

**GEWISS**



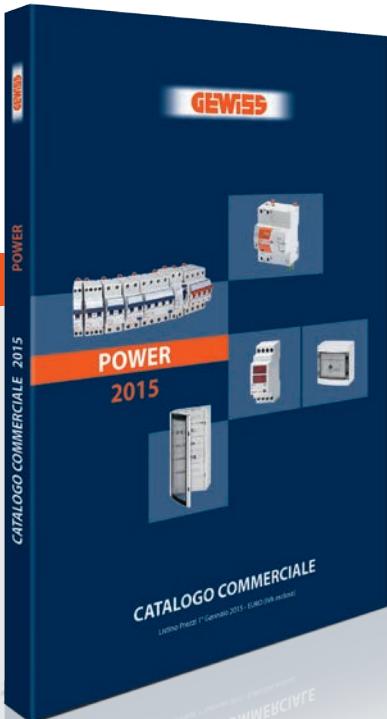
# POWER 2015



**PROTECTION SYSTEMS**

# GEWISS GROUP

GEWISS is an international leader in the production of systems and components for low voltage electrical installations. The fact that development is seen as a constant management feature has permitted GEWISS to assert itself as a reference interlocutor for the electrotechnical market in the creation of solutions for domotics, energy and the lighting industry. It is now present in Italy, France, Germany, the United Kingdom, Spain, Portugal, China, Russia, Turkey, Romania, Chile, the United Arab Emirates, and in a further 80 countries around the world.



## Power

The technologically advanced range of modular and moulded-case devices joins the vast range of distribution boards and cabinets, enclosures and combined boards to create the GEWISS Protection System.

## Domotics



The domotic systems offer cutting-edge solutions for smart home and building management and control, guaranteeing safety, comfort and energy savings along with Italian design.

## Building



Junction boxes and special containers, a complete and coordinated line of distribution boards, cutting-edge industrial connections and an integrated system of boards for special systems create the GEWISS distribution systems.

## Lighting



Lighting systems designed for every room, area and location. Solutions that embrace LED technology to meet the requirements of industrial and commercial sector contexts, sport facilities and emergency lighting.

Discover the complete range at [www.gewiss.com](http://www.gewiss.com)

# Gewiss Protection System

The GEWISS protection system is made up of products that work together perfectly, such as the innovative 90 RESTART range (automatic reclosing devices), the 90 MCB and 90 RCD ranges (modular circuit breakers for circuit and residual current protection), the MTX range (MCCBs for power distribution) and the 47 CVX range (metal distribution boards). An integrated selection of products to meet every possible need for the specific application - from residential to industrial - and to guarantee quality and safety in line with the market requisites. The GEWISS system offers a wealth of advantages: practical compatibility of homogeneous products, simple and quick system planning, installation and maintenance, modern and stylish design.



## Protection devices

# 90 ReSTART RANGE

## Automatic reclosing devices

# Automatic Reclosing Devices ReSTART

If the residual current device trips, ReSTART restores the electricity supply quickly, but only after carrying out a system check (RD versions) and also a short-circuit check (RM version).

Thanks to the innovative control logic, Autotest can regularly and automatically test the working of the residual current device **without ever disconnecting the system from the power supply**.

PRO versions are available for continuous system monitoring: the system check is carried out at regular intervals until the fault clears and the device can be automatically and safely reclosed.

The ReSTART RM TOP version is also available. This allows you to:

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

The only automatic reclosing device that tests the RCCB without cutting off the electricity supply



ReSTART with AUTOTEST 2P



ReSTART with AUTOTEST 4P

ReStart 2P range



ReSTART RD



ReSTART RD PRO



ReSTART RM



ReSTART RM PRO

ReStart 4P range



ReSTART RD PRO



ReSTART RM PRO



ReSTART RM TOP



ReSTART CM

NOTE: ReSTART CM is a motor operating device without system check

ReStart RANGE CHARACTERISTICS AND ADVANTAGES	ReStart AUTOTEST	PRO version	ReStart RD	PRO version	ReStart RM	PRO version	TOP version
 <b>Doesn't reclose in the event of a fault</b> The user's safety is guaranteed by the checking of the system before reclosing.	✓	✓	✓	✓	✓	✓	✓(*)
 <b>Automatic test and no blackout during autotest</b> The ReStart AUTOTEST function carries out the RCCB intervention test regularly and automatically, without disconnecting the system from the power supply, thanks to a special bypass circuit.	✓	✓					
 <b>Works without earth conductor</b> ReStart doesn't need earthing connection in order to work.	✓	✓	✓	✓	✓	✓	✓
 <b>Protection in aggressive environments</b> ReStart with AUTOTEST is recommended in difficult environments where the regular, automatic AUTOTEST function keeps the RCCB in good working order.	✓	✓					
 <b>Continuous power supply for unattended systems</b> ReStart PRO is recommended for unattended electrical systems where a blackout could cause significant damage.		✓		✓		✓	✓
 <b>Continuous system monitoring</b> Following a trip caused by a fault, ReStart PRO repeats the check every 2 minutes and only performs a reclosing once the fault has disappeared.		✓		✓		✓	✓(**)
 <b>Remote signalling with auxiliary contact</b> An auxiliary contact allows remote signalling in the event of an effective fault without reclosing.	✓	✓		✓		✓	✓
 <b>BUS connection</b> With the BUS interface module, ReStart can be installed in monitoring systems using the BUS RS485 communication protocol.	✓	✓				✓(***)	
 <b>Quick reclosing</b> ReStart technology guarantees that the system check and subsequent automatic reclosing are carried out quickly, to minimise the time of out of service.	✓	✓	4P range	4P range			

(\*) It's possible to choose the automatic reclosing mode:

- with a system check
- by attempts
- remote

(\*\*) It's possible to set the automatic reclosing time delay.

(\*\*\*) For 4P versions only

# 90 ReSTART RANGE

## Automatic reclosing devices

ReSTART RANGE MAIN TECHNICAL DATA							
		PRO version		PRO version		PRO version	TOP version
<b>Circuit breaker type:</b>	SD		SD		MDC		MT - MTC MDC - MT+BD
<b>Number of poles:</b>	2P	2P-4P	2P	2P - 4P	2P	1P+N - 2P - 4P	1P - 1P+N - 2P - 3P - 4P
<b>RCD type:</b>	A [IR]	A[IR]	A, A[IR]	AC, A, A[IR], A[S]	A, A[IR]	AC, A, A[IR], A[S]	AC, A, A[IR], A[S]
<b>No. of modules (circuit breaker included)</b>	5	5 (2 poles) 7 (4 poles)	4	4 (2 poles) 3 (4 poles)*	4	4 (2 poles) 3 (4 poles)*	3 *
<b>Residual operating current I<sub>Δn</sub>:</b> (mA)	30	30-300	30	30-100-300-500	30	30-300	30-100-300-500
<b>Breaking capacity I<sub>cn</sub>:</b> (kA)	-	-	-	-	4.5 - 6	4.5 - 6 - 10	4.5 ÷ 25
<b>Rated current I<sub>n</sub>:</b> (A)	25 ÷ 63		25 ÷ 100		6 ÷ 32		1 ÷ 63
<b>Coupled versions with circuit breaker:</b>	✓	✓	✓	✓ (2 poles)	✓	✓ (2 poles)	
<b>Integrated auxiliary contact:</b>	✓	✓		✓		✓	✓
<b>Adjustable reclosing time:</b>							
<b>Adjustable reclosing mode:</b>							

**MT:** MCB

**MTC:** compact MCB

**MDC:** compact RCBO

**SD:** RCCB

**BD:** add-on RCD

\*Without circuit breaker

**NOTE:** type A[IR] offers greater resistance to mains disturbance and atmospheric discharge compared with standard RCDs.

Immunity level 8/20μs: 3000A for A[IR] version, 250A for standard version.

## RESTART WITH AUTOTEST

**Selection tables**

Automatic reclosing devices with circuit safety check and automatic RCD test.

	DEVICES COUPLED WITH RCCBs			
	2 poles		4 poles	
	5 mod.		7 mod.	
				
	IΔn = 30 mA		IΔn = 30 mA	IΔn = 300 mA
In (A)	A[IR] type	A[IR] - PRO type	A[IR] - PRO type	
25	GW 90 901 N	GW 90 911	GW 90 921	GW 90 927
40	GW 90 902 N	GW 90 912	GW 90 922	GW 90 928
63	-	GW 90 913	GW 90 923	GW 90 929

NOTE: ARD must be supplied with 230 V AC phase-neutral for working.

# 90 RESTART RANGE

## Automatic reclosing devices

### RESTART RD

#### Selection tables

Automatic reclosing devices with circuit safety check.

	DEVICES COUPLED WITH RCCBs SD											
	2 poles		2 poles - PRO version						4 poles - PRO version			
	4 mod.		4 mod.						6 mod.		7 mod.	
												
IΔn = 30 mA		IΔn = 30 mA		IΔn = 100 mA		IΔn = 300 mA		IΔn = 500 mA		IΔn = 30 mA		IΔn = 30 mA
In (A)	A type	A[IR] type	A type	A[IR] type	A type	A type	A[S] type	A type	AC type	A type	AC type	A type
25	GW 94 817 R	GW 95 651 R	GW 94 817 P	GW 95 651 P	-	GW 94 819 P	-	-	GW 94 662 P	GW 94 867 P	-	-
40	GW 94 827 R	GW 95 656 R	GW 94 827 P	GW 95 656 P	GW 94 828 P	GW 94 829 P	GW 94 924 P	GW 94 830 P	GW 94 667 P	GW 94 897 P	-	-
63	GW 94 837 R	GW 95 661 R	GW 94 837 P	GW 95 661 P	GW 94 838 P	GW 94 839 P	GW 94 934 P	GW 94 840 P	-	-	GW 94 757 P	GW 94 937 P

NOTE: ARD must be supplied with 230V AC phase-neutral for working.

	DEVICES TO BE COUPLED WITH RCCBs SD 4 POLES - PRO VERSION									
										
<b>GW 90 966</b>					<b>GW 90 968</b>					
3 mod.					3 mod.					
<b>RCCBs SD 4 POLES</b>										
										
IΔn = 30 mA		IΔn = 100 mA		IΔn = 300 mA		IΔn = 500 mA				
In (A)	Type	3 mod.	4 mod.	3 mod.	4 mod.	3 mod.	4 mod.	3 mod.	4 mod.	
25	AC	GW 94 662	GW 94 697 GW 94 637 *	-	GW 94 698	GW 94 664	GW 94 699 GW 94 639 *	-	-	
	A	GW 94 867	GW 94 877 GW 94 552 *	-	GW 94 878	GW 94 869	GW 94 879 GW 94 554 *	-	-	
	A[IR]	-	GW 95 676	-	-	-	GW 95 678	-	-	
40	AC	GW 94 667	GW 94 707 GW 94 647 *	GW 94 668	GW 94 708	GW 94 669	GW 94 709 GW 94 649 *	GW 94 670	GW 94 710	
	A	GW 94 897	GW 94 927 GW 94 557 *	GW 94 898	GW 94 928	GW 94 899	GW 94 929 GW 94 559 *	GW 94 900	GW 94 930	
	A[IR]	-	GW 95 681	-	-	-	GW 95 683	-	-	
	A[S]	-	-	-	-	-	GW 94 966	-	-	
63	AC	-	GW 94 757 GW 94 717 *	-	GW 94 758	-	GW 94 759 GW 94 719 *	-	GW 94 760	
	A	-	GW 94 937 GW 94 907 *	-	GW 94 938	-	GW 94 939 GW 94 909 *	-	GW 94 940	
	A[IR]	-	GW 95 686	-	-	-	GW 95 688	-	-	
	A[S]	-	-	-	-	-	GW 94 976	-	-	
80	AC	-	GW 94 761 GW 94 727 *	-	GW 94 771	-	GW 94 766 GW 94 728 *	-	-	
	A	-	GW 94 947	-	GW 94 948	-	GW 94 949	-	-	
	A[IR]	-	-	-	-	-	GW 94 986	-	-	
100	AC	-	GW 94 777 GW 94 737 *	-	GW 94 778	-	GW 94 779 GW 94 739 *	-	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	-	-	

NOTE: they are also compatible with 2-pole RCCBs (SD 2P).

ARD must be supplied with 230V AC phase-neutral for working.

\* RCCBs with neutral on the left

## RESTART RM

## Selection tables

Automatic reclosing devices with circuit safety and short-circuit check.

			DEVICES COUPLED WITH RCBOs MDC					
			2 poles		2 poles - PRO version			
			4 mod.		4 mod.			
			IΔn = 30 mA		IΔn = 30 mA		IΔn = 300 mA	
Icn (A)	Curve	In (A)	A type	A[IR] type	A type	A type	A type	A[S] type
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	C	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	

NOTE: ARD must be supplied with 230 V AC phase-neutral for working.

			DEVICES TO BE COUPLED WITH RCBOs 4 POLES - PRO VERSION							
			GW 90 986		GW 90 988					
			3 mod.		3 mod.					
			+		+					
			RCBO MDC 4P							
			4 mod.			4 mod.				
			IΔn = 30 mA			IΔn = 300 mA				
Icn (A)	Curve	In (A)	AC type	A type	A[IR] type	AC type	A type	A[S] type		
6	GW 94 065	GW 94 265	-	GW 94 075	GW 94 275	-				
10	GW 94 066	GW 94 266	-	GW 94 076	GW 94 276	-				
13	GW 94 071	GW 94 271	-	-	-	-				
16	GW 94 067	GW 94 267	-	GW 94 077	GW 94 277	-				
20	GW 94 068	GW 94 268	-	GW 94 078	GW 94 278	-				
25	GW 94 069	GW 94 269	-	GW 94 079	GW 94 279	-				
32	GW 94 070	GW 94 270	-	GW 94 080	GW 94 280	-				
6000	C	6	GW 94 165	GW 94 365	GW 95 815	GW 94 175	GW 94 375	-		
		10	GW 94 166	GW 94 366	GW 95 816	GW 94 176	GW 94 376	-		
		13	GW 94 171	GW 94 371	GW 95 821	-	-	-		
		16	GW 94 167	GW 94 367	GW 95 817	GW 94 177	GW 94 377	GW 95 857		
		20	GW 94 168	GW 94 368	GW 95 818	GW 94 178	GW 94 378	GW 95 858		
		25	GW 94 169	GW 94 369	GW 95 819	GW 94 179	GW 94 379	GW 95 859		
		32	GW 94 170	GW 94 370	GW 95 820	GW 94 180	GW 94 380	GW 95 860		
	B	6	-	GW 95 165	-	-	GW 95 175	-		
		10	-	GW 95 166	-	-	GW 95 176	-		
		13	-	GW 95 171	-	-	-	-		
		16	-	GW 95 167	-	-	GW 95 177	-		
		20	-	GW 95 168	-	-	GW 95 178	-		
		25	-	GW 95 169	-	-	GW 95 179	-		
		32	-	GW 95 170	-	-	GW 95 180	-		

NOTE: they are also compatible with RCBOs 1P+N and 2-pole (MDC 1P+N and 2P).

ARD must be supplied with 230 V AC phase-neutral for working.

# 90 RESTART RANGE

## Automatic reclosing devices

### RESTART RM TOP

#### Selection tables

Automatic reclosing device with/without circuit safety and/or short-circuit check.

DEVICES TO BE COUPLED WITH MCBs AND ADD-ON RCDs 4 POLES					
Curve	In (A)	Icn = 6000 A		Icn = 25000 A	
	1	GW 92 081	-	-	-
C	2	GW 92 082	-	-	-
	3	GW 92 083	-	-	-
	4	GW 92 084	-	-	-
	6	GW 92 085	GW 92 685	GW 92 885	GW 92 886
	10	GW 92 086	GW 92 686	GW 92 886	-
	13	GW 92 094	GW 92 694	GW 92 887	-
	16	GW 92 087	GW 92 687	GW 92 888	-
	20	GW 92 088	GW 92 688	GW 92 888	-
	25	GW 92 089	GW 92 689	GW 92 889	-
	32	GW 92 090	GW 92 690	GW 92 890	-
	40	GW 92 091	GW 92 691	GW 92 891	-
	50	GW 92 092	GW 92 692	GW 92 892	-
	63	GW 92 093	GW 92 693	GW 92 893	-
B	6	GW 92 285	GW 92 585	-	-
	10	GW 92 286	GW 92 586	-	-
	13	GW 92 294	GW 92 587	-	-
	16	GW 92 287	GW 92 588	-	-
	20	GW 92 288	GW 92 589	-	-
	25	GW 92 289	GW 92 590	-	-
	32	GW 92 290	GW 92 591	-	-
	40	GW 92 291	GW 92 592	-	-
	50	GW 92 292	GW 92 593	-	-
	63	GW 92 293	GW 92 594	-	-
D	1	-	GW 92 781	-	-
	2	-	GW 92 782	-	-
	3	-	GW 92 783	-	-
	4	-	GW 92 784	-	-
	6	GW 92 485	GW 92 785	-	-
	10	GW 92 486	GW 92 786	-	-
	13	GW 92 494	GW 92 794	-	-
	16	GW 92 487	GW 92 787	-	-
	20	GW 92 488	GW 92 788	-	-
	25	GW 92 489	GW 92 789	-	-
	32	GW 92 490	GW 92 790	-	-
	40	GW 92 491	GW 92 791	-	-
+					
ADD-ON RESIDUAL CURRENT DEVICE BD 4 POLES					
3.5 mod.					
					
In (A)	IΔn (mA)	AC type	A type	A[IR] type	A[S] type
≤25	30	GW 94 422	GW 94 522	-	-
	300	GW 94 423	GW 94 523	-	-
	500	GW 94 424	GW 94 524	-	-
≤63	30	GW 94 432	GW 94 532	GW 94 586	-
	300	GW 94 433	GW 94 533	-	GW 94 583
	500	GW 94 434	GW 94 534	-	-
	1000	-	-	-	GW 94 585

NOTE: they are also compatible with MTC MCBs, MDC RCBOs, MT MCBs and BD add-on RCDs 1P+N, 2 and 3 poles.

ARD must be supplied with 230 V AC phase-neutral for working.

## RESTART WITH AUTOTEST

## Technical data

TYPE	RESTART WITH AUTOTEST 2P	RESTART WITH AUTOTEST PRO 2P	RESTART WITH AUTOTEST PRO 4P
			
<b>Electrical characteristics</b>			
Reference Standards:	EN 50557, EN 61008-1		
Distribution system:	TT - TN		
Rated operating voltage (Ue): (V)	230 AC <sup>(1)</sup>		400 AC
Minimum operating voltage (min Ue): (V)	85% Ue		
Maximum operating voltage (max Ue): (V)	110% Ue		
Rated insulation voltage (Ui): (V)	500		
Dielectric strength test voltage between pole and earth: (V)	2500 AC for 1 minute		
Rated impulse withstand voltage (Uimp): (kV)	4		
Rated frequency: (Hz)	50		
Residual making and breaking capacity (IΔm): (A)	630		
Rated conditional residual short-circuit current with fuse (IΔc): (A)	10000 (gL 63A) for In=25-40A 10000 (gL 80A) for In=63A		
Number of poles:	2		4
Type of associated residual current circuit breaker:	A[IR]		
Rated current (In): (A)	25 - 40		25 - 40 - 63
Rated residual operating current (IΔn): (mA)	30		30 - 300
Rated non-operating resistance between live parts and earth (Rdo): (kΩ)	20	8	8 (30mA) - 2.5 (300mA)
Rated operating resistance between live parts and earth (Rd): (kΩ)	70	16	16 (30mA) - 5 (300mA)
Power loss at In: (W)	2.2 (25A) - 5.4 (40A) - 6.2 (63A)		3.5 (25A) - 6 (40A) - 12 (63A)
Off-load absorbed power: (VA)	4 (cosφ=0.2)		
Power absorbed during automatic reclosing: (VA)	41 (cosφ=0.5)		
Reclosing control:	automatic		
Power supply:	from above		
<b>Mechanical characteristics</b>			
Width in DIN modules:	5		7
Reclosing time: (s)	10		
Autotest cycle time: (s)	7		
Maximum operating frequency: (oper/h)	30		
Max mechanical endurance (total no. operations):	4000		
Maximum no. of consecutive automatic reclosure operations <sup>(2)</sup> :	3		
Counter reset time no. of consecutive automatic reclosure operations: (s)	60		
Section of circuit breaker terminals: (mm <sup>2</sup> )	≤ 35 flexible cable - ≤ 35 rigid cable		
Rated tightening torque: (Nm)	2		
Degree of protection:	IP20 (terminals) - IP40 (front)		
Operating temperature: (°C)	-25 +40		-25 +60 <sup>(3)</sup>
Storage temperature: (°C)	-40 +70		
Tropicalisation:	55°C - RH 95%		
<b>Auxiliary contact characteristics</b>			
Type of contact:	Photomos		
Operating voltage: (V)	5÷230 AC/DC		
Operating current: (mA)	0.6 (min) - 100 cosφ=1 (max)		
Operating frequency: (Hz)	50		
Category of use:	AC12		
Operating mode:	NO / NC / NC + impulse <sup>(4)</sup>		
Terminal section: (mm <sup>2</sup> )	≤ 2.5		
Rated tightening torque: (Nm)	0.4		
<b>ReStart function</b>			
Regular and automatic RCCB test:	•	•	•
Light signalling for autotest cycle in progress:	•	•	•
Light signalling for any device anomaly:	•	•	•
<b>ReStart function</b>			
Automatic reclosure for untimely tripping:	•	•	•
Earth failure test:	•	•	•
Continuous system check:		•	•
Interruption of reclosure operation in the event of a fault:	•	•	•
Signalling of reclosure operation in progress:	•	•	•
Light signalling of failure:	•	•	•
Activation / exclusion of ReStart function:	•	•	•
Auxiliary contact for remote operating status access:	•	•	•
Internal electrical protection:	PTC	PTC	PTC

<sup>(1)</sup> Power supply 230V phase-neutral <sup>(2)</sup> In the absence of a system fault <sup>(3)</sup> Average daily temperature ≤ +35°C<sup>(4)</sup> Choosing the NC + impulse option, the auxiliary contact switches for 100ms at the end of each successful Autotest cycle.

# 90 ReSTART RANGE

## Automatic reclosing devices

### RESTART RD

#### Technical data

TYPE	RESTART RD 2P	RESTART RD PRO 2P	RESTART RD PRO 4P
			
<b>Electrical characteristics</b>			
Reference Standards:	EN 50557, EN 61008-1		EN 50557
Distribution system:		TT - TN	
Rated operating voltage (Ue): (V)		230 AC <sup>(1)</sup>	
Minimum operating voltage (min Ue): (V)		85% Ue	
Maximum operating voltage (max Ue): (V)		110% Ue	
Rated insulation voltage (Ui): (V)		500	
Dielectric strength test voltage between pole and earth: (V)		2500 AC for 1 minute	
Rated impulse withstand voltage (Uiimp): (kV)		4	
Rated frequency: (Hz)		50	
Residual making and breaking capacity (IΔm): (A)		IΔm of the associated circuit breaker	
Rated conditional residual short-circuit current with fuse (IΔc): (A)		IΔc of the associated circuit breaker	
Number of poles:	2		4
Type of SD RCCB:	A - A[IR]	A - A[IR] - A[S]	AC - A - A[IR] - A[S]
Rated current (In): (A)	25 - 40 - 63	25 - 40 - 63 - 80	25 - 40 - 63 - 80 - 100
Rated residual operating current (IΔn): (mA)	30	30 - 100 - 300 - 500	30 - 100 - 300 - 500
Rated non-operating resistance between live parts and earth (Rdo): (kΩ)	20	8 (30mA) - 2.5 (100/300/500mA)	8 (30mA) - 2.5 (100/300/500mA)
Rated operating resistance between live parts and earth (Rd): (kΩ)	70	16 (30mA) - 5 (100/300/500mA)	16 (30mA) - 5 (100/300/500mA)
Power loss at In:		Power loss of the associated circuit breaker	
Off-load absorbed power:	(VA)	0	17 (cosφ=0.2)
Power absorbed during automatic reclosing:	(VA)	18 (cosφ=0.5)	45 (cosφ=0.5)
Reclosing control:		automatic	
<b>Mechanical characteristics</b>			
Width in DIN modules:	2 (reclosing device) + 2 (RCCB)		3 (reclosing device)
Reclosing time: (s)	90		10
Maximum operating frequency: (oper./h)	15		30
Max mechanical endurance (total no. operations):	1000		4000
Maximum no. of consecutive automatic reclosure operations <sup>(2)</sup> :		3	
Counter reset time no. of consecutive automatic reclosure operations:	(s)	180	60
Section of circuit breaker terminals: (mm <sup>2</sup> )		≤ 35 flexible cable <sup>(3)</sup> - ≤ 35 rigid cable	
Rated tightening torque:	(Nm)	2	
Degree of protection:		IP20 (terminals) - IP40 (front)	
Operating temperature: (°C)		-5 +40	-25 +60 <sup>(4)</sup>
Storage temperature: (°C)		-40 +70	
Tropicalisation:		55°C - RH 95%	
<b>Auxiliary contact characteristics</b>			
Type of contact:	-	Photomos	
Operating voltage: (V)	-	5÷230 AC/DC	
Operating current: (mA)	-	0.6 (min) - 100 cosφ=1 (max)	
Operating frequency: (Hz)	-	50	
Category of use:	-	AC12	
Operating mode:	-	NO/NC/INTERMITTENT	
Terminal section: (mm <sup>2</sup> )	-	≤ 2.5	
Rated tightening torque: (Nm)	-	0.4	
<b>ReSTART function</b>			
Automatic reclosure for untimely tripping:	•	•	•
Earth failure test:	•	•	•
Continuous system check:		•	•
Interruption of reclosure operation in the event of a fault:	•	•	•
Signalling of reclosure operation in progress:	•	•	•
Light signalling of failure:	•	•	•
Activation / exclusion of ReSTART function:	•	•	•
Auxiliary contact for remote operating status access:		•	•
Internal electrical protection:	PTC	PTC	PTC

<sup>(1)</sup> Power supply 230V phase-neutral <sup>(2)</sup> In the absence of a system fault <sup>(3)</sup> ≤ 25mm<sup>2</sup> for 4-pole versions in 3 modules

<sup>(4)</sup> Average daily temperature ≤ +35°C

## RESTART RM

## Technical data

TYPE	RESTART RM 2P	RESTART RM PRO 2P	RESTART RM PRO 4P	RM TOP	CM
					
<b>Electrical characteristics</b>					
Reference Standards:	EN 50557, EN 61009-1	EN 50557	-	-	-
Distribution system:	TT - TN	TT - TN	TT - TN - IT <sup>(1)</sup>	TT - TN - IT <sup>(1)</sup>	TT - TN - IT
Rated operating voltage (Ue): (V)		230 AC <sup>(2)</sup>			
Minimum operating voltage (min Ue): (V)		85% Ue			
Maximum operating voltage (max Ue): (V)		110% Ue			
Rated insulation voltage (Ui): (V)		500			
Dielectric strength test voltage between pole and earth: (V)		2500 AC for 1 minute			
Rated impulse withstand voltage (Uimp): (kV)		4			
Rated frequency: (Hz)		50			
Residual making and breaking capacity (IΔm): (A)		IΔm of the associated circuit breaker			
Number of poles:	2		4		
Type of MDC RCBO:	A - A[IR]	A - A[S]	AC - A - A[IR] - A[S]	AC - A - A[IR] - A[S]	AC - A - A[IR] - A[S]
Type of MT+BD RCBO:	-	-	-	AC - A - A[IR] - A[S]	AC - A - A[IR] - A[S]
Rated current (In): (A)		from 6 to 32		from 1 to 63	
Rated residual operating current (IΔn): (mA)	30	30 - 300		30 - 300 - 500 - 1000	
Rated non-operating resistance between live parts and earth (Rdo): (kΩ)	20	8 (30mA) - 2.5 (300mA)	8 (30mA) - 2.5 (300/500/1000mA)	-	-
Rated operating resistance between live parts and earth (Rd): (kΩ)	70	16 (30mA) - 5 (300mA)	16 (30mA) - 5 (300/500/1000mA)	-	-
Rated non-operating resistance between live parts (Rco): (Ω)	0.8		0.3		-
Rated operating resistance between live parts (Rcc): (Ω)	1.3		1.8		-
Power loss at In: (W)		Power loss of the associated circuit breaker			
Off-load absorbed power: (VA)	0	17 (cosφ=0.2)	16 (cosφ=0.2)	15 (cosφ=0.1)	0 (cosφ=0.2)
Power absorbed during automatic reclosing: (VA)		18 (cosφ=0.5)	34 (cosφ=0.7)	30 (cosφ=0.6)	30 (cosφ=0.6)
Reclosing control:		automatic		automatic / remote <sup>(3)</sup>	remote <sup>(3)</sup>
<b>Mechanical characteristics</b>					
Width in DIN modules:	2 (reclosing device) + 2 (RCCB)	3 (reclosing device)	4 (reclosing device)	2 (reclosing device)	
Reclosing time: (s)	90	10	3 (without system test) 10 (with system test)	3	
Remote control opening time: (s)	-	-	-	2	
Maximum operating frequency: (oper./h)	15		30		
Max mechanical endurance (total no. operations):	1000	4000	10000		
Maximum no. of consecutive automatic reclosure operations <sup>(4)</sup> :		3			-
Counter reset time no. of consecutive automatic reclosure operations:	(s)	180	60		-
Section of circuit breaker terminals: (mm <sup>2</sup> )		≤ 35 flexible cable - ≤ 35 rigid cable			
Rated tightening torque: (Nm)		2			
Degree of protection:		IP20 (terminals) - IP40 (front)			
Operating temperature: (°C)	-5 +40		-25 +60 <sup>(5)</sup>		
Storage temperature: (°C)		-40 +70			
Tropicalisation:		55°C - RH 95%			
<b>Auxiliary contact characteristics</b>					
Type of contact:	-	Photomos	Changeover	Photomos	Changeover
Operating voltage: (V)	-	5÷230 AC/DC	230 AC / 30 DC	5÷230 AC/DC	230 AC / 30 DC
Operating current: (mA)	-	0.6 (min) - 100 cosφ=1 (max)	1.5 AC / 0.8 DC	0.6(min)-100 cosφ=1(max)	1.5 AC / 0.8 DC
Operating frequency: (Hz)	-		50		
Category of use:	-		AC12		
Operating mode:	-	NO/NC/INTERMITTENT	CO	NO/NC/INTERMITTENT	CO
Terminal section: (mm <sup>2</sup> )	-		≤ 2.5		
Rated tightening torque: (Nm)	-		0.4		
<b>ReStart function</b>					
Automatic reclosure for untimely tripping:	•	•	•	•	
Earth failure test:	•	•	•	•	
Short-circuit check:	•	•	•	•	
Settable insulation threshold:				•	
Continuous system check:		•	•	•	
Adjustable reset standby time <sup>(6)</sup> :				•	
Settable reclosing mode:				•	
Interruption of reclosure operation in the event of a fault:	•	•	•	•	
Signalling of reclosure operation in progress:	•	•	•	•	
Light signalling of failure:	•	•	•	•	
Activation / exclusion of ReStart function:	•	•	•	•	•
Auxiliary contact for remote operating status access:		•	•	•	•
Internal electrical protection:	PTC	PTC	PTC	PTC	PTC

<sup>(1)</sup> For IT system reclosing without fault check<sup>(2)</sup> In the absence of a system fault<sup>(2)</sup> Power supply 230V phase-neutral<sup>(3)</sup> Average daily temperature ≤ +35°C<sup>(3)</sup> Impulse duration ≥ 200ms<sup>(6)</sup> Automatic reclosure delay time: 0÷1h

# 90 MCB range

Modular circuit breakers for circuit protection

## MCBs for circuit protection

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

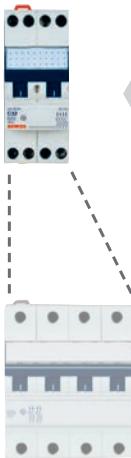
The MT MCBs, based on unique and innovative design solutions and the use of high quality materials, stand out for their optimum performance, robustness and long-term reliability.

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

2P



4P



**MCB - MTC**  
Miniature circuit  
breakers

**Compact  
GEWISS**

**-50%  
overall  
dimensions**

**Market  
standard**



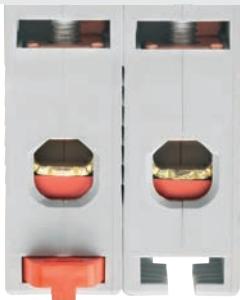
MTC



MT



MTHP



### Maximum safety

In addition to the characteristic of the double DIN clip, which allows a more steady mounting and facilitates maintenance operations, the terminals are supplied with protective and sliding insulation insert for the maximum safety of tightening and against any possible contacts with live parts.



### Accessories to simplify use

The complete integration among the circuit breakers and all electrical auxiliaries the 90 range allow to simply the accessory management.



### Quick identification

The label holder is suitable for identification of the function of every circuit and it is available across the range.



# 90 MCB range

Modular circuit breakers for circuit protection

			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.
			<b>MTC 100</b>									
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	-	-	-	-
	B	63	-	-	GW 92 613	GW 92 653	GW 92 673	GW 92 693	-	-	-	-
		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	-	-	-	-
	D	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	-	-	-	-
		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 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
		125	-	-	-	-	-	-	GW 93 307	GW 93 327	GW 93 337	GW 93 347
			<b>MT 250</b>						<b>MTHP 250</b>			
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	-	-	-	-
	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	-	-	-	-
	C	25	-	-	GW 92 809	GW 92 849	GW 92 869	GW 92 889	-	-	-	-
		6	-	-	GW 92 805	GW 92 845	GW 92 865	GW 92 885	-	-	-	-
25000	C	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

# RCBOs, RCCBs and ADD-ONS for residual current protection

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

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

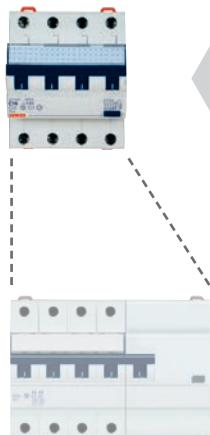
Wide range of versions:

- instantaneous: type AC - A
- impulse resistant: type A - B
- selective: type A - B
- with adjustable tripping threshold and time delay: type A

**2P**



**4P**



**RCBO - MDC**

Residual current circuit breakers with overcurrent protection

**Compact  
GEWISS**

**-50%  
overall  
dimensions**

**Market  
standard**



**MDC**



**BD and BDHP**



**SD**

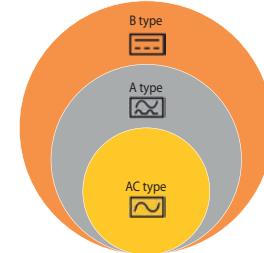


**SD B type**



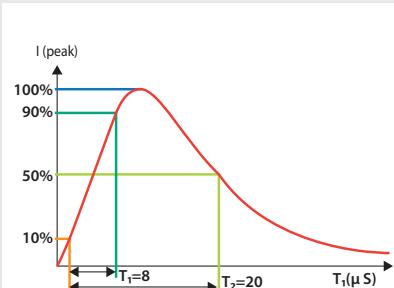
**Quick test**

The Add-on RCD's are provided with a test button which tests the correct mechanical coupling with circuit breaker before supplying. This is an important test that ensures the correct operation of trip mechanism. Moreover, the only one lever allows to identify the type of fault that has caused the device to trip. A yellow flag indicates earth fault.



**A circuit breaker  
for every need**

Thanks to the wide possibility of choice, the 90 RCD range allows to meet all the needs of protection in electrical circuit with different types of earth fault currents, from sinusoidal alternating shape (AC type) and pulsating (A type), due to the presence of electronic devices, up to smooth DC shape (B type) used, for example, for the protection of inverters, UPS and medical equipment.



**Without interruption**

In addition to AC, A and B types, the 90 RCD range offers also the Impulse Resistant IR version with high resistance to untimely tripping due to overvoltage impulses. This version is particularly suitable for installations where the continuity of service is extremely important. The IR version, available for MDC, BD and SD, stands out for its ability to provide safety and, at the same time, to not trip during atmospheric discharges, during driving with critical inrush current and in presence of harmonics that usually open the standard RCD's without real fault.

# 90 RCD range

Modular circuit breakers for residual current protection

## Selection tables

				RESIDUAL CURRENT CIRCUIT BREAKERS							
				IΔn = 30mA				IΔn = 300mA			
Icn [A] (EN 61009-1)	Curve	Type	In [A]	1P+N	2P	3P	4P	1P+N	2P	3P	4P
				2 mod.	2 mod.	3 mod.	4 mod.	2 mod.	2 mod.	3 mod.	4 mod.
				MDC 45							
<b>4500</b>	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
			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
	A	AC	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>6000</b>	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
			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
	A	AC	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
			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
	A[IR]	AC	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	-	-	-	-
			20	-	GW 95 808	-	GW 95 818	-	-	-	-
			25	-	GW 95 809	-	GW 95 819	-	-	-	-
			32	-	GW 95 810	-	GW 95 820	-	-	-	-
	A[S]	A	16	-	-	-	-	-	GW 95 847	-	GW 95 857
			20	-	-	-	-	-	GW 95 848	-	GW 95 858
			25	-	-	-	-	-	GW 95 849	-	GW 95 859
			32	-	-	-	-	-	GW 95 850	-	GW 95 860
<b>B</b>	B	A	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 circuit breakers for residual current protection

			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 94 697	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 94 877	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	-	
40	B[IR]	30	GW 95 701 *	-	GW 95 716	-	
		300	-	-	GW 95 718	-	
	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	-	
63	A[S]	300	GW 94 924	-	GW 94 966	-	
		30	GW 95 706 *	-	GW 95 721	-	
	B[IR]	300	-	-	GW 95 723	-	
		300	-	-	-	-	
	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	-	
80	A[IR]	30	GW 95 661	-	GW 95 686	-	
		300	-	-	GW 95 688	-	
	A[S]	300	GW 94 934	-	GW 94 976	-	
		30	-	-	GW 95 726	-	
	B[IR]	300	-	-	GW 95 728	-	
		500	-	-	GW 95 729	-	
	B[S]	300	-	-	GW 95 737	-	
		300	-	-	-	-	
100	AC	30	GW 94 793	-	GW 94 761	GW 94 727	
		100	GW 94 794	-	GW 94 771	-	
		300	GW 94 795	-	GW 94 766	GW 94 728	
	A	30	GW 94 847	-	GW 94 947	-	
		100	GW 94 848	-	GW 94 948	-	
		300	GW 94 849	-	GW 94 949	-	
	A[S]	300	GW 94 944	-	GW 94 986	-	
		30	-	-	GW 95 731	-	
	B[IR]	300	-	-	GW 95 733	-	
		300	-	-	GW 95 743	-	
125	AC	30	-	-	GW 94 777	GW 94 737	
		100	-	-	GW 94 778	-	
		300	-	-	GW 94 779	GW 94 739	
		500	-	-	GW 94 780	-	
	A	30	-	-	GW 94 957	-	
		100	-	-	GW 94 958	-	
		300	-	-	GW 94 959	-	
		500	-	-	GW 94 960	-	
	A[IR]	30	-	-	GW 95 696	-	
		300	-	-	GW 95 698	-	
	A[S]	300	-	-	GW 94 996	-	
		300	-	-	-	-	

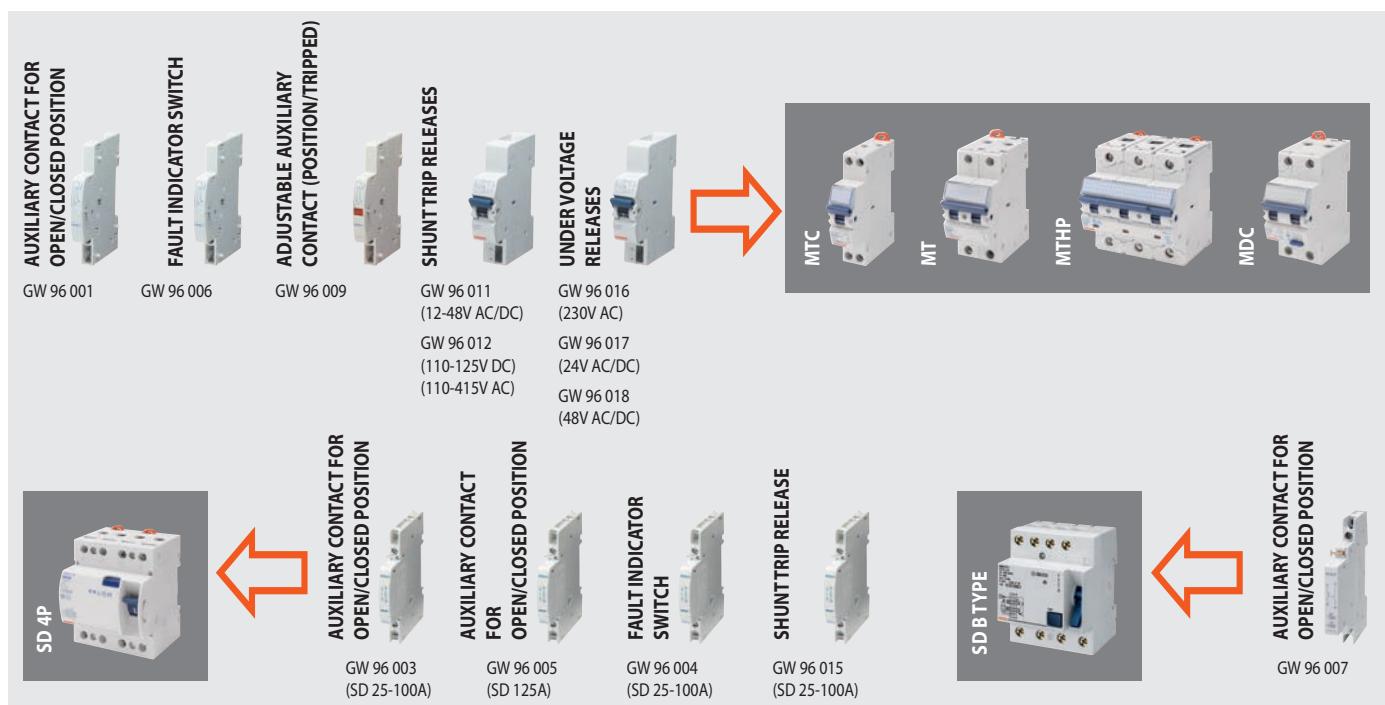
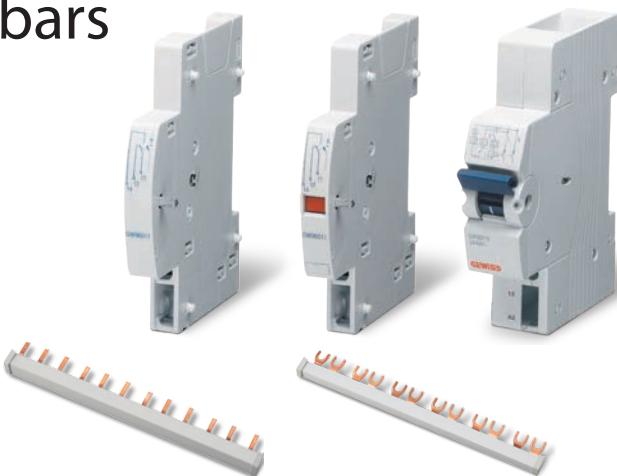
\* 4 modules

\*\* RCDs with neutral on the left

# Electrical auxiliaries and busbars

The **auxiliary contacts** and shunt trip releases, common to all MCBs and RCBOs, allow simplicity, interchangeability, multiple uses and rationalisation of the items. The range is completed by modular auxiliaries specifically for the RCCB range.

The **busbars** reduce the wiring and labour times, without the need to use cables and crimps. They are available in pin and fork versions with 12 modules, up to one metre long.



		PIN BUSBARS		FORK BUSBARS		ISOLATED TERMINAL FOR PIN BUSBARS		BUSBAR END CAPS		PROTECTION CAPS					
		12 mod.	1 metre	12 mod.	1 metre										
For MT-MDC	1P	GW 96 984	GW 96 988	GW 96 992	GW 96 996	GW 96 961	GW 96 962	GW 96 963	GW 96 967						
	2P	GW 96 985	GW 96 989	GW 96 993	GW 96 997										
	3P	GW 96 986	GW 96 990	GW 96 994	GW 96 998										
	4P	GW 96 987	GW 96 991	GW 96 995	GW 96 999										
		12 mod.								5 pieces					
For MDC	Up to 6 MDC 1P+N / 2P	-		GW 96 491		-		-		GW 96 967					
For MTC	13 mod.	1 metre				GW 96 503	-	-	-	5 pieces					
	1P (grey)	GW 96 500		-											
	1P (blue)	GW 96 501		-						GW 96 967					
		1P (white)		GW 96 988											
		13 mod.		6 mod.		12 mod.				5 pieces					
For SD 2P	Up to 11 MTC 1P+N / 2P	GW 96 504 F		-		-		-							
For SD 4P 3 mod.	Up to 9 MT 1P / 3 MT 3P	-		GW 96 071*		GW 96 969	-	-	-						
For SD 4P 4 mod.	Up to 8 MT 1P	-		GW 96 492*						GW 96 967					
		GW 96 493*		-		-		-							

\* Suitable for compensating any difference in height between main circuit breakers (SD) and outgoing circuit breakers (MT).

# 90 AM range

## Modular accessories

### Protection

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

- LST surge protective devices
- disconnectable fuse-holders
- residual current relay with separate toroid
- motor protection switches



LST surge protective devices

Compact fuse-holder

#### LST - SURGE PROTECTIVE DEVICES

	TYPE 1+2		TYPE 2			
I <sub>max</sub> (kA)	230V	400V	230V	400V	230V	400V
20	-	-	-	-	GW D6 407	GW D6 409
					2 mod.	4 mod.
40			GW D6 411	GW D6 413	GW D6 417	GW D6 419
			1 mod.		2 mod.	4 mod.
			GW D6 412*	1 mod.	GW D6 418*	GW D6 420*
			1 mod.		2 mod.	4 mod.
65 (I <sub>imp</sub> =12.5kA)	GW D6 401	GW D6 402	-	-	-	-
	2 mod.	4 mod.				
100 (I <sub>imp</sub> =25kA)	GW D6 404*	GW D6 405*	-	-	-	-
	4 mod.	8 mod.				

\*With auxiliary contact

#### MOTOR PROTECTION SWITCHES

In (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



In (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	-	-	-
			1 mod.			
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.

#### RCD RELAY



GW 96 331	3 mod.
+	

#### SEPARATE TOROID



Diameter (mm)	In 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

# Command

The command accessories allow the connection and disconnection of loads and the isolation of the electrical system. The range is made up of:

- switch disconnectors
- latching relays
- control relays
- CTR contactors
- installation relays



AC switch  
disconnectors

CTR contactors

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

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

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

\* DC voltage

CTR CONTACTORS						
	In (A)		20		25	
TYPE OF CONTACTS	Coil voltage (V)	24 AC	230 AC	24 AC-DC	230 AC-DC	24 AC-DC
1 NO	-	GW D6 701		-	-	-
		1 mod.				
2 NO	GW D6 702	GW D6 703	GW D6 711	GW D6 712	GW D6 721	GW D6 731
	GW D6 741*	GW D6 742*		GW D6 751*		
	1 mod.	1 mod.	2 mod.	2 mod.	3 mod.	3 mod.
3 NO	-	GW D6 708	-	GW D6 713	GW D6 722	GW D6 732
				GW D6 752*		
		2 mod.		2 mod.		3 mod.
3 NO + 1 NC	-	-	-	GW D6 718	-	GW D6 735
				2 mod.		3 mod.
4 NO	-	GW D6 709	GW D6 714	GW D6 715	GW D6 723	GW D6 724
			GW D6 753*	GW D6 754*		GW D6 733
		2 mod.	2 mod.	3 mod.	3 mod.	3 mod.
2 NC	-	GW D6 705	-	-	-	-
		GW D6 743*				
	1 mod.					
4 NC	-	-	GW D6 716	GW D6 717	-	-
			2 mod.	2 mod.		
1 NO + 1 NC	GW D6 706	GW D6 707	-	-	-	-
		GW D6 744*				
	1 mod.	1 mod.				
2 NO + 2 NC	-	-	-	-	GW D6 725	-
					3 mod.	

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

\* Manual control version

\* DC voltage

\*\* With central command function

\*\*\*\* DC voltage with central command function

# 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 even simpler and more intuitive flexible use for the most common installation situations.



Digital time switches



Twilight switches

TIME SWITCHES				ASTRONOMICAL SWITCH	TWILIGHT 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.			

TIMERS	
Multifunction timer	Asymmetrical timer
GW 96 814	GW 96 815

STAIRCASE LIGHTING TIMERS	
With switch-off warning	Without switch-off warning
GW 96 813	GW 96 810

# Measurement

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



Multimeter



Network 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)			
GW 96 872	Direct (max 20A)			
GW 96 873	Direct (max 30A)			
GW 96 878	Using CT / 5A			

DIGITAL ENERGY METERS				
Three-phase		Single-phase		
GW D6 806	Direct (max 80A)	4 mod.	GW D6 801	1 mod.
GW D6 808	Using CT / 5A			

DIGITAL MEASUREMENT DEVICES			
Network analyser		Multimeter	
GW 96 899	4 mod.	GW 96 897	2 mod.

# 90 AM range

## Modular accessories

### 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 and buzzers

#### INDICATOR LAMPS



1 mod.	Un (V)	
LED colour	12-24-48 AC/DC	230 AC
Red	GW 96 586	GW 96 581
Green	GW 96 587	GW 96 582
Yellow	GW 96 588	GW 96 583
Blue	GW 96 589	GW 96 584
White	GW 96 590	GW 96 585
Green and red	-	GW 96 591
Triple red	-	GW 96 592

#### PUSH-BUTTONS WITH LED



1 mod.	Un (V)		
Type of contact	LED colour	12-24-48 AC/DC	230 AC
1 NO	Green	GW 96 570	GW 96 566
1 NC	Red	GW 96 571	GW 96 567
1 NO + 1 NC	Green	-	GW 96 568
1 NO + 1 NC	Red	-	GW 96 569

#### BELLS AND BUZZERS



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

#### BELL TRANSFORMERS



A (VA)	Secondary voltage (V)		No. of modules
	12	24	
5	GW 96 421	GW 96 422	2 mod.
	GW 96 423	GW 96 424	
	GW 96 425	GW 96 426	
10	GW 96 431	GW 96 432	3 mod.
	GW 96 433	GW 96 434	

#### SAFETY TRANSFORMERS



A (VA)	Secondary voltage (V)		No. of modules
	24	48	
15	GW 96 321	-	3 mod.
	GW 96 322	-	
	GW 96 323	-	
25	GW 96 324	-	4 mod.
	-	-	
40	GW 96 325	-	6 mod.
	-	-	
63	GW 96 326	-	6 mod.
	-	-	

# Products for photovoltaic systems

The 90 PV range includes 6 string board versions that meet the various installation requirements in the photovoltaic sector - whether residential, commercial or industrial. Each string board version has a different number of strings or string voltage level.

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

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



String boards



DC switch disconnectors



DC LST surge protective device



DC fuse-holders



Ready to be connected

The string boards are already complete with cable glands and terminal blocks enabling quick and 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 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.



The ideal range  
for every application

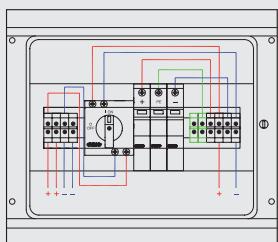
The 90 PV range contains 6 versions to meet the most varying photovoltaic plant engineering requirements, from residential applications to commercial/industrial sectors. The different versions are distinguished by the number of strings that can be managed and by the voltage level of the photovoltaic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

# 90 PV range

## Products for photovoltaic systems

### 90 PV RANGE - PRE-WIRED STRING BOARDS

2 STRINGS - 600V DC - 25A  
GW D9901



Pre-wired board for connecting 1 or 2 strings of photovoltaic panels to the inverter. Includes:  
• watertight enclosure  
• 1 rotary switch disconnector 2-pole  
• 1 surge protective device with extractable cartridges

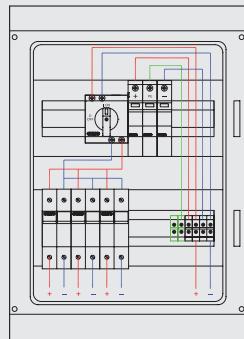
#### TECHNICAL DATA

Reference 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 disconnector (Ue):	600V DC
Rated current of the switch disconnector (In):	25A
Rated 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.

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

GW D9902



Pre-wired board for connecting 3 strings of photovoltaic panels to the inverter. Includes:  
• watertight enclosure  
• 1 rotary switch disconnector 2-pole  
• 1 surge protective device with extractable cartridges  
• 3 disconnectable fuse-holders

#### TECHNICAL DATA

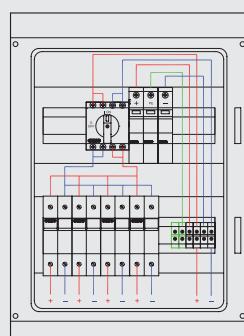
Reference Standards:	EN 61439-1 and EN 61439-2
No. of modules of 40CDK enclosure:	2x12
Degree of protection:	IP65
Insulation class:	Class II
Rated voltage of the switch disconnector (Ue):	600V DC
Rated current of the switch disconnector (In):	25A
Rated voltage of the SPD (Un):	600V DC
Connection cable 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. Includes:  
• watertight enclosure  
• 1 rotary switch disconnector 4-pole  
• 1 surge protective device with extractable cartridges  
• 4 disconnectable fuse-holders

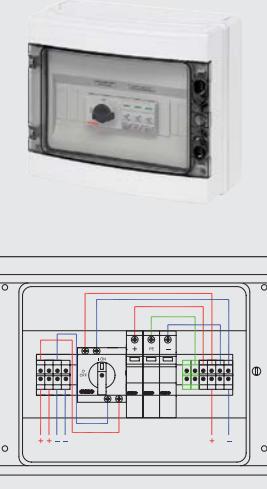
#### TECHNICAL DATA

Reference 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 disconnector (Ue):	600V DC
Rated current of the switch disconnector (In):	50A (2 poles in parallel)
Rated 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.

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



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

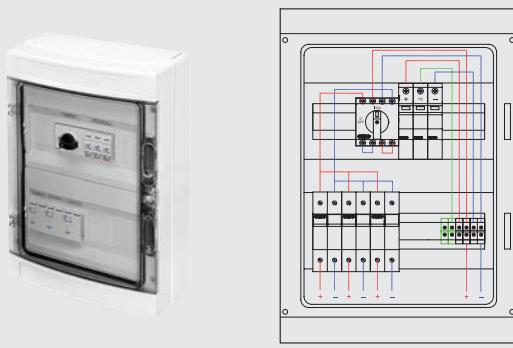
- watertight enclosure
- 1 rotary switch disconnector 2-pole
- 1 surge protective device with extractable cartridges

### TECHNICAL DATA

Reference 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 disconnector (Ue):	800V DC
Rated current of the switch disconnector (In):	20A
Rated 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.

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



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

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

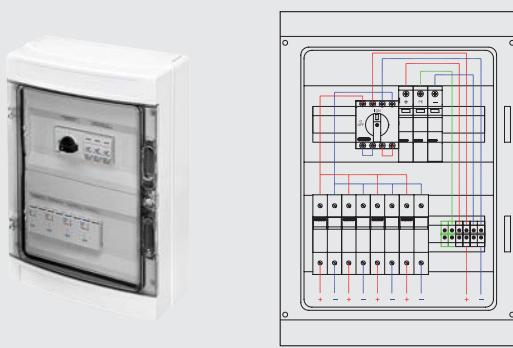
### TECHNICAL DATA

Reference 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 disconnector (Ue):	1000V DC
Rated current of the switch disconnector (In):	32A (4 poles in series)
Rated 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. Includes:**

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

### TECHNICAL DATA

Reference 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 disconnector (Ue):	1000V DC
Rated current of the switch disconnector (In):	32A (4 poles in series)
Rated 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.

# 90 PV range

## Products for photovoltaic systems

90 PV RANGE - MODULAR DEVICES IN DIRECT CURRENT						
SWITCH DISCONNECTORS						
			Compact DC switch disconnector suitable for photovoltaic installations up to 32A 1000V DC			
TECHNICAL DATA						
Reference Standards:			EN 60947-3			
Utilisation category:			DC21B / DC22B			
Rated insulation voltage (Ui):			1000V			
Rated impulse withstand voltage (Uimp):			8kV			
Operating temperature:			-40 to +65°C			
Max. cable section:			16mm² (solid or stranded) 10mm² (flexible, also with terminals)			
Code	Modules	Poles	Utilisation category	Rated operating voltage (Ue)		
				600V DC	800V DC	1000V DC
				Rated operating current (In)		
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			
TECHNICAL DATA						
Reference Standards:			EN 61643-11			
Type:			Type 2 (8/20 µs)			
Rated discharge current (In):			20kA			
Maximum discharge current (Imax):			40kA			
Back-up protection:			if $I_{cc} > 100$ A DC, fuse type gPV ≤ 20A if $I_{cc} < 100$ A DC, protection not necessary			
Code	Rated voltage of the SPD (Un)	Maximum continuous operating voltage (Uc)	Voltage protection level at In (Up)		Modules	
			≤ 2.6kV		3	
GW D6 426	600V DC	700V DC	≤ 4kV		3	
GW D6 428	1000V DC	1170V DC				

### SPARE CARTRIDGES

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

DISCONNECTABLE FUSE-HOLDERS		
		Fuse-holder bases for protection and isolation of the photovoltaic strings
TECHNICAL DATA		
Reference Standards:		EN 60947-3
Utilisation category:		DC20B
Rated operating 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	
TECHNICAL DATA	
Reference Standards:	IEC 60269-6
Dimensions:	10.3 x 38mm
Type:	gPV
Rated operating 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

# Moulded-case circuit breakers for power distribution

The **MTX** range is the best solution for industrial installations and advanced commercial applications where there is a need for high rated current and breaking capacity, perfectly integrated with the CVX 47 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**

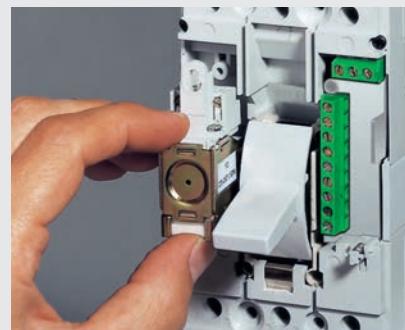


**MTSE 1600 / MTSM 1600**



### Ideal range for every need

The moulded case circuit breakers **MTX** range is made up of circuit breakers with thermal-magnetic release, circuit breakers with magnetic release only, circuit breakers with electronic release, switch disconnectors, add-on residual current circuit breaker.



### Complete and specific accessories

The **MTX** range is full of common accessories that streamline the installation and allow to reach additional functions such as remote opening, operating status by remote, engine control etc.



### Positive operation

The operating lever always indicates the precise position of the moving contacts of the circuit-breaker, thereby guaranteeing safe and reliable signals, in compliance with the prescriptions of the IEC 60073 and IEC 60417-2 Standard. The circuit-breaker operating mechanism has free release regardless of the pressure on the lever and the speed of the operation.

# MTX range

Moulded-case circuit breakers for power distribution

## Selection tables

			MTX 160C							
			In [A]	B (16kA)		C (25kA)		N (36kA)		
Release		Magnetic threshold 10 lth		3P	4P	3P	4P	3P	4P	
THERMAL MAGNETIC	TM1		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: can be fixed on the DIN EN 50022 profile using the GW D8 261 fixing bracket.

			MTX/E 160							
			In [A]	N (36kA)		S (50kA)		H (70kA)		
Release		Magnetic threshold 10 lth		3P	4P	3P	4P	3P	4P	
THERMAL MAGNETIC	TM1		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	-	-	-	-	
			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	
			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	
		LS/I	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	-	-	-	
		Magnetic threshold 6+12 lth	20	GW D7 112	-	GW D7 132	-	-	-	
			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: can be fixed on the DIN EN 50022 profile using the GW D8 261 fixing bracket.







# 97 MSS range

Rotary switch disconnectors

## Rotary switch disconnectors

Thanks to their state-of-the-art technological solutions, the **MSS** switch disconnectors guarantee high performance both in AC and in DC, ensuring the maximum hold even in the event of short-circuiting or with a high number of operations in heavy working conditions.



MSS 125



MSS 160



MSS 250



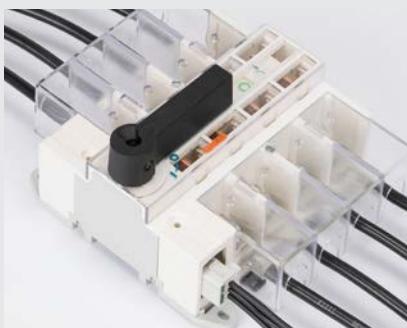
MSS 630



3-way switch  
10 II



MSS 160 ATS



### Fully accessorized

For specific applications, the switch-disconnectors can be fitted with IP65 watertight rotary handles (shaft extension included), auxiliary contacts, terminal covers, parallel connections.



### Perfect integration

Thanks to the dedicated installation kit MSS switch disconnectors are perfectly integrated with the 47 CVX distribution boards. The high versatility of the MSS disconnectors allow a total synergy with the 46 range of automation and distribution boards.



### Reliable change-over

The simplicity of the set-up of the MSS 160 ATS product, the different functions (with excludable automatic return to a priority line) and self-powering (L-N directly from the main line) make it a high performing product and highly competitive in automatic change-over application for 2 low voltage networks.

## Selection tables

	MSS 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
In [A]	3P	4P	3P	4P	3P	4P	3P	4P	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	-	-	-

### 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

Note: 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 160 I/E range

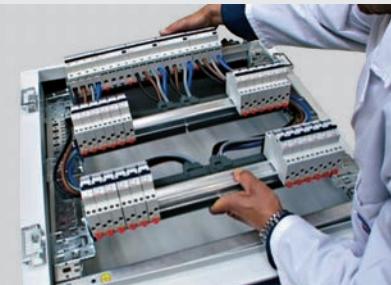
Distribution boards up to 160A

## Metal boards up to 160A

The CVX160 I and CVX160 E ranges offer the widest choice for protection in indoor contexts, not to mention a modern, practical design.

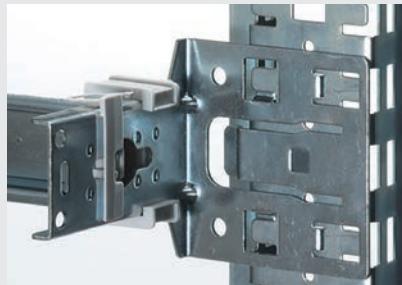
The **CVX 160 I** range has flush-mounting boards with a degree of protection up to IP40 and up to  $In=160A$ . The choice of board is simple and quick (only one GW code) because the DIN rails, front panels and all the fixing accessories are already included.

The **CVX 160 E** range has wall-mounting boards with a degree of protection up to IP65 and up to  $In=160A$ . The range enables the creation of configurations to suit specific needs, from a minimum capacity of 72 modules to a maximum of 192, choosing the appropriate installation kit (150mm or 200mm pitch).



**Easy and fast installation**

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



**Installation without screws and tools**

The fixing supports have been designed to be mounted without screws thanks to pre-holed on the function sides. Moreover the innovative support allows the fixing of the din rails on the brackets and their adjustments in depth without using any tools.



**Quick fastening of the insulating panel**

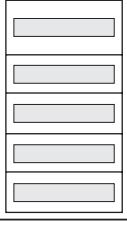
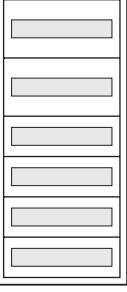
The front panels in plastic material allow for quick fixing by means of two inserts  $\frac{1}{4}$  turn and the earthing connection is not necessary. For all range it is supplied a kit for the installation of the hinges on the front panels.

# 47 CVX 160 I range

**GEWISS**

Flush-mounting distribution boards up to 160A

## Selection tables

CVX 160 I STRUCTURES				
PRE-ASSEMBLED BOARDS COMPLETE WITH DIN RAILS AND FRONT PANELS, WITH FIXING ACCESSORIES INCLUDED				
STRUCTURES				
FUNCTIONAL DIM. (LxH)	600x600mm	600x800mm	600x1000mm	
<b>GENERAL CHARACTERISTICS</b>	<b>NO. EN 50022 MODULES (17.5mm)</b>			
In: up to 160A Capacity: 24 modules* per row Installation: indoors Colour: Grey RAL 7035	96	120	144	
No. of rows x No. of modules	4 rows x 24 modules 	5 rows x 24 modules 	6 rows x 24 modules 	
Height of panels with windows: (mm)	150	200 (first row) 150 (the other rows)	200 (first two rows) 150 (the other rows)	
IP30	 without door	GW 47 072	GW 47 073	GW 47 074
IP40	 glass door	GW 47 082	GW 47 083	GW 47 084
	 solid door	GW 47 087	GW 47 088	GW 47 089

\* EN 50022 modules (17.5mm)

# 47 CVX 160 E range

Surface-mounting distribution boards up to 160A

## Selection tables

CVX 160 E STRUCTURES					
GENERAL CHARACTERISTICS		STRUCTURES			
		600x600mm	600x800mm	600x1000mm	600x1200mm
IP30	without door 	GW 47 001 E	GW 47 002 E	GW 47 003 E	GW 47 004 E
IP40	glass door 	GW 47 011 E	GW 47 012 E	GW 47 013 E	GW 47 014 E
	solid door 	GW 47 021 E	GW 47 022 E	GW 47 023 E	GW 47 024 E
IP55	glass door 	GW 47 031 E	GW 47 032 E	GW 47 033 E	GW 47 034 E
	solid door 	GW 47 041 E	GW 47 042 E	GW 47 043 E	GW 47 044 E
IP65	solid door 	-	GW 47 062 E	GW 47 063 E	GW 47 064 E

NOTE: the codes do not include the DIN rail and front panels.

# 47 CVX 630 K - M range

GEWISS

Modular distribution boards up to 630A

## Metal boards up to 630A

The CVX 630 K and CVX 630 M ranges offer the widest choice for protection in indoor contexts, not to mention a modern, practical design.

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

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



### Synergy

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



### Simple and quick wiring

The CVX 630K modular distribution boards are designed to make wiring and assembly operations easier and quicker. In fact, the wiring can be carried out with the structures "fully open" and then the board assembly can be completed.



### Easier assembly and maintenance

The metallic components of the board ensure a contact earth connection, hence avoiding the need for additional connections.

The front panels are fitted with hinges and unlosable screws for easier maintenance on the installed board.

# 47 CVX 630 K range

Modular boards up to 630A - IP43

## Selection tables

CVX 630 K (WALL-MOUNTING) STRUCTURES						
STRUCTURES						
FUNCTIONAL DIM. (LxH)	600x1000mm	600x1200mm	850x1000mm		850x1200mm	
<b>Modular capacity</b>	Pitch 150mm	144 mod. (24x6)	192 mod. (24x8)	144 mod. (24x6)	216 mod. (36x6)	192 mod. (24x8)
	Pitch 200mm	120 mod. (24x5)	144 mod. (24x6)	120 mod. (24x5)	180 mod. (36x5)	144 mod. (24x6)
<b>Structures</b>		GW 45 004	GW 45 005	GW 45 014	GW 45 015	
<b>Sides</b>		GW 45 024	GW 45 025	GW 45 024	GW 45 025	
<b>Curved glass doors</b>		GW 45 104	GW 45 105	GW 45 114	GW 45 115	
<b>Solid doors</b>		GW 45 124	GW 45 125	GW 45 134	GW 45 135	
<b>Internal cable compartment</b>		-	-	GW 45 034	GW 45 035	
<b>Side-by-side installation kit</b>		GW 45 504	GW 45 505	GW 45 504	GW 45 505	

CVX 630 K (FLOOR-MOUNTING) STRUCTURES								
STRUCTURES								
FUNCTIONAL DIM. (LxH)	600x1600mm	600x1800mm	600x2000mm	850x1600mm		850x1800mm		850x2000mm
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)
	Pitch 200mm	192 mod. (24x8)	216 mod. (24x9)	240 mod. (24x10)	192 mod. (24x8)	288 mod. (36x8)	216 mod. (24x9)	324 mod. (36x9)
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)	400x1600mm	400x1800mm	400x2000mm	
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

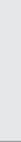
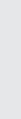
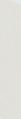
# 47 CVX 630 M range

Monobloc distribution boards up to 630A - IP55

## Selection tables

CVX 630 M (WALL-MOUNTING) STRUCTURES						
STRUCTURES						
FUNCTIONAL DIM. (LxH)	600x1000mm	600x1200mm	850x1000mm		850x1200mm	
<b>Modular capacity</b>	Pitch 150mm	144 mod. (24x6)	192 mod. (24x8)	144 mod. (24x6)	216 mod. (36x6)	192 mod. (24x8)
	Pitch 200mm	120 mod. (24x5)	144 mod. (24x6)	120 mod. (24x5)	180 mod. (36x5)	144 mod. (24x6)
<b>Structures</b>		GW 45 054	GW 45 055	GW 45 064	GW 45 065	
<b>Solid side panels</b>		GW 45 074	GW 45 075	GW 45 074	GW 45 075	
<b>Aerated side panels</b>		GW 45 394	GW 45 395	GW 45 394	GW 45 395	
<b>Curved glass doors</b>		GW 45 154	GW 45 155	GW 45 164	GW 45 165	
<b>Solid doors</b>		GW 45 174	GW 45 175	GW 45 184	GW 45 185	
<b>Internal cable compartment</b>		-	-	GW 45 084	GW 45 085	
<b>Side-by-side installation kit</b>	<b>Plates</b>		GW 45 533	GW 45 533	GW 45 533	GW 45 533
	<b>IP55 Gasket</b>		GW 47 473	GW 47 473	GW 47 473	GW 47 473

**CVX 630 M (FLOOR-MOUNTING) STRUCTURES****STRUCTURES**

FUNCTIONAL DIM. (LxH)	600x1600mm	600x1800mm	600x2000mm	850x1600mm	850x1800mm	850x2000mm
<b>Modular capacity</b>	<b>Pitch 150mm</b>	240 mod. (24x10)	288 mod. (24x12)	312 mod. (24x13)	240 mod. (24x10)	360 mod. (36x10)
	<b>Pitch 200mm</b>	192 mod. (24x8)	216 mod. (24x9)	240 mod. (24x10)	192 mod. (24x8)	288 mod. (36x8)
<b>Structures</b>		GW 45 057	GW 45 058	GW 45 059	GW 45 067	GW 45 068
<b>Solid side panels</b>		GW 45 077	GW 45 078	GW 45 079	GW 45 077	GW 45 078
<b>Aerated side panels</b>		GW 45 397	GW 45 398	GW 45 399	GW 45 397	GW 45 398
<b>Curved glass doors</b>		GW 45 157	GW 45 158	GW 45 159	GW 45 167	GW 45 168
<b>Solid doors</b>		GW 45 177	GW 45 178	GW 45 179	GW 45 187	GW 45 188
<b>Internal cable compartment</b>		-	-	-	GW 45 087	GW 45 088
<b>Side-by-side installation kit</b>	<b>Plates</b> 	GW 47 472				
	<b>IP55 Gasket</b> 	GW 47 473				

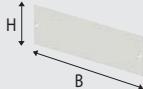
**EXTERNAL CABLE COMPARTMENT**

FUNCTIONAL DIM. (LxH)	400x1600mm	400x1800mm	400x2000mm
<b>External cable compartment</b>	GW 45 097	GW 45 098	GW 45 099
<b>Internal solid doors</b>	GW 45 352	GW 45 353	GW 45 354
<b>External solid doors</b>	GW 45 197	GW 45 198	GW 45 199

# CVX 630 K - M range

Distribution boards up to 630A

## CONFIGURATION FOR CVX 630 K - M 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
			200	GW 45 292	GW 45 202
			300	GW 45 293	GW 45 203
			300 (1)	-	GW 45 204
Solid front panels			50	GW 45 341	GW 45 301
			100	GW 45 342	GW 45 302
			150	GW 45 343	GW 45 303
			200	GW 45 344	GW 45 304
			300	GW 45 345	GW 45 305
			400	GW 45 346	GW 45 306
			600	GW 45 347	GW 45 307
			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
Profiles for fixing directly on frame		DIN EN 50022	-	-	GW 45 411
		DIN EN 50035	-	-	GW 45 412
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 45 537	GW 45 538	-
Earth busbar		-	-	GW 45 534	GW 45 535
Horizontal dividers		-	-	GW 45 453	GW 45 454

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

## COMPLEMENTARY ITEMS

Depth adapter		GW 49 209
Pair of hinges		GW 45 532
Pair of supports for wiring trunking		GW 45 521
Pair of supports for horizontal terminal block		GW 45 526
Pair of supports for vertical terminal block		GW 45 527 (internal cable compartment)
		GW 45 528 (external cable compartment)
DIN profiles 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 47 494
Rotating handle with key		GW 47 494
4 surface-mounting brackets	for CVX 630 K wall-mounting boards	GW 45 536
	for CVX 630 M floor-mounting boards	GW 47 491

## Software

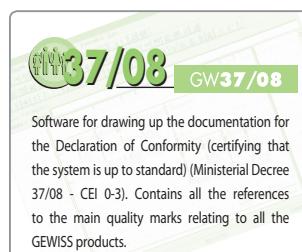
A complete software suite for the design, budgeting and certification of the GEWISS range.



Software for controlling and managing the GEWISS programs.  
Shows all the characteristics of the various software packages by means of descriptions, images and video courses, to facilitate your choice.



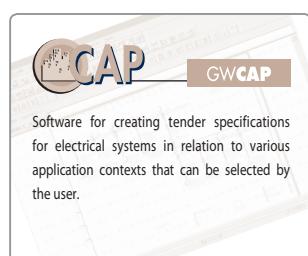
Application for automatically updating the GEWISS software.



Software for drawing up the documentation for the Declaration of Conformity (certifying that the system is up to standard) (Ministerial Decree 37/08 - CEI 0-3). Contains all the references to the main quality marks relating to all the GEWISS products.



Software for defining the "Performance level" of the electrical system in residential contexts, based on the latest version of Standard CEI 64-8.



Software for creating tender specifications for electrical systems in relation to various application contexts that can be selected by the user.



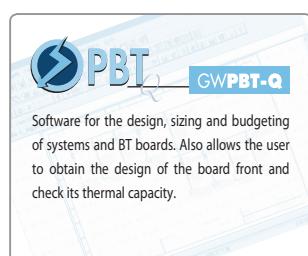
Software for the budgeting of the complete electrical system.  
Can be used autonomously, or importing the data processed by the other GEWISS programs.



Software for the design and budgeting of electrical systems. This program is interconnected with the other GEWISS software packages, allowing you to manage the graphic elements (symbols, images, drawings, etc.) of the components contained in projects processed by other GEWISS programs.



Software for the quick design and budgeting of video entryphone systems. A simple wizard helps the user choose the main system parameters.



Software for the design, sizing and budgeting of systems and BT boards. Also allows the user to obtain the design of the board front and check its thermal capacity.



Software for the certification and budgeting of worksite boards, boards for wharfs and campsites, and distribution boards, with the possibility to automatically draw up the necessary technical documentation.



Software for the design and budgeting of BUS systems, with the possibility to define the layout and the correct addressing/connection of the BUS devices.



Software for the design and budgeting of video entryphone systems, with the possibility to define the device connection layout.



Software for managing DXF drawings relating to GEWISS products, and inserting them in AutoCad or GWCAD.

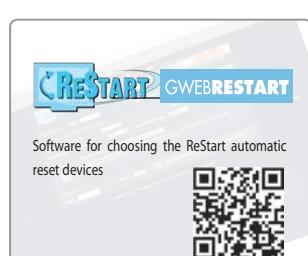


Software for the lighting design of indoor and outdoor environments, and for creating the supporting documentation for the client.



Software for the economic assessment of street lighting systems using the GEWISS ranges Avenue 1, 2 and 3 for street categories from ME1 to ME6, in accordance with the requisites of Standard UNI EN 13201-2.

## Web software



Software for choosing the ReStart automatic reset devices



Budgeting of DOMO CENTER flush-mounting system columns for distribution, domotics and data



Budgeting and thermal assessment of enclosures (CEI 23-51)



Choice of the most suitable Smart [4] for your system, and payback calculation





**GEWISS**

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