

**GEWISS**



# Protection System

 *Energy Din*

**20 12**



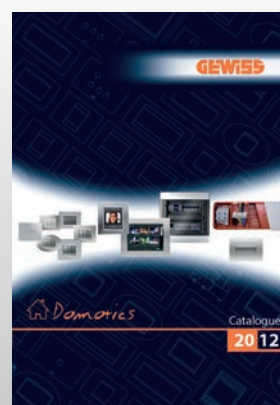
## TRADE CATALOGUE

Intuitive, immediate and user-friendly, the Trade Catalogue contains all the information you need on the Domotics, EnergyDIN, EnergyBLOC, EnergyBOX and Lighting ranges: apart from the product codes, you can find the selection tables for each range.



## LIGHTING CATALOGUE

Conceived for the professionals of the world of lighting, the catalogue describes all the GEWISS lighting devices, with selection guides and technical tables to make your consultation and choice that much easier.



## DOMOTICS CATALOGUE

The 2012 Domotics Catalogue presents all the GEWISS solutions that are dedicated to the residential environment and describes their characteristics and application advantages.

# GEWISS PROTECTION SYSTEM

Gewiss protection system is composed by products which have synergy and perfect integration among each other, such as the innovative 90 ReStart range (self reclosing devices), the 90 MCB and 90 RCD ranges (modular devices for circuit and residual current protection), the MTX range (MCCBs for power distribution) and the 47 CVX range (metal distribution boards).

An integrated range of products which can meet every need according to the application type, from the residential to the industrial and which can guarantee quality and safety in step with the market requirements.

The advantages of Gewiss system are several: practical compatibility of homogeneous products, simple and quick planning, installation and maintenance of the system, modern and stylish design.



# 90 ReSTART RANGE

SELF RECLOSING DEVICES

## Self Reclosing Devices ReStart 2P

In the event that the residual current device trips, **ReStart** restores the electrical power supply in a short time, but only following a system check (**Rd** versions) and also of short-circuit check (**Rm** version).

Thanks to the innovative control logic, **Autotest** is able periodically and automatically to test the working of the residual current device, **without ever removing the power supply from the system.**

Moreover **PRO** versions are available for a continuous monitoring system. In fact the system check will be carried out at regular intervals of time until there will be the conditions for a automatic reclosing.

THE ONLY ONE CARRIES OUT THE TEST WITHOUT INTERRUPTING THE ASSOCIATED POWER SUPPLY.



ReSTART WITH AUTOTEST



ReSTART RD



ReSTART RD PRO



ReSTART RM








ReSTART RM PRO

## CHARACTERISTICS AND ADVANTAGES

		ReSTART	ReSTART AUTOTEST	ReSTART PRO
	DOES NOT RECLOSING IN THE EVENT OF A FAULT The user's safety is guaranteed thanks to the checking of the system before the reclosing.	✓	✓	✓
	AUTOMATIC TEST AND NO BLACKOUT DURING AUTOTEST With ReSTART AUTOTEST, the RCCB intervention test is carried out periodically and automatically without removing the power supply from the system, thanks to a special bypass circuit.		✓	
	CONTINUOUS MONITORING OF THE SYSTEM Following a trip caused by a fault, ReSTART PRO does not reset, but repeats the check every 2 minutes and resets if the fault disappears.			✓
	REMOTE SIGNALLING WITH AUXILIARY CONTACT An auxiliary contact allows remote signalling in the event of an effective fault without reset.		✓	✓
	NUMBERS OF DIN MODULES (circuit breaker included)	4	5	4

### ReSTART 2 POLES - SELECTION TABLES

	RESTART WITH AUTOTEST 2P	COUPLED VERSIONS RESTART RD 2P WITH SD 2P		COUPLED VERSIONS RESTART RD PRO 2P WITH SD 2P					
									
	5 mod.	4 mod.		4 mod.					
	A[IR] type	A type	A[IR] type	A type				A[IR] type	A[S] type
In [A]	IΔn = 30 mA	IΔn = 30 mA		IΔn = 30 mA	IΔn = 100 mA	IΔn = 300 mA	IΔn = 500 mA	IΔn = 30 mA	IΔn = 300 mA
25	GW 90 901 N	GW 94 817 R	GW 95 651 R	GW 94 817 P	-	GW 94 819 P	-	GW 95 651 P	-
40	GW 90 902 N	GW 94 827 R	GW 95 656 R	GW 94 827 P	GW 94 828 P	GW 94 829 P	GW 94 830 P	GW 95 656 P	GW 94 924 P
63	GW 90 903 N	GW 94 837 R	GW 95 661 R	GW 94 837 P	GW 94 838 P	GW 94 839 P	GW 94 840 P	GW 95 661 P	GW 94 934 P
80	-	-	-	GW 94 847 P	GW 94 848 P	GW 94 849 P	-	-	GW 94 944 P

		COUPLED VERSIONS RESTART RM 2P WITH MDC 2P		COUPLED VERSIONS RESTART RM PRO 2P WITH MDC 2P		
						
		C Curve - 2 Poles - 4 mod.				
Icn [A]	In [A]	IΔn = 30 mA		IΔn = 30 mA	IΔn = 300 mA	
		A type	A[IR] type	A type	A type	A[S] type
4500	6	GW 94 225 R	-	-	-	-
	10	GW 94 226 R	-	-	-	-
	13	GW 94 231 R	-	-	-	-
	16	GW 94 227 R	-	-	-	-
	20	GW 94 228 R	-	-	-	-
	25	GW 94 229 R	-	-	-	-
	32	GW 94 230 R	-	-	-	-
6000	6	GW 94 325 R	GW 95 805 R	GW 94 325 P	GW 94 335 P	-
	10	GW 94 326 R	GW 95 806 R	GW 94 326 P	GW 94 336 P	-
	13	GW 94 331 R	GW 95 811 R	GW 94 331 P	-	-
	16	GW 94 327 R	GW 95 807 R	GW 94 327 P	GW 94 337 P	GW 95 847 P
	20	GW 94 328 R	GW 95 808 R	GW 94 328 P	GW 94 338 P	GW 95 848 P
	25	GW 94 329 R	GW 95 809 R	GW 94 329 P	GW 94 339 P	GW 95 849 P
	32	GW 94 330 R	GW 95 810 R	GW 94 330 P	GW 94 340 P	GW 95 850 P

# 90 ReSTART RANGE

SELF RECLOSING DEVICES

## Self Reclosing Devices ReStart 4P

Also for three-phase system, in the event that the residual current device trips, **ReStart** restores the electrical power supply in a short time, but only following a system check (**Rd** versions) and also of short-circuit check (**Rm** version). All ReStart 4P are **PRO** versions (continuous monitoring system).

Thanks to the innovative control logic, **Autotest** is able periodically and automatically to test the working of the residual current device, **without ever removing the power supply from the system.**

Moreover **ReStart Rm TOP** version is available. It allows to:

- set the reclosing mode (with system check, by attempts or remote)
- select the insulation threshold
- set the reclosing time delay

THE ONLY ONE CARRIES OUT THE TEST WITHOUT INTERRUPTING THE ASSOCIATED POWER SUPPLY.



ReSTART WITH AUTOTEST



ReSTART RD PRO



ReSTART RM PRO








ReSTART RM TOP




ReSTART CM


## CHARACTERISTICS AND ADVANTAGES

		ReSTART PRO	ReSTART AUTOTEST	ReSTART TOP
	<b>PROTECTION IN AGGRESSIVE ENVIRONMENTS</b> ReSTART with AUTOTEST is recommended for difficult environments where the periodical and automatic Autotest function keeps the RCCB in a efficient state.		✓	
	<b>TIMING AND METHOD OF AUTOMATIC RESET ADJUSTABLE</b> ReSTART RM TOP allows to set the insulation threshold (from 30 to 500mA), the automatic reset method and time delay, adapting them to every requirements.			✓ (system check can be excluded)
	<b>CONTINUOUS MONITORING OF THE SYSTEM</b> Following a trip caused by a fault, ReSTART PRO does not reset, but repeats the check every 2 minutes and resets if the fault disappears.	✓	✓	✓ (system check can be excluded)
	<b>REMOTE SIGNALLING WITH AUXILIARY CONTACT</b> An auxiliary contact allows remote signalling in the event of an effective fault without reset.	✓	✓	✓
	<b>NUMBERS OF DIN MODULES</b> (circuit breaker NOT included)	3	7 (RCCB included)	4

NOTE: ReStart CM is a remote operating device without system check.

## ReSTART 4 POLES - COUPLED VERSIONS - SELECTION TABLES

RESTART WITH AUTOTEST PRO 4P			
			
7 mod.			
A[IR] type			
In[A]	I $\Delta$ n = 30 mA		I $\Delta$ n = 300 mA
25	GW 90 921		GW 90 927
40	GW 90 922		GW 90 928
63	GW 90 923		GW 90 929

COUPLED VERSIONS RESTART RD PRO 4P WITH RCCB SD 4P					
					
6 mod.		7 mod.		6 mod.	7 mod.
AC type			A type		
In[A]	I $\Delta$ n = 30 mA				
25	GW 94 662 P	-	GW 94 867 P	-	
40	GW 94 667 P	-	GW 94 897 P	-	
63	-	GW 94 757 P	-	GW 94 937 P	

### ReSTART 4 POLES - SELECTION TABLES








		MODULAR COMPATIBILITY OF RESTART RD PRO 4P WITH RCCB SD 4P							
		 3 mod. IΔn = 30 mA GW 90 966 +				 3 mod. IΔn = 100-300-500 mA GW 90 968 +			
		3 mod.		4 mod.		3 mod.		4 mod.	
In [A]	Type	IΔn = 30 mA		IΔn = 100 mA		IΔn = 300 mA		IΔn = 500 mA	
25	AC	GW 94 662	GW 94 637* GW 94 697	-	GW 94 698	GW 94 664	GW 94 639* GW 94 699	-	-
	A	GW 94 867	GW 94 552* GW 94 877	-	GW 94 878	GW 94 869	GW 94 554* GW 94 879	-	-
	A[IR]	-	GW 95 676	-	-	-	GW 95 678	-	-
40	AC	GW 94 667	GW 94 647* GW 94 707	GW 94 668	GW 94 708	GW 94 669	GW 94 649* GW 94 709	GW 94 670	GW 94 710
	A	GW 94 897	GW 94 557* GW 94 927	GW 94 898	GW 94 928	GW 94 899	GW 94 559* GW 94 929	GW 94 900	GW 94 930
	A[IR]	-	GW 95 681	-	-	-	GW 95 683	-	-
	A[S]	-	-	-	-	-	GW 94 966	-	-
63	AC	-	GW 94 717* GW 94 757	-	GW 94 758	-	GW 94 719* GW 94 759	-	GW 94 760
	A	-	GW 94 907* GW 94 937	-	GW 94 938	-	GW 94 909* GW 94 939	-	GW 94 940
	A[IR]	-	GW 95 686	-	-	-	GW 95 688	-	-
	A[S]	-	-	-	-	-	GW 94 976	-	-
80	AC	-	GW 94 727* GW 94 761	-	GW 94 771	-	GW 94 728* GW 94 766	-	-
	A	-	GW 94 947	-	GW 94 948	-	GW 94 949	-	-
	A[S]	-	-	-	-	-	GW 94 986	-	-
100	AC	-	GW 94 737* GW 94 777	-	GW 94 778	-	GW 94 739* GW 94 779	-	GW 94 780
	A	-	GW 94 957	-	GW 94 958	-	GW 94 959	-	GW 94 960
	A[IR]	-	GW 95 696	-	-	-	GW 95 698	-	-
	A[S]	-	-	-	-	-	GW 94 996	-	-

NOTES: The ReSTART RD PRO 4P devices are also compatible with the SD 2P, but not with the B-type ones. The reset device must be supplied with 230V AC phase-neutral.

\* RCCB SD with N-conductor left.
















### ReSTART 4 POLES - SELECTION TABLES

MODULAR COMPATIBILITY OF RESTART RM PRO 4P AND RM TOP 4P WITH MDC 3P AND 4P								
 <b>ReSTART RM TOP 4P</b> 4 mod. <b>GW 90 893</b>		<b>OR</b>	 <b>ReSTART RM PRO 4P</b> 3 mod. <b>GW 90 986</b>		 <b>ReSTART RM PRO 4P</b> 3 mod. <b>GW 90 988</b>			
			+		+			
			 <b>3 Poles</b> 3 mod.	 <b>4 Poles</b> 4 mod.	 <b>3 Poles</b> 3 mod.	 <b>4 Poles</b> 4 mod.		
Icn [A]	Curve	Type	In [A]	IΔn = 30 mA		IΔn = 300 mA		
MDC 45								
4500	C	AC	6	GW 94 045	GW 94 065	GW 94 055	GW 94 075	
			10	GW 94 046	GW 94 066	GW 94 056	GW 94 076	
			13	GW 94 051	GW 94 071	-	-	
			16	GW 94 047	GW 94 067	GW 94 057	GW 94 077	
			20	GW 94 048	GW 94 068	GW 94 058	GW 94 078	
			25	GW 94 049	GW 94 069	GW 94 059	GW 94 079	
		A	32	GW 94 050	GW 94 070	GW 94 060	GW 94 080	
			6	GW 94 245	GW 94 265	GW 94 255	GW 94 275	
			10	GW 94 246	GW 94 266	GW 94 256	GW 94 276	
			13	GW 94 251	GW 94 271	-	-	
			16	GW 94 247	GW 94 267	GW 94 257	GW 94 277	
			20	GW 94 248	GW 94 268	GW 94 258	GW 94 278	
			25	GW 94 249	GW 94 269	GW 94 259	GW 94 279	
			32	GW 94 250	GW 94 270	GW 94 260	GW 94 280	
MDC 60								
6000	C	AC	6	GW 94 145	GW 94 165	GW 94 155	GW 94 175	
			10	GW 94 146	GW 94 166	GW 94 156	GW 94 176	
			13	GW 94 151	GW 94 171	-	-	
			16	GW 94 147	GW 94 167	GW 94 157	GW 94 177	
			20	GW 94 148	GW 94 168	GW 94 158	GW 94 178	
			25	GW 94 149	GW 94 169	GW 94 159	GW 94 179	
		A	32	GW 94 150	GW 94 170	GW 94 160	GW 94 180	
			6	GW 94 345	GW 94 365	GW 94 355	GW 94 375	
			10	GW 94 346	GW 94 366	GW 94 356	GW 94 376	
			13	GW 94 351	GW 94 371	-	-	
			16	GW 94 347	GW 94 367	GW 94 357	GW 94 377	
			20	GW 94 348	GW 94 368	GW 94 358	GW 94 378	
			25	GW 94 349	GW 94 369	GW 94 359	GW 94 379	
			32	GW 94 350	GW 94 370	GW 94 360	GW 94 380	
		A[IR]	6	-	GW 95 815	-	-	
			10	-	GW 95 816	-	-	
			13	-	GW 95 821	-	-	
			16	-	GW 95 817	-	-	
			20	-	GW 95 818	-	-	
			25	-	GW 95 819	-	-	
		A[S]	32	-	GW 95 820	-	-	
			16	-	-	-	GW 95 857	
			20	-	-	-	GW 95 858	
			25	-	-	-	GW 95 859	
		B	A	6	GW 95 145	GW 95 165	GW 95 155	GW 95 175
				10	GW 95 146	GW 95 166	GW 95 156	GW 95 176
				13	GW 95 151	GW 95 171	-	-
				16	GW 95 147	GW 95 167	GW 95 157	GW 95 177
				20	GW 95 148	GW 95 168	GW 95 158	GW 95 178
				25	GW 95 149	GW 95 169	GW 95 159	GW 95 179
32	GW 95 150	GW 95 170	GW 95 160	GW 95 180				

NOTES: The reset devices with the MDC 3P can be used only with 3P loads (therefore without through neutral).  
 The reset devices are also compatible with the MDC 1P+N and 2P. The reset device must be supplied with 230V AC phase-neutral.



### ReSTART 4 POLES - SELECTION TABLES

		MODULAR COMPATIBILITY OF RESTART RM TOP 4P WITH MCB+ADD-ON RCD 3P AND 4P											
		 4 mod. <b>GW 90 893</b> +											
		MT - MINIATURE CIRCUIT BREAKERS (EN 60898)											
		 3 Poles 3 mod.		 4 Poles 4 mod.		 3 Poles 3 mod.		 4 Poles 4 mod.		 3 Poles 3 mod.		 4 Poles 4 mod.	
		6000				10000				25000			
		MT 60				MT 100				MT 250			
Curve	Icn [A]	In [A]		In [A]		In [A]		In [A]		In [A]		In [A]	
C	1	GW 92 061	GW 92 081	-	-	-	-	-	-	-	-	-	-
	2	GW 92 062	GW 92 082	-	-	-	-	-	-	-	-	-	-
	3	GW 92 063	GW 92 083	-	-	-	-	-	-	-	-	-	-
	4	GW 92 064	GW 92 084	-	-	-	-	-	-	-	-	-	-
	6	GW 92 065	GW 92 085	GW 92 665	GW 92 685	GW 92 865	GW 92 885	-	-	-	-	-	-
	10	GW 92 066	GW 92 086	GW 92 666	GW 92 686	GW 92 866	GW 92 886	-	-	-	-	-	-
	13	GW 92 074	GW 92 094	GW 92 674	GW 92 694	-	-	-	-	-	-	-	-
	16	GW 92 067	GW 92 087	GW 92 667	GW 92 687	GW 92 867	GW 92 887	-	-	-	-	-	-
	20	GW 92 068	GW 92 088	GW 92 668	GW 92 688	GW 92 868	GW 92 888	-	-	-	-	-	-
	25	GW 92 069	GW 92 089	GW 92 669	GW 92 689	GW 92 869	GW 92 889	-	-	-	-	-	-
	32	GW 92 070	GW 92 090	GW 92 670	GW 92 690	GW 92 870	GW 92 890	-	-	-	-	-	-
	40	GW 92 071	GW 92 091	GW 92 671	GW 92 691	GW 92 871	GW 92 891	-	-	-	-	-	-
	50	GW 92 072	GW 92 092	GW 92 672	GW 92 692	GW 92 872	GW 92 892	-	-	-	-	-	-
	63	GW 92 073	GW 92 093	GW 92 673	GW 92 693	GW 92 873	GW 92 893	-	-	-	-	-	-
B	6	GW 92 265	GW 92 285	GW 92 565	GW 92 585	-	-	-	-	-	-	-	-
	10	GW 92 266	GW 92 286	GW 92 566	GW 92 586	-	-	-	-	-	-	-	-
	13	GW 92 274	GW 92 294	GW 92 567	GW 92 587	-	-	-	-	-	-	-	-
	16	GW 92 267	GW 92 287	GW 92 568	GW 92 588	-	-	-	-	-	-	-	-
	20	GW 92 268	GW 92 288	GW 92 569	GW 92 589	-	-	-	-	-	-	-	-
	25	GW 92 269	GW 92 289	GW 92 570	GW 92 590	-	-	-	-	-	-	-	-
	32	GW 92 270	GW 92 290	GW 92 571	GW 92 591	-	-	-	-	-	-	-	-
	40	GW 92 271	GW 92 291	GW 92 572	GW 92 592	-	-	-	-	-	-	-	-
D	1	-	-	GW 92 761	GW 92 781	-	-	-	-	-	-	-	-
	2	-	-	GW 92 762	GW 92 782	-	-	-	-	-	-	-	-
	3	-	-	GW 92 763	GW 92 783	-	-	-	-	-	-	-	-
	4	-	-	GW 92 764	GW 92 784	-	-	-	-	-	-	-	-
	6	GW 92 465	GW 92 485	GW 92 765	GW 92 785	-	-	-	-	-	-	-	-
	10	GW 92 466	GW 92 486	GW 92 766	GW 92 786	-	-	-	-	-	-	-	-
	13	GW 92 474	GW 92 494	GW 92 774	GW 92 794	-	-	-	-	-	-	-	-
	16	GW 92 467	GW 92 487	GW 92 767	GW 92 787	-	-	-	-	-	-	-	-
	20	GW 92 468	GW 92 488	GW 92 768	GW 92 788	-	-	-	-	-	-	-	-
	25	GW 92 469	GW 92 489	GW 92 769	GW 92 789	-	-	-	-	-	-	-	-
	32	GW 92 470	GW 92 490	GW 92 770	GW 92 790	-	-	-	-	-	-	-	-
	40	GW 92 471	GW 92 491	GW 92 771	GW 92 791	-	-	-	-	-	-	-	-

		ADD-ON RESIDUAL CURRENT DEVICES (EN 61009-1 APP.G)											
		 3 Poles		 4 Poles		 3 Poles 3,5 mod.		 4 Poles		 3 Poles		 4 Poles	
Type	IΔn [mA]	In≤25 A	In≤63 A	In≤25 A	In≤63 A	In≤25 A	In≤63 A	In≤25 A	In≤63 A	In≤25 A	In≤63 A	In≤25 A	In≤63 A
AC	30	GW 94 442	GW 94 448	GW 94 422	GW 94 432	GW 94 442	GW 94 448	GW 94 422	GW 94 432	GW 94 442	GW 94 448	GW 94 422	GW 94 432
	300	GW 94 443	GW 94 449	GW 94 423	GW 94 433	GW 94 443	GW 94 449	GW 94 423	GW 94 433	GW 94 443	GW 94 449	GW 94 423	GW 94 433
	500	GW 94 444	GW 94 450	GW 94 424	GW 94 434	GW 94 444	GW 94 450	GW 94 424	GW 94 434	GW 94 444	GW 94 450	GW 94 424	GW 94 434
A	30	GW 94 542	GW 94 547	GW 94 522	GW 94 532	GW 94 542	GW 94 547	GW 94 522	GW 94 532	GW 94 542	GW 94 547	GW 94 522	GW 94 532
	300	GW 94 543	GW 94 548	GW 94 523	GW 94 533	GW 94 543	GW 94 548	GW 94 523	GW 94 533	GW 94 543	GW 94 548	GW 94 523	GW 94 533
	500	GW 94 544	GW 94 549	GW 94 524	GW 94 534	GW 94 544	GW 94 549	GW 94 524	GW 94 534	GW 94 544	GW 94 549	GW 94 524	GW 94 534
A[IR]	30	GW 94 595	GW 94 586	GW 94 586	GW 94 586	GW 94 595	GW 94 595	GW 94 586	GW 94 586	GW 94 595	GW 94 595	GW 94 586	GW 94 586
A[S]	300	GW 94 598	GW 94 583	GW 94 583	GW 94 583	GW 94 598	GW 94 598	GW 94 583	GW 94 583	GW 94 598	GW 94 598	GW 94 583	GW 94 583
	1000	GW 94 600	GW 94 585	GW 94 585	GW 94 585	GW 94 600	GW 94 600	GW 94 585	GW 94 585	GW 94 600	GW 94 600	GW 94 585	GW 94 585





NOTES: the ReSTART RM TOP 4P devices are also compatible with the MT and MT+BD (version 1P+N and 2P), and with the whole MTC range. The reset device must be supplied with 230V AC phase-neutral.

### ReSTART WITH AUTOTEST 2P - PRO 4P - TECHNICAL DATA

	RESTART WITH AUTOTEST 2P	RESTART WITH AUTOTEST PRO 4P
		
<b>Technical characteristics</b>		
Standards:	EN 61008-1 (RCCB), CEI 23-101 (self reclosing device)	
Distribution system:	TT - TN	
Rated current (I <sub>n</sub> ):	25 - 40 - 63	
Rated operational voltage (U <sub>e</sub> ):	230 AC phase-neutral (-15%, +10%)	400 AC (-15%, +10%)
Rated working resistance between active components and earth (R <sub>0</sub> ):	20	8 (30mA); 2.5 (300mA)
Rated not working resistance between active components and earth (R <sub>00</sub> ):	70	16 (30mA); 5 (300mA)
Rated insulation voltage (U <sub>i</sub> ):	500	
Dielectric strength test voltage between pole and earth:	2500 AC for 1 minute	
Rated impulse withstand voltage (U <sub>imp</sub> ):	4	
Rated frequency:	50	
Type:	A[IR]	
Rated residual operating current (I <sub>Δn</sub> ):	30	30, 300
Number of poles:	2	4
No. of modules:	5	7
Residual making and breaking capacity (I <sub>Δm</sub> ):	630	
<b>RESTART and AUTOTEST characteristics</b>		
Off-load absorbed power:	4 (cos φ = 0)	
Absorbed power during automatic reclosing:	49 (cos φ = 0.55)	
Dissipated power at I <sub>n</sub> :	2.2 (25A) - 5.4 (40A) - 6.2 (63A)	3.5 (25A) - 6 (40A) - 12 (63A)
Autotest cycle time:	< 7	
Closing control:	automatic	
Closing time:	< 10	
Closing of contacts:	instantaneous	
Co-ordination with fuses I <sub>Δc</sub> :	10000 (gL 80A fuse)	
<b>Mechanical characteristics</b>		
Maximum operational frequency:	30 (operations/h)	
Mechanical operations (number of resets):	4000	
Operating temperature:	From -25 to +60 <sup>(1)</sup>	
Terminal section:	≤35 flexible cable, ≤35 rigid cable	
Rated tightening torque:	2	
Power supply:	from above	
Degree of protection:	connecting terminals	IP20
	front	IP40
Tropicalisation:	55°C - RH 95%	
<b>Auxiliary contact characteristics</b>		
Type of contact:	1 Photomos	
Operating voltage/rated frequency:	5-230 AC/DC /50	
Maximum operating current:	100 cos φ = 1	
Minimum operating current:	0.6	
Category of use:	AC12	
Operating mode:	NO / NC / NC+impulse	
Terminal section:	≤ 2.5	
Rated tightening torque:	0.4	

<sup>(1)</sup> Average daily temperature ≤ +35°C

### ReSTART 2P - TECHNICAL DATA

	RD	RD PRO	RM	RM PRO	
					
<b>Electrical characteristics</b>					
<b>Standards:</b>	EN 61008-1 (RCCB), CEI 23-101 (self reclosing device)		EN 61009-1 (RCBO), CEI 23-101 (self reclosing device)		
<b>Distribution system:</b>	TT-TN				
<b>Rated operational voltage (Ue):</b>	(V)	230 AC phase-neutral			
<b>Width in DIN modules:</b>		2 + 2			
<b>Operating voltage:</b>	(V)	from 0.85 to 1.10 Ue			
<b>Rated insulation voltage (Ui):</b>	(V)	500			
<b>Dielectric strength test voltage between pole and earth:</b>	(V)	2500 AC for 1 minute			
<b>Rated frequency:</b>	(Hz)	50			
<b>Rated impulse withstand voltage (Uimp):</b>	(kV)	4			
<b>Rated working resistance between active components and earth (Ro):</b>	(kΩ)	20	8 (30mA); 2.5 (100/300/500mA)	20	8 (30mA); 2.5 (300mA)
<b>Rated not working resistance between active components and earth (RDo):</b>	(kΩ)	70	16 (30mA); 5 (100/300/500mA)	70	16 (30mA); 5 (300mA)
<b>Rated working resistance between active parts (Rcc):</b>	(Ω)	-	-	0.8	0.8
<b>Rated not working resistance between active parts (Rcco):</b>	(Ω)	-	-	1.3	1.3
<b>Off-load absorbed power:</b>	(VA)	0	17 (cos φ = 0)	0	17 (cos φ = 0)
<b>Absorbed power during automatic reclosing:</b>	(VA)	18 (cos φ = 0.46)			
<b>Dissipated power at In:</b>	(W)	Dispersible power of the associated circuit breaker			
<b>Mechanical characteristics</b>					
<b>Closing control:</b>		AUTOMATIC			
<b>Closing time:</b>	(s)	< 90			
<b>Contact reset:</b>		INSTANTANEOUS			
<b>Minimum interval between two consecutive automatic recloses:</b>	(min)	3			
<b>Coupling side:</b>		RIGHT			
<b>Mechanical operations (number of resets):</b>		1000			
<b>Maximum operational frequency:</b>	(operations/h)	15			
<b>Operating temperature:</b>	(°C)	from -5 to +40			
<b>Degree of protection:</b>	connecting terminals front	IP20 IP40			
<b>Tropicalisation:</b>		55°C - RH 95%			
<b>Auxiliary contact characteristics*</b>					
<b>Type of contact:</b>		-	1 Photomos	-	1 Photomos
<b>Operating voltage/rated frequency:</b>	(V/Hz)	-	5 - 230 AC/DC /50	-	5 - 230 AC/DC /50
<b>Maximum current:</b>	(mA)	-	100 cos φ = 1	-	100 cos φ = 1
<b>Minimum operating current:</b>	(mA)	-	0.6	-	0.6
<b>Operating mode:</b>		-	NO/NC/INTERMITTENT	-	NO/NC/INTERMITTENT
<b>Category of use:</b>		-	AC12	-	AC12
<b>Rated tightening torque:</b>	(Nm)	-	0.4	-	0.4
<b>Terminal section:</b>	mm <sup>2</sup>	-	≤ 2.5	-	≤ 2.5
<b>Functions table</b>					
<b>Automatic closing for untimely tripping:</b>		•	•	•	•
<b>Earth failure test:</b>		•	•	•	•
<b>Short-circuit check:</b>				•	•
<b>Continuous electrical circuit monitoring</b>			•		•
<b>Interruption of automatic reclosing operation in case of failure:</b>		•	•	•	•
<b>Light signalling of automatic reclosing in progress:</b>		•	•	•	•
<b>Light signalling of failure:</b>		•	•	•	•
<b>Automatic function connection/disconnection device:</b>		•	•	•	•
<b>Auxiliary contact for remote status access:</b>			•		•
<b>Electrical protection</b>		PTC	PTC	PTC	PTC

\* By connecting a relay equipped with change-over contacts (CO) to the auxiliary contact, signalling of both standby mode and reset completion is possible.

### ReSTART 4P - TECHNICAL DATA

	RD PRO	RM PRO	RM TOP	CM
<b>Electrical characteristics</b>				
<b>Standards:</b>	CEI 23-101 (self reclosing device)		-	-
<b>Distribution system:</b>	TT - TN		TT-TN-IT (IT without fault check)	TT-TN-IT
<b>Rated operational voltage (Ue):</b> (V)	230 AC phase-neutral (-15%, +10%)			
<b>Rated frequency:</b> (Hz)	50			
<b>Rated working resistance between active components and earth (Rb):</b> (kΩ)	8 (30mA); 2.5 (100/300/500mA)			-
<b>Rated not working resistance between active components and earth (Rbo):</b> (kΩ)	16 (30mA); 5 (100/300/500mA)			-
<b>Rated working resistance between active parts (Rcc):</b> (Ω)	-	0.3	0.3	-
<b>Rated not working resistance between active parts (Rcco):</b> (Ω)	-	1.8	1.8	-
<b>Off-load absorbed power:</b> (VA)	4 (cos φ = 0)	16 (cos φ = 0)	15 (cos φ = 0.06)	0 (cos φ = 0)
<b>Absorbed power during automatic resetting:</b> (VA)	45 (cos φ = 0.55)	34 (cos φ = 0.67)	30 (cos φ = 0.64)	30 (cos φ = 0.64)
<b>Dissipated power at In:</b> (W)	Dispersible power of the associated circuit breaker			
<b>Rated insulation voltage (Ui):</b>	500			
<b>Dielectric strength test voltage between pole and earth:</b> (V)	2500 AC for 1 minute			
<b>Rated impulse withstand voltage (Uimp):</b> (kV)	4			
<b>Mechanical characteristics</b>				
<b>No. of modules:</b>	3		4	2
<b>Mechanical operations (number of resets):</b>	4000		10000	10000
<b>Maximum operational frequency:</b> (operations/h)	30			
<b>Closing control:</b>	automatic		manual/automatic/ cyclical/maintained	manual/cyclical/maintained
<b>Closing time:</b> (s)	< 10		<3 (<10 with system test)	< 3
<b>Operating temperature:</b> (°C)	from -25 to +60 <sup>(1)</sup>	from -5 to +40 <sup>(2)</sup>	from -25 to +60 <sup>(1)</sup>	from -25 to +60 <sup>(1)</sup>
<b>Degree of protection:</b>	<b>connecting terminals</b>	IP20		
	<b>front</b>	IP40		
<b>Tropicalisation:</b>	55°C - RH 95%			
<b>Auxiliary contact characteristics</b>				
<b>Type of contact:</b>	1 Photomos		1 changeover	1 Photomos
				1 changeover
<b>Maximum current:</b> (A)	0.1 (AC/DC)		1.5 (AC) 0.8 (DC)	0.1 (AC/DC) 1.5 (AC) 0.8 (DC)
<b>Operating voltage:</b> (V)	5-230 AC/DC		230 AC 30 DC	5-230 AC/DC 230 AC 30 DC
<b>Operating mode:</b>	NO/ NC / intermittent		CO	NO/ NC / intermittent CO
<b>Category of use:</b>	AC12			
<b>Rated tightening torque:</b> (Nm)	0.4			
<b>Terminal section:</b> (mm <sup>2</sup> )	≤ 2.5			

<b>Function table</b>				
<b>Self closing for untimely tripping:</b>	•	•	•	
<b>Earth failure test:</b>	•	•	•	
<b>Possible insulation threshold:</b>			•	
<b>Short-circuit check:</b>		•	•	
<b>Continuous system check:</b>	•	•	•	
<b>Adjustable reset time:</b>			•	
<b>Possible reset mode:</b>			•	
<b>Interruption of automatic reclosing operation in case of failure:</b>	•	•	•	
<b>Light signalling of automatic reclosing in progress:</b>	•	•	•	•
<b>Light signalling of failure:</b>	•	•	•	
<b>Automatic function connection/disconnection device:</b>	•	•	•	•
<b>Auxiliary contact for remote status access:</b>	•	•	•	•
<b>Electrical protection:</b>	PTC	PTC	PTC	PTC

<sup>(1)</sup> Average daily temperature ≤ +35°C

<sup>(2)</sup> Devices with operating temperature range (from -25°C to +60°C) are available upon request

# 90 MCB RANGE

MODULAR DEVICES FOR CIRCUIT PROTECTION

## MCBs for Circuit Protection

With the compact MCBs **MTC** you can protect 2 poles for each module.

The MCBs **MT**, made by unique and innovative design solutions and with the using of high quality material, are characterized by high performance, robustness and reliability over time.

The high-performance MCBs **MTHP**, up to 125A and breaking capacity of 16kA (EN 60947-2), can be used as both a main switch and a circuit breaker protection in electrical boards with high short-circuit current.



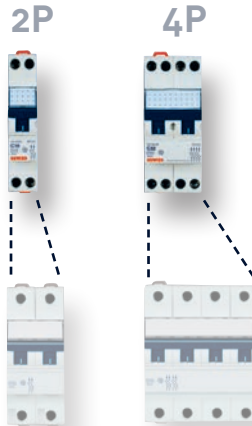
MTC

MT

MTHP

### MCB - MTC

Miniature circuit breakers



-50% of overall dimensions  
WORLDWIDE PATENT

COMPACT  
GEWISS

Market  
standard

# 90 RCD RANGE

MODULAR DEVICES FOR RESIDUAL CURRENT PROTECTION

## RCBOs, RCCBs, ADD-ON for Residual Current Protection

With the compact RCBOs **MDC** you can protect one pole for each module.

A range of modular devices for residual current protection at the forefront of performance. The RCCBs **SD** and add-on **BD** and **BDHP** for circuit breakers **MT** and **MTHP** offer quick assembly and unique innovation solutions.

Wide range of version:

- instantaneous: AC - A type
- impulse resistant: A - B type
- selective: A - B type
- adjustable in threshold and delay: A type



MDC

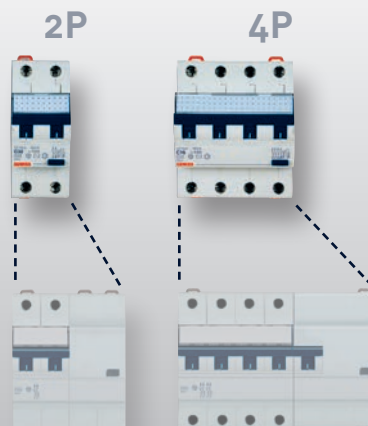
BD AND BDHP

SD

SD B TYPE

### RCBO - MDC

Residual current circuit breakers with overcurrent protection














-50% of overall dimensions  
WORLDWIDE PATENT

COMPACT  
GEWISS

Market  
standard

## MCB - SELECTION TABLE











			MINIATURE CIRCUIT BREAKERS (EN 60898)											
			MTC						MT					
Icn [A]	Curve	In [A]												
			1 mod.	1 mod.	1 mod.	1 mod.	2 mod.	2 mod.	1 mod.	2 mod.	2 mod.	3 mod.	4 mod.	
			MTC45						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			
			MTC60						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	
	B	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	
		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 breaker with neutral on the left.

# 90 MCB RANGE

MODULAR DEVICES FOR CIRCUIT PROTECTION

## MCB - SELECTION TABLE

			MINIATURE CIRCUIT BREAKERS (EN 60898)										
			MTC		MT				MTHP				
													
Icn [A]	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.	
			MTC100		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				
	10000 (16kA 947-2)	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
			100							GW 93 357	GW 93 377	GW 93 387	GW 93 397
									GW 93 358	GW 93 378	GW 93 388	GW 93 398	
	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			








## RCBO - SELECTION TABLE

				COMPACT RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION (EN 61009-1)								
				IΔn = 30mA				IΔn = 300mA				
Icn [A]	Curve	Type	In [A]	2 mod.	2 mod.	3 mod.	4 mod.	2 mod.	2 mod.	3 mod.	4 mod.	
<b>MDC 45</b>												
4500	C	AC	6	GW 94 005	GW 94 025	GW 94 045	GW 94 065	GW 94 015	GW 94 035	GW 94 055	GW 94 075	
			10	GW 94 006	GW 94 026	GW 94 046	GW 94 066	GW 94 016	GW 94 036	GW 94 056	GW 94 076	
			13	GW 94 011	GW 94 031	GW 94 051	GW 94 071					
			16	GW 94 007	GW 94 027	GW 94 047	GW 94 067	GW 94 017	GW 94 037	GW 94 057	GW 94 077	
			20	GW 94 008	GW 94 028	GW 94 048	GW 94 068	GW 94 018	GW 94 038	GW 94 058	GW 94 078	
			25	GW 94 009	GW 94 029	GW 94 049	GW 94 069	GW 94 019	GW 94 039	GW 94 059	GW 94 079	
		A	32	GW 94 010	GW 94 030	GW 94 050	GW 94 070	GW 94 020	GW 94 040	GW 94 060	GW 94 080	
			6	GW 94 205	GW 94 225	GW 94 245	GW 94 265	GW 94 215	GW 94 235	GW 94 255	GW 94 275	
			10	GW 94 206	GW 94 226	GW 94 246	GW 94 266	GW 94 216	GW 94 236	GW 94 256	GW 94 276	
			13	GW 94 211	GW 94 231	GW 94 251	GW 94 271					
			16	GW 94 207	GW 94 227	GW 94 247	GW 94 267	GW 94 217	GW 94 237	GW 94 257	GW 94 277	
			20	GW 94 208	GW 94 228	GW 94 248	GW 94 268	GW 94 218	GW 94 238	GW 94 258	GW 94 278	
			25	GW 94 209	GW 94 229	GW 94 249	GW 94 269	GW 94 219	GW 94 239	GW 94 259	GW 94 279	
			32	GW 94 210	GW 94 230	GW 94 250	GW 94 270	GW 94 220	GW 94 240	GW 94 260	GW 94 280	
<b>MDC 60</b>												
6000	C	AC	6	GW 94 105	GW 94 125	GW 94 145	GW 94 165	GW 94 115	GW 94 135	GW 94 155	GW 94 175	
			10	GW 94 106	GW 94 126	GW 94 146	GW 94 166	GW 94 116	GW 94 136	GW 94 156	GW 94 176	
			13	GW 94 111	GW 94 131	GW 94 151	GW 94 171					
			16	GW 94 107	GW 94 127	GW 94 147	GW 94 167	GW 94 117	GW 94 137	GW 94 157	GW 94 177	
			20	GW 94 108	GW 94 128	GW 94 148	GW 94 168	GW 94 118	GW 94 138	GW 94 158	GW 94 178	
			25	GW 94 109	GW 94 129	GW 94 149	GW 94 169	GW 94 119	GW 94 139	GW 94 159	GW 94 179	
		A	32	GW 94 110	GW 94 130	GW 94 150	GW 94 170	GW 94 120	GW 94 140	GW 94 160	GW 94 180	
			6	GW 94 305	GW 94 325	GW 94 345	GW 94 365	GW 94 315	GW 94 335	GW 94 355	GW 94 375	
			10	GW 94 306	GW 94 326	GW 94 346	GW 94 366	GW 94 316	GW 94 336	GW 94 356	GW 94 376	
			13	GW 94 311	GW 94 331	GW 94 351	GW 94 371					
			16	GW 94 307	GW 94 327	GW 94 347	GW 94 367	GW 94 317	GW 94 337	GW 94 357	GW 94 377	
			20	GW 94 308	GW 94 328	GW 94 348	GW 94 368	GW 94 318	GW 94 338	GW 94 358	GW 94 378	
		A[IR]	25	GW 94 309	GW 94 329	GW 94 349	GW 94 369	GW 94 319	GW 94 339	GW 94 359	GW 94 379	
			32	GW 94 310	GW 94 330	GW 94 350	GW 94 370	GW 94 320	GW 94 340	GW 94 360	GW 94 380	
			6		GW 95 805		GW 95 815					
			10		GW 95 806		GW 95 816					
			13		GW 95 811		GW 95 821					
			16		GW 95 807		GW 95 817					
		A[S]	20		GW 95 808		GW 95 818					
			25		GW 95 809		GW 95 819					
			32		GW 95 810		GW 95 820					
			16						GW 95 847		GW 95 857	
		B	A	20						GW 95 848		GW 95 858
				25						GW 95 849		GW 95 859
				32						GW 95 850		GW 95 860
				6	GW 95 105	GW 95 125	GW 95 145	GW 95 165	GW 95 115	GW 95 135	GW 95 155	GW 95 175
				10	GW 95 106	GW 95 126	GW 95 146	GW 95 166	GW 95 116	GW 95 136	GW 95 156	GW 95 176
				13	GW 95 111	GW 95 131	GW 95 151	GW 95 171				
				16	GW 95 107	GW 95 127	GW 95 147	GW 95 167	GW 95 117	GW 95 137	GW 95 157	GW 95 177
				20	GW 95 108	GW 95 128	GW 95 148	GW 95 168	GW 95 118	GW 95 138	GW 95 158	GW 95 178
25	GW 95 109			GW 95 129	GW 95 149	GW 95 169	GW 95 119	GW 95 139	GW 95 159	GW 95 179		
32	GW 95 110			GW 95 130	GW 95 150	GW 95 170	GW 95 120	GW 95 140	GW 95 160	GW 95 180		







# 90 RCD RANGE

MODULAR DEVICES FOR RESIDUAL CURRENT PROTECTION




## RCBO - SELECTION TABLE

				COMPACT RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION (EN 61009-1)					
				I <sub>Δn</sub> = 30mA		I <sub>Δn</sub> = 100mA		I <sub>Δn</sub> = 300mA	
									
I <sub>cn</sub> [A]	Curve	Type	In [A]	2 mod.	2 mod.	2 mod.	2 mod.	2 mod.	
				MDC 100					
10000	C	AC	6	GW 95 005	GW 95 025		GW 95 015	GW 95 035	
			10	GW 95 006	GW 95 026		GW 95 016	GW 95 036	
			13	GW 95 011	GW 95 031				
			16	GW 95 007	GW 95 027		GW 95 017	GW 95 037	
			20	GW 95 008	GW 95 028		GW 95 018	GW 95 038	
			25	GW 95 009	GW 95 029		GW 95 019	GW 95 039	
			32	GW 95 010	GW 95 030		GW 95 020	GW 95 040	
			6	GW 95 205	GW 95 225	GW 95 785	GW 95 215	GW 95 235	
		10	GW 95 206	GW 95 226	GW 95 786	GW 95 216	GW 95 236		
		13	GW 95 211	GW 95 231	GW 95 791				
		16	GW 95 207	GW 95 227	GW 95 787	GW 95 217	GW 95 237		
		20	GW 95 208	GW 95 228	GW 95 788	GW 95 218	GW 95 238		
		25	GW 95 209	GW 95 229	GW 95 789	GW 95 219	GW 95 239		
		32	GW 95 210	GW 95 230	GW 95 790	GW 95 220	GW 95 240		
		6		GW 95 825					
		10		GW 95 826					
	13		GW 95 831						
	16		GW 95 827						
	20		GW 95 828						
	25		GW 95 829						
	32		GW 95 830						
	6		GW 95 325	GW 95 795		GW 95 335			
	10		GW 95 326	GW 95 796		GW 95 336			
	13		GW 95 331	GW 95 801					
	16		GW 95 327	GW 95 797		GW 95 337			
	20		GW 95 328	GW 95 798		GW 95 338			
	25		GW 95 329	GW 95 799		GW 95 339			
	32		GW 95 330	GW 95 800		GW 95 340			
	6		GW 95 835						
	10		GW 95 836						
	13		GW 95 841						
	16		GW 95 837						
20		GW 95 838							
25		GW 95 839							
32		GW 95 840							
B	A	6		GW 95 325	GW 95 795		GW 95 335		
		10		GW 95 326	GW 95 796		GW 95 336		
		13		GW 95 331	GW 95 801				
		16		GW 95 327	GW 95 797		GW 95 337		
		20		GW 95 328	GW 95 798		GW 95 338		
		25		GW 95 329	GW 95 799		GW 95 339		
		32		GW 95 330	GW 95 800		GW 95 340		
		6		GW 95 835					
	10		GW 95 836						
	13		GW 95 841						
	16		GW 95 837						
	20		GW 95 838						
	25		GW 95 839						
	32		GW 95 840						
	A[IR]	6		GW 95 825					
		10		GW 95 826					
13			GW 95 831						
16			GW 95 827						
20			GW 95 828						
25			GW 95 829						
32			GW 95 830						

## ADD-ON - SELECTION TABLE

		ADD-ON RESIDUAL CURRENT DEVICES (EN 61009-1 APP. G)								
		BD - Add-on RCD for MCB MT				BDHP - Add-on RCD for MCB MTHP				
										
Type	I <sub>Δn</sub> [mA]	2 mod.		3,5 mod.		3,5 mod.		4 mod.	6 mod.	6 mod.
		In≤25 A	In≤63 A	In≤25 A	In≤63 A	In≤25 A	In≤63 A	In≤125 A	In≤125 A	In≤125 A
AC	10	GW 94 401				GW 94 422	GW 94 432	GW 95 406	GW 95 416	GW 95 426
	30	GW 94 402	GW 94 412	GW 94 442	GW 94 448	GW 94 422	GW 94 432	GW 95 406	GW 95 416	GW 95 426
	100							GW 95 407	GW 95 417	GW 95 427
	300	GW 94 403	GW 94 413	GW 94 443	GW 94 449	GW 94 423	GW 94 433	GW 95 408	GW 95 418	GW 95 428
	500	GW 94 404	GW 94 414	GW 94 444	GW 94 450	GW 94 424	GW 94 434			
A	30	GW 94 502	GW 94 512	GW 94 542	GW 94 547	GW 94 522	GW 94 532	GW 95 436	GW 95 446	GW 95 456
	100							GW 95 437	GW 95 447	GW 95 457
	300	GW 94 503	GW 94 513	GW 94 543	GW 94 548	GW 94 523	GW 94 533	GW 95 438	GW 95 448	GW 95 458
	500	GW 94 504	GW 94 514	GW 94 544	GW 94 549	GW 94 524	GW 94 534			
A[IR]	30	GW 94 566		GW 94 595		GW 94 586				
A[S]	300	GW 94 563		GW 94 598		GW 94 583		GW 95 468	GW 95 478	GW 95 488
	1000	GW 94 565		GW 94 600		GW 94 585		GW 95 470	GW 95 480	GW 95 490
A reg.	300-3000									GW 95 512

### RCCB - SELECTION TABLE

			RESIDUAL CURRENT CIRCUIT BREAKERS (EN 61008-1)			
			SD			
			2P	4P		
						
In [A]	Type	IΔn [mA]	2 mod.	3 mod.	4 mod.	4 mod.**
25	AC	10	GW 94 616			
		30	GW 94 617	GW 94 662		GW 94 637
		100	GW 94 618			GW 94 698
		300	GW 94 619	GW 94 664	GW 94 699	GW 94 639
	A	10	GW 94 816	GW 94 866		
		30	GW 94 817	GW 94 867		GW 94 552
		100	GW 94 818		GW 94 878	
		300	GW 94 819	GW 94 869	GW 94 879	GW 94 554
	A[IR]	30	GW 95 651		GW 95 676	
		300			GW 95 678	
	B[IR]	30	GW 95 701*		GW 95 716	
		300			GW 95 718	
40	AC	30	GW 94 627	GW 94 667	GW 94 707	GW 94 647
		100	GW 94 628	GW 94 668	GW 94 708	
		300	GW 94 629	GW 94 669	GW 94 709	GW 94 649
		500	GW 94 630	GW 94 670	GW 94 710	
	A	30	GW 94 827	GW 94 897	GW 94 927	GW 94 557
		100	GW 94 828	GW 94 898	GW 94 928	
		300	GW 94 829	GW 94 899	GW 94 929	GW 94 559
		500	GW 94 830	GW 94 900	GW 94 930	
	A[IR]	30	GW 95 656		GW 95 681	
		300			GW 95 683	
	A[S]	300	GW 94 924		GW 94 966	
		300			GW 94 966	
B[IR]	30	GW 95 706*		GW 95 721		
	300			GW 95 723		
63	AC	30	GW 94 790		GW 94 757	GW 94 717
		100	GW 94 791		GW 94 758	
		300	GW 94 792		GW 94 759	GW 94 719
		500	GW 94 789		GW 94 760	
	A	30	GW 94 837		GW 94 937	GW 94 907
		100	GW 94 838		GW 94 938	
		300	GW 94 839		GW 94 939	GW 94 909
		500	GW 94 840		GW 94 940	
	A[IR]	30	GW 95 661		GW 95 686	
		300			GW 95 688	
	A[S]	300	GW 94 934		GW 94 976	
		300			GW 94 976	
B[IR]	30			GW 95 726		
	300			GW 95 728		
B[S]	500			GW 95 729		
	300			GW 95 737	GW 94 727	
80	AC	30	GW 94 793		GW 94 761	
		100	GW 94 794		GW 94 771	GW 94 728
		300	GW 94 795		GW 94 766	
		500			GW 94 780	
	A	30	GW 94 847		GW 94 947	
		100	GW 94 848		GW 94 948	
		300	GW 94 849		GW 94 949	
		500	GW 94 844		GW 94 986	
	A[S]	300			GW 94 986	
		300			GW 94 986	
	B[IR]	30			GW 95 731	
		300			GW 95 733	
B[S]	300			GW 95 743	GW 94 737	
	300			GW 95 743	GW 94 737	
100	AC	30	GW 94 656		GW 94 777	
		100	GW 94 657		GW 94 778	GW 94 739
		300	GW 94 658		GW 94 779	
		500			GW 94 780	
	A	30	GW 94 856		GW 94 957	
		100			GW 94 958	
		300	GW 94 858		GW 94 959	
		500			GW 94 960	
	A[IR]	30	GW 95 671		GW 95 696	
		300			GW 95 698	
	A[S]	300	GW 94 954		GW 94 996	
		300			GW 94 996	
125	AC	30			GW 95 601	
		300			GW 95 603	
		500			GW 95 604	
	A	30			GW 95 606	
		300			GW 95 608	
		500			GW 95 609	

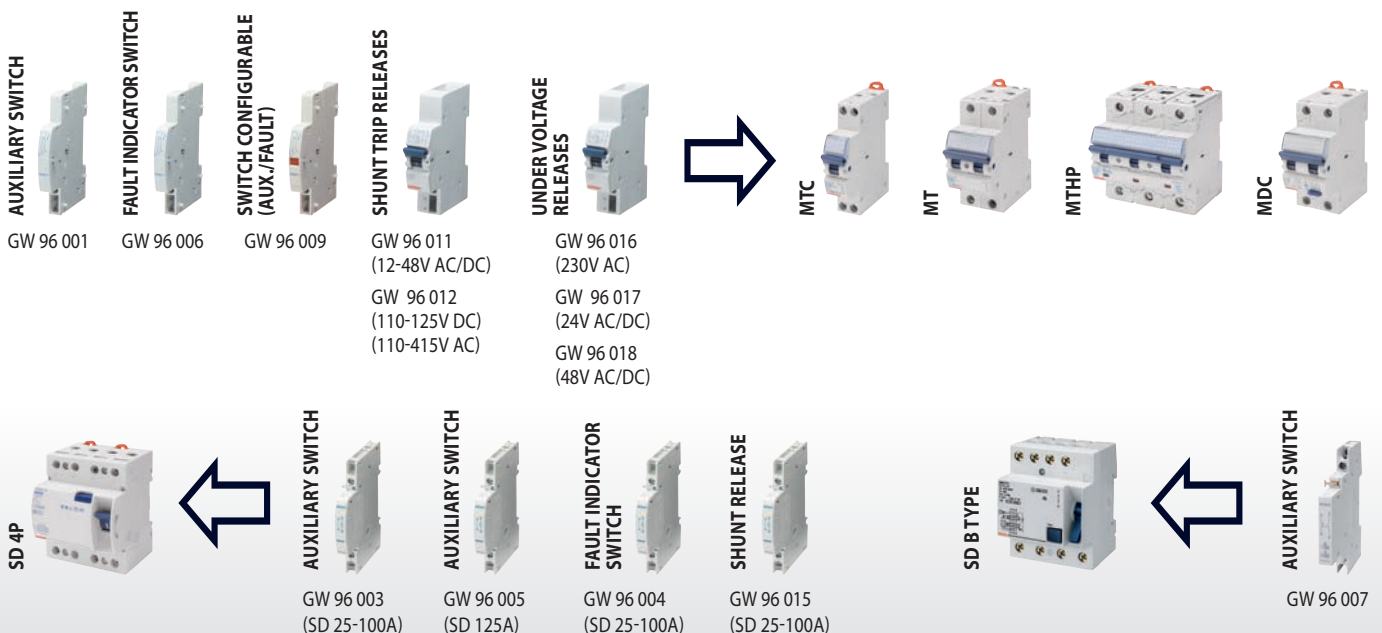
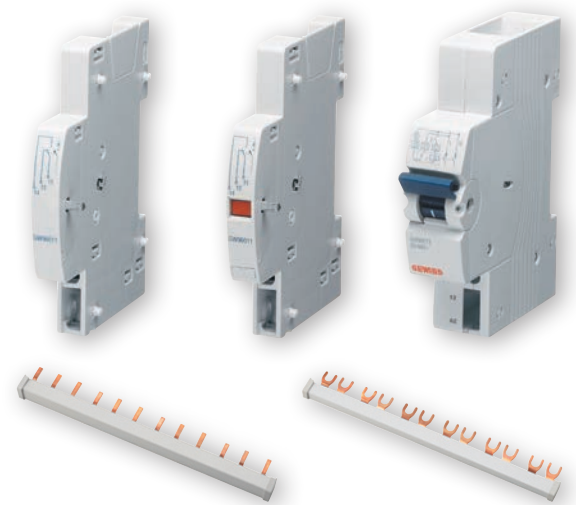
\* 4 modules

\*\* With neutral on the left

### Electrical Auxiliaries and Busbars

The **auxiliary contacts** and the **shunt trip releases**, which are common to all miniature circuit breakers and residual current circuit breakers with overcurrent protection, allow simplicity, interchangeability, multiple uses and rationalisation of the items. The range is completed by modular auxiliaries dedicated to the residual current circuit breakers range.

The **busbars** allow to reduce the time of wiring and labour, without having to use cables and crimps. The busbars are available in pin and fork versions, from 12 modules and up to one meter long.



		PIN BUSBARS		FORK BUSBARS		ISOLATED TERMINAL FOR PIN BUSBARS	BUSBAR END CAPS	PROTECTION CAPS
		12 mod.	1 meter	12 mod.	1 meter			5 pieces
For MT-MDC	1P	GW 96 984	GW 96 988	GW 96 992	GW 96 996	GW 96 961	GW 96 963	GW 96 967
	2P	GW 96 985	GW 96 989	GW 96 993	GW 96 997		GW 96 964	
	3P	GW 96 986	GW 96 990	GW 96 994	GW 96 998		GW 96 965	
	4P	GW 96 987	GW 96 991	GW 96 995	GW 96 999		GW 96 966	
		13 mod.	1 meter					5 pieces
For MTC	1P (color grey)	GW 96 500	-	-	-	GW 96 503	-	GW 96 967
	1P (color blue)	GW 96 501	-	-	-		-	
	1P (color white)	-	GW 96 988	-	-		-	
		12 mod.	12 mod.					5 pieces
For SD 2P	Up to 10 MTC 1P+N / 2P	GW 96 504		-	-	-	-	GW 96 967
For SD 4P 3 mod.	Up to 9 MT 1P / 3 MT 3P	-		GW 96 969		-	-	GW 96 967

### Protection

This range of accessories guarantees excellent protection of loads and power distribution systems. The range includes:

- new LST surge protective devices
- disconnectable fuse holders  
(new versions up to 100A and compact version)
- earth leakage relay with separate toroid
- motor protection switches



COMPACT FUSE HOLDER



SPD LST

#### LST - SURGE PROTECTIVE DEVICES



	TYPE 1+2		TYPE 2			
	1P+N	3P+N	1P		1P+N	3P+N
	230V	400V	230V	400V	230V	400V
<b>I<sub>max</sub> (kA)</b>	4 mod.	8 mod.	1 mod.			
<b>20</b>	-	-	-	-	GW D6 407	GW D6 409
<b>40</b>	-	-	GW D6 411	GW D6 413	GW D6 417	GW D6 419
<b>100 (I<sub>imp</sub>=25kA)</b>	GW D6 404*	GW D6 405*	GW D6 412*		GW D6 418*	GW D6 420*

\* With auxiliary contact

#### MOTOR PROTECTION SWITCHES



I <sub>n</sub> (A)	3 mod.
0.1 - 0.16	GW 96 751
0.16 - 0.25	GW 96 752
0.25 - 0.4	GW 96 753
0.4 - 0.63	GW 96 754
0.63 - 1	GW 96 755
1 - 1.6	GW 96 756
1.6 - 2.5	GW 96 757
2.5 - 4	GW 96 758
4 - 6.3	GW 96 759
6.3 - 10	GW 96 760
10 - 16	GW 96 761
16 - 25	GW 96 762
25 - 40	GW 96 763

#### AC DISCONNECTABLE FUSE-HOLDERS



I <sub>n</sub> (A)	Fuse dim. (mm)	1P	1P+N	2P	3P	3P+N
20	8,3x31,5	GW 96 206	GW 96 216	GW 96 301	GW 96 306	GW 96 311
		1 mod.	2 mod.	2 mod.	3 mod.	4 mod.
32	10,3x38	GW 96 205	GW 96 215	GW 96 302	GW 96 307	GW 96 312
		1 mod.	2 mod.	2 mod.	3 mod.	4 mod.
		-	GW 96 220	-	-	-
50	14x51	GW 96 207	GW 96 217	GW 96 303	GW 96 308	GW 96 313
		1,5 mod.	3 mod.	3 mod.	4,5 mod.	6 mod.
100	22x58	-	GW 96 218	-	-	GW 96 314
		-	4 mod.	-	-	8 mod.

#### EARTH LEAKAGE RELAY



GW 96 331	3 mod.
+	

#### CURRENT TRANSFORMERS



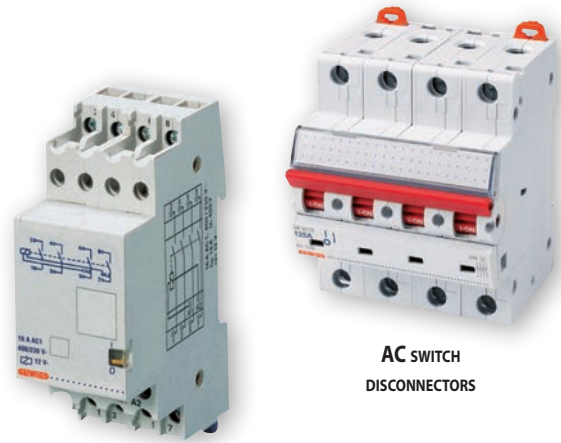
Diameter (mm)	I <sub>n</sub> max (A)	Code
35*	125	GW 96 332
80*	400	GW 96 333
110*	630	GW 96 334
110**	630	GW 96 336
210*	1600	GW 96 335
210**	1600	GW 96 337

\* Solid-core current transformer  
\*\* Split-core current transformer

### Control

The control accessories allow the loads connection and disconnection, and electrical system isolating. The range is made up of:

- **switch disconnectors**
- **impulse switches**
- **control relay**
- **contactors**
- **momentary relays**



IMPULSE SWITCHES

AC SWITCH  
DISCONNECTORS

AC SWITCH DISCONNECTORS				
	1P	2P	3P	4P
In (A)	1 mod.	2 mod.	3 mod.	4 mod.
32	GW 96 104	GW 96 114	GW 96 124	GW 96 134
40	GW 96 105	GW 96 115	GW 96 125	GW 96 135
63	GW 96 146	GW 96 156	GW 96 166	GW 96 176
80	GW 96 147	GW 96 157	GW 96 167	GW 96 177
100	GW 96 148	GW 96 158	GW 96 168	GW 96 178
125	GW 96 149	GW 96 159	GW 96 169	GW 96 179

MOMENTARY RELAYS						
	In (A)	16				
	Coil voltage (V)	8 AC	12 AC	24 AC	230 AC	
TYPE OF CONTACTS	1NO	1 mod.	GW 96 604	GW 96 601	GW 96 602	GW 96 603
	2NO	1 mod.	-	-	-	GW 96 615
	4NO	2 mod.	-	GW 96 616	GW 96 617	GW 96 618
	1NO+1NC	1 mod.	-	GW 96 606	GW 96 607	GW 96 608
	1CO	1 mod.	GW 96 921	GW 96 922	GW 96 923	GW 96 924
				GW 96 925*	GW 96 926*	
	2CO	1 mod.	GW 96 614	GW 96 611	GW 96 612 GW 96 932*	GW 96 913

\* DC Voltage

CONTROL RELAY			
Current monitoring	Phase monitoring	Undervoltage monitoring 1-Phase AC/DC	Undervoltage monitoring 3-Phase AC
GW 96 906	GW 96 907	GW 96 908	GW 96 909

CONTACTORS								
	In (A)	20		24		32	40	63
	Coil voltage (V)	24 AC	230 AC	24 AC-DC	230 AC-DC	230 AC	230 AC-DC	230 AC-DC
TYPE OF CONTACTS	1NO	-	GW 96 701 1 mod.	-	-	-	-	-
		GW 96 702 1 mod.	GW 96 704 1 mod.	-	-	GW 96 792 1 mod.	GW 96 721 3 mod.	GW 96 731 3 mod.
	3NO	-	GW 96 706 2 mod.	-	GW 96 715 2 mod.	-	GW 96 722 3 mod.	GW 96 732 3 mod.
		3NO+1NC	-	-	-	GW 96 716 2 mod.	-	-
	4NO	-	GW 96 708 2 mod.	GW 96 711 2 mod.	GW 96 712 2 mod.	GW 96 796 2 mod.	GW 96 723 3 mod.	GW 96 733 3 mod.
		2NC	-	GW 96 705 1 mod.	-	-	-	-
	4NC	-	-	-	-	GW 96 713 2 mod.	-	-
		1NO+1NC	-	GW 96 703 1 mod.	-	-	-	-

IMPULSE SWITCHES						
	In (A)	16				
	Coil voltage (V)	8 AC	12 AC	24 AC	230 AC	
TYPE OF CONTACTS	1NO	1 mod.	GW 96 624	GW 96 621	GW 96 622	GW 96 623
					GW 96 652**	GW 96 653**
	2NO	1 mod.	-	GW 96 636	GW 96 637	GW 96 638
					GW 96 662**	-
	3NO	2 mod.	-	-	GW 96 664***	GW 96 663**
					GW 96 667**	GW 96 668**
	4NO	2 mod.	-	GW 96 641	GW 96 642	GW 96 643
					GW 96 669***	-
	1NO+1NC	1 mod.	-	GW 96 631	GW 96 632	GW 96 633
	1CO	1 mod.	GW 96 625	GW 96 626	GW 96 627	GW 96 628
GW 96 630*						
GW 96 657**						
2CO	1 mod.	-	-	GW 96 659***	GW 96 658**	
				GW 96 673		
				GW 96 676*	GW 96 674	

\* DC Voltage

\*\* With central control

\*\*\* DC Voltage with central control

### Programming

Thanks to their versatility, the programming accessories allow electric loads to be controlled and managed in the widest possible variety of system configurations, offering flexible use that is even more simple and intuitive for the most wide-spread installation situations.



DIGITAL TIME SWITCHES

PHOTOELECTRIC CELLS

TIME SWITCHES							
Analogue				Digital (daily and weekly)			
GW 96 830	1 NO (daily)	No reserve charge	1 mod.	GW 96 844	1 CO	2 mod.	
GW 96 831	1 CO (daily)	150h reserve charge	3 mod.	GW 96 845	2 CO	2 mod.	
GW 96 832	1 CO (weekly)	150h reserve charge	3 mod.	GW 96 846	1 CO	1 mod.	
GW 96 836	1 NO (daily)	50h reserve charge	1 mod.				

ASTRONOMICAL SWITCH		PHOTOELECTRIC CELLS		
Outdoor probe not necessary		Outdoor probe included		
GW 96 821		GW 96 891	1 CO	3 mod.
		GW 96 892	1 NO	1 mod.

TIMERS	
Multifunction timer	Asymmetrical timer
GW 96 814	GW 96 815

STAIRCASE LIGHT TIMING SWITCHES	
With switch-off warning	Without switch-off warning
GW 96 813	GW 96 810

### Measurement

The range of analogue and digital measurement instruments, monitoring the main parameters of the electrical system, makes it possible to receive immediate information about the electrical values such as voltage, current, energy, etc.



MULTI-FUNCTION METER

MAINS ANALYSER

VOLTMETERS				
Analogue		Digital		
GW 96 861	0-300V	3 mod.	GW 96 867	2 mod.
GW 96 862	0-500V			

AMMETERS				
Analogue		Digital		
GW 96 871	Direct (max 10A)	3 mod.	GW 96 879	2 mod.
GW 96 872	Direct (max 20A)			
GW 96 873	Direct (max 30A)			
GW 96 878	CT / 5A			

ENERGY METERS				
Three-phase		Single-phase		
GW 96 887	Direct (max 30A)	6 mod.	GW 96 889	1 mod.
GW 96 888	CT / 5A		GW 96 890	2 mod.

MEASUREMENT DIGITAL DEVICES			
Mains analyser		Multi-function meter	
GW 96 899	4 mod.	GW 96 897	2 mod.



### Signalling

The signalling accessories allow the luminous (with LED technology) and acoustic signalling of alarms, voltage presence, circuit control with an indicator lamp, low voltage circuit power supply.



INDICATOR LAMPS AND PUSH BUTTONS



BELLS - BUZZERS

INDICATOR LAMPS			
		Un (V)	
		12-24-48 AC/DC	230 AC
<b>Led color</b>			
<b>Red</b>	GW 96 586		GW 96 581
<b>Green</b>	GW 96 587		GW 96 582
<b>Yellow</b>	GW 96 588		GW 96 583
<b>Blue</b>	GW 96 589		GW 96 584
<b>White</b>	GW 96 590		GW 96 585
<b>Green and Red</b>	-		GW 96 591
<b>Triple red</b>	-		GW 96 592

PUSH BUTTONS WITH LED			
		Un (V)	
		12-24-48 AC/DC	230 AC
<b>Type of contact</b>		<b>Led color</b>	
<b>1 NO</b>		<b>Green</b>	GW 96 570
<b>1 NC</b>		<b>Red</b>	GW 96 571
<b>1 NO + 1 NC</b>		<b>Green</b>	-
<b>1 NO + 1 NC</b>		<b>Red</b>	-

BELLS - BUZZERS			
		Un (V)	
		12	230
<b>Bells</b>	1 mod.	GW 96 401	-
		-	GW 96 402
	2 mod.	-	GW 96 403
<b>Buzzers</b>	1 mod.	GW 96 406	-
		-	GW 96 407
	2 mod.	-	GW 96 408
<b>Bell + Buzzer + Transformer</b>	2 mod.	-	GW 96 411

BELL TRANSFORMERS			
A (VA)	Secondary voltage (V)		N° of modules
	12	24	
5	GW 96 421	GW 96 422	2 mod.
10	GW 96 423	GW 96 424	
15	GW 96 425	GW 96 426	
30	GW 96 431	GW 96 432	3 mod.
40	GW 96 433	GW 96 434	

SAFETY TRANSFORMERS		
A (VA)	Secondary voltage (V)	
	24	
15	GW 96 321	
25	GW 96 322	
40	GW 96 323	
63	GW 96 324	

## Products for Photovoltaic Systems

The 90 PV range includes 6 string boards versions which are able to comply various installation requirements in the photovoltaic system, from residential to the commercial/industrial. Every string board version has different number of strings or string voltage level.

In addition to string boards, the range also offers modular products specific for the DC side of photovoltaic system such as:

- **switch disconnectors**
- **surge protective devices**
- **fuse-holders and fuses**



STRING BOARDS



DC SWITCH DISCONNECTORS



DC SPD LST



DC FUSE-HOLDERS



### Ready to be connected

The string boards are already complete with cable glands and terminal blocks enabling quick easy safe connection to the system. The cable glands are supplied as spare parts, so the connection cable can be made according to individual needs (from the top, bottom or sides). They are supplied with insulated and earth terminals.



### Already tested and certified

The string boards have been tested in the Gewiss laboratories, passing all the tests envisaged by standards EN 61439-1 and EN 61439-2 for product certification.

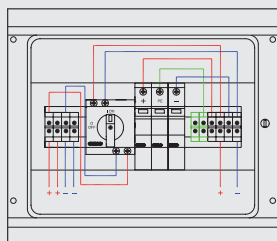


### Range designed for different applications

The 90 PV range contains 6 versions to meet the most varying photovoltaic plant engineering requirements, from residential applications to commercial/industrial. The different versions are distinguished by the number of strings that can be managed and by the voltage level of the photovoltaic plants.

## STRING BOARDS - TECHNICAL DATA

### 2 STRINGS - 600V DC - 25A GW D9901



Pre-wired board for connecting 1 or 2 strings of photovoltaic panels to the inverter. It includes:

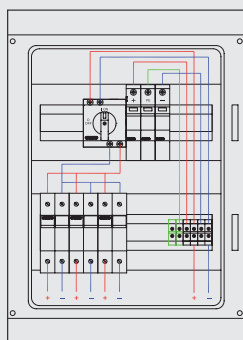
- watertight enclosure
- 1 rotary switch disconnecter 2-pole
- 1 surge protective device with extractable cartridges

#### TECHNICAL DATA

Standards:	EN 61439-1 and EN 61439-2
No. of modules of 40CDK enclosure:	1x12
Degree of protection:	IP65
Insulation class:	Class II
Rated voltage of the switch disconnecter (Ue):	600V DC
Rated current of the switch disconnecter (In):	25A
Rated operational voltage of the SPD (Un):	600V DC
Connection cable section:	6mm <sup>2</sup>

STRING BOARD EQUIPMENT: cable glands (supplied loose) and equipotential terminal blocks.  
NB: DC fuses not supplied.

### 3 STRINGS - 600V DC - 25A GW D9902



Pre-wired board for connecting 3 strings of photovoltaic panels to the inverter. It includes:

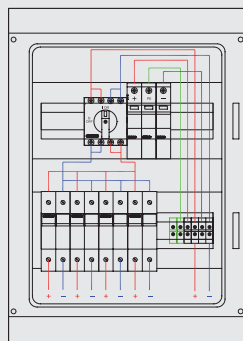
- watertight enclosure
- 1 rotary switch disconnecter 2-pole
- 1 surge protective device with extractable cartridges
- 3 disconnectable fuse-holders

#### TECHNICAL DATA

Standards:	EN 61439-1 and EN 61439-2
No. of modules of 40CDK enclosure:	2x12
Degree of protection:	IP65
Insulation class:	Class II
Rated voltage of the switch disconnecter (Ue):	600V DC
Rated current of the switch disconnecter (In):	25A
Rated operational voltage of the SPD (Un):	600V DC
Connection cable section:	6mm <sup>2</sup>

STRING BOARD EQUIPMENT: cable glands (supplied loose) and equipotential terminal blocks.  
NB: DC fuses not supplied.

### 4 STRINGS - 600V DC - 50A GW D9903



Pre-wired board for connecting 4 strings of photovoltaic panels to the inverter. It includes:

- watertight enclosure
- 1 rotary switch disconnecter 4-pole
- 1 surge protective device with extractable cartridges
- 4 disconnectable fuse-holders

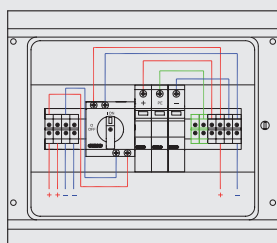
#### TECHNICAL DATA

Standards:	EN 61439-1 and EN 61439-2
No. of modules of 40CDK enclosure:	2x12
Degree of protection:	IP65
Insulation class:	Class II
Rated voltage of the switch disconnecter (Ue):	600V DC
Rated current of the switch disconnecter (In):	50A (2 poles in parallel)
Rated operational voltage of the SPD (Un):	600V DC
Connection cable section:	6mm <sup>2</sup>

STRING BOARD EQUIPMENT: cable glands (supplied loose) and equipotential terminal blocks.  
NB: DC fuses not supplied.

## STRING BOARDS - TECHNICAL DATA

### 2 STRINGS - 800V DC - 20A GW D9906



Pre-wired board for connecting 1 or 2 strings of photovoltaic panels to the inverter. It includes:

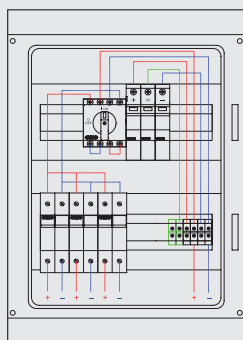
- watertight enclosure
- 1 rotary switch disconnecter 2-pole
- 1 surge protective device with extractable cartridges

#### TECHNICAL DATA

Standards:	EN 61439-1 and EN 61439-2
No. of modules of 40CDK enclosure:	1x12
Degree of protection:	IP65
Insulation class:	Class II
Rated voltage of the switch disconnecter (Ue):	800V DC
Rated current of the switch disconnecter (In):	20A
Rated operational voltage of the SPD (Un):	1000V DC
Connection cable section:	6mm <sup>2</sup>

STRING BOARD EQUIPMENT: cable glands (supplied loose) and equipotential terminal blocks.  
NB: DC fuses not supplied.

### 3 STRINGS - 1000V DC - 32A GW D9907



Pre-wired board for connecting 3 strings of photovoltaic panels to the inverter. It includes:

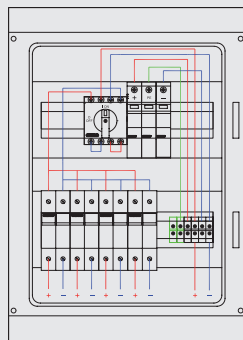
- watertight enclosure
- 1 rotary switch disconnecter 4-pole
- 1 surge protective device with extractable cartridges
- 3 disconnectable fuse-holders

#### TECHNICAL DATA

Standards:	EN 61439-1 and EN 61439-2
No. of modules of 40CDK enclosure:	2x12
Degree of protection:	IP65
Insulation class:	Class II
Rated voltage of the switch disconnecter (Ue):	1000V DC
Rated current of the switch disconnecter (In):	32A (4 poles in series)
Rated operational voltage of the SPD (Un):	1000V DC
Connection cable section:	6mm <sup>2</sup>

STRING BOARD EQUIPMENT: cable glands (supplied loose) and equipotential terminal blocks.  
NB: DC fuses not supplied.

### 4 STRINGS - 1000V DC - 32A GW D9908



Pre-wired board for connecting 4 strings of photovoltaic panels to the inverter. It includes:

- watertight enclosure
- 1 rotary switch disconnecter 4-pole
- 1 surge protective device with extractable cartridges
- 4 disconnectable fuse-holders


#### TECHNICAL DATA

Standards:	EN 61439-1 and EN 61439-2
No. of modules of 40CDK enclosure:	2x12
Degree of protection:	IP65
Insulation class:	Class II
Rated voltage of the switch disconnecter (Ue):	1000V DC
Rated current of the switch disconnecter (In):	32A (4 poles in series)
Rated operational voltage of the SPD (Un):	1000V DC
Connection cable section:	6mm <sup>2</sup>


STRING BOARD EQUIPMENT: cable glands (supplied loose) and equipotential terminal blocks.  
NB: DC fuses not supplied.

## MODULAR DEVICES IN DIRECT CURRENT - TECHNICAL DATA

### SWITCH DISCONNECTORS

		Compact DC switch disconnecter suitable for photovoltaic installations up to 32A 1000V DC				
		<b>TECHNICAL DATA</b>				
		Standard:	EN 60947-3			
		Utilization category:	DC21B / DC22B			
		Rated insulation voltage (Ui):	1000V			
		Rated impulse withstand voltage (Uimp):	8 kV			
		Operating temperature:	-40 to +65°C			
		Max. cable section:	16mm <sup>2</sup> (solid or stranded) 10mm <sup>2</sup> (flexible, also with terminals)			
Code	Modules	Poles	Utilization category	Rated operational voltage (Ue)		
				600V DC	800V DC	1000V DC
GW 96 186	3.5	2	DC21B	25A	20A	11A
			DC22B	6A	2,5A	1,5A
GW 96 187	3.5	4	DC21B	32A	32A	32A
			DC22B	27,5A	12,5A	10A


### SURGE PROTECTIVE DEVICES LST

		Surge protective devices with extractable cartridge, suitable for photovoltaic applications up to 1000V DC			
		<b>TECHNICAL DATA</b>			
		Standard:	EN 61643-11		
		Type:	Type 2 (8/20µs)		
		Rated discharge current (In):	20kA		
		Maximum discharge current (Imax):	40kA		
		Back-up protection:	if Icc > 100A DC, fuse type gPV ≤ 20A if Icc < 100A DC, protection not necessary		
Code	Rated operational voltage (Un)	Maximum continuous operating voltage (Uc)	Voltage protection level at In (Up)	Modules	
GW D6 426	600V DC	700V DC	≤ 2.6kV	3	
GW D6 428	1000V DC	1170V DC	≤ 4kV	3	


#### SPARE CARTRIDGES

- GW D6 446 suitable for the SPD GW D6 426
- GW D6 448 suitable for the SPD GW D6 428

### DISCONNECTABLE FUSE-HOLDERS

		Fuse-holders for protection and isolation of the photovoltaic strings.	
		<b>TECHNICAL DATA</b>	
		Standard:	EN 60947-3
		Utilization category:	DC20B
		Rated operational voltage (Ue):	1000V DC
		Rated current (In):	20A
		Max power loss:	3W
Code	Poles	Modules	
GW 96 226	1	1	
GW 96 227	2	2	

### FUSES

		The fuses are type gPV, as required for photovoltaic applications.	
		<b>TECHNICAL DATA</b>	
		Standard:	IEC 60269-6
		Dimensions:	10.3 x 38mm
		Type:	gPV
		Rated operational voltage (Ue):	1000V DC
		Breaking capacity:	30kA DC
Code	Rated current (In)		
GW 72 131	6		
GW 72 132	8		
GW 72 133	10		
GW 72 134	12		
GW 72 135	16		
GW 72 136	20		

# MTX RANGE

MOULDED CASE CIRCUIT BREAKERS FOR POWER DISTRIBUTION

## MCCBs for Power Distribution

The **MTX** range is the best solution for industrial installations and advanced commercial applications where high rated current and breaking capacity are required, perfectly integrated with the CVX 47 range boards. The range offers a wide selection of accessories to meet all installation requirements.



MTX 160c / MTXM 160c



MTX 160



MTX 250 / MTXM 250



MTX 320 / MTXE 320 / MTXM 320  
MTX 630 / MTXE 630 / MTXM 630



MTX 1000 / MTXE 1000 /  
MTXM 1000



MTSE 1600 / MTSM 1600

## 97 MSS RANGE

ROTARY SWITCH DISCONNECTORS UP TO 630 A

### Rotary Switch Disconnectors

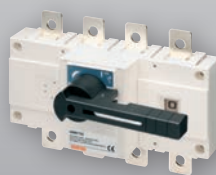
The **MSS** switch disconnectors, thanks to the adopted state-of-the-art technological solutions, guarantee high performance both in AC and in DC and ensure maximum strength even in case of short-circuiting or of a high number of manoeuvres in heavy working conditions.



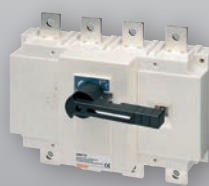
MSS 125



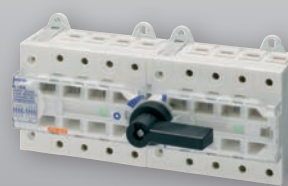
MSS 160



MSS 250



MSS 630




3-WAY SWITCH DISCONNECTORS  
(I O II)




MSS 160 ATS

**MTX - SELECTION TABLE**


		MTX 160C						
								
	Release	In [A]	B (16kA)		C (25kA)		N (36kA)	
			3P	4P	3P	4P	3P	4P
THERMAL MAGNETIC	TM1 magnetic threshold 10 lth	16	GW D7 001	GW D7 021				
		20	GW D7 002	GW D7 022				
		25	GW D7 003	GW D7 023	GW D7 041	GW D7 051		
		32	GW D7 004	GW D7 024	GW D7 042	GW D7 052	GW D7 061	GW D7 071
		40	GW D7 005	GW D7 025	GW D7 043	GW D7 053	GW D7 062	GW D7 072
		50	GW D7 006	GW D7 026	GW D7 044	GW D7 054	GW D7 063	GW D7 073
		63	GW D7 007	GW D7 027	GW D7 045	GW D7 055	GW D7 064	GW D7 074
		80	GW D7 008	GW D7 028	GW D7 046	GW D7 056	GW D7 065	GW D7 075
		100	GW D7 009	GW D7 029	GW D7 047	GW D7 057	GW D7 066	GW D7 076
		125	GW D7 010	GW D7 030	GW D7 048	GW D7 058	GW D7 067	GW D7 077
		160	GW D7 011	GW D7 031	GW D7 049	GW D7 059	GW D7 068	GW D7 078

NOTE: for fixing on DIN EN 50022 profile order following bracket: GW D8 261


		MTX/E 160											
													
	Release	In [A]	N (36kA)		S (50kA)		H (70kA)						
			3P	4P	3P	4P	3P	4P					
THERMAL MAGNETIC	TM1 magnetic threshold 10 lth	10	GW D7 931	GW D7 936									
		16	GW D7 932	GW D7 937									
		20	GW D7 933	GW D7 938									
		25	GW D7 934	GW D7 939									
	GENERATOR PROTECTION TMG	Magnetic threshold 3 lth	25	GW D7 081	GW D7 091								
			40	GW D7 082	GW D7 092								
			63	GW D7 083	GW D7 093								
			80	GW D7 084	GW D7 094								
			100	GW D7 085	GW D7 095								
			125	GW D7 086	GW D7 096								
		160	GW D7 087	GW D7 097									
ELECTRONIC	SEP/1	I	10	GW D7 146	GW D7 156	GW D7 166	GW D7 176	GW D7 186	GW D7 196				
			25	GW D7 147	GW D7 157	GW D7 167	GW D7 177	GW D7 187	GW D7 197				
			63	GW D7 148	GW D7 158	GW D7 168	GW D7 178	GW D7 188	GW D7 198				
		LS/I	100	GW D7 149	GW D7 159	GW D7 169	GW D7 179	GW D7 189	GW D7 199				
			160	GW D7 150	GW D7 160	GW D7 170	GW D7 180	GW D7 190	GW D7 200				
			10	GW D7 141	GW D7 151	GW D7 161	GW D7 171	GW D7 181	GW D7 191				
				25	GW D7 142	GW D7 152	GW D7 162	GW D7 172	GW D7 182	GW D7 192			
				63	GW D7 143	GW D7 153	GW D7 163	GW D7 173	GW D7 183	GW D7 193			
				100	GW D7 144	GW D7 154	GW D7 164	GW D7 174	GW D7 184	GW D7 194			
				160	GW D7 145	GW D7 155	GW D7 165	GW D7 175	GW D7 185	GW D7 195			
				MAGNETIC ONLY	MOTOR PROTECTION M	Magnetic threshold 13 lth	1	GW D7 101		GW D7 121			
							1.6	GW D7 102		GW D7 122			
2	GW D7 103		GW D7 123										
2.5	GW D7 104		GW D7 124										
3.2	GW D7 105		GW D7 125										
4	GW D7 106		GW D7 126										
5	GW D7 107		GW D7 127										
6.5	GW D7 108		GW D7 128										
8.5	GW D7 109		GW D7 129										
11	GW D7 110		GW D7 130										
12.5	GW D7 111		GW D7 131										
20	GW D7 112		GW D7 132										
Magnetic threshold 6-12 lth	32	GW D7 113					GW D7 133						
	52	GW D7 114					GW D7 134						
	80	GW D7 115		GW D7 135									
	100	GW D7 116		GW D7 136									

NOTE: for fixing on DIN EN 50022 profile order following bracket: GW D8 261

### MTX - SELECTION TABLE


			MTX 250			
						
	Release	In [A]	N (36kA)		S (50kA)	
			3P	4P	3P	4P
THERMAL MAGNETIC	TM1 magnetic threshold 10 lth	63	GW D7 201	GW D7 211	GW D7 221	GW D7 231
		80	GW D7 202	GW D7 212	GW D7 222	GW D7 232
		100	GW D7 203	GW D7 213	GW D7 223	GW D7 233
		125	GW D7 204	GW D7 214	GW D7 224	GW D7 234
		160	GW D7 205	GW D7 215	GW D7 225	GW D7 235
		200	GW D7 206	GW D7 216	GW D7 226	GW D7 236
		250	GW D7 207	GW D7 217	GW D7 227	GW D7 237
THERMAL MAGNETIC	GENERATOR PROTECTION - TMG Magnetic threshold 3 lth	63	GW D7 241	GW D7 251	GW D7 261	GW D7 271
		80	GW D7 242	GW D7 252	GW D7 262	GW D7 272
		100	GW D7 243	GW D7 253	GW D7 263	GW D7 273
		125	GW D7 244	GW D7 254	GW D7 264	GW D7 274
		160	GW D7 245	GW D7 255	GW D7 265	GW D7 275
		200	GW D7 246	GW D7 256	GW D7 266	GW D7 276
		250	GW D7 247	GW D7 257	GW D7 267	GW D7 277
MAGNETIC ONLY	MOTOR PROTECTION - M Magnetic threshold 6-12 lth	100	GW D7 281		GW D7 291	
		125	GW D7 282		GW D7 292	
		160	GW D7 283		GW D7 293	
		200	GW D7 284		GW D7 294	


NOTE: for fixing on DIN EN 50022 profile order following bracket: GW D8 262


			MTX/E 320								
											
	Release	In [A]	N (36kA)		S (50kA)		H (70kA)		L (120kA)		
			3P	4P	3P	4P	3P	4P	3P	4P	
THERMAL MAGNETIC	TM2 magnetic threshold 5-10 lth	100	GW D7 301	GW D7 311	GW D7 321	GW D7 331					
		125	GW D7 302	GW D7 312	GW D7 322	GW D7 332					
		160	GW D7 303	GW D7 313	GW D7 323	GW D7 333					
		200	GW D7 304	GW D7 314	GW D7 324	GW D7 334					
		250	GW D7 305	GW D7 315	GW D7 325	GW D7 335					
ELECTRONIC	SEP/1	I	100	GW D7 344	GW D7 364	GW D7 384	GW D7 404	GW D7 424	GW D7 444	GW D7 464	GW D7 484
			160	GW D7 345	GW D7 365	GW D7 385	GW D7 405	GW D7 425	GW D7 445	GW D7 465	GW D7 485
			250	GW D7 346	GW D7 366	GW D7 386	GW D7 406	GW D7 426	GW D7 446	GW D7 466	GW D7 486
			320	GW D7 354	GW D7 374	GW D7 394	GW D7 414	GW D7 434	GW D7 454	GW D7 474	GW D7 494
		LS/I	100	GW D7 341	GW D7 361	GW D7 381	GW D7 401	GW D7 421	GW D7 441	GW D7 461	GW D7 481
			160	GW D7 342	GW D7 362	GW D7 382	GW D7 402	GW D7 422	GW D7 442	GW D7 462	GW D7 482
			250	GW D7 343	GW D7 363	GW D7 383	GW D7 403	GW D7 423	GW D7 443	GW D7 463	GW D7 483
			320	GW D7 353	GW D7 373	GW D7 393	GW D7 413	GW D7 433	GW D7 453	GW D7 473	GW D7 493
	SEP/2	LSI	100	GW D7 347	GW D7 367	GW D7 387	GW D7 407	GW D7 427	GW D7 447	GW D7 467	GW D7 487
			160	GW D7 348	GW D7 368	GW D7 388	GW D7 408	GW D7 428	GW D7 448	GW D7 468	GW D7 488
			250	GW D7 349	GW D7 369	GW D7 389	GW D7 409	GW D7 429	GW D7 449	GW D7 469	GW D7 489
			320	GW D7 355	GW D7 375	GW D7 395	GW D7 415	GW D7 435	GW D7 455	GW D7 475	GW D7 495
		LSIG	100	GW D7 350	GW D7 370	GW D7 390	GW D7 410	GW D7 430	GW D7 450	GW D7 470	GW D7 490
			160	GW D7 351	GW D7 371	GW D7 391	GW D7 411	GW D7 431	GW D7 451	GW D7 471	GW D7 491
			250	GW D7 352	GW D7 372	GW D7 392	GW D7 412	GW D7 432	GW D7 452	GW D7 472	GW D7 492
			320	GW D7 356	GW D7 376	GW D7 396	GW D7 416	GW D7 436	GW D7 456	GW D7 476	GW D7 496







## MTX - SELECTION TABLE

			MTX/E 630										
													
THERMAL MAGNETIC	Release	In [A]	N (36kA)		S (50kA)		H (70kA)		L (120kA)				
			3P	4P	3P	4P	3P	4P	3P	4P			
THERMAL MAGNETIC	TM2 magnetic threshold 5-10 lth	320	GW D7 501	GW D7 506	GW D7 511	GW D7 516	GW D7 521	GW D7 526					
		400	GW D7 502	GW D7 507	GW D7 512	GW D7 517	GW D7 522	GW D7 527					
		500	GW D7 503	GW D7 508	GW D7 513	GW D7 518	GW D7 523	GW D7 528					
ELECTRONIC	SEP/1	I	400	GW D7 534	GW D7 554	GW D7 574	GW D7 594	GW D7 614	GW D7 634	GW D7 654	GW D7 674		
			630	GW D7 540	GW D7 560	GW D7 580	GW D7 600	GW D7 620	GW D7 640	GW D7 660	GW D7 680		
			400	GW D7 532	GW D7 552	GW D7 572	GW D7 592	GW D7 612	GW D7 632	GW D7 652	GW D7 672		
		LS/I	630	GW D7 539	GW D7 559	GW D7 579	GW D7 599	GW D7 619	GW D7 639	GW D7 659	GW D7 679		
			SEP/2	LSI	400	GW D7 536	GW D7 556	GW D7 576	GW D7 596	GW D7 616	GW D7 636	GW D7 656	GW D7 676
					630	GW D7 541	GW D7 561	GW D7 581	GW D7 601	GW D7 621	GW D7 641	GW D7 661	GW D7 681
	LSIG	400	GW D7 538	GW D7 558	GW D7 578	GW D7 598	GW D7 618	GW D7 638	GW D7 658	GW D7 678			
		630	GW D7 542	GW D7 562	GW D7 582	GW D7 602	GW D7 622	GW D7 642	GW D7 662	GW D7 682			





			MTX/E 1000								
											
THERMAL MAGNETIC	Release	In [A]	N (36kA)		S (50kA)		H (70kA)		L (100kA)		
			3P	4P	3P	4P	3P	4P	3P	4P	
THERMAL MAGNETIC	TM2 magnetic threshold 5-10 lth	630	GW D7 701	GW D7 706	GW D7 710	GW D7 716	GW D7 721	GW D7 726			
		800	GW D7 702	GW D7 707	GW D7 711	GW D7 717	GW D7 722	GW D7 727			
		630	GW D7 732	GW D7 752	GW D7 772	GW D7 792	GW D7 812	GW D7 832	GW D7 852	GW D7 872	
ELECTRONIC	SEP/1	I	800	GW D7 736	GW D7 756	GW D7 776	GW D7 796	GW D7 816	GW D7 836	GW D7 856	GW D7 876
			1000	GW D7 740	GW D7 760	GW D7 780	GW D7 800	GW D7 820	GW D7 840	GW D7 860	GW D7 880
			630	GW D7 731	GW D7 751	GW D7 771	GW D7 791	GW D7 811	GW D7 831	GW D7 851	GW D7 871
		LS/I	800	GW D7 735	GW D7 755	GW D7 775	GW D7 795	GW D7 815	GW D7 835	GW D7 855	GW D7 875
			1000	GW D7 739	GW D7 759	GW D7 779	GW D7 799	GW D7 819	GW D7 839	GW D7 859	GW D7 879
			SEP/2	LSI	630	GW D7 733	GW D7 753	GW D7 773	GW D7 793	GW D7 813	GW D7 833
	800	GW D7 737			GW D7 757	GW D7 777	GW D7 797	GW D7 817	GW D7 837	GW D7 857	GW D7 877
	LSIG	1000	GW D7 741	GW D7 761	GW D7 781	GW D7 801	GW D7 821	GW D7 841	GW D7 861	GW D7 881	
		630	GW D7 734	GW D7 754	GW D7 774	GW D7 794	GW D7 814	GW D7 834	GW D7 854	GW D7 874	
		800	GW D7 738	GW D7 758	GW D7 778	GW D7 798	GW D7 818	GW D7 838	GW D7 858	GW D7 878	
		1000	GW D7 742	GW D7 762	GW D7 782	GW D7 802	GW D7 822	GW D7 842	GW D7 862	GW D7 882	

			MTSE 1600								
											
ELECTRONIC	Release	In [A]	S (50kA)		H (65kA)		L (100kA)				
			3P	4P	3P	4P	3P	4P			
ELECTRONIC	SEP/A	I	1250	GW 97 601	GW 97 607	GW 97 625	GW 97 631	GW 97 649	GW 97 655		
			1600	GW 97 602	GW 97 608	GW 97 626	GW 97 632	GW 97 650	GW 97 656		
			1250	GW 97 604	GW 97 610	GW 97 628	GW 97 634	GW 97 652	GW 97 658		
		LI	1600	GW 97 605	GW 97 611	GW 97 629	GW 97 635	GW 97 653	GW 97 659		
			SEP/B	LSI	1250	GW 97 613	GW 97 619	GW 97 637	GW 97 643	GW 97 661	GW 97 667
					1600	GW 97 614	GW 97 620	GW 97 638	GW 97 644	GW 97 662	GW 97 668
	LSIG	1250	GW 97 616	GW 97 622	GW 97 640	GW 97 646	GW 97 664	GW 97 670			
		1600	GW 97 617	GW 97 623	GW 97 641	GW 97 647	GW 97 665	GW 97 671			



### MTXM - SELECTION TABLE

		MTXM							
		MTXM 160c		MTXM 250		MTXM 320		MTXM 400	
									
SWITCH DISCONNECTOR	In [A]	3P	4P	3P	4P	3P	4P	3P	4P
	160	GW D7 901	GW D7 902						
	250			GW D7 903	GW D7 904				
	320					GW D7 905	GW D7 906		
	400							GW D7 907	GW D7 908



NOTE: fixing on DIN EN 50022 profile for MTXM 160c and MTXM 250 with specific brackets

		MTXM							
		MTXM 630		MTXM 800		MTXM 1000		MTSM 1600	
									
SWITCH DISCONNECTOR	In [A]	3P	4P	3P	4P	3P	4P	3P	4P
	630	GW D7 909	GW D7 910						
	800			GW D7 911	GW D7 912				
	1000					GW D7 913	GW D7 914		
	1250							GW 97 715	GW 97 718
	1600							GW 97 716	GW 97 719

### ACCESSORIES FOR MTX - SELECTION TABLE

		ADD-ON RESIDUAL CURRENT DEVICES				
		"L"-SHAPED			UNDER-MOUNTING	
						
Suitable for		MTX/M 160c	MTX/E 160	MTX/M 250	MTX/E/M 320	MTXM 400 - MTX/E/M 630
Versions		For 4P circuit breakers only			For 4P circuit breakers only	
Instantaneous		GW D8 242	GW D8 244	GW D8 246	-	-
Adjustable		GW D8 241 (lowered) GW D8 243	GW D8 245	GW D8 247	GW D8 248 (up to 500A)	GW D8 249 (up to 500A)

NOTE: fixing on DIN EN 50022 profile with specific brackets

		OPENING RELEASES					
		SHUNT-TRIP			UNDER VOLTAGE		
							
Suitable for		MTX/E/M 160c - 160 - 250	MTX/E/M 320 - 1000	MTSE/M 1600	MTX/E/M 160c - 160 - 250	MTX/E/M 320 - 1000	MTSE/M 1600
Supply voltage							
12V DC		GW D8 101	-	-	-	-	-
24-30V AC/DC		GW D8 102	GW D8 107	GW 98 260	GW D8 117	GW D8 122	GW 98 281 (ac) GW 98 288 (dc)
48-60V AC/DC		GW D8 103	GW D8 108	GW 98 261	GW D8 118	GW D8 123	GW 98 282 (ac) GW 98 289 (dc)
127V AC - 125V DC		GW D8 104	GW D8 109	GW 98 263	GW D8 119	GW D8 124	GW 98 284 (ac) GW 98 291 (dc)
240V AC - 250V DC		GW D8 105	GW D8 110	GW 98 264	GW D8 120	GW D8 125	GW 98 285 (ac) GW 98 292 (dc)
380 - 400V AC		GW D8 106	GW D8 111	GW 98 265	GW D8 121	GW D8 126	GW 98 286 (ac)

### MSS - SELECTION TABLE

In [A]	MSS - ROTARY SWITCH DISCONNECTORS									
	MSS 125		MSS 160		MSS 250		MSS 630		MSS 125 THREE-WAY SWITCH (I O II)	MSS ATS 160 AUTOMATIC THREE-WAY SWITCH
	3P	4P	3P	4P	3P	4P	3P	4P	4P	4P
63	GW 97 721	GW 97 724								
100	GW 97 722	GW 97 725								
125	GW 97 723	GW 97 726							GW 97 761	
160			GW 97 727	GW 97 728						GW 97 767
250					GW 97 729	GW 97 730				
400							GW 97 731	GW 97 733		
630							GW 97 732	GW 97 734		

### ACCESSORIES FOR MSS - SELECTION TABLE

#### DOOR COUPLING ROTARY HANDLES - IP65



MSS 125 - MSS 160		MSS 250 - MSS 630		MSS 125 - THREE-WAY SWITCH (I O II)
Black handle	Red handle	Black handle	Red handle	Black handle
GW 98 521	GW 98 524	GW 98 522	GW 98 525	GW 98 523

All the rotary handles include transmission rods.

#### AUXILIARY CONTACTS



MSS 125 - MSS 160	MSS 250 - MSS 630	MSS 125 - THREE-WAY SWITCH (I O II)	MSS 160 ATS - AUTOMATIC THREE-WAY SWITCH
GW 98 514	GW 98 515	GW 98 516	GW 97 774

#### TERMINAL COVERS (1 CODE = 1 PIECE)



MSS 160	MSS 250		MSS 630		MSS 160 ATS AUTOMATIC THREE-WAY SWITCH
3P - 4P	3P	4P	3P	4P	4P
GW 98 508	GW 98 509	GW 98 510	GW 98 511	GW 98 512	GW 97 773

# 47 CVX 160i RANGE

FLUSH-MOUNTING DISTRIBUTION BOARDS UP TO 160A

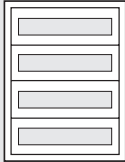
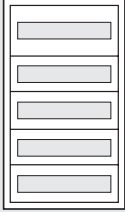
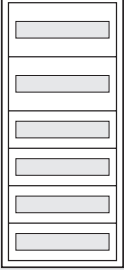



## Flush-mounting Metal Boards up 160A

The **CVX 160i** range offers flush-mounting boards up to IP40 as degree of protection and up to  $I_n=160A$ .

The board choice is very simple and quick (only one GW code) because the DIN rails, front panels and all fixing accessories are already included.



### BOARDS WITH DIN RAILS, FRONT PANELS AND ALL FIXING ACCESSORIES INCLUDED

GENERAL CHARACTERISTICS In: up to 160 A Capacity: 24 modules* each row Installation: indoors Colour: RAL 7035 grey		NO. EN 50022 MODULES (17.5 mm)		
		96	120	144
No. rows per No. modules		4 rows per 24 modules 	5 rows per 24 modules 	6 rows per 24 modules 
Board functional height:	(mm)	600	800	1000
Front panels with window height:	(mm)	150	200 (first row) 150 (other rows)	200 (first and second row) 150 (other rows)
IP 30	 without door	GW 47 072	GW 47 073	GW 47 074
	 glass door	GW 47 082	GW 47 083	GW 47 084
IP 40	 solid door	GW 47 087	GW 47 088	GW 47 089

\* EN 50022 modules (17.5 mm)







### Wall-mounting Metal Boards up 160A

The extractable frame allows wiring desk and, subsequently, the installation of the wired frame inside the casing when the system is completed.

The rail brackets are installed without screws thanks to the coupling on the functional profiles. The front plastic panels can be fixed quickly by means of two ¼ turn inserts.

Thanks to the innovative support enabling fixing of the rails to the brackets and their depth adjustment without using screws or tools.



GENERAL CHARACTERISTICS In: up to 160 A Capacity: 24 modules* each row Installation: indoors Colour: RAL 7035 grey		FUNCTIONAL HEIGHT (mm)			
		600	800	1000	1200
IP30	Without door 	GW 47 001 E	GW 47 002 E	GW 47 003 E	GW 47 004 E
	Glass door 	GW 47 011 E	GW 47 012 E	GW 47 013 E	GW 47 014 E
IP40	Solid door 	GW 47 021 E	GW 47 022 E	GW 47 023 E	GW 47 024 E
	Glass door 	GW 47 031 E	GW 47 032 E	GW 47 033 E	GW 47 034 E
IP55	Solid door 	GW 47 041 E	GW 47 042 E	GW 47 043 E	GW 47 044 E
	Solid door 	-	GW 47 062 E	GW 47 063 E	GW 47 064 E

NOTE: the codes do not include DIN rails and front panels  
\* EN 50022 modules (17.5 mm)

# 47 CVX 630 K - M RANGE

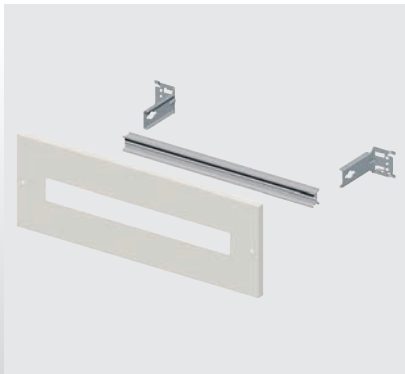
DISTRIBUTION BOARDS UP TO 630A

## Metal Board up to 630A

The CVX630K and CVX630M range, offer the widest choice available for protection in indoor environments, along with modern and functional design.

The **CVX 630K** range offers both wall and floor-mounting modular boards up to IP43 as degree of protection and up to  $I_n=630A$ .

The **CVX 630M** range offers both wall and floor-mounting monobloc boards up to IP55 as degree of protection and up to  $I_n=630A$ .



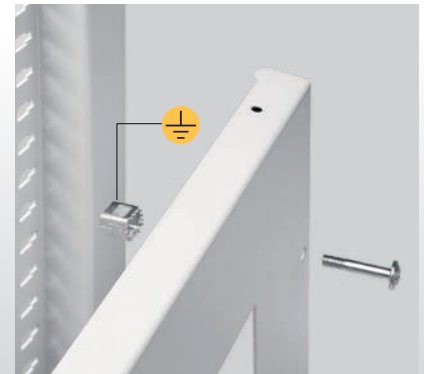
### Sinergy

CVX 630 K and CVX 630 M use the same installation kit and accessories for modular and moulded-case devices.



### Simple and quick wiring

The CVX 630K modular distribution boards have been designed to make the wiring and mounting operations easier and quicker. It is possible, indeed, to carry out the wiring with "structure completely open" and then to finish the assembly of the board.



### Easier assembly and maintenance

All the metallic components of the board ensure the contact earth connection, hence avoiding additional connections. All front panels are fitted with unlosable screws and equipped with hinges in order to make the installed distribution board maintenance easier.







## CVX 630 K WALL-MOUNTING STRUCTURES




FUNCTIONAL DIM. (LxH)		STRUCTURES					
		600 x 1000 mm		600 x 1200 mm		850 x 1000 mm	
Modular capacity	Pitch 150mm	144 mod. (24x6)	192 mod. (24x8)	144 mod. (24x6)	216 mod. (36x6)	192 mod. (24x8)	288 mod. (36x8)
	Pitch 200mm	120 mod. (24x5)	144 mod. (24x6)	120 mod. (24x5)	180 mod. (36x5)	144 mod. (24x6)	216 mod. (36x6)
Structures		GW 45 004	GW 45 005	GW 45 014	GW 45 015		
Sides		GW 45 024	GW 45 025	GW 45 024	GW 45 025		
Curved glass doors		GW 45 104	GW 45 105	GW 45 114	GW 45 115		
Solid doors		GW 45 124	GW 45 125	GW 45 134	GW 45 135		
Internal cable compartment		-	-	GW 45 034	GW 45 035		
Side-by-side installation kit		GW 45 504	GW 45 505	GW 45 504	GW 45 505		

# 47 CVX 630 K RANGE

MODULAR DISTRIBUTION BOARDS UP TO 630A - IP43

## CVX 630 K FLOOR-MOUNTING STRUCTURES

STRUCTURES										
FUNCTIONAL DIM. (LxH)		600 x1600 mm	600 x1800 mm	600 x2000 mm	850 x1600 mm		850 x1800 mm		850 x2000 mm	
Modular capacity	Pitch 150mm	240 mod. (24x10)	288 mod. (24x12)	312 mod. (24x13)	240 mod. (24x10)	360 mod. (36x10)	288 mod. (24x12)	432 mod. (36x12)	312 mod. (24x13)	468 mod. (36x13)
	Pitch 200mm	192 mod. (24x8)	216 mod. (24x9)	240 mod. (24x10)	192 mod. (24x8)	288 mod. (36x8)	216 mod. (24x9)	324 mod. (36x9)	240 mod. (24x10)	360 mod. (36x10)
Structures		GW 45 007	GW 45 008	GW 45 009	GW 45 017		GW 45 018		GW 45 019	
Sides		GW 45 027	GW 45 028	GW 45 029	GW 45 027		GW 45 028		GW 45 029	
Curved glass doors		GW 45 107	GW 45 108	GW 45 109	GW 45 117		GW 45 118		GW 45 119	
Solid doors		GW 45 127	GW 45 128	GW 45 129	GW 45 137		GW 45 138		GW 45 139	
Internal cable compartment		-	-	-	GW 45 037		GW 45 038		GW 45 039	
Side-by-side installation kit		GW 45 507	GW 45 508	GW 45 509	GW 45 507		GW 45 508		GW 45 509	

EXTERNAL CABLE COMPARTMENT				
FUNCTIONAL DIM. (LxH)	400 x 1600 mm	400 x 1800 mm	400 x 2000 mm	
External cable compartment		GW 45 047	GW 45 048	GW 45 049
Internal solid doors		GW 45 352	GW 45 353	GW 45 354
External solid doors		GW 45 147	GW 45 148	GW 45 149







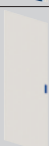



### CVX 630 M WALL-MOUNTING STRUCTURES


FUNCTIONAL DIM. (LxH)		STRUCTURES					
		600 x 1000 mm	600 x 1200 mm	850 x 1000 mm		850 x 1200 mm	
Modular capacity	Pitch 150mm	144 mod. (24x6)	192 mod. (24x8)	144 mod. (24x6)	216 mod. (36x6)	192 mod. (24x8)	288 mod. (36x8)
	Pitch 200mm	120 mod. (24x5)	144 mod. (24x6)	120 mod. (24x5)	180 mod. (36x5)	144 mod. (24x6)	216 mod. (36x6)
Structures		GW 45 054	GW 45 055	GW 45 064		GW 45 065	
Solid side panels		GW 45 074	GW 45 075	GW 45 074		GW 45 075	
Aerated side panels		GW 45 394	GW 45 395	GW 45 394		GW 45 395	
Curved glass doors		GW 45 154	GW 45 155	GW 45 164		GW 45 165	
Solid doors		GW 45 174	GW 45 175	GW 45 184		GW 45 185	
Internal cable compartment		-	-	GW 45 084		GW 45 085	
Side-by-side installation kit	Plates 	GW 45 533	GW 45 533	GW 45 533		GW 45 533	
	IP55 Gasket 	GW 47 473	GW 47 473	GW 47 473		GW 47 473	

# 47 CVX 630 M RANGE

MONOBLOC DISTRIBUTION BOARDS UP TO 630A - IP55

## CVX 630 M FLOOR-MOUNTING STRUCTURES

FUNCTIONAL DIM. (LxH)		STRUCTURES								
		600 x 1600 mm	600 x 1800 mm	600 x 2000 mm	850 x 1600 mm		850 x 1800 mm		850 x 2000 mm	
Modular capacity	Pitch 150mm	240 mod. (24x10)	288 mod. (24x12)	312 mod. (24x13)	240 mod. (24x10)	360 mod. (36x10)	288 mod. (24x12)	432 mod. (36x12)	312 mod. (24x13)	468 mod. (36x13)
	Pitch 200mm	192 mod. (24x8)	216 mod. (24x9)	240 mod. (24x10)	192 mod. (24x8)	288 mod. (36x8)	216 mod. (24x9)	324 mod. (36x9)	240 mod. (24x10)	360 mod. (36x10)
Structures		GW 45 057	GW 45 058	GW 45 059	GW 45 067		GW 45 068		GW 45 069	
Solid side panels		GW 45 077	GW 45 078	GW 45 079	GW 45 077		GW 45 078		GW 45 079	
Aerated side panels		GW 45 397	GW 45 398	GW 45 399	GW 45 397		GW 45 398		GW 45 399	
Curved glass doors		GW 45 157	GW 45 158	GW 45 159	GW 45 167		GW 45 168		GW 45 169	
Solid doors		GW 45 177	GW 45 178	GW 45 179	GW 45 187		GW 45 188		GW 45 189	
Internal cable compartment		-	-	-	GW 45 087		GW 45 088		GW 45 089	
Side-by-side installation kit	Plates 	GW 47 472	GW 47 472	GW 47 472	GW 47 472		GW 47 472		GW 47 472	
	IP55 Gasket 	GW 47 473	GW 47 473	GW 47 473	GW 47 473		GW 47 473		GW 47 473	

EXTERNAL CABLE COMPARTMENT			
FUNCTIONAL DIM. (LxH)	400 x 1600 mm	400 x 1800 mm	400 x 2000 mm
External cable compartment 	GW 45 097	GW 45 098	GW 45 099
Internal solid doors	GW 45 352	GW 45 353	GW 45 354
External solid doors	GW 45 197	GW 45 198	GW 45 199

### ACCESSORIES FOR CVX 630 K / CVX 630 M DISTRIBUTION BOARDS

			Panel height (mm)	L= 400mm (10 mod.)	L= 600mm (24 mod.)	L= 850mm (36 mod.)
Installation kit on DIN rail		DIN EN 50022 double - aluminium	150	GW 45 291	GW 45 201	GW 45 206
			200	GW 45 292	GW 45 202	GW 45 207
			300	GW 45 293	GW 45 203	GW 45 208
			300 <sup>(1)</sup>	-	GW 45 204	GW 45 209
Solid front panels			50	GW 45 341	GW 45 301	GW 45 321
			100	GW 45 342	GW 45 302	GW 45 322
			150	GW 45 343	GW 45 303	GW 45 323
			200	GW 45 344	GW 45 304	GW 45 324
			300	GW 45 345	GW 45 305	GW 45 325
			400	GW 45 346	GW 45 306	GW 45 326
			600	GW 45 347	GW 45 307	GW 45 327
800	GW 45 348	-	-			
Front panels for instruments			200	-	GW 45 374	GW 45 379
Front aerated panels			200	-	GW 45 362	GW 45 367
DIN rails		DIN EN 50022 double - aluminium	-	-	GW 45 401	GW 45 402
Profiles for fixing directly on frame		DIN EN 50022	-	-	GW 45 411	GW 45 416
		DIN EN 50035	-	-	GW 45 412	GW 45 417
Back-mounting plates			200	-	GW 45 421	GW 45 431
			300	GW 45 406	-	-
			400	-	GW 45 422	GW 45 432
			600	-	GW 45 423	GW 45 433
Earth terminal blocks			-	GW 45 437	GW 45 538	-
Earth busbar			-	-	GW 45 534	GW 45 535
Horizontal dividers		for CVX 630 K	-	-	GW 45 451	GW 45 452
		for CVX 630 M	-	-	GW 45 453	GW 45 454

<sup>(1)</sup> Specific version for MTX/M 160c, MTX/E 160 or MTX/M 250 combined with an "L"-shaped add-on residual current device.

### COMPLEMENTARY ITEMS (\*)

Depth adapter			GW 49 209
Hinges for panels			GW 45 532
Pair of supports for	trunking system horizontal / vertical		GW 45 521
	45° horizontal terminal block		GW 45 526
	internal compartment terminal block		GW 45 527
	external compartment terminal block		GW 45 528
DIN rail L = 2 metres	EN 50022 (DIN35)		GW 47 691
	EN 50035 (G32)		GW 47 692
	EN 50024 (C30)		GW 47 693
IP43 Gasket	for CVX 630 K		GW 45 531
Rotary handle with lock			GW 47 494
4 surface-mounting brackets	for CVX 630 K wall-mounting distribution boards		GW 45 536
2 surface-mounting brackets	for CVX 630 M floor-mounting distribution boards		GW 47 491

(\*) Please refer to the trade catalogue for further complementary items and accessories.

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DOMOTICS ENERGY LIGHTING

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