short circuit capacities. Therefore, it is easy to decide distribution and change the capacities. The dimensions for the breaker unit and the fuse unit are the same so that they can be used interchangeably.

## 5) Wide variety of circuit components

Since there are various types for many applications, the circuit components can be selected as most appropriate for the aim and application. When required, a grounded leakage relay can also be attached.

#### 6) Easy centralized control and monitoring

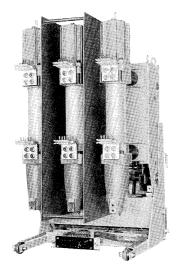
Since the units are much more compact and many more units can be included, centralized control and monitoring is easy. Because all of the operating switches on the panel surface are assembled in the center of the cabinet, operation is easy and can be performed by one man.

# 24 KV 1,000 MVA 36 KV 1,500 MVA

# T-TYPE CIRCUIT BREAKERS

Since T-type circuit breakers with ratings of 250/150 MVA at 7.2/3.6 kV were first produced in March, 1967, a series has been produded of types with various ratings as shown in *Table 2*. Already, more than 7,000 T-type circuit breakers have been delivered to power companies and general industries both overseas and in Japan and they have been received favorably.

The T-type circuit breaker with ratings of 24/36 kV and 1,000/1,500 MVA introduced here is a minimum oil type breaker with the same characteristics as all of the T-type series. This breaker is ideal as a power breaker for extra-high tension in power companies and ordinary industries. In keeping with the concentration of the population in urban centers recently, rapid progress is being made with 20 kV distribution systems but this baeaker is very capable for use when customers receive power in urban areas.



# Standard Specifications

Table 1 Ratings

	For indoors (also manufactured for outdoors)	
Rated voltage (kV)	24	36
Rated current (A)	600 • 1,200 • 2,000	600 • 1,200 • 2,000
Rated breaking capacity (MVA)	1,000	1,500
Rated breaking time (cycle)	5	5
Insulation level	20 B (low frequency: 50 kV impulse: 125 kV)	30 B low frequency: 70 kV impulse: 170 kV)
Closing system	Motor spring system (instant closing type (MS) 12A: DC 100/110 V 6A: DC 200/220 V	
Tripping system	Voltage tripping system (f) 1 A: DC 100/200 V 110/220 V	
Installation system	Portable type (P) Portable type with connecting bar (PB) Draw-out type (M)	
Weight•oil vol. (portable type)	415 kg (18 <i>l</i> ) 1,200 A	430 kg (18 <i>l</i> ) 1,200 A

## **Features**

#### 1) Excellent breaking capacity

The quenching principle which forms the basis of the T-type circuit breaker series has not been changed and the breaking performance is good in all current ranges because ring nozzle blast and volume compensation are used.

# 2) Compact and lightweight

Compared with the tank type oil breaker, the weight is 1/4, the volume of oil is about 1/30 and the volume is about 1/4. This T-type circuit breaker