

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			

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

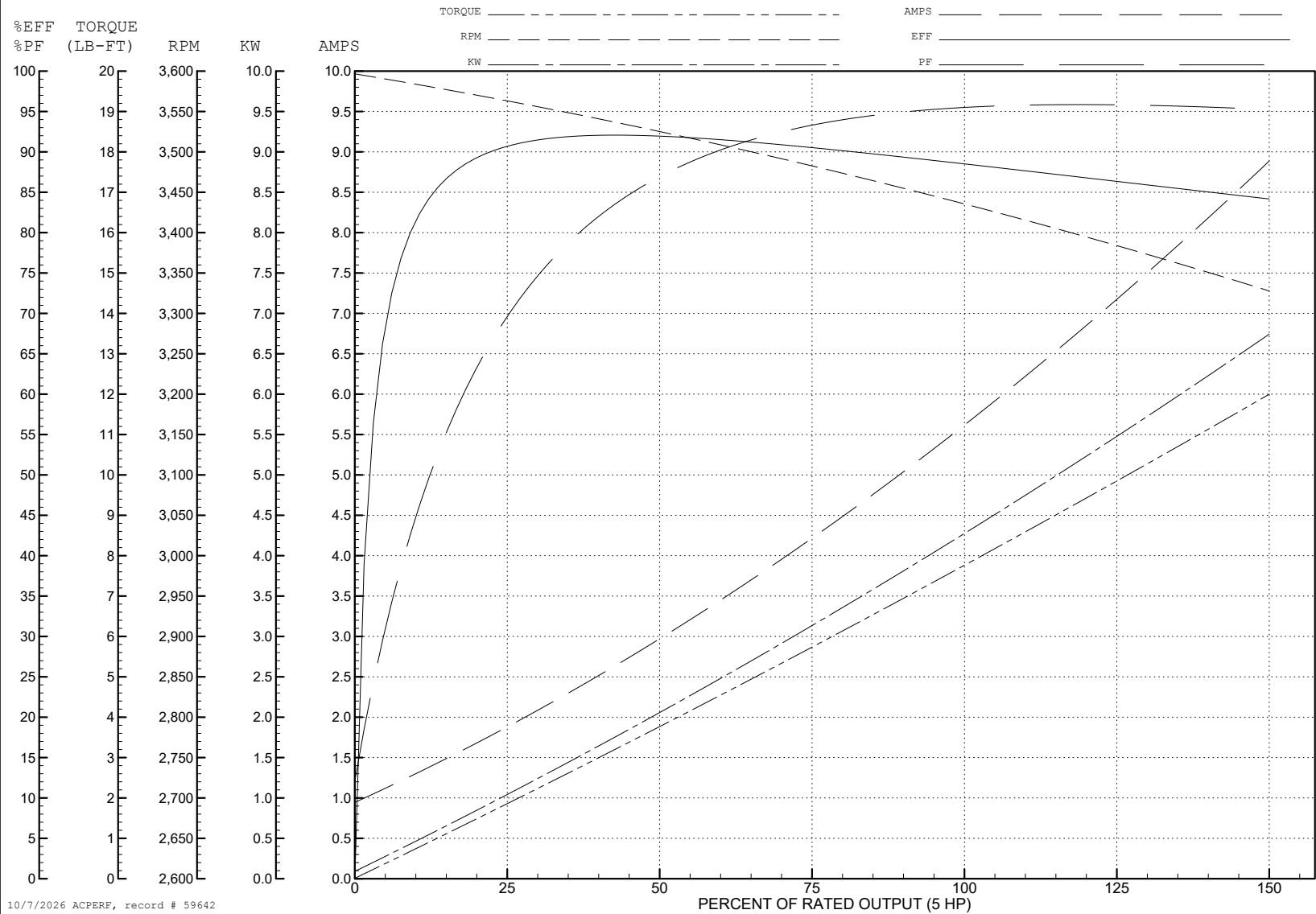
ABB Motors and Mechanical Inc.

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

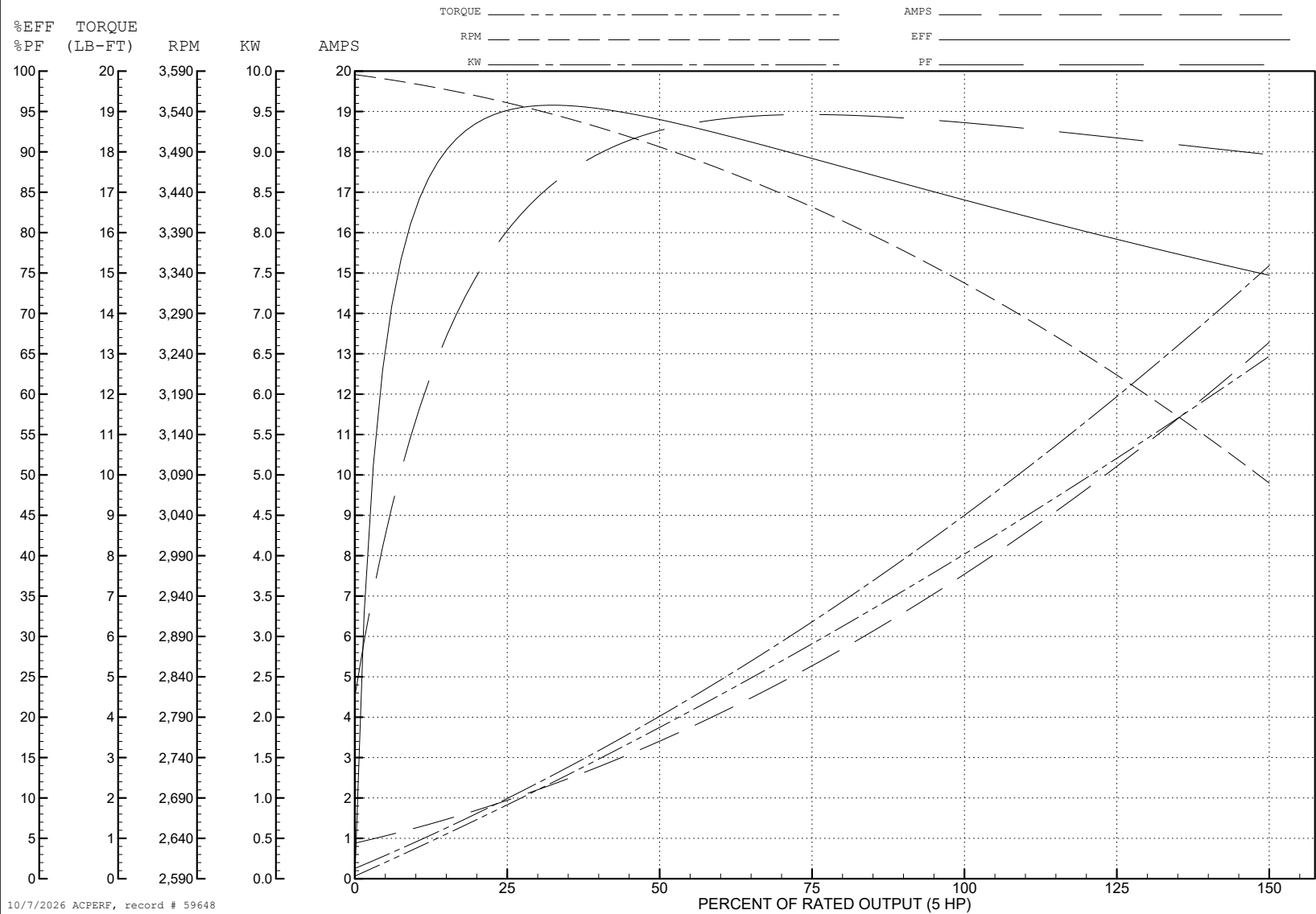
ABB Motors and Mechanical Inc.

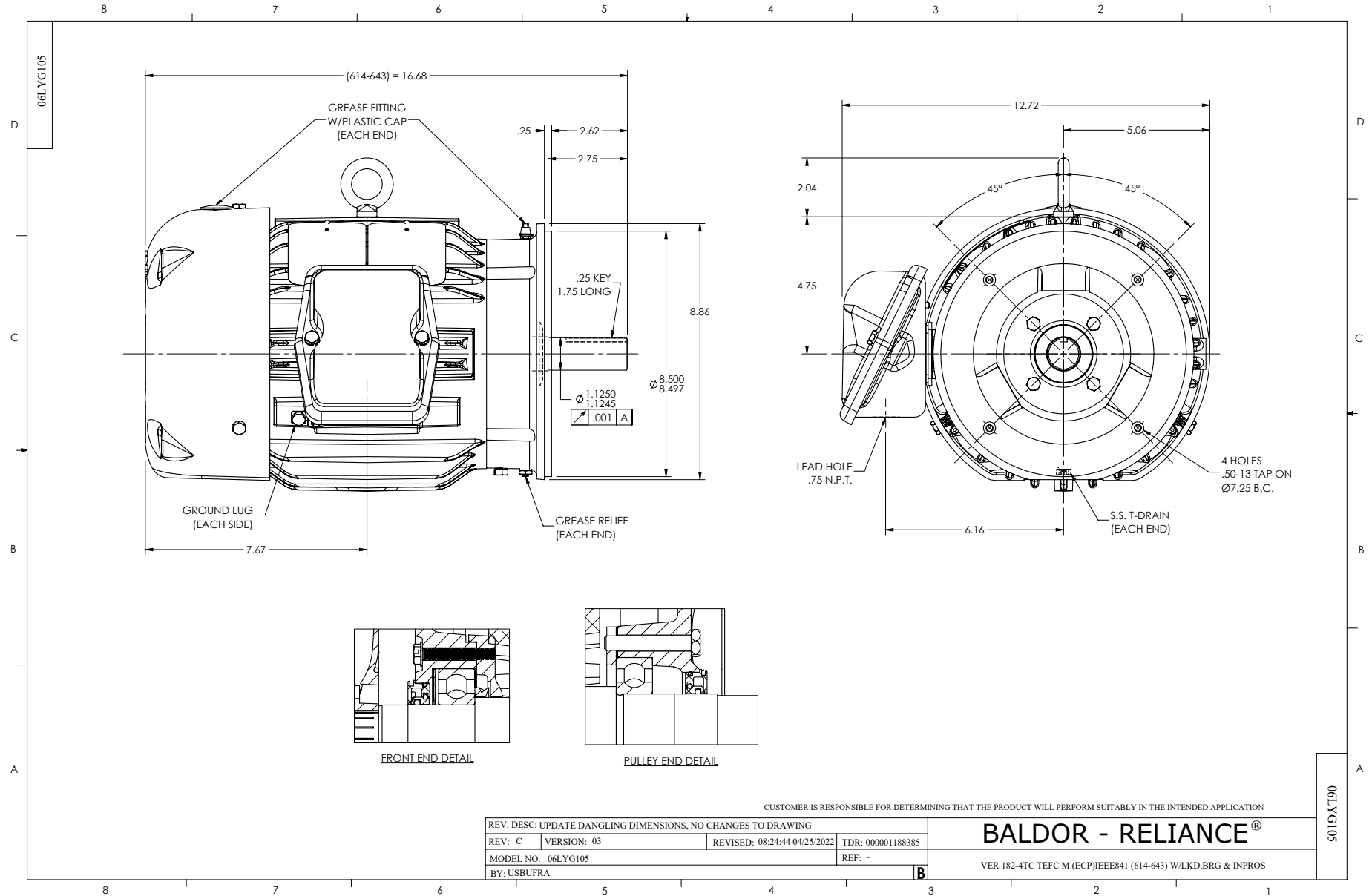
WINDING # 06WGX822

Typical performance - not guaranteed values.

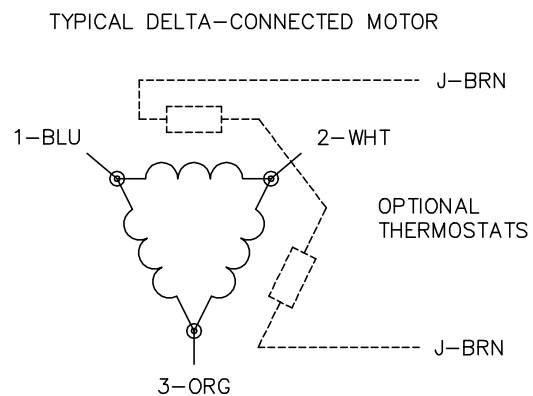
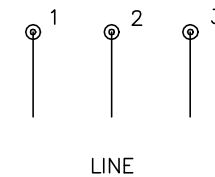
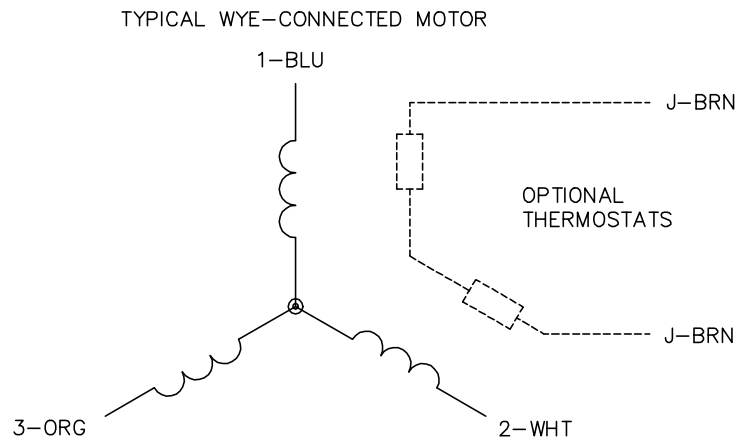
5 HP 3 PH 60 HZ 3440 RPM 368 V 0642M

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

SH 1 of 1