

UNIT: mm

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT WITHOUT NOTICE. DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS CERTIFIED.

B3-FOOT MOUNTED MOTOR OL DRAWING IEC GLOBAL	TYPE: 2-4-6P - 400V	TOLERANCES					
	FRAME: 200L	X. $\pm 2.0$					
3HFN000170		X.X $\pm 0.5$					DRAWN BY: HIEN. NGUYEN CHECK BY: B.X.QUYNH APPROVED BY: JAY BUGBEE <a href="http://www.toshiba.com/ind">www.toshiba.com/ind</a>
		X.XX $\pm 0.1$					
TOSHIBA TOSHIBA INTERNATIONAL CORPORATION		MAXIMUM MOTOR WEIGHT					
	-- lbs.	02 change to M20S-EB	T.Danh	May-07-18	Q.Hung		
	-- kgs.	01 change to fancover	T.Danh	Feb-08-18	Q.Hung		
		NO REVISION	DRAWN BY	DATE	CHECK		

**TOSHIBA INTERNATIONAL CORPORATION**  
**Industrial Division / Houston Motor Plant**

**SQUIRREL CAGE INDUCTION MOTOR**  
**PERFORMANCE SPECIFICATIONS**

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: 200L	ENCL: TEFC	FLAMPS: 35	FLRPM: 975
FORM: FBK1	S.F.: -	IEC DESIGN N	INSUL CLASS: F
TYPE: TKKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: 0186SDMW7FS-P		kW: 18.5	
NOM. EFF.: 91.7	MIN. EFF.: -	cosØ 0.81	

**AMPERAGE**

LOCKED ROTOR: 220

**TORQUES**

FULL LOAD (lb-ft.): 133  
LOCKED ROTOR (%): 260  
BREAK DOWN (%): 310

**\*\*BEARINGS:**

DRIVE END: REFER TO NP  
OPPOSITE DRIVE END: REFER TO NP

**EFFICIENCY**

FULL LOAD: 92.4  
3/4 LOAD: 92.5  
1/2 LOAD: 91.5

**POWER FACTOR**

FULL LOAD: 81.5  
3/4 LOAD: 77.4  
1/2 LOAD: 68.1

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:** 1/7/2021

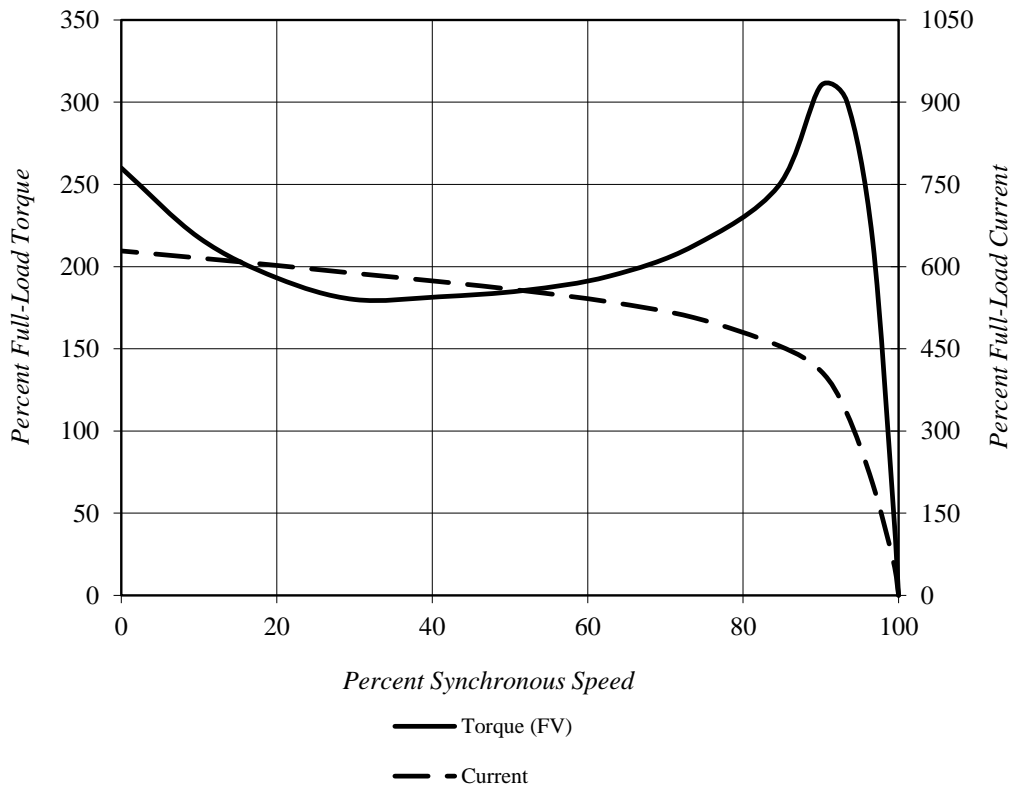
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

<b>Model #:</b>	0186SDMW7FS-P			<b>FLAmps:</b>	35
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	400 V	<b>Frame:</b>	200L
<b>Pole:</b>	6	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	18.5	<b>Rotor Inertia:</b>	11.3 lb-ft <sup>2</sup>	<b>Date:</b>	1/7/2021
<b>FLRPM:</b>	975	<b>Load Inertia:</b>	N/A	<b>File:</b>	3H6018 (18.5kW)

<b>Locked Rotor Amps:</b>	220 A	<b>Load Type:</b>	N/A
<b>Locked Rotor Torque:</b>	260%	<b>Starting at:</b>	N/A
<b>Breakdown Torque:</b>	310%	<b>Accel. Time:</b>	N/A
<b>Rated Torque:</b>	133 lb-ft		

### *Design Values*



**Comments:** PROJECT -  
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**D.E. Curve #:** 3H6018 (18.5kW)

**Prepared by:** Zichao Xie

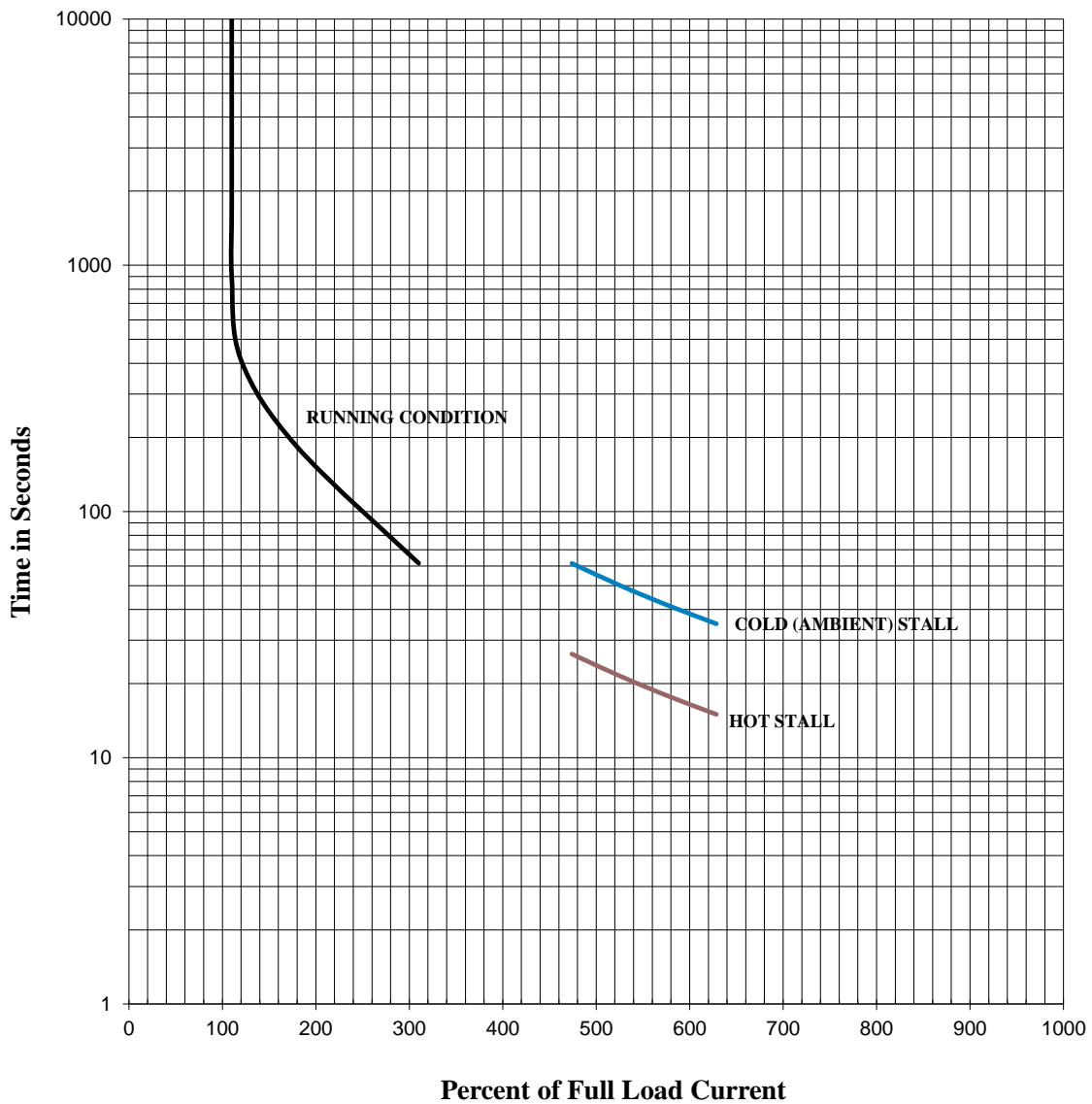
**Checked by:**

# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

<b>Model #:</b>	0186SDMW7FS-P			<b>FLAmps:</b>	35
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	400 V	<b>Frame:</b>	200L
<b>Pole:</b>	6	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	18.5	<b>Rotor Inertia:</b>	11.3 lb-ft <sup>2</sup>	<b>Date:</b>	1/7/2021
<b>FLRPM:</b>	975	<b>Load Inertia:</b>	N/A	<b>File:</b>	3H6018 (18.5kW)



**Comments:** PROJECT -  
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**D.E. Curve #:** 3H6018 (18.5kW)

**Prepared by:** Zichao Xie

**Checked by:**

**TOSHIBA INTERNATIONAL CORPORATION**  
**Industrial Division / Houston Motor Plant**

**SQUIRREL CAGE INDUCTION MOTOR**  
**PERFORMANCE SPECIFICATIONS**

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: 415	3 PH / 50 Hz	S. RPM: 1000
FRAME: 200L	ENCL: TEFC	FLAMPS: 35	FLRPM: 980
FORM: FBK1	S.F.: -	IEC DESIGN N	INSUL CLASS: F
TYPE: TKKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: 0186SDMW7FS-P		kW: 18.5	
NOM. EFF.: 91.7	MIN. EFF.: -	cosØ 0.80	

**AMPERAGE**

LOCKED ROTOR: 230

**TORQUES**

FULL LOAD (lb-ft.): 133  
LOCKED ROTOR (%): 285  
BREAK DOWN (%): 330

**\*\*BEARINGS:**

DRIVE END: REFER TO NP  
OPPOSITE DRIVE END: REFER TO NP

**EFFICIENCY**

FULL LOAD: 92.7  
3/4 LOAD: 92.6  
1/2 LOAD: 91.3

**POWER FACTOR**

FULL LOAD: 80.7  
3/4 LOAD: 76.1  
1/2 LOAD: 66.0

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:** 1/7/2021

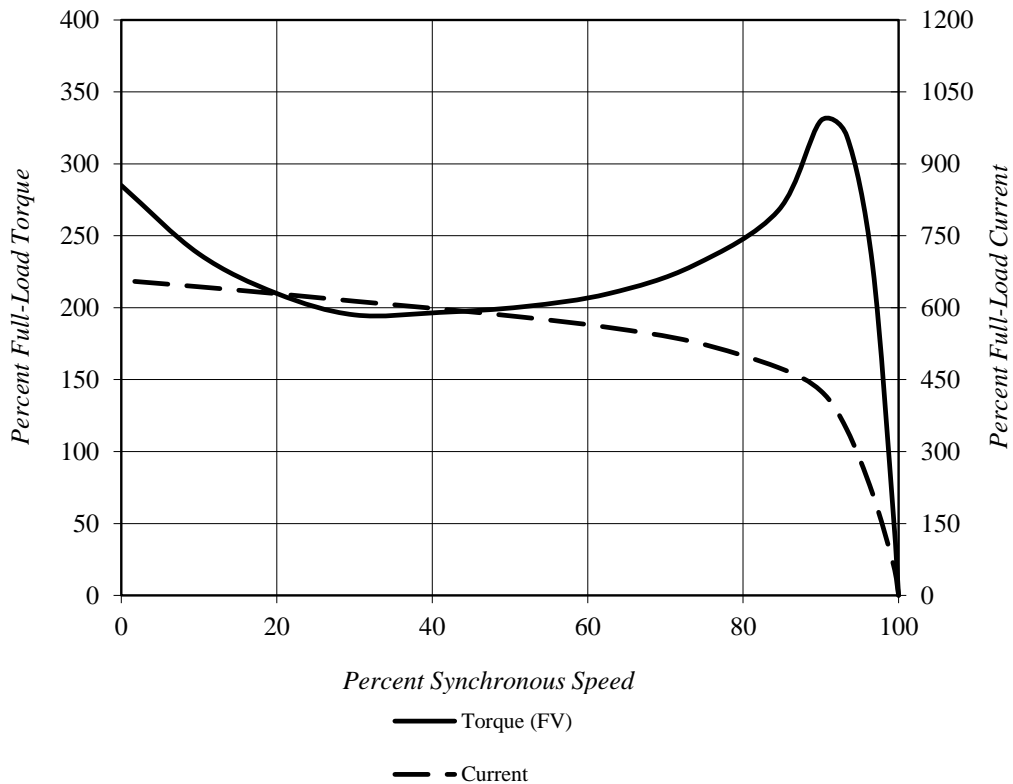
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

<b>Model #:</b>	0186SDMW7FS-P			<b>FLAmps:</b>	35
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	415 V	<b>Frame:</b>	200L
<b>Pole:</b>	6	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	18.5	<b>Rotor Inertia:</b>	11.3 lb-ft <sup>2</sup>	<b>Date:</b>	1/7/2021
<b>FLRPM:</b>	980	<b>Load Inertia:</b>	N/A	<b>File:</b>	3H6018 (18.5kW)

<b>Locked Rotor Amps:</b>	230 A	<b>Load Type:</b>	N/A
<b>Locked Rotor Torque:</b>	285%	<b>Starting at:</b>	N/A
<b>Breakdown Torque:</b>	330%	<b>Accel. Time:</b>	N/A
<b>Rated Torque:</b>	133 lb-ft		

### *Design Values*



**Comments:** PROJECT -  
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**D.E.Curve #:** 3H6018 (18.5kW)

**Prepared by:** Zichao Xie

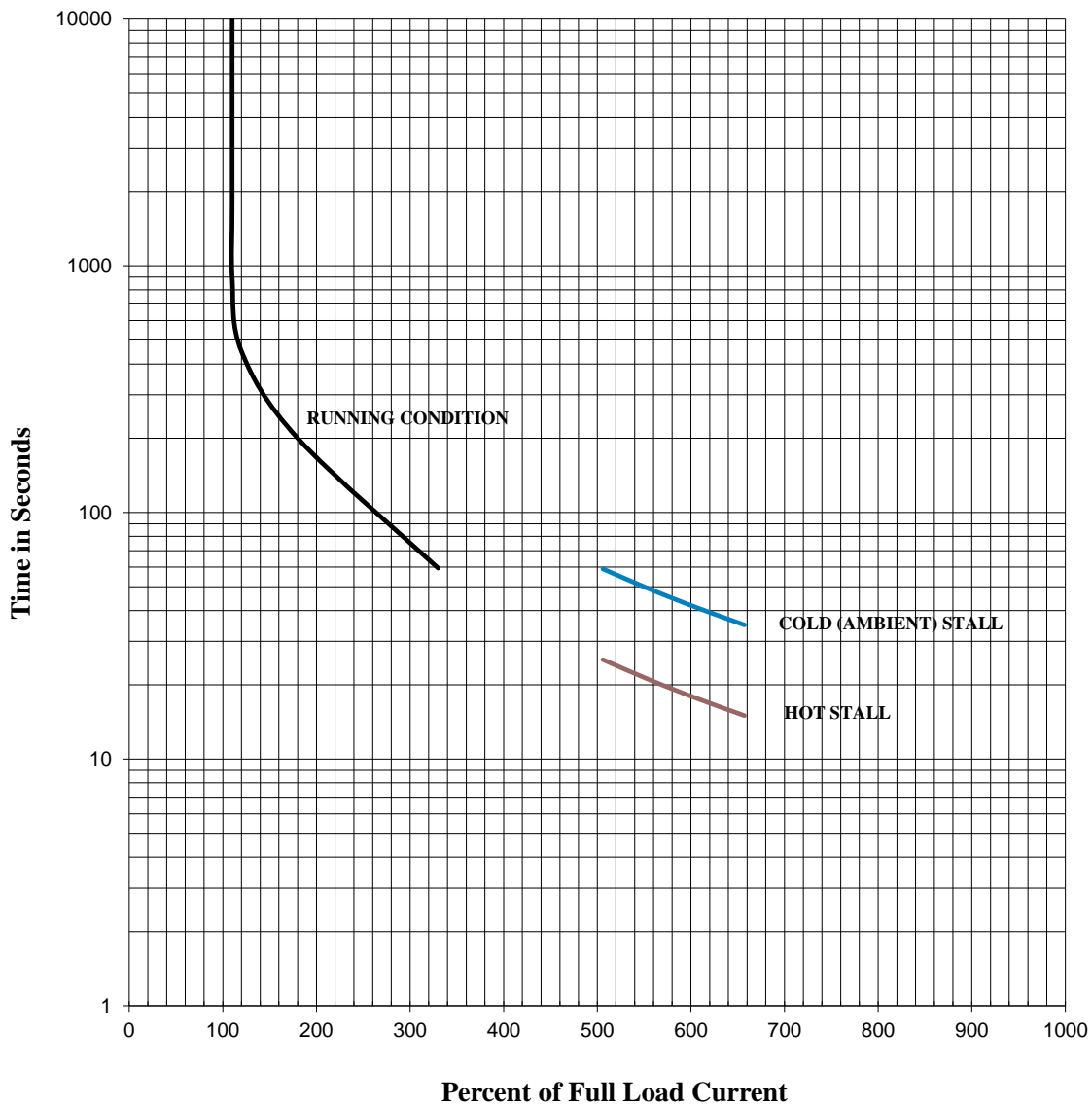
**Checked by:**

# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

<b>Model #:</b>	0186SDMW7FS-P			<b>FLAmps:</b>	35
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	415 V	<b>Frame:</b>	200L
<b>Pole:</b>	6	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	18.5	<b>Rotor Inertia:</b>	11.3 lb-ft <sup>2</sup>	<b>Date:</b>	1/7/2021
<b>FLRPM:</b>	980	<b>Load Inertia:</b>	N/A	<b>File:</b>	3H6018 (18.5kW)



**Comments:** PROJECT -  
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**D.E.Curve #:** 3H6018 (18.5kW)

<b>Prepared by:</b> Zichao Xie	<b>Checked by:</b>
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**TOSHIBA INTERNATIONAL CORPORATION**  
**Industrial Division / Houston Motor Plant**

**SQUIRREL CAGE INDUCTION MOTOR**  
**PERFORMANCE SPECIFICATIONS**

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: 380	3 PH / 50 Hz	S. RPM: 1000
FRAME: 200L	ENCL: TEFC	FLAMPS: 37	FLRPM: 975
FORM: FBK1	S.F.: -	IEC DESIGN N	INSUL CLASS: F
TYPE: TKKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: 0186SDMW7FS-P		kW: 18.5	
NOM. EFF.: 91.7	MIN. EFF.: -	cosØ 0.82	

**AMPERAGE**

LOCKED ROTOR: 208

**TORQUES**

FULL LOAD (lb-ft.): 134  
 LOCKED ROTOR (%): 230  
 BREAK DOWN (%): 285

**\*\*BEARINGS:**

DRIVE END: REFER TO NP  
 OPPOSITE DRIVE END: REFER TO NP

**EFFICIENCY**

FULL LOAD: 91.8  
 3/4 LOAD: 92.2  
 1/2 LOAD: 91.4

**POWER FACTOR**

FULL LOAD: 82.4  
 3/4 LOAD: 79.1  
 1/2 LOAD: 70.9

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:** 1/7/2021



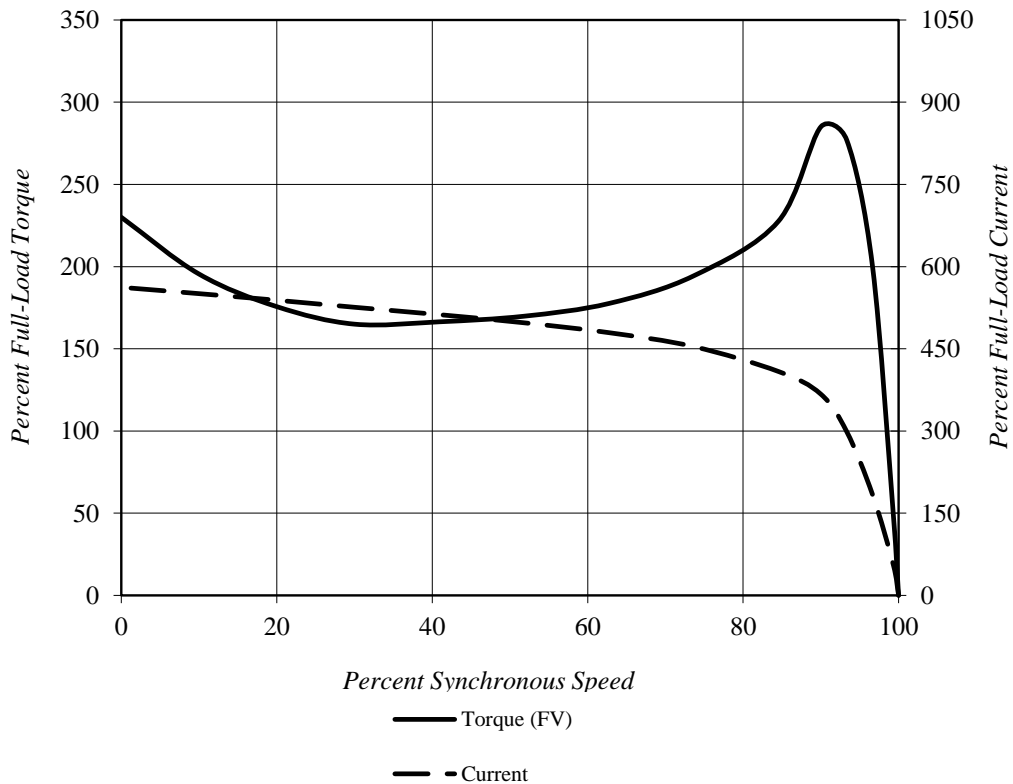
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

<b>Model #:</b>	0186SDMW7FS-P			<b>FLAmps:</b>	37
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	380 V	<b>Frame:</b>	200L
<b>Pole:</b>	6	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	18.5	<b>Rotor Inertia:</b>	11.3 lb-ft <sup>2</sup>	<b>Date:</b>	1/7/2021
<b>FLRPM:</b>	975	<b>Load Inertia:</b>	N/A	<b>File:</b>	3H6018 (18.5kW)

<b>Locked Rotor Amps:</b>	208 A	<b>Load Type:</b>	N/A
<b>Locked Rotor Torque:</b>	230%	<b>Starting at:</b>	N/A
<b>Breakdown Torque:</b>	285%	<b>Accel. Time:</b>	N/A
<b>Rated Torque:</b>	134 lb-ft		

### *Design Values*



**Comments:** PROJECT -  
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**D.E. Curve #:** 3H6018 (18.5kW)

**Prepared by:** Zichao Xie

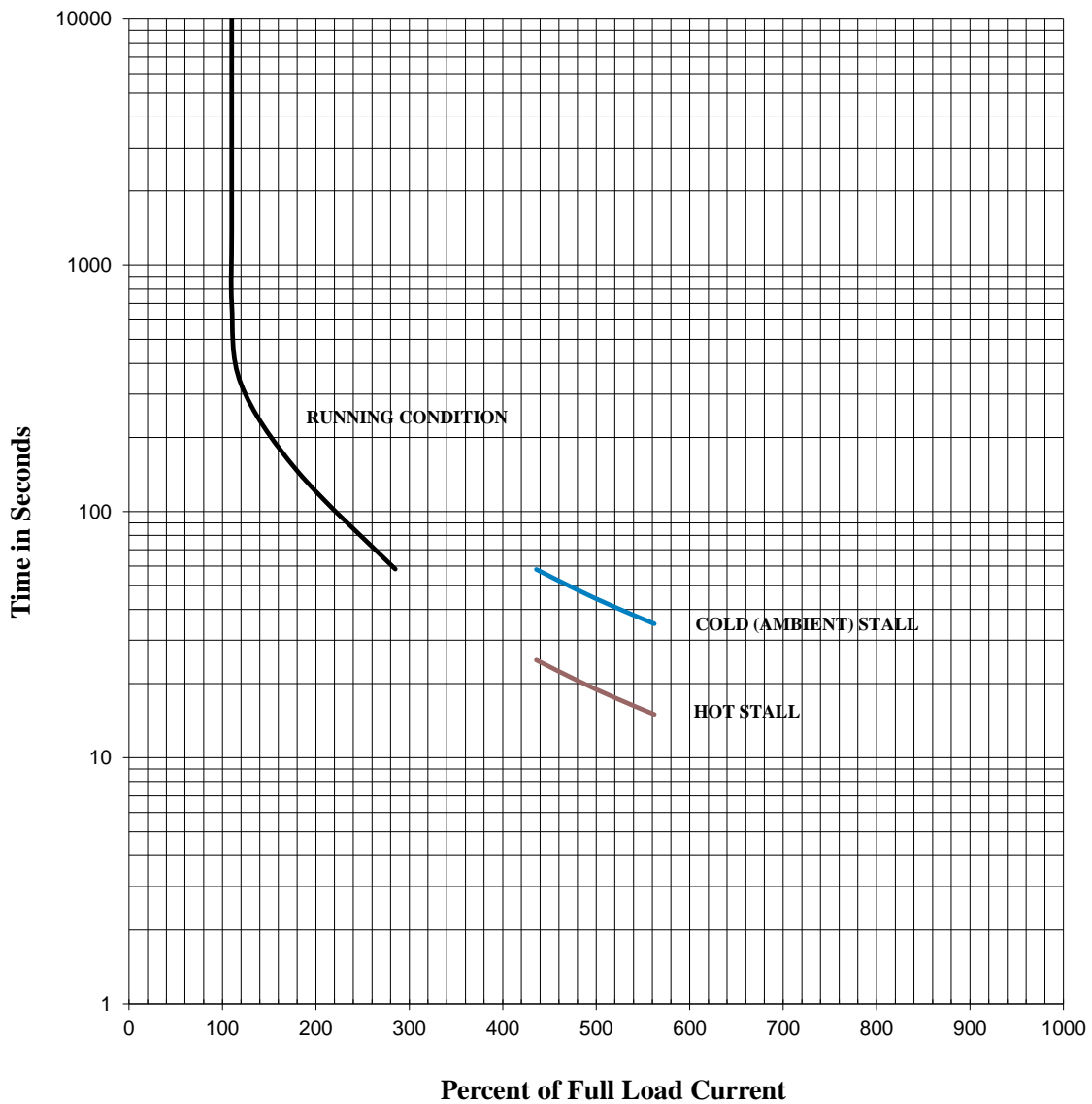
**Checked by:**

# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

<b>Model #:</b>	0186SDMW7FS-P			<b>FLAmps:</b>	37
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	380 V	<b>Frame:</b>	200L
<b>Pole:</b>	6	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	18.5	<b>Rotor Inertia:</b>	11.3 lb-ft <sup>2</sup>	<b>Date:</b>	1/7/2021
<b>FLRPM:</b>	975	<b>Load Inertia:</b>	N/A	<b>File:</b>	3H6018 (18.5kW)



**Comments:** PROJECT \_\_\_\_\_  
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**D.E.Curve #:** 3H6018 (18.5kW)

**Prepared by:** Zichao Xie

**Checked by:** \_\_\_\_\_

<b>TOSHIBA INTERNATIONAL CORPORATION</b> Industrial Division / Houston Motor Plant  <b>SQUIRREL CAGE INDUCTION MOTOR</b> <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.: 25	VOLTS: 460	3 PH / 60 Hz	S. RPM: 1200
FRAME: 200L	ENCL: TEFC	FLAMPS: 31	FLRPM: 1180
FORM: FBK1	S.F.: 1.15	NEMA DESIGN: A	INSUL CLASS: F
TYPE: TKKH	AMB.: 40°C	CODE: J	DUTY: Cont.
MODEL No.: 0186SDMW7FS-P		kW: 18.5	
NOM. EFF.: 93.0	MIN. EFF.: -	P.F.: 79.0	

AMPERAGE	TORQUES	**BEARINGS:
LOCKED ROTOR: 226	FULL LOAD (lb-ft.): 110	DRIVE END: REFER TO NP
	LOCKED ROTOR (%): 310	OPPOSITE DRIVE END: REFER TO NP
	BREAK DOWN (%): 335	

EFFICIENCY	POWER FACTOR
FULL LOAD: 93.5	FULL LOAD: 79.4
3/4 LOAD: 93.2	3/4 LOAD: 74.6
1/2 LOAD: 91.7	1/2 LOAD: 64.6

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).

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**DATE:** 1/7/2021

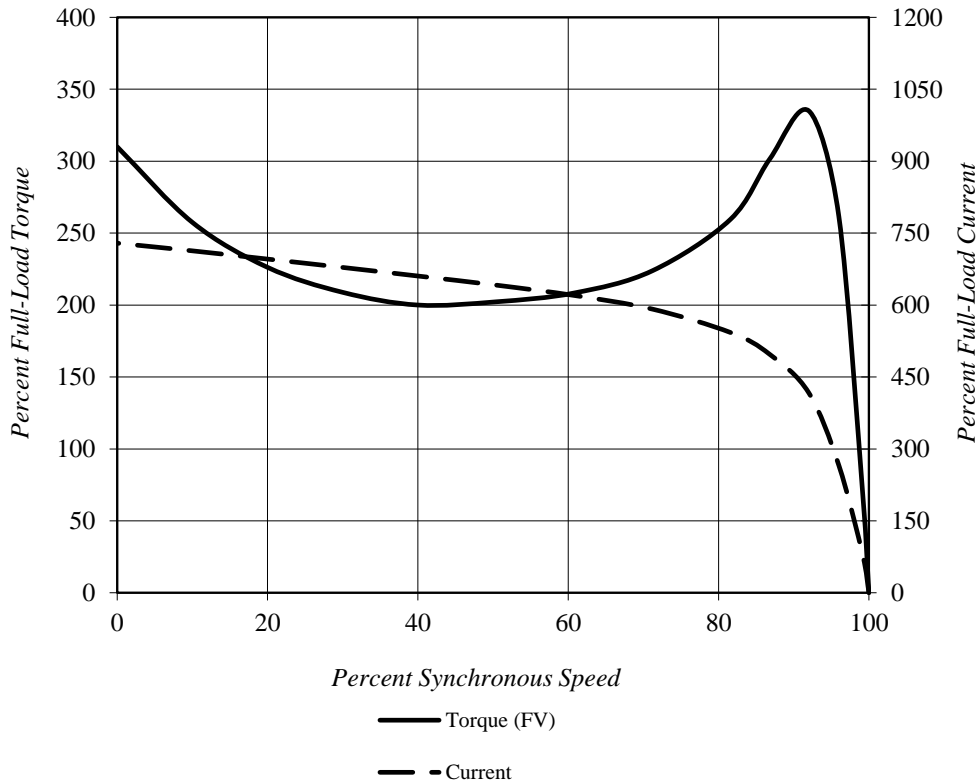
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

<b>Model #:</b>	0186SDMW7FS-P			<b>FLAmps:</b>	31
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	460 V	<b>Frame:</b>	200L
<b>Pole:</b>	6	<b>Frequency:</b>	3 PH / 60 Hz	<b>Ins. Class:</b>	F
<b>HP:</b>	25	<b>Rotor Inertia:</b>	11.3 lb-ft <sup>2</sup>	<b>Date:</b>	1/7/2021
<b>FLRPM:</b>	1180	<b>Load Inertia:</b>	N/A	<b>File:</b>	H6018 (18.5kW)

<b>Locked Rotor Amps:</b>	226 A	<b>Load Type:</b>	N/A
<b>Locked Rotor Torque:</b>	310%	<b>Starting at:</b>	N/A
<b>Breakdown Torque:</b>	335%	<b>Accel. Time:</b>	N/A
<b>Rated Torque:</b>	110 lb-ft		

### Design Values



**Comments:** PROJECT -  
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**D.E. Curve #:** H6018 (18.5kW)

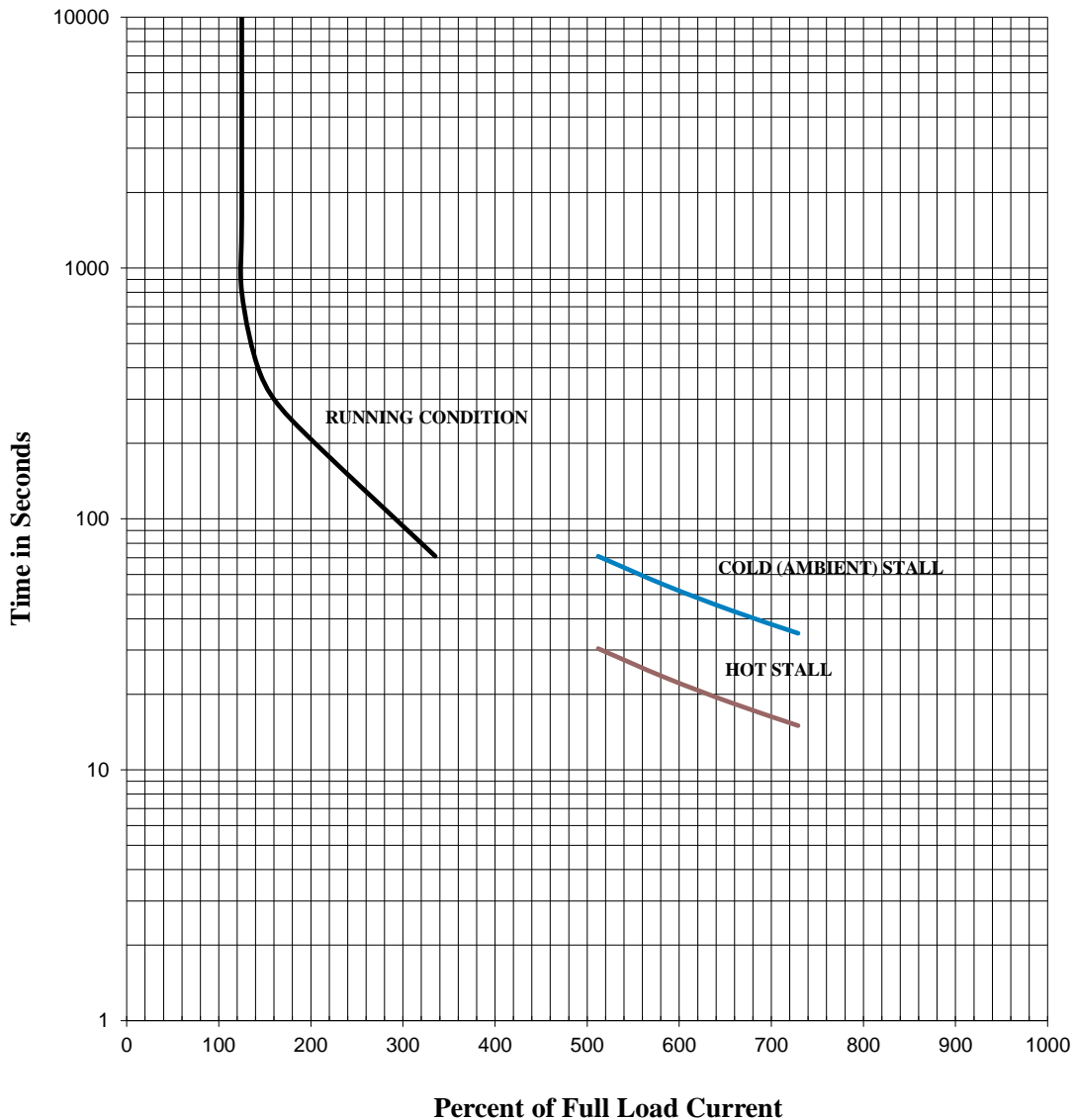
<b>Prepared by:</b> Zichao Xie	<b>Checked by:</b>
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# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

<b>Model #:</b>	0186SDMW7FS-P			<b>FLAmps:</b>	31
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	460 V	<b>Frame:</b>	200L
<b>Pole:</b>	6	<b>Frequency:</b>	3 PH / 60 Hz	<b>Ins. Class:</b>	F
<b>HP:</b>	25	<b>Rotor Inertia:</b>	11.3 lb-ft <sup>2</sup>	<b>Date:</b>	1/7/2021
<b>FLRPM:</b>	1180	<b>Load Inertia:</b>	N/A	<b>File:</b>	H6018 (18.5kW)



**Comments:** PROJECT -  
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**D.E. Curve #:** H6018 (18.5kW)

<b>Prepared by:</b> Zichao Xie	<b>Checked by:</b>
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