

Technical Documentation

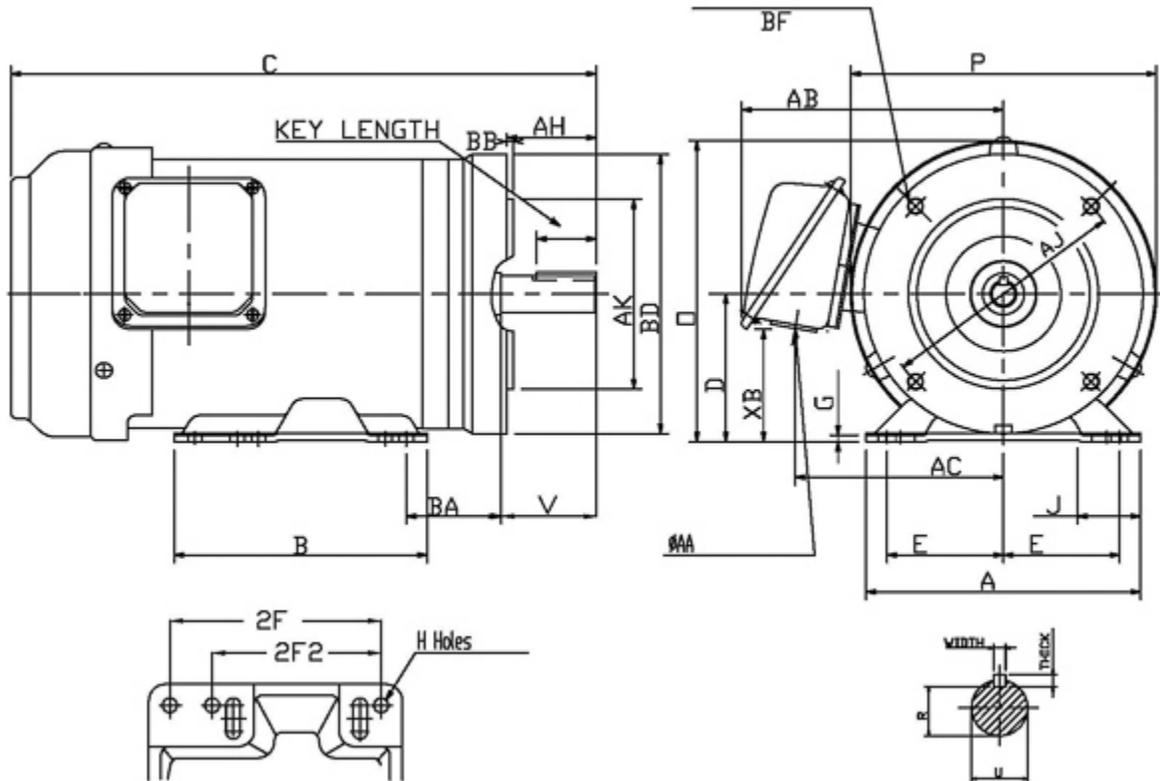
# **RF00145C**

## **Rolled Steel TEFC | AEGH**

Date: December 1, 2016

### Dimensional Drawing

| Catalogue | Model | HP | Pole | kW  | Rating     | Voltage | Hz | RPM  |
|-----------|-------|----|------|-----|------------|---------|----|------|
| RF00145C  | AEGH  | 1  | 4    | 0.7 | Continuous | 575 V   | 60 | 1800 |



| Frame Size       | Mounting |      |          |        |                    | A           | B          | C     | CD                           | D          |         |
|------------------|----------|------|----------|--------|--------------------|-------------|------------|-------|------------------------------|------------|---------|
|                  | E        | 2F   | 2F2      | H      | BA                 |             |            |       |                              |            |         |
| 143TC            | 2.75     | 5    | 4        | 0.34   | 2.25               | 6.5         | 6          | 12.88 |                              | 3.5        |         |
| G                | J        | K    | L        | M      | O                  | P           | T          | Key   |                              |            | Keyseat |
|                  |          |      |          |        |                    |             |            | Width | Thick                        | Length     | R       |
| 0.16             | 1.5      |      |          |        | 7.12               | 7.24        |            | 0.188 | 0.188                        | 1.41       | 0.711   |
| Terminal Housing |          |      | Aux Box  |        |                    | C/D Flange  |            |       |                              |            |         |
| AA               | AB       | AC   | XB       | AE     | AX                 | BB          | AH         | AK    | BD                           | AJ         | BF      |
| 1.1              | 6.2      | 4.93 | 2.66     |        |                    | 0.16        | 2.12       | 4.5   | 6.61                         | 5.875      | 3/8-16  |
| Shaft Extension  |          |      | Bearings |        | Approx. Weight Lbs | SPL dBA/3ft | Ins. Class | S.F.  | Drive Method                 | Dimensions |         |
| N-W              | U        | V    | DE       | NDE    |                    |             |            |       |                              |            |         |
| 2.25             | 0.875    | 2.2  | 6205ZZ   | 6204ZZ | 36                 | 58          | F          | 1.15  | Direct Coupling / Belt Drive | Inches     |         |

### Technical Data Sheet

Motor Type: AEGH

Catalogue No: RF00145C

#### Nameplate Information

|           |            |                |             |             |              |                |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP        | Pole       | RPM            | Frame       | Voltage     | Hz           | Phase          |
| 1         | 4          | 1750           | 143TC       | 575         | 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 | <3300 ft       |

#### Typical Performance

| Efficiency (%)    |                             |                                 |                                      | Power Factor (%)    |           |                                |
|-------------------|-----------------------------|---------------------------------|--------------------------------------|---------------------|-----------|--------------------------------|
| Full Load         |                             | 3/4 Load                        | 1/2 Load                             | Full Load           | 3/4 Load  | 1/2 Load                       |
| Nom.              | Min.                        |                                 |                                      |                     |           |                                |
| 85.5              | 82.5                        | 85.0                            | 82.0                                 | 75.5                | 67.0      | 54.0                           |
| Torque            |                             |                                 |                                      | Current (A)         |           |                                |
| Full Load (lb-ft) | Locked Rotor (% FLT)        | Pull Up (% FLT)                 | Break Down (% FLT)                   | No Load             | Full Load | Locked Rotor                   |
| 3.00              | 275                         | 235                             | 350                                  | 0.7                 | 1.2       | 12                             |
| 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       |                                |
| N                 | 0.100                       | 5.8                             | 42                                   | 44                  | 31        | 58                             |

#### 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 |

#### Additional Information

| Bearings |        | Approx. Weight |
|----------|--------|----------------|
| DE       | NDE    | lbs            |
| 6205ZZ   | 6204ZZ | 36             |

#### Hazardous Locations Information

|                            |       |
|----------------------------|-------|
| N/A                        |       |
| 0                          |       |
| 0                          |       |
| Temp Code (Sinewave / VFD) | 0 / 0 |

**Connection Diagram**

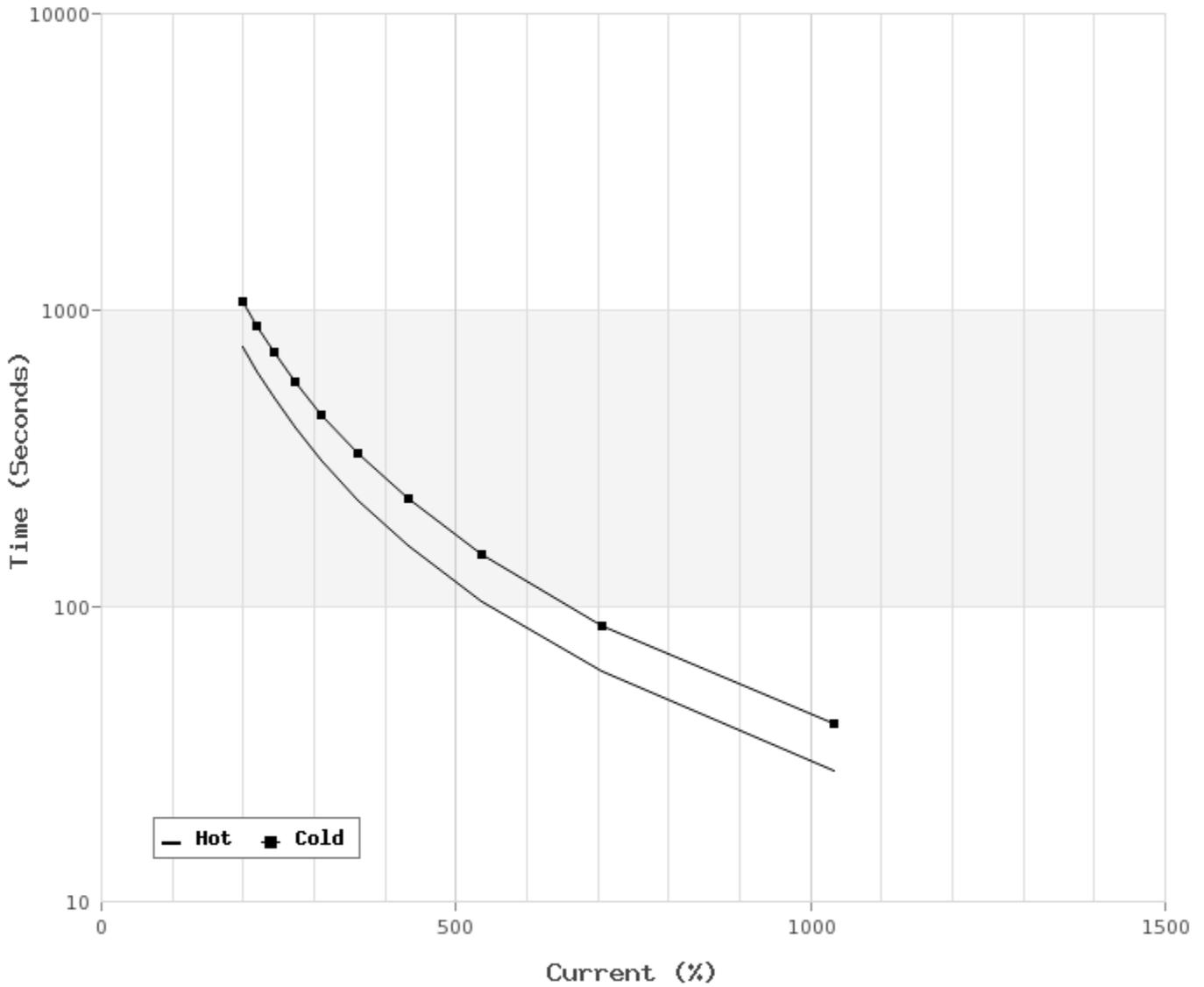


| 3 LEAD  |       | SINGLE VOLTAGE |    |    | WYE |
|---------|-------|----------------|----|----|-----|
| VOLTAGE | CONN. | L1             | L2 | L3 |     |
| -       | WYE   | 1              | 2  | 3  |     |

WD\_3Y

**Thermal Limit Curves**

|                  |               |                        |      |                           |             |
|------------------|---------------|------------------------|------|---------------------------|-------------|
| Motor Type: AEGH |               | Catalogue No: RF00145C |      | Family: Rolled Steel TEFC |             |
| HP               | 1             | Safe Stall Time        |      | Full Load A               | 0.0 / 1.2 A |
| Voltage          | 0 / 575V 60Hz | Hot                    | 31 s | Locked Rotor A            | 1,034 %     |
| RPM              | 1800          | Cold                   | 44 s | Locked Rotor A            | 0.0 / 12 A  |



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

|                  |           |                        |            |                           |        |
|------------------|-----------|------------------------|------------|---------------------------|--------|
| Motor Type: AEGH |           | Catalogue No: RF00145C |            | Family: Rolled Steel TEFC |        |
| HP               | 1         | Full Load T            | 3.00 lb-ft | Full Load A               | 1.2 A  |
| Voltage          | 575V 60Hz | Locked Rotor T         | 275 %      | Locked Rotor A            | 12.0 A |
| RPM              | 1800      | Pull Up T              | 235 %      | Break Down T              | 350 %  |

