

ABB BALDOR RELIANCE III

Customer information packet

VDRX21744T

7.5HP, 1770//1470RPM, 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	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. @ 25°C		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

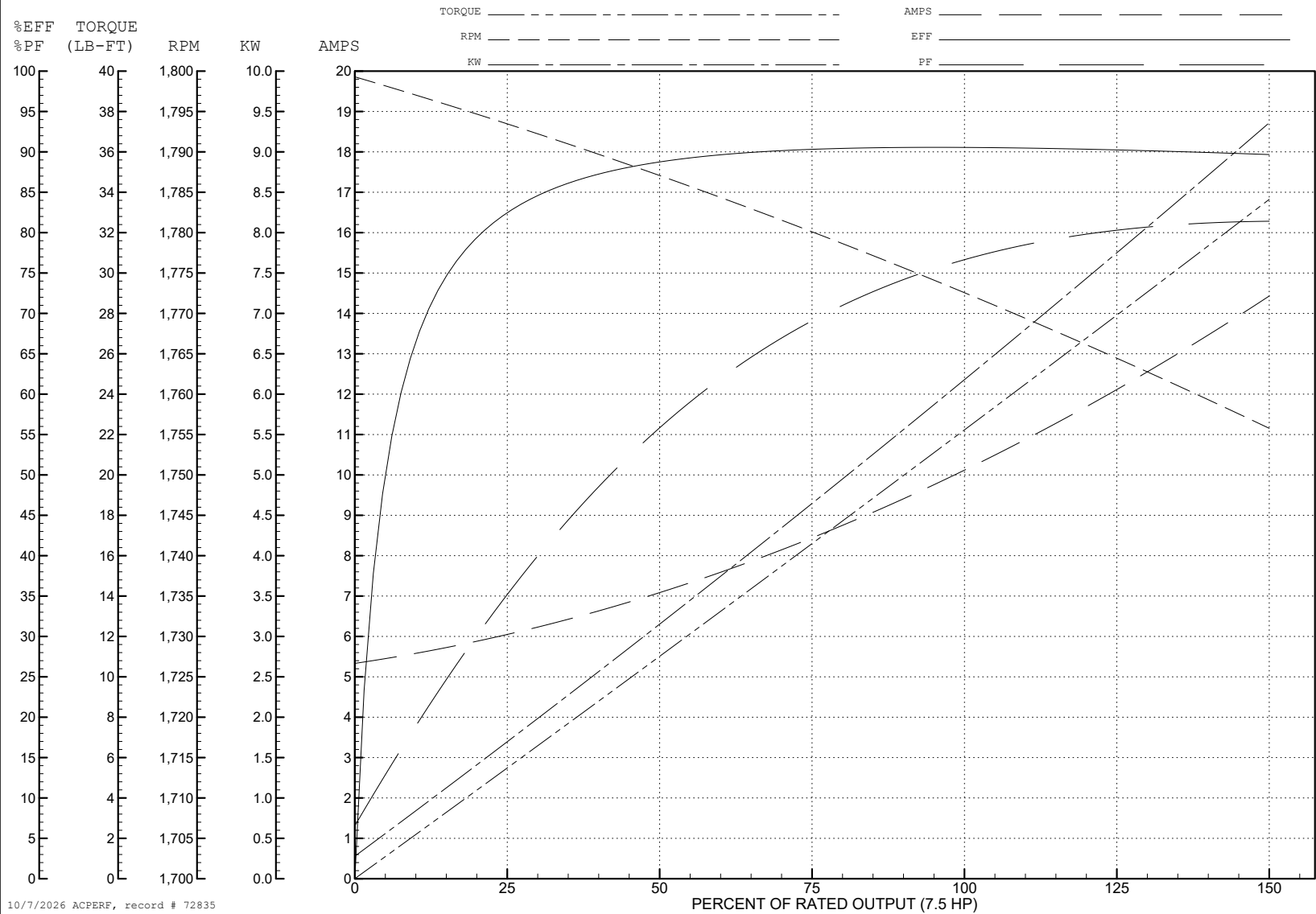
ABB Motors and Mechanical Inc.

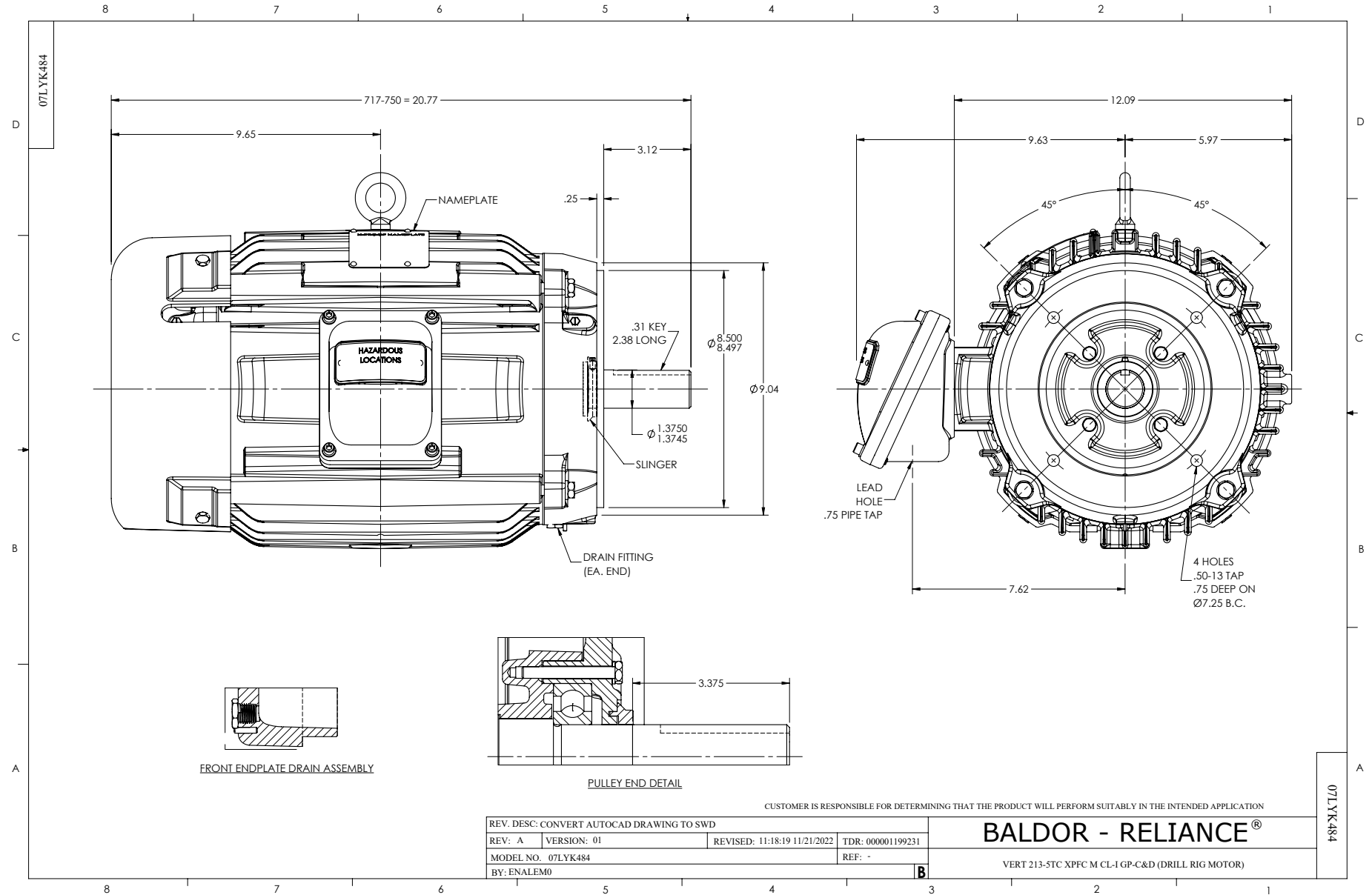
WINDING # 07WGR561

Typical performance - not guaranteed values.

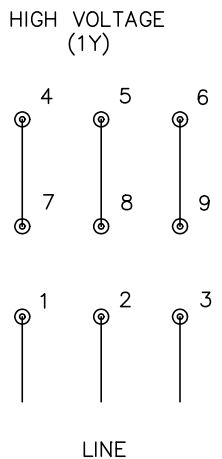
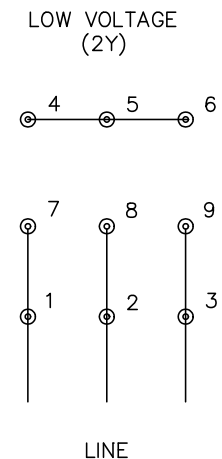
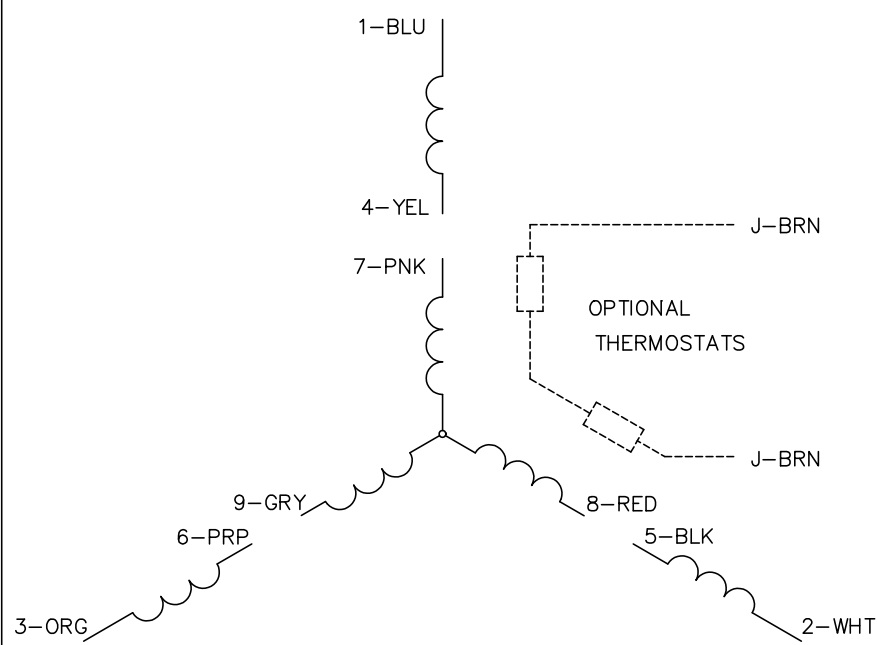
7.5 HP 3 PH 60 HZ 1773 RPM 460 V 0738M

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





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			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005