ABB BALDOR RELIANCE

Customer information packet

VDRX21744T

7.5HP, 1770//1470RPM, 3PH, 60/50HZ, 213TC, XP
Class - CLI GP C,D
Division - Division I

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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	1800 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	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	10.100 A @ 460.0 V
	17.400 A @ 190.0 V
	20.200 A @ 230.0 V
	8.700 A @ 380.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT

Part Detail

Revision	D
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	07WGR561
Layout	07LYK484
Eff. date	02-14-2024
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	06-21-2019

Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	8.7 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	20.77 IN
Power Factor	75
Product Family	Hazardous Location Motor
Pulley Face Code	C-Face
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 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.	07-0000-0164			**INV.TYPE**	PWM						
CAT.NO.	VDRX21744T			**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	20.2/10.1//17.4/8.7			**MAG CUR**	10.8/5.4						
RPM	1770//1470			**MX RPM**	2700						
HZ	60//50	**PH**	3	**CL**	F	**NOM.EFF.**	91.7				
SER.F.	1.00	**DES**	A	**SL HZ**	1	**WK2**	0.934				
FRAME	213TC	**RATING**	40C AMB-CONT								
	55C AMB @ 1.0 SF										
	1.15 SF SINEWAVE			NEMA MG-1 PT 5,IP55							

AC Induction Motor Performance Data
Record # 72835
Typical performance - not guaranteed values

Winding: 07WGR561-R003	**Type:** 0738M	**Enclosure:** XPFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			7.5//5	**Full Load Torque**	22.08 LB-FT
Volts			230/460//190/380	**Start Configuration**	direct on line
Full Load Amps			20.2/10.1//17.4/8.7	**Breakdown Torque**	81.48 LB-FT
R.P.M.			1770//1470	**Pull-up Torque**	38.25 LB-FT
Hz	60//50	**Phase**	3	**Locked-rotor Torque**	50.29 LB-FT
NEMA Design Code	A	**KVA Code**	K	**Starting Current**	82.02 A
Service Factor (S.F.)			1	**No-load Current**	5.44 A
NEMA Nom. Eff.	91.7	**Power Factor**	75	**Line-line Res. @ 25ºC**	1.22 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	42°C
				Locked-rotor Power Factor	37.5
				Rotor inertia	0.934 lb-ft²

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	36	57	69	76	80	82
Efficiency	82.1	88.6	90.3	90.6	90.2	89.6
Speed	1794	1787	1780	1773	1764	1756
Line amperes	5.93	6.99	8.43	10.18	12.2	14.34

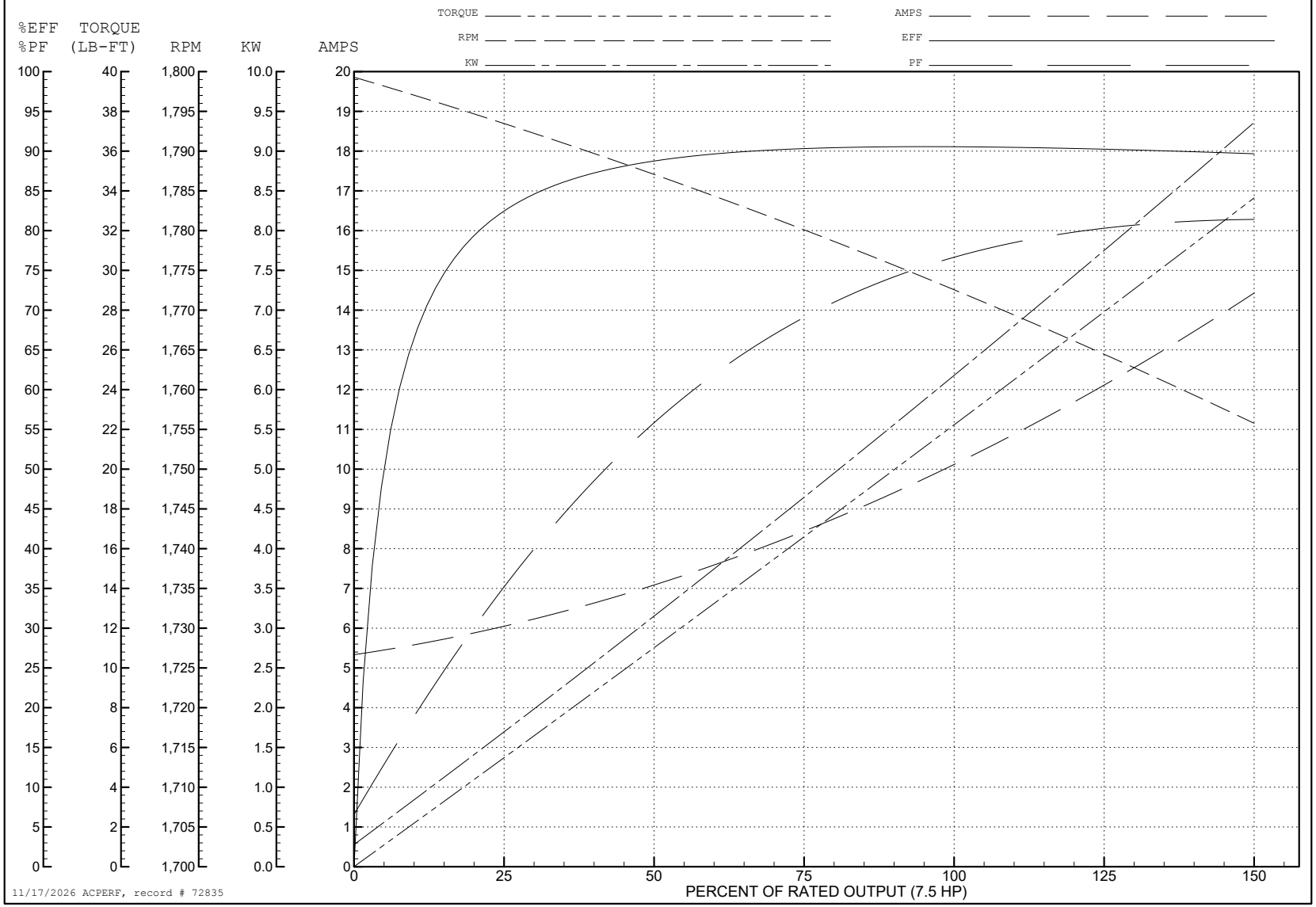
ABB Motors and Mechanical Inc.

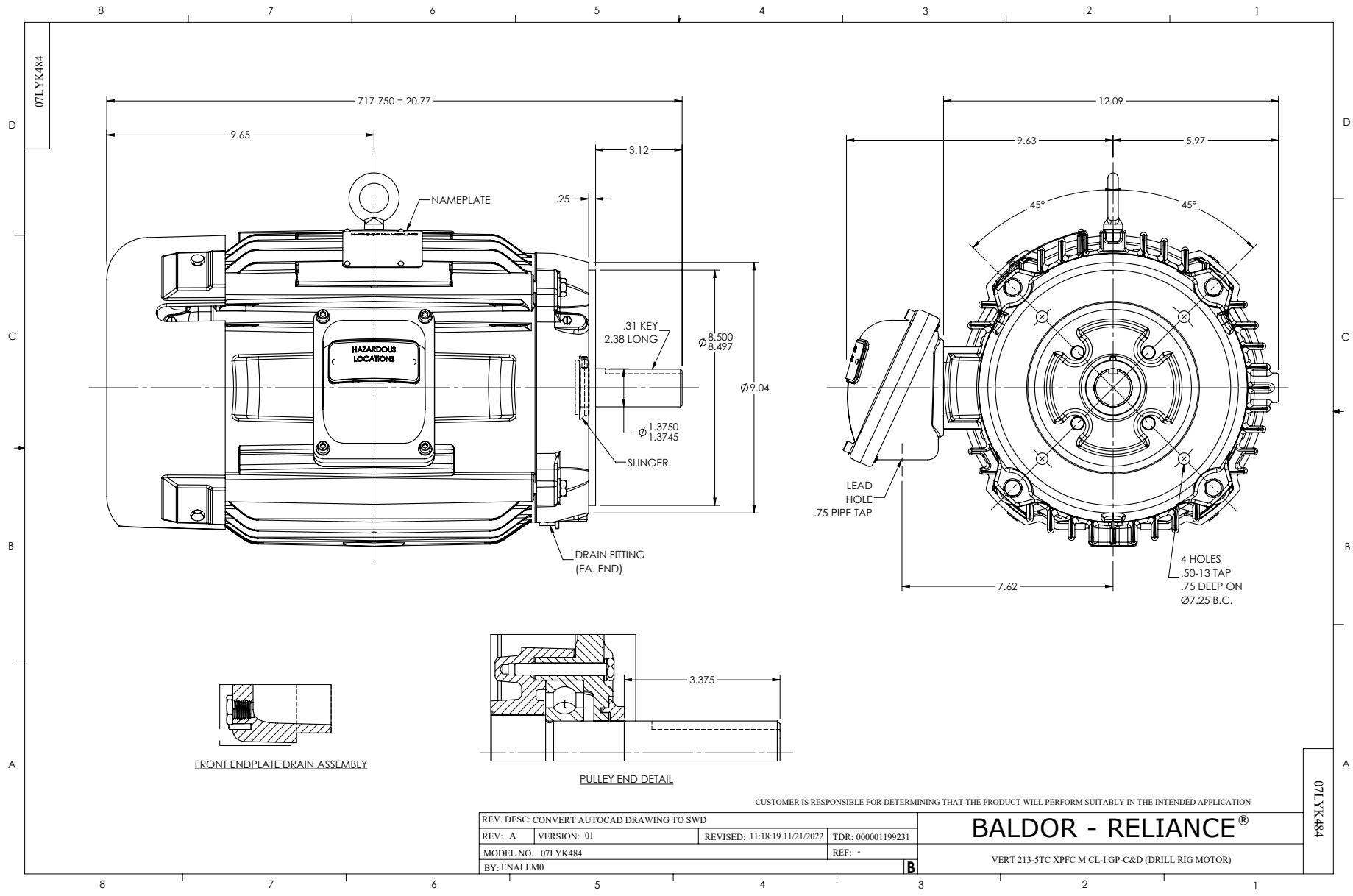
WINDING # 07WGR561

7.5 HP 3 PH 60 HZ 1773 RPM 460 V 0738M

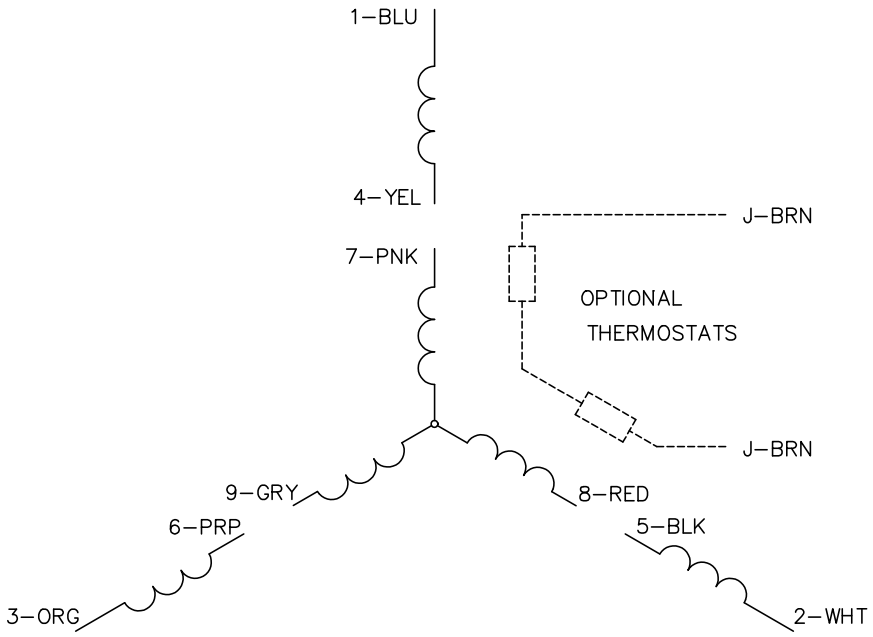
Typical performance - not guaranteed values.

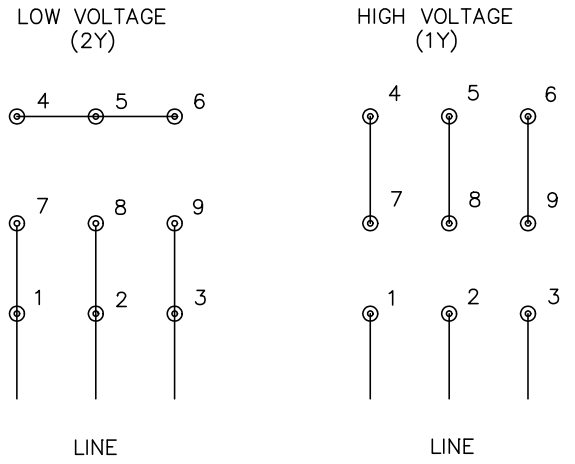
TORQUES(LB-FT): PO=81.48 PU=38.25 LR=50.29 LRA=82.02




07LYK484
717-750 = 20.77
9.65
3.12
.25
NAMEPLATE
.31 KEY
2.38 LONG
Ø8.500
8.497
Ø9.04
Ø1.3750
1.3745
SLINGER
DRAIN FITTING
(EA. END)
HAZARDOUS
LOCATIONS
12.09
9.63
5.97
45°
45°
LEAD
HOLE
.75 PIPE TAP
7.62
4 HOLES
.50-13 TAP
.75 DEEP ON
Ø7.25 B.C.
FRONT ENDPLATE DRAIN ASSEMBLY
3.375
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD DRAWING TO SWD
REV: A
VERSION: 01
REVISED: 11:18:19 11/21/2022
TDR: 000001199231
MODEL NO. 07LYK484
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
VERT 213-5TC XPFC M CL-I GP-C&D (DRILL RIG MOTOR)
07LYK484

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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS