Certificate of Compliance

Certificate:	80089532	**Master Contract:**	224693
Project:	80089532	**Date Issued:**	2022-12-10

Issued To: **Shanghai Top Motor Co., Ltd.**
No. 303 Kangliu Road
Kangqiao Town
Pudong District, Shanghai, 201315
China
Attention: Zhang Runqing

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: *Jun Li (Lily) Li*
Jun Li (Lily) Li

PRODUCTS

CLASS - C422801 - MOTORS AND GENERATORS For Hazardous Locations
CLASS - C422881 - MOTORS AND GENERATORS For Hazardous Locations - Certified to US Standards

Product I:
Class I, Divison 2, Group A, B, C and D
Temperature Code : T4, T3C, T3A, T3, T2D or T2C (where applicable)

Motors with same model name, ratings and construction as that of Part B (with Cast Iron or Aluminum Enclosure) and Part C (with Cast Iron Enclosure) listed in report 70097295 for used in Ordinary Location

Part 1: Three-phase cage induction motor, T series, 1/12 HP~450HP, 2~8 poles, 50/60Hz, 60 Hz, SF 1.25 Max, NEMA Frame Size 56~580 or IEC Frame Size 56~355, Enclosure TEFC, Insulation Class F, Continuous Duty, 40 ºC max ambient.
1.) SF=1.25 for NEMA frame size 56 ~320 or IEC frame size 63 ~ 200,
2.) SF= 1.15 for NEMA frame size 360 ~580 or IEC frame size 225 ~355
3.) Temperature code referred to table 2

Part 2: Three-phase cage induction motor, T series, 250 HP~500HP, 2~6 poles, 50/60 Hz, 60 Hz, SF 1.15 Max, Frame NEMA 449, Enclosure TEFC, Insulation Class F, Continuous Duty, 40 ºC max ambient, Temperature code T2C.

Product II:
Class II, Division 2, Group F and G
Temperature Code: T4A, T5 or T6 (where applicable)

Motors with same model name, ratings and construction as that of Part B (only with Cast Iron Enclosure, except for motors with Cast Iron Enclosure built in Frame IEC 80, IEC80/NEMA 56) and Part C (with Cast Iron Enclosure) listed in report 70097295 for used in Ordinary Location.

Part 1: Three-phase cage induction motor, T series, 1/4 HP~450HP, 2~8 poles, 50/60Hz, 60 Hz, SF 1.25 Max, NEMA Frame Size 56H~580 or IEC Frame Size 90~355, Enclosure TEFC, Insulation Class F, Continuous Duty, 40 ºC max ambient.
The models name and rating same as that listed in Part 1 of Product I.

1.) SF=1.25 for NEMA frame size 56 ~320 or IEC frame size 90 ~ 200,
2.) SF= 1.15 for NEMA frame size 360 ~580 or IEC frame size 225 ~355
3.) Temperature code referred to table

Part 2: Three-phase cage induction motor, T series, 250 HP~500HP, 2~6 poles, 50/60 Hz, 60 Hz, SF 1.15 Max, Frame NEMA 449, Enclosure TEFC, Insulation Class F, Continuous Duty, 40 ºC max ambient, Temperature code T5.
The models name and rating same as that listed in Part 2 of Product I.

Note:
1. For details related to rating, size, configuration, etc. reference should be made to the CSA Descriptive Report.
2. Suffix may be added, which may be any number or letter or number with letter or blank, represent minor mechanical variations (shaft extension, mounting feet, flange face, etc.), not affecting certification.
3. Wiring connection method and the voltage range with the corresponding rated Voltage:

Product I, II	Voltage (V)			Wiring Connection
	Hz	Range	Rated Voltage	
Part 1	50	190~210/380~420	190/380	ΔΔ/Δ or YY/Y
	60	208~230/416~460	230/460	
	60	575	575	Δ or Y
Part 2	50	380-420/660-730	380/660	Δ/Y
	60	416-460/720-796	460/796	
	60	575	575	Δ

Product summary as the following table 1:

Table 1

Product I	Class I, Division 2, Group A, B, C and D Temperature Code: T4, T3C, T3A, T3, T2D or T2C (where applicable)	
	Part 1 Motor enclosure with Cast Iron or Aluminum	Part 2 Motor enclosure with Cast Iron
Product II	Class II, Division 2, Group F and G Temperature Code: T4A, T5 or T6 (where applicable)	
	Part 1 Motor enclosure only with Cast Iron, except for that built in Frame IEC 80, IEC80/NEMA 56	Part 2 Motor enclosure with Cast Iron

Temperature Code as the following table 2:

Table 2

Product	Frame Size	Max. Output (HP)				Test Sample	Temperature Code	
		2 Poles	4 Poles	6 Poles	8 Poles		Class 1, Div. 2, Group A, B, C and D	Class 2, Div. 2, Group F and G
Part 1 listed in Product I, II	IEC56	1/4	1/6	--	--	T563-2 1/4HP,2 Poles	T3C	N/A
	IEC63	1/2	1/2	1/6	--	T633-2 1/2HP,2 Poles	T3A	N/A
	IEC 71	1	3/4	1/2	1/6	T713-2 1HP,2Poles	T3C	N/A
	IEC80 NEMA 56 (Stator ID130mm)	2	1.5	1	1/2	T803-2 2HP,2 Poles	T4	N/A
	IEC90 NEMA 56H ,140 (Stator ID140mm)	5	3	3	3/4	T56H5U2B 5HP-2 Poles	T2D	T4A
	IEC 100	5.5	5.5	3	1.5	T100L3-4 5.5HP,4Poles	T3A	T6
	IEC 112, NEMA 180	7.5	7.5	4	2	T112L-4 7.5HP,4Poles	T3	T5
	IEC 132, NEMA 210	20	15	10	4	T215T20U2B 20HP,2Poles	T3A	T5
	IEC 160, NEMA 250	30	25	20	10	T256T30U2B 30HP,2Poles	T3	T5
	IEC 180, NEMA 280	40	40	25	15	T180L2-4 40HP,4Poles	T3A	T5
	IEC 200, NEMA 320	60	50	40	25	T200L3-2 60HP,2Poles,	T3A	T4A
	IEC 225, NEMA 360	75	75	50	30	T365T75U4B	T3A	T4A

Product	Frame Size	Max. Output (HP)				Test Sample	Temperature Code	
		2 Poles	4 Poles	6 Poles	8 Poles		Class 1, Div. 2, Group A, B, C and D	Class 2, Div. 2, Group F and G
						75HP,4Poles		
	IEC 250, NEMA 400	100	100	75	60	T405T100U4B 100HP,4Poles	T3A	T5
	IEC 280, NEMA 440	300	300	215	150	T449T300U4B 100HP,4Poles	T3A	T5
	IEC 315	265	265	175	--	T315L2-2 265HP,2Poles	T3C	T5
	IEC 355, NEMA 580	450	450	400	--	T586T450U2B 450HP,2Poles	T3A	T6
Part 2 listed in Product I, II	NEMA 449	500	500	350	--	T449TS500U4B 500HP,4Poles	T2C	T5

Conditions of Acceptability:

For terminal box, the threaded conduit openings are not intended to receive metal conduit but for connecting outlet bushings and fittings to protect power supply conductor from mechanical injury or abrasion.

APPLICABLE REQUIREMENTS

CSA C22.2 No. 100:14	-	Motors and Generators
UL 1004-1 (2nd Edition)	-	Rotating Electrical Machines- General Requirements
CSA LTR E-013-2005	-	Motors and Generators for Use in Class I, Division 2, and Class II, Division 2, Hazardous Locations
UL Subject 1836 (Issue No. 5)	-	Outline of Investigation for Electric Motors and Generators for Use in Class I, Division 2, Class I, Zone 2, Class II, Division 2 and Zone 22 Hazardous (Classified) Locations

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Notes:

Products certified under Class C422801, C422881 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80089532	2022-12-10	Continue to do the project 80017195(Closed incomplete) Certification of three-phase cage induction motor, T Series ,1/12 HP~450HP, 2~8 poles, 50/60Hz, 60 Hz, SF 1.25 Max, NEMA Frame Size 56~580 or IEC Frame Size 56~355, Enclosure TEFC, Insulation Class F, Continuous Duty, 40 ºC max ambient. Hazardous Location Rating CLASS I, DIV 2, GROUP A, B, C and D; CLASS II, DIV 2, GROUP F&G. These motors safety evaluation included in report 70097295 (Part B and part C).