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REPORT: 80153518

PROJECT: 80153518

EDITION

Edition	Issued On	Project	Location	Prepared By	Authorized By
Edition 1	August 31, 2023	80153518	Taiwan Taipei City	Vance Shih	Vance Shih

CONTENTS

Certificate of Compliance + Supplement - Page 1 to 4
Description and Tests - Page 1 to 14

Att1 Figure - Page 1 to 6
Att2 Illustration - Page 1 to 11
Att3 Schematic - Page 1
Att4 CBTC and CBTR - Page 1 to 94
Att5 DD160 Manual - Page 1 to 26
Att6 DMC160 Manual - Page 1 to 29
Att7 SCF report - Page 1 to 25

PRODUCTS

C388151 TOOLS - Portable
C388181 TOOLS - Portable - Certified to US Standards

Diamond Core Drill

Models	Input Voltage (VAC)	Frequency (Hz)	Input Power (W)	No Load Speed (n0)	Capacity
DD160, D6, DD6, DC6, D160, HD6, D62, HD62	110-120	50-60	1700	1250/2500 min-1	Dry (Reinforced Concrete): Φ 162mm, Dry (Brick): Φ 262mm

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DMC160, DMC6, DC160, HD160, HDC160, DC62, HCD62, CB215, PROCD182	110-120	50-60	1700	1000/1600/4450 min-1	Wet: Φ 162mm, Dry: Φ 202mm
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APPLICABLE REQUIREMENTS

Standards Used	Description
CAN/CSA-C22.2 NO. 62841-2-1:18	Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery — Safety — Part 2-1: Particular requirements for hand-held drills and impact drills - First Edition
UL 62841-1 (First Ed.)	Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 1: General Requirements - First Edition; Reprint with Revisions Through and Including August 21, 2020
UL 62841-2-1 (First Edition)	Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 2-1: Particular Requirements For Hand-Held Drills and Impact Drills
CAN/CSA C22.2 No. 62841-1-15 +Upd.1:2016 +Upd.2:2018 +Upd.3:2019 +Upd.4:2020 (First Edition)(R2020)	Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery — Safety — Part 1: General requirements - First Edition; Update No. 1: February 2016; Update No. 2: April 2018; Update No. 3: January 2019; Update No. 4: August 2020

MARKINGS

The manufacturer is required to apply the following markings:




- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The following markings shall appear on each unit:

- Submitter’s identification; and/or master contract number "215310"
- rated voltage(s) or rated voltage range, in volts.
- symbol for nature of supply, unless the rated frequency(ies) or rated frequency range is marked.
- rated input, in watts or rated current, in amperes.

- The double insulation symbol .
-  WARNING – To reduce the risk of injury, user must read instruction manual or .
- The business name and address of the manufacturer and, where applicable, his authorized representative. Any address shall be sufficient to ensure contact. Country or state, city and postal code (if any) are deemed sufficient for this purpose
- Model designation
- Model type
- The year of manufacture and a date code identifying at least the month of manufacture
- > 25 kg (if the weight over 25 kg)
- French:
 - «MISE EN GARDE – Pour réduire le risque de blessures, l'utilisateur doit lire le manuel d'instructions»
 - ou se référer au symbole M002 de l'ISO 7010.

Diamond core drill shall be marked with:

- rated no-load speed of the output spindle.

Nameplate adhesive label material approval information:

1. Yong Mei Printing Company, Limited (INT) CSA Certified. File no. 87277, UL Certified. File no. MH17252.

Model	Application Surface	Max Temp (°C)
YM-50	Metal and plastic groups III and VI	80
YM-S	Metal and plastic groups III and VI	80

INSTRUCTIONS

An instruction manual and safety instructions shall be provided with the tool and packaged in such a way that is noticed by the user when the tool is removed from the packaging. An explanation of the symbols required by this standard and used on the tool shall be provided in either the instruction manual or the safety instructions.

They shall be written in the official language(s) of the country in which the tool is sold.

They shall be legible and contrast with the background.

They shall include the business name and address of the manufacturer and, where applicable, his authorized representative. Any address shall be sufficient to ensure contact. Country or state, city and postal code (if any) are deemed sufficient for this purpose.

The “General Power Tool Safety Warnings” and the specific tool safety warnings, if in English, shall be verbatim and in any other official language to be equivalent.

The term verbatim means word-for-word but permits the differences in spelling between English-speaking countries.

All notes in the safety instructions are not to be printed, they are information for the designer of the manual.

101) Drill safety warnings

a) Use the auxiliary handle(s). Loss of control can cause personal injury.

b) Brace the tool properly before use. This tool produces a high output torque and without properly bracing the tool during operation, loss of control may occur resulting in personal injury.

c) Wear hearing protection when diamond drilling. Exposure to noise can cause hearing loss.

d) Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

8.14.2 a) Addition:

101) For diamond core drills: maximum diamond core bit diameter;

102) For tools with a maximum output torque greater than 100 Nm measured in accordance with 19.102: instructions on how to brace the tool;

103) For applications which produce a considerable amount of dust, such as impact and diamond core drilling: instruction on how to collect the dust.

ALTERATIONS

1. Marking as above

FACTORY TESTS

Correct operation test

The safe operation shall be checked, for example, by electrical measurements, by verifying the functional devices, such as switches and manually-operated controls, and by verifying the direction of rotation of motors.

Dielectric Voltage Withstand Test

The insulation of the tools shall be checked by the following test.

A voltage of substantially sine-wave form, having a frequency of 50 Hz or 60 Hz and minimum the value shown in Table F.1, is immediately applied, for 3 s, or for 1 s with the voltage increased by 20 %, between live parts and:

- a) Accessible metal parts which may become live in the event of an insulation fault or as a result of incorrect assembly;
- b) Inaccessible metal parts.

The tests of item a) are made on the assembled tool; the test of item b) is made on the tool, either completely assembled, or in the production line.

The tests of item a) are made on all tools, the tests of item b) being only made on CLASS II TOOLS.

The high-voltage source shall be capable of maintaining the specified voltage up to a current of at least 10 mA.

The overcurrent relay shall trip when the output current exceeds 5 mA.

Care shall be taken that the r.m.s. value of the test voltage applied is measured within ± 3 % and that the voltage measuring device or other indicator responds to the output voltage of the high-voltage source. Attention is drawn to the fact that the test described cannot always be used if the tool incorporates d.c. components; in such cases, tests with d.c. may be necessary.

No flashover or breakdown current exceeding 5 mA shall occur during the tests

Table F.1 – Test voltages for the electric strength test

Application of test voltage	Minimum test voltage V	
	Class II tools	Class I tools
OVER BASIC INSULATION	1 000	1 000
OVER DOUBLE INSULATION OF REINFORCED INSULATION	2 500	–

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

- Component descriptions marked with either the "(INT)" or "(INT*)" identifiers may be substituted with other components providing the requirements specified under the notes in the "Description" are complied with.

COMPONENT SPECIAL PICKUP

- Component descriptions marked with the identifier "(CT)" are subject to annual pickup and Conformity Testing.

DESCRIPTION

Notes:

- Component Substitution
 - Critical components (those identified by mfr name, cat no), which are NOT identified with either "INT" or "INT*" are not eligible for substitution without evaluation and report updating
 - The term "INT" means a "Certified" and/or "Listed" (or a "Recognized" and/or "Accepted") component may be replaced by one "Certified" and/or "Listed" by another certification organization accredited by the appropriate accreditation body or scheme requirements to the correct standard, for the same application; providing the applicable country identifiers are included and requirements in item "d" below are complied with.
 - The Term "(INT*)" means a "Recognized" and/or "Accepted" component may be replaced by a component that is CSA Certified. The applicable country identifiers shall be included, the requirements in item "d" below as well as any "conditions of suitability" for the component (as recorded in this descriptive report) shall be complied with;
 - Components which have been substituted, must be of an equivalent rating, configuration (size, orientation, mounting) and the applicable minimum creepage and clearance distances are to be maintained from live parts to bonded metal parts and secondary parts.
 - Substitution of a "Certified" and/or "Listed" component with a component that is "Recognized" or "Accepted" is not permitted without evaluation and report updating.
 - Substitution of a "Recognized" and/or "Accepted" component by one that is not CSA Certified is not permitted without a proper evaluation as well as a report update because the Conditions of Acceptance of the original component may be different than the Conditions of Acceptance of the substitute component.

The subject models are double-insulated diamond core drill Model DD160 and DCM160 equipped with an integrated GFCI and water feed system and to be used with a diamond cut-off wheel for diamond cutting. They

are intended to cut materials such as concrete, masonry, and tile. The shaft and commutator are double-insulated construction. They are similar in construction except for model designation and core bit size, no load speed, and model DD 160 without integrated GFCI and water feed system.

MODEL DIFFERENCES BY ITEM NO

Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
DD160, D6, DD6, DC6, D160, HD6, D62, HD62	X	X	A	A	X	--	X	--	X	X	X	X	X	X	X	X	X
DMC160, DMC6, DC160, HD160, HDC160, DC62, HCD62, CB215, PROCD182	X	X	B	B	X	X	X	X	X	X	X	X	X	X	X	X	X

No	UL CCN.	Component Description	Manufacturer	Material Cat. No.	Rating, Comment, Dimensions	Appr Agency
1	QMFZ2	Motor Enclosure	REI-SHING PLASTIC CO., LTD (E212523)	FR1700G	Dimension See Drawing 1. 2.5 mm thick. Rated V-2 at 1.6 mm, all color, 65 °C. One-piece construction.	UL
2	QMFZ2	Handle	REI-SHING PLASTIC CO., LTD (E212523)	FR1700G	Dimension See Drawing 2. 3 mm thick. Rated V-2 at 1.6 mm, all color, 65 °C. Two-piece construction, secured together with screws. Provided five ventilation openings at each side, each measuring 45 mm long by 4.3 mm wide.	UL
3A	QMFZ2	Baffle for DD160	Nan Ya (E130155)	Polyamide 6 2210G6	OD 86mm, ID 51mm, 15.1 mm high. 1.5mm thickness. Secured to the motor housing and gearbox.	UL
3B	QMFZ2	Baffle for DMC160	Nan Ya (E130155)	Polyamide 6 2210G6	OD 86mm, ID 51mm, 15.1 mm high. 1.5mm thickness. Secured to the motor housing and gearbox.	UL
4A	-	Gear Box for DD160	-	Aluminum Alloy	Dimension See Drawing 3. Combination with Gear housing and Gear Cover Drawing 4, secured together with screws and spring washers. Min. 3 mm thickness. Provide a switch knob to change the speed (2 speeds).	-

No	UL CCN.	Component Description	Manufacturer	Material Cat. No.	Rating, Comment, Dimensions	Appr Agency
4B	-	Gear box for DMC160	-	Aluminum Alloy	Dimension See Drawing 5. Combination with Gear housing and Gear Cover Drawing 6, secured together with screws and spring washers. Min. 3 mm thickness. Provide a switch knob to change the speed (3 speeds).	-
5	-	Side handle	-	-	Combination with a plastic handle, one metal ring is secure to the gearbox. Not a part of the enclosure.	-
6	-	Water Feed System	-	-	Integral with the tool. Consists of a hose, hose sheath, tube guides, water nozzles, water feed valve set, and water feed adapter head.	-
7	ELBZ2	Power Supply Cord (INT)	TA AN (E300888)	Type SJTW	300Vac, 14/2 AWG, min. 105°C. 1.8m long min. Provided with NEMA 1-15P plug, polarized. Line/Neutral connects with the switch by a screw. Type Y attachment.	UL CUL
8	-	Ground Fault Circuit Interrupter (GFCI)	Zhongshan Kaper Electrical Co. Ltd (Control No. 5016826)	GF01-I3-12	120Vac, 15A.1800W. Integral with power cord, manual reset, inline type.	cETLus
9	-	Cord Guard Bushing	-	Rubber	Overall 72mm long with a 23mm OD by 5.4mm thick lip at one end, 15mm OD by 3mm thick lip at the other end. Projected outside the tool beyond the inlet opening of 60mm (at least 5 times the overall diameter of the power supply cord). Fitted over Power Supply Cord and trap-fitted in Handle.	-
10	QMFZ2	Strain Relief	Same as Handle	Same as Handle	Overall 21mm by 9.2mm by 4.1mm. Secured to integral U-shaped boss on Handle with two screws.	UL
11	WOYR2/8	Tool Switch	Taiwan Lord (E219444)	HSW0120	Rated 22A, 125Vac. Momentary contact type with lock-on button. DPST. Screw type Terminal. Disconnects both conductors of the power supply cord. Secured to the enclosure by mechanicals.	CUL UL

No	UL CCN.	Component Description	Manufacturer	Material Cat. No.	Rating, Comment, Dimensions	Appr Agency
12	-	Brushes	-	Carbon	Two provided. 17 mm long by 7mm wide by 19mm height. Spring loaded. Connected with two copper alloy blade terminals for electrical connection. Provided with limited length shunt wire which is shorter than brush holder sleeve to limit brush travel at end of brush life for brush spring retention feature.	-
13	-	Brush Holder Sleeves	-	Copper Alloy	Dimension see drawing 7. Secured to the motor enclosure with screws.	-
14	AVLV2	Motor leads (INT)	Yi Huan (E250011)	AWM/3321	16AWG. Rated 600V, 150°C. One end soldered to the Printed Wiring Board; the other terminated in a recognized Crimp-type connector to the motor or bare wire type terminal to switch.	CUL UL
15	-	Stator	-	Laminated Steel	Dimension see drawing 8. Class 120 insulation.	-
I	OBMW2	Stator Winding	PACIFIC ELECTRIC (E84081)	Polyester-imide Copper Wire, PEWH	180°C. 0.9mm diameter, 45 turns by two. Formed and held with metal strap with polyester film coated electrical paper insulation to space min. 2.5mm from laminations. Varnish impregnated, (INT) 'ELANTAS', E171184, min. 180°C.	UL
II	QMFZ2	Stator Slot Liner	PUCARO (E163779)	Triflexil M, Triflexil M/VL, Triflexil M/VL-UE, Triflexil NMN/50, Triflexil NMN/80	155°C, 0.25 mm thickness. Extends min. 1.5mm beyond stator laminations.	UL
III	AVLV2/8	Stator Leads (INT)	Yi Huan (E250011)	3321/AWM	16AWG, 600V, 150°C. One end is mechanically secured and welded to the coil end, and sleeved with a certified silicone-coated fiberglass tube; the other end is connected to the tool switch terminal and for connection to the carbon brush terminal.	UL CUL
16	-	Armature	-	Laminated Steel	Dimension See Drawing 9. 14 slots. Class 120 insulation.	-

No	UL CCN.	Component Description	Manufacturer	Material Cat. No.	Rating, Comment, Dimensions	Appr Agency
I	OBMW2	Rotor Winding	PACIFIC ELECTRIC (E84081)	Polyester-imide Copper Wire, PEWH (MW 30-C)	180°C. 0.8mm diameter, 6 turn. Formed and held with metal strap with polyester film coated electrical paper insulation to space min. 2.5mm from laminations. Varnish impregnated (INT), 'ELANTAS', E171184, min. 180°C.	UL
II	-	Shaft	-	Steel	Double insulated. Ø13, 216 mm long	-
III	QMFZ2	Shaft Insulation	BMC China (E253513)	Unsaturated Polyester BMC FTI901	130°C. Extends through center of armature laminations, windings, and commutator. Min 1mm thick under laminations and commutator as supplementary insulation. Min 2 mm thick under windings as reinforced insulation. Extends minimum 2.5mm beyond commutator support and 5mm beyond windings at fan end. The bearing is spaced 8mm from the commutator bars.	UL
IV	OBJS2	Armature Slot Liner	PUCARO (E163779)	Triflexil M, Triflexil M/VL, Triflexil M/VL-UE, Triflexil NMN/50, Triflexil NMN/80	155°C, 0.23mm thick. Extends min 1.5mm beyond lamination.	UL
V	QMFZ2	Armature Slot Wedge	-	Vulcanized Fibre	1.0 mm thick. Extends min. 1.5mm beyond lamination.	UL
VI	QMTS2	Armature End Spider	-	Vulcanized Fibre	Minimum 2 mm thick at spider.	UL
VII	-	Commutator	-	-	Dimension See Drawing 10. 28 integrally moulded copper alloy commutator bars.	-
VIII	-	Commutator Insulation	-	Phenolic	1.0 mm thick min. Basic insulation.	-
IX	-	Impeller	-	Plastic	Dimension See Drawing 11. Radial type.	-

No	UL CCN.	Component Description	Manufacturer	Material Cat. No.	Rating, Comment, Dimensions	Appr Agency
17	ZPMV2	Control board	-	Phenolic	Rated V-0, potting. Only when the switch is pressed on, it starts to operate and when the switch is released during normal operation it stops immediately. If the rotor of the motor is locked or the terminals of the motor are shorted, it stops operating immediately. The following major components. See Att7 for SCF report.	UL
I	-	Choke (T1)	AIN HSIN	13006	0.5mm, UEW type, mm, 13 turns.	-
II	-	TRIAC (TR1)	ST	BTA41-600B	26A, 600V.	-
III	-	IC (IC1)	MICROCHIP	PIC12F675	2V, 8.5uA @ 32kHz, 2V, 100uA @ 1M Hz	-

TEST HISTORY

Project 80153518 (Ed. 1)

Original NRTL certification for Diamond core drill, Model: DMC160 series and DD160 series

Only the following test were considered necessary.

The following tests were conducted based on standards (CAN/CSA C22.2 No. 62841-1-15 +Upd.1:2016 +Upd.2:2018 +Upd.3:2019 +Upd.4:2020 (First Edition)(R2020))

W= Waived; P= Passed

Tests Location

Taiwan Taipei City, 5F, No. 12, Wenhua Street, Neihu District, Taipei City 114, Taiwan

Clause Number	Requirement	Comments	Verdict
14	Moisture resistance		
14	b) RCD operated correctly for all 50 cycles		P
14.5	Residual current devices complied with IEC 61540:1999 and met requirements a) to c)		P
18	Abnormal operation		
18.6.1	Fault conditions a) to f) conducted as applicable		P
23	Components		
23.1.10.3	Power switches of motor-operated tools and lawn and garden machinery have adequate breaking capacity		P

The following tests were conducted based on standards (CAN/CSA-C22.2 NO. 62841-2-1:18)

W= Waived; P= Passed

Clause Number	Requirement	Comments	Verdict
14	Moisture resistance		
14.5	Residual current devices complied with IEC 61540:1999 and met requirements a) to c)	See part 1	W
	b) RCD operated correctly for all 50 cycles	See part 1	W
18	Abnormal operation		
18.6.1	Fault conditions a) to f) conducted as applicable (See Table 18.6.1)	See part 1	W
23	Components		
23.1.10.3	Power switches of motor-operated tools and lawn and garden machinery have adequate breaking capacity	See part 1	W

The following tests were conducted based on standards (UL 62841-1 (First Ed.))

W= Waived; P= Passed

Tests Location

Taiwan Taipei City, 5F, No. 12, Wenhua Street, Neihu District, Taipei City 114, Taiwan

Clause Number	Requirement	Comments	Verdict
14	moisture resistance		
14	b) RCD operated correctly for all 50 cycles		P
14.5	Residual current devices complied with IEC 61540:1999 and met requirements a) to c)		P
18	abnormal operation		
18.6.1	Fault conditions a) to f) conducted as applicable		P
23	components		
23.1.10.3	Power switches of motor-operated tools and lawn and garden machinery have adequate breaking capacity		P

The following tests were conducted based on standards (UL 62841-2-1 (First Edition))

W= Waived; P= Passed

Clause Number	Requirement	Comments	Verdict
14	moisture resistance		
14.5	Residual current devices complied with IEC 61540:1999 and met requirements a) to c)	See part 1	W
	b) RCD operated correctly for all 50 cycles	See part 1	W
18	abnormal operation		
18.6.1	Fault conditions a) to f) conducted as applicable	See part 1	W

Clause Number	Requirement	Comments	Verdict
23	components		
23.1.10.3	Power switches of motor-operated tools and lawn and garden machinery have adequate breaking capacity	See part 1	W

All tests to comply with CAN/CSA-C22.2 NO. 62841-2-1:18; UL 62841-1 (First Ed.); UL 62841-2-1 (First Edition); CAN/CSA C22.2 No. 62841-1-15 +Upd.1:2016 +Upd.2:2018 +Upd.3:2019 +Upd.4:2020 (First Edition) (R2020).

The majority of tests were leveraged from CB test certificate number NL-78554 in conjunction with IEC test report no. 6108071.50(A-C) issued by CB report at CBTL DEKRA Testing and Certification (Shanghai) Ltd. Refer to Att1 CBTC and CBTR 110-120V.

Test listed in IEC 62841-1:

Cl.	Section	Test item:	Result	Remark
Enter in the "Result" column: "P", "W", or "F" or "N/A". "P" - Pass "W" - Test Waived "F" - Fail "N/A" - Not Applicable				
8	Marking	Label Adhesion - Cl. 8.12	P	
9	Protection Against access to live parts	Protective impedance measurement Cl. 9.2	N/A	No Protective impedance
10	Starting	Motor start under normal voltage - Cl.10.1	P	
		Starting current - Cl.10.2	P	
11	Input and Current		P	
12	Heating	Temperature Rise Leakage Current (Annex C) after Heating - Cl. 12.1~5	P	
		Windings exceeds temperatures specified in Table 1 - Cl. 12.6	N/A	Not exceeding.
13	Resistance to Heat, Fire, and Tracking	Ball Pressure - Cl. 13.1	P	
		Resistant to Flame - Cl. 13.2	P	
14	Moisture Resistance	Humid conditions -Cl.14.1	P	
		Liquid systems or spillage - Cl. 14.3	N/A	See Cl. 14.4
		Liquid system pressure - Cl.14.4	P	
		Residual current devices- Cl.14.5	P	
15	Resistance of rusting		N/A	No such part
16	Transformer overload protection		N/A	No transformer.
17	Endurance	Endurance- Cl. 17.2	P	See part 2 test condition
		Centrifugal/Automatic Switches- Cl. 17.3	N/A	No Centrifugal/Automatic Switches.
18	Abnormal Operation	Motor Overvoltage - Cl. 18.3	P	

		3 phase motor with one phase disconnected- Cl.18.4	N/A	Not a 3-phase motor.
		Class II tool/ construction overload - Cl. 18.5	P	
		PCB single fault Cl.18.6.1	P	
		Reversing Switches - Cl. 18.7	N/A	No Reversing Switches
		Functional safety - Cl.18.8	P	See the evaluation report accepted by CB and Att7.
19	Mechanical Hazards	No load speed. - Cl.19.6	P	
		Stability - Cl.19.7	N/A	Not transportable tool
		Stability during transportation - Cl.19.8	N/A	Not transportable tool
20	Mechanical Strength	Spring-operated impact - Cl. 20.2	P	
		1 meter Drop - Cl. 20.3.1	P	
		Impact test - Cl. 20.3.2	N/A	Not transportable tool
		Tightening Torque - Cl. 20.4	N/A	No brush cap
		Grasping surface and output shaft insulation - Cl. 20.5	P	
21	Construction	Supplementary insulation and reinforced insulation -Cl.21.12	P	
		Lock-off system – Cl.21.17.1	N/A	No Lock-off system.
		Capacitor Discharge - Cl. 21.21	P	
		Detachable parts - Cl. 21.22	N/A	No such function
		Non- class III, insulation fault- Cl. 21.29	P	
22	Internal Wiring	Flexing - Cl. 22.6	N/A	No such function
23	Component	Capacitor Overvoltage Cl. 23.1.9	N/A	No such function
		Switch endurance Cl. 23.1.10.2	N/A	Certified switch
		Switch Overloading Cl. 23.1.10.3	P	
24	Supply Connections and External Flexible Cables and Cords	Cord Flexing - Cl. 24.11	P	
		Excessive Cord Bending - Cl. 24.12	P	
		Cord anchorage - Cl. 24.13	P	
25	Terminals and External Conductors	Connection pull Cl. 25.2	P	
		Terminal fixation test (X type) Cl. 25.3	N/A	Y type
		Escaped wire of stranded conductor test(X type) Cl. 25.7	N/A	Y type
26	Earthing Connections	Earthing resistance - Cl. 26.5	N/A	Class II tool
27	Screw and Connections	Screw torque test – Cl.27.1	P	
		Screwless connection test Cl.27.5	N/A	No such connection

H	Determination of a low-power circuit		N/A	No such function.
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Test listed in IEC 62841-2-1:

Cl.	Section	Test item:	Result	Remark
Enter in the "Result" column: "P", "W", or "F" or "N/A". "P" - Pass "W" - Test Waived "F" - Fail "N/A" - Not Applicable				
12	Heating	Torque applied to the spindle is 80 % of the torque necessary to attain rated input or rated current. Cl.12.2.1	P	
17	Endurance	Endurance Cl.17.2	P	
18	Abnormal operation	SCF Cl.18.8	N/A	Refer to part 1
19	Mechanical Hazards	Chuck key Cl.19.101	N/A	No chuck key
		Handles Cl.19.102	P	
		Vacuum devices Cl.10.103	N/A	No such function
21	Construction	Manual feeding insulation test Cl.21.30	P	

Only limited tests above were considered necessary for US and Canada marketing.

Construction review performed with satisfactory results.

---End Of Report---