

Technical Documentation

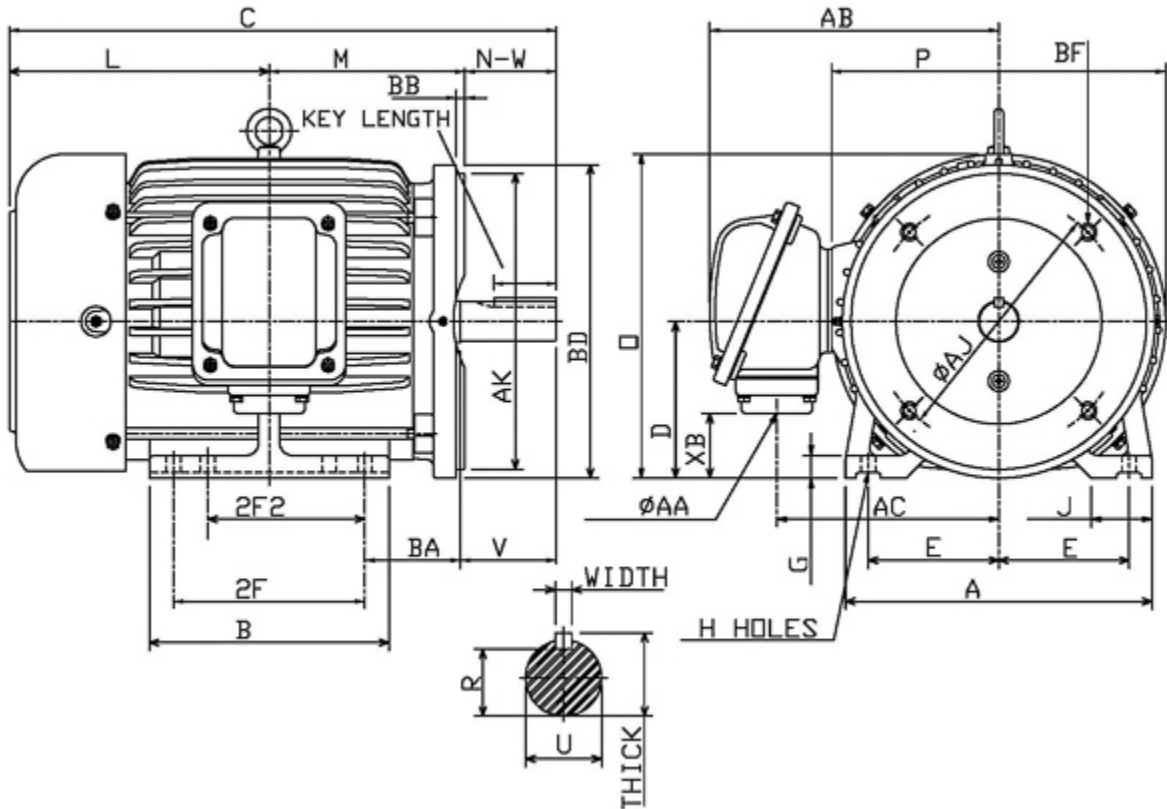
PDH0026C

Optim TEFC | AEHH8N

Date: November 30, 2016

Dimensional Drawing

| Catalogue | Model | HP | Pole | kW | Rating | Voltage | Hz | RPM |
|-----------|--------|----|------|-----|------------|-------------|----|------|
| PDH0026C | AEHH8N | 2 | 6 | 1.5 | Continuous | 230 / 460 V | 60 | 1200 |



| Frame Size | Mounting | | | | | A | B | C | CD | D | |
|------------------|----------|------|----------|--------|-----------------------|----------------|---------------|-------|---------------------------------|------------|--------------|
| | E | 2F | 2F2 | H | BA | | | | | | |
| 184TC | 3.75 | 5.5 | 4.5 | 0.41 | 2.75 | 8.8 | 6.9 | 15.73 | | 4.5 | |
| G | J | K | L | M | O | P | T | Key | | | Keyseat R |
| | | | | | | | | Width | Thick | Length | |
| 0.65 | 1.75 | | 7.48 | 5.37 | 9.31 | 9.61 | 1.19 | 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 |
| 3/4 NPT | 8.31 | 6.38 | 1.86 | | | 0.25 | 2.62 | 8.5 | 9 | 7.25 | 1/2-13UNC |
| 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 | 108 | 53 | F | 1.15 | Direct Coupling / Belt Drive | Inches | |

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH0026C

Nameplate Information

| | | | | | | |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP | Pole | RPM | Frame | Voltage | Hz | Phase |
| 2 | 6 | 1170 | 184TC | 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 | 88.5 | 86.5 | 70.5 | 63.0 | 50.5 |
| Torque | | | | Current (A) | | |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | No Load | Full Load | Locked Rotor |
| 8.98 | 180 | 150 | 270 | 3.4 / 1.7 | 6.0 / 3.0 | 50 / 25 |
| 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 | |
| L | 0.423 | 30.0 | 219.0 | 95 | 67 | 53 |

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 | 108 |

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

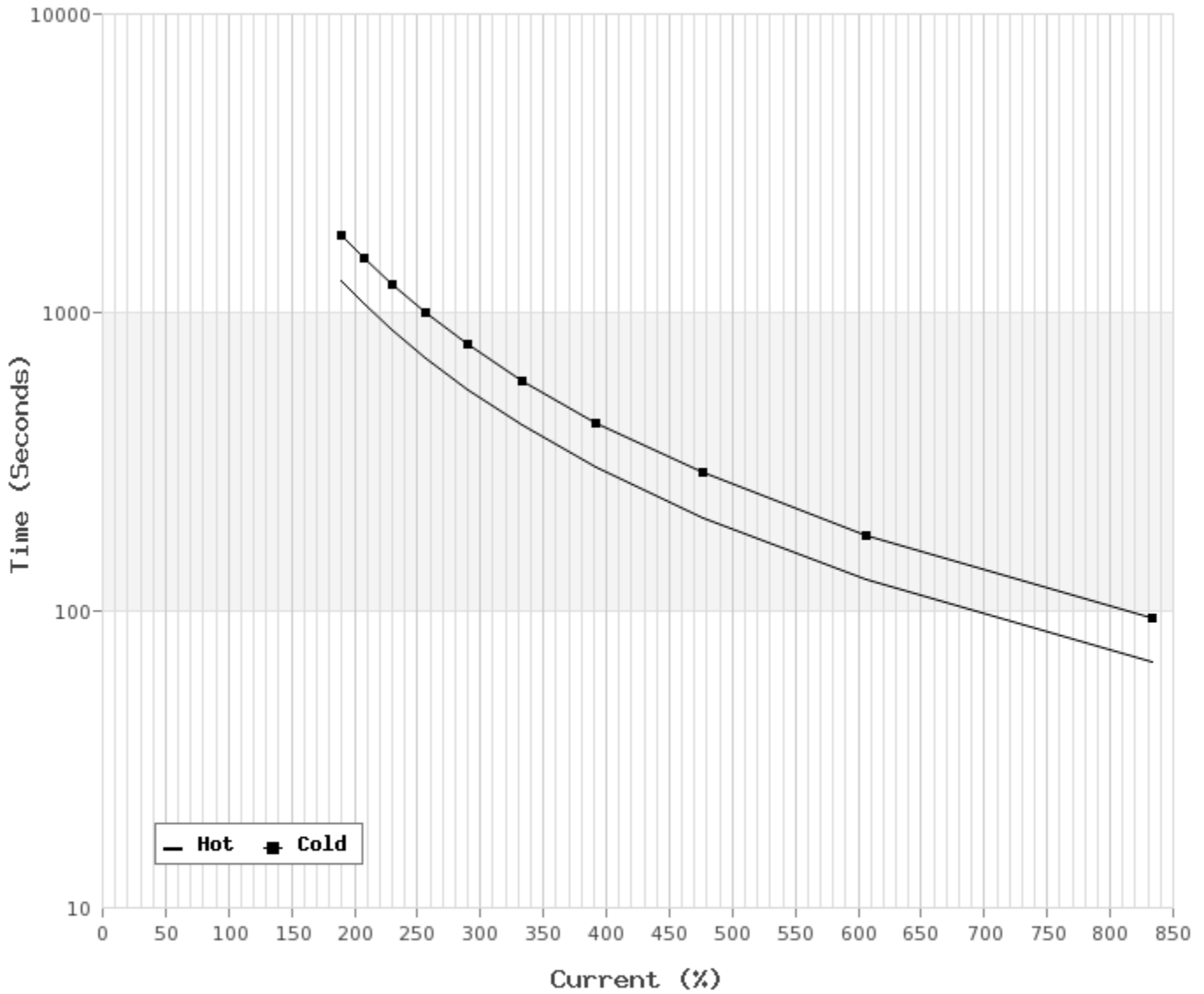


| 9 LEAD DUAL VOLTAGE WYE | | | | | |
|-------------------------|-------|-----|-----|-----|-------------|
| VOLTAGE | CONN. | L1 | L2 | L3 | JOIN |
| HIGH | WYE | 1 | 2 | 3 | 4&7,5&8,6&9 |
| LOW | 2 WYE | 1,7 | 2,8 | 3,9 | 4&5&6 |

WD_9Y

Thermal Limit Curves

| | | | | | |
|--------------------|-----------------|------------------------|------|--------------------|-------------|
| Motor Type: AEHH8N | | Catalogue No: PDH0026C | | Family: Optim TEFC | |
| HP | 2 | Safe Stall Time | | Full Load A | 6.0 / 3.0 A |
| Voltage | 230 / 460V 60Hz | Hot | 67 s | Locked Rotor A | 833 / 833 % |
| RPM | 1200 | Cold | 95 s | Locked Rotor A | 50.0 / 25 A |



T-N and I-N Curves

| | | | | | |
|--------------------|-----------------|------------------------|------------|--------------------|---------------|
| Motor Type: AEHH8N | | Catalogue No: PDH0026C | | Family: Optim TEFC | |
| HP | 2 | Full Load T | 8.98 lb-ft | Full Load A | 6.0 / 3.0 A |
| Voltage | 230 / 460V 60Hz | Locked Rotor T | 180 % | Locked Rotor A | 50.0 / 25.0 A |
| RPM | 1200 | Pull Up T | 150 % | Break Down T | 270 % |

