



## Product Information Packet

# EM4104T

30HP,1760RPM,3PH,60HZ,286T,1056M,TEFC,F1

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | AG     | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 10WGY538   | CD Diagram: | CD0180 | Mfg Plant:    |            |
| Mech. Spec: | 10C151 | Layout:     | 10LYC151   | Poles:      | 04     | Created Date: | 05-17-2010 |
| Base:       | RG     | Eff. Date:  | 02-18-2022 | Leads:      | 9#8    |               |            |

| Specs                           |                         |                                |                       |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number:                 | EM4104T                 | Heater Indicator:              | No Heater             |
| Enclosure:                      | TEFC                    | Insulation Class:              | F                     |
| Frame:                          | 286T                    | Inverter Code:                 | Inverter Ready        |
| Frame Material:                 | Iron                    | IP Rating:                     | NONE                  |
| Motor Letter Type:              | Three Phase             | KVA Code:                      | J                     |
| Output @ Frequency:             | 30.000 HP @ 60 HZ       | Lifting Lugs:                  | Standard Lifting Lugs |
| Synchronous Speed @ Frequency:  | 1800 RPM @ 60 HZ        | Locked Bearing Indicator:      | Locked Bearing        |
| Voltage @ Frequency:            | 230.0 V @ 60 HZ         | Motor Lead Quantity/Wire Size: | 9 @ 8 AWG             |
|                                 | 460.0 V @ 60 HZ         | Motor Lead Exit:               | Ko Box                |
| XP Class and Group:             | None                    | Motor Lead Termination:        | Flying Leads          |
| XP Division:                    | Not Applicable          | Motor Type:                    | 1056M                 |
| Agency Approvals:               | CSA                     | Mounting Arrangement:          | F1                    |
|                                 | CSA EEV                 | Power Factor:                  | 80                    |
|                                 | UR                      | Product Family:                | General Purpose       |
| Auxillary Box:                  | No Auxillary Box        | Pulley End Bearing Type:       | Ball                  |
| Auxillary Box Lead Termination: | None                    | Pulley Face Code:              | Standard              |
| Base Indicator:                 | Rigid                   | Pulley Shaft Indicator:        | Standard              |
| Bearing Grease Type:            | Polyrex EM (-20F +300F) | Rodent Screen:                 | None                  |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| <b>Blower:</b>                        | None                      | <b>Shaft Extension Location:</b>   | Pulley End          |
| <b>Current @ Voltage:</b>             | 78.000 A @ 208.0 V        | <b>Shaft Ground Indicator:</b>     | No Shaft Grounding  |
|                                       | 76.000 A @ 230.0 V        | <b>Shaft Rotation:</b>             | Reversible          |
|                                       | 38.000 A @ 460.0 V        | <b>Shaft Slinger Indicator:</b>    | Shaft Slinger       |
| <b>Design Code:</b>                   | A                         | <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>Winding Thermal 2:</b>          | None                |

|                     |                           |      |        |                         |       |                            |         |            |         |      |
|---------------------|---------------------------|------|--------|-------------------------|-------|----------------------------|---------|------------|---------|------|
| Nameplate NP3443LUA |                           |      |        |                         |       |                            |         |            |         |      |
| CAT.NO.             | EM4104T                   |      |        | CUST. P/N               |       |                            |         | ENCL       | TEFC    |      |
| SPEC.               | 10C151Y538G1              |      | CC     | 010A                    |       | FRAME                      | 286T    |            | SER.NO. |      |
| HP                  | 30                        |      | CLASS  | F                       |       | HZ                         | 60      |            |         |      |
| R.P.M.              | 1760                      |      | PH.    | 3                       |       | DES.                       | A       |            |         |      |
| VOLTS               | 230/460                   |      |        | CODE                    | J     |                            | ODE BRG | 6309       | DE BRG  | 6311 |
| AMPS                | 76/38                     |      |        | USABLE AT 208V          | 78    |                            |         |            |         |      |
| RATING              | 40C AMB-CONT              |      |        | NEMA NOM. EFF.          | 93.6  |                            | GREASE  | POLYREX EM |         |      |
| P.F.                | 80                        |      | SER.F. | 1.15                    |       | CT6-60H(10:1)VT3-60H(20:1) |         |            |         |      |
| USABLE AT           | 50Hz 30HP 190/380V 88/44A |      |        |                         | SF1.0 |                            |         |            |         |      |
| VOLTS               |                           | AMPS |        | MAX. SPACE HEATER TEMP. |       |                            |         |            |         |      |

**AC Induction Motor Performance Data**

Record # 32189

Typical performance - not guaranteed values

| Winding: 10WGY538-R004 |    |              |              | Type: 1056M                              |                       | Enclosure: TEFC |           |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------------|-----------------|-----------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |           |
| Rated Output (HP)      |    | 30           |              | Full Load Torque                         |                       | 88.7 LB-FT      |           |
| Volts                  |    | 230/460      |              | Start Configuration                      |                       | direct on line  |           |
| Full Load Amps         |    | 76/38        |              | Breakdown Torque                         |                       | 330 LB-FT       |           |
| R.P.M.                 |    | 1760         |              | Pull-up Torque                           |                       | 142 LB-FT       |           |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                       | 178 LB-FT       |           |
| NEMA Design Code       |    | A            | KVA Code     | J                                        | Starting Current      |                 | 270 A     |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                       | 17.9 A          |           |
| NEMA Nom. Eff.         |    | 93.6         | Power Factor | 80                                       | Line-line Res. @ 25°C |                 | 0.19377 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                       | 64°C            |           |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |                       | 76°C            |           |
|                        |    |              |              | Locked-rotor Power Factor                |                       | 30.9            |           |
|                        |    |              |              | Rotor inertia                            |                       | 4.47 LB-FT2     |           |

**Load Characteristics 460 V, 60 Hz, 30 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 41     | 63     | 73     | 80     | 82     | 85     | 81   |
| Efficiency      | 87.6   | 92.3   | 93.5   | 93.7   | 93.4   | 92.9   | 93.5 |
| Speed           | 1792.2 | 1787.6 | 1782.4 | 1776.5 | 1770.3 | 1762.1 | 1773 |
| Line amperes    | 19.8   | 24.3   | 30.7   | 37.6   | 45.6   | 55.2   | 42.4 |

Performance Graph at 460V, 60Hz, 30.0HP Typical performance - Not guaranteed values





