

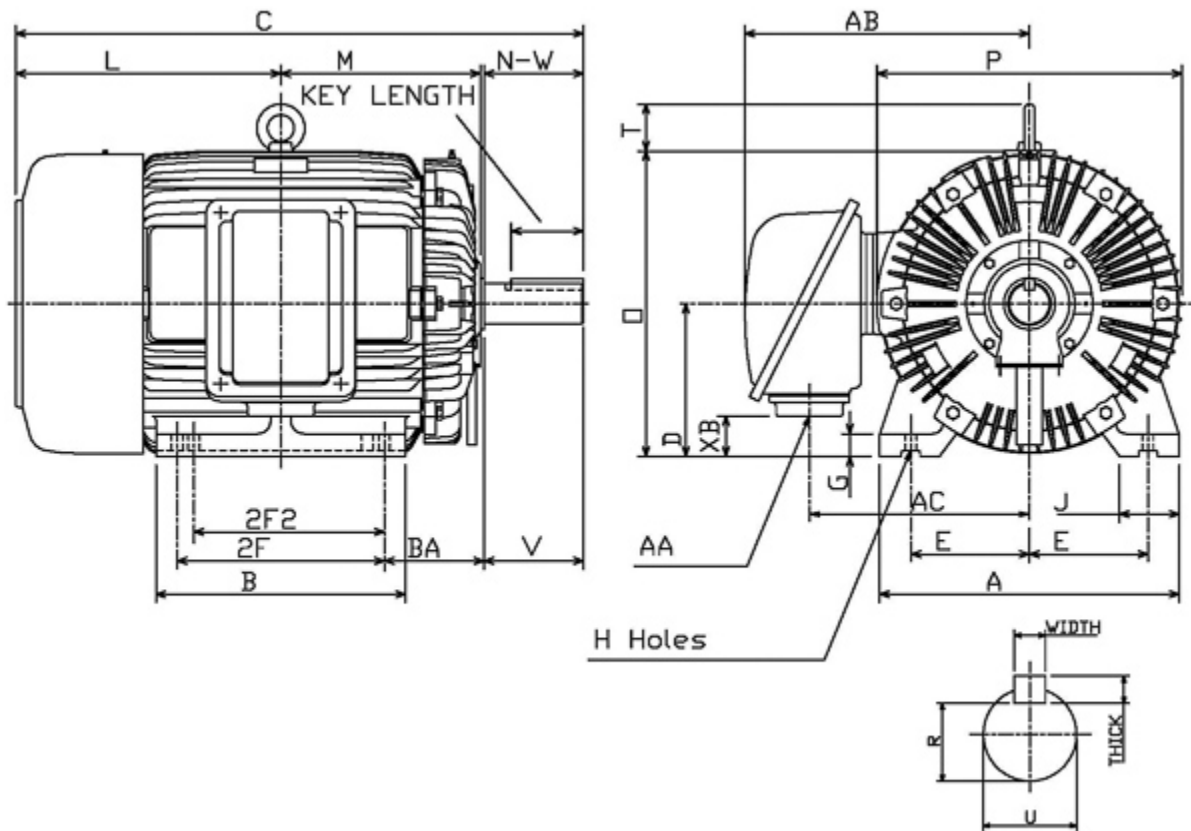
Technical Documentation

PDH0756
Optim TEFC | AEHH8N

Date: November 30, 2016

Dimensional Drawing

| Catalogue | Model | HP | Pole | kW | Rating | Voltage | Hz | RPM |
|-----------|--------|----|------|----|------------|-------------|----|------|
| PDH0756 | AEHH8N | 75 | 6 | 56 | Continuous | 230 / 460 V | 60 | 1200 |



| Frame Size | Mounting | | | | | A | B | C | CD | D | |
|------------------|----------|-------|----------|-------|-----------------------|----------------|---------------|-------|---------------------------------|------------|--------------|
| | E | 2F | 2F2 | H | BA | | | | | | |
| 405T | 8 | 13.75 | 12.25 | 0.81 | 6.62 | 19.7 | 16.75 | 37.8 | | 10 | |
| G | J | K | L | M | O | P | T | Key | | | Keyseat R |
| | | | | | | | | Width | Thick | Length | |
| 1.55 | 3.95 | | 17.05 | 13.27 | 20.04 | 20.08 | 2.76 | 0.75 | 0.75 | 5.65 | 2.45 |
| Terminal Housing | | | Aux Box | | | C/D Flange | | | | | |
| AA | AB | AC | XB | AE | AX | BB | AH | AK | BD | AJ | BF |
| 3 NPT | 19.37 | 14.76 | 1.81 | | | | | | | | |
| Shaft Extension | | | Bearings | | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F. | Drive Method | Dimensions | |
| N-W | U | V | DE | NDE | | | | | | | |
| 7.25 | 2.875 | 7.15 | 6317 | 6313 | 1340 | 78 | F | 1.15 | Direct Coupling / Belt Drive | Inches | |

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH0756

Nameplate Information

| | | | | | | |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP | Pole | RPM | Frame | Voltage | Hz | Phase |
| 75 | 6 | 1180 | 405T | 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. | | | | | |
| 94.5 | 93.6 | 94.5 | 94.5 | 86.5 | 84.5 | 79.0 |
| Torque | | | | Current (A) | | |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | No Load | Full Load | Locked Rotor |
| 333.70 | 200 | 175 | 225 | 45.2 / 22.6 | 171.8 / 85.9 | 1086 / 543 |
| 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 | |
| G | 37.862 | 904.0 | 2050.0 | 30 | 21 | 78 |

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 |
| 6317 | 6313 | 1340 |

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 / T3 |

Connection Diagram

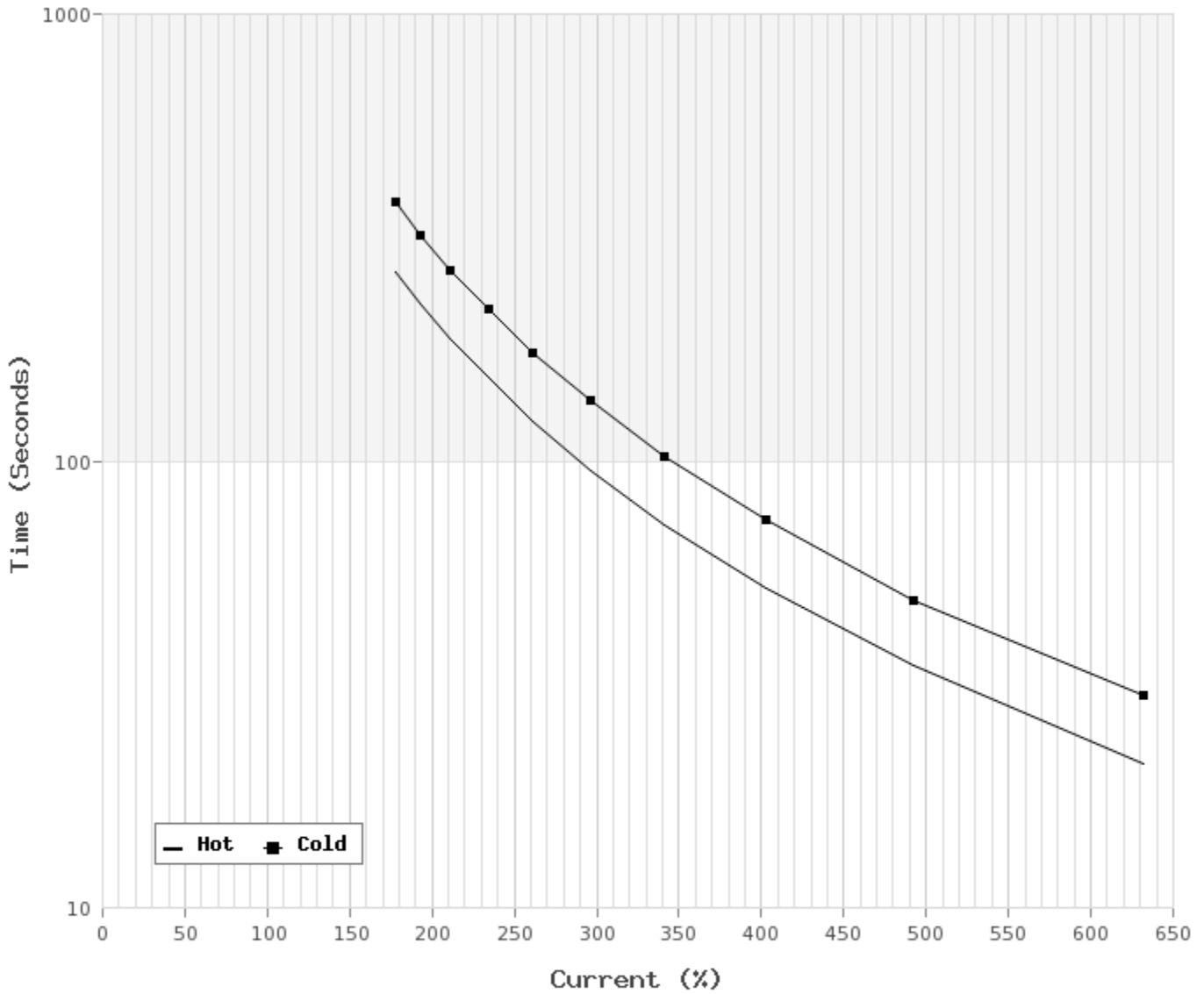


| 12 LEAD DUAL VOLTAGE WYE/DELTA | | | | | | |
|--------------------------------|------------|---------|-------------|-------------|-------------|-------------------------|
| VOLTAGE | CONNECTION | | L1 | L2 | L3 | JOIN |
| HIGH | START | WYE | 1 | 2 | 3 | 4&7,5&8,6&9 10&11&12 |
| | RUN | DELTA | 1,12 | 2,10 | 3,11 | 4&7,5&8,6&9 |
| LOW | START | 2 WYE | 1,7 | 2,8 | 3,9 | 4&5&6 10&11&12 |
| | RUN | 2 DELTA | 1,6,7 12 | 2,4,8 10 | 3,5,9 11 | |

WD_12YD

Thermal Limit Curves

| | | | | | |
|--------------------|-----------------|-----------------------|------|--------------------|-----------------|
| Motor Type: AEHH8N | | Catalogue No: PDH0756 | | Family: Optim TEFC | |
| HP | 75 | Safe Stall Time | | Full Load A | 171.8 / 85.9 A |
| Voltage | 230 / 460V 60Hz | Hot | 21 s | Locked Rotor A | 632 / 632 % |
| RPM | 1200 | Cold | 30 s | Locked Rotor A | 1,086.0 / 543 A |



T-N and I-N Curves

| | | | | | |
|--------------------|-----------------|-----------------------|--------------|--------------------|-------------------|
| Motor Type: AEHH8N | | Catalogue No: PDH0756 | | Family: Optim TEFC | |
| HP | 75 | Full Load T | 333.70 lb-ft | Full Load A | 171.8 / 85.9 A |
| Voltage | 230 / 460V 60Hz | Locked Rotor T | 200 % | Locked Rotor A | 1,086.0 / 543.0 A |
| RPM | 1200 | Pull Up T | 175 % | Break Down T | 225 % |

