ABB BALDOR RELIANCE

Customer information packet

VLECP83770T-4

40M 4P TEFC VER 213LP CHEM PROC, SP#32-8
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	213LP
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CSA EEV NEMA PREMIUM UR CSA
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	0-
Current @ Voltage	9.500 A @ 460.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	841
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Haz Area Temp Code	T3C

Part Detail

Revision	G
Type	AC
Mech. spec.	07D516
Base	
Status	PRD/A
Elec. spec.	07WGX814
Layout	07LYD516
Eff. date	06-18-2026
CD Diagram	CD0006
Poles	04
Leads	3#14
Proprietary	False
Created date	03-27-2019

Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	IP56
KVA Code	H
Lifting Lugs	Vertical Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	3 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0740M
Mounting Arrangement	W6
Number of Poles	4
Overall Length	24.71 IN
Power Factor	81
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley End Bearing Type	Roller
Pulley Face Code	P-Base
Pulley Shaft Indicator	P-Base Groove & Key
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1765 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2	None

Nameplate

NP4328									
CAT.NO.	VLECP83770T-4								
SPEC.	07D516X814G1								
HP	7.5 TE			**IP**	56				
VOLTS	460								
AMPS	9.5								
R.P.M.	1765								
FRAME	213LP	**HZ**	60			**PH**	3		
SER.F.	1.15	**CODE**	H	**DES.**	B		**CLASS**	F	
RATING	40C AMB-CONT								
SN									
DE	6309	**ODE**	7306						
NEMA NOM. EFF.	91.7	**P.F.**	81						
GUAR. MIN. EFF.	90.2	**CC**	010A						
T. CODE	T3C	**TEMP=**	160						

NP3186							
SPEC.	07D516X814G1						
ABMA DE BRG	45BC03X30X						
ABMA ODE BRG	30BT03X30X						
GREASE	POLYREX EM						
MOTOR WEIGHT	178	**ROTOR BARS**	28	**STATOR BARS**	36		
MAX. R.P.M.	2700	**MAX. KVAR**	1.46				
INV.TYPE	PWM						
T=	160						
CHP	60	**TO**	90				
CT	-0	**TO**	60				
VT	-0	**TO**	60				
HTR-VOLTS	N/A	**HTR-AMPS**	N/A				
HTR-WATTS	N/A	**MAX. SPACE HEATER TEMP.**			N/A		

AC Induction Motor Performance Data
Record # 72748
Typical performance - not guaranteed values

Winding: 07WGX814-R095	**Type:** 0740M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			7.5	**Full Load Torque**	22.37 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			9.5	**Breakdown Torque**	65.7 LB-FT
R.P.M.			1765	**Pull-up Torque**	32.5 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	41.9 LB-FT
NEMA Design Code	B	**KVA Code**	H	**Starting Current**	64.6 A
Service Factor (S.F.)			1.15	**No-load Current**	3.67 A
NEMA Nom. Eff.	91.7	**Power Factor**	81	**Line-line Res. @ 25ºC**	1.47 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	57°C
S.F. Amps				**Temp. Rise @ S.F. Load**	72°C
				Locked-rotor Power Factor	36.2
				Rotor inertia	0.984 LB-FT2

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	47	69	78	83	84	85	84
Efficiency	88.8	92	92.2	91.6	90.4	89.1	90.9
Speed	1791	1783	1775	1765	1755	1743	1759
Line amperes	4.29	5.61	7.32	9.29	11.6	13.9	10.7

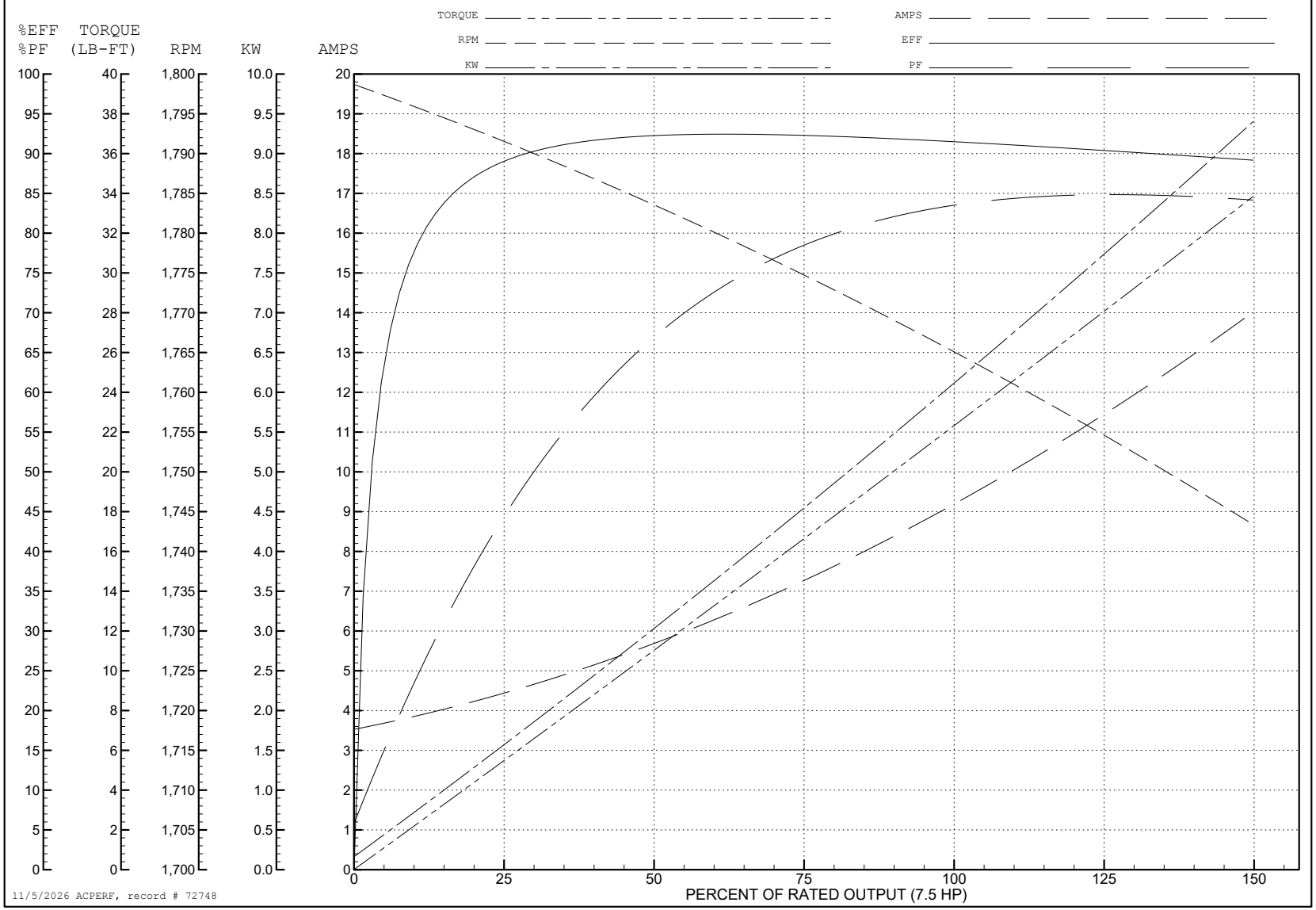
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WINDING # 07WGX814

7.5 HP 3 PH 60 HZ 1765 RPM 460 V 0740M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=65.7 PU=32.5 LR=41.9 LRA=64.6



AC Induction Motor Performance Data
Record # 72749
Typical performance - not guaranteed values

Winding: 07WGX814-R095	**Type:** 0740M	**Enclosure:** TEFC

Nameplate Data				**368 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			7.5	**Full Load Torque**	22.6 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			9.5	**Breakdown Torque**	41.76 LB-FT
R.P.M.			1765	**Pull-up Torque**	20.55 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	26.49 LB-FT
NEMA Design Code	B	**KVA Code**	H	**Starting Current**	51.32 A
Service Factor (S.F.)			1.15	**No-load Current**	2.84 A
NEMA Nom. Eff.	91.7	**Power Factor**	81	**Line-line Res. @ 25ºC**	1.47 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	73°C
S.F. Amps				**Temp. Rise @ S.F. Load**	97°C
				Locked-rotor Power Factor	36.2
				Rotor inertia	0.984 LB-FT2

Load Characteristics 368 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	63	80	85	86	84	82	85
Efficiency	90.9	92.4	91.5	89.8	87.4	84.2	88.4
Speed	1787	1775	1762	1746	1727	1700	1735
Line amperes	3.89	5.98	8.5	11.39	14.91	19.04	13.5

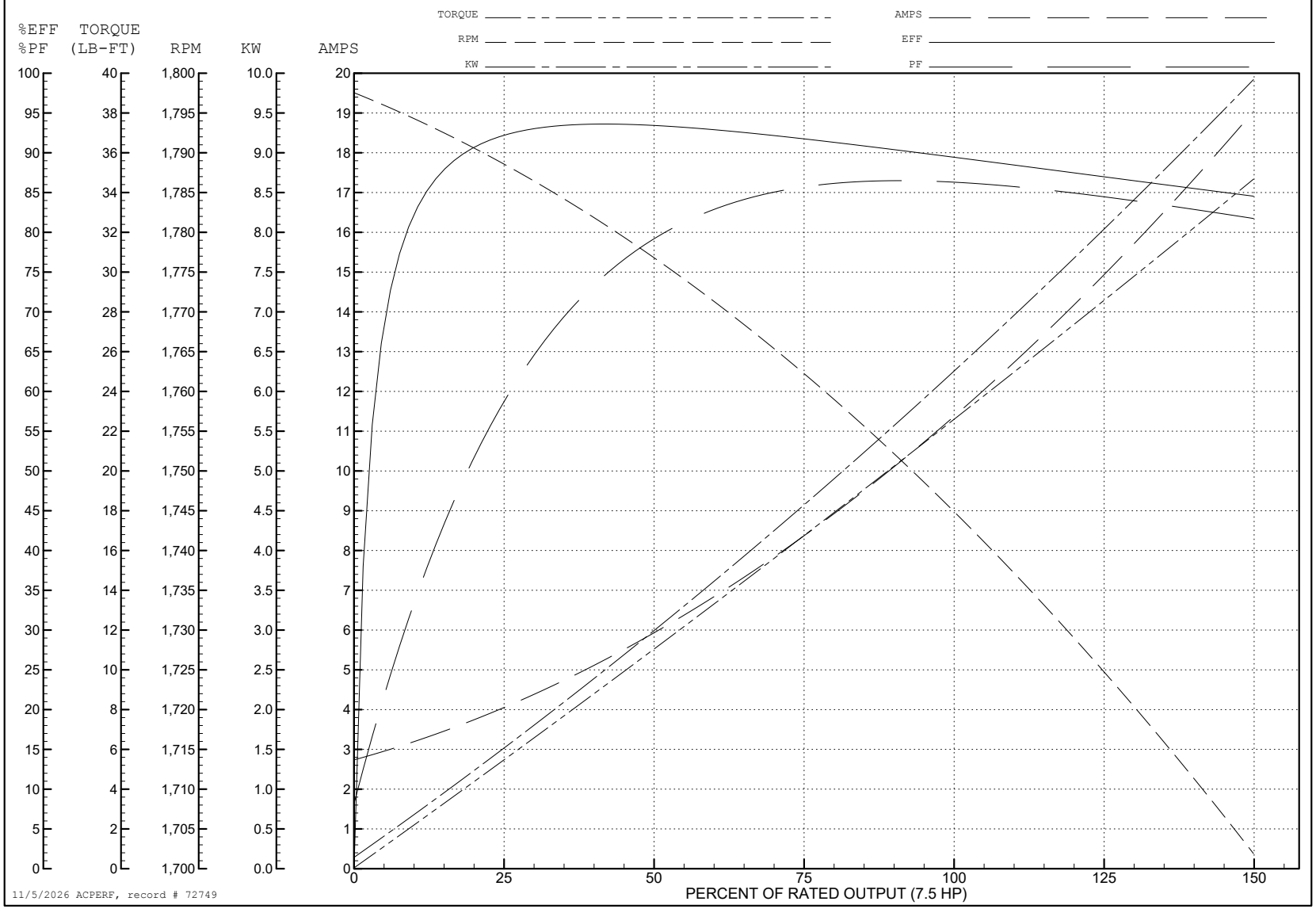
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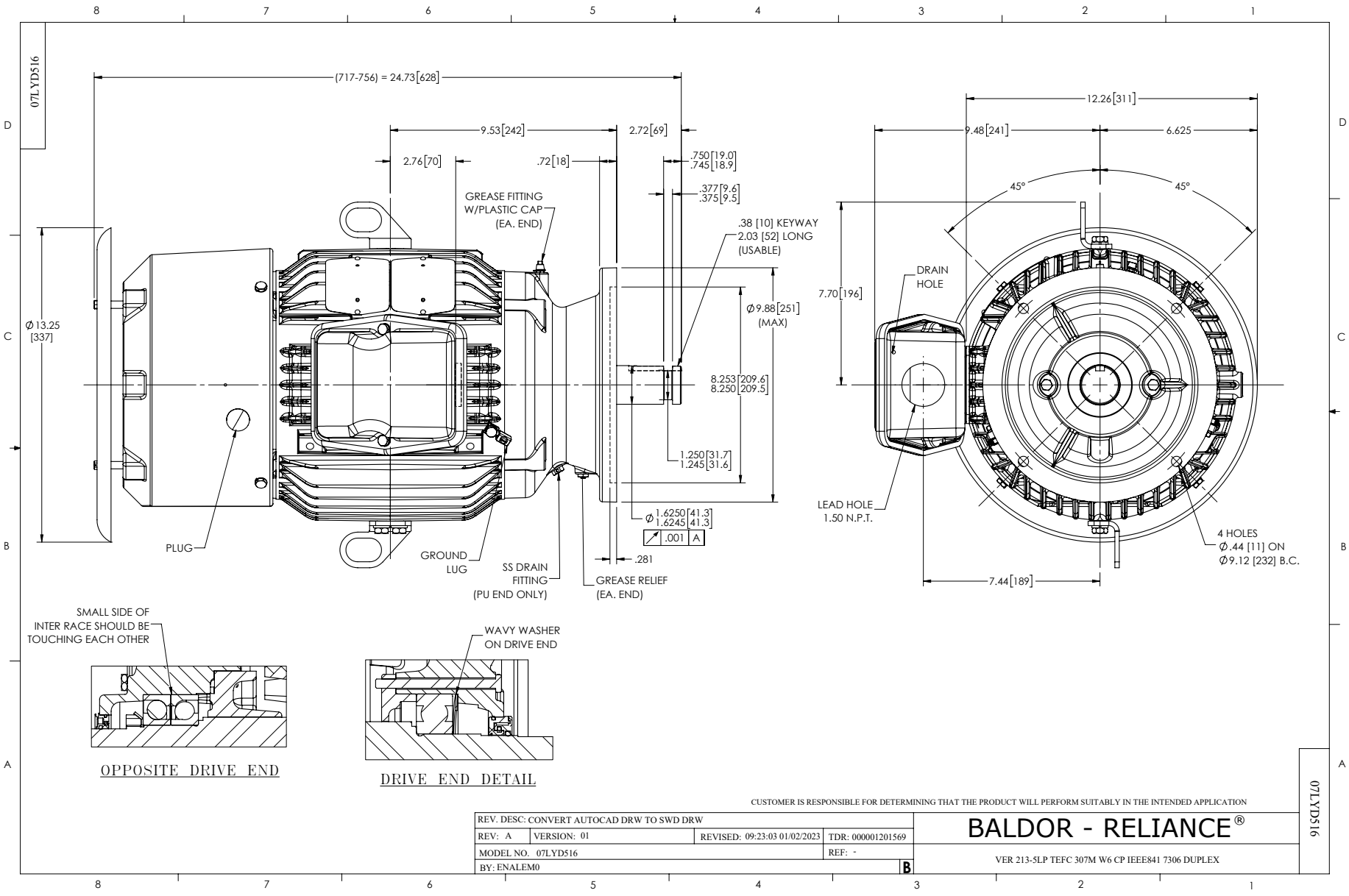
WINDING # 07WGX814

7.5 HP 3 PH 60 HZ 1765 RPM 368 V 0740M

Typical performance - not guaranteed values.

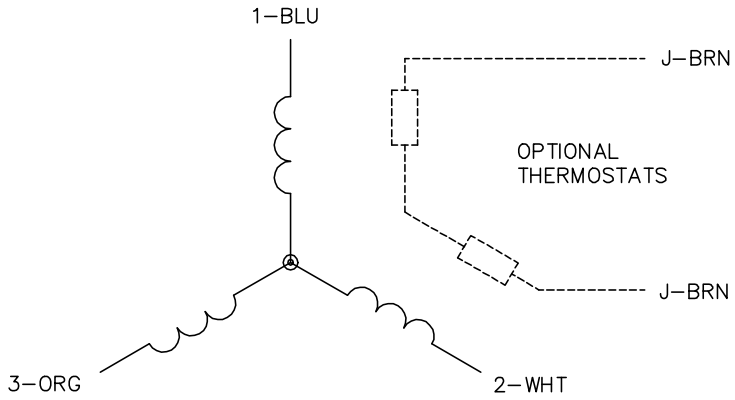
TORQUES(LB-FT): PO=41.76 PU=20.55 LR=26.49 LRA=51.32

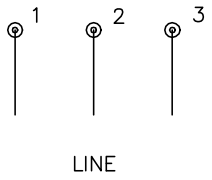



07LYD516
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9.53[242]
2.72[69]
2.76[70]
.72[18]
.750[19.0]
.745[18.9]
.377[9.6]
.375[9.5]
GREASE FITTING
W/PLASTIC CAP
(EA. END)
.38 [10] KEYWAY
2.03 [52] LONG
(USABLE)
Ø13.25
[337]
Ø9.88[251]
(MAX)
8.253[209.6]
8.250[209.5]
1.250[31.7]
1.245[31.6]
Ø 1.6250[41.3]
1.6245[41.3]
.001 A
.281
PLUG
GROUND
LUG
SS DRAIN
FITTING
(PU END ONLY)
GREASE RELIEF
(EA. END)
12.26[311]
9.48[241]
6.625
45°
45°
7.70[196]
DRAIN
HOLE
LEAD HOLE
1.50 N.P.T.
4 HOLES
Ø.44 [11] ON
Ø9.12 [232] B.C.
7.44[189]
SMALL SIDE OF
INTER RACE SHOULD BE
TOUCHING EACH OTHER
WAVY WASHER
ON DRIVE END
OPPOSITE DRIVE END
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD DRW TO SWD DRW
REV: A
VERSION: 01
REVISED: 09:23:03 01/02/2023
TDR: 000001201569
MODEL NO. 07LYD516
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
VER 213-5LP TEFC 307M W6 CP IEEE841 7306 DUPLEX
07LYD516

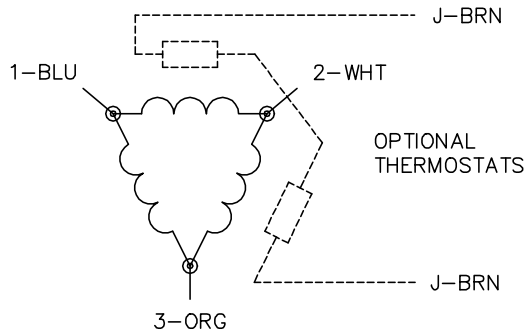
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007			BALDOR - RELIANCE®
REV. LTR: E	VERSION: 01	TDR: 000001099922	
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0	3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED
MTL: –			SH 1 of 1