

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM2504T**

**5HP,880RPM,3PH,60HZ,254T,3948M,OPSB,F1,N**

| Part Detail |       |             |            |             |        |               |            |
|-------------|-------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | D     | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC    | Elec. Spec: | 39WGX911   | CD Diagram: | CD0005 | Mfg Plant:    |            |
| Mech. Spec: | 39K57 | Layout:     | 39LYK057   | Poles:      | 08     | Created Date: | 04-24-2015 |
| Base:       | RG    | Eff. Date:  | 09-01-2017 | Leads:      | 9#12   |               |            |

| Specs                           |                         |                                |                       |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number:                 | EM2504T                 | Insulation Class:              | F                     |
| Enclosure:                      | OPSB                    | Inverter Code:                 | Not Inverter          |
| Frame:                          | 254T                    | KVA Code:                      | G                     |
| Frame Material:                 | Steel                   | Lifting Lugs:                  | Standard Lifting Lugs |
| Output @ Frequency:             | 5.000 HP @ 60 HZ        | Locked Bearing Indicator:      | No Locked Bearing     |
| Synchronous Speed @ Frequency:  | 900 RPM @ 60 HZ         | Motor Lead Quantity/Wire Size: | 9 @ 12 AWG            |
| Voltage @ Frequency:            | 460.0 V @ 60 HZ         | Motor Lead Exit:               | Ko Box                |
|                                 | 230.0 V @ 60 HZ         | Motor Lead Termination:        | Flying Leads          |
| XP Class and Group:             | None                    | Motor Type:                    | 3948M                 |
| XP Division:                    | Not Applicable          | Mounting Arrangement:          | F1                    |
| Agency Approvals:               | UR                      | Power Factor:                  | 69                    |
|                                 | CSA EEV                 | Product Family:                | General Purpose       |
|                                 | CSA                     | Pulley End Bearing Type:       | Ball                  |
| Auxillary Box:                  | No Auxillary Box        | Pulley Face Code:              | Standard              |
| Auxillary Box Lead Termination: | None                    | Pulley Shaft Indicator:        | Standard              |
| Base Indicator:                 | Rigid                   | Rodent Screen:                 | None                  |
| Bearing Grease Type:            | Polyrex EM (-20F +300F) | RoHS Status:                   | ROHS COMPLIANT        |
| Blower:                         | None                    | Shaft Extension Location:      | Pulley End            |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| <b>Current @ Voltage:</b>             | 15.200 A @ 230.0 V        | <b>Shaft Ground Indicator:</b>     | No Shaft Grounding  |
|                                       | 16.200 A @ 208.0 V        | <b>Shaft Rotation:</b>             | Reversible          |
|                                       | 7.600 A @ 460.0 V         | <b>Shaft Slinger Indicator:</b>    | No Slinger          |
| <b>Design Code:</b>                   | B                         | <b>Speed Code:</b>                 | Single Speed        |
| <b>Drip Cover:</b>                    | No Drip Cover             | <b>Motor Standards:</b>            | NEMA                |
| <b>Duty Rating:</b>                   | CONT                      | <b>Starting Method:</b>            | Direct on line      |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Thermal Device - Bearing:</b>   | None                |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Thermal Device - Winding:</b>   | None                |
| <b>Front Face Code:</b>               | Standard                  | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Winding Thermal 1:</b>          | None                |
| <b>Heater Indicator:</b>              | No Heater                 | <b>Winding Thermal 2:</b>          | None                |

|                          |              |  |             |    |                       |      |  |           |           |   |
|--------------------------|--------------|--|-------------|----|-----------------------|------|--|-----------|-----------|---|
| <b>Nameplate NP1259L</b> |              |  |             |    |                       |      |  |           |           |   |
| <b>CAT.NO.</b>           | EM2504T      |  |             |    |                       |      |  |           |           |   |
| <b>SPEC.</b>             | 39K057X911   |  |             |    |                       |      |  |           |           |   |
| <b>HP</b>                | 5            |  |             |    |                       |      |  |           |           |   |
| <b>VOLTS</b>             | 230/460      |  |             |    |                       |      |  |           |           |   |
| <b>AMP</b>               | 15.2/7.6     |  |             |    |                       |      |  |           |           |   |
| <b>RPM</b>               | 880          |  |             |    |                       |      |  |           |           |   |
| <b>FRAME</b>             | 254T         |  |             |    | <b>HZ</b>             | 60   |  |           | <b>PH</b> | 3 |
| <b>SER.F.</b>            | 1.15         |  | <b>CODE</b> | G  | <b>DES</b>            | B    |  | <b>CL</b> | F         |   |
| <b>NEMA-NOM-EFF</b>      | 88.5         |  | <b>PF</b>   | 69 |                       |      |  |           |           |   |
| <b>RATING</b>            | 40C AMB-CONT |  |             |    |                       |      |  |           |           |   |
| <b>CC</b>                | 010A         |  |             |    | <b>USABLE AT 208V</b> |      |  | 16.2      |           |   |
| <b>DE</b>                | 6309         |  |             |    | <b>ODE</b>            | 6208 |  |           |           |   |
| <b>ENCL</b>              | OPSB         |  | <b>SN</b>   |    |                       |      |  |           |           |   |

| Parts List    |  |          |
|---------------|--|----------|
| Part Number   | Description                              | Quantity |
| SA299592      | SA 39K057X911                            | 1.000 EA |
| RA286620      | RA 39K057X911                            | 1.000 EA |
| HA6361A01     | LIFTING LUG FOR 37, 39 & 40 FRAME ZINC   | 2.000 EA |
| HA6016        | ADAPTER, CAST CONDUIT BOX                | 1.000 EA |
| 09CB3002SP    | CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30 | 1.000 EA |
| 51XW2520A12   | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 EA |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| WD1000B16     | T&B CX70TN TERMINAL                      | 1.000 EA |
| 59XW2520G07   | .25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN  | 1.000 EA |
| 39EP3200A01SP | FR/PU ENDPLATE, MACH                     | 1.000 EA |
| HW5100A08     | W3118-035 WVY WSHR (WB)                  | 1.000 EA |
| 39EP3201A13   | PU ENDPLATE, MACH                        | 1.000 EA |
| XY3816A12     | 3/8-16 FINISHED NUT                      | 8.000 EA |
| 09CB3501SP    | CONDUIT BOX LID FOR 09CB3001 & 09CB3002  | 1.000 EA |
| 51XW2520A12   | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 EA |
| HW2501G25     | KEY, 3/8 SQ X 2.875                      | 1.000 EA |
| LB1115N       | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| HA4051A00     | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW4500A03     | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20     | 1/8NPT SL PIPE PLUG                      | 1.000 EA |
| MJ1000A02     | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.030 LB |
| HA4051A00     | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW4500A03     | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20     | 1/8NPT SL PIPE PLUG                      | 1.000 EA |

| <b>Parts List (continued)</b> |   |                 |
|-------------------------------|---|-----------------|
| <b>Part Number</b>            | <b>Description</b>                      | <b>Quantity</b> |
| MG1000Y03                     | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,     | 0.050 GA        |
| 85XU0407S04                   | 4X1/4 U DRIVE PIN STAINLESS             | 2.000 EA        |
| 39AD2002A01                   | BAFFLE PLATE 39 OPEN, SLOTTED BAND MTRS | 1.000 EA        |
| 39AD2002A01                   | BAFFLE PLATE 39 OPEN, SLOTTED BAND MTRS | 1.000 EA        |
| HA3154A03                     | STUD, 3/8-16 X 17.75                    | 4.000 EA        |
| LB1119N                       | WARNING LABEL                           | 1.000 EA        |
| LC0005                        | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING | 1.000 EA        |
| NP1259L                       | ALUM SUPER-E UL CSA-EEV CC NEMA PREMIUM | 1.000 EA        |
| 39PA1000                      | PACKAGING GROUP 39 PRINT                | 1.000 EA        |
| MN416A01                      | TAG-INSTAL-MAINT no wire (1200/bx) 5/18 | 1.000 EA        |

**AC Induction Motor Performance Data**

Record # 51389 - Typical performance - not guaranteed values

|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 39WGX911-R001 | <b>Type:</b> 3948M | <b>Enclosure:</b> OPSB |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                |
|-----------------------|--------------|--------------|----|--|----------------|
| Rated Output (HP)     | 5            |              |    | Full Load Torque                         | 29.9 LB-FT     |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line |
| Full Load Amps        | 15.2/7.6     |              |    | Breakdown Torque                         | 70.2 LB-FT     |
| R.P.M.                | 880          |              |    | Pull-up Torque                           | 36.6 LB-FT     |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 49.3 LB-FT     |
| NEMA Design Code      | B            | KVA Code     | G  | Starting Current                         | 36.1 A         |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 4.17 A         |
| NEMA Nom. Eff.        | 88.5         | Power Factor | 69 | Line-line Res. @ 25°C                    | 2.2504 Ω       |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 19°C           |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 23°C           |

Load Characteristics 460 V, 60 Hz, 5 HP

| % of Rated Load | 25    | 50    | 75    | 100   | 125   | 150   | S.F. |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| Power Factor    | 32    | 51    | 62    | 69    | 72    | 73    | 71   |
| Efficiency      | 83.2  | 88.8  | 89.8  | 89.6  | 88.8  | 87.2  | 89.1 |
| Speed           | 894.8 | 890.3 | 885.6 | 880.9 | 875.7 | 867.8 | 878  |
| Line amperes    | 4.52  | 5.27  | 6.34  | 7.64  | 9.16  | 10.9  | 8.55 |

Performance Graph at 460V, 60Hz, 5.0HP Typical performance - Not guaranteed values

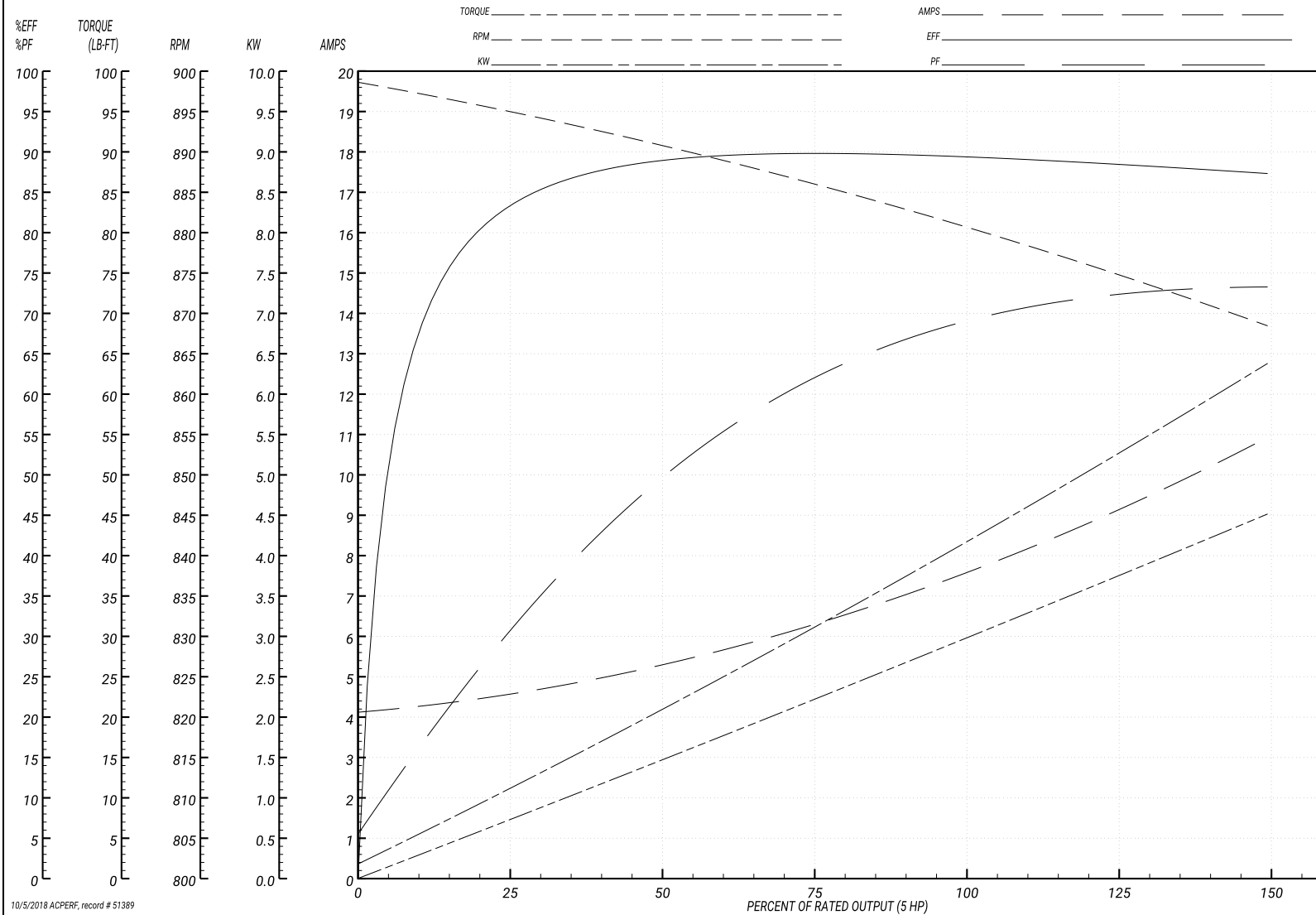
**BALDOR ELECTRIC COMPANY**

WINDING # 39WGX911

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 880 RPM 460 V 3948M

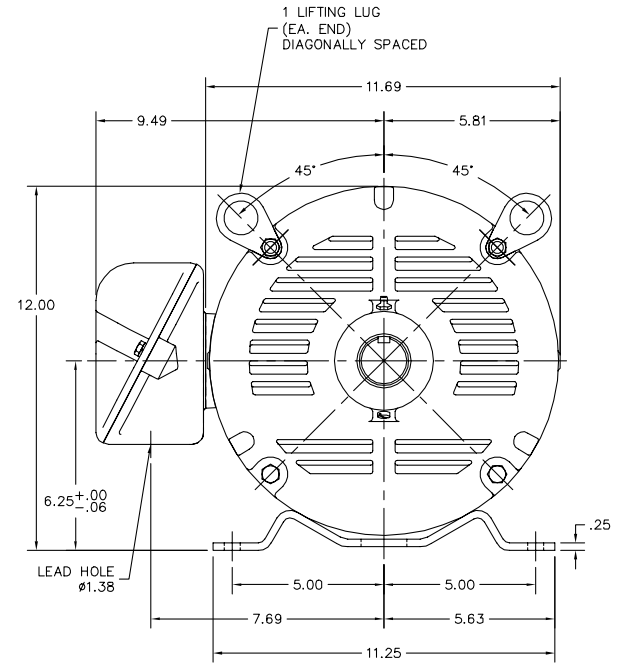
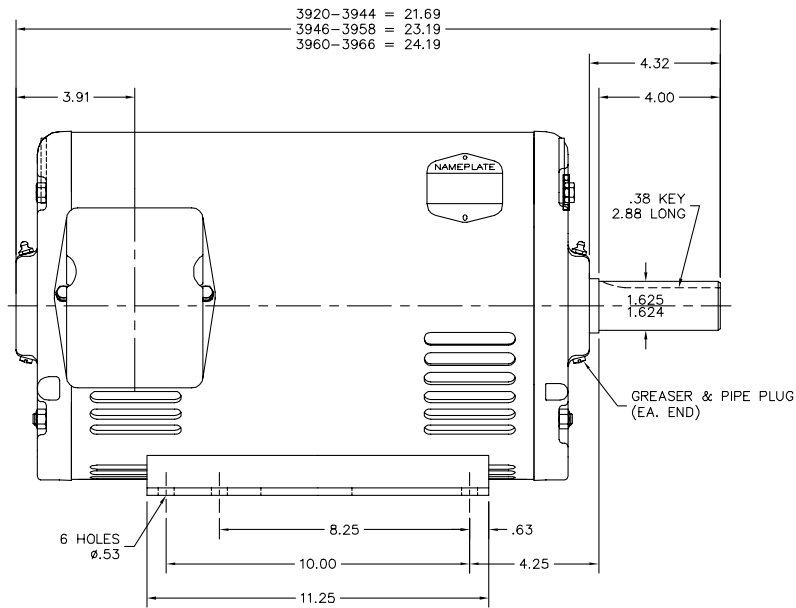
TORQUES(LB-FT): PO=70.2 PU=36.6 LR=49.3 LRA=36.1



10/5/2018 ACPERF, record # 51389



39LYK057



39LYK057

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

|                                |                              |                   |
|--------------------------------|------------------------------|-------------------|
| REV. DESC: UPDATED DESCRIPTION |                              |                   |
| REV. LTR: H                    | VERSION: 06                  | TDR: 000000B55568 |
| FILE: \AAA\00049\866           | REVISED: 03:22:41 05/28/2014 | BY: ENNINDO       |
| MTL: -                         |                              |                   |

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 HORZ OPSB 254-6T SUPER-E  
 SH 1 of 1

CD0005

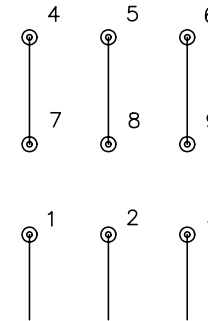


LOW VOLTAGE  
(2Y)



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.

|   |         |                         |              |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 9000D                                     |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005

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