



## Product Information Packet

# CEM2543T

50HP,1775RPM,3PH,60HZ,326TC,4256M,OPSB,F

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | T      | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 42GW387    | CD Diagram: | CD0180 | Mfg Plant:    |            |
| Mech. Spec: | 42D102 | Layout:     | 42LYD102   | Poles:      | 04     | Created Date: | 08-03-2010 |
| Base:       | RG     | Eff. Date:  | 04-29-2019 | Leads:      | 9#8    |               |            |

| Specs                           |                         |                                |                       |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number:                 | CEM2543T                | Insulation Class:              | F                     |
| Enclosure:                      | OPSB                    | Inverter Code:                 | Inverter Ready        |
| Frame:                          | 326TC                   | IP Rating:                     | NONE                  |
| Frame Material:                 | Steel                   | KVA Code:                      | G                     |
| Motor Letter Type:              | Three Phase             | Lifting Lugs:                  | Standard Lifting Lugs |
| Output @ Frequency:             | 50.000 HP @ 60 HZ       | Locked Bearing Indicator:      | Locked Bearing        |
| Synchronous Speed @ Frequency:  | 1800 RPM @ 60 HZ        | Motor Lead Quantity/Wire Size: | 9 @ 8 AWG             |
| Voltage @ Frequency:            | 460.0 V @ 60 HZ         | Motor Lead Exit:               | Ko Box                |
|                                 | 230.0 V @ 60 HZ         | Motor Lead Termination:        | Flying Leads          |
| Agency Approvals:               | CSA                     | Motor Type:                    | 4256M                 |
|                                 | CSA EEV                 | Mounting Arrangement:          | F1                    |
|                                 | UR                      | Power Factor:                  | 87                    |
| Auxiliary Box:                  | No Auxiliary Box        | Product Family:                | General Purpose       |
| Auxiliary Box Lead Termination: | None                    | Pulley End Bearing Type:       | Ball                  |
| Base Indicator:                 | Rigid                   | Pulley Face Code:              | C-Face                |
| Bearing Grease Type:            | Polyrex EM (-20F +300F) | Pulley Shaft Indicator:        | Standard              |
| Blower:                         | None                    | Rodent Screen:                 | None                  |
| Current @ Voltage:              | 57.000 A @ 460.0 V      | Shaft Extension Location:      | Pulley End            |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
|                                       | 121.000 A @ 208.0 V       | <b>Shaft Ground Indicator:</b>     | No Shaft Grounding  |
|                                       | 114.000 A @ 230.0 V       | <b>Shaft Rotation:</b>             | Reversible          |
| <b>Design Code:</b>                   | A                         | <b>Shaft Slinger Indicator:</b>    | No Slinger          |
| <b>Drip Cover:</b>                    | No Drip Cover             | <b>Speed Code:</b>                 | Single Speed        |
| <b>Duty Rating:</b>                   | CONT                      | <b>Motor Standards:</b>            | NEMA                |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Starting Method:</b>            | Direct on line      |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Thermal Device - Bearing:</b>   | None                |
| <b>Front Face Code:</b>               | Standard                  | <b>Thermal Device - Winding:</b>   | None                |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor |
| <b>Heater Indicator:</b>              | No Heater                 | <b>Winding Thermal 1:</b>          | None                |
|                                       |                           | <b>Winding Thermal 2:</b>          | None                |

## Nameplate NP3554LUA

|           |                            |  |          |                |      |                         |         |            |         |        |      |
|-----------|----------------------------|--|----------|----------------|------|-------------------------|---------|------------|---------|--------|------|
| CAT.NO.   | CEM2543T                   |  |          | P/N            |      |                         |         | ENCL       | OPSB    |        |      |
| SPEC.     | 42D102W387G1               |  | CC       | 010A           |      | FRAME                   | 326TC   |            | SER.NO. |        |      |
| HP        | 50                         |  | CLASS    | F              |      | HZ                      | 60      |            |         |        |      |
| RPM       | 1775                       |  | PH       | 3              |      | DES                     | A       |            |         |        |      |
| VOLTS     | 230/460                    |  |          | CODE           | G    |                         | ODE BRG | 6311       |         | DE BRG | 6312 |
| AMPS      | 114/57                     |  |          | USABLE AT 208V | 121  |                         |         |            |         |        |      |
| RATING    | 40C AMB-CONT               |  |          | NEMA-NOM-EFF   | 94.5 |                         | GREASE  | POLYREX EM |         |        |      |
| PF        | 87                         |  | SER.F.   | 1.15           |      |                         |         |            |         |        |      |
| USABLE AT | 50HZ 50HP 190/380V 136/68A |  |          |                |      | SF 1.0                  |         |            |         |        |      |
| HTR-VOLTS |                            |  | HTR-AMPS |                |      | MAX. SPACE HEATER TEMP. |         |            |         |        |      |

**AC Induction Motor Performance Data**

Record # 53755

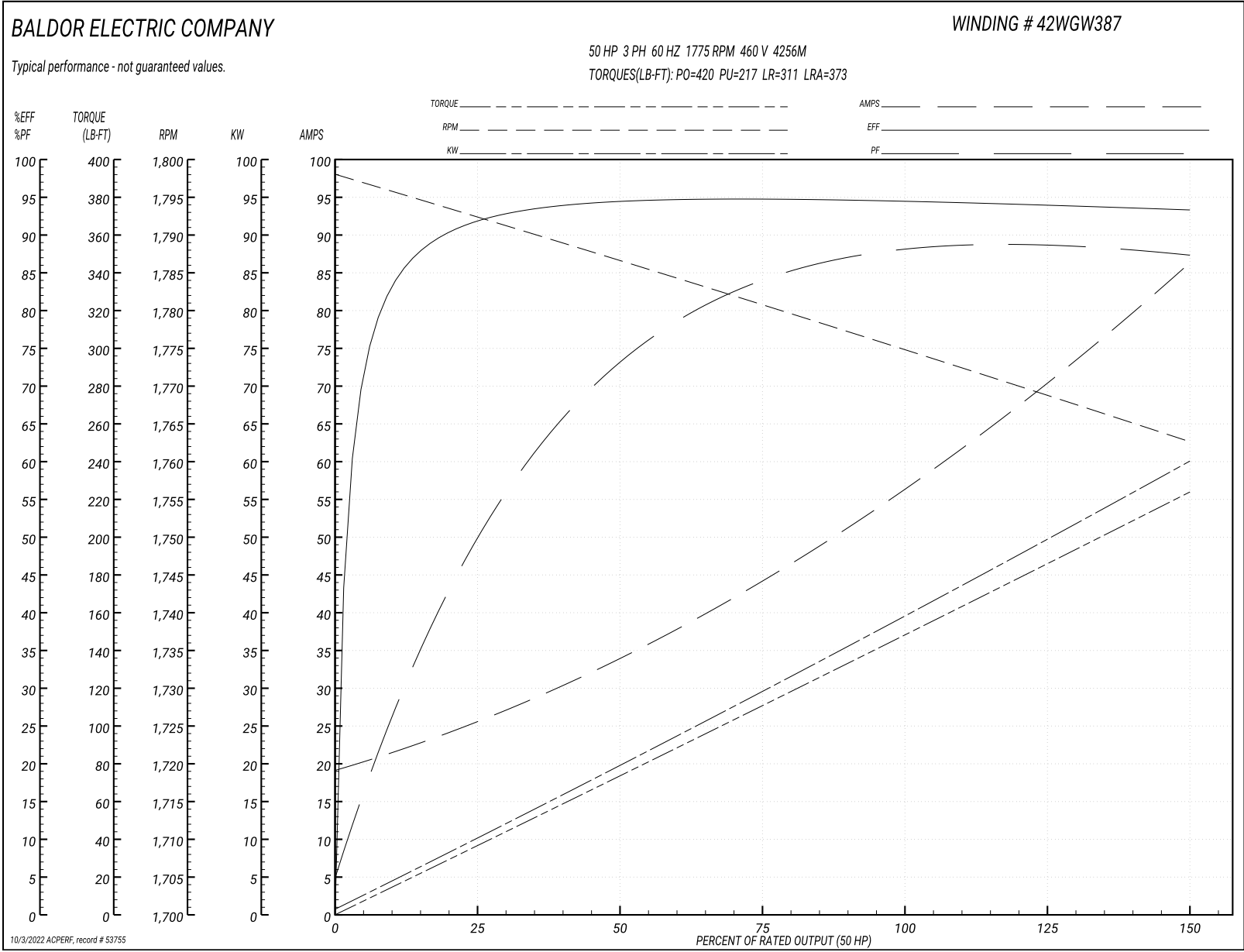
Typical performance - not guaranteed values

| Winding: 42GW387-R001 |  |                   |  | Type: 4256M                              |  | Enclosure: OPSB |  |
|-----------------------|--|-------------------|--|------------------------------------------|--|-----------------|--|
| Nameplate Data        |  |                   |  | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)     |  | 50                |  | Full Load Torque                         |  | 149 LB-FT       |  |
| Volts                 |  | 230/460           |  | Start Configuration                      |  | direct on line  |  |
| Full Load Amps        |  | 114/57            |  | Breakdown Torque                         |  | 420 LB-FT       |  |
| R.P.M.                |  | 1775              |  | Pull-up Torque                           |  | 217 LB-FT       |  |
| Hz                    |  | 60 Phase          |  | Locked-rotor Torque                      |  | 311 LB-FT       |  |
| NEMA Design Code      |  | A KVA Code        |  | Starting Current                         |  | 373 A           |  |
| Service Factor (S.F.) |  | 1.15              |  | No-load Current                          |  | 20.2 A          |  |
| NEMA Nom. Eff.        |  | 94.5 Power Factor |  | Line-line Res. @ 25°C                    |  | 0.12266 Ω       |  |
| Rating - Duty         |  | 40C AMB-CONT      |  | Temp. Rise @ Rated Load                  |  | 39°C            |  |
| S.F. Amps             |  |                   |  | Temp. Rise @ S.F. Load                   |  | 47°C            |  |

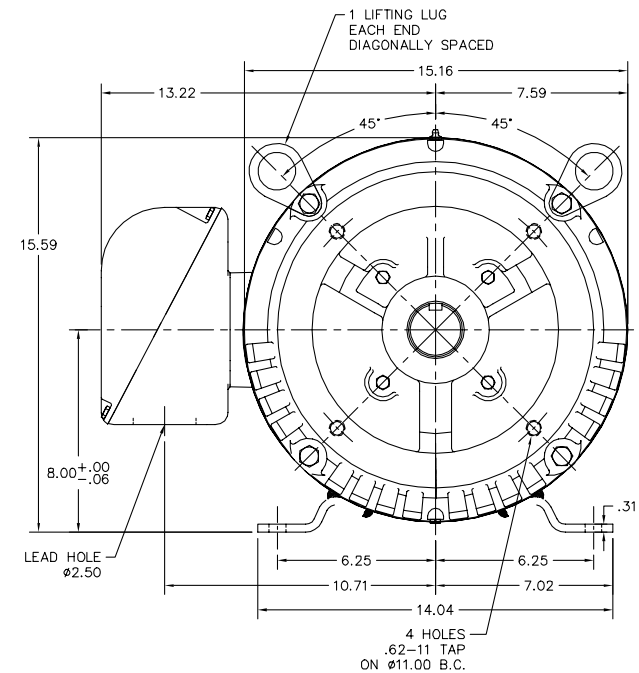
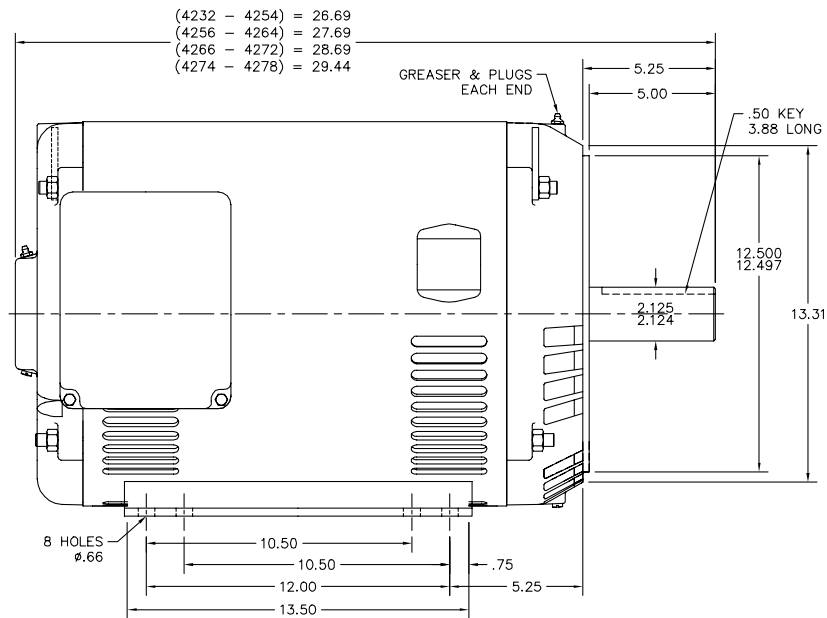
**Load Characteristics 460 V, 60 Hz, 50 HP**

| % of Rated Load | 25   | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|------|--------|--------|--------|--------|--------|------|
| Power Factor    | 54   | 75     | 83     | 87     | 88     | 88     | 88   |
| Efficiency      | 92   | 94.5   | 94.9   | 94.7   | 94.2   | 93.4   | 94.4 |
| Speed           | 1791 | 1786.1 | 1781.1 | 1775.2 | 1769.2 | 1762.1 | 1772 |
| Line amperes    | 24.4 | 33.4   | 44.7   | 57.4   | 71     | 85.6   | 65.6 |

Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values



42LYD102



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

REV. DESC: ADDED 4274-4278 STACK

REV. LTR: H

VERSION: 02

TDR: 000000993716

FILE: \AAA\00030\747

REVISED: 08:33:11 08/29/2016

BY: ENNINDO

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**BALDOR**

HOR OPSB 324-6TC

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