



CML 17ATEX4222X
Issue 1

11 Description

The HLR-118FL/HLR-118SF and HLR-310FL/HLR-310SF refrigerators comprise a steel outer enclosure with a hinged door.

The storage area inside the refrigerators is a Zone 2 area. All other parts of the refrigerator units, including the locations where the compressor, control circuitry, cooling pipes etc. are situated, are in a non-hazardous area. The outside of the unit is also to be a non-hazardous area.

The only electrical parts situated in the Zone 2 area are a previously ATEX certified fan unit and an Negative Temperature Coefficient (NTC) sensor, which is defined as simple apparatus and is supplied by a barrier circuit which is produced by the manufacturer, and has intrinsically safe outputs. The I.S. barrier circuit is mounted in the safe area.

The material which lines the storage area inside the refrigerator may be metallic or non-metallic.

The NTC and fan units are mounted completely in the Zone 2 area; only the cables connected to these parts pass between the Zone 2 and non-hazardous areas. The cables are sealed at the boundary of the Zone 2 area to ensure segregation from the non-hazardous area.

The shelves inside the unit are made of glass. The control panels which control the function of the refrigerators are mounted at the top of the units. The operating temperature range inside the storage area of the referigerators is +3°C to +16°C.

The approximate overall dimensions of the HLR-118FL/HLR-118SF are 597 x 635 x 835 mm and for the HLR-310FL/HLR-310SF the approximate dimensions are 605 x 598 x 1840 mm.

Variation 1

This variation includes the following modifications:

- i. Confirmation that the black coloured option of non-metallic internal lining material does not present an electrostatic charging hazard. The electrostatic warning marking is not required when this material is used, but remains when the white coloured non-metallic internal lining material is used.
- ii. Change to the Special Condition for Safe Use relating to potential electrostatic charging hazards to show that the condition only applies when the white non-metallic lining material is used, not when the black antistatic material tested and evaluated under this variation is used.
- iii. Addition of a Condition of Manufacture detailing the relationship between the equipment model numbers and the material of the internal lining.

12 Certificate history and evaluation Reports

| Issue | Date | Associated report | Notes |
|-------|------------|-------------------|--|
| 0 | 08/09/2017 | R11280A/00 | Report for the prime certificate issue |
| | | R11280B/00 | Report for the I.S. barrier assessment |
| 1 | 30/10/2017 | R11360A/00 | Introduction of Variation 1 |

Note: Drawings that describe the equipment or component are listed in the Annex.

This certificate shall only be copied

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Version: 10.0 Approval: Approved



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13 Conditions of manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- 13.1 The products incorporate certified parts or safety critical components. The manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- 13.2 Each NTC sensor shall be subjected to a routine insulation resistance test.
- 13.3 The instruction manuals for any previously ATEX certified parts incorporated into the equipment shall be provided to the end-user with the equipment.
- 13.4 Units with the model number suffix 'FL' shall be fitted with either the black anti-static non-metallic lining material, or the metallic lining material option.
- Units with the model number suffix 'SF' shall be fitted with the white non-metallic lining material option and the warning label relating to potential electrostatic charging hazards shall be applied.
- 13.5 The manufacturer shall ensure that the intrinsically safe barrier assembly is securely fixed in place and that the following separations are maintained:
- > 0.4mm clearance between the barrier temperature probe connection wires and connector, and all other conductive parts except earth.
 - > 50mm between the barrier probe temperature probe connection wires and connector, and the barrier input wires and connector.

14 Special Conditions for Safe Use (Conditions of Certification)

The following conditions relate to safe installation and/or use of the equipment.

- 14.1 Where the storage area inside the refrigerators is lined with a white coloured non-metallic material, this may present a potential electrostatic charging hazard and shall be cleaned only with a damp cloth. This condition does not apply to the black coloured non-metallic material or the metallic material lining options.



Certificate Annex

Certificate Number CML 17ATEX4222X
Equipment Refrigerators HLR-118FL/HLR-118SF and
HLR-310FL/HLR-310SF
Manufacturer Haier Medical and Laboratory Products Co. Ltd.

The following documents describe the equipment or component defined in this certificate:

Issue 0

| Drawing No | Sheets | Rev | Approved date | Title |
|------------------------------|--------|-----|---------------|-----------------------------------|
| HLR-118FL/SF | 1 of 1 | A | 08/09/2017 | Structural Drawing (A3-1)* |
| HLR-118FL/SF | 1 of 1 | A | 08/09/2017 | Structural Drawing (A3-3) |
| HLR-118FL | 1 of 1 | A | 08/09/2017 | Nameplate |
| HLR-118SF | 1 of 1 | A | 08/09/2017 | Nameplate |
| HLR-310FL/SF | 1 of 1 | A | 08/09/2017 | Structural Drawing (A3-2) |
| HLR-310FL/SF | 1 of 1 | A | 08/09/2017 | Structural Drawing (A3-4) |
| HLR-310FL | 1 of 1 | A | 08/09/2017 | Nameplate |
| HLR-310SF | 1 of 1 | A | 08/09/2017 | Nameplate |
| 4-0270501214C | 1 of 1 | A | 08/09/2017 | PET |
| 4-0270501250 | 1 of 1 | A | 08/09/2017 | PET |
| 4-0274000056 | 1 of 1 | B | 08/09/2017 | Safety barrier schematic and BOM* |
| Safety barrier PCB drawing | 1 to 2 | - | 08/09/2017 | Safety barrier PCB drawing* |
| NTC Safety Barrier of Sensor | 1 of 1 | B | 08/09/2017 | NTC Safety Barrier of Sensor* |

Issue 1

| Drawing No | Sheets | Rev | Approved date | Title |
|--------------|--------|-----|---------------|---------------------------|
| HLR-118FL/SF | 1 of 1 | B | 30/10/2017 | Structural Drawing (A3-1) |
| HLR-310FL/SF | 1 of 1 | B | 30/10/2017 | Structural Drawing (A3-2) |
| 4-0270501250 | 1 of 1 | B | 30/10/2017 | PET |