

**BALDOR • RELIANCE**

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# Customer information packet

## VFSWDM3559T-E

3HP, 3470RPM, 3PH, 60HZ, 145TC, 3546M, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	145TC
Frame Material	Stainless Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	3.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
XP Class and Group	None
XP Division	Not Applicable
Agency Approvals	CSA UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	7.700 A @ 208.0 V 7.400 A @ 230.0 V 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

## Part detail

Revision	M
Type	AC
Mech. spec.	35E4709
Base	
Status	PRD/A
Elec. spec.	35WGR930
Layout	35LYE4709
Eff. date	08-14-2023
CD Diagram	CD0005
Poles	02
Leads	9#18,0#,0#,0# Y
Proprietary	False
Created date	07-11-2017

<b>Insulation Class</b>	H
<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	P
<b>Lifting Lugs</b>	No Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Finish</b>	UNPAINTED
<b>Motor Lead Quantity/Wire Size</b>	@ 0 AWG 9 @ 18 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	3546M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	2
<b>Overall Length</b>	16.28 IN
<b>Power Factor</b>	91
<b>Product Family</b>	WD All SS Encapsulated
<b>Pulley End Bearing Type</b>	Sealed Bearing
<b>Pulley Face Code</b>	C-Face
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>RoHS Status</b>	ROHS COMPLIANT
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	0.875 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	3470 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

<b>NP4427AAA01</b>											
<b>CAT #</b>	VFSWDM3559T-E			<b>WT</b>	63	<b>LBS</b>					
<b>SPEC</b>	35E4709R930G1			<b>ENCL</b>	TEFC						
<b>SER #</b>				<b>CC</b>	010A	<b>IP</b>	69				
<b>HP</b>	3	<b>MAG CUR</b>									
<b>VOLTS</b>	230/460			<b>NEMA NOM. EFF</b>		86.5					
<b>AMPS</b>	7.4/3.7			<b>PF</b>	91						
<b>RATING</b>	40C AMB-CONT										
<b>RPM</b>	3470			<b>MAX RPM</b>		5400					
<b>FRAME</b>	145TC	<b>HZ</b>	60	<b>CODE</b>	P	<b>CLASS</b>	H				
<b>SER.F.</b>	1.15	<b>SF AMP</b>			<b>PH</b>	3	<b>DES</b>	A			
<b>DE</b>	6205		<b>ODE</b>	6205							
<b>LUBRICATION</b>	POLYREX EM										
<b>ID LOGO</b>	<b>INVERTER TYPE</b>		<b>VPWM</b>	<b>CHP</b>	60	<b>TO</b>	90	1.5:1			
<b>ID LOGO</b>	<b>WK2</b>	0.127	<b>CT</b>	15	<b>TO</b>	60	4:1				
<b>ID LOGO</b>	<b>SL HZ</b>			<b>VT</b>	3	<b>TO</b>	60	20:1			
				<b>QR</b>							
<b>YR</b>											

## Parts list

Part number	Description	Quantity
SA343210	SA 35E4709R930G1	1.000 ea
RA331657	RA 35E4709R930G1	1.000 ea
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
35CB1017A02	5/36 MID SECT - 3 PC. CONDUIT BOX 3/4 N	1.000 ea
HA3424S48	STUD - M6X1.0 THDS X 3.00"	1.000 ea
RM1070A81	O-RING, -043 VITON/FKM .070CS X 3.489ID	1.000 ea
35CB1513A01	35-36-37 MACH. LID - 3 PC. CONDUIT BOX	1.000 ea
11XW1032G08	10-32 X .50, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
35EP1940A05	FRONT TEFC 205 BRG (STAINLESS)	1.000 ea
RM1070A25	O-RING, VITON/FKM .070CS X 6.190ID	1.000 ea
HW4600G01	.984X1.499X.25 VITON SLICK SERIES LIP	1.000 ea
HW4600E99	25 X 42 X 6 AFX SEAL, GRAPHITE INFUSED V	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	4.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	4.000 ea
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 ea
35EP1935A02	PULLEY 56C/143-5TC ENCL 205 BRG	1.000 ea
RM1070A25	O-RING, VITON/FKM .070CS X 6.190ID	1.000 ea
HW4600G01	.984X1.499X.25 VITON SLICK SERIES LIP	1.000 ea
HW4600E99	25 X 42 X 6 AFX SEAL, GRAPHITE INFUSED V	1.000 ea
RM1070A26	O-RING,4.5MM I.D.X1.5MM C.S. (VITON)	4.000 ea
35FH4005A39	IEC FH NO GREASER DEBURR/CLEAN - SS	1.000 ea
10XN1032FS06	HEX HD CAP SCREW 10-32 X 3/8 SS FOOD SAF	3.000 ea
RM1070A81	O-RING, -043 VITON/FKM .070CS X 3.489ID	1.000 ea
HW2502D13	SS KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.005 qt
MJ5004A93	FOOD GRADE (H1 RATED) ANTISEIZE THRD COM	0.005 ea
HA1025A21	WSHR,FELT .125" THK	1.000 ea
HA5027A09	DRAIN KIT,(2)HA4002A03 BAGGED W/LABEL	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb

19XB0818S12	8-18X3/4 HXWS TYB HIGH-LOW	1.000 ea
WD5603A01	KIT, CLOSED-END LEAD SPLICE (18-14GA)	1.000 ea
HA3100FS61	THRUBOLT, 10-32 X 11.750 SS FOOD SAFE	4.000 ea
36PA1001	PKG GRP, PRINT PK1017A06	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2100bx)4/22	1.000 ea
PE-0000006	ZRTG FE ASSEMBLY	1.000 ea
FE-0000006	ZRTG FE ASSEMBLY	1.000 ea

**AC Induction Motor Performance Data**

Record # 57380

Typical performance - not guaranteed values

<b>Winding: 35WGR930-R012</b>		<b>Type: 3546M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	3		<b>Full Load Torque</b>	4.5 LB-FT	
<b>Volts</b>	230/460		<b>Start Configuration</b>	direct on line	
<b>Full Load Amps</b>	7.4/3.7		<b>Breakdown Torque</b>	17.2 LB-FT	
<b>R.P.M.</b>	3470		<b>Pull-up Torque</b>	10.5 LB-FT	
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	17 LB-FT
<b>NEMA Design Code</b>	A	<b>KVA Code</b>	P	<b>Starting Current</b>	48.3 A
<b>Service Factor (S.F.)</b>	1.15		<b>No-load Current</b>	1.25 A	
<b>NEMA Nom. Eff.</b>	86.5	<b>Power Factor</b>	91	<b>Line-line Res. @ 25°C</b>	3.47 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	63°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	74°C	
			<b>Locked-rotor Power Factor</b>	42.3	
			<b>Rotor inertia</b>	0.127 LB-FT <sup>2</sup>	

**Load Characteristics 460 V, 60 Hz, 3 HP**

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

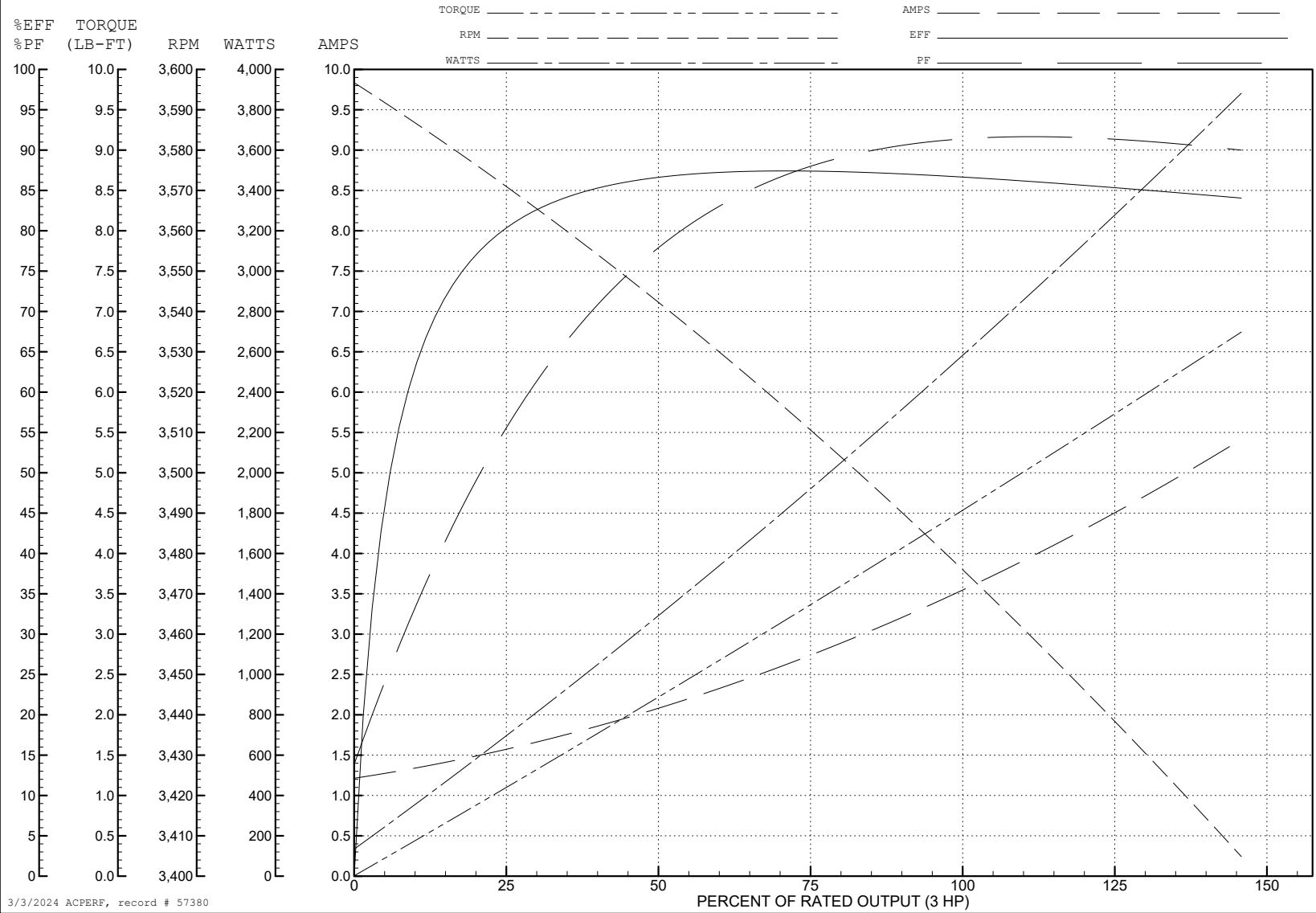
ABB Motors and Mechanical Inc.

WINDING # 35WGR930

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

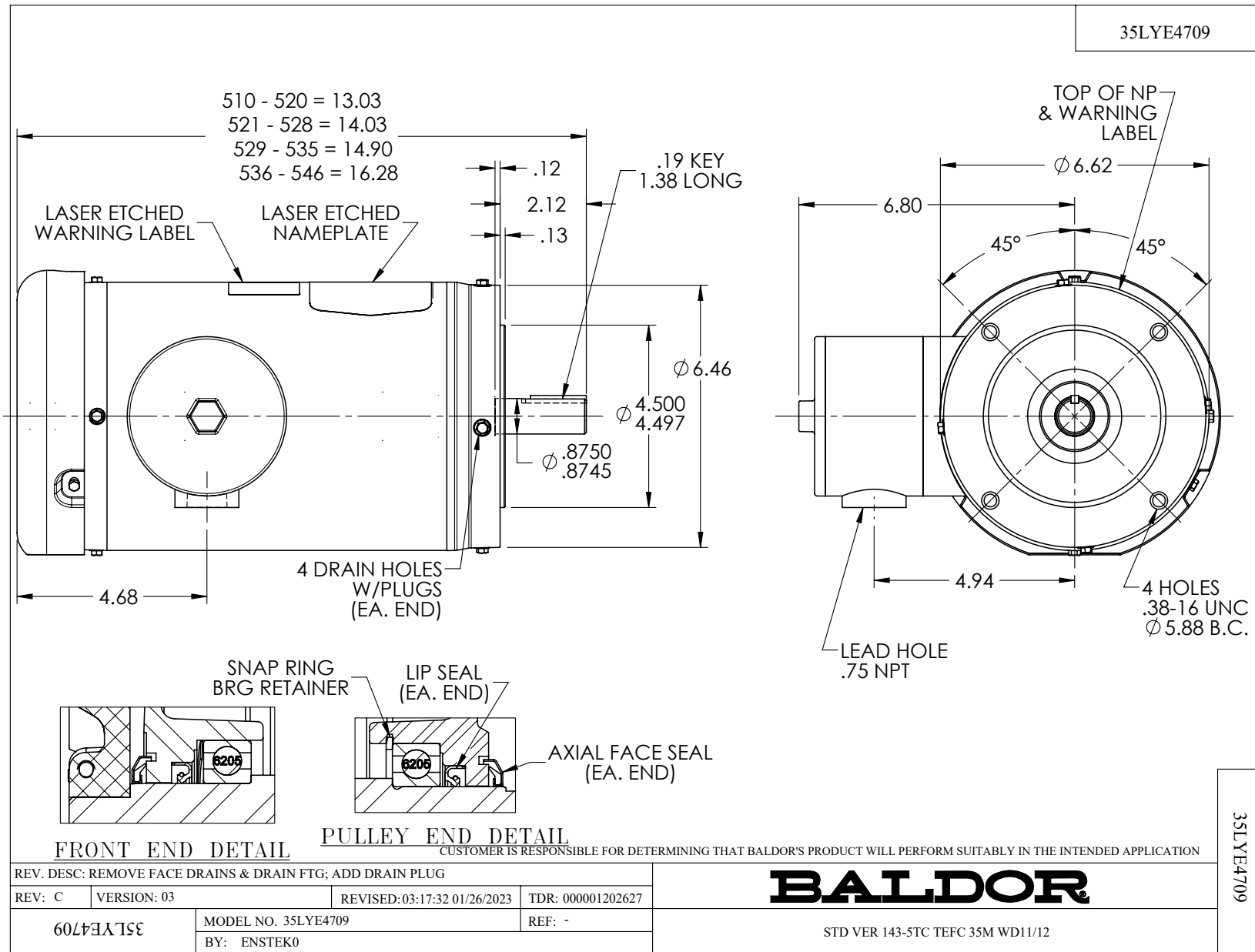
Typical performance - not guaranteed values.

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



3/3/2024 ACPERF, record # 57380





CD0005



LOW VOLTAGE (2Y)



LINE

HIGH VOLTAGE (1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS