

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECP3771T

10HP, 3500RPM, 3PH, 60HZ, 215T, 0742M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                           |
| <b>Frame</b>                          | 215T                                                           |
| <b>Frame Material</b>                 | Iron                                                           |
| <b>Frequency</b>                      | 60.00 Hz                                                       |
| <b>Haz Area Class and Group</b>       | CLI GP A,B,C,D                                                 |
| <b>Haz Area Division</b>              | Division II                                                    |
| <b>Motor Letter Type</b>              | Three Phase                                                    |
| <b>Output @ Frequency</b>             | 10.000 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                              |
| <b>Synchronous Speed @ Frequency</b>  | 3600 RPM @ 60 HZ                                               |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                             |
| <b>Agency Approvals</b>               | CCSA US<br>CSA EEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR       |
| <b>Ambient Temperature</b>            | 40 °C                                                          |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                                               |
| <b>Auxiliary Box Lead Termination</b> | None                                                           |
| <b>Base Indicator</b>                 | Rigid                                                          |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                        |
| <b>Blower</b>                         | None                                                           |
| <b>Constant Torque Speed Range</b>    | 6                                                              |
| <b>Current @ Voltage</b>              | 24.500 A @ 208.0 V<br>22.000 A @ 230.0 V<br>11.000 A @ 460.0 V |
| <b>Design Code</b>                    | B                                                              |
| <b>Drip Cover</b>                     | No Drip Cover                                                  |
| <b>Duty Rating</b>                    | CONT                                                           |
| <b>Efficiency @ 100% Load</b>         | 92.4 %                                                         |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                      |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | X          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 07K374     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 07WGY012   |
| <b>Layout</b>       | 07LYK374   |
| <b>Eff. date</b>    | 06-25-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 9#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 11-29-2011 |

| Enclosure Modification        | Severe Duty Features         |
|-------------------------------|------------------------------|
| Feedback Device               | NO FEEDBACK                  |
| Front Face Code               | Standard                     |
| Front Shaft Indicator         | None                         |
| Haz Area Temp Code            | T3C                          |
| Heater Indicator              | No Heater                    |
| High Voltage Full Load Amps   | 11.0 a                       |
| Insulation Class              | F                            |
| Inverter Code                 | Inverter Duty                |
| KVA Code                      | H                            |
| Lifting Lugs                  | Standard Lifting Lugs        |
| Locked Bearing Indicator      | No Locked Bearing            |
| Max Speed                     | 5400 rpm                     |
| Motor Lead Exit               | Ko Box                       |
| Motor Lead Quantity/Wire Size | 9 @ 14 AWG                   |
| Motor Lead Termination        | Flying Leads                 |
| Motor Standards               | NEMA                         |
| Motor Type                    | 0742M                        |
| Mounting Arrangement          | F1                           |
| Number of Poles               | 2                            |
| Overall Length                | 19.50 IN                     |
| Power Factor                  | 90                           |
| Product Family                | Chemical Processing (Not DC) |
| Pulley End Bearing Type       | Ball                         |
| Pulley Face Code              | Standard                     |
| Pulley Shaft Indicator        | Standard                     |
| Rodent Screen                 | None                         |
| Service Factor                | 1.15                         |
| Shaft Diameter                | 1.375 IN                     |
| Shaft Extension Location      | Pulley End                   |
| Shaft Ground Indicator        | No Shaft Grounding           |
| Shaft Rotation                | Reversible                   |
| Shaft Slinger Indicator       | Shaft Slinger                |
| Speed                         | 3500 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**

| NP3257       |              |      |      |      |    |    |   |  |  |
|--------------|--------------|------|------|------|----|----|---|--|--|
| CAT.NO.      | ECP3771T     |      |      |      |    |    |   |  |  |
| SPEC.        | 07K374Y012G1 |      |      |      |    |    |   |  |  |
| HP           | 10 TE        |      |      |      |    |    |   |  |  |
| VOLTS        | 230/460      |      |      |      |    |    |   |  |  |
| AMP          | 22/11        |      |      |      |    |    |   |  |  |
| RPM          | 3500         |      |      |      |    |    |   |  |  |
| FRAME        | 215T         | HZ   |      | 60   | PH |    | 3 |  |  |
| SER.F.       | 1.15         | CODE | H    | DES  | B  | CL | F |  |  |
| RATING       | 40C AMB-CONT |      |      |      |    |    |   |  |  |
| SN           |              |      |      |      |    |    |   |  |  |
| DE           | 6307         | ODE  |      | 6307 |    |    |   |  |  |
| NEMA-NOM-EFF | 92.4         | PF   |      | 90   |    |    |   |  |  |
| G.MIN.EFF    | 91.0         | CC   | 010A |      |    |    |   |  |  |
| T. CODE      | T3C          | T=   | 160  |      |    |    |   |  |  |

| NP3260      |              |                         |     |
|-------------|--------------|-------------------------|-----|
| SPEC.       | 07K374Y012G1 |                         |     |
| D.E. BRG.   | 35BC03XP30X  |                         |     |
| O.D.E. BRG. | 35BC03XP30X  |                         |     |
| GREASE      | POLYREX EM   |                         |     |
| RPM MAX     | 5400         | MAX. KVAR               | N/A |
| BLANK       |              |                         |     |
| INV.TYPE    | PWM          |                         |     |
| T=          | 160          |                         |     |
| C HP FR     | 60           | C HP TO                 | 90  |
| CT HZ FROM  | 6            | CT HZ TO                | 60  |
| VT HZ FROM  | 3            | VT HZ TO                | 60  |
| HTR-VOLTS   |              | HTR-AMPS                |     |
| HTR-WATTS   |              | MAX. SPACE HEATER TEMP. |     |

**AC Induction Motor Performance Data**

Record # 47063

Typical performance - not guaranteed values

| Winding: 07WGY012-R046 |    |         | Type: 0742M                              |                     | Enclosure: TEFC         |                       |        |         |
|------------------------|----|---------|------------------------------------------|---------------------|-------------------------|-----------------------|--------|---------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |                       |        |         |
| Rated Output (HP)      |    | 10      | Full Load Torque                         |                     | 14.9 LB-FT              |                       |        |         |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line          |                       |        |         |
| Full Load Amps         |    | 22/11   | Breakdown Torque                         |                     | 70.8 LB-FT              |                       |        |         |
| R.P.M.                 |    | 3500    | Pull-up Torque                           |                     | 24.2 LB-FT              |                       |        |         |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                         | 32.6 LB-FT            |        |         |
| NEMA Design Code       |    | B       | KVA Code                                 | H                   | Starting Current        |                       | 88.5 A |         |
| Service Factor (S.F.)  |    | 1.15    | No-load Current                          |                     | 3.61 A                  |                       |        |         |
| NEMA Nom. Eff.         |    | 92.4    | Power Factor                             |                     | 90                      | Line-line Res. @ 25°C |        | 0.776 Ω |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |                       | 40°C   |         |
| S.F. Amps              |    |         | Temp. Rise @ S.F. Load                   |                     | 51°C                    |                       |        |         |
|                        |    |         | Rotor inertia                            |                     | 0.383 LB-FT2            |                       |        |         |

**Load Characteristics 460 V, 60 Hz, 10 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 58     | 79     | 88     | 90     | 92     | 91     | 91   |
| Efficiency      | 90.1   | 93     | 93.2   | 92.5   | 91.4   | 90     | 91.8 |
| Speed           | 3578.4 | 3554.5 | 3528.7 | 3503.4 | 3473.7 | 3440.8 | 3486 |
| Line amperes    | 4.43   | 6.32   | 8.64   | 11.1   | 13.9   | 17.1   | 12.8 |

ABB Motors and Mechanical Inc.

WINDING # 07WGY012

Typical performance - not guaranteed values.

10 HP 3 PH 60 HZ 3500 RPM 460 V 0742M

TORQUES (LB-FT) : PO=70.8 PU=24.2 LR=32.6 LRA=88.5





