

ABB BALDOR RELIANCE III

Customer information packet

VECP83583T-4

1.5HP, 3450RPM, 3PH, 60HZ, 143TC, 0524M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	143TC
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	1.500 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	1.7
Current @ Voltage	2.000 A @ 460.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	BC
Type	AC
Mech. spec.	05F161
Base	
Status	PRD/A
Elec. spec.	05WGW176
Layout	05LYF161
Eff. date	04-15-2026
CD Diagram	CD00006
Poles	02
Leads	3#18,0#,0#,0# Y
Proprietary	False
Created date	11-27-2007

Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	2.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	M
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	@ 0 AWG 3 @ 18 AWG
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	0524M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	14.58 IN
Power Factor	83
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	0.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3450 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.	VECP83583T-4								
SPEC.	05F161W176								
HP	1.5 TE				IP	56			
VOLTS	460								
AMPS	2								
R.P.M.	3450								
FRAME	143TC		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.	85.5		P.F.		83				
GUAR. MIN. EFF.	82.5		CC		010A				
T. CODE	T3C		TEMP=		160				

NP3186									
SPEC.	05F161W176								
ABMA DE BRG	25BC02X30X								
ABMA ODE BRG	25BC02X30X								
GREASE	POLYREX EM								
MOTOR WEIGHT	75	ROTOR BARS		20	STATOR BARS		24		
MAX. R.P.M.	5400	MAX. KVAR		.25					
INV.TYPE	PWM								
T=	160								
CHP	60	TO	90						
CT	1.7	TO	60						
VT	0-	TO	60						
HTR-VOLTS	N/A	HTR-AMPS		N/A					
HTR-WATTS		MAX. SPACE HEATER TEMP.							N/A

AC Induction Motor Performance Data

Record # 92447

Typical performance - not guaranteed values

Winding: 05WGW176-R028			Type: 0524M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: Single Voltage Motor		
Rated Output (HP)		1.5	Full Load Torque		2.236 LB-FT	
Volts		460	Start Configuration		direct on line	
Full Load Amps		2	Breakdown Torque		11.1 LB-FT	
R.P.M.		3450	Pull-up Torque		7.77 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		9.67 LB-FT
NEMA Design Code		B	KVA Code		M	
Service Factor (S.F.)		1.15	Starting Current		20 A	
NEMA Nom. Eff.		85.5	Power Factor		83	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		34°C
S.F. Amps				Temp. Rise @ S.F. Load		38°C
				Locked-rotor Power Factor		50.3

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	46	67	78	84	88	90	86
Efficiency	74.4	83.4	86	85.5	86.2	85.4	85.9
Speed	3573.7	3552.1	3528.4	3504	3477.8	3449.4	3488
Line amperes	1.02	1.25	1.57	1.92	2.31	2.75	2.15

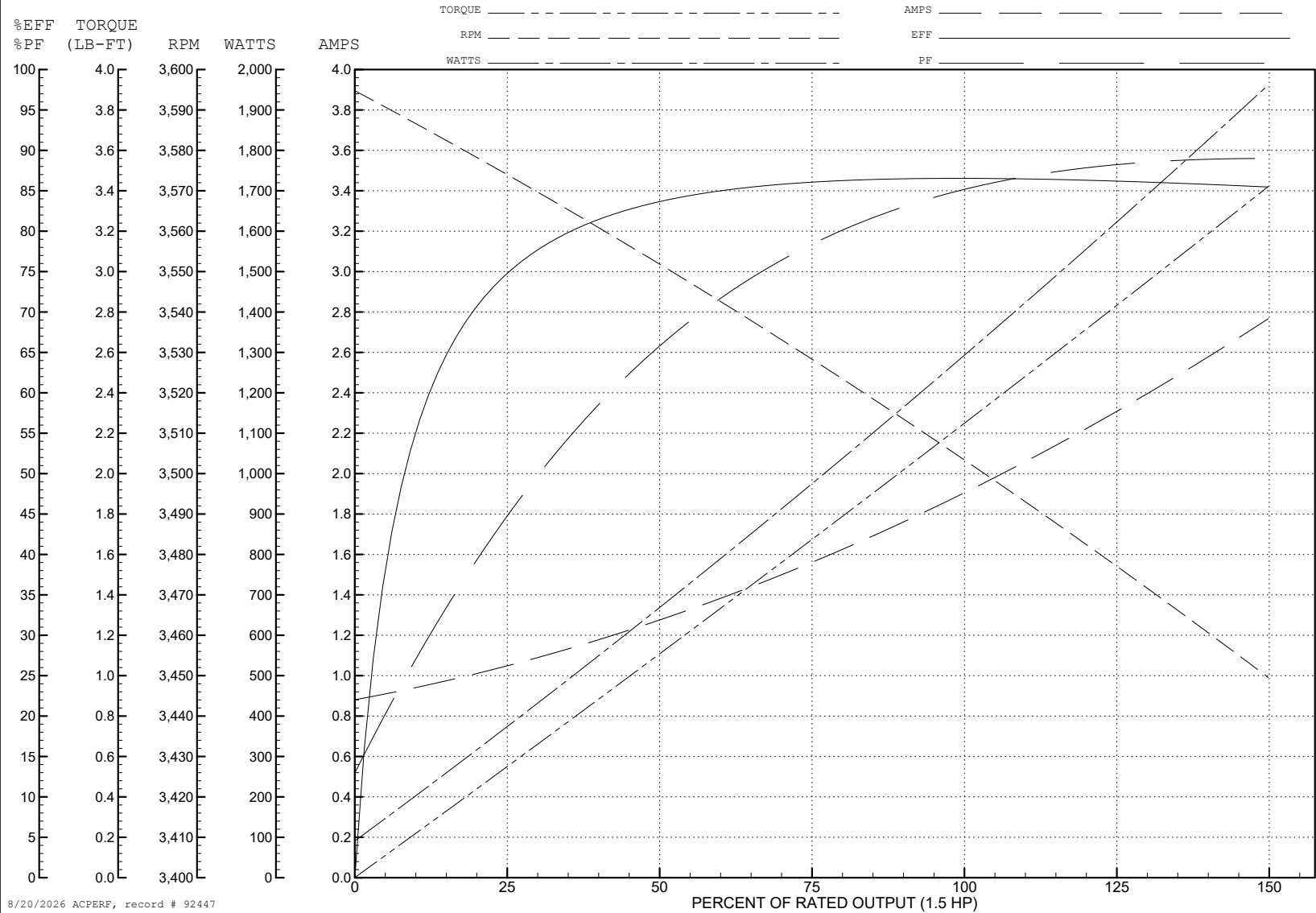
ABB Motors and Mechanical Inc.

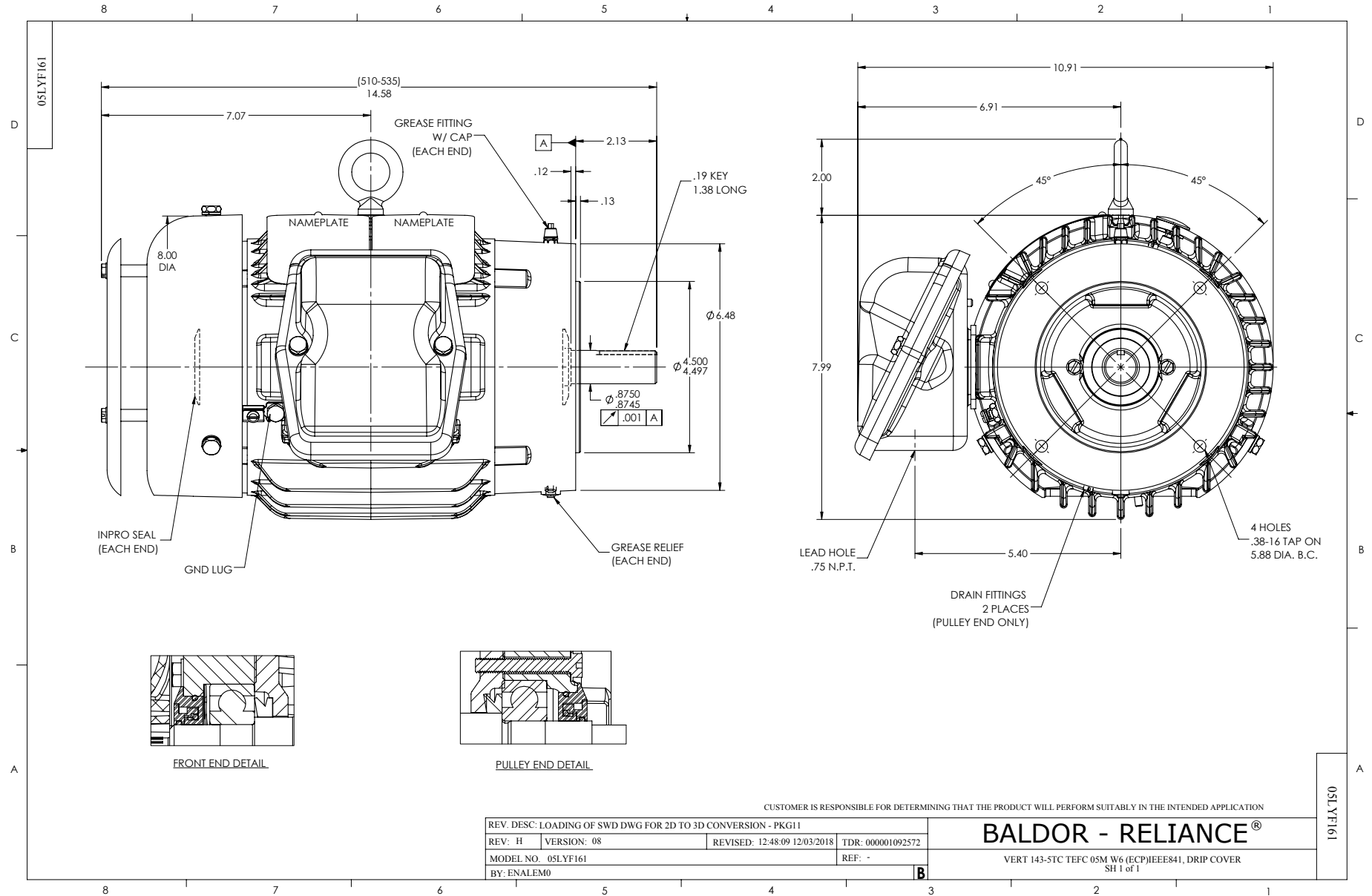
WINDING # 05WGW176

Typical performance - not guaranteed values.

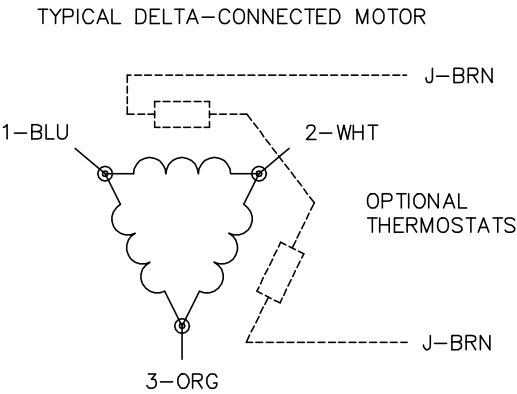
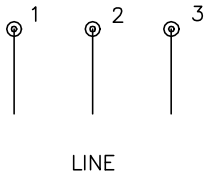
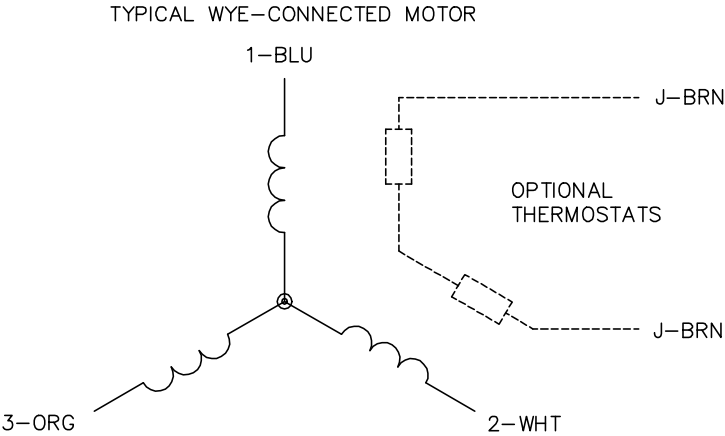
1.5 HP 3 PH 60 HZ 3450 RPM 460 V 0524M

TORQUES (LB-FT) : PO=11.1 PU=7.77 LR=9.67 LRA=20





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