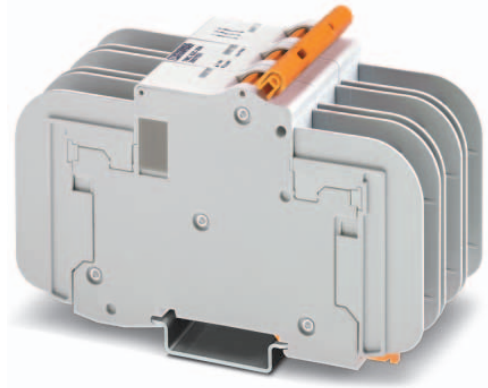


# TMC 8...



## Thermal magnetic UL 489 miniature circuit breakers



Data sheet  
3644\_en\_A

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### 1 Description

TMC 8... miniature circuit breakers (MCB) are UL 489 listed and provide branch overload and short-circuit protection. An interrupt capacity of 10 kAIC at up to 277/480 V AC and 125 V DC makes the series ideal for a wide range of applications.

The circuit breakers are available in 1-, 2-, and 3-pole configurations with B, C, and D trip curve options. They are 17.6 mm wide (per pole) and mount on 35 mm NS35 rail. Available accessories include an auxiliary contact, bell alarm contact, shunt trips, lockout/tag out component and busbar. The TMC 8... is UL listed for the U.S. and Canada, TÜV listed, and carries the CE mark.

### 1.1 Typical applications

TMC 8... circuit breakers are suitable for protection of

- cables
- motors
- generators and transformers
- thyristors
- silicon rectifiers
- computers and peripheral equipment
- industrial process control systems
- telecommunications equipment
- power supplies.



This document is valid for all products listed in the "Ordering data" on page 3.

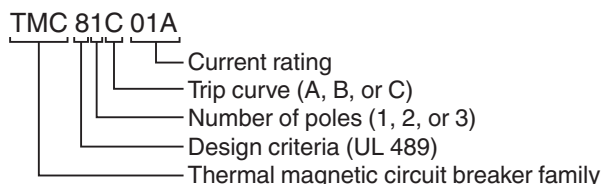
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## Table of contents

1	Description.....	1
1.1	Typical applications.....	1
2	Ordering data.....	3
3	Technical data .....	7
3.1	Trip curve .....	8
3.2	Dimensions .....	8
3.3	Environmental influences .....	9
4	Installation .....	9
4.1	Mounting .....	9
4.2	Removal.....	9
5	Accessories .....	10
5.1	Technical data for accessories .....	10
5.2	Auxiliary contact (TMC 7/8 AUX).....	12
5.3	Alarm contact (TMC 7/8 ALARM).....	12
5.4	Shunt trip (TMC...SHNT).....	12
5.5	Accessory installation .....	12
5.6	Busbars and related accessories .....	13

## 2 Ordering data

### Order key



### Products

Description	Type	Order No.	Pcs./Pkt.
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 1 A	TMC 81B 01A	2907478	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 2 A	TMC 81B 02A	2907479	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 3 A	TMC 81B 03A	2907480	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 4 A	TMC 81B 04A	2907481	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 5 A	TMC 81B 05A	2907482	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 6 A	TMC 81B 06A	2907483	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 7 A	TMC 81B 07A	2907484	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 8 A	TMC 81B 08A	2907485	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 10 A	TMC 81B 10A	2907487	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 12 A	TMC 81B 12A	2907488	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 13 A	TMC 81B 13A	2907489	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 15 A	TMC 81B 15A	2907490	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 16 A	TMC 81B 16A	2907491	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 20 A	TMC 81B 20A	2907492	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 25 A	TMC 81B 25A	2907493	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 30 A	TMC 81B 30A	2907494	1
MCB, up to 60 V DC and 277 V AC, B curve 1-pole 32 A	TMC 81B 32A	2907495	1
MCB, up to 60 V DC and 120 V AC, B curve 1-pole 35 A	TMC 81B 35A	2907496	1
MCB, up to 60 V DC and 120 V AC, B curve 1-pole 40 A	TMC 81B 40A	2907497	1
MCB, up to 60 V DC and 120 V AC, B curve 1-pole 50 A	TMC 81B 50A	2907498	1
MCB, up to 60 V DC and 120 V AC, B curve 1-pole 60 A	TMC 81B 60A	2907500	1
MCB, up to 60 V DC and 120 V AC, B curve 1-pole 63 A	TMC 81B 63A	2907501	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 1 A	TMC 82B 01A	2907502	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 2 A	TMC 82B 02A	2907503	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 3 A	TMC 82B 03A	2907504	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 4 A	TMC 82B 04A	2907505	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 5 A	TMC 82B 05A	2907506	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 6 A	TMC 82B 06A	2907507	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 7 A	TMC 82B 07A	2907508	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 8 A	TMC 82B 08A	2907510	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 10 A	TMC 82B 10A	2907511	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 12 A	TMC 82B 12A	2907512	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 13 A	TMC 82B 13A	2907513	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 15 A	TMC 82B 15A	2907514	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 16 A	TMC 82B 16A	2907515	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 20 A	TMC 82B 20A	2907516	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 25 A	TMC 82B 25A	2907530	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 30 A	TMC 82B 30A	2907531	1
MCB, up to 125 V DC and 480 V AC, B curve 2-pole 32 A	TMC 82B 32A	2907532	1
MCB, up to 125 V DC and 240 V AC, B curve 2-pole 35 A	TMC 82B 35A	2907533	1

## Products

Description	Type	Order No.	Pcs./Pkt.
MCB, up to 125 V DC and 240 V AC, B curve 2-pole 40 A	TMC 82B 40A	2907534	1
MCB, up to 125 V DC and 240 V AC, B curve 2-pole 50 A	TMC 82B 50A	2907535	1
MCB, up to 125 V DC and 240 V AC, B curve 2-pole 60 A	TMC 82B 60A	2907536	1
MCB, up to 125 V DC and 240 V AC, B curve 2-pole 63 A	TMC 82B 63A	2907537	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 1 A	TMC 83B 01A	2907539	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 2 A	TMC 83B 02A	2907540	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 3 A	TMC 83B 03A	2907542	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 4 A	TMC 83B 04A	2907543	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 5 A	TMC 83B 05A	2907544	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 6 A	TMC 83B 06A	2907545	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 7 A	TMC 83B 07A	2907546	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 8 A	TMC 83B 08A	2907547	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 10 A	TMC 83B 10A	2907548	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 12 A	TMC 83B 10A	2907549	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 13 A	TMC 83B 10A	2907550	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 15 A	TMC 83B 10A	2907551	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 16 A	TMC 83B 16A	2907552	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 20 A	TMC 83B 20A	2907553	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 25 A	TMC 83B 25A	2907555	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 30 A	TMC 83B 30A	2907556	1
MCB, up to 125 V DC and 480 V AC, B curve 3-pole 32 A	TMC 83B 32A	2907557	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 1 A	TMC 81C 01A	2907558	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 2 A	TMC 81C 02A	2907559	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 3 A	TMC 81C 03A	2907560	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 4 A	TMC 81C 04A	2907561	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 5 A	TMC 81C 05A	2907562	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 6 A	TMC 81C 06A	2907563	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 7 A	TMC 81C 07A	2907564	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 8 A	TMC 81C 08A	2907565	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 10 A	TMC 81C 10A	2907566	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 12 A	TMC 81C 12A	2907568	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 13 A	TMC 81C 13A	2907569	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 15 A	TMC 81C 15A	2907571	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 16 A	TMC 81C 16A	2907572	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 20 A	TMC 81C 20A	2907573	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 25 A	TMC 81C 25A	2907574	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 30 A	TMC 81C 30A	2907575	1
MCB, up to 60 V DC and 277 V AC, C curve 1-pole 32 A	TMC 81C 32A	2907576	1
MCB, up to 60 V DC and 120 V AC, C curve 1-pole 35 A	TMC 81C 35A	2907577	1
MCB, up to 60 V DC and 120 V AC, C curve 1-pole 40 A	TMC 81C 40A	2907578	1
MCB, up to 60 V DC and 120 V AC, C curve 1-pole 50 A	TMC 81C 50A	2907579	1
MCB, up to 60 V DC and 120 V AC, C curve 1-pole 60 A	TMC 81C 60A	2907580	1
MCB, up to 60 V DC and 120 V AC, C curve 1-pole 63 A	TMC 81C 63A	2907581	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 1 A	TMC 82C 01A	2907582	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 2 A	TMC 82C 02A	2907584	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 3 A	TMC 82C 03A	2907585	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 4 A	TMC 82C 04A	2907586	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 5 A	TMC 82C 05A	2907587	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 6 A	TMC 82C 06A	2907588	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 7 A	TMC 82C 07A	2907589	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 8 A	TMC 82C 08A	2907590	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 10 A	TMC 82C 10A	2907591	1

## Products

Description	Type	Order No.	Pcs./Pkt.
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 12 A	TMC 82C 12A	2907592	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 13 A	TMC 82C 13A	2907593	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 15 A	TMC 82C 15A	2907594	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 16 A	TMC 82C 16A	2907595	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 20 A	TMC 82C 20A	2907597	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 25 A	TMC 82C 25A	2907598	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 30 A	TMC 82C 30A	2907599	1
MCB, up to 125 V DC and 480 V AC, C curve 2-pole 32 A	TMC 82C 32A	2907600	1
MCB, up to 125 V DC and 240 V AC, C curve 2-pole 35 A	TMC 82C 35A	2907601	1
MCB, up to 125 V DC and 240 V AC, C curve 2-pole 40 A	TMC 82C 40A	2907602	1
MCB, up to 125 V DC and 240 V AC, C curve 2-pole 50 A	TMC 82C 50A	2907603	1
MCB, up to 125 V DC and 240 V AC, C curve 2-pole 60 A	TMC 82C 60A	2907604	1
MCB, up to 125 V DC and 240 V AC, C curve 2-pole 63 A	TMC 82C 63A	2907605	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 1 A	TMC 83C 01A	2907607	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 2 A	TMC 83C 02A	2907608	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 3 A	TMC 83C 03A	2907609	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 4 A	TMC 83C 04A	2907610	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 5 A	TMC 83C 05A	2907611	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 6 A	TMC 83C 06A	2907612	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 7 A	TMC 83C 07A	2907613	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 8 A	TMC 83C 08A	2907614	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 10 A	TMC 83C 10A	2907615	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 12 A	TMC 83C 12A	2907616	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 13 A	TMC 83C 13A	2907617	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 15 A	TMC 83C 15A	2907618	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 16 A	TMC 83C 16A	2907620	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 20 A	TMC 83C 20A	2907621	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 25 A	TMC 83C 25A	2907623	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 30 A	TMC 83C 30A	2907624	1
MCB, up to 125 V DC and 480 V AC, C curve 3-pole 32 A	TMC 83C 32A	2907625	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 1 A	TMC 81D 01A	2907626	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 2 A	TMC 81D 02A	2907627	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 3 A	TMC 81D 03A	2907628	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 4 A	TMC 81D 04A	2907629	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 5 A	TMC 81D 05A	2907630	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 6 A	TMC 81D 06A	2907631	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 7 A	TMC 81D 07A	2907632	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 8 A	TMC 81D 08A	2907633	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 10 A	TMC 81D 10A	2907634	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 12 A	TMC 81D 12A	2907636	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 13 A	TMC 81D 13A	2907637	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 15 A	TMC 81D 15A	2907638	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 16 A	TMC 81D 16A	2907639	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 20 A	TMC 81D 20A	2907640	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 25 A	TMC 81D 25A	2907641	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 30 A	TMC 81D 30A	2907642	1
MCB, up to 60 V DC and 277 V AC, D curve 1-pole 32 A	TMC 81D 32A	2907643	1
MCB, up to 125 V DC and 240 V AC, D curve 1-pole 35 A	TMC 81D 35A	2907644	1
MCB, up to 125 V DC and 240 V AC, D curve 1-pole 40 A	TMC 81D 40A	2907645	1
MCB, up to 125 V DC and 240 V AC, D curve 1-pole 50 A	TMC 81D 50A	2907646	1
MCB, up to 125 V DC and 240 V AC, D curve 1-pole 60 A	TMC 81D 60A	2907647	1
MCB, up to 125 V DC and 240 V AC, D curve 1-pole 63 A	TMC 81D 63A	2907649	1

## Products

Description	Type	Order No.	Pcs./Pkt.
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 1 A	TMC 82D 01A	2907650	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 2 A	TMC 82D 02A	2907652	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 3 A	TMC 82D 03A	2907653	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 4 A	TMC 82D 04A	2907654	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 5 A	TMC 82D 05A	2907655	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 6 A	TMC 82D 06A	2907656	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 7 A	TMC 82D 07A	2907657	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 8 A	TMC 82D 08A	2907658	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 10 A	TMC 82D 10A	2907659	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 12 A	TMC 82D 12A	2907660	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 13 A	TMC 82D 13A	2907661	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 15 A	TMC 82D 15A	2907662	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 16 A	TMC 82D 16A	2907663	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 20 A	TMC 82D 20A	2907665	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 25 A	TMC 82D 25A	2907666	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 30 A	TMC 82D 30A	2907667	1
MCB, up to 125 V DC and 480 V AC, D curve 2-pole 32 A	TMC 82D 32A	2907668	1
MCB, up to 125 V DC and 240 V AC, D curve 2-pole 35 A	TMC 82D 35A	2907669	1
MCB, up to 125 V DC and 240 V AC, D curve 2-pole 40 A	TMC 82D 40A	2907670	1
MCB, up to 125 V DC and 240 V AC, D curve 2-pole 50 A	TMC 82D 50A	2907671	1
MCB, up to 125 V DC and 240 V AC, D curve 2-pole 60 A	TMC 82D 60A	2907672	1
MCB, up to 125 V DC and 240 V AC, D curve 2-pole 63 A	TMC 82D 63A	2907673	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 1 A	TMC 83D 01A	2907674	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 2 A	TMC 83D 02A	2907675	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 3 A	TMC 83D 03A	2907676	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 4 A	TMC 83D 04A	2907678	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 5 A	TMC 83D 05A	2907679	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 6 A	TMC 83D 06A	2907681	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 7 A	TMC 83D 07A	2907682	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 8 A	TMC 83D 08A	2907683	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 10 A	TMC 83D 10A	2907684	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 12 A	TMC 83D 12A	2907685	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 13 A	TMC 83D 13A	2907686	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 15 A	TMC 83D 15A	2907687	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 16 A	TMC 83D 16A	2907688	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 20 A	TMC 83D 20A	2907689	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 25 A	TMC 83D 25A	2907690	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 30 A	TMC 83D 30A	2907691	1
MCB, up to 125 V DC and 480 V AC, D curve 3-pole 32 A	TMC 83D 32A	2907692	1

**Accessories<sup>1</sup>**

Description	Type	Order No.	Pcs./Pkt.
Auxiliary contact, one NO and one NC switch	TMC 7/8 AUX	2908219	1
Alarm contact, one NO and one NC	TMC 7/8 ALARM	2908220	1
Shunt trip, 12 V DC, one NO and one NC	TMC 7/8 12VDC SHNT	2908221	1
Shunt trip, 24 V DC, one NO and one NC	TMC 7/8 24VDC SHNT	2908222	1
Shunt trip, 48 V DC, one NO and one NC	TMC 7/8 48VDC SHNT	2908224	1
Shunt trip, 125 V DC, one NO and one NC	TMC 7/8 125VDC SHNT	2908225	1
Shunt trip, 120 V AC, one NO and one NC	TMC 7/8 120VAC SHNT	2908226	1
Shunt trip, 240 V AC, one NO and one NC	TMC 7/8 240VAC SHNT	2908227	1
Shunt trip, 277 V AC, one NO and one NC	TMC 7/8 277VAC SHNT	2908228	1
Busbar, cut to length, for 1-pole applications, up to 57 positions	TMC 8 B1 80 57 C	2907991	1
Busbar, cut to length, for 1-pole plus auxiliary applications, up to 37 positions	TMC 8 B1 80 37 CA	2907992	1
Busbar, cut to length, for 2-pole applications, up to 56 positions	TMC 8 B2 80 56 C	2907993	1
Busbar, cut to length, for 2-pole plus auxiliary applications, up to 46 positions	TMC 8 B2 80 46 CA	2907995	1
Busbar, cut to length, for 3-pole applications, up to 57 positions	TMC 8 B3 80 57 C	2907996	1
Busbar, cut to length, for 3-pole plus auxiliary applications, up to 48 positions	TMC 8 B3 80 48 CA	2907997	1
Busbar terminal, for incoming connections	TMC 8 B TERM PIN	2907998	1
Busbar, end cap, protects open busbar positions	TMC 8 B END CAP	2907999	1
Busbar, bus cap, protects three open busbar positions	TMC 8 B BUS CAP	2908000	1

<sup>1</sup> For additional information on accessories, see "Accessories" on page 10.

**3 Technical data****General data**

Ambient temperature, operating	-35°C ... 70°C (-31°F ... 158°F)
Permissible humidity	95%
Degree of protection	IP20
Weight	134 g per pole (approximate)
Installation	NS35 rail (EN 60715)
Conductor cross section	1 ... 35 mm <sup>2</sup> /18 ... 2 AWG
Connection type	Screw-clamp terminals
Conductor tightening torque, maximum	2 Nm (17.7 lb <sub>F</sub> -in.)

**Electrical data**

Nominal voltage, U <sub>N</sub> <sup>1</sup>	24 V DC ... 125 V DC 120 V AC ... 277 V AC
Nominal current <sup>1</sup>	1 A ... 63 A
Service life	
Mechanical	20,000 cycles
Electrical	6,000 cycles
Interrupt capacity I <sub>C</sub>	
UL 489 (SCCR)	10 kA
IEC/EN 60947-2 (I <sub>CU</sub> )	10 kA
IEC/EN 60947-2 (I <sub>CS</sub> )	7.5 kA

<sup>1</sup> See order key for specifics for each model

**Conformance**

IEC 60068-2-6 (Sinusoidal vibration)	±0.38 mm (10-57 Hz), 5g (57-500 Hz) 10 frequency cycles per axis
IEC 60068-2-27 (Shock)	30g, 11 ms
IEC 60068-2-11 (Corrosion)	96 h in 5% salt mist
IEC 60068-2-75 (Humidity)	48 h at 95% relative humidity, 40°C

**Approval**

Test center	Standard	Rated voltage	Nominal current range
UL	UL 489/CSA-C22.2 No. 5	277 V AC, 60 V DC (TMC 81...)	1 ... 32 A
UL	UL 489/CSA-C22.2 No. 5	120 V AC, 60 V DC (TMC 81...)	35 ... 63A
UL	UL 489/CSA-C22.2 No. 5	480 V AC, 125 V DC (TMC 82/83...)	1 ... 32 A
UL	UL 489/CSA-C22.2 No. 5	240 V AC, 125 V DC (TMC 82/83...)	35 ... 63A
TÜV	IEC/EN 60947-2	230/400 V AC	1 ... 63 A

**3.1 Trip curve**

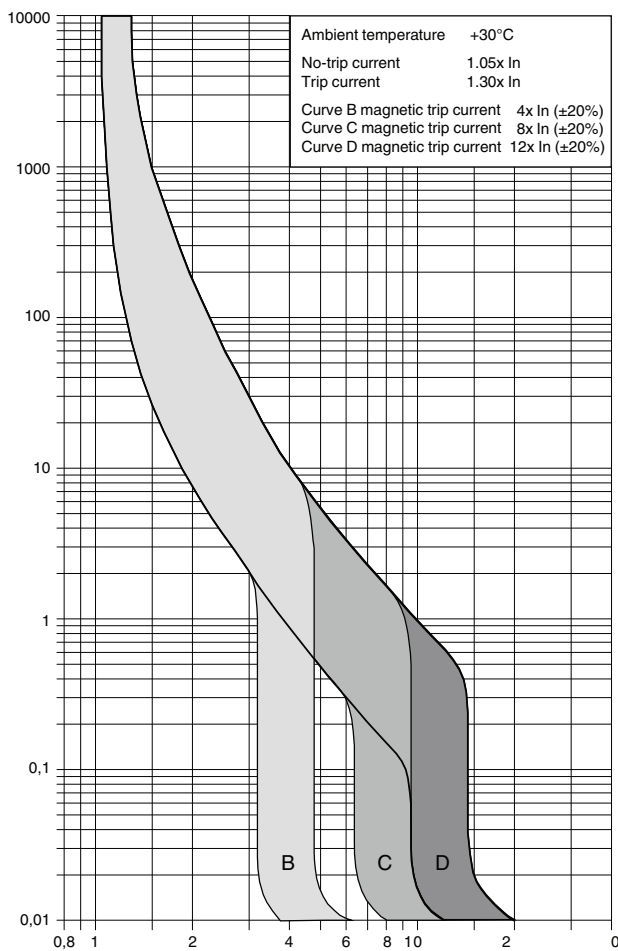


Figure 1 Trip curves

**i** Magnetic tripping currents are increased by 30% on DC supplies at ambient temperature 30°C

**3.2 Dimensions**

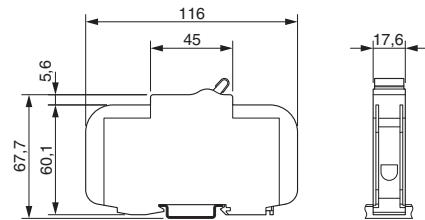


Figure 2 TMC 81... dimensions (mm)

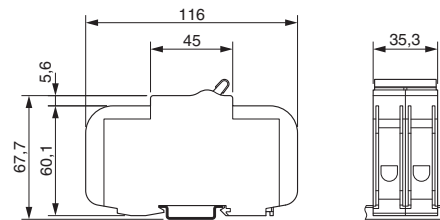


Figure 3 TMC 82... dimensions (mm)

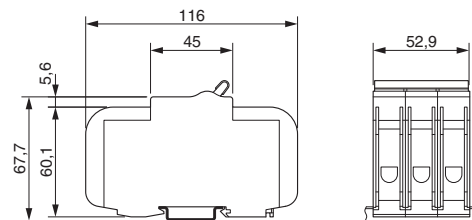


Figure 4 TMC 83... dimensions (mm)



### 3.3 Environmental influences

The following correction factors must be considered when selecting the appropriate nominal current rating for the circuit breaker.

$I_N$ (A)	Maximum operating currents (A) depending on ambient temperature (°C)																					
	-35	-30	-25	-20	-15	-10	-5	0	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50	+55	+60	+65	+70
1	1.27	1.25	1.23	1.21	1.19	1.17	1.15	1.13	1.10	1.08	1.06	1.05	1.02	1.00	0.97	0.94	0.91	0.89	0.86	0.83	0.80	0.77
2	2.54	2.50	2.46	2.42	2.38	2.34	2.30	2.26	2.20	2.16	2.12	2.10	2.04	2.00	1.94	1.88	1.82	1.78	1.72	1.66	1.60	1.54
3	3.89	3.83	3.76	3.70	3.64	3.57	3.50	3.44	3.37	3.30	3.22	3.14	3.06	3.00	2.92	2.84	2.76	2.67	2.58	2.49	2.38	2.27
4	5.08	5.00	4.92	4.84	4.76	4.68	4.60	4.52	4.40	4.32	4.24	4.20	4.08	4.00	3.88	3.76	3.64	3.56	3.44	3.32	3.20	3.08
5	6.68	6.56	6.44	6.32	6.19	6.07	5.94	5.81	5.68	5.54	5.40	5.25	5.12	5.00	4.82	4.66	4.50	4.34	4.17	3.99	3.81	3.62
6	7.70	7.58	7.46	7.34	7.21	7.09	6.96	6.83	6.70	6.56	6.42	6.27	6.14	6.00	5.84	5.68	5.52	5.36	5.19	5.01	4.83	4.64
7	8.78	8.66	8.54	8.42	8.29	8.17	8.04	7.91	7.78	7.64	7.50	7.35	7.22	7.00	6.92	6.76	6.60	6.44	6.27	6.09	5.91	5.72
8	9.80	9.68	9.56	9.44	9.31	9.19	9.06	8.93	8.80	8.66	8.52	8.37	8.24	8.00	7.94	7.78	7.62	7.46	7.29	7.11	6.93	6.74
10	13.89	13.62	13.35	13.07	12.81	12.53	12.23	11.93	11.63	11.33	11.01	10.67	10.34	10.00	9.63	9.24	8.85	8.45	8.01	7.55	7.06	6.55
12	15.91	15.64	15.37	15.09	14.83	14.55	14.25	13.95	13.65	13.35	13.03	12.69	12.36	12.00	11.65	11.26	10.60	10.47	10.03	9.57	9.08	8.57
13	16.92	16.65	16.38	16.10	15.84	15.56	15.26	14.96	14.66	14.36	14.04	13.70	13.37	13.00	12.66	12.27	11.61	11.48	11.04	10.58	10.09	9.58
15	19.77	19.42	19.07	18.74	18.39	18.04	17.69	17.32	16.95	16.57	16.19	15.79	15.39	15.00	14.54	14.10	13.65	13.19	12.70	12.20	11.69	11.64
16	20.78	20.43	20.08	19.75	19.40	19.05	18.70	18.33	17.96	17.58	17.20	16.80	16.40	16.00	15.55	15.11	14.66	14.20	13.71	13.21	12.70	12.75
20	25.67	25.28	24.88	24.47	24.06	23.64	23.22	22.78	22.34	21.89	21.43	20.96	20.47	20.00	19.47	18.95	18.42	17.87	17.30	16.71	16.10	15.47
25	32.21	31.72	31.22	30.70	30.18	29.65	29.10	28.55	27.98	27.41	26.82	26.22	25.61	25.00	24.33	23.67	23.00	22.28	21.56	20.80	20.02	19.21
30	39.00	38.42	37.78	37.13	36.47	35.80	35.11	34.43	33.71	32.99	32.26	31.50	30.73	30.00	29.13	28.30	27.44	26.56	25.65	24.71	23.74	22.73
32	41.04	40.46	39.82	39.17	38.51	37.84	37.15	36.47	35.75	35.03	34.30	33.54	32.77	32.00	31.17	30.34	29.48	28.69	27.69	26.75	25.78	24.77
35	44.08	43.50	42.86	42.21	41.55	40.88	40.19	39.51	38.79	38.07	37.34	36.58	35.81	35.00	34.21	33.38	32.52	31.64	30.73	29.79	28.82	27.81
40	51.63	50.86	50.04	49.21	48.37	47.51	46.63	45.74	44.83	43.90	42.95	41.98	40.99	40.00	38.93	37.85	36.75	35.61	34.43	33.21	31.95	30.63
50	64.92	63.97	62.92	61.86	60.77	59.67	58.54	57.40	56.23	55.05	53.81	52.56	51.23	50.00	47.82	46.24	44.81	43.33	41.81	40.23	38.58	35.77
60	80.45	79.03	77.61	76.16	74.69	73.19	71.67	70.11	68.51	66.88	65.21	63.50	61.75	60.00	57.08	55.16	53.18	51.13	49.00	46.78	44.47	40.47
63	83.48	82.06	80.64	79.19	77.72	76.22	74.70	73.14	71.54	69.91	68.24	66.53	64.78	63.00	60.11	58.19	56.21	54.16	52.03	49.81	47.50	43.05

## 4 Installation

### 4.1 Mounting

1. Hook the device over the top edge of the DIN rail and rotate it down until it snaps onto the bottom edge of the rail.
2. Repeat for any additional devices.
3. Slide the devices together into the desired configuration.

### 4.2 Removal

1. Slide the device away to gain sufficient clearance from the next device.
2. Use a screwdriver to raise the latch and release the unit from the bottom edge of the DIN rail.
3. Rotate the device up and lift off of the top edge of the rail.

## 5 Accessories

Several accessories are available for use with the TMC 8... circuit breakers. The accessory modules are mounted on the left side (when facing the device in a mounted position) of the circuit breaker. A variety of busbars are also available.

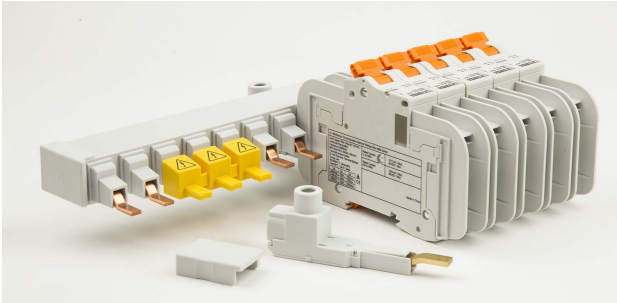


Figure 5 Busbar and other accessories

### 5.1 Technical data for accessories

#### General data (TMC 7/8 AUX and TMC 7/8 ALARM)

Ambient temperature, operating	-35 ... 70°C (-31 ... 158°F)
Permissible humidity	95%
Degree of protection	IP20
Weight	29 g (approximate)
Width	9 mm
Installation	Left side of circuit breaker
Conductor cross section	1 ... 35 mm <sup>2</sup> /18 ... 2 AWG
Connection type	Screw-clamp terminals
Conductor tightening torque, maximum	1 Nm (8.9 lb <sub>f</sub> -in.)
Service life, mechanical	20,000 cycles

#### Electrical data (TMC 7/8 AUX and TMC 7/8 ALARM)

Nominal voltage, $U_N$	24 V DC ... 125 V DC 120 V AC ... 277 V AC
Rated current (UL 489)	
12 ... 240 V AC	6 A
277 V AC	3 A
12 ... 24 V DC	6 A
48 V DC	2 A
130 V DC	1 A

#### General data (TMC 7/8...SHNT)

Ambient temperature, operating	-35 ... 70°C (-31 ... 158°F)
Permissible humidity	95%
Degree of protection	IP20
Weight	60 g (approximate)
Width	18 mm
Installation	Left side of circuit breaker
Conductor cross section	1 ... 35 mm <sup>2</sup> /18 ... 2 AWG
Connection type	Screw-clamp terminals
Conductor tightening torque, maximum	1 Nm (8.9 lb <sub>f</sub> -in.)
Service life, mechanical	20,000 cycles

**Electrical data (TMC 7/8...SHNT)**

Nominal voltage, $U_N$	24 V DC ... 125 V DC 120 V AC ... 277 V AC
------------------------	---

## Trip voltage, minimum

415 V AC	200 V AC
277 V AC	160 V AC
240 V AC	160 V AC
120 V AC	80 V AC
125 V DC	125 V DC
48 V DC	24 V DC
24 V DC	16 V DC
12 V DC	8 V DC

## Rated current of auxiliary contact

415 V AC	3 A
277 V AC	3 A
240 V AC	6 A
120 V AC	6 A
125 V DC	1.5 A
48 V DC	2 A
24 V DC	6 A
12 V DC	6 A

## Power consumption/minimum response power

415 V AC	240 W/35 W
277 V AC	240 W/35 W
240 V AC	200 W/35 W
120 V AC	200 W/35 W
125 V DC	200 W/30 VA
48 V DC	200 W/30 VA
24 V DC	200 W/30 VA
12 V DC	200 W/30 VA

## Trip time

&lt;10 ms

**General data (TMC 8 B...)**

Ambient temperature, operating	-35 ... 70°C (-31 ... 158°F)
Permissible humidity	95%
Degree of protection	IP20
Step size	17.8 mm
Busbar cross section	18 mm <sup>2</sup>

**Electrical data (TMC 8 B...)**

Maximum voltage	480 V AC/DC
Rated current at 35°C (UL 489)	
Power supply at the end	80 A
Power supply in the middle	160 A
SCCR $I_{CC}$	10 kA

**Electrical data (TMC 8 B TERM PIN)**

Maximum voltage	480 V AC/DC
Maximum current	115 A
Connection type	Screw clamp
Tightening torque, maximum	5.5 Nm (50 lb <sub>F</sub> -in.)

## 5.2 Auxiliary contact (TMC 7/8 AUX)

The TMC 7/8 AUX is an auxiliary contact with one normally open and one normally closed contact. The status of the contacts are switched when the breaker on/off state changes.

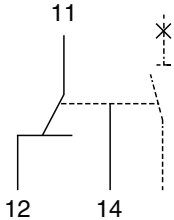


Figure 6 TMC 7/8 AUX schematic



After the TMC 7/8 AUX module is attached to the TMC 8... circuit breaker, terminals 11 and 14 are connected when the circuit breaker is in the "on" condition. Terminals 11 and 12 are connected when the circuit breaker is in the "off" condition.

## 5.3 Alarm contact (TMC 7/8 ALARM)

The TMC 7/8 ALARM provides an additional contact which can be connected to a bell, light or other alarm. If the TMC 8... trips, the alarm contact switches power to the load.

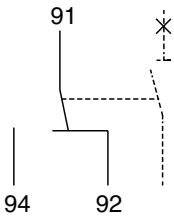


Figure 7 TMC 7/8 ALARM schematic



After the TMC 7/8 ALARM module is attached to the TMC 8... circuit breaker:

- Terminals 91 and 92 are connected when the circuit breaker is in the "on" condition.
- Terminals 91 and 94 are connected when the circuit breaker is tripped electronically.
- Terminals 91 and 92 are connected when the circuit breaker is tripped manually.
- At the same time, terminals 91 and 94 do not make contact.

## 5.4 Shunt trip (TMC...SHNT)

The TMC 7/8...SHNT provides an electrically operated remote trip for the circuit breaker.

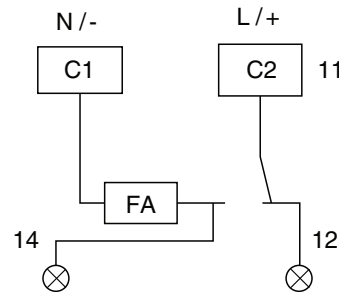


Figure 8 TMC 7/8 AUX schematic

## 5.5 Accessory installation



Installation is the same for all types of accessories.

1. Remove the end pieces (1) from the TMC 8... by sliding it up and away from the center section (2) of the circuit breaker.

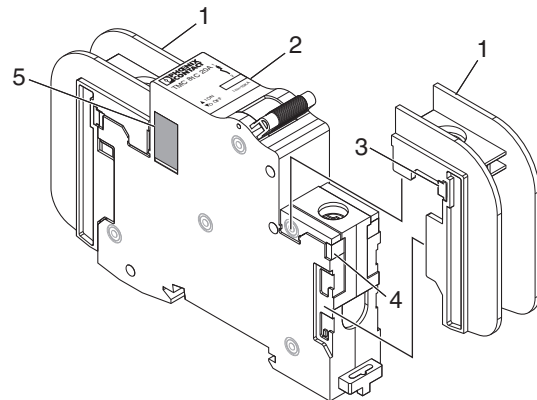


Figure 9 Removing tabs for accessory installation

2. Use a small pliers and remove the end piece tabs (3) and the center section tabs (4).
3. Remove the tape seal (5) covering the electrical interface.

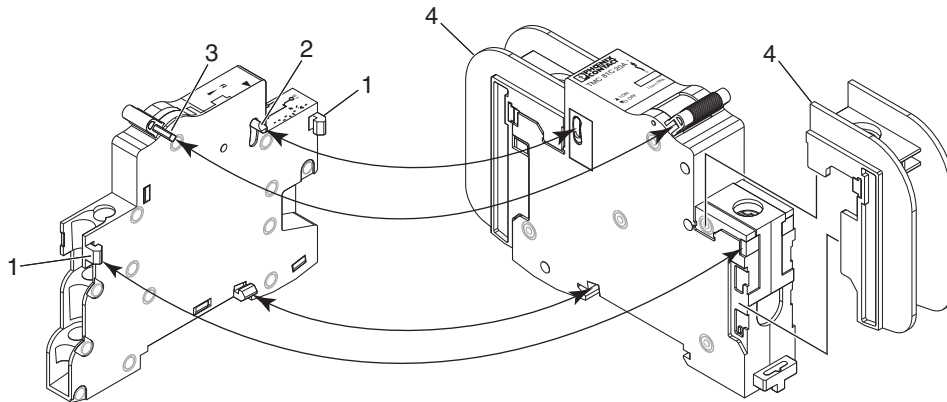


Figure 10 Accessory installation

4. Place the accessory in position on the left side of the TMC 8... making sure to align the locking clips (1), latch (2), and switch handle (3) with the TMC 8....
5. Reinstall the end pieces (4) previously removed.

**NOTE:**

The end pieces must be installed to maintain UL 489 compliance.

6. Install on the mounting rail, and connect wires, as required.

**5.6 Busbars and related accessories**

Busbars can be purchased for 1-, 2-, and 3-pole circuit breakers. They are also available to accommodate the circuit breakers if either the TMC 7/8 AUX or TMC 7/8 ALARM is used.

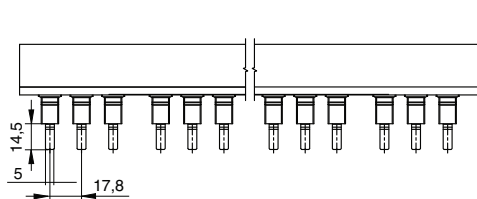


Figure 11 TMC 8 B1... dimensions

Busbars come in lengths of approximately 1 m and can be cut to the desired length. Optional supply terminal allows

connection to the busbar without increasing the installation space on the mounting rail.

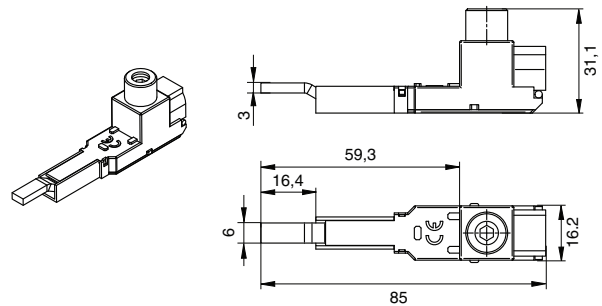


Figure 12 TMC 8 B TERM PIN dimensions