



Technical Documentation

APH1254-841

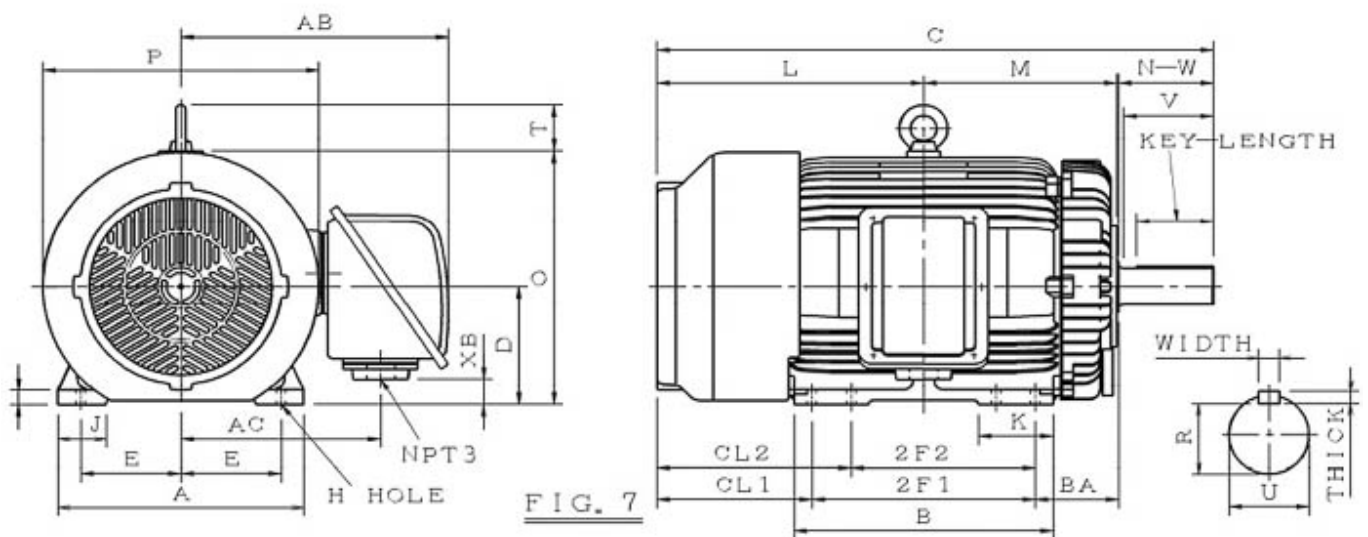
Advantage Plus IEEE 841 | AEHH8B

Beaver Electrical Machinery

Date: June 6, 2022

Dimensional Drawing

| Catalogue | Type | HP | RPM | Voltage | Hz | Frame Size |
|-------------|--------|-----|------|---------|----|------------|
| APH1254-841 | AEHH8B | 125 | 1800 | 460 | 60 | 444T |





| Mounting | | | | | A | B | C | CL1 | CL2 | D | G |
|----------|------|-----|------|-----|-------|------|------|-----|-----|----|-----|
| E | 2F1 | 2F2 | H | BA | | | | | | | |
| 9 | 14.5 | | 0.81 | 7.5 | 22.05 | 17.5 | 44.4 | | | 11 | 1.4 |

| J | K | L | M | O | P | T |
|------|------|-------|------|-------|-------|------|
| 4.35 | 4.35 | 21.15 | 14.4 | 23.55 | 24.75 | 4.35 |

| Terminal Housing | | | |
|------------------|----|------|-----|
| AA | AB | AC | XB |
| NPT3" | 24 | 17.9 | 2.4 |

| Shaft Extension | | | Key | | | Keyseat |
|-----------------|-------|---|-------|-------|--------|---------|
| N-W | U | V | Width | Thick | Length | R |
| 8.5 | 3.375 | 8 | 0.875 | 0.875 | 6.91 | 2.88 |

| Bearings | | Weight Lbs | Drive Method | Dimensions |
|----------|--------|------------|------------------------------|------------|
| DE | NDE | | | |
| 6318C3 | 6316C3 | 1716 | Direct Coupling / Belt Drive | Inches |

| | | |
|---|-----------------------------|---|
|  | Beaver Electrical Machinery |  |
| | | |
| | Date: June 6, 2022 | |

Technical Data Sheet

| | |
|--------------------|---------------------------|
| Motor Type: AEHH8B | Catalogue No: APH1254-841 |
|--------------------|---------------------------|

Nameplate Information

| | | | | | | |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP | Pole | RPM | Frame | Voltage | Hz | Phase |
| 125 | 4 | 1780 | 444T | 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. | | | | | |
| 95.4 | 94.5 | 95 | 94.1 | 84 | 82 | 77 |
| Torque | | | | Current (A) | | |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | No Load | Full Load | Locked Rotor |
| 368 | 130 | 100 | 220 | 37.9 | 146.1 | 907.5 |
| 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 | 44.3 | 542 | 1084 | 24 | 17 | 81 |

VFD Duty Information

| Max HP | Current (A) | Speed Range | | VFD | | S.F. |
|--------|-------------|-----------------|-----------------|------------|--------------|------|
| | | Constant Torque | Variable Torque | Carrier Hz | Type | |
| 125 | 146.05 | 12-60Hz | 3-60Hz | 3-6kHz | VPWM or CPWM | 1 |

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 |

Additional Certifications

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

Additional Information

| Bearings | | Approx. Weight |
|----------|--------|----------------|
| DE | NDE | lbs |
| 6318C3 | 6316C3 | 1716 |

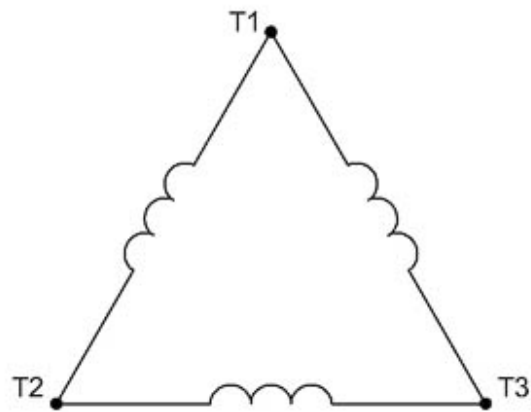
| | | |
|---|-----------------------------|---|
|  | Beaver Electrical Machinery |  |
| | | |
| | Date: June 6, 2022 | |

Nameplate Drawing

| | | | | | |
|-------------------------|-----------------|---------|----------------|-------------|----------------|
| Advantage Plus IEEE 841 | | | | | |
| TYPE | AEHH8B | | CAT. NO. | APH1254-841 | |
| OUTPUT | 125 HP 93.25 kW | | FRAME | 444T | TEFC |
| R.P.M. | 1780 | | POLE | 4 | INS. F |
| VOLTS | 460 | | PHASE | 3 | Hz 60 |
| AMPS | 146.1 | | CODE | G | S.F. 1.15 |
| AMBIENT | 40 °C | | NOM. EFF. 95.4 | | MIN. EFF. 94.5 |
| BEARINGS | 6318C3 / 6316C3 | | | | RATING Cont. |
| SER. NO. | TBD | | DESIGN | B | WT. 1716 LBS |
| PWM VFD DUTY | VT | CT | CP | S.F. | |
| | 3-60Hz | 12-60Hz | 60-90Hz | 1 | |



Connection Diagram



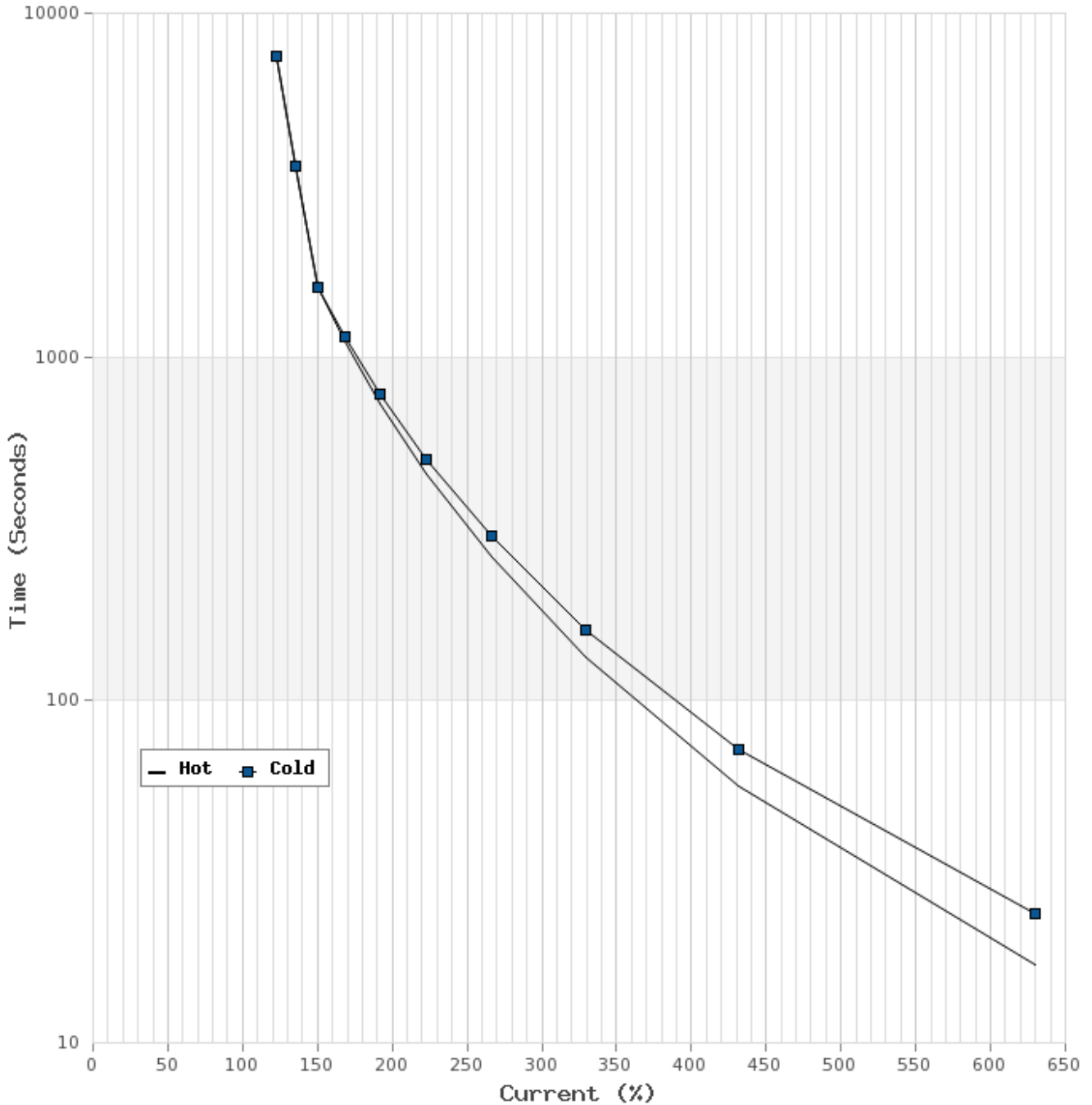
| 3 LEAD | | SINGLE VOLTAGE | | | DELTA |
|---------|-------|----------------|----|----|-------|
| VOLTAGE | CONN. | L1 | L2 | L3 | |
| - | DELTA | 1 | 2 | 3 | |

WD_3D



Thermal Limit Curves

| | | | | | |
|--------------------|-----------|---------------------------|------|---------------------------------|---------|
| Motor Type: AEHH8B | | Catalogue No: APH1254-841 | | Family: Advantage Plus IEEE 841 | |
| HP | 125 | Safe Stall Time | | Full Load A | 146.1 A |
| Voltage | 460V 60Hz | Hot | 17 s | % Inrush | 621 % |
| RPM | 1800 | Cold | 24 s | Locked Rotor A | 907.5 A |





T-N and I-N Curves

| | | | | | |
|--------------------|-----------|---------------------------|-----------|---------------------------------|---------|
| Motor Type: AEHH8B | | Catalogue No: APH1254-841 | | Family: Advantage Plus IEEE 841 | |
| HP | 125 | Full Load T | 368 lb-ft | Full Load A | 146.1 A |
| Voltage | 460V 60Hz | Locked Rotor T | 130 % | Locked Rotor A | 907.5 A |
| RPM | 1800 | Pull Up T | 100 % | Break Down T | 220 % |

