

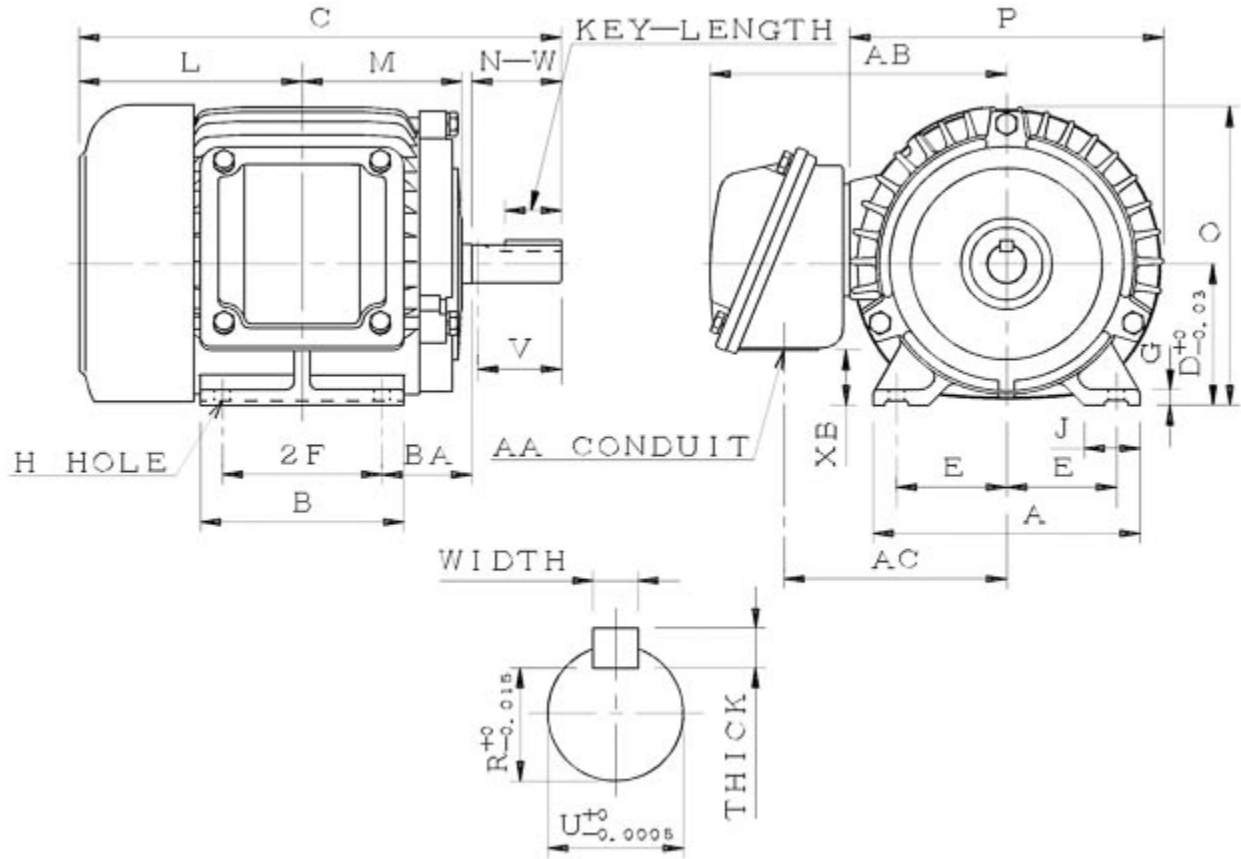
Technical Documentation

XC0014
Optim TEXP | AEHHXV

Date: December 1, 2016

Dimensional Drawing

| Catalogue | Model | HP | Pole | kW | Rating | Voltage | Hz | RPM |
|-----------|--------|----|------|------|------------|-------------|----|------|
| XC0014 | AEHHXV | 1 | 4 | 0.75 | Continuous | 230 / 460 V | 60 | 1800 |



AEHHXV-SMP-1 1 0

| Frame Size | Mounting | | | | | A | B | C | CD | D | |
|------------------|----------|-----|----------|---------|--------------------|-------------|------------|-------|------------------------------|------------|---------|
| | E | 2F | 2F2 | H | BA | | | | | | |
| 143T | 2.75 | 4 | | 0.34 | 2.25 | 6.7 | 5.1 | 12.56 | | 3.5 | |
| G | J | K | L | M | O | P | T | Key | | | Keyseat |
| 0.35 | 1.4 | | 6.06 | 4.05 | 7.5 | 8.03 | | Width | Thick | Length | R |
| | | | | | | | | 0.188 | 0.188 | 1.41 | 0.771 |
| Terminal Housing | | | | Aux Box | | C/D Flange | | | | | |
| AA | AB | AC | XB | AE | AX | BB | AH | AK | BD | AJ | BF |
| NPT3/4" | 8.03 | 5.7 | 1.33 | | | | | | | | |
| Shaft Extension | | | Bearings | | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F. | Drive Method | Dimensions | |
| N-W | U | V | DE | NDE | | | | | | | |
| 2.25 | 0.875 | 2.2 | 6205ZZ | 6205ZZ | 62 | 53 | F | 1.15 | Direct Coupling / Belt Drive | Inches | |

Technical Data Sheet

Motor Type: AEHHXV

Catalogue No: XC0014

Nameplate Information

| | | | | | | |
|-----------|------------|----------------|-------------|-------------|------------|----------------|
| HP | Pole | RPM | Frame | Voltage | Hz | Phase |
| 1 | 4 | 1755 | 143T | 230 / 460 | 60 | 3 |
| Enclosure | Ins. Class | Service Factor | Time Rating | NEMA Design | Rated Amb. | Rated Altitude |
| TEXP | F | 1.15 | Continuous | 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. | | | | | |
| 85.5 | 82.5 | 84.0 | 80.5 | 68.0 | 58.5 | 45.0 |
| Torque | | | | Current (A) | | |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | No Load | Full Load | Locked Rotor |
| 3 | 350 | 325 | 450 | 2.3 / 1.1 | 3.2 / 1.6 | 30 / 15 |
| 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 | |
| N | 0.075 | 6 | 25 | 40 | 28 | 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 |
| 6205ZZ | 6205ZZ | 62 |

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

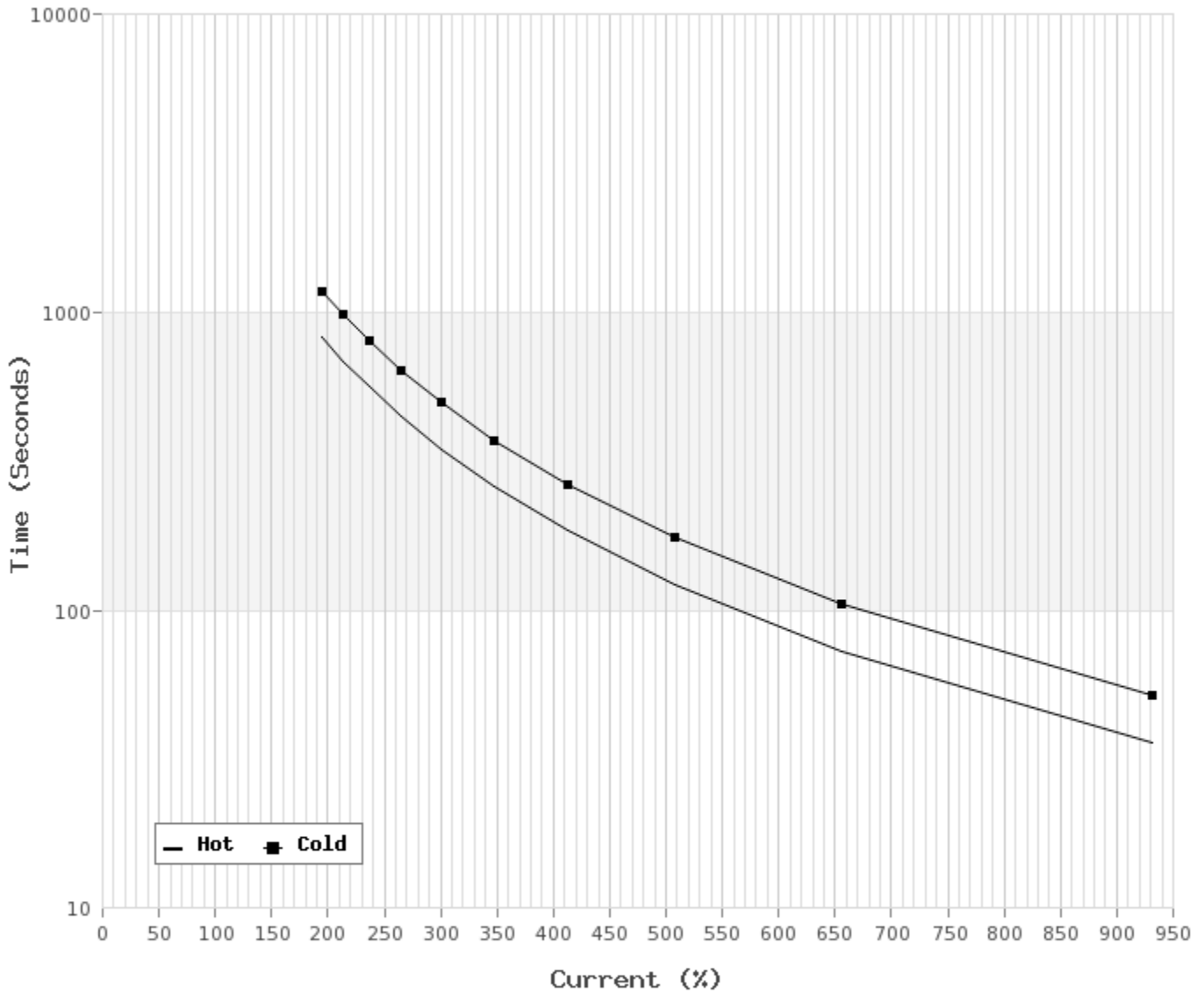


| 9 LEAD DUAL VOLTAGE WYE | | | | | |
|-------------------------|-------|-----|-----|-----|-------------|
| VOLTAGE | CONN. | L1 | L2 | L3 | JOIN |
| HIGH | WYE | 1 | 2 | 3 | 4&7,5&8,6&9 |
| LOW | 2 WYE | 1,7 | 2,8 | 3,9 | 4&5&6 |

WD_9Y

Thermal Limit Curves

| | | | | | |
|--------------------|-----------------|----------------------|------|--------------------|-------------|
| Motor Type: AEHHXV | | Catalogue No: XC0014 | | Family: Optim TEXP | |
| HP | 1 | Safe Stall Time | | Full Load A | 3.2 / 1.6 A |
| Voltage | 230 / 460V 60Hz | Hot | 28 s | Locked Rotor A | 932 / 932 % |
| RPM | 1800 | Cold | 40 s | Locked Rotor A | 30.0 / 15 A |



T-N and I-N Curves

| | | | | | |
|--------------------|-----------------|----------------------|---------|--------------------|---------------|
| Motor Type: AEHHXV | | Catalogue No: XC0014 | | Family: Optim TEXP | |
| HP | 1 | Full Load T | 3 lb-ft | Full Load A | 3.2 / 1.6 A |
| Voltage | 230 / 460V 60Hz | Locked Rotor T | 350 % | Locked Rotor A | 30.0 / 15.0 A |
| RPM | 1800 | Pull Up T | 325 % | Break Down T | 450 % |

