

Technical Documentation

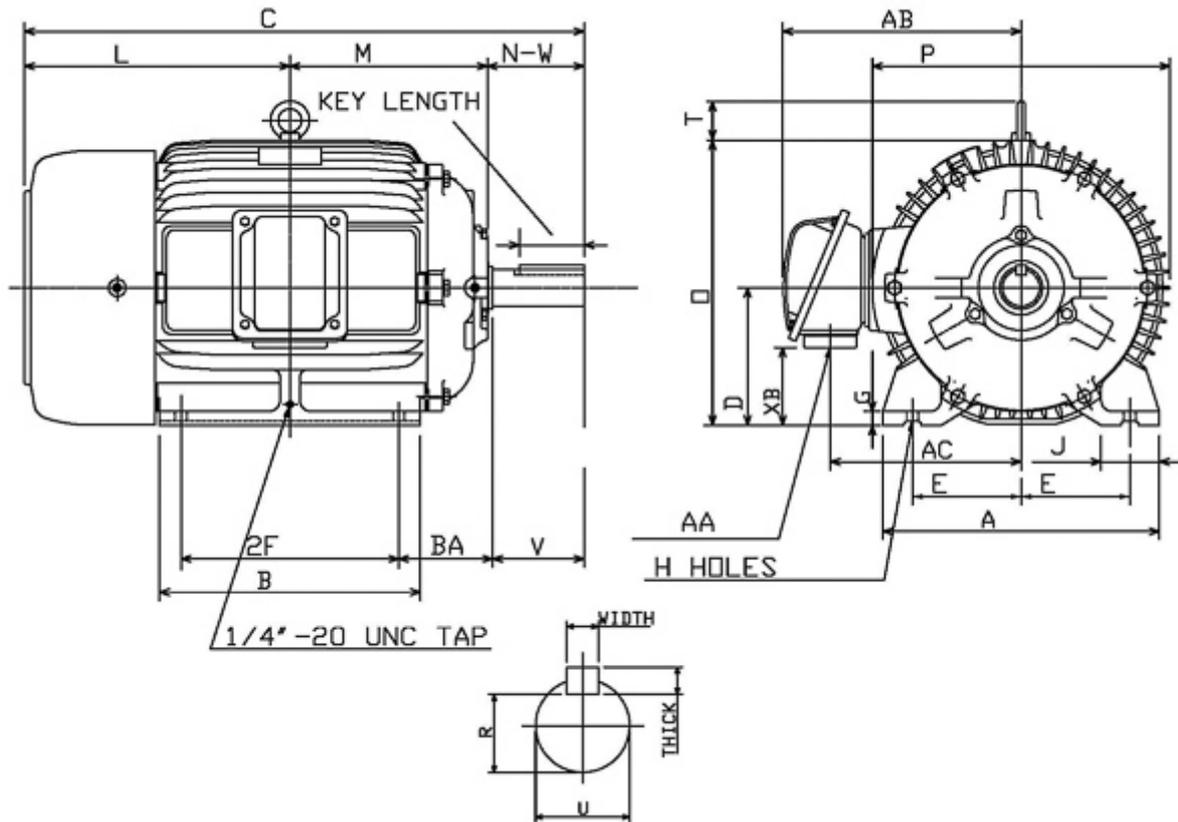
APH0058-841

Advantage Plus IEEE 841 | AEHH8B

Date: June 26, 2020

Dimensional Drawing

| Catalogue | Model | HP | Pole | kW | Rating | Voltage | Hz | RPM |
|-------------|--------|----|------|-----|------------|---------|----|-----|
| APH0058-841 | AEHH8B | 5 | 8 | 3.7 | Continuous | 460 | 60 | 900 |



| Frame Size | Mounting | | | | | A | B | C | CD | D | |
|------------------|----------|------|----------|---------|--------------------|-------------|------------|-------|------------------------------|------------|---------|
| | E | 2F | 2F2 | H | BA | | | | | | |
| 254T | 5 | 8.25 | | 0.53 | 4.25 | 11.81 | 9.85 | 23.78 | | 6.25 | |
| G | J | K | L | M | O | P | T | Key | | | Keyseat |
| 0.66 | 1.95 | | 11.41 | 8.06 | 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 | 257 | 54 | F | 1.15 | Direct Coupling / Belt Drive | Inches | |

| | |
|---|---------------------|
|  | |
| | |
| | |
| | Date: June 26, 2020 |

Technical Data Sheet

| | |
|--------------------|---------------------------|
| Motor Type: AEHH8B | Catalogue No: APH0058-841 |
|--------------------|---------------------------|

Nameplate Information

| | | | | | | |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP | Pole | RPM | Frame | Voltage | Hz | Phase |
| 5 | 8 | 870 | 254T | 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. | | | | | |
| 86.5 | 84.0 | 86.5 | 85.5 | 72.0 | 64.0 | 51.5 |
| Torque | | | | Current (A) | | |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | No Load | Full Load | Locked Rotor |
| 30.17 | 190 | 185 | 240 | 4.6 | 7.5 | 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 | 1.660 | 142.00 | 353.00 | 46 | 33 | 54 |

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) T3A / T3A |

Additional Certifications

| |
|---------------------|
| Other Certification |
|---------------------|

Additional Information

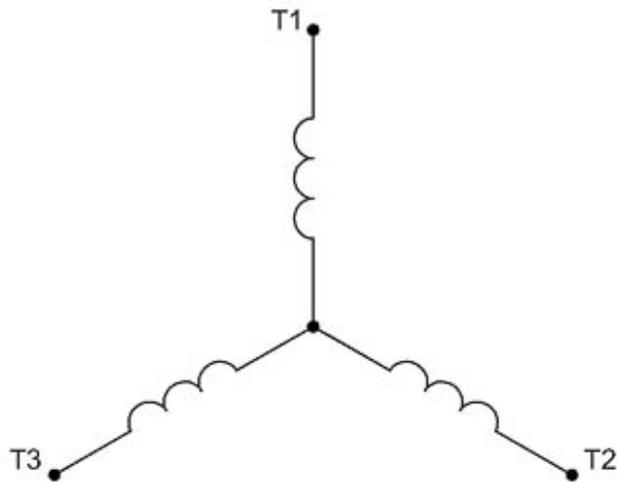
| Bearings | | Approx. Weight |
|----------|---------|----------------|
| DE | NDE | lbs |
| 6309ZC3 | 6307ZC3 | 257 |

Nameplate Drawing

Advantage Plus IEEE 841

| | | | | | |
|-----------------|-------------------|----------------|-------------|----------------|------|
| TYPE | AEHH8B | CAT. NO. | APH0058-841 | | |
| OUTPUT | 5 HP 3.7 kW | FRAME | 254T | TEFC | |
| R.P.M. | 870 | POLE | 8 | INS. | F |
| VOLTS | 460 | PHASE | 3 | Hz | 60 |
| AMPS | 7.5 | CODE | J | S.F. | 1.15 |
| AMBIENT | 40 °C | NOM. EFF. 86.5 | | MIN. EFF. 84.0 | |
| BEARINGS | 6309ZC3 / 6307ZC3 | | | RATING Cont. | |
| SER. NO. | TBD | DESIGN | B | WT. 257 LBS | |
| PWM VFD DUTY | VT | CT | CP | S.F. | |
| | 3-60Hz | 6-60Hz | 60-120Hz | 1.0 Only | |

Connection Diagram

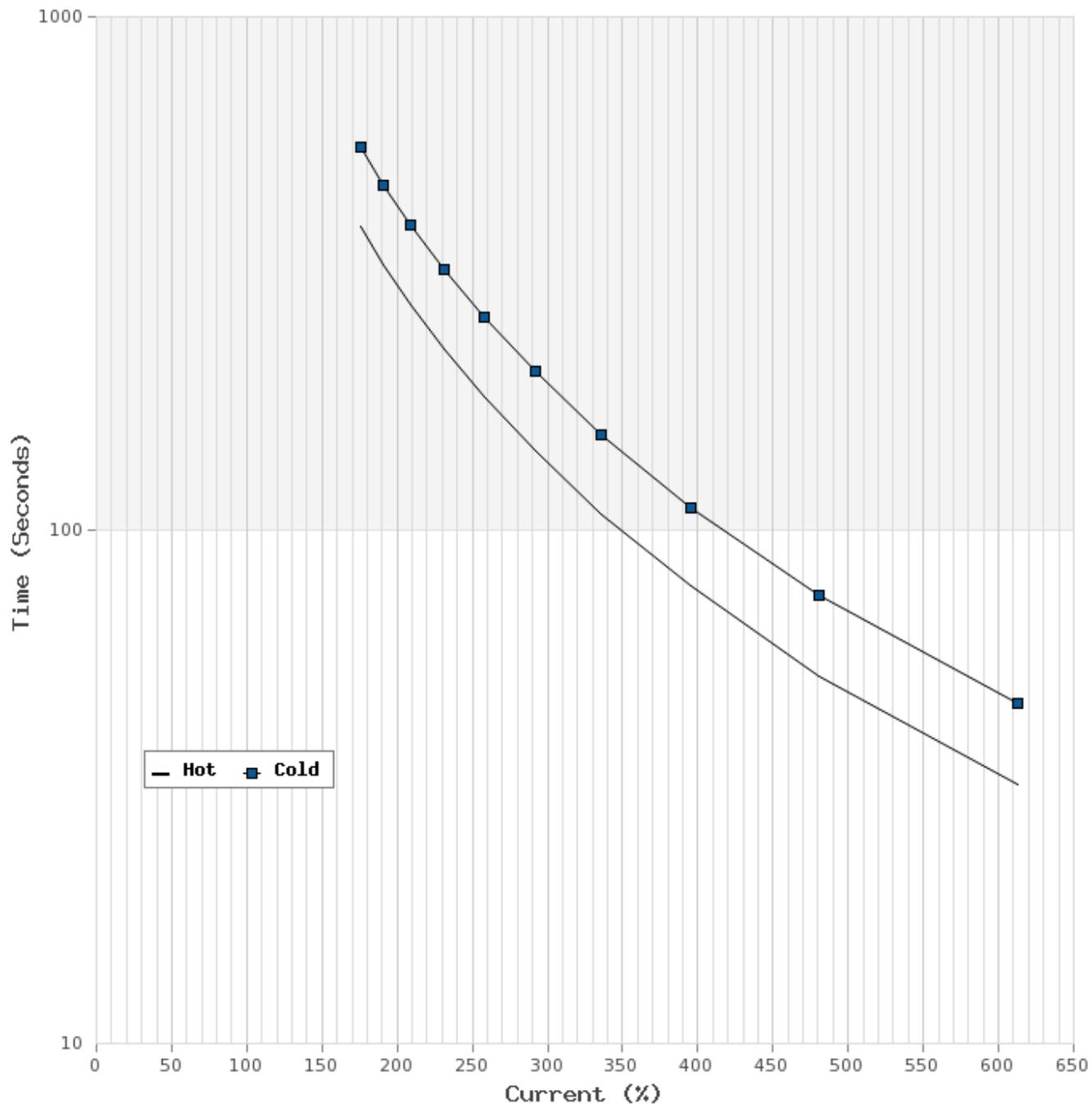


| 3 LEAD | | SINGLE VOLTAGE | | | WYE |
|---------|-------|----------------|----|----|-----|
| VOLTAGE | CONN. | L1 | L2 | L3 | |
| - | WYE | 1 | 2 | 3 | |

WD_3Y

Thermal Limit Curves

| | | | | | |
|--------------------|-----------|---------------------------|------|---------------------------------|-------|
| Motor Type: AEHH8B | | Catalogue No: APH0058-841 | | Family: Advantage Plus IEEE 841 | |
| HP | 5 | Safe Stall Time | | Full Load A | 7.5 A |
| Voltage | 460V 60Hz | Hot | 33 s | % Inrush | 612 % |
| RPM | 900 | Cold | 46 s | Locked Rotor A | 46 A |



T-N and I-N Curves

| | | | | | |
|--------------------|-----------|---------------------------|-------------|---------------------------------|--------|
| Motor Type: AEHH8B | | Catalogue No: APH0058-841 | | Family: Advantage Plus IEEE 841 | |
| HP | 5 | Full Load T | 30.17 lb-ft | Full Load A | 7.5 A |
| Voltage | 460V 60Hz | Locked Rotor T | 190 % | Locked Rotor A | 46.0 A |
| RPM | 900 | Pull Up T | 185 % | Break Down T | 240 % |

