

## Marathon Electric Motors (India) Limited

58, Taratala Road, Kolkata-700 024  
 CERTIFICATE OF ROUTINE TEST  
 AS PER IS/IEC:60034-1

CERTIFICATE NO. : 2022-08-16/610129554/0014

PRODUCT : SLIP RING INDUCTION MOTOR  
 PURCHASE ORDER NO:

CUSTOMER :  
 BRANCH ORDER NO:

### MOTOR DETAILS

MOTOR SL NO : 135770580010      FRAME : KS160M2      ENCL : TEFCSR      PHASE : 3 HZ : 50  
 KW : 6.7      H.P. : 9      SYNC.SPEED : 1000 RPM  
 VOLTAGE : 380      F.L.AMPS : 13.7      F.L.RPM : 970 RPM      ROTOR VOLTS : 185      ROTOR AMPS : 22  
 INS CLASS(ST/RT) : F/F      AMB. TEMP : 47 deg C      DUTY : S4 40% CDF 150STS/Hr.      MOUNTING : B3  
 CONNECTION(ST/RT) : DELTA/STAR      DEG. OF PROT. : IP55      SPECIAL FEATURES : --

### TEST CHARACTERISTICS

TEST DETAILS	LINE VOLTAGE	LINE AMPS			WATTMETER READING		TOTAL WATTS (W1-W2)	SPEED (RPM)
		AMPS I	AMPS II	AMPS III	WATT I	WATT II		
NO LOAD RUN	380	6.9	6.9	6.9	1740	960	780	998
LOCKED ROTOR	75	13.71	13.8	13.755	780	0	780	

OPEN CIRCUIT VOLTS : (FOR SLIP RING MOTORS)

STATOR TERMINALS VOLT : 380      O C VOLTAGE AT SLIP RING TERMINALS : 184

RESISTANCE PER PHASE/LINE : STATOR : 1.08, 1.08, 1.08 OHMS/LINE AT 28 deg C

ROTOR : 0.245, 0.245, 0.245 OHMS/LINE AT 28 deg C

INSULATION RESISTANCE : (FOR BEFORE AND AFTER H V TEST)

STATOR : 100 MEGOHMS      ROTOR : 100 MEGOHMS

HIGH VOLTAGE TEST : (PHASE TO PHASE/PHASE TO EARTH)

STATOR : 2000 VOLTS FOR 60 SECS WITHSTOOD      ROTOR : 2000 VOLTS FOR 60 SECS WITHSTOOD

VIBRATION :- SPECIFIED VALUE :      mm/Sec

DE : H : 1.2      A : 1      V : 1.4      mm/Sec      NDE :      H :      A :      V :      mm/Sec

The Motor has been run and has been found to be electrically and mechanically sound and in working order in respect.

DATE OF TEST : 28-09-13

DATE : 16-08-22

APPROVED BY

PRQF 0446 C DT. 01.09.06

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### Marathon Electric Motors (India) Limited

58, Taratala Road, Kolkata-700 024  
CERTIFICATE OF ROUTINE TEST  
AS PER IS/IEC:60034-1

CERTIFICATE NO. : 2022-08-16/610129554/0011

PRODUCT :

CUSTOMER :

PURCHASE ORDER NO:

BRANCH ORDER NO:

#### MOTOR DETAILS

MOTOR SL NO : DX25790110002    FRAME : KS132MA    ENCL : TEFC SR    PHASE : 3 HZ : 50  
KW : 2.6    H.P. : 3.5    SYNC SPEED : 1000 RPM  
VOLTAGE : 380    F.L.AMPS : 6    F.L.RPM : 935 RPM    ROTOR VOLTS : 115    ROTOR AMPS : 14  
INS CLASS(ST/RT) : F/F    AMB. TEMP : 45 deg C    DUTY : --S4 40% 150 STS/H  
CONNECTION(ST/RT) : DELTA/STAR    DEG. OF PROT. : IP55    SPECIAL FEATURES : --

#### TEST CHARACTERISTICS

TEST DETAILS	LINE VOLTAGE	LINE AMPS			WATTMETER READING		TOTAL WATTS (W1-W2)	SPEED (RPM)
		AMPS I	AMPS II	AMPS III	WATT I	WATT II		
NO LOAD RUN	380	3.23	3.13	3.18	773	450	323	935
LOCKED ROTOR	87.2	6	5.95	5.975	432	39	393	

OPEN CIRCUIT VOLTS : (FOR SLIP RING MOTORS)

STATOR TERMINALS VOLT : 380    O C VOLTAGE AT SLIP RING TERMINALS : 102

RESISTANCE PER PHASE/LINE : STATOR : 2.97, 2.97, 2.97 OHMS/LINE AT 32 deg C

ROTOR : 0.35, 0.35, 0.35 OHMS/LINE AT 32 deg C

INSULATION RESISTANCE : (FOR BEFORE AND AFTER H V TEST)

STATOR : 100 MEGOHMS    ROTOR : 100 MEGOHMS

HIGH VOLTAGE TEST : (PHASE TO PHASE/PHASE TO EARTH)

STATOR : 2000 VOLTS FOR 60 SECS WITHSTOOD (ROTOR : 2000 VOLTS FOR 60 SECS WITHSTOOD)

VIBRATION :- SPECIFIED VALUE : 1.8 mm/Sec

DE : H : 0.4    A : 0.6    V : 0.7    mm/Sec    NDE :    H :    A :    V :    mm/Sec

The Motor has been run and has been found to be electrically and mechanically sound and in working order in respect.

DATE OF TEST : 26-05-22

DATE : 16-08-22

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### Marathon Electric Motors (India) Limited

58, Taratala Road, Kolkata-700 024  
CERTIFICATE OF ROUTINE TEST  
AS PER IS/IEC:60034-1

CERTIFICATE NO.: 2022-08-16/610129554/0016

PRODUCT: SLIP RING INDUCTION MOTOR  
PURCHASE ORDER NO:

CUSTOMER:  
BRANCH ORDER NO:

#### MOTOR DETAILS

MOTOR SL NO: X25790610002      FRAME: KS225MB      ENCL: TEFC SR      PHASE: 3 HZ: 50  
KW: 31      H.P.: 41.5      SYNC.SPEED: 1000 RPM  
VOLTAGE: 380      F.L.AMPS: 60.8      F.L.RPM: 977 RPM      ROTOR VOLTS: 305      ROTOR AMPS: 62  
INS CLASS(ST/RT): F/F      AMB. TEMP: 47 deg C      DUTY: S4 40% 150 STS/H  
CONNECTION(ST/RT): DELTA/STAR      DEG. OF PROT.: IP55      SPECIAL FEATURES: --

#### TEST CHARACTERISTICS

TEST DETAILS	LINE VOLTAGE	LINE AMPS			WATTMETER READING		TOTAL WATTS (W1-W2)	SPEED (RPM)
		AMPS I	AMPS II	AMPS III	WATT I	WATT II		
NO LOAD RUN	380	29.56	29.6	29.58	6300	4680	1620	998
LOCKED ROTOR	69.4	60.8	60.9	60.85	2990	1120	1870	

#### OPEN CIRCUIT VOLTS : (FOR SLIP RING MOTORS)

STATOR TERMINALS VOLT: 380.2      O C VOLTAGE AT SLIP RING TERMINALS: 315  
RESISTANCE PER PHASE/LINE : STATOR: 0.125, 0.125, 0.125 OHMS/LINE AT 35 deg C  
ROTOR: 0.105, 0.105, 0.105 OHMS/LINE AT 35 deg C

#### INSULATION RESISTANCE : (FOR BEFORE AND AFTER H V TEST)

STATOR: 100 MEGOHMS      ROTOR: 100 MEGOHMS

#### HIGH VOLTAGE TEST : (PHASE TO PHASE/PHASE TO EARTH)

STATOR: 2000 VOLTS FOR 60 SECS WITHSTOOD (ROTOR: 2000 VOLTS FOR 60 SECS WITHSTOOD)

#### VIBRATION :- SPECIFIED VALUE: 1.8 mm/Sec

DE: H: 1.1      A: 0.9      V: 0.9      mm/Sec      NDE:      H:      A:      V:      mm/Sec

The Motor has been run and has been found to be electrically and mechanically sound and in working order in respect.

DATE OF TEST: 02-08-22

DATE: 16-08-22

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58, Taratala Road, Kolkata-700 024  
 CERTIFICATE OF ROUTINE TEST  
 AS PER IS/IEC:60034-1

CERTIFICATE NO. : 2022-08-16/610129554/0008

PRODUCT : SLIP RING INDUCTION MOTOR

CUSTOMER :

PURCHASE ORDER NO:

BRANCH ORDER NO:

### MOTOR DETAILS

MOTOR SL NO : X25790520001

FRAME : KS225SB

ENCL : TEFC SR

PHASE : 3 HZ : 50

KW : 24.5

H.P. : 33

SYNC SPEED : 1000 RPM

VOLTAGE : 380

F.L.AMPS : 51

F.L.RPM : 975 RPM

ROTOR AMPS : 53.5

INS CLASS(ST/RT) : F/F AMB. TEMP : 47 deg C DUTY : S4 40% 150 STS/H

MOUNTING : /

CONNECTION(ST/RT) : DELTA/STAR DEG. OF PROT. : IP55

SPECIAL FEATURES : --

### TEST CHARACTERISTICS

TEST DETAILS	LINE VOLTAGE	LINE AMPS			WATTMETER READING		TOTAL WATTS (W1-W2)	SPEED (RPM)
		AMPS I	AMPS II	AMPS III	WATT I	WATT II		
NO LOAD RUN	380	23.9	24	23.95	5150	3720	1430	998
LOCKED ROTOR	100.7	71.5	71.6	71.55	5150	1820	3330	

OPEN CIRCUIT VOLTS : (FOR SLIP RING MOTORS)

STATOR TERMINALS VOLT : 380 O C VOLTAGE AT SLIP RING TERMINALS : 280

RESISTANCE PER PHASE/LINE : STATOR : 0.181, 0.181, 0.181 OHMS/LINE AT 35 deg C

ROTOR : 0.11, 0.11, 0.11 OHMS/LINE AT 35 deg C

INSULATION RESISTANCE : (FOR BEFORE AND AFTER H V TEST)

STATOR : 100 MEGOHMS ROTOR : 100 MEGOHMS

HIGH VOLTAGE TEST : (PHASE TO PHASE/PHASE TO EARTH)

STATOR : 2000 VOLTS FOR 60 SECS WITHSTOOD (ROTOR : 2000 VOLTS FOR 60 SECS WITHSTOOD)

VIBRATION :- SPECIFIED VALUE : 1.8 mm/Sec

DE : H : 1.1 A : 0.8 V : 1 mm/Sec NDE : H : A : V : mm/Sec

The Motor has been run and has been found to be electrically and mechanically sound and in working order in respect.

DATE OF TEST : 02-08-22

DATE : 16-08-22

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