

Specifications subject to change without notice



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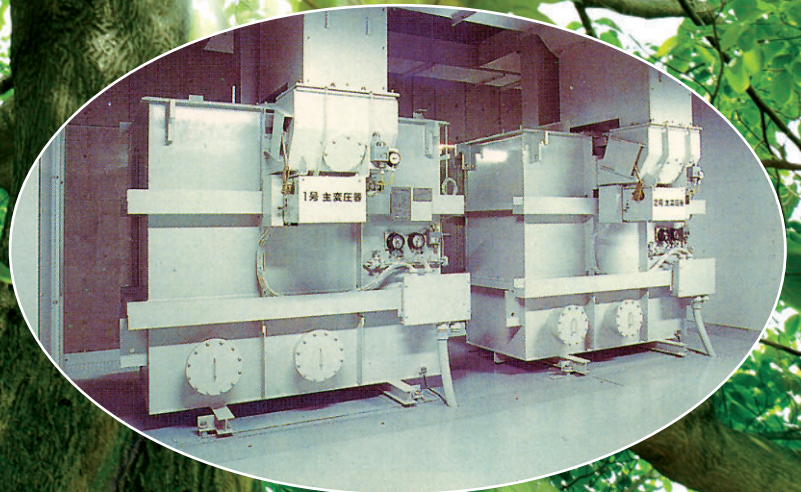
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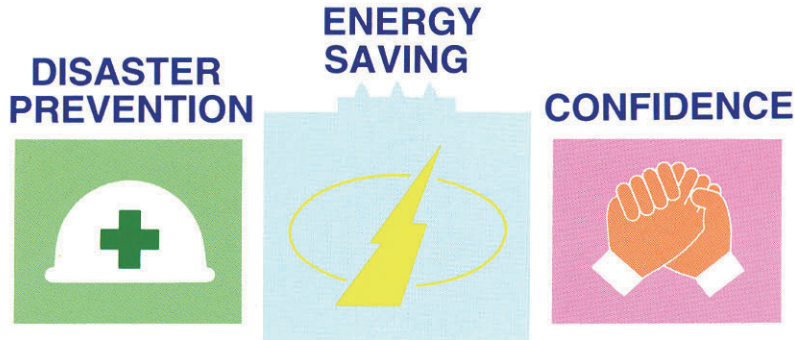
**11~77kV CLASS  
SF<sub>6</sub> GAS INSULATED TRANSFORMER**





# SF<sub>6</sub> Gas Insulated Transformer

SF<sub>6</sub> gas, which is noncombustible, does not present any risk of fire nor any fear of explosion even in case of an accident. Therefore, gas insulated transformer using SF<sub>6</sub> gas as insulating medium are most suitable for the power receiving & transforming facilities of buildings, etc. as disaster prevention type equipment.



## ■ Features

### ● Reliability

Highly reliable construction with no fear of absorption of humidity or staining thanks to storing of internal parts in a sealed tank. Possibility of outdoor installation.

### ● Safety

Complete shielding of live parts with no fear of electric shock at all.

### ● Low Loss

Sharply reduced loss compared with any oil-insulated transformer.

### ● Wide Range of Manufacture

Possibility of manufacturing high-voltage large-capacity transformers exceeding molded transformers.

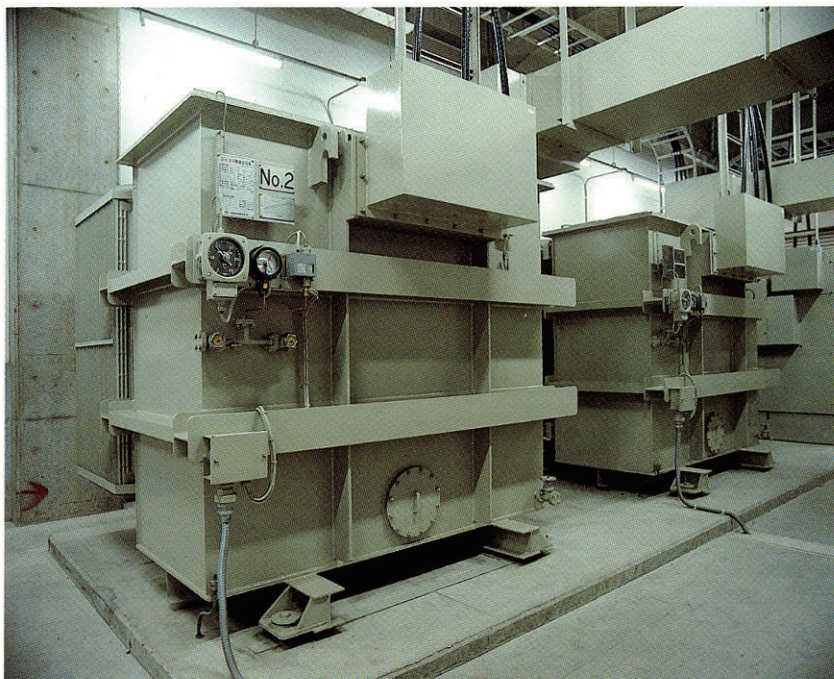
### ● Low Noise

Extremely low noise level with little transmission of vibrations in the gas.

## ● Comparison of Various Types of Transformer

◎ Excellent    ○ Good    × Unacceptable

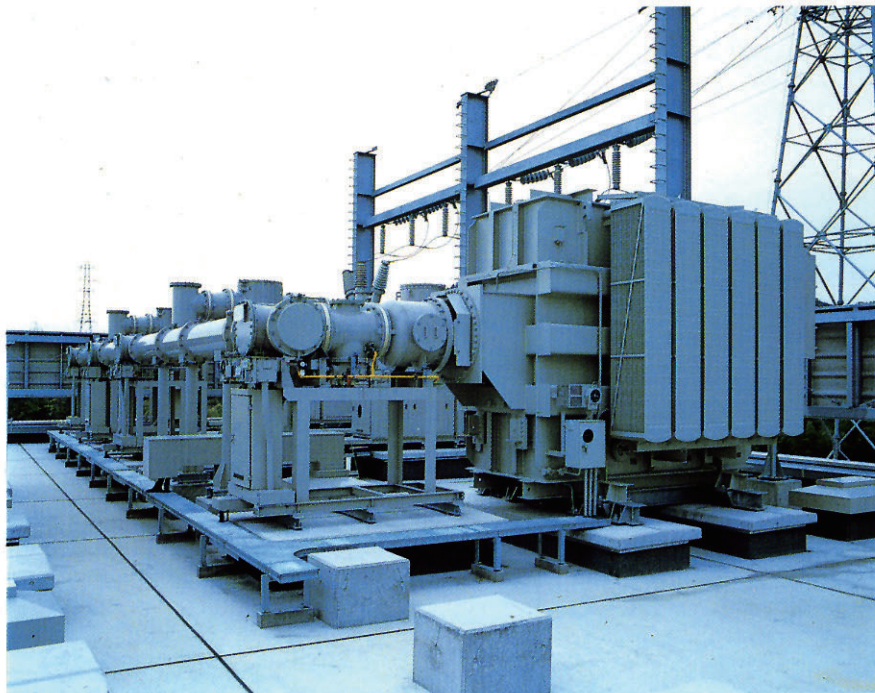
	Gas insulated	Molded	Oil insulated
Noncombustibility	◎	○	×
Outdoor installation	◎	×	◎
Moisture resistance	◎	○	◎
Dust resistance	◎	○	◎
Low loss	◎	◎	○
Low noise	◎	○	◎
Maintainability	◎	◎	○



3φ 60Hz R21/6.6kV 3,000kVA

9297





3φ 60Hz R73.5/6.6kV 7,500kVA

89128

## General Specifications

Phases	Single-phase or 3-phase
Frequency	50 Hz or 60 Hz
Applicable standard	JEC, IEC, BS or ANSI
Type of insulation	Class E (Limit of coil temperature in-crease 70°C)
Rated gas pressure	0.12 MPa (at 20°C)

## Manufacturing Range

Capacity (kVA)	22kV/		33kV/		66kV/	77kV/
	0.4 kV	6.6 or 3.3 kV	0.4 kV	6.6 or 3.3 kV	6.6 or 3.3 kV	
1,000						
1,500						
2,000						
3,000						
4,000						
5,000						
6,000						
7,500						
10,000						
15,000						
20,000						

- (Notes) 1. The standard voltages and connections are indicated on pages 5 to 13.  
2. Other types are also acceptable at request.

Please specify the following matters when placing an order for Nissin gas-insulated transformers :



1. Phases : \_\_\_\_\_ Phase

2. Capacity : \_\_\_\_\_ kVA

3. Primary voltage (tap voltage) \_\_\_\_\_ kV

4. Secondary voltage \_\_\_\_\_ kV

5. Connections \_\_\_\_\_

6. Quantity : \_\_\_\_\_ units

7. Delivery : \_\_\_\_\_

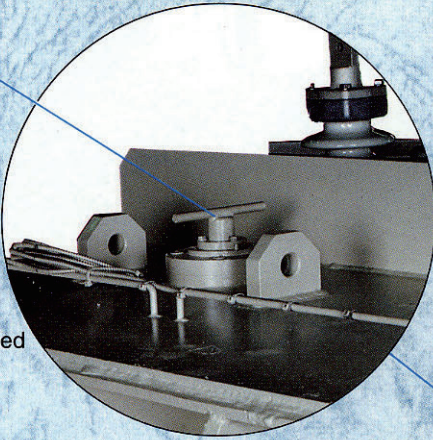
8. Special specifications \_\_\_\_\_



# Structure

No-voltage tap changer

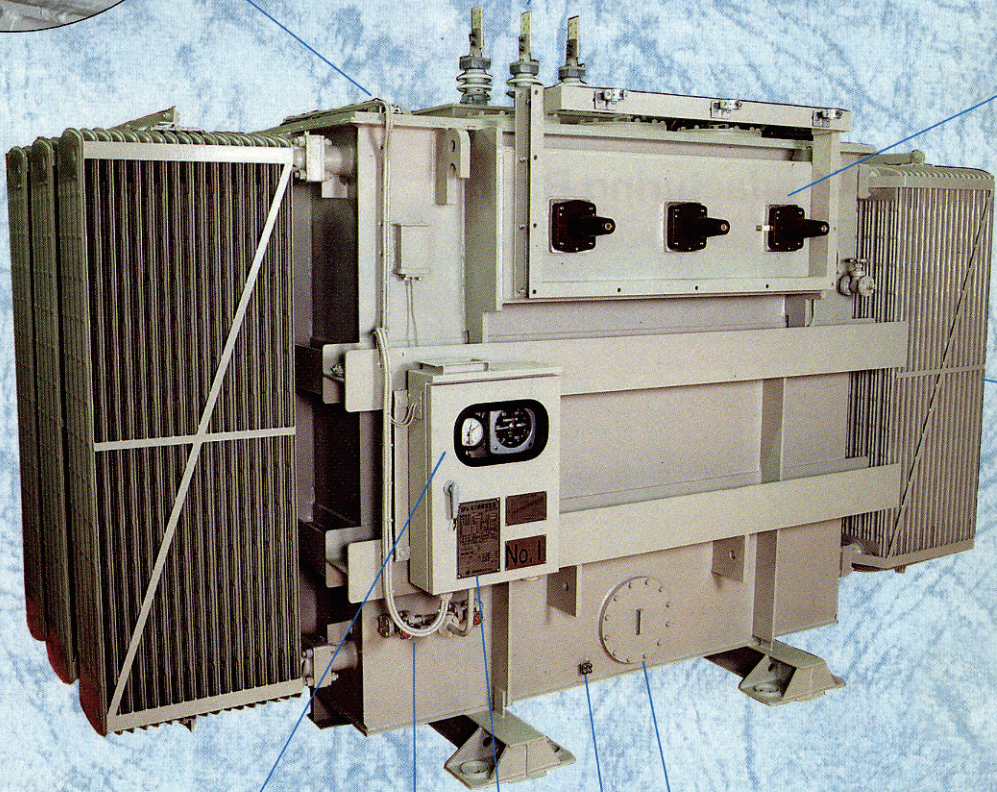
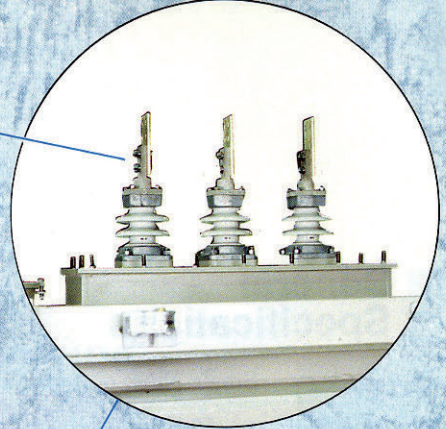
No-voltage tap changer



A transformer with tap changer for loaded operation is also manufacturable at request.

Secondary bushing

Secondary bushing (in air/gas type)

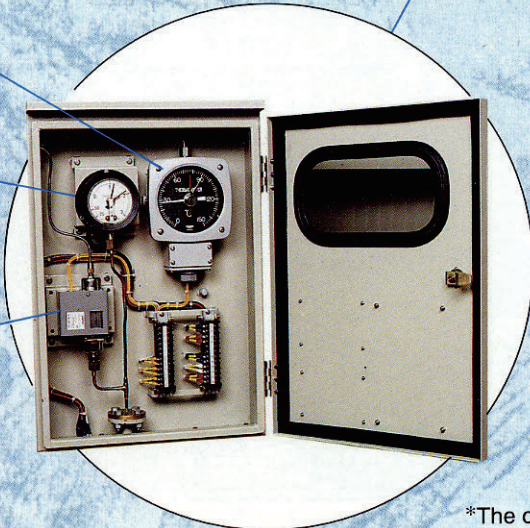


Gas pressure monitoring box & collective terminal box

Dial thermometer

Compound gauge

Gas density switch



Hand hole (for storing adsorbent)

Earthing terminal

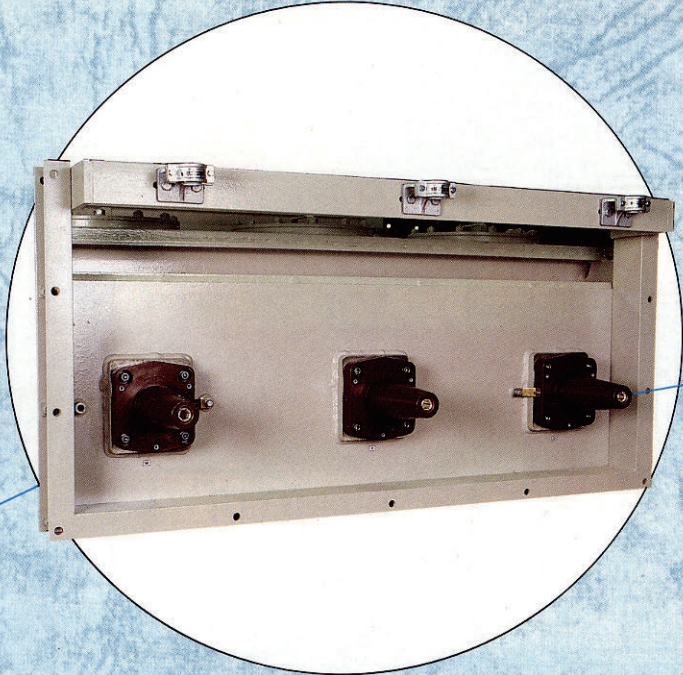
Main name plate

Gas filling & discharging valve

\*The case is optional.

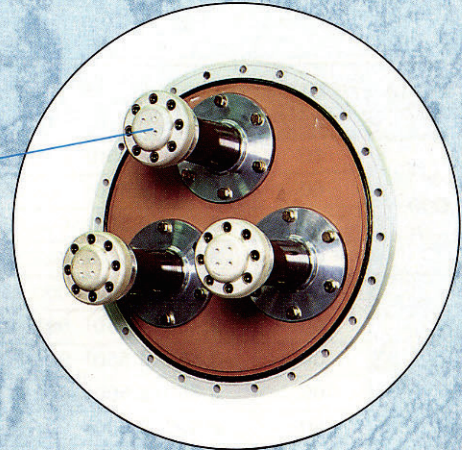


Primary bushing(for L-shaped connector)



Primary bushing(for L-shaped connector)

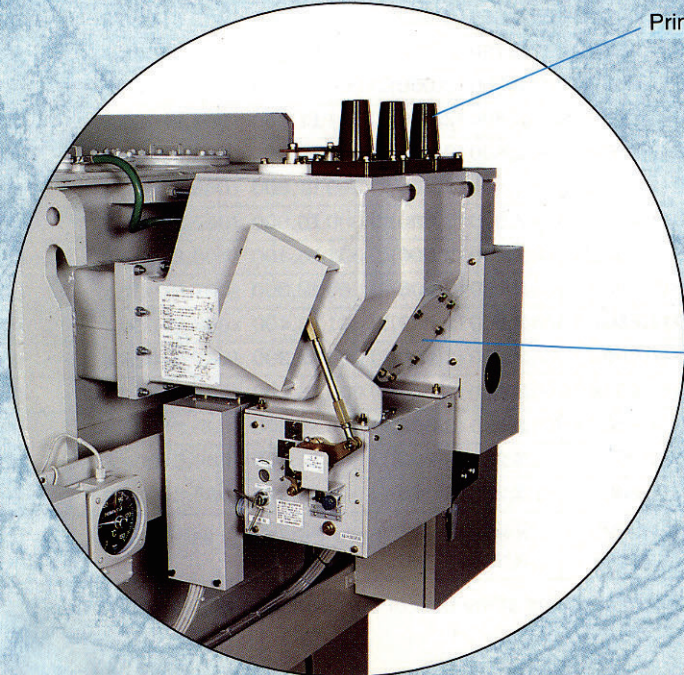
Case of direct connection to primary GIS



Primary bushing(gas/gas type)

Radiator (case of self-cooled type)

Case with primary gas disconnector



Primary bushing(for L-shaped connector)

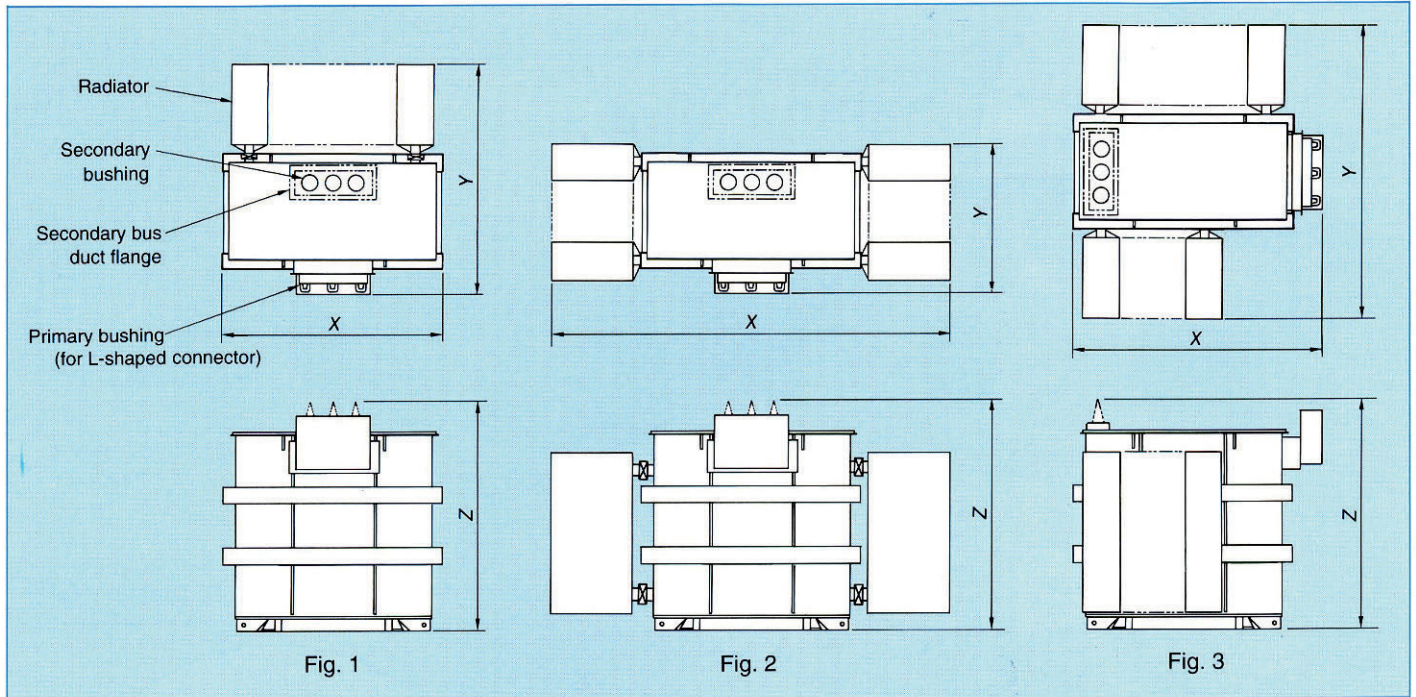
Main body of gas disconnector



# Standard Specifications, Outer Shape, Dimensions

Primary voltage(kV)	Secondary Voltage(kV)	Connection
F23-F22-R21-F20	6.6 or 3.3	△—△

## 22/6.6 or 3.3 kV

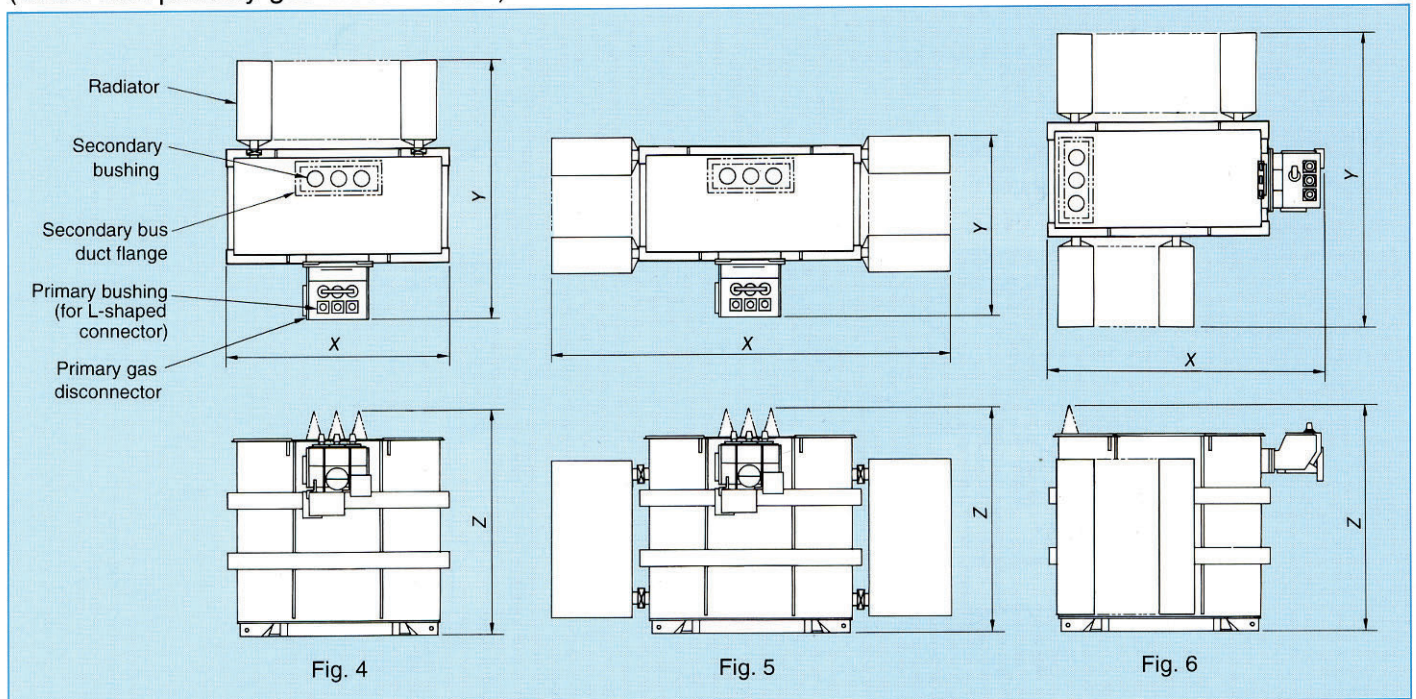


Capacity (kVA)	Frequency (Hz)	Dimensions (mm)			Weight (kg)	Impedance voltage (%)	Applicable drawing
		X	Y	Z			
1,000	50	2,450 (2,450)	2,150 (1,950)	2,450 (2,400)	6,600	5.5	Fig. 1
	60	2,300 (2,300)	2,100 (1,900)	2,400 (2,350)	6,000		Fig. 2
	50	3,450 (2,500)	1,700 (1,700)	2,450 (2,400)	6,600		
	60	3,350 (2,350)	1,650 (1,650)	2,400 (2,350)	6,000		
1,500	50	2,500 (2,500)	2,450 (2,000)	2,500 (2,450)	7,700	8.0	Fig. 1
	60	2,450 (2,450)	2,400 (1,950)	2,450 (2,400)	7,000		Fig. 2
	50	3,850 (2,550)	1,750 (1,750)	2,500 (2,450)	7,700		
	60	3,750 (2,500)	1,700 (1,700)	2,450 (2,400)	7,000		
2,000	50	2,500 (2,500)	2,600 (2,000)	2,600 (2,550)	8,800	8.0	Fig. 1
	60	2,450 (2,450)	2,600 (1,950)	2,550 (2,500)	8,000		Fig. 2
	50	4,150 (2,550)	1,750 (1,750)	2,600 (2,550)	8,800		
	60	4,150 (2,500)	1,700 (1,700)	2,550 (2,500)	8,000		
2,500	50	2,500 (2,500)	2,700 (2,000)	2,750 (2,700)	9,900	8.0	Fig. 1
	60	2,500 (2,500)	2,700 (2,000)	2,650 (2,600)	9,000		Fig. 2
	50	4,300 (2,550)	1,750 (1,750)	2,750 (2,700)	9,900		
	60	4,300 (2,500)	1,700 (1,700)	2,700 (2,650)	9,000		
3,000	50	2,600 (2,600)	2,750 (2,000)	2,800 (2,750)	11,000	8.0	Fig. 1
	60	2,500 (2,500)	2,700 (1,950)	2,800 (2,750)	10,000		Fig. 2
	50	4,500 (2,650)	1,750 (1,750)	2,800 (2,750)	11,000		
	60	4,300 (2,550)	1,700 (1,700)	2,800 (2,750)	10,000		
4,000	50	2,800 (2,800)	2,800 (2,100)	2,850 (2,800)	13,400	8.0	Fig. 1
	60	2,700 (2,700)	2,700 (2,000)	2,950 (2,900)	12,300		Fig. 2
	50	4,950 (2,850)	1,850 (1,850)	2,850 (2,800)	13,400		
	60	4,850 (2,750)	1,750 (1,750)	2,950 (2,900)	12,300		
5,000	50	3,350 (3,350)	3,000 (1,900)	3,000 (3,000)	16,100	8.0	Fig. 3
	60	3,250 (3,250)	2,900 (1,800)	2,850 (2,850)	14,600		
6,000	50	3,650 (3,650)	3,300 (1,900)	3,250 (3,200)	19,800	8.0	Fig. 3
	60	3,500 (3,500)	3,100 (1,850)	3,250 (3,200)	18,200		
7,500	50	3,850 (3,850)	3,700 (1,900)	3,350 (3,300)	25,300	8.0	Fig. 3
	60	3,700 (3,700)	3,700 (1,900)	3,350 (3,300)	23,000		

\* The figures in ( ) represent dimensions at the time of transportation without radiator.



(Case with primary gas disconnector)



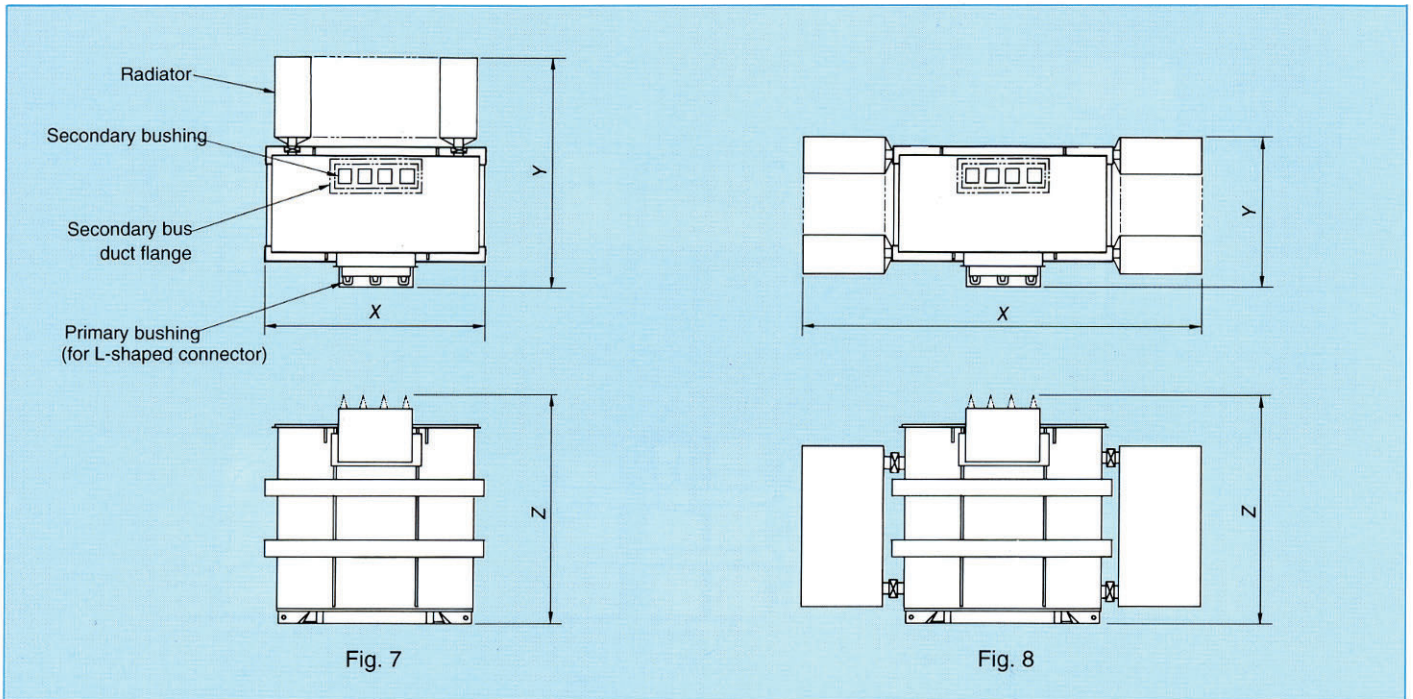
Capacity (kVA)	Frequency (Hz)	Dimensions (mm)			Weight (kg)	Impedance voltage (%)	Applicable drawing
		X	Y	Z			
1,000	50	2,450 (2,450)	2,500 (2,300)	2,450 (2,400)	6,900	5.5	Fig. 4
	60	2,300 (2,300)	2,450 (2,250)	2,400 (2,350)	6,300		Fig. 5
	50	3,450 (2,500)	2,000 (2,000)	2,450 (2,400)	6,900		
	60	3,350 (2,350)	1,950 (1,950)	2,400 (2,350)	6,300		
1,500	50	2,500 (2,500)	2,750 (2,300)	2,500 (2,450)	8,000	8.0	Fig. 4
	60	2,450 (2,450)	2,700 (2,250)	2,450 (2,400)	7,300		Fig. 5
	50	3,850 (2,550)	2,050 (2,050)	2,500 (2,450)	8,000		
	60	3,750 (2,500)	2,000 (2,000)	2,450 (2,400)	7,300		
2,000	50	2,500 (2,500)	2,900 (2,300)	2,600 (2,550)	9,100	8.0	Fig. 4
	60	2,450 (2,450)	2,900 (2,300)	2,550 (2,500)	8,300		Fig. 5
	50	4,150 (2,550)	2,050 (2,050)	2,600 (2,550)	9,100		
	60	4,150 (2,500)	2,000 (2,000)	2,550 (2,500)	8,300		
2,500	50	2,500 (2,500)	3,000 (2,300)	2,750 (2,700)	10,200	8.0	Fig. 4
	60	2,500 (2,500)	3,000 (2,300)	2,650 (2,600)	9,300		Fig. 5
	50	4,300 (2,500)	2,050 (2,050)	2,750 (2,700)	10,200		
	60	4,300 (2,500)	2,000 (2,000)	2,700 (2,650)	9,300		
3,000	50	2,600 (2,600)	3,100 (2,350)	2,800 (2,750)	11,300	8.0	Fig. 4
	60	2,500 (2,500)	3,000 (2,300)	2,800 (2,750)	10,300		Fig. 5
	50	4,500 (2,650)	2,050 (2,050)	2,800 (2,750)	11,300		
	60	4,300 (2,550)	2,000 (2,000)	2,800 (2,750)	10,300		
4,000	50	2,800 (2,800)	3,150 (2,400)	2,850 (2,800)	13,700	8.0	Fig. 4
	60	2,700 (2,700)	3,050 (2,300)	2,950 (2,900)	12,600		Fig. 5
	50	4,950 (2,850)	2,150 (2,150)	2,850 (2,800)	13,700		
	60	4,850 (2,750)	2,050 (2,050)	2,950 (2,900)	12,600		
5,000	50	3,750 (3,750)	3,000 (1,850)	3,000 (3,000)	16,400	8.0	Fig. 6
	60	3,650 (3,650)	2,900 (1,800)	2,850 (2,850)	14,900		
6,000	50	3,950 (3,950)	3,300 (1,900)	3,250 (3,200)	20,100	8.0	Fig. 6
	60	3,800 (3,800)	3,100 (1,850)	3,250 (3,200)	18,500		

\* The figures in ( ) represent dimensions at the time of transportation without radiator.



# 22/0.4kV

Primary voltage(kV)	Secondary Voltage(kV)	Connection
F23-F22-R21-F20	50Hz.....0.415-0.24 60Hz.....0.42-0.242	$\Delta - \star$

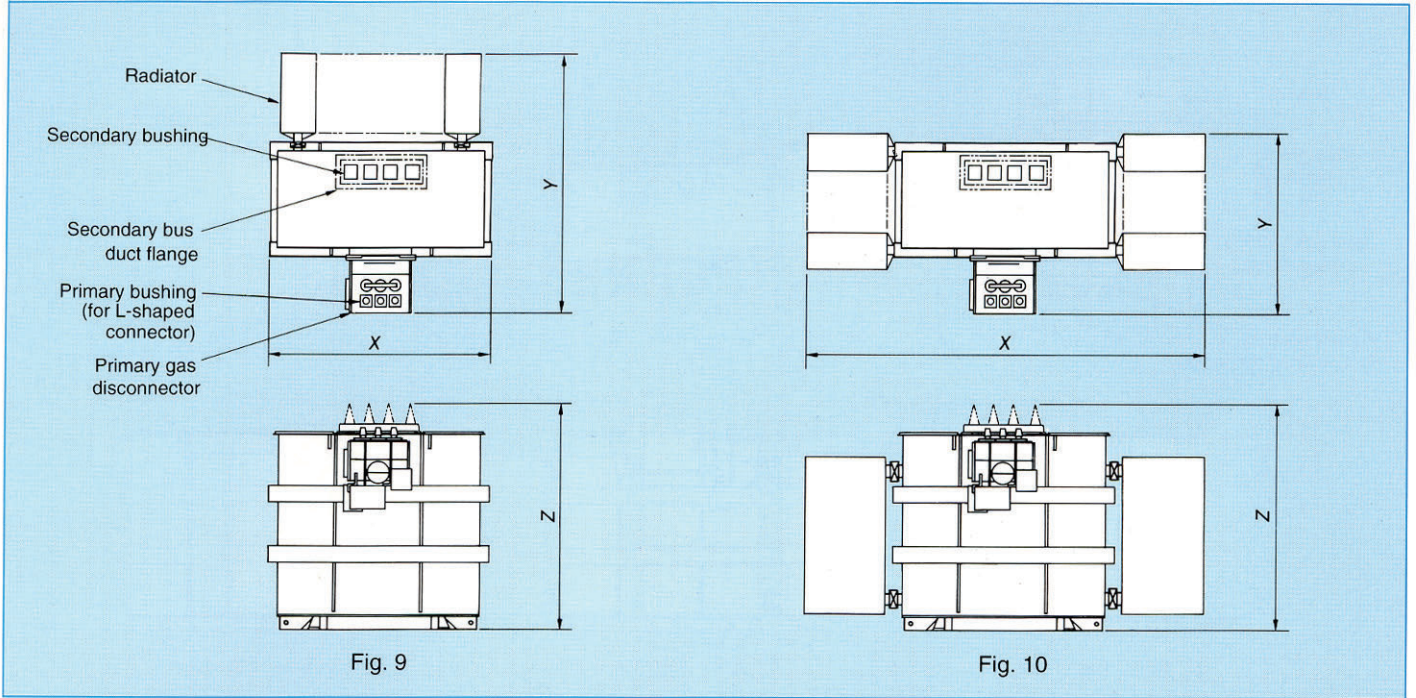


Capacity (kVA)	Frequency (Hz)	Dimensions (mm)			Weight (kg)	Impedance voltage (%)	Applicable drawing
		X	Y	Z			
1,000	50	2,600 (2,600)	2,450 (2,100)	2,450 (2,400)	6,800	5.5	Fig. 7
	60	2,300 (2,300)	2,250 (2,050)	2,400 (2,350)	6,200		
	50	3,800 (2,650)	1,800 (1,800)	2,450 (2,400)	6,800		Fig. 8
	60	3,550 (2,350)	1,750 (1,750)	2,400 (2,350)	6,200		
1,500	50	2,600 (2,600)	2,500 (2,050)	2,500 (2,450)	7,900	8.0	Fig. 7
	60	2,450 (2,450)	2,400 (2,050)	2,500 (2,450)	7,200		Fig. 8
	50	3,950 (2,650)	1,800 (1,800)	2,500 (2,450)	7,900		
	60	3,700 (2,500)	1,750 (1,750)	2,500 (2,450)	7,200		
2,000	50	2,800 (2,800)	2,750 (2,150)	2,600 (2,550)	10,400	8.0	Fig. 7
	60	2,450 (2,450)	2,650 (2,050)	2,550 (2,500)	9,500		Fig. 8
	50	4,150 (2,850)	1,900 (1,900)	2,600 (2,550)	10,400		
	60	4,150 (2,500)	1,750 (1,750)	2,550 (2,500)	9,500		
2,500	50	2,800 (2,800)	3,050 (2,150)	2,750 (2,700)	12,200	8.0	Fig. 7
	60	2,650 (2,650)	2,900 (2,100)	2,600 (2,550)	11,100		Fig. 8
	50	4,750 (2,850)	1,900 (1,900)	2,750 (2,700)	12,200		
	60	4,500 (2,700)	1,800 (1,800)	2,600 (2,550)	11,100		
3,000	50	2,800 (2,800)	2,900 (2,150)	2,800 (2,750)	13,500	8.0	Fig. 7
	60	2,750 (2,750)	2,850 (2,100)	2,750 (2,700)	12,300		Fig. 8
	50	5,100 (2,850)	1,900 (1,900)	2,800 (2,750)	13,500		
	60	4,600 (2,850)	1,900 (1,900)	2,750 (2,700)	12,300		

\* The figures in ( ) represent dimensions at the time of transportation without radiator.



(Case with primary gas disconnector)



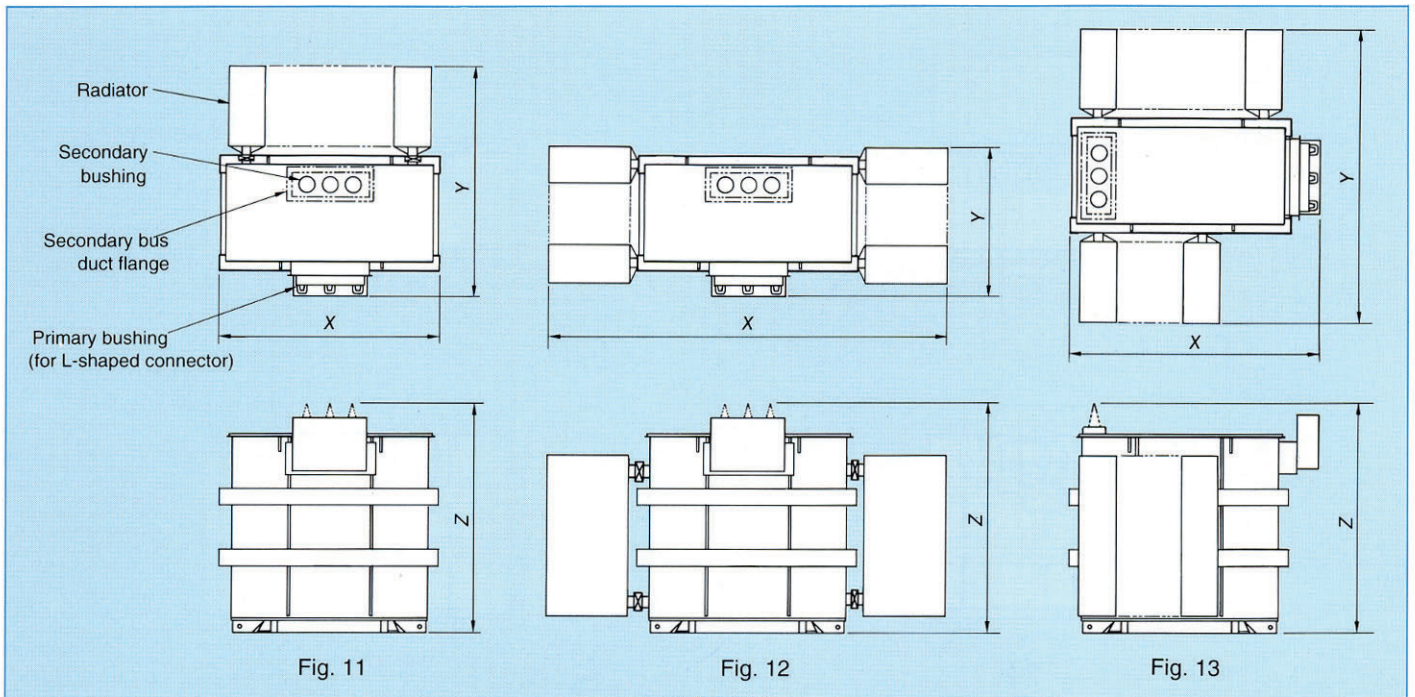
Capacity (kVA)	Frequency (Hz)	Dimensions (mm)			Weight (kg)	Impedance voltage (%)	Applicable drawing
		X	Y	Z			
1,000	50	2,600 (2,600)	2,750 (2,400)	2,450 (2,400)	7,100	5.5	Fig. 9
	60	2,300 (2,300)	2,550 (2,350)	2,400 (2,350)	6,500		Fig. 10
	50	3,800 (2,650)	2,100 (2,100)	2,450 (2,400)	7,100		
	60	3,550 (2,350)	2,050 (2,050)	2,400 (2,350)	6,500		
1,500	50	2,600 (2,600)	2,800 (2,350)	2,500 (2,450)	8,200	8.0	Fig. 9
	60	2,450 (2,450)	2,700 (2,350)	2,500 (2,450)	7,500		Fig. 10
	50	3,950 (2,650)	2,100 (2,100)	2,500 (2,450)	8,200		
	60	3,700 (2,500)	2,050 (2,050)	2,500 (2,450)	7,500		
2,000	50	2,800 (2,800)	3,050 (2,450)	2,600 (2,550)	10,700	8.0	Fig. 9
	60	2,450 (2,450)	2,950 (2,350)	2,550 (2,500)	9,800		Fig. 10
	50	4,150 (2,850)	2,200 (2,200)	2,600 (2,550)	10,700		
	60	4,150 (2,500)	2,050 (2,050)	2,550 (2,500)	9,800		
2,500	50	2,800 (2,800)	3,350 (2,450)	2,750 (2,700)	12,500	8.0	Fig. 9
	60	2,650 (2,650)	3,200 (2,400)	2,600 (2,550)	11,400		Fig. 10
	50	4,750 (2,850)	2,200 (2,200)	2,750 (2,700)	12,500		
	60	4,500 (2,700)	2,100 (2,100)	2,600 (2,550)	11,400		
3,000	50	2,800 (2,800)	3,200 (2,450)	2,800 (2,750)	13,800	8.0	Fig. 9
	60	2,750 (2,750)	3,150 (2,400)	2,750 (2,700)	12,600		Fig. 10
	50	5,100 (2,850)	2,200 (2,200)	2,800 (2,750)	13,800		
	60	4,600 (2,850)	2,200 (2,200)	2,750 (2,700)	12,600		

\* The figures in ( ) represent dimensions at the time of transportation without radiator.



# 33/6.6 or 3.3 kV

Primary voltage(kV)	Secondary Voltage(kV)	Connection
F34.5-F33-R31.5-F30	6.6 or 3.3	△—△

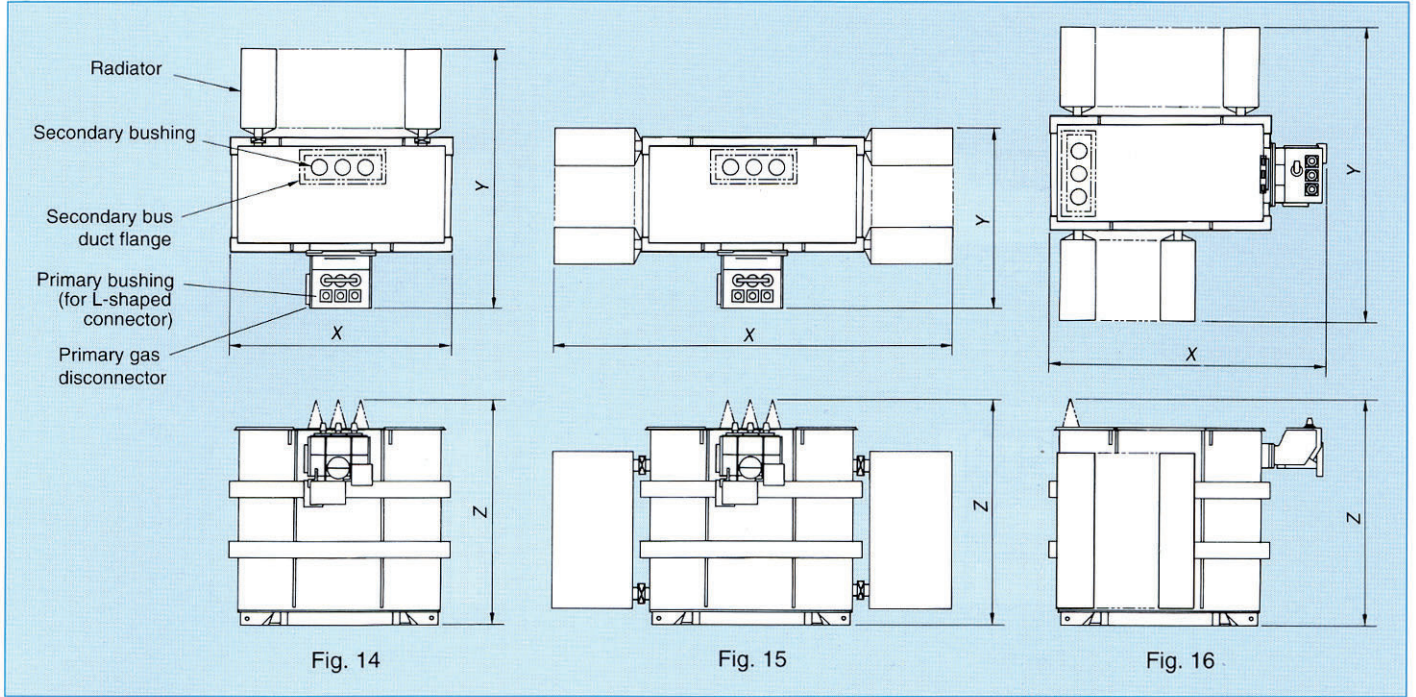


Capacity (kVA)	Frequency (Hz)	Dimensions (mm)			Weight (kg)	Impedance voltage (%)	Applicable drawing
		X	Y	Z			
1,000	50	2,450 (2,450)	2,300 (2,100)	2,550 (2,500)	7,600	5.5	Fig. 11
	60	2,300 (2,300)	2,200 (2,050)	2,550 (2,500)	6,900		
	50	3,700 (2,550)	1,850 (1,850)	2,550 (2,500)	7,600		Fig. 12
	60	3,600 (2,400)	1,800 (1,800)	2,550 (2,500)	6,900		
1,500	50	2,500 (2,500)	2,500 (2,100)	2,600 (2,550)	8,900	8.0	Fig. 11
	60	2,450 (2,450)	2,450 (2,100)	2,600 (2,550)	8,100		Fig. 12
	50	3,850 (2,600)	1,900 (1,900)	2,600 (2,550)	8,900		
	60	3,700 (2,550)	1,850 (1,850)	2,600 (2,550)	8,100		
2,000	50	2,750 (2,750)	2,650 (2,150)	2,650 (2,600)	10,200	8.0	Fig. 11
	60	2,600 (2,600)	2,550 (2,150)	2,650 (2,600)	9,200		Fig. 12
	50	4,400 (2,850)	1,950 (1,950)	2,650 (2,600)	10,200		
	60	4,200 (2,700)	1,900 (1,900)	2,650 (2,600)	9,200		
2,500	50	2,750 (2,750)	2,850 (2,150)	2,850 (2,800)	10,900	8.0	Fig. 11
	60	2,600 (2,600)	2,750 (2,150)	2,700 (2,650)	10,400		Fig. 12
	50	4,400 (2,850)	1,950 (1,950)	2,700 (2,650)	10,900		
	60	4,500 (2,700)	1,900 (1,900)	2,700 (2,650)	10,400		
3,000	50	2,850 (2,850)	2,850 (2,250)	3,000 (2,950)	12,700	8.0	Fig. 11
	60	2,700 (2,700)	2,750 (2,250)	2,900 (2,850)	11,500		Fig. 12
	50	4,600 (2,950)	2,050 (2,050)	3,000 (2,950)	12,700		
	60	4,450 (2,800)	2,000 (2,000)	2,900 (2,850)	11,500		
4,000	50	3,000 (3,000)	3,050 (2,300)	3,150 (3,100)	15,400	8.0	Fig. 11
	60	2,850 (2,850)	2,950 (2,300)	3,050 (3,000)	14,100		Fig. 12
	50	5,200 (3,100)	2,100 (2,100)	3,150 (3,100)	15,400		
	60	5,000 (2,950)	2,050 (2,050)	3,050 (3,000)	14,100		
5,000	50	3,900 (3,900)	2,900 (2,100)	3,100 (3,050)	18,500	8.0	Fig. 13
	60	3,900 (3,900)	2,900 (2,100)	3,050 (3,000)	16,800		
6,000	50	3,900 (3,900)	3,000 (2,200)	3,200 (3,150)	22,800	8.0	Fig. 13
	60	3,900 (3,900)	2,950 (2,200)	3,150 (3,100)	20,700		
7,500	50	3,950 (3,950)	3,000 (2,200)	3,350 (3,300)	27,000	8.0	Fig. 13
	60	3,950 (3,950)	2,950 (2,200)	3,250 (3,200)	26,500		

\* The figures in ( ) represent dimensions at the time of transportation without radiator.



(Case with primary gas disconnector)



Capacity (kVA)	Frequency (Hz)	Dimensions (mm)			Weight (kg)	Impedance voltage (%)	Applicable drawing
		X	Y	Z			
1,000	50	2,450 (2,450)	2,600 (2,400)	2,550 (2,500)	7,900	5.5	Fig. 14
	60	2,300 (2,300)	2,500 (2,350)	2,550 (2,500)	7,200		Fig. 15
	50	3,700 (2,550)	2,150 (2,150)	2,550 (2,500)	7,900		
	60	3,600 (2,400)	2,100 (2,100)	2,550 (2,500)	7,200		
1,500	50	2,500 (2,500)	2,800 (2,400)	2,600 (2,550)	9,200	8.0	Fig. 14
	60	2,450 (2,450)	2,750 (2,400)	2,600 (2,550)	8,400		Fig. 15
	50	3,850 (2,600)	2,200 (2,200)	2,600 (2,550)	9,200		
	60	3,650 (2,550)	2,150 (2,150)	2,600 (2,550)	8,400		
2,000	50	2,750 (2,750)	2,950 (2,450)	2,650 (2,600)	10,500		Fig. 14
	60	2,600 (2,600)	2,850 (2,450)	2,650 (2,600)	9,500		Fig. 15
	50	4,300 (2,850)	2,250 (2,250)	2,650 (2,600)	10,500		
	60	4,200 (2,700)	2,200 (2,200)	2,650 (2,600)	9,500		
2,500	50	2,750 (2,750)	3,150 (2,450)	2,850 (2,800)	11,200	Fig. 14	
	60	2,600 (2,600)	3,050 (2,450)	2,700 (2,650)	10,700	Fig. 15	
	50	4,400 (2,850)	2,250 (2,250)	2,700 (2,650)	11,200		
	60	4,500 (2,700)	2,200 (2,200)	2,700 (2,650)	10,700		
3,000	50	2,850 (2,850)	3,150 (2,550)	3,000 (2,950)	13,000	Fig. 14	
	60	2,700 (2,700)	3,050 (2,550)	2,900 (2,850)	11,800	Fig. 15	
	50	4,600 (2,950)	2,350 (2,350)	3,000 (2,950)	13,000		
	60	4,450 (2,800)	2,300 (2,300)	2,900 (2,850)	11,800		
4,000	50	3,000 (3,000)	3,350 (2,600)	3,150 (3,100)	15,700	Fig. 14	
	60	2,850 (2,850)	3,250 (2,600)	3,050 (3,000)	14,400	Fig. 15	
	50	5,200 (3,100)	2,400 (2,400)	3,150 (3,100)	15,700		
	60	5,000 (2,950)	2,350 (2,350)	3,050 (3,000)	14,400		
5,000	50	4,200 (4,200)	2,900 (2,100)	3,100 (3,050)	18,800	Fig. 16	
	60	4,200 (4,200)	2,900 (2,100)	3,050 (3,000)	17,100		
6,000	50	4,200 (4,200)	3,000 (2,200)	3,200 (3,150)	23,100		
	60	4,200 (4,200)	2,950 (2,200)	3,150 (3,100)	21,000		

\* The figures in ( ) represent dimensions at the time of transportation without radiator.



# 33/0.4kV

Primary voltage(kV)	Secondary Voltage(kV)	Connection
F34.5-F33-R31.5-F30	50Hz.....0.415-0.24 60Hz.....0.42-0.242	$\Delta - \mathcal{K}$

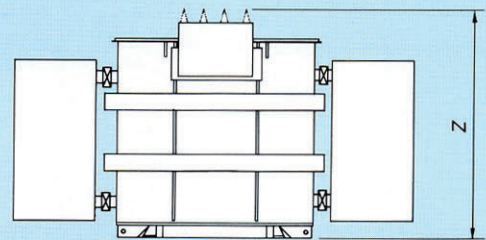
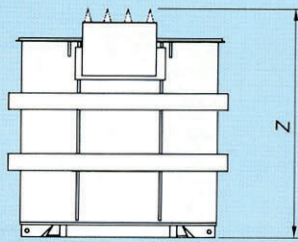
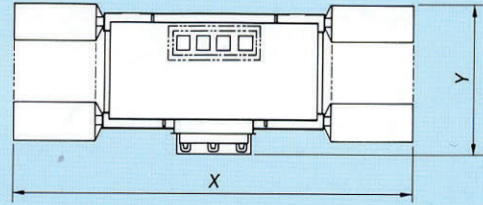
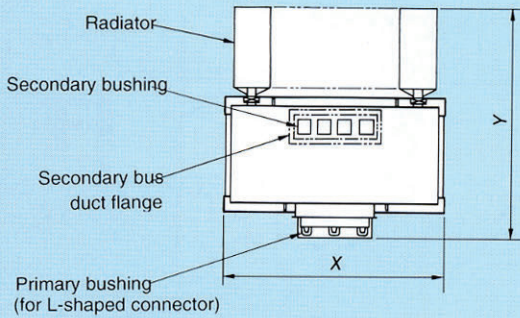


Fig. 17

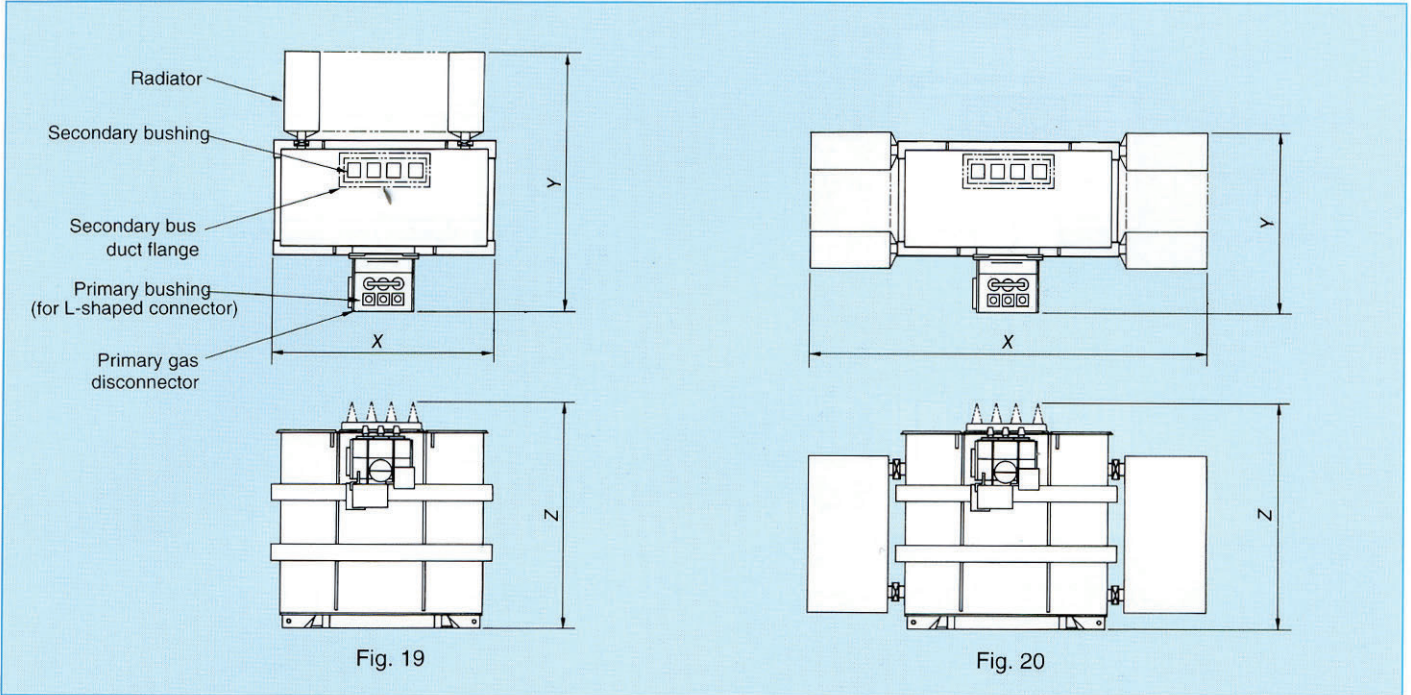
Fig. 18

Capacity (kVA)	Frequency (Hz)	Dimensions (mm)			Weight (kg)	Impedance voltage (%)	Applicable drawing
		X	Y	Z			
1,000	50	2,650 (2,650)	2,400 (1,850)	2,550 (2,500)	7,800	5.5	Fig. 17
	60	2,450 (2,450)	2,300 (2,150)	2,600 (2,550)	7,100		
	50	4,000 (2,750)	1,900 (1,900)	2,550 (2,500)	7,800		Fig. 18
	60	3,750 (2,550)	1,900 (1,900)	2,600 (2,550)	7,100		
1,500	50	2,750 (2,750)	2,500 (2,200)	2,550 (2,500)	9,100	8.0	Fig. 17
	60	2,550 (2,550)	2,500 (2,150)	2,650 (2,600)	8,300		Fig. 18
	50	4,050 (2,850)	2,000 (2,000)	2,600 (2,550)	9,100		
	60	3,750 (2,650)	1,900 (1,900)	2,650 (2,600)	8,300		
2,000	50	2,900 (2,900)	2,550 (2,250)	2,750 (2,700)	12,000	8.0	Fig. 17
	60	2,750 (2,750)	2,400 (2,200)	2,700 (2,650)	10,900		Fig. 18
	50	4,150 (3,000)	2,050 (2,050)	2,750 (2,700)	12,000		
	60	4,100 (2,850)	1,950 (1,950)	2,700 (2,650)	10,900		
2,500	50	3,000 (3,000)	2,800 (2,300)	2,850 (2,800)	14,000	8.0	Fig. 17
	60	2,850 (2,850)	2,700 (2,300)	2,750 (2,700)	12,800		Fig. 18
	50	4,600 (3,100)	2,100 (2,100)	2,850 (2,800)	14,000		
	60	4,600 (2,950)	2,050 (2,050)	2,750 (2,700)	12,800		
3,000	50	3,100 (3,100)	3,000 (2,350)	3,000 (2,950)	15,500	8.0	Fig. 17
	60	2,850 (2,850)	3,100 (2,350)	2,850 (2,800)	14,100		Fig. 18
	50	5,250 (3,200)	2,150 (2,150)	3,000 (2,950)	15,500		
	60	5,300 (2,950)	2,100 (2,100)	2,850 (2,800)	14,100		

\* The figures in ( ) represent dimensions at the time of transportation without radiator.



(Case with primary gas disconnector)



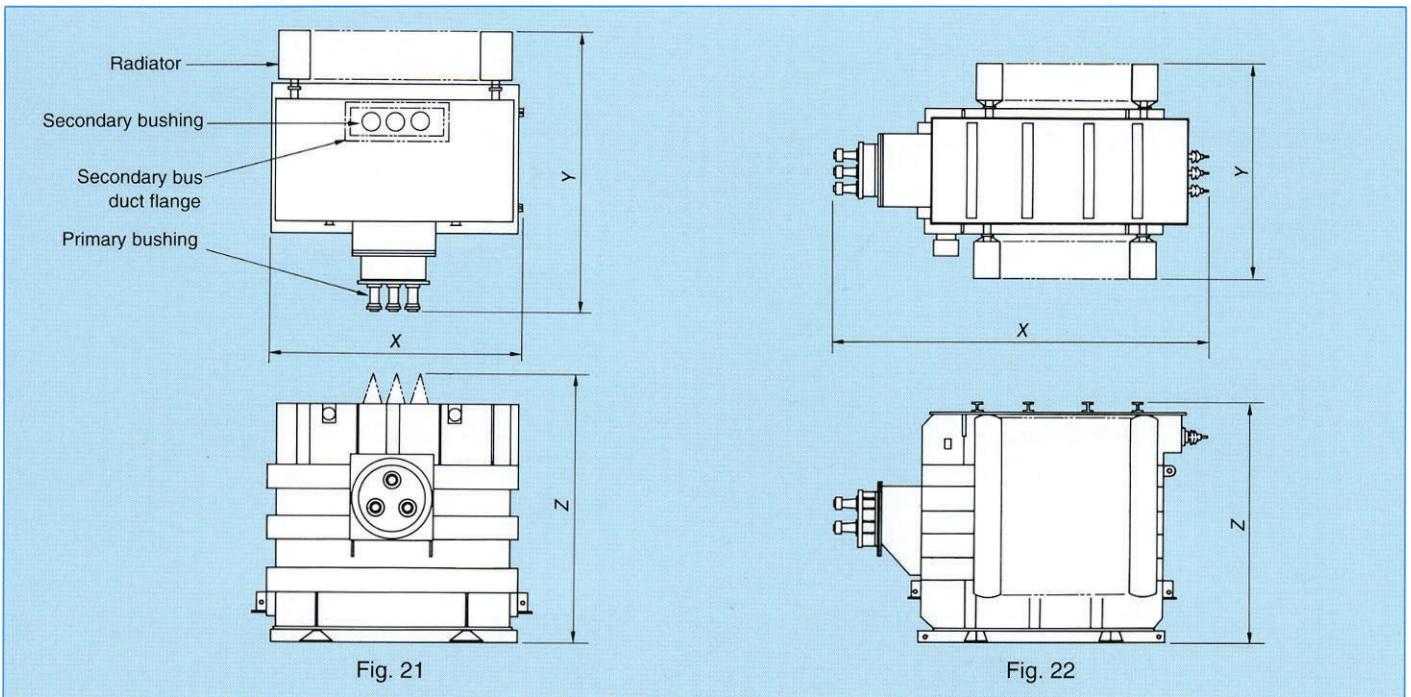
Capacity (kVA)	Frequency (Hz)				Weight (kg)	Impedance voltage (%)	Applicable drawing
		X	Y	Z			
1,000	50	2,650 (2,650)	2,700 (2,150)	2,550 (2,500)	8,100	5.5	Fig. 19
	60	2,450 (2,450)	26,00 (2,450)	2,550 (2,500)	7,400		
	50	4,000 (2,750)	2,200 (2,200)	2,550 (2,500)	8,100		Fig. 20
	60	3,750 (2,550)	2,150 (2,150)	2,550 (2,500)	7,400		
1,500	50	2,750 (2,750)	2,800 (2,500)	2,550 (2,500)	9,400	8.0	Fig. 19
	60	2,550 (2,550)	2,800 (2,450)	2,650 (2,600)	8,600		Fig. 20
	50	4,050 (2,850)	2,300 (2,300)	2,600 (2,550)	9,400		
	60	3,750 (2,650)	2,200 (2,200)	2,650 (2,600)	8,600		
2,000	50	2,900 (2,900)	2,850 (2,550)	2,750 (2,700)	12,300	8.0	Fig. 19
	60	2,750 (2,750)	2,700 (2,500)	2,700 (2,650)	11,200		
	50	4,150 (3,000)	2,350 (2,350)	2,750 (2,700)	12,300		Fig. 20
	60	4,100 (2,850)	2,250 (2,250)	2,700 (2,650)	11,200		
2,500	50	3,000 (3,000)	3,100 (2,600)	2,850 (2,800)	14,300	8.0	Fig. 19
	60	2,850 (2,850)	3,000 (2,600)	2,750 (2,700)	13,100		
	50	4,600 (3,100)	2,400 (2,400)	2,850 (2,800)	14,300		Fig. 20
	60	4,600 (2,950)	2,350 (2,350)	2,750 (2,700)	13,100		
3,000	50	3,100 (3,100)	3,300 (2,650)	3,000 (2,950)	15,800	8.0	Fig. 19
	60	2,850 (2,850)	3,400 (2,650)	2,850 (2,800)	14,400		
	50	5,250 (3,200)	2,450 (2,450)	3,000 (2,950)	15,800		Fig. 20
	60	5,300 (2,950)	2,400 (2,400)	2,850 (2,800)	14,400		

The figures in ( ) represent dimensions at the time of transportation without radiator.



# 66 or 77/6.6 or 3.3kV

Primary voltage(kV)	Secondary Voltage(kV)	Connection
F69-F66-R63-F60 or F80.5-F77-R73.5-F70	6.6 or 3.3	△—△

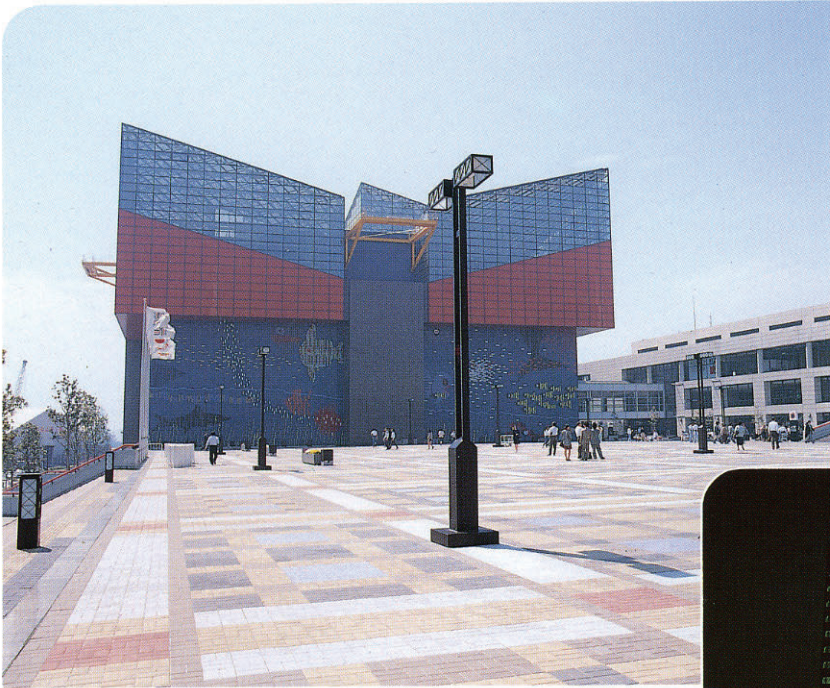


Primary voltage	Capacity (kVA)	Frequency (Hz)	Dimensions (mm)			Weight (kg)	Impedance voltage (%)	Applicable drawing	
			X	Y	Z				
66 class	3,000	50	3,250 (3,250)	3,550 (3,300)	3,200	17,000	8.0	Fig. 21	
		60	3,250 (3,250)	3,350 (3,300)	3,200	16,000			
	4,000	50	3,550 (3,550)	3,550 (3,300)	3,400	19,500			
		60	3,550 (3,550)	3,550 (3,300)	3,400	18,500			
	5,000	50	3,550 (3,550)	3,900 (3,400)	3,400	22,000			
		60	3,550 (3,550)	3,900 (3,400)	3,400	21,000			
	6,000	50	5,400 (5,450)	3,200 (2,500)	3,600	24,500		Fig. 22	
		60	5,400 (5,450)	3,200 (2,500)	3,600	23,500			
	7,500	50	5,500 (5,550)	3,200 (2,600)	3,600	28,000			
		60	5,500 (5,550)	3,200 (2,600)	3,600	27,000			
10,000	50	5,650 (5,700)	3,200 (2,600)	3,600	35,000				
	60	5,650 (5,700)	3,200 (2,600)	3,600	33,000				
77 class	3,000	50	3,250 (3,250)	3,550 (3,300)	3,200	18,000	8.0		Fig. 21
		60	3,250 (3,250)	3,550 (3,300)	3,200	17,000			
	4,000	50	3,550 (3,550)	3,550 (3,300)	3,400	20,500			
		60	3,550 (3,550)	3,550 (3,300)	3,400	19,500			
	5,000	50	3,550 (3,550)	3,900 (3,400)	3,400	23,000			
		60	3,550 (3,550)	3,900 (3,400)	3,400	22,000			
	6,000	50	5,400 (5,450)	3,200 (2,500)	3,600	26,000		Fig. 22	
		60	5,400 (5,450)	3,200 (2,500)	3,600	24,500			
	7,500	50	5,500 (5,550)	3,200 (2,600)	3,600	29,500			
		60	5,500 (5,550)	3,200 (2,600)	3,600	28,000			
	10,000	50	5,650 (5,700)	3,200 (2,600)	3,600	37,000			
		60	5,650 (5,700)	3,200 (2,600)	3,600	35,000			

\* The figures in ( ) represent dimensions at the time of transportation without radiator.



# Gas-insulated transformers of Nissin Electric are working in places as shown below.



9138

Tenpozan Harbour Village, Osaka



90100

"Crystal Tower Building",  
Osaka Business Park



92168

Daimaru Department Store,  
Shinsaibashi, Osaka