

Molded Case Circuit Breakers

MD 800A Frame Sentron Series

Selection

Type MXD6^{①⑦}

Blue Label

Non-Interchangeable Trip (Assembled Circuit Breaker Without Lugs)		
Continuous Current Rating @ 40°C	2-Pole ^②	3-Pole
	Catalogue Number	Catalogue Number
600	MXD62B600	MXD63B600
700	MXD62B700	MXD63B700
800	MXD62B800	MXD63B800

Type MD6^⑦

Blue Label

Interchangeable Trip			
Continuous Current Setting @ 40°C	Complete Breaker Unassembled with Lugs	Frame Only	Trip Unit Only
	Catalogue Number	Catalogue Number	Catalogue Number

2-Pole 600V AC, 250V DC^②

500	MD62B500	MD62F800	MD62T500
600	MD62B600		MD62T600
700	MD62B700		MD62T700
800	MD62B800		MD62T800

3-Pole 600V AC, 500V DC^④

500	MD63B500	MD63F800	MD63T500
600	MD63B600		MD63T600
700	MD63B700		MD63T700
800	MD63B800		MD63T800

Lugs^⑤

Catalogue Number	Cables Per Lug	Lugs Per Kit	Wire Range
TA2K500	1-2	1	#1-500 kcmil Cu/Al
TA3K500	1-3	1	1/0-500 kcmil Cu/Al
TC2K500	1-2	1	#1-500 kcmil Cu
TC3K350	1-3	1	#1-350 kcmil Cu
Kits			
2TA2N8750	1-2	2	600-750 kcmil Cu/Al
3TA2N8750		3	
2TA3N8750	1-3	2	500-750 kcmil Cu/Al
3TA3N8750		3	
2TA4N8500	1-4	2	250-500 kcmil Cu/Al
3TA4N8500		3	
2TA4P8500	1-4	2	250-500 kcmil Cu/Al
3TA4P8500		3	

Instantaneous Adjustment Trip Range

Ampere Rating	Nominal Instantaneous Values							
	Low ^⑧	2	3	4	5	6	7	High ^⑧
500-600	3000	3430	3860	4280	4710	5140	5570	6000
700-800	4000	4570	5140	5710	6280	6850	7420	8000

①MXD6 circuit breakers are CSA Certified / UL Listed for reverse connection applications.

②2-pole units available in 3-pole width only.

③Use 6 connectors for 3-pole, use 4 connectors for 2-pole.

④ When wired as shown on page 5-2, this circuit breaker is CSA Certified / UL listed and rated for use on 500V DC ungrounded UPS systems.

⑤ See **Note: A**, page 5-64.

⑥80% rated breakers with the CE mark will also be marked in the 100% rated version.

⑦ HACR rated.

⑧ +/- 20% Tolerance.

Note: MD frame qualified to UL489 supplement B "NAVAL"
See page 5-67 for additional information.

Ordering Information

Complete Breaker Unassembled with Lugs

Pricing information for MD6 and HMD6 breakers includes frame, trip, and both line and load lugs (TA3K500). When ordered by these catalogue numbers, the customer will receive the frame, trip and lugs separately packaged. For applications requiring different lugs, order individual items as needed.

Complete Breaker Assembled without Lugs

Prices of MXD6, HMXD6 and CMD6 include frame with non-interchangeable trip units installed only. Order required lugs separately. For line and load lugs (TA3K500) installed, add suffix "L" to catalogue number (add 2 times list price of lugs for each pole).

100% Rated^⑥

Types MXD6, HMXD6 and CMD6 breakers are available with 100% ratings. To order add suffix "H" to catalogue number, and 10% to list price. 100% rated MD breakers require the use of 90°C Cu cable and lugs 2TA4P8500 or 2TA2N8750 for 2-pole; 3TA4P8500 or 3TA2N8750 for 3-pole.

50°C Applications see page 5-67.

400Hz Applications see page 5-67.

Shipping Weights

Number of Poles	Number per Carton	Shipping Weight (lbs.)
MD6, HMD6, HMXD6, CMD6 Complete Breaker Assembled (less lugs)		
2	1	53
3	1	61.5
MD6, HMD6 Frame Only		
2	1	42.25
3	1	46
MD6, HMD6 Trip Unit Only		
2	1	4.5
3	1	6.5

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Accessories page 5-68

Molded Case Circuit Breakers

MD 800A Frame Sentron Series

Type HMXD6^{①③}

Black Label

Non-Interchangeable Trip (Assembled Circuit Breaker Without Lugs)			
Continuous Current Rating @ 40°C	2-Pole 600V AC 250V DC		3-Pole 600V AC 500V DC
			Catalogue Number
600	For 2-pole application use outside poles of 3-pole circuit breaker		HMXD63B600
700			HMXD63B700
800			HMXD63B800

Type HMD6^⑤

Black Label

Interchangeable Trip			
Continuous Current Rating @ 40°C	Complete Breaker Unassembled with Lugs	Frame Only	Trip Unit Only
	Catalogue Number	Catalogue Number	Catalogue Number

2-Pole 600V AC, 250V DC^②

500	HMD62B500	HMD62F800	MD62T500
600	HMD62B600		MD62T600
700	HMD62B700		MD62T700
800	HMD62B800		MD62T800

3-Pole 600V AC, 500V DC^④

500	HMD63B500	HMD63F800	MD63T500
600	HMD63B600		MD63T600
700	HMD63B700		MD63T700
800	HMD63B800		MD63T800

Type CMD6^⑤

Fuseless Current Limiting

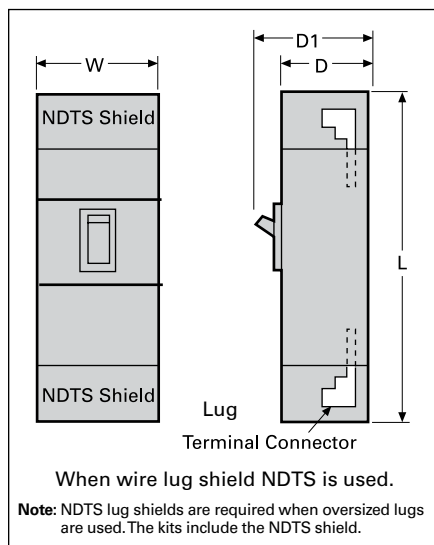
Red Label

Non-Interchangeable Trip (Assembled Circuit Breaker Without Lugs)			
Continuous Current Rating @ 40°C	2-Pole	3-Pole	
	600V AC/250V DC	600V AC/500V DC	
			Catalogue Number
500	For 2-pole application use outside poles of 3-pole circuit breaker		CMD63B500
600			CMD63B600
700			CMD63B700
800			CMD63B800

Interrupting Ratings

Breaker Type	UL 489 AIR – File E10848					IEC 947-2 AIR					
	RMS Symmetrical Amperes (KA)					Volts AC (50/60HZ)					
	Volts AC			Volts DC		220/240		380/415		500	
	240	480	600	250	500 ^⑤	(Icu)	(Ics)	(Icu)	(Ics)	(Icu)	(Ics)
MD6, MXD6	65	50	25	30 (2-P)	25 (3-P)	65	33	40	20	30	15
HMD6, HMXD6	100	65	50	30 (2-P)	50 (3-P)	100	50	65	33	42	21
CMD6	200	100	65	30 (2-P)	50 (3-P)	200	100	100	50	65	33

Selection/Dimensions



Dimensions (in inches)

Breaker Type	W	L	D	(To Handle) D1
MD6, MXD6, HMD6, HMXD6, CMD6, MXD6-ETI, CMD6-ETI	9	16	6	8.25
with lug shields	9	24	6	8.25

For inches / millimeters conversion, see Application Data section.

①HMXD6 circuit breakers are CSA Certified / UL listed for reverse connection applications.

②2-pole units available in 3-pole width only.

③MXD6-ETI, CMD6-ETI see page 5-50 for catalogue information.

④When wired as shown on page 5-2, this circuit breaker is CSA Certified / UL listed and rated for use on 500V DC ungrounded UPS systems only.

⑤HACR rated.

Molded Case Circuit Breakers

SMD 800A Frame Digital Solid State Sentron Sensitrip III Series

Selection

Type SMD6

Blue Label

3-Pole, 600V AC	
Catalogue Number	Max Current Rating
SMD69600A	600
SMD69700A	700
SMD69800A	800
SMD69600AG	600
SMD69700AG	700
SMD69800AG	800
SMD69600ANT	600
SMD69700ANT	700
SMD69800ANT	800
SMD69600ANGT	600
SMD69700ANGT	700
SMD69800ANGT	800

Type SHMD6

Black Label

3-Pole, 600V AC	
Catalogue Number	Max Current Rating
SHMD69600A	600
SHMD69700A	700
SHMD69800A	800
SHMD69600AG	600
SHMD69700AG	700
SHMD69800AG	800
SHMD69600ANT	600
SHMD69700ANT	700
SHMD69800ANT	800
SHMD69600ANGT	600
SHMD69700ANGT	700
SHMD69800ANGT	800

Current Limiting

Type SCMD6-A

Red Label

3-Pole, 600V AC	
Catalogue Number	Max Current Rating
SCMD69600A	600
SCMD69700A	700
SCMD69800A	800
SCMD69600AG	600
SCMD69700AG	700
SCMD69800AG	800
SCMD69600ANT	600
SCMD69700ANT	700
SCMD69800ANT	800
SCMD69600ANGT	600
SCMD69700ANGT	700
SCMD69800ANGT	800

Ordering Information

Pricing information for all Digital Sentron Series MD and ND frames is for complete breaker only. Price requires lugs or lug kits as separate items. Lugs are suitable for 75°C wire or as noted. Connector wire ranges and cavities are established in conjunction with Table 6.1.4.2.1 of UL 489 standards. Choose actual connector for circuit breakers based on customer requirements.

Recommended Terminal Connectors

Breaker Frame	Ampere Rating	Connector or Connector Kit
MD	500–600	TA2K500
MD	700–800	TA3K500
ND	800	TA3K500
ND	900–1200 (kit)	3TA4N8500

Types SMD6, SHMD6, SMD6, SHMD6 are acceptable for reverse connection applications.

Shipping Weights

Breaker Type	Number per Carton	Shipping Weight (lbs)
All types	1	61.5

Lugs for 75°C Wire^②

Catalogue Number	Cables per Lug	Wire Range
TA2K500	2	#1-500 kcmil Cu/Al
TA3K500	3	#1-500 kcmil Cu/Al
TC2K500	2	#1-500 kcmil Cu
TC3K350	3	#1-350 kcmil Cu

Kits (3 lugs/kit)

3TA4N8500	4	250–500 kcmil Cu/Al
3TA4P8500	4	250–500 kcmil Cu/Al
3TA2N8750	2	500–750 kcmil Cu/Al
3TA3N8750	3	500–750 kcmil Cu/Al

Each kit contains the following:
 3TA4P8500—3 connectors plus 1 NDTS end barrier
 3TA3N8750—3 connectors plus 1 NDTS end barrier
 3TA2N8750—3 connectors plus 1 NDTS end barrier

Neutral Transformers

Ampere Rating	Catalogue Number
600	N06SMDA
700	N07SMDA
800	N08SMDA

SMD 800A Frame – 100% Rated^①

Type SMD6

Blue Label

3-Pole, 600V AC	
Catalogue Number	Max Current Rating
SMD69600AH	600
SMD69700AH	700
SMD69800AH	800
SMD69600AGH	600
SMD69700AGH	700
SMD69800AGH	800
SMD69600ANTH	600
SMD69700ANTH	700
SMD69800ANTH	800
SMD69600ANGTH	600
SMD69700ANGTH	700
SMD69800ANGTH	800

Type SHMD6

Black Label

3-Pole, 600V AC	
Catalogue Number	Max Current Rating
SHMD69600AH	600
SHMD69700AH	700
SHMD69800AH	800
SHMD69600AGH	600
SHMD69700AGH	700
SHMD69800AGH	800
SHMD69600ANTH	600
SHMD69700ANTH	700
SHMD69800ANTH	800
SHMD69600ANGTH	600
SHMD69700ANGTH	700
SHMD69800ANGTH	800

Current Limiting

Type SCMD6-A

Red Label

3-Pole, 600V AC	
Catalogue Number	Max Current Rating
SCMD69600AH	600
SCMD69700AH	700
SCMD69800AH	800
SCMD69600AGH	600
SCMD69700AGH	700
SCMD69800AGH	800
SCMD69600ANTH	600
SCMD69700ANTH	700
SCMD69800ANTH	800
SCMD69600ANGTH	600
SCMD69700ANGTH	700
SCMD69800ANGTH	800

Trip Unit Adjustable Functions

Suffix Letter Code	Trip Type	Cont Current Setting	Long Time Delay	Instantaneous Setting	Short Time Pick Up	Short Time Delay	Ground Fault Pick Up	Ground Fault Delay
A	LI	✓	✓	✓	—	—	—	—
AG	LIG	✓	✓	✓	—	—	✓	✓
ANT	LSI	✓	✓	✓	✓	✓	—	—
ANGT	LSIG	✓	✓	✓	✓	✓	✓	✓

Interrupting Ratings

Breaker Type	RMS Symmetrical kA UL 489 (File E10848)		
	240V AC	480V AC	600V AC
SMD6	65	50	25
SHMD6	100	65	50
SCMD6	200	100	65

Note: “G” suffix in catalogue number denotes circuit breaker for 3-phase, 3-wire circuits.
 For 3-phase, 4-wire, order correct 4th wire (neutral) transformer as separate and additional item.

- ① Use 2-3TA4P8500 for 3-pole. These kits are rated for 90°C wire. 90°C Cu cable must be used, and sized per 75°C ampacity.
- ② For additional information, see **Note: A**, page 5-64.
- ③ SMD6, SHMD6 and SCMD6 circuit breakers are UL Listed for reverse connection applications.

Accessories page 5-68

Molded Case Circuit Breakers

Internal Accessories

Selection

Accessories for:

MD/SMD 800A Frame
ND/SND 1200A Frame
PD/SPD 1600A Frame
RD 2000A Frame



Accessory modules can mount in either left hand or right hand poles of all circuit breakers, including solid state. Exception: when mechanical interlock is used accessories cannot be mounted in left pole.

Sensitrip Ammeter



The Ammeter Display Units plug into the Sensitrip Trip Unit and displays the phase current flowing in the SADU breaker. They are powered by the breaker's CT's with replaceable battery back-up for maintaining trip and max logs.

The SADU reads currents, current imbalance, current demand, and trip status.

Ammeter Mounting Kit

The Ammeter may also be panel or door mounted using the SADURMK18 remote mounting kit.

Shunt Trip Combinations

Control Voltage		1 Shunt Trip	1 Shunt Trip and 1 Auxiliary Switch
AC	DC	Catalogue Number	Catalogue Number
120	—	S01MN6	S01MN64A
208	—	S02MN6	S02MN64A
240	—	S03MN6	S03MN64A
277	—	S15MN6	S15MN64A
480	—	S04MN6	S04MN64A
600	—	S06MN6	—
—	12	S16MN6	S16MN64A
—	24	S07MN6	S07MN64A
—	48	S09MN6	—
—	125	S11MN6	S11MN64A
—	250	S13MN6	S13MN64A

Undervoltage Trip Combinations

Control Voltage		1 Undervoltage Trip	1 Undervoltage Trip and 1 Auxiliary Switch	1 Undervoltage Trip and 2 Auxiliary Switches
AC	DC	Catalogue Number	Catalogue Number	Catalogue Number
120	—	U01MN6	U01MN64A	U01MN64AA
208	—	U02MN6	U02MN64A	U02MN64AA
240	—	U03MN6	U03MN64A	U03MN64AA
277	—	U15MN6	U15MN64A	U15MN64AA
480	—	U04MN6	U04MN64A	U04MN64AA
600	—	U06MN6	—	—
—	24	U07MN6	U07MN64A	U07MN64AA
—	48	U09MN6	U09MN64A	U09MN64AA
—	125	U11MN6	U11MN64A	U11MN64AA
—	250	U13MN6	U13MN64A	U13MN64AA

Auxiliary Switch Combinations

Maximum Voltage		1 Form C	2 Form C
AC	DC	Catalogue Number	Catalogue Number
480	250	A01MN64	A02MN64
—	12	A01MNDLV	A02MNDLV

Alarm Switch Combinations

Maximum Voltage		1 Alarm Switch	1 Alarm Switch and 1 Auxiliary Switch	1 Alarm Switch and 2 Auxiliary Switches
AC	DC	Catalogue Number	Catalogue Number	Catalogue Number
480	250	B00MN64	A01MN64B	A02MN64B

Plug-in Ammeter Display Units

Breaker Type	Description	Catalogue Number
SMD, SND, SPD	Display Unit	SADU
	Remote Mounting Kit	SADURMK18