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the Future

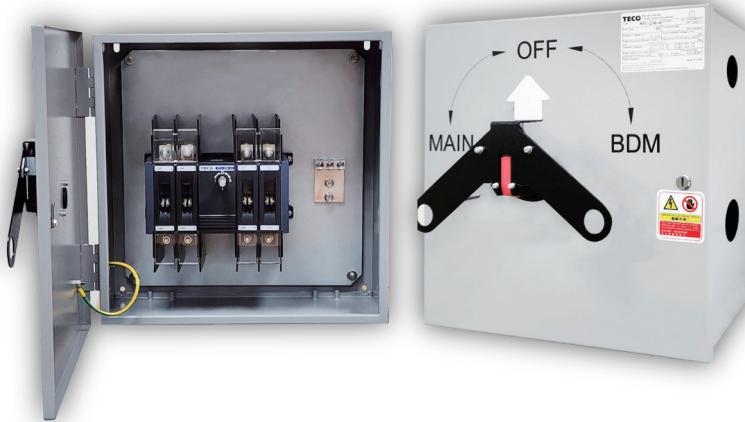
# Manual Transfer Switch

MTS-250-G / TCS-250-22



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# Key Features



## Manual Transfer Switch (MTS)

The Manual Transfer Switch (MTS) is installed within the data center power distribution system as a critical switching point among the primary and backup power sources. It enables safe and reliable manual transfer between utility power, UPS, and generator systems, ensuring continuous power supply to IT racks during maintenance or emergency conditions. Featuring high reliability, modular design, and enhanced safety, the MTS fully meets the stringent requirements of data centers for power continuity and system stability.

## Key Features

### High-Reliability Power Transfer Point

Provides secure manual switching between primary and backup power sources to ensure uninterrupted operation of rack-mounted servers and critical loads.

### Flexible Deployment & Fast Installation

Modular design allows for flexible installation according to data hall configuration and future expansion needs, significantly reducing deployment and maintenance time.

### Enhanced Safety Protection Design

Equipped with clear visible isolation, mechanical interlocking, and anti-maloperation mechanisms to effectively prevent incorrect switching and ensure operational safety in mission-critical environments.

### Bypass Distribution Module (BDM)

A bypass distribution module used with an MTS to provide a safe bypass power path during maintenance or testing, ensuring uninterrupted power to critical loads.

## Applicable Standards

IEC 60947-6-1

GB / T 14048.11

TÜV Certification

# Specifications

## Correct Usage Conditions

### Operating Temperature:

- Operating temperature shall not exceed +40°C, and the average temperature within 24 hours shall not exceed +35°C.
- The lowest of operating temperature is -5°C.

**Installation Conditions:** Operating altitude shall not exceed 2000m.

### Atmospheric Condition:

#### Temperature & Humidity Limits:

- At the maximum ambient temperature of +40°C, the relative humidity shall not exceed 50%.
- Higher relative humidity is permitted at lower temperatures.

#### Most Humid Month Requirements:

- The average minimum temperature of the most humid month shall not exceed +25°C.
- The average maximum relative humidity of that month shall not exceed 90%.

#### Condensation Prevention:

- Measures must be taken to prevent condensation on the product surface caused by temperature changes.

**Pollution Degree:** Pollution Degree 3, complying with IEC 60947-1.

### Mounting Conditions:

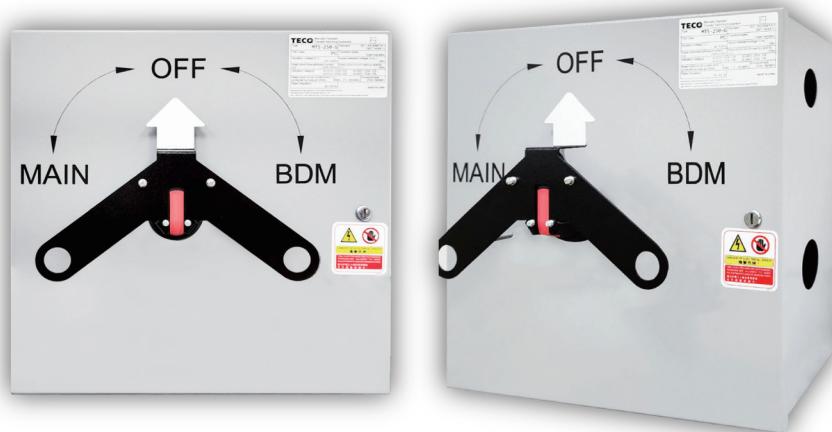
Can be installed vertically or horizontally, in a dedicated control cabinet or distribution cabinet.

## Rated Specifications

Item	Specifications
Type	MTS-250-G / TCS-250-22 (3-position type)
Rated Operational Current	250A
Rated Insulation Voltage	AC 1000V
Number of Poles	4P
Rated Operational Voltage	AC 415/440V
Connection Method	Front Connection
Product Weight (kg)	MTS-250-G: 20.6kg TCS-250-22: 7.0kg

# Specifications

## MTS-250-G



### Technical Parameters: Technical Data for MTS-250-G

Item	Specifications	
Product Model	MTS-250-G	
Applicable Standards	1. IEC / EN 60947-6-1 2. GB / T 14048.11	3. TÜV / CCC Certification
Class of Equipment	PC	
Rated Frequency (Hz)	50/60	
Degree of Protection	IP30	
Rated Insulation Voltage, $U_i$ (V)	1000	
Rated Impulse Withstand Voltage, $U_{imp}$ (kV)	12	
Rated Short-time Withstand Current, $I_{cw}$ (kA)	15 / 0.1 s (690V)	
Rated Short-circuit Making Capacity, $I_{cm}$ (kA)	30 (690V)	
Rated Conditional Short-circuit Current, $I_q$ (kA)	80 (690V fuse gG 250A)	
Rated Operational Current (A), AC-31B	Up to 415V 440V	250 250
Rated Operational Current (A), AC-33B	Up to 415V 440V	250 250
Mechanical Endurance O-I-O-II-O	8,000	
Accessories	Arrow-shaped Operating Handle Door Earth Bonding Conductor Grounding Terminal Block (ET-250-G)	▲ ▲ ▲

Note ▲ : Indicates standard accessories ▲ : Indicates optional accessories

# Specifications

TCS-250-22



**Technical Parameters:** Technical Data for TCS-250-22

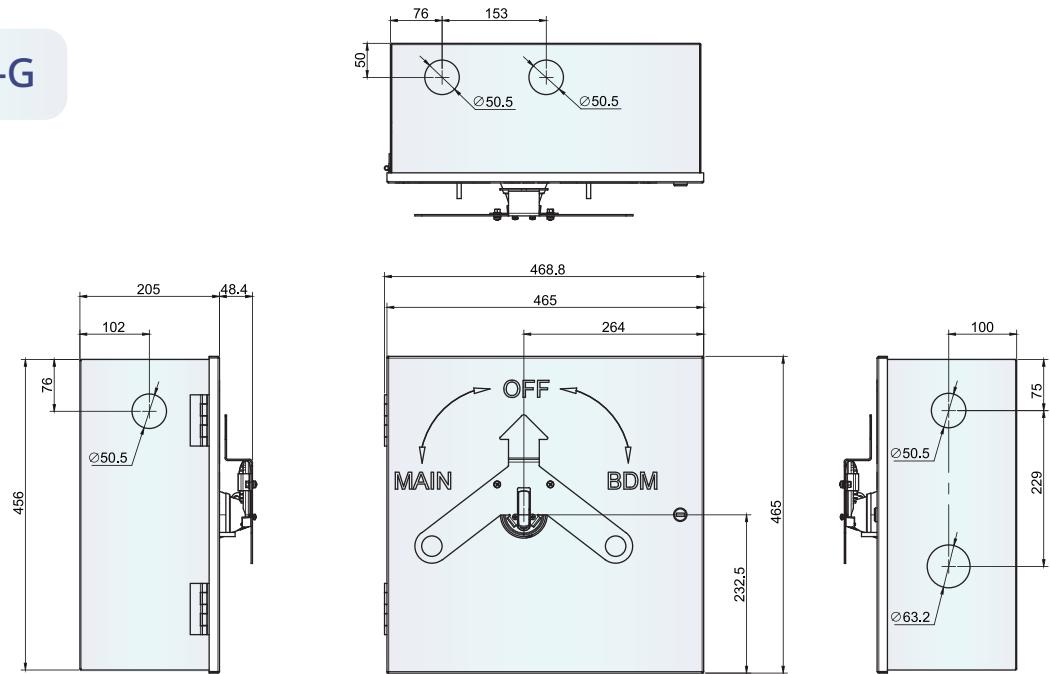
Item	Specifications	
Product Model	TCS-250-22	
Applicable Standards	1. IEC / EN 60947-6-1 2.GB / T 14048.11 3.TÜV Certification	
Class of Equipment	PC	
Rated Frequency (Hz)	50/60	
Rated Insulation Voltage, $U_i$ (V)	1,000	
Rated Impulse Withstand Voltage, $U_{imp}$ (kV)	12	
Rated Short-time Withstand Current, $I_{cw}$ (kA)	15 / 0.1s (690V)	
Rated Short-circuit Making Capacity, $I_{cm}$ (kA)	30 (690V)	
Rated Conditional Short-circuit Current, $I_q$ (kA)	80 (690V fuse gG 250A)	
Rated Operational Current (A), AC-31B	Up to 415V	250
	440V	250
Rated Operational Current (A), AC-33B	Up to 415V	250
	440V	250
Mechanical Endurance O-I-O-II-O	8,000	
Position Indicator	I-O-II	
Product Poles	4P	
Product Operating Position	Middle	
Operating Torque (Nm)	$\leq 9.5$ (4P)	
Operating Handle Function Requirements	Padlock Function (3 locks)	
Accessories	Operating Handle	CS-250-G
	Bridging Bar	TBB-250-G
	Phase Barrier	TQQ-250-G
	Terminal Shroud	XPR-250-G
	LUG Terminals	LT-175-G

Note : Indicates standard accessories : Indicates optional accessories

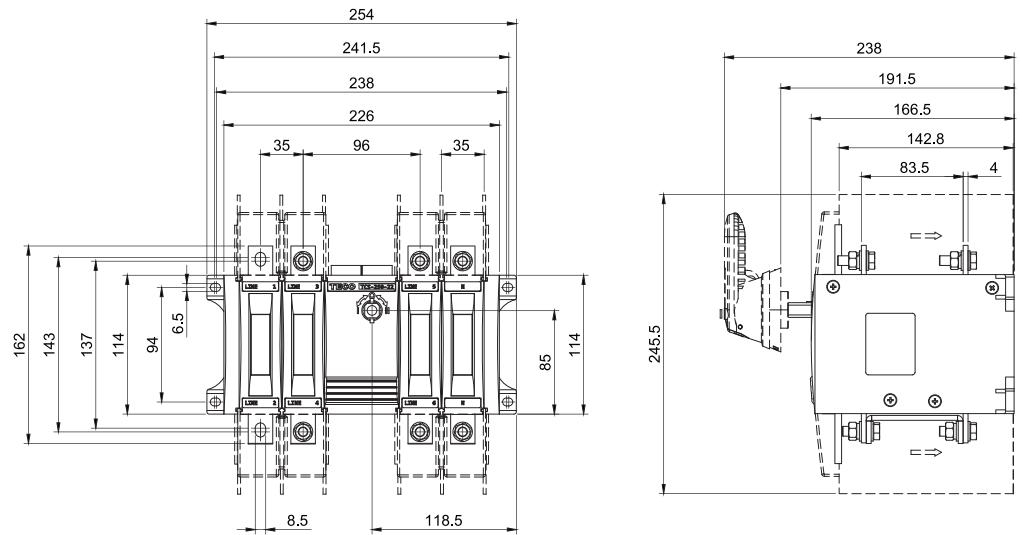
# Dimensions

## Product Dimensions (Unit: mm)

MTS-250-G



TCS-250-22



# Core Application Scenarios

## MTS Application Scenarios

The MTS-250-G and TCS-250-22 manual transfer switches (MTS) are suitable for two power sources (normal and standby/generator) with a rated operational voltage of AC 415/440V and rated operational current up to 250A. Both enable manual switching between power sources in case of failure of one or both sources, ensuring reliability and safety of power supply.

MTS are widely applied in data centers, hospitals, semiconductor manufacturing facilities, smart buildings, public infrastructure, and generator backup power systems. During utility power failures or scheduled maintenance, MTS enable a safe and reliable shift to backup power sources, allowing uninterrupted operation of critical equipment and systems, making it an indispensable power protection component for mission-critical applications.

### Data Centers

- Auxiliary power switching for server racks
- Manual backup switching between UPS and generators
- Safe power transfer during testing and maintenance
- ★ Ensures uninterrupted power supply for critical IT equipment

### Hospitals & Medical Facilities

- Operating rooms
- Intensive Care Units (ICU)
- Power supply for critical medical equipment
- ★ Guarantees 24/7 stable power for life-critical systems

### Semiconductor & High-Tech Manufacturing

- Cleanroom equipment
- High-precision process equipment
- Backup power for critical production lines
- ★ Prevents production losses caused by momentary power interruptions



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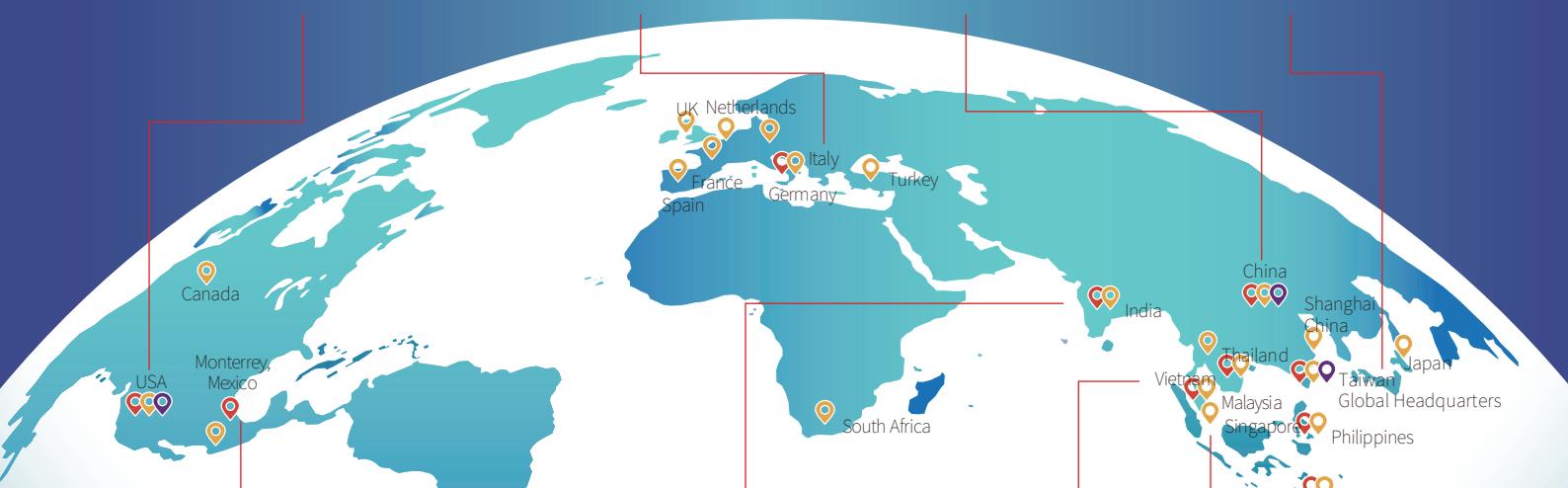


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**TECO Electric & Machinery Co., Ltd.**

5F, No. 19-9, San Chong Rd., Nan-Gang, Taipei 115601, Taiwan (R.O.C.)  
Tel 886-2-26553333 ext 2573