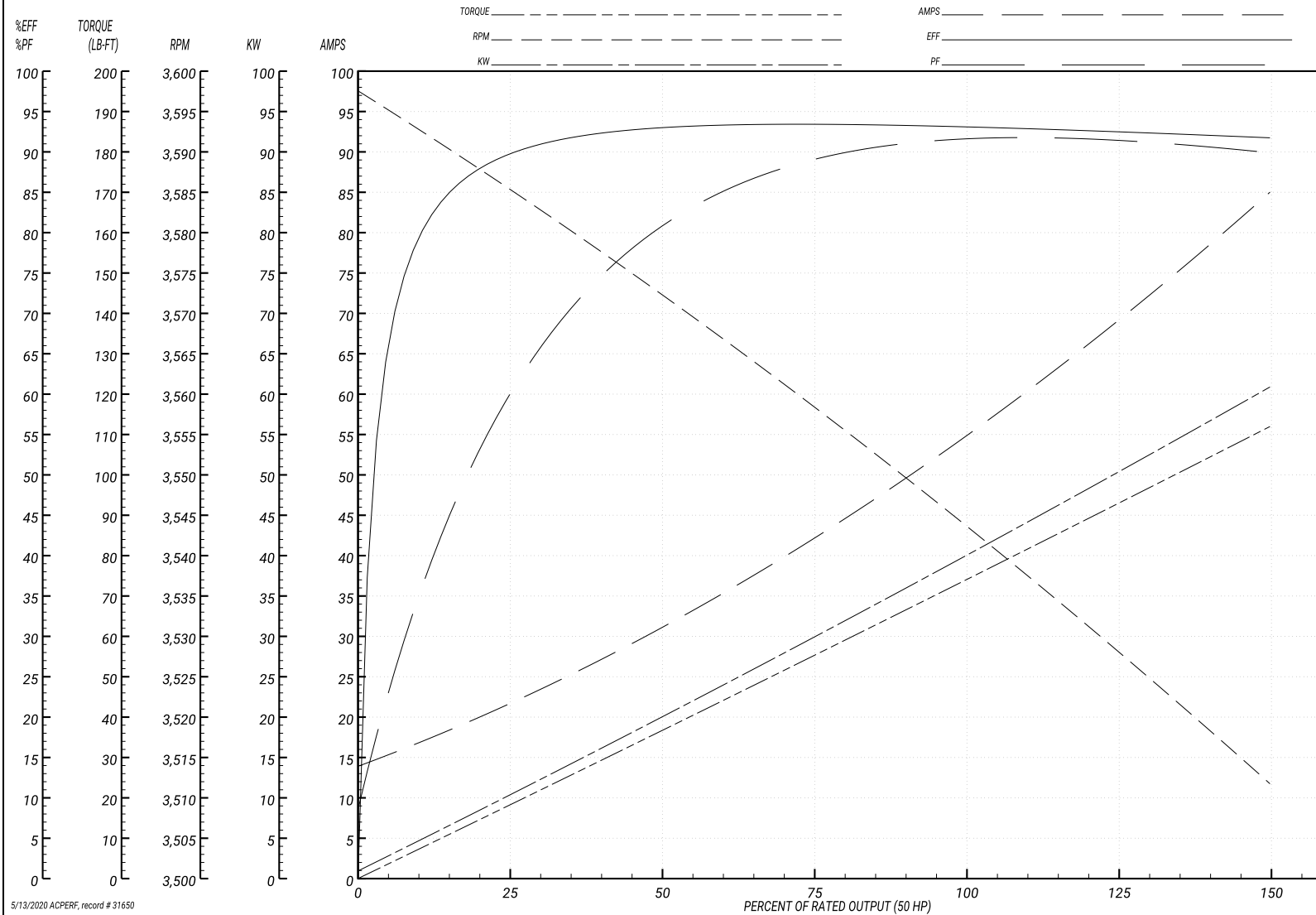
Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values

ABB Motors and Mechanical Inc.

WINDING # 12WGY291

Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 3544.1 RPM 460 V 1252M
 TORQUES(LB-FT): PO=292 PU=112 LR=139 LRA=408



5/13/2020 ACPERF, record # 31650

AC Induction Motor Performance Data

Record # 31651 - Typical performance - not guaranteed values

Winding: 12WGY291-R002	Type: 1252M	Enclosure: XPFC
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Nameplate Data				380 V, 50 Hz: High Voltage Connection	
Rated Output (HP)	50//40			Full Load Torque	71.6 LB-FT
Volts	230/460//190/380			Start Configuration	direct on line
Full Load Amps	112/56//110/55			Breakdown Torque	282 LB-FT
R.P.M.	3540//2940			Pull-up Torque	119 LB-FT
Hz	60//50	Phase	3	Locked-rotor Torque	148 LB-FT
NEMA Design Code	A	KVA Code	H	Starting Current	400 A
Service Factor (S.F.)	1			No-load Current	14.7 A
NEMA Nom. Eff.	93	Power Factor	90	Line-line Res. @ 25°C	0.104 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	73°C
				Locked-rotor Power Factor	23.5
				Rotor inertia	4.07 LB-FT ²

Load Characteristics 380 V, 50 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	66	82	88	90	91	91
Efficiency	86.4	91.5	92.4	92.3	91.7	90.8
Speed	2985	2974	2961	2948	2933	2917
Line amperes	20.1	30.2	42	54.6	67.9	82.7

Performance Graph at 380V, 50Hz, 40.0HP Typical performance - Not guaranteed values

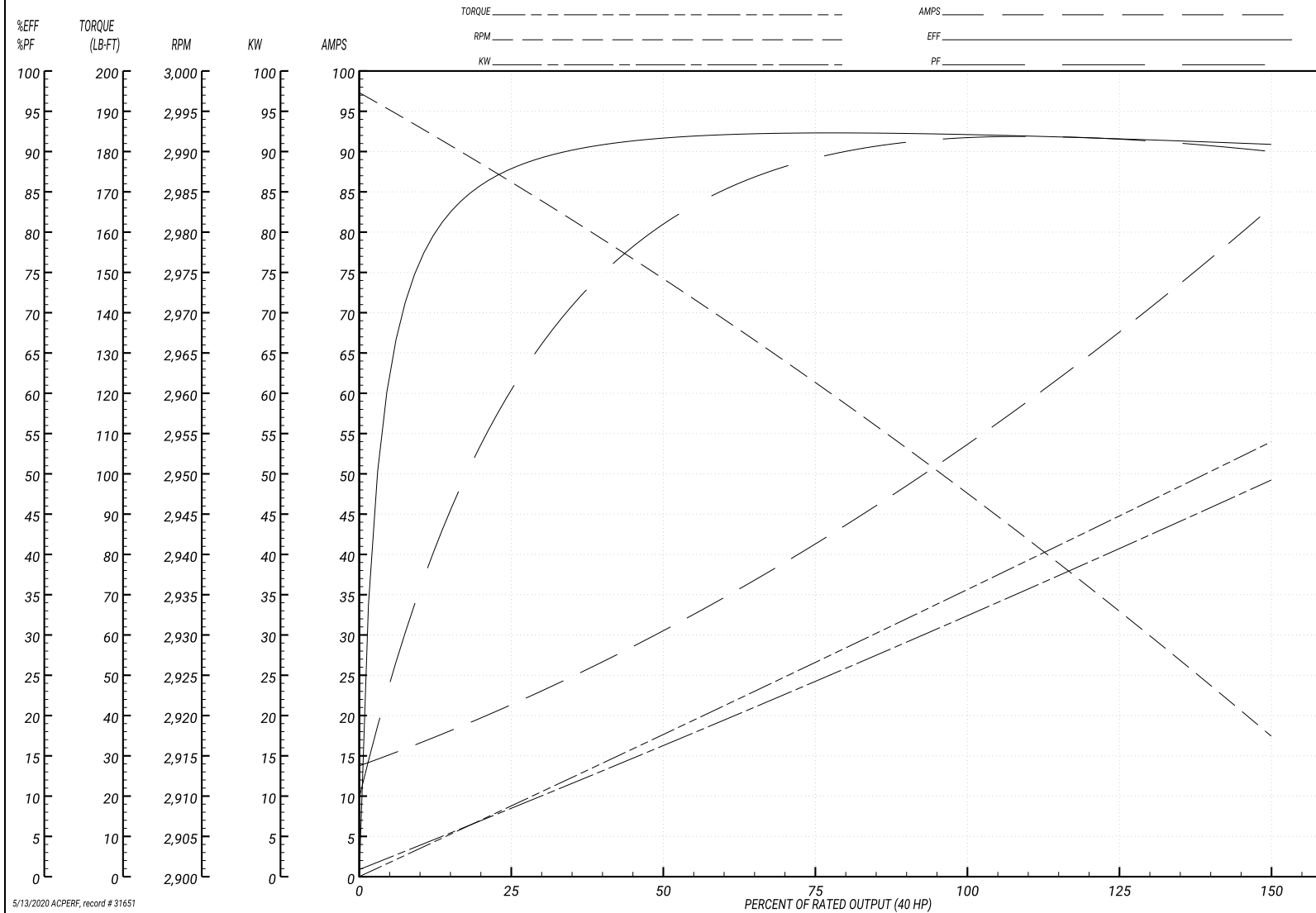
ABB Motors and Mechanical Inc.

WINDING # 12WGY291

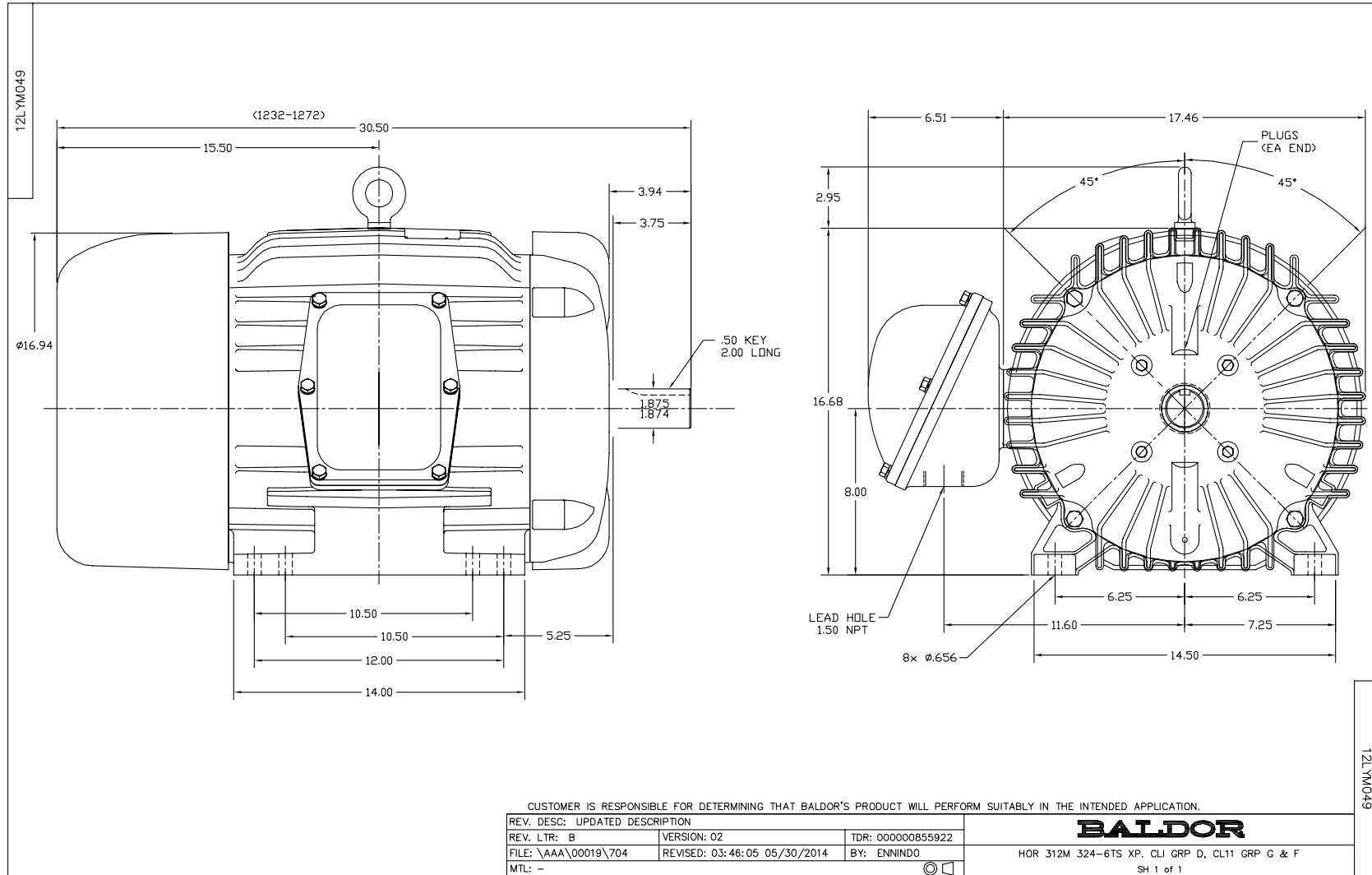
Typical performance - not guaranteed values.

40 HP 3 PH 50 HZ 2948 RPM 380 V 1252M

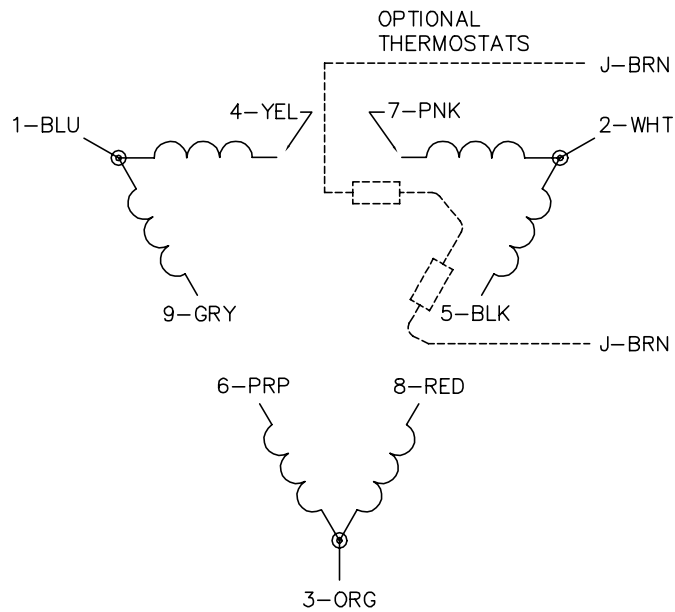
TORQUES(LB-FT): PO=282 PU=119 LR=148 LRA=400



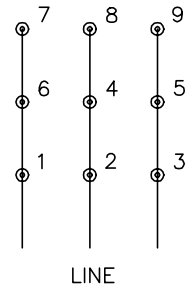
5/13/2020 ACPERF, record # 31651



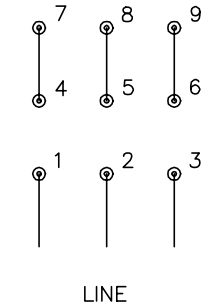
CD0180



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

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BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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