ABB BALDOR RELIANCE

Customer information packet

CDRX32424T

40HP, 3540//2950RPM, 3PH, 60/50HZ, 324TSC, XP
Class - CLI GP C,D
Division - Division I

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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						

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**	H	**Starting Current**	325 A
Service Factor (S.F.)			1	**No-load Current**	11.7 A
NEMA Nom. Eff.	92.4	**Power Factor**	88	**Line-line Res. @ 25ºC**	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

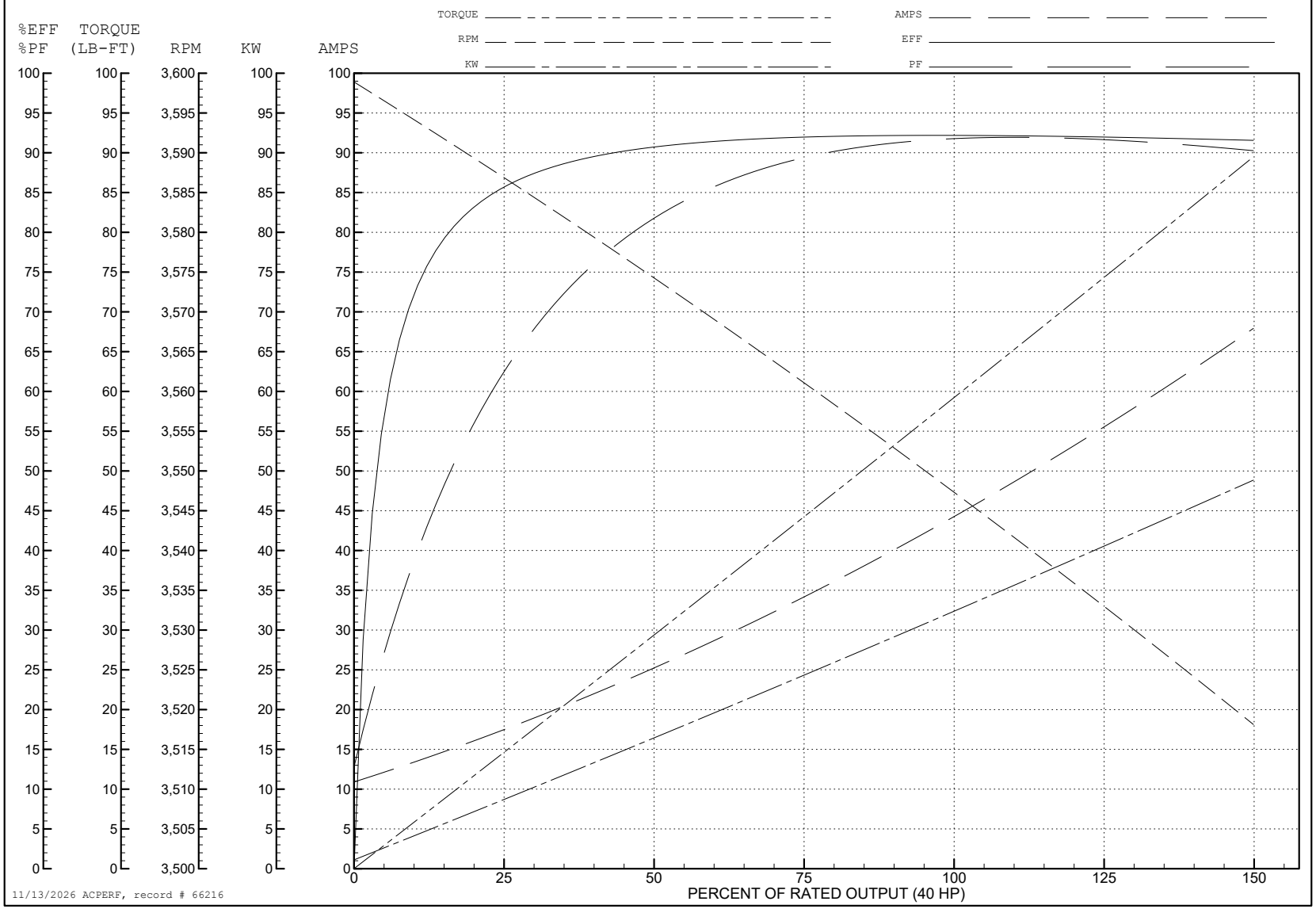
ABB Motors and Mechanical Inc.

WINDING # 12WGY584

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

Typical performance - not guaranteed values.

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



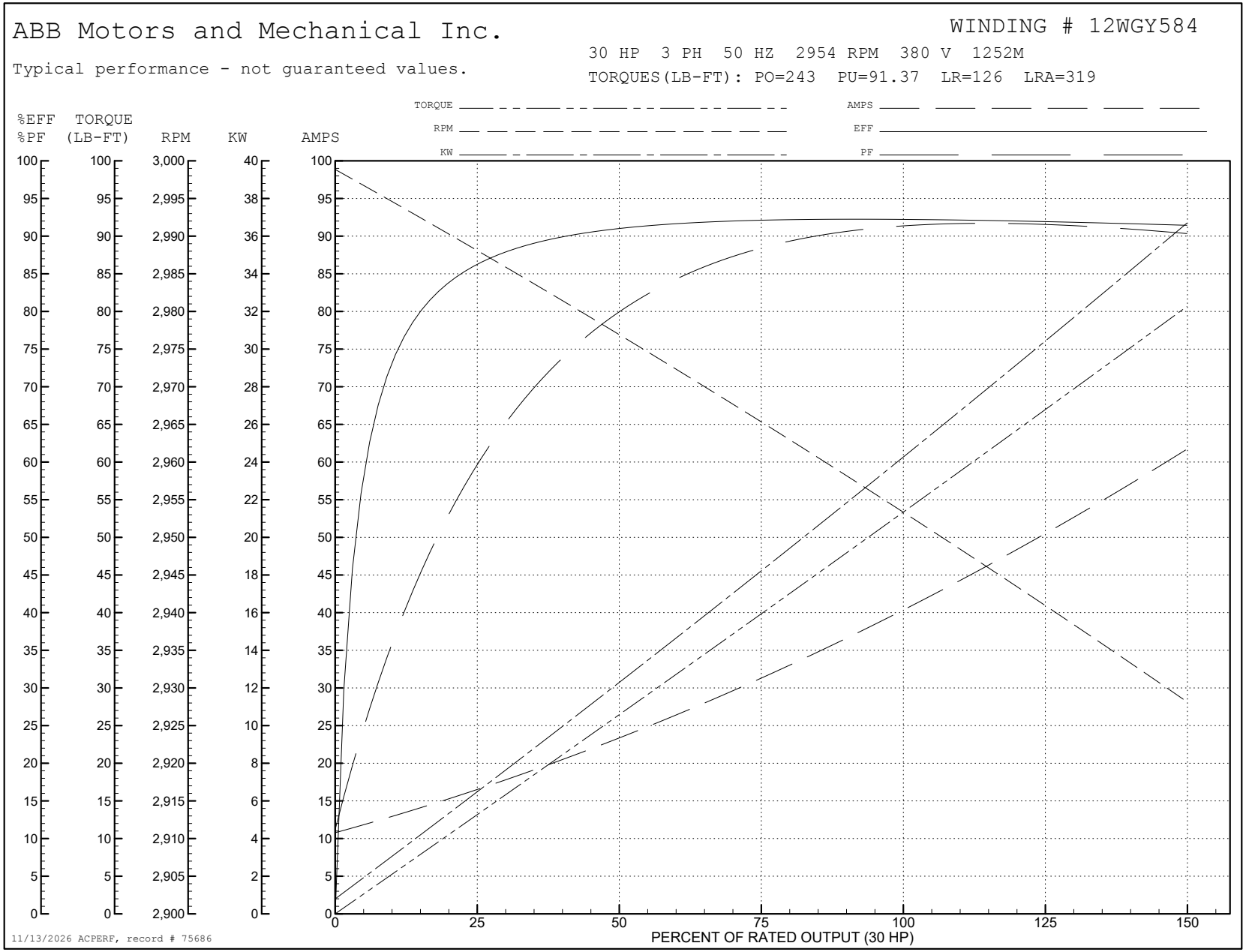
AC Induction Motor Performance Data
Record # 75686
Typical performance - not guaranteed values

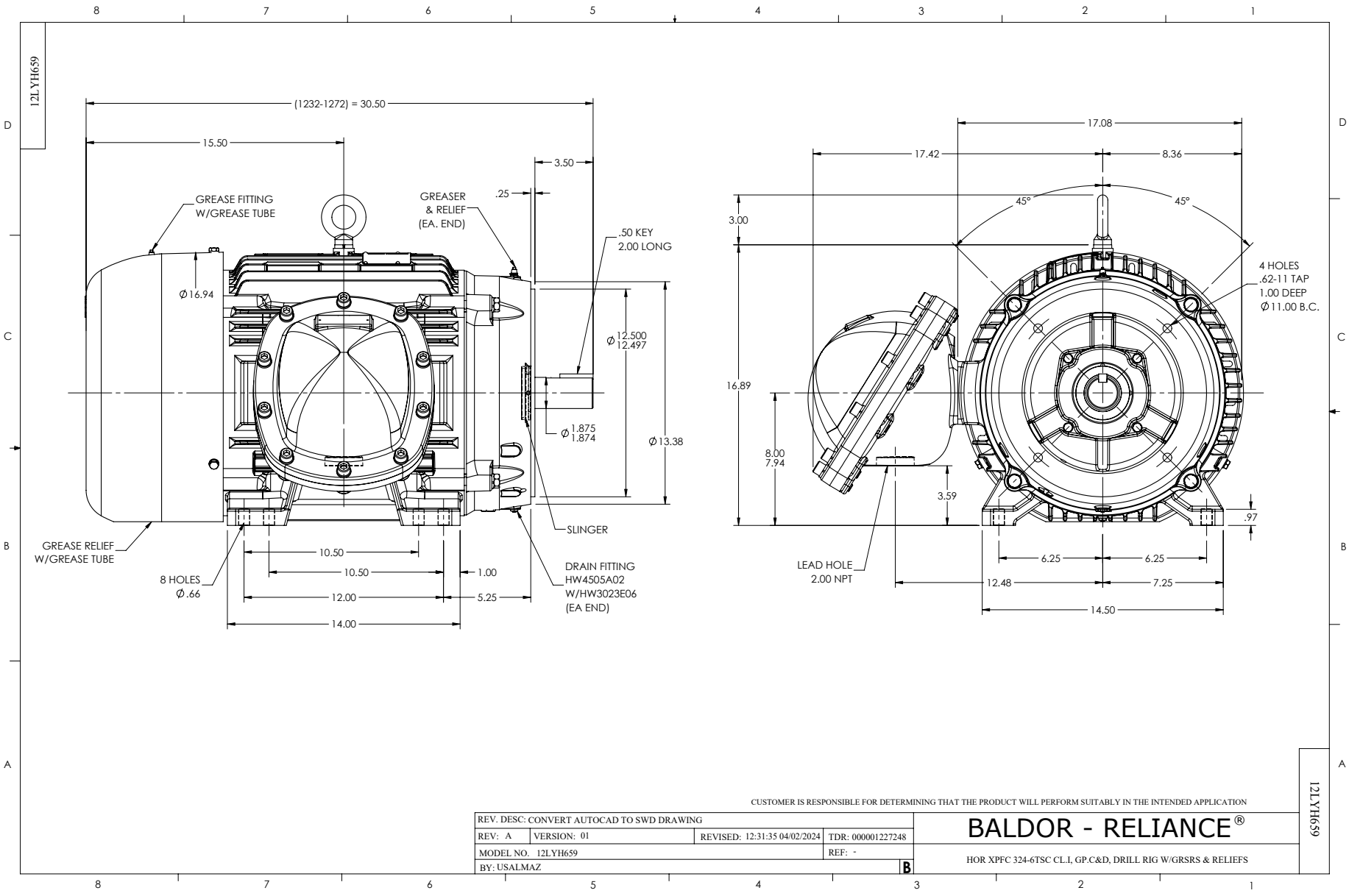
Winding: 12WGY584-R003	**Type:** 1252M	**Enclosure:** XPFC

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. @ 25ºC**	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

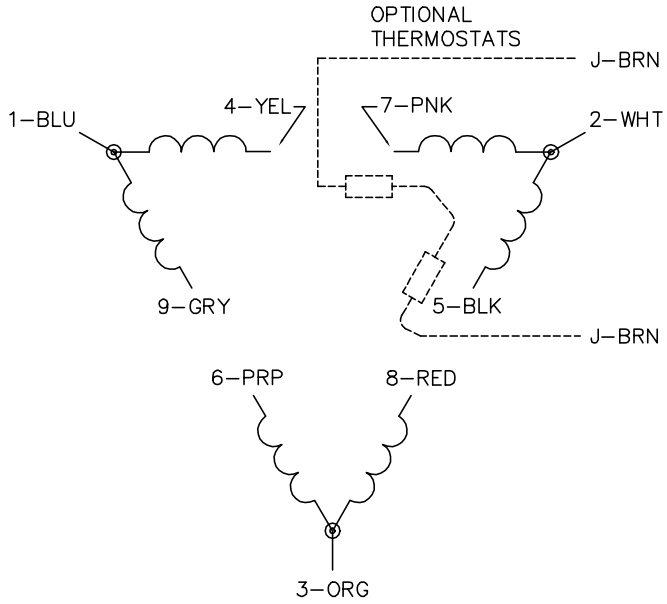
Load Characteristics 380 V, 50 Hz, 30 HP

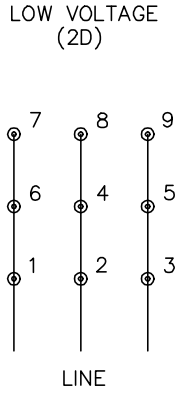
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	64	82	88	90	91	91
Efficiency	85.1	90.6	92	92.6	91.9	91.3
Speed	2988	2977	2965	2954	2941	2928
Line amperes	15.53	22.84	31.5	40.78	50.89	61.21

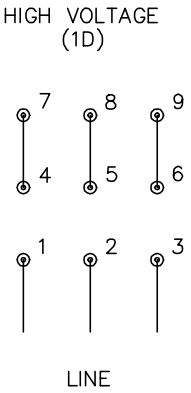

ABB Motors and Mechanical Inc.
WINDING # 12WGY584
30 HP 3 PH 50 HZ 2954 RPM 380 V 1252M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=243 PU=91.37 LR=126 LRA=319
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF
%PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (30 HP)
11/13/2026 ACPERF, record # 75686


12LYH659
(1232-1272) = 30.50
15.50
3.50
.25
GREASE FITTING
W/GREASE TUBE
GREASER
& RELIEF
(EA. END)
.50 KEY
2.00 LONG
Ø16.94
Ø 12.500
12.497
Ø 1.875
1.874
Ø13.38
SLINGER
GREASE RELIEF
W/GREASE TUBE
8 HOLES
Ø .66
10.50
10.50
1.00
12.00
5.25
14.00
DRAIN FITTING
HW4505A02
W/HW3023E06
(EA END)
17.08
17.42
8.36
45°
45°
3.00
4 HOLES
.62-11 TAP
1.00 DEEP
Ø11.00 B.C.
16.89
8.00
7.94
3.59
.97
LEAD HOLE
2.00 NPT
6.25
6.25
12.48
7.25
14.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD TO SWD DRAWING
REV: A
VERSION: 01
REVISED: 12:31:35 04/02/2024
TDR: 000001227248
MODEL NO. 12LYH659
REF: -
BY: USALMAZ
B
BALDOR - RELIANCE®
HOR XPFC 324-6TSC CL.I, GP.C&D, DRILL RIG W/GRSRS & RELIEFS
12LYH659

CD0180







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: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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