



## POWER

## MODULAR TYPE POWER SURGE PROTECTOR

### DESCRIPTION

MARSA Modular Type Power Surge Protectors, MDT product line are designed to protect single phase and three phase supply system from Malaysian Extreme Lightning Surges. Installed in parallel to incoming power feeder. MDT product line power surge protector offers up to 20kA surge current protection per mode Live to Neutral, Neutral to Earth, and Live to Earth (Full Mode) generated in electrical power line to earth.

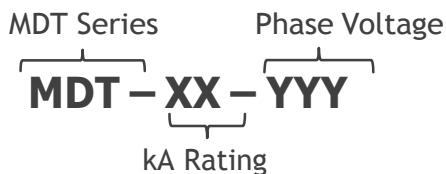
### FEATURES AND BENEFITS

- ✓ Full Mode protection. All mode protection covers Live to Neutral, Neutral to Earth, and Live to Earth.
- ✓ Modular type and each mode protected by single MOV with the same rating.
- ✓ With indicator for each mode.



- IEC EN 61643-11

### SELECTION GUIDE



### SINGLE PHASE

#### MDT-20240

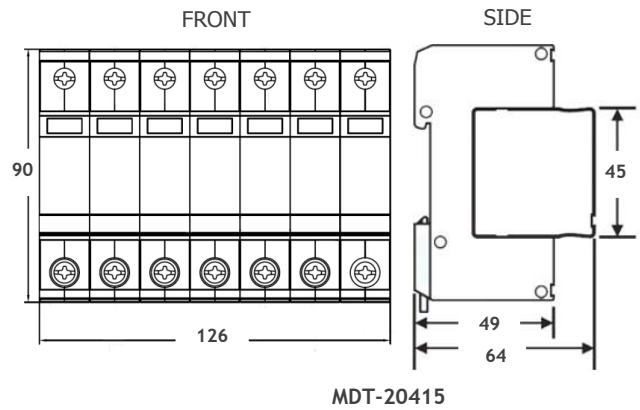
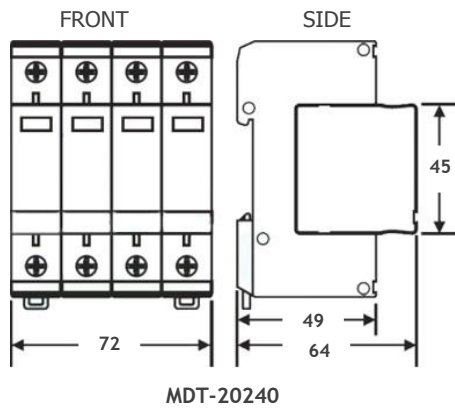
- Class II, (T2) surge protective device
- Able to withstand 20kA surge current per mode (L-N), (N-E), & (L-E)
- Designed for single phase power line. Suitable for Distribution Board with incoming cable <math><35\text{mm}^2</math>
- Full Mode protection
- Modular type
- 3 flag indicator (Full Mode)

### THREE PHASE

#### MDT-20415

- Class II, (T2) surge protective device
- Able to withstand 20kA surge current per mode (L-N), (N-E), & (L-E)
- Designed for three phase power line. Suitable for Distribution Board with incoming cable <math><35\text{mm}^2</math>
- Full Mode protection
- Modular type
- 7 flag indicator (Full Mode)

## DIMENSION



## ELECTRICAL SPECIFICATION

	MDT-20240	MDT-20415
REFERENCE STANDARD / METHOD OF TEST	IEC EN 61643-11	
TEST CLASSIFICATION	CLASS II (T2)	
PROTECTION MODE	FULL MODE [L-N, L-E, N-E]	
CONNECTION TYPE	PARALLEL	
OVERHEAT PROTECTION [L-N, L-E, N-E]	THERMAL FUSE	
REQUIRED EXTERNAL DISCONNECTOR	SWITCH FUSE, 32A (min.)	
NOMINAL VOLTAGE, $U_o$ [L-N, L-E, N-E]	240V	
MAX. WORKING VOLTAGE, $U_c$ [L-N, L-E, N-E]	275V	
EARTH LEAKAGE CURRENT, $I_{PE}$	< 1mA	
WORKING FREQUENCY	40 - 60 Hz	
NOMINAL DISCHARGE CURRENT, $I_n$ [L-N, N-E, L-E]	10kA	
MAX. DISCHARGE CURRENT, $I_{max}$ [L-N, N-E, L-E]	20kA	
LET-THROUGH VOLTAGE, $U_p$ (In 10kA @ 8/20 $\mu$ s), [L-N, N-E, L-E]	< 1.2kV	
RESPONSE TIME	25ns	
TEMPORARY OVERVOLTAGE (TOV), $U_T$ FOR LOW VOLTAGE SYSTEM FAULTS	337V / 5sec. - WITHSTAND [L-N] 440V / 5sec. - WITHSTAND [L-E]	
TEMPORARY OVERVOLTAGE (TOV), $U_T$ FOR HIGH (MEDIUM) VOLTAGE SYSTEM FAULTS	337V / 120min. - SAFE FAILURE [L-E] 440V / 120min. - SAFE FAILURE [L-N] 1455V / 200ms - SAFE FAILURE [L-E] 1200V / 200ms - SAFE FAILURE [N-E]	

## FEATURE

	MDT-20240	MDT-20415
OPERATION STATUS INDICATION [L-N, N-E, L-E]	3 FLAGS INDICATOR	7 FLAGS INDICATOR

## MECHANICAL SPECIFICATION

	MDT-20240	MDT-20415
SIZE [W x L x H]	64 x 72 x 90	64 x 126 x 90
WEIGHT	445g	900g
WORKING TEMPERATURE	-40 ~ 85°C	
WORKING HUMIDITY	0 ~ 90%	
CASE MATERIAL	PA66 NYLON	
DEGREE OF PROTECTION (IEC 60529)	IP20	
INSTALLATION	DIN RAIL	
RECOMMENDED CONDUCTOR SIZE (STRANDED)	10mm <sup>2</sup> - 25mm <sup>2</sup>	