

## Motor Protection Circuit Breakers (MPCBs)

### Features & Specifications

- Compact device which combines the functions of:
  - Fuseless short circuit protection (Magnetic Tripping)
  - Thermal Overload Protection Class 10
  - Switching
  - Signaling
- Up to 32A with 14 Relay Scales
- Thermal & Magnetic tripping
- DIN Rail Mount

### Product Images



### Product Details

Part No.	Frame	Current Setting Range (A)
MPCB132TMO16	32A	0.1 – 0.16
MPCB132TMO25	32A	0.16 – 0.25
MPCB132TMO40	32A	0.25 – 0.40
MPCB132TMO63	32A	0.40 – 0.63
MPCB132TMM10	32A	0.63 – 1.0
MPCB132TMM16	32A	1.0 – 1.6
MPCB132TMM25	32A	1.6 – 2.5
MPCB132TMM40	32A	2.5 – 4.0
MPCB132TMM63	32A	4.0 – 6.3
MPCB132TMH10	32A	6.3 – 10
MPCB132TMH16	32A	10 – 16
MPCB132TMH20	32A	16 – 20
MPCB132TMH25	32A	20 – 25
MPCB132TMH32	32A	25 – 32

**Technical Specifications**

Electrical general	Units														
Rated operational current (In)	A	0.16	0.25	0.4	0.63	1	1.6	2.5	4	6.3	10	16	20	25	32
Current setting range*	A	0.1-0.16	0.16-0.25	0.25-0.40	0.40-0.63	0.63-1	1.0-1.6	1.6-2.5	2.4-4.0	4.0-6.3	6.3-10	10-16	16-20	20-25	25-32
Magnetic trip current (13In)	A	2.1	3.3	5.2	8.2	13	21	33	52	82	130	208	260	325	416
Rated operating frequency	Hz	50/60													
Heat dissipation	W	5	5	5	5	6	6	6	6	6	7	8	8	8	8
Electrical life	ops	100000													
Max. operating rate	ops/hr	15													
Compliance standards		IEC 60947-1, IEC60947-2, IEC60947-4-1 & UL60947-4-1													

**KW Ratings**

KW Ratings								
Relay Rating	230V		400/415V		500V		690V	
	KW	Amps	KW	Amps	KW	Amps	KW	Amps
0.16	-	-	-	-	-	-	0.06	0.12
0.25	-	-	0.06	0.2	0.06	0.16	0.12	0.23
0.4	-	-	0.09	0.3	0.12	0.32	0.18	0.35
0.63	0.06	0.35	0.12	0.44	0.25	0.68	0.25	0.49
1	0.12	0.7	0.25	0.85	0.37	0.88	0.55	0.87
1.6	0.18	1	0.55	1.50	0.75	1.5	1.1	1.6
2.5	0.37	1.9	0.75	1.90	1.1	2.2	1.5	2.1
4	0.75	3.3	1.5	3.60	2.2	3.9	3	3.8
6.3	1.1	4.7	2.2	4.90	3	5.2	4	4.9
10	2.2	8.5	4	8.50	4	6.8	7.5	8.9
16	3.7	13.5	9	15.0	12.5	14.8	15	17
20	3.7	13.5	9	18.5	12.5	19	15	17
25	5.5	20	12.5	24	15	23	22	24
32	7.5	27	15	29	18.5	28	30	32

**Short Circuit Current Ratings (SCCR)**

Rated Current (A)	Short Circuit Breaking Capacity at 230V			Short Circuit Breaking Capacity at 400/415V			Short Circuit Breaking Capacity at 440V			Short Circuit Breaking Capacity at 500/525V		
	ICU(KA)	ICS(KA)	GL/GG Fuse*	ICU(KA)	ICS(KA)	GL/GG Fuse*	ICU(KA)	ICS(KA)	GL/GG Fuse*	ICU(KA)	ICS(KA)	GL/GG Fuse*
0.16	100	100	-	100	100	-	100	100	-	100	100	-
0.25	100	100	-	100	100	-	100	100	-	100	100	-
0.4	100	100	-	100	100	-	100	100	-	100	100	-
0.63	100	100	-	100	100	-	100	100	-	100	100	-
1	100	100	-	100	100	-	100	100	-	100	100	-
1.6	100	100	-	100	100	-	100	100	-	100	100	-
2.5	100	100	-	100	100	-	100	100	-	100	100	-
4	100	100	-	100	100	-	100	100	-	100	100	-
6.3	100	100	-	100	100	-	100	100	-	100	100	-
10	100	100	-	100	100	-	50	38	63	50	38	50
16	100	100	-	50	38	100	35	25	80	10	8	80
20	100	100	-	50	38	125	35	25	80	10	8	80
25	100	100	-	50	38	125	35	25	100	10	8	80
32	100	100	-	50	38	125	35	25	100	10	8	80

\*Fuse is used if ICC is greater than ICU

**UL Ratings**

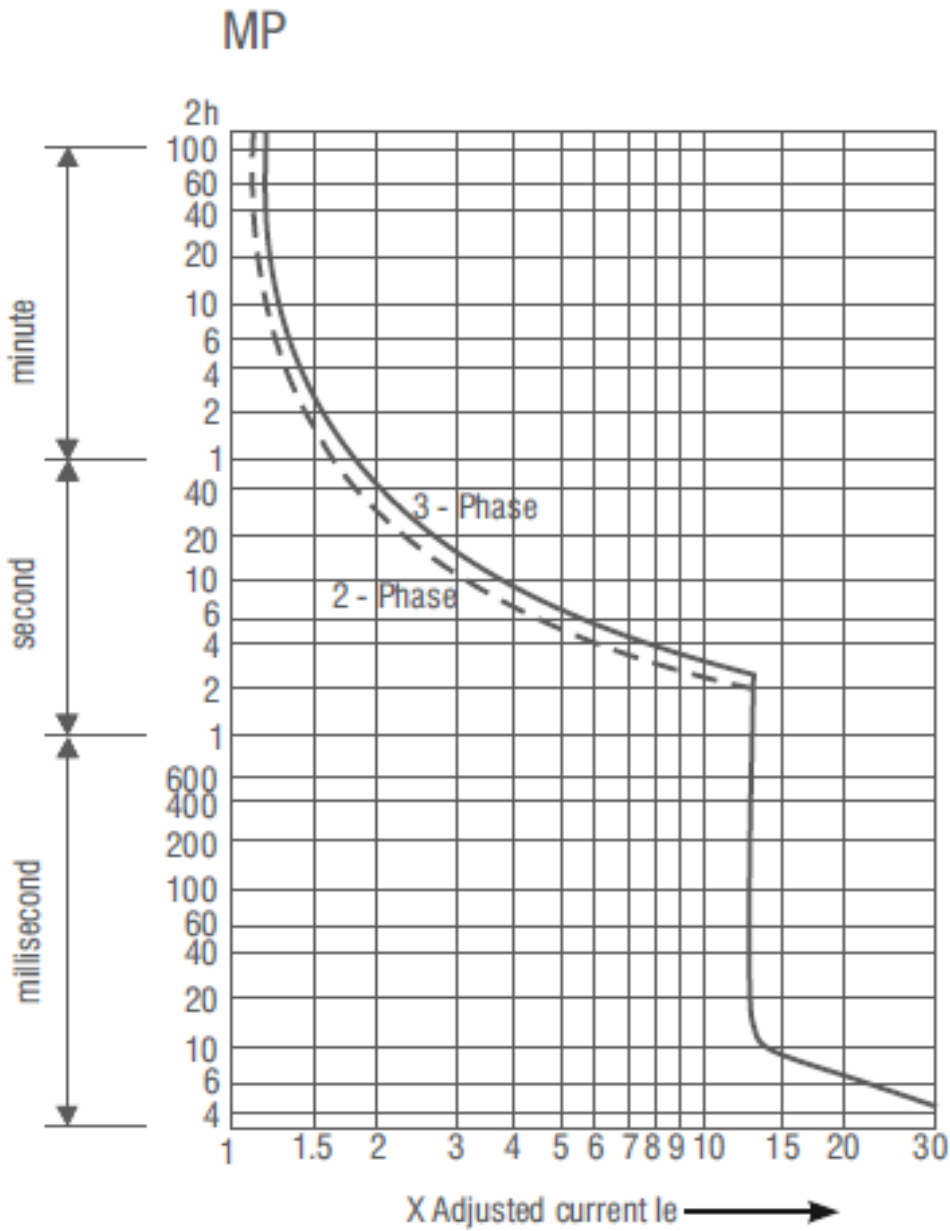
		2L16	2L25	2L40	2L63	2M10	2M16	2M25	2M40	2M63	2H10	2H16	2H20	2H25	2H32
Electrical general	Units														
Rated operational current	A	0.16	0.25	0.4	0.63	1	1.6	2.5	4	6.3	10	16	20	25	32
Current setting range*	A	0.1-0.16	0.16-0.25	0.25-0.40	0.40-0.63	0.63-1	1.0-1.6	1.6-2.5	2.4-4.0	4.0-6.3	6.3-10	10-16	16-20	20-25	25-32
Magnetic trip current	A	2.1	3.3	5.2	8.2	13	21	33	52	82	130	208	260	325	416
Rated operating frequency	Hz	50/60													
Heat dissipation	W	5	5	5	5	6	6	6	6	6	7	8	8	8	8
Electrical life	ops	100000													
Max.operating rate	ops/hr	15													
Electrical UL/CSA application															
Rated operating voltage	Vac	600													
Rated 1 φ operating power															
115V	HP	-	-	-	-	-	-	-	1/8	1/4	1/2	1	1 1/2	2	-
230V	HP	-	-	-	-	-	1/10	1/6	1/3	3/4	1 1/2	3	3	3	5
Rated 3 φ operating power															
200V	HP	-	-	-	-	-	1/4	1/2	3/4	1 1/2	3	5	5	7 1/2	10
230V	HP	-	-	-	-	-	1/3	1/2	1	1 1/2	3	5	7 1/2	7 1/2	10
480V	HP	-	-	-	-	1/2	3/4	1	2	3	7 1/2	10	15	15	20
600V	HP	-	-	-	1/4	1/2	1	1 1/2	3	5	10	15	20	20	25
Manual motor controller Max SC current**															
.@480V	KA	50													
.@600V	KA	25													

**UL Ratings cont...**

Manual motor controller in group installation Max Short circuit Current**																
.@480V	KA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
Max fuse or CB***	A	450	450	450	450	450	450	450	450	450	450	450	450	400	400	400
.@600V	KA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
Max fuse or CB***	A	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450
Manual motor controller suitable for tap conductor protection in group installation Max Short circuit Current**																
.@480V	KA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
Max fuse or CB***	A	125	125	125	125	125	125	125	125	125	125	125	150	250	250	250
.@600V	KA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
Max fuse or CB***	A	125	125	125	125	125	125	125	125	125	125	125	150	250	250	250
Manual motor controller suitable for motor disconnect																
.@480V	KA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
Max fuse or CB***	A	125	125	125	125	125	125	125	125	125	125	125	150	250	250	250
.@600V	KA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
Max fuse or CB***	A	125	125	125	125	125	125	125	125	125	125	125	150	250	250	250
Combination motor controller Type E manual self protected combination motor controller																
.@480V	KA	50	50	50	50	50	50	50	50	50	50	50	50	50	49	50
Max fuse or CB***		No Fuse														
.@600V	KA	25	25	25	25	25	25	25	25	25	25	25	25	25	24	25
Max fuse or CB***		No Fuse														
Combination motor controller Type F combination motor controller (MPCB + Contactor)																
.@480V	KA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Max fuse or CB***		NO FUSE														
.@600V	KA	25	25	25	25	25	25	25	25	25	25	25	25	25	24	25
Max fuse or CB***		NO FUSE														
Combination motor controller Type E Self Protected combination motor controller (MPCB + Contactor)																
.@480V	KA	50	50	50	50	50	50	50	50	50	50	50*	50*	50*	50*	
Max fuse or CB***		NO FUSE														
Test done at 240 volts*																

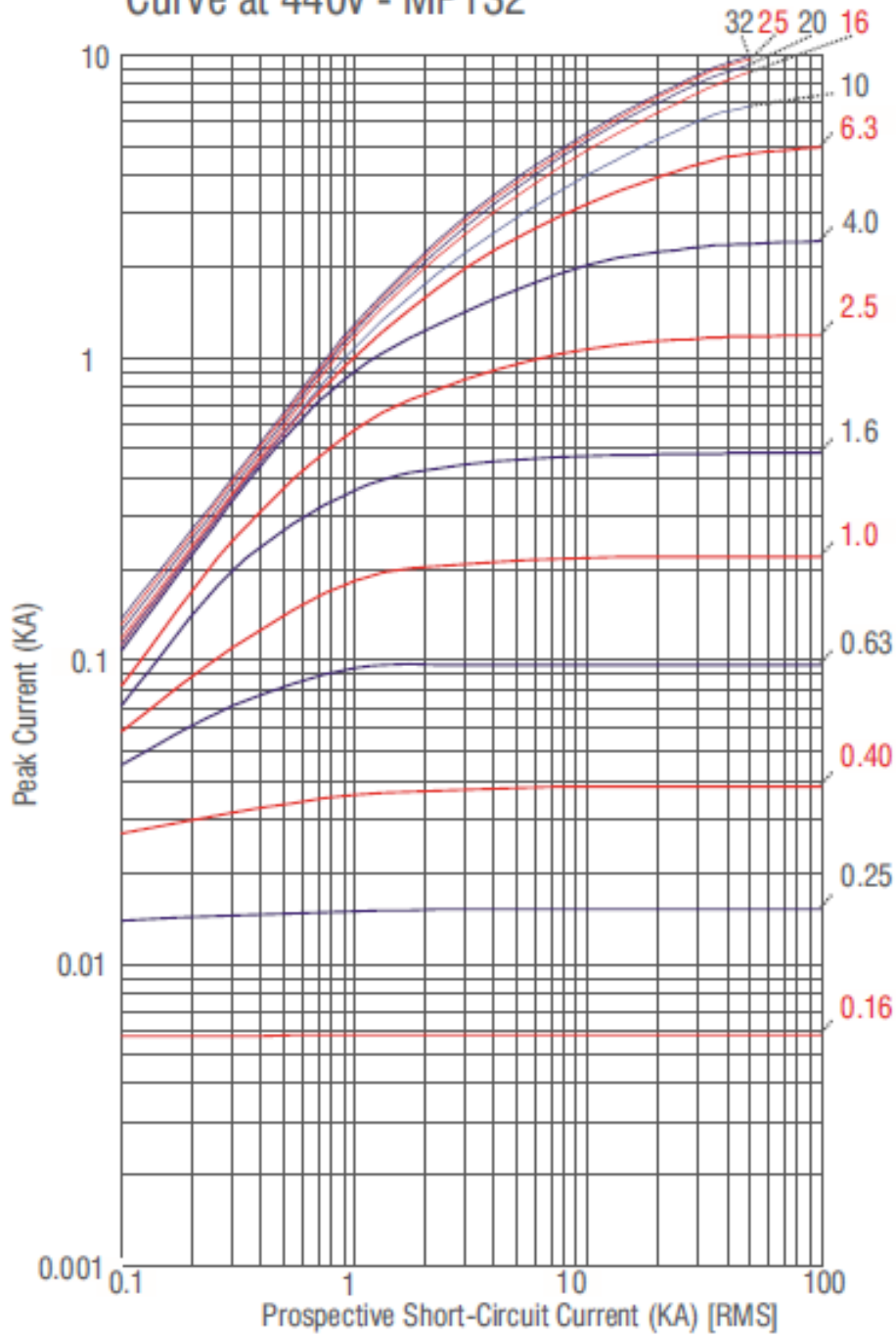
**Characteristics Curves**

Cold Trip Times are Shown at 20° With Average Tolerance Values to the Rated Current

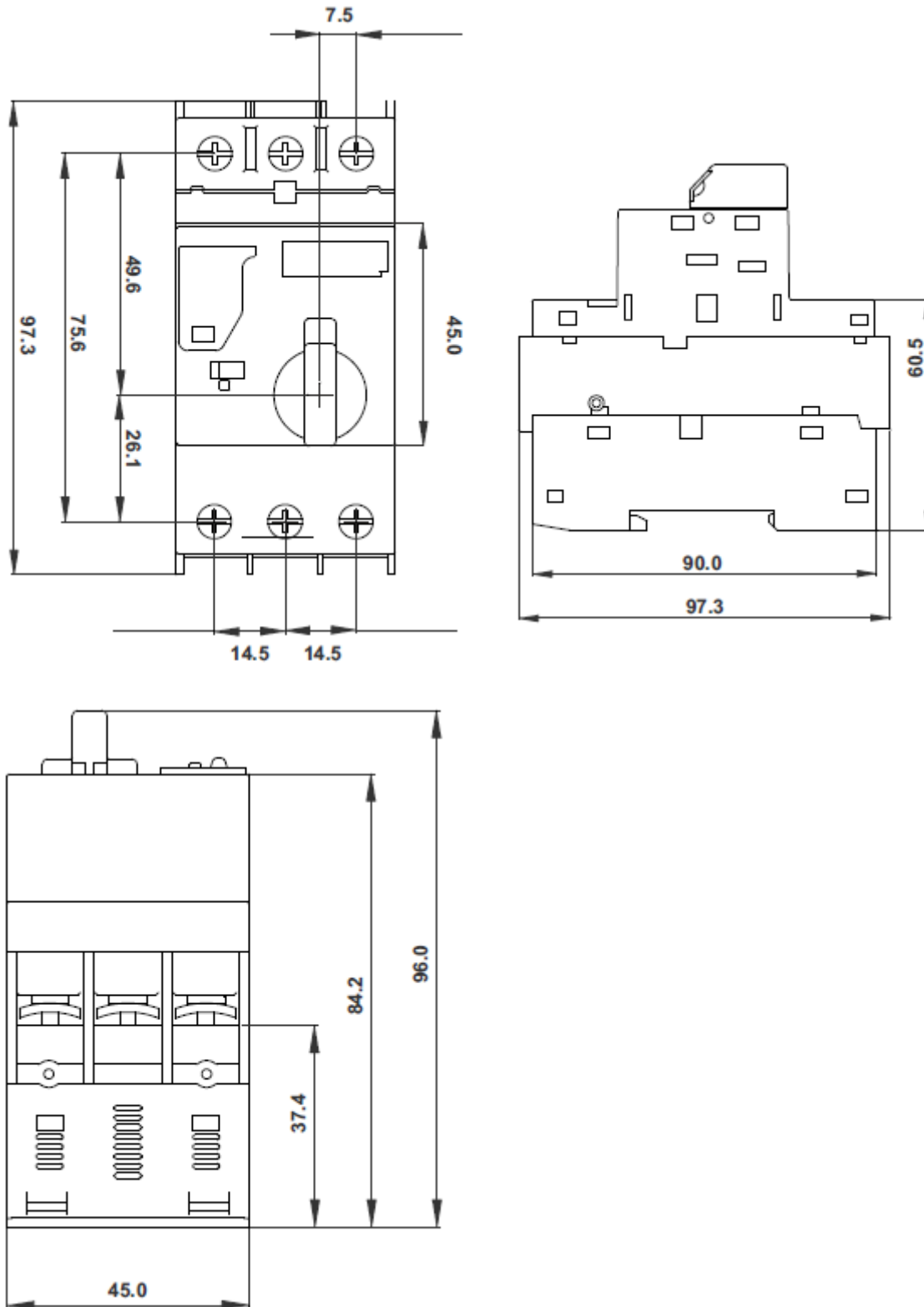




### Short-Circuit Current Limitation Curve at 440v - MP132



Dimension Diagrams



Subject to change without notice