

# ABB BALDOR RELIANCE III

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## Customer information packet

### ZDNM3661T

3HP, 1760RPM, 3PH, 60HZ, 184TC, 0632M, TENV, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                        |
|---------------------------------------|----------------------------------------|
| <b>Enclosure</b>                      | TENV                                   |
| <b>Frame</b>                          | 184TC                                  |
| <b>Frame Material</b>                 | Iron                                   |
| <b>Frequency</b>                      | 60.00 Hz                               |
| <b>Haz Area Class and Group</b>       | None                                   |
| <b>Haz Area Division</b>              | Not Applicable                         |
| <b>Motor Letter Type</b>              | Three Phase                            |
| <b>Output @ Frequency</b>             | 3.000 HP @ 60 HZ                       |
| <b>Phase</b>                          | 3                                      |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                       |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ     |
| <b>Agency Approvals</b>               | UR<br>CSA                              |
| <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>Current @ Voltage</b>              | 4.200 A @ 460.0 V<br>8.400 A @ 230.0 V |
| <b>Design Code</b>                    | B                                      |
| <b>Drip Cover</b>                     | No Drip Cover                          |
| <b>Duty Rating</b>                    | CONT                                   |
| <b>Efficiency @ 100% Load</b>         | 88.5 %                                 |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated              |
| <b>Feedback Device</b>                | ENCODER                                |
| <b>Front Face Code</b>                | Encoder/Feedback Device                |
| <b>Front Shaft Indicator</b>          | None                                   |
| <b>Heater Indicator</b>               | No Heater                              |
| <b>High Voltage Full Load Amps</b>    | 4.2 a                                  |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | L          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 06F550     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 06WGX388   |
| <b>Layout</b>       | 06LYF550   |
| <b>Eff. date</b>    | 06-05-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 07-30-2012 |

|                               |                            |
|-------------------------------|----------------------------|
| Insulation Class              | H                          |
| Inverter Code                 | Inverter Duty              |
| KVA Code                      | K                          |
| Lifting Lugs                  | Standard Lifting Lugs      |
| Locked Bearing Indicator      | Locked Bearing             |
| Max Speed                     | 6000 rpm                   |
| Motor Lead Exit               | Ko Box                     |
| Motor Lead Quantity/Wire Size | 9 @ 16 AWG                 |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 0632M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 4                          |
| Overall Length                | 17.21 IN                   |
| Power Factor                  | 76                         |
| Product Family                | General Purpose            |
| Pulley End Bearing Type       | Ball                       |
| Pulley Face Code              | C-Face                     |
| Pulley Shaft Indicator        | Standard                   |
| Rodent Screen                 | None                       |
| Service Factor                | 1.00                       |
| Shaft Diameter                | 1.125 IN                   |
| Shaft Extension Location      | Pulley End                 |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Shaft Slinger Indicator       | No Slinger                 |
| Speed                         | 1755 rpm                   |
| Speed Code                    | Single Speed               |
| Starting Method               | Direct on line             |
| Thermal Device - Bearing      | None                       |
| Thermal Device - Winding      | Normally Closed Thermostat |
| Vibration Sensor Indicator    | No Vibration Sensor        |
| Winding Thermal 1             | None                       |
| Winding Thermal 2             | None                       |

**Nameplate**

| NP4539L        |              |    |      |            |      |       |      |         |  |
|----------------|--------------|----|------|------------|------|-------|------|---------|--|
| CAT.NO.        | ZDNM3661T    |    |      |            |      |       |      |         |  |
| SPEC.          | 06F550X388Z1 |    |      |            |      |       |      |         |  |
| FRAME          | 184TC        |    |      | H.P.       | 3 TE |       |      |         |  |
| VOLTS          | 230/460      |    |      |            |      |       |      |         |  |
| MAG. CUR.      | 4.6/2.3      |    |      | F.L. AMPS  |      |       |      | 8.4/4.2 |  |
| R.P.M.         | 1755         |    |      | R.P.M. MAX |      |       | 6000 |         |  |
| HZ.            | 60           |    | PH.  | 3          |      | CLASS |      | H       |  |
| SER.F.         | 1.00         |    | DES. | B          |      | SL HZ |      | 1.5     |  |
| NEMA NOM. EFF. | 88.5         |    | WK2  | 0.3        |      |       |      |         |  |
| BLWR V         |              | PH |      | HZ         |      | AMPS  |      |         |  |
| RATING         | 40C AMB-CONT |    |      |            |      |       |      |         |  |
| DE             | 6206         |    | ODE  | 6205       |      |       |      |         |  |
| CC             | 010A         |    | SN   |            |      |       |      |         |  |
|                | 1000:1 CT/VT |    |      |            |      |       |      |         |  |



**AC Induction Motor Performance Data**  
 Record # 39733  
 Typical performance - not guaranteed values

|                          |                    |                        |
|--------------------------|--------------------|------------------------|
| <b>Winding:</b> 06WGX388 | <b>Type:</b> 0632M | <b>Enclosure:</b> TENV |
|--------------------------|--------------------|------------------------|

| Nameplate Data    |              |          |    | General Characteristics at 460 V, 60 Hz:<br>High Volt Connection |             |
|-------------------|--------------|----------|----|------------------------------------------------------------------|-------------|
| Rated Output (HP) | 3            |          |    | Full Load Torque                                                 | 8.94 LB-FT  |
| Volts             | 230/460      |          |    | Start Configuration                                              | DOL         |
| Full Load Amps    | 8.4/4.2      |          |    | Break Down Torque                                                | 32.8 LB-FT  |
| R.P.M.            | 1755         |          |    | Pull-Up Torque                                                   | 19.4 LB-FT  |
| Hz                | 60           | Phase    | 3  | Locked-rotor Torque                                              | 21.8 LB-FT  |
| NEMA Design Code  | B            | KVA Code | K  | Starting Current                                                 | 31.5 Amps   |
| Service Factor    | 1            |          |    | No-load Current                                                  | 2.32 Amps   |
| NEMA Nom. Eff.    | 88.5         | P.F.     | 76 | Line-line Res. @ 25°C.                                           | 4.2584 Ohms |
| Rating - Duty     | 40C AMB-CONT |          |    | Temp. Rise @ Rated Load                                          | 74°C        |
| S.F. Amps         |              |          |    | Temp. Rise @ S.F. Load                                           |             |

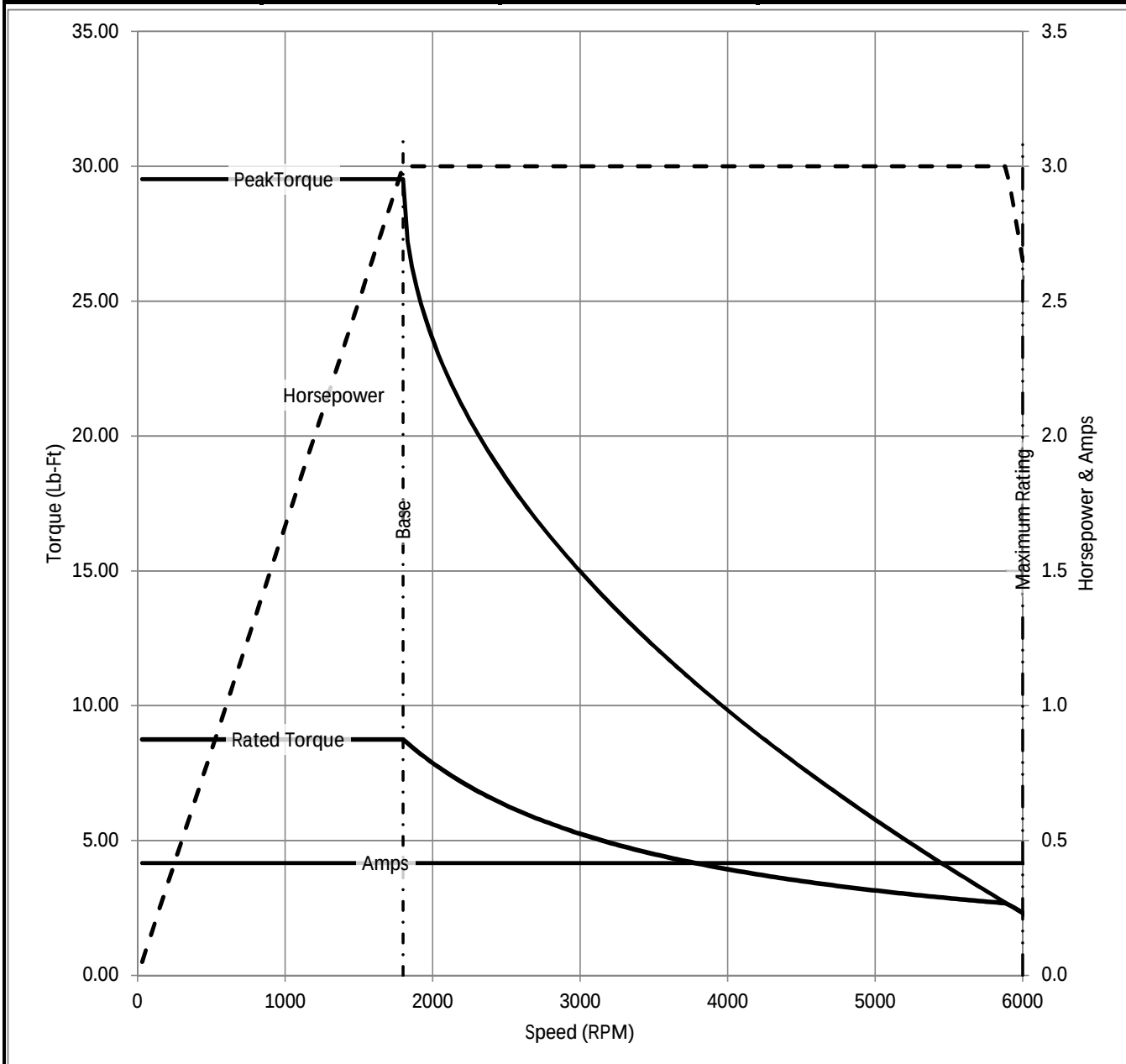
Load Characteristics at 460 Volts, 60 Hz, 3 HP

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 34     | 55     | 68     | 76     | 80     | 84     |      |
| Efficiency      | 81.5   | 87.7   | 89     | 88.8   | 88     | 86.8   |      |
| Speed           | 1789.5 | 1779.4 | 1768.6 | 1756.8 | 1744.3 | 1730.6 |      |
| Line Amperes    | 2.49   | 2.89   | 3.47   | 4.16   | 4.92   | 5.79   |      |

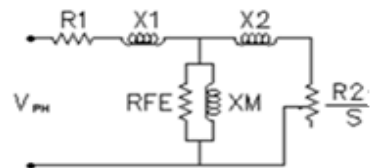
Baldor Electric Company Fort Smith, Arkansas



|            |           |                          |         |                                       |       |                                                   |       |    |         |
|------------|-----------|--------------------------|---------|---------------------------------------|-------|---------------------------------------------------|-------|----|---------|
| Catalog    | ZDNM3661T | NP VOLTS                 | 230/460 | ENCLOSURE                             | TENV  | WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C) |       |    |         |
| FRAME      | 184TC     | NP AMPS                  | 8.4/4.2 | Base Volts                            | 460   | R1                                                | 2.110 | X1 | 5.101   |
| HP         | 3 HP      | DUTY                     | Cont    | Base AMPS                             | 4.16  | R2                                                | 1.290 | X2 | 4.266   |
| BASE SPEED | 1800      | MAX SAFE RPM             | 6000    | Slip Hz                               | 1.43  |                                                   |       | XM | 108.947 |
| PHASE/HZ   | 3/60      | AMB <sup>0</sup> C/INSUL | 40/H    | WK <sup>2</sup> (lb-ft <sup>2</sup> ) | 0.298 |                                                   |       |    |         |



Remarks: Calculated Data


**BALDOR**  
A MEMBER OF THE ABB GROUP

DR BY ENR  
CK BY  
APP BY ENR  
DATE 2/27/2013

A-C MOTOR  
PERFORMANCE CURVES

**06F550X388Z1**

ISSUE DATE 2/27/2013

