

Technical Documentation

**XC00565C**  
**Optim TEXP | AEHHXF**

Date: May 28, 2018

### Technical Data Sheet

Motor Type: AEHHXF

Catalogue No: XC00565C

#### Nameplate Information

|           |            |                |             |             |                |                |
|-----------|------------|----------------|-------------|-------------|----------------|----------------|
| HP        | Pole       | RPM            | Frame       | Voltage     | Hz             | Phase          |
| 5         | 6          | 1170           | 215TC       | 575         | 60             | 3              |
| Enclosure | Ins. Class | Service Factor | Time Rating | NEMA Design | Rated Amb.     | Rated Altitude |
| TEXP      | F          | 1.15           | Continuous  | B           | -40 to 40°C °C | <3300 ft       |

#### Typical Performance

| Efficiency (%)    |                             |                                 |                                      | Power Factor (%)    |           |                                |
|-------------------|-----------------------------|---------------------------------|--------------------------------------|---------------------|-----------|--------------------------------|
| Full Load         |                             | 3/4 Load                        | 1/2 Load                             | Full Load           | 3/4 Load  | 1/2 Load                       |
| Nom.              | Min.                        |                                 |                                      |                     |           |                                |
| 90.2              | 88.5                        | 90.5                            | 90.0                                 | 81.0                | 76.0      | 65.5                           |
| Torque            |                             |                                 |                                      | Current (A)         |           |                                |
| Full Load (lb-ft) | Locked Rotor (% FLT)        | Pull Up (% FLT)                 | Break Down (% FLT)                   | No Load             | Full Load | Locked Rotor                   |
| 22.4              | 190.0                       | 140.0                           | 280.0                                | 2.1                 | 5.1       | 37                             |
| NEMA KVA Code     | Inertia (WR <sup>2</sup> )  |                                 |                                      | Safe Stall Time (s) |           | Noise Level Sound Press. dB(A) |
|                   | Rotor (lb-ft <sup>2</sup> ) | NEMA Load (lb-ft <sup>2</sup> ) | Max. Allowable (lb-ft <sup>2</sup> ) | Cold                | Hot       |                                |
| J                 | 1.1                         | 71.0                            | 302.8                                | 65.0                | 46.0      | 53.0                           |

#### VFD Duty Information

| Speed Range     |                 |                | VFD     |              | S.F.     |
|-----------------|-----------------|----------------|---------|--------------|----------|
| Constant Torque | Variable Torque | Constant Power | Carrier | Type         |          |
| 6-60Hz          | 3-60Hz          | 60-90Hz        | ≤ 5 kHz | VPWM or CPWM | 1.0 Only |

#### Additional Information

| Bearings |        | Approx. Weight |
|----------|--------|----------------|
| DE       | NDE    | lbs            |
| 6308ZZ   | 6306ZZ | 211            |

#### Hazardous Locations Information

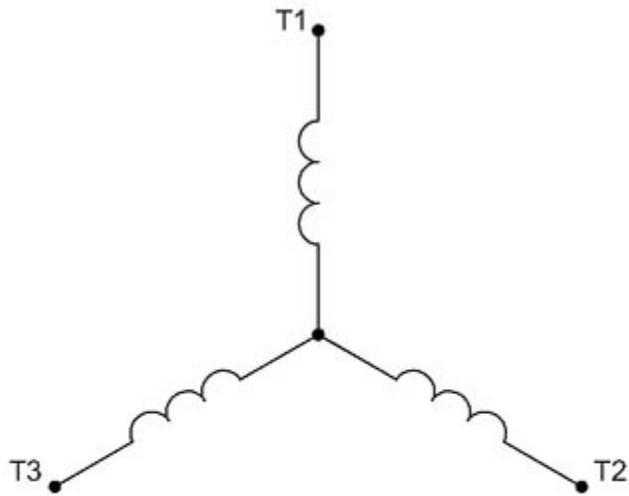
| CSA/UL Certified  |           |
|---|-----------|
| Class I, Div 1, Groups C & D; Class II, Div 1, Groups E, F & G<br>Class I, Zone 1, Groups IIB & IIA; Class II, Div 1, Groups E, F & G |           |
| Temp Code (Sinewave / VFD)  | T3B / T3B |

**Nameplate Drawing**

# Optim TEXP

|                 |                 |                |          |                |      |
|-----------------|-----------------|----------------|----------|----------------|------|
| TYPE            | AEHHXF          | CAT. NO.       | XC00565C |                |      |
| OUTPUT          | 5 HP 3.7 kW     | FRAME          | 215TC    | TEXP           |      |
| R.P.M.          | 1170            | POLE           | 6        | INS.           | F    |
| VOLTS           | 575             | PHASE          | 3        | Hz             | 60   |
| AMPS            | 5.1             | CODE           | J        | S.F.           | 1.15 |
| AMBIENT         | 40 °C           | NOM. EFF. 90.2 |          | MIN. EFF. 88.5 |      |
| BEARINGS        | 6308ZZ / 6306ZZ |                |          | RATING Cont.   |      |
| SER. NO.        | TBD             | DESIGN         | B        | WT. 211 LBS    |      |
| PWM VFD<br>DUTY | VT              | CT             | CP       | S.F.           |      |
|                 | 3-60Hz          | 6-60Hz         | 60-90Hz  | 1.0 Only       |      |

**Connection Diagram**

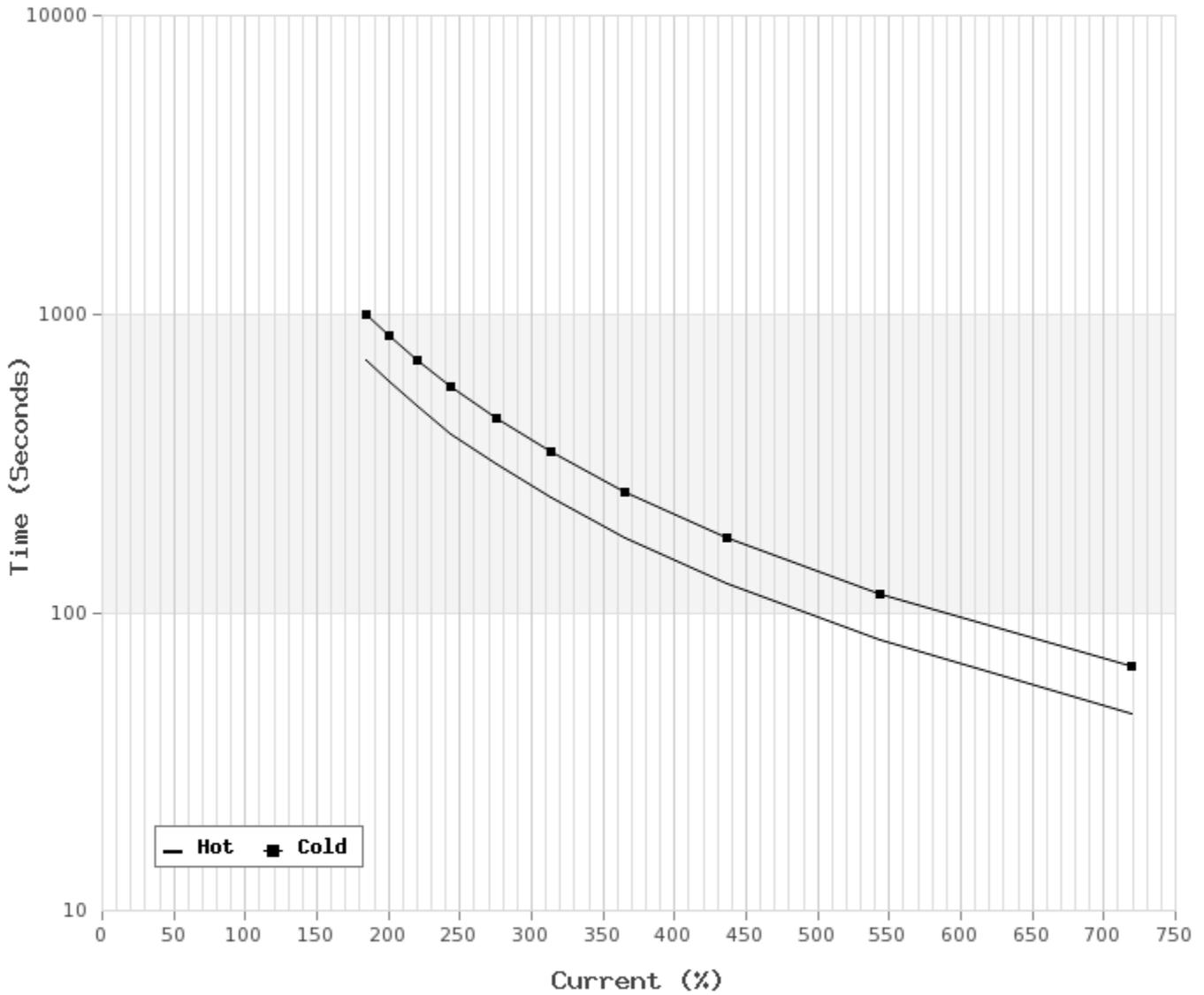


| 3 LEAD  |       | SINGLE VOLTAGE |    |    | WYE |
|---------|-------|----------------|----|----|-----|
| VOLTAGE | CONN. | L1             | L2 | L3 |     |
| -       | WYE   | 1              | 2  | 3  |     |

WD\_3Y

**Thermal Limit Curves**

|                    |               |                        |        |                    |             |
|--------------------|---------------|------------------------|--------|--------------------|-------------|
| Motor Type: AEHHXF |               | Catalogue No: XC00565C |        | Family: Optim TEXP |             |
| HP                 | 5             | Safe Stall Time        |        | Full Load A        | 0.0 / 5.1 A |
| Voltage            | 0 / 575V 60Hz | Hot                    | 46.0 s | Locked Rotor A     | 721 %       |
| RPM                | 1200          | Cold                   | 65.0 s | Locked Rotor A     | 0.0 / 37 A  |



**T-N and I-N Curves**

|                    |           |                        |            |                    |         |
|--------------------|-----------|------------------------|------------|--------------------|---------|
| Motor Type: AEHHXF |           | Catalogue No: XC00565C |            | Family: Optim TEXP |         |
| HP                 | 5         | Full Load T            | 22.4 lb-ft | Full Load A        | 5.1 A   |
| Voltage            | 575V 60Hz | Locked Rotor T         | 190.0 %    | Locked Rotor A     | 37.0 A  |
| RPM                | 1200      | Pull Up T              | 140.0 %    | Break Down T       | 280.0 % |

