

Technical Documentation

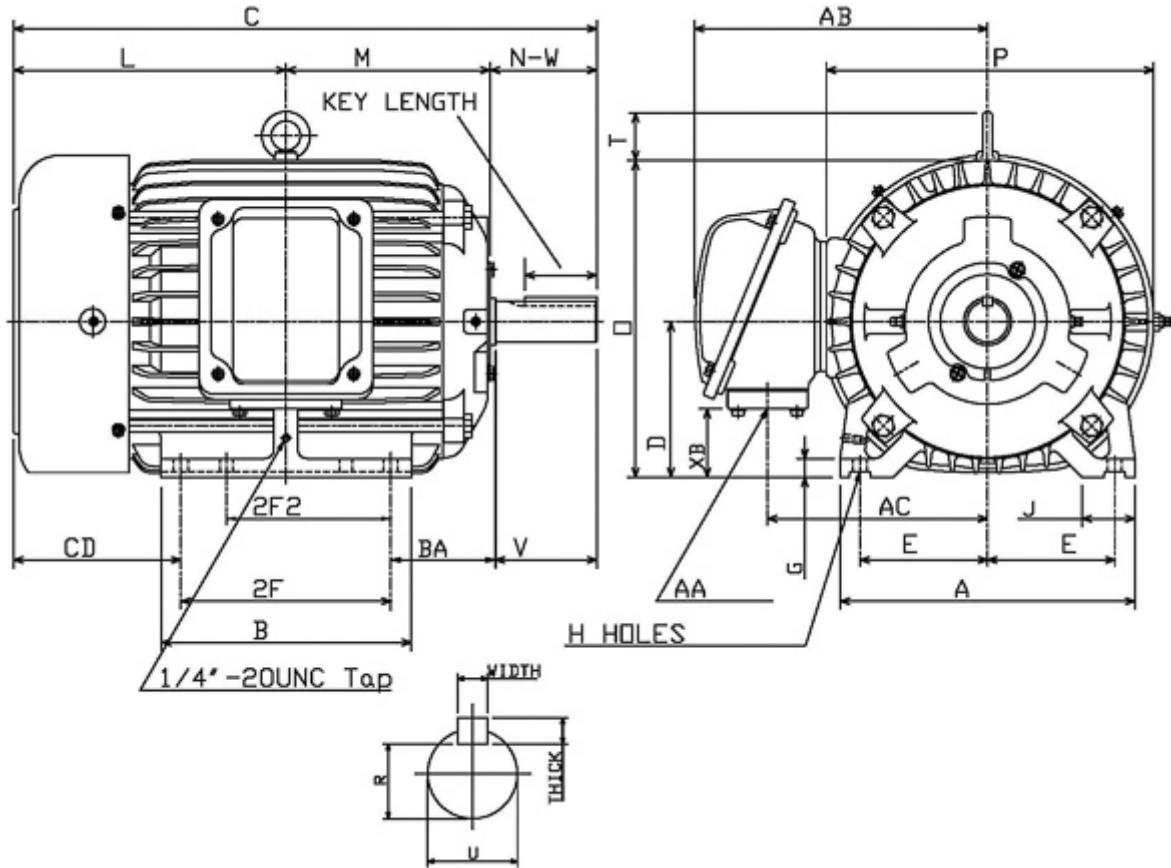
APH0104

Advantage Plus IEEE Ready | AEHH8R

Date: June 25, 2020

Dimensional Drawing

| Catalogue | Model | HP | Pole | kW | Rating | Voltage | Hz | RPM |
|-----------|--------|----|------|-----|------------|---------|----|------|
| APH0104 | AEHH8R | 10 | 4 | 7.5 | Continuous | 460 | 60 | 1800 |



| Frame Size | Mounting | | | | | A | B | C | CD | D | |
|------------------|----------|------|----------|---------|--------------------|-------------|------------|-------|------------------------------|------------|---------|
| | E | 2F | 2F2 | H | BA | | | | | | |
| 215T | 4.25 | 7 | 5.5 | 0.41 | 3.5 | 9.85 | 8.35 | 19.76 | | 5.25 | |
| G | J | K | L | M | O | P | T | Key | | | Keyseat |
| 0.7 | 1.75 | | 9.38 | 6.85 | 10.62 | 11.1 | 1.65 | Width | Thick | Length | R |
| | | | | | | | | 0.312 | 0.312 | 2.41 | 1.201 |
| Terminal Housing | | | Aux Box | | | C/D Flange | | | | | |
| AA | AB | AC | XB | AE | AX | BB | AH | AK | BD | AJ | BF |
| NPT1" | 9.78 | 7.34 | 2.34 | | | | | | | | |
| Shaft Extension | | | Bearings | | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F. | Drive Method | Dimensions | |
| N-W | U | V | DE | NDE | | | | | | | |
| 3.38 | 1.375 | 3.3 | 6308ZC3 | 6306ZC3 | 194 | 60 | F | 1.15 | Direct Coupling / Belt Drive | Inches | |

| | |
|---|---------------------|
|  | |
| | |
| | |
| | Date: June 25, 2020 |

Technical Data Sheet

| | |
|--------------------|-----------------------|
| Motor Type: AEHH8R | Catalogue No: APH0104 |
|--------------------|-----------------------|

Nameplate Information

| | | | | | | |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP | Pole | RPM | Frame | Voltage | Hz | Phase |
| 10 | 4 | 1755 | 215T | 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 | <1000 m |

Typical Performance

| Efficiency (%) | | | | Power Factor (%) | | |
|-------------------|-----------------------------|---------------------------------|--------------------------------------|---------------------|-----------|--------------------------------|
| Full Load | | 3/4 Load | 1/2 Load | Full Load | 3/4 Load | 1/2 Load |
| Nom. | Min. | | | | | |
| 91.7 | 90.2 | 91.0 | 91.0 | 88.0 | 84.0 | 75.5 |
| Torque | | | | Current (A) | | |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | No Load | Full Load | Locked Rotor |
| 29.92 | 250 | 145 | 260 | 3.4 | 11.6 | 81 |
| 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 | |
| H | 1.082 | 51.00 | 175.00 | 40 | 28 | 60 |

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 |

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 / T3B |

Additional Certifications

| |
|-------------------------------|
| Other Certification |
| Class II, Div 2, Groups F & G |

Additional Information

| Bearings | | Approx. Weight |
|----------|---------|----------------|
| DE | NDE | lbs |
| 6308ZC3 | 6306ZC3 | 194 |

Nameplate Drawing

Advantage Plus IEEE Ready

| | | | | | |
|--------------|-------------------|----------------|----------|----------------|------|
| TYPE | AEHH8R | CAT. NO. | APH0104 | | |
| OUTPUT | 10 HP 7.5 kW | FRAME | 215T | TEFC | |
| R.P.M. | 1755 | POLE | 4 | INS. | F |
| VOLTS | 460 | PHASE | 3 | Hz | 60 |
| AMPS | 11.6 | CODE | H | S.F. | 1.15 |
| AMBIENT | 40 °C | NOM. EFF. 91.7 | | MIN. EFF. 90.2 | |
| BEARINGS | 6308ZC3 / 6306ZC3 | | | RATING Cont. | |
| SER. NO. | TBD | DESIGN | B | WT. 194 LBS | |
| PWM VFD DUTY | VT | CT | CP | S.F. | |
| | 3-60Hz | 6-60Hz | 60-120Hz | 1.0 Only | |

Connection Diagram

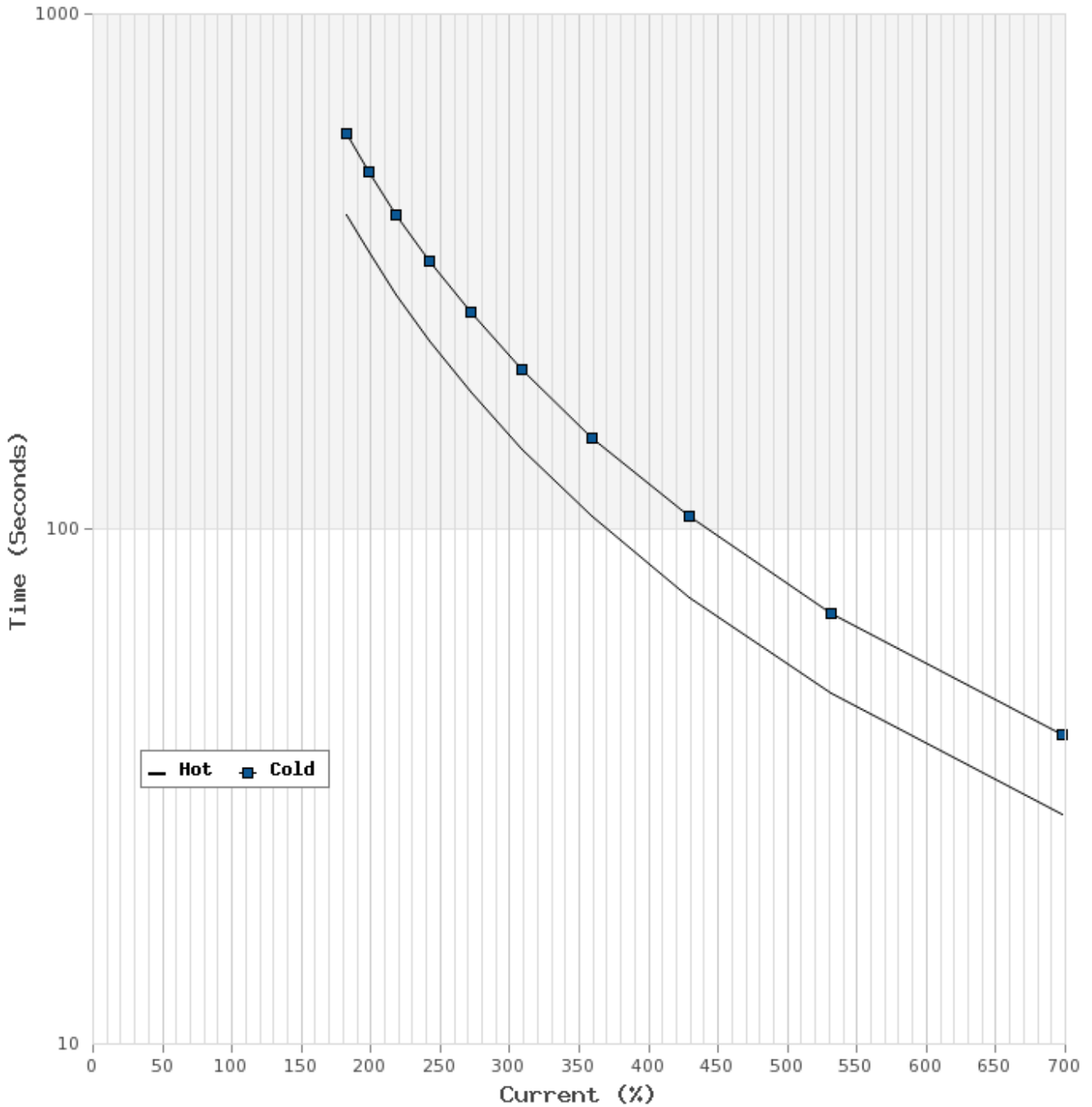


| 3 LEAD | | SINGLE VOLTAGE | | | DELTA |
|---------|-------|----------------|----|----|-------|
| VOLTAGE | CONN. | L1 | L2 | L3 | |
| - | DELTA | 1 | 2 | 3 | |

WD_3D

Thermal Limit Curves

| | | | | | |
|--------------------|-----------|-----------------------|------|-----------------------------------|--------|
| Motor Type: AEHH8R | | Catalogue No: APH0104 | | Family: Advantage Plus IEEE Ready | |
| HP | 10 | Safe Stall Time | | Full Load A | 11.6 A |
| Voltage | 460V 60Hz | Hot | 28 s | % Inrush | 698 % |
| RPM | 1800 | Cold | 40 s | Locked Rotor A | 81 A |



T-N and I-N Curves

| | | | | | |
|--------------------|-----------|-----------------------|-------------|-----------------------------------|--------|
| Motor Type: AEHH8R | | Catalogue No: APH0104 | | Family: Advantage Plus IEEE Ready | |
| HP | 10 | Full Load T | 29.92 lb-ft | Full Load A | 11.6 A |
| Voltage | 460V 60Hz | Locked Rotor T | 250 % | Locked Rotor A | 81.0 A |
| RPM | 1800 | Pull Up T | 145 % | Break Down T | 260 % |

