

UNIT: mm

ROTATION: CCW  
VIEW FROM: FROM

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 IDENTIFIED.

B34-FLANGE MOTOR  
DL DRAWING IEC GLOBAL

TYPE: 2-4P -  
FRAME: 100L

TOLERANCES	
400V	±2.0
X	±2.0
X.X	±0.5
X.XX	±0.1

3HFN000286

MAXIMUM  
MOTOR WEIGHT  
- lbs.  
- kgs.



**TOSHIBA**

TOSHIBA INTERNATIONAL CORPORATION

DRAWN BY: HIEN, NGUYEN  
CHECK BY: B.X.QUYNH  
APPROVED BY: JAY BUGBEE

www.toshiba.com/ind

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: 230/400	3 PH / 50 Hz	S. RPM: 1500
FRAME: 100L	ENCL: TEFC	FLAMPS: 8.7/5.0	FLRPM: 1460
FORM: FBKL1	S.F.: -	IEC DESIGN NE	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: Y224SDMV7HS-PL		kW: 2.2	
NOM. EFF.: 86.7	MIN. EFF.: -	cosØ 0.70	

**AMPERAGE**

LOCKED ROTOR: 87/50

**TORQUES**

FULL LOAD (lb-ft.): 10.4  
LOCKED ROTOR (%): 440  
BREAK DOWN (%): 460

**\*\*BEARINGS:**

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

**EFFICIENCY**

FULL LOAD: 89.4  
3/4 LOAD: 88.4  
1/2 LOAD: 85.2

**POWER FACTOR**

FULL LOAD: 70.8  
3/4 LOAD: 63.1  
1/2 LOAD: 50.4

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:** 10/18/2019

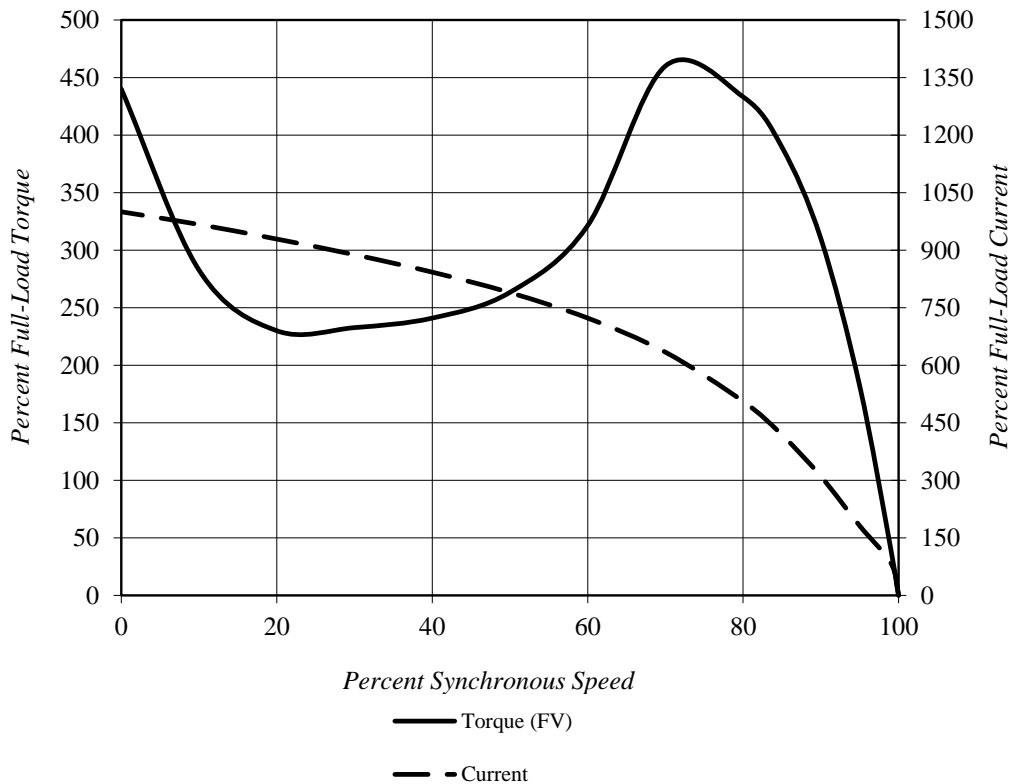
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

<b>Model #:</b>	Y224SDMV7HS-PL			<b>FLAmps:</b>	8.7/5.0
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	230/400 V	<b>Frame:</b>	100L
<b>Pole:</b>	4	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	2.2	<b>Rotor Inertia:</b>	0.27 lb-ft <sup>2</sup>	<b>Date:</b>	10/18/2019
<b>FLRPM:</b>	1460	<b>Load Inertia:</b>	N/A	<b>File:</b>	GH4Y22 (2.2kW)

<b>Locked Rotor Amps:</b>	87/50 A	<b>Load Type:</b>	N/A
<b>Locked Rotor Torque:</b>	440%	<b>Starting at:</b>	N/A
<b>Breakdown Torque:</b>	460%	<b>Accel. Time:</b>	N/A
<b>Rated Torque:</b>	10.4 lb-ft		

### *Design Values*



**Comments:** PROJECT -  
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**D.E.Curve #:** GH4Y22 (2.2kW)

**Prepared by:** Zichao Xie

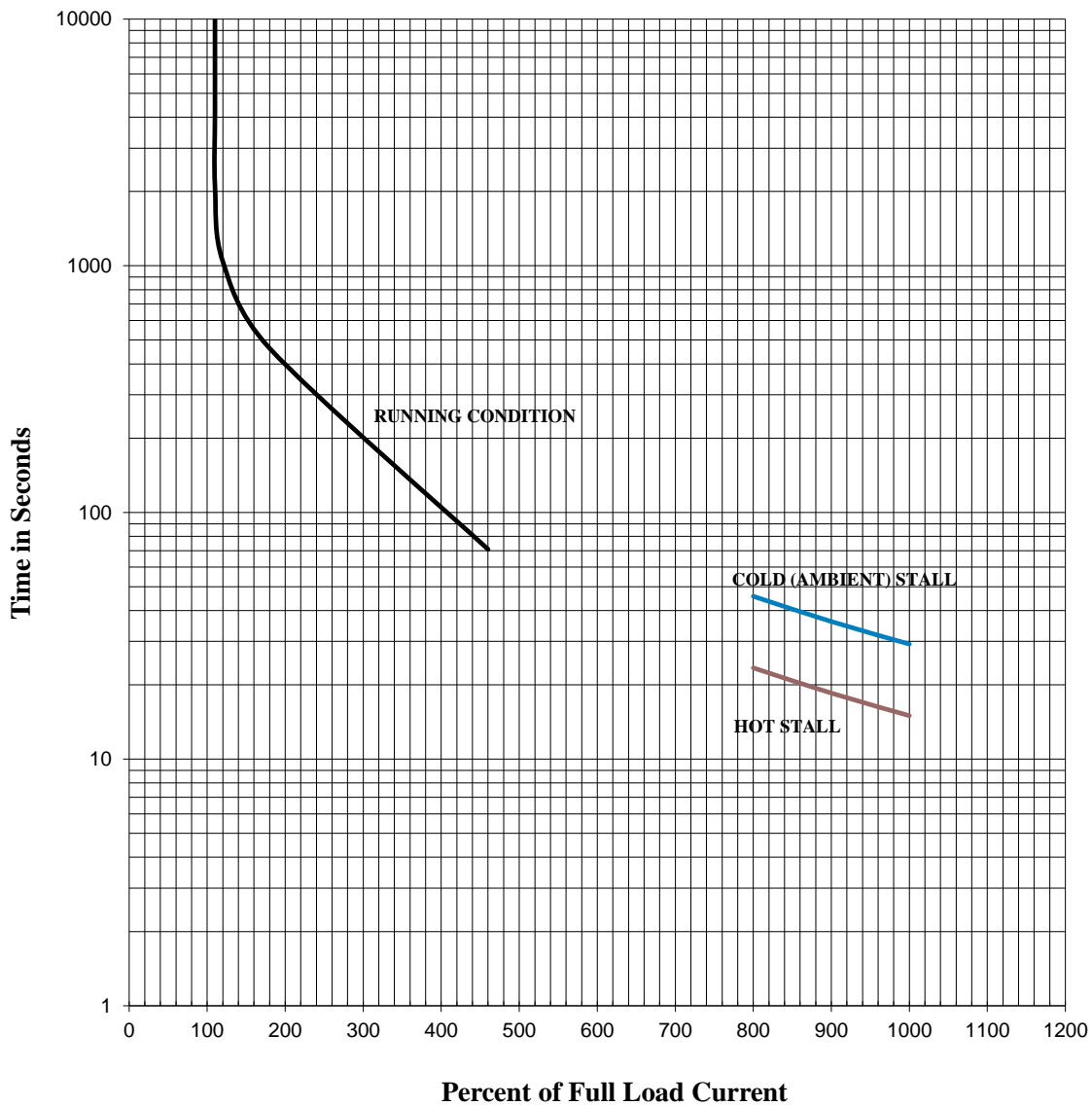
**Checked by:**

# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

<b>Model #:</b>	Y224SDMV7HS-PL			<b>FLAmps:</b>	8.7/5.0
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	230/400 V	<b>Frame:</b>	100L
<b>Pole:</b>	4	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	2.2	<b>Rotor Inertia:</b>	0.27 lb-ft <sup>2</sup>	<b>Date:</b>	10/18/2019
<b>FLRPM:</b>	1460	<b>Load Inertia:</b>	N/A	<b>File:</b>	GH4Y22 (2.2kW)



**Comments:** PROJECT -  
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**D.E. Curve #:** GH4Y22 (2.2kW)

**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: 240/415	3 PH / 50 Hz	S. RPM: 1500
FRAME: 100L	ENCL: TEFC	FLAMPS: 9.0/5.2	FLRPM: 1465
FORM: FBKL1	S.F.: -	IEC DESIGN NE	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: Y224SDMV7HS-PL		kW: 2.2	
NOM. EFF.: 86.7	MIN. EFF.: -	cosØ 0.66	

**AMPERAGE**

LOCKED ROTOR: 90/52

**TORQUES**

FULL LOAD (lb-ft.): 10.4  
LOCKED ROTOR (%): 485  
BREAK DOWN (%): 490

**\*\*BEARINGS:**

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

**EFFICIENCY**

FULL LOAD: 89.2  
3/4 LOAD: 87.9  
1/2 LOAD: 84.1

**POWER FACTOR**

FULL LOAD: 66.6  
3/4 LOAD: 58.1  
1/2 LOAD: 45.2

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:** 10/18/2019

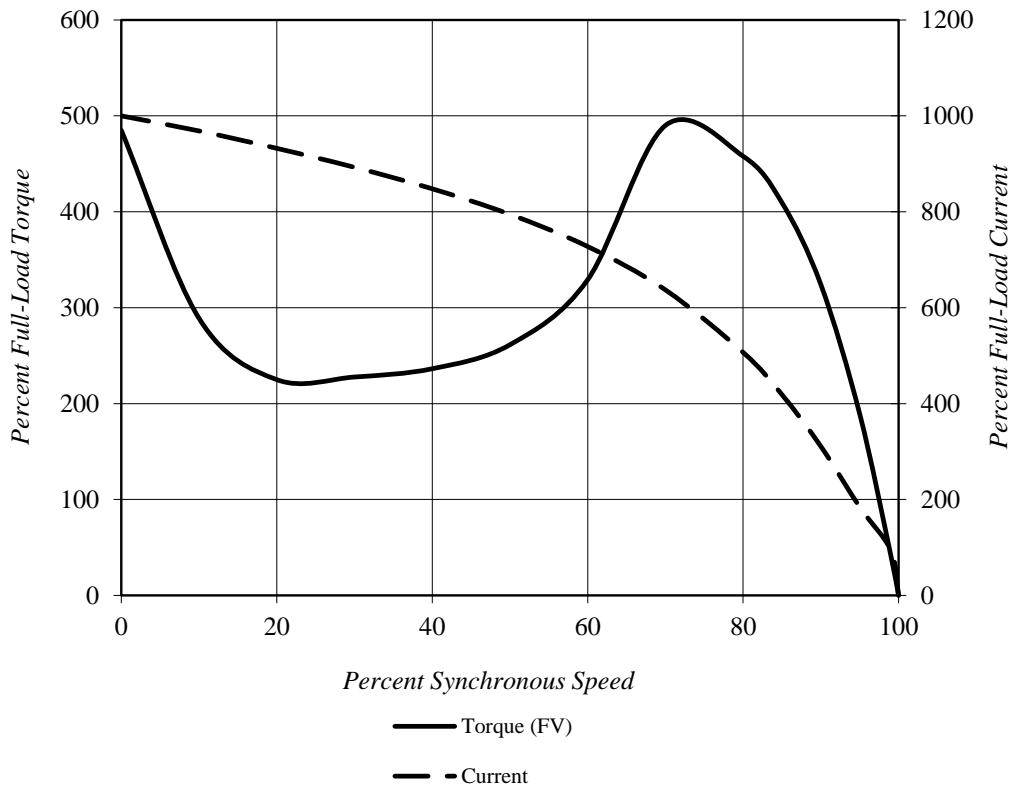
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

<b>Model #:</b>	Y224SDMV7HS-PL			<b>FLAmps:</b>	9.0/5.2
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	240/415 V	<b>Frame:</b>	100L
<b>Pole:</b>	4	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	2.2	<b>Rotor Inertia:</b>	0.27 lb-ft <sup>2</sup>	<b>Date:</b>	10/18/2019
<b>FLRPM:</b>	1465	<b>Load Inertia:</b>	N/A	<b>File:</b>	GH4Y22 (2.2kW)

<b>Locked Rotor Amps:</b>	90/52 A	<b>Load Type:</b>	N/A
<b>Locked Rotor Torque:</b>	485%	<b>Starting at:</b>	N/A
<b>Breakdown Torque:</b>	490%	<b>Accel. Time:</b>	N/A
<b>Rated Torque:</b>	10.4 lb-ft		

### *Design Values*



**Comments:** PROJECT -  
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**D.E.Curve #:** GH4Y22 (2.2kW)

**Prepared by:** Zichao Xie

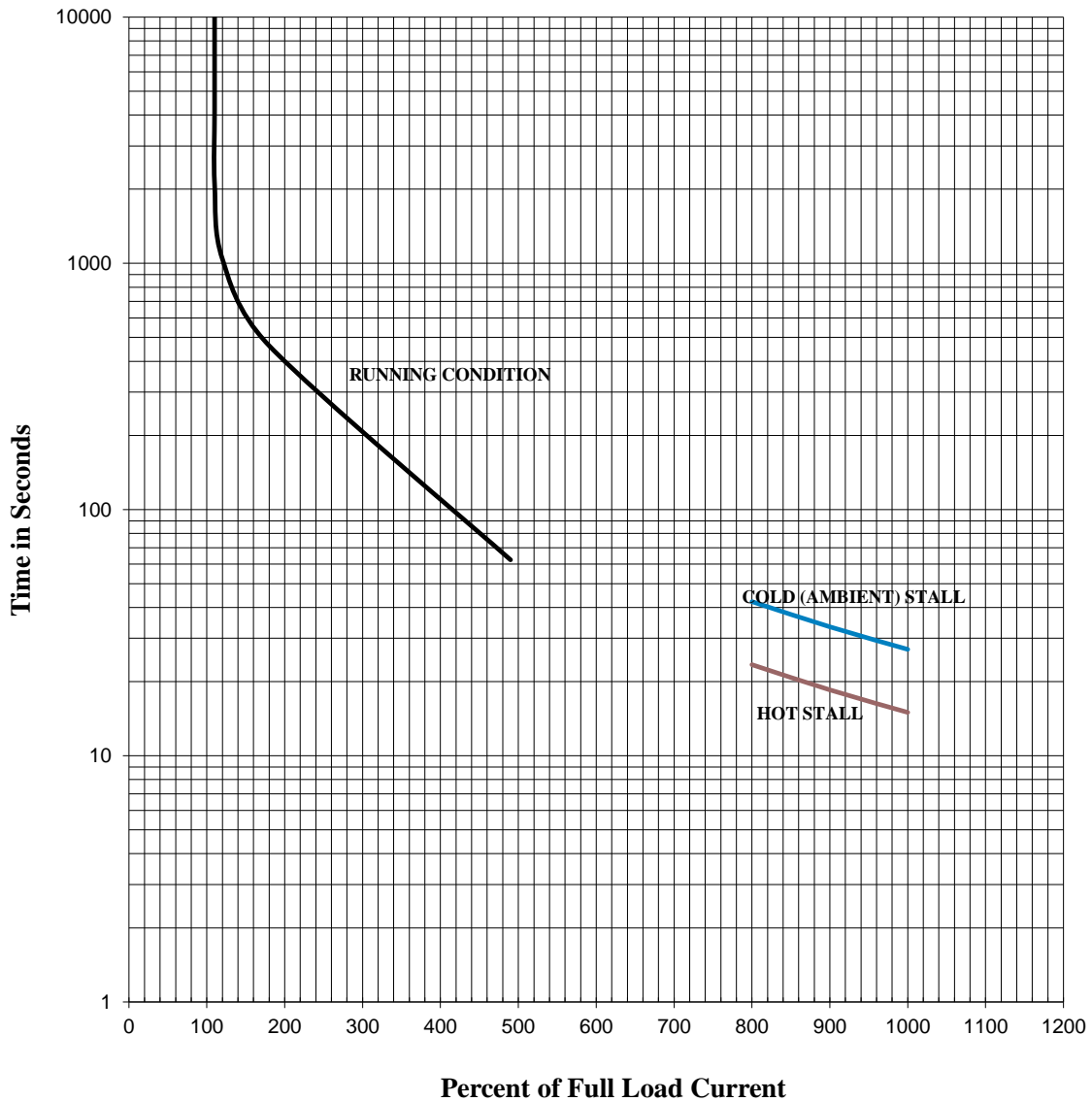
**Checked by:**

# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

<b>Model #:</b>	Y224SDMV7HS-PL			<b>FLAmps:</b>	9.0/5.2
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	240/415 V	<b>Frame:</b>	100L
<b>Pole:</b>	4	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	2.2	<b>Rotor Inertia:</b>	0.27 lb-ft <sup>2</sup>	<b>Date:</b>	10/18/2019
<b>FLRPM:</b>	1465	<b>Load Inertia:</b>	N/A	<b>File:</b>	GH4Y22 (2.2kW)



**Comments:** PROJECT -  
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**D.E. Curve #:** GH4Y22 (2.2kW)

**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.: -	VOLTS: 220/380	3 PH / 50 Hz	S. RPM: 1500
FRAME: 100L	ENCL: TEFC	FLAMPS: 8.6/5.0	FLRPM: 1460
FORM: FBKL1	S.F.: -	IEC DESIGN NE	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: Y224SDMV7HS-PL		kW: 2.2	
NOM. EFF.: 86.7	MIN. EFF.: -	cosØ 0.75	

AMPERAGE	TORQUES	**BEARINGS:
LOCKED ROTOR: 81/47	FULL LOAD (lb-ft.): 10.4	DRIVE END: REFER TO NP
	LOCKED ROTOR (%): 390	OPPOSITE DRIVE END: REFER TO NP
	BREAK DOWN (%): 420	

EFFICIENCY	POWER FACTOR
FULL LOAD: 89.4	FULL LOAD: 75.2
3/4 LOAD: 88.9	3/4 LOAD: 68.7
1/2 LOAD: 86.4	1/2 LOAD: 56.8

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:** 10/18/2019



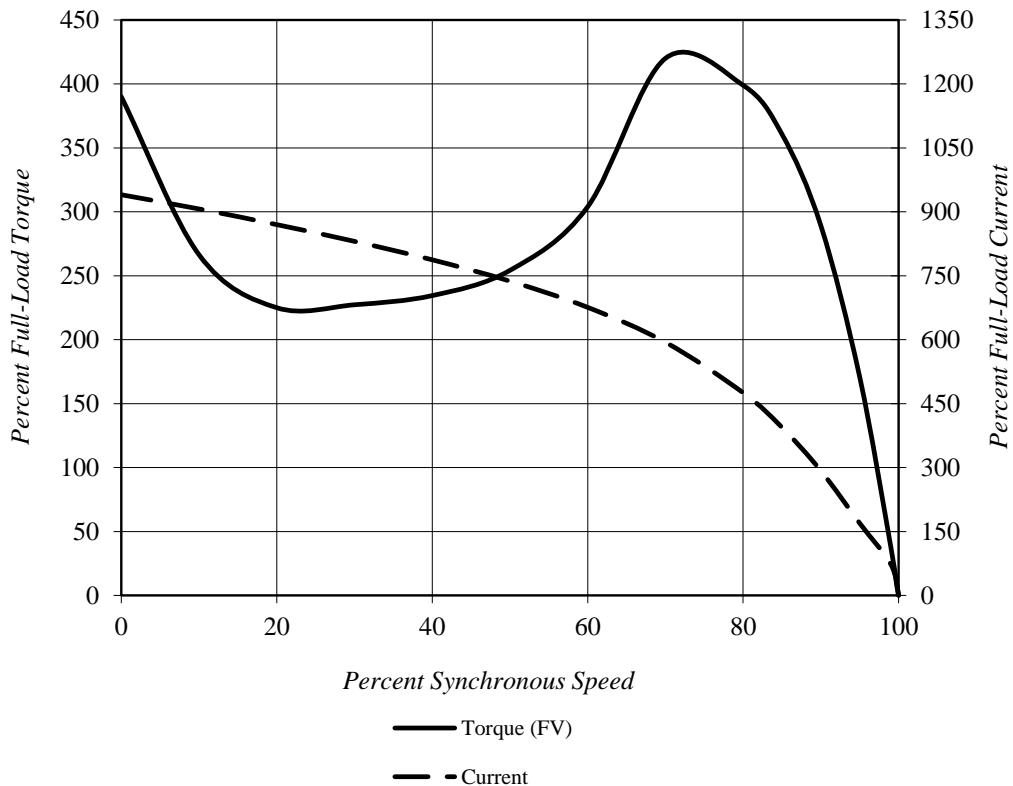
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

<b>Model #:</b>	Y224SDMV7HS-PL			<b>FLAmps:</b>	8.6/5.0
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	220/380 V	<b>Frame:</b>	100L
<b>Pole:</b>	4	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	2.2	<b>Rotor Inertia:</b>	0.27 lb-ft <sup>2</sup>	<b>Date:</b>	10/18/2019
<b>FLRPM:</b>	1460	<b>Load Inertia:</b>	N/A	<b>File:</b>	GH4Y22 (2.2kW)

<b>Locked Rotor Amps:</b>	81/47 A	<b>Load Type:</b>	N/A
<b>Locked Rotor Torque:</b>	390%	<b>Starting at:</b>	N/A
<b>Breakdown Torque:</b>	420%	<b>Accel. Time:</b>	N/A
<b>Rated Torque:</b>	10.4 lb-ft		

### Design Values



**Comments:** PROJECT -  
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**D.E. Curve #:** GH4Y22 (2.2kW)

**Prepared by:** Zichao Xie

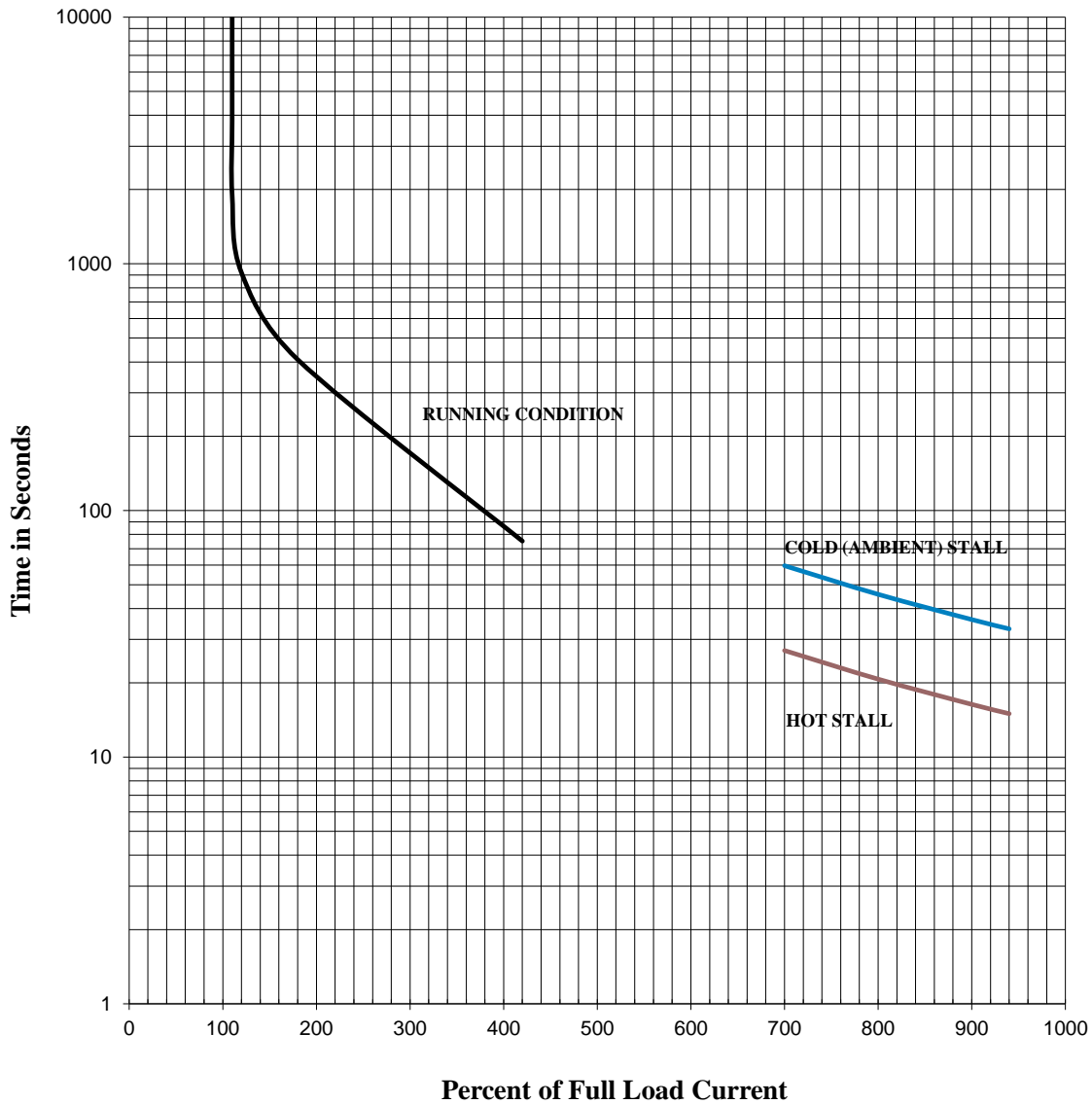
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# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

<b>Model #:</b>	Y224SDMV7HS-PL			<b>FLAmps:</b>	8.6/5.0
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	220/380 V	<b>Frame:</b>	100L
<b>Pole:</b>	4	<b>Frequency:</b>	3 PH / 50 Hz	<b>Ins. Class:</b>	F
<b>KW:</b>	2.2	<b>Rotor Inertia:</b>	0.27 lb-ft <sup>2</sup>	<b>Date:</b>	10/18/2019
<b>FLRPM:</b>	1460	<b>Load Inertia:</b>	N/A	<b>File:</b>	GH4Y22 (2.2kW)



**Comments:** PROJECT -  
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**D.E.Curve #:** GH4Y22 (2.2kW)

**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.: 3	VOLTS: 460	3 PH / 60 Hz	S. RPM: 1800
FRAME: 100L	ENCL: TEFC	FLAMPS: 4.5	FLRPM: 1770
FORM: FBKL1	S.F.: 1.15	NEMA DESIGN: A	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: R	DUTY: Cont.
MODEL No.: Y224SDMV7HS-PL		kW: 2.2	
NOM. EFF.: 89.5	MIN. EFF.: -	P.F.: 68.0	

AMPERAGE	TORQUES	**BEARINGS:
LOCKED ROTOR: 53	FULL LOAD (lb-ft.): 8.6	DRIVE END: REFER TO NP
	LOCKED ROTOR (%): 595	OPPOSITE DRIVE END: REFER TO NP
	BREAK DOWN (%): 485	

EFFICIENCY	POWER FACTOR
FULL LOAD: 90.5	FULL LOAD: 68.4
3/4 LOAD: 89.1	3/4 LOAD: 60.7
1/2 LOAD: 85.3	1/2 LOAD: 48.3

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:** 10/18/2019

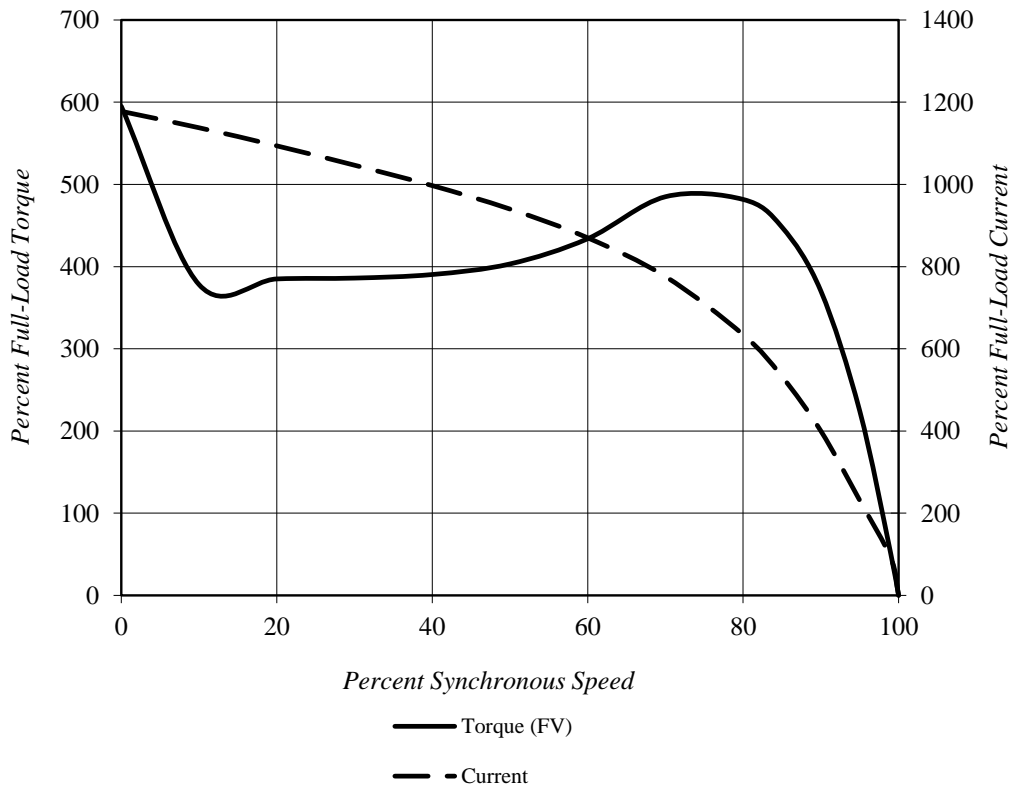
# TOSHIBA INTERNATIONAL CORPORATION

## Speed Torque/Current Curve

<b>Model #:</b>	Y224SDMV7HS-PL			<b>FLAmps:</b>	4.5
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	460 V	<b>Frame:</b>	100L
<b>Pole:</b>	4	<b>Frequency:</b>	3 PH / 60 Hz	<b>Ins. Class:</b>	F
<b>HP:</b>	3	<b>Rotor Inertia:</b>	0.27 lb-ft <sup>2</sup>	<b>Date:</b>	10/18/2019
<b>FLRPM:</b>	1770	<b>Load Inertia:</b>	N/A	<b>File:</b>	GH4Y22 (2.2kW)

<b>Locked Rotor Amps:</b>	53 A	<b>Load Type:</b>	N/A
<b>Locked Rotor Torque:</b>	595%	<b>Starting at:</b>	N/A
<b>Breakdown Torque:</b>	485%	<b>Accel. Time:</b>	N/A
<b>Rated Torque:</b>	8.6 lb-ft		

### *Design Values*



**Comments:** PROJECT -  
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**D.E. Curve #:** GH4Y22 (2.2kW)

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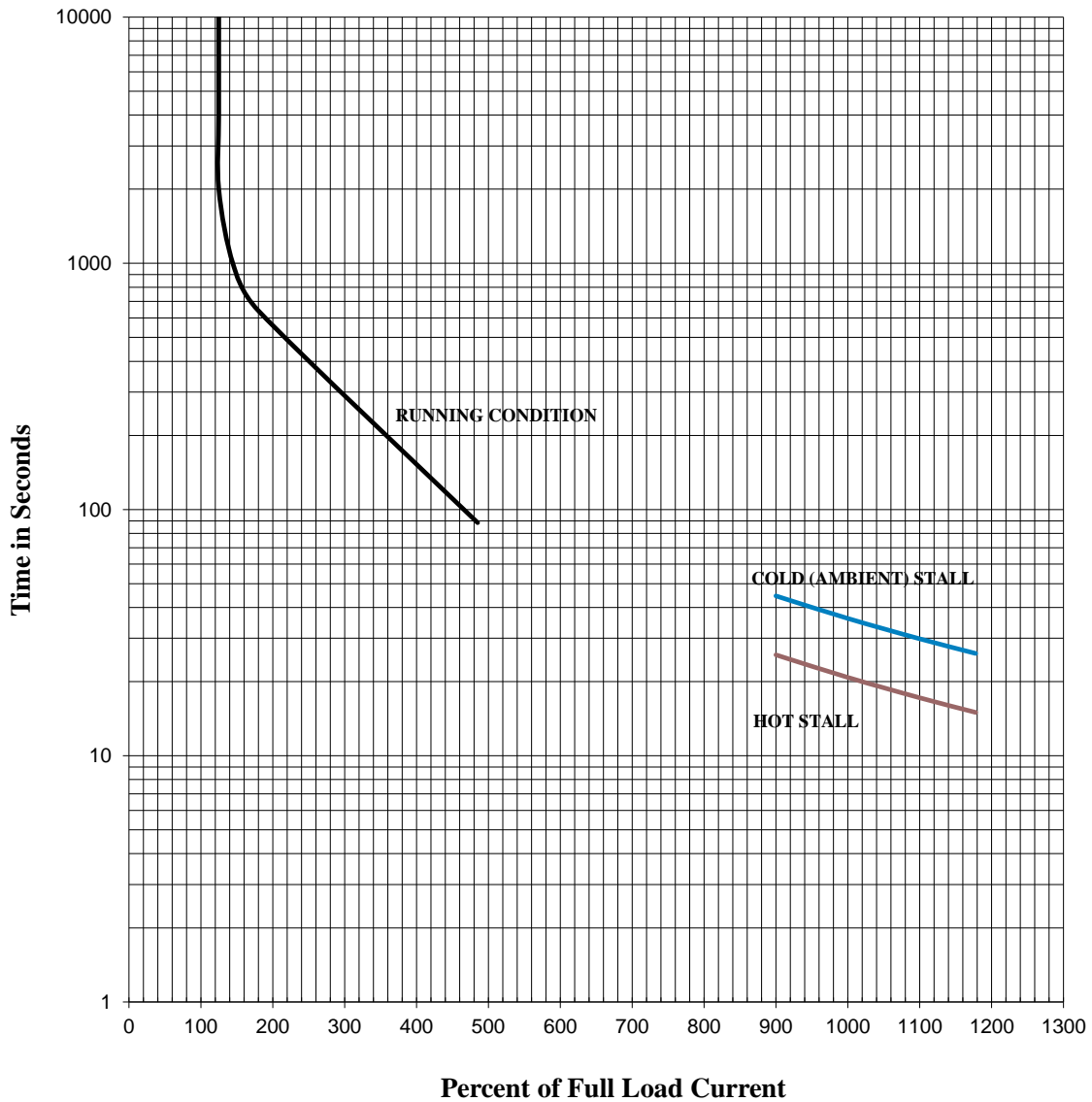
**Checked by:**

# TOSHIBA INTERNATIONAL CORPORATION

## Thermal Limit & Acceleration Curves

*Design Values (For Reference Only)*

<b>Model #:</b>	Y224SDMV7HS-PL			<b>FLAmps:</b>	4.5
<b>Enclosure:</b>	TEFC	<b>Voltage:</b>	460 V	<b>Frame:</b>	100L
<b>Pole:</b>	4	<b>Frequency:</b>	3 PH / 60 Hz	<b>Ins. Class:</b>	F
<b>HP:</b>	3	<b>Rotor Inertia:</b>	0.27 lb-ft <sup>2</sup>	<b>Date:</b>	10/18/2019
<b>FLRPM:</b>	1770	<b>Load Inertia:</b>	N/A	<b>File:</b>	GH4Y22 (2.2kW)



**Comments:** PROJECT -  
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**D.E.Curve #:** GH4Y22 (2.2kW)

**Prepared by:** Zichao Xie

**Checked by:**