

Technical Documentation

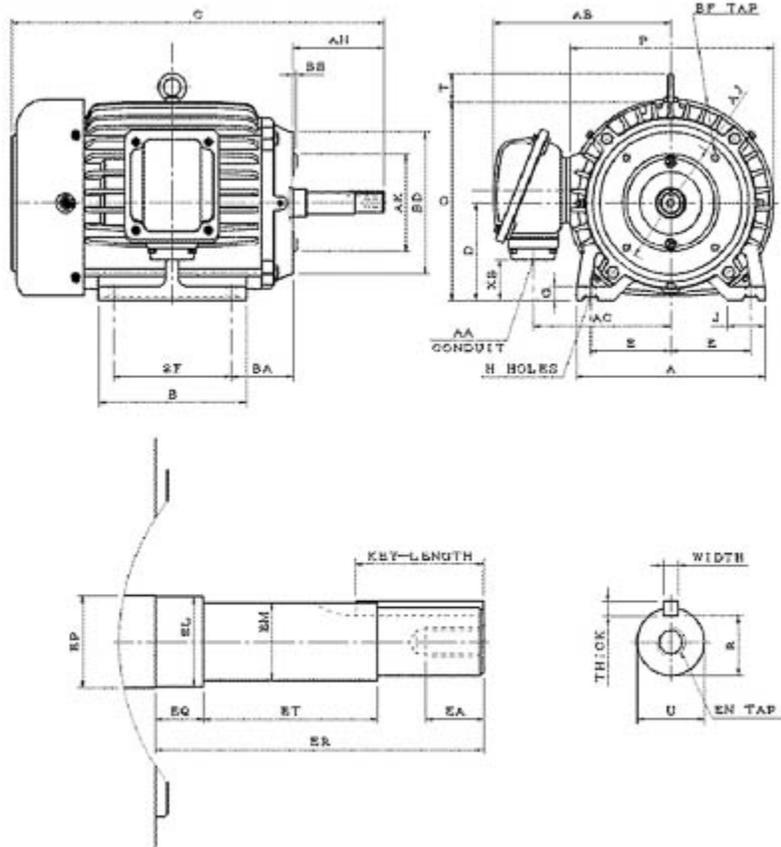
CJM0052

Optim JM | AEHH8N_JM

Date: November 29, 2016

Dimensional Drawing

| | | | | | | | | |
|-----------|-----------|----|------|-----|------------|-------------|----|------|
| Catalogue | Model | HP | Pole | kW | Rating | Voltage | Hz | RPM |
| CJM0052 | AEHH8N_JM | 5 | 2 | 3.7 | Continuous | 230 / 460 V | 60 | 3600 |



AEHH8N-JM-SMP-2

| Frame Size | Mounting | | | | | A | B | C | CD | D | |
|------------------|----------|------|----------|--------|--------------------|-------------|------------|-------|----------------|------------|--------------|
| | E | 2F | 2F2 | H | BA | | | | | | |
| 184JM | 3.75 | 5.5 | | 0.41 | 2.88 | 8.82 | 6.89 | 17.54 | | 4.5 | |
| G | J | K | L | M | O | P | T | Key | | | Keyseat |
| 0.65 | 1.75 | | | | 9.31 | 9.61 | 1.3 | Width | Thick | Length | R |
| | | | | | | | | 0.188 | 0.188 | 1.65 | 0.771 |
| Terminal Housing | | | Aux Box | | | C/D Flange | | | | | |
| AA | AB | AC | XB | AE | AX | BB | AH | AK | BD | AJ | BF |
| 3/4" | 8.31 | 6.38 | 1.86 | | | 0.156 | 4.25 | 4.5 | 6.61 | 5.875 | 4-3/8"-16UNC |
| Shaft Extension | | | Bearings | | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F. | Drive Method | Dimensions | |
| N-W | U | V | DE | NDE | | | | | | | |
| | 0.875 | | 6306ZZ | 6306ZZ | 107 | 65 | F | 1.15 | DirectCoupling | Inches | |

Technical Data Sheet

Motor Type: AEHH8N_JM

Catalogue No: CJM0052

Nameplate Information

| | | | | | | |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP | Pole | RPM | Frame | Voltage | Hz | Phase |
| 5 | 2 | 3480 | 184JM | 230 / 460 | 60 | 3 |
| Enclosure | Ins. Class | Service Factor | Time Rating | NEMA Design | Rated Amb. | Rated Altitude |
| TEFC | 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. | | | | | |
| 88.5 | 86.5 | 89.5 | 89.5 | 92.5 | 91.0 | 85.5 |
| Torque | | | | Current (A) | | |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | No Load | Full Load | Locked Rotor |
| 7.54 | 290 | 230 | 320 | 2.8 / 1.4 | 11.4 / 5.7 | 92 / 46 |
| 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 | |
| J | 0.272 | 5.7 | 17 | 17 | 12 | 65 |

VFD Duty Information

| Speed Range | | | VFD | | S.F. |
|-----------------|-----------------|----------------|---------|--------------|----------|
| Constant Torque | Variable Torque | Constant Power | Carrier | Type | |
| 6-60Hz | 3-60Hz | 60-120Hz | ≤ 5 kHz | VPWM or CPWM | 1.0 Only |

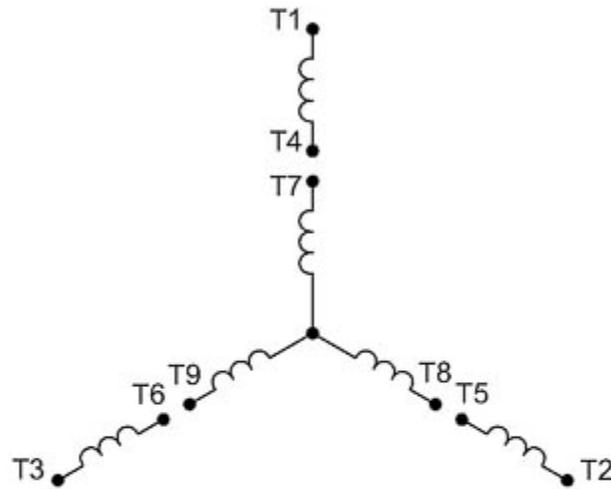
Additional Information

| Bearings | | Approx. Weight |
|----------|--------|----------------|
| DE | NDE | lbs |
| 6306ZZ | 6306ZZ | 107 |

Hazardous Locations Information

| CSA Certified | |
|-------------------------------------------|-----------|
| Class I, Div 2, Groups B, C & D | |
| Class I, Zone 2, Groups IIB+H2, IIB & IIA | |
| Temp Code (Sinewave / VFD) | T3C / T3C |

Connection Diagram

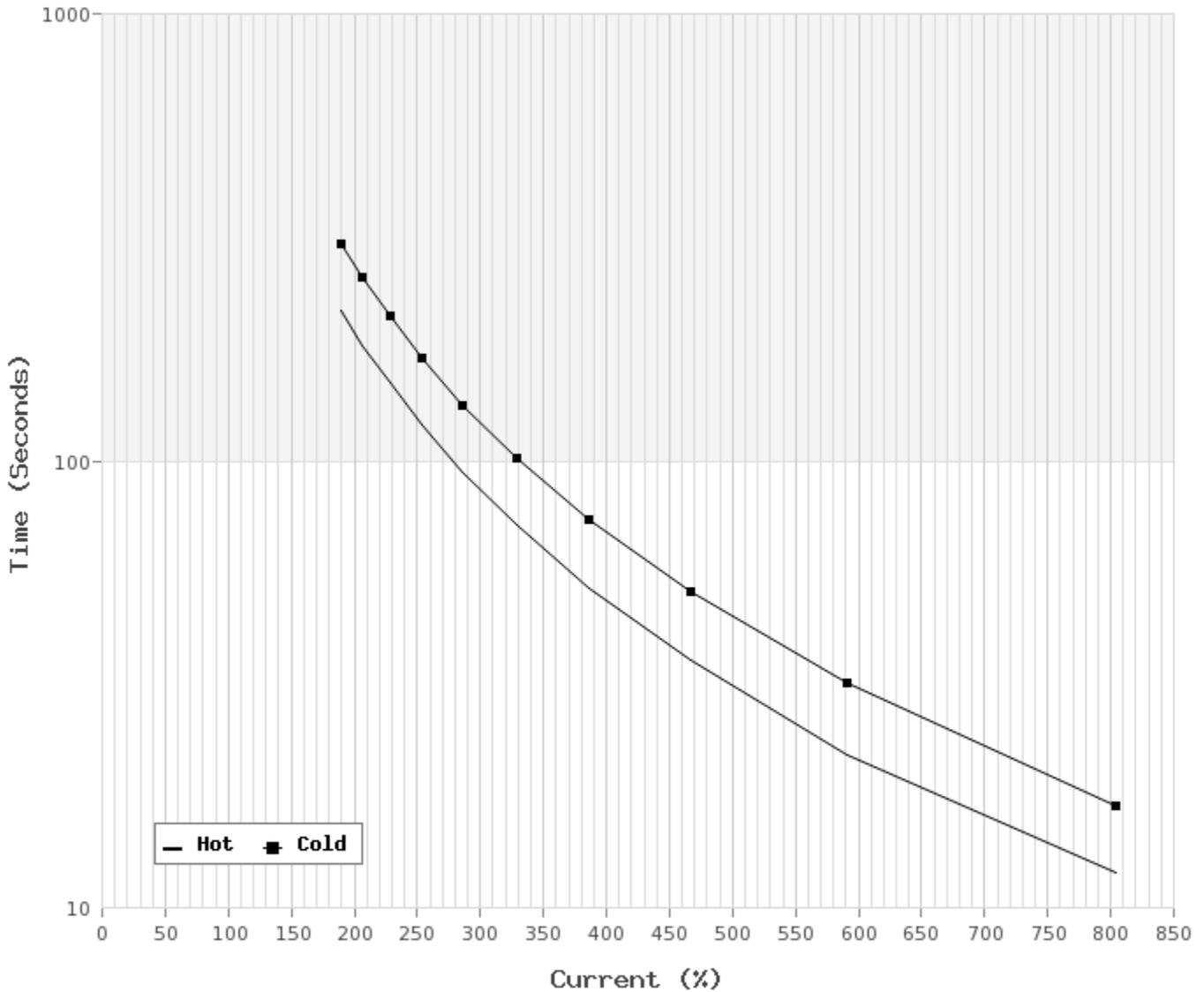


| 9 LEAD DUAL VOLTAGE WYE | | | | | |
|-------------------------|-------|-----|-----|-----|-------------|
| VOLTAGE | CONN. | L1 | L2 | L3 | JOIN |
| HIGH | WYE | 1 | 2 | 3 | 4&7,5&8,6&9 |
| LOW | 2 WYE | 1,7 | 2,8 | 3,9 | 4&5&6 |

WD_9Y

Thermal Limit Curves

| | | | | | |
|-----------------------|-----------------|-----------------------|------|------------------|--------------|
| Motor Type: AEHH8N_JM | | Catalogue No: CJM0052 | | Family: Optim JM | |
| HP | 5 | Safe Stall Time | | Full Load A | 11.4 / 5.7 A |
| Voltage | 230 / 460V 60Hz | Hot | 12 s | Locked Rotor A | 807 / 804 % |
| RPM | 3600 | Cold | 17 s | Locked Rotor A | 92.0 / 46 A |



T-N and I-N Curves

| | | | | | |
|-----------------------|-----------------|-----------------------|------------|------------------|---------------|
| Motor Type: AEHH8N_JM | | Catalogue No: CJM0052 | | Family: Optim JM | |
| HP | 5 | Full Load T | 7.54 lb-ft | Full Load A | 11.4 / 5.7 A |
| Voltage | 230 / 460V 60Hz | Locked Rotor T | 290 % | Locked Rotor A | 92.0 / 46.0 A |
| RPM | 3600 | Pull Up T | 230 % | Break Down T | 320 % |

