

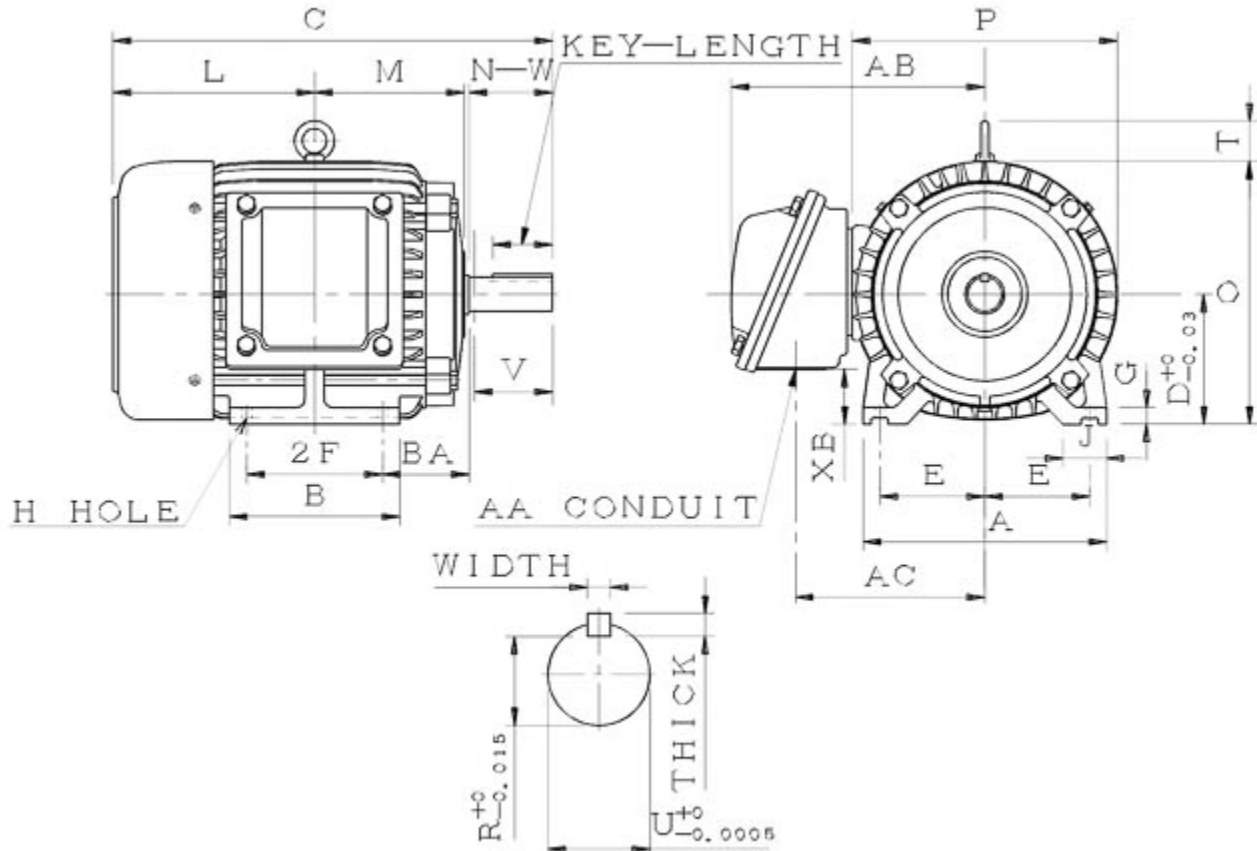
Technical Documentation

XC1/58
Optim TEXP | AEHHXV

Date: December 1, 2016

Dimensional Drawing

| Catalogue | Model | HP | Pole | kW | Rating | Voltage | Hz | RPM |
|-----------|--------|-----|------|-----|------------|-------------|----|-----|
| XC1/58 | AEHHXV | 1.5 | 8 | 1.1 | Continuous | 230 / 460 V | 60 | 900 |



AEHHXV-SMP-2 1 0

| Frame Size | Mounting | | | | | A | B | C | CD | D | |
|------------------|----------|------|----------|---------|--------------------|-------------|------------|-------|------------------------------|------------|---------|
| | E | 2F | 2F2 | H | BA | | | | | | |
| 184T | 3.75 | 5.5 | | 0.41 | 2.75 | 8.8 | 6.9 | 15.91 | | 4.5 | |
| G | J | K | L | M | O | P | T | Key | | | Keyseat |
| 0.65 | 1.75 | | 7.66 | 5.41 | 9.35 | 9.6 | 1.15 | Width | Thick | Length | R |
| | | | | | | | | 0.25 | 0.25 | 1.78 | 0.986 |
| Terminal Housing | | | | Aux Box | | C/D Flange | | | | | |
| AA | AB | AC | XB | AE | AX | BB | AH | AK | BD | AJ | BF |
| NPT3/4" | 8.78 | 6.45 | 2.33 | | | | | | | | |
| Shaft Extension | | | Bearings | | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F. | Drive Method | Dimensions | |
| N-W | U | V | DE | NDE | | | | | | | |
| 2.75 | 1.125 | 2.7 | 6306ZZ | 6306ZZ | 120 | 53 | F | 1.15 | Direct Coupling / Belt Drive | Inches | |

Technical Data Sheet

Motor Type: AEHHXV

Catalogue No: XC1/58

Nameplate Information

| | | | | | | |
|-----------|------------|----------------|-------------|-------------|------------|----------------|
| HP | Pole | RPM | Frame | Voltage | Hz | Phase |
| 1.5 | 8 | 860 | 184T | 230 / 460 | 60 | 3 |
| Enclosure | Ins. Class | Service Factor | Time Rating | NEMA Design | Rated Amb. | Rated Altitude |
| TEXP | F | 1.15 | Continuous | B | °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. | | | | | |
| 78.5 | 75.5 | 75.5 | 70.0 | 60.5 | 51.5 | 39.5 |
| Torque | | | | Current (A) | | |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | No Load | Full Load | Locked Rotor |
| 9 | 185 | 130 | 250 | 4.4 / 2.2 | 5.9 / 3.0 | 40 / 20 |
| NEMA KVA Code | Inertia (WR ²) | | | Safe Stall Time (s) | | Noise Level Sound Press. dB(A) |
| | Rotor (lb-ft ²) | NEMA Load (lb-ft ²) | Max. Allowable (lb-ft ²) | Cold | Hot | |
| M | 0.275 | 45 | 223 | 78 | 55 | 53 |

VFD Duty Information

| Speed Range | | | VFD | | S.F. |
|-----------------|-----------------|----------------|---------|--------------|----------|
| Constant Torque | Variable Torque | Constant Power | Carrier | Type | |
| 12-60Hz | 3-60Hz | 60-90Hz | ≤ 5 kHz | VPWM or CPWM | 1.0 Only |

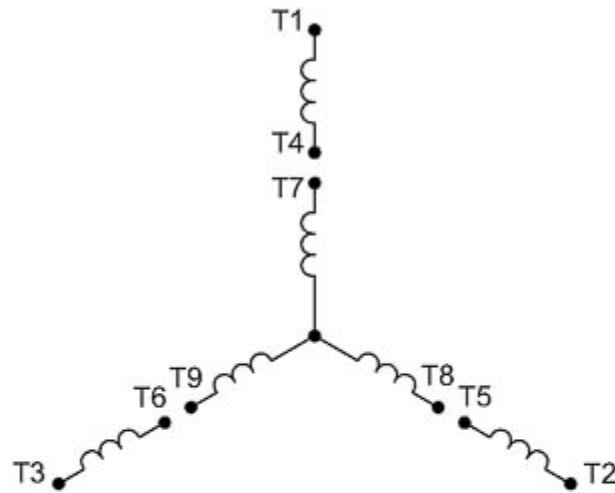
Additional Information

| Bearings | | Approx. Weight |
|----------|--------|----------------|
| DE | NDE | lbs |
| 6306ZZ | 6306ZZ | 120 |

Hazardous Locations Information

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

Connection Diagram

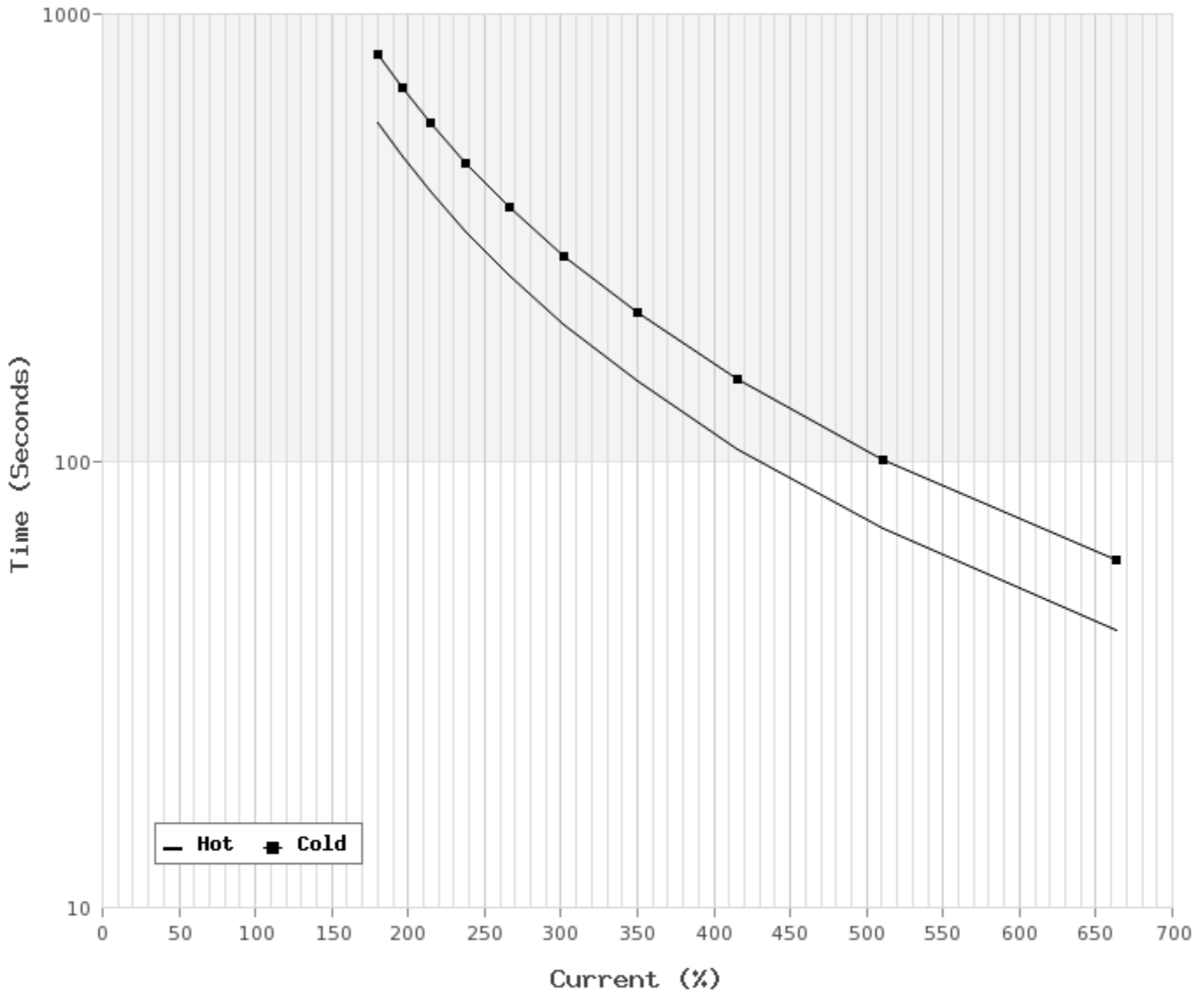


| 9 LEAD DUAL VOLTAGE WYE | | | | | |
|-------------------------|-------|-----|-----|-----|-------------|
| VOLTAGE | CONN. | L1 | L2 | L3 | JOIN |
| HIGH | WYE | 1 | 2 | 3 | 4&7,5&8,6&9 |
| LOW | 2 WYE | 1,7 | 2,8 | 3,9 | 4&5&6 |

WD_9Y

Thermal Limit Curves

| | | | | | |
|--------------------|-----------------|----------------------|------|--------------------|-------------|
| Motor Type: AEHHXV | | Catalogue No: XC1/58 | | Family: Optim TEXP | |
| HP | 1.5 | Safe Stall Time | | Full Load A | 5.9 / 3.0 A |
| Voltage | 230 / 460V 60Hz | Hot | 55 s | Locked Rotor A | 677 / 676 % |
| RPM | 900 | Cold | 78 s | Locked Rotor A | 40.0 / 20 A |



T-N and I-N Curves

| | | | | | |
|--------------------|-----------------|----------------------|---------|--------------------|---------------|
| Motor Type: AEHHXV | | Catalogue No: XC1/58 | | Family: Optim TEXP | |
| HP | 1.5 | Full Load T | 9 lb-ft | Full Load A | 5.9 / 3.0 A |
| Voltage | 230 / 460V 60Hz | Locked Rotor T | 185 % | Locked Rotor A | 40.0 / 20.0 A |
| RPM | 900 | Pull Up T | 130 % | Break Down T | 250 % |

