

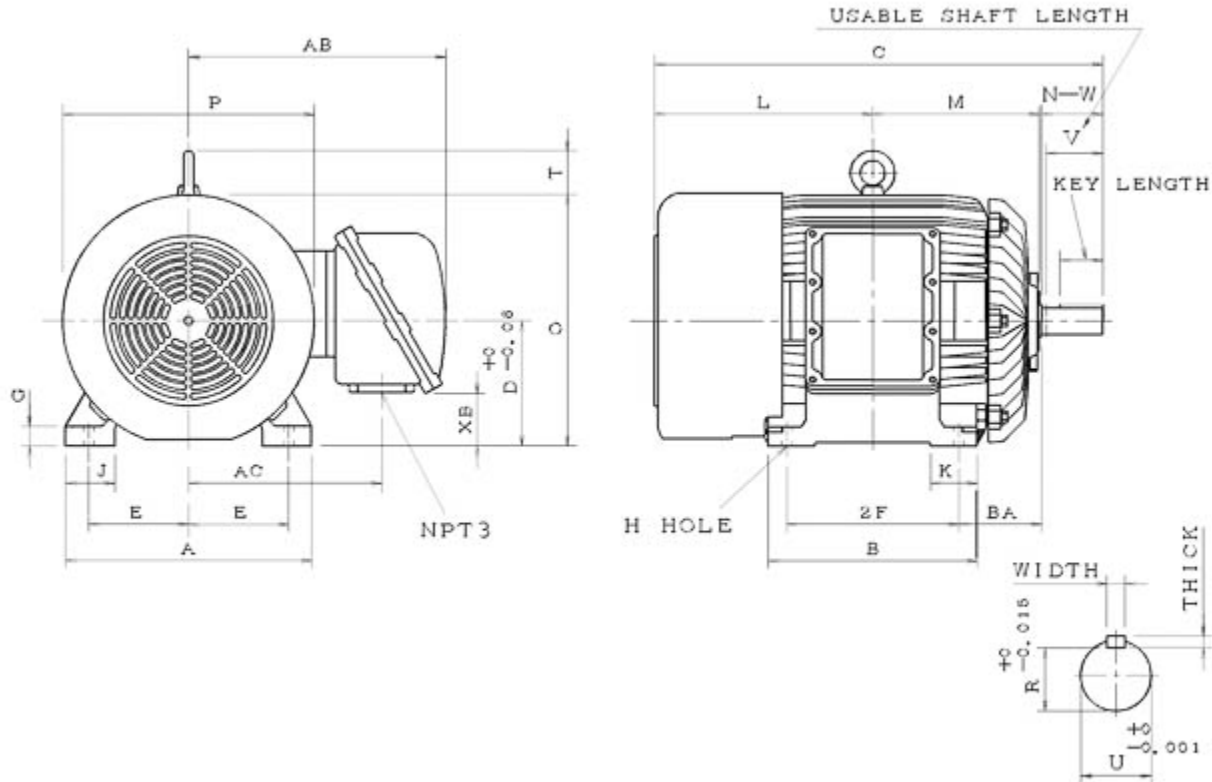
Technical Documentation

**XH10065R**  
**Optim TEXP | AEHHXU**

Date: December 1, 2016

### Dimensional Drawing

| Catalogue | Model  | HP  | Pole | kW | Rating     | Voltage | Hz | RPM  |
|-----------|--------|-----|------|----|------------|---------|----|------|
| XH10065R  | AEHHXU | 100 | 6    | 75 | Continuous | 575 V   | 60 | 1200 |



AEHHXU-HMP-2 1 0

| Frame Size       | Mounting |      |          |         |                    | A           | B          | C     | CD           | D          |         |
|------------------|----------|------|----------|---------|--------------------|-------------|------------|-------|--------------|------------|---------|
|                  | E        | 2F   | 2F2      | H       | BA                 |             |            |       |              |            |         |
| 444T             | 9        | 14.5 |          | 0.81    | 7.5                | 22.05       | 17.5       | 42.05 |              | 11         |         |
| G                | J        | K    | L        | M       | O                  | P           | T          | Key   |              |            | Keyseat |
| 1.55             | 4.35     | 4.35 | 18.8     | 14.45   | 22.25              | 23.3        | 3.55       | Width | Thick        | Length     | R       |
|                  |          |      |          |         |                    |             |            | 0.875 | 0.875        | 6.91       | 2.880   |
| Terminal Housing |          |      |          | Aux Box |                    | C/D Flange  |            |       |              |            |         |
| AA               | AB       | AC   | XB       | AE      | AX                 | BB          | AH         | AK    | BD           | AJ         | BF      |
| NPT3"            | 21.65    | 16.6 | 5.1      |         |                    |             |            |       |              |            |         |
| Shaft Extension  |          |      | Bearings |         | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F.  | Drive Method | Dimensions |         |
| N-W              | U        | V    | DE       | NDE     |                    |             |            |       |              |            |         |
| 8.5              | 3.375    | 8    | NU318    | 6318    | 1650               | 80.0        | F          | 1.15  | Belt Drive   | Inches     |         |

### Technical Data Sheet

Motor Type: AEHHXU

Catalogue No: XH10065R

#### Nameplate Information

|           |            |                |             |             |              |                |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP        | Pole       | RPM            | Frame       | Voltage     | Hz           | Phase          |
| 100       | 6          | 1180           | 444T        | 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 | <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.                        |                                 |                                      |                     |           |                                |
| 95.0              | 94.1                        | 94.5                            | 93.6                                 | 83.0                | 81.0      | 74.0                           |
| Torque            |                             |                                 |                                      | Current (A)         |           |                                |
| Full Load (lb-ft) | Locked Rotor (% FLT)        | Pull Up (% FLT)                 | Break Down (% FLT)                   | No Load             | Full Load | Locked Rotor                   |
| 444.9             | 130.0                       | 104.0                           | 210.0                                | 38.4                | 95.0      | 580                            |
| 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                 | 50.0                        | 1181.0                          | 2812.0                               | 37.0                | 15.0      | 80.0                           |

#### 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            |
| NU318    | 6318 | 1650           |

#### 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**

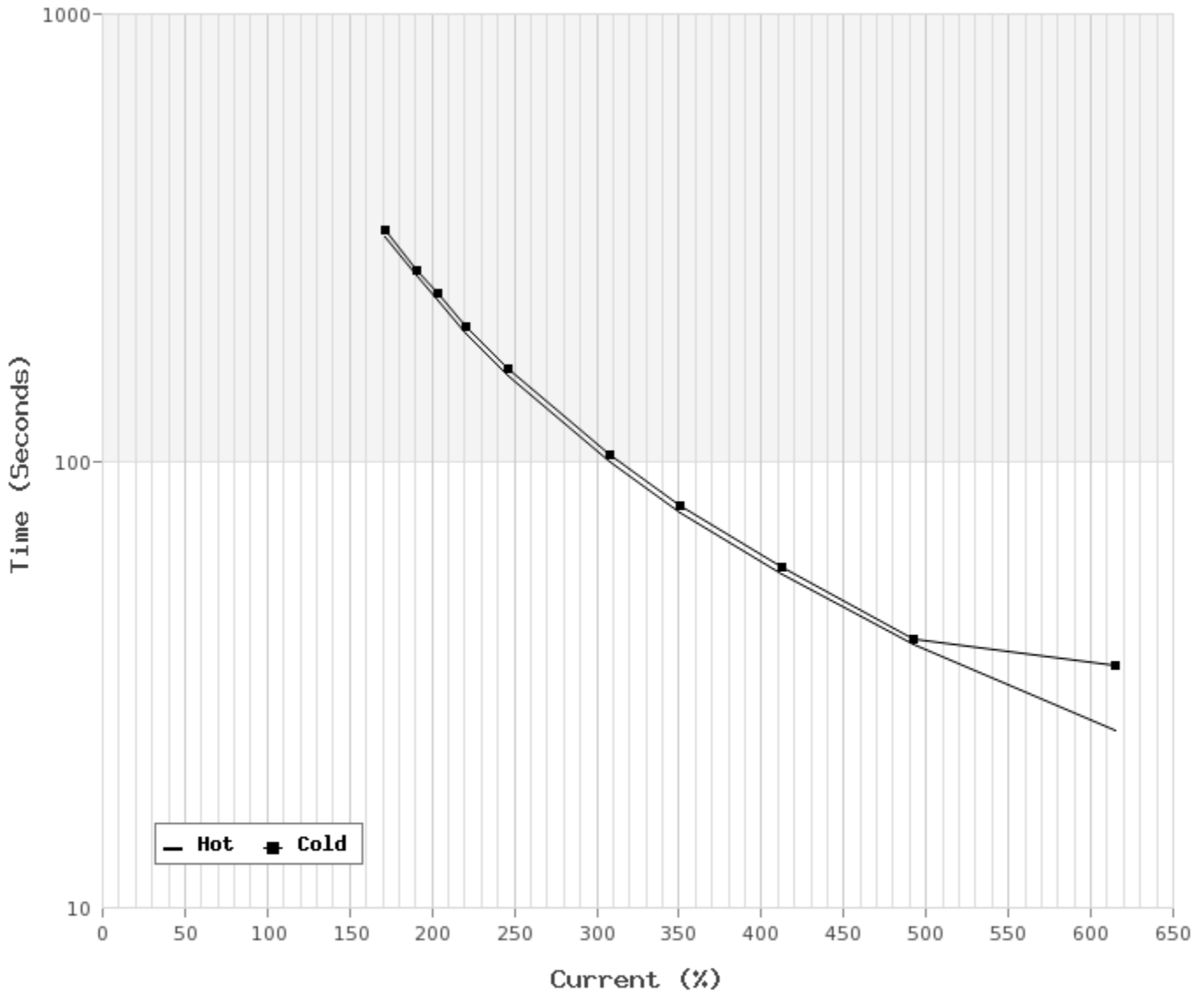


| 3 LEAD SINGLE VOLTAGE DELTA |       |    |    |    |  |
|-----------------------------|-------|----|----|----|--|
| VOLTAGE                     | CONN. | L1 | L2 | L3 |  |
| -                           | DELTA | 1  | 2  | 3  |  |

WD\_3D

**Thermal Limit Curves**

|                    |               |                        |        |                    |              |
|--------------------|---------------|------------------------|--------|--------------------|--------------|
| Motor Type: AEHHXU |               | Catalogue No: XH10065R |        | Family: Optim TEXP |              |
| HP                 | 100           | Safe Stall Time        |        | Full Load A        | 0.0 / 95.0 A |
| Voltage            | 0 / 575V 60Hz | Hot                    | 15.0 s | Locked Rotor A     | 611 %        |
| RPM                | 1200          | Cold                   | 37.0 s | Locked Rotor A     | 0.0 / 580 A  |



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

|                    |           |                        |             |                    |         |
|--------------------|-----------|------------------------|-------------|--------------------|---------|
| Motor Type: AEHHXU |           | Catalogue No: XH10065R |             | Family: Optim TEXP |         |
| HP                 | 100       | Full Load T            | 444.9 lb-ft | Full Load A        | 95.0 A  |
| Voltage            | 575V 60Hz | Locked Rotor T         | 130.0 %     | Locked Rotor A     | 580.0 A |
| RPM                | 1200      | Pull Up T              | 104.0 %     | Break Down T       | 210.0 % |

