

ROTATION:
CCW
VIEW FROM:
DE

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.

B5-FLANGE MOTOR
DL DRAWING IEC GLOBAL

TYPE: 2-4-6P
400V

FRAME: 180M

3HFN000248

TOSHIBA
TOSHIBA INTERNATIONAL CORPORATION

TOLERANCES					
X.	±2.0				
X.X	±0.5				
X.XX	±0.1				
MAXIMUM MOTOR WEIGHT					
- lbs.					
- kgs.					
01	Change to new design Frame footless	T.Danh	May-21-18	B.Quynh	
NO	REVISION	DRAWN BY	DATE	CHECK	

EQ Global SD
XT SERIES

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

www.toshiba.com/ind

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: 3000
FRAME: 180M	ENCL: TEFC	FLAMPS: 39	FLRPM: 2955
FORM: FCKL1	S.F.: -	IEC DESIGN NE	INSUL CLASS: F
TYPE: TKKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: 0222SDMW7JS-P		kW: 22	
NOM. EFF.: 92.7	MIN. EFF.: -	cosØ 0.86	

AMPERAGE

LOCKED ROTOR: 353

TORQUES

FULL LOAD (lb-ft.): 52
LOCKED ROTOR (%): 275
BREAK DOWN (%): 380

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 93.1
3/4 LOAD: 92.4
1/2 LOAD: 90.3

POWER FACTOR

FULL LOAD: 86.7
3/4 LOAD: 82.7
1/2 LOAD: 73.7

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: 1/14/2020

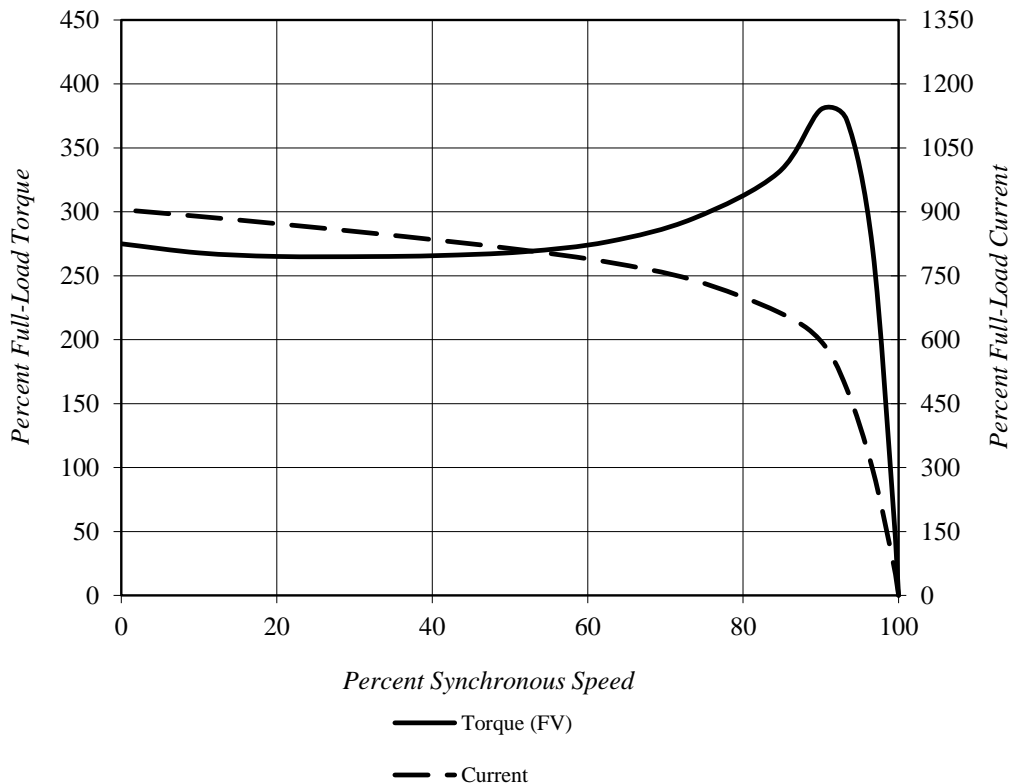
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	0222SDMW7JS-P			FLAmps:	39
Enclosure:	TEFC	Voltage:	400 V	Frame:	180M
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	22	Rotor Inertia:	3.9 lb-ft ²	Date:	1/14/2020
FLRPM:	2955	Load Inertia:	N/A	File:	GH2022 (22kW)

Locked Rotor Amps:	353 A	Load Type:	N/A
Locked Rotor Torque:	275%	Starting at:	N/A
Breakdown Torque:	380%	Accel. Time:	N/A
Rated Torque:	52 lb-ft		

Design Values



Comments: PROJECT -

D.E.Curve #: GH2022 (22kW)

Prepared by: Zichao Xie

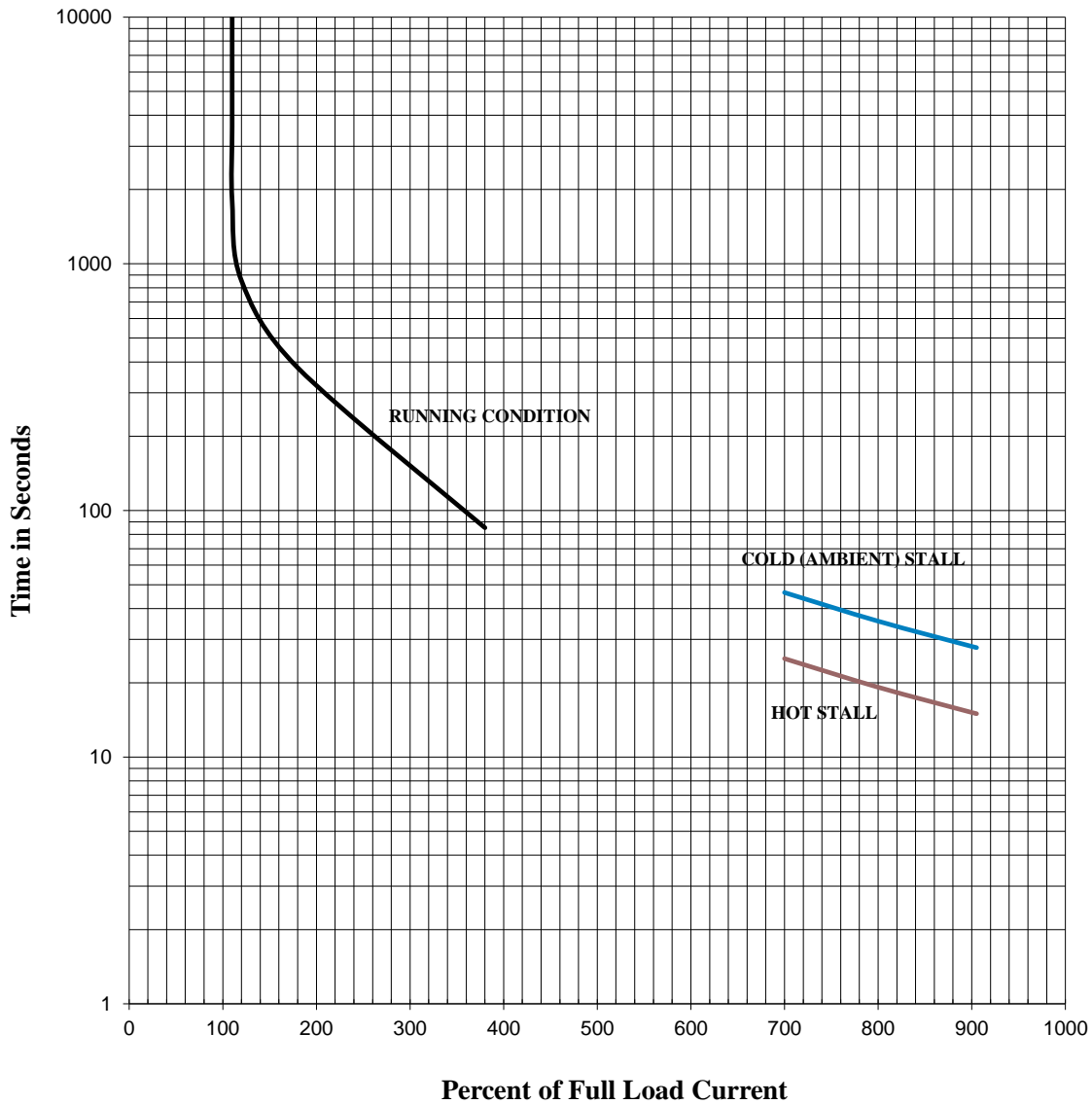
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TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	0222SDMW7JS-P			FLAmps:	39
Enclosure:	TEFC	Voltage:	400 V	Frame:	180M
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	22	Rotor Inertia:	3.9 lb-ft ²	Date:	1/14/2020
FLRPM:	2955	Load Inertia:	N/A	File:	GH2022 (22kW)



Comments: PROJECT _____

D.E. Curve #: GH2022 (22kW)

Prepared by: Zichao Xie

Checked by:

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APPROVED BY	PAA

CUSTOMER: -
TIC SR No.: -

MOTOR NAMEPLATE DATA

H.P.: -	VOLTS: 415	3 PH / 50 Hz	S. RPM: 3000
FRAME: 180M	ENCL: TEFC	FLAMPS: 39	FLRPM: 2960
FORM: FCKL1	S.F.: -	IEC DESIGN NE	INSUL CLASS: F
TYPE: TKKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: 0222SDMW7JS-P		kW: 22	
NOM. EFF.: 92.7	MIN. EFF.: -	cosØ 0.84	

AMPERAGE

LOCKED ROTOR: 369

TORQUES

FULL LOAD (lb-ft.): 52
LOCKED ROTOR (%): 305
BREAK DOWN (%): 405

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 93.3
3/4 LOAD: 92.5
1/2 LOAD: 90.2

POWER FACTOR

FULL LOAD: 84.8
3/4 LOAD: 79.9
1/2 LOAD: 69.6

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: 1/14/2020

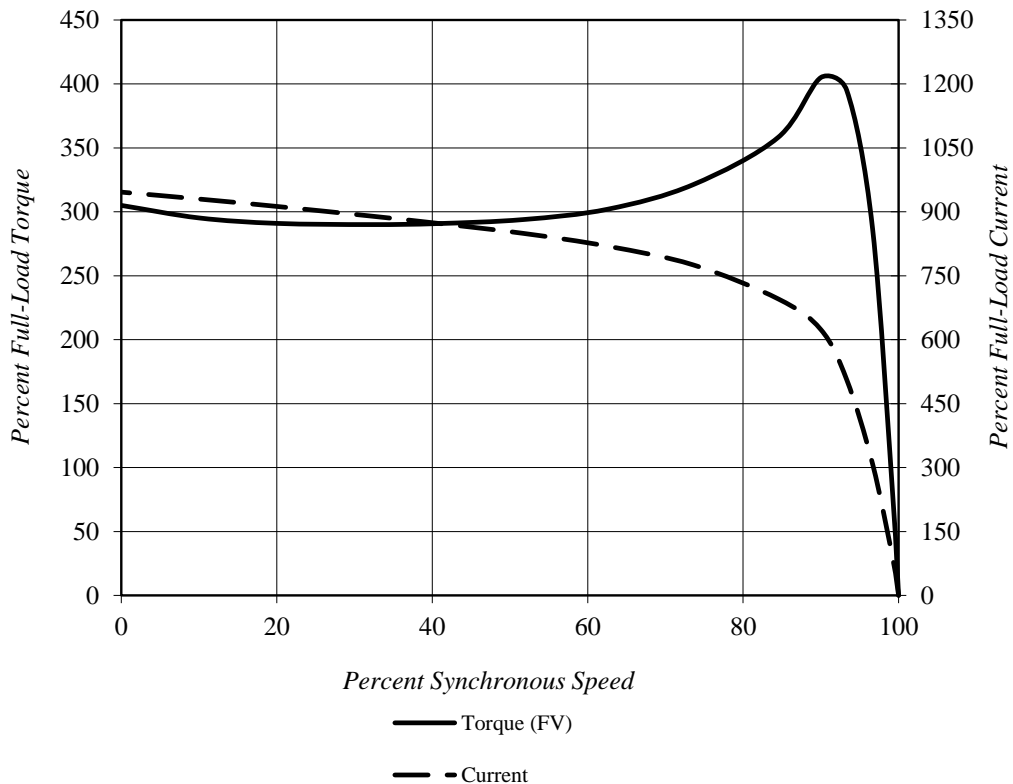
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	0222SDMW7JS-P			FLAmps:	39
Enclosure:	TEFC	Voltage:	415 V	Frame:	180M
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	22	Rotor Inertia:	3.9 lb-ft ²	Date:	1/14/2020
FLRPM:	2960	Load Inertia:	N/A	File:	GH2022 (22kW)

Locked Rotor Amps:	369 A	Load Type:	N/A
Locked Rotor Torque:	305%	Starting at:	N/A
Breakdown Torque:	405%	Accel. Time:	N/A
Rated Torque:	52 lb-ft		

Design Values



Comments: PROJECT -

D.E. Curve #: GH2022 (22kW)

Prepared by: Zichao Xie

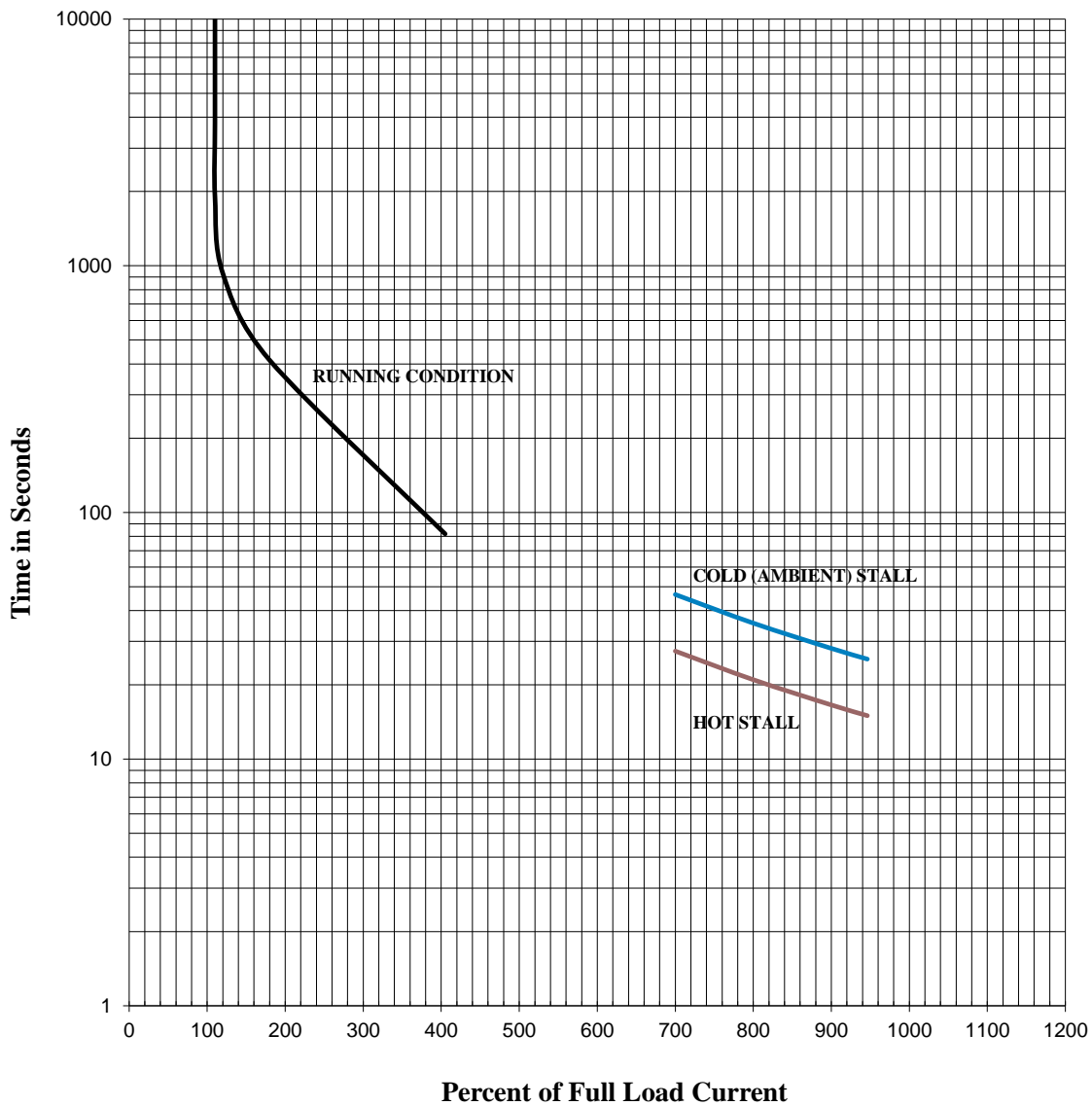
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TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	0222SDMW7JS-P			FLAmps:	39
Enclosure:	TEFC	Voltage:	415 V	Frame:	180M
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	22	Rotor Inertia:	3.9 lb-ft ²	Date:	1/14/2020
FLRPM:	2960	Load Inertia:	N/A	File:	GH2022 (22kW)



Comments: PROJECT -

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Checked by:

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APPROVED BY	PAA

CUSTOMER: -
TIC SR No.: -

MOTOR NAMEPLATE DATA

H.P.: -	VOLTS: 380	3 PH / 50 Hz	S. RPM: 3000
FRAME: 180M	ENCL: TEFC	FLAMPS: 41	FLRPM: 2955
FORM: FCKL1	S.F.: -	IEC DESIGN NE	INSUL CLASS: F
TYPE: TKKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: 0222SDMW7JS-P		kW: 22	
NOM. EFF.: 92.7	MIN. EFF.: -	cosØ 0.88	

AMPERAGE

LOCKED ROTOR: 333

TORQUES

FULL LOAD (lb-ft.): 52
LOCKED ROTOR (%): 245
BREAK DOWN (%): 345

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 92.7
3/4 LOAD: 92.1
1/2 LOAD: 90.2

POWER FACTOR

FULL LOAD: 88.7
3/4 LOAD: 85.7
1/2 LOAD: 78.5

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: 1/14/2020

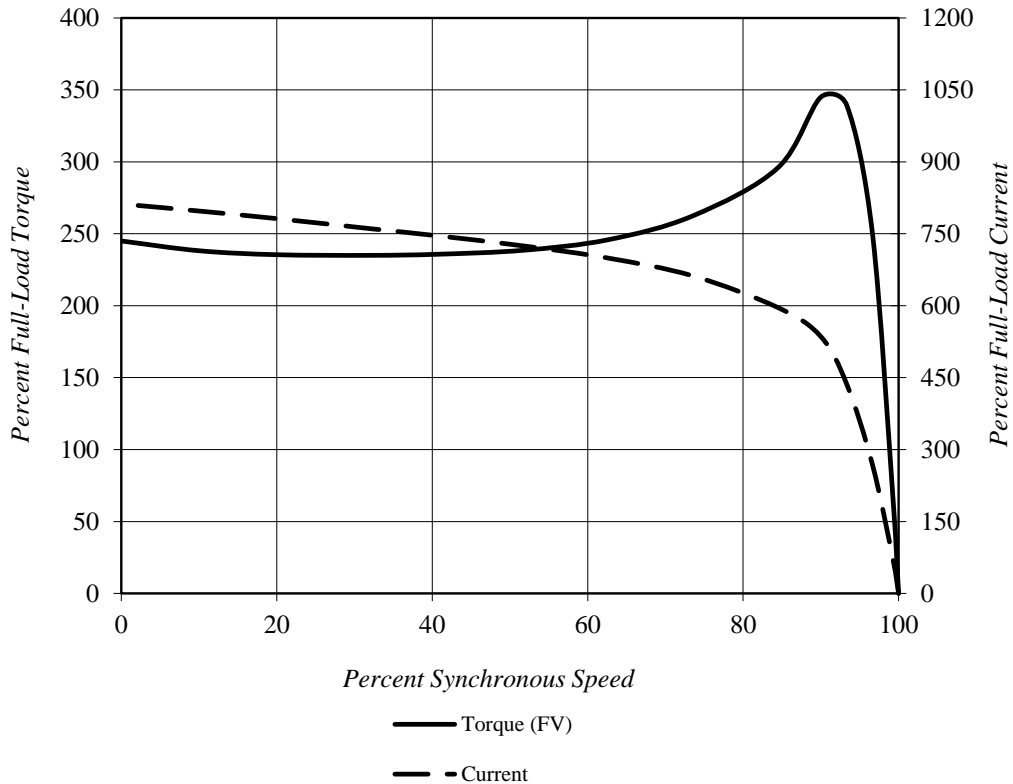
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	0222SDMW7JS-P			FLAmps:	41
Enclosure:	TEFC	Voltage:	380 V	Frame:	180M
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	22	Rotor Inertia:	3.9 lb-ft ²	Date:	1/14/2020
FLRPM:	2955	Load Inertia:	N/A	File:	GH2022 (22kW)

Locked Rotor Amps:	333 A	Load Type:	N/A
Locked Rotor Torque:	245%	Starting at:	N/A
Breakdown Torque:	345%	Accel. Time:	N/A
Rated Torque:	52 lb-ft		

Design Values



Comments: PROJECT -

D.E.Curve #: GH2022 (22kW)

Prepared by: Zichao Xie

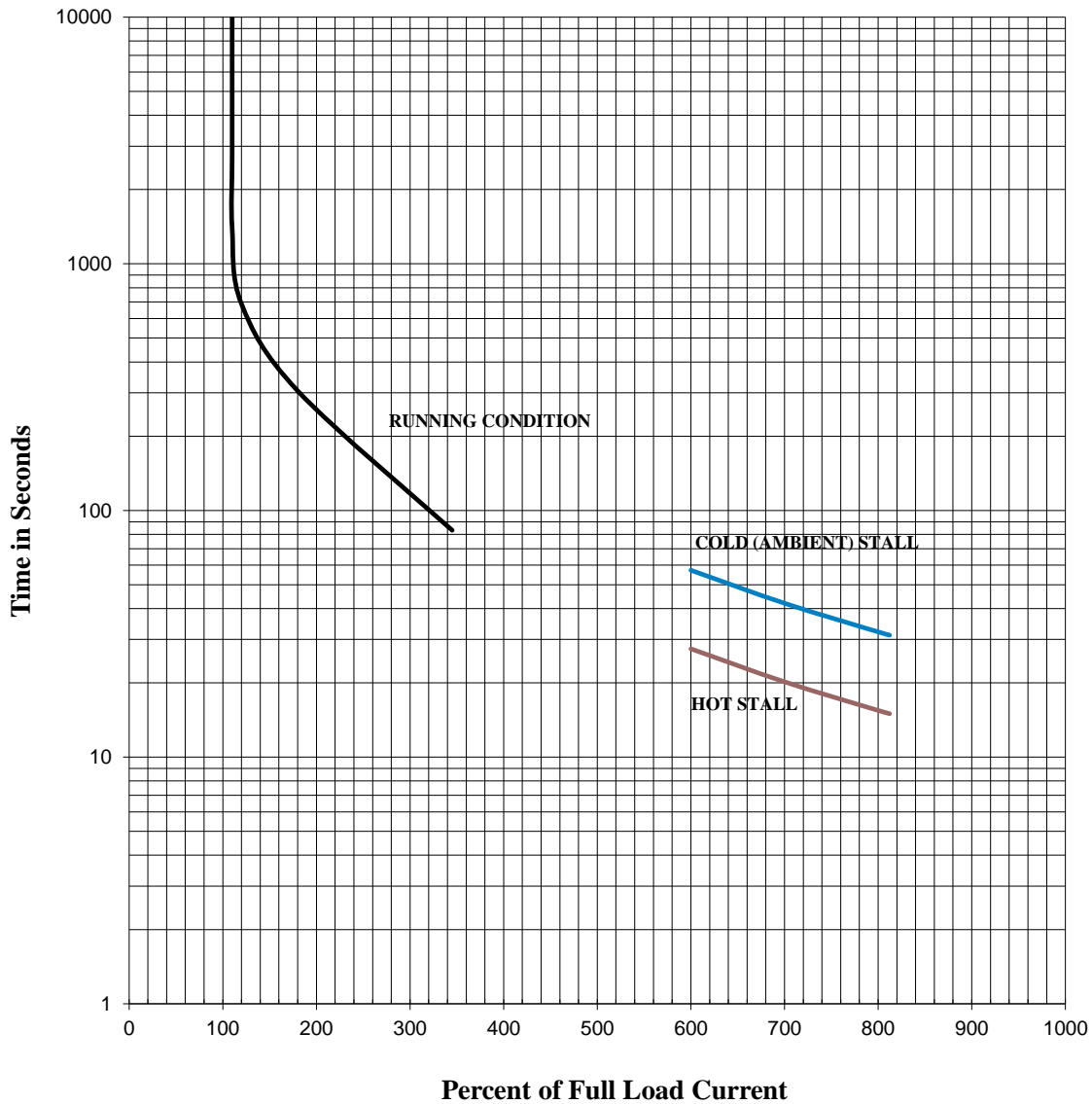
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TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	0222SDMW7JS-P			FLAmps:	41
Enclosure:	TEFC	Voltage:	380 V	Frame:	180M
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	22	Rotor Inertia:	3.9 lb-ft ²	Date:	1/14/2020
FLRPM:	2955	Load Inertia:	N/A	File:	GH2022 (22kW)



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CUSTOMER: -
TIC SR No.: -

MOTOR NAMEPLATE DATA

H.P.: 30	VOLTS: 460	3 PH / 60 Hz	S. RPM: 3600
FRAME: 180M	ENCL: TEFC	FLAMPS: 34	FLRPM: 3565
FORM: FCKL1	S.F.: 1.15	NEMA DESIGN: A	INSUL CLASS: F
TYPE: TKKH	AMB.: 40°C	CODE: L	DUTY: Cont.
MODEL No.: 0222SDMW7JS-P		kW: 22	
NOM. EFF.: 91.7	MIN. EFF.: -	P.F.: 86.0	

AMPERAGE

LOCKED ROTOR: 350

TORQUES

FULL LOAD (lb-ft.): 43
LOCKED ROTOR (%): 310
BREAK DOWN (%): 415

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 93.2
3/4 LOAD: 92.1
1/2 LOAD: 89.6

POWER FACTOR

FULL LOAD: 86.4
3/4 LOAD: 82.1
1/2 LOAD: 72.8

ALL CHARACTERISTICS ARE AVERAGE EXPECTED VALUES BASED UPON RATED VOLTAGE,
FREQUENCY AND SINEWAVE POWER INPUT.

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DATE: 1/14/2020

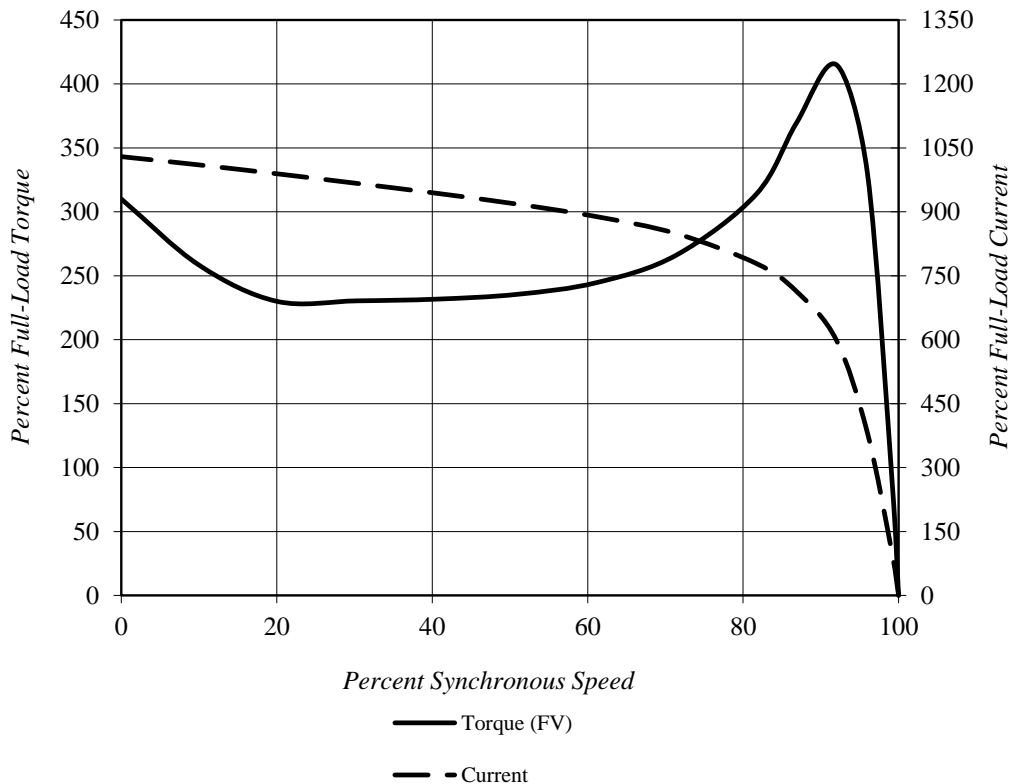
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	0222SDMW7JS-P			FLAmps:	34
Enclosure:	TEFC	Voltage:	460 V	Frame:	180M
Pole:	2	Frequency:	3 PH / 60 Hz	Ins. Class:	F
HP:	30	Rotor Inertia:	3.9 lb-ft ²	Date:	1/14/2020
FLRPM:	3565	Load Inertia:	N/A	File:	GH2022 (22kW)

Locked Rotor Amps:	350 A	Load Type:	N/A
Locked Rotor Torque:	310%	Starting at:	N/A
Breakdown Torque:	415%	Accel. Time:	N/A
Rated Torque:	43 lb-ft		

Design Values



Comments: PROJECT -

D.E. Curve #: GH2022 (22kW)

Prepared by: ZICHAO XIE

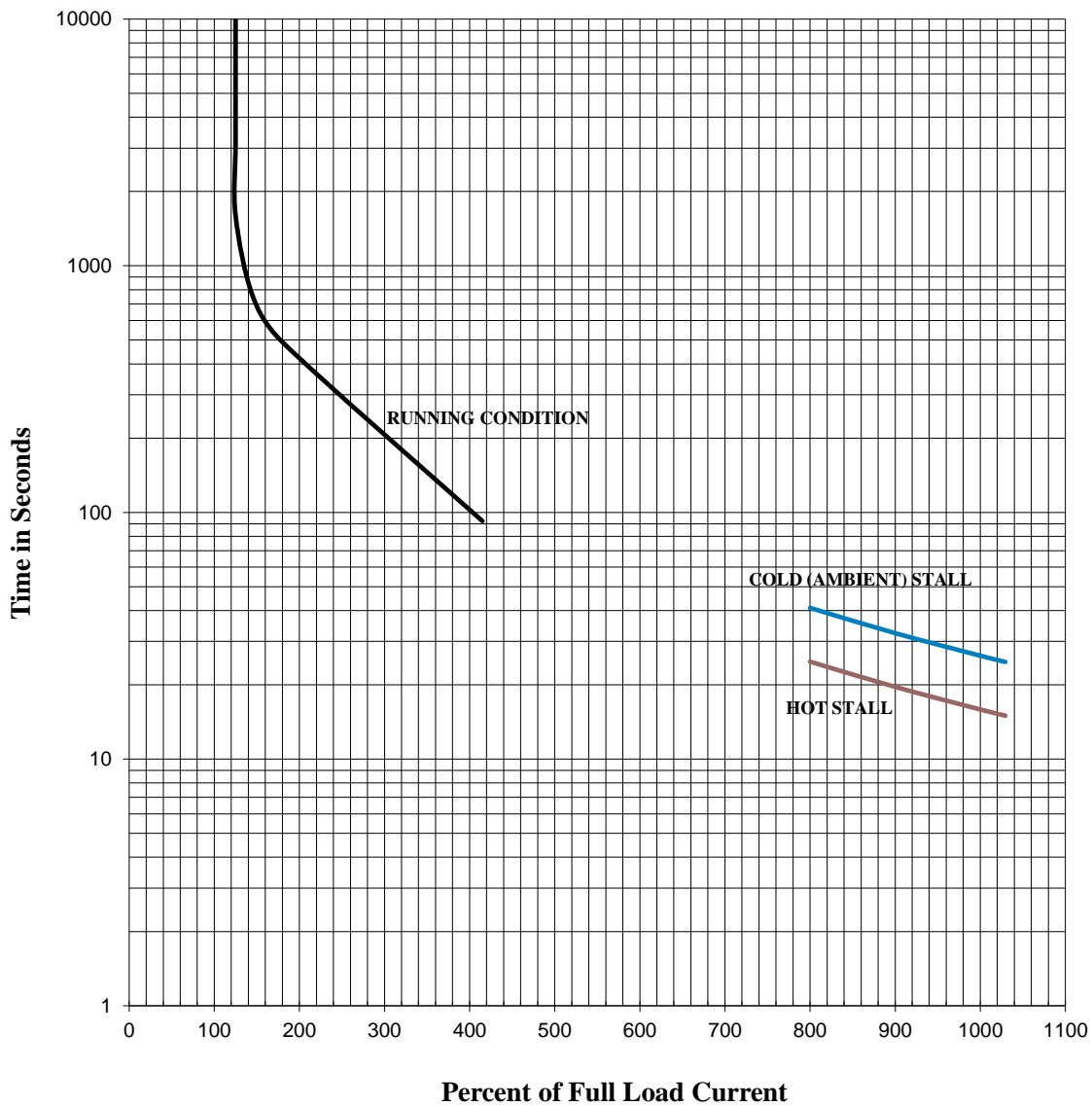
Checked by:

TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	0222SDMW7JS-P			FLAmps:	34
Enclosure:	TEFC	Voltage:	460 V	Frame:	180M
Pole:	2	Frequency:	3 PH / 60 Hz	Ins. Class:	F
HP:	30	Rotor Inertia:	3.9 lb-ft ²	Date:	1/14/2020
FLRPM:	3565	Load Inertia:	N/A	File:	GH2022 (22kW)



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