## **Circuit Breakers**

## **Surge Protection**

### Circuit Breaker and Secondary Surge Arrester **Circuit Breaker and TVSS Features**

- UL Listed
- Easy to install
- Perfect for retrofit replaces two 1-inch breakers without losing any circuits
- A single device protects the entire electrical system from damage caused by surges

By installing a Murray Circuit Breaker/Surge Arrester or Circuit Breaker/TVSS device in the load center of the residence, surge protection is provided for all branch circuits.

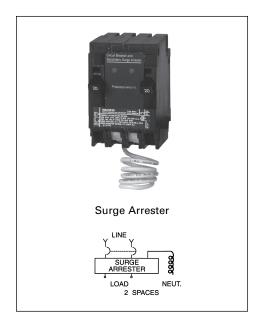
Two red LED indicator lights are provided to show that surge protection is provided for all circuits connected to the panelboard. As a Murray exclusive feature, the device notifies the owner of loss of surge protection by tripping one or both of the circuit breakers. These breakers should be used for circuit protection of frequently used household or facility circuits because the lights and devices connected to these circuits provide an effective indication that surge protection is being provided.

Breaker Type	Ampere Rating	Initial Clamping Voltage	Catalog Number	List Price \$	Surge Type
MP-T 1 2 4 1-Pole	(2) 15	360V	MSA1515	263.00	Surge Arrester
120/240V AC 10K AIC	(2) 20	360V	MSA2020	263.00	Surge Arrester

The Murray circuit breaker and transient voltage surge suppressor is comprised of a highly effective TVSS module integrated with (2) 1-pole circuit breakers. This device incorporates the robust features of our secondary circuit breaker surge arrester with a lower clamping voltage

By installing a Murray Circuit Breaker/TVSS device in the load center of the residence, surge protection is not only provided for all branch circuits, but also, fixtures, appliances, motors, and other electronic and electrical equipment in the house served by that load center.®

MP-T①②④ 1-Pole 120/240V AC 10K AIC	240V	MSA2020TVSS■	399.00	TVSS
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#### Circuit Breaker and Secondary Arrester

Number of Poles	(2) 1-Pole Circuit Breakers
Initial Clamping Level	360 Volts
Transient Energy Rating	460 Joules line-to-neutral
Transient Energy Nating	920 Joules line-to-line
Secindary Surge Arrester Voltage Rating	175V AC max. line-to-ground
Peak Current Rating (impulse)	40,000 amperes
Discharge Voltage Characteristic	@ 1,500A, 600 volts
(line-to-neutral)	@ 5,000A, 800 volts
Discharge Current Withstand Rating	10,00 amperes
(line-to-neutral)	10,00 diliperes
Circuit Breaker Interrupting Rating	10,000A, 120/240V AC
House Wiring System Warranty Amount	\$10,000
Warranty Period	24 months
Lightning Protection	No

#### **Circuit Breaker and Transient Voltage** Surge Suppressor

Number of Poles	(2) 1-Pole Circuit Breakers
Initial Clamping Level	240 Volts
Transient Energy Rating	360 Joules line-to-neutral
Transfer Energy Tracing	720 Joules line-to-line
Transient Suppression Voltage Rating	500 volts peak, line-to-neutral
Transfert Suppression Voltage Hatting	1000 volts peak, line-to-line
Peak Current Rating (impulse)	40,000 amperes
Discharge Voltage Characteristic	@ 1,500A, 600 volts
(line-to-neutral)	@ 5,000A, 800 volts
Discharge Current Withstand Rating	10,00 amperes
(line-to-neutral)	10,00 amperos
Circuit Breaker Interrupting Rating	10,000A, 120/240V AC
House Wiring System and Connected	\$20,000
Applicances Warranty Amount	Ψ20,000
Warranty Period	24 months
Lightning Protection	No

<sup>@</sup> Pigtail must be connected to load center neutral.



<sup>■</sup> Built to order. Allow 2–3 weeks for delivery. ① UL Listed as SWD (Switching Duty) Rated, suitable for 120V AC Fluorescent Lighting.

<sup>®</sup> See warranty for detailed coverage information.

## **Circuit Breakers**

## Main and Branch Circuit Breakers<sup>®</sup>

Breaker	Ampere	Catalog	List	Catalog	List	UL Interrupting
Type	Rating	Number	Price \$	Number <sup>②④</sup>	Price \$	Ratings (kA)
MD-T <sup>®</sup>	150	MPD2150	457.00	MPD2150R	457.00	10
2-Pole	175	MPD2175■	457.00	MPD2175R■	457.00	10
120/240V AC	200	MPD2200	457.00	MPD2200R	457.00	10
MD-HT <sup>®</sup> 2-Pole 120/240V AC	150	MPD2150KH	557.00	MPD2150RH	557.00	22
	175	MPD2175KH■	557.00	MPD2175RH■	557.00	22
	200	MPD2200KH	557.00	MPD2200RH	557.00	22
MD-MT <sup>®</sup>	150	MPD2150KM	2444.00	MPD2150RM	2444.00	65
2-Pole	175	MPD2175KM■	2444.00	MPD2175RM■	2444.00	65
120/240V AC	200	MPD2200KM	2444.00	MPD2200RM	2444.00	65

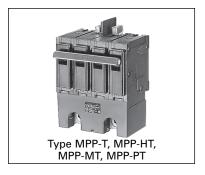
Breaker Type	Ampere Rating	Catalog Number	List Price \$	UL Interrupting Ratings (kA)
M1 <sup>®</sup> 2-Pole 120/240V AC	100 125	MBK100M <sup>®</sup> MBK125M <sup>®</sup>	367.00 500.00	22 22
M2 <sup>®</sup> 2-Pole 120/240V AC	150 175 200 225	MBK150M <sup>®</sup> MBK175M <sup>®</sup> MBK200M <sup>®</sup> MBK225M <sup>®</sup>	622.00 622.00 622.00 622.00	22 22 22 22 22

Breaker	Ampere	Catalog	UL Interrupting	List
Type	Rating	Number	Ratings (kA)	Price \$
ED-A® 3-Pole 240V AC	125 150 200 175 225	EP3125 EP3150 EP3200 EP3175 EP3225	10 10 10 10 10	1354.00 1354.00 1354.00 1354.00 1354.00

Breaker	Ampere	Catalog Number	List Price \$	UL Interrupting Ratings (kA)
Туре	Rating	Number	Price \$	Volts AC 120/240
	125	MPP2125	426.00	10
MPP <sup>®</sup>	150	MPP2150	472.00	10
2-Pole	175	MPP2175■	472.00	10
120/240V AC	200	MPP2200	472.00	10
	225	MPP2225	342.00	10
	125	MPP2125KH	1151.00	22
MPP-HT <sup>®</sup>	150	MPP2150KH	1212.00	22
2-Pole	175	MPP2175KH■	1212.00	22
120/240V AC	200	MPP2200KH	1212.00	22
	225	MPP2225KH■	1212.00	22
	125	MPP2125KM■	2444.00	65
MPP-MT <sup>®</sup>	150	MPP2150KM	2444.00	65
2-Pole	175	MPP2175KM■	2444.00	65
120/240V AC	200	MPP2200KM	2444.00	65
120/240V AC	225	MPP2225KM	2444.00	65
	225	IVIFFZZZSKIVI	2444.00	05
	100	MPP2100KP■	2987.00	100
NADD DT®	125	MPP2125KP■	2987.00	100
MPP-PT°	150	MPP2150KP■	2987.00	100
2-Pole	175	MPP2175KP■	2987.00	100
120/240V AC	200	MPP2200KP■	2987.00	100
	225	MPP2225KP■	2987.00	100

# MD-T, MD-HT, MD-TR, MD-HTR, MD-MT® MD-MTR®







#### Accessories

MD-T(R), MD-HT(R), MD-MT(R), M1 and M2

		Field/Factory	
Accessory Description	Catalog Number	Installed	List Price \$
Padlocking Device (100-125A)	BX125N	Field	17.50
Padlocking Device (150-200A)	BX050N	Field	22.00
Filler Plate <sup>®</sup>	LX400FP	Field	17.50

- Built to order. Allow 2–3 weeks for delivery.

   All circuit breakers on this page are common trip.

   Reverse handle, ON toward lugs. See page 2-23.

   Requires 4 panel spaces, 2 adjacent, and 2 opposite.

   For use as load center branch and/or replacement main for old-style load center.

   Main breaker kit for Rock Solid load center.
- ® Requires 6 spaces due to cross over design.
- @ 4-poles wide for use with 200A modular and Uni-Pak
- Popies wide for use with 200A modular and onl-Fak metering
   For use with breaker types MD-T(R), MD-HT(R), MD-MT(R)
   MD-TR required for horizontal mounting applications as shown, or for vertical applications when the lugs are on top. MD-T required for vertical mounting applications with the lugs on the bottom as shown.
- ® MBK100M for use with 100A and 125A Rock Solid load centers only. MBK125M for use with 125A Rock Solid load centers only.
  ® MBK150M for use with 150A, 200A, and 225A Rock Solid load centers only. MBK200M for use with 200A and 225A Rock Solid load centers only. MBK225M for use with 225A Rock Solid load centers only.

