

# ABB BALDOR RELIANCE III

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## Customer information packet

### XEFRPM25154

15HP, 1800, 460V, HL254T, TEFC, F1

**Specifications**

|                               |                         |
|-------------------------------|-------------------------|
| Enclosure                     | TEFC                    |
| Frame                         | HL254T                  |
| Frame Material                | Exposed Laminations     |
| Frequency                     | 60.00 Hz                |
| Output @ Frequency            | 15.000 HP @ 60 HZ       |
| Phase                         | 3                       |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ        |
| Voltage @ Frequency           | 460.0 V @ 60 HZ         |
| Agency Approvals              | CCSA US<br>NEMA PREMIUM |
| Auxiliary Box                 | NO AUXILLARY BOX        |
| Base Indicator                | Rigid                   |
| Bearing Grease Type           | Polyrex EM (-20F +300F) |
| Constant Torque Speed Range   | 1-60                    |
| Current @ Voltage             | 15.000 A @ 460.0 V      |
| Duty Rating                   | CONT                    |
| Feedback Device               | NO FEEDBACK             |
| Frame Prefix                  | HL                      |
| Heater Indicator              | No Heater               |
| High Voltage Full Load Amps   | 15.0 a                  |
| Insulation Class              | H                       |
| KVA Code                      | G                       |
| Motor Standards               | NEMA                    |
| Mounting Arrangement          | F1                      |
| Overall Length                | 23.89 IN                |
| Product Family                | Fan - Centrifugal       |
| Pulley End Bearing Type       | Ball                    |
| Pulley Face Code              | Standard                |
| Service Factor                | 1.15                    |
| Shaft Diameter                | 1.625 IN                |
| Shaft Ground Indicator        | No Shaft Grounding      |
| Shaft Rotation                | Reversible              |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | J          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | LS7016A    |
| Layout       | 619702-001 |
| Eff. date    | 08-05-2026 |
| CD Diagram   | 422927-001 |
| Poles        | 04         |
| Leads        |            |
| Proprietary  | False      |
| Created date | 06-03-2016 |

|                          |                            |
|--------------------------|----------------------------|
| Speed                    | 1800 rpm                   |
| Thermal Device - Bearing | None                       |
| Thermal Device - Winding | Normally Closed Thermostat |

**Nameplate**
**000613007QF**

|                           |             |       |                       |       |               |    |          |              |        |      |      |              |  |   |  |  |
|---------------------------|-------------|-------|-----------------------|-------|---------------|----|----------|--------------|--------|------|------|--------------|--|---|--|--|
|                           | DUTY        | HP    | RPM                   | AMPS  | VOLTS         | HZ |          |              |        |      |      |              |  |   |  |  |
|                           | CONT        | 15    | 1800                  | 15.0  | 460           | 60 |          |              |        |      |      |              |  |   |  |  |
|                           |             |       |                       |       |               |    |          |              |        |      |      |              |  |   |  |  |
| CAT.NO.                   | XEFRPM25154 |       | SPEC. NO.             |       | H25-A000-0001 |    |          |              |        |      |      |              |  |   |  |  |
| SER.NO                    |             |       | FRAME SIZE            |       | HL254T        |    | TYPE PSM |              |        |      |      |              |  |   |  |  |
| AMB.                      | 40          | S.F.  | 1.15                  | ENCL. | TEFC          |    | PH       | 3            | DESIGN | B    | CODE | G            |  |   |  |  |
| NEMA NOM. EFF             | 94.9        |       | GUARANTEED EFFICIENCY |       |               | 94 |          | POWER FACTOR |        | 95.8 |      | INSUL. CLASS |  | H |  |  |
| D.E. BRG.                 | 45BC02J30X  |       | O.D.E. BRG.           |       | 35BC02J30X    |    |          |              |        |      |      |              |  |   |  |  |
| VPWM INVERTER DUTY @1.0SF | CHP HZ      | 60-90 |                       | CT HZ | 1-60          |    | VT HZ    | 0-60         |        |      |      |              |  |   |  |  |
|                           | X/T         |       |                       |       |               |    |          |              |        |      |      |              |  |   |  |  |

000692000VY

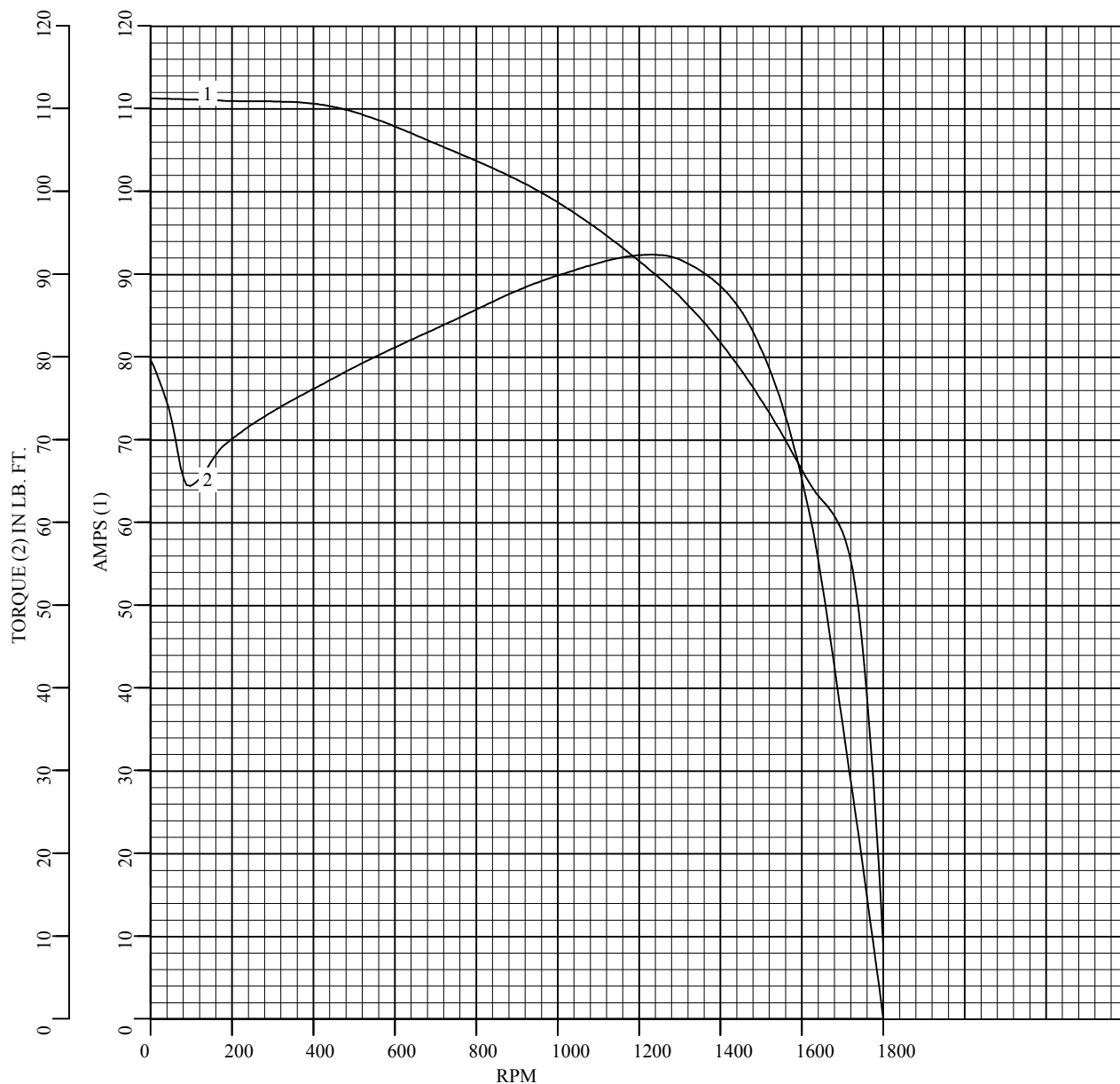
**MEAS OPEN CIRCUIT VOLTAGE**

IS  VOLTS AT  RPM.

| S.O.                                                                                                                                                | FRAME  | HP                                                                                     | TYPE                                                    | PHASE                                                                   | HERTZ           | RPM         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------|-----------------|-------------|
| --                                                                                                                                                  | HL254T | 15                                                                                     | PSM                                                     | 3                                                                       | 60              | 1800        |
| VOLTS                                                                                                                                               | AMPS   | DUTY                                                                                   | AMB <sup>o</sup> C                                      | INSUL                                                                   | S.F.            | NEMA DESIGN |
| 460                                                                                                                                                 | 15.5   | CONT                                                                                   | 40                                                      | H                                                                       | 1.15            | B           |
| CODE LETTER                                                                                                                                         | ENCL   | ROTOR INERTIA<br>(lb-ft <sup>2</sup> )                                                 | STATOR RES. @ 25 <sup>o</sup> C<br>OHMS (BETWEEN LINES) |                                                                         |                 |             |
| G                                                                                                                                                   | TEFC   | .73                                                                                    | .7181                                                   | TYPICAL DATA                                                            |                 |             |
| PERFORMANCE                                                                                                                                         |        |                                                                                        |                                                         |                                                                         |                 |             |
| LOAD                                                                                                                                                | HP     | AMPERES                                                                                | RPM                                                     | %<br>POWER FACTOR                                                       | %<br>EFFICIENCY |             |
| NO LOAD                                                                                                                                             | 0      | 8.7                                                                                    | 1800                                                    | 4.40                                                                    | N/A             |             |
| 1/4                                                                                                                                                 | 3.75   | 7.2                                                                                    | 1800                                                    | 53.9                                                                    | 90.7            |             |
| 2/4                                                                                                                                                 | 7.49   | 8.8                                                                                    | 1800                                                    | 84.5                                                                    | 94.2            |             |
| 3/4                                                                                                                                                 | 11.2   | 11.9                                                                                   | 1800                                                    | 93.3                                                                    | 94.9            |             |
| 4/4                                                                                                                                                 | 15.0   | 15.5                                                                                   | 1800                                                    | 95.8                                                                    | 94.9            |             |
| 5/4                                                                                                                                                 | 18.7   | 19.3                                                                                   | 1800                                                    | 96.3                                                                    | 94.6            |             |
| SPEED TORQUE                                                                                                                                        |        |                                                                                        |                                                         |                                                                         |                 |             |
|                                                                                                                                                     | RPM    | TORQUE<br>(% FULL LOAD)                                                                | TORQUE<br>(lb-ft)                                       | AMPERES                                                                 |                 |             |
| LOCKED ROTOR                                                                                                                                        | 0      | 182                                                                                    | 79.6                                                    | 111.2                                                                   |                 |             |
| PULL OUT                                                                                                                                            | 1800   | 273                                                                                    | 119.4                                                   | 54.6                                                                    |                 |             |
| FULL LOAD                                                                                                                                           | 1800   | 100                                                                                    | 43.8                                                    | 15.5                                                                    |                 |             |
| <p>THIS IS A PERMANENT MAGNET MOTOR</p> <p>GENERATED OPEN CIRCUIT LINE-LINE VOLTAGE at 25<sup>o</sup>C = 19.3 VOLTS PER 100 RPM</p> <p>REMARKS:</p> |        |                                                                                        |                                                         |                                                                         |                 |             |
|                                                                  |        | DR. BY <u>CAD</u><br>CK. BY <u>RFM</u><br>APP. BY <u>RFM</u><br>DATE <u>05/25/2016</u> |                                                         | <b>LSPM MOTOR<br/>PERFORMANCE DATA LS7016A</b><br>ISSUE DATE 05/25/2016 |                 |             |

|       |        |       |      |       |      |                                       |       |
|-------|--------|-------|------|-------|------|---------------------------------------|-------|
| S.O.  | --     | HERTZ | 60   | AMB°C | 40   | CODE LETTER                           | G     |
| FRAME | HL254T | RPM   | 1800 | INSUL | H    | WK <sup>2</sup> (lb-ft <sup>2</sup> ) | .73   |
| HP    | 15     | VOLTS | 460  | S.F.  | 1.15 | NEMA DESIGN                           | B     |
| TYPE  | PSM    | AMPS  | 15.5 | ENCL  | TEFC | STATOR RES. @ 25°C                    | .7181 |
| PHASE | 3      | DUTY  | CONT |       |      | OHMS (BETWEEN LINES)                  |       |

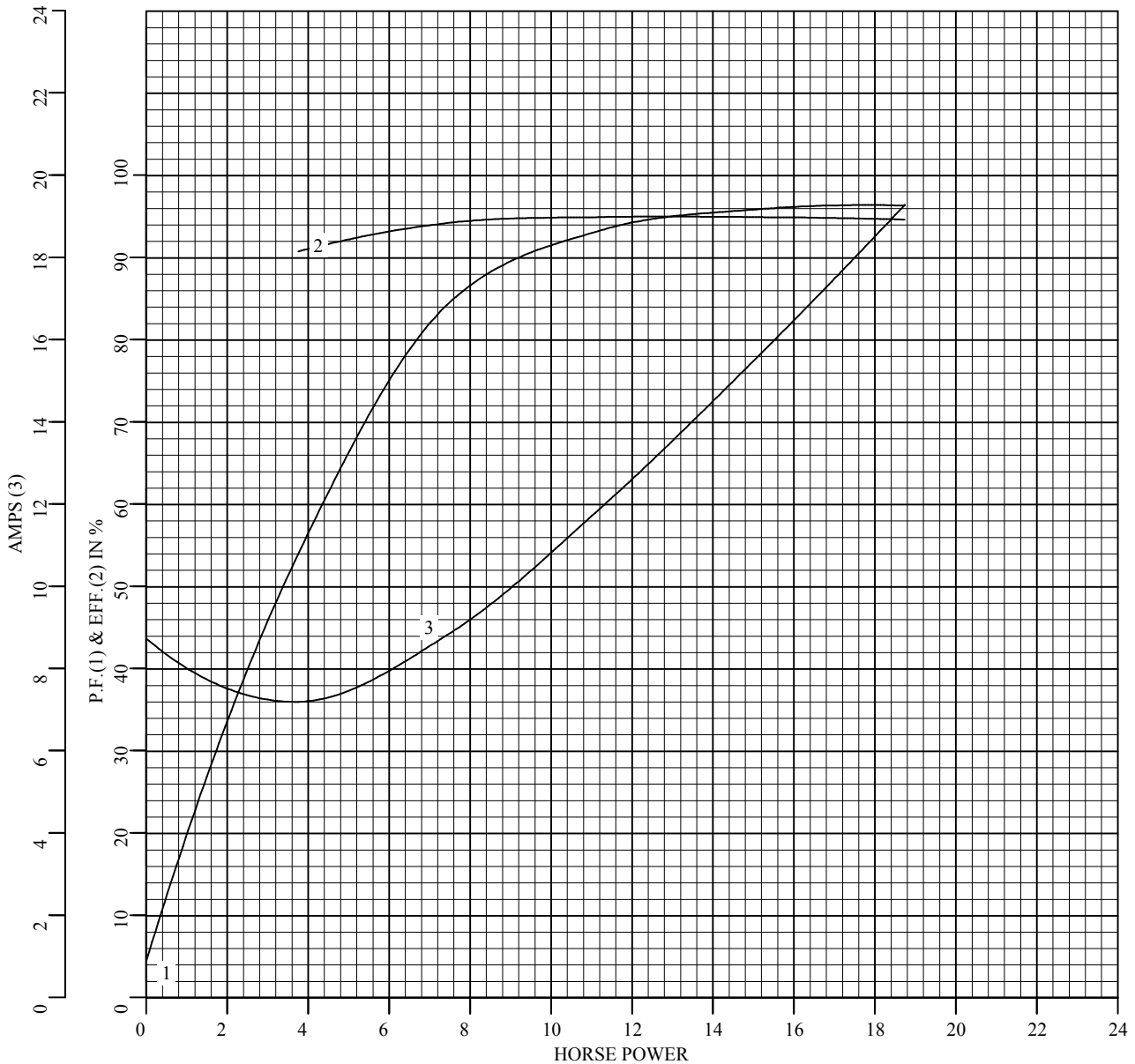
### Amps & Torque vs. RPM During Acceleration



TYPICAL DATA

|       |        |       |      |                    |      |                                       |       |
|-------|--------|-------|------|--------------------|------|---------------------------------------|-------|
| S.O.  | --     | HERTZ | 60   | AMB <sup>o</sup> C | 40   | CODE LETTER                           | G     |
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| TYPE  | PSM    | AMPS  | 15.5 | ENCL               | TEFC | STATOR RES. @ 25 <sup>o</sup> C       | .7181 |
| PHASE | 3      | DUTY  | CONT |                    |      | OHMS (BETWEEN LINES)                  |       |

### Performance Data vs. HP At Synchronous Speed



TYPICAL DATA

**BALDOR**  
A MEMBER OF THE ABB GROUP

DR. BY CAD  
CK. BY RFM  
APP. BY RFM  
DATE 05/25/2016

**LSPM MOTOR  
PERFORMANCE  
CURVES**

**LS7016A**

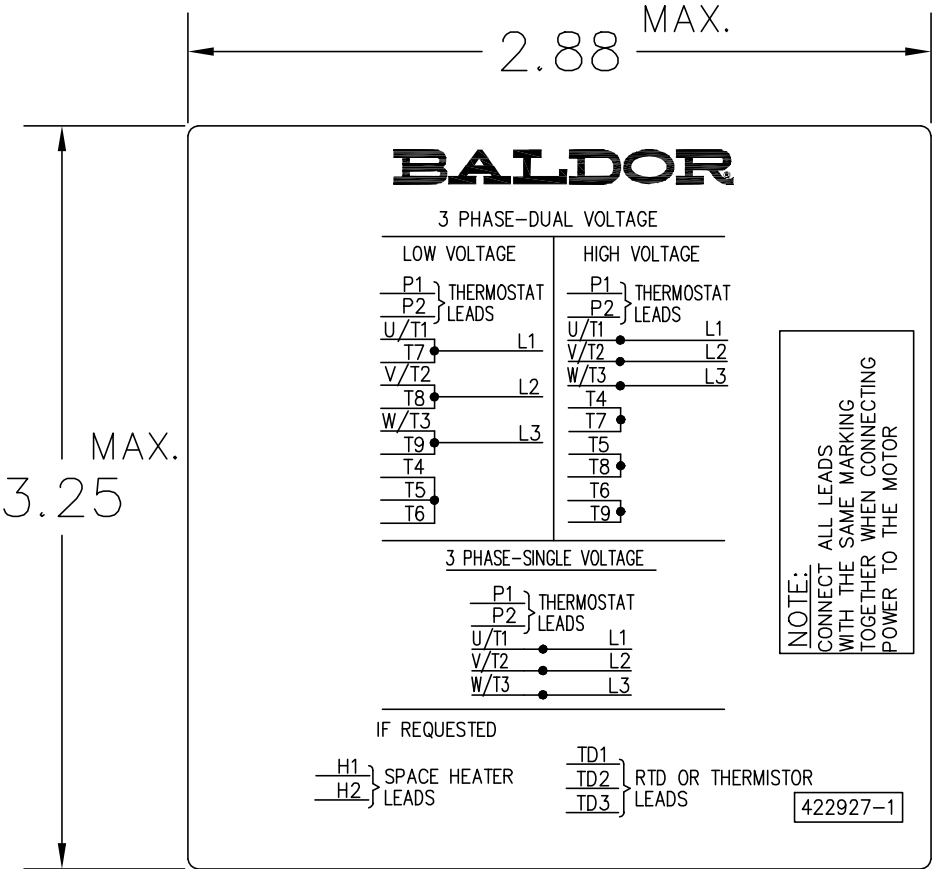
ISSUE DATE

05/25/2016

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NOTE:  
DATA TO BE SIZED  
SO THAT IT FITS INTO  
MATERIAL DECAL  
DIMENSIONS. MAKE  
LETTERS & NUMBERS  
AS LARGE AS POSSIBLE.

MATERIAL: CERAMATIC DGF-P4  
PERMA GRIP ADHESIVE

ALL LETTERS, NUMBERS  
AND LINES TO BE BLACK  
ON WHITE BACKGROUND.

422927-001

|                                                       |                              |                   |
|-------------------------------------------------------|------------------------------|-------------------|
| REV. DESC: CHANGE BACKGROUND COLOR FROM GOLD TO WHITE |                              |                   |
| REV. LTR: B                                           | VERSION: 02                  | TDR: 000000788708 |
| FILE: \RGG\00000\203                                  | REVISED: 08:09:29 03/04/2013 |                   |
| MTL: -                                                | BY: RGGWT                    |                   |

**BALDOR**

EXTERNAL CONNECTION LABEL

SH 1 of 1