

ABB BALDOR RELIANCE III

Customer information packet

VECP83584T-4

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 0524M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	145TC
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	1.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
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	1.3
Current @ Voltage	2.300 A @ 460.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Haz Area Temp Code	T4

Part Detail

Revision	E
Type	AC
Mech. spec.	05F161
Base	
Status	PRD/A
Elec. spec.	05WGX557
Layout	05LYF161
Eff. date	03-24-2026
CD Diagram	CD0006
Poles	04
Leads	3#18
Proprietary	False
Created date	03-11-2022

Heater Indicator	No Heater
High Voltage Full Load Amps	2.3 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	M
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	0524M
Mounting Arrangement	W6
Number of Poles	4
Overall Length	14.56 IN
Power Factor	72
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
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 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.	VECP83584T-4								
SPEC.	05F161X557G1								
HP	1.5 TE			IP	56				
VOLTS	460								
AMPS	2.3								
R.P.M.	1770								
FRAME	145TC		HZ	60		PH	3		
SER.F.	1.15	CODE	M	DES.	B	CLASS	F		
RATING	40C AMB-CONT								
SN									
DE	6205		ODE	6205					
NEMA NOM. EFF.	86.5		P.F.	72					
GUAR. MIN. EFF.	84		CC	010A					
T. CODE	T4		TEMP=	135					

NP3186						
SPEC.	05F161X557G1					
ABMA DE BRG	25BC02X30X					
ABMA ODE BRG	25BC02X30X					
GREASE	POLYREX EM					
MOTOR WEIGHT	75	ROTOR BARS	27	STATOR BARS	36	
MAX. R.P.M.	2700	MAX. KVAR	0.63			
	SFA 2.3					
INV.TYPE	PWM					
T=	135					
CHP	60	TO	90			
CT	1.3	TO	60			
VT	0-	TO	60			
HTR-VOLTS	HTR-AMPS					
HTR-WATTS				MAX. SPACE HEATER TEMP.		

AC Induction Motor Performance Data

Record # 95437

Typical performance - not guaranteed values

Winding: 05WGX557-R001			Type: 0524M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		1.5	Full Load Torque		4.48 LB-FT		
Volts		460	Start Configuration		direct on line		
Full Load Amps		2.3	Breakdown Torque		18.8 LB-FT		
R.P.M.		1770	Pull-up Torque		9.6 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		12.6 LB-FT	
NEMA Design Code		B	KVA Code	M	Starting Current		19.7 A
Service Factor (S.F.)		1.15	No-load Current		1.51 A		
NEMA Nom. Eff.		86.5	Power Factor	72	Line-line Res. @ 25°C		11.8 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		48°C	
S.F. Amps		2.5		Temp. Rise @ S.F. Load		57°C	
				Locked-rotor Power Factor		58.4	
				Rotor inertia		0.173 lb-ft²	

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	31	49	63	72	78	81	76
Efficiency	75.1	83.5	86	86.5	85.8	84.8	86.1
Speed	1792	1785	1777	1769	1760	1750	1764
Line amperes	1.56	1.72	1.97	2.28	2.65	3.06	2.5

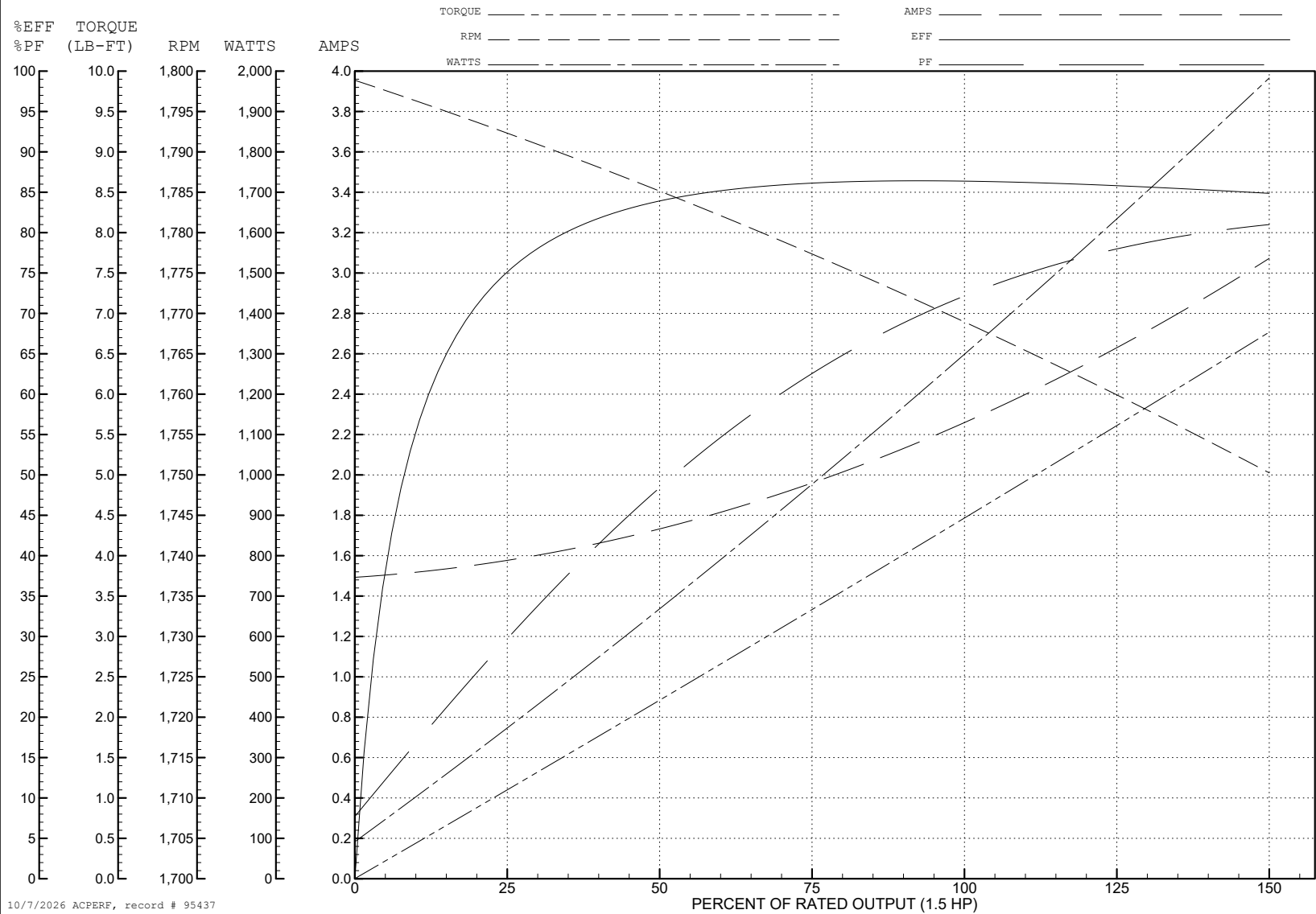
ABB Motors and Mechanical Inc.

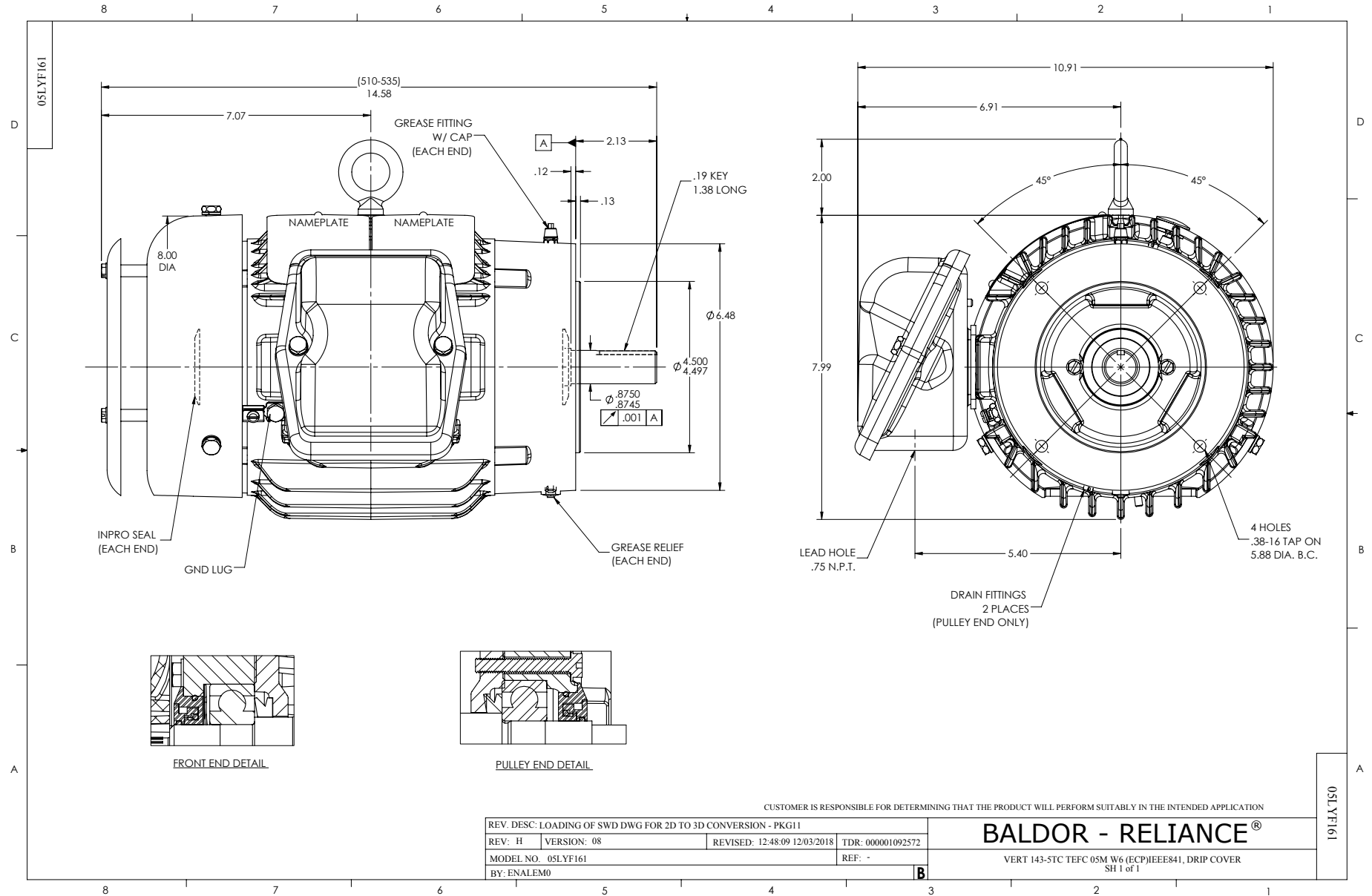
WINDING # 05WGX557

Typical performance - not guaranteed values.

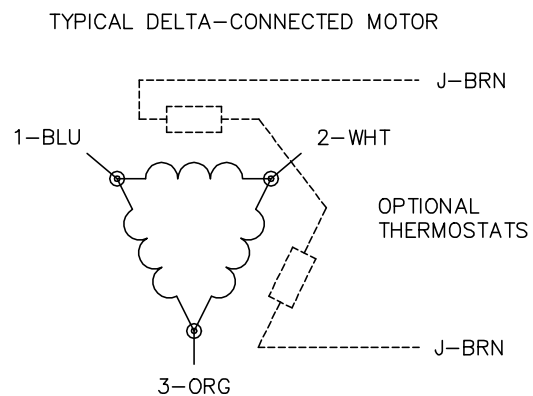
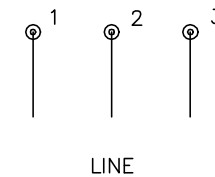
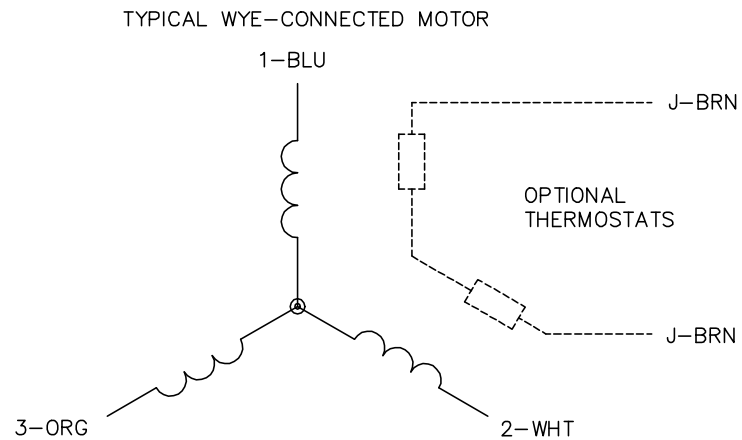
1.5 HP 3 PH 60 HZ 1770 RPM 460 V 0524M

TORQUES (LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7





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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