

ABB BALDOR RELIANCE III

Customer information packet

VDRX32544T

50HP, 1775//1475RPM, 3PH, 60/50HZ, 326TC, XPF

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	XPFC
Frame	326TC
Frame Material	Iron
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ 40.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 50 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 190.0 V @ 50 HZ 230.0 V @ 60 HZ 380.0 V @ 50 HZ
Agency Approvals	UL CSA EEV
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	114.000 A @ 190.0 V 118.000 A @ 230.0 V 57.000 A @ 380.0 V 59.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT

Part Detail

Revision	Q
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	12WGY585
Layout	12LYE292
Eff. date	07-22-2025
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	06-06-2019

Efficiency @ 100% Load	94.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	57.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1276M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	32.00 IN
Power Factor	84
Product Family	Hazardous Location Motor
Pulley Face Code	C-Face
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	2.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1775 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor

Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1401XPSLEV												
NO.							CC	010A				
S/N							TEMP CODE	T3C				
SPEC.	12-0000-0767						INV.TYPE	PWM				
CAT.NO.	VDRX32544T						C HP FR	60	C HP TO	90		
HP	50//40						CT HZ FROM	6	CT HZ TO	60		
VOLTS	230/460//190/380						VT HZ FROM	6	VT HZ TO	60		
AMPS	118/59//114/57						MAG CUR	50/25				
RPM	1775//1475						MX RPM	2700				
HZ	60//50	PH	3	CL	F	NOM.EFF.	94.5					
SER.F.	1.00	DES	A	SL HZ	0.83	WK2	10.1					
FRAME	326TC	RATING		40C AMB-CONT								
	55C AMB @ 1.0 SF, 60C RISE											
	1.15SF ON SINEWAVE						NEMA MG-1 PT.5,IP55					

Parts List

Part number	Description	Quantity
SA370407	SA 12-0000-0767	1.000 ea
RA360057	RA 12-0000-0767	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP1401XPSLEV	SS XP INV UL CSA-EEV CC CL-I GP-C&D	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1081C	ALUM XP CAUTION LABEL (COL PLANT ONLY-	1.000 ea
14PA2006	PKGP,CTN ID 42X34X25,2X4 RISERS,SIDE LIF	1.000 ea
415038029A	250/280 MOUNTING BRKT	1.000 ea
415038029B	250/280 MOUNTING BRKT	1.000 ea
10XN6311K20	5/8-11X 1 1/4 HEX HD, GRADE 5	2.000 ea
HW1000N63	5/8 FLAT NYLON WASHER,OD=1.0,ID=.75,W=.0	2.000 ea
12FH1001A07P	FAN COVER, MACH W/EPOXY PRIMER & SLOT FO	1.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	3.000 ea
09FN3001B03SP	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	0.200 lb
10XN5013J44	1/2-13X2.75 HX HD BOLT, GR8,1.25" THD LG	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HA2067A01	ALUM SLINGER 311 BRG DRILL RIG MOTOR	1.000 ea
80XN1032J07	10-32 X 7/16 SET SCREW, HEX SOC, CUP PT	2.000 ea
HW5100A13	W4627-047 WVY WSHER	1.000 ea
HA4017A03	.125 X 1.75 GREASE EXT (F/S)	1.000 ea
HA4017A08	.125 X 3.50 LGTH GREASER EXTEN.	1.000 ea
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 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
HW4505A02	BREATHING/DRAIN-EXP PROOF-.250-18 PTF AIS	1.000 ea

HW3023E06	.125 X .625 SPIRAL SPRING PIN	1.000 ea
12EP1707A11P	FACE MTD. EP XPFC, W/DRN HW4505A02 W/PRI	1.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT, .879 OD, .509 I	4.000 ea
10XN5013J44	1/2-13X2.75 HX HD BOLT, GR8,1.25" THD LG	4.000 ea
HA2067A02	ALUM SLINGER 312 BRG DRILL RIG MOTOR	1.000 ea
80XN1032J10	10-32 X 5/8 SET SCREW, HEX SOC, CUP PT	2.000 ea
10XN3118K40	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
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
HW4505A02	BREATHING/DRAIN-EXP PROOF-.250-18 PTF AIS	1.000 ea
HW3023E06	.125 X .625 SPIRAL SPRING PIN	1.000 ea
12EP1705A34LP5	FREP MACH. 312 W/EPOXY PRIMER & PAINT	1.000 ea
12CB1003A01P	KOBX,MACH 2.00 NPT GROUP C MTRS,EPOXY PR	1.000 ea
10XN3118K24	5/16-18 X 1.50" HEX HD, GRADE 5	4.000 ea
WD1000B19	TERMINAL BURNDY L250HP	1.000 ea
10XN3816K08	3/8-16 X .50 HEX HD CAP SCREW GRADE 5	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	1.000 ea
12CB1502A01P	CONDUIT BOX LID MACH. GROUP C MTRS	1.000 ea
84XN5013J32	SOCKET HD.CAP SCR,1/2-13 X 2"LG,ALLOY ST	10.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT, .879 OD, .509 I	10.000 ea
MG1025G29	WILKOFAS, 789.229, DARK CHARCOAL GRAY	0.125 ga
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt

AC Induction Motor Performance Data

Record # 60172

Typical performance - not guaranteed values

Winding: 12WGY585-R008			Type: 1276M		Enclosure: XPFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)		50		Full Load Torque		148 LB-FT
Volts		230/460		Start Configuration		direct on line
Full Load Amps		118/59		Breakdown Torque		561 LB-FT
R.P.M.		1775		Pull-up Torque		236 LB-FT
Hz	60	Phase	3	Locked-rotor Torque		279 LB-FT
NEMA Design Code		A	KVA Code	Starting Current		475 A
Service Factor (S.F.)		1		No-load Current		25 A
NEMA Nom. Eff.		94.5	Power Factor	Line-line Res. @ 25°C		0.096885 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		56°C
				Locked-rotor Power Factor		26.4
				Rotor inertia		10.1 LB-FT2

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	46	68	78	84	85	87
Efficiency	90	93.7	94.6	94.7	94.4	93.9
Speed	1794	1789.1	1784.4	1779.2	1773.7	1767.4
Line amperes	28.6	36.9	47.3	59.1	72.4	86.3

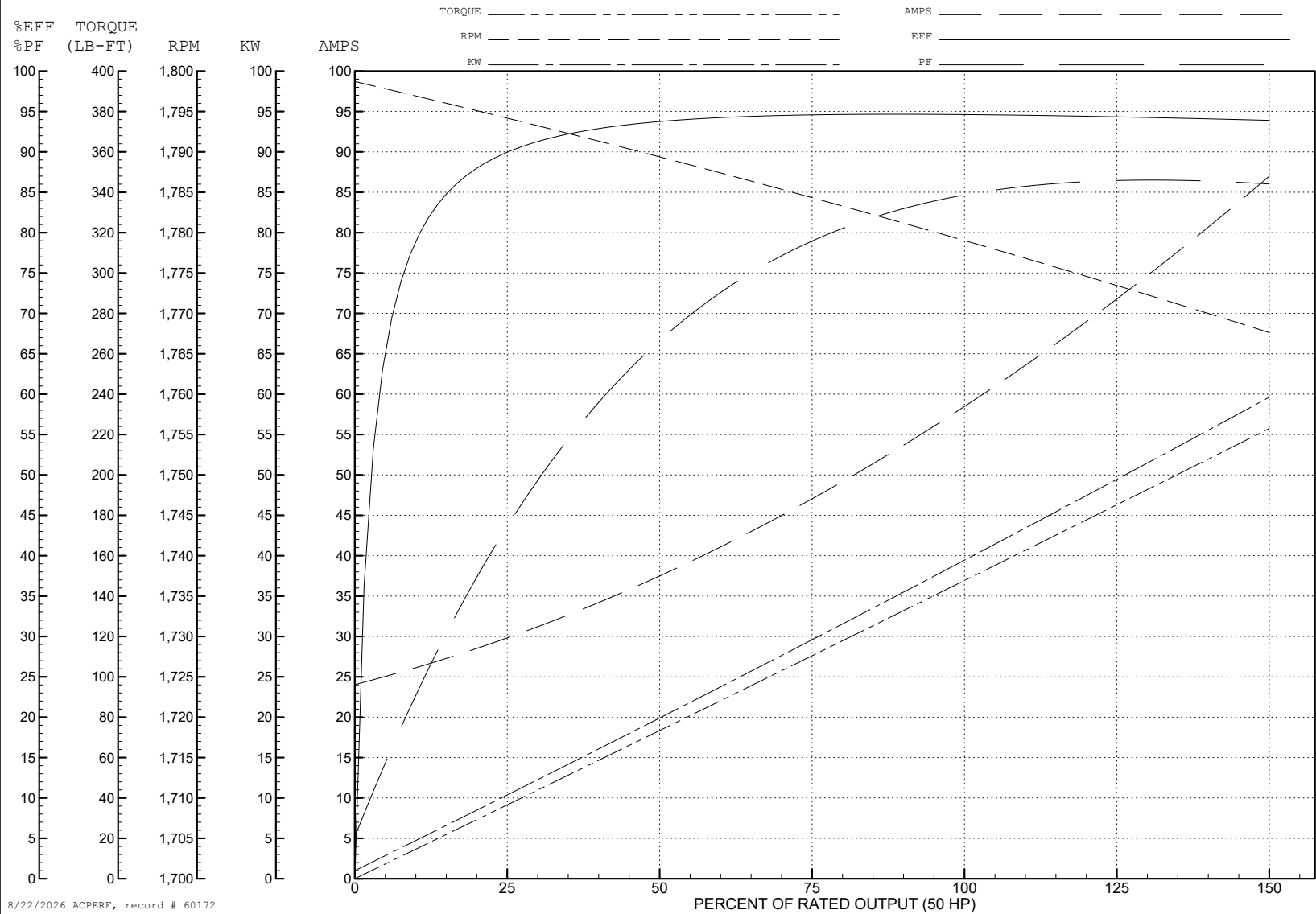
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WINDING # 12WGY585

Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 1775 RPM 460 V 1276M

TORQUES (LB-FT): PO=561 PU=236 LR=279 LRA=475



AC Induction Motor Performance Data

Record # 74482

Typical performance - not guaranteed values

Winding: 12WGY585-R011			Type: 1276M		Enclosure: XPFC			
Nameplate Data			380 V, 50 Hz: High Voltage Connection					
Rated Output (HP)		50//40	Full Load Torque		142 LB-FT			
Volts		230/460//190/380	Start Configuration		direct on line			
Full Load Amps		118/59//114/57	Breakdown Torque		544 LB-FT			
R.P.M.		1775//1475	Pull-up Torque		248 LB-FT			
Hz		60//50	Phase		3	Locked-rotor Torque	293 LB-FT	
NEMA Design Code		A	KVA Code		J	Starting Current		465 A
Service Factor (S.F.)		1	No-load Current		24.51 A			
NEMA Nom. Eff.		94.5	Power Factor		84	Line-line Res. @ 25°C		0.0936 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		52°C	
S.F. Amps					Temp. Rise @ S.F. Load		63°C	
					Locked-rotor Power Factor		29.3	
					Rotor inertia		10.1 LB-FT2	

Load Characteristics 380 V, 50 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	45	67	78	84	86	87
Efficiency	90.3	93.7	94.6	94.3	94.2	93.2
Speed	1494	1490	1485	1480	1475	1469
Line amperes	27.9	35.86	45.89	57.36	70.22	83.76

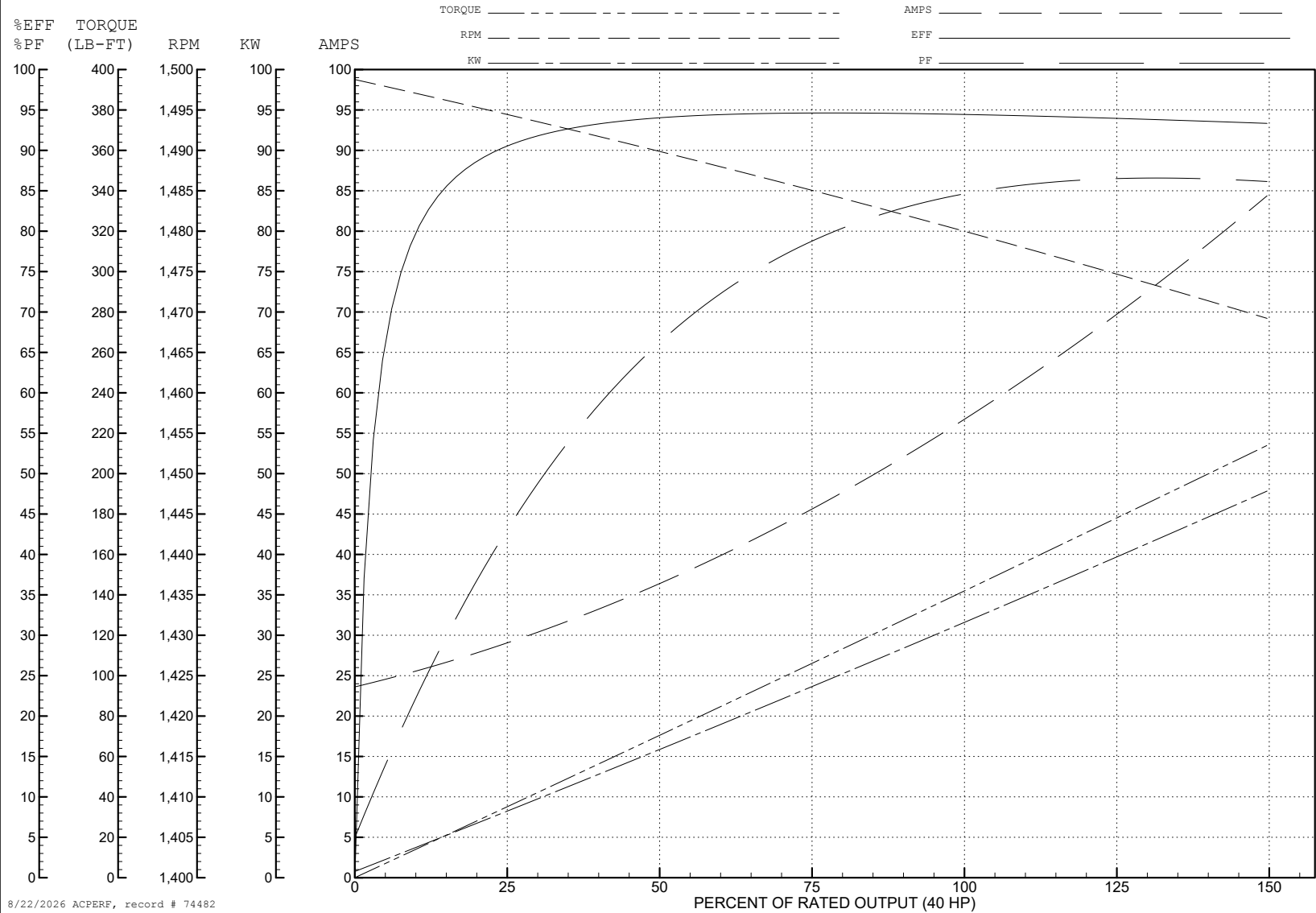
ABB Motors and Mechanical Inc.

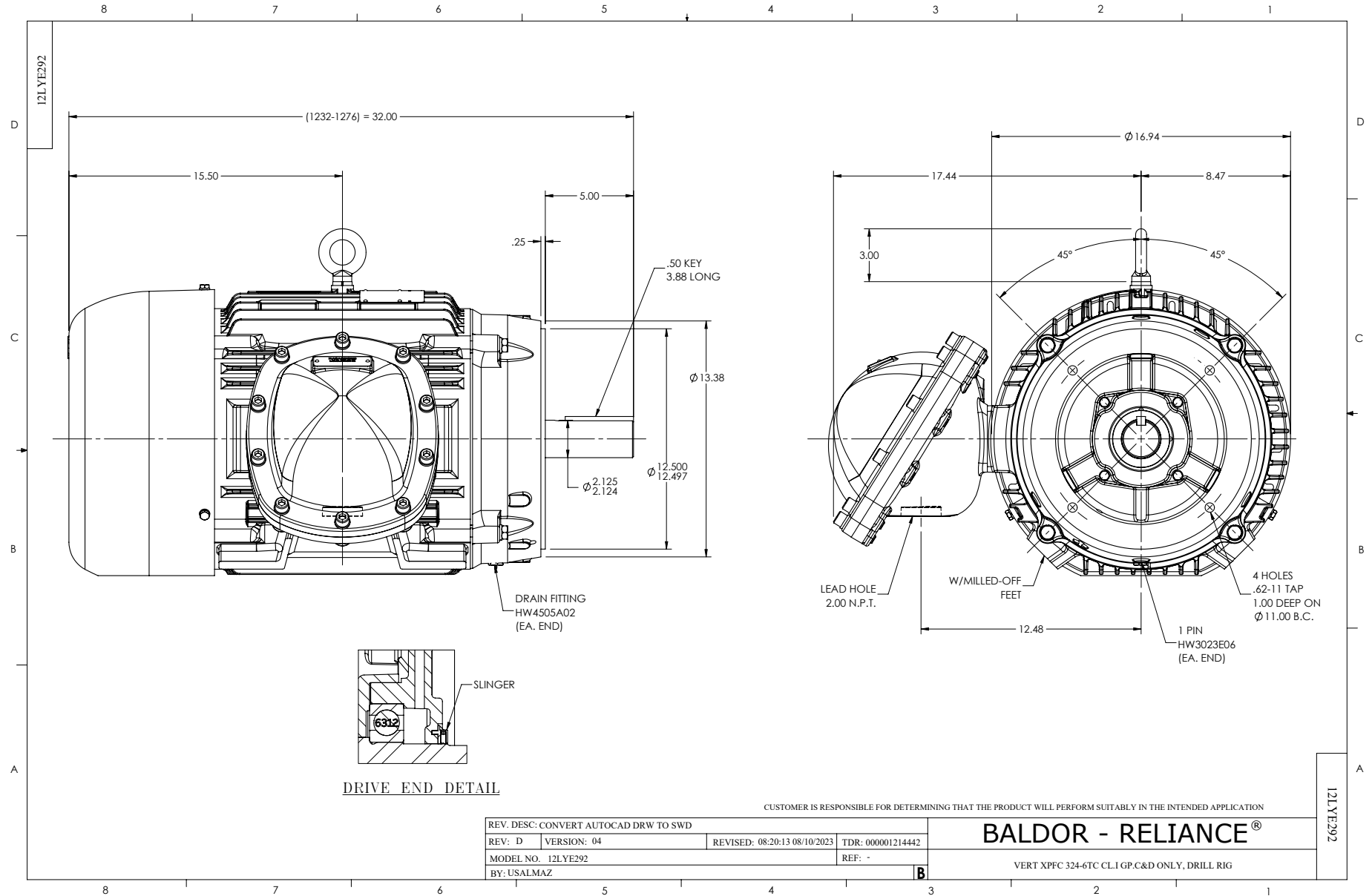
WINDING # 12WGY585

Typical performance - not guaranteed values.

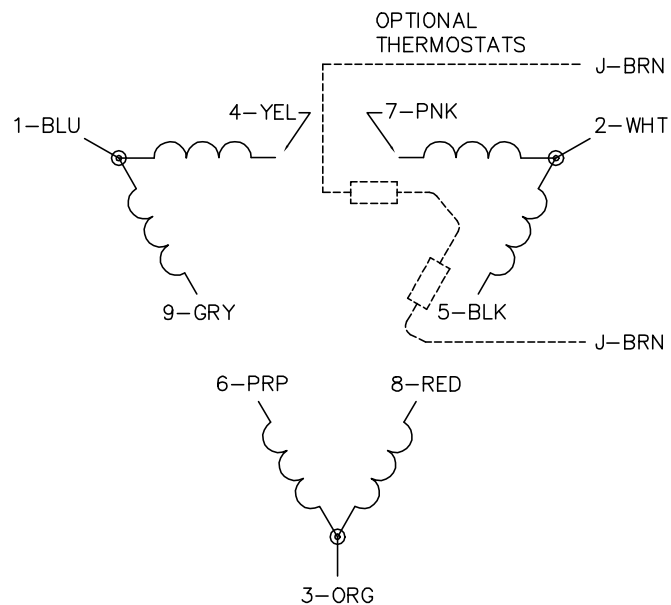
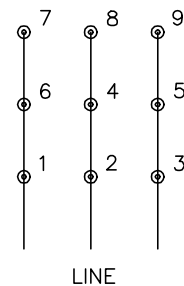
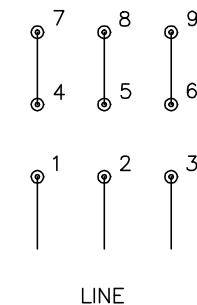
40 HP 3 PH 50 HZ 1480 RPM 380 V 1276M

TORQUES (LB-FT): PO=544 PU=248 LR=293 LRA=465





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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