

Technical Documentation

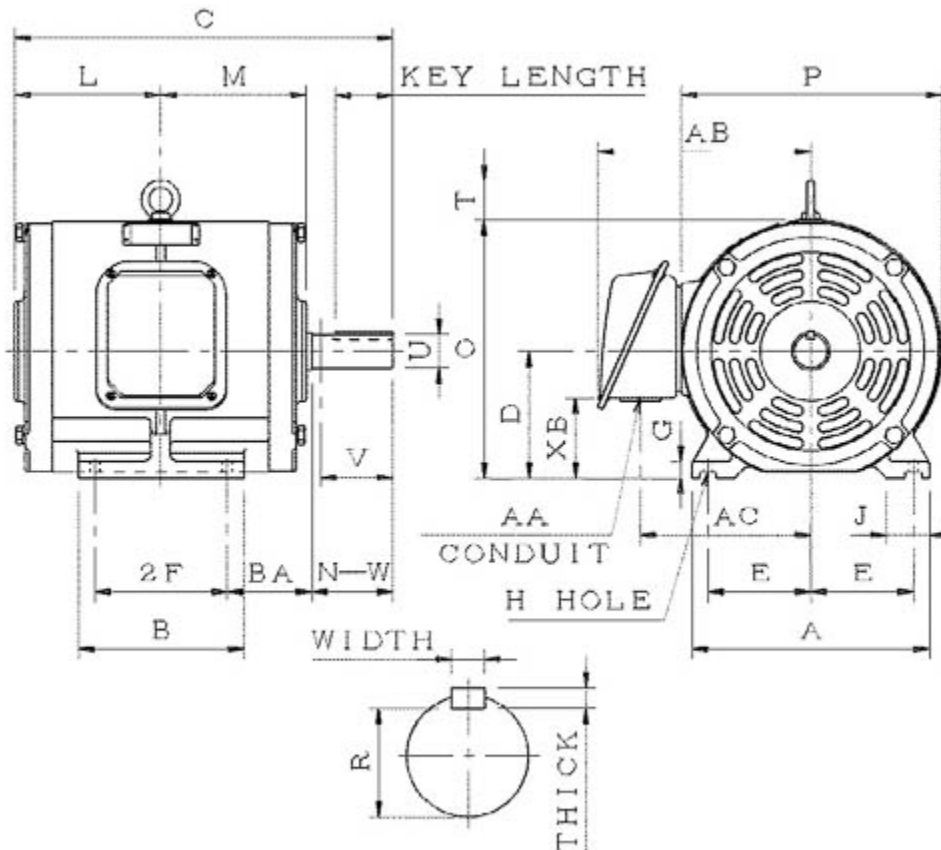
# **SDP01045**

## **Optim ODP | ASHH**

Date: December 1, 2016

### Dimensional Drawing

| Catalogue | Model | HP | Pole | kW   | Rating     | Voltage | Hz | RPM  |
|-----------|-------|----|------|------|------------|---------|----|------|
| SDP01045  | ASHH  | 10 | 4    | 7.46 | Continuous | 575 V   | 60 | 1800 |



ASHH-SMP-2

| Frame Size       |       | Mounting |          |         |                       |                | A             | B     | C                               | CD         | D       |
|------------------|-------|----------|----------|---------|-----------------------|----------------|---------------|-------|---------------------------------|------------|---------|
|                  |       | E        | 2F       | 2F2     | H                     | BA             |               |       |                                 |            |         |
| 215T             |       | 4.25     | 7        |         | 0.41                  | 3.5            | 9.85          | 8.35  | 17.18                           |            | 5.25    |
| G                | J     | K        | L        | M       | O                     | P              | T             | Key   |                                 |            | Keyseat |
|                  |       |          |          |         |                       |                |               | Width | Thick                           | Length     | R       |
| 0.7              | 1.75  |          | 6.8      | 6.8     | 10.7                  | 10.75          | 1.65          | 0.312 | 0.312                           | 2.41       | 1.201   |
| Terminal Housing |       |          |          | Aux Box |                       | C/D Flange     |               |       |                                 |            |         |
| AA               | AB    | AC       | XB       | AE      | AX                    | BB             | AH            | AK    | BD                              | AJ         | BF      |
| 1.38             | 8.8   | 7.1      | 3.35     |         |                       |                |               |       |                                 |            |         |
| Shaft Extension  |       |          | Bearings |         | Approx.<br>Weight Lbs | SPL<br>dBA/3ft | Ins.<br>Class | S.F.  | Drive Method                    | Dimensions |         |
| N-W              | U     | V        | DE       | NDE     |                       |                |               |       |                                 |            |         |
| 3.38             | 1.375 | 3.3      | 6308ZZ   | 6306ZZ  | 185                   | 58             | F             | 1.15  | Direct Coupling<br>/ Belt Drive | Inches     |         |

## Technical Data Sheet

Motor Type: ASHH

Catalogue No: SDP01045

### Nameplate Information

| HP        | Pole       | RPM            | Frame       | Voltage     | Hz           | Phase          |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| 10        | 4          | 1750           | 215T        | 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.                        |                                 |                                      |                     |           |                                |
| 91.7              | 90.2                        | 92.4                            | 92.4                                 | 87.0                | 84.0      | 76.5                           |
| Torque            |                             |                                 |                                      | Current (A)         |           |                                |
| Full Load (lb-ft) | Locked Rotor (% FLT)        | Pull Up (% FLT)                 | Break Down (% FLT)                   | No Load             | Full Load | Locked Rotor                   |
| 30.00             | 230                         | 175                             | 265                                  | 3.0                 | 9.4       | 65                             |
| 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       |                                |
| H                 | 0.924                       | 51                              | 95                                   | 17                  | 12        | 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 |

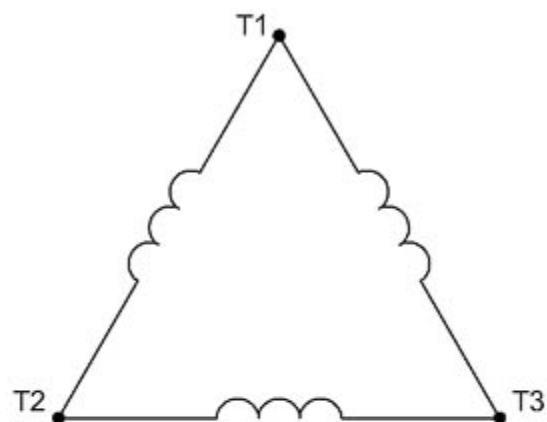
### Additional Information

| Bearings |        | Approx. Weight |
|----------|--------|----------------|
| DE       | NDE    | lbs            |
| 6308ZZ   | 6306ZZ | 185            |

### Hazardous Locations Information

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

### Connection Diagram

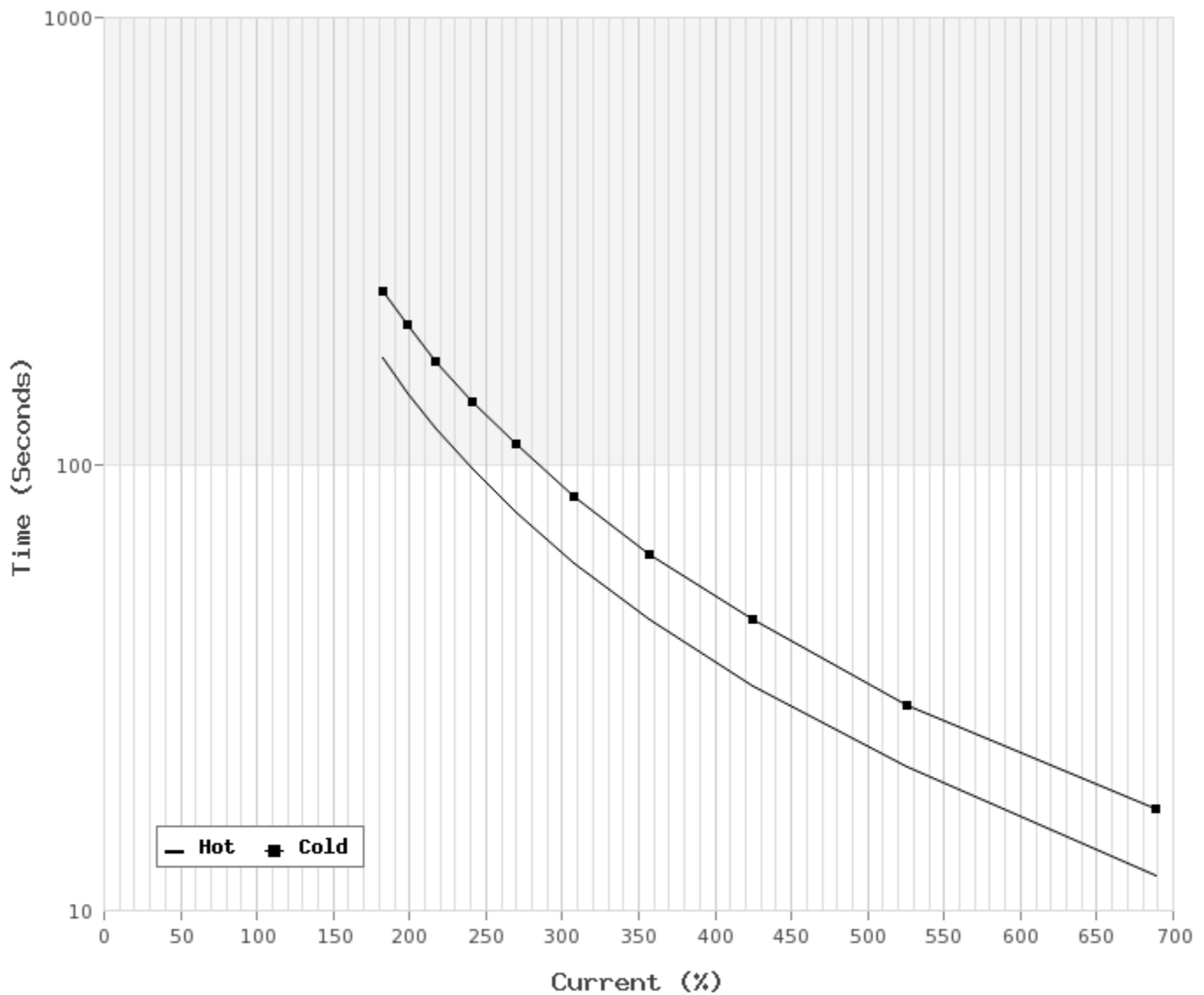


| 3 LEAD SINGLE VOLTAGE DELTA |       |    |    |    |  |
|-----------------------------|-------|----|----|----|--|
| VOLTAGE                     | CONN. | L1 | L2 | L3 |  |
| -                           | DELTA | 1  | 2  | 3  |  |

WD\_3D

### Thermal Limit Curves

|                  |               |                        |      |                   |             |
|------------------|---------------|------------------------|------|-------------------|-------------|
| Motor Type: ASHH |               | Catalogue No: SDP01045 |      | Family: Optim ODP |             |
| HP               | 10            | Safe Stall Time        |      | Full Load A       | 0.0 / 9.4 A |
| Voltage          | 0 / 575V 60Hz | Hot                    | 12 s | Locked Rotor A    | 692 %       |
| RPM              | 1800          | Cold                   | 17 s | Locked Rotor A    | 0.0 / 65 A  |



### T-N and I-N Curves

|                  |           |                        |             |                   |        |
|------------------|-----------|------------------------|-------------|-------------------|--------|
| Motor Type: ASHH |           | Catalogue No: SDP01045 |             | Family: Optim ODP |        |
| HP               | 10        | Full Load T            | 30.00 lb-ft | Full Load A       | 9.4 A  |
| Voltage          | 575V 60Hz | Locked Rotor T         | 230 %       | Locked Rotor A    | 65.0 A |
| RPM              | 1800      | Pull Up T              | 175 %       | Break Down T      | 265 %  |

