

STANDARD INFORMATION

Standard: UL 60335-2-40 / CSA C22.2 No. 60335-2-40

Standard ID:

Household and Similar Electrical Appliances - Safety - Part 2 - 40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners, and Dehumidifiers [UL 60335-2-40:2022 Ed.4]

Household and Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers [CSA C22.2#60335-2-40:2022 Ed.4]

Previous Standard ID:

Household and Similar Electrical Appliances - Safety - Part 2 - 40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners, and Dehumidifiers [UL 60335-2-40:2019 Ed.3]

Household and Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers [CSA C22.2#60335-2-40:2019 Ed.3]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **June 1, 2025**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

Overview of Changes: Specific details of new/revised requirements are found in table below.

Note: Per UL 60335-2-40 3rd Edition SUN issued March 3, 2023, all products are required to be certified to the 3rd edition of UL/CSA 60335-2-40 prior to the effective date of January 1, 2024.

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

CLAUSE	COMMENT
1DV.2	Added A1, B1, B2L, B3 and A2L, A2 and A3 refrigerants with molar mass not less than 42 kg/kmol as not being covered by the standard. NOTE: Intertek will not certify appliances using B2L or B3 refrigerants.
2	All references are now dated to specific editions. Note: File review required to determine which standards were used and re-evaluate as required based on impact to both component certification and test procedures.
4DV.1	Added additional general requirements
5.2DV	Modification of Clause 5.2 pertaining to testing and testing order
6.2DV	Additional classification in conjunction with testing
6.102DV	Added method of shipping in conjunction with testing.
7.1DV.2	Added marking requirements.
7.1DV.3	Added requirement for refrigerant(s) as designated under ISO 817
7.1DV.4	Added requirement for pre-charged pipe sets
7.1DV.5	Added marking requirements for ITE cooling appliances
7.1DV.6	Added partial unit or auxiliary devices marking requirements
7.1DV.7	Added requirement if an A2 or A3 flammable refrigerant is used
7.1DV.8	Added requirement for symbol of the United Nations GHS or a combination of the United Nations GHS and ISO 7010-W021 symbols
7.1DV.9	Added requirement where alternative refrigerants are marked on the nameplate
7.1DV.10	Added requirement for appliances using flammable refrigerants
7.1DV.11	Added requirement for marking symbol ISO 7000-1701
7.1DV.12	Added requirement for reference made to ISO 7010-W021
7.1DV.13	Added requirement for refrigerant to water heat exchangers intended to heat water not intended for human consumption
7.1DV.14	Added classification "For Installation Only in Locations Not Accessible to the General Public"
7.1DV.15	Added marking requirement for outdoor use
7.1DV.16	Added marking requirement for maximum allowable pressure
7.1DV.17	Added marking for flame symbols of the United Nations GHS and the operator's manual symbol
7.1DV.18	Added marking for ITE cooling applications
7.1DV.19	Added marking for Pressurized control panels
7.1DV.20	Added refrigerant warning symbol requirements



CLAUSE	COMMENT
7.2DV	Added requirement for letter marking size
7.4DV	Added wiring diagram requirements for fixed appliances
7.6DV	Replace symbol ISO 7010-W021 with the UN GHS
7.12.1DV	Added warning when symbol IEC 60417-6412 (2019-03) is used
7.12.9DV.1	Added requirements for instructions (languages) and information for appliances using flammable refrigerants
7.12.9DV.2	Added requirements for documentation
7.101DV	Addition where marking to be located
7.103DV	Added check compliance for more than one factory location
7.104DV	Added that compliance to UL 60335-2-40/CSA C22.2 No. 60335-2-40, or UL 1995/CSA C22.2 No 236
7.105DV	Added marking requirements for appliances using flammable refrigerants
7.106DV	Added marking requirement for indoor and any partial unit
7.107DV	Added label/marketing requirement location
7.108DV	Added height of the symbol
7.111DV	Added warning for appliance employing refrigerating systems with maximum allowable pressure greater than 7 MPa
7.112DV.1	Added caution
7.112DV.2	Added caution for ETRS
7.112DV.3	Added warning for construction per Cl. 13.2DV.1
7.112DV.4	Added warning for construction per Cl. 13.2DV.1
7.112DV.5	Added equipment intended to utilize a transcritical refrigerating system requirements
7.112DV.6	Added pressure vessel within a transcritical refrigerating system requirements
8.1.1DV.2	Added test probe 18 and 19
10.101DV	Added exception for appliances other than cord connected
11.1DV	Added steady state requirements
11.2DV.1	Added requirements for maximum static pressure, minimum static pressure as well as the conditioned airflow
11.2DV.2	Added test requirement for appliances with air filters
11.2.1DV.2	Added the condition that both a) and b) need to be performed
11.2.1DV.3	Added the requirement for appliances with water heat exchangers
11.2.3DV	Added requirements for testing of evaporator unit and condenser unit
11.4DV	Added requirements for single-phase equipment
11.5DV.2	Added operational requirements for appliances with supplementary heaters or provision for supplementary heaters



CLAUSE	COMMENT
11.6DV	Added operational requirements for appliances with supplementary heaters or provision for supplementary heaters
11.8DV	Added allowance for components in protective electronic circuits to operate
Table 3DV	Modification to footnotes from Table 3
13.2DV.1	Added touch current requirements
13.2DV.2	Added for cord-connected CLASS I appliances leakage current requirements
13.3DV	Added for Class I appliances electric strength test requirements as well as appliances not accessible to the general public requirements
15.1DV.2	Added requirement for appliances with an outdoor service receptacle
16.2DV	Added Appliances may exceed the leakage current if Item 2, 3, or 4 of Clause 13.2DV.1 are met
16.3DV.101	Added for class I appliances, the insulation of the appliance test set up description as well as appliances not accessible to the general public requirements
19.1DV.2	Added testing clauses 19.2 to 19.10, 19.101, 19.102, 19.103, and 19.106, as applicable
19.1DV.3	Added additional test conditions
19.7DV	Added test requirements for motors
19.13DV.2	Added modification of Part 1 functional insulation of components
19.14DV	Modified test requirements removing the allowance for only one set of contacts to be tested
19.102DV	Added modification of the operation conditions
19.104DV.1 to 19.104DV.8	Added appliances with supplementary air heaters or provisions for supplementary air heaters testing requirements
19.105DV.2	Identical to but added all non-self-resetting thermal cut-outs
19.106DV	Added requirements for appliances with a heat exchanger for the purpose of heating water, appliances with a heat exchanger. heat pump pool heaters, units with storage tanks and units without storage tanks
21.1DV.102	Added pressure requirement for appliances with refrigerant to water heat exchanger
21.1DV.103	Added mechanical strength test impact energy of 6,8 J
21.2DV	Added requirements for vibration during transport requirements, test requirements, as well as manufacturer evidence requirements
21.101DV.1	Added test requirements for vertical load test
21.101DV.6	Modified from 21.101DV.6 to include compliance to cl. 8, 15, and 29
21.101DV.7	Added requirements for suspended appliances
21.101DV.8	Added appliance load test requirements
22.2DV.2	Added requirements for the controller for a motor-compressor
22.8DV	Added requirement for appliances having walk-in service compartments accessible by doors or hinged panels to have a tool for entry



CLAUSE	COMMENT
22.11DV.1	Added requirements for doors where fuses are behind
22.11DV.2	Added tool requirement for doors and covers as well as added interlocking mechanism compliance
22.46DV	Added of the software requirements as well as added when Annex R evaluation required
22.103DV	Added sensing and switching elements requirements
22.104DV	Added sanitary water system and the standards required as applicable
22.112DV.3	Added the requirement to be designed and tested in accordance with the ASME Unfired Pressure Vessel Code
22.112DV.4	Added requirements for water side components
22.112DV.5	Added requirement for protective means
22.112DV.9	Modified reference clause to cl. 22.112DV.8 and added standards references
22.112DV.10	Added requirement to meet standard requirements for calculation of the discharge capacity of a pressure relief device or fusible plug
22.112DV.11	Added requirements for pressure relief devices and added standards requirements
22.112DV.14	Added standards requirements for when flammable refrigerant is used
22.112DV.18	Added electrical connections requirement
22.112DV.19.1	Added requirement for output signal for leak detection system
22.112DV.19.2	Added requirements for signals on ITE cooling appliances
22.112DV.20	Added requirements for refrigerant-containing components
22.113DV	Added requirement for appliances using flammable refrigerants
22.114DV	Added requirement when flammable refrigerant is used
22.115DV	Added requirements for refrigerating system with flammable refrigerants
22.116DV.1	Added requirements for electrical components with arcing and sparking
22.116DV.1.2	Added requirements for appliances with flammable refrigerants with pressurized enclosures
22.116DV.2	Added explanation for components which are not considered to be ignition sources
22.116DV.3	Added component testing requirements
22.116DV.4	Added for A2L refrigerant components resistive load and inductive load test information
22.116DV.5	Added testing requirements for electrostatic air cleaners and similar devices
22.116DV.6	Added burning velocity determination
22.117.1DV.1	Added max allowable surface temp for non-listed A2L refrigerants
22.117.1DV.2	Added clarification of compliance of refrigerant sensors tested
22.117.2DV	Added requirements for temperatures on surfaces
22.118DV	Added requirements for all joints



CLAUSE	COMMENT
22.119DV.1	Added requirements for pressure limiting devices
22.119DV.2	Added explanation when pressure limiting devices are not required
22.119DV.3	Added maximum allowable pressure
22.119DV.4	Added requirement for stop valve location
22.121DV.1	Added requirements for add on heat pumps, refrigerant sensors not factory installed and refrigerant sensors that have been relocated
22.122DV	Added requirements for refrigerant detection systems signals
22.123DV	Added requirements for location of refrigerant containing components
22.125DV.1	Added conditions to be considered enhanced tightness refrigerating systems
22.126DV	Added limitation of type of lamps or arrays
22.131DV	Added appliances that employ refrigerants in a transcritical refrigerating system
22.131DV.1	Added requirements for pressure release valves used in secondary loop or a cascade system
22.131DV.2	Added high side and low side pressure relief values
22.131DV.3	Added requirements equipment utilizing a transcritical refrigerating system and that may contain a pressure vessel
22.131DV.4	Added provisional exception for need of pressure relief valve
22.132DV.3	Added condition for simultaneous operation of the heat pump and furnace contamination of the sanitary water
22.132DV.5	Added requirements for appliances with heat exchangers
2.132DV.8	Added requirement for spacing or barriers for the prevention of accidental contact with live or moving parts
22.132DV.9	Added requirement for appliances with refrigerant to water heat exchangers
22.133DV	Added requirements for Safety Shut-Off Valves
22.134DV	Added construction requirements for appliances with particle foam material
22.135DV	Added requirement for alternative refrigerants compliance
22.136DV	Added requirement for water and steam containing heat exchangers to withstand water pressure
22.137DV 22.138DV.1	Added requirement for switch or controller with a marked off position
22.138DV.1	Added requirement for receptacle
22.138DV.2	Added provisional requirement for overcurrent protection for appliances with receptacles
22.138DV.3	Added requirement for line side receptacles
22.138DV.4	Added requirement for receptacle compliance for outdoor and indoor use appliances
22.139DV	Added requirements for polymeric material enclosures
22.140DV	Added evaluation requirements for polymeric enclosures



CLAUSE	COMMENT
22.141DV	Added investigation for motor-compressors that are not tested and in compliance to UL 60335-2-34
23.101DV.1	Added requirement for protection of wire from contact with piping
23.101DV.2	Added a requirement of using a fuse or circuit breaker and added compliance determination of short circuit test
23.102DV	Added wiring routing requirements
23.103DV.1	Added requirement that conductors used to be selected from table 23.103DV
23.103DV.2	Added requirements for wire material referenced in Group B of table 23.103DV to be enclosed
23.103DV.3	Added requirements for thermoplastic-insulated hazardous voltage wiring materials that are referenced in Group A
23.103DV.4	Added requirement of no splicing for wires from Group B
24.1DV.1	Added requirement for components to comply to relevant requirements within this standard
24.1DV.1.1	Added requirement for components to be evaluated
24.1DV.1.2	Additional requirements for: capacitors, switches and automatic controls
24.1DV.3	Added requirement for components
24.1DV.4	Added requirements for motor compressors
24.1.4DV.2	Added additional components and their applicable cycle requirements
24.1.4DV.3	Added cycle requirement for interlocks
24.1.4DV.101.1	Added clause for when the manufacturer declares the appliance has the functionality to remotely update safety firmware or software.
24.1.4DV.101.2	Added compliance requirement for Class B firmware or software
24.1.4DV.101.3	Added requirement for remotely actuated control function
24.1.4DV.101.4	Added requirement for user authorization
24.1.10DV	Added requirement for lamps and lamp systems which were not previously tested
24.1.11DV	Added compliance requirement for appliances incorporating electrostatic air cleaners
24.1.12DV	Added compliance requirement for appliances incorporating ultraviolet radiation generating wavelengths less than 250 nm
24.103DV.1	Removed the waiver for equipment intended for use on branch circuits rated less than 30 amps
25.4DV	Modification of wording as well as modification to c) and added requirement for knockouts intended for field wiring connections
25.7DV	Added supply cord length requirements
25.101DV.1	Added rating requirements for room air conditioners as well as a definition and requirements for the cord connected room air conditioners
25.101DV.2	Added information for field-installed conductor arrangement



CLAUSE	COMMENT
25.101DV.3	Added length requirements for leads
27.5DV.2	Added requirements for heat pump pool heaters bonding
29.101DV.1	Added applicability of cl. 101.DVH.29
30.101DV.2	Added requirement for ball pressure test to be performed for particle foam material
30.102DV.1	Added cord-connected appliances compliance requirement with Annex 101.DVI
30.103DV.1	Added an evaluation for material
32.102DV.1	Added UV-C irradiance test for LED arrays, mixed gas lamps, and excimer lamps requirements
Annex ADV	Added Annex ADV which is normative
ADV.2	Added requirement if solid-state components are in unit for dielectric potential
ADV.101.1 to ADV.11	Added pressure tests for leakage and strength
DD.1DV.1	Added requirements for the numerical values to be added to the manuals
DD.3.1DV	Added requirement for information shall be specified in the manual
DD.3.2DV.1	Added requirement for appliances using A2L refrigerants connected via an air duct system to one or more rooms
DD.3.2DV.3	Added requirement that appliances installed in a room with less than Amin or installed in a room with VED less than min
DD.3.2DV.4	Added requirement for a warning for non-fixed appliance
DD.3.2DV.5	Added requirement for instructions
DD.5DV	Added requirement for sealed electrical components to be replaced
DD.6DV	Added requirement for intrinsically safe components to be replaced
DD.9DV	Added requirements for refrigerant charge and for appliances containing flammable refrigerants
DD.13DV	Added that recovered refrigerant to be processed according to local legislation and added requirement for the compressor body
EE.1DV	Added requirements all refrigerating system parts
EE.3DV	Added Strength pressure test
EE.4DV	Added Fatigue test
FF.1DV	Added the requirement that the simulation in the refrigerating system be at the potential leak points
FF.2.1DV	Added test methods
FF.2.4DV	Added room volume requirements for testing
FF.2.5DV	Added normative table
GG.1.1DV.1	Added the releasable charge (mREL)
GG.1.1DV.2	Added appliances with multiple refrigerating systems charge limits standards



CLAUSE	COMMENT
GG.1.2DV.2	Added if appliance is a non-fixed sealed single package unit to use GG.2DV equation
GG.1.3DV.2	Added requirement that a room not have a total area of not less than A_{min} and added that room area be not less than 20 % A_{min}
GG.1.3DV.3	Added replacement of 1,6 m with 1,8 m
GG.1.4DV	Added requirement with regards to openings extending to floor height
GG.2.1DV	Added requirements for refrigerant charge (mc)
GG.2.1.1DV	Added Charge limits for appliance in unventilated areas requirements
GG.2.2.1DV	Added requirements for fan when incorporated in appliance
GG.2.2.2DV	Added Continuous circulation airflow requirements
GG.2.2.3DV	Added requirements for when leak detection system is activated
GG.4DV	Added requirements for when leak detection system is activated
GG.7.1DV.2	Added requirements minimum circulation airflow velocity
GG.7.2.5DV	Added requirement of no refrigerant leak to be detected
GG.7.3DV	Added vibration requirement
GG.8.2.3DV	Added natural ventilation requirements
GG.8.3.1.1DV	Added requirements for mechanical ventilation system
GG.8.3.1.2DV	Added requirements if leak detection system is activated
GG.8.3.3DV	Added requirements for openings of mechanical ventilation
GG.9.1DV.1	Added Charge limits for appliances using A2L refrigerant $m_1 < mc \leq m_3$
GG.9.1DV.2	Added requirements for Charge limits for appliances using A2L refrigerants connected via an air duct system to one or more rooms
GG.9.2DV	Added that an output signal need be provided for reduced airflow
GG.9.3DV	Added requirement for if a leak detection system is activated
GG.10DV	Added requirements for allowable charge for enhanced tightness refrigerating systems using A2L refrigerant
GG.10.2DV	Added required measures for allowable refrigerant charge
GG.10.3DV	Added requirements for maximum refrigerant charge m_{max}
GG.10.4.1DV	Added Requirement for units with incorporated circulation airflow to prevent stagnation
GG.10.4.2DV	Added requirements for continuous circulation airflow
GG.10.4.3DV	Added requirements for circulation airflow activated by a leak detection system
GG.11.1DV	Added requirements for ventilation for enhanced tightness refrigerating systems using A2L refrigerants
GG.11.2DV	Added requirements for if natural ventilation is applied
GG.11.3.1DV	Added requirements for operation of mechanical ventilation
GG.11.3.3DV	Added requirements for mechanical ventilation openings



CLAUSE	COMMENT
GG.12.1DV	Added requirements for safety shut-off valves for enhanced tightness refrigerating systems using A2L refrigerants
GG.12.3.1DV	Added determination of releasable charge
GG.12.3.2DV	Added test setup for determination of releasable charge
GG.12.3.3DV	Added test method for determination of releasable charge
GG.12.4.1DV	Added releasable charge calculation
GG.12.4.2DV	Added refrigerant amount released between the leak detection system and closing the safety shut-off valves
GG.12.4.3.1DV	Added determination of the releasable charge after closing the shut-off valves
GG.12.4.3.2DV	Added determination of the apparent volumetric density
GG.12.4.3.3DV	Added determination of the apparent volumetric density by default values
GG.12.4.3.4DV	Added determination of the apparent volumetric density by measurement the recovered refrigerant
GG.12.5.1DV	Added time before a leak detection
GG.12.5.2DV	Added determination of leak detection by default time
GG.12.5.3DV	Added determination of leak detection based on effective room concentration
GG.12.6DV	Added test conditions for releasable charge limited system
GG.12.7.1DV	Added alternate method for determination of releasable charge
GG.12.7.2DV	Added the releasable charge in the heating mode
GG.12.7.3DV	Added the releasable charge in the cooling mode
GG.12.7.4DV	Added the releasable charge in off/standby mode
HH.2.7DV.1	Added the requirements for when brazing is required under repairs
HH.2.7DV.2	Added the requirements for disposal when flammable refrigerants are used
JJ.1DV	Added but is identical to IEC JJ.1
JJ.2DV	Added but is identical to IEC JJ.2
JJ.3DV	Added but is identical to IEC JJ.3
KK.1DV	Added note referencing ASTM D8211
KK.3DV	Similar to IEC K.3 but modified step 6) by replacing 800 °C with 1000 °C.
LL.1.1DV to LL.1.4DV	Added requirements for refrigerant detection systems for flammable refrigerants
LL.2.1DV to LL.2.4DV	Added test gases and default test conditions requirements
LL.3.1DV to LL.3.3DV	Added response time of the refrigerant detection system requirements
LL.4.1DV to LL.4.3DV	Added refrigerant detection system calibration and short-term stability requirements



CLAUSE	COMMENT
LL.5.1DV to LL.5.9DV	Added selectivity test and poisoning test requirements
LL.6.1DV	Added refrigerant poisoning and oil spray test requirements
LL.6.2DV	Added test set-up requirements
LL.6.3DV	Added test procedure requirements
LL.6.4DV	Added compliance requirements
LL.7.1DV to LL.7.2DV	Added long-term stability requirements
LL.8DV	Added humidity test requirements
LL.9DV	Added temperature test requirements
LL.10DV	Added pressure test requirements
LL.11.1DV to LL.11.3DV	Added vibration test requirements
LL.12DV	Added electromagnetic compatibility test requirements
LL.13DV	Added ignition test requirements
LL.14DV to LL.14.2DV	Added Refrigerant detection system self-test routine requirements
LL.15DV	Added serviceability requirements
LL.16DV	Added refrigerant sensor identification requirements
MM.1DV	Added refrigerant sensor location confirmation test requirements
MM.2.1DV to MM.2.2DV	Added test method requirements
MM.2.3DV	Added test room requirements
MM.2.4DV	Added Testing instrumentation requirements
MM.2.5DV	Added compliance criteria
NN.2.1DV	Added Note
Annex 101.DVA	Added additional operating conditions
101.DVB.1	Added the requirement of minimum test conditions as specified in Annex 101.DVA multiplied by 0,95
101.DVB.2.1	Added requirements if an outdoor section may supply power directly to one or more indoor sections
101.DVB.5	Added determination of short-circuit current ratings
101.DVB.5.2	Added methods
101.DVB.5.3	Added ratings requirements
101.DVB.5.4	Added determination of the overall short-circuit current rating of an equipment control panel, overall equipment panel or industrial control panel requirements



CLAUSE	COMMENT
101.DVB.6	Added Knockout and conduit dimensions
101.DVF.1.1	Added additional marking requirements
101.DVH.1.1 to 101.DVH.13.3.3	Added requirements for appliances not accessible to the general public
101.DVH.24.1 to 101.DVH.24.2	Added components requirements
101.DVH.29.1	Added creepage and clearance requirements
101.DVI.1.1 to 101.DVI.1.3	Added resistance to heat and fire requirements
101.DVI.2.1 to 101.DVI.2.4	Added flammability classifications
101.DVI.3.1 to 101.DVI.3.9	Added Nichrome wire test requirements
101.DVJ.1.1 to 101.DVJ.1.3	Added non-integral UV-C germicidal lamp systems requirements
101.DVJ.2.1 to 101.DVJ.2.5	Added additional markings requirements
101.DVJ.3.1 to 101.DVJ.3.11	Added Construction requirements
101.DVJ.4.1	Added instruction requirements
101.DVK.1.1	Added requirements for photovoltaic systems (PVs)
101.DVK.2 to 101.DVK.2.10	Added marking and Instruction requirements
101.DVK.3.1 to 101.DVK.3.6	Added construction requirements
101.DVK.4.1 to 101.DVK.4.7	Added internal wiring requirements
101.DVK.5.1 to 101.DVK.5.5	Added component requirements
101.DVK.6.1 to 101.DVK.6.4	Added provisions for earthing requirements
101.DVK.7.1	Added photovoltaic rapid shutdown protection
101.DVK.8.1	Added photovoltaic arc fault protection requirements
101.DVL.1	Added audibility test requirement
101.DVL.1.2	Added sound output measurement requirement
101.DVL.1.2.1 to 101.DVL.1.2.3	Added alarm mounting requirements
101.DVL.1.3	Added alarm duration test requirements



CLAUSE	COMMENT
101.DVL.1.4	Added supplementary remote sounding appliances requirements
101.DVL.1.5	Added refrigerant detection system audible alarm markings and instructions
101.DVL.1.6	Added instruction requirements
101.DVN.1	Added requirements only apply to refrigerant bearing appliances and their constituent parts and assemblies
101.DVN.2	Added application requirements
101.DVN.3.1	Added additional construction requirements of ITE cooling appliances requirements
101.DVN.3.2.1	Added circulating air fans requirements
101.DVN.3.2.2	Added ITE cooling appliances construction requirements
101.DVN.3.3 to 101.DVN.3.4	Added requirements for ITE cooling appliances employing secondary heat exchangers
101.DVN.3.5.1 to 101.DVN.3.5.6	Added requirements for ITE cooling appliances and partial units for indoor applications
101.DVN.4	Added allowable charge for ITE cooling appliances
101.DVN.5	Added Indoor circulation airflow requirements
101.DVN.6	Added continuous circulation airflow requirements
101.DVN.7	Added circulation airflow initiated by a leak detection system or refrigerant detection system requirement
101.DVN.7.1	Added requirements for ITE cooling appliances
101.DVN.7.2	Added refrigerant detections systems and group controllers requirements
101.DVN.8	Added Determination of allowable system charge for ITE cooling appliances
101.DVN.8.1.3	Added requirements for deductions from the overall space volume
101.DVN.8.2	Added how to calculate allowable system charge for an effective dispersal volume
101.DVN.9	Added requirements for safety shut-off valves
101.DVN.10	Added determination of the releasable charge for ITE cooling appliances
101.DVN.11	Added external ventilation requirements for ITE area and ITE rooms
101.DVP.1.1	Added leak detection system confirmation test for flammable refrigerants
101.DVP.2.1 to 101.DVP.2.7	Added test method for leak detection excluding detection systems based on system parameters
101.DVP.3.1 to 101.DVP.3.4	Added test method for leak detection systems based on system parameters
101.DVQ.1	Added test method for determining releasable charge
101.DVQ.2	Added test set-up
101.DVQ.3	Added Test method