

Technical Documentation

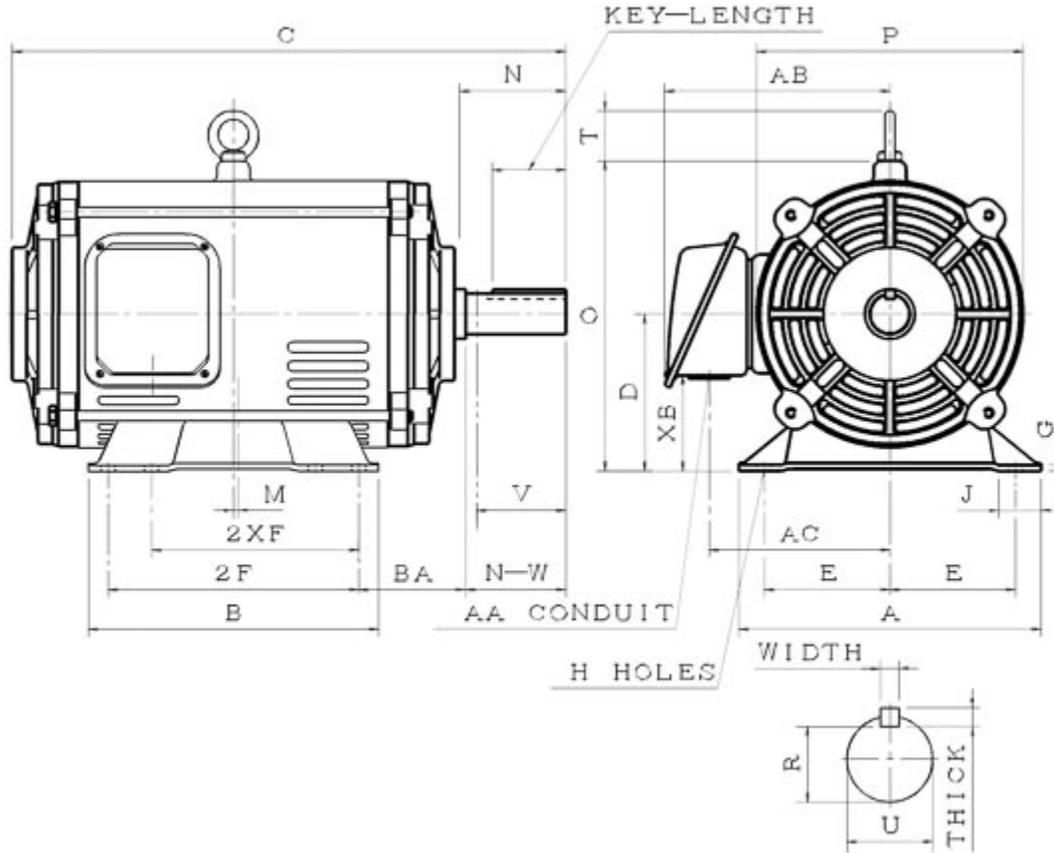
# **RD02045**

## **Rolled Steel ODP | ASGH**

Date: December 1, 2016

**Dimensional Drawing**

|           |       |    |      |    |            |         |    |      |
|-----------|-------|----|------|----|------------|---------|----|------|
| Catalogue | Model | HP | Pole | kW | Rating     | Voltage | Hz | RPM  |
| RD02045   | ASGH  | 20 | 4    | 15 | Continuous | 575 V   | 60 | 1800 |



ASGH-SMP-5

| Frame Size       | Mounting |     |          |          |                    | A           | B          | C     | CD                           | D          |         |
|------------------|----------|-----|----------|----------|--------------------|-------------|------------|-------|------------------------------|------------|---------|
|                  | E        | 2F  | 2F2      | H        | BA                 |             |            |       |                              |            |         |
| 256T             | 10       | 10  |          | 0.53     | 4.25               | 12.05       | 11.57      | 22.48 |                              | 6.25       |         |
| G                | J        | K   | L        | M        | O                  | P           | T          | Key   |                              |            | Keyseat |
| 0.24             | 1.65     |     |          | 0.197    | 12.55              | 10.79       | 2          | 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      |
| 1.38             | 8.99     | 7.2 | 3.81     |          |                    |             |            |       |                              |            |         |
| 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 | 6309ZZC3 | 6208ZZC3 | 234                | 60          | F          | 1.15  | Direct Coupling / Belt Drive | Inches     |         |

### Technical Data Sheet

Motor Type: ASGH

Catalogue No: RD02045

#### Nameplate Information

|           |            |                |             |             |              |                |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| HP        | Pole       | RPM            | Frame       | Voltage     | Hz           | Phase          |
| 20        | 4          | 1770           | 256T        | 575         | 60           | 3              |
| Enclosure | Ins. Class | Service Factor | Time Rating | NEMA Design | Rated Amb.   | Rated Altitude |
| ODP       | 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.                        |                                 |                                      |                     |           |                                |
| 93.0              | 91.7                        | 93.0                            | 93.0                                 | 83.0                | 79.0      | 69.0                           |
| Torque            |                             |                                 |                                      | Current (A)         |           |                                |
| Full Load (lb-ft) | Locked Rotor (% FLT)        | Pull Up (% FLT)                 | Break Down (% FLT)                   | No Load             | Full Load | Locked Rotor                   |
| 59.33             | 160                         | 120                             | 240                                  | 6.8                 | 19.4      | 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       |                                |
| G                 | 2.174                       | 99                              | 161                                  | 17                  | 12        | 60                             |

#### 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 |

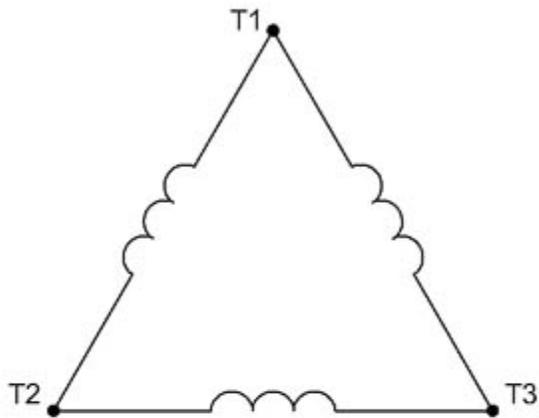
#### Additional Information

| Bearings |          | Approx. Weight |
|----------|----------|----------------|
| DE       | NDE      | lbs            |
| 6309ZZC3 | 6208ZZC3 | 234            |

#### Hazardous Locations Information

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

**Connection Diagram**

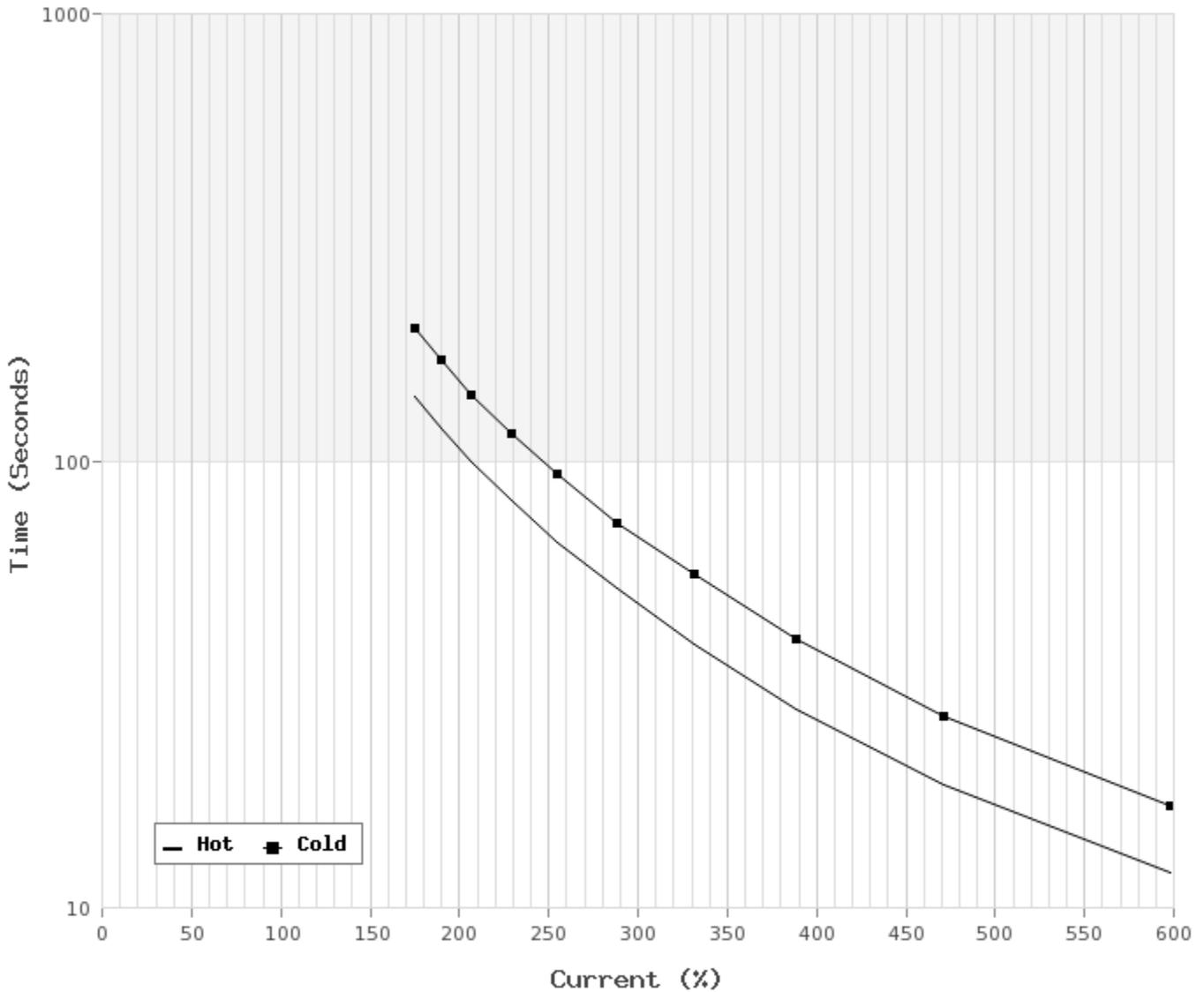


| 3 LEAD SINGLE VOLTAGE DELTA |       |    |    |    |  |
|-----------------------------|-------|----|----|----|--|
| VOLTAGE                     | CONN. | L1 | L2 | L3 |  |
| -                           | DELTA | 1  | 2  | 3  |  |

WD\_3D

### Thermal Limit Curves

|                  |               |                       |      |                          |              |
|------------------|---------------|-----------------------|------|--------------------------|--------------|
| Motor Type: ASGH |               | Catalogue No: RD02045 |      | Family: Rolled Steel ODP |              |
| HP               | 20            | Safe Stall Time       |      | Full Load A              | 0.0 / 19.4 A |
| Voltage          | 0 / 575V 60Hz | Hot                   | 12 s | Locked Rotor A           | 62 %         |
| RPM              | 1800          | Cold                  | 17 s | Locked Rotor A           | 0.0 / 12 A   |



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

|                  |           |                       |             |                          |        |
|------------------|-----------|-----------------------|-------------|--------------------------|--------|
| Motor Type: ASGH |           | Catalogue No: RD02045 |             | Family: Rolled Steel ODP |        |
| HP               | 20        | Full Load T           | 59.33 lb-ft | Full Load A              | 19.4 A |
| Voltage          | 575V 60Hz | Locked Rotor T        | 160 %       | Locked Rotor A           | 12.0 A |
| RPM              | 1800      | Pull Up T             | 120 %       | Break Down T             | 240 %  |

