

BALDOR • RELIANCE

Customer information packet

VFSWDM3545-E

1HP, 3450RPM, 3PH, 60HZ, 56C, 3520M, TENV, F1, N

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|---|
| Enclosure | TENV |
| Frame | 56C |
| Frame Material | Stainless Steel |
| Frequency | 60.00 Hz |
| Motor Letter Type | Three Phase |
| Output @ Frequency | 1.000 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 | UR CSA |
| 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 | 1.400 A @ 460.0 V 2.800 A @ 230.0 V 2.900 A @ 208.0 V |
| Design Code | B |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 82.5 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |
| Front Face Code | Standard |
| Front Shaft Indicator | None |
| Heater Indicator | No Heater |

Part detail

| | |
|--------------|-----------------|
| Revision | P |
| Type | AC |
| Mech. spec. | 35E4656 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 35WGL314 |
| Layout | 35LYE4656 |
| Eff. date | 08-14-2023 |
| CD Diagram | CD0005 |
| Poles | 02 |
| Leads | 9#18,0#,0#,0# Y |
| Proprietary | False |
| Created date | 06-20-2017 |

| | |
|-------------------------------|------------------------|
| High Voltage Full Load Amps | 1.4 a |
| Insulation Class | H |
| Inverter Code | Not Inverter |
| KVA Code | N |
| Lifting Lugs | No Lifting Lugs |
| Locked Bearing Indicator | Locked Bearing |
| Motor Finish | UNPAINTED |
| Motor Lead Exit | Ko Box |
| Motor Lead Quantity/Wire Size | @ 0 AWG 9 @ 18 AWG |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 3520M |
| Mounting Arrangement | F1 |
| Number of Poles | 2 |
| Overall Length | 11.78 IN |
| Power Factor | 82 |
| Product Family | WD All SS Encapsulated |
| Pulley End Bearing Type | Sealed Bearing |
| Pulley Face Code | C-Face |
| Pulley Shaft Indicator | Standard |
| Rodent Screen | None |
| RoHS Status | ROHS COMPLIANT |
| Service Factor | 1.15 |
| Shaft Diameter | 0.625 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

NP4427AAA01

| | | | | | |
|--------------------|----------------------|----------------------|-----------|--------------|-----------|
| CAT # | VFSWDM3545-E | WT | 37 | LBS | |
| SPEC | 35E4656L314G1 | ENCL | TENV | | |
| SER # | | CC | 010A | IP | 69 |
| HP | 1 | MAG CUR | 1.44/.72 | | |
| VOLTS | 230/460 | NEMA NOM. EFF | 82.5 | | |
| AMPS | 2.8/1.4 | PF | 82 | | |
| RATING | 40C AMB-CONT | | | | |
| RPM | 3450 | MAX RPM | 5400 | | |
| FRAME | 56C | HZ | 60 | CODE | N |
| | | | | CLASS | H |
| SER.F. | 1.15 | SF AMP | | PH | 3 |
| | | | | DES | B |
| DE | 6205 | ODE | 6205 | | |
| LUBRICATION | POLYREX EM | | | | |
| ID LOGO | INVERTER TYPE | VPWM | 60 | TO | 90 |
| | | | | | 1.5:1 |
| ID LOGO | WK2 | 0.06 | CT | 15 | TO |
| | | | | | 60 |
| ID LOGO | SL HZ | 2.5 | VT | 3 | TO |
| | | | | | 60 |
| | | | | | 20:1 |
| | | | | | |
| | | | | QR | |
| YR | | | | | |

Parts list

| Part number | Description | Quantity |
|-------------|--|----------|
| SA343176 | SA 35E4656L314G1 | 1.000 ea |
| RA331622 | RA 35E4656L314G1 | 1.000 ea |
| 35CB1017A01 | 35/36 MID SECT - 3 PC. CONDUIT BOX 1/2 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 |
| HW3001B02 | BRASS CUP WASHER W/GROUND SYMBOL TAB, | 1.000 ea |
| 35EP1940A03 | FRONT TENV 205 BRG (STAINLESS) | 1.000 ea |
| RM1070A25 | O-RING, VITON/FKM .070CS X 6.190ID | 1.000 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 |
| HW4500S33 | 1/8 NPT STAINLESS #304 SS PLUG | 4.000 ea |
| RM1070A26 | O-RING,4.5MM I.D.X1.5MM C.S. (VITON) | 4.000 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 |
| HA7000A04 | KEY RETAINER 0.625 DIA SHAFTS | 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 |
| WD5603A01 | KIT, CLOSED-END LEAD SPLICE (18-14GA) | 1.000 ea |
| HA3100FS11 | THRUBOLT, 10-32 X 8.500 SS FOOD SAFE | 4.000 ea |
| 36PA1000 | PKG GRP, PRINT PK1016A06 | 1.000 ea |
| PK3082 | STYROFOAM CRADLE | 1.000 ea |
| MN416A01 | TAG-INSTAL-MAINT no wire (2100bx)4/22 | 1.000 ea |

| | | |
|------------|------------------|----------|
| FE-0000015 | ZRTG FE ASSEMBLY | 1.000 ea |
| PE-0000016 | ZRTG PE ASSEMBLY | 1.000 ea |

AC Induction Motor Performance Data

Record # 63641

Typical performance - not guaranteed values

| Winding: 35WGL314-R002 | | Type: 3520M | | Enclosure: TENV | |
|-------------------------------|--------------------------|----------------------------|--|------------------------|--|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 1 | Full Load Torque | 1.52 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 2.8/1.4 | Breakdown Torque | 8.51 LB-FT | | |
| R.P.M. | 3450 | Pull-up Torque | 6.16 LB-FT | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 8.01 LB-FT | |
| NEMA Design Code | B KVA Code | N | Starting Current | 15.1 A | |
| Service Factor (S.F.) | | 1.15 | No-load Current | 0.722 A | |
| NEMA Nom. Eff. | 82.5 Power Factor | 82 | Line-line Res. @ 25°C | 10.85 Ω | |
| Rating - Duty | | 40C AMB-CONT | Temp. Rise @ Rated Load | 91°C | |
| S.F. Amps | | 3.2/1.6 | Temp. Rise @ S.F. Load | 105°C | |

Load Characteristics 460 V, 60 Hz, 1 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 44 | 64 | 76 | 82 | 86 | 88 | 84 |
| Efficiency | 67.8 | 79 | 82.4 | 83.4 | 83.4 | 82.5 | 83.4 |
| Speed | 3566.5 | 3536.9 | 3507.4 | 3477.1 | 3442.7 | 3405 | 3456 |
| Line amperes | 0.791 | 0.953 | 1.15 | 1.38 | 1.63 | 1.93 | 1.53 |

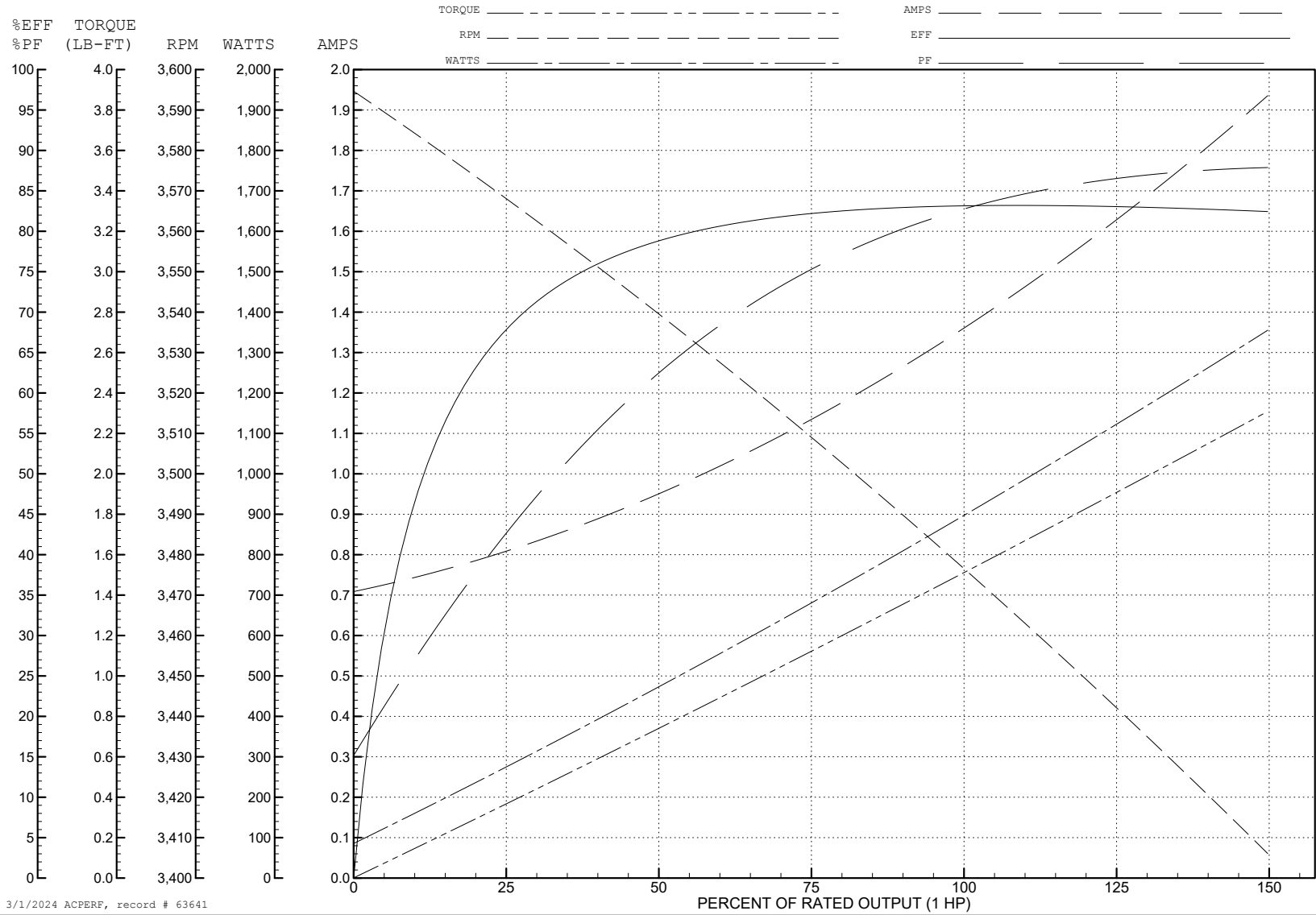
ABB Motors and Mechanical Inc.

WINDING # 35WGL314

Typical performance - not guaranteed values.

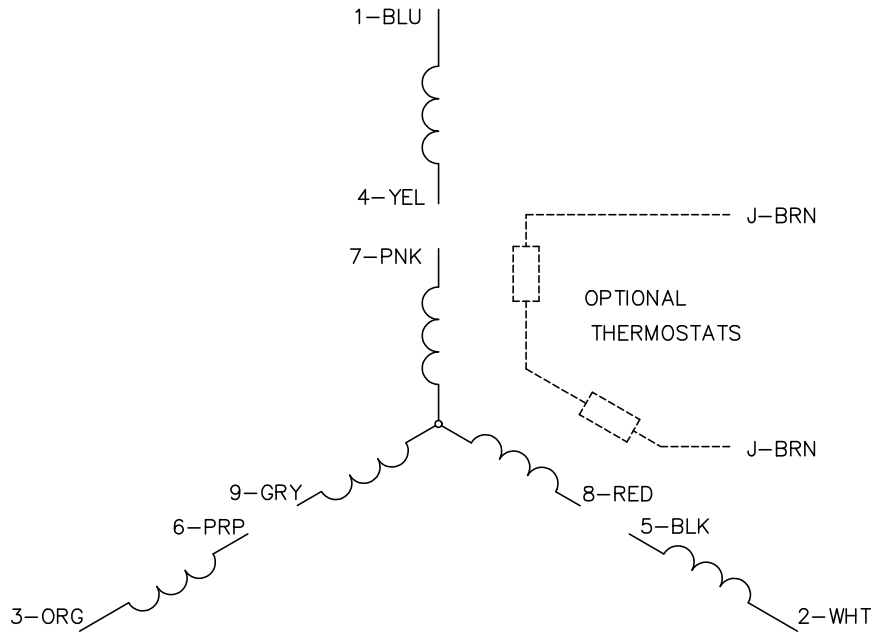
1 HP 3 PH 60 HZ 3450 RPM 460 V 3520M

TORQUES (LB-FT): PO=8.51 PU=6.16 LR=8.01 LRA=15.1



3/1/2024 ACPERF, record # 63641

CD0005

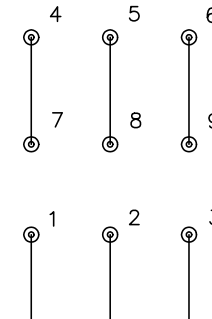


LOW VOLTAGE
(2Y)



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