

NOTES:

- 1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
- 2. STANDARD PRODUCT USES BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
- 3. KEY DIMENSIONS EQUAL

0.500"x 0.500"x 3.25"

(MOTOR SUPPLIED WITH KEY)

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT AND THE DATA MAY CHANGE WITHOUT NOTICE

PRELIMINARY

DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS MARKED AS CERTIFIED

X CERTIFIED

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TOTALLY ENCLOSED FAN COOLED
ROUND BODY C-FACED
3 PHASE INDUCTION MOTOR
284TC-286TC F1 ASSEMBLY

DRAWING #: MDSLV205-05

REV. DATE: 07/05/18 REV

REV. DESCRIP.:

REV. #: 1 PER.: M. O'DOWD



| Issued Date | 12/18/2019 | Transmit # | |
|-------------|------------|------------|--|
| Issued By | dschoeck | Issued Rev | |

TYPICAL MOTOR PERFORMANCE DATA

Model: 0304SDSR44A-P

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|----|------------|--------|-------|-------------------|----------------|----------|-----------------|
| 30 | 22 | 4 | 1770 | 286TC | 230/460 | 60 | 3 | 72/36 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 93.6 | В | G | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|-------|------|---------|----------------|------------------|
| Full Load | 30 | 22.4 | 36.0 | 93.8 | 83.6 |
| ¾ Load | 22.50 | 16.8 | 28.3 | 93.2 | 80.9 |
| ½ Load | 15.00 | 11.2 | 21.6 | 91.6 | 73.7 |
| ¼ Load | 7.50 | 5.6 | 16.4 | 85.0 | 50.1 |
| No Load | | | 12.7 | | 5.4 |
| Locked Rotor | | | 217 | | 34.1 |

| Torque | | | | | | | |
|-----------|-------------------------------------------|---------|---------|----------|--|--|--|
| Full Load | Full Load Locked Rotor Pull Up Break Down | | | | | | |
| (lb-ft) | (% FLT) | (% FLT) | (% FLT) | (lb-ft²) | | | |
| 89 | 185 | 165 | 290 | 5.70 | | | |

| Safe Stall | Time(s) | Sound | | | Approx. Motor Weight |
|------------|------------|----------|---------|---------|----------------------|
| Cold | Hot | Pressure | | | |
| | dB(A) @ 1N | | DE | NDE | (lbs) |
| 35 | 15 | - | 6310ZC3 | 6310ZC3 | 509 |

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

Motor Options: Product Family:EQP Global SD Mounting:C-Face Round,Shaft:T Shaft

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

Tag:

| TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A. | | | | | | | | | |
|-----------------------------------------------------------|-----------|------------------|-------------|-------------|---------------|--|--|--|--|
| Engineering | jhock | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1119 / 1 | | | | |
| Engr. Date | 3/13/2014 | Doc. Approved By | M. Campbell | Doc. Issued | 9/20/2019 | | | | |



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| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|----|------------|--------|-------|-------------------|----------------|----------|-----------------|
| 30 | 22 | 4 | 1460 | 286TC | 190/380 | 50 | 3 | 88/44 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.0 | CONT | 92.4 | В | G | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|-------|------|---------|----------------|------------------|
| Full Load | 30 | 22.4 | 44.0 | 93.7 | 83.5 |
| ¾ Load | 22.50 | 16.8 | 33.6 | 94.4 | 80.8 |
| ∕₂ Load | 15.00 | 11.2 | 24.7 | 94.5 | 73.7 |
| ∕₄ Load | 7.50 | 5.6 | 17.6 | 85.7 | 56.1 |
| No Load | | | 12.9 | | 4.7 |
| Locked Rotor | | | 256 | | 34.2 |

| Torque | | | | | | |
|-----------|--------------|---------|------------|----------|--|--|
| Full Load | Locked Rotor | Pull Up | Break Down | Inertia | | |
| (lb-ft) | (% FLT) | (% FLT) | (% FLT) | (lb-ft²) | | |
| 108 | 150 | 125 | 230 | 5.70 | | |

| Safe Stal | Safe Stall Time(s) | | Bearings* | | Approx. Motor Weight |
|-----------|--------------------|------------|-----------|---------|----------------------|
| Cold | Hot | Pressure | | | |
| 33.4 | | dB(A) @ 1M | DE | NDE | (lbs) |
| 23 | 10 | - | 6310ZC3 | 6310ZC3 | 509 |

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

Motor Options: Product Family:EQP Global SD Mounting:C-Face Round,Shaft:T Shaft

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|-------------|--|
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| Project # | |

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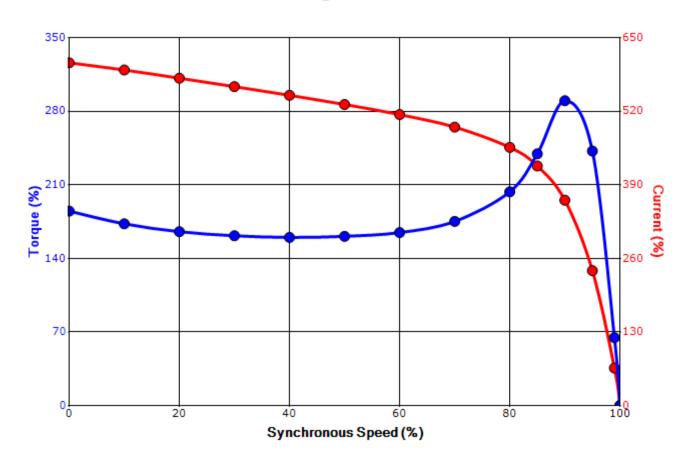
| Issued Date | 12/18/2019 | Transmit # | |
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SPEED TORQUE/CURRENT CURVE

Model: 0304SDSR44A-P

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|--------------|-----------------------|------------|----------|-------|-------------------|----------------|----------|-----------------|
| 30 | 22 | 4 | 1770 | 286TC | 230/460 | 60 | 3 | 72/36 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 93.6 | В | G | 40 C |
| Locked Rotor | Rotor wk ² | | | | Torque | | | |
| Amps | Inertia | Full Load | Locked | Rotor | Pull Up |) | Break | Down |
| Allips | (lb-ft²) | (lb-ft) | -ft) (%) | | (%) | | (% | %) |
| 217 | 5.70 | 89 | 185 | | 165 | - | 29 | 90 |

Design Values





| Customer | wk² Load Inerti | a (lb-ft²) |
|-------------|-----------------|--------------------|
| Customer PO | Lo | ad Type |
| Sales Order | Vol | age (%) 100 |
| Project # | Acc | el. Time - |

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|-----------------------------------------------------------|-----------|------------------|-------------|-------------|-------------|--|--|--|
| Engineering | jhock | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1121/1 | | | |
| Engr. Date | 3/13/2014 | Doc. Approved By | M. Campbell | Doc. Issued | 9/20/2019 | | | |



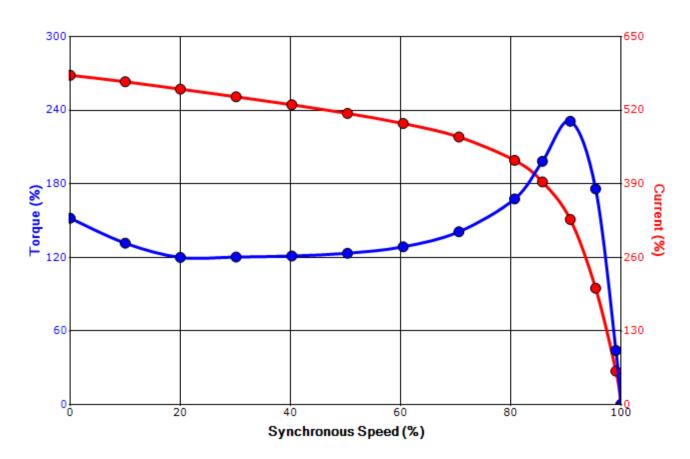
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| TEFC | 55 | F | 1.0 | CONT | 92.4 | В | G | 40 C |
| Lealind Dates | Rotor wk² | | | | Torque | | | |
| Locked Rotor Amps | Inertia | Full Load | Locked | l Rotor | Pull U | р | Break | Down |
| Allips | (lb-ft²) | (lb-ft) | (% | 6) | (%) | | (% | %) |
| 256 | 5.70 | 108 | 150 | | 125 | | 23 | 30 |

Design Values





| Customer | wk² Load Inerti | a (lb-ft²) |
|-------------|-----------------|--------------------|
| Customer PO | Lo | ad Type |
| Sales Order | Vol | age (%) 100 |
| Project # | Acc | el. Time - |

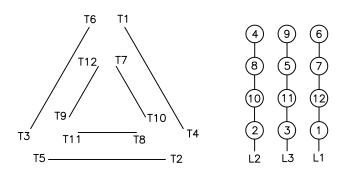
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| Engr. Date | 3/25/2014 | Doc. Approved By | M. Campbell | Doc. Issued | 9/20/2019 | | | | |

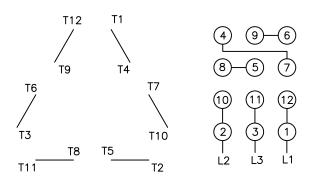
Motor Connection Diagrams 12 Leads

Across-the-Line Starting / Running Connections

Low Voltage Delta



High Voltage Delta



Switch L1 and L2 to reverse rotation

Suitable for Wye-Delta Starting and Limited Part-Winding-Starting. Please Contact Toshiba International for specific connections.

By: R. Murillo Date: 4/9/08 Checked: MDC Date: 5/17/11 Revision 1