

- 1. MAIN CONDUIT BOX MAY BE ROTATED
- IN 90~INCREMENTS

 2. STANDARD PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE
- ONLY BY CONNECTION CHANGE.

 3. KEY DIMENSIONS EQUAL 0.75" x 0.75" x 5.709" (MOTOR SUPPLIED WITH KEY)

UNITS: mm [INCHES] TOSHIBA RESERVES THE RICHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT WITHOUT NOTICE. DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS CERTIFIED. **TOLERANCES** 404T TEFC FRAME .X .1 Tosh-ECO OWP F2 ASSEMBLY XX. .03 XXX. .005 .0005 XXXX. MDSLE021-12 MAXIMUM MOTOR WEIGHT DRAWN BY: Lin Qingliu CHECK BY: Cai Zhengiang lbs. APPROVED BY: Li Zhuoqing FIRST ISSUE Lin Qingliu 03/14/17 kgs. TOSHIBA INTERNATIONAL CORPORATION NO REVISION DRAWN BY DATE CHECK www.toshiba.com/ind

TOSHIBA

| Issued Date 3/14/2017 | Transmit # | |
|-----------------------|--------------|--|
| Issued By Lin Qingliu | Issued Rev 0 | |

TYPICAL MOTOR PERFORMANCE DATA

Model: OW22

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|----|------------|--------|-------|-------------------|----------------|----------|-----------------|
| 60 | 45 | 6 | 1105 | 404T | 230/460 | 60 | 3 | 152/76 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | - | D | G | 40 |

| | _ | | | | |
|--------------|-------|-------|--------------|----------------|------------------|
| Load | HP | kW | Amperes(460) | Efficiency (%) | Power Factor (%) |
| Full Load | 60 | 44.74 | 76.4 | 87.5 | 84.0 |
| ¾ Load | 45.00 | 33.56 | 59.2 | 89.0 | 80.0 |
| ½ Load | 30.00 | 22.37 | 44.6 | 90.0 | 70.0 |
| 1/4 Load | 15.00 | 11.19 | 34.3 | 87.0 | 47.0 |
| No Load | | | 28.0 | | 4.8 |
| Locked Rotor | | | 435 | | 42.3 |

| Torque | | | | | | |
|-----------|--------------|---------|------------|-------------------|--|--|
| Full Load | Locked Rotor | Pull Up | Break Down | Rotor wk² Inertia | | |
| (lb-ft) | (% FLT) | (% FLT) | (% FLT) | (lb-ft²) | | |
| 285 | 275 | 289 | 294 | 49.96 | | |

| Safe Stall Time(s) | | Sound | Bearin | une* | Approx. Motor Weight |
|--------------------|------|------------|-----------|---------|----------------------|
| Cold | Hot | Pressure | Bearings* | | Approx. Motor Weight |
| Colu | 1100 | dB(A) @ 1M | DE | NDE | (lbs) |
| 20 | 9 | 73 | 6316/C3 | 6316/C3 | 1137 |

*Bearings are the only recommended spare part(s).

Motor Options:

| Customer | |
|-------------|--|
| Customer PO | |
| Sales Order | |
| Project # | |

Tag:

All characteristics are average expected values. The declared locked rotor current has a tolerance of 20%.

| TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A. | | | | | |
|---|--|------------------|-------------|-------------|-----------------|
| Engineering | | Doc. Written By | P. Anderson | Doc.#/Rev | MDSLE021-12 / 0 |
| Engr. Date | | Doc. Approved By | PAA | Doc. Issued | 3/14/2017 |



| Issued Date 3/14/2017 | Transmit # | |
|-----------------------|------------|---|
| Issued By Lin Qingliu | Issued Rev | 0 |

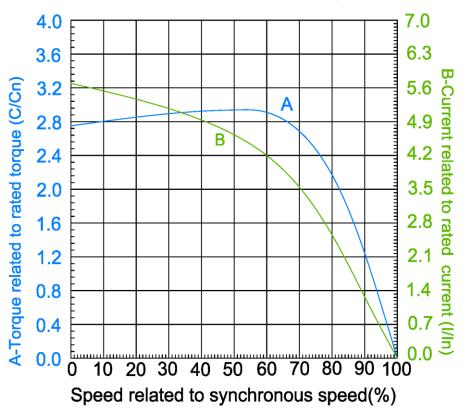
SPEED TORQUE/CURRENT CURVE

Model: OW22

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|--------------|-----------------------|-----------------|--------|-------|-------------------|----------------|----------|-----------------|
| 60 | 45 | 6 | 1105 | 404T | 230/460 | 60 | 3 | 152/76 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | - | D | G | 40 |
| Locked Rotor | Rotor wk ² | | | To | orque | | | |
| Amps | Inertia | Full Load lb-ft | Locked | Rotor | Pull Up | | Break | Down |
| Allips | (lb-ft²) | (lb-ft) | (% |) | (%) | | (% | 6) |
| 435 | 49.96 | 285 | 27 | 5 | 289 | | 29 | 94 |

CHARACTERISTIC CURVES RELATED TO SPEED

Three-phase induction motor-Squirrel cage rotor



| Customer | wk² Load Inertia (lb-ft²) | - |
|-------------|---------------------------|-----|
| Customer PO | Load Type | - |
| Sales Order | Voltage(%) | 100 |
| Project # | Accel. Time | - |

Tag:

All characteristics are average expected values.

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|---|--|------------------|-------------|-------------|-----------------|
| Engineering | | Doc. Written By | P. Anderson | Doc.# / Rev | MDSLE021-12 / 0 |
| Engr. Date | | Doc. Approved By | PAA | Doc. Issued | 3/14/2017 |

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NAMEPLATE DATA

Model: OW22

Comments 4:

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|----|------------|--------|-------|-------------------|----------------|----------|-----------------|
| 60 | 45 | 6 | 1105 | 404T | 230/460 | 60 | 3 | 152/76 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | - | D | G | 40 |

| Туре: | | |
|------------------------|---------|--|
| Form: | | |
| Drive End Bearing: | 6316/C3 | |
| Non-Drive End Bearing: | 6316/C3 | |
| Power Factor: | 84.0 | |
| Max Safe RPM: | 1980 | |
| Comments 1: | | |
| Comments 2: | | |
| Comments 3: | | |

| Customer | |
|-------------|--|
| Customer PO | |
| Sales Order | |
| Project # | |
| _ | |

Tag:

All characteristics are average expected values.

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|---|--|------------------|-------------|-------------|-----------------|--|--|
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| Engr. Date | | Doc. Approved By | PAA | Doc. Issued | 3/14/2017 | | |



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SPARE PARTS LIST*

Model: OW22

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|----|------------|--------|-------|-------------------|----------------|----------|-----------------|
| 60 | 45 | 6 | 1105 | 404T | 230/460 | 60 | 3 | 152/76 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | - | D | G | 40 |

| Bearings DE | 6316/C3 |
|--------------|---------|
| Bearings NDE | 6316/C3 |

*Bearings are the only recommended spare part(s).

Other than the grease used for regreasable bearings and the oil used for oil-lubricated bearings, Toshiba advises that there are no "use" parts. The only insurance spares that Toshiba suggests for these squirrel-cage induction motors are industry-standard and commercially available off-the-shelf bearings as noted above.

Motor components such as terminal boxes, fan covers and other machined parts are available on special request. In these cases, please advise our order entry department of the model and serial numbers found on the motor nameplate and a description of the needed components. With this information they will be able to furnish the current part number, price and availability.

Note: Our internal part numbers are subject to change without notice and are not published.

| Customer | |
|-------------|--|
| Customer PO | |
| Sales Order | |
| Project # | |

Tag:

All characteristics are average expected values.

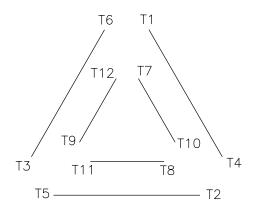
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|----------|---|------------------|-------------|-------------|-----------------|--|--|--|--|
| Engineer | ng | Doc. Written By | P. Anderson | Doc.# / Rev | MDSLE021-12 / 0 | | | | |
| Fngr D | ate | Doc. Approved By | PAA | Doc Issued | 3/14/2017 | | | | |

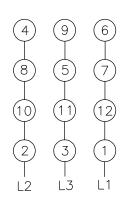


Motor Connection Diagrams 12 Leads Dual Voltage

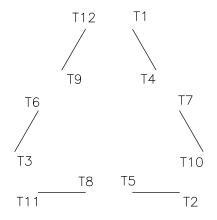
Across-the-Line Starting / Running Connections

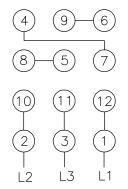
Low Voltage Delta





High Voltage Delta







Switch L1 and L2 to reverse rotation

By: R. Murillo Date: 4/9/08 Checked: Date: Revision 0