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# Customer information packet

## EM3545-57

1HP, 2850RPM, 3PH, 50HZ, 56, 3516M, TEFC, F1, N

Class - None

Division - Not Applicable

## Specifications

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Enclosure                      | TEFC                                          |
| Frame                          | 56                                            |
| Frame Material                 | Steel                                         |
| Frequency                      | 50.00 Hz                                      |
| Haz Area Class and Group       | None                                          |
| Haz Area Division              | Not Applicable                                |
| Motor Letter Type              | Three Phase                                   |
| Output @ Frequency             | 1.000 HP @ 50 HZ                              |
| Phase                          | 3                                             |
| Synchronous Speed @ Frequency  | 3000 RPM @ 50 HZ                              |
| Voltage @ Frequency            | 230.0 V @ 50 HZ<br>400.0 V @ 50 HZ            |
| Agency Approvals               | C UR US<br>CE<br>CURUS<br>IE3<br>UKCA<br>WEEE |
| Ambient Temperature            | 40 °C                                         |
| Auxillary Box                  | No Auxillary Box                              |
| Auxillary Box Lead Termination | None                                          |
| Base Indicator                 | Rigid                                         |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                       |
| Blower                         | None                                          |
| Current @ Voltage              | 1.600 A @ 400.0 V<br>2.800 A @ 230.0 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                                   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | M          |
| Type         | AC         |
| Mech. spec.  | 35E2941    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGL462   |
| Layout       | 35LYE2941  |
| Eff. date    | 06-20-2024 |
| CD Diagram   | CD0022     |
| Poles        | 02         |
| Leads        | 6#18       |
| Proprietary  | False      |
| Created date | 12-23-2015 |

|                               |                    |
|-------------------------------|--------------------|
| Front Face Code               | Standard           |
| Front Shaft Indicator         | None               |
| Heater Indicator              | No Heater          |
| High Voltage Full Load Amps   | 1.6 a              |
| Insulation Class              | B                  |
| Inverter Code                 | Inverter Ready     |
| KVA Code                      | J                  |
| Lifting Lugs                  | No Lifting Lugs    |
| Locked Bearing Indicator      | No Locked Bearing  |
| Motor Lead Exit               | Ko Box             |
| Motor Lead Quantity/Wire Size | 6 @ 18 AWG         |
| Motor Lead Termination        | Flying Leads       |
| Motor Standards               | NEMA               |
| Motor Type                    | 3516M              |
| Mounting Arrangement          | F1                 |
| Number of Poles               | 2                  |
| Overall Length                | 12.23 IN           |
| Power Factor                  | 87                 |
| Product Family                | General Purpose    |
| Pulley End Bearing Type       | Ball               |
| Pulley Face Code              | Standard           |
| Pulley Shaft Indicator        | Standard           |
| Rodent Screen                 | None               |
| RoHS Status                   | ROHS COMPLIANT     |
| Service Factor                | 1.25               |
| 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                         | 2850 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

| NP2716L        |                           |      |          |      |    |      |    |   |  |
|----------------|---------------------------|------|----------|------|----|------|----|---|--|
| CAT NO         | EM3545-57                 |      |          |      |    |      |    |   |  |
| SPEC.          | 35E2941L462G1             |      |          |      |    |      |    |   |  |
| HP             | 1/.75KW                   |      |          |      |    |      | PH | 3 |  |
| VOLTS          | 230/400                   |      |          |      |    |      |    |   |  |
| AMP            | 2.8/1.6                   |      |          |      |    |      |    |   |  |
| R.P.M. (1/MIN) | 2850                      |      |          |      |    |      |    |   |  |
| FRAME          | 56                        |      | HZ       | 50   |    | I.P. | 44 |   |  |
| SER.F.         | 1.25                      | CODE | J        | DES  | B  | CL   | B  |   |  |
| NOM.EFF.       | 82.5                      |      | % (100%) |      |    |      |    |   |  |
| PF             | 87                        |      |          |      |    |      |    |   |  |
| RATING         | 40C AMB-CONT              |      |          |      | CC |      |    |   |  |
| DE BRG         | 6205                      |      | ODE      | 6203 |    |      |    |   |  |
| ENCL           | TEFC                      | SN   |          |      |    |      |    |   |  |
| BLANK          | SFA 3.3/1.9               |      |          |      |    |      |    |   |  |
|                | IE3 81.2 (75%) 77.8 (50%) |      |          |      |    |      |    |   |  |
|                | 16KG IC411                |      |          |      |    |      |    |   |  |

## AC Induction Motor Performance Data

Record # 54628

Typical performance - not guaranteed values

| Winding: 35WGL462-R001 |  |          |  | Type: 3516M                              |  | Enclosure: TEFC     |  |                           |               |
|------------------------|--|----------|--|------------------------------------------|--|---------------------|--|---------------------------|---------------|
| Nameplate Data         |  |          |  | 400 V, 50 Hz:<br>High Voltage Connection |  |                     |  |                           |               |
| Rated Output (HP)      |  | 1        |  | Full Load Torque                         |  | 1.9 LB-FT           |  |                           |               |
| Volts                  |  | 230/400  |  | Start Configuration                      |  | direct on line      |  |                           |               |
| Full Load Amps         |  | 2.8/1.6  |  | Breakdown Torque                         |  | 6.33 LB-FT          |  |                           |               |
| R.P.M.                 |  | 2850     |  | Pull-up Torque                           |  | 5.05 LB-FT          |  |                           |               |
| Hz                     |  | 50 Phase |  | 3                                        |  | Locked-rotor Torque |  | 5.67 LB-FT                |               |
| NEMA Design Code       |  | B        |  | KVA Code                                 |  | J                   |  | Starting Current          | 11.3 A        |
| Service Factor (S.F.)  |  | 1.25     |  |                                          |  |                     |  | No-load Current           | 0.718 A       |
| NEMA Nom. Eff.         |  | 82.5     |  | Power Factor                             |  | 87                  |  | Line-line Res. @ 25°C     | 15.2 Ω        |
| Rating - Duty          |  | 40C      |  | AMB-CONT                                 |  |                     |  | Temp. Rise @ Rated Load   | 39°C          |
| S.F. Amps              |  | 3.3/1.9  |  |                                          |  |                     |  | Temp. Rise @ S.F. Load    | 52°C          |
|                        |  |          |  |                                          |  |                     |  | Locked-rotor Power Factor | 63.4          |
|                        |  |          |  |                                          |  |                     |  | Rotor inertia             | 0.0443 LB-FT2 |

## Load Characteristics 400 V, 50 Hz, 1 HP

| % of Rated Load | 25    | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|-------|------|------|------|------|------|------|
| Power Factor    | 52    | 72   | 82   | 87   | 91   | 92   | 91   |
| Efficiency      | 74.5  | 81.7 | 83   | 83   | 81.9 | 79.9 | 81.9 |
| Speed           | 2963  | 2937 | 2906 | 2873 | 2836 | 2795 | 2836 |
| Line amperes    | 0.825 | 1.01 | 1.28 | 1.55 | 1.89 | 2.27 | 1.89 |

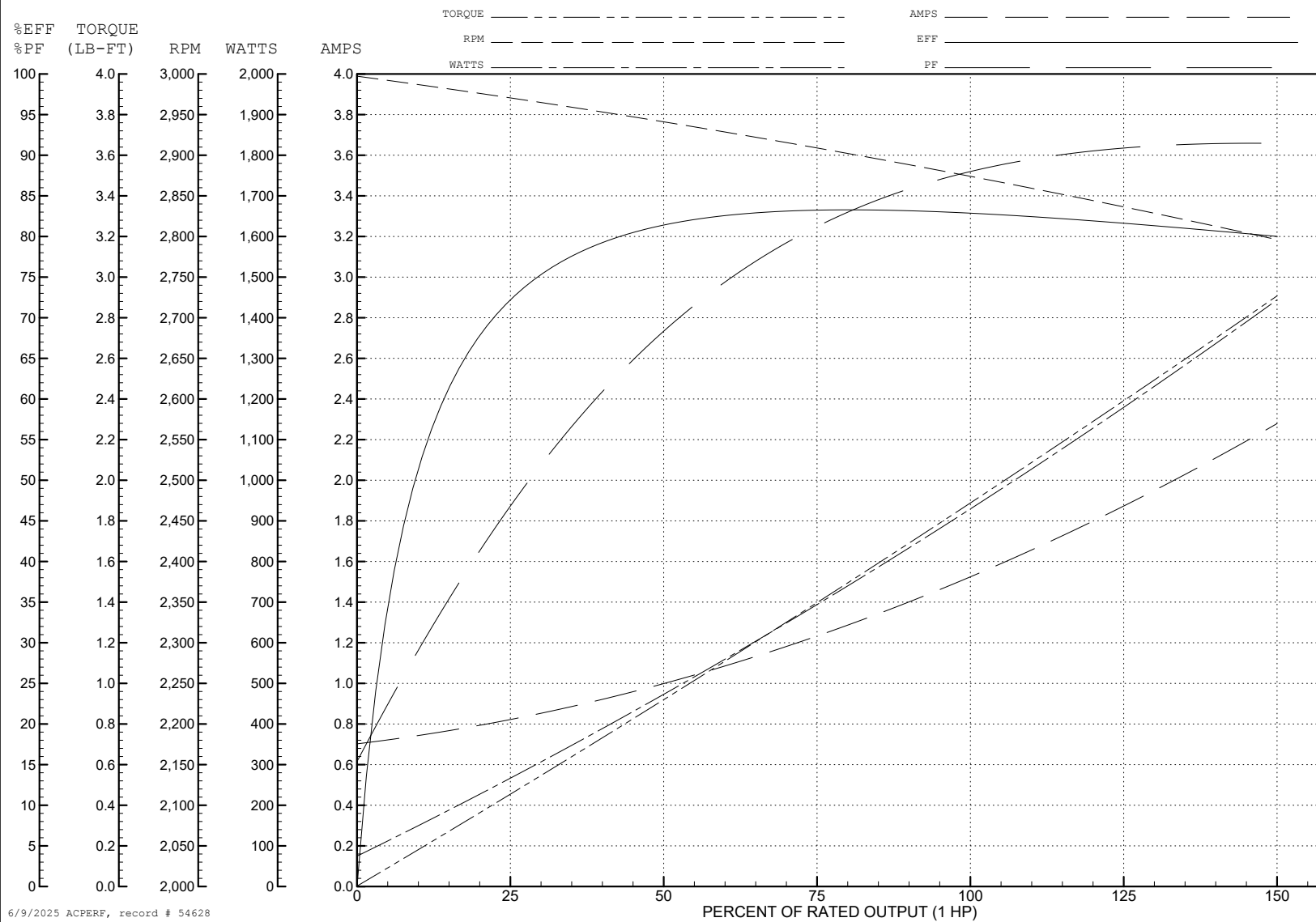
ABB Motors and Mechanical Inc.

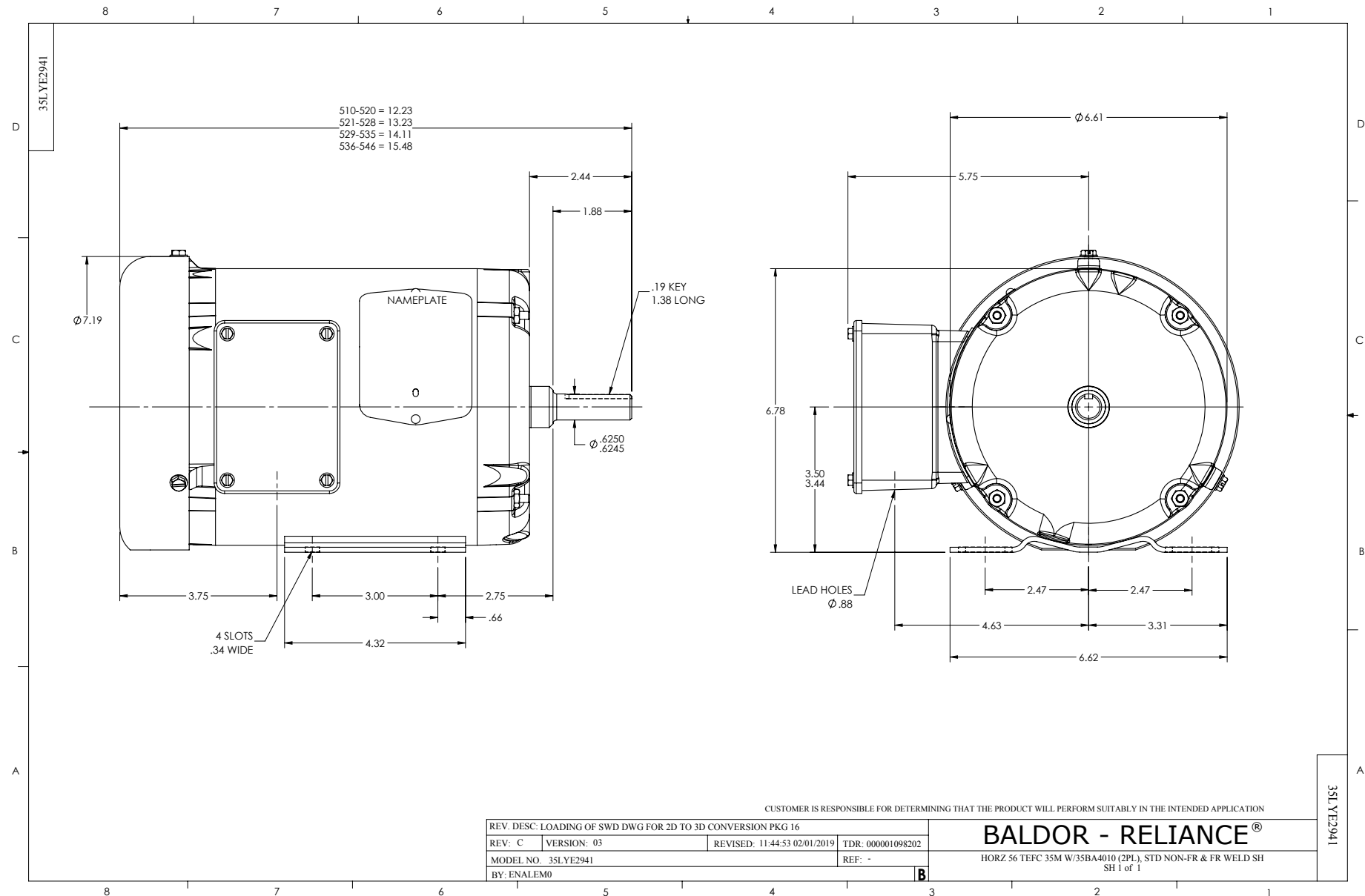
WINDING # 35WGL462

Typical performance - not guaranteed values.

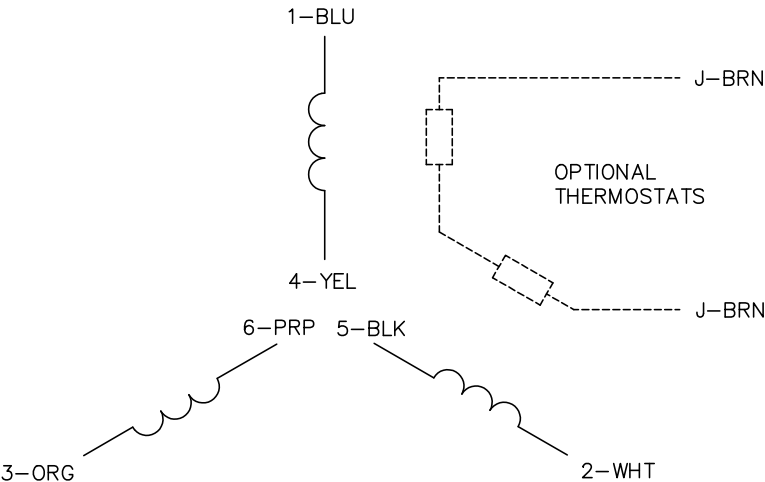
1 HP 3 PH 50 HZ 2850 RPM 400 V 3516M

TORQUES (LB-FT): PO=6.33 PU=5.05 LR=5.67 LRA=11.3

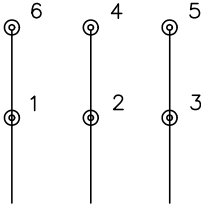




CD0022

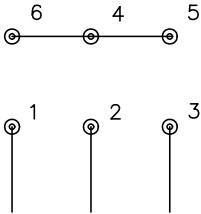


LOW VOLTAGE  
(1D)



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.

|                                           |         |                        |              |
|-------------------------------------------|---------|------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                        |              |
| REV. LTR: F                               | BY: JLP | REVISED: 01/21/99 3:54 | TDR: 0171435 |
| CD0022                                    |         | FILE: AAA00005144      | MDL: -       |
|                                           |         | MTL: -                 |              |

BALDOR ELECTRIC Co.

3PH, DV, 6 LEADS, DELTA/WYE CONNECTION

CD0022