

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: 3000
FRAME: 90L	ENCL: TEFC	FLAMPS: 5.2/3.0	FLRPM: 2875
FORM: FCKL1	S.F.: -	IEC DESIGN N	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: Y152SDMV7KS-PL		kW: 1.5	
NOM. EFF.: 84.2	MIN. EFF.: -	cosØ 0.85	

AMPERAGE

LOCKED ROTOR: 38/22

TORQUES

FULL LOAD (lb-ft.): 3.7
 LOCKED ROTOR (%): 315
 BREAK DOWN (%): 275

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 84.1
 3/4 LOAD: 84.6
 1/2 LOAD: 83.1

POWER FACTOR

FULL LOAD: 85.4
 3/4 LOAD: 80.6
 1/2 LOAD: 70.4

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: 1/7/2020

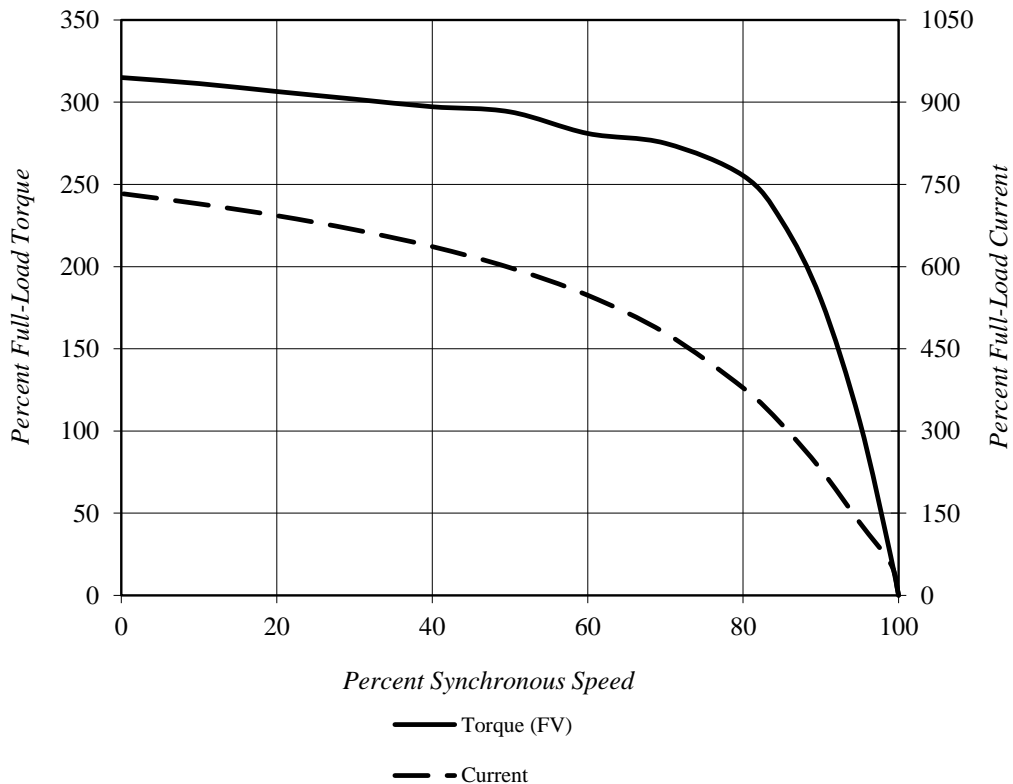
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	Y152SDMV7KS-PL			FLAmps:	5.2/3.0
Enclosure:	TEFC	Voltage:	230/400 V	Frame:	90L
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.07 lb-ft ²	Date:	1/7/2020
FLRPM:	2875	Load Inertia:	N/A	File:	GH2Y15 (1.5kW)

Locked Rotor Amps:	38/22 A	Load Type:	N/A
Locked Rotor Torque:	315%	Starting at:	N/A
Breakdown Torque:	275%	Accel. Time:	N/A
Rated Torque:	3.7 lb-ft		

Design Values



Comments: PROJECT -

D.E.Curve #: GH2Y15 (1.5kW)

Prepared by: Zichao Xie

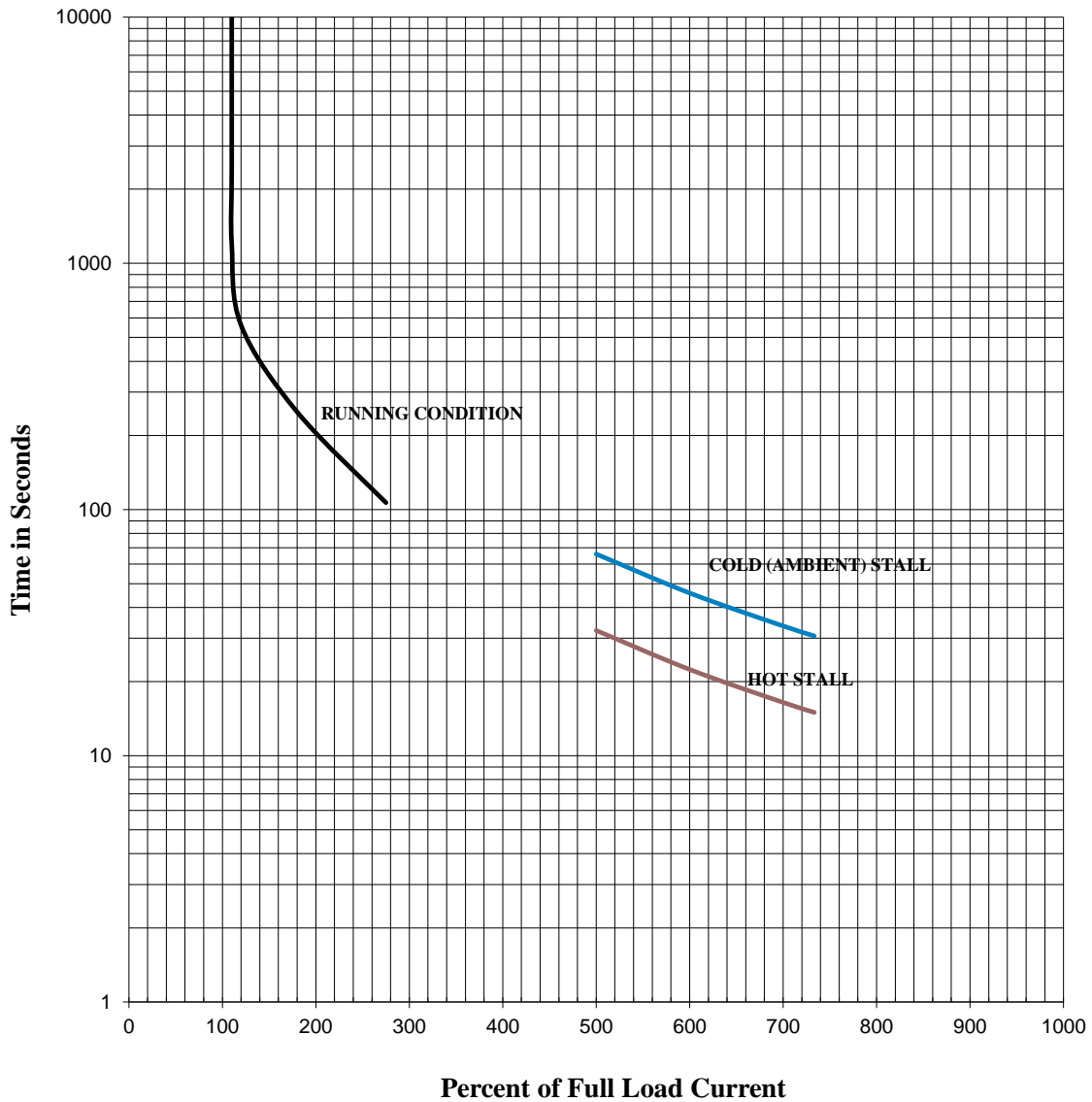
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TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	Y152SDMV7KS-PL			FLAmps:	5.2/3.0
Enclosure:	TEFC	Voltage:	230/400 V	Frame:	90L
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.07 lb-ft ²	Date:	1/7/2020
FLRPM:	2875	Load Inertia:	N/A	File:	GH2Y15 (1.5kW)



Comments: PROJECT -

D.E. Curve #: GH2Y15 (1.5kW)

Prepared by: Zichao Xie

Checked by:

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TIC SR No.: -

MOTOR NAMEPLATE DATA

H.P.: -	VOLTS: 240/415	3 PH / 50 Hz	S. RPM: 3000
FRAME: 90L	ENCL: TEFC	FLAMPS: 5.2/3.0	FLRPM: 2875
FORM: FCKL1	S.F.: -	IEC DESIGN N	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: Y152SDMV7KS-PL		kW: 1.5	
NOM. EFF.: 84.2	MIN. EFF.: -	cosØ 0.81	

AMPERAGE

LOCKED ROTOR: 40/23

TORQUES

FULL LOAD (lb-ft.): 3.6
LOCKED ROTOR (%): 390
BREAK DOWN (%): 295

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 84.1
3/4 LOAD: 84.1
1/2 LOAD: 82.1

POWER FACTOR

FULL LOAD: 81.7
3/4 LOAD: 75.7
1/2 LOAD: 64.0

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: 1/7/2020

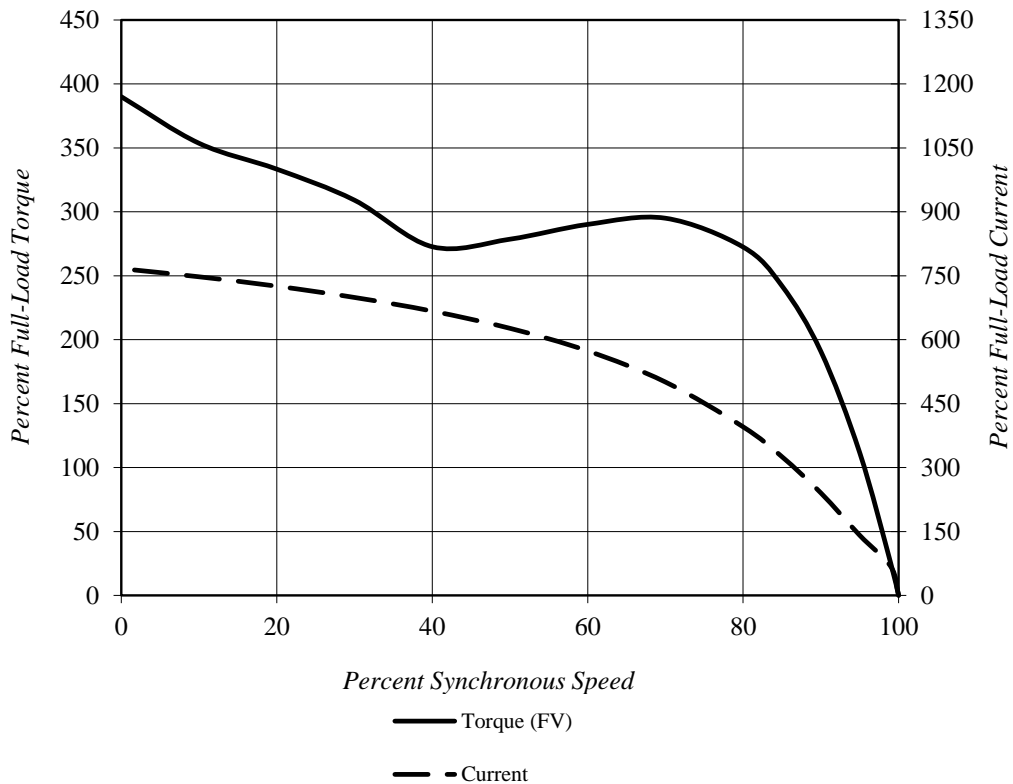
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	Y152SDMV7KS-PL			FLAmps:	5.2/3.0
Enclosure:	TEFC	Voltage:	240/415 V	Frame:	90L
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.07 lb-ft ²	Date:	1/7/2020
FLRPM:	2875	Load Inertia:	N/A	File:	GH2Y15 (1.5kW)

Locked Rotor Amps:	40/23 A	Load Type:	N/A
Locked Rotor Torque:	390%	Starting at:	N/A
Breakdown Torque:	295%	Accel. Time:	N/A
Rated Torque:	3.6 lb-ft		

Design Values



Comments: PROJECT -

D.E.Curve #: GH2Y15 (1.5kW)

Prepared by: Zichao Xie

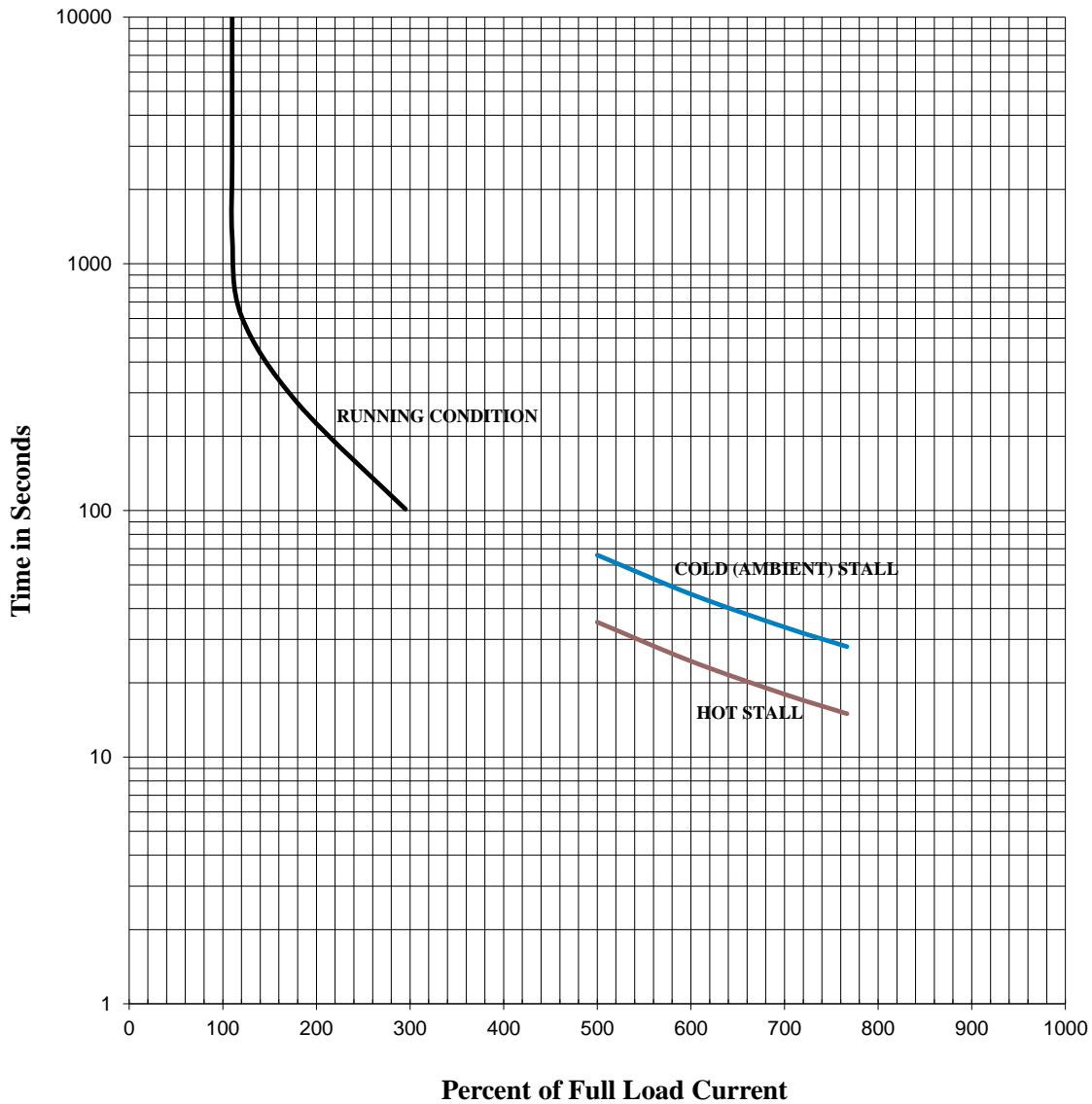
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TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	Y152SDMV7KS-PL			FLAmps:	5.2/3.0
Enclosure:	TEFC	Voltage:	240/415 V	Frame:	90L
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.07 lb-ft ²	Date:	1/7/2020
FLRPM:	2875	Load Inertia:	N/A	File:	GH2Y15 (1.5kW)



Comments: PROJECT _____

D.E. Curve #: GH2Y15 (1.5kW)

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	WRITTEN BY	MDC
	APPROVED BY	PAA

CUSTOMER: -
TIC SR No.: -

MOTOR NAMEPLATE DATA			
H.P.: -	VOLTS: 220/380	3 PH / 50 Hz	S. RPM: 3000
FRAME: 90L	ENCL: TEFC	FLAMPS: 5.5/3.2	FLRPM: 2850
FORM: FCKL1	S.F.: -	IEC DESIGN N	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: Y152SDMV7KS-PL		kW: 1.5	
NOM. EFF.: 84.2	MIN. EFF.: -	cosØ 0.87	

AMPERAGE	TORQUES	**BEARINGS:
LOCKED ROTOR: 36/21	FULL LOAD (lb-ft.): 3.7	DRIVE END: REFER TO NP
	LOCKED ROTOR (%): 315	OPPOSITE DRIVE END: REFER TO NP
	BREAK DOWN (%): 250	

EFFICIENCY	POWER FACTOR
FULL LOAD: 82.6	FULL LOAD: 87.6
3/4 LOAD: 83.7	3/4 LOAD: 84.3
1/2 LOAD: 82.9	1/2 LOAD: 76.2

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).

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DATE: 1/7/2020

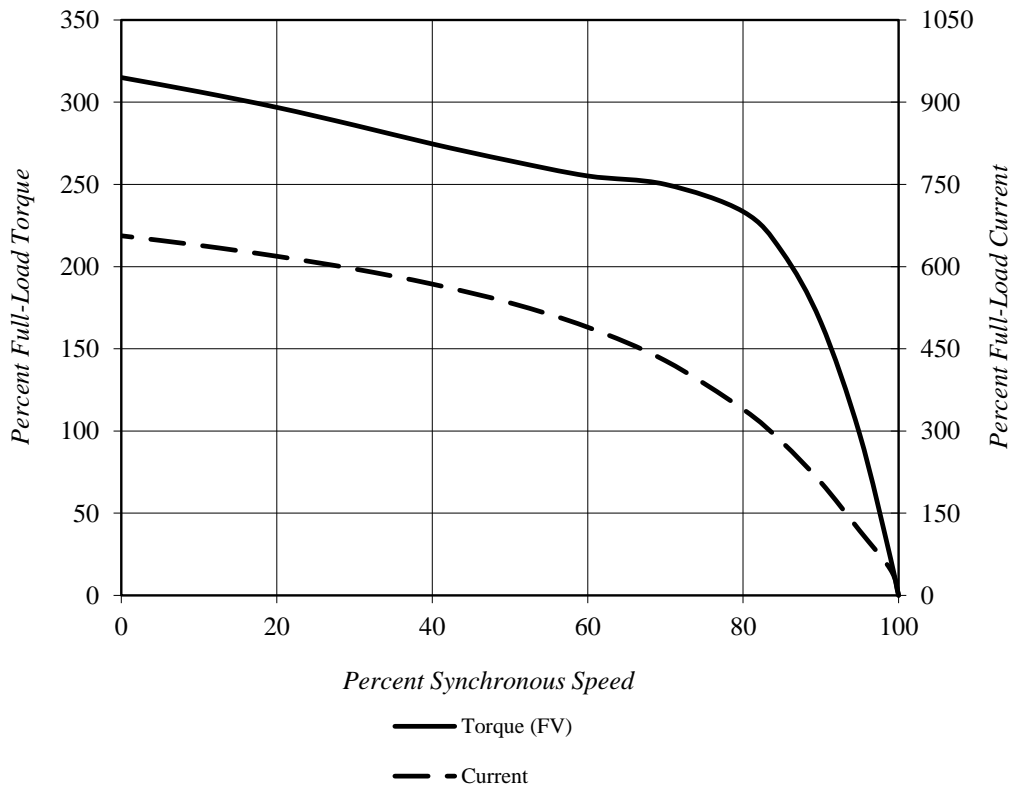
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	Y152SDMV7KS-PL			FLAmps:	5.5/3.2
Enclosure:	TEFC	Voltage:	220/380 V	Frame:	90L
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.07 lb-ft ²	Date:	1/7/2020
FLRPM:	2850	Load Inertia:	N/A	File:	GH2Y15 (1.5kW)

Locked Rotor Amps:	36/21 A	Load Type:	N/A
Locked Rotor Torque:	315%	Starting at:	N/A
Breakdown Torque:	250%	Accel. Time:	N/A
Rated Torque:	3.7 lb-ft		

Design Values



Comments: PROJECT -

D.E. Curve #: GH2Y15 (1.5kW)

Prepared by: Zichao Xie

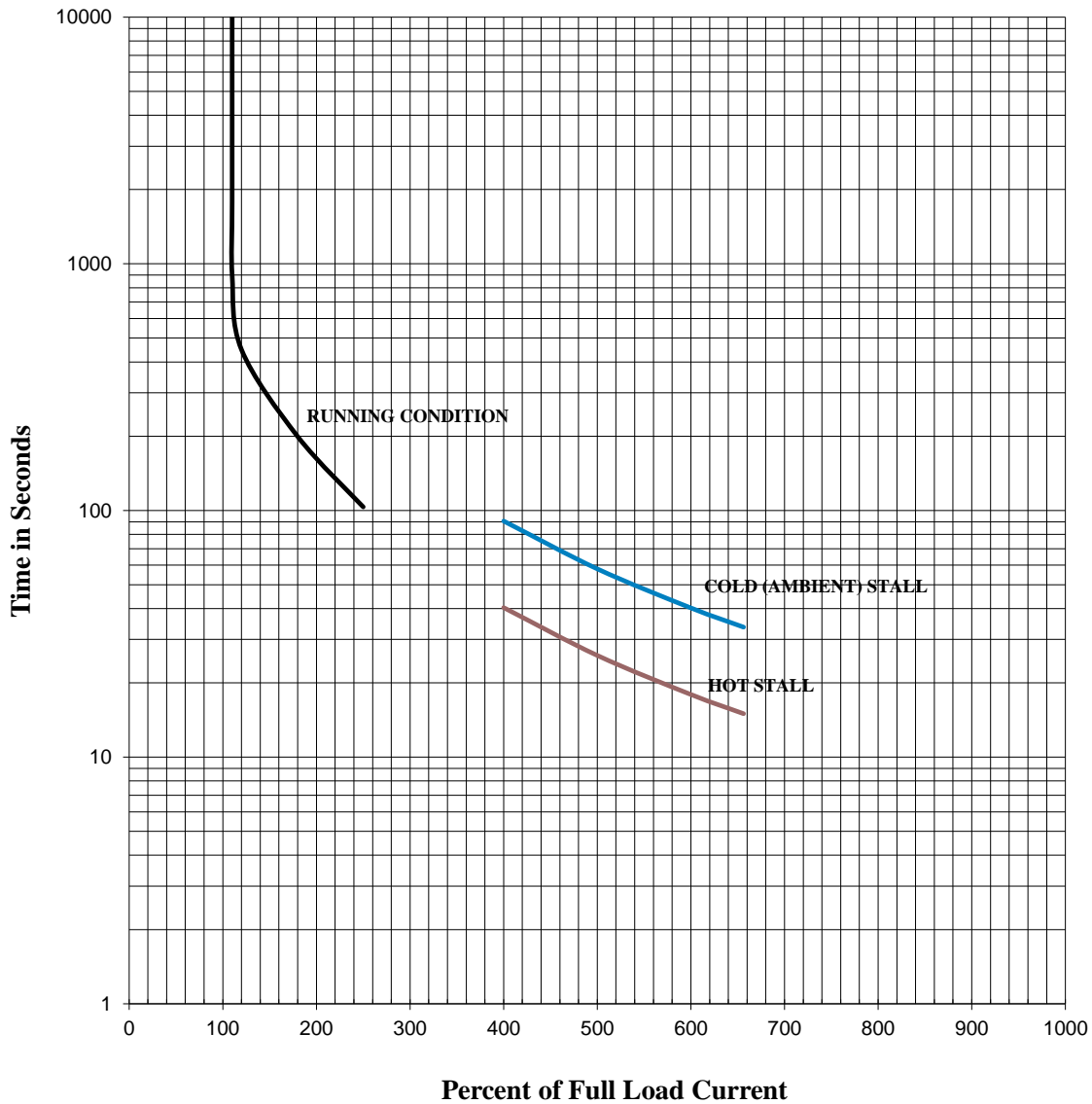
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TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	Y152SDMV7KS-PL			FLAmps:	5.5/3.2
Enclosure:	TEFC	Voltage:	220/380 V	Frame:	90L
Pole:	2	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.07 lb-ft ²	Date:	1/7/2020
FLRPM:	2850	Load Inertia:	N/A	File:	GH2Y15 (1.5kW)



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CUSTOMER: -
TIC SR No.: -

MOTOR NAMEPLATE DATA

H.P.: 2	VOLTS: 460	3 PH / 60 Hz	S. RPM: 3600
FRAME: 90L	ENCL: TEFC	FLAMPS: 2.6	FLRPM: 3495
FORM: FCKL1	S.F.: 1.15	NEMA DESIGN: B	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: L	DUTY: Cont.
MODEL No.: Y152SDMV7KS-PL		kW: 1.5	
NOM. EFF.: 85.5	MIN. EFF.: -	P.F.: 84.0	

AMPERAGE

LOCKED ROTOR: 24

TORQUES

FULL LOAD (lb-ft.): 3.0
LOCKED ROTOR (%): 365
BREAK DOWN (%): 315

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 86.8
3/4 LOAD: 86.5
1/2 LOAD: 84.2

POWER FACTOR

FULL LOAD: 84.2
3/4 LOAD: 79.4
1/2 LOAD: 69.3

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

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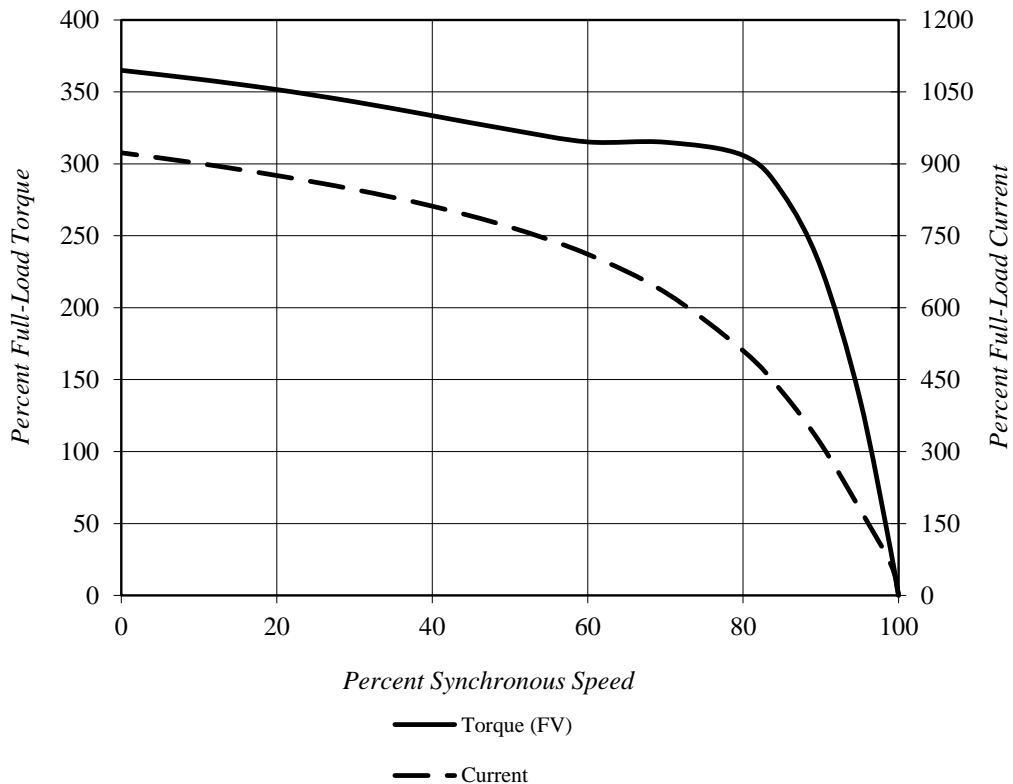
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	Y152SDMV7KS-PL			FLAmps:	2.6
Enclosure:	TEFC	Voltage:	460 V	Frame:	90L
Pole:	2	Frequency:	3 PH / 60 Hz	Ins. Class:	F
HP:	2	Rotor Inertia:	0.07 lb-ft ²	Date:	1/7/2020
FLRPM:	3495	Load Inertia:	N/A	File:	GH2Y15 (1.5kW)

Locked Rotor Amps:	24 A	Load Type:	N/A
Locked Rotor Torque:	365%	Starting at:	N/A
Breakdown Torque:	315%	Accel. Time:	N/A
Rated Torque:	3 lb-ft		

Design Values



Comments: PROJECT -

D.E.Curve #: GH2Y15 (1.5kW)

Prepared by: Zichao Xie

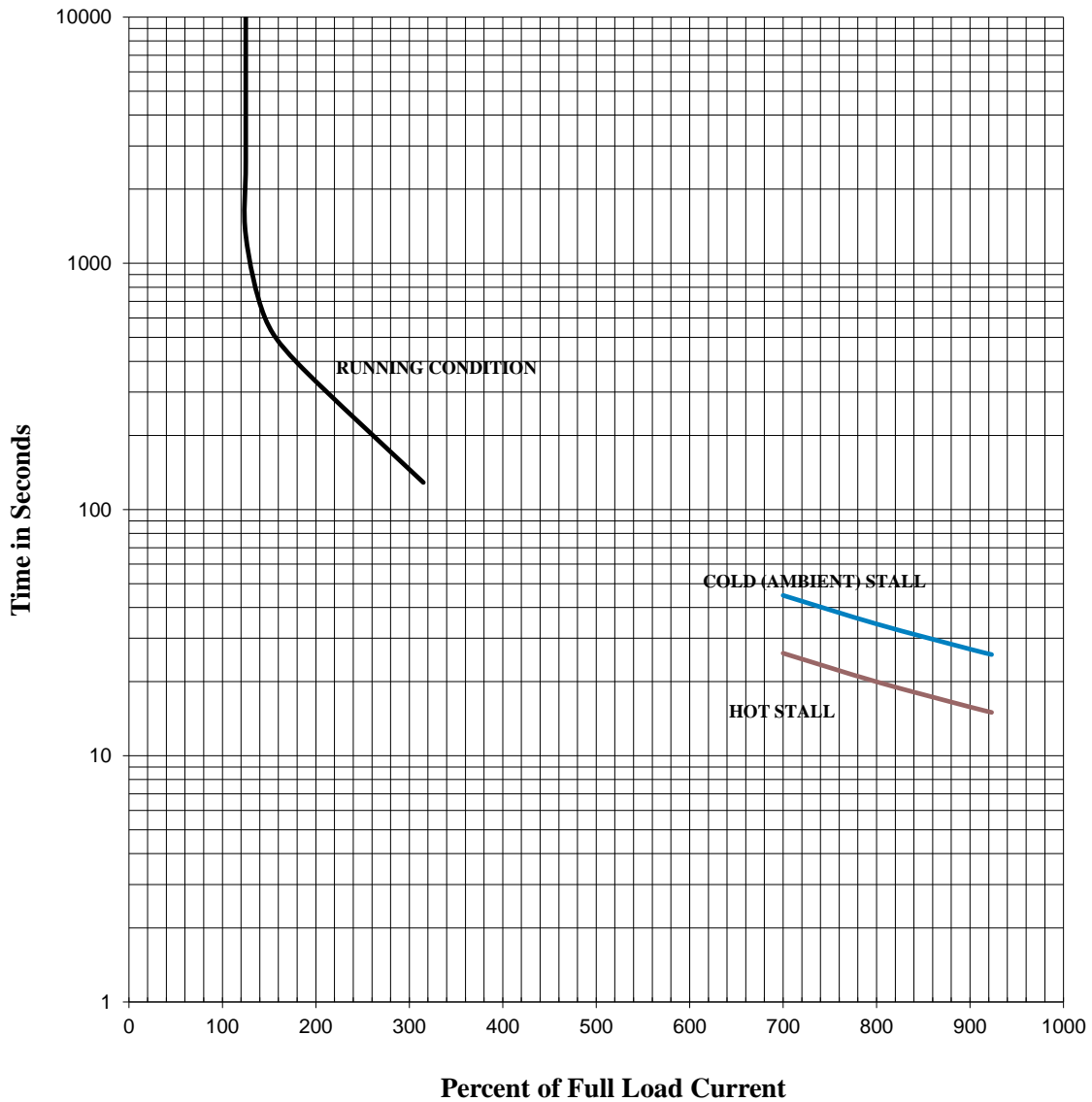
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Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	Y152SDMV7KS-PL			FLAmps:	2.6
Enclosure:	TEFC	Voltage:	460 V	Frame:	90L
Pole:	2	Frequency:	3 PH / 60 Hz	Ins. Class:	F
HP:	2	Rotor Inertia:	0.07 lb-ft ²	Date:	1/7/2020
FLRPM:	3495	Load Inertia:	N/A	File:	GH2Y15 (1.5kW)



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