



## Marine type Container Refrigeration Unit

Service Manual · Parts List

Optional Functions

**LXE10E-A33  
LXE10E-A33A**

**DAIKIN INDUSTRIES, LTD.**

TR06-04A

## Covered Models

Regarding the features and operation of the unit, this service manual describes the items which are different from those of the service manual TR01-09A.

NO.	Item	Different points from service manual (Maintenance and Repair)
1☆	Dehumidification function	Refer to the details in the following pages.
2☆	Setting temperature range	Refer to the details in the following pages.

For the ☆ marked items, refer to the details in the following pages.

\*Differences from standard model service manual (TR01-09A) are marked with ☆

## CONTENTS

### Safety Precautions

• Danger .....	3
• Warning .....	4
• Caution .....	5

### 1. Introduction.....1-1

☆ 1.1 Operation range.....	1-1
----------------------------	-----

☆ 1.2 Basic Names of components.....	1-1
--------------------------------------	-----

1.3 Basic operation of refrigeration unit.....	1-2
1.3.1 Starting operation .....	1-2
1.3.2 Checking during operation .....	1-3
1.3.3 Procedure after operation .....	1-3
1.3.4 Adjust the ventilation.....	1-4

### 2. General description.....2-1

2.1 Main specifications .....	2-1
-------------------------------	-----

2.2 Names of components.....	2-2
------------------------------	-----

☆ 2.2.1 Outside .....	2-2
-----------------------	-----

2.2.2 Inside .....	2-4
--------------------	-----

2.2.3 Control box .....	2-6
-------------------------	-----

2.3 Set point of functional parts and protection devices.....	2-9
---	-----

2.4 Operating pressure and running current.....	2-10
---	------

☆ 2.5 Operation modes and control .....	2-14
---	------

2.5.1 Frozen mode.....	2-15
------------------------	------

2.5.2 Chilled and partial frozen mode .....	2-17
---	------

2.5.3 Defrosting mode .....	2-19
-----------------------------	------

☆ 2.5.4 Dehumidification mode (Optional) .....	2-22
--	------

2.5.5 Common control .....	2-23
----------------------------	------

### 3. Electronic Controller .....

3.1 Function table .....	3-1
--------------------------	-----

3.2 Basic operation of electronic controller.....	3-3
---	-----

3.2.1 Control panel .....	3-3
---------------------------	-----

3.2.2 Operation mode and control .....	3-5
--	-----

3.3 Operation procedure.....	3-6
------------------------------	-----

3.3.1 Operation procedure flow chart .....	3-6
--	-----

3.3.2 Mode operation procedure .....	3-9
--------------------------------------	-----

1. Current (Operation state) indication mode... ..	3-9
--	-----

2. Operation setting mode.....	3-10
--------------------------------	------

3. Battery mode .....	3-11
-----------------------	------

☆ 4. Mode operation .....	3-12
---------------------------	------

5. LED display light-OFF mode .....	3-14
-------------------------------------	------

6. Sensor indication mode .....	3-15
---------------------------------	------

7. Temperature record scroll mode .....	3-18
---	------

8. Alarm record scroll mode .....	3-21
-----------------------------------	------

9. PTI record scroll mode.....	3-23
--------------------------------	------

3.3.3 Setting flow chart .....	3-24
--------------------------------	------

10. Optional function setting mode .....	3-26
--	------

11. Basic function setting mode .....	3-27
---------------------------------------	------

12. Optional condition setting mode.....	3-29
--	------

13. Input data mode .....	3-31
---------------------------	------

14. Controller software download mode... ..	3-32
---	------

3.4 Alarm display and back-up function.....	3-33
---	------

☆ 3.4.1 Alarm list.....	3-33
-------------------------	------

3.4.2 Back-up operation at sensor malfunction....	3-34
---	------

3.5 Battery .....	3-36
-------------------	------

☆ 3.5.1 Specifications.....	3-36
-----------------------------	------

3.5.2 Function .....	3-36
----------------------	------

3.6 Information interchange with personal computer ...	3-37
--	------

3.6.1 Data logging.....	3-38
-------------------------	------

3.6.2 Software configuration .....	3-39
------------------------------------	------

3.7 Inspection procedure for the electronic controller ...	3-41
--	------

3.8 Controller replacement and the initial setting ...	3-42
--	------

3.8.1 Controller replacement .....	3-42
------------------------------------	------

3.8.2 Initial setting & operation procedure ...	3-43
---	------

3.8.3 Initial setting table into spare controller...	3-44
--	------

3.9 PTI (Pre-Trip Inspection) and periodic inspection ...	3-45
---	------

3.9.1 Inspection item.....	3-46
----------------------------	------

3.9.2 Automatic PTI (Pre-Trip Inspection) .....	3-49
---	------

3.9.2.1 PTI selection mode .....	3-50
----------------------------------	------

3.9.2.2 Short PTI (S.PTI) .....	3-51
---------------------------------	------

3.9.2.3 Full PTI (F.PTI).....	3-52
-------------------------------	------

3.9.2.4 Alarm list during PTI (Pre-Trip Inspection) ...	3-53
---	------

3.9.2.5 Manual check (M.CHECK).....	3-54
-------------------------------------	------

3.10 Chartless function.....	3-56
------------------------------	------

3.10.1 Chart indication function .....	3-56
--	------

3.10.2 P code (Pull down time indication).....	3-58
--	------

3.10.3 Chartless code display function .....	3-59
--	------

3.10.3.1 List of chartless code .....	3-59
---------------------------------------	------

3.10.3.2 H-code .....	3-60
-----------------------	------

3.10.3.3 d-code:.....	3-62
-----------------------	------

3.11 Communication modem.....	3-63
-------------------------------	------

### 4. Service and Maintenance.....4-1

4.1 Maintenance service .....	4-1
-------------------------------	-----

4.1.1 Collection of refrigerant.....	4-1
--------------------------------------	-----

4.1.2 Gauge manifold .....	4-1
----------------------------	-----

4.1.3 Automatic pump down .....	4-3
---------------------------------	-----

4.1.4 Refrigerant recovery and charge .....	4-5
---	-----

4.2 Main components and maintenance.....	4-9
--	-----

4.2.1 Scroll compressor .....	4-9
-------------------------------	-----

4.2.2 Fan and fan motor.....	4-11
------------------------------	------

4.2.3 PT and CT board (EC9756).....	4-12
-------------------------------------	------

☆ 4.2.4 Electronic expansion valve .....	4-14
--	------

4.2.5 Suction modulation valve .....	4-15
--------------------------------------	------

4.2.6 Drier .....	4-16
-------------------	------

4.2.7 Solenoid valve.....	4-17
---------------------------	------

4.2.8 Discharge pressure regulating valve.....	4-18
--	------

4.2.9 Check valve .....	4-18
-------------------------	------

4.2.10 High-pressure switch (HPS) .....	4-19
---	------

4.2.11 Low pressure transducer (LPT) .....	4-19
--	------

4.2.12 High pressure transducer (HPT) .....	4-20
---	------

4.2.13 Air-cooled condenser and evaporator... ..	4-20
--	------

4.2.14 Fusible plug .....	4-21
---------------------------	------

4.2.15 Liquid/moisture indicator .....	4-21
--	------

4.2.16 Evacuation and dehydrating .....	4-22
---	------

### 5. Optional Devices.....5-1

5.1 Electronic temperature recorder .....	5-1
---	-----

5.2 USDA transportation.....	5-3
------------------------------	-----

5.2.1 Type of USDA sensor/receptacle .....	5-3
--	-----

5.2.2 Initial setting .....	5-3
-----------------------------	-----

5.2.3 USDA sensor calibration .....	5-3
-------------------------------------	-----

5.2.4 USDA transportation requirement.....	5-3
--	-----

5.2.5 USDA report .....	5-3
-------------------------	-----

5.3 TransFRESH .....	5-5
----------------------	-----

### 6. Troubleshooting .....

6.1 Refrigeration system and electrical system... ..	6-1
--	-----

6.2 Alarm codes on electronic controller .....	6-4
--	-----

6.3 Troubleshooting for automatic PTI (J-code) ..	6-9
---	-----

6.4 Diagnosis based on the recording chart.....	6-11
---	------

6.5 Emergency operation .....	6-14
-------------------------------	------

6.5.1 Emergency operation of controller.....	6-14
--	------

6.5.2 Short circuit operation of controller.....	6-15
--	------

6.5.3 Opening adjustment of electronic expansion valve ...	6-16
--	------

6.5.4 Opening adjustment of suction modulation valve: ..	6-17
--	------

6.5.5 Automatic Back up for supply/ return air	
--	--

temperature sensors .....	6-18
---------------------------	------

6.6 Troubleshooting for automatic PTI (J-code) ...	6-19
--	------

### 7. Appendix .....

7.1 Standard tightening torques for bolts.....	7-1
--	-----

7.2 Standard tightening torque for flare nut .....	7-1
--	-----

7.3 Resistance of motor coil and solenoid valve coil ...	7-1
--	-----

7.4 HFC134a, temperature-vapor pressure characteristics table ...	7-2
---	-----

7.5 Temperature conversion table and temperature sensor	
---	--

(SS/RS/DSS/DRS/RSS/RRS/EIS/EOS/SGS/AMBS)	
--	--

characteristics table .....	7-3
-----------------------------	-----

7.6 Temperature conversion table and temperature	
--	--

sensor (DCHS) characteristics table .....	7-4
---	-----

7.7 High pressure transducer characteristics table ...	7-4
--	-----

7.8 Low pressure transducer characteristics table ...	7-4
---	-----

☆ 7.9 Piping diagram.....	7-5
---------------------------	-----

7.10 Pilot lamps and monitoring circuit.....	7-6
--	-----

7.11 Fuse protection table .....	7-7
----------------------------------	-----

☆ 7.12 Schematic wiring diagram .....	7-9
---------------------------------------	-----

7.13 Stereoscopic wiring diagram .....	7-10
--	------

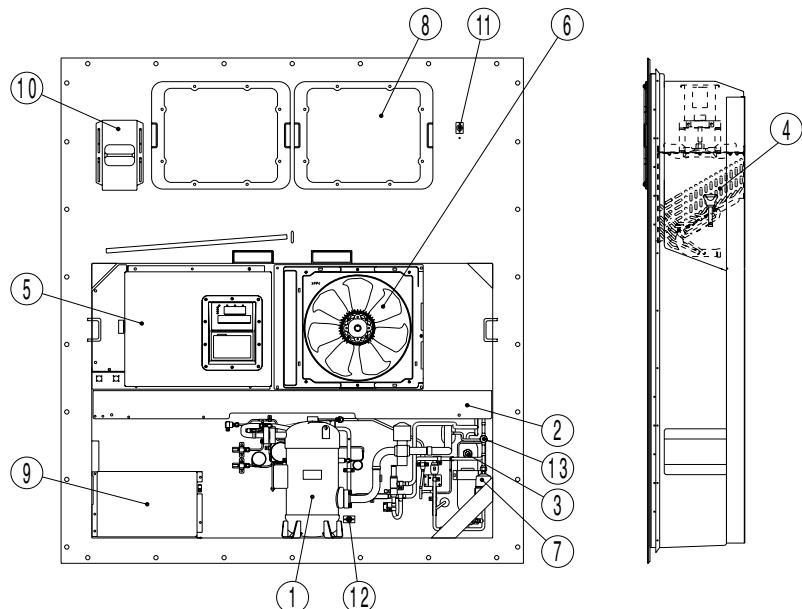
# 1. Introduction

## 1.1 OPERATION RANGE

Use the units within the following range.

Item	Operation range
Ambient temperature range	-30°C to +50°C (-22°F to + 122°F)
Inside temperature range	-30°C to +30°C (-22°F to + 86°F)
Voltage	50Hz: 380V/400V/415V, 60Hz: 440V/460V Voltage fluctuation rate should be within ±10%
Vibration and shock	2G

## 1.2 BASIC NAMES OF COMPONENTS



- |  |  |
|--|--|
| ① Compressor   | ⑧ Access panel   |
| ② Air-cooled condenser   | ⑨ Storage space for power cable  |
| ③ Receiver   | ⑩ Ventilator   |
| ④ Evaporator   | ⑪ Sampling port (Return)<br><i>(Use this port to measure the inside return air temperature.)</i>                                   |
| ⑤ Control box<br><i>(Outside: switch, manual defrost switch)<br/>(Inside: circuit breaker)</i> | ⑫ Gas sampling port<br><i>(This is used to measure the inside supply air temperature and inside CO<sub>2</sub> concentration.)</i> |
| ⑥ Condenser fan  | ⑬ Liquid moisture indicator  |
| ⑦ Drier  |  |

## 2. General description

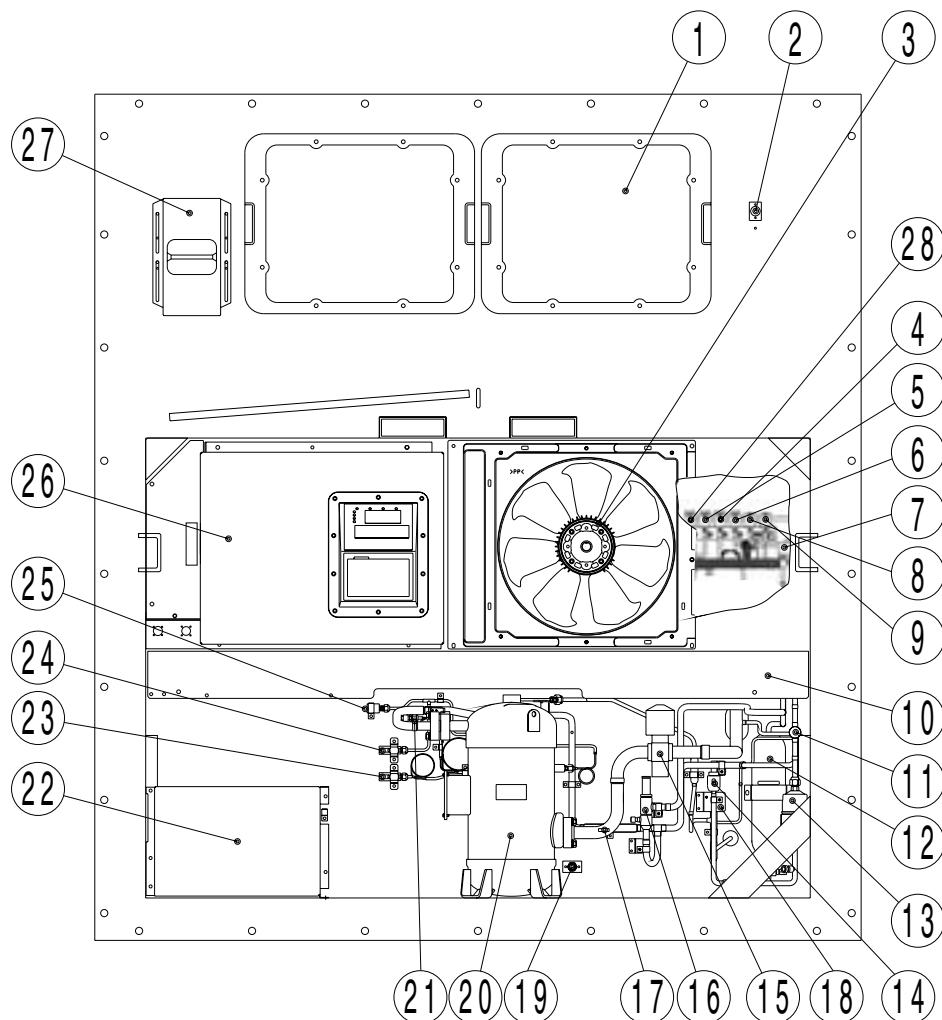
### 2.1 Main specifications

Item	Model
	LXE10E
Condenser cooling system	Air cooled type
Controller	DECOS III d
Power supply	AC 3-phase 380V/400V/415V 50Hz, 440V/460V 60Hz
Compressor	Hermetic scroll type (Motor output: 5.5kW)
Evaporator	Cross fin coil type
Air-cooled condenser	Cross fin coil type
Evaporator fan	Propeller fan
Evaporator fan motor	Three-phase squirrel-cage induction motor
Condenser fan	Propeller fan
Condenser fan motor	Three-phase squirrel-cage induction motor
Defrosting	System
	Initiation
	Termination
Refrigerant flow control	Electronic expansion valve
Capacity control	Capacity control with hot gas bypass and suction modulating valve
Protective devices /Safety devices	Circuit breaker, PT/CT board (for over current protection). Compressor thermal protector Condenser fan-motor thermal protector Evaporator fan-motor thermal protector High-pressure switch, Fusible plug, Fuse (10A, 5A)
Refrigerant (charged amount)	R134a : LXE10E-A33 : 4.6 (kgf) LXE10E-A33A : 4.8 (kgf)
Refrigerant oil (charged amount)	IDEMITSU, Daphne hermetic oil FVC 46D : 2.2(ℓ )
Weight	465 (kgf)

## 2.2 Names of components

### 2.2.1 Outside

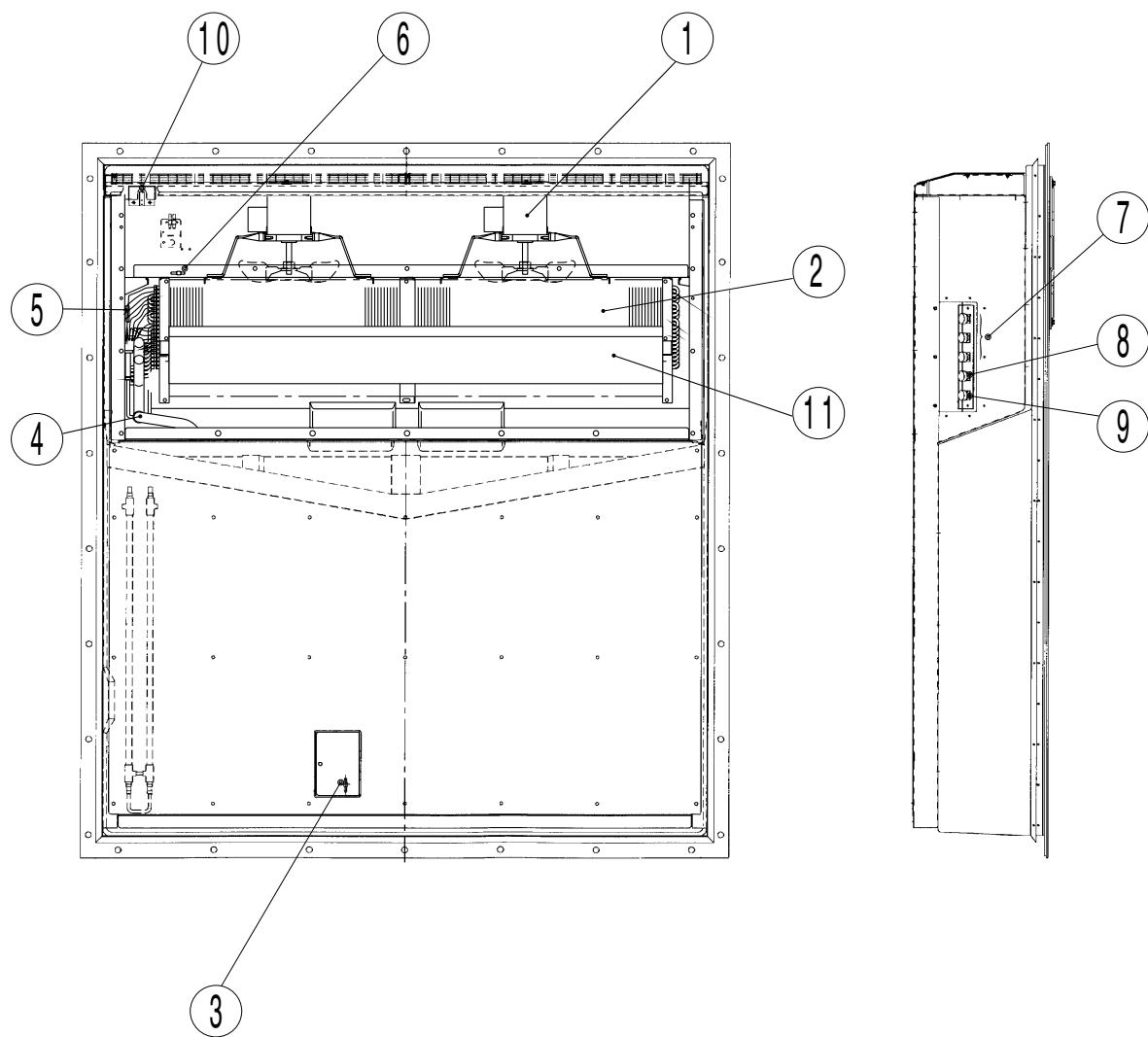
●LXE10E



- |  |  |
|--|--|
| ① Access panel                               | ⑯ Discharge pressure regulating valve (DPR)        |
| ② Thermometer check port (Return air)        | ⑰ Compressor suction pipe temperature sensor (SGS) |
| ③ Condenser fan motor (CFM)                  | ⑱ Ambient temperature sensor (AMBS)                |
| ④ Hot-gas solenoid valve (HSV)               | ⑲ Thermometer check port (Supply air)              |
| ⑤ Defrost solenoid valve (DSV)               | ⑳ Compressor (MC)                                  |
| ⑥ Discharge gas by-pass solenoid valve (BSV) | ㉑ Discharge pipe temperature sensor (DCHS)         |
| ⑦ Electronic expansion valve (EV)            | ㉒ Storage space for power cable                    |
| ⑧ Economizer solenoid valve (ESV)            | ㉓ Low pressure transducer (LPT)                    |
| ⑨ Injection solenoid valve (ISV)             | ㉔ High pressure transducer (HPT)                   |
| ⑩ Air-cooled condenser                       | ㉕ High pressure switch (HPS)                       |
| ⑪ Liquid/moisture indicator                  | ㉖ Control box                                      |
| ⑫ Liquid receiver                            | ㉗ Ventilator                                       |
| ⑬ Drier                                      | ㉘ Reheat coil solenoid valve (RSV)                 |
| ⑭ Liquid solenoid valve (LSV)                |  |
| ⑮ Suction modulating valve (SMV)             |  |

## 2.2.2 Inside

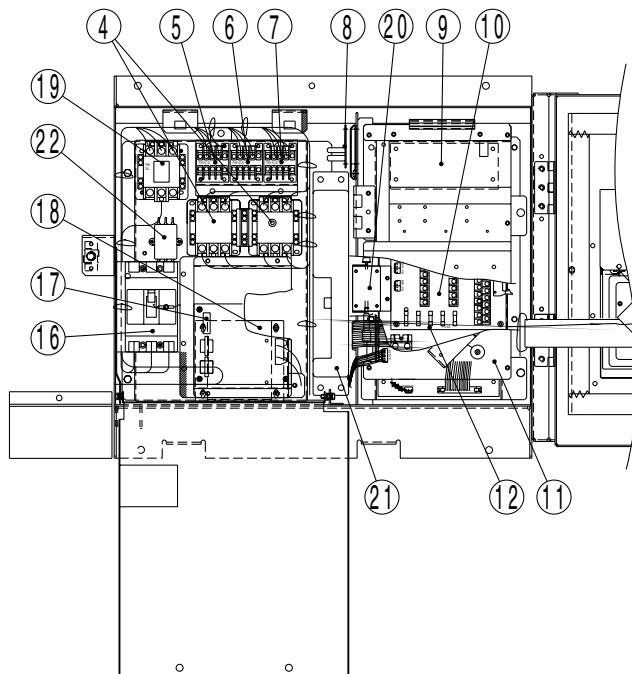
●LXE10E



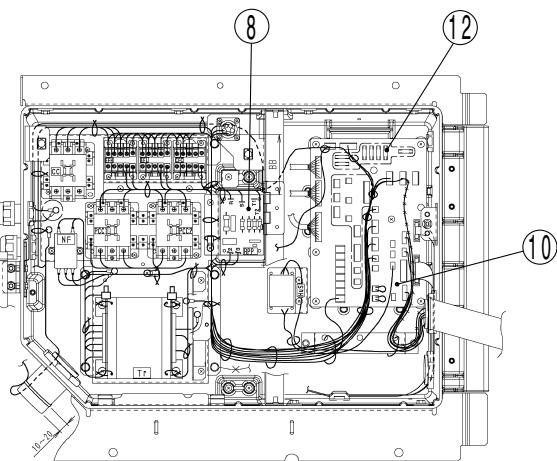
- ① Evaporator fan motor (EFM)
- ② Evaporator
- ③ Supply air temperature sensor (SS)  
Data recorder supply air temperature sensor (DSS)
- ④ Evaporator outlet pipe temperature sensor (EOS)
- ⑤ Evaporator inlet pipe temperature sensor (EIS)
- ⑥ Return air temperature sensor (RS)  
Data recorder return air temperature sensor (DRS)
- ⑦ USDA receptacle
- ⑧ Cargo temp. receptacles
- ⑨ P.C. Port receptacles
- ⑩ Humidity sensor
- ⑪ Reheat coil

### 2.2.3 Control box

- Inside of the control box  
In case of LXE10E-A33

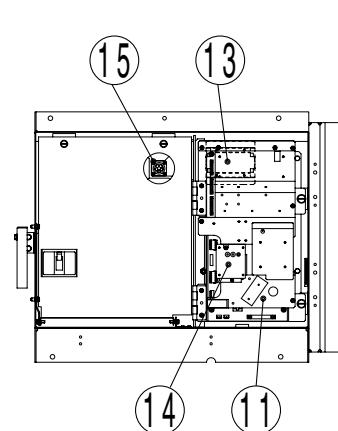


- In case of LXE10E-A33A  
(Same as A33 besides ⑧, ⑩, ⑫.)



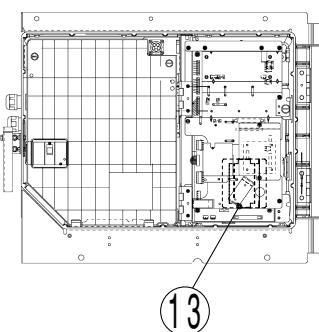
- Controller

In case of LXE10E-A33



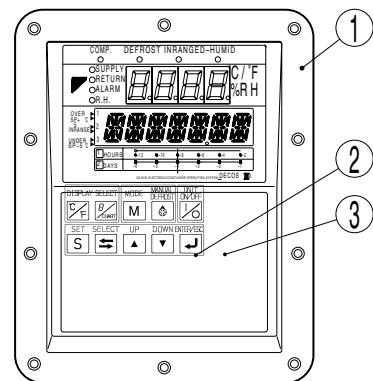
In case of LXE10E-A33A

(Same as A33 besides ⑬.)



- Operation panel

(Outside of the control box)



- ① Controller operation panel (EC3, 4)
- ② MANUAL DEFROST key
- ③ UNIT ON/OFF key
- ④ Phase correction contactor (PCC1,2)
- ⑤ Magnetic contactor for high speed evaporator fan (EFH)
- ⑥ Magnetic contactor for low speed evaporator fan (EFL)
- ⑦ Magnetic contactor condenser fan (CFC)
- ⑧ Reverse phase protection device (RPP)
- ⑨ Adopter PCB (EC6)
- ⑩ Terminal block board (TB1)
- ⑪ Controller CPU / IO board (EC1, 2)

- ⑫ Fuse (Fu1-6)
- ⑬ Rechargeable battery (BAT)
- ⑭ Voltage indicator
- ⑮ Personal computer receptacle
- ⑯ Circuit breaker (CB)
- ⑰ PT/CT board
- ⑱ Transformer (TrC), control circuit
- ⑲ Magnetic contactor for compressor (CC)
- ⑳ P.C.B for humidity sensor (HUS)
- ㉑ Modem (RCD)
- ㉒ Noise filter (NF)

## 2.3 Set point of functional parts and protection devices

	Device name			Actuation	Set point	Detection method	Symbol		
Pressure switch	High-pressure switch			OFF	2400kPa (24.47kg/cm <sup>2</sup> )	High-pressure switch	HPS		
	Water pressure switch (optional)			ON	1900kPa (19.37kg/cm <sup>2</sup> )				
	Mode selection	Chilled mode		OFF	98kPa (1.0kg/cm <sup>2</sup> )	Water pressure switch	WPS		
		Frozen mode		ON	39kPa (0.4kg/cm <sup>2</sup> )				
	Delay timer	Fan	Change-over for Hi/Lo	ON	+30.0°C ~ -10.0°C (+86.0°F ~ -14.0°F)	Set point temperature	EC		
			After defrosting		-10.1°C ~ -30.0°C (13.82°F ~ -22.0°F)				
		Compressor	At starting	ON	10 seconds				
	Defrosting timer	Initiation	Short	ON	60 seconds				
			Long	ON	3 seconds				
		Back-up		OFF	4 hours ≈1				
		In-range masking		OFF	3, 6, 9, 12, 24 and 99 hours(≈2)				
		Out-range guard		ON	90 minutes ≈3				
	Defrosting termination set point			ON	30 minutes				
Electronic controller				OFF	30°C (86°F)	Evaporator outlet temperature sensor	EOS		
				Reset	15°C (59°F) ≈4	Return air temperature sensor	RS, DRS		
	High-pressure control for Condenser fan (≈Frozen only)			OFF	800kPa (8.2kg/cm <sup>2</sup> ) ≈7	High-pressure transducer	HPT		
	Discharge gas temperature protection set point	Pull down LPT>50kpa	OFF	ON	1000kPa (10.2kg/cm <sup>2</sup> )		DCHS		
		LPT≤50kpa	OFF	Reset	135°C (275°F) After 3 minutes elapsed	Discharge gas temperature sensor			
	Overcurrent protection set point (Cutout)			OFF	128°C (262°F)				
				Reset	After 3 minutes elapsed				
	Current control			Control	26.0A After 3 minutes elapsed	PT/CT board	CT2		
				Control	50Hz : 16.1A 60Hz : 17.4A	PT/CT board	CT1		
	High pressure control			Control	2300 to 2350 kPa (23.5 to 24.0 kg/cm <sup>2</sup> )	High pressure sensor	HPT		
Current	Circuit breaker			OFF	30A		CB		
	Fuse			OFF	5A, 10A ≈5		Fu		
	Evaporator fan motor thermal protector			OFF	132°C (270°F)				
Motor	Condenser fan motor thermal protector			OFF	135°C (275°F)		MTP		
	Compressor motor thermal protector			OFF	140°C (284°F)		CTP		

(≈1) When Return air (RS) is lower than -20°C, defrost starts every 6 hours.

(≈2) When "99" hours is selected, refer to on demand defrost in 2.5.3. (TR01-09A)

(≈3) When Inside set point is -20.0°C or Lower, In-range masking is 120min.

(≈4) If defrost is initiated when inside temperature is out range area. (= In-range LED is not light), this condition is added to finish defrost. Refer to "Defrosting termination" in 2.5.3. (TR01-09A)

(≈5) Refer to "Fuse Protection table" in 7.11. (TR01-09A)

(≈7) When dehumidification is ON in dehumidification mode, the setting figure may change between 900~2100kPa automatically (Refer to "High Pressure Control" Page 2-17/TR01-09A)

## 2.4 OPERATION MODES AND CONTROL

The relationship between the operation mode and setting temperature is as follows.

Operation mode	Setting temperature	Control sensor	Operation description
Frozen mode	–10.1°C to –30.0°C (13.82°F to –22.0°F)	Return air temperature sensor	Compressor ON/OFF control
Chilled mode	+30.0°C to –10.0°C (+86.0°F to –14.0°F)	Supply air temperature sensor	Capacity control operation with suction modulating valve and hot-gas bypass control
Defrosting mode	–	–	Hot-gas defrosting with refrigerant metering control

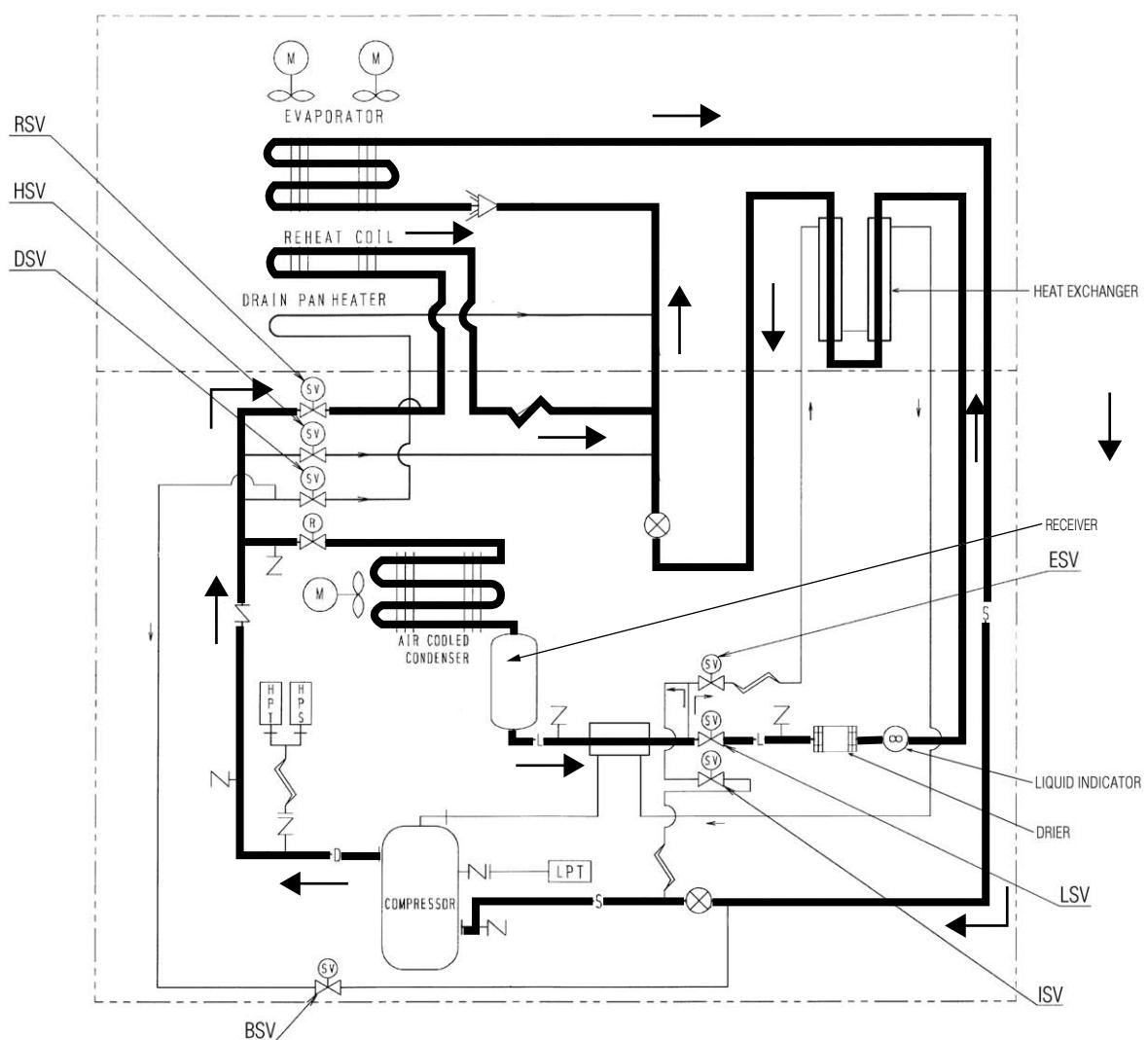
### 3 Dehumidification mode

The unit have dehumidification control by a reheat coil, which is under the evaporator coil. To execute dehumidification, controller setting is required. (Refer to Page 3-12)

In dehumidification, the Reheat Solenoid Valve (RSV) opens to flow high pressure and high temperature refrigerant to reheat coil. The "DEHUMID" LED lamp will light up.

The following setting can be made:

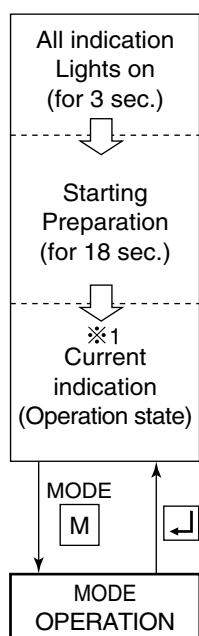
- 1) Dehumidification range: 60–95%RH



## 4. Mode Operation

MODE

Press the **M** key in current indication mode to move to MODE operation.



In mode operation, the following settings/operations are available.

### 1. Generator setting

Total power consumption can be reduced to desired Max setting for the specific generators set or power facilities.

The selections are "off (No limit)", "15" "14" "13" "12" "11" KVA.

### 2. Automatic pump down

Pump down can be executed automatically.

(Refer to "Automatic pump down" in 4.1.3/TR01-09A)

### 3. Dehumidification mode setting

Dehumidification mode can be executed in this mode (M. Dehumidification mode control in 2.5.4/TR01-09A)

When "Dehumidification" is set to "on", it is possible to change the following set from default.

①Inside humidity : 60 ~95% RH

# 5 Alarm display and back-up function

## 5.1 Alarm list

Alarm grouping	Alarm code	Alarm content	Action with alarm
Permanent stop	F101	HPS activated within 30 seconds after operation start or protection device activated 5 times at start-up operation or Fuse 1 brown (Refer Page 7-7). Low- pressure drops to -85kPa or lower within 2 seconds after operation start. HPS does not activate when it reaches to the set value.	Unit stops
	F109	Temperature setting required (SRAM failure)	Unit stops
	F111	Return / Supply for data / Supply air sensor malfunction (at chilled mode)	Unit stops
	F301	Suction modulating valve (SMV) does not fully close contrary to the designation or initial setting of the controller is wrong.	Unit stops
	F401	Abnormal high voltage (over 600V) or low voltage (under 300V)	Unit stops
	F603	S phase became open phase	Unit stops
	F701	Abnormalities, which make it impossible to continue operation (Note2.)	Unit stops
	F705		Unit stops
	F803		Unit stops
Protection device activation	E101	High-pressure switch activated during normal operation.	Restart after 3-minute
	E103	CTP or electronic OC activated during normal operation.	Restart after 3-minute
	E105	Micro processor OC activated during normal operation.	Restart after 3-minute
	E107	DCHS became abnormal high temperature during operation.	Restart after 3-minute
	E109	In the event the refrigerant circulation rate is low, the unit will stand by for three minutes to restart then. Low pressure drops to -90kPa or lower for 2 seconds or longer successively during normal operation.	If this error occurs two times, F803 error will be detected to stop the unit. Restart after 3-minute
	E201	Pump down is not completed within 90 seconds.	Only alarm display
	E203	Overcool protection activates in the chilled. (Control temperature $\leq$ SP-3°C or for 3 minutes)	Restart after 3-minutes
	E205	Evaporator for motor failure (Note 2)	Only alarm display
	E207	Defrosting is not completed within 90 minutes	Only alarm display
Printed-circuit board failure	E303	Humidity setting required (SRAM failure)	Only alarm display
	E305	Defrost timer setting required (SRAM failure)	Only alarm display
	E307	Calendar setting required (SRAM failure)	Only alarm display
	E311	Trip-start setting required (SRAM failure)	Only alarm display
	E315	PT/CT board failure	Restart after 3-minutes
	E401	Supply air temperature sensor (SS) malfunction	Back-up operation
	E402	Data recorder supply air temperature sensor (DSS) malfunction	Back-up operation
	E403	Return air temperature sensor (RS) malfunction	Back-up operation
	E404	Data recorder return air temperature sensor (DRS) malfunction	Back-up operation
Display alone or restartable alarm	E405	Discharge air temperature sensor (DCHS) malfunction	Only alarm display
	E406	Suction gas temperature sensor (SGS) malfunction	Back-up operation
	E407	Evaporator inlet temperature sensor (EIS) malfunction	Back-up operation
	E409	Evaporator outlet sensor (EOS) malfunction	Back-up operation
	E411	Ambient sensor (AMBS) malfunction	Only alarm display
	E413	Low pressure transducer (LPT) malfunction	Back-up operation
	E415	High pressure transducer (HPT) malfunction	Back-up operation
	E417	Voltage sensor (PT1) malfunction	Only alarm display
	E421	Current sensor (CT1) malfunction	Only alarm display
	E423	Current sensor (CT2) malfunction	Restart after 3-minutes
	E425	Pulp temperature sensor (USDA1) malfunction	Only alarm display
	E427	Pulp temperature sensor (USDA2) malfunction	Only alarm display
	E429	Pulp temperature sensor (USDA3) malfunction	Only alarm display
	E431	Humidity sensor (HuS) malfunction	Only alarm display
	E433	Cargo temperature sensor (CTS) or box temperature sensor (CBS) malfunction	Only alarm display
	E603	Suction modulating valve (SMV) malfunction or driver malfunction	Back-up operation
Power supply alarm	E607	MDS (sheet key) malfunction	Only alarm display
	E707	Momentary power failure	Restart after 3-minutes
	E801	Backup battery replacement date exceeded	Only alarm display

Note 1) The alarm LED does not blink when E code alarm is generated.

To check if any alarm generates, use alarm indication function in the section "1. Current indication mode" of "3.3.2 Mode operation procedure".

2) In the event error E101, E103, E107, or E109 occurs 10 times, the system will go to 4-hour standby mode.

When both evaporators have malfunctioned, the unit stops.

3) In case of sensor malfunction, the judgment for sensor malfunction does not perform for 3 minutes before the pressure or temperature reaches to the specified value.

# **6 Battery**

## **6.1 Specifications**

Controller can use Rechargeable batteries.

The battery is positioned on CPU & I/O box in controller box.

Rechargeable: DAIKIN original rechargeable battery

## **6.2 Function**

This battery is used without main power supply for the following functions.

- 1) Display wake up (Refer to chapter 3.3.2) page 3-11.

Setting/Display the following items on the LCD display.

<Display>

Temperature on the return air sensor

Temperature on the supply air sensor

<Setting change>

Inside temperature, defrosting interval, dehumidifying set, Unit ON/OFF

- 2) USDA data log

USDA sensors data log every 1 hour

## **6.3 Battery check**

Rechargeable battery: Press "Battery check meter"

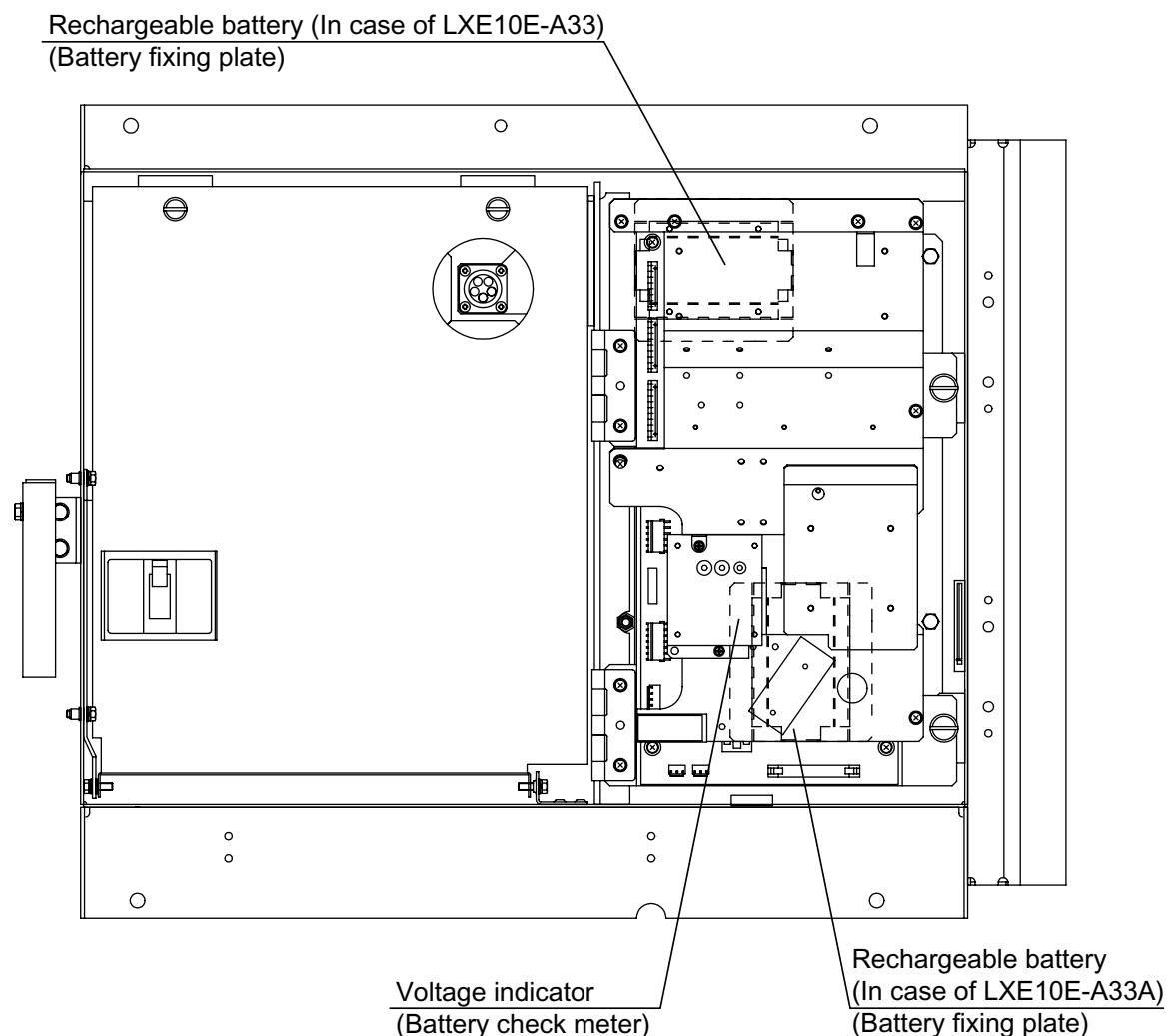
Green: Battery is charged.

Red: Charge the battery.

No light: Charge or replace the battery.

## 6.4 Battery replacement (Rechargeable battery)

Detach the cover of battery and replace the battery



## 8 Electronic expansion valve

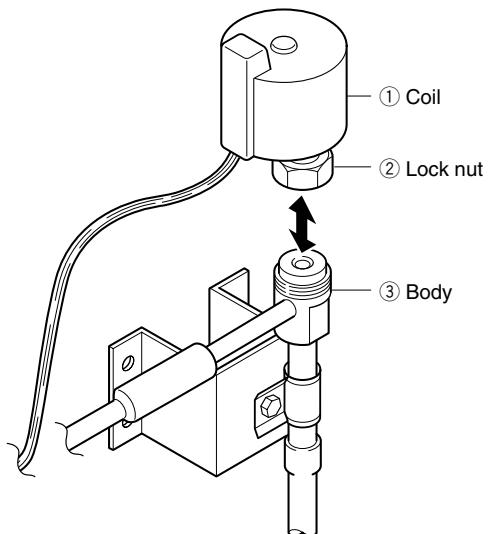
- Model Coil : EBM-MD12MD-30  
Body : EDM-B804DM-1

This unit adopts an electronic expansion valve. The electronic expansion valve controls the optimum refrigerant flow rate automatically, using the temperature sensor at the evaporator inlet and outlet pipes.

In case of emergency including controller malfunctions, refer to the chapter of troubleshooting, section 6.5, Emergency operation.

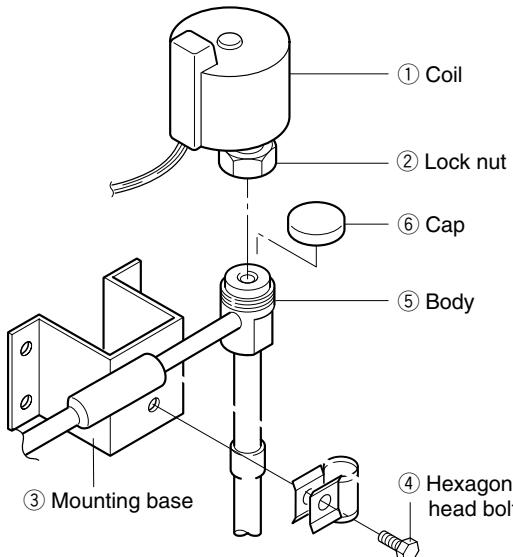
### (1) Replacing the coil

- ① Loosen the lock nut, then remove the coil from the body.
- ② Install a new coil. The tightening torque for installation is 6.9 to 16.7 N · m (70 to 170kgf · cm).
- ③ Restore the binding bands and the lead wire into the original state.
- ④ After replacing, carry out refrigerant leakage check, and make sure that there are no leaks.

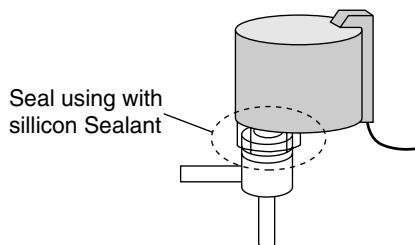


### (2) Replacing the body

- ① Loosen the lock nut, then remove the coil.
- ② Remove the hexagonal head bolts, and cut the pipe on the body, then remove remaining pipes from brazing parts.
- ③ Connect a new body to the pipes. Be sure to conduct brazing work while cooling the body below 120°C (248°F) by using wet cloths.
- ④ Fix the body to the mounting base.
- ⑤ Remove the cap, and mount the coil with the tightening torque of 6.9 to 16.7 N · m (70 to 170kgf · cm).
- ⑥ After replacing, carry out refrigerant leakage check, and make sure that there are no leaks.

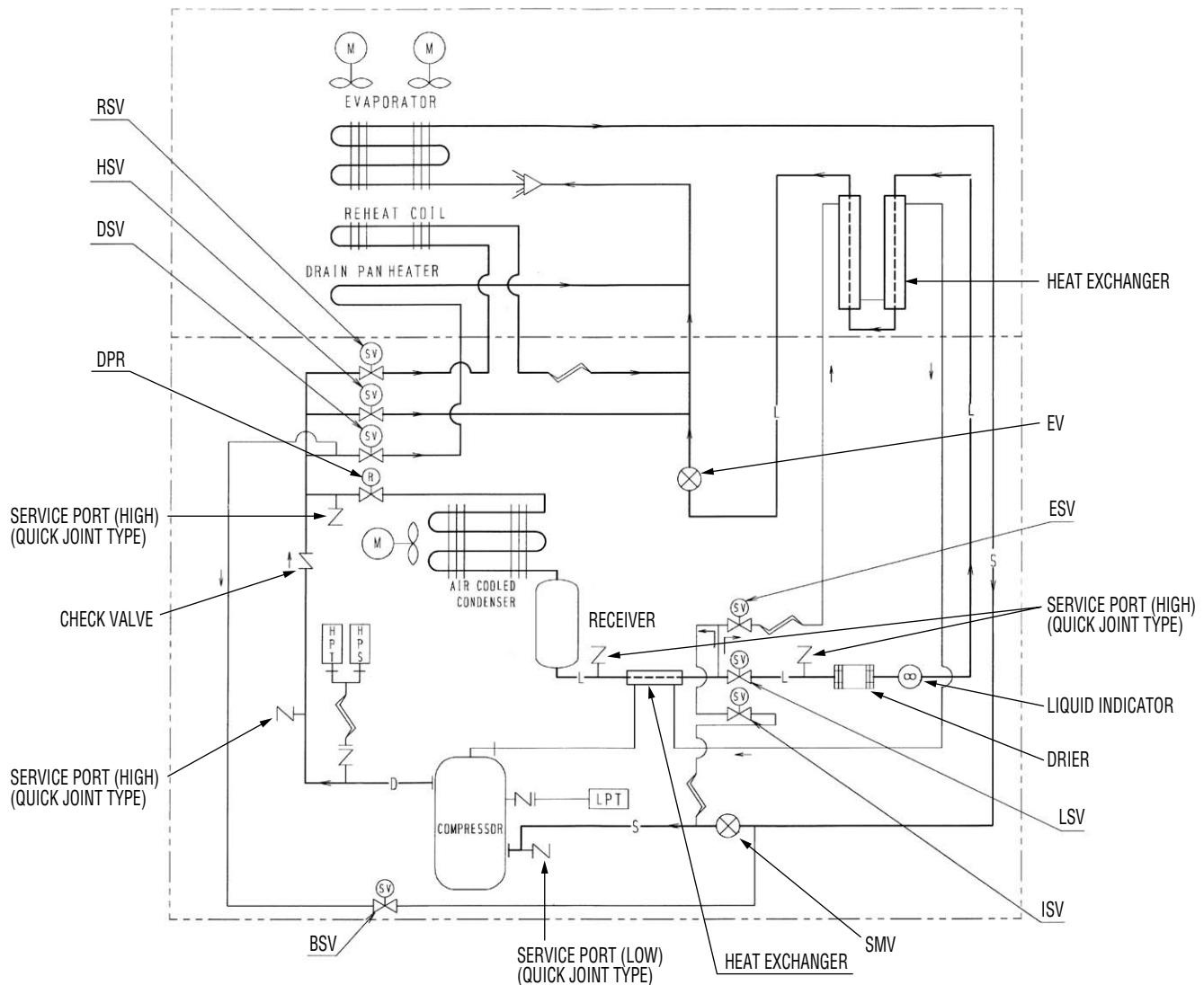


- ⑦ Apply a silicon sealant to the lock nut section.



## 9. APPENDIX

### 9.1 Piping diagram



EV:Electronic Expansion Valve

SMV:Suction Modulation Valve

DPR:Discharge pressure regulator

LSV:Liquid Solenoid Valve

HSV:Hot Gas Solenoid Valve

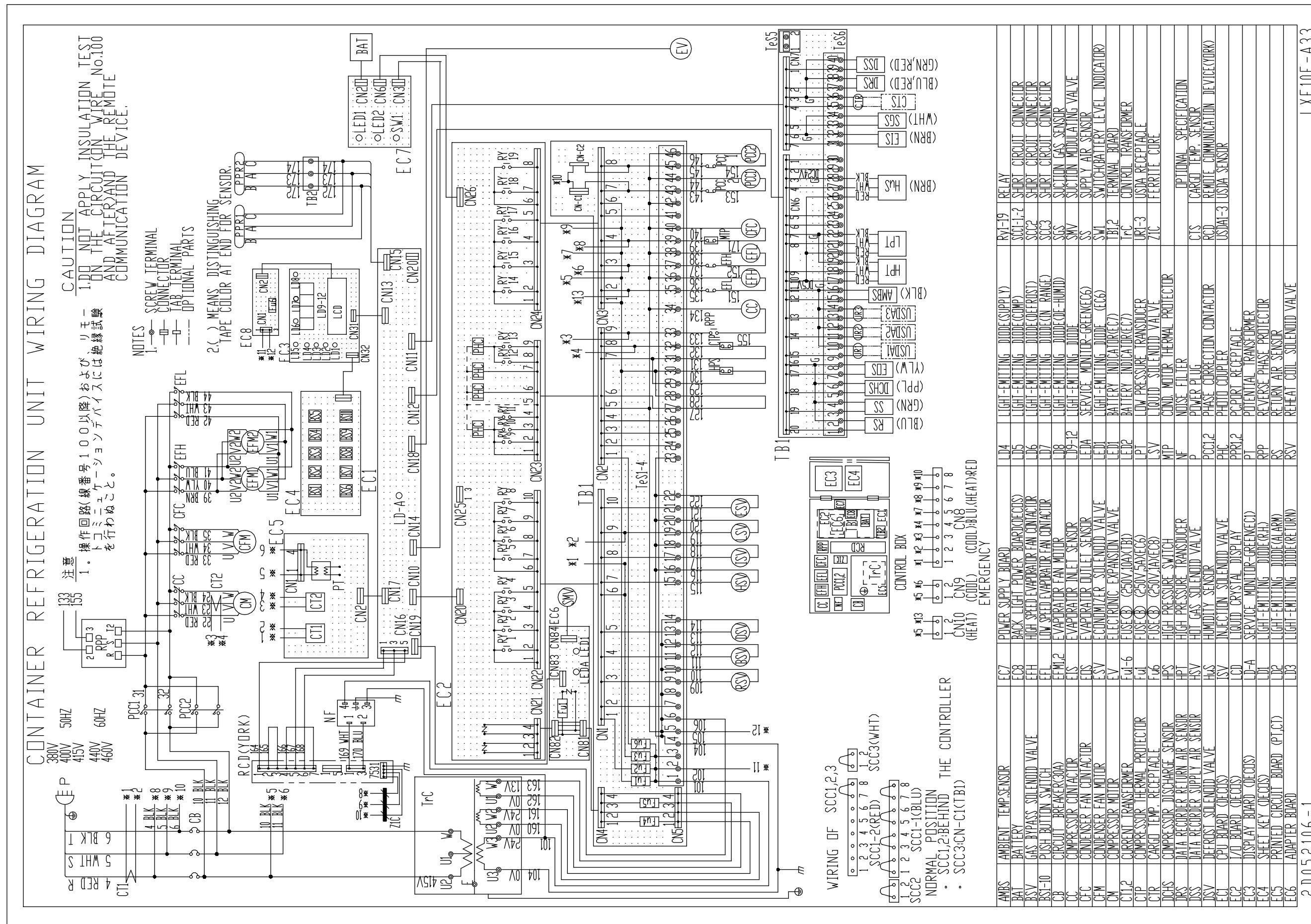
DSV:Defrost Solenoid Valve

ISV:Injection Solenoid Valve

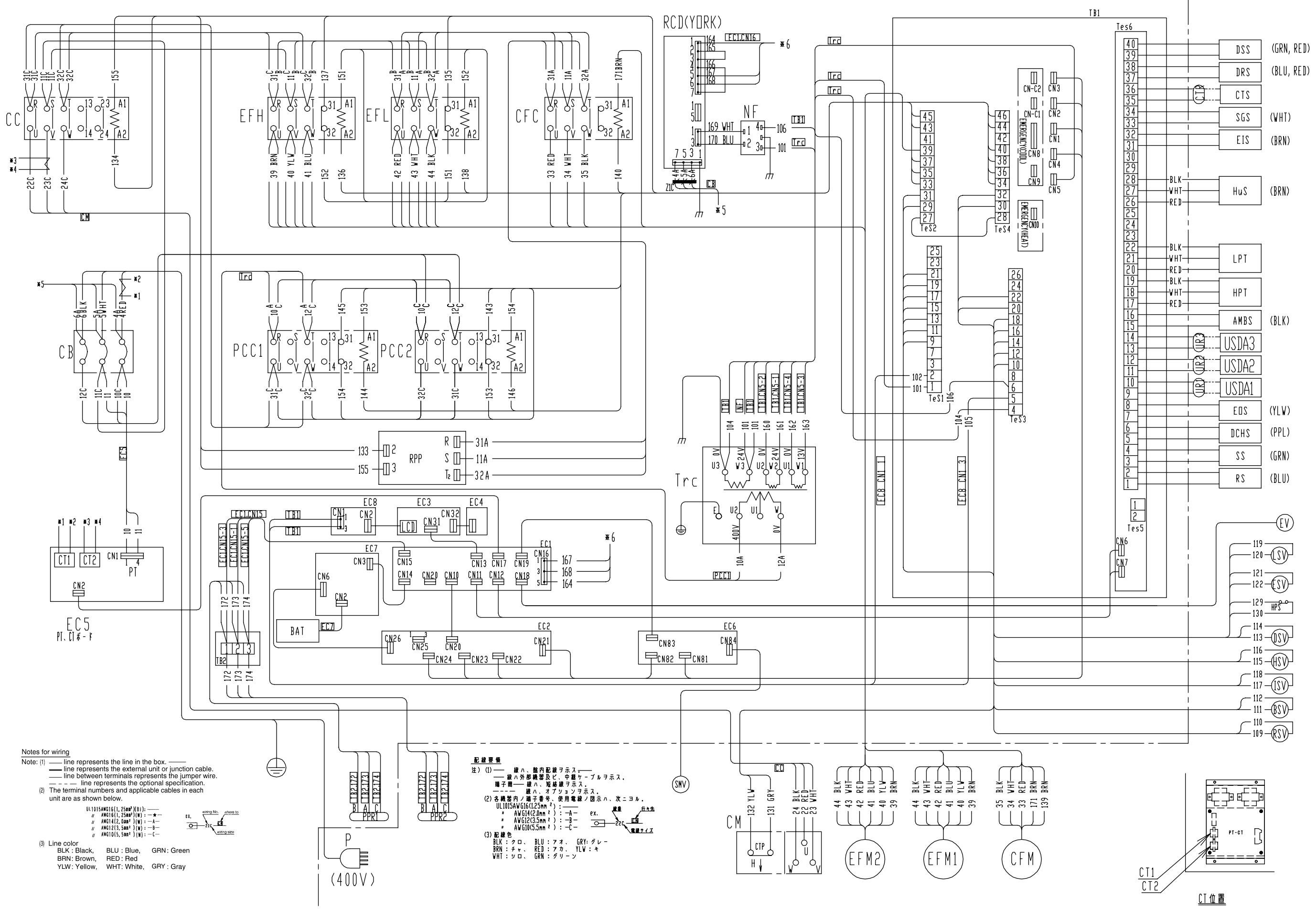
ESV:Economizer Solenoid Valve

BSV:Discharge Gas Bypass Solenoid Valve

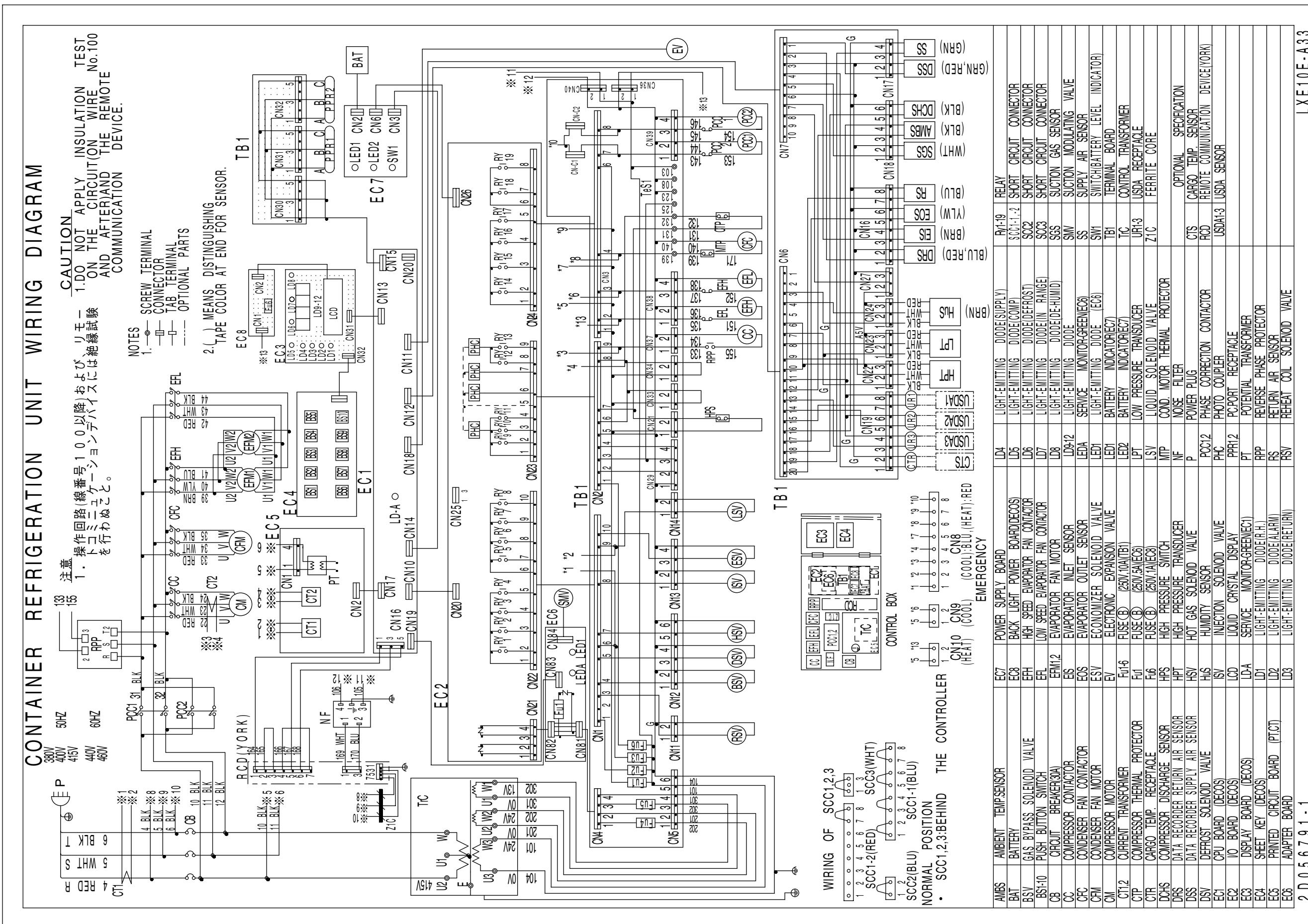
## 9.2 Schematic wiring diagram (LXE10E-A33)



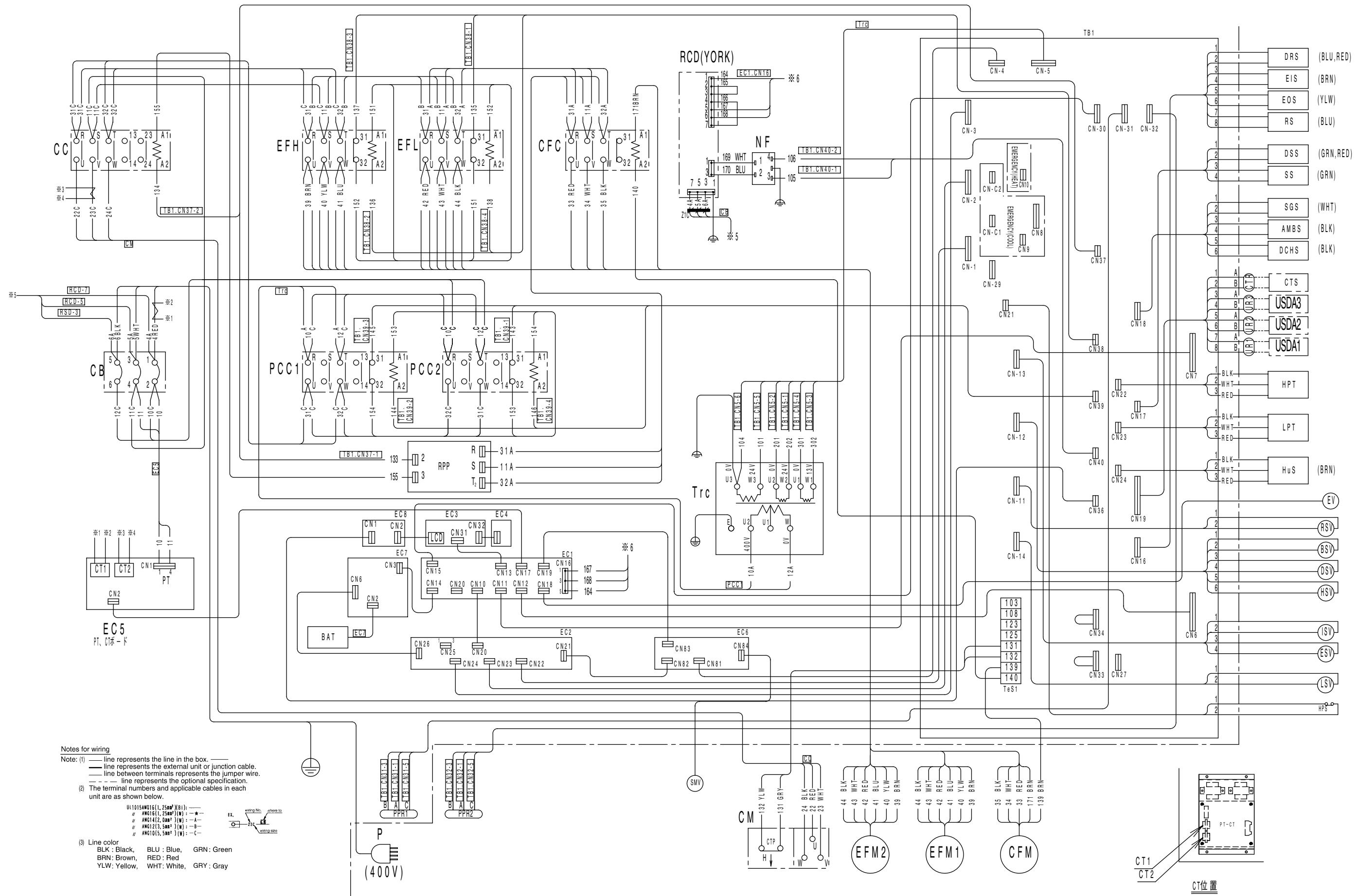
## **9.3 Stereoscopic wiring diagram (LXE10E-A33)**



## 9.2 Schematic wiring diagram (LXE10E-A33A)



### 9.3 Stereoscopic wiring diagram (LXE10E-A33A)



## ORDERING INSTRUCTIONS

The parts list contains the parts of the DAIKIN Marine Type Container Refrigeration Units. Please read the following items before using the list.

1. When ordering the parts, be sure to specify the model No., the name of part and the type of part. When ordering the parts for which no parts NO. is shown in the PARTS NO. column, be sure to describe DWG.NO..
2. The list shows the parts only for replacement or repairing at the job site. Certain parts require a production lead time or are supplied as a set, so please contact with the nearest DAIKIN PARTS CENTRE.
3. Index symbols;

Meaning of the ranking A,B and C are as follows;

A. The most important spare parts

1. The parts whose malfunction cause fatal damage to the unit.
2. The parts with high risk of malfunction.
3. The parts that are worn out after an extended service period.

B. The important spare parts next to A, but the risk of malfunction is not so high.

C. The parts with low risk of malfunction, but recommendable to stock to cope with damage during handling of container box and long delivery time, etc.

The parts without A, B and C mark is the parts whose necessity is not so high under normal operation.

## パーツリスト使用上の注意

このパーツリストはダイキン海上コンテナ冷凍装置の部品を集録しております。パーツリスト使用にあたっては、必ず次の注意事項をご一読の上使用していただくようお願いいたします。

1. 部品のご注文の際は機種名、部品番号、および部品名、形式を必ずご指定ください。  
なお、部品番号欄が空白になっている部品は、図面番号で指示願います。
2. 掲載部品の範囲は、あくまでも現地にて分解修理できるところまで記載しております。  
一部部品につき納期のかかるものおよびセット単位となるものもありますので、お近くのダイキンパーツセンター又はサービスステーションに相談願います。
3. INDEXの説明

INDEXのA、B、Cの意味は下記の通りです。

A. 最も重要な部品

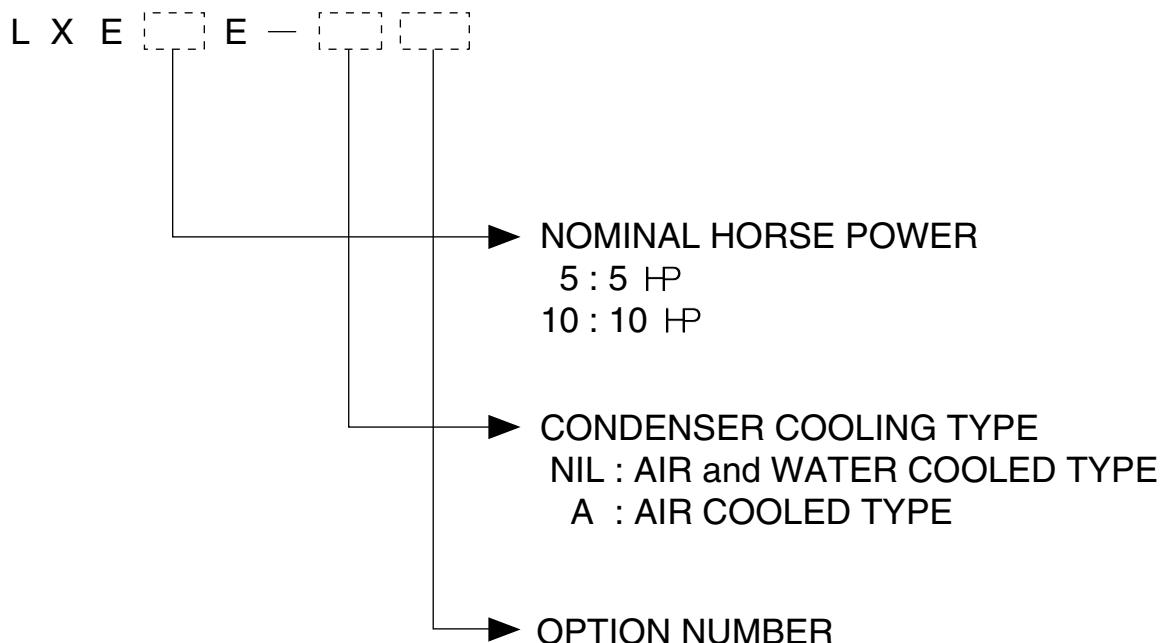
1. 故障した場合に最も重大な損害を与えると思われる部品
2. 故障の確率が高いと思われる部品
3. 長期の使用で摩耗して使用できなくなる部品

B. 故障発生の確率は高くはないが、Aについて重要な部品

C. 故障発生の確率は低いが、コンテナボックスの運搬中の事故や、部品の納期が長期になると思われる等の理由で、在庫をお勧めする部品

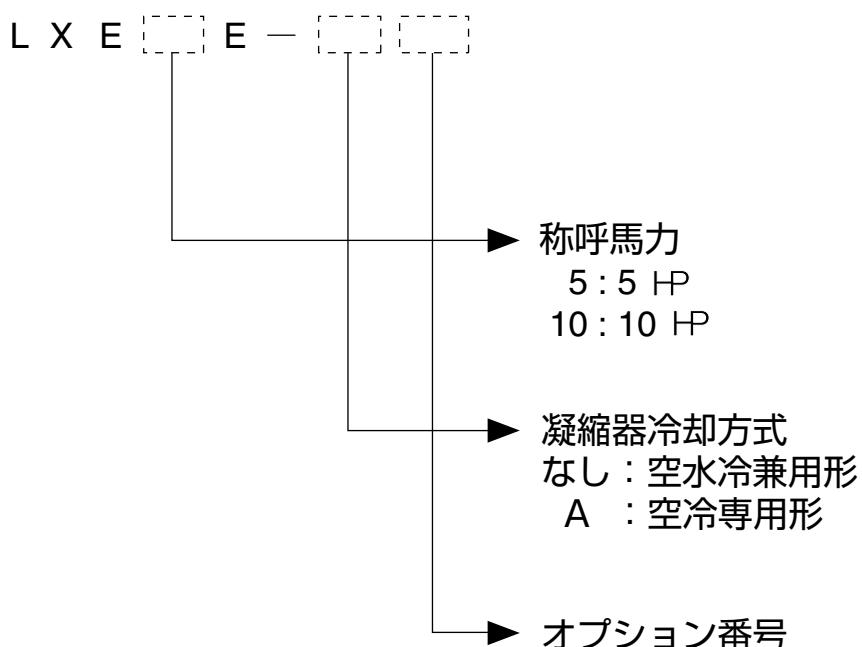
A,B,Cマークの無い部品は、通常の運転では必要性は高くなない部品です。

## Denomination of Model Name



Note) "R" GIVEN AFTER OPTION NUMBER STANDS FOR "REVISION" AND IT IS GIVEN FOR THE UNIT WHICH IS SPECIALLY MODIFIED.

## 機種名について



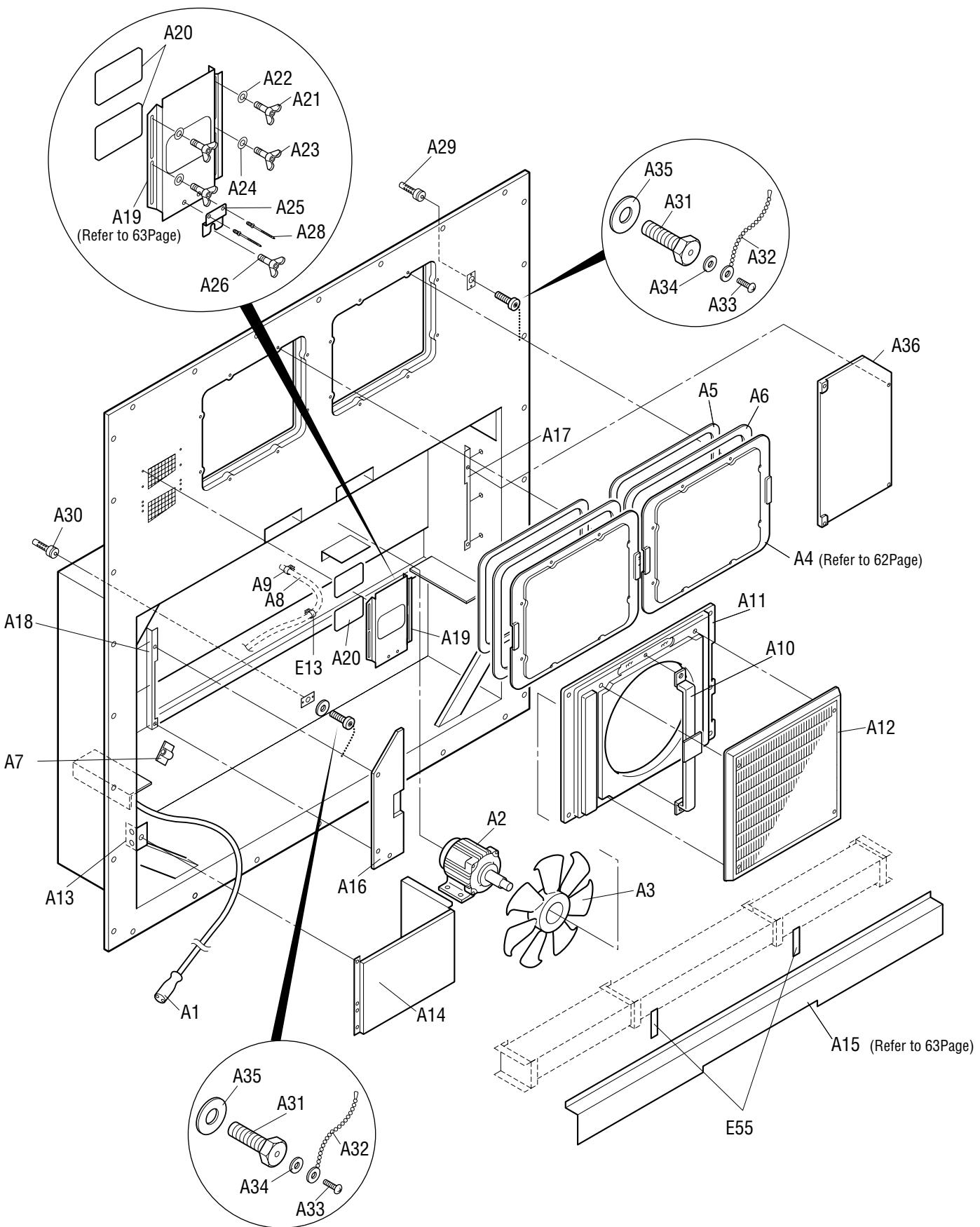
注) オプション番号の後に R がつく機種は、改造機で、特別な仕様が加えられていることを意味します。

# C O N T E N T S

## 目 次

	Page
<b>A. Parts related with the unit(outside).....</b>	24
庫外関連部品	
<b>B. Parts related with refrigerant piping(outside) .....</b>	28
庫外冷媒配管関連部品	
<b>C. Parts related with the unit(inside) .....</b>	32
庫内関連部品	
<b>D. Parts related with refrigerant piping(inside) .....</b>	36
庫内冷媒配管関連部品	
<b>E. Other parts(Pipe clamp, sealing and insulation material etc.) .....</b>	38
その他部品 (配管固定具、シール材、防熱材等)	
<b>F. Control box .....</b>	46
コントローラボックス	
<b>G. Parts related with name plate .....</b>	54
銘板関連	
<b>I. Parts related with option 1 – USDA.....</b>	56
オプション関連部品 1 - USDA関連	
<b>J. Parts related with option 2 – MODEM .....</b>	57
オプション関連部品 2 - モデム	
<b>K. Parts related with option 3 – Others .....</b>	58
オプション関連部品 3 - その他	
<b>L. List of size for standard pipe clamp .....</b>	60
配管固定具サイズ表	
1. Resin clamp 樹脂バンド	
2. Tube clamp 管止金	
3. Cushion rubber for pipe clamp 管止金用緩衝ゴム	
<b>M. Notes for ordering spare parts.....</b>	62
部品発注の際の注意事項	
1. Parts recommended to be ordered together with packing, gasket, sealing material and name plate 発注の際にパッキングやシール材、銘板等の同時発注を推奨する部品	
2. Order for motorized valve, solenoid valve and pressure regulating valve 電動弁・電磁弁・圧力調整弁の発注	
3. Order for pressure transducer 圧力センサーの発注	
4. Order for temperature sensor 温度センサーの発注	
<b>N. Measuring and adjusting tools .....</b>	67
測定調整用工具	
1. Tools for emergency operation 緊急運転用工具	
2. Personal computer cable (for DCCS) パソコンケーブル(DCCS用)	

**Parts related with the unit(outside)**  
庫外関連部品

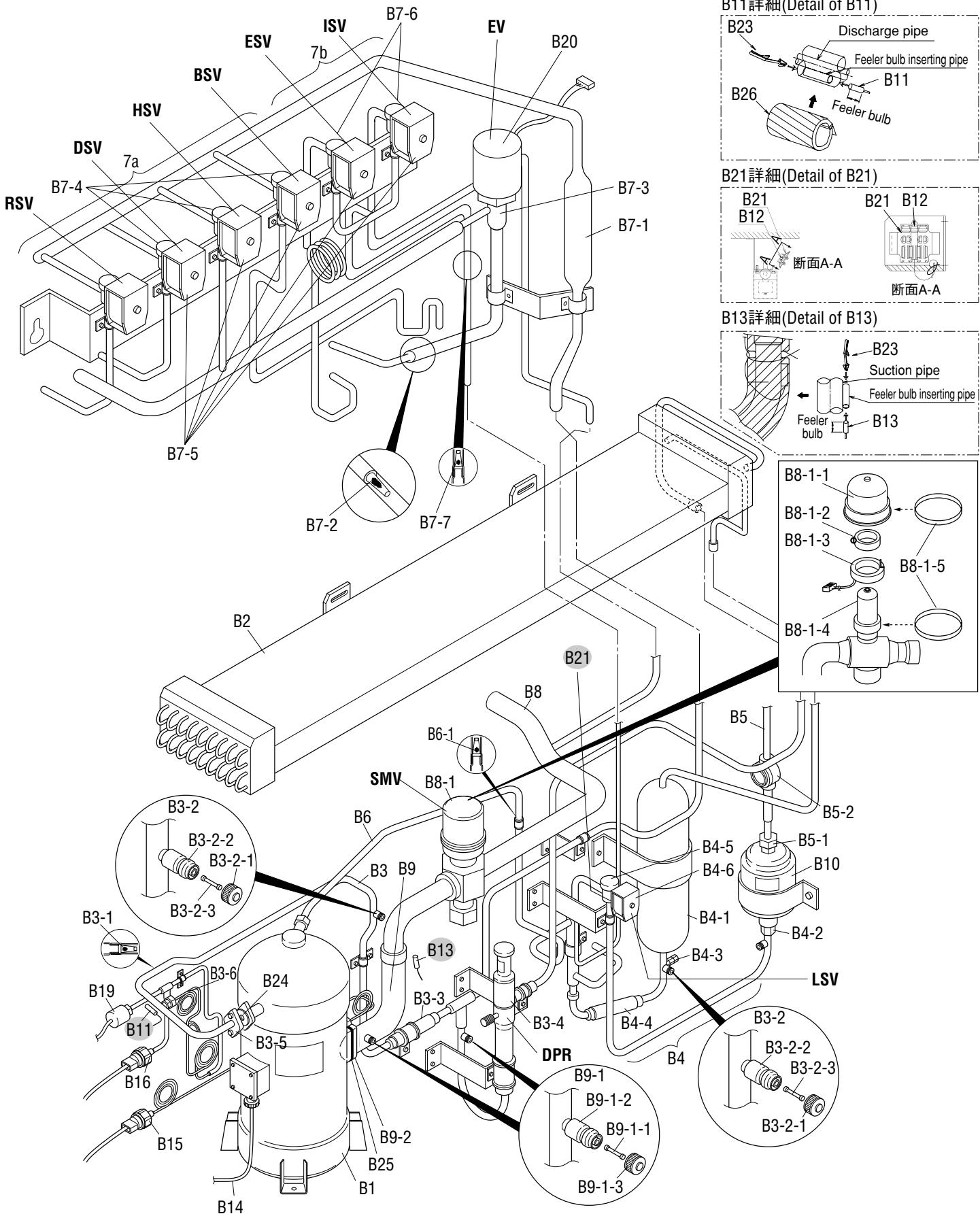


NO. 符号	INDEX	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG. NO. 図面番号	TYPE SPECIFICATION 形式 仕様	QTY/UNIT		REMARKS 備考
						LXE10E-	A33 A33A	
A1		1549647	Power plug(400V class)	電源プラグ (400V)	3P130172-1		1	
A1		1787432	Power cable	電源ケーブル (400V)	3P056891-2		1	
A2	A	0954936	Condenser fan motor	凝縮器電動機	3P005566-1		1	1
A3	B	0980618	Fan blade(outside)	プロペラファン庫外側	P44H11S		1	1
A4	C	1612576	Access panel(FRP)	サービス扉組立品	1P006678-5		2	2 Refer to Page62
A5		1266207	Cushion material(access panel)	クッション材 (サービス扉)	3P033608-1		2	2 Refer to Page62
A6		1196113	Sealing material(access panel)	シール材 (サービス扉)	3P001640-2		2	2 Refer to Page62
A7		1326705	Wire clamp	電線止め金	4P090422-1		1	
A7		1779734	Wire clamp	電線止め金	4P090422-2		1	
A8	C	1266199	Drain hose	ドレンホース	3P011299-1	For trap type	1	1
A9		537320	Hose band	ホースバンド	R4716528-3		1	1
A10		1266137	Fan guide stay ass'y(outside)	ファンガイドステー組立品(庫外側)	3P027891-1		1	1
A11		1588356	Fan guide(Outside)	ファンガイド (庫外側)	1P050906-6		1	1
A12	C	1588349	Discharge grill	吹出グリル	1PA53427-6		1	1
A13		1369663	Mounting plate 2, cable storage	ケーブル収納部取付板2	4P006981-2		1	1
A14		1564660	Cabel holding sheet metal	ケーブル収納部板金(圧縮機前板:有/無共用)	3P128458-1		1	
A14		1787449	Front plate(sheet metal)	ケーブル収納部前板 HANJIN	3P186610-1		1	
A15	C	1661299	Front plate(CA)	前板 (CA)	2P165976-1		1	Refer to Page63
A15		1739286	Front plate(CA)	前板 (CA)	2P173133-1		1	Refer to Page63
A16		1600504	C,BOX Front plate	コントロールボックス前板(左)	2P093861-5		1	1
A17		1661338	Fixing plate	外板取付板 (1)	3P170539-1		1	1
A18		1661321	Fixing plate	外板取付板 (2)	3P170535-1		1	1
A19	B	1266120	Ventilation cover	換気口蓋	3P067053-1		1	1 Refer to Page63
A20		1266221	Sealing material(ventilator)	シール材 (換気口)	4P016185-1		2	2 Refer to Page63
A21		1270345	Wing bolt	蝶ボルト	4P048681-1		2	
A21		1775446	Wing bolt	蝶ボルト (M6)	4P048681-2		2	
A22		0275145	Plain washer(Woods round type)	平座金 (木材用丸)	4SK07006-6	M6	2	2
A23		1270345	Wing bolt	蝶ボルト	4P048681-1		2	
A23		1775446	Wing bolt	蝶ボルト (M6)	4P048681-2		2	
A24		0275145	Plain washer(Woods round type)	平座金 (木材用丸)	4SK07006-6	M6	2	2
A25		1266214	Holding plate, ventilator	押え板	4P067052-1		1	1
A26		1775446	Wing bolt	蝶ボルト (M6)	4P048681-2		1	
A28		1494987	Stainless rivet	ステンレスリベット	4P107279-2		2	
A29		1496820	Protection cover(2)	温度計挿入口保護カバー (2)	4P085921-2		1	1
A30		1584145	Protection cover (3)	温度計挿入口保護カバー (3)	4P085921-3		1	1
A31		1683888	Hexagon head bolt	六角ボルト (温度計挿入口)	4P065135-1		2	2
A32		1386930	Latch(victor chain)	掛金 (ビクターチェーン)	4P063801-1		2	2
A33		1266245	Tapping screw	タッピングネジ	4SK05064-8	M3 SUS304	2	
A33		1775453	Tapping screw	タッピングネジ	4SK05064-10		2	
A34		844012S	Plain washer	平座金	4SK07005-3	M3SUS	2	2

### **Parts related with the unit(outside)**

庫外関連部品





NO. 符号	INDEX	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG. NO. 図面番号	TYPE SPECIFICATION 形式 仕様	QTY/UNIT		REMARKS 備考
						LXE10E-	A33 A33A	
B1	A	1315426	Compressor	圧縮機	JT224DBNYR		1	1
B2	C	1387173	Air cooled condenser	空冷凝縮器	2P089486-1	CA-LXE10E1	1	
B2			Air cooled condenser	空冷凝縮器	2P195935-1	CA-LXE10E3		1
B3			Discharge pipe ass'y	吐出配管組立品	2P117329-1		1	1
B3-1	C	1199167	Strainer	ストレーナ	4P051389-1		1	1
B3-2	C	1178920	Service valve ass'y	サービスバルブ組立品	3P048905-1		3	3
B3-2-1	B	117592J	Service valve cap	キャップ	3P048905-1-KU		3	3
B3-2-2	B		Service valve body	本体	3P048905-1-KA		3	3
B3-2-3	B	1178850	Valve core	バルブコア	3P048905-1-KI		3	3
B3-3	B	0684220	Check valve	逆止弁	3SA27008-1		1	1
B3-4	A	1241361	Discharge pressure regulating valve	吐出圧力調整弁	3P074558-1		1	1
B3-5		1266276	Flange(convex)	吐出管フランジ(凸)	4P065933-1		1	1
B3-6	B	292011	Gauge joint(with check valve)	逆止弁付ゲージ接手	2PF00177-1	VCG2DA	1	1
B4		1655939	Liquid receiver ass'y	受液器組立品	2P162878-1		1	
B4			Liquid receiver ass'y	受液器組立品	2P162878-2			1
B4-1		1266283	Liquid receiver	受液器レシーバ	4P081428-1	φ90×t1.8	1	1
B4-2		013785J	Flare nut	フレアナット	4SK23011-4	FNS4 φ12.7	1	1
B4-3	A	1498035	Fusible plug	可熔栓	3SA27103-1		1	1
B4-4		029913J	Filter	フィルタ	3SA26004-2		1	1
B4-5	B	1411533	Solenoid valve body	電磁弁本体	3SA52069-1	VPV-803DQ50	1	
B4-5		1787247	Solenoid valve	電磁弁本体	3P198486-1	VPV-803DQ52		1
B4-6	A	0955287	Solenoid valve coil	電磁弁コイル	3P010453-1		1	1
B5			Liquid pipe ass'y	液配管組立品	3P162887-1		1	1
B5-1		013785J	Flare nut	フレアナット	4SK23011-4	FNS4 φ12.7	1	1
B5-2	A	0622107	Liquid moisture indicator	モイスチャーアインジケーター	3PA51270-3	SGN12S	1	1
B6			Injection tube ass'y	インジェクション管組立品	3P162892-1		1	1
B6-1	C	0085296	Strainer	ストレーナ(100メッシュ)	R4697892		1	1
B7			Expansion ISV, ESV valve pipe ass'y	膨張弁配管全体組立図(P&O)	2P162861-1		1	
B7			Expansion ISV, ESV valve pipe ass'y	膨張弁配管全体組立図(P&O)	2P178370-3			1
B7a			Expansion valve pipe ass'y	膨張弁配管組立品(リヒート)	2P163079-1		1	
B7a			Expansion valve pipe ass'y	膨張弁配管組立品	2P163079-3			1
B7-1	C	1505748	Filter	フィルタ	3P011071-1		1	1
B7-2	C	1490846	Strainer	ストレーナ	4P051958-1		1	1
B7-3	A	125649J	Electronic expansion valve body ass'y	電子膨張弁本体組立品	2SA50010-2-KU		1	1
B7-4	B	1411533	Solenoid valve body	電磁弁本体	3SA52069-1	VPV-803DQ50	4	
B7-4		1787247	Solenoid valve	電磁弁本体	3P198486-1	VPV-803DQ52		4
B7-5	A	1266290	Solenoid valve coil	電磁弁コイル	3P010453-2		4	4
B7b			ISV,ESV pipe ass'y	I S V・E S V配管組立品(標準・P&O)	3P163059-1		1	
B7b			ISV,ESV pipe ass'y	I S V・E S V配管組立品	3P178353-2			1
B7-5	A	1266290	Solenoid valve coil	電磁弁コイル	3P010453-2		2	2

• When ordering the parts whose No. are not shown in the PARTS NO. column, be sure to describe DWG. NO..

• 部品番号欄が空白になっている部品は、図面番号で、指示願います。

#### **Parts related with refrigerant piping(outside)**

庫外冷媒配管関連部品

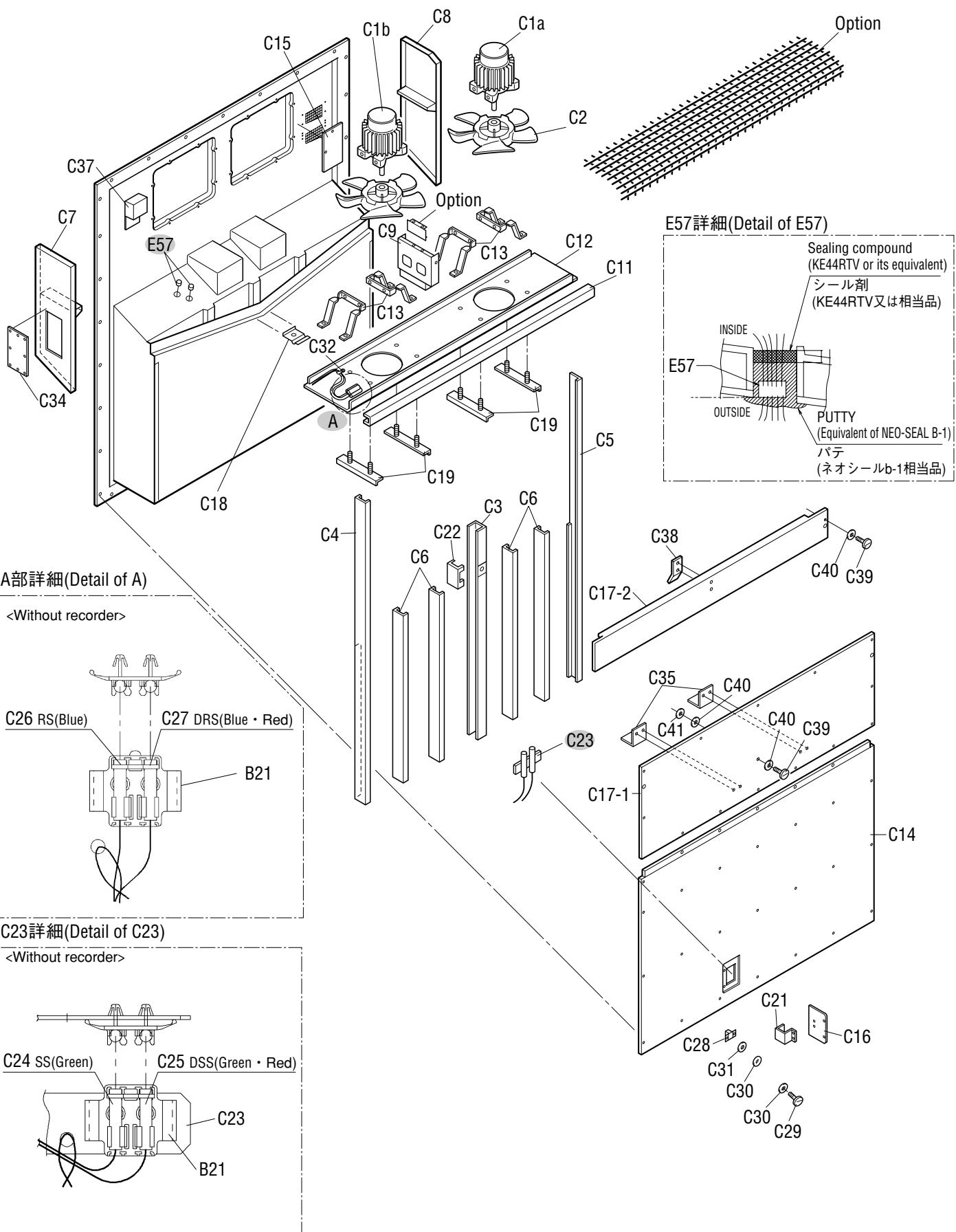
- When ordering the parts whose No. are not shown in the PARTS NO. column, be sure to describe DWG. NO..

- 部品番号欄が空白になっている部品は、図面番号で、指示願います。



## **Parts related with the unit(inside)**

庫内関連部品



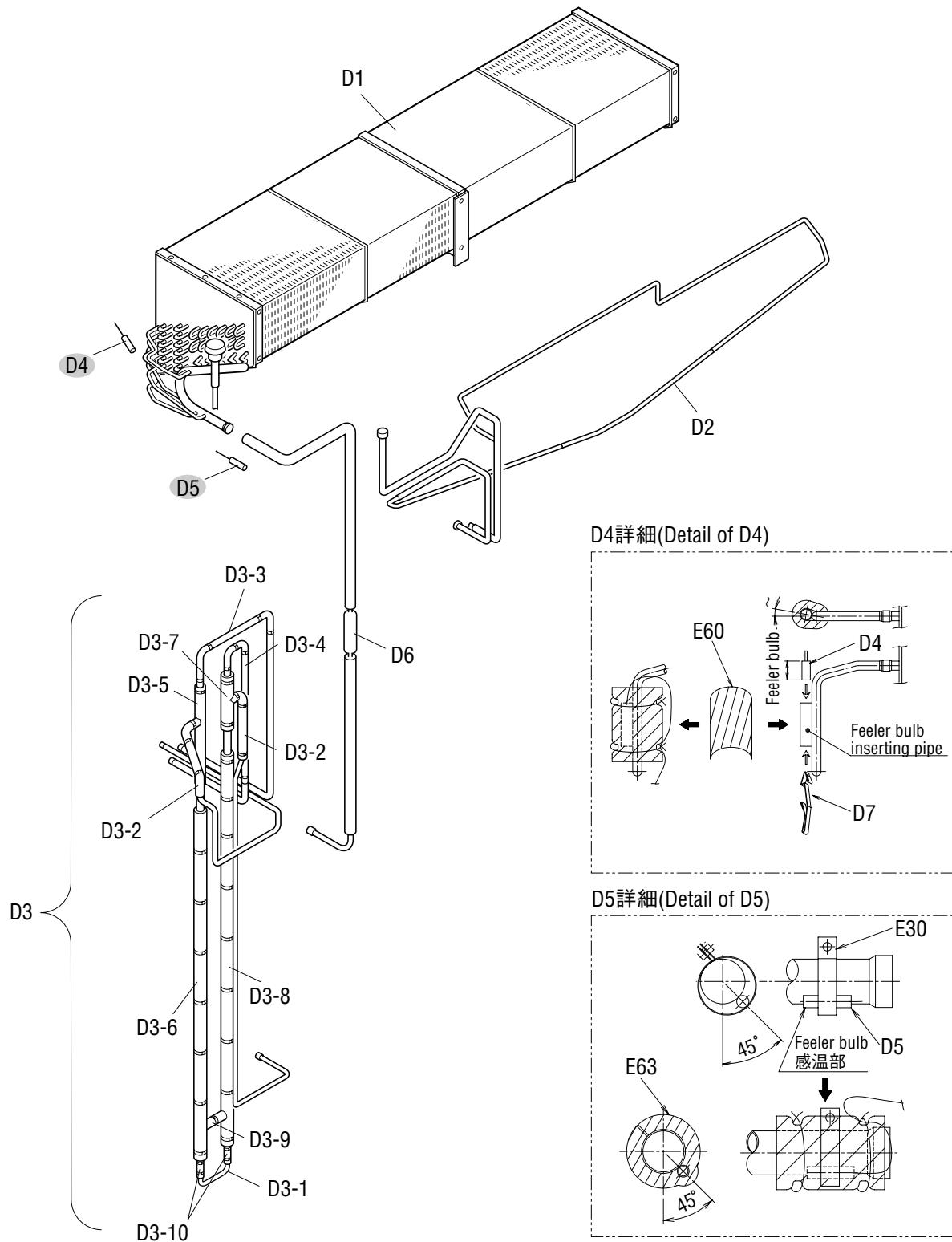
NO. 符号	INDEX	PARTS NO. 部品番号	PARTS NAME	部品名称	DWG. NO. 図面番号	TYPE SPECIFICATION 形式 仕様	QTY/UNIT		REMARKS 備考
							LXE10E-	A33 A33A	
C1a	A	0955333	Three phase AC fan motor	三相交流ファン電動機	3PA07524-4		1	1	
C1b	A	0955340	Three phase AC fan motor	三相交流ファン電動機	3PA07524-5	SPRK91A-42	1	1	
C2	B	0777519	Fan brade(inside)	プロペラファン（庫内側）	P32P11F		2	2	
C3		1656019	Center stay	中央ステー	3P167260-1		1		
C3		1410958	Center stay	中央ステー	3P094853-1			1	
C4		1679315	Side stay	サイドステー（1）裏板S U S仕様	3P168538-1		1		
C4		1266360	Side stay	サイドステー	3P061281-1	t2.5		1	
C5		1679409	Side stay(2)	サイドステー（2）裏板S U S仕様	3P172409-1		1		
C5		1380723	Side stay(2)	サイドステー（2）	3P094852-1			1	
C6		1667141	Rear stay	背面ステー（裏板S U S仕様）	3P167261-2		4		
C6		1584176	Rear stay	背面ステー（レヒート）	3P103621-2			4	
C7		1666838	Casing frame, evaporator	蒸発器枠（1）裏板S U S仕様	2P170293-1		1		
C7		1380747	Casing frame, evaporator	蒸発器枠（1）	2P094765-1			1	
C8		1666845	Casing frame, evaporator	蒸発器枠（2）裏板S U S仕様	2P170293-2		1		
C8		1380754	Casing frame, evaporator	蒸発器枠（2）	2P094765-2			1	
C9		1667165	Fan guide fixing plate	ファンガイド固定板（裏板S U S仕様）	3P168540-1		1		
C9		1494134	Fan guide fixing plate	ファンガイド固定板	3P105378-1			1	
C11		1605307	Inside fan cover stay	庫内ファンカバーステー（P & O N）	3P150525-1			1	
C12		1667088	Fan guide ass'y	ファンガイド組立品（レヒート・樹脂製サーミスタ）	3P166890-3		1		
C12		1634196	Fan guide ass'y	ファンガイド組立品（レヒート・樹脂製サーミスタ）	3P153482-1			1	
C13		1667172	Set plate, fan motor	電動機取付脚	3P171676-1		4	4	
C14		1380792	Rear plate(Lower)	裏板（下）	2P094959-1		1		
C14		1779239	Rear plate(Lower)	裏板（下） ヒンジ	2P186645-1			1	
C15		1496990	Shield plate	遮蔽板	4P123922-1		1	1	
C16		1380817	Inspection door(supply sensor)	点検蓋（サプライセンサ）	4P094961-1		1	1	
C17-1		1683895	Rear plate (Middle)	裏板（中）	2P175524-1		1		
C17-2		1683903	Rear plate (Upper)	裏板（上） H A N J I N	2P175468-1		1		
C17-2		1779246	Rear plate (Upper)	裏板（上） ヒンジ	2P186646-1			1	
C18		1266485	Partition plate(drain outlet)	仕切板（ドレン出口）	4P011317-1		1	1	
C19		1135978	Reinforce plate, fan motor	補強板（ファン電動機台）	4P011316-1		4	4	
C21		1135125	Hinge	蝶番	3P043374-1		1	1	
C22		1266524	Support plate	支柱補強柱	4P061342-1		1	1	
C23		1605466	Mounting plate	サプライセンサ取付板	4P144433-1		1	1	
C24	A	137531J	Sensor(SS)	センサー（S S）	3PA61769-11		1		Refer to Page66
C24	A	1713330	Sensor(SS)	センサー（S S）	3PA61769-16			1	Refer to Page66
C25	A	1375327	Sensor(DSS)	センサー（D S S）	3PA61769-12		1		Refer to Page66
C25	A	1713347	Sensor(DSS)	センサー（D S S）	3PA61769-17			1	Refer to Page66
C26	A	1375334	Sensor(RS)	センサー（R S）	3PA61769-13		1		Refer to Page66
C26	A	1713354	Sensor(RS)	センサー（R S）	3PA61769-18			1	Refer to Page66
C27	A	1375341	Sensor(DRS)	センサー（D R S）	3PA61769-14		1		Refer to Page66

### **Parts related with the unit (inside)**

庫内関連部品



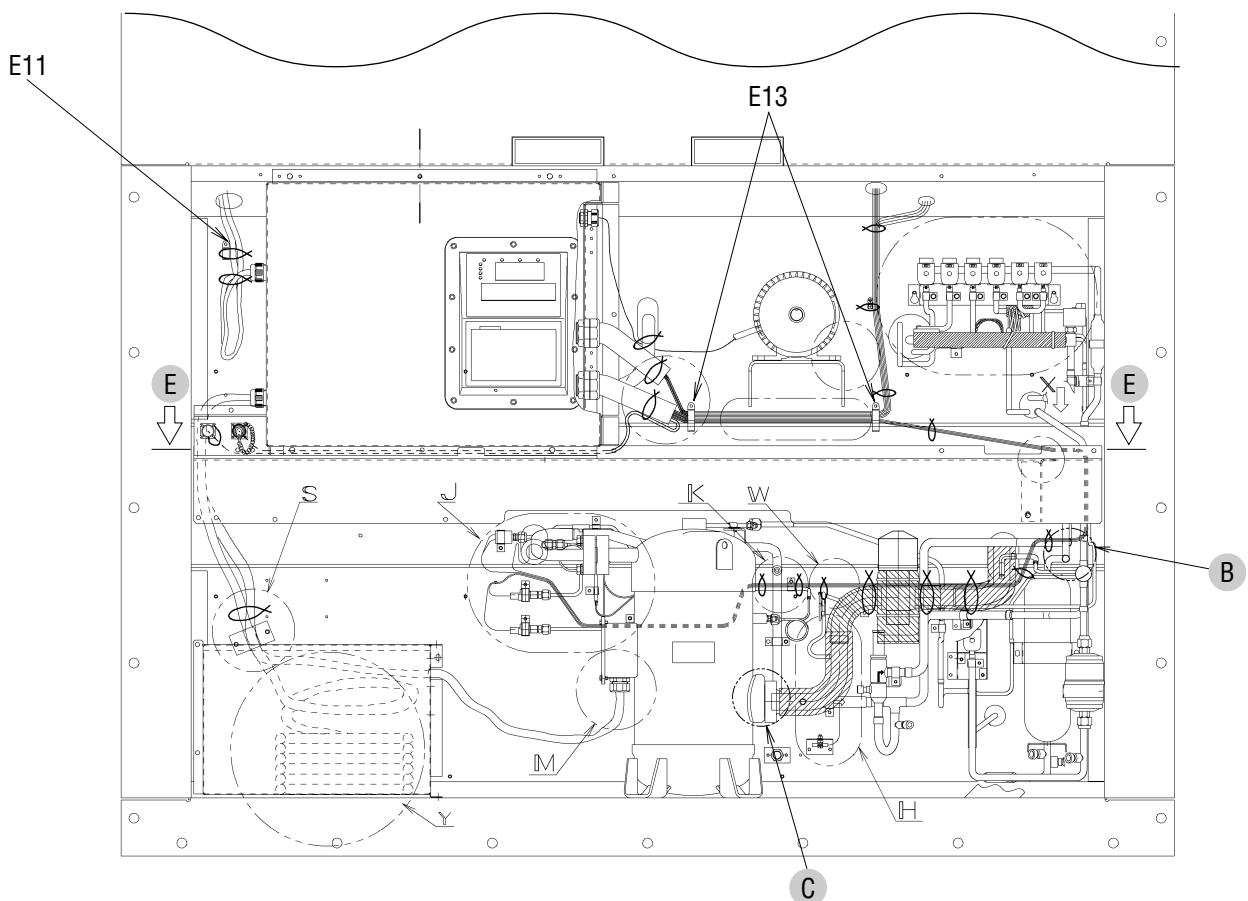
**Parts related with refrigerant piping (inside)**  
庫内冷媒配管関連部品



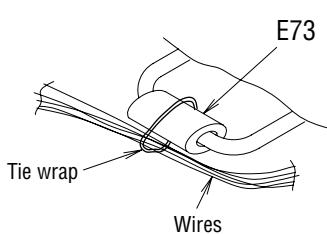
- When ordering the parts whose No. are not shown in the PARTS NO. column, be sure to describe DWG. NO..

- 部品番号欄が空白になっている部品は、図面番号で、指示願います。

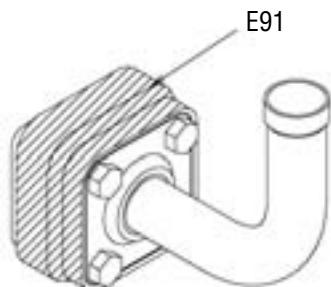
**Other parts(Pipe clamp, sealing and insulation material etc.)**  
 その他部品（配管固定具、シール材、防熱材等）



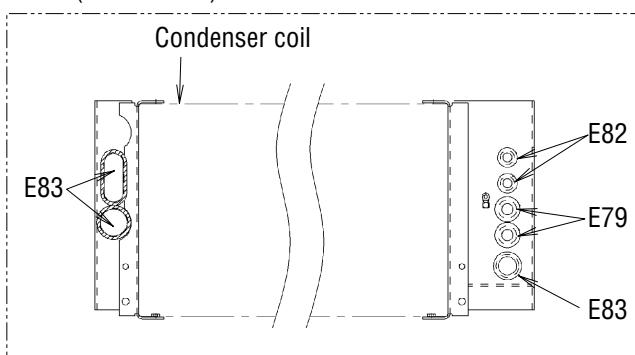
B詳細(Detail of B)



C詳細(Detail of C)



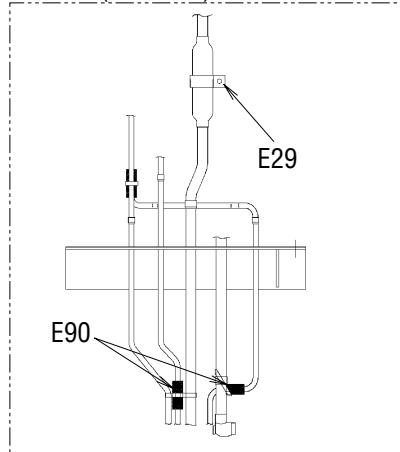
E断面(Section of E)



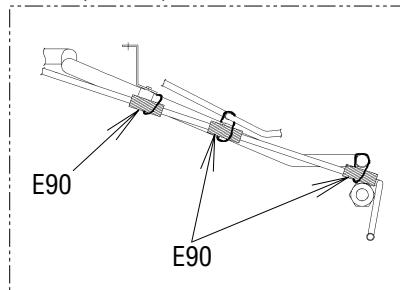
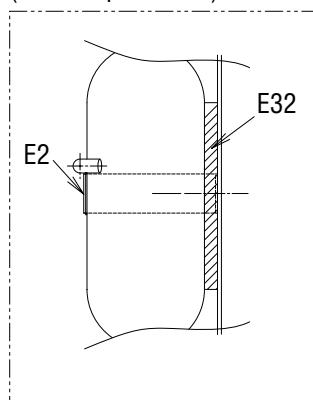
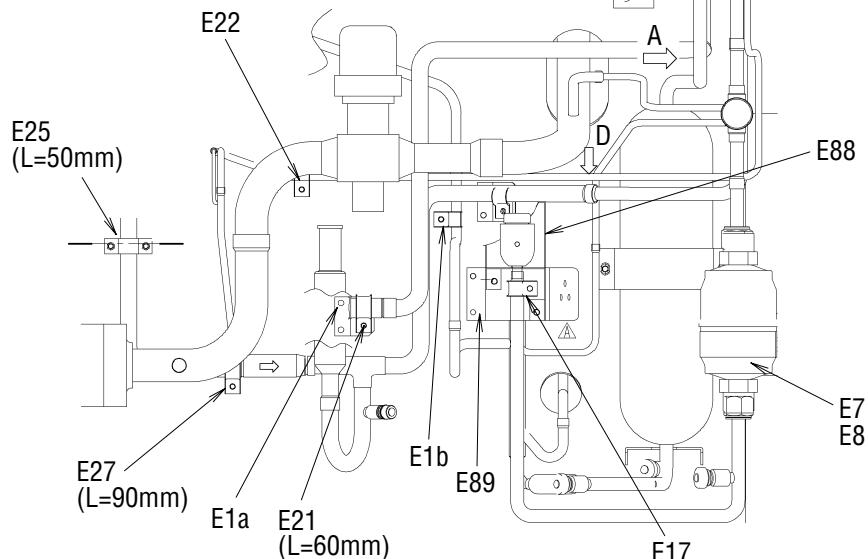
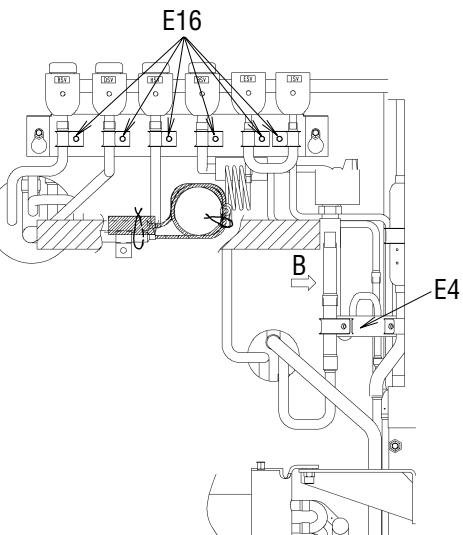
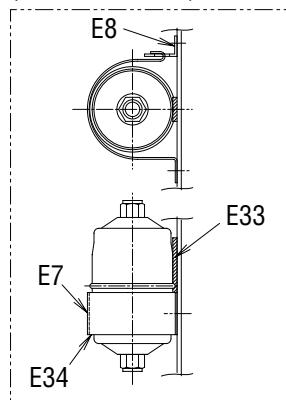
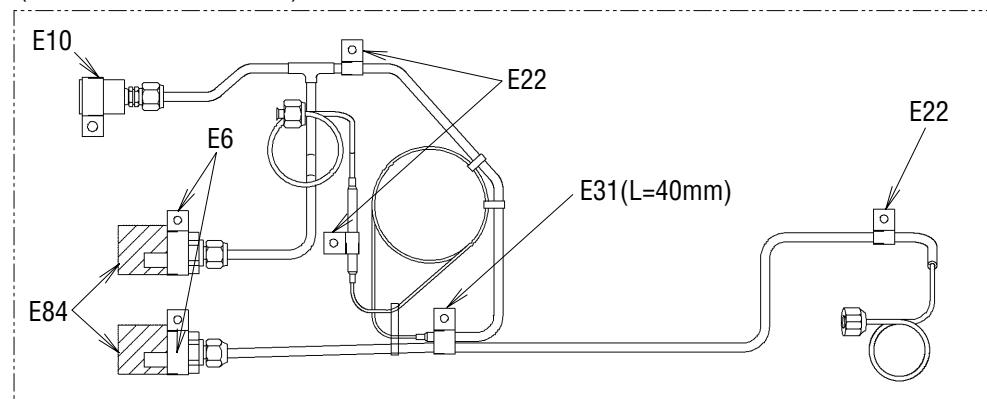
※(L = XX mm) indicates the length of cushion rubber E35.(Cut to suit pipe size.)

※(L = XX mm)と表記のものは、緩衝ゴム(E35)の長さです。(配管のサイズに合わせて切って使用ください。)

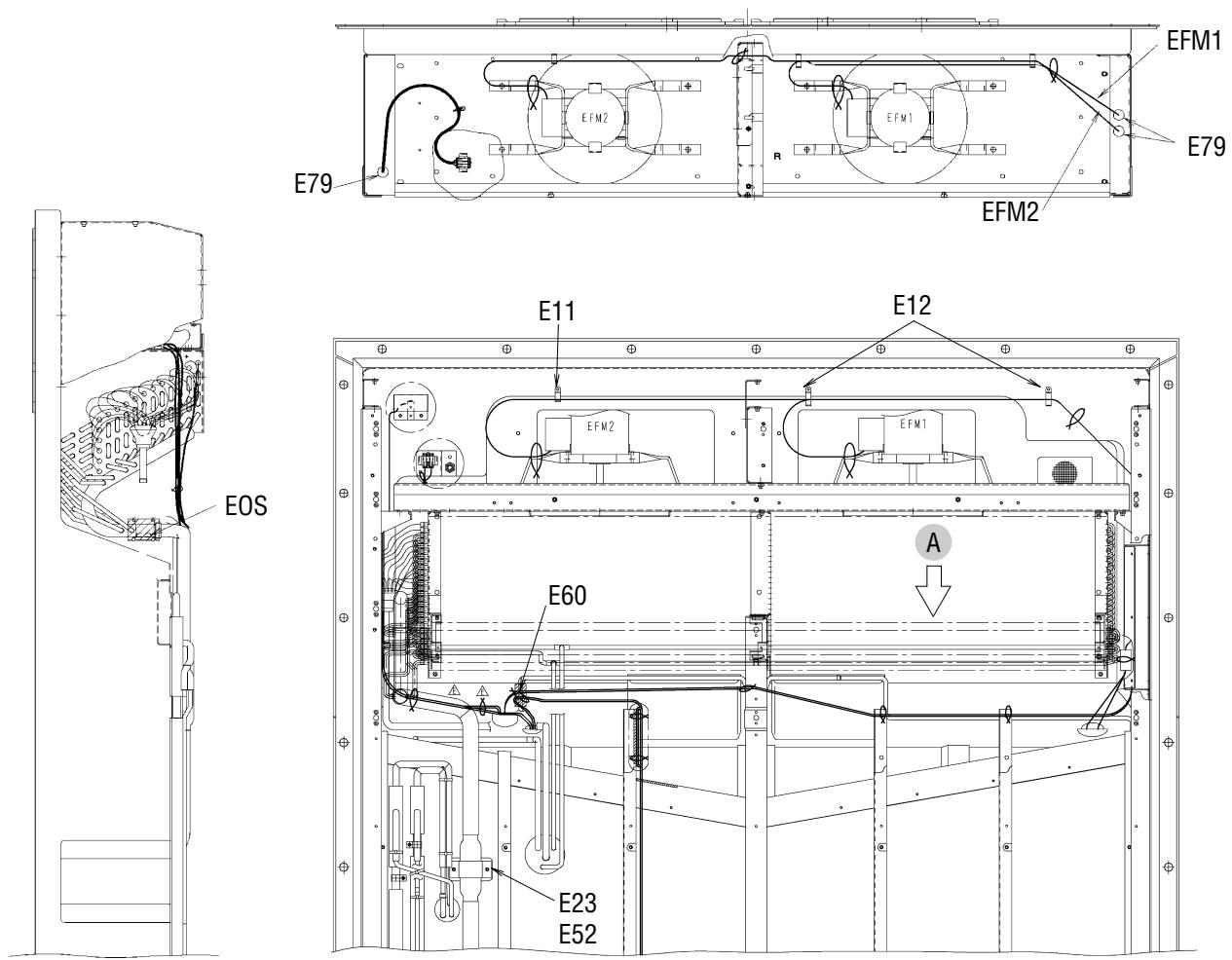
矢視A/B(View A/B)



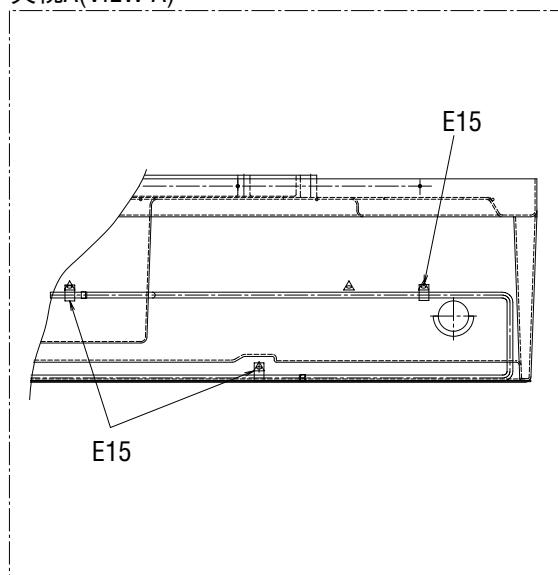
矢視D(View D)

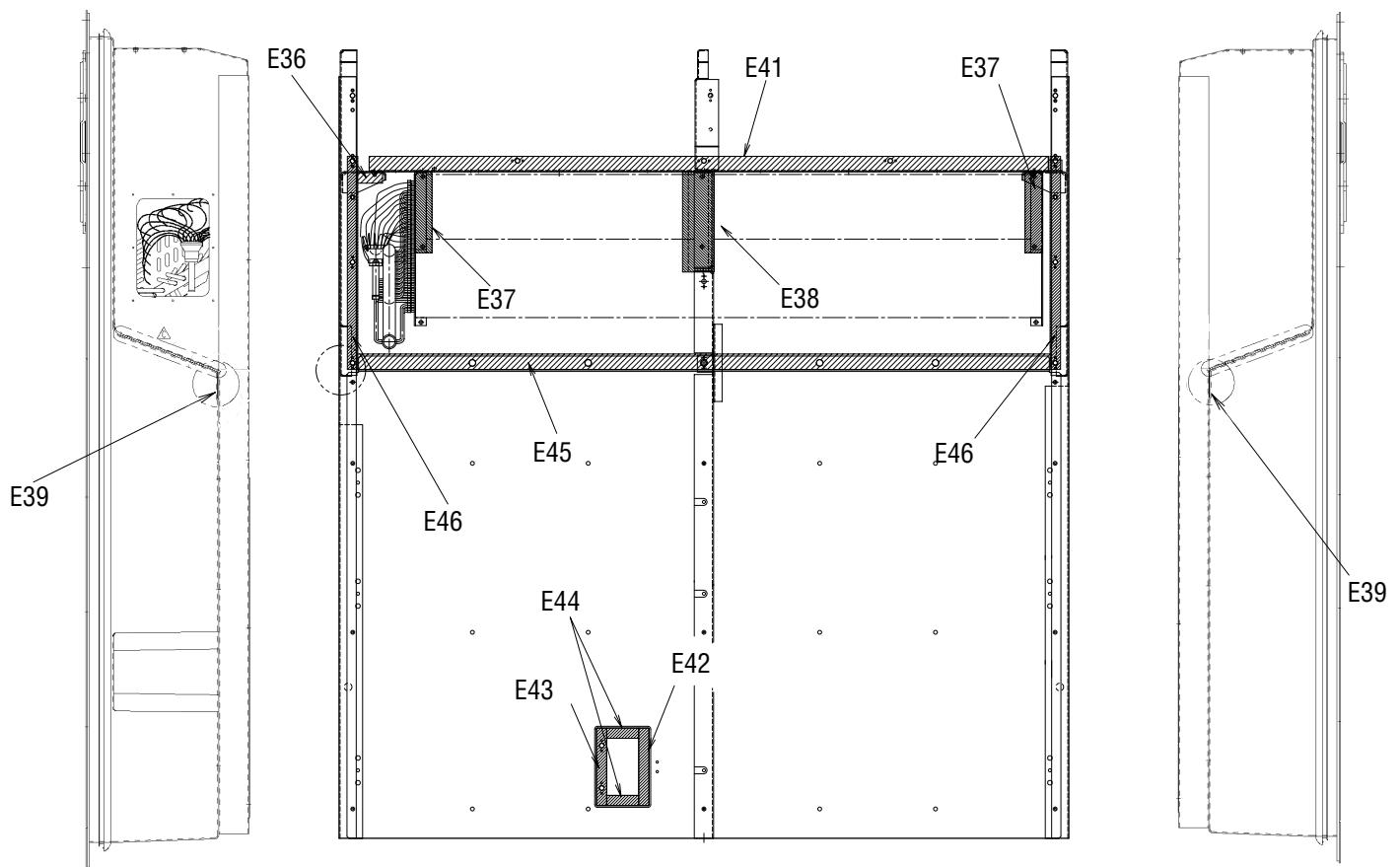
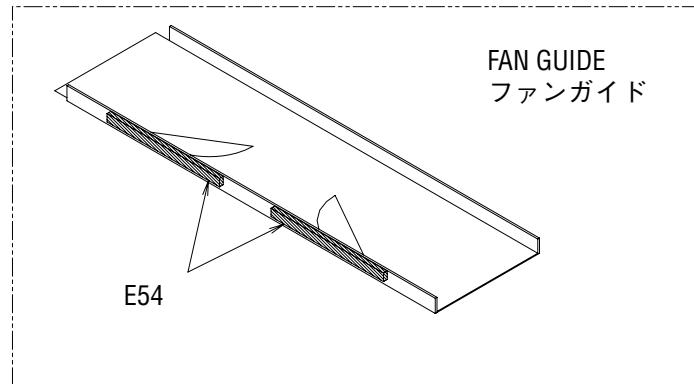
受液機器部詳細  
(Receive part detail)ドライヤー部詳細  
(Dryer part detail)圧力センサー配管部詳細  
(Pressure transducer detail)

**Other parts(Pipe clamp, sealing and insulation material etc.)**  
その他部品（配管固定具、シール材、防熱材等）

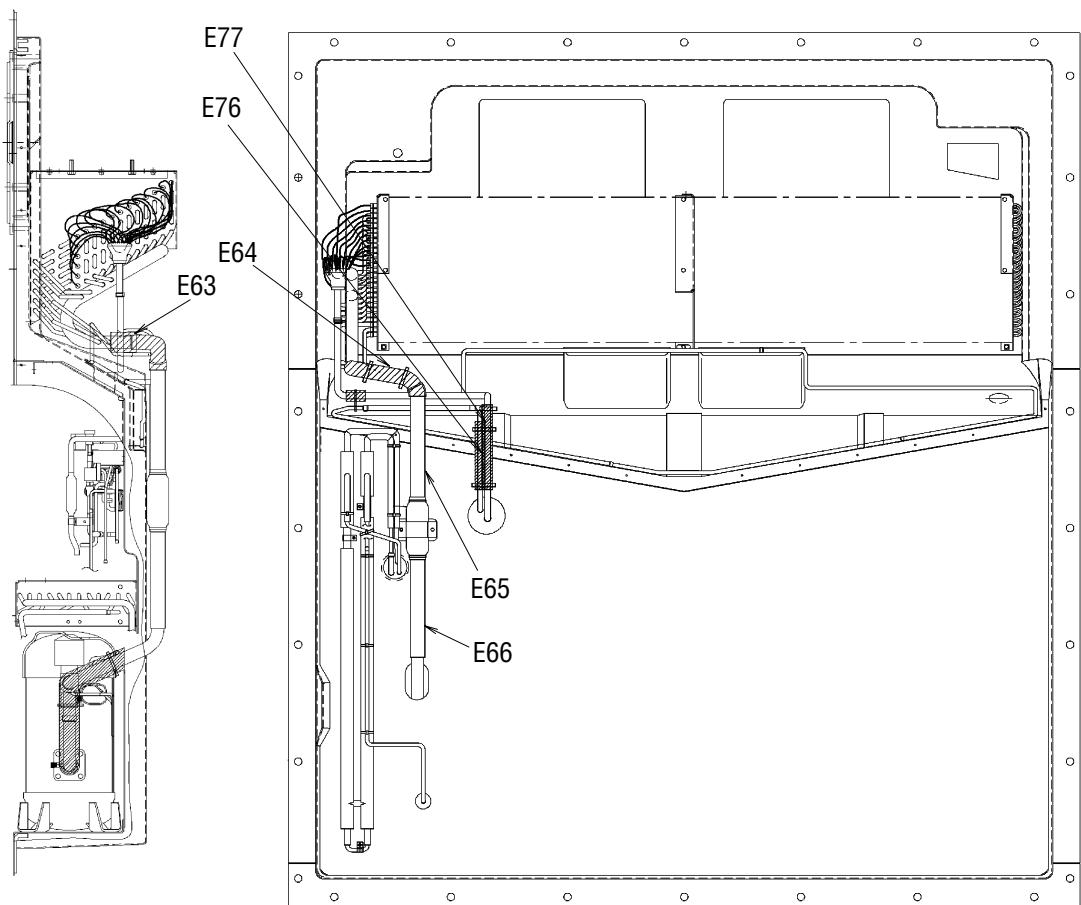
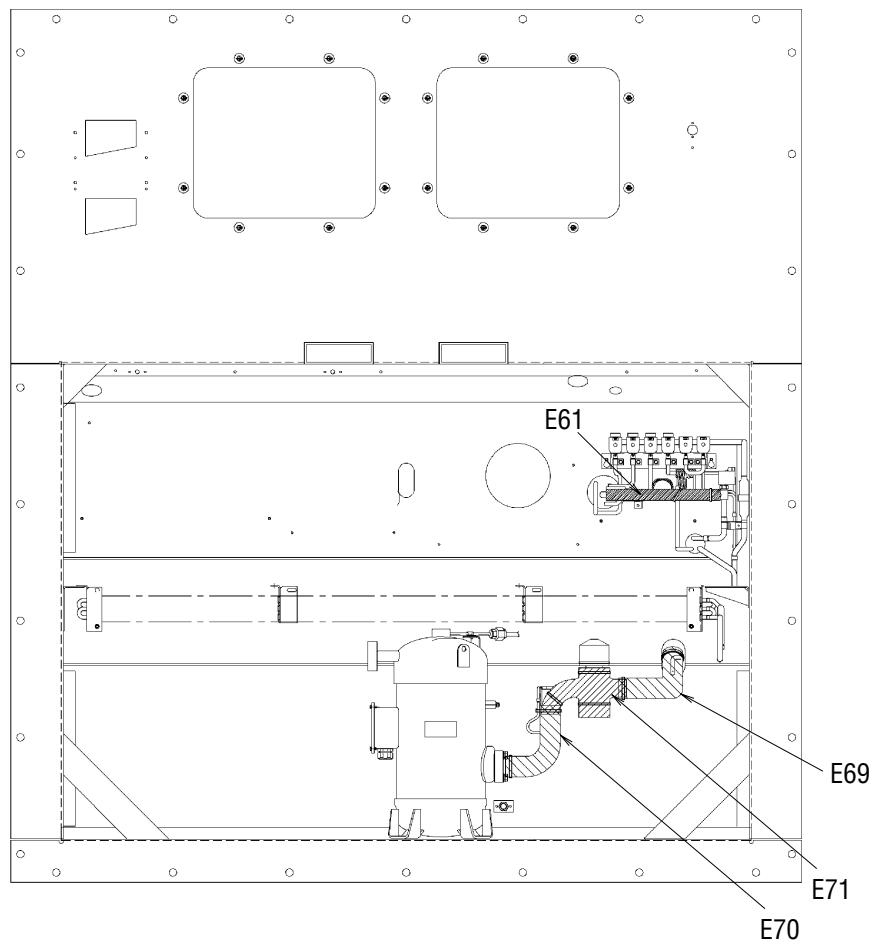


矢視A(VIEW A)





**Other parts(Pipe clamp, sealing and insulation material etc.)**  
その他部品（配管固定具、シール材、防熱材等）

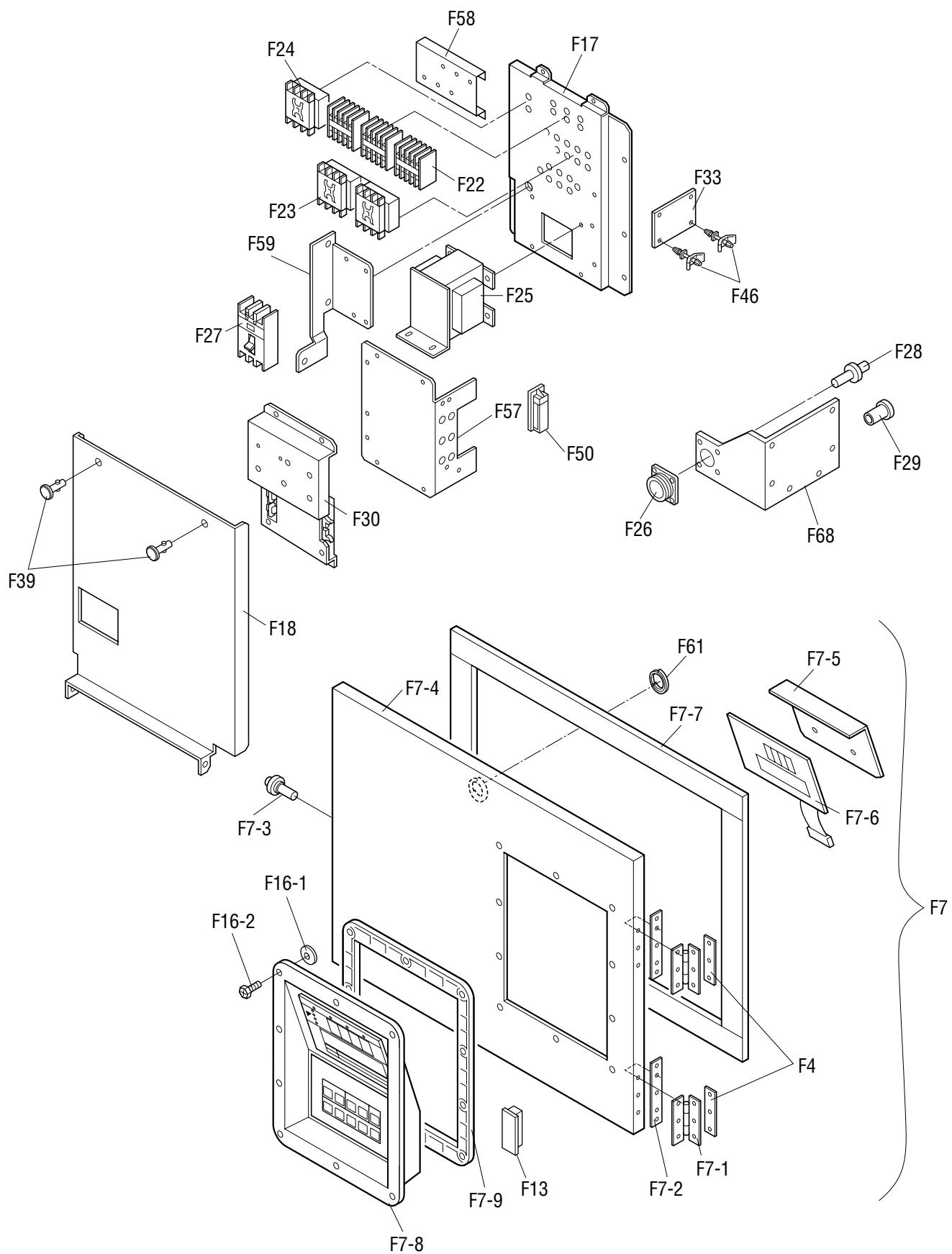


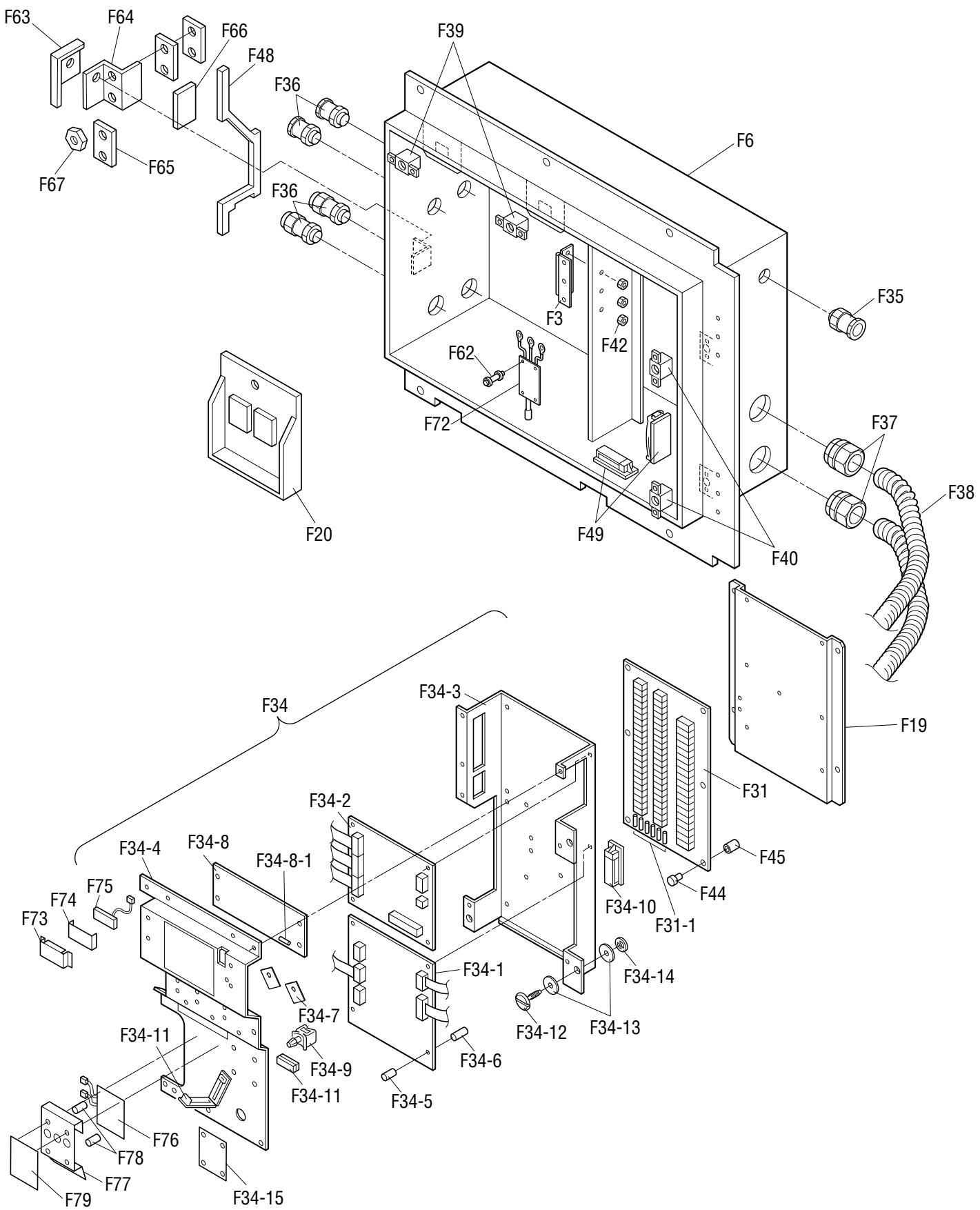
NO. 符号	INDEX	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG. NO. 図面番号	TYPE SPECIFICATION 形式 仕様	QTY/UNIT		REMARKS 備考
						LXE10E-	A33 A33A	
E1a		1266694	Set plate, discharge pipe	吐出配管取付板	4P079462-1		1	Page39
E1a		1779727	Set plate, discharge pipe	吐出配管取付板	4P079462-2		1	Page39
E1b		1584215	Nylon coating tube clamp	ナイロンコーティング管止め金	4P143802-51		2	2 Page39
E2		1266702	Fixture plate, receiver	レシーバー固定具	4P011318-2	t1.5	1	Page39
E2		1779710	Fixture plate, receiver	レシーバー固定具	4P011318-3		1	Page39
E4		1683972	Pipe fixing plate	配管取付板組立品 (M S L)	4P158750-1		1 1	Page39
E6		1592425	Tube clamp	管止め金	NE31016-58		2 3	Page39
E7		1266764	Fitting band, dryer	ドライヤー取付バンド	4PA51194-1		1	Page39
E7		1779804	Fitting band, dryer	取付バンド (ドライヤー)	4PA51194-2		1	Page39
E8		1266771	Set plate, dryer	取付板 (ドライヤ)	4P076788-1	t2.0	1	Page39
E8		1787487	Set plate, dryer	取付板 (ドライヤ)	4P076788-2		1	Page39
E10		1222764	Resin clamp	樹脂バンド	NE41015-9	MILK WHITE	1 1	Page39
E11		0944528	Resin clamp	樹脂バンド	NE41015-7	MILK WHITE	2 2	Page38,40
E12		0142492	Resin clamp	樹脂バンド	NE41015-10	MILK WHITE	2 2	Page40
E13		1266788	Resin clamp	樹脂バンド	NE41015-12	MILK WHITE	6 6	Page38
E15		0782775	Tube clamp	管止め金	NE31016-51		6 6	Page40
E16		1584215	Nylon coating tube clamp	ナイロンコーティング管止め金	4P143802-51		6 6	Page39
E17		1584208	Nylon coating tube clamp	ナイロンコーティング管止め金	4P143802-52		1 1	Page39
E21		0016290	Tube clamp	管止め金	NE31016-56		1 1	Page39
E22		1584239	Nylon coating tube holder	ナイロンコーティング管止め金	4P143802-71		4 4	Page39
E23		1266827	Fixing plate, filter	フィルタ固定具	4P071794-1	t1.5	1 1	Page40
E25		1266841	Tube clamp	管止め金 (2)	4P005817-2		1 1	Page39
E27		1266858	Tube clamp	管止め金	NE31016-59		2 1	Page39
E29		1584246	Nylon coating tube clamp	ナイロンコーティング管止め金	4P143802-59		1 1	Page39
E30		537320	Hose band	ホースバンド	R4716528-3		2 1	Page36
E31		1380970	Hot gas tube clamp	ホットガス管止め金	4PA43040-1		1 1	Page39
E32		1266889	Cushion rubber, pipe clamp	緩衝ゴム (管止用)	4P064896-1	t1.0	1 1	Page39
E33		1266896	Seal packing	シールパッキン	4P011314-1		1 1	Page39
E34		1270446	Dryer cushion rubber	ドライヤ緩衝ゴム	4PA53083-2		1 1	Page39
E35		1584253	Cushion rubber	管止用緩衝ゴム	NE41013-3-300		1 1	
E36		1386947	Sealing material, evaporator frame	蒸発器受枠 (1) シール材	4P090149-1		1 1	Page41
E37		1266935	Packing(for evaporator)	パッキン (蒸発器)	4P063465-1		2 2	Page41
E38		1266942	Packing(for evaporator)	パッキン (蒸発器)	4P063465-2		1 1	Page41
E39		1605422	Side stay packing	サイドステーパッキン	4P095033-2		2 2	Page41
E41		1386954	Packing, fan guide	ファンガイドパッキン	3P090183-1		1 1	Page41
E42		1266973	Sealing material(patch plate2)	シール材 (当板 2)	4P068964-1	t5.0	1 1	Page41
E43		1381043	Sealing material(patch plate3)	シール材 (当板 3)	4P095038-1		1 1	Page41
E44		1266997	Sealing material(patch plate1)	シール材 (当板 1)	4P068968-1	t5.0	2 2	Page41
E45		1267008	Sealing packing	シールパッキン	3P011293-1		1	Page41
E46		1267015	Packing(side stay)	パッキン (サイドステー)	4P074127-1	BLACK	2 2	Page41

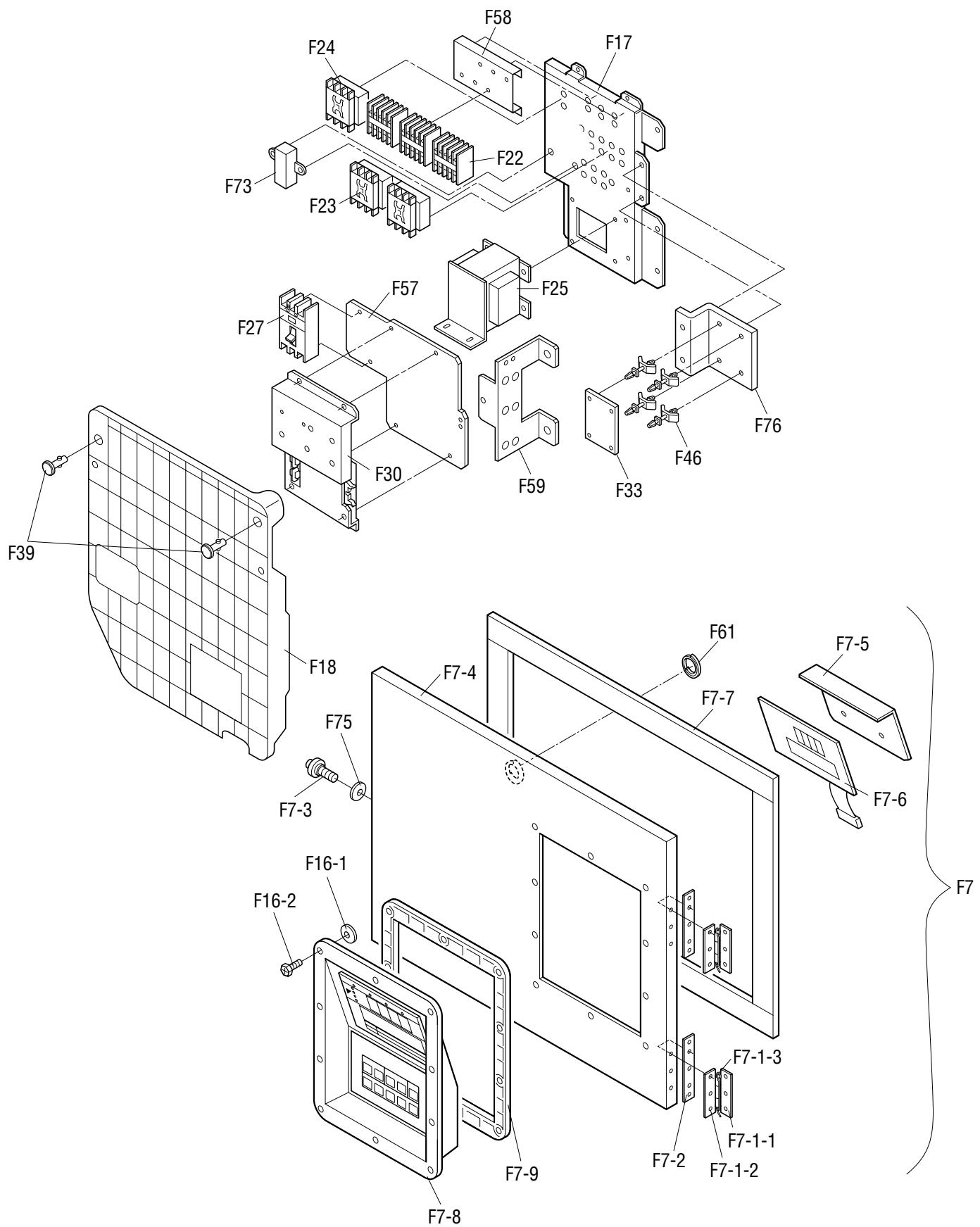
#### **Other parts(Pipe clamp, sealing and insulation material etc.)**

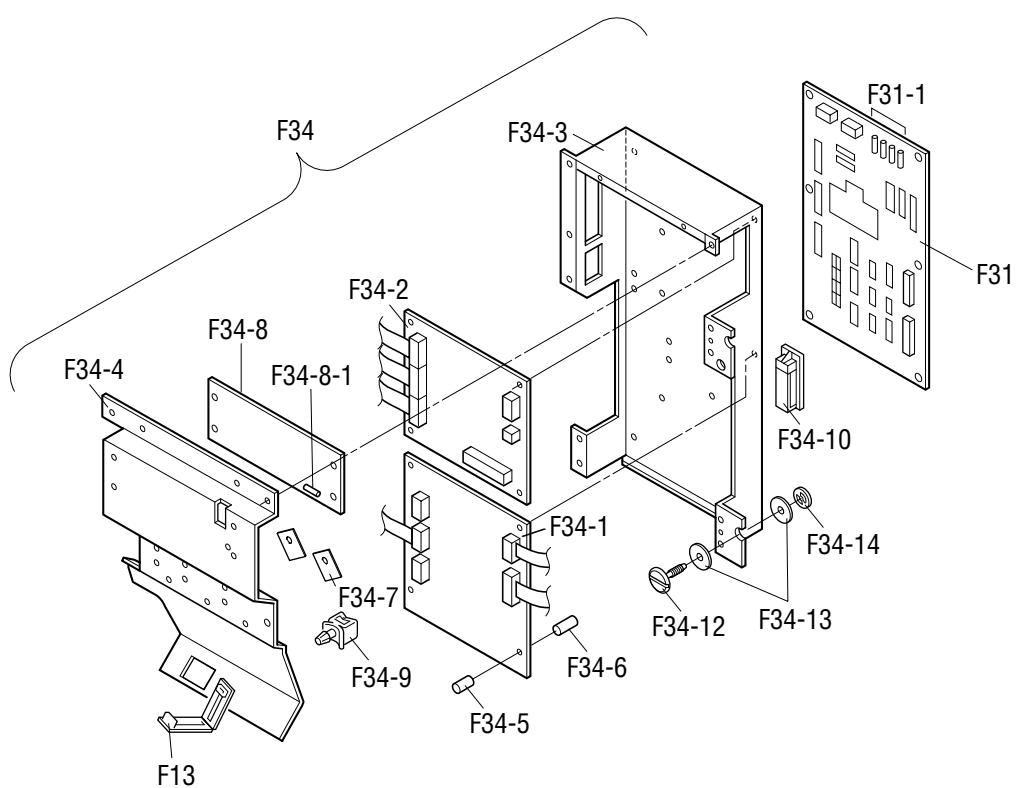
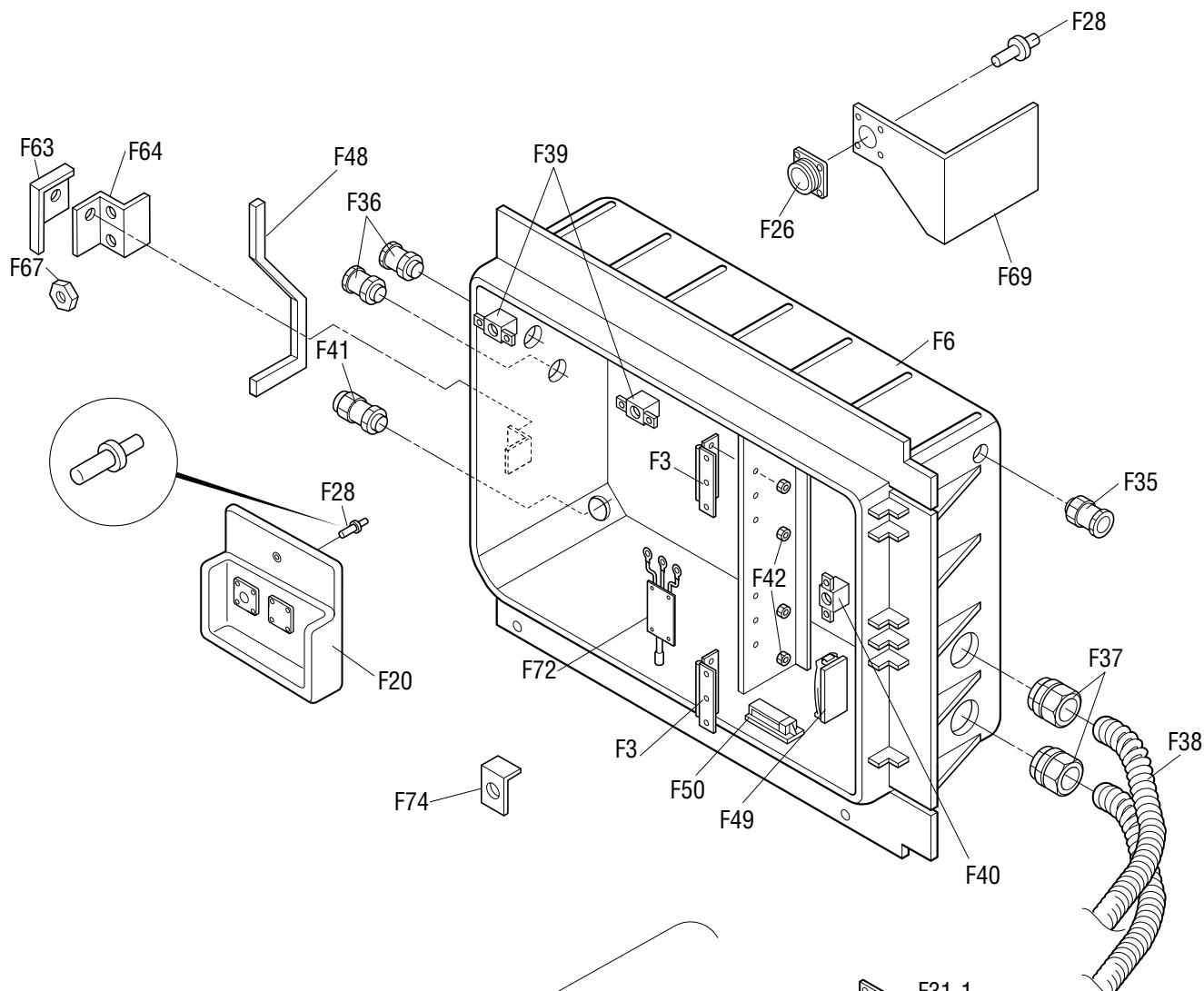
その他部品（配管固定具、シール材、防熱材等）

**Other parts(Pipe clamp, sealing and insulation material etc.)**  
その他部品（配管固定具、シール材、防熱材等）









## Control box

コントローラボックス

NO. 符号	INDEX 部品番号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG. NO. 図面番号	TYPE SPECIFICATION 形式 仕様	QTY/UNIT		REMARKS 備考
						LXE10E-	A33 A33A	
F3	C	1136407	Hinge(recorder/box cover)	平蝶番 (レコーダボックス蓋)	4P021346-1		2	
F4		1136414	Patch plate nut	当板ナット	4P044898-2		2	
F6		1622496	C.BOX welding ass'y	コントロールボックス溶接組立品	2P098553-4		1	
F7		1683996	C.BOX cover ass'y	コントロールボックス蓋組立品	2P147871-8		1	
F7		1787494	C.BOX cover ass'y	電装品箱蓋組立品	2P171706-8		1	
F7-1	C	1136407	Hinge(recorder/box cover)	平蝶番 (レコーダボックス蓋)	4P021346-1		2	
F7-1-1		1792807	Hinge 1	平蝶番 1	3P193779-1		2	
F7-1-2		1792814	Hinge 2	平蝶番 2	3P193779-2		2	
F7-1-3		1792821	Hinge pin	ピンジピン	4P193780-1		2	
F7-2		1136414	Patch plate nut	当板ナット	4P044898-2		2	
F7-3		0907093	Roller, quick lock lever	ワンタッチ金具用ローラ	4PA51277-1		1	
F7-3		1267875	Roller	ワンタッチ金具用ローラ	3P054321-1		1	
F7-4		1587841	Control box cover welding ass'y	コントロールボックス蓋溶接組立品	3P085038-5		1	Refer to Page62
F7-4		1739318	Control box cover welding ass'y	コントロールボックス蓋溶接組立品	3P172570-1		1	Refer to Page62
F7-5		1267457	Operation display cover	操作表示カバー	3P078251-1	t1.0	1	
F7-5		1099731	Operation display cover	操作表示カバー	2P028273-1		1	
F7-6	A	1095645	PCB ass'y(back light display)	プリント基板組立品(バックライト表示基板)	2P039886-1		1	
F7-7		1381081	Packing for control box cover	パッキン(コントロールボックス蓋)	4P085198-1		1	Refer to Page62
F7-7		1497188	Rubber gasket	パッキン(コントロールボックス蓋)	4P111693-1		1	Refer to Page62
F7-8	A	1295553	Control panel(with sheet key)	コントロールパネル(シートキー付)	3P085319-1		1	
F7-9		1128949	Packing	パッキン(樹脂パネル)	3P030317-1		1	
F13		1136539	Clamp	クランプ金具	4P015574-2		1	
F16-1		0907062	Seal washer	シール座金(ポンテッド座金)	4PA21941-5		10	10
F16-2		1267488	Pan head machine screw	アブセット小ネジ	4P067677-1	M5×16	10	10
F17		1387197	Set plate(1)	機器取付板(1)	2P095432-1		1	
F17		1739325	Set plate(1)	機器取付板(1)	2P165714-1		1	
F18		1684007	Blind plate	機器カバー板溶接組立品	2P173835-1		1	
F18		1792838	Front plate, breaker	ブレーカ前板	3P195685-1		1	
F19		1381098	Mounting plate, terminal board	端子台基板取付板	3P090389-1		1	
F20		1630916	PC port fixing plate	樹脂製パソコンポート固定具(P P R 5・無)	2P154325-4		1	
F20		1792845	PC port fixing plate	樹脂製パソコンポート固定具	4P174105-1		1	
F22	A	119893J	Magnetic contactor(for Fans)	電磁接触器(ファン用)	3P055568-1	24V PAK-6J31C	3	
F23	A	124149J	Magnetic contactor(Phase correction contactor)	相順切換電磁接触器(P C C)	3P071508-3	24V RSK-35J	1	
F24	A	119891J	Magnetic contactor(Compressor)	電磁接触器(圧縮機)	3P055566-1	24V PAK35J-S536	1	
F25	C	1562796	Low frequency transformer	低周波変圧器	3P139293-1		1	
F26	C	0991531	PC port connector	パソコンポートコネクタ	3P010803-1		4	
F26	C	1381113	PC port connector	パソコンポートコネクタ	3P073218-1		1	
F27	A	1381120	Earth leakage circuit breaker	漏電遮断器	3P093326-1		1	
F28	C	1141144	Contactor, receptacle	コンタクタ	3P010806-1	HD10	3	
F29		1381221	Straight pin	平行ピン(ドイチェ製シールピン)	3P040139-1		2	

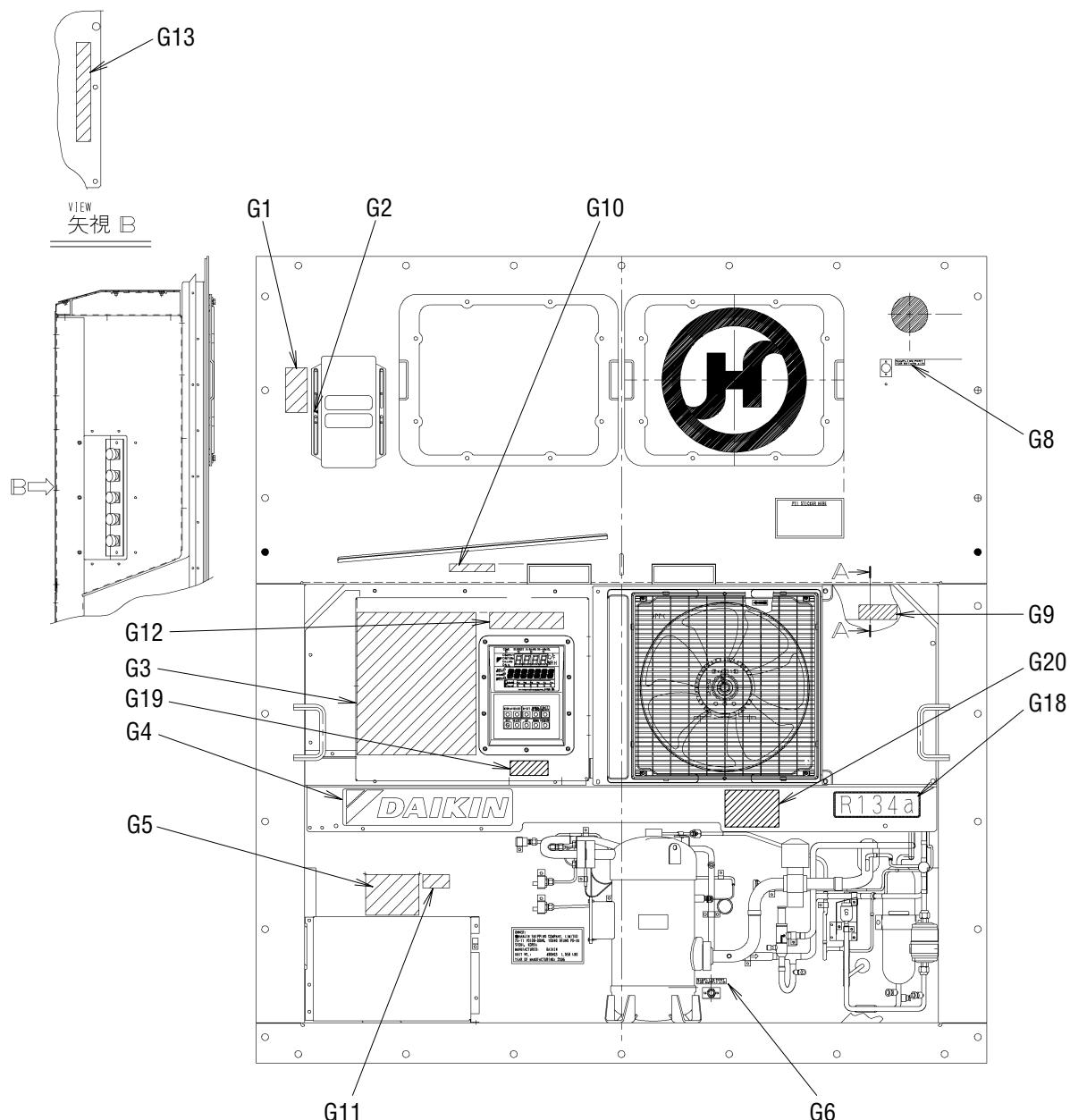
NO. 符号	INDEX	PARTS NO. 部品番号	PARTS NAME	部品名称	DWG. NO. 図面番号	TYPE SPECIFICATION 形式 仕様	QTY/UNIT		REMARKS 備考
							LXE10E-	A33 A33A	
F29		1267541	Cover ass'y, PC port	パソコンポートカバー組立品	3P010743-1			4	
F30	A	0954633	PT/CT board	P T / C T ボード	2P010906-3			1 1	
F31	A	1256116	Terminal strip boaed	端子台基板	2P078284-1			1	
F31	A	1679137	Terminal strip boaed	端子台基板	2P174377-1			1	
F31-1	A	003065J	Fuse, controller	制御用ヒューズ	4SA42006-4	250V 10A	1	1	
F33	A	0329679	Reverse phase protector	逆相保護装置 (R P P)	3SA42153-1	346-440V	1		
F33		1787230	Reverse phase protector	プリント基板 (逆相保護)	3P198363-1			1	
F34		1684014	Controller assemblies	コントローラ組立品	3P173640-1			1	
F34		1787502	Controller assemblies	コントローラ組立品	3P172236-9			1	
F34-1	A	1642553	PCB ass'y	プリント基板組立品	2P161091-2			1 1	
F34-2	A	0954594	I/O board ass'y	I / O ボード	2P010367-1			1	
F34-2		1775484	PCB ass'y(EC0630)	プリント基板A S S Y (EC0630)	2P010367-3			1	
F34-3		1685163	Base plate, controller	コントローラ底板溶接組立品	3P173625-1			1	
F34-3		1787519	Bottom plate	コントローラ底板	2P168028-2			1	
F34-4		1684038	Controller cover	蓋 (コントローラ)	2P173577-1			1	
F34-4		1787526	Controller cover	コントローラ蓋	2P195511-1			1	
F34-5		1099940	Support bushing, PCB	プリント基板サポートブッシュ	MI49531-11			18 18	
F34-6		1099957	Support color, PCB	プリント基板サポートカラー	MI49531-13			14 14	
F34-7		1267572	Rubber transistor	放熱用ゴムトランジスタ	4P005330-1			3 3	
F34-8	A	1250783	PC board for suction modulating valve	プリント基板組立品(吸入制御弁用)	3P065441-1	EC0058	1	1	
F34-8-1	A	044543J	Fuse, control	制御用ヒューズ	4SA42006-3	250V 5A	1	1	
F34-9		1267596	Locking wire saddle	ロッキングワイヤサドル	4P015570-2	LWS	4	3	
F34-10		1267604	Flat cable clamp	フラットケーブルクランプスナップタイプ	4P015573-1			1	
F34-10		1136539	Clamp	クランプ金具	4P015574-2			1	
F34-11		1136539	Clamp	クランプ金具	4P015574-2			2	
F34-12		1267611	Speed bolt	スピードボルト (M 6)	4P048680-3	M6X20(S)	2	1	
F34-13		860005	Washer, speed bolt	スピードボルト用座金	R4713334			4 2	
F34-14		840002	Drop out prevention washer	脱落防止座金	R4718607-6			2 1	
F34-15	A	1099762	Back light PC board	バックライト電源P板	2P039884-1			1	
F35		1267628	Wire(wire ground)	電線 (電線グランド)	4P067662-1			1 1	
F36		1267635	Wire(wire ground)	電線 (電線グランド)	4P067663-1			4 2	
F37		1635346	Wire ground, flexible tube	樹脂製フレキシブル管用グランド	4P157387-1			2 2	
F38		1635353	Flexible tube(resin)	樹脂製フレキシブル管	4P157410-1			2 2	
F39		1267666	Quick fastener	クイックファスナー	4P064642-1			2 2	
F40		860015	Universal nut	自在ナット	R4713188-1			2 1	
F41		1743216	Wire ground,flexible tube	樹脂製フレキシブル管用コネクタ	4P010926-7			1	
F42		833302	Nylon nut	ナイロンナット	R4716460-1	M4	4	4	
F44		1099940	Support bushing, PCB	プリント基板サポートブッシュ	MI49531-11			7	
F45		1099957	Support color, PCB	プリント基板サポートカラー	MI49531-13			7	
F46		981616	Locking card spacer	ロッキングカードスペーサー	R3428091-3	KGLS-8S	4		

## Control box コントローラボックス

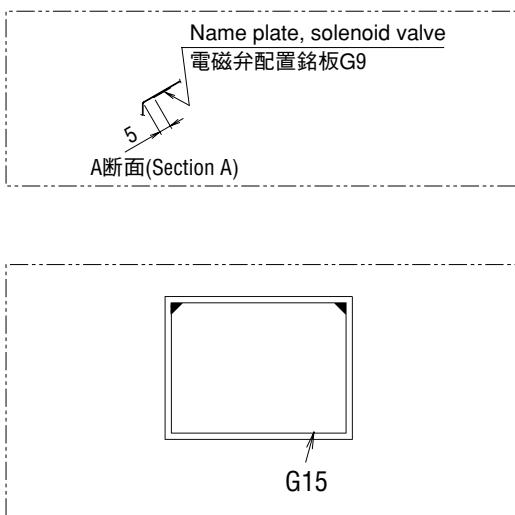


**Parts related with name plate**

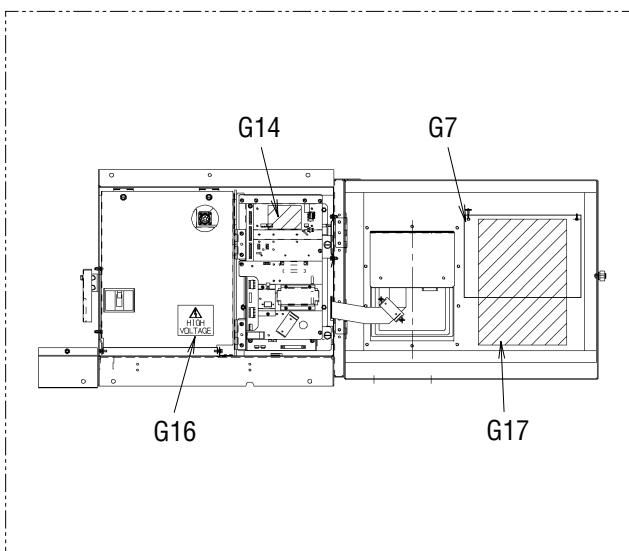
銘板関連



電磁弁配置銘板貼付位置詳細  
(Detail location of nameplate, solenoid valve)



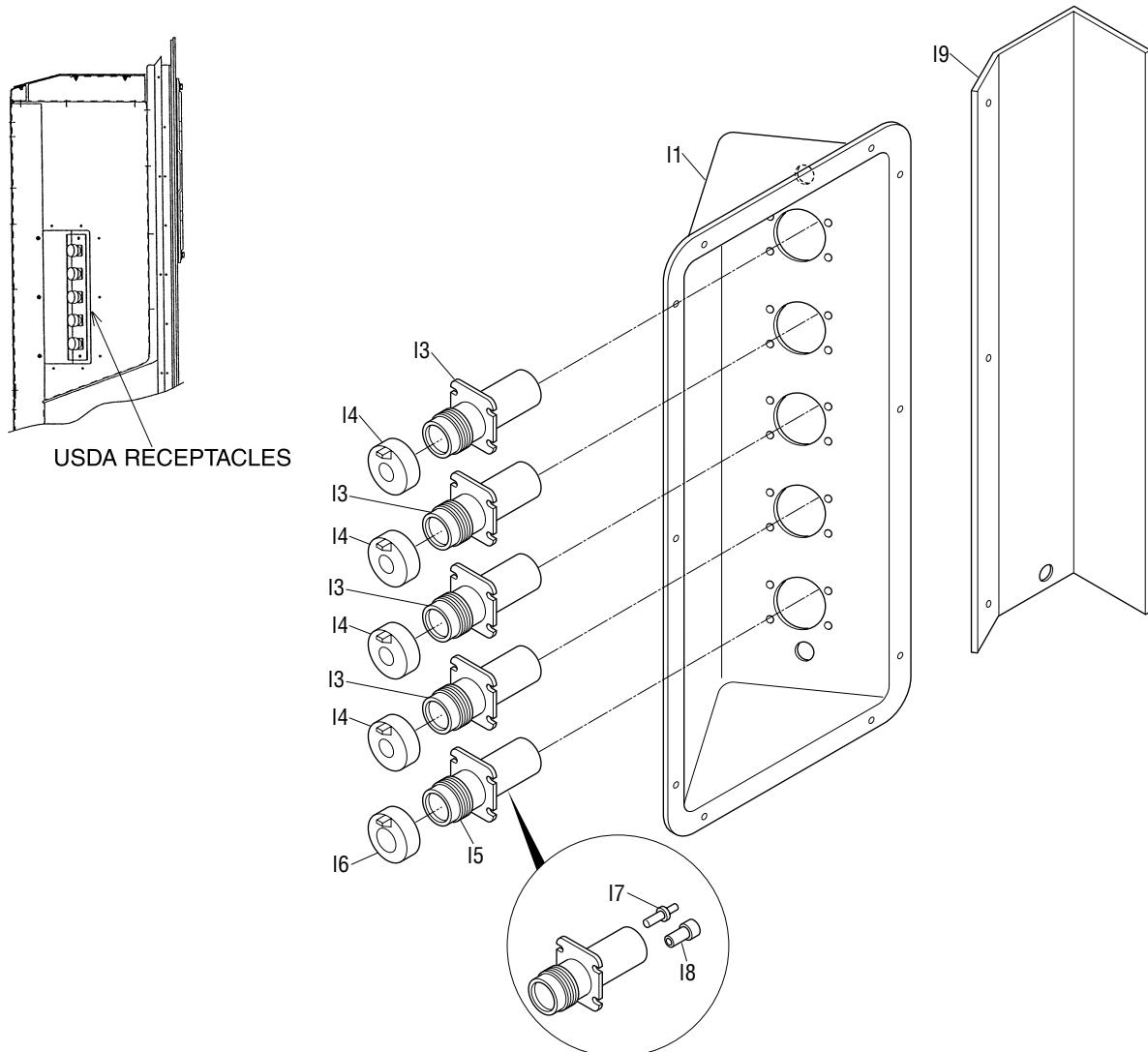
コントロールボックス内部(Inside of Control Box)



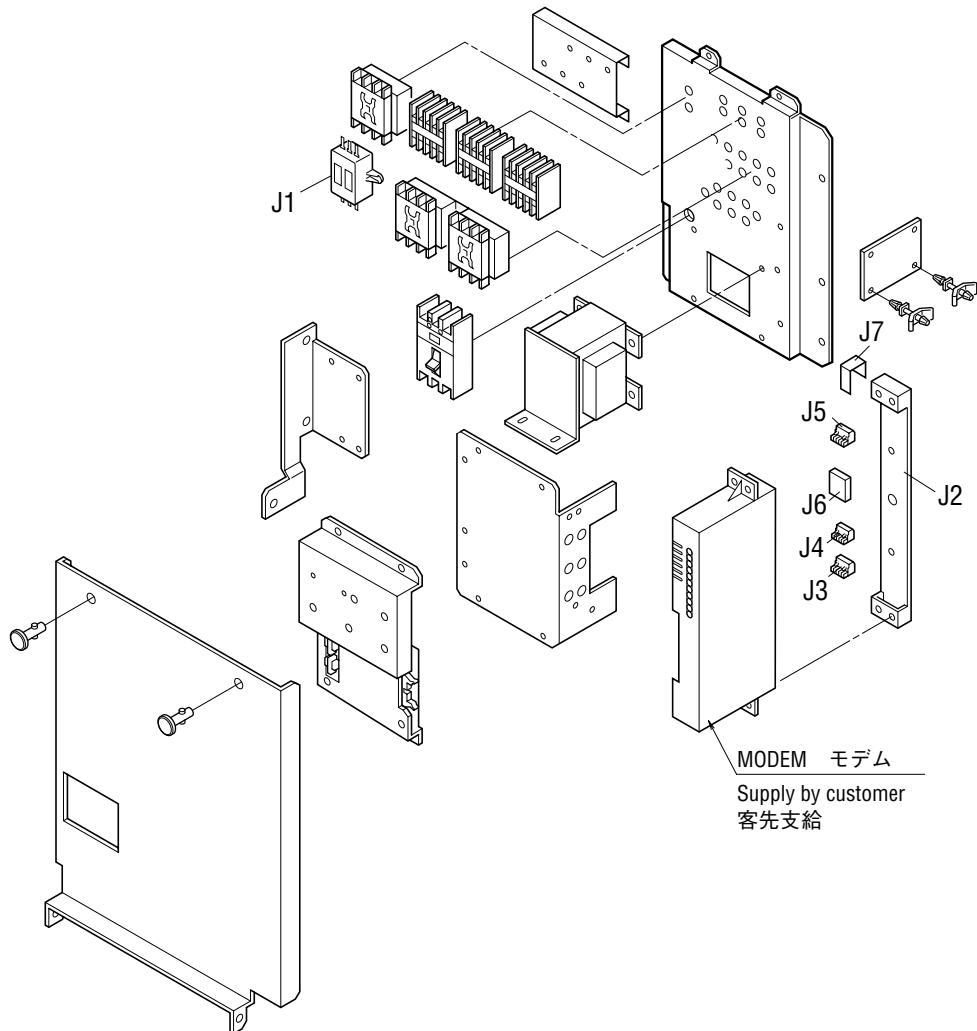


Parts related with option 1 – USDA

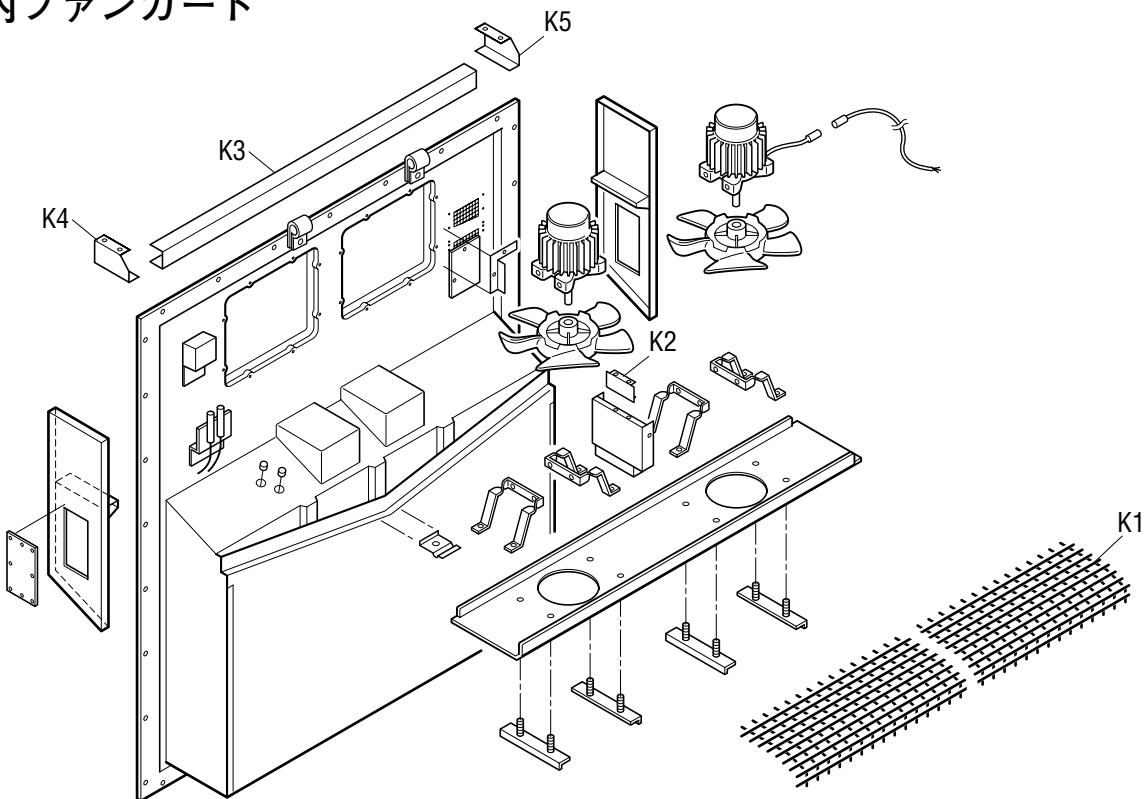
オプション関連部品 1 – USDA関連



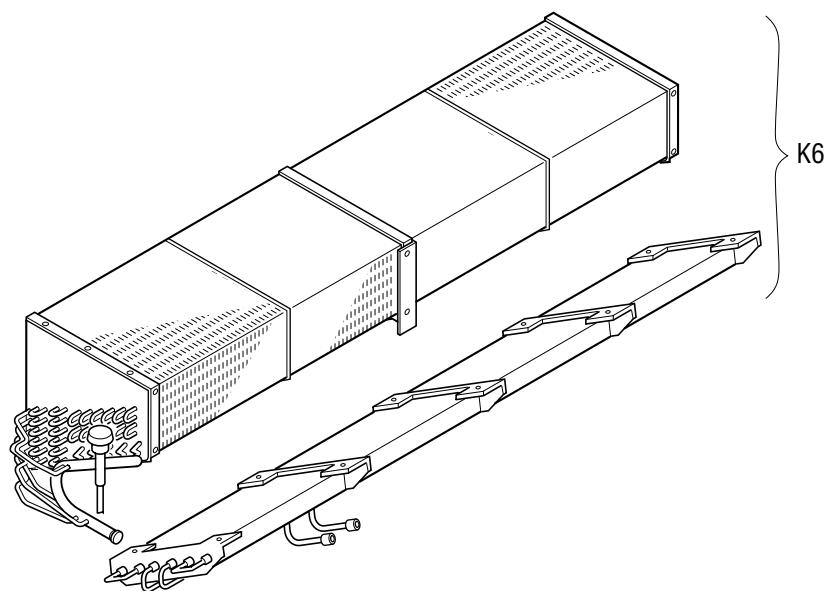
NO. 符号	INDEX 部品番号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG. NO. 図面番号	TYPE SPECIFICATION 形式 仕様	QTY/UNIT		REMARKS 備考	
						LXE10E-			
						A33	A33A		
I1		1622580	Mounting plate ass'y, receptacle	U S D A取付板 (樹脂)	2P146266-1		1	1	
I3	C	0991531	PC port connector	パソコンポートコネクタ	3P010803-1		4	4	
I4		1267541	Cover ass'y, PC port	パソコンポートカバー組立品	3P010743-1		4	4	
I5	C	1381113	PC port connector	パソコンポートコネクタ	3P073218-1		1	1	
I6		1381137	PC port connector ass'y	パソコンポートカバー組立品	3P010743-2		1	1	
I7	C	1141144	Contactor, receptacle	コンタクタ	3P010806-1	HD10	11	11	
I8		1381221	Straight pin	平行ピン(ドイチエ製シールピン)	3P040139-1		6	6	
I9		1622597	USDA Receptacle cover	U S D A レセプタクルカバー	3P146268-1		1	1	



1. Indoor fan guard  
1. 庫内ファンガード



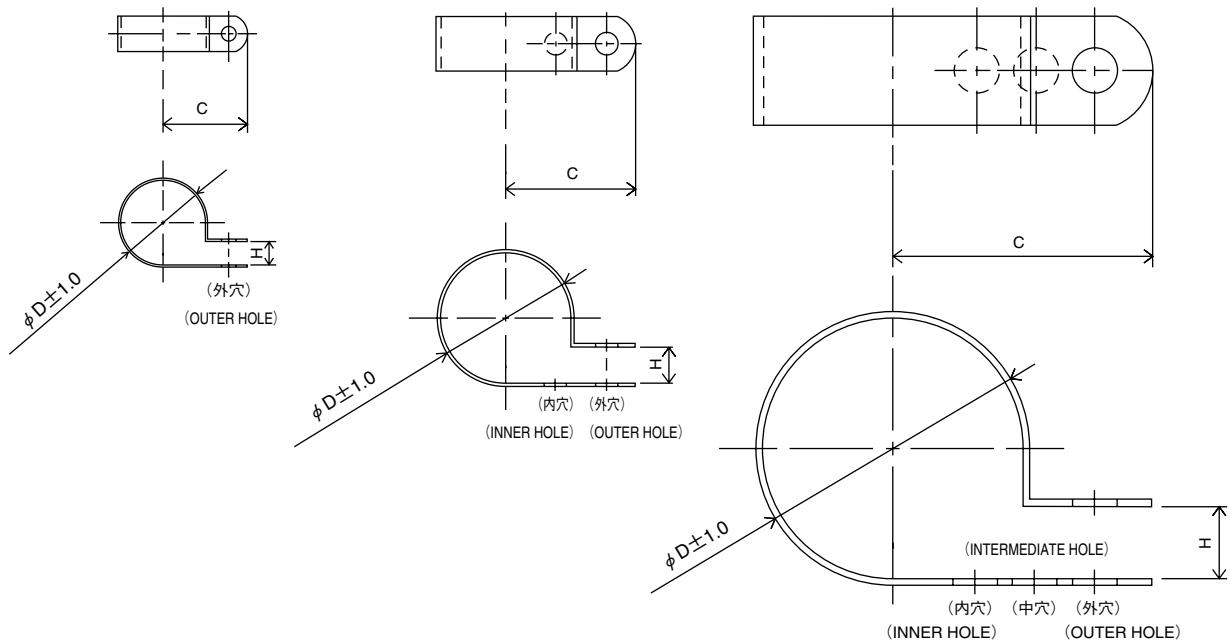
2. Evaporator coil  
2. 蒸発器コイル組立品



## **Parts related with option 3 – Others**

## 1. Resin clamp

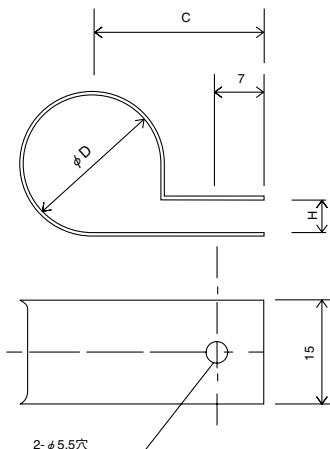
### 1. 樹脂バンド



NO. 符号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG NO. 図面番号	SIZE サイズ			QTY	
							LXE10E-	
				D	C	H	A33	A33A
E10	1222764	Resin clamp	樹脂バンド	NE41015-9	26.9	27.8	7.9	1 1
E11	0944528	Resin clamp	樹脂バンド	NE41015-7	19.8	24.6	7.9	2 2
E12	0142492	Resin clamp	樹脂バンド	NE41015-10	29.2	29.4	7.9	2 2
E13	1266788	Resin clamp	樹脂バンド	NE41015-12	39.4	34.2	9.5	6 6

## 2. Tube clamp

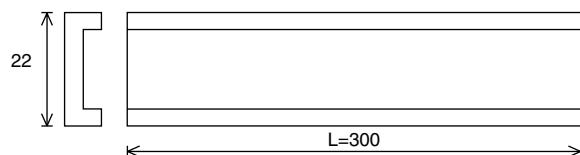
### 2. 管止金



NO. 符号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG NO. 図面番号	SIZE サイズ			QTY	
				LXE10E-			A33	A33A
				D	C	H		
E6	1592425	Tube clamp	管止め金	NE31016-58	24	27	5	2 3
E15	0782775	Tube clamp	管止め金	NE31016-51	10	20	3	6 6
E16	1584215	Nylon coating tube clamp	ナイロンコーティング管止め金	4P143802-51	10	20	3	6
E17	1584208	Nylon coating tube clamp	ナイロンコーティング管止め金	4P143802-52	12	21	3	1 1
E21	0016290	Tube clamp	管止め金	NE31016-56	20	25	5	1 1
E22	1584239	Nylon coating tube holder	ナイロンコーティング管止め金	4P143802-71	6.4	20	1	4 4
E27	1266858	Tube clamp	管止め金	NE31016-59	26	28	5	2 1
E29	1584246	Nylon coating tube clamp	ナイロンコーティング管止め金	4P143802-59	26	28	5	1 1

## 3. Cushion rubber for pipe clamp

### 3. 管止め金用緩衝ゴム



NO. 符号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG NO. 図面番号	REMARKS 備考		QTY	
				LXE10E-		A33	A33A
E35	1584253	Cushion rubber	管止め金用緩衝ゴム	NE41013-3-300	Cut to suit pipe size. 配管サイズに合わせて切って使用のこと	1	1

- 1. Parts recommended to be ordered together with packing, gasket, sealing material and name plate**
- 1. 発注の際にパッキングやシール材、銘板等の同時発注を推奨する部品**

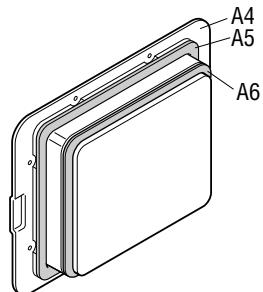
For ordering following spare parts, we recommend that you order the following packing, gasket, sealing material and name plate together at the same time.

上記のサービス扉やボックスカバーを発注の際には、下記のパッキングを同時に発注することをおすすめします。

### (1) Service door

#### (1) サービス扉

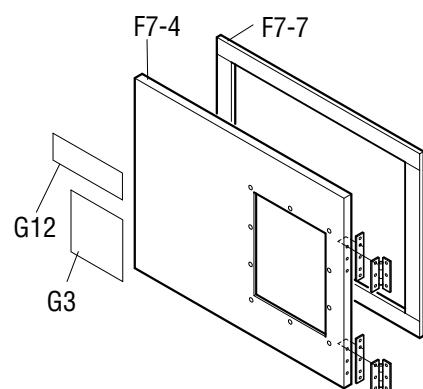
NO. 符号	PARTS NO. 部品番号	PARTS NAME 部品名称		DWG NO. 図面番号	REMARKS 備考
A4	1612576	Access panel (FRP)		サービス扉組立品 1P006678-5	(Without cushion and sealing material) (クッション材、シール材なし)
A5	1266207	Cushion material (access panel)		クッション材 (サービス扉) 3P033608-1	
A6	1196113	Sealing material (access panel)		シール材 (サービス扉) 3P001640-2	



### (2) Control box cover

#### (2) コントロールボックスカバー

NO. 符号	PARTS NO. 部品番号	PARTS NAME	部品名称	DWG NO. 図面番号	QTY	
					LXE10E-	A33
F7-4	1587841	C-BOX Cover welding ass'y	コントロールボックス蓋溶接組立品	3P085038-5	1	
F7-4	1739318	C-BOX Cover welding ass'y	コントロールボックス蓋溶接組立品	3P172570-1		1
F7-7	1381081	Rubber gasket	ゴムガasket (C. BOX蓋用パッキン)	4P085198-1	1	
F7-7	1497188	Rubber gasket	ゴムガasket (C. BOX蓋用パッキン)	4P111693-1		1
G3	1646081	Name plate, operation	操作銘板 (C&MODE, 韓・英)	1P163749-1	1	1
G12	1684069	Name plate, operation	操作銘板 (F / °C 変換表)	3P176175-1	1	1



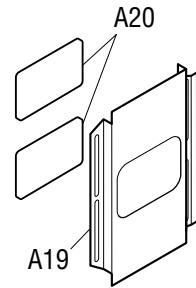
※Wiring diagram name plate is different by model.

※電気配線図銘板は機種により異なります。

### ( 3 ) Ventilation cover

### ( 3 ) 換気口蓋

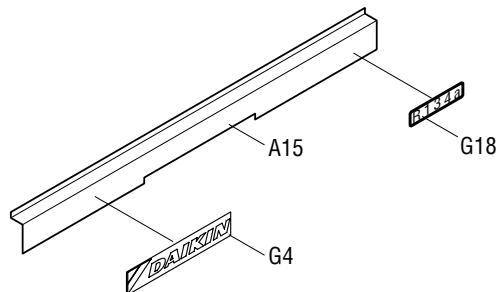
NO. 符号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG NO. 図面番号
A19	1266120	Ventilation cover 换気口蓋	3P067053-1
A20	1266221	Sealing material (Ventilator) シール材 (換気口)	4P016185-1



### ( 4 ) Front plate (CA)

### ( 4 ) 前板 (CA)

NO. 符号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG NO. 図面番号	QTY	
				LXE10E-	A33 A33A
A15	1661299	Front plate (CA) 前板 (C A)	2P165976-1	1	
A15	1739286	Front plate (CA) 前板 (C A)	2P173133-1		1
G4	1306530	Brand name label 意匠銘板	4P085985-1	1	
G4	1726552	Name plate, Brand name and refrigerant label 意匠銘板 および 冷媒銘板	3P174603-1		1
G18	1178843	Name plate, refrigerant 冷媒銘板	3P009750-1	1	



## 2. Order for motorized valve, solenoid valve and pressure regulating valve

### 2. 電動弁・電磁弁・圧力調整弁の発注

Refer to the following table for the name, main body, solenoid coil and ass'y of solenoid valves etc. applied to this model.

この機種に使用されている電磁弁等の名称と本体・コイル・組立品は下記のとおりです。

	Body/Coil 本体/コイル	NO. 符号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG NO. 図面番号	QTY		Common Parts 共通部品	
						LXE10E-		NEV-803DXF	NEV-202DXF
						A33	A33A	NEV-MOAB507C	
1.EV	本体 Body	B7-3	125649J	Electronic expansion valve body ass'y	電子膨張弁本体組立品	2SA50010-2-KU	1	1	
	コイル Coil	B20	138143J	Motor operated valve coil	電動弁コイル	2P010454-2	1	1	
2.HSV	本体 Body	B7-4	1411533	Hot gas solenoid valve body	ホットガス電磁弁本体	3SA52069-1	1		○
		B7-4	1787247	Hot gas solenoid valve body	ホットガス電磁弁本体	3P198486-1		1	
	コイル Coil	B7-5	1266290	Hot gas solenoid valve coil	ホットガス電磁弁コイル	3P010453-2	1	1	○
3.DSV	本体 Body	B7-4	1411533	Defrost bypass solenoid valve body	デフロストバイパス電磁弁本体	3SA52069-1	1		○
		B7-4	1787247	Defrost bypass solenoid valve body	デフロストバイパス電磁弁本体	3P198486-1		1	
	コイル Coil	B7-5	1266290	Defrost bypass solenoid valve coil	デフロストバイパス電磁弁コイル	3P010453-2	1	1	○
4.BSV	本体 Body	B7-4	1411533	Gas bypass solenoid valve body	ガスバイパス電磁弁本体	3SA52069-1	1	1	○
		B7-4	1787247	Gas bypass solenoid valve body	ガスバイパス電磁弁本体	3P198486-1		1	
	コイル Coil	B7-5	1266290	Gas bypass solenoid valve coil	ガスバイパス電磁弁コイル	3P010453-2	1	1	○
5.ESV	本体 Body	B7-6	0088738	Economizer solenoid valve body	エコノマイザー電磁弁本体	R3305099-1-KI	1	1	○
	コイル Coil	B7-5	1266290	Economizer solenoid valve coil	エコノマイザー電磁弁コイル	3P010453-2	1	1	○
6.ISV	本体 Body	B7-6	0088738	Injection solenoid valve body	インジェクション電磁弁本体	R3305099-1-KI	1	1	○
	コイル Coil	B7-5	1266290	Injection solenoid valve coil	インジェクション電磁弁コイル	3P010453-2	1	1	○
7.LSV	本体 Body	B4-5	1411533	Liquid solenoid valve body	液電磁弁本体	3SA52069-1	1		○
		B4-5	1787247	Liquid solenoid valve body	液電磁弁本体	3P198486-1		1	
	コイル Coil	B4-6	0955287	Liquid solenoid valve coil	液電磁弁コイル	3P010453-1	1	1	○
8.SMV	組立品 Ass'y	B8-1	1254538	Suction modulating valve ass'y	吸入比例弁 A S S Y	2P078385-1	1	1	Note 1 注1
9.DPR	組立品 Ass'y	B3-4	1241361	Discharge pressure regulating valve	吐出圧力調整弁	3P074558-1	1	1	

Note 1 : Refer Page 28, 29 and 30 for detail parts of suction modulating valve.

注 1 : SMV (吸入比例弁) の詳細部品はP.28、29、30を参照ください。

Note 2 : Difference of solenoid valve No.1266290 and 0955287.

No.1266290 (3P010453-2) : Lead wire length 1550mm

No.0955287 (3P010453-1) : Lead wire length 2000mm

注 2 : 電磁弁No.1266290とNo.0955287の違い。

No.1266290 (3P010453-2) : リード線長さ 1550mm

No.0955287 (3P010453-1) : リード線長さ 2000mm

### 3. Order for pressure trasducer

### 3. 圧力センサーの発注

Refer to the following table for the pressure transducer applied to this model.

For ordering pressure transducer, we recommend that you order the following best shrinkable tube together at the same time.

この機種に使用している圧力センサーは下記の通りです。

圧力センサー発注の際は、下記の熱収縮チューブを同時に発注することをおすすめします。

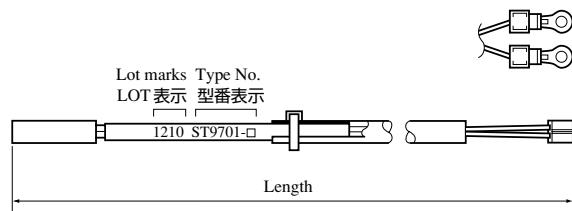
呼称名 符号	NO. 部品番号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG NO. 図面番号	TYPE 形式	REMARKS 備考
HPT	B16	1587959	High pressure transducer	高圧圧力センサ	3P141602-1	NSK-BD030F-070
LPT	B15	1587942	Low pressure transducer	低圧圧力センサ	3P141601-1	NSK-BC010F-070
	E84	1605509	Heat shrinkable tube	圧力センサ熱収縮 チューブ	4P151322-1	SPCL02  Must be applied when replacing above sensors. 上記圧力センサー 交換時使用の事。

## 4 . Order for temperature sensor

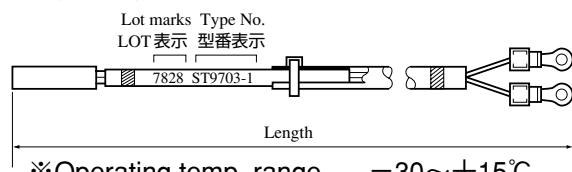
### 4. 温度センサーの発注

Refer to the following table for temperature sensors applied to this model.

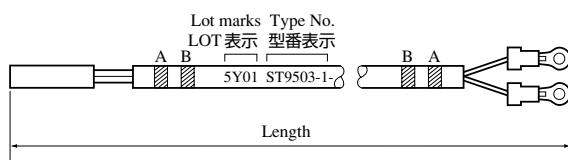
この機種に使用されている温度センサーは下記の通りです。



※Operating temp. range  $-30 \sim +150^{\circ}\text{C}$   
使用温度範囲  $-30 \sim +150^{\circ}\text{C}$



※Operating temp. range  $-30 \sim +15^{\circ}\text{C}$   
使用温度範囲  $-30 \sim +15^{\circ}\text{C}$



※Operating temp. range  $-30 \sim +70^{\circ}\text{C}$   
使用温度範囲  $-30 \sim +70^{\circ}\text{C}$

※1 Location 取付場所

Indoor A : Indoor supply air side

庫内A : 庫内吹出空気側

Indoor B : Indoor return air side

庫内B : 庫内吸込空気側

呼称	NO. 符号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG. NO. 図番	TYPE 形式	WIRE COLOR 配線色		LENGTH 全長mm	※1 LOCATION 取付場所	QTY/UNIT LXE10E- A33 A33A		TEMPORALY EXCHANGABILITY 緊急時互換性
						A	B			A33	A33A	
1. SS	C24	137531J	Supply air temp. sensor	吹出空気温度センサー	3PA61769-11 ST9503-11	green 緑	- -	4700	Indoor A 庫内A	1		○
	C24	1713330	Supply air temp. sensor	吹出空気温度センサー	3PA61769-16 ST9503-16	green 緑	- -	4700	Indoor A 庫内A		1	○
2. DSS	C25	1375327	Data recorder supply air temp. sensor	データレコーダー吹出空気温度センサー	3PA61769-12 ST9503-12	green 緑	Red 赤	4700	Indoor A 庫内A	1		○
	C25	1713347	Data recorder supply air temp. sensor	データレコーダー吹出空気温度センサー	3PA61769-17 ST9503-17	green 緑	Red 赤	4700	Indoor A 庫内A		1	○
3. RS	C26	1375334	Return air temp. sensor	吸込空気温度センサー	3PA61769-13 ST9503-13	Blue 青	- -	6700	Indoor B 庫内B	1		○
	C26	1713354	Return air temp. sensor	吸込空気温度センサー	3PA61769-18 ST9503-18	Blue 青	- -	6700	Indoor B 庫内B		1	○
4. DRS	C27	1375341	Data recorder return air temp. sensor	データレコーダー吸込空気温度センサー	3PA61769-14 ST9503-14	Blue 青	Red 赤	6700	Indoor B 庫内B	1		○
	C27	1713361	Data recorder return air temp. sensor	データレコーダー吸込空気温度センサー	3PA61769-19 ST9503-19	Blue 青	Red 赤	6700	Indoor B 庫内B		1	○
5. EIS	D4	156282J	Evaporator inject temp. sensor	蒸発器入口温度センサー	3P012118-2 ST9703-2	Brown 茶		2500	Indoor EVP. 庫内蒸発器	1	1	
6. EOS	D5	156283J	Evaporator outlet temp. sensor	蒸発器出口温度センサー	3PA61769-15 ST9503-15	Yellow 黄	- -	2600	Indoor EVP. 庫内蒸発器	1	1	○
7. DCHS	B11	098332J	Discharge pipe temp. sensor	吐出管温度センサー	3SA48009-10 ST9701-10		-	2800	Outdoor 庫外	1	1	
8. AMBS	B12	0798321	Ambient air temp. sensor	外気温度センサー	3PA61769-6 ST9503-6	- -	-	3200	Outdoor 庫外	1	1	○
9. SGS	B13	098333J	Compressor suction gas temp. sensor	圧縮機吸入ガス温度センサー	3PA61769-9 ST9503-9	White 白	- -	3200	Outdoor 庫外	1	1	○

## 1. Tools for emergency operation

### 1. 緊急運転用工具

NO. 符号	PARTS NO. 部品番号	PARTS NAME 部品名称	DWG NO. 図面番号	USE 用途	ILLUSTLATION 姿図
-	1080263	Emergency coil cap エマージェンシー コイルキャップ	3P017370-1	For electronic expansion valve 電子膨張弁用	
-	1270530	Emergency magnet エマージェンシーマグネット	2P078385-2	Suction modulating valve 吸入比例弁用	

(See Service Manual for application.)

(使用方法はサービスマニュアルを参照ください。)

## 2. Personal computer cable (for DCCS) 2. パソコンケーブル (DCCS用)

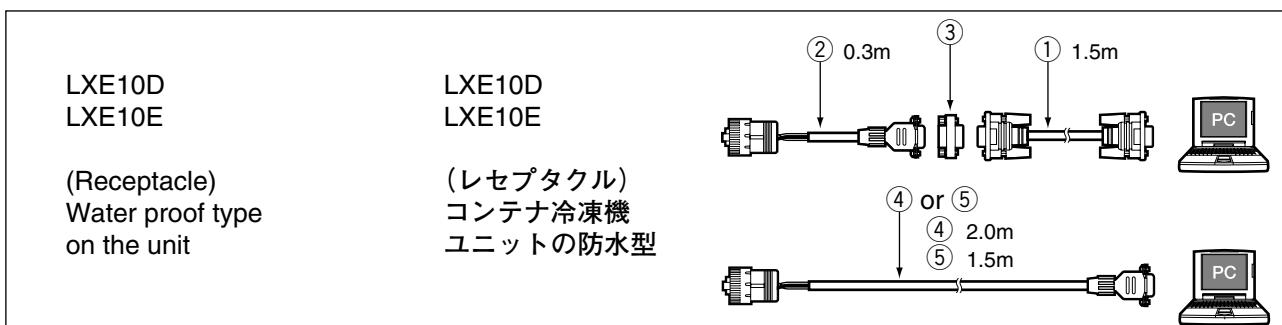
The following parts are connector cables required to exchange information between the refrigeration unit and personal computer. The table below describes parts required to apply to Model LXE-C, -D, and -E new model.

下記の部品は冷凍ユニットとパソコンの情報交換に必要なコネクター、ケーブル類です。LXE-C型、D型、及び新機種E型対応に必要な部品を掲載しています。

### [TYPE A] タイプA



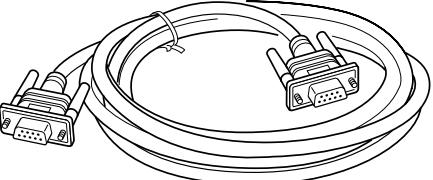
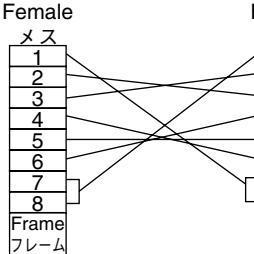
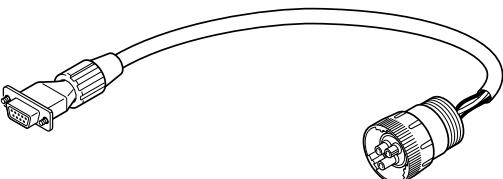
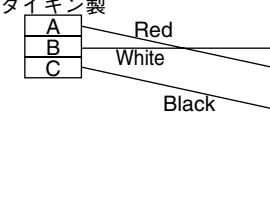
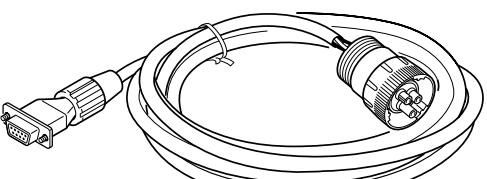
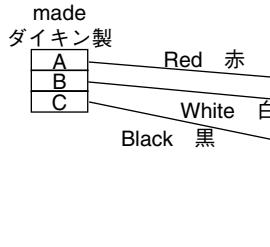
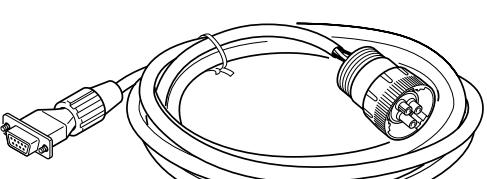
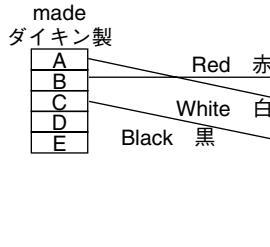
### [TYPE B] タイプB



### (1) Parts No.

### (1) 部品番号

NO. 符号	PARTS NO. 部品番号	PARTS NAME	部品名称	REMARKS 備考
①	Local supply 市販品	Connection cable (reverse)	接続ケーブル (リバース)	RS232C reverse (cross) type RS232Cリバース（クロス）型
②	9993324	Connection cable	接続ケーブル	
③	Local supply 市販品	Adapter (gender changer)	アダプター (ジェンダーチェンジャー)	D-sub 9P, Male-Male Dサブ9ピン、オス-オス
④	1087149	Connection cable (3 Pins)	接続ケーブル (3 ピン)	LXE10E-A For 3 pins LXE10E-A 3ピン用
⑤	1384509	Connection cable (5 Pins)	接続ケーブル (5 ピン)	For LXE10E-A For 5 pins LXE10E-A 5ピン用

NO. 符号	Illustration 姿図	Internal Wiring 内部配線																		
①		<p>RS232C Female メス</p> <table border="1" data-bbox="969 309 1049 563"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> <tr><td>8</td></tr> <tr><td>Frame フレーム</td></tr> </table> <p>RS232C Female メス</p> <table border="1" data-bbox="1223 309 1302 563"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> <tr><td>8</td></tr> <tr><td>Frame フレーム</td></tr> </table> 	1	2	3	4	5	6	7	8	Frame フレーム	1	2	3	4	5	6	7	8	Frame フレーム
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# **MEMO**

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