QQHM2.E143128
Power Supplies, Medical and Dental - Component

Power Supplies, Medical and Dental - Component

See General Information for Power Supplies, Medical and Dental - 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 trademark 

and model designation.

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[Power Supplies - Component] Power Supplies, Medical and Dental - Component

See General Information for Power Supplies - 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.

Component power supplies under this category are 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.

The basic standards used to investigate products in this category are UL 1012, "Power Units Other Than Class 2", and UL 544, "Professional Medical and Dental Equipment", or UL 2601 "Medical Electrical Equipment, Part 1: General Requirements For Safety".

Codes - The following summarizes and defines codes shown in the individual recognitions in addition to those indicated under Power Supplies Guide **QQAQ2**.

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

SC Category	Code
Branch circuit power	0
NEC 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 to identify properties of the output.

Output Category	Code
NEC Class 1	0

NEC Class 2	1
Isolated secondary circuit	4
Isolated from primary by	8
basic insulation(UL 2601)	
Isolated from primary by	9
double insulation(UL 2601)	
Isolated from ground by	10
basic insulation based	
on secondary voltage(UL 2601)	
Isolated from ground by	11
double insulation based	
on secondary voltage(UL 2601)	
Isolated from ground by	12
basic insulation based	
on mains voltage(UL 2601)	

If no code appears for secondary circuit isolation from ground, ground isolation has not been evaluated.

Products Recognized under the Component Program are identified by significant markings consisting of the manufacturer's identification and catalog, model or other product designation which correspond with the marking specified in UL's published records. Rebuilt products are additionally marked "Rebuilt" , "Remanufactured" , or "Reconditioned" preceding the product designation. Only those components which actually carry the "Marking" shown in the individual Recognition should be considered as being covered under the Component Program.

The Listing or Classification Mark of Underwriters Laboratories Inc. is not authorized for use on, or in connection with, Recognized Components.

For additional information, see Power Supplies Guide **QQAQ2** and Power Supplies, General Purpose Guide **QQFU2**.

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QQAQ2.GuideInfo
Power Supplies - Component

Power Supplies - Component

These recognitions cover the following products:

Power Supplies for use in Electronic Data Processing Equipment

Power Supplies for use in Electrostatic Air Cleaning Equipment

Gas Tube Sign Power Supplies

General Purpose Power Supplies

Power Supplies for use in Information Technology Equipment, Including

Electrical Business Equipment

Power Supplies for use in Medical and Dental Equipment

Power Supplies for use in Office Appliances and Business Equipment

Specialty Power Supplies

Telephone Power Supplies

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.

Power supplies evaluated in accordance with IEC publications are indicated in this directory under Power Supplies Evaluated in Accordance with IEC Publications, Guide **QQKV2**.

These categories do not include power supplies intended as components of fire protection or burglary protective signaling systems.

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. Absence of ratings and condition of acceptability codes from an individual recognition indicates this information is contained in the UL Recognition report for the product.

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 - Amps (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, time delay fuse	@T
Specified current rating, not branch protection	@
Note: (@) - 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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Underwriters Laboratories Inc.

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