

DESCRIPTION

PRODUCT COVERED:

USR, CNR: Component - Battery Charger, Model No. 2040/12V and 2040/24V, accessory for medical electrical equipment.

ELECTRICAL RATING:

Model	Voltage (V ac)	Current (A)	Frequency (Hz)	Vout (V dc)	Iout (A)	Vstandby (V dc)
2040/12V	100V - 240	Max 1.2	50-60	14.7	4	13.8
2040/24V	100V - 240	Max 1.2	50-60	29.5	2	27.6

MODEL DIFFERENCES:

Model 2040/12V is similar to Model 2040/24V except for ratings and different ratings of some internal components.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE'S USE):

General - The product covered by this Report is component in non-patient care equipment intended for use in health care facilities, but not intended for use in patient environment. Since this device is intended for charging batteries for use with patient carts, patient hoists and other hospital equipment, it is regarded as accessory for medical electrical equipment.

The product is provided with detachable main cord and appliance inlet. All electrical components are housed within a plastic enclosure.

In addition to UL 2601-1 (October 24,1997), the following standards were utilized during the investigation of the subject product:

IEC 60601-1: Amendment 1 of IEC 60601-1 November 1991;

IEC 60601-1: Amendment 2 of IEC 60601-1 March 1995:

CAN/CSA-C22.2 No. 601.1-M90.

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - When installed in the end-use equipment, the following are among the considerations to be made.

1. Product covered has been judged on the basis of the requirements for The Standard for Medical Electrical Equipment UL 2601-1, Second Edition, dated October 24, 1997 and CAN/CSA-C22.2 No. 601.1-M90.
2. The battery chargers shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the end-use product.
3. The Temperature Test was conducted on battery chargers with simulated load. Temperature Test shall be considered when installed in the end-use equipment.
4. This battery charger is intended for charging 12 V and 24 V lead-acid batteries to be used for medical electrical equipment such as carts, patient hoists and other hospital equipment. The battery was not evaluated in this investigation. Additional requirements on the battery charger with the batteries used shall be investigated in the end-use application.
5. The battery charger was considered as a Class I, Type B, with no Applied Part.
6. The housing containing the batteries was not investigated. When installed in the end-use product, consideration shall be taken to providing ventilated housing to minimize the risk of gas accumulation and ignition during charging or discharging as required by Cl. 56.7a.
7. When installed in the end-use product, the battery compartments shall be designed to prevent the risk of accidental short-circuiting the battery where such short circuits could result in a SAFETY HAZARD. See CL. 56.7a.
8. The mode of insertion and type of batteries markings (CL. 6.2d and 56.7b) shall be investigated at the end use product. The Reverse Polarity Test was not conducted on this product. When installed in the end-use equipment, the equipment shall be fitted with a means of preventing incorrect polarity of connection. See Cl. 56.7b.
9. When installed in the end-use equipment, means should provide to forewarn of any SAFETY HAZARD that might develop as a result of exhaustion of the batteries. See CL. 56.7C Rational.
10. The enclosure is sonically welded. A statement in the Accompanying Document indicates that this product is not intended to be serviced in the field. Additional investigation may be required when installed in the end-use product. This battery charger was not investigated for ingress of water (IPX0).
11. The battery charger shall be packaged with the end-use product (medical electrical equipment).

Function of Equipment - The MASCOT battery charger, Model 2040/12V, is intended for charging 12 V lead-acid batteries. The battery charger, Model 2040/24V, is intended for charging 24 V lead-acid batteries. The lead acid batteries are intended for use with patient carts, patient hoists and other hospital equipment.

Engineering References - Following are provided for engineering references:

- Insulation Diagram of the Equipment: See NEMKO CB Report, ref. no 199950111, dated 01.19.00.

- Ill. 1 - Mains Transformer Cross Section Diagram