

Technical Documentation

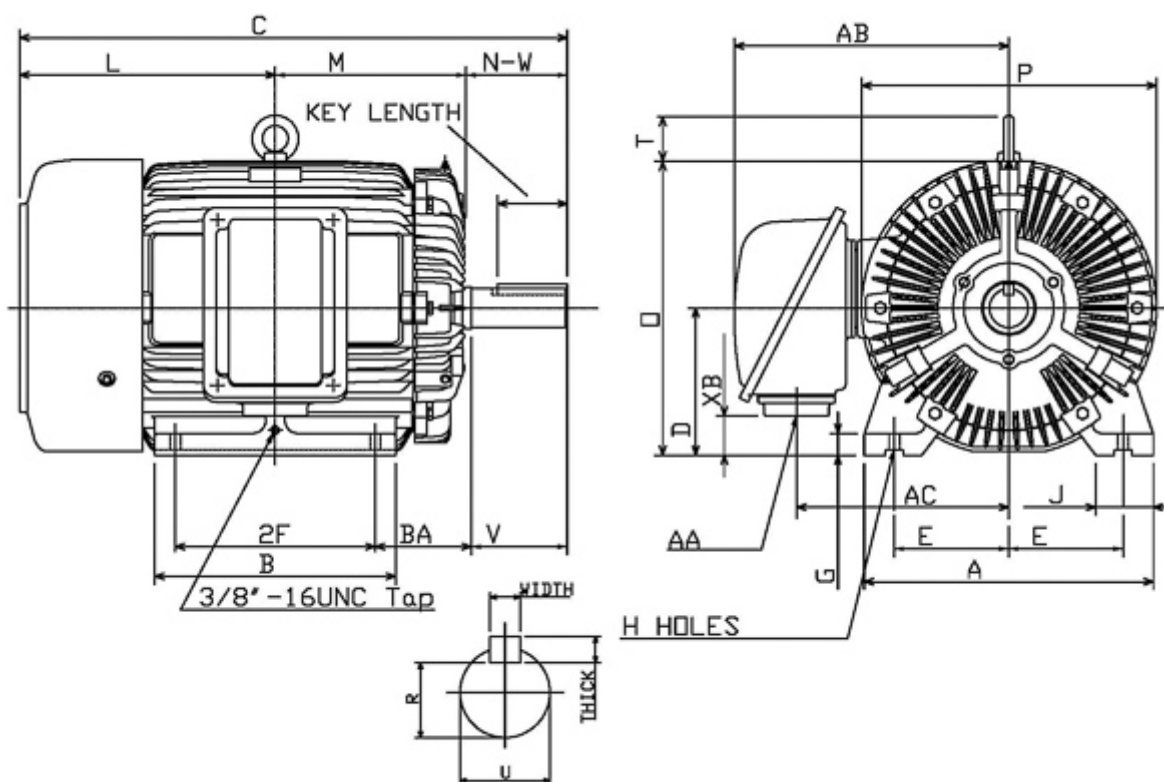
# **APH0308-841**

## **Advantage Plus IEEE 841 | AEHH8B**


Date: June 26, 2020

### Dimensional Drawing

| Catalogue   | Model  | HP | Pole | kW | Rating     | Voltage | Hz | RPM |
|-------------|--------|----|------|----|------------|---------|----|-----|
| APH0308-841 | AEHH8B | 30 | 8    | 22 | Continuous | 460     | 60 | 900 |



| Frame Size       | Mounting |       |          |         |                    | A           | B          | C     | CD                           | D          |         |
|------------------|----------|-------|----------|---------|--------------------|-------------|------------|-------|------------------------------|------------|---------|
|                  | E        | 2F    | 2F2      | H       | BA                 |             |            |       |                              |            |         |
| 364T             | 7        | 11.25 |          | 0.66    | 5.88               | 17.7        | 13.78      | 32.57 |                              | 9          |         |
| G                | J        | K     | L        | M       | O                  | P           | T          | Key   |                              |            | Keyseat |
| 1.32             | 3.54     |       | 15.17    | 11.09   | 17.99              | 18.03       | 2.76       | Width | Thick                        | Length     | R       |
|                  |          |       |          |         |                    |             |            | 0.625 | 0.625                        | 4.28       | 2.021   |
| Terminal Housing |          |       | Aux Box  |         |                    | C/D Flange  |            |       |                              |            |         |
| AA               | AB       | AC    | XB       | AE      | AX                 | BB          | AH         | AK    | BD                           | AJ         | BF      |
| NPT3"            | 16.81    | 12.99 | 2.39     |         |                    |             |            |       |                              |            |         |
| Shaft Extension  |          |       | Bearings |         | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F.  | Drive Method                 | Dimensions |         |
| N-W              | U        | V     | DE       | NDE     |                    |             |            |       |                              |            |         |
| 5.88             | 2.375    | 5.75  | 6313ZC3  | 6213ZC3 | 856                | 71          | F          | 1.15  | Direct Coupling / Belt Drive | Inches     |         |

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

### Technical Data Sheet

|                    |                           |
|--------------------|---------------------------|
| Motor Type: AEHH8B | Catalogue No: APH0308-841 |
|--------------------|---------------------------|

#### Nameplate Information

|           |            |                |             |             |              |                |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP        | Pole       | RPM            | Frame       | Voltage     | Hz           | Phase          |
| 30        | 8          | 885            | 364T        | 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.                        |                                 |                                      |                     |           |                                |
| 93.0              | 91.7                        | 93.0                            | 92.4                                 | 77.5                | 72.0      | 62.0                           |
| Torque            |                             |                                 |                                      | Current (A)         |           |                                |
| Full Load (lb-ft) | Locked Rotor (% FLT)        | Pull Up (% FLT)                 | Break Down (% FLT)                   | No Load             | Full Load | Locked Rotor                   |
| 178.00            | 200                         | 170                             | 200                                  | 18.1                | 39.0      | 218                            |
| NEMA KVA Code     | Inertia (WR <sup>2</sup> )  |                                 |                                      | Safe Stall Time (s) |           | Noise Level Sound Press. dB(A) |
|                   | Rotor (lb-ft <sup>2</sup> ) | NEMA Load (lb-ft <sup>2</sup> ) | Max. Allowable (lb-ft <sup>2</sup> ) | Cold                | Hot       |                                |
| G                 | 17.938                      | 769.00                          | 1833.00                              | 50                  | 35        | 71                             |

#### 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<br>Class I, Zone 2, Groups IIB+H2, IIB & IIA |
| Temp Code (Sinewave / VFD)      T3A / T3A                                    |

#### Additional Certifications

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

#### Additional Information

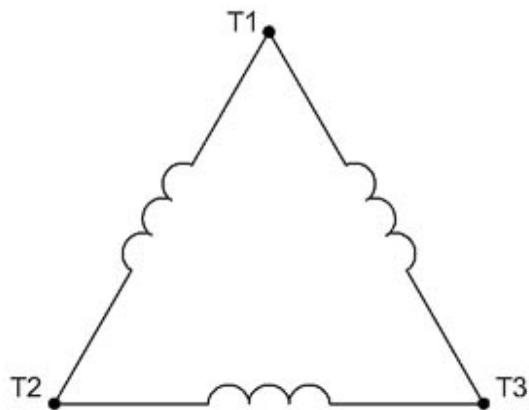
| Bearings |         | Approx. Weight |
|----------|---------|----------------|
| DE       | NDE     | lbs            |
| 6313ZC3  | 6213ZC3 | 856            |

**Nameplate Drawing**

# Advantage Plus IEEE 841

|              |                   |                |             |                |      |
|--------------|-------------------|----------------|-------------|----------------|------|
| TYPE         | AEHH8B            | CAT. NO.       | APH0308-841 |                |      |
| OUTPUT       | 30 HP 22 kW       | FRAME          | 364T        | TEFC           |      |
| R.P.M.       | 885               | POLE           | 8           | INS.           | F    |
| VOLTS        | 460               | PHASE          | 3           | Hz             | 60   |
| AMPS         | 39.0              | CODE           | G           | S.F.           | 1.15 |
| AMBIENT      | 40 °C             | NOM. EFF. 93.0 |             | MIN. EFF. 91.7 |      |
| BEARINGS     | 6313ZC3 / 6213ZC3 |                |             | RATING Cont.   |      |
| SER. NO.     | TBD               | DESIGN         | B           | WT. 856 LBS    |      |
| PWM VFD DUTY | VT                | CT             | CP          | S.F.           |      |
|              | 3-60Hz            | 6-60Hz         | 60-120Hz    | 1.0 Only       |      |

**Connection Diagram**

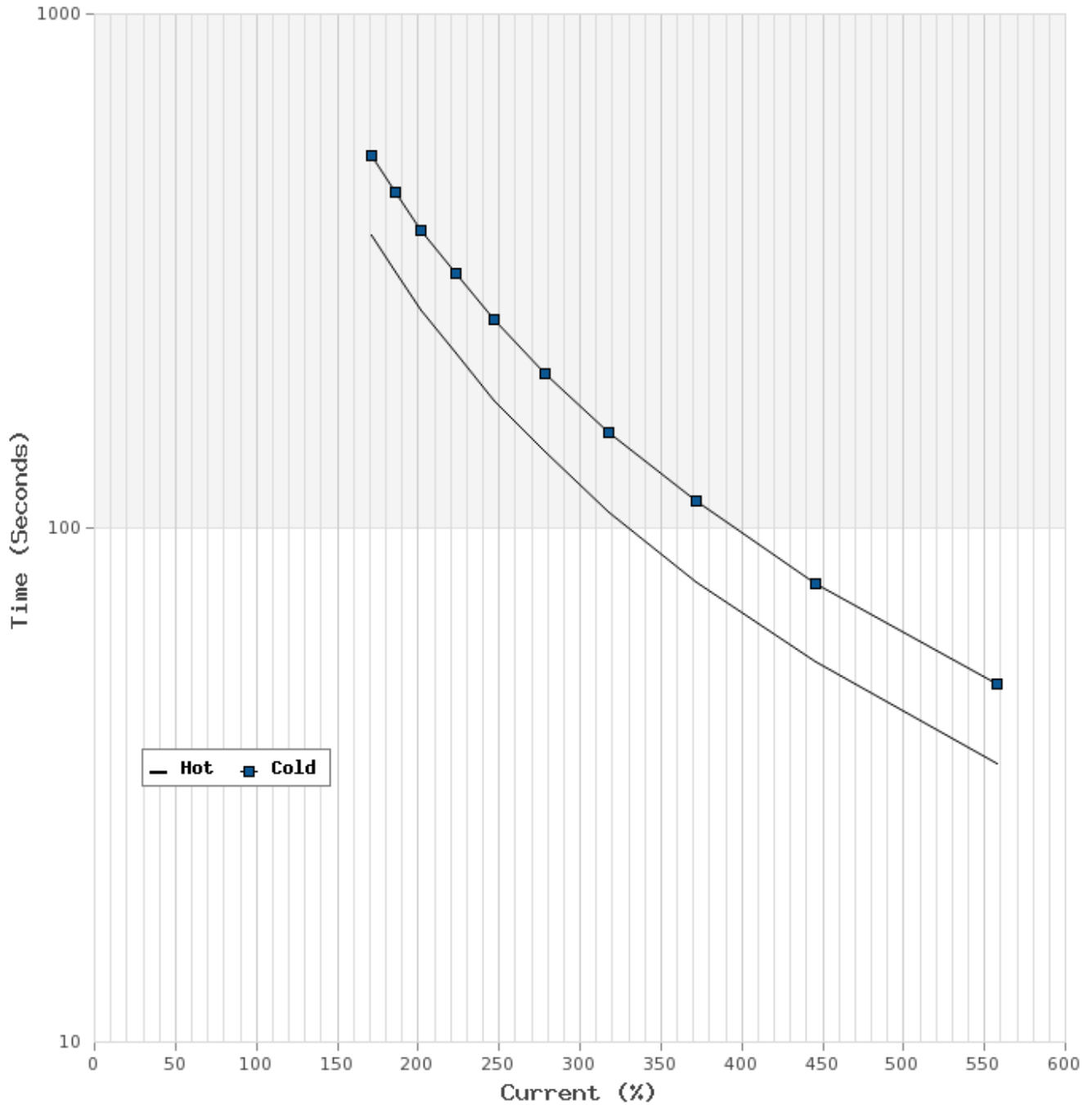


| 3 LEAD  |       | SINGLE VOLTAGE |    |    | DELTA |
|---------|-------|----------------|----|----|-------|
| VOLTAGE | CONN. | L1             | L2 | L3 |       |
| -       | DELTA | 1              | 2  | 3  |       |

WD\_3D

**Thermal Limit Curves**

|                    |           |                           |      |                                 |        |
|--------------------|-----------|---------------------------|------|---------------------------------|--------|
| Motor Type: AEHH8B |           | Catalogue No: APH0308-841 |      | Family: Advantage Plus IEEE 841 |        |
| HP                 | 30        | Safe Stall Time           |      | Full Load A                     | 39.0 A |
| Voltage            | 460V 60Hz | Hot                       | 35 s | % Inrush                        | 559 %  |
| RPM                | 900       | Cold                      | 50 s | Locked Rotor A                  | 218 A  |



**T-N and I-N Curves**

|                    |           |                           |              |                                 |         |
|--------------------|-----------|---------------------------|--------------|---------------------------------|---------|
| Motor Type: AEHH8B |           | Catalogue No: APH0308-841 |              | Family: Advantage Plus IEEE 841 |         |
| HP                 | 30        | Full Load T               | 178.00 lb-ft | Full Load A                     | 39.0 A  |
| Voltage            | 460V 60Hz | Locked Rotor T            | 200 %        | Locked Rotor A                  | 218.0 A |
| RPM                | 900       | Pull Up T                 | 170 %        | Break Down T                    | 200 %   |

