

ABB BALDOR RELIANCE III

Customer information packet

VDRX21144T

10HP, 1765//1465RPM, 3PH, 60/50HZ, 215TC, XPF

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	XPFC
Frame	215TC
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 @ 50 HZ 10.000 HP @ 60 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	11.600 A @ 380.0 V 12.500 A @ 460.0 V 23.200 A @ 190.0 V 25.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	07WGX598
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	11.6 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0750M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	20.77 IN
Power Factor	81
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	1765 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.	07-0000-0165						INV.TYPE		PWM			
CAT.NO.	VDRX21144T						C HP FR	60	C HP TO	90		
HP	10//7.5						CT HZ FROM		6	CT HZ TO		60
VOLTS	230/460//190/380						VT HZ FROM		6	VT HZ TO		60
AMPS	25/12.5//23.2/11.6						MAG CUR	5.6				
RPM	1765//1465						MX RPM	2700				
HZ	60//50	PH	3	CL	F	NOM.EFF.		91.7				
SER.F.	1.00	DES	A	SL HZ	1.2	WK2	1.18					
FRAME	215TC	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
SA371144	SA 07-0000-0165	1.000 ea
RA360824	RA 07-0000-0165	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
37FN3002B01	EXFN, PLASTIC, 7.50 OD, 1.155 ID	1.000 ea
51XB1214A20	12-14X1.25 HWSSLD 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	BREATHING/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
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 # 39054

Typical performance - not guaranteed values

Winding: 07WGX598-R007				Type: 0750M		Enclosure: XPFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		10//7.5		Full Load Torque		29.7 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		24.6/12.3//23/11.5		Breakdown Torque		94.2 LB-FT	
R.P.M.		1765//1465		Pull-up Torque		56.3 LB-FT	
Hz		60//50		Phase		3	
NEMA Design Code		A		KVA Code		J	
Service Factor (S.F.)		1.15		No-load Current		5.6 A	
NEMA Nom. Eff.		92.4		Power Factor		81	
Rating - Duty		40C		AMB-CONT			
S.F. Amps				Temp. Rise @ Rated Load		55°C	
				Temp. Rise @ S.F. Load		70°C	
				Locked-rotor Power Factor		35	
				Rotor inertia		1.23 LB-FT2	

Load Characteristics 460 V, 60 Hz, 10 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	64	76	81	84	85	83
Efficiency	89.8	93.6	92.6	92.4	91.3	90.2	91.7
Speed	1790	1782	1772	1764	1753	1743	1757
Line amperes	6.28	7.9	10	12.5	15.3	18.3	14.2

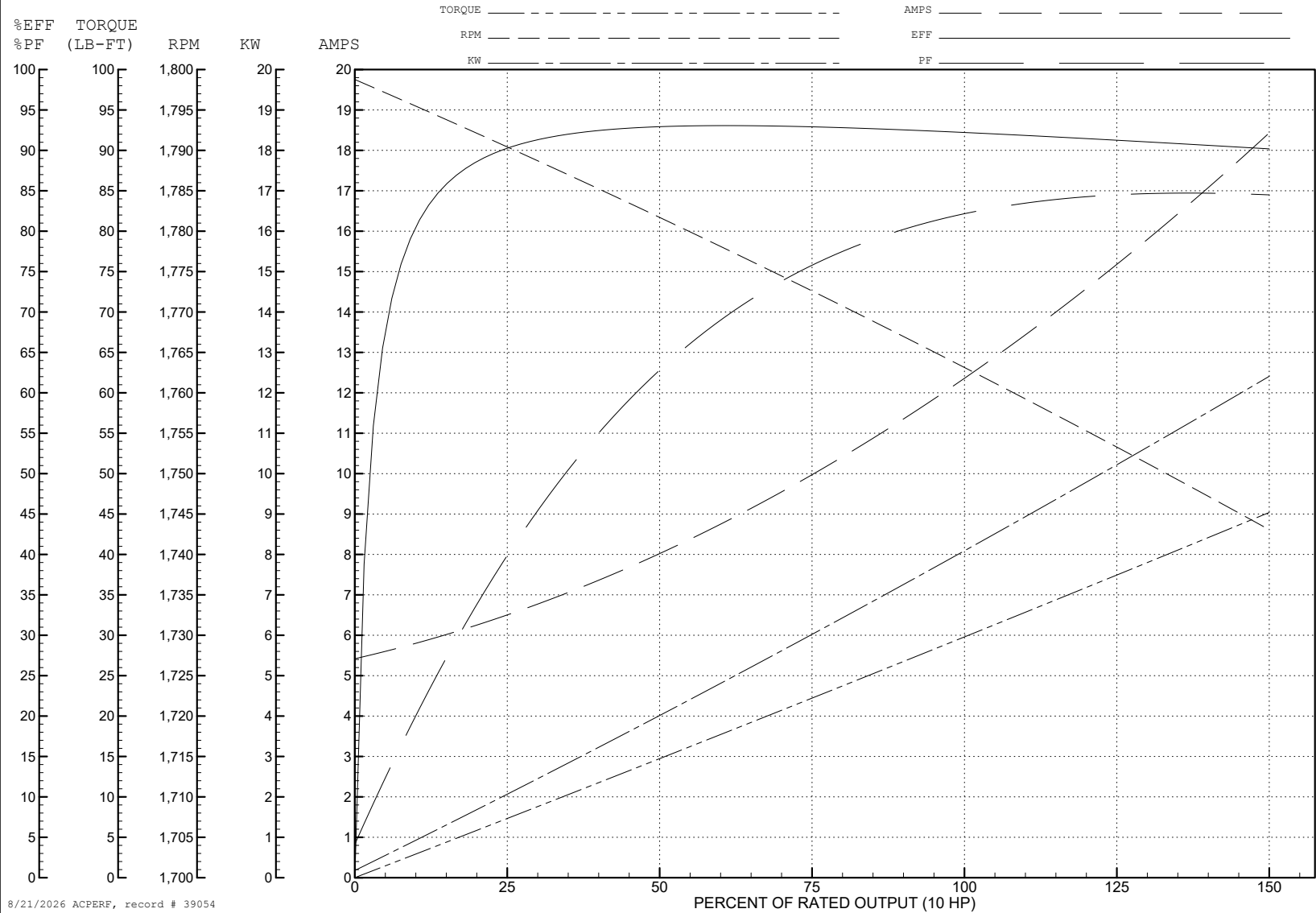
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WINDING # 07WGX598

Typical performance - not guaranteed values.

10 HP 3 PH 60 HZ 1764 RPM 460 V 0750M

TORQUES (LB-FT) : PO=94.2 PU=56.3 LR=62.4 LRA=95.7



AC Induction Motor Performance Data

Record # 73683

Typical performance - not guaranteed values

Winding: 07WGX598-R015			Type: 0750M		Enclosure: XPFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		10//7.5	Full Load Torque		29.7 LB-FT			
Volts		230/460//190/380	Start Configuration		direct on line			
Full Load Amps		25/12.5//23.2/11.6	Breakdown Torque		94.2 LB-FT			
R.P.M.		1765//1465	Pull-up Torque		56.3 LB-FT			
Hz		60//50	Phase		3	Locked-rotor Torque	62.4 LB-FT	
NEMA Design Code		A	KVA Code		J	Starting Current		95.7 A
Service Factor (S.F.)					1	No-load Current		5.6 A
NEMA Nom. Eff.		91.7	Power Factor		81	Line-line Res. @ 25°C		0.866 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		55°C		
				Locked-rotor Power Factor		35.2		
				Rotor inertia		1.23 LB-FT2		

Load Characteristics 460 V, 60 Hz, 10 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	41	64	76	81	84	85
Efficiency	89.8	93.5	92.5	92.2	91.3	90.1
Speed	1790	1782	1772	1764	1753	1743
Line amperes	6.28	7.9	10	12.5	15.3	18.3

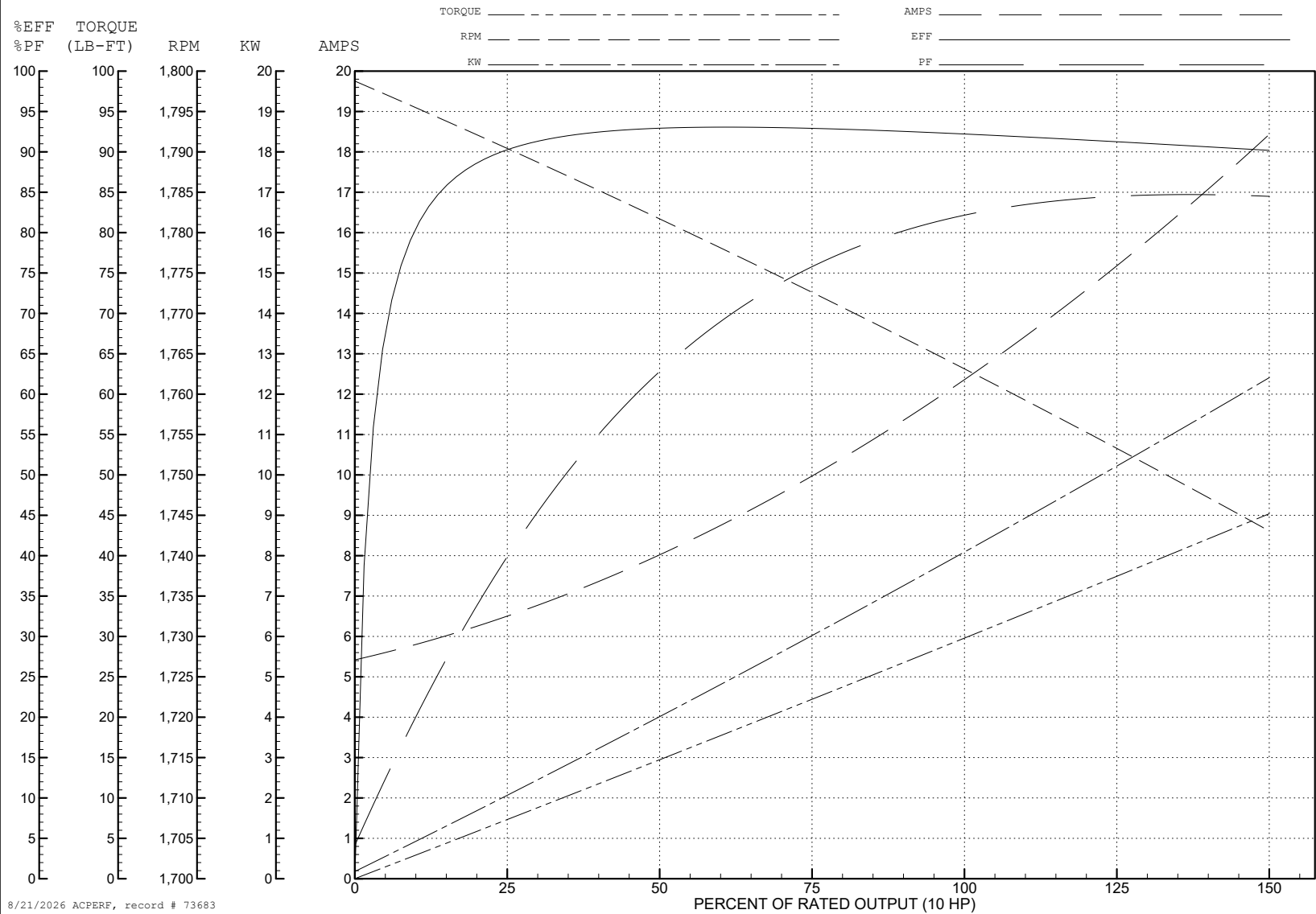
ABB Motors and Mechanical Inc.

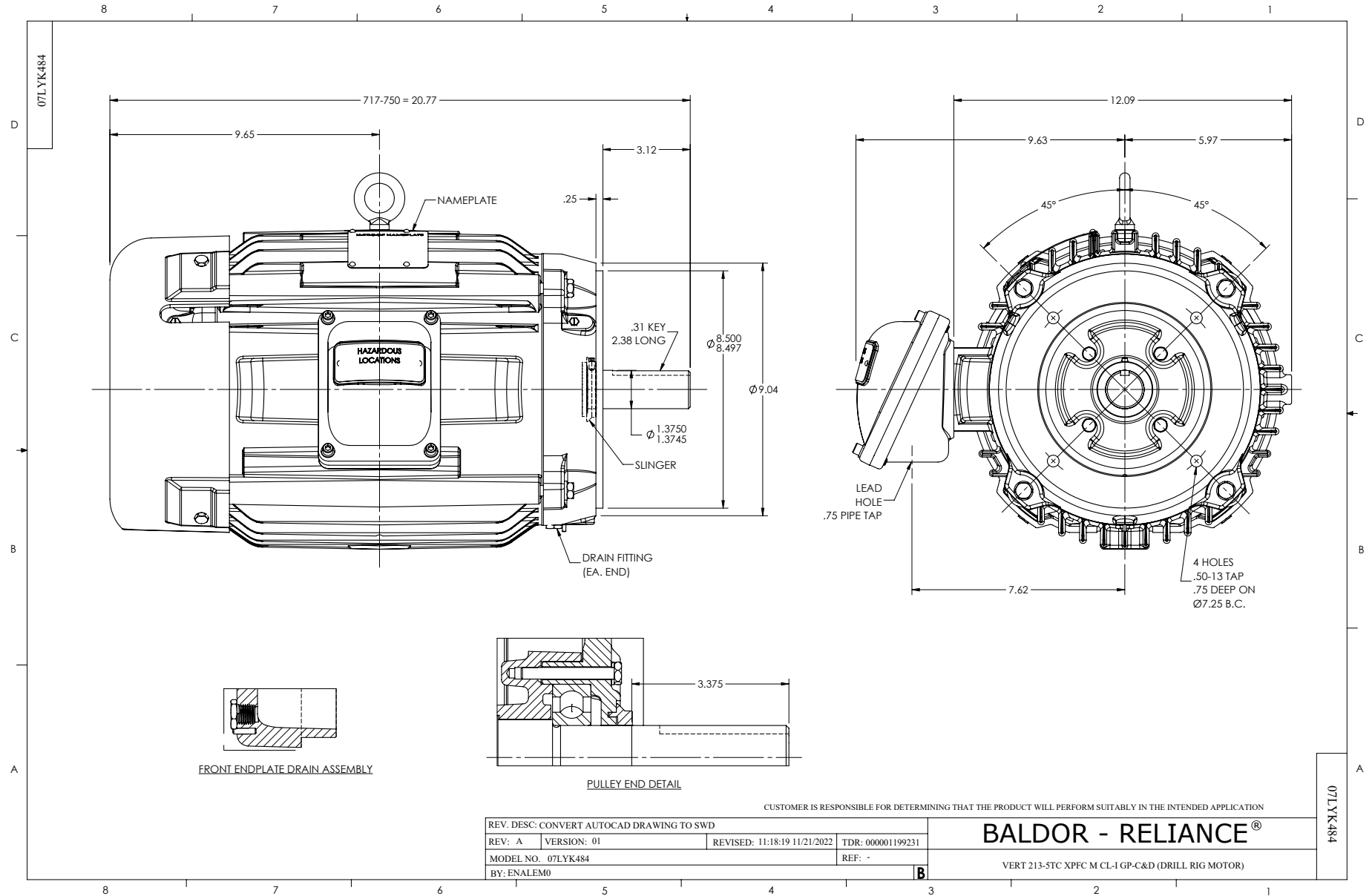
WINDING # 07WGX598

Typical performance - not guaranteed values.

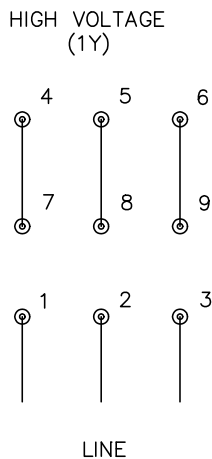
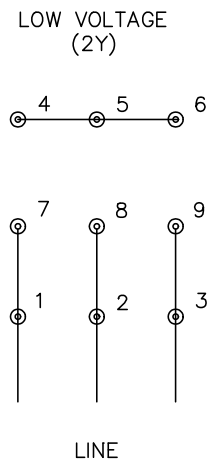
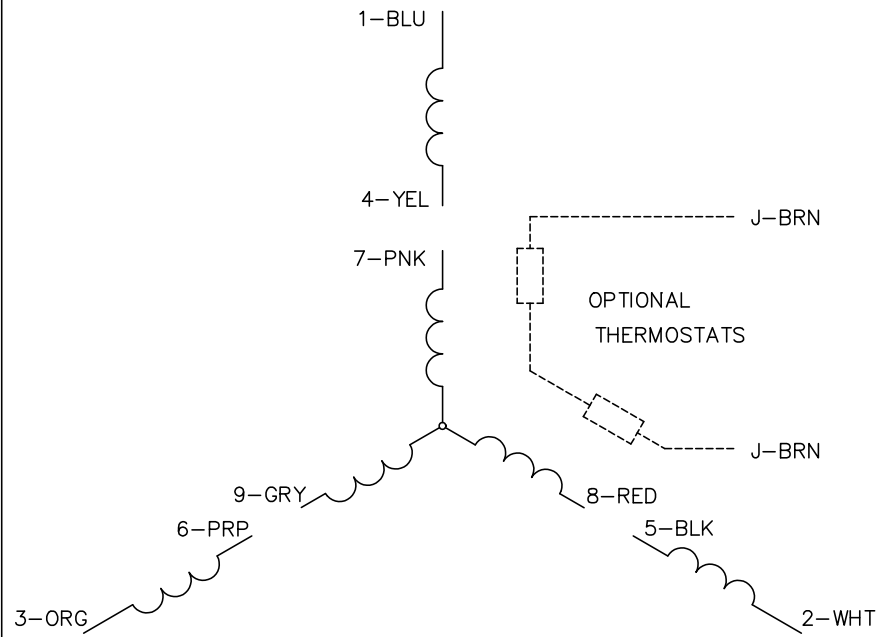
10 HP 3 PH 60 HZ 1764 RPM 460 V 0750M

TORQUES (LB-FT) : PO=94.2 PU=56.3 LR=62.4 LRA=95.7





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