

METRON QA-90

protokol o testu elektrické bezpečnosti

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|---|---|
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| Firma : S&T Plus s.r.o., Novodvorská 994, 142 21 Praha 4 | |
| QA-90 no: 12395 | ver : 04.06 |
| Dne : 30.11.2007 Hod.: 17:07 | |
| Model : M3046A | Výrobní číslo : DE85012495 |
| Typ : M3 | Inventurní číslo : |
| Výrobce: Hewlett-Packard/Agilent Technologies/Philips | |
| Umístění/uzivatel : 3. interna dialýza | |
| Adresa: Fakultní nemocnice Olomouc, I.P. Pavlova 6, 775 20 Olomouc | |
| Klasifikace přístroje : CL1 | Mezní hodnoty podle: IEC 60601.1 |

TEST RESULTS

- MODULE INFORMATION -

| Module Code | Module Type | No of leads |
|-------------|-------------|-------------|
| 3 LEAD ECG | CF | 3 |
| P1 | CF | 1 |
| SPO2 | CF | 1 |

- SETUP DATA -

| | | | |
|---------------------------------|--------|--------------------------------|------|
| Power Up Delay Time | : 2 | Stop after new power config | : No |
| Stop at new module | : No | Stop before new power config | : No |
| Multiple Protective Earth Tests | : No | Multiple Enclosure Tests | : No |
| Protective Earth test current | : 25 A | External Isolating Transformer | : No |

| Test | Limit | Result | Warning |
|-----------------------------------|---------|---------|---------|
| Supply Voltage | | | |
| N-G | | 0,0 V | |
| L-G | | 230,5 V | |
| L-N | | 230,8 V | |
| Current Consumption | | | |
| | | 121 mA | |
| Protective Earth | | | |
| | 200 mΩ | 46 mΩ | |
| Insulating Resistance | | | |
| Applied Part-Case | | >200 MΩ | |
| Applied Part-Case | | >200 MΩ | |
| Applied Part-Case | | >200 MΩ | |
| Mains-Case | | >200 MΩ | |
| Earth Leakage Current | | | |
| OS | 1000 μA | 182 μA | |
| NC | 500 μA | 103 μA | |
| OS-RM | 1000 μA | 182 μA | |
| NC-RM | 500 μA | 100 μA | |
| Enclosure Leakage Current | | | |
| OS | 500 μA | 0 μA | |
| NC | 100 μA | 0 μA | |
| OE | 500 μA | 103 μA | |
| OS-RM | 500 μA | 0 μA | |
| NC-RM | 100 μA | 0 μA | |
| OE-RM | 500 μA | 99 μA | |
| Patient Leakage Current AC | | | |
| OS, Module : SPO2, Lead : 5 | 50 μA | 0 μA | |
| OS, Module : P1, Lead : 4 | 50 μA | 0 μA | |

Patient Leakage Current AC (continued)

| | | |
|--------------------------------------|------------|-----------|
| OS, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |
| NC, Module : SPO2, Lead : 5 | 10 μ A | 0 μ A |
| NC, Module : P1, Lead : 4 | 10 μ A | 0 μ A |
| NC, Module : 3 LEAD ECG, Lead : 2 | 10 μ A | 3 μ A |
| OE, Module : SPO2, Lead : 5 | 50 μ A | 2 μ A |
| OE, Module : P1, Lead : 4 | 50 μ A | 2 μ A |
| OE, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 4 μ A |
| OS-RM, Module : SPO2, Lead : 5 | 50 μ A | 0 μ A |
| OS-RM, Module : P1, Lead : 4 | 50 μ A | 0 μ A |
| OS-RM, Module : 3 LEAD ECG, Lead : 2 | 50 μ A | 3 μ A |
| NC-RM, Module : SPO2, Lead : 5 | 10 μ A | 0 μ A |
| NC-RM, Module : P1, Lead : 4 | 10 μ A | 0 μ A |
| NC-RM, Module : 3 LEAD ECG, Lead : 2 | 10 μ A | 3 μ A |
| OE-RM, Module : SPO2, Lead : 5 | 50 μ A | 2 μ A |
| OE-RM, Module : P1, Lead : 4 | 50 μ A | 2 μ A |
| OE-RM, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 4 μ A |

Mains on Applied Parts

| | | |
|---|------------|-----------|
| SFC, Module : SPO2, Lead : ALL | 50 μ A | 0 μ A |
| SFC, Module : P1, Lead : ALL | 50 μ A | 3 μ A |
| SFC, Module : 3 LEAD ECG, Lead : ALL | 50 μ A | 7 μ A |
| SFC-RM, Module : SPO2, Lead : ALL | 50 μ A | 0 μ A |
| SFC-RM, Module : P1, Lead : ALL | 50 μ A | 2 μ A |
| SFC-RM, Module : 3 LEAD ECG, Lead : ALL | 50 μ A | 7 μ A |

Patient Auxiliary Current AC

| | | |
|--------------------------------------|------------|-----------|
| OS, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |
| NC, Module : 3 LEAD ECG, Lead : 2 | 10 μ A | 3 μ A |
| OE, Module : 3 LEAD ECG, Lead : 2 | 50 μ A | 3 μ A |
| OS-RM, Module : 3 LEAD ECG, Lead : 2 | 50 μ A | 3 μ A |
| NC-RM, Module : 3 LEAD ECG, Lead : 2 | 10 μ A | 3 μ A |
| OE-RM, Module : 3 LEAD ECG, Lead : 2 | 50 μ A | 3 μ A |

Patient Auxiliary Current DC

| | | |
|--------------------------------------|------------|-----------|
| OS, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |
| NC, Module : 3 LEAD ECG, Lead : 3 | 10 μ A | 0 μ A |
| OE, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |
| OS-RM, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |
| NC-RM, Module : 3 LEAD ECG, Lead : 3 | 10 μ A | 0 μ A |
| OE-RM, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |

Patient Leakage Current DC

| | | |
|--------------------------------------|------------|-----------|
| OS, Module : SPO2, Lead : 5 | 50 μ A | 0 μ A |
| OS, Module : P1, Lead : 4 | 50 μ A | 0 μ A |
| OS, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |
| NC, Module : SPO2, Lead : 5 | 10 μ A | 0 μ A |
| NC, Module : P1, Lead : 4 | 10 μ A | 0 μ A |
| NC, Module : 3 LEAD ECG, Lead : 3 | 10 μ A | 0 μ A |
| OE, Module : SPO2, Lead : 5 | 50 μ A | 0 μ A |
| OE, Module : P1, Lead : 4 | 50 μ A | 0 μ A |
| OE, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |
| OS-RM, Module : SPO2, Lead : 5 | 50 μ A | 0 μ A |
| OS-RM, Module : P1, Lead : 4 | 50 μ A | 0 μ A |
| OS-RM, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |
| NC-RM, Module : SPO2, Lead : 5 | 10 μ A | 0 μ A |
| NC-RM, Module : P1, Lead : 4 | 10 μ A | 0 μ A |
| NC-RM, Module : 3 LEAD ECG, Lead : 3 | 10 μ A | 0 μ A |
| OE-RM, Module : SPO2, Lead : 5 | 50 μ A | 0 μ A |
| OE-RM, Module : P1, Lead : 4 | 50 μ A | 0 μ A |
| OE-RM, Module : 3 LEAD ECG, Lead : 3 | 50 μ A | 0 μ A |

***** UNIT PASSED TEST! *****

Remark :

modul MMS M3000A v.è. DE94513364