

Technical Documentation

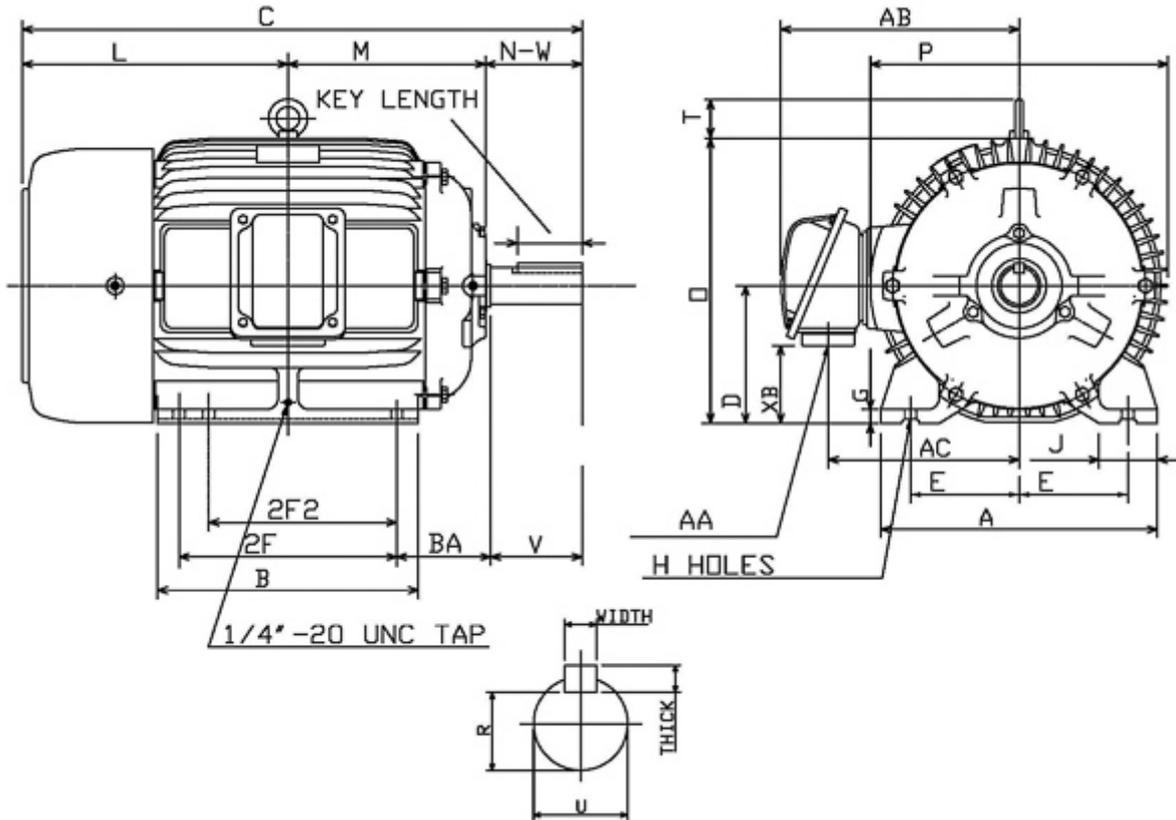
APH0202

Advantage Plus IEEE Ready | AEHH8R

Date: June 25, 2020

Dimensional Drawing

| Catalogue | Model | HP | Pole | kW | Rating | Voltage | Hz | RPM |
|-----------|--------|----|------|----|------------|---------|----|------|
| APH0202 | AEHH8R | 20 | 2 | 15 | Continuous | 460 | 60 | 3600 |



| Frame Size | Mounting | | | | | A | B | C | CD | D | |
|------------------|----------|------|----------|---------|--------------------|-------------|------------|-------|------------------------------|------------|---------|
| | E | 2F | 2F2 | H | BA | | | | | | |
| 256T | 5 | 10 | 8.25 | 0.53 | 4.25 | 11.81 | 11.81 | 25.52 | | 6.25 | |
| G | J | K | L | M | O | P | T | Key | | | Keyseat |
| 0.66 | 1.95 | | 12.27 | 8.93 | 12.8 | 13.15 | 2.01 | Width | Thick | Length | R |
| | | | | | | | | 0.375 | 0.375 | 2.91 | 1.416 |
| Terminal Housing | | | Aux Box | | | C/D Flange | | | | | |
| AA | AB | AC | XB | AE | AX | BB | AH | AK | BD | AJ | BF |
| NPT11/4" | 11.3 | 8.86 | 3.22 | | | | | | | | |
| Shaft Extension | | | Bearings | | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F. | Drive Method | Dimensions | |
| N-W | U | V | DE | NDE | | | | | | | |
| 4 | 1.625 | 3.9 | 6309ZC3 | 6307ZC3 | 337 | 73 | F | 1.15 | Direct Coupling / Belt Drive | Inches | |

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

Technical Data Sheet

| | |
|--------------------|-----------------------|
| Motor Type: AEHH8R | Catalogue No: APH0202 |
|--------------------|-----------------------|

Nameplate Information

| | | | | | | |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP | Pole | RPM | Frame | Voltage | Hz | Phase |
| 20 | 2 | 3520 | 256T | 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. | | | | | |
| 92.4 | 91.0 | 93.0 | 93.6 | 92.5 | 91.5 | 88.0 |
| Torque | | | | Current (A) | | |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | No Load | Full Load | Locked Rotor |
| 29.83 | 210 | 180 | 260 | 4.1 | 21.9 | 145 |
| 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 | 1.407 | 21.00 | 42.00 | 17 | 12 | 73 |

VFD Duty Information

| Speed Range | | | VFD | | S.F. |
|-----------------|-----------------|----------------|---------|--------------|----------|
| Constant Torque | Variable Torque | Constant Power | Carrier | Type | |
| 6-60Hz | 3-60Hz | 60-90Hz | ≤ 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

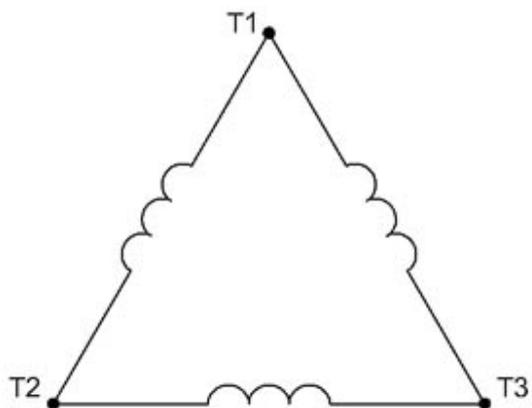
| Bearings | | Approx. Weight |
|----------|---------|----------------|
| DE | NDE | lbs |
| 6309ZC3 | 6307ZC3 | 337 |

Nameplate Drawing

Advantage Plus IEEE Ready

| | | | | | |
|--------------|-------------------|----------------|---------|----------------|------|
| TYPE | AEHH8R | CAT. NO. | APH0202 | | |
| OUTPUT | 20 HP 15 kW | FRAME | 256T | TEFC | |
| R.P.M. | 3520 | POLE | 2 | INS. | F |
| VOLTS | 460 | PHASE | 3 | Hz | 60 |
| AMPS | 21.9 | CODE | G | S.F. | 1.15 |
| AMBIENT | 40 °C | NOM. EFF. 92.4 | | MIN. EFF. 91.0 | |
| BEARINGS | 6309ZC3 / 6307ZC3 | | | RATING Cont. | |
| SER. NO. | TBD | DESIGN | B | WT. 337 LBS | |
| PWM VFD DUTY | VT | CT | CP | S.F. | |
| | 3-60Hz | 6-60Hz | 60-90Hz | 1.0 Only | |

Connection Diagram

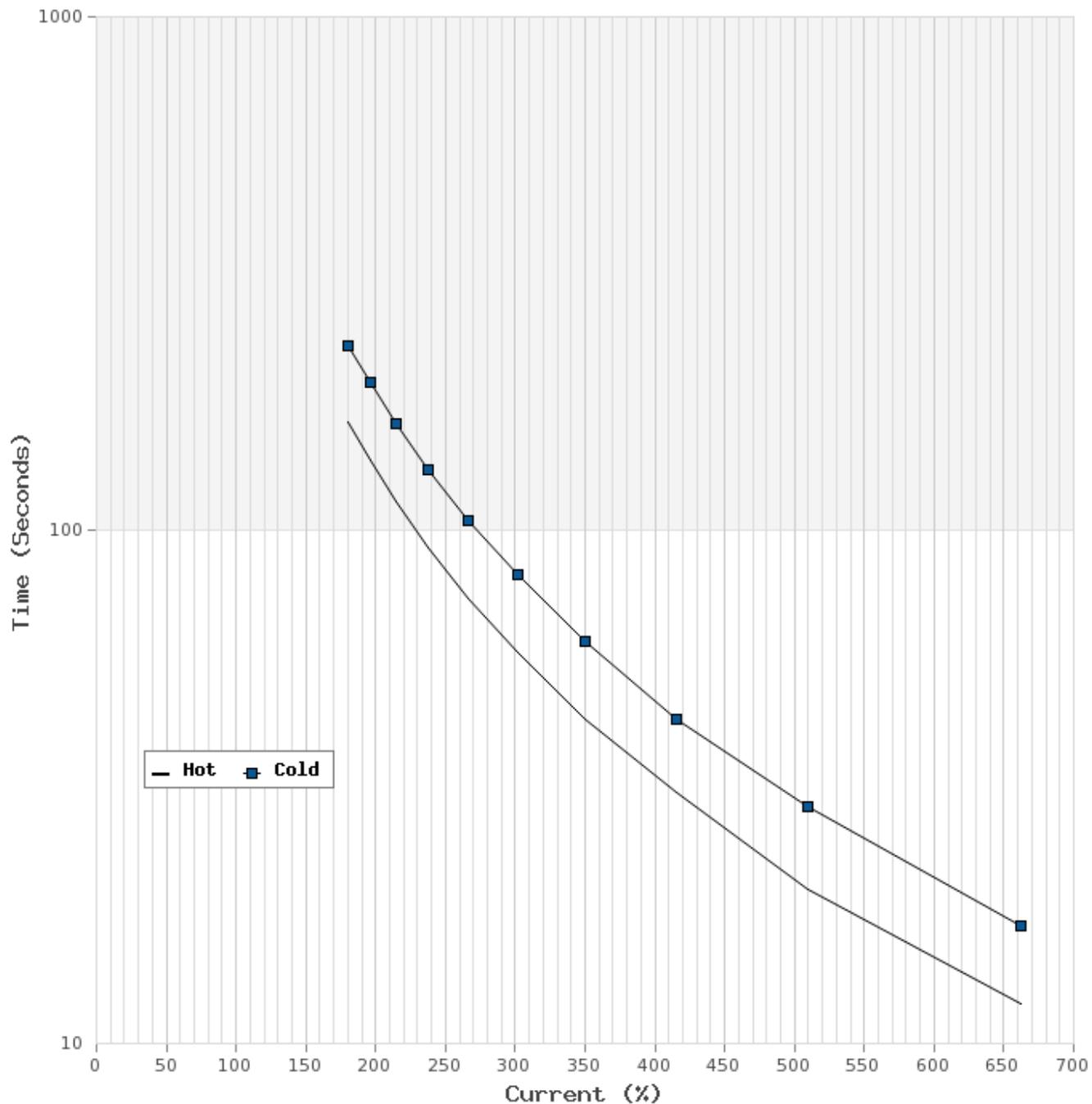


| 3 LEAD | | SINGLE VOLTAGE | | | DELTA |
|---------|-------|----------------|----|----|-------|
| VOLTAGE | CONN. | L1 | L2 | L3 | |
| - | DELTA | 1 | 2 | 3 | |

WD_3D

Thermal Limit Curves

| | | | | | |
|--------------------|-----------|-----------------------|------|-----------------------------------|--------|
| Motor Type: AEHH8R | | Catalogue No: APH0202 | | Family: Advantage Plus IEEE Ready | |
| HP | 20 | Safe Stall Time | | Full Load A | 21.9 A |
| Voltage | 460V 60Hz | Hot | 12 s | % Inrush | 662 % |
| RPM | 3600 | Cold | 17 s | Locked Rotor A | 145 A |



T-N and I-N Curves

| | | | | | |
|--------------------|-----------|-----------------------|-------------|-----------------------------------|---------|
| Motor Type: AEHH8R | | Catalogue No: APH0202 | | Family: Advantage Plus IEEE Ready | |
| HP | 20 | Full Load T | 29.83 lb-ft | Full Load A | 21.9 A |
| Voltage | 460V 60Hz | Locked Rotor T | 210 % | Locked Rotor A | 145.0 A |
| RPM | 3600 | Pull Up T | 180 % | Break Down T | 260 % |

