

QQGQ2.E196683

Power Supplies, Information Technology Equipment Including Business Equipment - Component

Power Supplies, Information Technology Equipment Including Electrical Business Equipment - Component

Guide Information

RECOM INTERNATIONAL POWER GMBH
WALDSTRASSE 23 D
63128 DIETZENBACH, GERMANY

E196683

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
R05V05	5	DC	2	+/-5	0.2	2W	3	1950	—	—	—
R05V09	5	DC	2	+/-8	0.111	2W	3	1950	—	—	—
R05V12	5	DC	2	+/-12	0.083	2W	3	1950	—	—	—
R05V15	5	DC	2	+/-15	0.067	2W	3	1950	—	—	—
R12V05	12	DC	2	+/-5	0.2	2W	3	1950	—	—	—
R12V09	12	DC	2	+/-9	0.111	2W	3	1950	—	—	—
R12V12	12	DC	2	+/-12	0.083	2W	3	1950	—	—	—
R12V15	12	DC	2	+/-15	0.067	2W	3	1950	—	—	—
RP15-1205SF, RP15-1212SF	60	dc	3	3.5-15.2	4.9-1.3	16.2-19.5	3	1950	15	0	0
RP15-1215SF, RP15-1233S F,											
RP15-1205DF, RP15-1212DF,											
RP15-1215DF, RP15-2405SF,											
RP15-2412SF, RP15-2415SF,											
RP15-2433SF, RP15-2405DF,											
RP15-2412DF, RP15-2415DF,											

4815DEW,												
RP10-4805SE, RP10-4805SEW,												
RP10-4812SE, RP10-4812SEW,												
RP10-4815SE, RP10-4815SEW,												
RP10-4833SE												
RP20-1205DE, RP 20-1212DE	9-60	dc	3	3.50-14.96	1.6-5.7	19.38-26.60	3	1950	15	0	0	
RP20-1215DE, RP20-1205SE,												
RP20-1212SE, RP20-1215SE,												
RP20-1233SE, RP20-2405DE,												
RP20-2405DEW, RP20-2412DE,												
RP20-2412DEW, RP20-2415DE,												
RP20-2415DEW, RP20-2405SE,												
RP20-2405SEW, RP20-2412SE,												
RP20-2412SEW, RP20-2415SE,												
RP20-2415SEW, RP20-2433SE,												
RP20-4805DE, RP20-4805DEW,												
RP20-4812DE, RP20-4812DEW,												
RP20-4815DE, RP20-4815DEW,												
RP20-4805SE, RP20-4805SEW,												
RP20-4812SE, RP20-4812SEW,												
RP20-4815SE, RP20-4815SEW,												
RP20-4833SE												
RP30-2418SE	18-36 or 24	dc	4	1.8	6	—	3	1950	5T	0	0	
RP30-2425SE	18-36	dc	4	2.5	6	—	3	1950	5T	0	0	

	or 24											
RP30-2433SE	18-36 or 24	dc	4	3.3	6	—	3	1950	5T	0	0	
RP30-2405SE	18-36 or 24	dc	4	5	6	—	3	1950	5T	0	0	
RP30-2412SE	18-36 or 24	dc	4	12	2.5	—	3	1950	5T	0	0	
RP30-2415SE	18-36 or 24	dc	4	15	2	—	3	1950	5T	0	0	
RP30-4818SE	36-75 or 48	dc	4	1.8	6	—	3	1950	5T	0	0	
RP30-4825SE	36-75 or 48	dc	4	2.5	6	—	3	1950	5T	0	0	
RP30-4833SE	36-75 or 48	dc	4	3.3	6	—	3	1950	5T	0	0	
RP30-4805SE	36-75 or 48	dc	4	5	6	—	3	1950	5T	0	0	
RP30-4812SE	36-75 or 48	dc	4	12	2.5	—	3	1950	5T	0	0	
RP30-4815SE	36-75 or 48	dc	4	15	2	—	3	1950	5T	0	0	
RP40-2433SG	18-36 or 24	dc	4	3.3	8	—	3	1950	5T	0	0	
RP40-2405S6	18-36 or 24	dc	4	5	8	—	3	1950	5T	0	0	
RP40-243312TG	18-36 or 24	dc	4	3.3	6	—	3	1950	5T	0	0	
RP40-243315TG	18-36 or 24	dc	4	3.3	6	—	3	1950	5T	0	0	
				±15	±0.3	—	3					
RP40-240512TG	18-36 or 24	dc	4	5	6	—	3	1950	5T	0	0	
				±12	±0.4	—	3	1950	5T	0	0	
RP40-240515T6	18-36 or 24	dc	4	5	6	—	3	1950	5T	0	0	
				±15	±0.3	—	3	1950	5T	0	0	
RP40-483356	36-75 or 48	dc	4	3.3	8	—	3	1950	5T	0	0	
RP40-4805SG	36-75 or 48	dc	4	5	8	—	3	1950	5T	0	0	
RP40-483312TG	36-75 or 48	dc	4	3.3	6	—	3	1950	5T	0	0	
				±12	±0.4							

RP40-483315TG	36-75 or 48	dc	4	3.3	6	—	3	1950	5T	0	0
				±15	±0.4	—	3				
RP40-480515T6	36-75 or 48	dc	4	5	6	—	3	1950	5T	0	0
				±15	±0.3	—	3				
RP15-4812SE,											
RP15-4815SE											
RP10-1205DE,											
RP10-1212DE											
RP10-1215DE,	9-60	dc	3	3.44- 14.68	0.92- 3.40	9.24- 16.93	3	1950	15	0	0
RP10-1205SE											
RP10-1212SE,											
RP10-1215DE											
RP10-1233SE,											
RP10-2405DE											
RP10-2405DEW,											
RP10-2412DE											
RP10-2412DEW,											
RP10-2415DE											
RP10-2415DEW,											
RP10-240SE,											
RP10-2404SEW,											
RP10-2412SE,											
RP10-2412SEW,											
RP10-2415SE,											
RP10-2415SEW,											
RP10-2433SE,											
RP10-4805DE,											
RP10-4805DEW,											
RP10-4812DE,											
RP10-4812DEW,											
RP10-4815DE,											
RP10-4815DEW,											
RP10-4805SE,											
RP10-4805SEW,											

RP15-4812DE,												
RP15-4815DE,												
RP15-2405SE,												
RP15-2412SE,												
RP15-2415SE,												
RP15-4805SE,												
RP03-0533SG,	4.5-6 or 5	dc	4	3.3	600	—	3	1950	5T	0	0	
RP03-0505SG,	4.5-6 or 5	dc	4	5	600	—	3	1950	5T	0	0	
RP03-0512S6,	4.5-6 or 5	dc	4	12	250	—	3	1950	5T	0	0	
RP03-0515SG,	4.5-6 or 5	dc	4	15	200	—	3	1950	5T	0	0	
RP03-0505SG,	4.5-6 or 5	dc	4	5	300	—	3	1950	5T	0	0	
RP03-0512DG,	4.5-6 or 5	dc	4	12	125	—	3	1950	5T	0	0	
RP03-0515DG,	4.5-6 or 5	dc	4	15	100	—	3	1950	5T	0	0	

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QQGQ2.GuideInfo

Power Supplies, Information Technology Equipment Including Business Equipment - Component

[Power Supplies - Component] Power Supplies, Information Technology Equipment Including Electrical Business Equipment - Component

Guide Information

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.

GENERAL

This category covers component power supplies intended for use in/with information processing and business equipment. End-use products that employ these types of power supplies are covered under Information Technology Equipment Including Electrical Business Equipment (NWGQ).

Codes

The following summarizes and defines codes shown in the individual Recognitions in addition to those indicated under Power Supplies (QQAQ2).

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
NEC Class 2	1
Isolated extra low voltage (ELV)*	2
Isolated safety extra low voltage (SELV)*	3
Isolated secondary circuit	4
Limited energy isolated secondary circuit	5
Centralized DC	6

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

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

Maximum Volt (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.

OC Categories	Code
NEC Class 1	0
NEC Class 2	1
Isolated extra low voltage (ELV)*	2
Isolated safety extra low voltage (SELV)*	3
Isolated secondary circuit	4
* ELV and SELV are defined in UL 60950 and UL 60950-1	

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	@
(@) Indicates current rating of protection in amperes	

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

FC Categories	Code
Supply and 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 and output suitable for FC (+)	5
Supply suitable for FC (++)	6
Output suitable for FC (++)	7
Supply and 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

REBUILT PRODUCTS

This category also covers Recognized Component power supplies that 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 power supplies.

RELATED PRODUCTS

See Power Supplies, General Purpose (**QQFU2**).

ADDITIONAL INFORMATION

For additional information, see Power Supplies (**QQAQ2**).

REQUIREMENTS

The basic standards currently used to investigate products in this category are UL 60950 or UL 60950-1, "Safety of Information Technology Equipment."

UL MARKING

Products Recognized under UL's 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. Only those components which actually bear the "Marking" shown in the individual Recognitions should be considered as being covered under the Component Program.

For rebuilt products the word "Rebuilt," "Remanufactured" or "Reconditioned" precedes the product name.

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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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