# PRODUCT INFORMATION PACKET



Model No: TCA3151A3111GACD01 Catalog No: TCA3151A3111GACD01 TerraMAX® Cast Iron Motor, 425 HP, 3 Ph, 50 Hz, 415 V, 355L Frame



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# Nameplate Specifications

| Phase                  | e 3 Output HP |                            | 425 Hp                      |  |  |
|------------------------|---------------|----------------------------|-----------------------------|--|--|
| Output KW              | 315.0 kW      | Voltage                    | 415 V                       |  |  |
| Speed                  | 2985 r/min    | Service Factor             | 1                           |  |  |
| Frame                  | 355L          | Enclosure                  | Totally Enclosed Fan Cooled |  |  |
| Thermal Protection     | No Protection | Efficiency                 | 95.8 %                      |  |  |
| Ambient Temperature    | 50 °C         | Frequency                  | 50 Hz                       |  |  |
| Current                | 514.0 A       | Power Factor               | 0.89                        |  |  |
| Duty                   | S1            | Insulation Class           | F                           |  |  |
| Drive End Bearing Size | 6317          | Opp Drive End Bearing Size | 6317                        |  |  |
| UL                     | No            | CSA                        | No                          |  |  |
| CE                     | Yes           | IP Code                    | 55                          |  |  |
| Number of Speeds       | 1             | Efficiency Class           | IE3                         |  |  |

# **Technical Specifications**

| Electrical Type       | Squirrel Cage | Starting Method       | Direct On Line |
|-----------------------|---------------|-----------------------|----------------|
| Poles                 | 2             | Rotation              | Bi-Directional |
| Mounting              | В3            | Motor Orientation     | Horizontal     |
| Drive End Bearing     | С3            | Opp Drive End Bearing | С3             |
| Frame Material        | Cast Iron     | Shaft Type            | Keyed          |
| Overall Length        | 1512 mm       | Frame Length          | 1010 mm        |
| Shaft Diameter        | 75 mm         | Shaft Extension       | 140 mm         |
| Assembly/Box Mounting | Тор           |                       |                |
| Connection Drawing    | 8442000085    | Outline Drawing       | 0235501824     |

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| DRAWING REVISION | REVISION BY | DATE       |
|------------------|-------------|------------|
| Α                | SN          | 13/01/2017 |
| ECO              | APPROVED BY | DATE       |
| ECO-0116390      | SBD         | 13/01/2017 |
| ECO DESCRIPTION  |             |            |

#### **NEW DRAWING RELEASE**

| GEOMENTRIC TOLERANCE |         |      |  |  |  |  |  |  |  |
|----------------------|---------|------|--|--|--|--|--|--|--|
|                      | >0~6    | ±0.1 |  |  |  |  |  |  |  |
| LINEAR DIM           | >6~30   | ±0.2 |  |  |  |  |  |  |  |
|                      | >30~120 | ±0.3 |  |  |  |  |  |  |  |



### NOTES:

- 1.
- 2.
- PRESSURE-SENSITIVE ADHESIVE COATED PAPER ON THE BACK OF SELF-ADHESIVE. AT THE END OF YELLOW, WORDS, SYMBOLS, LETTERS ARE BLACK, BORDER IS BLACK. THE TOLERANCE OF THE LINEAR SIZE OF THE TOLERANCE WITHOUT THE TOLERANCE 3. BY THE TABLE.

8WD.442.2017



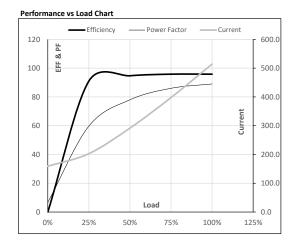




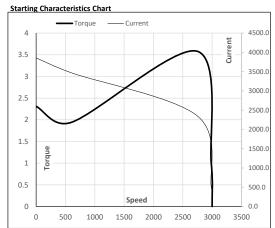
## Model No. TCA3151A3111GACD01

| Enclosure | U   | Δ/Υ  | f    | Р    | Р     | ı     | n     | Т      | Т       | IE    | Amb  | Duty | Elevation | Inertia              | Weight |
|-----------|-----|------|------|------|-------|-------|-------|--------|---------|-------|------|------|-----------|----------------------|--------|
|           | (V) | Conn | [Hz] | [kW] | [hp]  | [A]   | [RPM] | [kgm]  | [Nm]    | Class | [°C] |      | [m]       | [kg-m <sup>2</sup> ] | [kg]   |
| TEFC      | 415 | Δ    | 50   | 315  | 425.0 | 514.0 | 2985  | 103.39 | 1013.95 | IE3   | 50   | S1   | 1000      | 4.7428               | 1865.6 |
|           |     |      |      |      |       |       |       |        |         |       |      |      |           |                      |        |

| Motor Load D | ata   |       |       |       |       |        |       |
|--------------|-------|-------|-------|-------|-------|--------|-------|
| Load Point   |       | NL    | 1/4FL | 1/2FL | 3/4FL | FL     | 5/4FL |
| Current      | Α     | 159.0 | 202.9 | 291.6 | 397.7 | 514.0  |       |
| Torque       | Nm    | 0.0   | 252.5 | 505.7 | 759.5 | 1013.9 |       |
| Speed        | r/min | 3000  | 2996  | 2993  | 2989  | 2985   |       |
| Efficiency   | %     | 0.0   | 91.0  | 94.7  | 95.8  | 95.8   |       |
| Power Factor | %     | 6.6   | 59.7  | 78.0  | 86.0  | 89.0   |       |



Motor Speed Torque Data LR P-Up BD Rated NL Load Point 0 600 2746 2985 3000 Speed r/min Α Current 3855.0 3469.5 2353.1 514.0 159.0 Torque pu



NOTE Refer data sheet for applicable standard and tolerances on performance parameters

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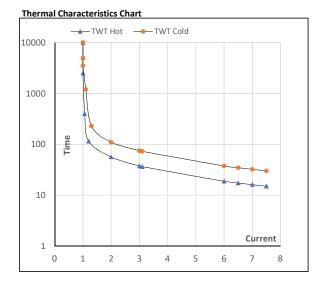




#### Model No. TCA3151A3111GACD01

| Enclosure | U   | Δ/Υ  | f    | Р    | Р    | I     | n     | Т      | Т       | IE    | Amb  | Duty | Elevation | Inertia | Weight |
|-----------|-----|------|------|------|------|-------|-------|--------|---------|-------|------|------|-----------|---------|--------|
|           | (V) | Conn | [Hz] | [kW] | [hp] | [A]   | [rpm] | [kgm]  | [Nm]    | Class | [°C] |      | [m]       | [kg-m²] | [kg]   |
| TEFC      | 415 | Δ    | 50   | 315  | 425  | 514.0 | 2985  | 103.32 | 1013.95 | IE3   | 50   | S1   | 1000      | 4.7428  | 1866   |

#### Motor Speed Torque Data LR Load FL 15 TWT Hot s 10000 30 25 TWT Cold s 10000 110 75 60 45 40 30 Current 3 5.5 7.5 pu



**NOTE** Refer data sheet for applicable standard and tolerances on performance parameters

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