

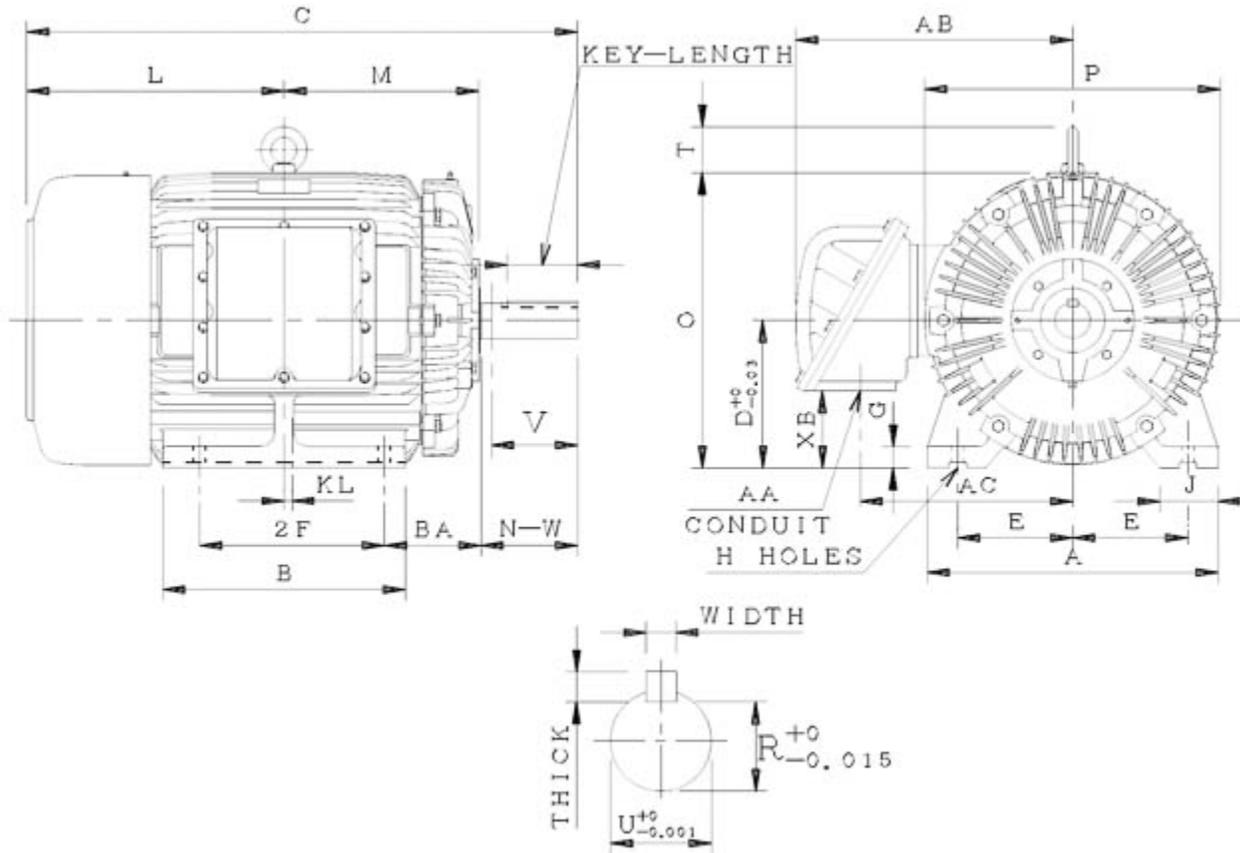
Technical Documentation

**XH03065**  
**Optim TEXP | AEHHXU**

Date: December 1, 2016

**Dimensional Drawing**

| Catalogue | Model  | HP | Pole | kW | Rating     | Voltage | Hz | RPM  |
|-----------|--------|----|------|----|------------|---------|----|------|
| XH03065   | AEHHXU | 30 | 6    | 22 | Continuous | 575 V   | 60 | 1200 |



AEHHXU-SMP-4 1 0

| Frame Size       | Mounting |       |          |         |                    | A           | B          | C     | CD                           | D          |         |
|------------------|----------|-------|----------|---------|--------------------|-------------|------------|-------|------------------------------|------------|---------|
|                  | E        | 2F    | 2F2      | H       | BA                 |             |            |       |                              |            |         |
| 326T             | 6.25     | 12    |          | 0.66    | 5.25               | 15.75       | 14.35      | 31.42 |                              | 8          |         |
| G                | J        | K     | L        | M       | O                  | P           | T          | Key   |                              |            | Keyseat |
| 1.1              | 3.15     |       | 14.92    | 11.04   | 16.22              | 16.54       | 2.36       | Width | Thick                        | Length     | R       |
|                  |          |       |          |         |                    |             |            | 0.5   | 0.5                          | 3.91       | 1.845   |
| Terminal Housing |          |       |          | Aux Box |                    | C/D Flange  |            |       |                              |            |         |
| AA               | AB       | AC    | XB       | AE      | AX                 | BB          | AH         | AK    | BD                           | AJ         | BF      |
| NPT2"            | 16.18    | 12.17 | 3.31     |         |                    |             |            |       |                              |            |         |
| Shaft Extension  |          |       | Bearings |         | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F.  | Drive Method                 | Dimensions |         |
| N-W              | U        | V     | DE       | NDE     |                    |             |            |       |                              |            |         |
| 5.25             | 2.125    | 5.15  | 6312     | 6212    | 781                | 60.0        | F          | 1.15  | Direct Coupling / Belt Drive | Inches     |         |

### Technical Data Sheet

Motor Type: AEHHXU

Catalogue No: XH03065

#### Nameplate Information

|           |            |                |             |             |              |                |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP        | Pole       | RPM            | Frame       | Voltage     | Hz           | Phase          |
| 30        | 6          | 1180           | 326T        | 575         | 60           | 3              |
| Enclosure | Ins. Class | Service Factor | Time Rating | NEMA Design | Rated Amb.   | Rated Altitude |
| TEXP      | F          | 1.15           | Continuous  | C           | -40 to 40 °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.                        |                                 |                                      |                     |           |                                |
| 93.0              | 91.7                        | 94.0                            | 93.5                                 | 83.0                | 80.0      | 72.5                           |
| Torque            |                             |                                 |                                      | Current (A)         |           |                                |
| Full Load (lb-ft) | Locked Rotor (% FLT)        | Pull Up (% FLT)                 | Break Down (% FLT)                   | No Load             | Full Load | Locked Rotor                   |
| 133.5             | 220.0                       | 185.0                           | 240.0                                | 9.3                 | 29.1      | 174                            |
| 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       |                                |
| G                 | 12.4                        | 384.0                           | 683.0                                | 17.0                | 12.0      | 60.0                           |

#### 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            |
| 6312     | 6212 | 781            |

#### Hazardous Locations Information

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

**Connection Diagram**

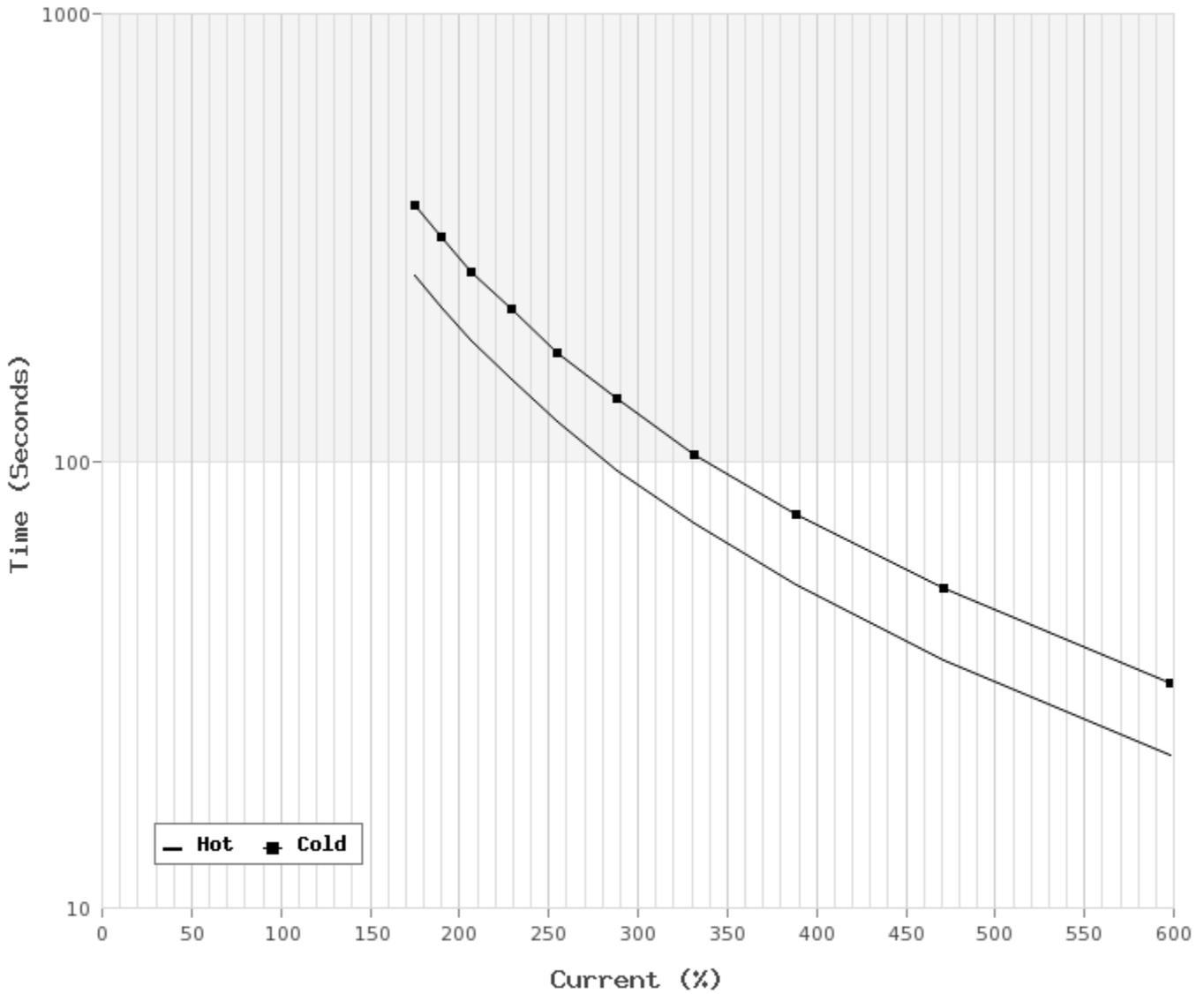


| 3 LEAD SINGLE VOLTAGE DELTA |       |    |    |    |  |
|-----------------------------|-------|----|----|----|--|
| VOLTAGE                     | CONN. | L1 | L2 | L3 |  |
| -                           | DELTA | 1  | 2  | 3  |  |

WD\_3D

**Thermal Limit Curves**

|                    |               |                       |        |                    |              |
|--------------------|---------------|-----------------------|--------|--------------------|--------------|
| Motor Type: AEHHXU |               | Catalogue No: XH03065 |        | Family: Optim TEXP |              |
| HP                 | 30            | Safe Stall Time       |        | Full Load A        | 0.0 / 29.1 A |
| Voltage            | 0 / 575V 60Hz | Hot                   | 12.0 s | Locked Rotor A     | 598 %        |
| RPM                | 1200          | Cold                  | 17.0 s | Locked Rotor A     | 0.0 / 174 A  |



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

|                    |           |                       |             |                    |         |
|--------------------|-----------|-----------------------|-------------|--------------------|---------|
| Motor Type: AEHHXU |           | Catalogue No: XH03065 |             | Family: Optim TEXP |         |
| HP                 | 30        | Full Load T           | 133.5 lb-ft | Full Load A        | 29.1 A  |
| Voltage            | 575V 60Hz | Locked Rotor T        | 220.0 %     | Locked Rotor A     | 174.0 A |
| RPM                | 1200      | Pull Up T             | 185.0 %     | Break Down T       | 240.0 % |

