

ABB BALDOR RELIANCE III

Customer information packet

VECP83663T-4

5HP, 3440RPM, 3PH, 60HZ, 184TC, 0643M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	184TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CL I GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	5.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CSA EEV NEMA PREMIUM NEMA_PREMIUM UR CCSA US
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	5.700 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	88.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	S
Type	AC
Mech. spec.	06G105
Base	
Status	PRD/A
Elec. spec.	06WGX822
Layout	06LYG105
Eff. date	12-17-2025
CD Diagram	CD0006
Poles	02
Leads	3#16
Proprietary	False
Created date	10-03-2016

Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	5.7 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 16 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0642M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	16.69 IN
Power Factor	94
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3440 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None



Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP4328									
CAT.NO.	VECP83663T-4								
SPEC.	06G105X822G1								
HP	5 TE				IP	56			
VOLTS	460								
AMPS	5.7								
R.P.M.	3440								
FRAME	184TC		HZ		60		PH	3	
SER.F.	1.15	CODE	J	DES.	B	CLASS	F		
RATING	40C AMB-CONT								
SN									
DE	6206		ODE		6206				
NEMA NOM. EFF.	88.5		P.F.		94				
GUAR. MIN. EFF.	86.5		CC	010A					
T. CODE	T3C		TEMP=		160				

NP3186									
SPEC.	06G105X822G1								
ABMA DE BRG	30BC02XP30X								
ABMA ODE BRG	30BC02X30X								
GREASE	POLYREX EM								
MOTOR WEIGHT	132	ROTOR BARS		28	STATOR BARS		36		
MAX. R.P.M.	5400	MAX. KVAR		0.15					
INV.TYPE	PWM								
T=	160								
CHP	60	TO	90						
CT	6	TO	60						
VT	2.7	TO	60						
HTR-VOLTS	N/A	HTR-AMPS		N/A					
HTR-WATTS	N/A	MAX. SPACE HEATER TEMP.				N/A			

Parts List

Part number	Description	Quantity
SA328521	SA 06G105X822G1	1.000 ea
RA316449	RA 06G105X822G1	1.000 ea
34FN3002A02	EXTERNAL FAN, PLASTIC, .905/.907 HUB W/	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
06CB1001A01G	CONDUIT BOX, MACH GRAY	1.000 ea
RM1016	LEAD SEPARATOR GASKET - 305/306 C.P.MOTO	1.000 ea
51XF2520A16	SCREW,HEX SER SLT HD,ZN 1/4-20X1.00LG TD	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	2.000 ea
10XN2520G06	1/4 20X3/8 HX HD CAP, GREEN	2.000 ea
06PE1132A02G	FREP ASSEMBLY FOR ROUTING PURPOSES	1.000 ea
HW4601B24	INPRO SEAL, 206 BRG, MINI66	1.000 ea
HW4500A32	FIT./EXT 1698-B (ALEMITE)GREASE FITTING	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	4.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4010A01	T-DRAIN PLUG,416 S.S.,W/ 1/4-28 THD & .0	1.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
36EP1300A88G	PUEP 206 LK'D BRG,GRSR & RLF,INPRO SEAL	1.000 ea
HW4601B26	INPRO SEAL, 206 BRG, MINI66	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 ea
10XN2520A24	1/4-20X 1 1/2 HEX HD X	4.000 ea
HA3101A53	THRUBOLT 1/4-20 X 10.50	4.000 ea
XY2520A12	1/4-20 HEX NUT, DIRECTIONAL SERRATIONS	4.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
06FH1004A01G	FAN HOUSING MACH, W/GRAY EPOXY	1.000 ea
10XN2520A24	1/4-20X 1 1/2 HEX HD X	3.000 ea

WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 ea
06CB1503A01G	LIPPED CONDUIT BOX LID, MACH GRAY EPOXY	1.000 ea
06GS1009	GASKET, KOBX LID, 1/8" THICK BLACK NEOPR	1.000 ea
10XN2520A12	1/4-20 X 3/4 HEX HEAD CAP	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
MJ5001A02	732 CL SEALANT 3 OZ DIXIE BEARING 289100	0.010 ea
HW2501E16	KEY, 1/4 SQ X 1.750	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
MJ1000A73	INPRO P-80 ASSEMBLY LUB./ 1 QT. CONTAIN	0.001 qt
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LT0019A00	MOTOR NO-LOAD PERFORMANCE DATA SHEET	1.000 ea
WD1000D21	TRM,T&B #B71M,RING,18-14,.25,NON-INSL	3.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.028 ga
LC0006	CONNECTION LABEL	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
NP4328	SS IEEE841-2021 DIV-2 UL EEV CSA-C US	1.000 ea
NP3186	SS IEEE841 INV AUX DATA INFORMATION	1.000 ea
37PA1074	PALLET PACK GRP, PRINT BOX PK1026A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data

Record # 59642

Typical performance - not guaranteed values

Winding: 06WGX822-R001			Type: 0642M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		5	Full Load Torque		7.76 LB-FT		
Volts		460	Start Configuration		direct on line		
Full Load Amps		5.7	Breakdown Torque		33.5 LB-FT		
R.P.M.		3440	Pull-up Torque		13.4 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		22.9 LB-FT	
NEMA Design Code		B	KVA Code	J	Starting Current		45.4 A
Service Factor (S.F.)		1.15	No-load Current		1.07 A		
NEMA Nom. Eff.		88.5	Power Factor	94	Line-line Res. @ 25°C		2.61 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		51°C
S.F. Amps					Temp. Rise @ S.F. Load		65°C
					Locked-rotor Power Factor		41.5
					Rotor inertia		0.188 lb-ft²

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	78	90	93	94	93	97	93
Efficiency	90	92	90	89	86	84	87.4
Speed	3559	3523	3481	3439	3384	3327	3406
Line amperes	1.8	2.92	4.25	5.68	7.33	8.75	6.67

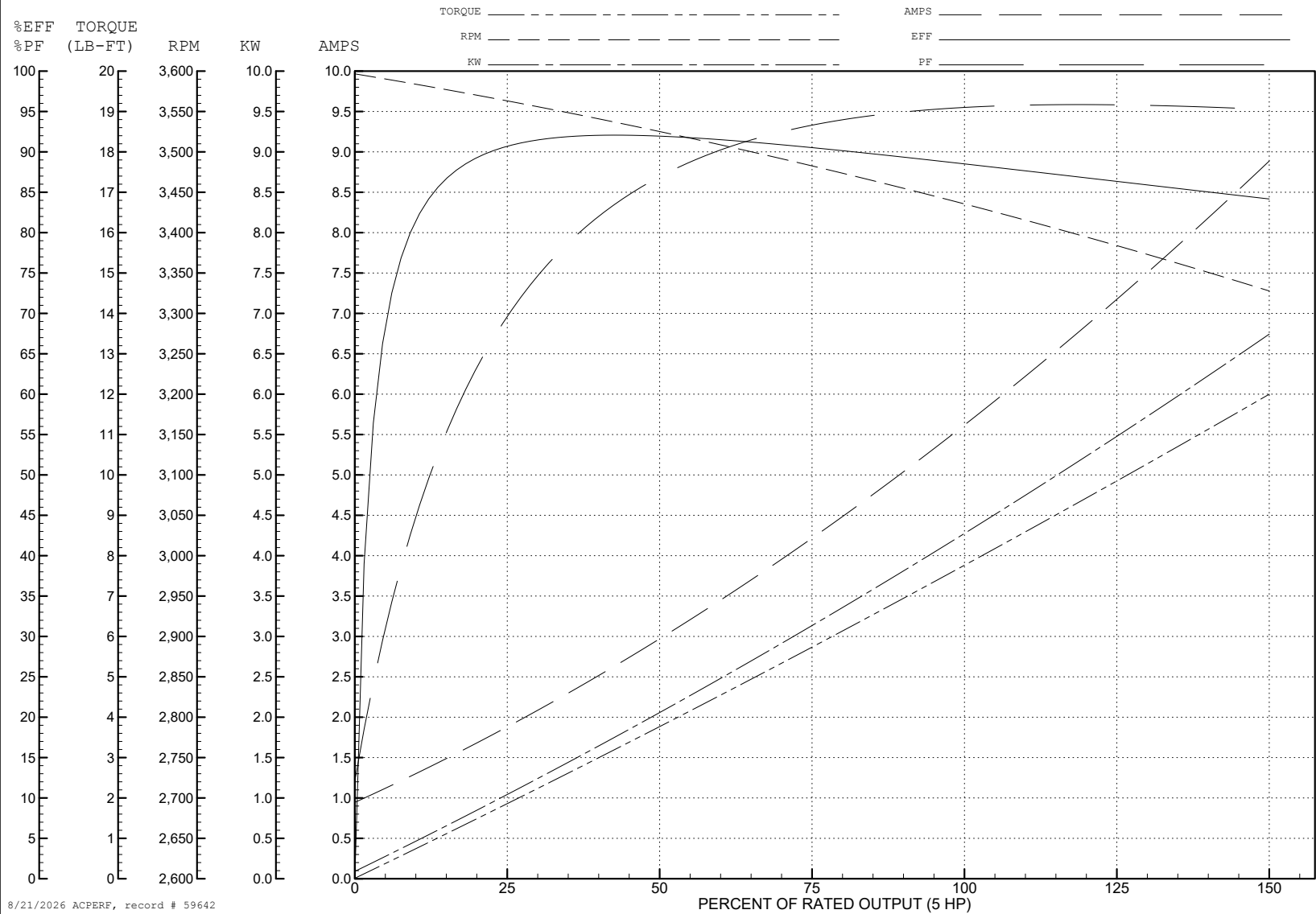
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WINDING # 06WGX822

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 3440 RPM 460 V 0642M

TORQUES (LB-FT): PO=33.5 PU=13.4 LR=22.9 LRA=45.4



AC Induction Motor Performance Data

Record # 59648

Typical performance - not guaranteed values

Winding: 06WGX822-R001			Type: 0642M		Enclosure: TEFC	
Nameplate Data			368 V, 60 Hz: Single Voltage Motor			
Rated Output (HP)		5	Full Load Torque		7.99 LB-FT	
Volts		460	Start Configuration		direct on line	
Full Load Amps		5.7	Breakdown Torque		21.34 LB-FT	
R.P.M.		3440	Pull-up Torque		8.58 LB-FT	
Hz	60	Phase	Locked-rotor Torque		14.61 LB-FT	
NEMA Design Code	B	KVA Code	Starting Current		36.32 A	
Service Factor (S.F.)		1.15	No-load Current		0.871 A	
NEMA Nom. Eff.	88.5	Power Factor	Line-line Res. @ 25°C		2.61 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		62°C	
S.F. Amps			Temp. Rise @ S.F. Load		86°C	
			Locked-rotor Power Factor		41.5	
			Rotor inertia		0.188 lb-ft²	

Load Characteristics 368 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	88	93	94	94	91	90	92
Efficiency	91.7	91	88.4	85.1	80.5	73.9	82.6
Speed	3539	3483	3415	3339	3233	3065	3277
Line amperes	1.98	3.54	5.38	7.46	10.11	13.35	9.04

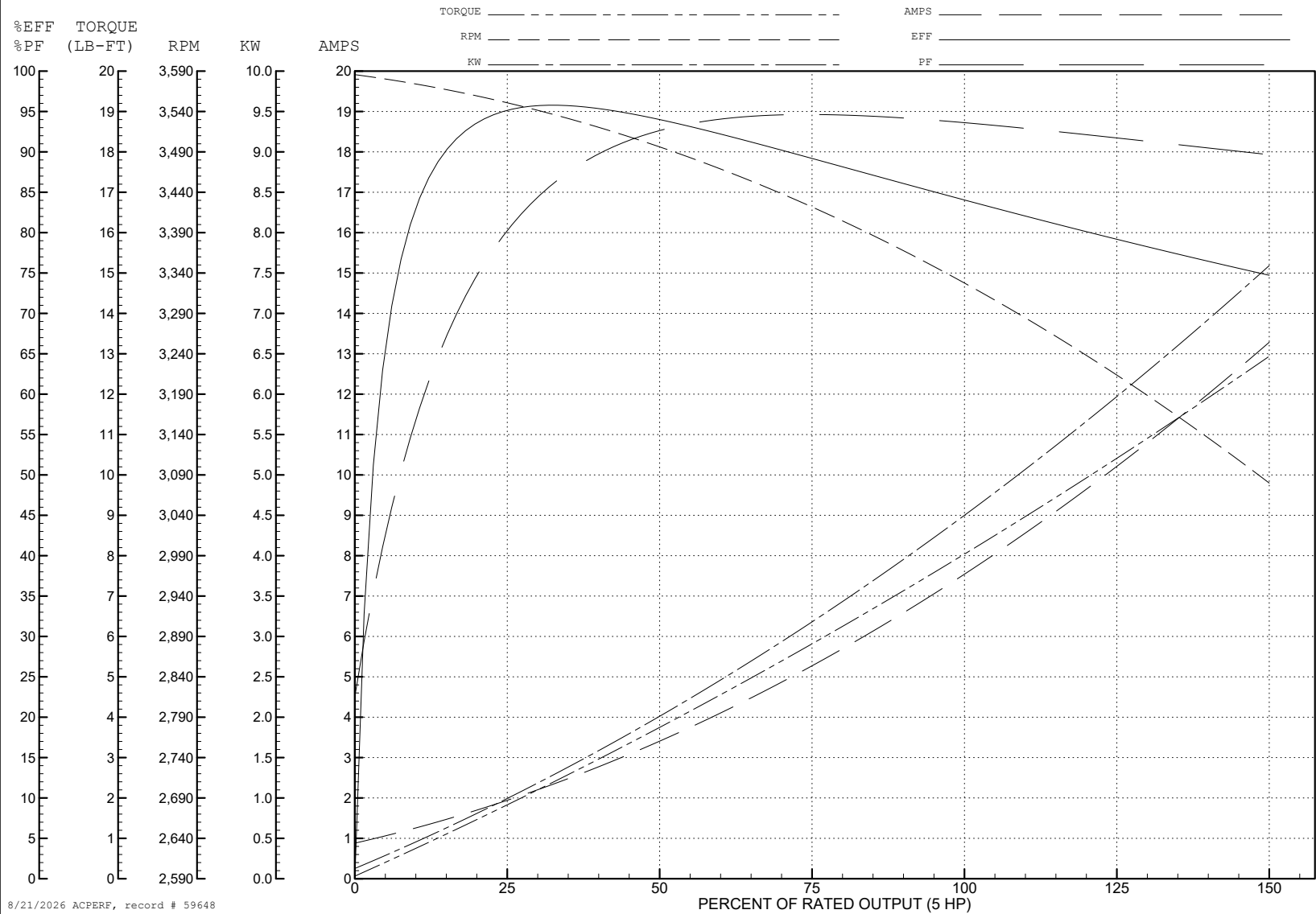
ABB Motors and Mechanical Inc.

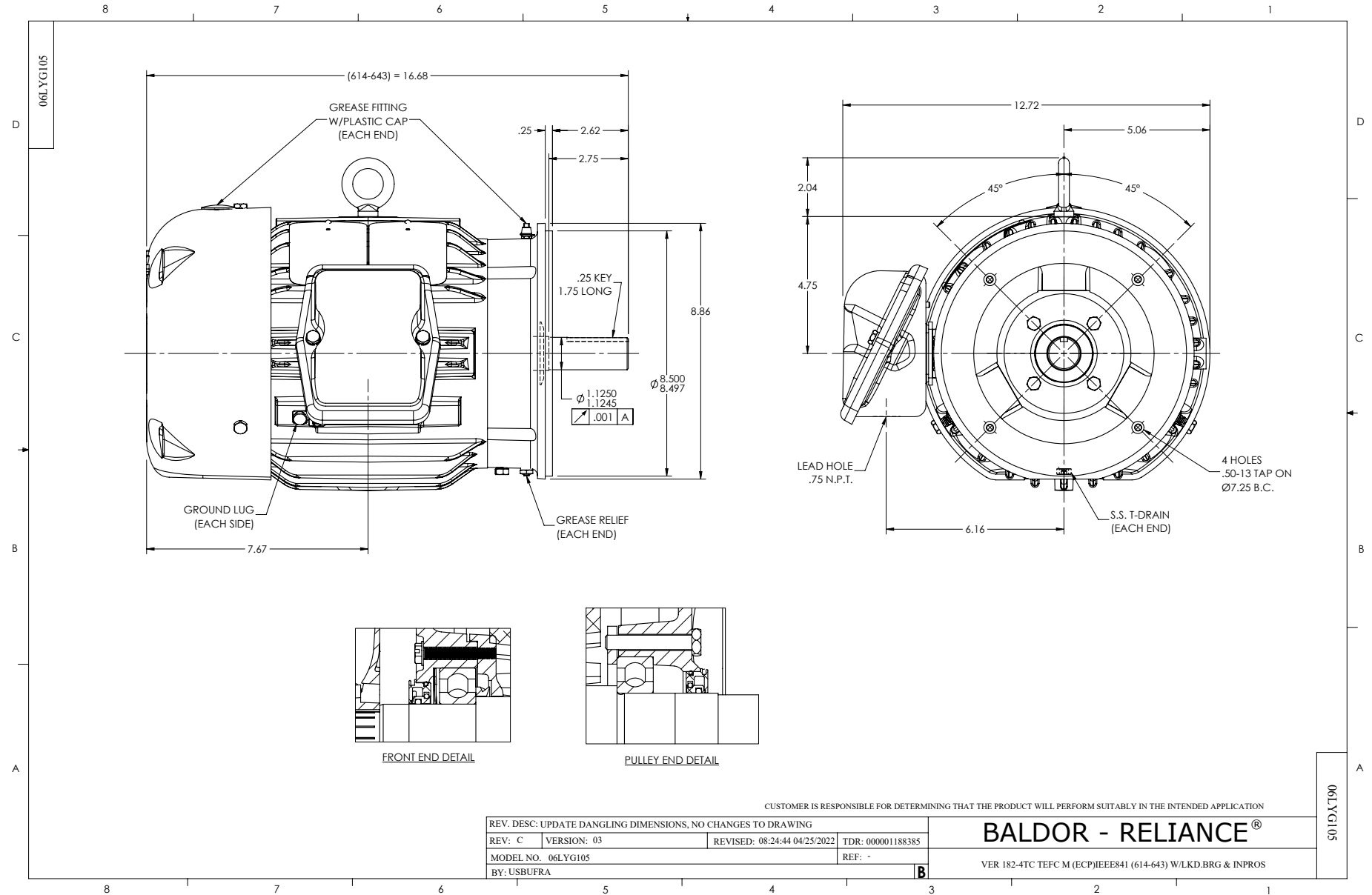
WINDING # 06WGX822

Typical performance - not guaranteed values.

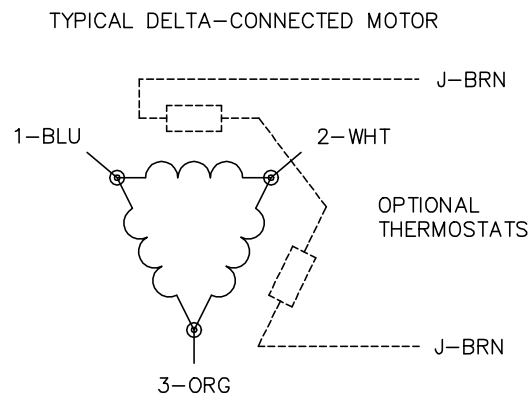
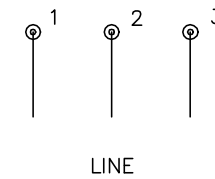
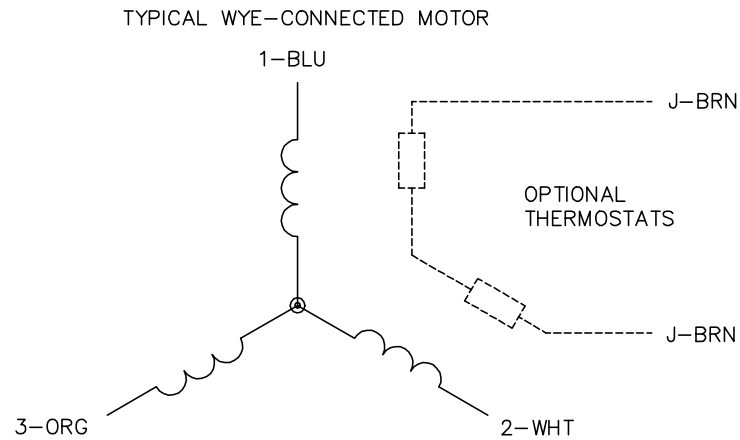
5 HP 3 PH 60 HZ 3440 RPM 368 V 0642M

TORQUES (LB-FT) : PO=21.34 PU=8.58 LR=14.61 LRA=36.32





CD0006


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

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10: 24: 49 02/19/2019

BY: ENBRIRO

MTL: -


BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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