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# Customer information packet

## EM2515T-58

20HP, 1470RPM, 3PH, 50HZ, 256T, 3956M, OPSB, F3

Class - None

Division - Not Applicable

## Specifications

|                                |   |
|--------------------------------|---|
| Enclosure                      | OPSB  |
| Frame                          | 256T  |
| 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             | 20.000 HP @ 50 HZ                             |
| Phase                          | 3   |
| Synchronous Speed @ Frequency  | 1500 RPM @ 50 HZ                              |
| Voltage @ Frequency            | 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              | 28.000 A @ 400.0 V                            |
| Design Code                    | B   |
| Drip Cover                     | No Drip Cover                                 |
| Duty Rating                    | CONT  |
| Efficiency @ 100% Load         | 92.1 %  |
| Electrically Isolated Bearing  | Not Electrically Isolated                     |
| Feedback Device                | NO FEEDBACK                                   |
| Front Face Code                | Standard                                      |
| Front Shaft Indicator          | None  |

## Part detail

|              |            |
|--------------|------------|
| Revision     | N          |
| Type         | AC         |
| Mech. spec.  | 39E318     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 39WGX494   |
| Layout       | 39LYE318   |
| Eff. date    | 06-26-2024 |
| CD Diagram   | CD0382     |
| Poles        | 04         |
| Leads        | 6#10       |
| Proprietary  | False      |
| Created date | 04-03-2015 |

|                               |                       |
|-------------------------------|-----------------------|
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 28.0 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | H                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | No Locked Bearing     |
| Motor Lead Exit               | Ko Box                |
| Motor Lead Quantity/Wire Size | 6 @ 10 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 3956M                 |
| Mounting Arrangement          | F3                    |
| Number of Poles               | 4                     |
| Overall Length                | 23.19 IN              |
| Power Factor                  | 85                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | Included              |
| RoHS Status                   | ROHS NON-COMPLIANT    |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.625 IN              |
| Shaft Extension Location      | Pulley End            |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 1470 rpm              |
| Speed Code                    | Single Speed          |
| Starting Method               | Wye Start - Delta Run |
| Thermal Device - Bearing      | None                  |
| Thermal Device - Winding      | None                  |
| Vibration Sensor Indicator    | No Vibration Sensor   |

|                   |      |
|-------------------|------|
| Winding Thermal 1 | None |
| Winding Thermal 2 | None |

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**Nameplate**

| <b>NP2716L</b>        |                        |             |                 |            |           |           |             |    |  |  |
|-----------------------|------------------------|-------------|-----------------|------------|-----------|-----------|-------------|----|--|--|
| <b>CAT NO</b>         | EM2515T-58             |             |                 |            |           |           |             |    |  |  |
| <b>SPEC.</b>          | 39E318X494G1           |             |                 |            |           |           |             |    |  |  |
| <b>HP</b>             | 20HP/15KW              |             |                 |            |           |           | <b>PH</b>   | 3  |  |  |
| <b>VOLTS</b>          | 400                    |             |                 |            |           |           |             |    |  |  |
| <b>AMP</b>            | 28                     |             |                 |            |           |           |             |    |  |  |
| <b>R.P.M. (1/MIN)</b> | 1470                   |             |                 |            |           |           |             |    |  |  |
| <b>FRAME</b>          | 256T                   |             | <b>HZ</b>       | 50         |           |           | <b>I.P.</b> | 23 |  |  |
| <b>SER.F.</b>         | 1.15                   | <b>CODE</b> | H               | <b>DES</b> | B         | <b>CL</b> | F           |    |  |  |
| <b>NOM.EFF.</b>       | 92.1                   |             | <b>% (100%)</b> |            |           |           |             |    |  |  |
| <b>PF</b>             | 85                     |             |                 |            |           |           |             |    |  |  |
| <b>RATING</b>         | 40C AMB-S1 CONT        |             |                 |            | <b>CC</b> |           |             |    |  |  |
| <b>DE BRG</b>         | 6309                   |             | <b>ODE</b>      | 6208       |           |           |             |    |  |  |
| <b>ENCL</b>           | OPSB                   | <b>SN</b>   |                 |            |           |           |             |    |  |  |
| <b>BLANK</b>          | IE3-92.6(75%)91.8(50%) |             |                 |            |           |           |             |    |  |  |
|                       | IC01 127KG             |             |                 |            |           |           |             |    |  |  |

**AC Induction Motor Performance Data**

Record # 49907

Typical performance - not guaranteed values

| <b>Winding:</b> 39WGX494-R003 |              | <b>Type:</b> 3956M         |   | <b>Enclosure:</b> OPEN       |           |
|-------------------------------|--------------|----------------------------|---|------------------------------|-----------|
| <b>Nameplate Data</b>         |              |                            | <b>400 V, 50 Hz:<br/>Single Voltage Motor</b> |                              |           |
| <b>Rated Output (HP)</b>      | 20           | <b>Full Load Torque</b>    | 72 LB-FT                                      |                              |           |
| <b>Volts</b>                  | 400          | <b>Start Configuration</b> | direct on line                                |                              |           |
| <b>Full Load Amps</b>         | 28           | <b>Breakdown Torque</b>    | 266 LB-FT                                     |                              |           |
| <b>R.P.M.</b>                 | 1470         | <b>Pull-up Torque</b>      | 111 LB-FT                                     |                              |           |
| <b>Hz</b>                     | 50           | <b>Phase</b>               | 3   | <b>Locked-rotor Torque</b>   | 184 LB-FT |
| <b>NEMA Design Code</b>       | B            | <b>KVA Code</b>            | H   | <b>Starting Current</b>      | 205 A     |
| <b>Service Factor (S.F.)</b>  | 1.15         | <b>No-load Current</b>     | 12.3 A  |                              |           |
| <b>NEMA Nom. Eff.</b>         | 92.1         | <b>Power Factor</b>        | 85  | <b>Line-line Res. @ 25°C</b> | 0.355 Ω   |
| <b>Rating - Duty</b>          | 40C AMB-CONT |                            | <b>Temp. Rise @ Rated Load</b>                | 43°C                         |           |
| <b>S.F. Amps</b>              |              |                            | <b>Temp. Rise @ S.F. Load</b>                 | 53°C                         |           |

**Load Characteristics 400 V, 50 Hz, 20 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>    | 45        | 69        | 79        | 85         | 86         | 87         | 86          |
| <b>Efficiency</b>      | 87.9      | 91.8      | 92.6      | 92.4       | 91.5       | 90.5       | 91.9        |
| <b>Speed</b>           | 1493      | 1486      | 1478      | 1470       | 1460       | 1451       | 1464        |
| <b>Line amperes</b>    | 13.8      | 17.4      | 22.3      | 27.8       | 34.1       | 40.9       | 31.6        |

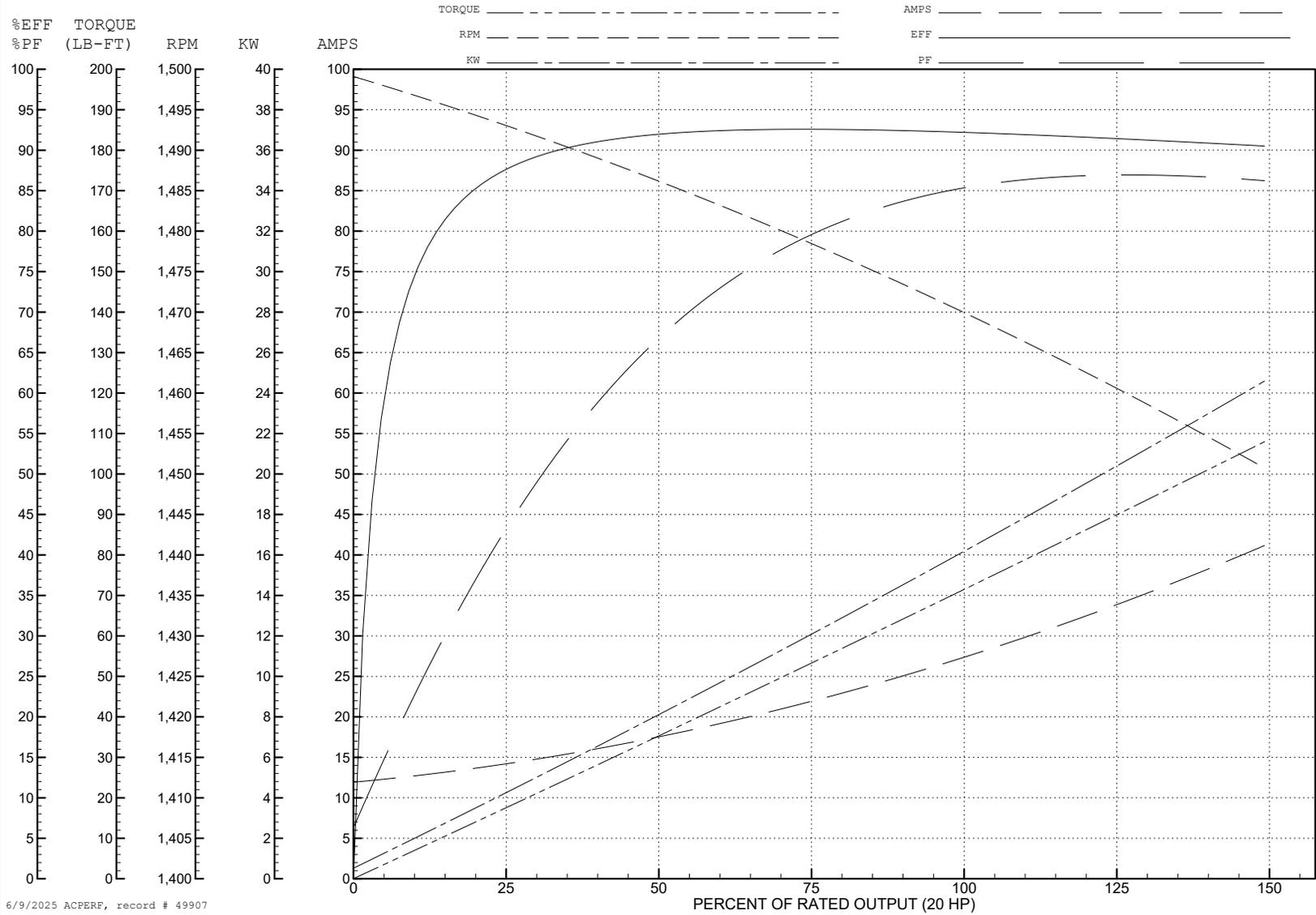
ABB Motors and Mechanical Inc.

WINDING # 39WGX494

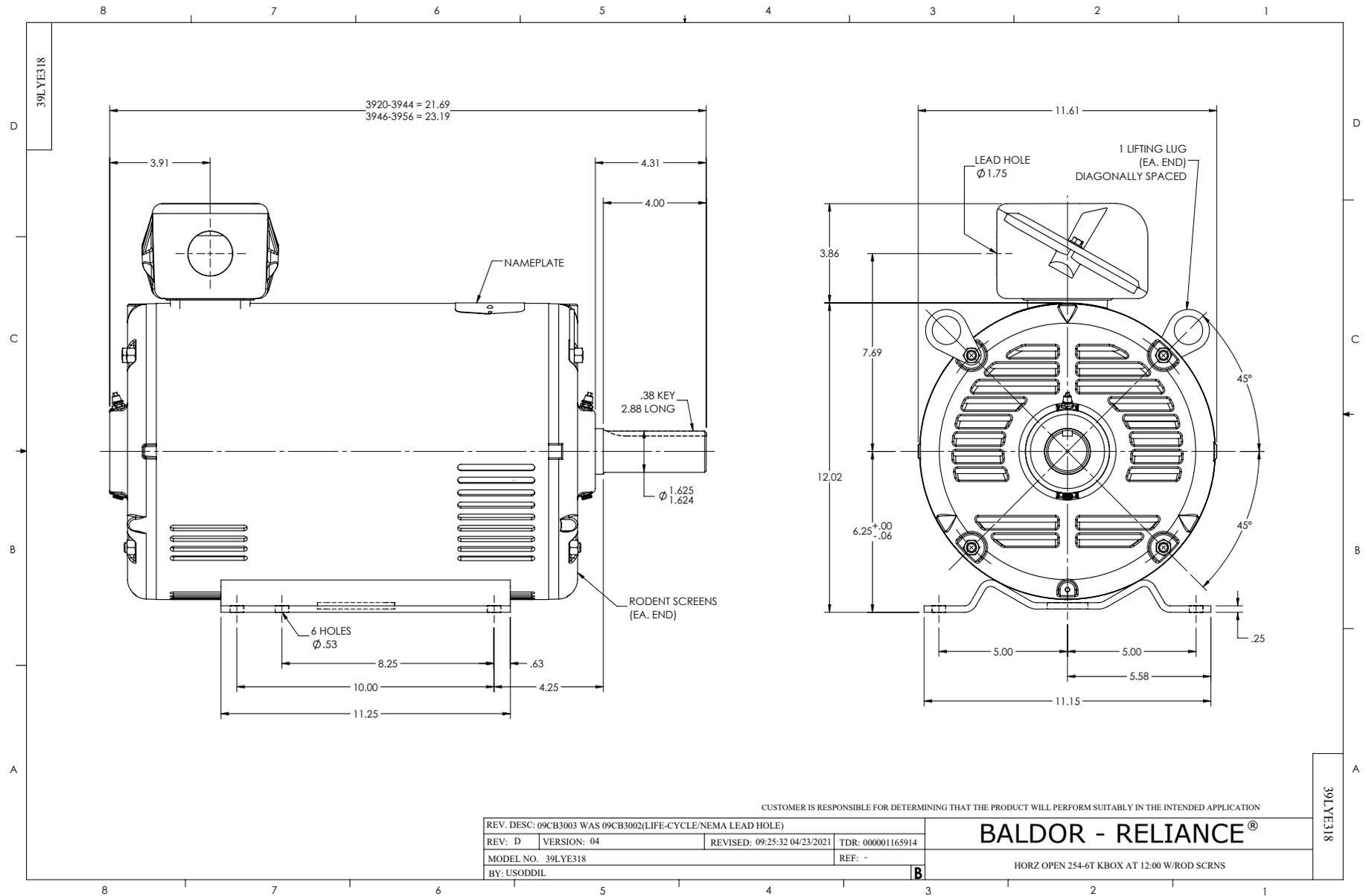
Typical performance - not guaranteed values.

20 HP 3 PH 50 HZ 1470 RPM 400 V 3956M

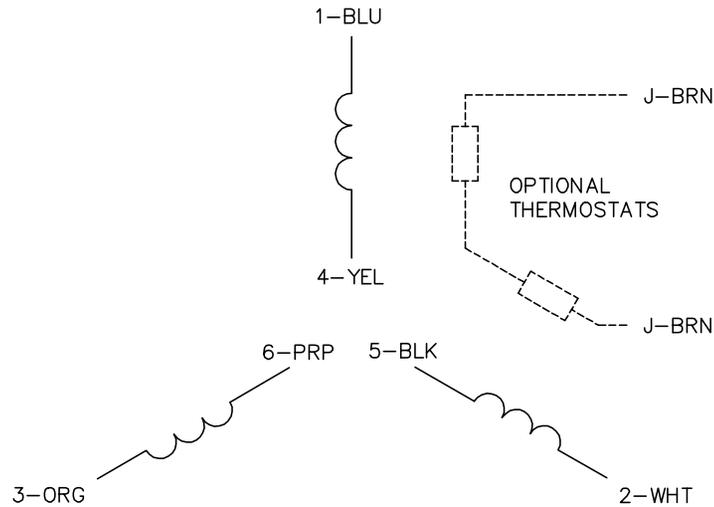
TORQUES (LB-FT): PO=266 PU=111 LR=184 LRA=205



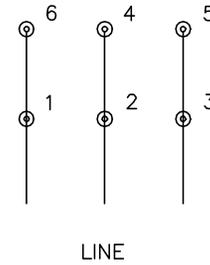
6/9/2025 ACPERF, record # 49907



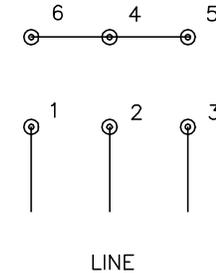
CD0382



RUN CONNECTION (1D)



START CONNECTION (1Y)



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.
5. FOR ACROSS-THE-LINE STARTING, USE 'RUN' CONNECTION.

CD0382

|                                   |                              |                   |
|-----------------------------------|------------------------------|-------------------|
| REV. DESC: ADD CLASS CONN00000007 |                              |                   |
| REV. LTR: F                       | VERSION: 01                  | TDR: 000001099922 |
| FILE: \AAA\00005\243              | REVISED: 09:05:32 02/19/2019 | BY: ENBRIRO       |
| MTL: -                            | © □                          |                   |

**BALDOR - RELIANCE®**

3PH, SV, 6 LEADS, Y START/D RUN

SH 1 of 1