For the operator

a member of DAIKIN group

ROTEX

ROTEX
heat pumps

Operating manual

Types

ROTEX HPSU compact 4-8 kW
ROTEX HPSU compact 11-16 kW
ROTEX HPSU Bi-Bloc 4-8 kW
ROTEX HPSU Bi-Bloc 11-16 kW
ROTEX HPSU monobloc 11-16 kW
ROTEX HPSU hitemp 11-16 kW

GB

Issued 09/2013

1 General instructions

1.1 Guarantee conditions

The legal guarantee conditions fundamentally apply. Our warranty conditions beyond that can be found online on your sales presentative's webpage.

1.2 Legal stipulations

In terms of the F-gases regulations (EU) No. 842/2006 Article 3, operators (or owners) must service their fixed-installation refrigerant units at regular intervals, check for leaks and rectify any possible leaks within as short a period as possible.

All maintenance and repair work on the refrigeration circuit must be documented in the operating manual. This obligation is based on the regulations concerning fluoridated greenhouse gases published in the official EU journal on 14th June 2006.

The following obligations apply to operators of ROTEX heat pump systems:

- With a **total coolant fill weight** of **3 kg - 30 kg** or over **6 kg** in hermetically sealed systems:
  ➔ **Checks** by certified personnel at intervals of no more than **12 months**.
- With a **total coolant fill weight** of **30 kg – 300 kg:**
  ➔ **Checks** by certified personnel at intervals of no more than **6 months** (with existing leak detection systems at intervals of no more than **12 months**).
- With a **total coolant fill weight** of **>300 kg:**
  ➔ **Checks** by certified personnel at intervals of no more than **6 months**. A leak detection system is required for this fill weight.
- Compulsory documentation (maintenance and leak test) in the operating manual, stating type and amount of filled-in or recovered refrigerant and the applied test method (in accordance with EC No. 1516/2007). Operator must keep documentation for at least five years after compiling it and show it to the responsible authority upon request.
- Responsibility of the operator of systems for the recycling of F-gases by certified personnel.

A total overall coolant fill of less than 3 kg is not subject to any European legal requirement concerning inspection intervals. ROTEX nevertheless recommends conclusion of a servicing contract and documentation of the completed work in the operating manual in order to preserve guarantee claims.

Certified persons are those possessing an expert certificate for work on fixedly installed cooling systems (heat pumps) and air-conditioning units in the European region in accordance with the F-Gases Decree (EU) No. 842/2006.

- total overall coolant weight up to 3 kg: expert certificate Category 2
- total overall coolant weight in excess of 3 kg: expert certificate Category 1

2 System data

2.1 Operator

Name:	
Company:	
Street & house number:	
Postal code & town:	
Phone:	

2.2 System

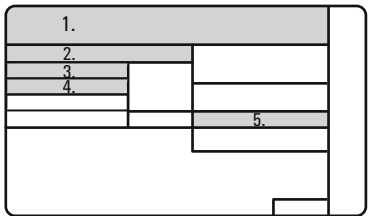

Fig. 2-1 Type plate external unit

External unit		
1 - Manufacturer	ROTEX Heating Systems GmbH	
2 - Type		
3 - Serial number (Mfg No.)		
4 - Production date (Mfg Date)		
5 - Type of coolant + fill weight of device	R410A	kg

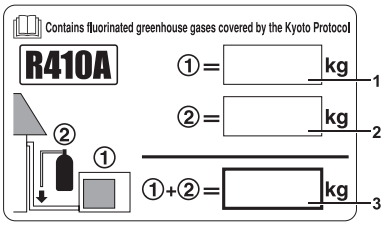

Fig. 2-2 Sticker showing coolant fill weight in entire system (external unit)

Total fill weight	
1 - Factory filling of the outdoor module (see Image 2-1, item 5):	kg
2 - Quantity of additional coolant added on site:	kg
3 - Total amount of coolant in the system:	kg

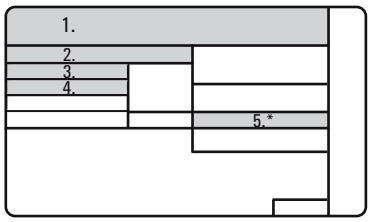

Fig. 2-3 Type plate internal unit HPSU Bi-Bloc / HPSU hitemp

Internal unit		
1 - Manufacturer	ROTEX Heating Systems GmbH	
2 - Type		
3 - Serial number (Mfg No.)		
4 - Production date (Mfg Date)		
5* - Type of coolant + fill weight of device	R134a	kg

* only for HPSU hitemp

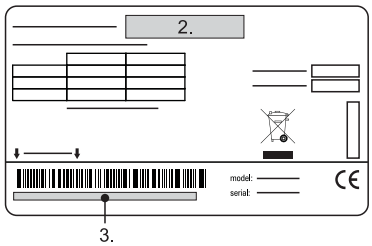

Fig. 2-4 Type plate internal unit HPSU compact

2.3 Leak test

Test interval in accordance with F-gas regulations:

- ❑ every 6 months
- ❑ every 12 months
- ❑ no legal requirement for leak test

All maintenance, leak tests and work performed on the coolant system must be recorded below. An unbroken record of compliance with the maintenance and inspection work stipulated by ROTEX is a prerequisite for any guarantee claim within the guarantee period and any possible ex-gratia payment by the manufacturer.

3 Certificates

1st maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

2nd maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

3 Certificates

3rd maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

4th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

5th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address	*Name of technician in capitals*	*Date*	*Signature of technician*

6th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address	*Name of technician in capitals*	*Date*	*Signature of technician*

7th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

8th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

9th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

10th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

11th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

12th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

13th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

14th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

15th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

16th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

17th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

18th maintenance

Activities	Yes	No	Comments
1. All maintenance and inspection tasks completed in accordance with installation and maintenance instructions for the ROTEX HPSU/HPU?	❑	❑	
2. System water pressure checked?	❑	❑	bar
3. Leak test with leak indicator (≤5 g/a) completed **in accordance with F-Gases Decree** (see Chapter 1.2 "Legal stipulations", Page 3) Leak indicator instrument Manufacturer: _____ Type: _____ Date of last instrument test: _____	❑	❑	
4. Work on coolant circuit completed?	❑	❑	Reason:
5. Weight of coolant added: kg (R410A) kg (R134a)	Weight of coolant disposed of:		kg (R410A) kg (R134a)
6. Function check carried out?	❑	❑	
7. Any faults detected?	❑	❑	Faults detected:
Fault rectified? (see repair log page _____)	❑	❑	
8. Operator informed of existing faults?	❑	❑	
Company stamp / company address / *Name of technician in capitals*	*Date*		*Signature of technician*

4 Repair logs

Repair log Description and reason for work on the coolant circuit - followed by pressure test? Please fill out!	Date / Signature of technician

Repair log Description and reason for work on the coolant circuit - followed by pressure test? Please fill out!	Date / Signature of technician

4 Repair logs

Repair log Description and reason for work on the coolant circuit - followed by pressure test? Please fill out!	Date / Signature of technician

Repair log Description and reason for work on the coolant circuit - followed by pressure test? Please fill out!	Date / Signature of technician

4 Repair logs

Repair log Description and reason for work on the coolant circuit - followed by pressure test? Please fill out!	Date / Signature of technician

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