

ABB BALDOR RELIANCE III

Customer information packet

CDRX21724T

7.5HP, 3510//2910RPM, 3PH, 60/50HZ, 213TC, XP

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	XPFC
Frame	213TC
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	7.500 HP @ 60 HZ 5.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 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	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	15.200 A @ 190.0 V 18.000 A @ 230.0 V 7.600 A @ 380.0 V 9.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT

Part Detail

Revision	D
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	07WGY328
Layout	07LYJ232
Eff. date	02-14-2024
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	06-21-2019

Efficiency @ 100% Load	90.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	7.6 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	0726M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	20.78 IN
Power Factor	87
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	3510 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.	07-0000-0152						INV.TYPE		PWM			
CAT.NO.	CDRX21724T						C HP FR	60	C HP TO	90		
HP	7.5//5						CT HZ FROM		6	CT HZ TO		60
VOLTS	230/460//190/380						VT HZ FROM		6	VT HZ TO		60
AMPS	18/9//15.2/7.6						MAG CUR		9.2/4.6			
RPM	3510//2910						MX RPM		5400			
HZ	60//50	PH	3	CL	F	NOM.EFF.		90.7				
SER.F.	1.00	DES	B	SL HZ	1.5	WK2	0.25					
FRAME	213TC	RATING		40C AMB-CONT								
	55C AMB @ 1.0 SF											
	1.15 SF SINEWAVE						NEMA MG-1 PT 5,IP55					

Parts List

Part number	Description	Quantity
SA371141	SA 07-0000-0152	1.000 ea
RA360821	RA 07-0000-0152	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0145B01	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
LB1081F	ALUM XP CAUTION LABEL (FS PLANT ONLY-	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
07FH1003A05	FAN HOUSING 307 EXPLOSION PROOF W/ GREAS	1.000 ea
10XN2520A12	1/4-20 X 3/4 HEX HEAD CAP	4.000 ea
36FN3000C02SP	EXFN, PLASTIC, 5.25 OD, 1.175 ID	1.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
07EP1707A17	FREP XP GR C W/DRAINS, GRSRS	1.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW4500A19	1/4-28X1/4 SLOTTED PLUG F/S	1.000 ea
HW3022E05	.125 DIA X .500 ROLLED SPRING PIN	1.000 ea
07EP1708A12	PUEP 213-5TC 307M "DRILL RIG DUTY" SLING	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HA2065A02	ALUM SLINGER 307 BRGS DRILL RIG MOTOR	1.000 ea
80XN1032J07	10-32 X 7/16 SET SCREW, HEX SOC, CUP PT	2.000 ea
10XN2520A32	1/4 X 2 HEX HEAD CAP SCR, GRADE 2	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW4500A19	1/4-28X1/4 SLOTTED PLUG F/S	1.000 ea

HW4506A02	BREATHER/DRAIN-EXP PROOF-.125-27 NPTF AI	1.000 ea
HW3022E05	.125 DIA X .500 ROLLED SPRING PIN	1.000 ea
07CB1000A01	CONDUIT BOX MACH	1.000 ea
10XN3118A16	5/16-18X1 HEX HD CAP	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	1.000 ea
WD1000B17	T&B CX35TN OR L35P TERMINAL LUG	1.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
07CB1502A01	CONDUIT BOX LID MACH (DUCTILE IRON)	1.000 ea
84XN2520J16	1/4-20 X 1 SOC HD CAP SCREW	4.000 ea
MG1500Y02	WILKOPON PRIMER YELLOW	0.022 ga
MG1025G29	WILKOFAS, 789.229, DARK CHARCOAL GRAY	0.022 ga
07PA1011	PKG GRP, 07 CAST IRON PK1181	1.000 ea
10XL3807A28	3/8-7 X 1 3/4" LAG SCREW	2.000 ea
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 ea
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt

AC Induction Motor Performance Data

Record # 74891

Typical performance - not guaranteed values

Winding: 07WGY328				Type: 0726M		Enclosure: XPFC	
Nameplate Data				380 V, 50 Hz: High Voltage Connection			
Rated Output (HP)		7.5//5		Full Load Torque		8.95 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		18/9//15.2/7.6		Breakdown Torque		36.93 LB-FT	
R.P.M.		3510//2910		Pull-up Torque		21.54 LB-FT	
Hz		60//50		Phase		3	
NEMA Design Code		B		KVA Code		H	
Service Factor (S.F.)		1		No-load Current		3.44 A	
NEMA Nom. Eff.		90.7		Power Factor		87	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		34°C	
				Locked-rotor Power Factor		38.2	
				Rotor inertia		0.237 lb-ft²	

Load Characteristics 380 V, 50 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	48	69	78	84	88	88
Efficiency	76.9	85.1	87.4	88.3	87.7	86.8
Speed	2983	2966	2947	2928	2906	2882
Line amperes	3.83	4.82	6.18	7.62	9.17	11.03

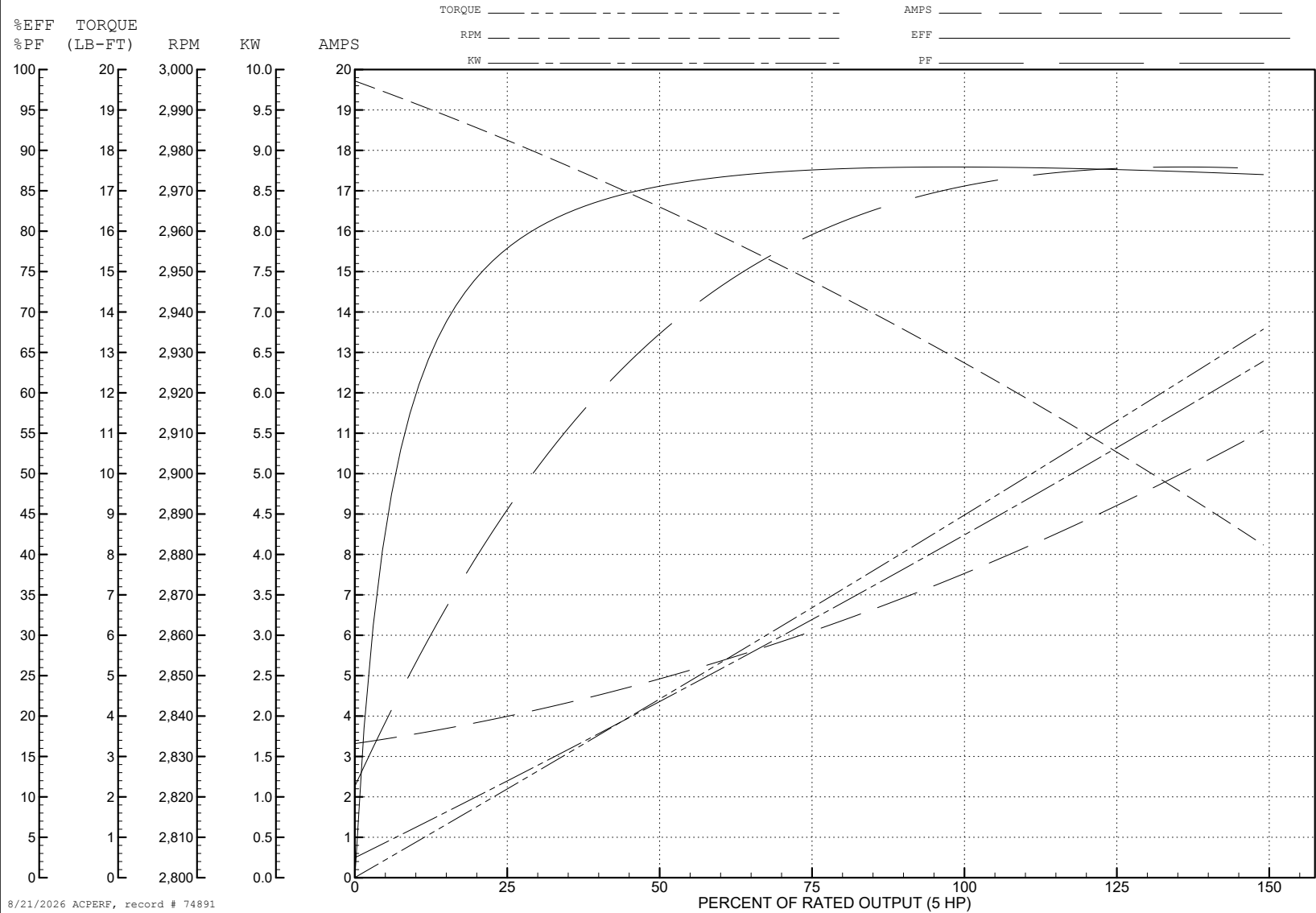
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WINDING # 07WGY328

Typical performance - not guaranteed values.

5 HP 3 PH 50 HZ 2928 RPM 380 V 0726M

TORQUES (LB-FT) : PO=36.93 PU=21.54 LR=24.82 LRA=59.17



AC Induction Motor Performance Data

Record # 74892

Typical performance - not guaranteed values

Winding: 07WGY328			Type: 0726M		Enclosure: XPFC		
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		7.5//5		Full Load Torque		11.2 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		18/9//15.2/7.6		Breakdown Torque		38.8 LB-FT	
R.P.M.		3510//2910		Pull-up Torque		20.4 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque		23.5 LB-FT	
NEMA Design Code		B	KVA Code	H	Starting Current		61.1 A
Service Factor (S.F.)		1		No-load Current		3.54 A	
NEMA Nom. Eff.		90.7	Power Factor	87	Line-line Res. @ 25°C		1.19 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		44°C	
S.F. Amps				Temp. Rise @ S.F. Load		54°C	
				Locked-rotor Power Factor		33.8	
				Rotor inertia		0.237 LB-FT2	

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	52	74	82	87	90	89
Efficiency	83.7	89.3	90.4	90.7	89.5	88.2
Speed	3581	3559	3537	3512	3486	3456
Line amperes	4.04	5.31	7.04	8.9	10.9	13.3

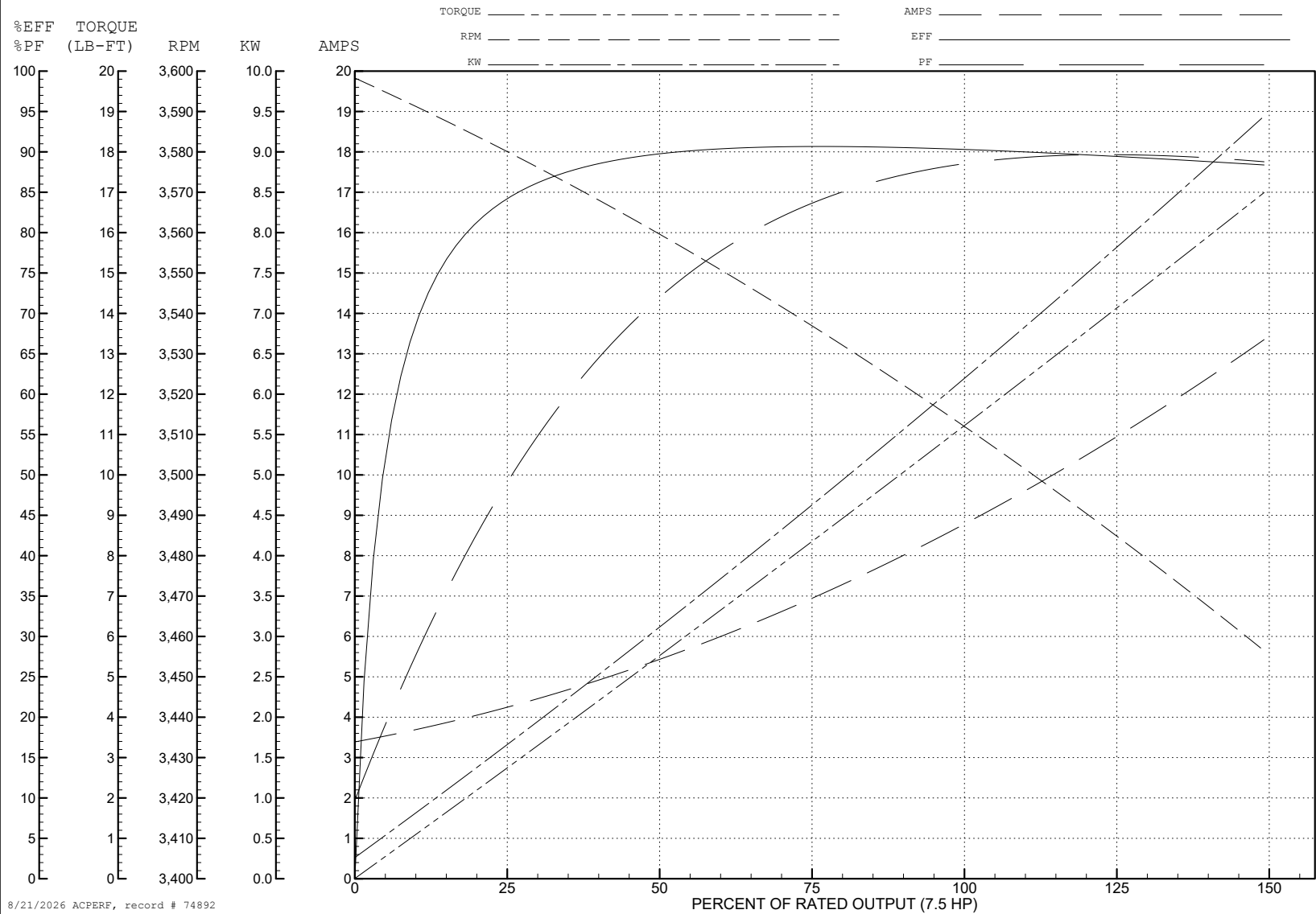
ABB Motors and Mechanical Inc.

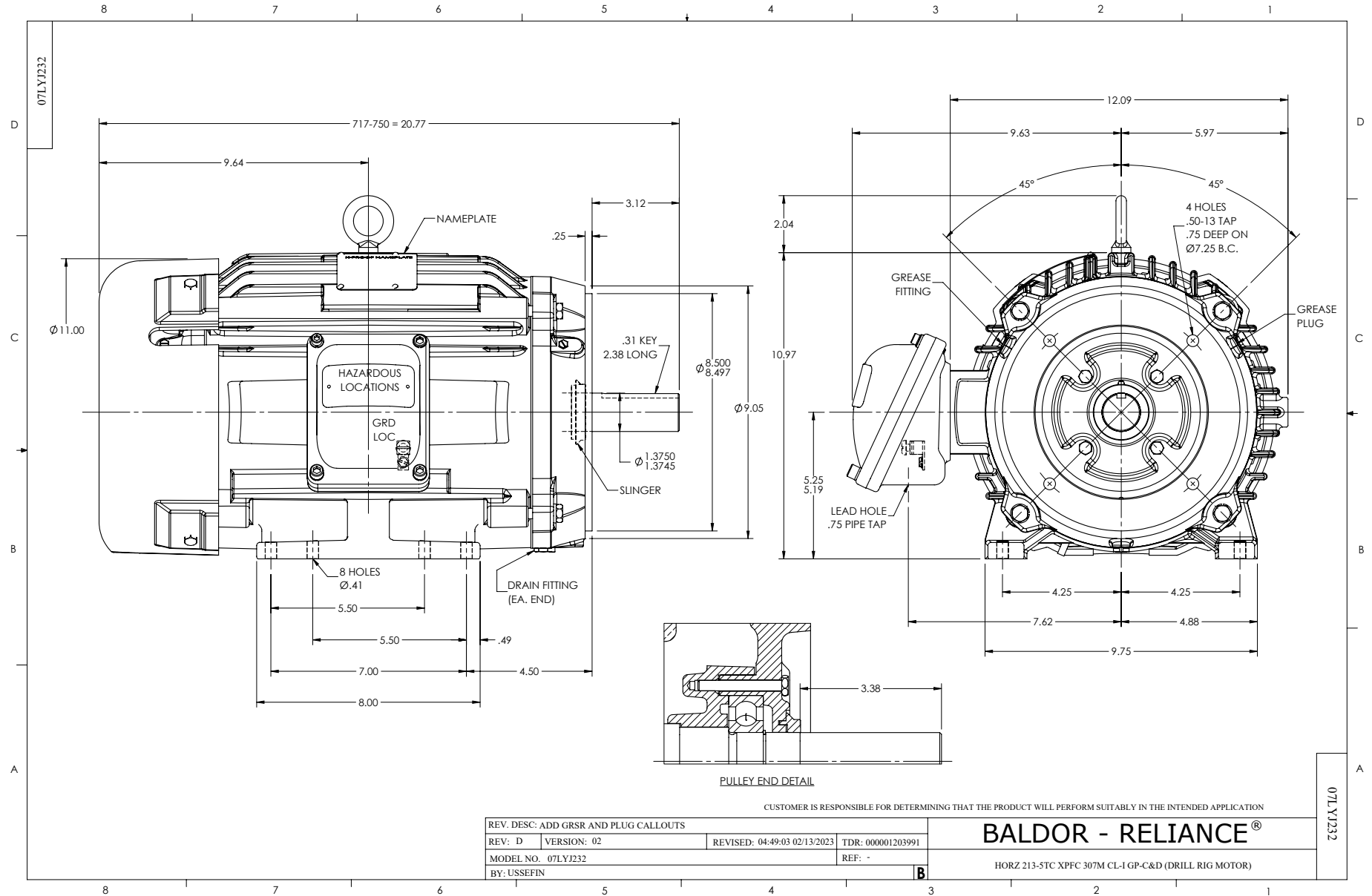
WINDING # 07WGY328

Typical performance - not guaranteed values.

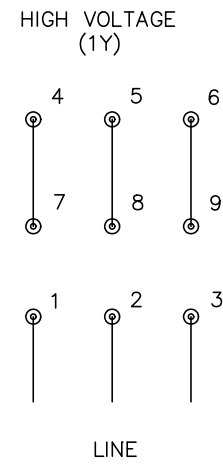
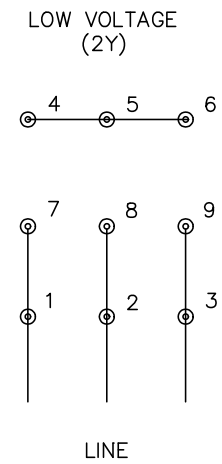
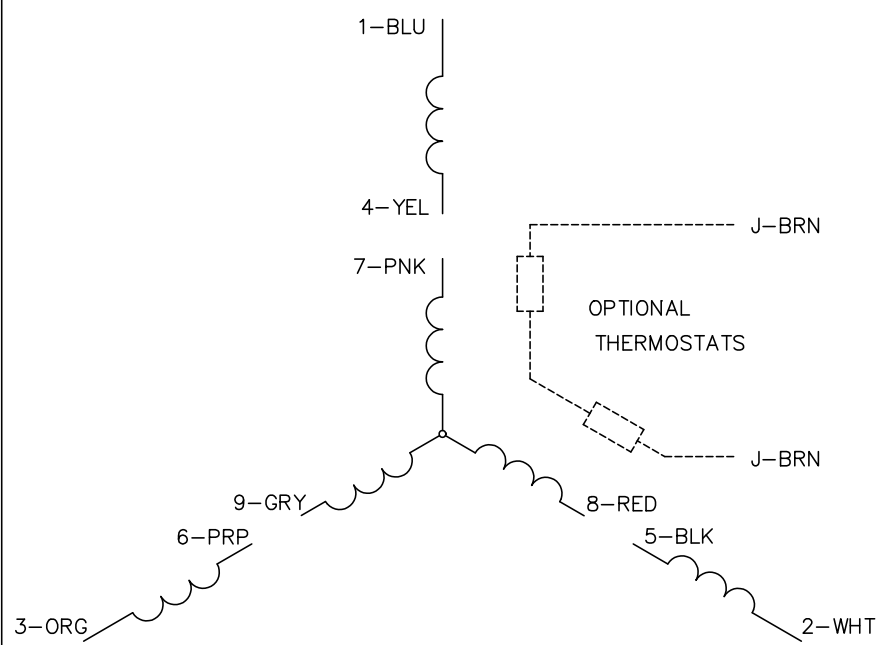
7.5 HP 3 PH 60 HZ 3512 RPM 460 V 0726M

TORQUES (LB-FT): PO=38.8 PU=20.4 LR=23.5 LRA=61.1





CD0005



- 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: REVISE TO SHOW OPTIONAL COLORS			
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BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005