

ABB BALDOR RELIANCE III

Customer information packet

CDRX32424T

40HP, 3540//2950RPM, 3PH, 60/50HZ, 324TSC, XP

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	XPFC
Frame	324TSC
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	30.000 HP @ 50 HZ 40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	380.0 V @ 50 HZ 230.0 V @ 60 HZ 190.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV UL
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	98.000 A @ 208.0 V 90.000 A @ 230.0 V 82.000 A @ 190.0 V 45.000 A @ 460.0 V 41.000 A @ 380.0 V
Design Code	A
Drip Cover	No Drip Cover

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	12WGY584
Layout	12LYH659
Eff. date	12-10-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	06-04-2019

Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	41.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1252M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	30.50 IN
Power Factor	88
Product Family	Hazardous Location Motor
Pulley Face Code	C-Face
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	3540 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.	12-0000-0745						INV.TYPE		PWM				
CAT.NO.	CDRX32424T						C HP FR	60		C HP TO	90		
HP	40//30						CT HZ FROM		6		CT HZ TO	60	
VOLTS	230/460//190/380						VT HZ FROM		6		VT HZ TO	60	
AMPS	90/45//82/41				MAG CUR		24/12						
RPM	3540//2950				MX RPM		5400						
HZ	60//50		PH	3	CL	F	NOM.EFF.		92.4				
SER.F.	1.00		DES	A	SL HZ	1	WK2	4.07					
FRAME	324TSC		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
SA370390	SA 12-0000-0745	1.000 ea
RA360039	RA 12-0000-0745	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
14PA2000	PKGP, CTN ID 42X34X25, STD BASE	1.000 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
37FN3002C04	EXFN, PLASTIC, 6.00 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
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
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
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	BREATHER/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
HW2501H18	KEY, 1/2 SQ X 2.000	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 # 66216

Typical performance - not guaranteed values

Winding: 12WGY584-R006			Type: 1252M		Enclosure: XPFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		40	Full Load Torque		59.2 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		90/45	Breakdown Torque		250 LB-FT	
R.P.M.		3540	Pull-up Torque		85.8 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		118 LB-FT
NEMA Design Code		A	KVA Code	Starting Current		325 A
Service Factor (S.F.)		1		No-load Current		11.7 A
NEMA Nom. Eff.		92.4	Power Factor	Line-line Res. @ 25°C		0.12 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		59°C
				Locked-rotor Power Factor		20.8
				Rotor inertia		4.07 LB-FT2

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	67	83	89	90	91	91
Efficiency	84.6	90.4	91.9	92.6	92	91.5
Speed	3587	3574	3561	3548	3533	3518
Line amperes	16.4	24.7	34.4	44.7	55.9	67.4

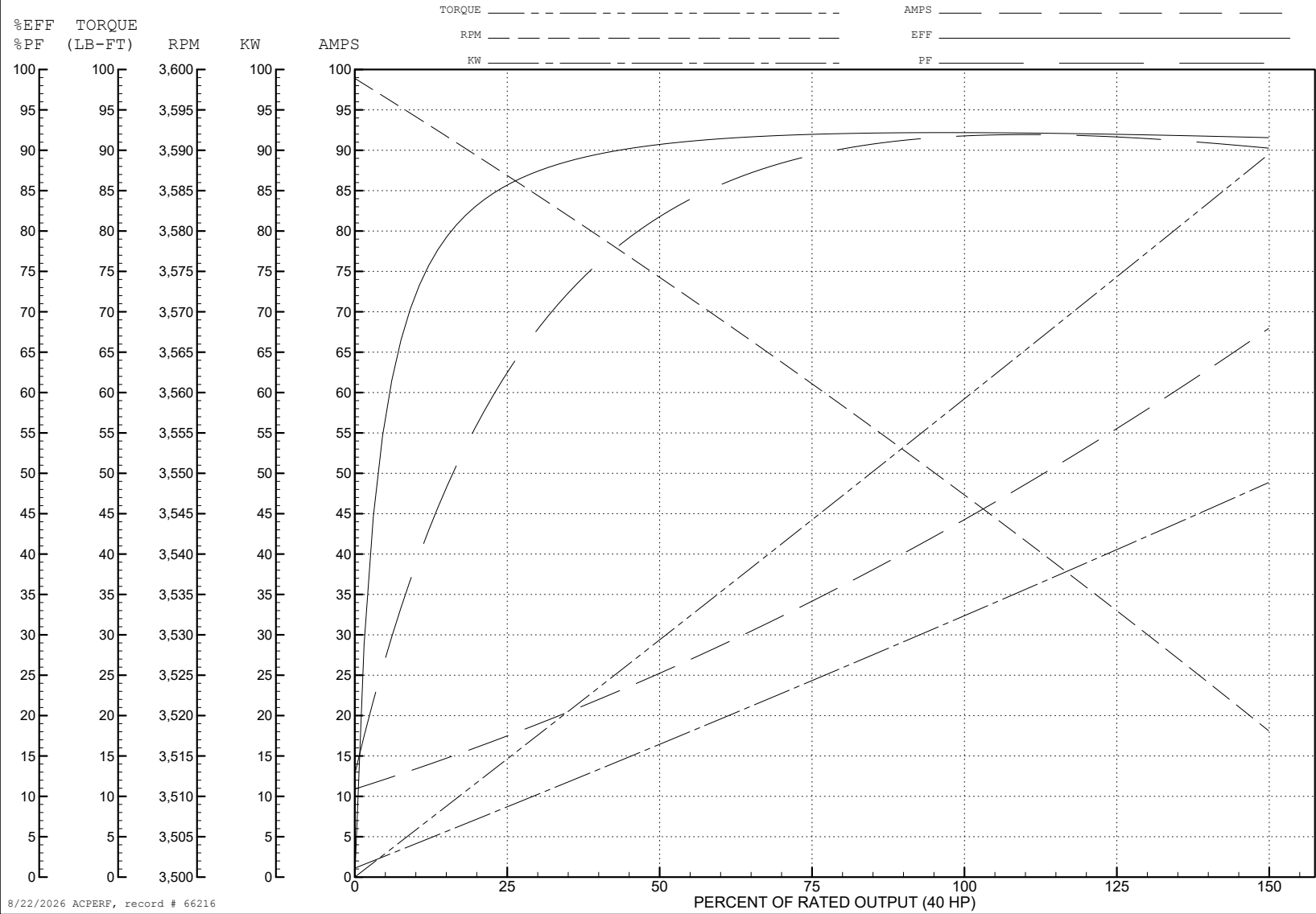
ABB Motors and Mechanical Inc.

WINDING # 12WGY584

Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 3540 RPM 460 V 1252M

TORQUES (LB-FT): PO=250 PU=85.8 LR=118 LRA=325



AC Induction Motor Performance Data

Record # 75686

Typical performance - not guaranteed values

Winding: 12WGY584-R003				Type: 1252M		Enclosure: XPFC	
Nameplate Data				380 V, 50 Hz: High Voltage Connection			
Rated Output (HP)		40//30		Full Load Torque		53.34 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		90/45//82/41		Breakdown Torque		243 LB-FT	
R.P.M.		3540//2950		Pull-up Torque		91.37 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque		126 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		319 A
Service Factor (S.F.)		1		No-load Current		11.51 A	
NEMA Nom. Eff.		92.4	Power Factor	88	Line-line Res. @ 25°C		0.125 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		51°C	
S.F. Amps				Temp. Rise @ S.F. Load		62°C	
				Locked-rotor Power Factor		23.5	
				Rotor inertia		4.07 LB-FT2	

Load Characteristics 380 V, 50 Hz, 30 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	64	82	88	90	91	91
Efficiency	85.1	90.6	92	92.6	91.9	91.3
Speed	2988	2977	2965	2954	2941	2928
Line amperes	15.53	22.84	31.5	40.78	50.89	61.21

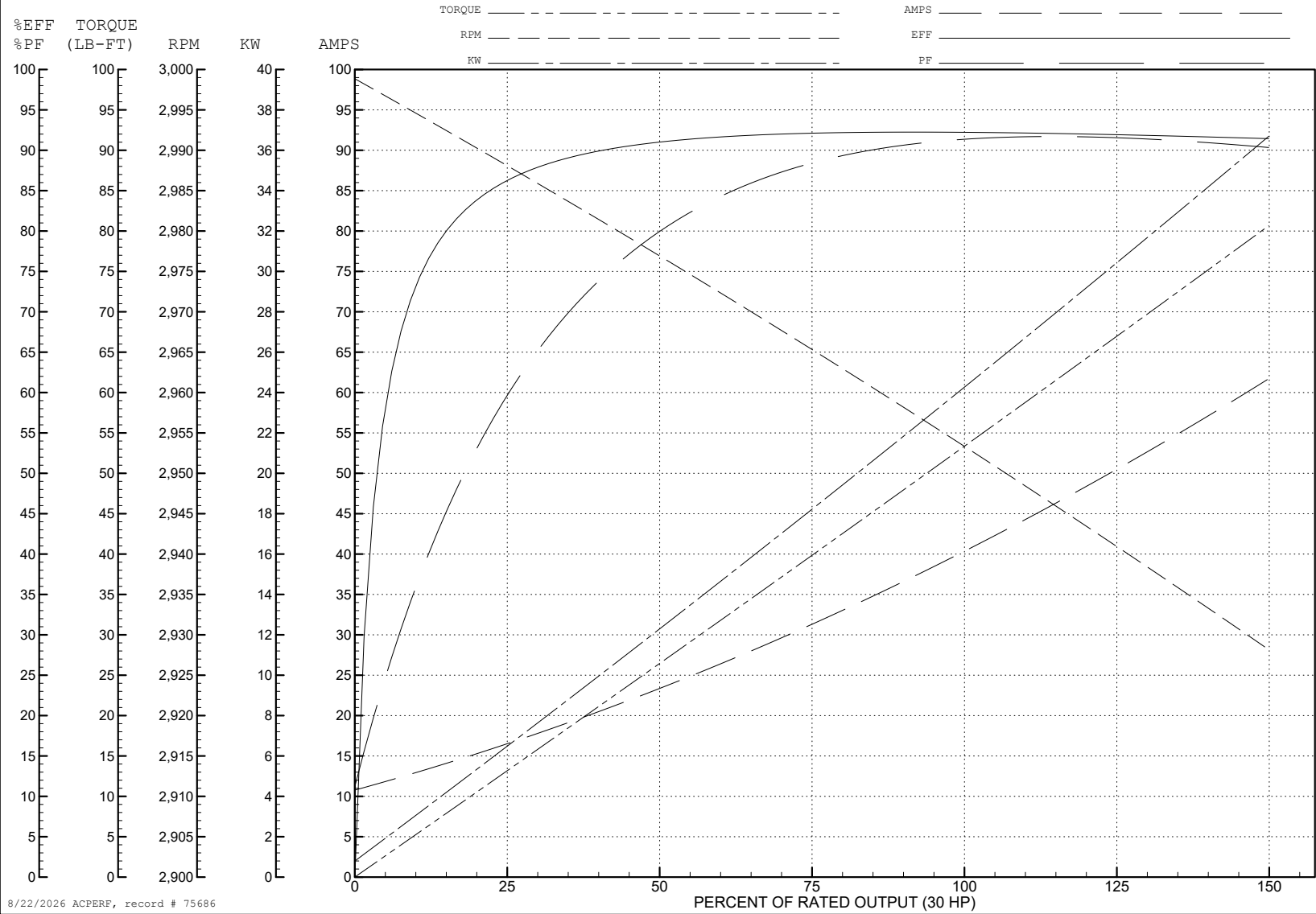
ABB Motors and Mechanical Inc.

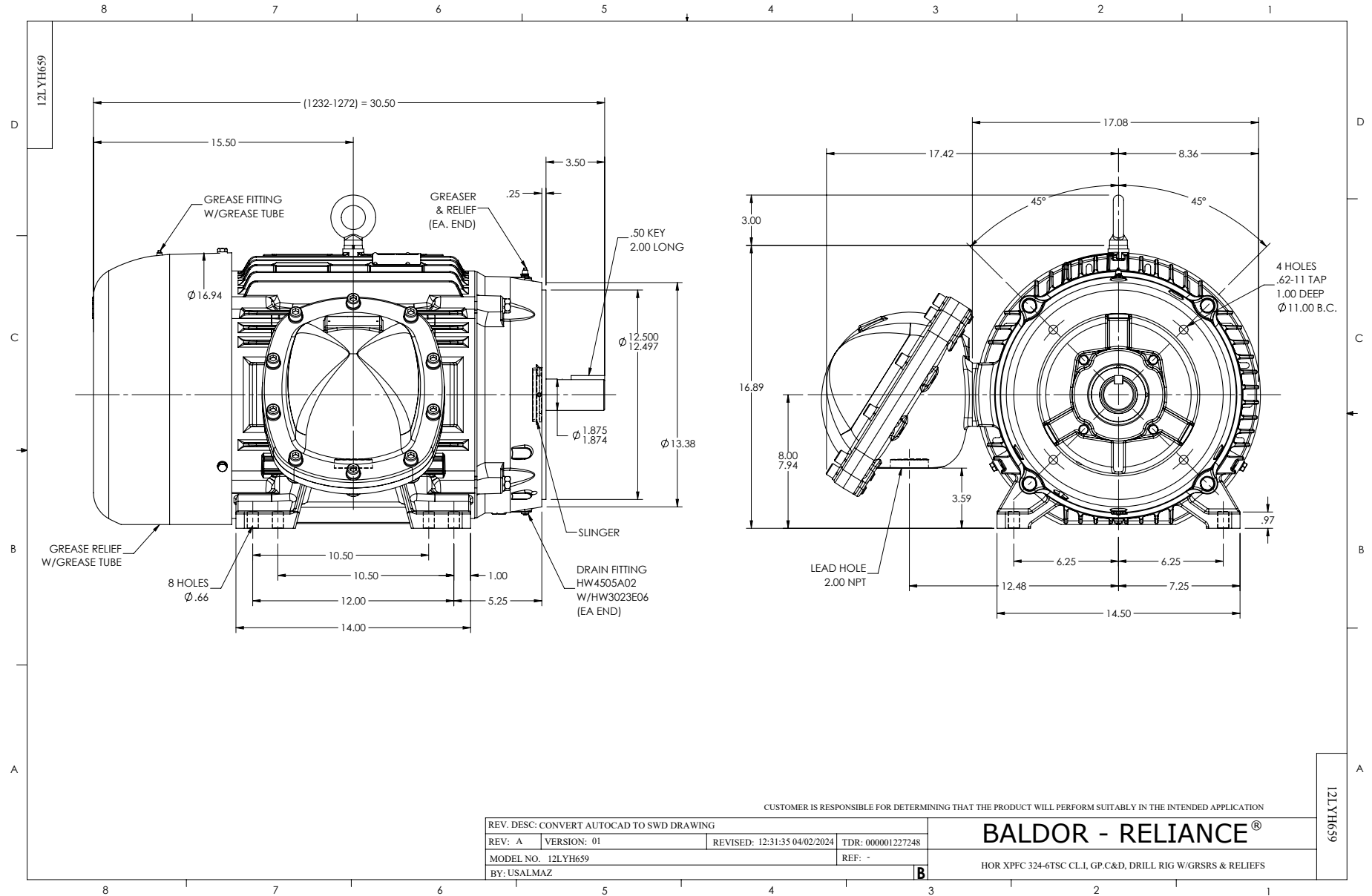
WINDING # 12WGY584

Typical performance - not guaranteed values.

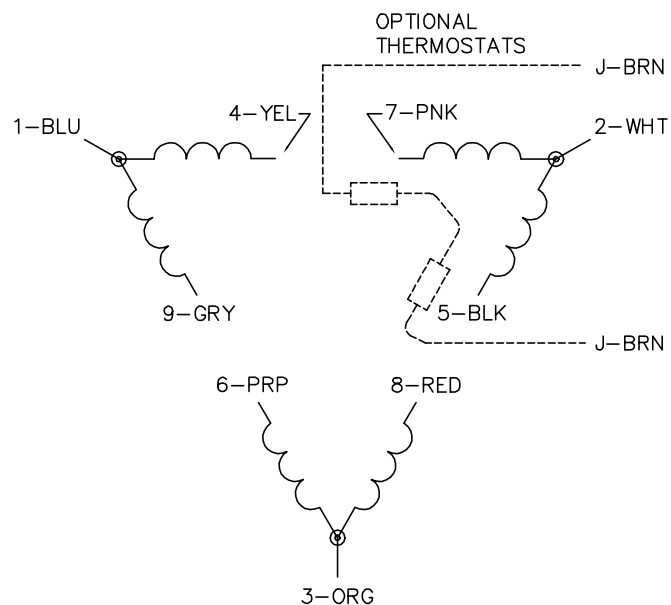
30 HP 3 PH 50 HZ 2954 RPM 380 V 1252M

TORQUES (LB-FT): PO=243 PU=91.37 LR=126 LRA=319

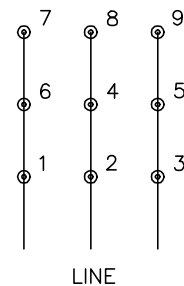




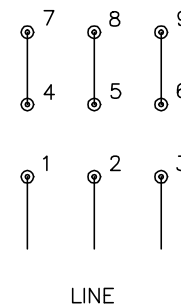
CD0180



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.

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

SH 1 of 1

CD0180