



Certificate of Compliance

Certificate: 70000843 **Master Contract:** 206865
Project: 80189578 **Date Issued:** 12/22/2023
Issued to: Tecnotion B.V.
15 Twentepoort West
Almelo, Overijssel 7609 RD
Netherlands
Attention: Rick Brunninkhuis

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C', 'US' and



Issued by: Azad Hacika
Azad Hacika

PRODUCTS

C421131 MOTORS AND GENERATORS - Sub-Assemblies - Component Acceptance
C421191 MOTORS AND GENERATORS - Sub-Assemblies - Component Acceptance - US Standards

Component type, torque servo motors, Serie QTR and QTL, 3-ph, 8 kHz and insulation class B:

Models	Winding Type	Max. Constant Current (A)	Cold resistance per phase	Voltage (VAC max)	Cooling Method
QTR 65-17	N	4.86	0.575	480	C
QTR 65-25	N	5.61	0.799	480	C
QTR 65-34	Y	11.07	0.287	480	C
QTR 65-60	Y	8.65	0.741	480	C
QTR 78-17	N	4.89	0.857	480	C
QTR 78-25	Y	10.56	0.342	480	C
QTR 78-34	Y	11.08	0.43	480	C
QTR 78-60	Y	8.33	1.111	480	C



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QTR 105-17	N	4.6	1.38	230	C
QTR 105-25	N	5.3	1.93	230	C
QTR 105-34	N	5.1	3.02	230	C
QTR 105-60	N	4.2	6.84	400	C
QTR 133-17	N	4.43	1.93	230	C
QTR 133-25	N	5.05	2.7	230	C
QTR 133-34	N	4.77	4.23	230	C
QTR 133-60	N	3.93	9.58	400	C
QTR 160-17	N	4.3	2.47	230	C
QTR 160-25	N	4.9	3.47	230	C
QTR 160-34	N	4.6	5.45	230	C
QTR 160-60	N	3.9	12.3	400	C
QTR 160-140	N	10.5	2.98	230	C
QTL 210-65	N	7.45	3.18	600	C
QTL 210-85	N	7.88	4.25	600	C
QTL 210-105	N	8.11	5.31	600	C
QTL 230-65	N	7.69	3.18	600	W
QTL 230-85	N	8.16	4.25	600	W
QTL 230-105	N	8.42	5.31	600	W
QTL 290-65	N	7.14	4.77	600	C
QTL 290-85	N	7.54	6.37	600	C
QTL 290-105	N	7.75	7.96	600	C
QTL 310-65	N	7.7	4.77	600	W
QTL 310-85	N	8.16	6.37	600	W
QTL 310-105	N	8.42	7.96	600	W

Component type, linear servo motors with ironless coil units. Series UM, UL and UX rated 300 V_{max}, 3-ph, 8 kHz, insulation class B:

Models	Winding Type	Max. Constant Current (A)	Cold resistance per phase	Max. Constant Force (N)	Cooling Method
UM3	N	0.8	18.5	29	C
	S	1.5	5.5	29	C
UM6	N	1.6	9.3	58	C
	S	2.9	2.8	58	C



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UM9	N	2.4	6.2	87	C
	S	4.4	1.8	87	C
UM12	N	3.2	4.6	116	C
	S	5.8	1.4	116	C
UL3	N	1.03	15.9	70	C
	S	2.6	2.6	70	C
UL6	N	2.1	8.0	140	C
	S	5.1	1.28	140	C
UL9	N	3.1	5.3	210	C
	S	7.6	0.85	210	C
UL12	N	4.2	4.0	280	C
	S	10.2	0.64	280	C
UL15	N	5.2	3.3	350	C
	S	12.9	0.53	350	C
UX(X)3	N	1.14	15.8	120(141)	C
UX(X)6	N	2.27	7.9	240(282)	C
	S	5.6	1.29	240(282)	C
UX(X)9	N	3.4	5.3	360(423)	C
	S	8.4	0.86	360(423)	C
UX(X)12	N	4.5	4.0	480(564)	C
	S	11.2	0.65	480(564)	C
UX(X)18	N	6.8	2.6	720(846)	C

Component type, linear servo motors, Serie TM, TL, TB and TBW, rated 600 Vmax, 3-ph, 8 kHz, insulation class B:

Models	Winding Type	Max. Constant Current (A)	Cold resistance per phase	Cooling Method
TL(X)6 or TL6(X) Flex1	N	2.15(2.26)	7.2	C(W)
	S	4.3(4.5)	1.8	C(W)
TL(L)(X)F6	S	4.7	1.8	C
TL9(X)	N	2.15(2.26)	7.2	C(W)
	S	6.8	1.2	C(W)
TL(X)F9	S	6.8	1.2	C
TL(X)12	N	4.3(4.5)	3.6	C(W)



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	S	8.6(9.0)	0.9	C(W)
TL(X)15	N	4.5(4.7)	4.3	C(W)
	S	10.8(11.3)	0.72	C(W)
TL(X)18	N	6.5(6.8)	2.41	C(W)
	S	13.4(14.0)	0.59	C(W)
TL(X)24	N	8.6(9.0)	1.81	C(W)
	S	17.2(18.1)	0.46	C(W)
	P	7.0(7.4)	2.84	C(W)
TL(X)30	N	8.9(9.4)	2.17	C(W)
	S	21.5(22.6)	0.37	C(W)
	O	6.9(7.2)	3.54	C(W)
TL(X)48	I	22.0(23.1)	0.57	C(W)
	N	17.8(18.7)	0.87	C(W)
	Q	8.9(9.4)	3.46	C(W)
	P	11.6(12.0)	22.23	C(W)
TM3(X) (2)	S	1.5	5.32	C
	Z	4.7	0.59	C
TM6(X) (2)	S	3.0	2.66	C
	Z	9.3	0.28	C
	Y	7.2	0.46	C
TM6(X) (3)	Y LV	7.2	0.46	C
TM9(X) (2)	S	4.5	1.78	C
	Z	14	0.19	C
TM12(X) (2)	S	6.0	1.33	C
	N	3.0	5.33	C
TM18(X) (2)	N	4.5	3.56	C
	Y	14	0.38	C
	S	9.3	0.85	C
TM24(X) (2)	N	4.7	4.49	C
	S	9.3	1.13	C
TB(X)F6	S	4.5	3.2	C
TB(X)12	N	4.1	6.3	C
	S	8.2	1.6	C



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TB(X)15	N	4.2	7.6	C
	I	6.7	3.02	C
	S	10.2	1.3	C
TB(X)F18	S	13.5	1.1	C
TB(X)18	N	6.1	4.24	C
	S	12.7	1.02	C
TB(X)24	N	6.6	4.95	C
	S	16.3	0.80	C
TB(X)30	N	8.5	3.8	C
	S	20.4	0.65	C
TBW(X)18	N	6.5	4.24	C(W)
	S	13.4	1.02	C(W)
	I	10.4	1.66	C(W)
TBW(X)30	N	8.9	3.9	C(W)
	S	21.5	0.66	C(W)
	I	14.1	1.52	C(W)
TBW(X)45	N	13.4	2.6	C(W)
	S	32.3	0.44	C(W)
TL(X)D-HF6	N	5.5	2.9	C

Conditions of Acceptability:

1. Motors are Certified as component type motors to be assembled in part of a machine construction, where the suitability of the combination is to be determined by CSA Group or other NRTL.
2. Models marked with: (1) Flex type uses high flexible cable. (2) With lateral or on top/bottom cable exit and (3) Version with alternative cord and 70Vac voltage rating.
3. Motors are provided with thermal sensors to be connected to external LVLE-circuits (30 Vrms / 42.2 Vdc max. and 100 VA max.).
4. The motors without water cooling shall be mounted on a surface (heat sink) which provide thermal conductivity as per manufacturer's specifications.
5. Type TL..., TBW... (water cooled) & QTL... (water cooled) shall have a min. water flow (l/min) at max. temperature (°C) as per manufacturer's specifications.
6. Linear motors with continuous ampacity above 22A shall not be equipped with connectors to the power supply cable/cords. Linear motors with a voltage above 50V shall not be equipped with accepted connector type L717TWxx to the power supply cable/cords.

APPLICABLE REQUIREMENTS

CSA C22.2 No. 100-14 (Upd.1 April 2017)(Seventh Edition) (R2019) - Motors and generators



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ANSI/UL 1004-1 (Second Edition) - UL Standard for Safety Rotating Electrical Machines – General Requirements



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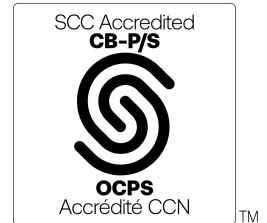
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Notes:

Products certified under Class C421131 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
80189578	December 22, 2023	Update to Report 70000843 to add frameless T-Series version to the requirements of CSA C22.2 No. 100-14, 7th Ed. (R2019) and UL 1004-1, 2nd Ed. (R2020).
80138445	June 02, 2023	Update to Report 70000843 for addition of component type motor series UM, UL, UX.
80070822	March 30, 2022	Update to Report 70000843 for addition of component type Motor series.
80077237	August 31, 2021	Update to Report 70000843 to upgrade the ratings from all linear motors from 400V to 600V under TMPC program (including qualification).
80088221	July 12, 2021	Update to Report 70000843 to upgrade the ratings from linear motors on type TB18 to 1140N and type TB24 to 1520N.
80069710	February 03, 2021	Update to Report 70000843 for the extension of range for models • TB-range with TB15S, TB18N, TB18S, TB24N, TB24S; • TL-range with TL30N, TL30S, TL30O, TL48I, TL48N, TL48Q; • TM-range with TM24N, TM24S, TM24 with Lateral Cable Exit; • Extension for entire range: Lateral Cable Exit; • Addition of high flexible cable Cable and new type of sensor cable.
70163265	February 22, 2018	Update to Report 70000843 to include alternative power supply cord, connectors and update of power table.
70081807	July 22, 2016	Update to Report 70000843 to cover new models TM3Z, TM6Y, TM6Z, TM9S, TM9Z, TM12N, TBW18I and TBW30I.
70032876	July 03, 2015	Update to Report 70000843 to cover model TM18 and alternate supply cables.
70000843	May 30, 2013	Original cCSAus Certification of component type linear servo motors, serie TM, TL, TB and TBW according CAN/CSA C22.2 No. 100-04 and UL 1004-1, 2nd ed., 2012.