

ROTATION: CCW  
VIEW FROM: ODE

UNIT: mm

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|  |                     |
|--|---------------------|
| B35-FLANGE MOTOR<br>OL DRAWING IEC GLOBAL    | TYPE: 2-4-6P - 400V |
| 3HFN000234                                   | FRAME: 160L         |
| TOSHIBA<br>TOSHIBA INTERNATIONAL CORPORATION |                     |

| TOLERANCES           |                                |          |           |         |  |
|----------------------|--------------------------------|----------|-----------|---------|--|
| X.                   | ±2.0                           |          |           |         |  |
| X.X                  | ±0.5                           |          |           |         |  |
| X.XX                 | ±0.1                           |          |           |         |  |
| MAXIMUM MOTOR WEIGHT |                                |          |           |         |  |
| - lbs.               |                                |          |           |         |  |
| - kgs.               |                                |          |           |         |  |
| 01                   | Adding tolerance dimension 'H' | T.Danh   | Sep-10-18 | B.Quynh |  |
| NO                   | REVISION                       | DRAWN BY | DATE      | CHECK   |  |

**EQP Global SD**  
XT SERIES

DRAWN BY: HIEN. NGUYEN  
CHECK BY: B.X.QUYNH  
APPROVED BY: JAY BUGBEE  
www.toshiba.com/ind

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| <b>TOSHIBA INTERNATIONAL CORPORATION</b><br>Industrial Division / Houston Motor Plant<br><br><b>SQUIRREL CAGE INDUCTION MOTOR</b><br><b>PERFORMANCE SPECIFICATIONS</b> | INDEX       | MPCF-1033 |
|  | SHEET NO.   | 1 of 1    |
|  | ISSUED      | 7/31/13   |
|  | SUPERSEDES  | 11/8/96   |
|  | REVISION    | 2         |
|  | WRITTEN BY  | MDC       |
|  | APPROVED BY | PAA       |

CUSTOMER: -  
TIC SR No.: -

| MOTOR NAMEPLATE DATA      |              |              |                |
|---------------------------|--------------|--------------|----------------|
| H.P.: -                   | VOLTS: 400   | 3 PH / 50 Hz | S. RPM: 1000   |
| FRAME: 160L               | ENCL: TEFC   | FLAMPS: 22   | FLRPM: 970     |
| FORM: FBKL1               | S.F.: -      | IEC DESIGN N | INSUL CLASS: F |
| TYPE: IKKH                | AMB.: 40°C   | CODE: -      | DUTY: Cont.    |
| MODEL No.: 0116SDMW7GS-PL |              | kW: 11       |                |
| NOM. EFF.: 90.3           | MIN. EFF.: - | cosØ 0.78    |                |

| AMPERAGE          | TORQUES                | **BEARINGS:                     |
|-------------------|------------------------|---------------------------------|
| LOCKED ROTOR: 158 | FULL LOAD (lb-ft.): 80 | DRIVE END: REFER TO NP          |
|                   | LOCKED ROTOR (%): 295  | OPPOSITE DRIVE END: REFER TO NP |
|                   | BREAK DOWN (%): 300    |                                 |

| EFFICIENCY      | POWER FACTOR    |
|-----------------|-----------------|
| FULL LOAD: 90.8 | FULL LOAD: 78.2 |
| 3/4 LOAD: 90.9  | 3/4 LOAD: 73.9  |
| 1/2 LOAD: 89.6  | 1/2 LOAD: 64.2  |

ALL CHARACTERISTICS ARE AVERAGE EXPECTED VALUES BASED UPON RATED VOLTAGE, FREQUENCY AND SINEWAVE POWER INPUT.  
THE DECLARED LOCKED ROTOR CURRENT HAS A TOLERANCE OF 20%.  
\* TEMPERATURE RISE WILL BE CONSISTENT WITH INSULATION, AMBIENT AND SERVICE FACTOR AS DEFINED BY NEMA-MG-12 OR -20.  
\*\* BEARINGS ARE THE ONLY RECOMMENDED SPARE PART(S).

**CERTIFIED BY:** Zichao Xie  
**DATE:** 9/10/2020

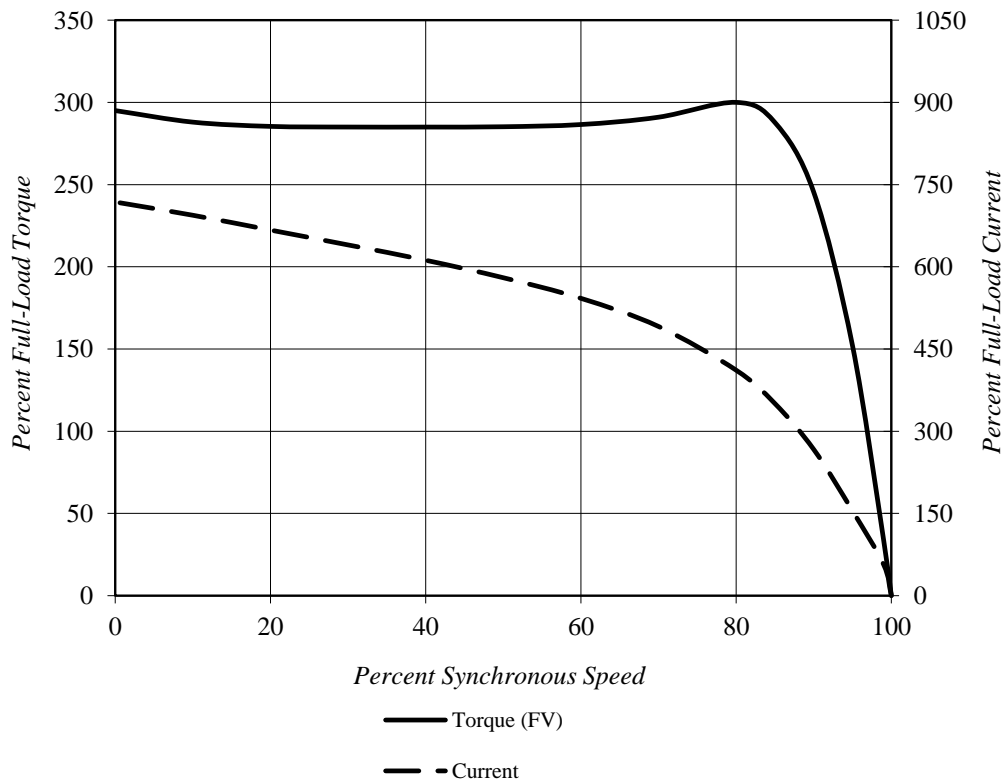
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

|                   |                |                       |                        |                    |               |
|-------------------|----------------|-----------------------|------------------------|--------------------|---------------|
| <b>Model #:</b>   | 0116SDMW7GS-PL |                       |                        | <b>FLAmps:</b>     | 22            |
| <b>Enclosure:</b> | TEFC           | <b>Voltage:</b>       | 400 V                  | <b>Frame:</b>      | 160L          |
| <b>Pole:</b>      | 6              | <b>Frequency:</b>     | 3 PH / 50 Hz           | <b>Ins. Class:</b> | F             |
| <b>KW:</b>        | 11             | <b>Rotor Inertia:</b> | 3.9 lb-ft <sup>2</sup> | <b>Date:</b>       | 9/10/2020     |
| <b>FLRPM:</b>     | 970            | <b>Load Inertia:</b>  | N/A                    | <b>File:</b>       | GH6011 (11kW) |

|                             |          |                     |     |
|-----------------------------|----------|---------------------|-----|
| <b>Locked Rotor Amps:</b>   | 158 A    | <b>Load Type:</b>   | N/A |
| <b>Locked Rotor Torque:</b> | 295%     | <b>Starting at:</b> | N/A |
| <b>Breakdown Torque:</b>    | 300%     | <b>Accel. Time:</b> | N/A |
| <b>Rated Torque:</b>        | 80 lb-ft |                     |     |

### *Design Values*



**Comments:** PROJECT -  
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**D.E.Curve #:** GH6011 (11kW)

**Prepared by:** Zichao Xie

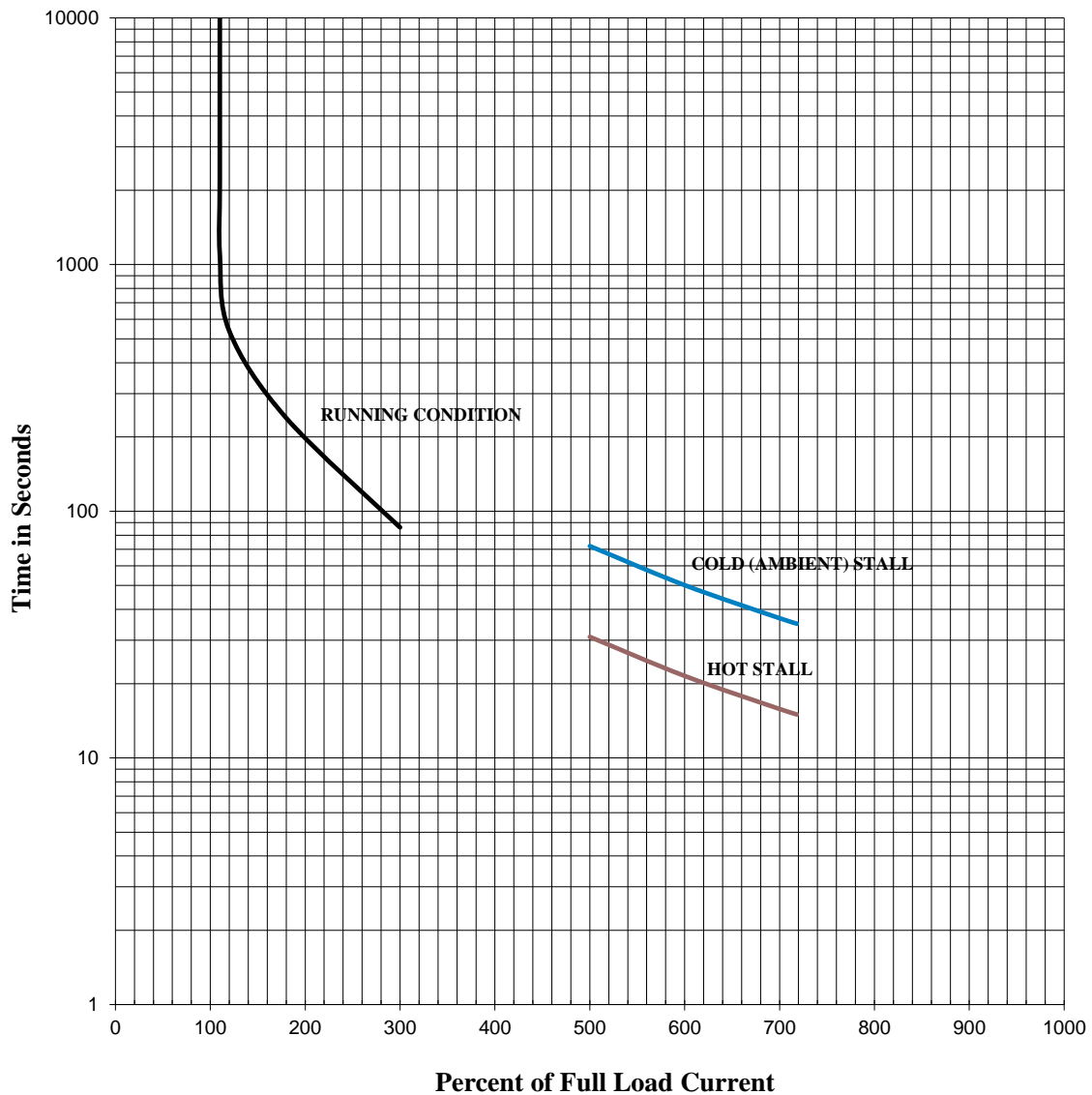
**Checked by:**

# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

|                   |                |                       |                        |                    |               |
|-------------------|----------------|-----------------------|------------------------|--------------------|---------------|
| <b>Model #:</b>   | 0116SDMW7GS-PL |                       |                        | <b>FLAmps:</b>     | 22            |
| <b>Enclosure:</b> | TEFC           | <b>Voltage:</b>       | 400 V                  | <b>Frame:</b>      | 160L          |
| <b>Pole:</b>      | 6              | <b>Frequency:</b>     | 3 PH / 50 Hz           | <b>Ins. Class:</b> | F             |
| <b>KW:</b>        | 11             | <b>Rotor Inertia:</b> | 3.9 lb-ft <sup>2</sup> | <b>Date:</b>       | 9/10/2020     |
| <b>FLRPM:</b>     | 970            | <b>Load Inertia:</b>  | N/A                    | <b>File:</b>       | GH6011 (11kW) |



**Comments:** PROJECT -  
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**D.E. Curve #:** GH6011 (11kW)

**Prepared by:** Zichao Xie

**Checked by:**

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| <b>TOSHIBA INTERNATIONAL CORPORATION</b><br>Industrial Division / Houston Motor Plant<br><br><b>SQUIRREL CAGE INDUCTION MOTOR</b><br><b>PERFORMANCE SPECIFICATIONS</b> | INDEX       | MPCF-1033 |
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|  | REVISION    | 2         |
|  | WRITTEN BY  | MDC       |
|  | APPROVED BY | PAA       |

CUSTOMER: -  
TIC SR No.: -

| MOTOR NAMEPLATE DATA      |              |              |                |
|---------------------------|--------------|--------------|----------------|
| H.P.: -                   | VOLTS: 415   | 3 PH / 50 Hz | S. RPM: 1000   |
| FRAME: 160L               | ENCL: TEFC   | FLAMPS: 22   | FLRPM: 970     |
| FORM: FBKL1               | S.F.: -      | IEC DESIGN N | INSUL CLASS: F |
| TYPE: IKKH                | AMB.: 40°C   | CODE: -      | DUTY: Cont.    |
| MODEL No.: 0116SDMW7GS-PL |              | kW: 11       |                |
| NOM. EFF.: 90.3           | MIN. EFF.: - | cosØ 0.77    |                |

| AMPERAGE          | TORQUES                | **BEARINGS:                     |
|-------------------|------------------------|---------------------------------|
| LOCKED ROTOR: 164 | FULL LOAD (lb-ft.): 79 | DRIVE END: REFER TO NP          |
|                   | LOCKED ROTOR (%): 325  | OPPOSITE DRIVE END: REFER TO NP |
|                   | BREAK DOWN (%): 320    |                                 |

| EFFICIENCY      | POWER FACTOR    |
|-----------------|-----------------|
| FULL LOAD: 91.4 | FULL LOAD: 77.5 |
| 3/4 LOAD: 91.3  | 3/4 LOAD: 72.1  |
| 1/2 LOAD: 89.6  | 1/2 LOAD: 61.2  |

ALL CHARACTERISTICS ARE AVERAGE EXPECTED VALUES BASED UPON RATED VOLTAGE, FREQUENCY AND SINEWAVE POWER INPUT.  
THE DECLARED LOCKED ROTOR CURRENT HAS A TOLERANCE OF 20%.  
\* TEMPERATURE RISE WILL BE CONSISTENT WITH INSULATION, AMBIENT AND SERVICE FACTOR AS DEFINED BY NEMA-MG-12 OR -20.  
\*\* BEARINGS ARE THE ONLY RECOMMENDED SPARE PART(S).

**CERTIFIED BY:** Zichao Xie  
**DATE:** 9/10/2020

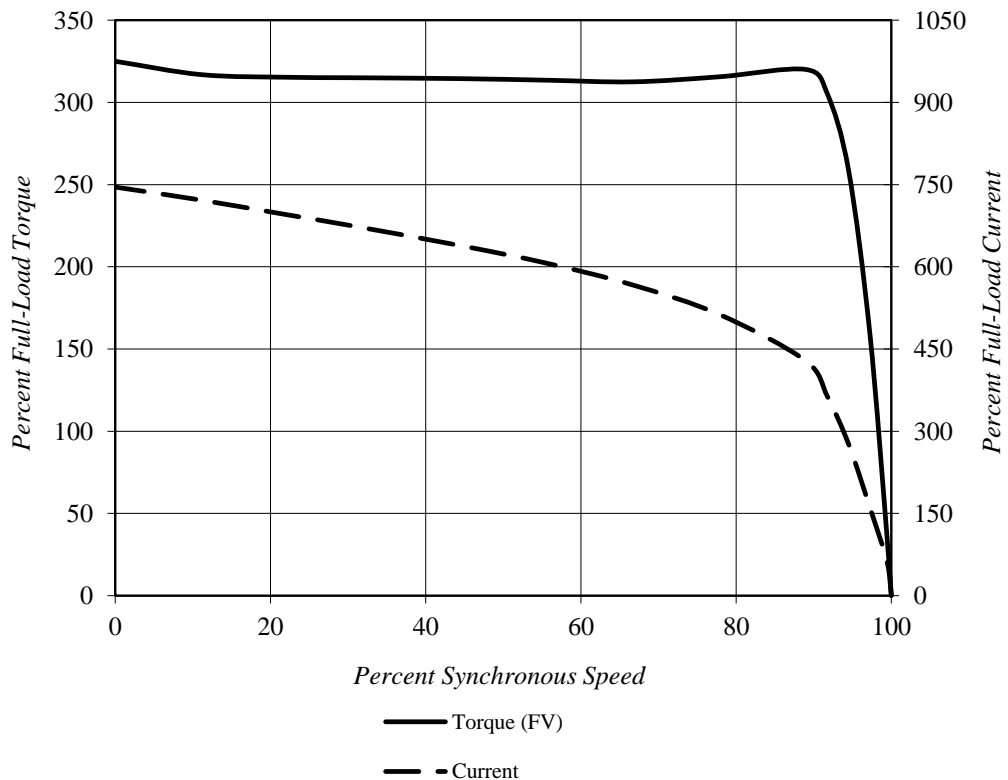
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

|                   |                |                       |                        |                    |               |
|-------------------|----------------|-----------------------|------------------------|--------------------|---------------|
| <b>Model #:</b>   | 0116SDMW7GS-PL |                       |                        | <b>FLAmps:</b>     | 22            |
| <b>Enclosure:</b> | TEFC           | <b>Voltage:</b>       | 415 V                  | <b>Frame:</b>      | 160L          |
| <b>Pole:</b>      | 6              | <b>Frequency:</b>     | 3 PH / 50 Hz           | <b>Ins. Class:</b> | F             |
| <b>KW:</b>        | 11             | <b>Rotor Inertia:</b> | 3.9 lb-ft <sup>2</sup> | <b>Date:</b>       | 9/10/2020     |
| <b>FLRPM:</b>     | 970            | <b>Load Inertia:</b>  | N/A                    | <b>File:</b>       | GH6011 (11kW) |

|                             |          |                     |     |
|-----------------------------|----------|---------------------|-----|
| <b>Locked Rotor Amps:</b>   | 164 A    | <b>Load Type:</b>   | N/A |
| <b>Locked Rotor Torque:</b> | 325%     | <b>Starting at:</b> | N/A |
| <b>Breakdown Torque:</b>    | 320%     | <b>Accel. Time:</b> | N/A |
| <b>Rated Torque:</b>        | 79 lb-ft |                     |     |

### *Design Values*



**Comments:** PROJECT -  
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**D.E. Curve #:** GH6011 (11kW)

**Prepared by:** Zichao Xie

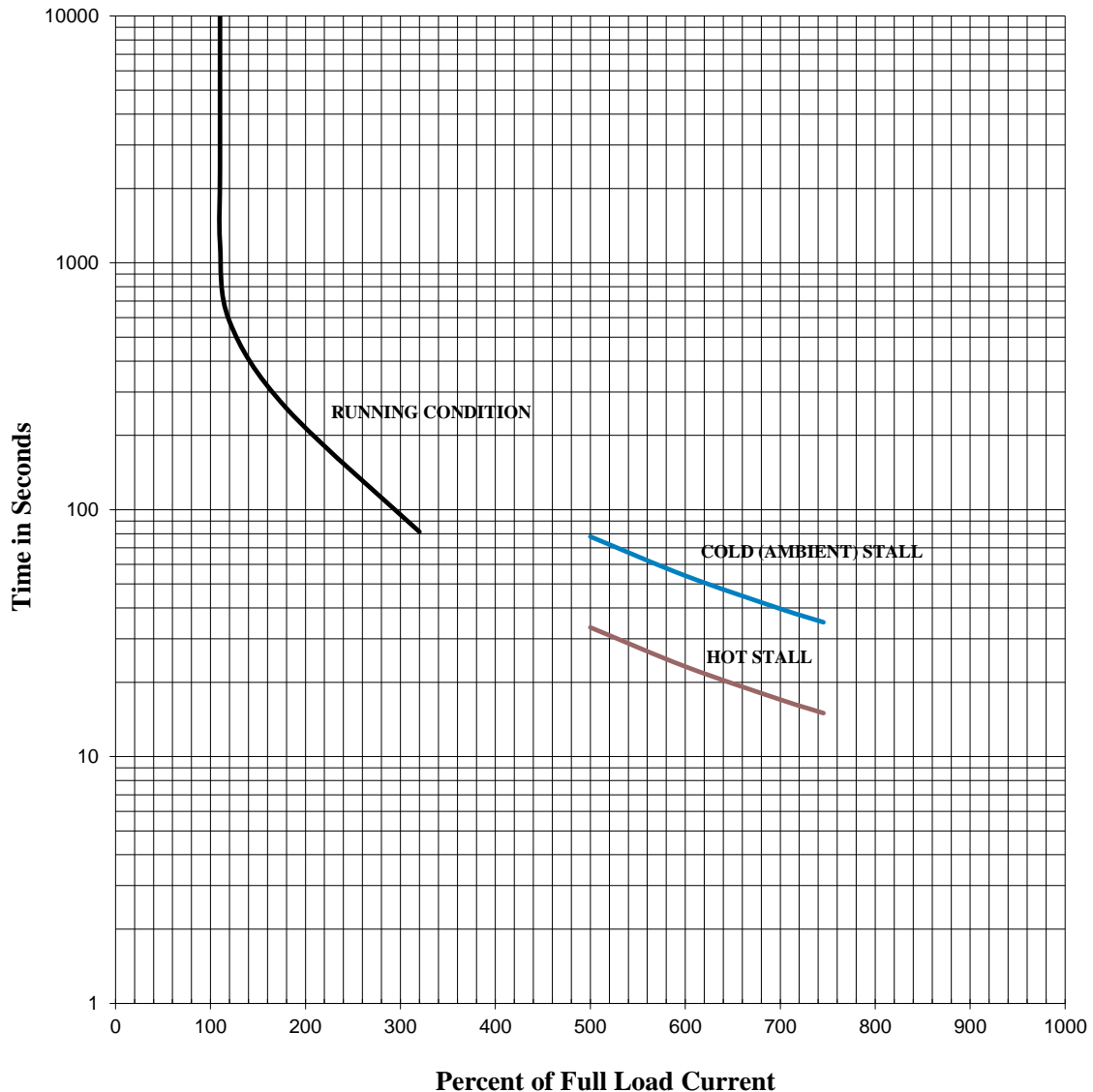
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# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

|                   |                |                       |                        |                    |               |
|-------------------|----------------|-----------------------|------------------------|--------------------|---------------|
| <b>Model #:</b>   | 0116SDMW7GS-PL |                       |                        | <b>FLAmps:</b>     | 22            |
| <b>Enclosure:</b> | TEFC           | <b>Voltage:</b>       | 415 V                  | <b>Frame:</b>      | 160L          |
| <b>Pole:</b>      | 6              | <b>Frequency:</b>     | 3 PH / 50 Hz           | <b>Ins. Class:</b> | F             |
| <b>KW:</b>        | 11             | <b>Rotor Inertia:</b> | 3.9 lb-ft <sup>2</sup> | <b>Date:</b>       | 9/10/2020     |
| <b>FLRPM:</b>     | 970            | <b>Load Inertia:</b>  | N/A                    | <b>File:</b>       | GH6011 (11kW) |



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**D.E. Curve #:** GH6011 (11kW)

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|  | SUPERSEDES  | 11/8/96   |
|  | REVISION    | 2         |
|  | WRITTEN BY  | MDC       |
|  | APPROVED BY | PAA       |

CUSTOMER: -  
TIC SR No.: -

| MOTOR NAMEPLATE DATA      |              |              |                |
|---------------------------|--------------|--------------|----------------|
| H.P.: -                   | VOLTS: 380   | 3 PH / 50 Hz | S. RPM: 1000   |
| FRAME: 160L               | ENCL: TEFC   | FLAMPS: 23   | FLRPM: 965     |
| FORM: FBKL1               | S.F.: -      | IEC DESIGN N | INSUL CLASS: F |
| TYPE: IKKH                | AMB.: 40°C   | CODE: -      | DUTY: Cont.    |
| MODEL No.: 0116SDMW7GS-PL |              | kW: 11       |                |
| NOM. EFF.: 90.3           | MIN. EFF.: - | cosØ 0.80    |                |

| AMPERAGE          | TORQUES                | **BEARINGS:                     |
|-------------------|------------------------|---------------------------------|
| LOCKED ROTOR: 148 | FULL LOAD (lb-ft.): 80 | DRIVE END: REFER TO NP          |
|                   | LOCKED ROTOR (%): 260  | OPPOSITE DRIVE END: REFER TO NP |
|                   | BREAK DOWN (%): 270    |                                 |

| EFFICIENCY      | POWER FACTOR    |
|-----------------|-----------------|
| FULL LOAD: 90.4 | FULL LOAD: 80.6 |
| 3/4 LOAD: 90.8  | 3/4 LOAD: 77.1  |
| 1/2 LOAD: 89.9  | 1/2 LOAD: 68.6  |

ALL CHARACTERISTICS ARE AVERAGE EXPECTED VALUES BASED UPON RATED VOLTAGE,  
FREQUENCY AND SINEWAVE POWER INPUT.  
-----  
THE DECLARED LOCKED ROTOR CURRENT HAS A TOLERANCE OF 20%.  
-----  
\* TEMPERATURE RISE WILL BE CONSISTENT WITH INSULATION, AMBIENT AND SERVICE FACTOR AS  
DEFINED BY NEMA-MG-12 OR -20.  
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\*\* BEARINGS ARE THE ONLY RECOMMENDED SPARE PART(S).

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**DATE:** 9/10/2020



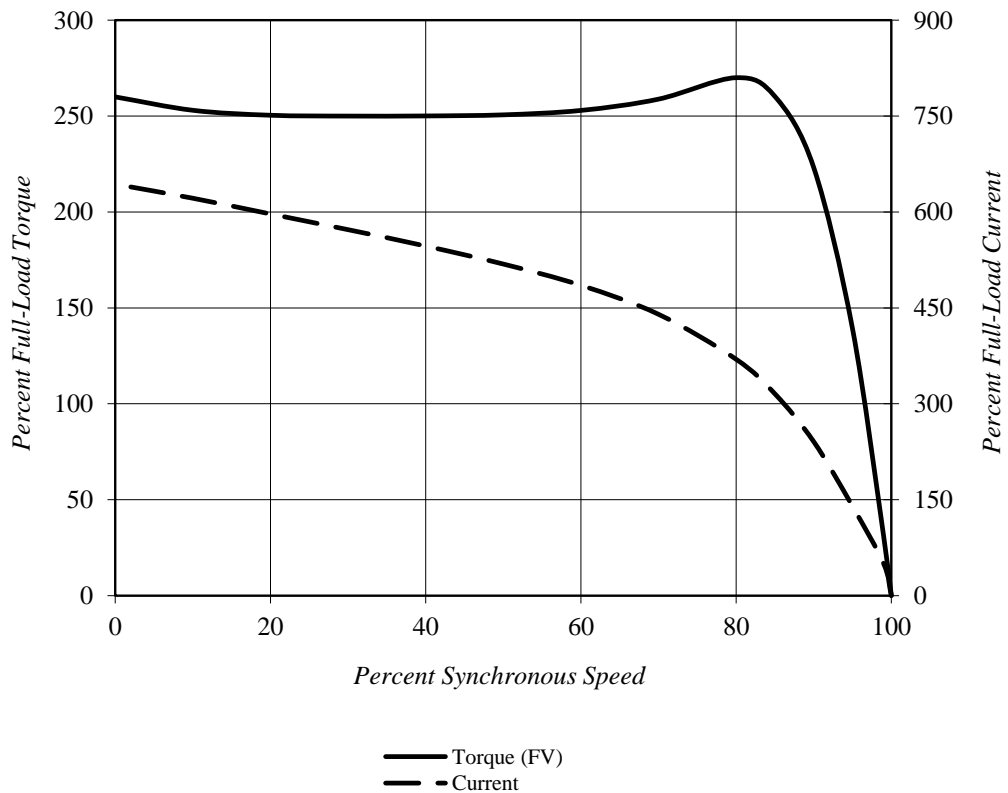
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

|                   |                |                       |                        |                    |               |
|-------------------|----------------|-----------------------|------------------------|--------------------|---------------|
| <b>Model #:</b>   | 0116SDMW7GS-PL |                       |                        | <b>FLAmps:</b>     | 23            |
| <b>Enclosure:</b> | TEFC           | <b>Voltage:</b>       | 380 V                  | <b>Frame:</b>      | 160L          |
| <b>Pole:</b>      | 6              | <b>Frequency:</b>     | 3 PH / 50 Hz           | <b>Ins. Class:</b> | F             |
| <b>KW:</b>        | 11             | <b>Rotor Inertia:</b> | 3.9 lb-ft <sup>2</sup> | <b>Date:</b>       | 9/10/2020     |
| <b>FLRPM:</b>     | 965            | <b>Load Inertia:</b>  | N/A                    | <b>File:</b>       | GH6011 (11kW) |

|                             |          |                     |     |
|-----------------------------|----------|---------------------|-----|
| <b>Locked Rotor Amps:</b>   | 148 A    | <b>Load Type:</b>   | N/A |
| <b>Locked Rotor Torque:</b> | 260%     | <b>Starting at:</b> | N/A |
| <b>Breakdown Torque:</b>    | 270%     | <b>Accel. Time:</b> | N/A |
| <b>Rated Torque:</b>        | 80 lb-ft |                     |     |

### *Design Values*



**Comments:** PROJECT -  
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**D.E.Curve #:** GH6011 (11kW)

**Prepared by:** Zichao Xie

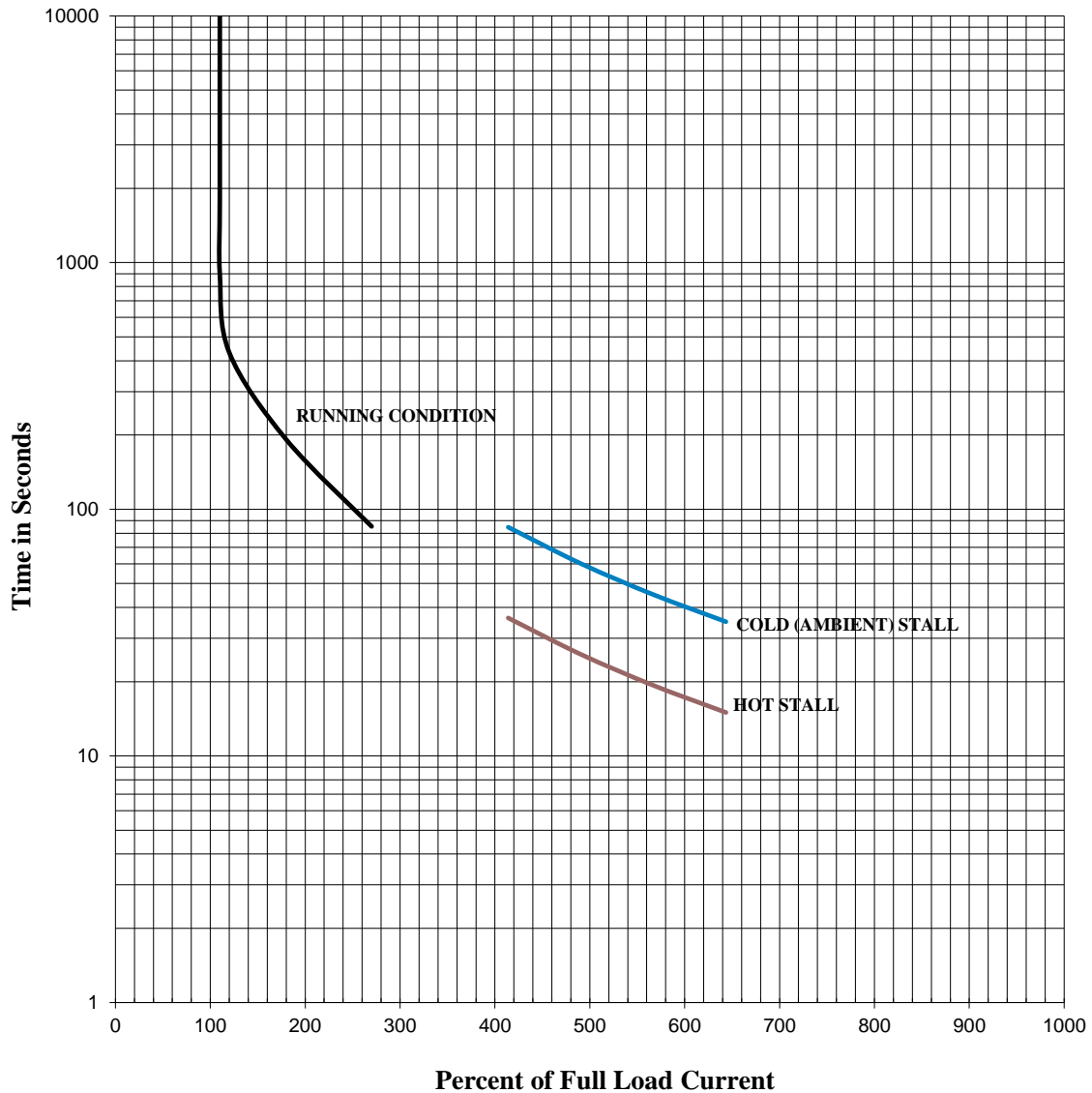
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# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

|                   |                |                       |                        |                    |               |
|-------------------|----------------|-----------------------|------------------------|--------------------|---------------|
| <b>Model #:</b>   | 0116SDMW7GS-PL |                       |                        | <b>FLAmps:</b>     | 23            |
| <b>Enclosure:</b> | TEFC           | <b>Voltage:</b>       | 380 V                  | <b>Frame:</b>      | 160L          |
| <b>Pole:</b>      | 6              | <b>Frequency:</b>     | 3 PH / 50 Hz           | <b>Ins. Class:</b> | F             |
| <b>KW:</b>        | 11             | <b>Rotor Inertia:</b> | 3.9 lb-ft <sup>2</sup> | <b>Date:</b>       | 9/10/2020     |
| <b>FLRPM:</b>     | 965            | <b>Load Inertia:</b>  | N/A                    | <b>File:</b>       | GH6011 (11kW) |



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|  | WRITTEN BY  | MDC       |
|  | APPROVED BY | PAA       |

CUSTOMER: -  
TIC SR No.: -

| MOTOR NAMEPLATE DATA      |              |                |                |
|---------------------------|--------------|----------------|----------------|
| H.P.: 15                  | VOLTS: 460   | 3 PH / 60 Hz   | S. RPM: 1200   |
| FRAME: 160L               | ENCL: TEFC   | FLAMPS: 19.5   | FLRPM: 1175    |
| FORM: FBKL1               | S.F.: 1.15   | NEMA DESIGN: A | INSUL CLASS: F |
| TYPE: IKKH                | AMB.: 40°C   | CODE: K        | DUTY: Cont.    |
| MODEL No.: 0116SDMW7GS-PL |              | KW: 11         |                |
| NOM. EFF.: 91.7           | MIN. EFF.: - | P.F.: 76.5     |                |

| AMPERAGE          | TORQUES                | **BEARINGS:                     |
|-------------------|------------------------|---------------------------------|
| LOCKED ROTOR: 159 | FULL LOAD (lb-ft.): 66 | DRIVE END: REFER TO NP          |
|                   | LOCKED ROTOR (%): 340  | OPPOSITE DRIVE END: REFER TO NP |
|                   | BREAK DOWN (%): 315    |                                 |

| EFFICIENCY      | POWER FACTOR    |
|-----------------|-----------------|
| FULL LOAD: 92.1 | FULL LOAD: 76.9 |
| 3/4 LOAD: 91.6  | 3/4 LOAD: 71.9  |
| 1/2 LOAD: 89.7  | 1/2 LOAD: 61.6  |

ALL CHARACTERISTICS ARE AVERAGE EXPECTED VALUES BASED UPON RATED VOLTAGE, FREQUENCY AND SINEWAVE POWER INPUT.  
THE DECLARED LOCKED ROTOR CURRENT HAS A TOLERANCE OF 20%.  
\* TEMPERATURE RISE WILL BE CONSISTENT WITH INSULATION, AMBIENT AND SERVICE FACTOR AS DEFINED BY NEMA-MG-12 OR -20.  
\*\* BEARINGS ARE THE ONLY RECOMMENDED SPARE PART(S).

**CERTIFIED BY:** Zichao Xie

**DATE:** 9/10/2020

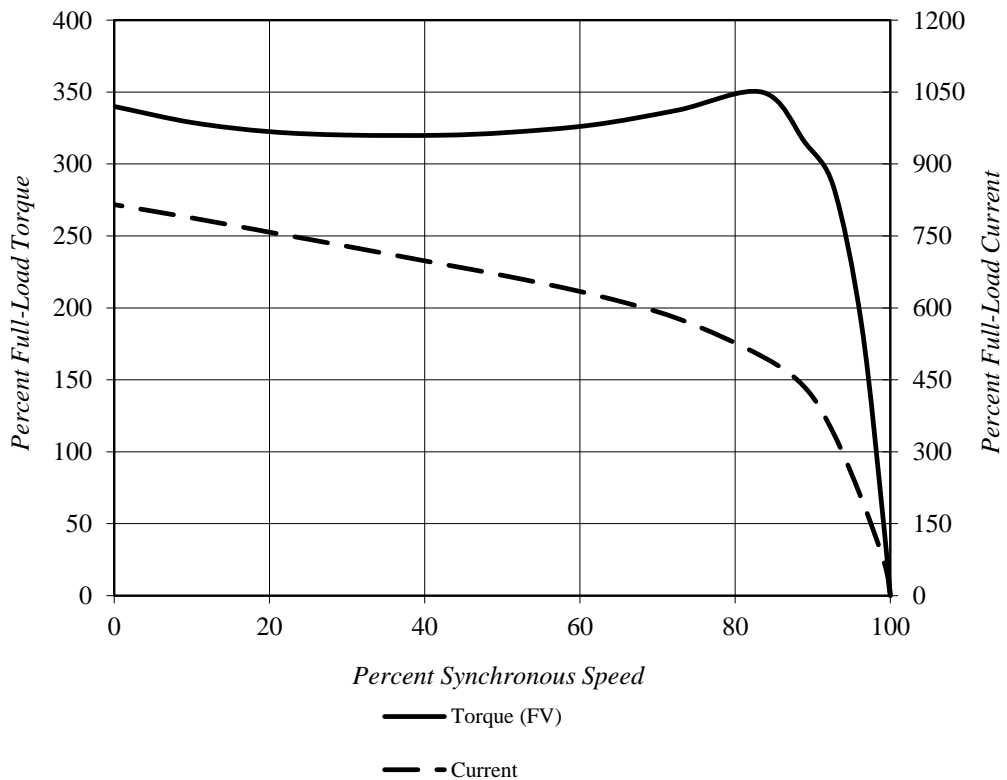
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

|                   |                |                       |                        |                    |               |
|-------------------|----------------|-----------------------|------------------------|--------------------|---------------|
| <b>Model #:</b>   | 0116SDMW7GS-PL |                       |                        | <b>FLAmps:</b>     | 19.5          |
| <b>Enclosure:</b> | TEFC           | <b>Voltage:</b>       | 460 V                  | <b>Frame:</b>      | 160L          |
| <b>Pole:</b>      | 6              | <b>Frequency:</b>     | 3 PH / 60 Hz           | <b>Ins. Class:</b> | F             |
| <b>HP:</b>        | 15             | <b>Rotor Inertia:</b> | 3.9 lb-ft <sup>2</sup> | <b>Date:</b>       | 9/10/2020     |
| <b>FLRPM:</b>     | 1175           | <b>Load Inertia:</b>  | N/A                    | <b>File:</b>       | GH6011 (11kW) |

|                             |          |                     |     |
|-----------------------------|----------|---------------------|-----|
| <b>Locked Rotor Amps:</b>   | 159 A    | <b>Load Type:</b>   | N/A |
| <b>Locked Rotor Torque:</b> | 340%     | <b>Starting at:</b> | N/A |
| <b>Breakdown Torque:</b>    | 315%     | <b>Accel. Time:</b> | N/A |
| <b>Rated Torque:</b>        | 66 lb-ft |                     |     |

### *Design Values*



**Comments:** PROJECT -  
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**D.E.Curve #:** GH6011 (11kW)

**Prepared by:** Zichao Xie

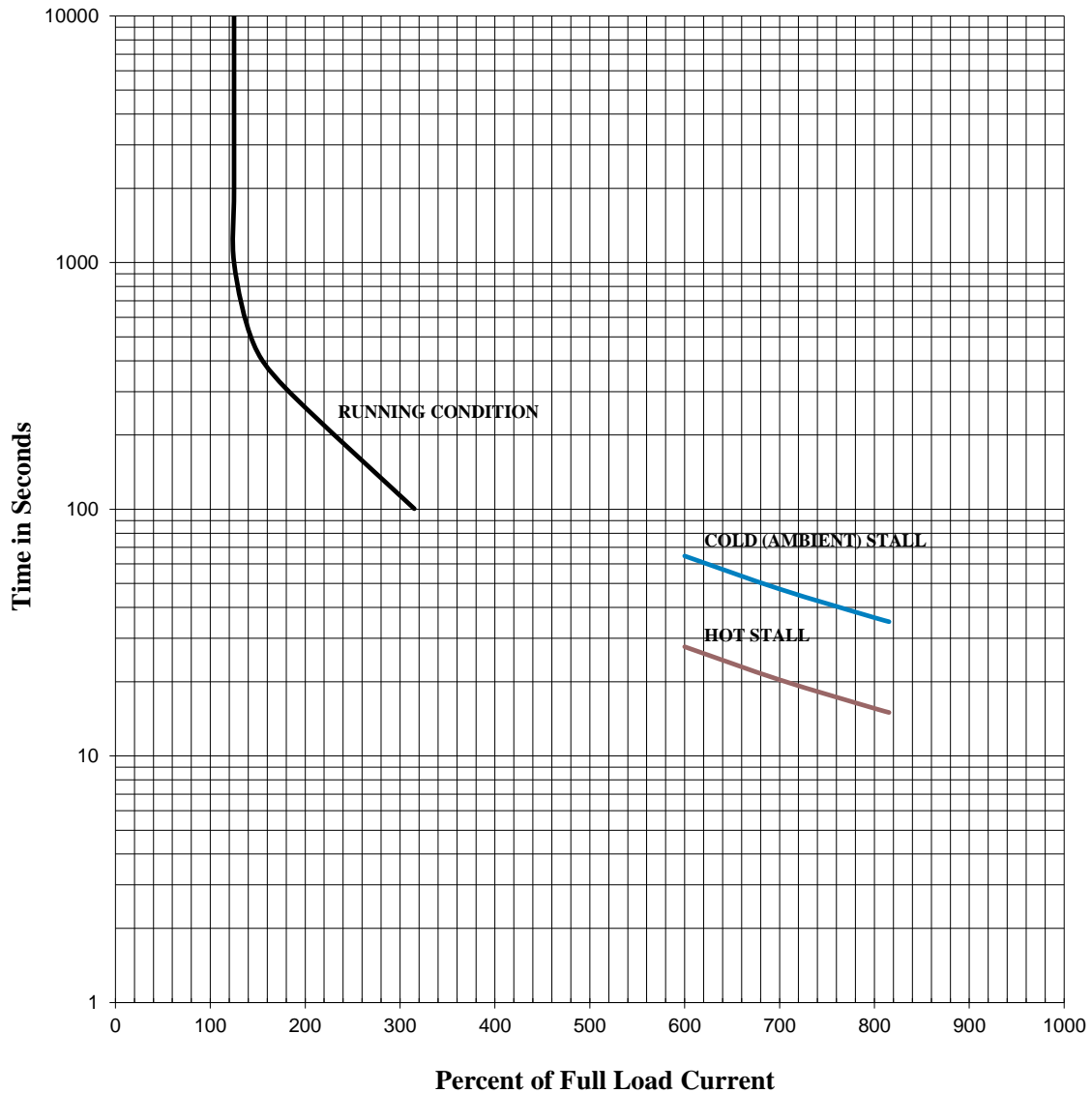
**Checked by:**

# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

|                   |                |                       |                        |                    |               |
|-------------------|----------------|-----------------------|------------------------|--------------------|---------------|
| <b>Model #:</b>   | 0116SDMW7GS-PL |                       |                        | <b>FLAmps:</b>     | 19.5          |
| <b>Enclosure:</b> | TEFC           | <b>Voltage:</b>       | 460 V                  | <b>Frame:</b>      | 160L          |
| <b>Pole:</b>      | 6              | <b>Frequency:</b>     | 3 PH / 60 Hz           | <b>Ins. Class:</b> | F             |
| <b>HP:</b>        | 15             | <b>Rotor Inertia:</b> | 3.9 lb-ft <sup>2</sup> | <b>Date:</b>       | 9/10/2020     |
| <b>FLRPM:</b>     | 1175           | <b>Load Inertia:</b>  | N/A                    | <b>File:</b>       | GH6011 (11kW) |



**Comments:** PROJECT -  
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