

# CERTIFICATION Informs

An Urgent Bulletin from CSA Group

Ref No: I18-050

Industrial Vacuum Cleaners No. 1

Date: April 17, 2018

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Announcing: Publication of CSA List of Technical Requirements (LTR) C-006-2018 for Industrial Vacuum Cleaners and Dust collectors

Class No: 1611 04, CLEANING MACHINES – Industrial Vacuum Cleaners  
1611 84, CLEANING MACHINES – Industrial Vacuum Cleaners - Certified to US Standards

## **Who is affected?**

Manufacturers of industrial vacuum cleaners.

## **What do you do?**

1. This publication provides for new certification services that do not affect your currently certified product designs.
2. Please contact CSA technical staff if you have questions or need information concerning this publication and how it applies to you.
3. If you would like to take advantage of the new certification services, initiate a certification project by contacting our Client Services Centre at 1-866-797-4272. Please supply appropriate supporting documentation\* and we will inform you of the samples required.

\*which includes technical information, company name, address, factory locations and CSA file number or master contract number (if assigned), and any other relevant documentation.

## **Introduction:**

At the request of industry, CSA is announcing a List of Technical Requirements (LTR) for certification of Industrial Vacuum Cleaners and Dust Collectors to Canadian and US requirements.

## **Background and Rationale:**

The existing bi-national standard CSA C22.2 No. 243 / UL 1017- Vacuum Cleaners, Blower Cleaners, and Household Floor Finishing Machines covers appliances rated not more than 250 V for household and commercial use only. There exist currently vacuum cleaners, dust collectors, for industrial use, that operate on nominal system voltage 250 V and above but there are no applicable standards for such machines in both Canada and the U.S.

This List of Technical Requirements (LTR) is to provide guidance for the uniform application of the related requirements in existing standards. It is not intended to establish requirements or supplant requirements that appear in any Canadian or US standards.

For questions specific to your file or products contact your CSA Group technical staff associate.

Go to <http://www.csagroup.org/services/testing-and-certification/product-listing/> and enter your Master Contract # and the class numbers associated with this Informs to view your certified products.

## **For technical questions on this Informs**

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# ATTACHMENT 1



## List of Technical Requirements [LTR]

[Appliances]

### LTR Number

C-006-2018

### Subject – Keywords

Vacuum cleaners, dust collectors intended for industrial use.

### Background & Rationale

The existing bi-national standard CSA C22.2 No. 243 / UL 1017- Vacuum Cleaners, Blower Cleaners, and Household Floor Finishing Machines covers appliances rated not more than 250 V for household and commercial use only.

There exist currently vacuum cleaners, dust collectors, for industrial use, that operate on nominal system voltage 250 V and above but there are no applicable standards for such machines in both Canada and the U.S.

This List of Technical Requirements (LTR) provides guidance for the uniform application of the requirements from related existing standards to evaluate vacuum cleaners and dust collectors that operate on nominal system voltage 600 v or less for industrial use.

This List of Technical Requirements (LTR) does not establish new requirements or supplant requirements to those that appear in any CSA C22.2 or ANSI/UL Standards.

### Technical Issue

This List of Technical Requirements (LTR) addresses Canadian and US certification requirements for evaluating industrial motor-operated vacuum cleaners, dust collectors intended for industrial use with nominal system voltages of 600V and less.

### Technical Requirements

#### 1. Reference Standards:

CSA C22.2 No. 301:16	Industrial electrical machinery
NFPA 79 2015 Edition	Electrical Standard for Industrial Machinery
CSA C22.2 NO. 243:15	Vacuum Cleaners, Blower Cleaners, And Household Floor Finishing Machines
UL 1017, 9th Edition	Vacuum Cleaners, Blower Cleaners, And Household Floor Finishing Machines
CSA C22.2 No. 68-09 (incl. Updates 1, 2 and 3)	Motor-operated appliances (household and commercial)
UL 73 10th Edition	Standard for Motor-Operated Appliances
UL 987 8 <sup>th</sup> Edition	Stationary and Fixed Electric Tools

CAN/CSA-E60335-2-79:09	Household and similar electrical appliances – Safety – Part 2-79: Particular requirements for high pressure cleaners and steam cleaners
UL 60335-2-79	Household and Similar Electrical Appliances – Safety – Part 2-79: Particular Requirements for High Pressure Cleaners and Steam Cleaners
CAN3-C235-83 (R2015)	Preferred Voltage Levels for AC Systems, 0 to 50 000 V
ANSI C84.1-2016	Electric Power Systems and Equipment —Voltage Ratings (60 Hertz)

## 2. Reference Class descriptions:

1611 04 CLEANING MACHINES – Industrial Vacuum Cleaners

1611 84 CLEANING MACHINES – Industrial Vacuum Cleaners Certified to US Standards

## 3. Scope:

This List of Technical Requirements (LTR) applies to Industrial vacuum cleaners and dust collectors that operate on nominal system voltages of 600V and less, except that where machines are driven by universal-type motors, the scope is limited to appliances rated for use on nominal system voltage 240 V or less in accordance with the Rules of CSA C22.1, CSA C22.2 No. 0 and ANSI/NFPA 70 and to be used in non-hazardous locations.

This List of Technical Requirements (LTR) does not cover vacuum cleaners and dust collectors handling hazardous dusts such as asbestos, pathological, chemical, radioactive, or other agents that could produce a risk to health or dusts that can create an explosive atmosphere, such as aluminum, magnesium, coal, etc.

Machines covered by this List of Technical Requirements (LTR) are also suitable for commercial use as far as practical.

*For convenience, the term “machine” is used in lieu of Industrial wet and dry pick up vacuum cleaners and dust collectors in this LTR.*

## 4 Requirements:

### 4.1 General:

The requirements from the Canadian and US equivalent standards listed in the reference standards above are structured into one set of certification requirements for evaluating industrial vacuum cleaners and dust extractors that are covered by the scope of this LTR.

The instruction for structuring the certification requirements is detailed in the below.

### 4.2 Instructions:

4.2.1- Industrial vacuum cleaners and dust collectors shall comply with the requirements in the binational standard CSA C22.2 No. 243/UL1017, with the following modifications:

4.2.2- The requirements for products other than dust extractors and wet/dry vacuum cleaners in the standard CSA C22.2 No. 243/UL1017 are not applicable.

4.2.3- With reference to CSA C22.2 No. 243/UL 1017 clause 3.26, Power switches, the requirements in the standard CSA C22.2 No. 68 clause 5.11 and UL 73 paragraph 26 apply for appliances rated higher than 250V.

4.2.4- With reference to CSA C22.2 No. 243/UL 1017 clause 4.5, Supply connections, the requirements in the standard CSA C22.2 No.301 clause 5 and NFPA 79 chapter 5 apply for appliances rated higher than 250V.

4.2.5- With reference to CSA C22.2 No. 243/ UL 1017 clause 4.15, the requirement for spacing in the standard CSA C22.2 No. 68, Clause 5.15 and UL 73 paragraph 28 apply for appliances rated higher than 250V.

4.2.6- With reference to CSA C22.2 No. 243/ UL 1017 clause 4.16, the applicable requirements for grounding and Bonding in the standards CSA C22.2 No. 301 clause 8 and NFPA 79 chapter 8 apply additionally.

4.2.7- With reference to CSA C22.2 No. 243/ UL 1017 clause 5.1.2, the requirements for test voltage in CSA C22.2 No. 68 clause 6.1.2 or UL 987 para 51.3 apply for appliances rated higher than 250V.

4.2.8- With reference to CSA C22.2 No. 243/ UL 1017 clause 5.3, 5.4, and 5.5, the requirements for leakage current in CSA C22.2 No. 301 clause 19.6 apply in lieu of the requirements of CSA C22.2 No. 243 clause 5.3, 5.4, and 5.5.

4.2.9- With reference to CSA C22.2 No. 243/ UL 1017 clause 5.8, the temperature test shall take into account the requirement in the standard CSA C22.2 No. 301 clause 1.4 and NFPA 79 para. 4.4.3 for operation of the appliance at 40°C ambient.

4.2.10- With reference to CSA C22.2 No. 243/ UL 1017 clause 5.9, Table 10, the extreme operating conditions at utilization points in CAN3-C235-83(R2015) Table 2, and the maximum and minimum utilization voltages in ANSI C84.1-2016, Table 1, voltage range B, apply for voltage above 240V. The requirements for overvoltage surge protection and under-voltage protection in accordance to the standard CSA C22.2 No. 301 clause 7 and NFPA 79 Chapter 7 apply additionally.

4.2.11- With reference to CSA C22.2 No. 243/ UL 1017 clause 5.13, the requirements of the standard CSA E60335-2-79:09 and UL 60335-2-79 1<sup>st</sup> Ed clause 20.104 and 22.106 apply additionally for Certification to US requirements. For Certification to Canadian requirements, clause 22.106 is replaced with the Canadian Deviation (50kg instead of 100kg) in CSA E60335-2-79:09.

4.2.12- With reference to CSA C22.2 No. C22.2 No. 243/UL 1017 clause 5.11, the requirements for Dielectric voltage-withstand test in CSA C22.2 No. 301 clause 19.4 and NFPA 79 para 18.4 apply in lieu of the requirements of CSA C22.2 No. 243 clause 5.11.

4.2.13- Each Industrial vacuum cleaner and dust collector shall be provided a technical documentation as specified in CSA C22.2 No. 301 clause 18 and NFPA 79 chapter 17.

4.2.14- Industrial vacuum cleaners and dust collectors shall comply with all applicable requirements in the standards CSA C22.2 No. 301 and NFPA 79 that are not referenced in 4.2.1 to 4.2.13 above.

<b>Attachments</b>
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This LTR is applicable to the following programs (✓)				
CSA (✓)	NRTL (✓)	CB ( )	Others: ( )	

<b>Impact on Existing Certification</b>
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<b>Experts Consulted</b>	
<b>Distribution of this LTR</b>	

This LTR was issued by Tan Lu on			This LTR replaces previous LTR dated		
yyyy	mm	dd	yyyy	mm	dd
2018	04	17	N/A	N/A	N/A
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