

GEWISS

Automatsäkring



Malthe Winje

08-594 118 30 www.mwa.se info@mwa.se

90 MCB RANGE

MODULAR CIRCUIT BREAKERS FOR CIRCUIT PROTECTION

SELECTION TABLES

90 MCB
RANGE

			MINIATURE CIRCUIT BREAKERS											
			MTC						MT					
														
Icn [A] (EN60898)	Curve	In [A]	1P	1P+N	1P+N*	2P	3P	4P	1P	1P+N	2P	3P	4P	
			1 mod.	1 mod.	1 mod.	1 mod.	2 mod.	2 mod.	1 mod.	2 mod.	2 mod.	3 mod.	4 mod.	
			MTC 45						MT 45					
4500	C	2	-	GW 90 022	GW 90 602	-	-	-	-	-	-	-	-	-
		6	GW 90 005	GW 90 025	GW 90 605	GW 90 045	GW 90 065	GW 90 085	GW 92 105	GW 92 125	GW 92 145	GW 92 165	GW 92 185	
		10	GW 90 006	GW 90 026	GW 90 606	GW 90 046	GW 90 066	GW 90 086	GW 92 106	GW 92 126	GW 92 146	GW 92 166	GW 92 186	
		13	GW 90 011	GW 90 031	-	GW 90 051	GW 90 071	GW 90 091	GW 92 107	GW 92 127	GW 92 147	GW 92 167	GW 92 187	
		16	GW 90 007	GW 90 027	GW 90 607	GW 90 047	GW 90 067	GW 90 087	GW 92 108	GW 92 128	GW 92 148	GW 92 168	GW 92 188	
		20	GW 90 008	GW 90 028	GW 90 608	GW 90 048	GW 90 068	GW 90 088	GW 92 109	GW 92 129	GW 92 149	GW 92 169	GW 92 189	
		25	GW 90 009	GW 90 029	GW 90 609	GW 90 049	GW 90 069	GW 90 089	GW 92 110	GW 92 130	GW 92 150	GW 92 170	GW 92 190	
		32	GW 90 010	GW 90 030	GW 90 610	GW 90 050	GW 90 070	GW 90 090	GW 92 111	GW 92 131	GW 92 151	GW 92 171	GW 92 191	
	40	-	-	-	-	-	-	GW 92 112	GW 92 132	GW 92 152	GW 92 172	GW 92 192		
	B	6	-	-	-	-	-	-	GW 92 305	GW 92 325	GW 92 345	GW 92 365	GW 92 385	
		10	-	-	-	-	-	-	GW 92 306	GW 92 326	GW 92 346	GW 92 366	GW 92 386	
		13	-	-	-	-	-	-	GW 92 307	GW 92 327	GW 92 347	GW 92 367	GW 92 387	
		16	-	-	-	-	-	-	GW 92 308	GW 92 328	GW 92 348	GW 92 368	GW 92 388	
		20	-	-	-	-	-	-	GW 92 309	GW 92 329	GW 92 349	GW 92 369	GW 92 389	
		25	-	-	-	-	-	-	GW 92 310	GW 92 330	GW 92 350	GW 92 370	GW 92 390	
		32	-	-	-	-	-	-	GW 92 311	GW 92 331	GW 92 351	GW 92 371	GW 92 391	
		40	-	-	-	-	-	-	GW 92 312	GW 92 332	GW 92 352	GW 92 372	GW 92 392	
			MTC 60						MT 60					
6000	C	1	-	-	-	-	-	-	GW 92 001	GW 92 021	GW 92 041	GW 92 061	GW 92 081	
		2	-	-	-	-	-	-	GW 92 002	GW 92 022	GW 92 042	GW 92 062	GW 92 082	
		3	-	-	-	-	-	-	GW 92 003	GW 92 023	GW 92 043	GW 92 063	GW 92 083	
		4	-	-	-	-	-	-	GW 92 004	GW 92 024	GW 92 044	GW 92 064	GW 92 084	
		6	-	GW 90 225	-	GW 90 245	GW 90 265	GW 90 285	GW 92 005	GW 92 025	GW 92 045	GW 92 065	GW 92 085	
		10	-	GW 90 226	-	GW 90 246	GW 90 266	GW 90 286	GW 92 006	GW 92 026	GW 92 046	GW 92 066	GW 92 086	
		13	-	GW 90 231	-	GW 90 251	GW 90 271	GW 90 291	GW 92 014	GW 92 034	GW 92 054	GW 92 074	GW 92 094	
		16	-	GW 90 227	-	GW 90 247	GW 90 267	GW 90 287	GW 92 007	GW 92 027	GW 92 047	GW 92 067	GW 92 087	
		20	-	GW 90 228	-	GW 90 248	GW 90 268	GW 90 288	GW 92 008	GW 92 028	GW 92 048	GW 92 068	GW 92 088	
		25	-	GW 90 229	-	GW 90 249	GW 90 269	GW 90 289	GW 92 009	GW 92 029	GW 92 049	GW 92 069	GW 92 089	
		32	-	GW 90 230	-	GW 90 250	GW 90 270	GW 90 290	GW 92 010	GW 92 030	GW 92 050	GW 92 070	GW 92 090	
		40	-	-	-	-	-	-	GW 92 011	GW 92 031	GW 92 051	GW 92 071	GW 92 091	
	50	-	-	-	-	-	-	GW 92 012	GW 92 032	GW 92 052	GW 92 072	GW 92 092		
	63	-	-	-	-	-	-	GW 92 013	GW 92 033	GW 92 053	GW 92 073	GW 92 093		
	B	6	-	GW 90 325	-	GW 90 345	-	-	GW 92 205	-	GW 92 245	GW 92 265	GW 92 285	
		10	-	GW 90 326	-	GW 90 346	-	-	GW 92 206	-	GW 92 246	GW 92 266	GW 92 286	
		13	-	GW 90 327	-	GW 90 347	-	-	GW 92 214	-	GW 92 254	GW 92 274	GW 92 294	
		16	-	GW 90 328	-	GW 90 348	-	-	GW 92 207	-	GW 92 247	GW 92 267	GW 92 287	
		20	-	GW 90 329	-	GW 90 349	-	-	GW 92 208	-	GW 92 248	GW 92 268	GW 92 288	
		25	-	GW 90 330	-	GW 90 350	-	-	GW 92 209	-	GW 92 249	GW 92 269	GW 92 289	
		32	-	GW 90 331	-	GW 90 351	-	-	GW 92 210	-	GW 92 250	GW 92 270	GW 92 290	
		40	-	-	-	-	-	-	GW 92 211	-	GW 92 251	GW 92 271	GW 92 291	
		50	-	-	-	-	-	-	GW 92 212	-	GW 92 252	GW 92 272	GW 92 292	
		63	-	-	-	-	-	-	GW 92 213	-	GW 92 253	GW 92 273	GW 92 293	
	D	6	-	-	-	-	-	-	GW 92 405	-	GW 92 445	GW 92 465	GW 92 485	
		10	-	-	-	-	-	-	GW 92 406	-	GW 92 446	GW 92 466	GW 92 486	
		13	-	-	-	-	-	-	GW 92 414	-	GW 92 454	GW 92 474	GW 92 494	
		16	-	-	-	-	-	-	GW 92 407	-	GW 92 447	GW 92 467	GW 92 487	
		20	-	-	-	-	-	-	GW 92 408	-	GW 92 448	GW 92 468	GW 92 488	
		25	-	-	-	-	-	-	GW 92 409	-	GW 92 449	GW 92 469	GW 92 489	
		32	-	-	-	-	-	-	GW 92 410	-	GW 92 450	GW 92 470	GW 92 490	
		40	-	-	-	-	-	-	GW 92 411	-	GW 92 451	GW 92 471	GW 92 491	

* Miniature circuit breakers with neutral on the left

			MINIATURE CIRCUIT BREAKERS									
			MTC		MT				MTHP			
												
Icn [A] (EN60898)	Curve	In [A]	1P+N 1 mod.	2P 1 mod.	1P 1 mod.	2P 2 mod.	3P 3 mod.	4P 4 mod.	1P 1.5 mod.	2P 3 mod.	3P 4.5 mod.	4P 6 mod.
			MTC 100		MT 100							
10000	C	6	GW 90 425	GW 90 445	GW 92 605	GW 92 645	GW 92 665	GW 92 685	-	-	-	-
		10	GW 90 426	GW 90 446	GW 92 606	GW 92 646	GW 92 666	GW 92 686	-	-	-	-
		13	GW 90 431	GW 90 451	GW 92 614	GW 92 654	GW 92 674	GW 92 694	-	-	-	-
		16	GW 90 427	GW 90 447	GW 92 607	GW 92 647	GW 92 667	GW 92 687	-	-	-	-
		20	GW 90 428	GW 90 448	GW 92 608	GW 92 648	GW 92 668	GW 92 688	-	-	-	-
		25	GW 90 429	GW 90 449	GW 92 609	GW 92 649	GW 92 669	GW 92 689	-	-	-	-
		32	GW 90 430	GW 90 450	GW 92 610	GW 92 650	GW 92 670	GW 92 690	-	-	-	-
		40	-	-	GW 92 611	GW 92 651	GW 92 671	GW 92 691	-	-	-	-
		50	-	-	GW 92 612	GW 92 652	GW 92 672	GW 92 692	-	-	-	-
	63	-	-	GW 92 613	GW 92 653	GW 92 673	GW 92 693	-	-	-	-	
	B	6	-	-	GW 92 505	GW 92 545	GW 92 565	GW 92 585	-	-	-	-
		10	-	-	GW 92 506	GW 92 546	GW 92 566	GW 92 586	-	-	-	-
		13	-	-	GW 92 507	GW 92 547	GW 92 567	GW 92 587	-	-	-	-
		16	-	-	GW 92 508	GW 92 548	GW 92 568	GW 92 588	-	-	-	-
		20	-	-	GW 92 509	GW 92 549	GW 92 569	GW 92 589	-	-	-	-
		25	-	-	GW 92 510	GW 92 550	GW 92 570	GW 92 590	-	-	-	-
		32	-	-	GW 92 511	GW 92 551	GW 92 571	GW 92 591	-	-	-	-
		40	-	-	GW 92 512	GW 92 552	GW 92 572	GW 92 592	-	-	-	-
		50	-	-	GW 92 513	GW 92 553	GW 92 573	GW 92 593	-	-	-	-
	63	-	-	GW 92 514	GW 92 554	GW 92 574	GW 92 594	-	-	-	-	
	D	1	-	-	GW 92 701	GW 92 741	GW 92 761	GW 92 781	-	-	-	-
		2	-	-	GW 92 702	GW 92 742	GW 92 762	GW 92 782	-	-	-	-
		3	-	-	GW 92 703	GW 92 743	GW 92 763	GW 92 783	-	-	-	-
		4	-	-	GW 92 704	GW 92 744	GW 92 764	GW 92 784	-	-	-	-
		6	-	-	GW 92 705	GW 92 745	GW 92 765	GW 92 785	-	-	-	-
		10	-	-	GW 92 706	GW 92 746	GW 92 766	GW 92 786	-	-	-	-
		13	-	-	GW 92 714	GW 92 754	GW 92 774	GW 92 794	-	-	-	-
		16	-	-	GW 92 707	GW 92 747	GW 92 767	GW 92 787	-	-	-	-
		20	-	-	GW 92 708	GW 92 748	GW 92 768	GW 92 788	-	-	-	-
		25	-	-	GW 92 709	GW 92 749	GW 92 769	GW 92 789	-	-	-	-
	32	-	-	GW 92 710	GW 92 750	GW 92 770	GW 92 790	-	-	-	-	
	40	-	-	GW 92 711	GW 92 751	GW 92 771	GW 92 791	-	-	-	-	
							MTHP 160					
10000 (16kA EN60947-2)	C	80	-	-	-	-	-	-	GW 93 307	GW 93 327	GW 93 337	GW 93 347
		100	-	-	-	-	-	-	GW 93 308	GW 93 328	GW 93 338	GW 93 348
		125	-	-	-	-	-	-	GW 93 309	GW 93 329	GW 93 339	GW 93 349
	D	63	-	-	-	-	-	-	GW 93 356	GW 93 376	GW 93 386	GW 93 396
		80	-	-	-	-	-	-	GW 93 357	GW 93 377	GW 93 387	GW 93 397
		100	-	-	-	-	-	-	GW 93 358	GW 93 378	GW 93 388	GW 93 398
			MT 250				MTHP 250					
12500	C	50	-	-	GW 92 812	GW 92 852	GW 92 872	GW 92 892	-	-	-	-
		63	-	-	GW 92 813	GW 92 853	GW 92 873	GW 92 893	-	-	-	-
15000	C	32	-	-	GW 92 810	GW 92 850	GW 92 870	GW 92 890	-	-	-	-
		40	-	-	GW 92 811	GW 92 851	GW 92 871	GW 92 891	-	-	-	-
20000	C	25	-	-	GW 92 809	GW 92 849	GW 92 869	GW 92 889	-	-	-	-
25000	C	6	-	-	GW 92 805	GW 92 845	GW 92 865	GW 92 885	-	-	-	-
		10	-	-	GW 92 806	GW 92 846	GW 92 866	GW 92 886	-	-	-	-
		16	-	-	GW 92 807	GW 92 847	GW 92 867	GW 92 887	-	-	-	-
		20	-	-	GW 92 808	GW 92 848	GW 92 868	GW 92 888	GW 93 201	GW 93 221	GW 93 231	GW 93 241
		25	-	-	-	-	-	-	GW 93 202	GW 93 222	GW 93 232	GW 93 242
		32	-	-	-	-	-	-	GW 93 203	GW 93 223	GW 93 233	GW 93 243
		40	-	-	-	-	-	-	GW 93 204	GW 93 224	GW 93 234	GW 93 244
		50	-	-	-	-	-	-	GW 93 205	GW 93 225	GW 93 235	GW 93 245
		63	-	-	-	-	-	-	GW 93 206	GW 93 226	GW 93 236	GW 93 246

90 MCB RANGE

MODULAR CIRCUIT BREAKERS FOR CIRCUIT PROTECTION

MCB - MTC - MT - MTHP

TECHNICAL DATA

TYPE			MTC						MT											
			MTC45			MTC60			MTC100			MT 45			MT 60					
																				
Rated current (In)			(A)			2-32			6-32			6-32			6-40			1-63		
Utilization category						A			A			A			A			A		
Rated operational voltage (Ue)			(V)			230 / 400			230 / 400			230			230 / 400			230 / 400		
Minimum operating voltage (Ue min)			(V)			12 AC/DC			12 AC/DC			12 AC/DC			12 AC/DC			12 AC/DC		
Maximum operating voltage (Ue max)			(V)			440 AC/ 220 DC			440 AC/ 220 DC			253 AC/ 110 DC			440 AC/ 220 DC			440 AC/ 220 DC		
Insulation voltage (Ui)			(V)			500			500			500			500			500		
Rated frequency			(Hz)			50 / 60			50 / 60			50 / 60			50 / 60			50 / 60		
Rated impulse withstand voltage (Uimp)			(kV)			4			4			4			4			4		
Number of poles						1 1+N,2 3,4			1+N,2 3,4			1+N,2			1,1+N 2,3,4			1, 1+N 2,3,4		
BREAKING CAPACITY	AC - Alternating current IEC 60898 - EN 60898 (A)																			
			Icn		4500			6000 ⁽¹⁾ 6000		10000 ⁽¹⁾			4500			6000				
			Ics		1 Icn			1 Icn			0.75 Icn			1 Icn			1 Icn			
			AC - Alternating current IEC 60947-2 - EN 60947-2 (kA)		Ue (V)															
			Icu		230 / 240		4.5 6 6		7.5 7.5		10			4.5 6		10 20				
					400 / 415		- - 4.5		- 6		-			- 6		- 10				
			Ics		100% Icu			100% Icu			75% Icu			100% Icu			75% Icu			
			DC - Direct current IEC 60947-2 - EN 60947-2 (kA)		Ue (V)															
			Icu (1 pole)		50		6		10						6		10			
			Ics					6		10						6		10		
			Icu (2 poles in series)		110		6		10			10 (15 at 50V)			6		10			
			Ics					6		10			10 (15 at 50V)			6		6		
			Icu (4 poles in series)		220		4.5		6						4.5		10			
		Ics					4.5		6						4.5		10			
Wiring		cable section (mm²)		rigid		≤16			≤16			≤16			≤35			≤35		
				flexible		≤10			≤10			≤10			≤35			≤35		
Electrical endurance (number of O-C cycles):						10000			10000			10000			10000			10000		
Mechanical endurance (number of O-C cycles):						20000			20000			20000			20000			20000		
Max. no. of usable modular accessories:						2			2			2			2			2		
Upline/downline power supply:						yes			yes			yes			yes			yes		
ON/OFF status displayed:						yes			yes			yes			yes			yes		
Type of residual current device:						-			-			-			Add-on RCD BD			Add-on RCD BD		
Rated tightening torque:			(Nm)			1.2			1.2			1.2			2			2		
Degree of protection:		terminals (with terminal covers)				IP40			IP40			IP40			IP40			IP40		
		other parts				IP40			IP40			IP40			IP40			IP40		
Tropicalization:						55°C - RH 95%			55°C - RH 95%			55°C - RH 95%			55°C - RH 95%			55°C - RH 95%		
Reference temperature:			(°C)			30			30			30			30			30		
Operating temperature:			(°C)			-25 +60			-25 +60			-25 +60			-25 +60			-25 +60		
Weight:			(g)			135 (per module)			135 (per module)			135 (per module)			140 (per pole)			140 (per pole)		
Tripping characteristic						C			C B			C			C B			C B D		
Rated currents available In:			(A)															1		
						2												2		
																		3		
																		4		
						6			6 6			6			6 6			6 6 6		
						10			10 10			10			10 10			10 10 10		
						13			13 13			13			13 13			13 13 13		
						16			16 16			16			16 16			16 16 16		
						20			20 20			20			20 20			20 20 20		
						25			25 25			25			25 25			25 25 25		
						32			32 32			32			32 32			32 32 32		
															40 40			40 40 40		
																		50 50		
																		63 63		

⁽¹⁾ Breaking capacity of the single pole Icn=6000A

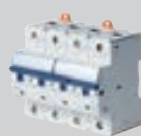
⁽²⁾ Reduced connection terminal (width connection < 17mm)

90 MCB RANGE

MODULAR CIRCUIT BREAKERS FOR CIRCUIT PROTECTION

GEWISS

90 MCB
RANGE

MT																		MTHP										
MT 100						MT 250												MTHP 160			MTHP 250							
																												
1-25		32-63				6-20			25			32-40			50-63			63-125			20-63							
A		A				A			A			A			A			A			A							
230/400		230/400				230/400			230/400			230/400			230/400			230/400			230/400							
12 AC/DC		12 AC/DC				12 AC/DC			12 AC/DC			12 AC/DC			12 AC/DC			12 AC/DC			12 AC/DC							
440 AC/220 DC		440 AC/220 DC				440 AC/220 DC			440 AC/220 DC			440 AC/220 DC			440 AC/220 DC			440 AC/220 DC			440 AC/220 DC							
500		500				500			500			500			500			500			500							
50/60		50/60				50/60			50/60			50/60			50/60			50/60			50/60							
4		4				4			4			4			4			6			6							
1	2	3,4	1	2	3,4	1	2	3,4	1	2	3,4	1	2	3,4	1	2	3,4	1	2,3,4	1	2	3,4						
10000		10000				25000			20000			15000			12500			10000			25000							
0.75 Icn		0.75 Icn				0.75 Icn			0.75 Icn			0.75 Icn			0.75 Icn			0.75 Icn			0.75 Icn							
15	30	25	12.5	25	20	25	50	40	20	40	30	15	30	25	15	25	20	16	20	25	50	30						
-	20	15	-	15	12.5	-	30	25	-	25	20	-	20	15	-	15	15	4.5	16	6	25	25						
50% Icu			50% Icu			50% Icu			50% Icu			50% Icu			50% Icu			50% Icu			75% Icu							
10		10				20			20			20			20			10			25							
10		10				15			15			15			15			10			20							
15		15				25			25			25			25			15			30							
15		15				20			20			20			20			12			25							
15		15				25			25			25			25			15			25							
12		12				20			20			20			20			12			20							
≤35		≤35				≤35			≤35			≤35			≤35			≤ 70			≤ 70							
≤35		≤35				≤35			≤35			≤35			≤35			≤50 / ≤95 (terminal) ⁽²⁾			≤50 / ≤95 (terminal) ⁽²⁾							
10000		10000				10000			10000			10000			10000			10000			10000							
20000		20000				20000			20000			20000			20000			20000			20000							
2		2				2			2			2			2			2			2							
yes		yes				yes			yes			yes			yes			yes			yes							
yes		yes				yes			yes			yes			yes			yes			yes							
Add-on RCD BD		Add-on RCD BD				Add-on RCD BD			Add-on RCD BD			Add-on RCD BD			Add-on RCD BD			Add-on RCD BDHP			Add-on RCD BDHP							
2		2				2			2			2			2			3.5 / 3 (terminal)			3.5 / 3 (terminal)							
IP40		IP40				IP40			IP40			IP40			IP40			IP40			IP40							
IP40		IP40				IP40			IP40			IP40			IP40			IP40			IP40							
55°C - RH 95%		55°C - RH 95%				55°C - RH 95%			55°C - RH 95%			55°C - RH 95%			55°C - RH 95%			55°C - RH 95%			55°C - RH 95%							
30		30				30			30			30			30			30			30							
-25 +60		-25 +60				-25 +60			-25 +60			-25 +60			-25 +60			-25 +60			-25 +60							
145 (per pole)		145 (per pole)				145 (per pole)			145 (per pole)			145 (per pole)			145 (per pole)			250 (per pole)			250 (per pole)							
C		B		D		C																	C		D		C	
		1																										
		2																										
		3																										
		4																										
6		6		6		6																						
10		10		10		10																						
13		13		13																								
16		16		16		16																						
20		20		20		20																					20	
25		25		25		25																					25	
32		32		32		32																					32	
40		40		40		40																					40	
50		50				50																					50	
63		63				63																					63	
																							80		80			
																							100		100			
																							125					