

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: 90L	ENCL: TEFC	FLAMPS: 5.9/3.4	FLRPM: 1440
FORM: FBKL1	S.F.: -	IEC DESIGN N	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: Y154SDMV7KS-PL		kW: 1.5	
NOM. EFF.: 85.3	MIN. EFF.: -	cosØ 0.76	

AMPERAGE

LOCKED ROTOR: 38/22

TORQUES

FULL LOAD (lb-ft.): 7.3
LOCKED ROTOR (%): 275
BREAK DOWN (%): 340

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 85.0
3/4 LOAD: 85.6
1/2 LOAD: 83.9

POWER FACTOR

FULL LOAD: 76.0
3/4 LOAD: 70.0
1/2 LOAD: 58.6

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: 10/18/2019

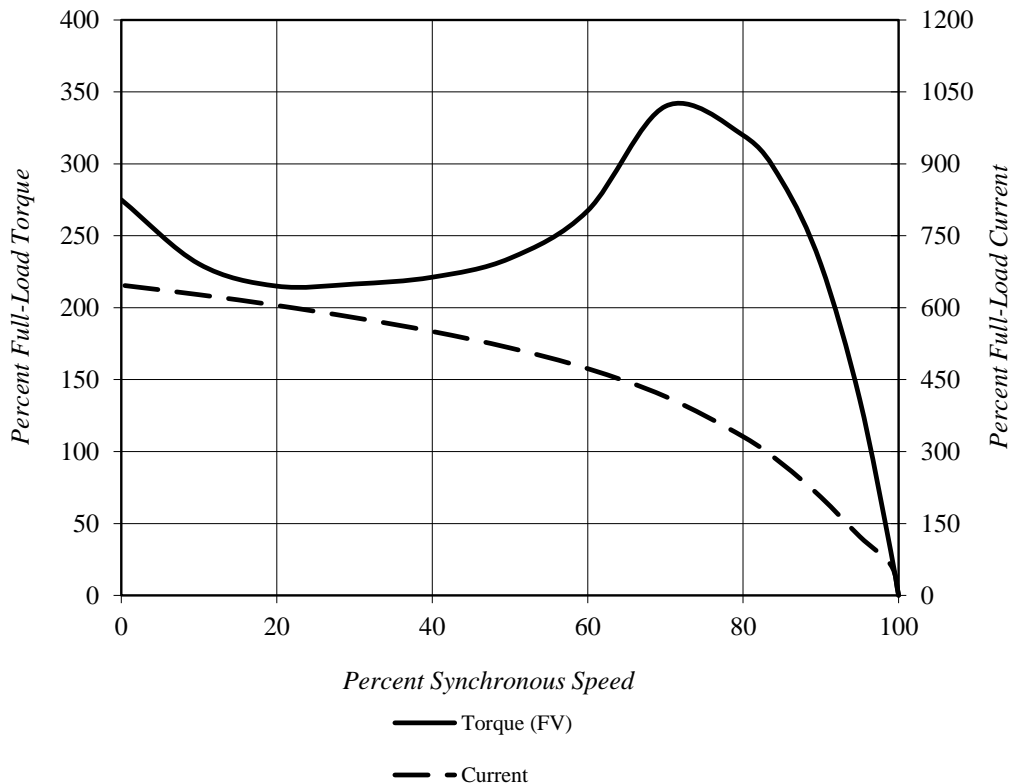
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	Y154SDMV7KS-PL			FLAmps:	5.9/3.4
Enclosure:	TEFC	Voltage:	230/400 V	Frame:	90L
Pole:	4	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.15 lb-ft ²	Date:	10/18/2019
FLRPM:	1440	Load Inertia:	N/A	File:	GH4Y15 (1.5kW)

Locked Rotor Amps:	38/22 A	Load Type:	N/A
Locked Rotor Torque:	275%	Starting at:	N/A
Breakdown Torque:	340%	Accel. Time:	N/A
Rated Torque:	7.3 lb-ft		

Design Values



Comments: PROJECT -

D.E.Curve #: GH4Y15 (1.5kW)

Prepared by: Zichao Xie

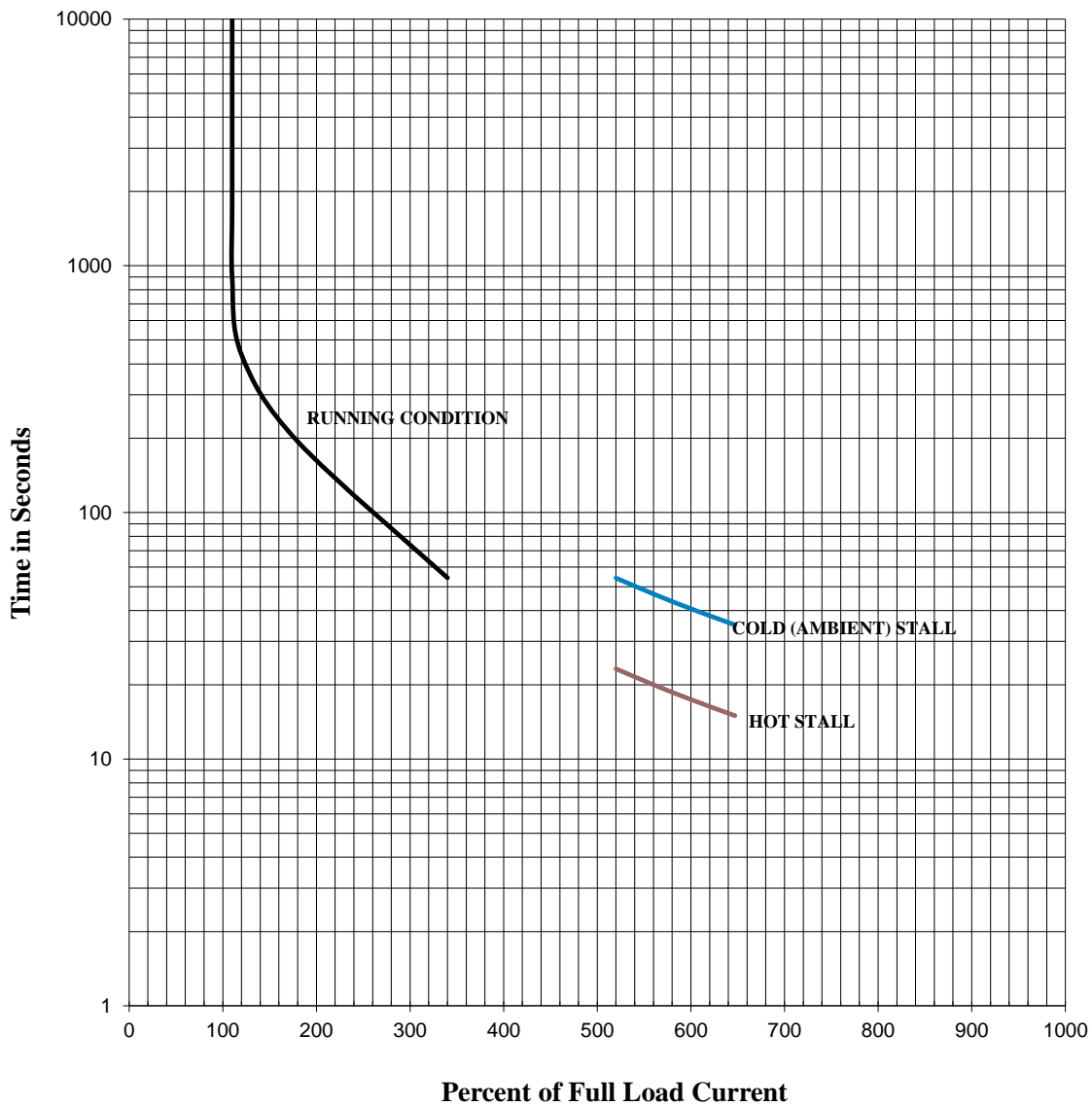
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TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	Y154SDMV7KS-PL			FLAmps:	5.9/3.4
Enclosure:	TEFC	Voltage:	230/400 V	Frame:	90L
Pole:	4	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.15 lb-ft ²	Date:	10/18/2019
FLRPM:	1440	Load Inertia:	N/A	File:	GH4Y15 (1.5kW)



Comments: PROJECT -

D.E.Curve #: GH4Y15 (1.5kW)

Prepared by: Zichao Xie

Checked by:

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MOTOR NAMEPLATE DATA

H.P.: -	VOLTS: 240/415	3 PH / 50 Hz	S. RPM: 1500
FRAME: 90L	ENCL: TEFC	FLAMPS: 5.9/3.4	FLRPM: 1445
FORM: FBKL1	S.F.: -	IEC DESIGN N	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: Y154SDMV7KS-PL		kW: 1.5	
NOM. EFF.: 85.3	MIN. EFF.: -	cosØ 0.72	

AMPERAGE

LOCKED ROTOR: 40/23

TORQUES

FULL LOAD (lb-ft.): 7.3
LOCKED ROTOR (%): 305
BREAK DOWN (%): 360

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 85.2
3/4 LOAD: 85.3
1/2 LOAD: 83.8

POWER FACTOR

FULL LOAD: 72.9
3/4 LOAD: 66.0
1/2 LOAD: 57.4

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

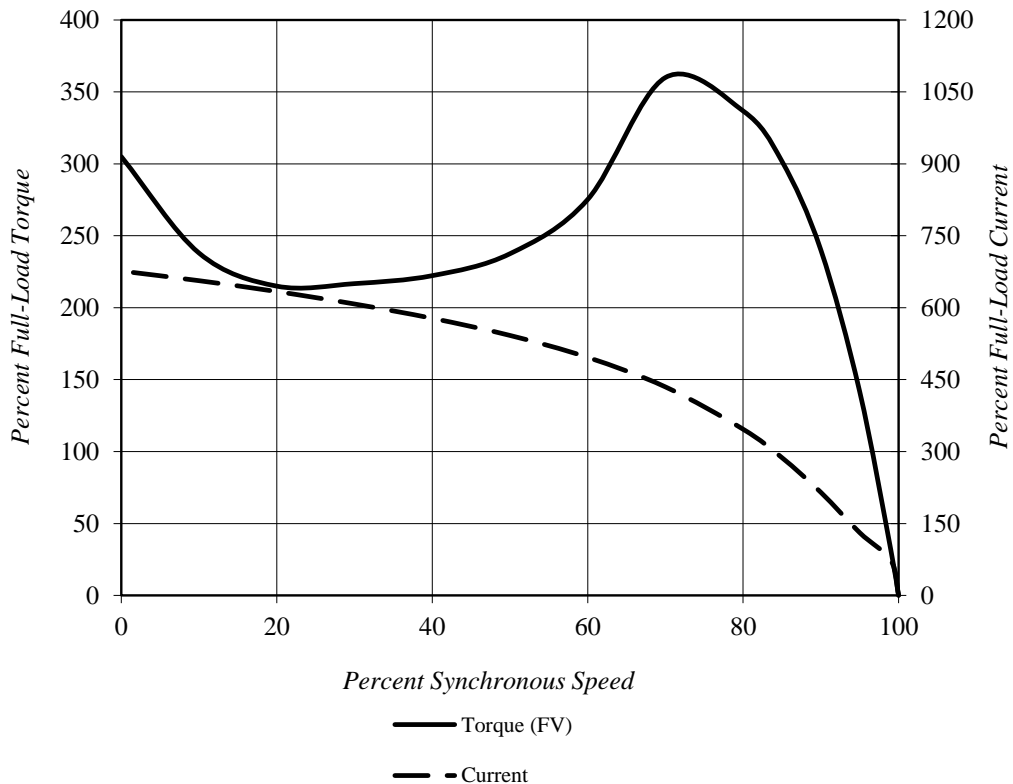
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	Y154SDMV7KS-PL			FLAmps:	5.9/3.4
Enclosure:	TEFC	Voltage:	240/415 V	Frame:	90L
Pole:	4	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.15 lb-ft ²	Date:	10/18/2019
FLRPM:	1445	Load Inertia:	N/A	File:	GH4Y15 (1.5kW)

Locked Rotor Amps:	40/23 A	Load Type:	N/A
Locked Rotor Torque:	305%	Starting at:	N/A
Breakdown Torque:	360%	Accel. Time:	N/A
Rated Torque:	7.3 lb-ft		

Design Values



Comments: PROJECT -

D.E.Curve #: GH4Y15 (1.5kW)

Prepared by: Zichao Xie

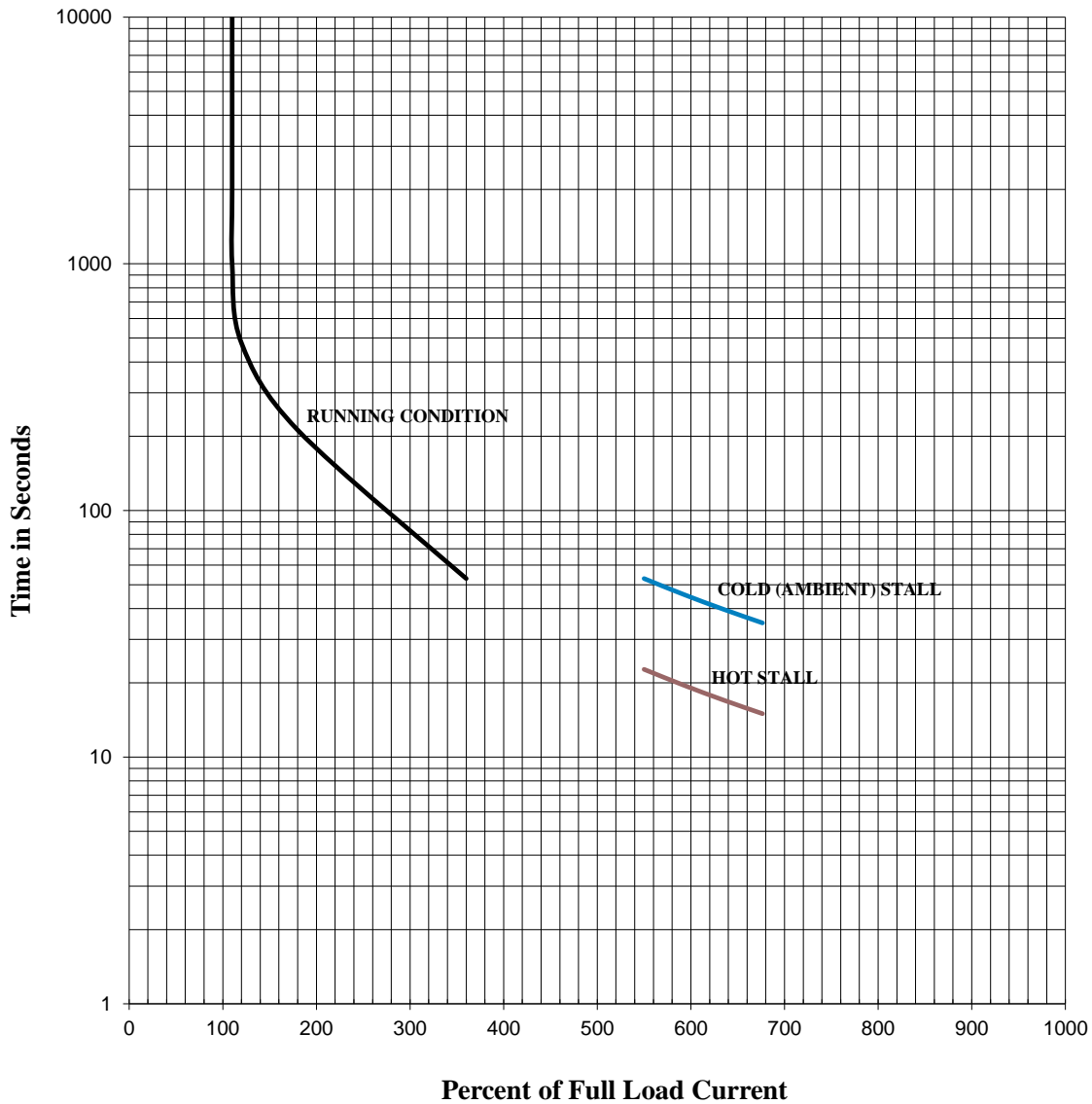
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TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	Y154SDMV7KS-PL			FLAmps:	5.9/3.4
Enclosure:	TEFC	Voltage:	240/415 V	Frame:	90L
Pole:	4	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.15 lb-ft ²	Date:	10/18/2019
FLRPM:	1445	Load Inertia:	N/A	File:	GH4Y15 (1.5kW)



Comments: PROJECT _____

D.E. Curve #: GH4Y15 (1.5kW)

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CUSTOMER: -
TIC SR No.: -

MOTOR NAMEPLATE DATA			
H.P.: -	VOLTS: 220/380	3 PH / 50 Hz	S. RPM: 1500
FRAME: 90L	ENCL: TEFC	FLAMPS: 5.9/3.4	FLRPM: 1430
FORM: FBKL1	S.F.: -	IEC DESIGN N	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: -	DUTY: Cont.
MODEL No.: Y154SDMV7KS-PL		kW: 1.5	
NOM. EFF.: 85.3	MIN. EFF.: -	cosØ 0.79	

AMPERAGE	TORQUES	**BEARINGS:
LOCKED ROTOR: 36/21	FULL LOAD (lb-ft.): 7.3	DRIVE END: REFER TO NP
	LOCKED ROTOR (%): 245	OPPOSITE DRIVE END: REFER TO NP
	BREAK DOWN (%): 310	

EFFICIENCY	POWER FACTOR
FULL LOAD: 84.3	FULL LOAD: 79.2
3/4 LOAD: 85.7	3/4 LOAD: 74.5
1/2 LOAD: 84.8	1/2 LOAD: 64.5

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).

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DATE: 10/18/2019

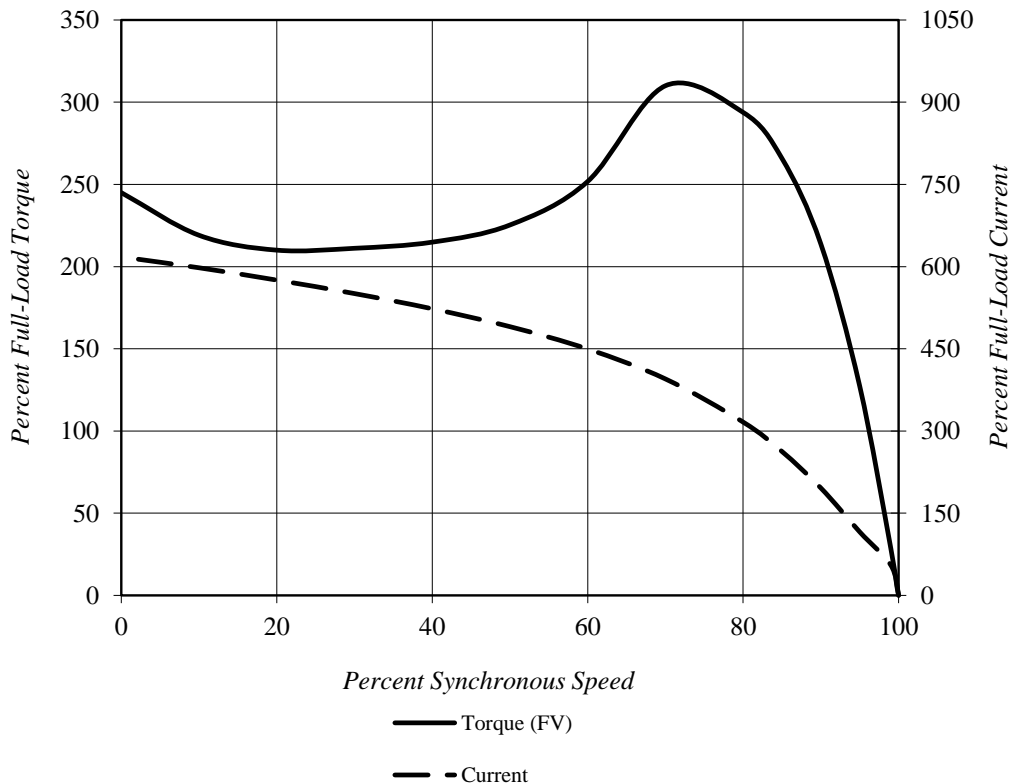
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	Y154SDMV7KS-PL			FLAmps:	5.9/3.4
Enclosure:	TEFC	Voltage:	220/380 V	Frame:	90L
Pole:	4	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.15 lb-ft ²	Date:	10/18/2019
FLRPM:	1430	Load Inertia:	N/A	File:	GH4Y15 (1.5kW)

Locked Rotor Amps:	36/21 A	Load Type:	N/A
Locked Rotor Torque:	245%	Starting at:	N/A
Breakdown Torque:	310%	Accel. Time:	N/A
Rated Torque:	7.3 lb-ft		

Design Values



Comments: PROJECT -

D.E. Curve #: GH4Y15 (1.5kW)

Prepared by: Zichao Xie

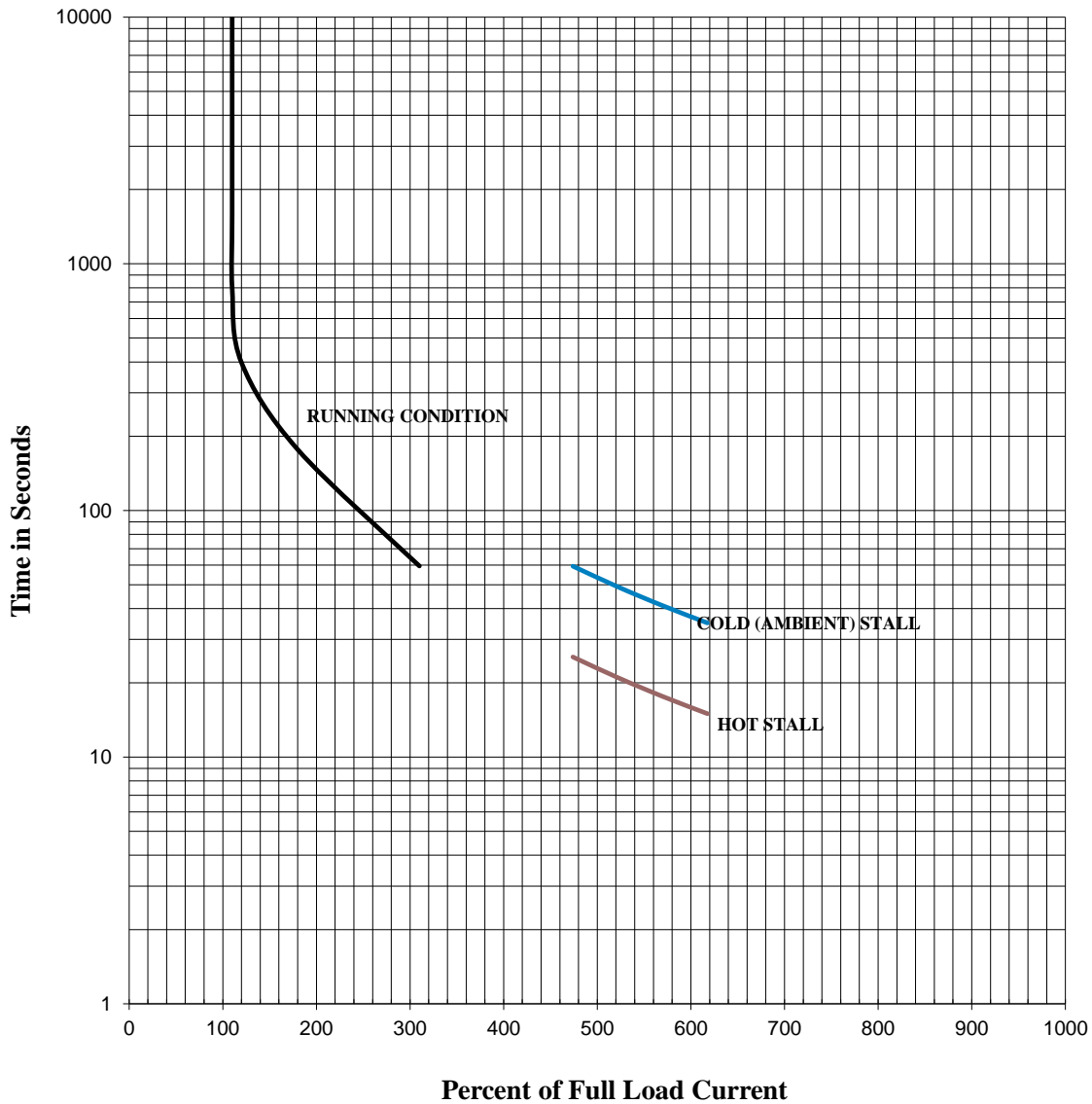
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TOSHIBA INTERNATIONAL CORPORATION

Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	Y154SDMV7KS-PL			FLAmps:	5.9/3.4
Enclosure:	TEFC	Voltage:	220/380 V	Frame:	90L
Pole:	4	Frequency:	3 PH / 50 Hz	Ins. Class:	F
KW:	1.5	Rotor Inertia:	0.15 lb-ft ²	Date:	10/18/2019
FLRPM:	1430	Load Inertia:	N/A	File:	GH4Y15 (1.5kW)



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CUSTOMER: -
TIC SR No.: -

MOTOR NAMEPLATE DATA

H.P.: 2	VOLTS: 460	3 PH / 60 Hz	S. RPM: 1800
FRAME: 90L	ENCL: TEFC	FLAMPS: 2.9	FLRPM: 1750
FORM: FBKL1	S.F.: 1.15	NEMA DESIGN: B	INSUL CLASS: F
TYPE: IKH	AMB.: 40°C	CODE: L	DUTY: Cont.
MODEL No.: Y154SDMV7KS-PL		kW: 1.5	
NOM. EFF.: 86.5	MIN. EFF.: -	P.F.: 73.5	

AMPERAGE

LOCKED ROTOR: 24

TORQUES

FULL LOAD (lb-ft.): 6.0
LOCKED ROTOR (%): 385
BREAK DOWN (%): 365

****BEARINGS:**

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

EFFICIENCY

FULL LOAD: 87.6
3/4 LOAD: 87.3
1/2 LOAD: 84.8

POWER FACTOR

FULL LOAD: 73.5
3/4 LOAD: 67.4
1/2 LOAD: 56.1

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

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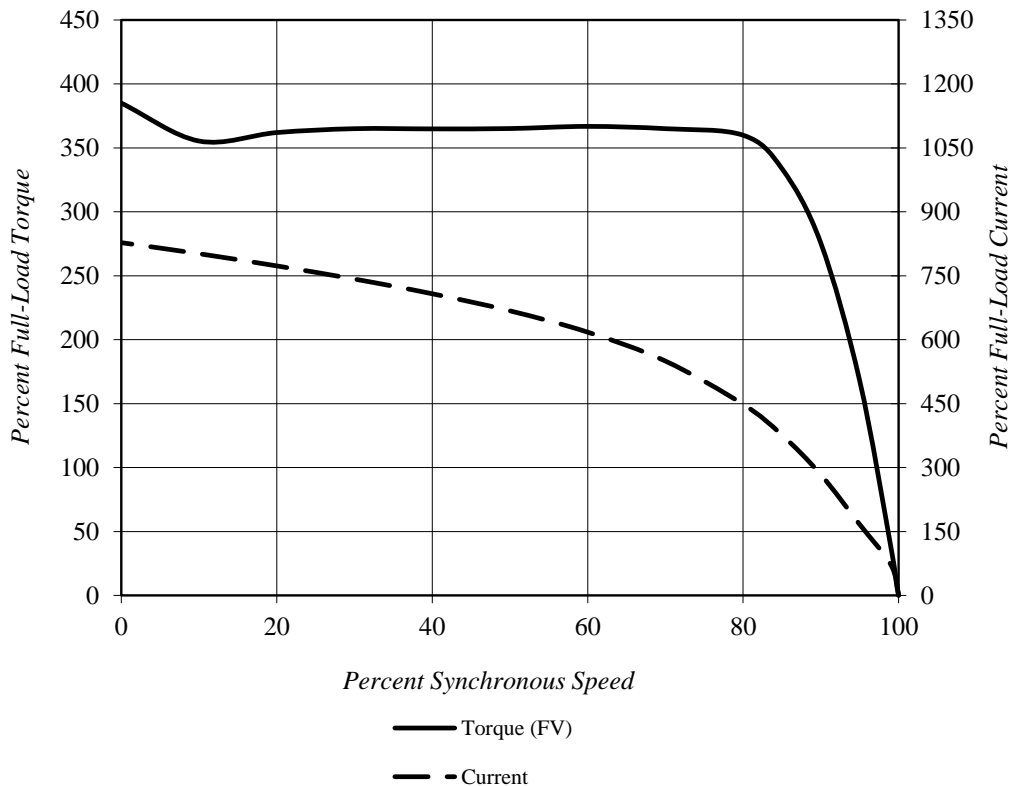
TOSHIBA INTERNATIONAL CORPORATION

Speed Torque/Current Curve

Model #:	Y154SDMV7KS-PL			FLAmps:	2.9
Enclosure:	TEFC	Voltage:	460 V	Frame:	90L
Pole:	4	Frequency:	3 PH / 60 Hz	Ins. Class:	F
HP:	2	Rotor Inertia:	0.15 lb-ft ²	Date:	10/18/2019
FLRPM:	1750	Load Inertia:	N/A	File:	GH4Y15 (1.5kW)

Locked Rotor Amps:	24 A	Load Type:	N/A
Locked Rotor Torque:	385%	Starting at:	N/A
Breakdown Torque:	365%	Accel. Time:	N/A
Rated Torque:	6 lb-ft		

Design Values



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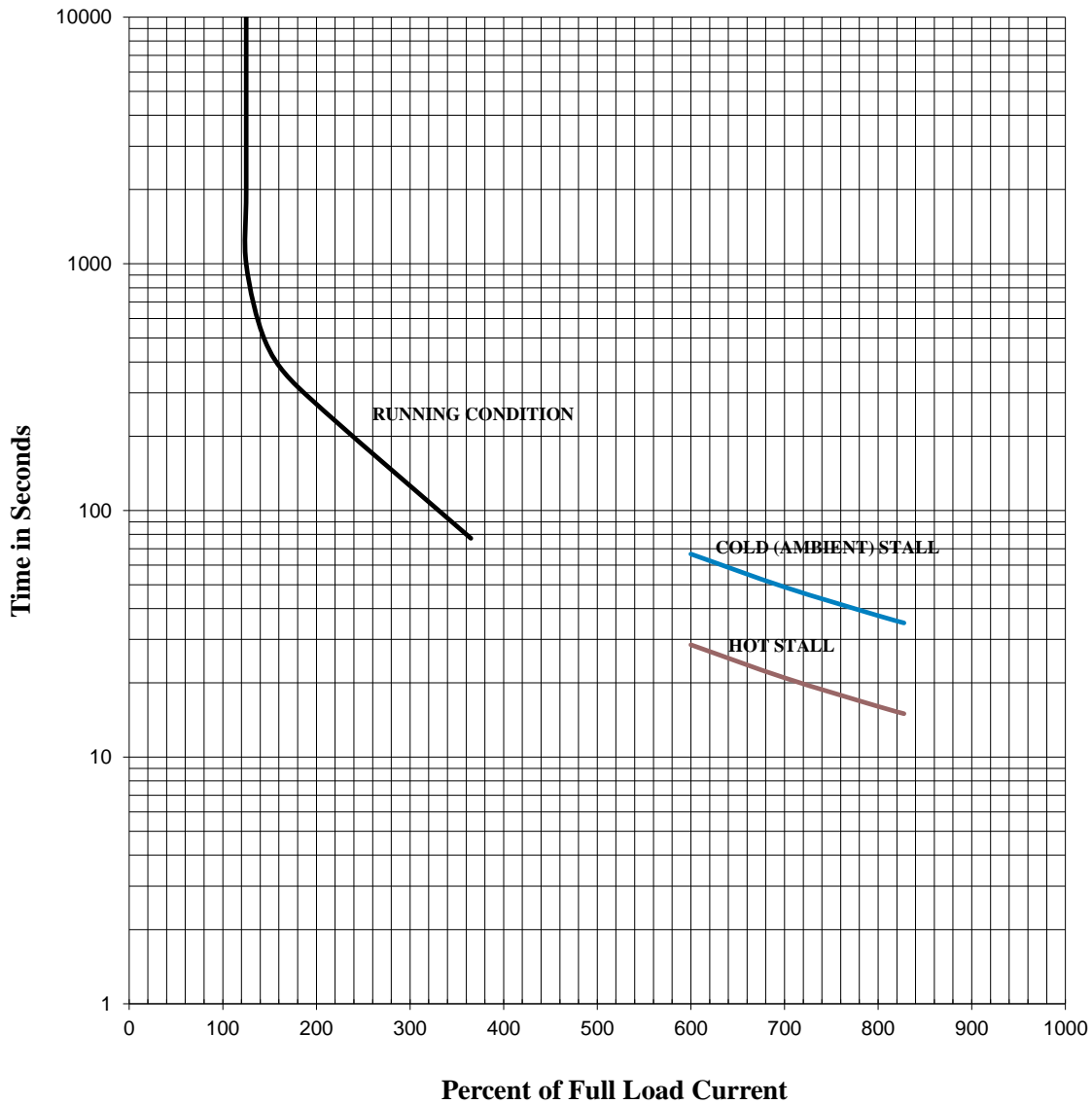
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Thermal Limit & Acceleration Curves

Design Values (For Reference Only)

Model #:	Y154SDMV7KS-PL			FLAmps:	2.9
Enclosure:	TEFC	Voltage:	460 V	Frame:	90L
Pole:	4	Frequency:	3 PH / 60 Hz	Ins. Class:	F
HP:	2	Rotor Inertia:	0.15 lb-ft ²	Date:	10/18/2019
FLRPM:	1750	Load Inertia:	N/A	File:	GH4Y15 (1.5kW)



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