

ABB BALDOR RELIANCE III

Customer information packet

VFSWDM3559T-4E

3HP, 3470RPM, 3PH, 60HZ, 143TC, 3546M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	143TC
Frame Material	Stainless Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	3.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	WEEE CURUSEEV NEMA PREMIUM
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
Current @ Voltage	3.700 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	3.7 a
Insulation Class	H
Inverter Code	Inverter Duty

Part Detail

Revision	B
Type	AC
Mech. spec.	35E4709
Base	
Status	PRD/A
Elec. spec.	35WGK985
Layout	35LYE4709
Eff. date	09-08-2026
CD Diagram	CD00006
Poles	02
Leads	3#18
Proprietary	False
Created date	05-22-2024

KVA Code	P
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Finish	UNPAINTED
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3546M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	16.28 IN
Power Factor	91
Product Family	WD All SD Non-Encapsulated
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	Y
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3470 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

NP4427AAA02												
CAT #	VFSWDM3559T-4E					WGT	61	LBS				
SPEC	35E4709K985					ENCL	TEFC					
SER #						CC	010A	IP	69			
HP	3	MAG CUR				1.3						
VOLTS	460						NEMA NOM. EFF				86.5	
AMPS	3.7						PF	91				
RATING	40C AMB-CONT											
RPM	3470					MAX RPM	5400					
FRAME	143TC	HZ	60			CODE	P	CLASS	H			
SER.F.	1.15	SF AMP					PH	3	DES	A		
DE	6205	ODE		6205								
LUBRICATION	POLYREX EM											
ID LOGO	INVERTER TYPE		VPWM		CHP	60	TO	90	1.5:1			
ID LOGO	WK2	0.127	CT	15	TO	60	4:1					
ID LOGO	SL HZ	2.2	VT	3	TO	60	20:1					
								QR				
YR												

AC Induction Motor Performance Data

Record # 105475

Typical performance - not guaranteed values

Winding: 35WGK985-R001			Type: 3546M		Enclosure: TEFC			
Nameplate Data				460 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		3		Full Load Torque		4.5 LB-FT		
Volts		460		Start Configuration		direct on line		
Full Load Amps		3.7		Breakdown Torque		17.2 LB-FT		
R.P.M.		3470		Pull-up Torque		10.5 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		17 LB-FT		
NEMA Design Code		A	KVA Code	P	Starting Current		48.3 A	
Service Factor (S.F.)		1.15		No-load Current		1.25 A		
NEMA Nom. Eff.		86.5	Power Factor	91	Line-line Res. @ 25°C		3.47 Ω	
Rating - Duty		40C		AMB-CONT		Temp. Rise @ Rated Load		63°C
S.F. Amps						Temp. Rise @ S.F. Load		74°C
						Locked-rotor Power Factor		42.3
						Rotor inertia		0.127 lb-ft²

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	59	79	87	90	91	90	91
Efficiency	80.1	86.4	87.3	86.9	85.7	83.9	86.2
Speed	3567	3541	3510	3479	3443	3403	3457
Line amperes	1.53	2.07	2.78	3.55	4.42	5.4	4.07

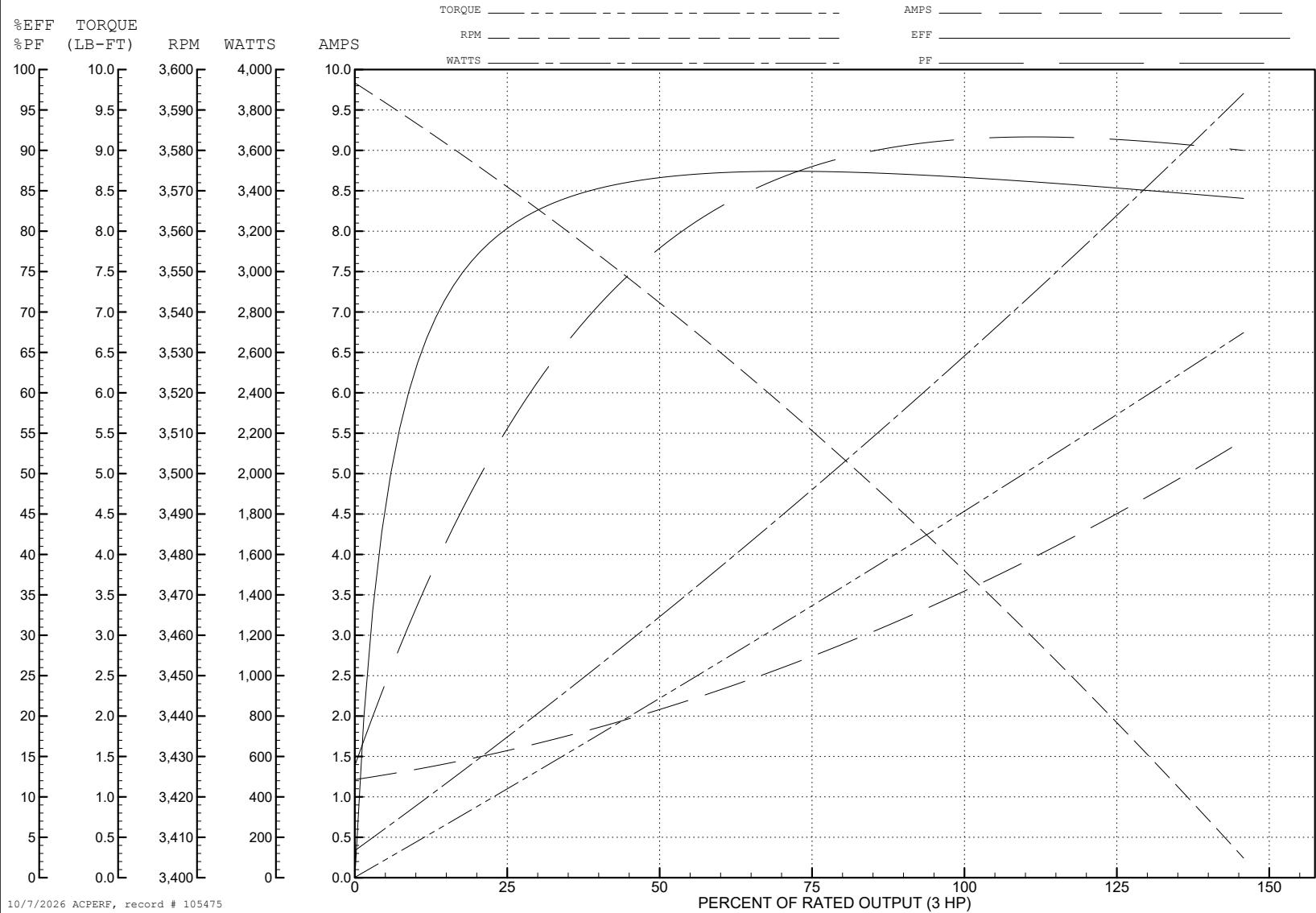
ABB Motors and Mechanical Inc.

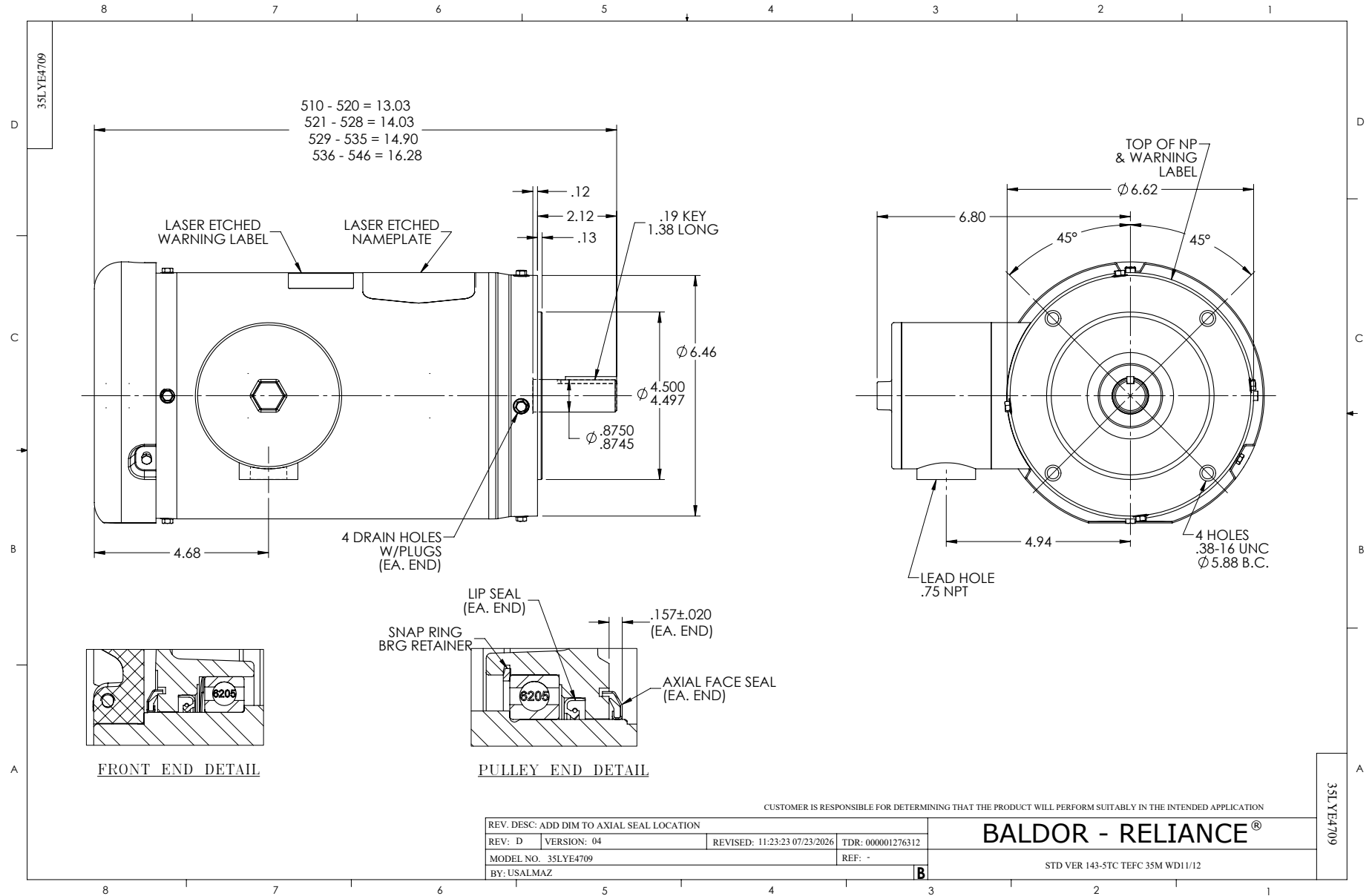
WINDING # 35WGK985

Typical performance - not guaranteed values.

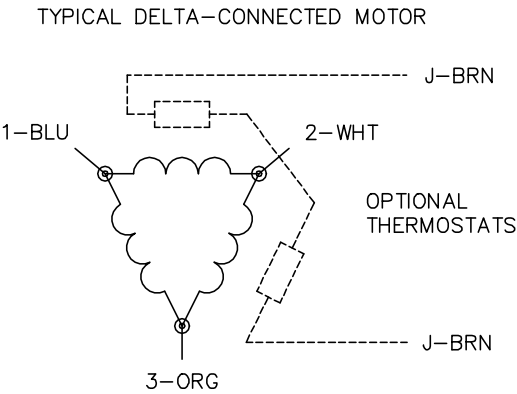
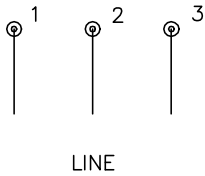
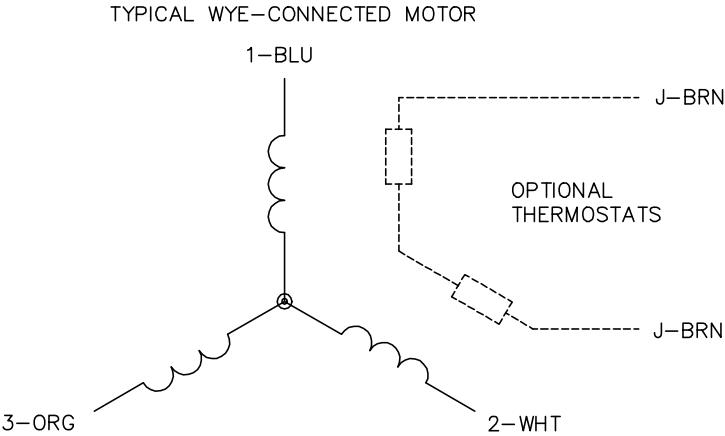
3 HP 3 PH 60 HZ 3470 RPM 460 V 3546M

TORQUES (LB-FT): PO=17.2 PU=10.5 LR=17 LRA=48.3





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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