ABB BALDOR RELIANCE

Customer information packet

VECP83583T-4

1.5HP, 3450RPM, 3PH, 60HZ, 143TC, 0524M, TEFC
Class - CLI GP A,B,C,D
Division - Division II

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/18/2026 11:59:44 PM

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	CD0006
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	

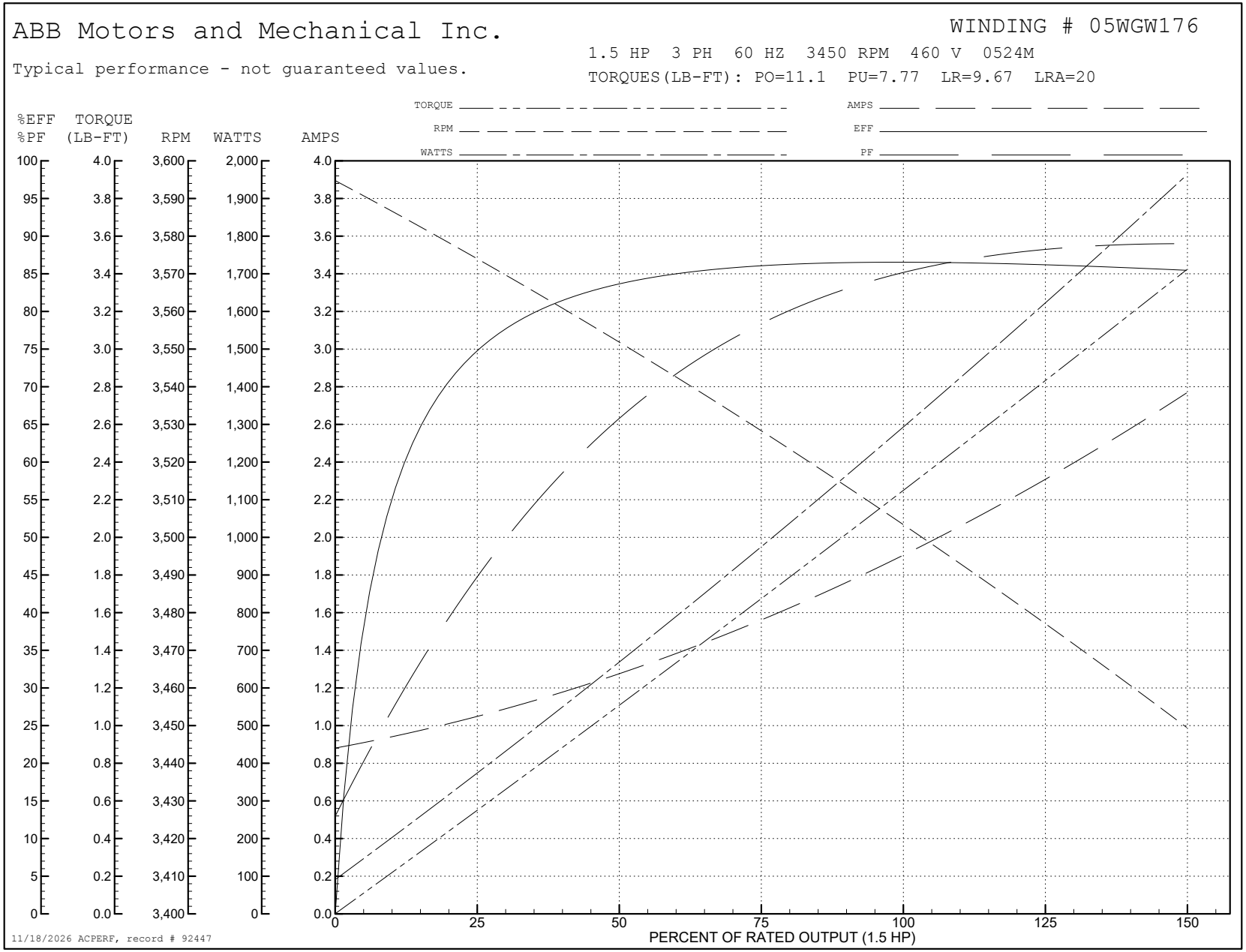
AC Induction Motor Performance Data
Record # 92447
Typical performance - not guaranteed values

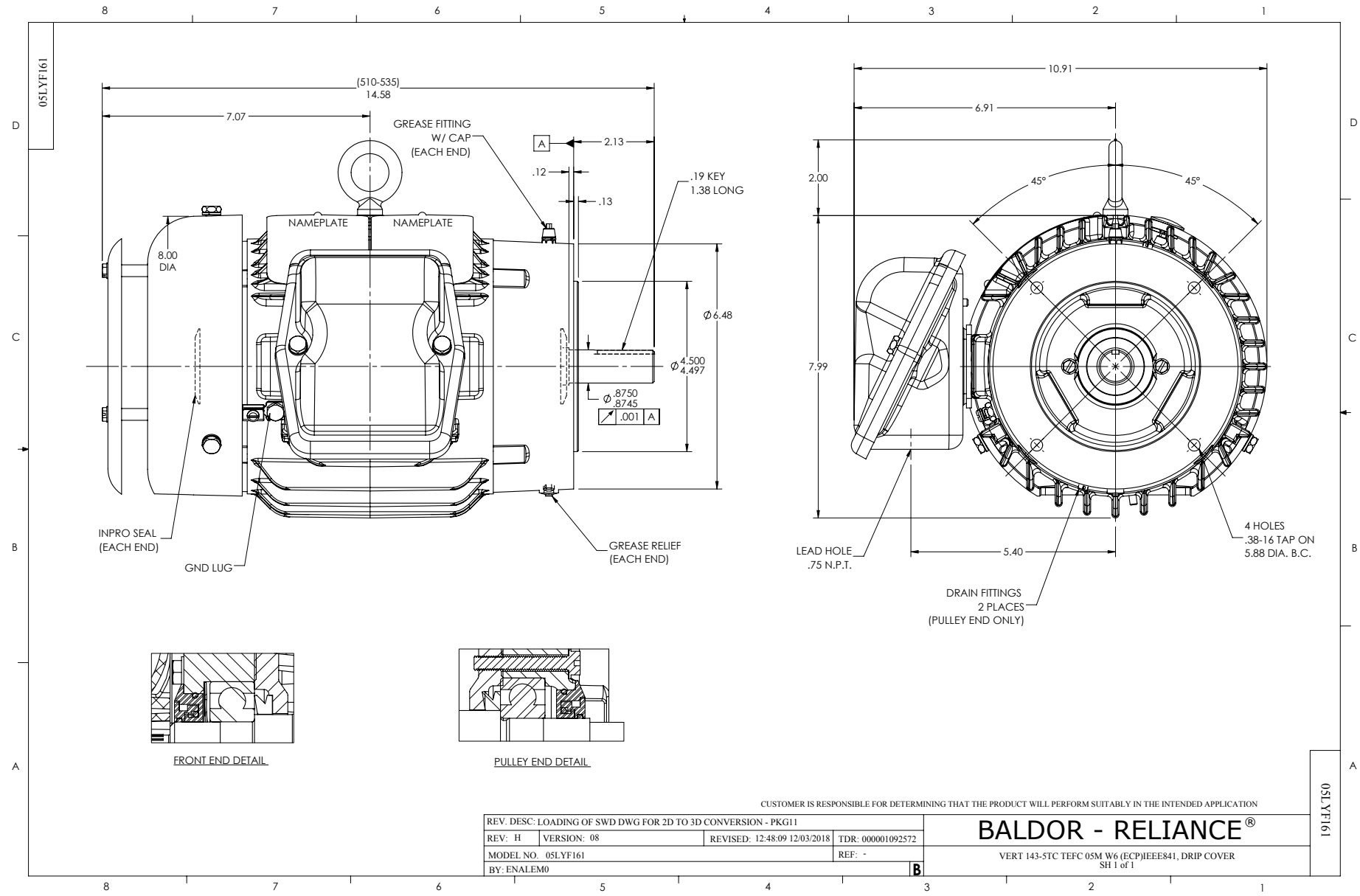
Winding: 05WGW176-R028	**Type:** 0524M	**Enclosure:** TEFC

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	**Starting Current**	20 A
Service Factor (S.F.)			1.15	**No-load Current**	0.905 A
NEMA Nom. Eff.	85.5	**Power Factor**	83	**Line-line Res. @ 25ºC**	8.4759 Ω
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

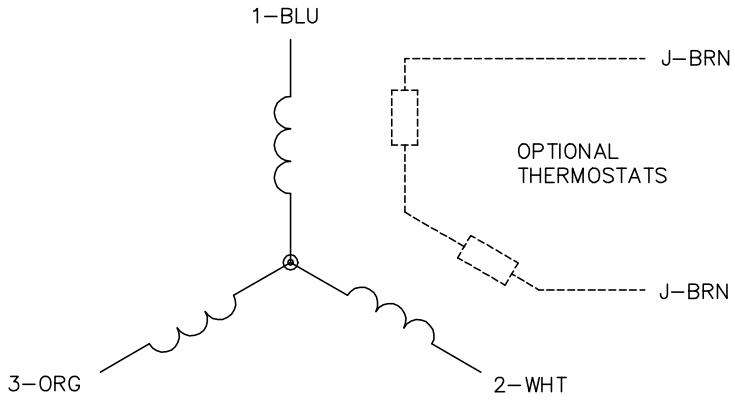
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	46	67	78	84	88	90	86
Efficiency	74.4	83.4	86	85.5	86.2	85.4	85.9
Speed	3573.7	3552.1	3528.4	3504	3477.8	3449.4	3488
Line amperes	1.02	1.25	1.57	1.92	2.31	2.75	2.15

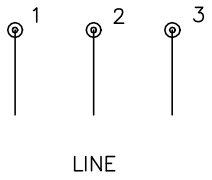

ABB Motors and Mechanical Inc.
WINDING # 05WGW176
Typical performance - not guaranteed values.
1.5 HP 3 PH 60 HZ 3450 RPM 460 V 0524M
TORQUES(LB-FT): PO=11.1 PU=7.77 LR=9.67 LRA=20
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1.5 HP)
11/18/2026 ACPERF, record # 92447


05LYF161
(510-535)
14.58
7.07
GREASE FITTING
W/ CAP
(EACH END)
A
2.13
.12
.13
.19 KEY
1.38 LONG
NAMEPLATE
NAMEPLATE
8.00
DIA
Ø 6.48
Ø 4.500
4.497
Ø .8750
.8745
.001 A
INPRO SEAL
(EACH END)
GND LUG
GREASE RELIEF
(EACH END)
10.91
6.91
2.00
45°
45°
7.99
LEAD HOLE
.75 N.P.T.
5.40
4 HOLES
.38-16 TAP ON
5.88 DIA. B.C.
DRAIN FITTINGS
2 PLACES
(PULLEY END ONLY)
FRONT END DETAIL
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOADING OF SWD DWG FOR 2D TO 3D CONVERSION - PKG11
REV: H
VERSION: 08
REVISED: 12:48:09 12/03/2018
TDR: 000001092572
MODEL NO. 05LYF161
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
VERT 143-5TC TEFC 05M W6 (ECP)IEEE841, DRIP COVER
SH 1 of 1
05LYF161

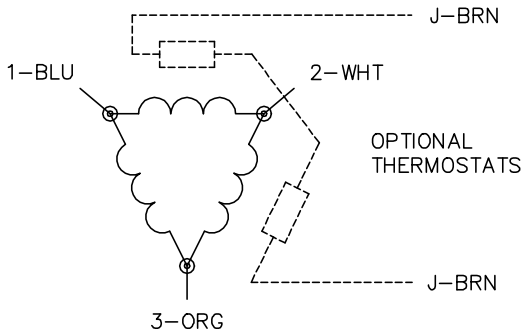
CD0006

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