

## QQHM8.E143128

### Power Supplies, Medical and Dental Certified for Canada - Component

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See General Information for Power Supplies, Medical and Dental Certified for Canada - Component

**FRIWO GERAETEBAU GMBH**

E143128

VON-LIEBIG-STR 11

48346 OSTBEVERN, GERMANY

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FW7555M/XX (a)(b)	120	50-60	0	5-24	2.4-0.625	15	4	2601-1	—	0	0
FW7555MP/XX (a)(b)	120	50-60	0	5-24	2.4-0.625	15	4	2601-1	—	0	0
FW7362M/xx (a)(b)	120	50-60	0	5-24	4-1.25	30	4	2601-1	—	0	0
FW7333M/XX (a)(c)	120	60	0	3-24	1.7-0.33	10	4	2601-1	—	0	0

(a) Values given for Max V, Max A and Max VA are rated values.

(b) XX can be any number from 5-24 denoting the output voltage.

(c) XX can be any number from 3-24 denoting the output voltage.

Marking: Company name or trademarks "FRIWO", "FWGB", "FWHK", "FWHC", "FWMX" or , model designation and Recognized Component Mark for Canada .

**Last Updated** on 2005-01-12

## QQHM8.GuideInfo

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### See General Information for Power Supplies Certified for Canada - Component

The devices covered under this category are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. THE FINAL ACCEPTANCE OF THE COMPONENT IS DEPENDENT UPON ITS INSTALLATION AND USE IN COMPLETE EQUIPMENT SUBMITTED TO UNDERWRITERS LABORATORIES INC.

This category covers component power supplies intended for use in/with professional medical and dental equipment.

This category also covers Recognized Component power supplies which are rebuilt by the original manufacturer or another party having the necessary facilities, technical knowledge and manufacturing skills. Rebuilt power supplies are rebuilt to the extent necessary by disassembly and reassembly using new or reconditioned parts. Rebuilt power supplies are subject to the same requirements as new products.

### CODES

The following summarizes and defines codes shown in the individual Recognitions in addition to those indicated under Power Supplies Certified for Canada (**QQAQ8**).

Supply Category (SC) - Code identifies the type of supply to which the component is intended to be connected.

SC Categories	Code
Branch circuit power	0
CEC Class 2	1
Isolated secondary circuit	4
Limited energy isolated secondary circuit	5
Centralized DC	6

Output Category (OC) - Each output is identified to indicate the type of output. Multiple codes may be used.

Output Category	Code
CEC Class 1	0
CEC Class 2	1
Isolated secondary circuit	4

Isolated from primary by basic insulation (C22.2 No. 601.1)	8
Isolated from primary by double insulation (C22.2 No. 601.1)	9
Isolated from ground by basic insulation based on secondary voltage (C22.2 No. 601.1)	10
Isolated from ground by double insulation based on secondary voltage (C22.2 No. 601.1)	11
Isolated from ground by basic insulation based on mains voltage (C22.2 No. 601.1)	12
<b>Note:</b> If no code appears for secondary circuit isolation from ground, ground isolation has not been evaluated.	


## ADDITIONAL INFORMATION

For additional information, see Power Supplies Certified for Canada (**QQAQ8**) and Power Supplies, General Purpose Certified for Canada (**QQFU8**).

## REQUIREMENTS

The basic standards used to investigate products in this category are C22.2 No. 125-M1984, "Electro Medical Equipment" or C22.2 No. 601.1, "Medical Electrical Equipment, Part 1: General Requirements for Safety."

## UL MARKING

Products Recognized under UL's Component Program are identified by markings consisting of the manufacturer's identification and catalog, model or other product designation. In addition, component products of this category which are produced under the UL Component Recognition Program also bear the Recognized Component Mark for Canada, .

Rebuilt products are additionally marked "Rebuilt," "Remanufactured" or "Reconditioned" preceding the product designation.

The Listing or Classification Mark of Underwriters Laboratories Inc. is not authorized for use on, or in connection with, Recognized Components. Only those components which actually bear the "Marking" should be considered as being covered under the Component Recognition Program.

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## QQAQ8.GuideInfo

### Power Supplies Certified for Canada - Component

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These recognitions cover the following products:

- General Purpose Power Supplies
- Specialty Power Supplies
- Information Technology and Business Equipment Power Supplies
- Telephone Power Supplies

Unless specified otherwise in the individual recognitions, consideration is to be given to the following conditions of acceptability when these components are employed in end-use products.

1) **Codes** — The following summarizes and defines codes shown in the individual recognitions. If not applicable, a "-" (dash) is indicated in the individual recognition. Unique conditions of acceptability are indicated in individual recognitions.

**Supply category (SC)** — Code identifies the type of supply to which the component is intended to be connected. Refer to guides of individual categories below for SC codes.

**Maximum Voltage (Max V)** — The maximum output voltage under any resistive loading condition is indicated in volts peak.

**Maximum Amps (Max A)** — The maximum output current under any resistive loading condition is indicated in amps rms.

**Maximum Volt-Amperes (Max VA)** — The maximum output volt-amperes under any resistive loading condition is indicated in volt-amperes rms.

**Output category (OC)** — Each output is identified to indicate the type of output. Refer to guides of individual categories below for OC codes. Convenience receptacles connected to the supply circuit are not considered outputs, however, these are to be loaded to determine the overall heating effect in the application.

**Spacings (SP)** — The standard used in judging spacings (or creepage and clearance distances) is indicated by the Standard No.

**External protection (EP)** — Tests on the component were conducted with the primary protected by external overcurrent protection.

EP Categories	Code
Specified current rating, branch protection	@B
Specified current rating,	@T

time delay fuse	
Specified current rating,	@
not branch protection	

((@)) — Indicates current rating of protection in amps.

**Field Connections (FC)** — Code indicates whether supply and output connections have been investigated for field connections.

FC Categories	Code
Supply & output not investigated for FC	0
Supply not investigated for FC	1
Output not investigated for FC	2
Supply suitable for FC (+)	3
Output suitable for FC (+)	4
Supply & output suitable for FC (+)	5
Supply suitable for FC (++)	6
Output suitable for FC (++)	7
Supply & output suitable for FC (++)	8

(+) — Employs pressure wire terminals or terminal block suitable for field wiring.

(++) — Employs a connector, or a cord terminating in a connector.

**Grounding Connection (GC)** — Units with functional grounding connections (no safety grounding connection) shall have dead metal parts bonded to the end product grounding means.

GC Categories	Code
Only functional grounding provided	0
Provided with safety grounding connection	1
Double insulated product	2

2) A test shall be conducted to determine whether a hazard is present when connected to an incorrect supply source if the user has access to voltage selection means employed in multiple rated supply voltage units.

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