

### 44 AND 67 IB STANDARD HORIZONTAL AND VERTICAL SOCKET-OUTLETS

Industrial-type socket-outlets conforming to IEC 309 Standard, with mechanical interlock consisting of a circuit breaker enabling the plug to be connected and disconnected only in the open position, and the switch to close only with the plug inserted. Wide range including models with rotary switch and fuse-holder base, AUTOMATIKA with 6kA C characteristic miniature circuit breaker, and version with safety transformer. High application versatility thanks to the possibility of assembly in back-mounting and flush-mounting boxes, and boards of the 68 Q-DIN and Q-MC ranges.

#### TECHNICAL DATA AND COMPLIANCE WITH STANDARDS

Component	Reference Standards	Rated voltage Un (V)	Rated current In (A)	Other electrical data	Impact resistance at ambient temperature (IK code)	Resistance to abnormal heat and fire	
						Thermo-pressure with ball (°C)	Glow wire test (°C)
Interlocked switched socket-outlets	EN 60309-1 EN 60309-2 EN 60309-4 EN 61558-2-6	110 – 230 400 - 500	16 - 32 - 63	see IEC 309 range	IK 08	125	850
SELV socket-outlet		24	16		IK 08	125	850
Rotary switch	EN 60947-3	500	16 - 32 - 63	see 70 RT range	IK 08	125	850
MT60 miniature circuit breaker, C characteristic, 6kA	EN 60898-1	110 - 230 - 400	16 - 32	–	IK 08	125	850
Shell	EN 60670	–	–	–	IK 08	80	650
Safety transformer	EN 61558-2-6	230 / 24	6	P = 160 VA	–	–	–
Fuses	EN 60269-1	see fuse technical data table	16 - 32 - 63	Breaking capacity > 50 kA	–	–	–

Note: for the technical characteristics of the MT 60 C characteristic 6kA miniature circuit breaker used in the AUTOMATIKA versions, refer to the 90 MCB range.

#### BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

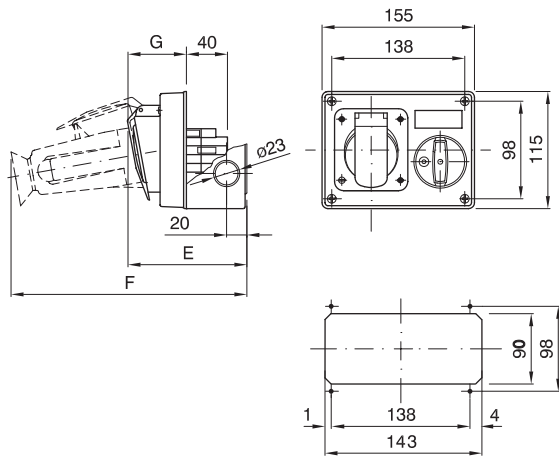
Agent	Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
		Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
IP 44 horizontal socket-outlets IP 67 SBF/CBF/ AUTOMATIKA vertical socket-outlets	Resistant	Not resistant	Limited resistance	Limited resistance	Limited resistance	Limited resistance	Not resistant	Not resistant	Limited resistance	Limited resistance	Resistant

#### APPLICATION FIELDS

Sector	Environment	Typical system	Recommended installation
Commercial	Technical rooms - Warehouses	Socket-outlets for connecting movable users for maintenance	Surface-mounting IP44 In 68 Q-DIN range boards IP65
	Trade fairs, exhibitions, public entertainment premises	Socket-outlets for connecting movable or temporary systems	Flush-mounting IP44 Surface-mounting IP44
	Large kitchens	Connecting kitchen electrical appliances	In 68 Q-DIN range boards IP65
Industrial	Production departments Chemical industry	Connecting machines	Surface-mounting IP67
	Maintenance departments	Connecting movable users for maintenance	On modular bases IP55 Surface-mounting IP67
Building	Construction and demolition sites	Distribution boards	In 68 Q-BOX ACS range boards
		Socket-outlet boards	In 68 Q-DIN range movable boards IP65
Agriculture	Greenhouses, stables	Connecting movable users	In 68 Q-DIN range boards IP65
			Surface-mounting IP67
Open places	Campsites	Power outlet in service areas	On 68 Q-MC range terminal
	Tourist harbours		

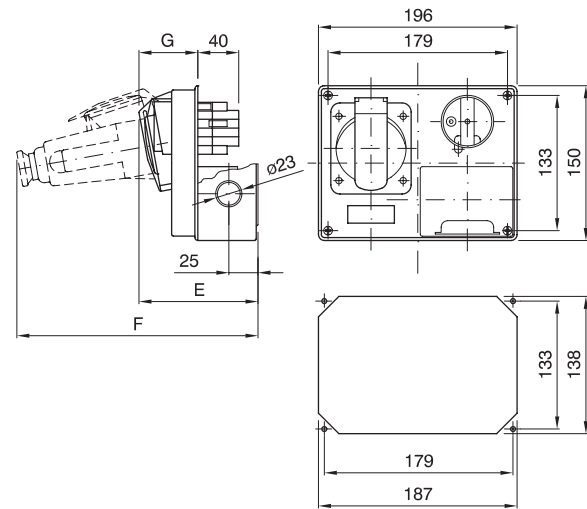
### DIMENSION TABLES

#### PROTECTED HORIZONTAL SOCKET-OUTLETS WITH INTERLOCK SWITCH AND DRILLING TEMPLATE FOR FLUSH-MOUNTING, IP44



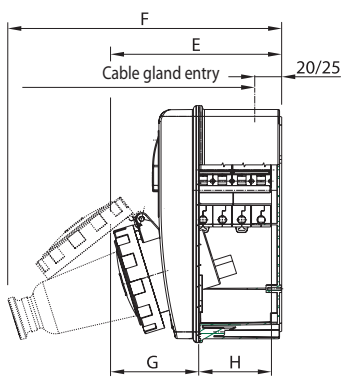
	Type	E	F	G
16A	2P + $\frac{1}{2}$	108	181	55
	3P + $\frac{1}{2}$	109	181	55
	3P + N + $\frac{1}{2}$	111	193	57
32A	2P + $\frac{1}{2}$	118	213	65
	3P + $\frac{1}{2}$			
	3P + N + $\frac{1}{2}$			

#### PROTECTED HORIZONTAL SOCKET-OUTLETS WITH INTERLOCK SWITCH, FUSE-HOLDER BASE AND DRILLING TEMPLATE FOR FLUSH-MOUNTING, IP44

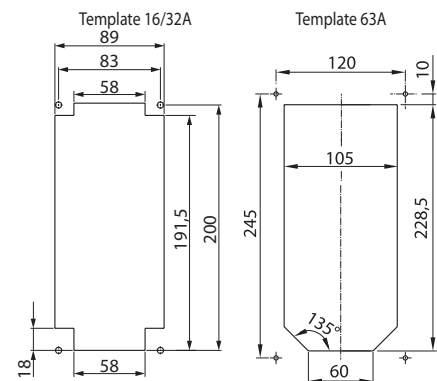
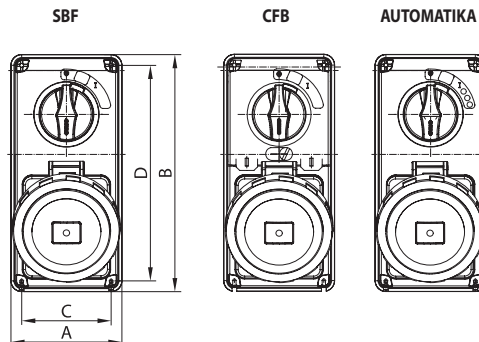
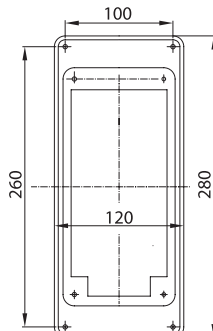


	Type	E	F	G
16A	2P + $\frac{1}{2}$	120	193	54
	3P + $\frac{1}{2}$	121	194	55
	3P + N + $\frac{1}{2}$	123	207	57
32A	2P + $\frac{1}{2}$	130	226	64
	3P + $\frac{1}{2}$			
	3P + N + $\frac{1}{2}$			

#### WATERTIGHT VERTICAL SOCKET-OUTLETS WITH ROTARY SWITCH, FUSE-HOLDER BASE AND AUTOMATIKA



ADAPTER FOR FLANGED COVER  
FOR ASSEMBLING RT - SBF - AUTOMATIKA



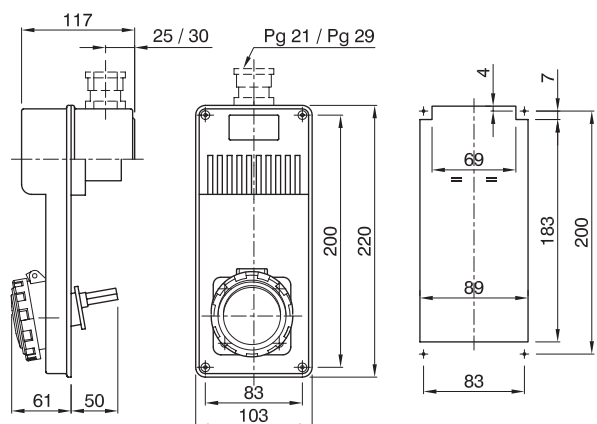
	Type	A	B	C	D	E	F	G	RT	CBF	MT
16A	2P + $\frac{1}{2}$	103	220	83	200	149	239	74	57	57	67.5
	3P + $\frac{1}{2}$	103	220	83	200	151	248	76	57	57	67.5
	3P + N + $\frac{1}{2}$	103	220	83	200	151	261	76	57	57	67.5
32A	2P + $\frac{1}{2}$	103	220	83	200	156	276	81	57	57	67.5
	3P + $\frac{1}{2}$	103	220	83	200	156	276	81	57	57	67.5
	3P + N + $\frac{1}{2}$	103	220	83	200	157	277	82	57	57	67.5
63A	2P + $\frac{1}{2}$	145	270	120	245	181	329	101	49.5	57	
	3P + $\frac{1}{2}$	145	270	120	245	181	329	101	49.5	57	
	3P + N + $\frac{1}{2}$	145	270	120	245	181	329	101	49.5	57	

**67 IB CBF - VERTICAL INTERLOCKED SOCKET-OUTLETS WITH ROTARY SWITCH AND FUSE-HOLDER**

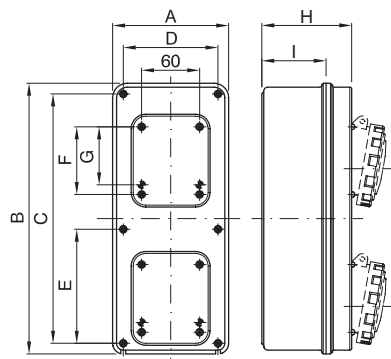
WITHOUT BOTTOM											
Code	Nominal current (In)	Rated insulation voltage (Ui)	Rated impulse withstand voltage (Uimp)	Breaking capacity	Weight	Pollution degree					
GW 66 323 N	16A	500V	4 kV	10 kA	Max 0,8 kg	3					
GW 66 324 N	16A										
GW 66 325 N	16A										
GW 66 326 N	16A										
GW 66 327 N	16A										
GW 66 328 N	16A										
GW 66 329 N	16A										
GW 66 330 N	16A										
GW 66 331 N	16A										
GW 66 332 N	16A										
GW 66 333 N	16A										
GW 66 334 N	32A						500V	4 kV	10 kA	Max 0,9 kg	3
GW 66 335 N	28A										
GW 66 336 N	28A										
GW 66 337 N	32A										
GW 66 338 N	28A										
GW 66 339 N	28A										
GW 66 340 N	32A										
GW 66 341 N	28A										
GW 66 342 N	28A										
GW 66 343 N	28A										
GW 66 344 N	28A										
GW 66 358 N	28A										
GW 66 345 N	54A	500V	4 kV	10 kA	Max 2,2 kg	3					
GW 66 346 N	52A										
GW 66 347 N	48A										
GW 66 348 N	54A										
GW 66 349 N	52A										
GW 66 350 N	48A										
GW 66 351 N	54A										
GW 66 352 N	52A										
GW 66 353 N	48A										
GW 66 354 N	52A										
GW 66 355 N	48A										

WITH BOTTOM						
Code	Nominal current (In)	Rated insulation voltage (Ui)	Rated impulse withstand voltage (Uimp)	Breaking capacity	Weight	Pollution degree
GW 66 223 N	16A	500V	4 kV	10 kA	Max 1,0 kg	3
GW 66 224 N	16A					
GW 66 225 N	16A					
GW 66 226 N	16A					
GW 66 227 N	16A					
GW 66 228 N	16A					
GW 66 229 N	16A					
GW 66 230 N	16A					
GW 66 231 N	16A					
GW 66 232 N	16A					
GW 66 233 N	16A					
GW 66 234 N	32A	500V	4 kV	10 kA	Max 1,1 kg	3
GW 66 235 N	28A					
GW 66 236 N	28A					
GW 66 237 N	32A					
GW 66 238 N	28A					
GW 66 239 N	28A					
GW 66 240 N	32A					
GW 66 241 N	28A					
GW 66 242 N	28A					
GW 66 243 N	28A					
GW 66 244 N	28A					
GW 66 258 N	28A					
GW 67 245 N	54A					
GW 67 246 N	52A					
GW 67 247 N	48A					
GW 67 248 N	54A					
GW 67 249 N	52A					
GW 67 250 N	48A					
GW 67 251 N	54A					
GW 67 252 N	52A					
GW 67 253 N	48A					
GW 67 254 N	52A					
GW 67 255 N	48A					

### WATERTIGHT VERTICAL SOCKET-OUTLETS WITH SAFETY TRANSFORMER (SELV), WITHOUT FUSE-HOLDER BASE - IP67

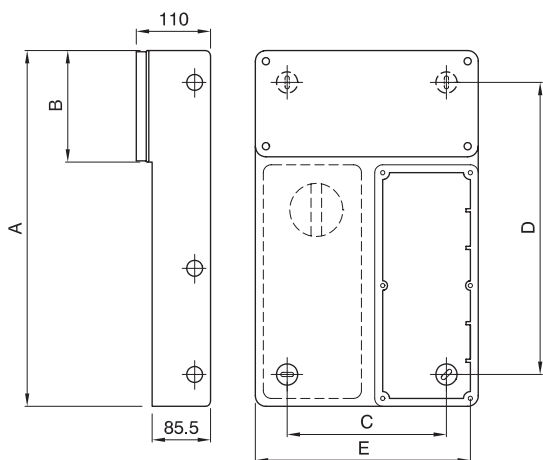


### BASE BOX WITH FLANGED COVER



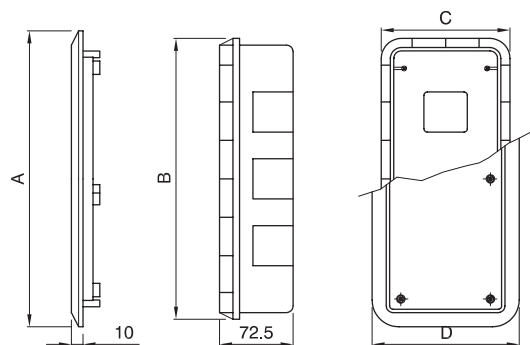
Code	Dimensions of assembled caps	A	B	C	D	E	F	G	H	I
GW 66 741 N	1 x (75x85) + 1 x (75x85 + 80x95)	103	220	200	83	-	70	60	-	-
GW 66 742 N	2 x (75x85 + 80x95)	120	280	260	100	118,5	70	60	92	66

### MODULAR BASES: 1-2-3 SOCKET-OUTLETS - IP67



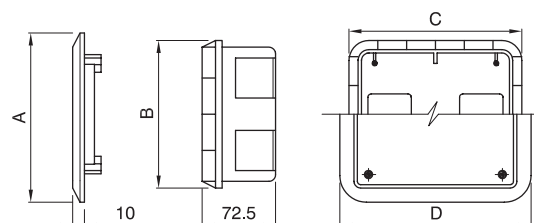
Type	Number of IB	A	B	C	D	E
16-32 A	1	360	130	50	290	107
	2			150		220
	3			263		333
63 A	1	510	160	75	440	150

### BOXES WITH FRAME AND BLANK COVER FOR FLUSH-MOUNTING, VERTICAL SOCKET-OUTLETS, 16-32A, IP67



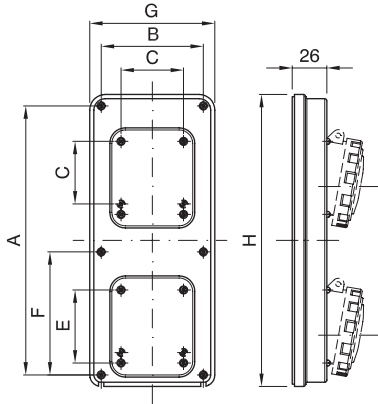
Type	A	B	C	D
16-32A	249	232	114	132

### BOXES WITH FRAME AND BLANK COVER FOR FLUSH-MOUNTING, HORIZONTAL SOCKET-OUTLETS, 16-32A, IP44, WITH AND WITHOUT FUSES



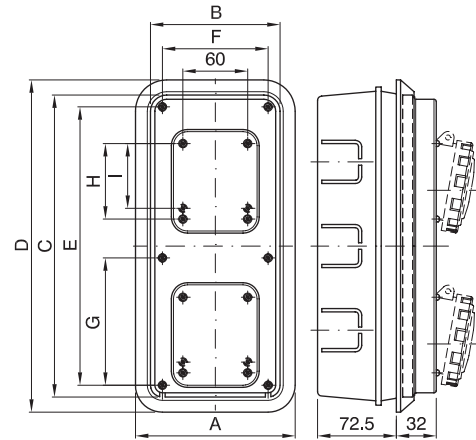
Type	A	B	C	D
SBF	141	130	170	184
CBF	179	164	208	225

### FLANGED COVER PRE-ARRANGED FOR 2 CAPS



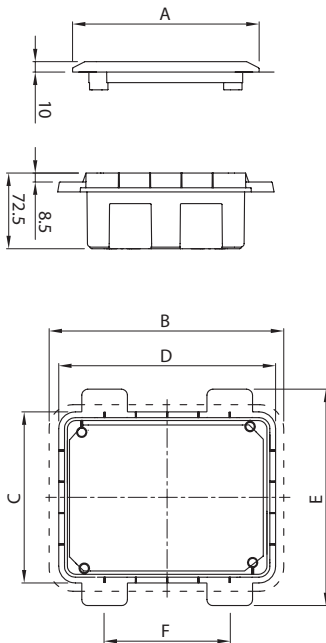
Type	Dimension of assembled	A	B	C	D	E	F	G	H
16-32A	75 x 85	200	83	60	60	-	-	103	220

### BOX WITH FRAME FOR FLUSH-MOUNTING, WITH FLANGED COVER



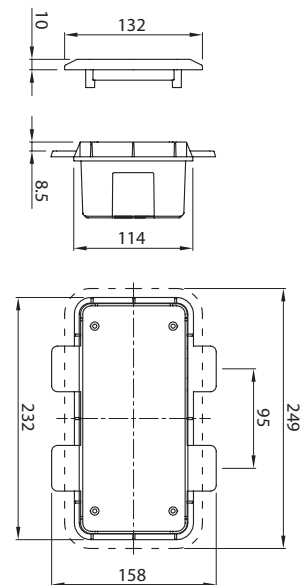
Type	Dimension of assembled	A	B	C	D	E	F	G	H	i
16-32A	75x85 + 95x80	132	103	220	249	200	83	-	-	60

### BOX WITH FRAME FOR PLASTERBOARD WALL FOR FLUSH-MOUNTING HORIZONTAL SOCKET-OUTLETS IP44 – 16-32A



Code	A	B	C	D	E	F
SBF GW 66 681 PM	141	184	130	170	174	-
CBF GW 66 682 PM	179	225	164	208	208	120

### BOX WITH FRAME FOR PLASTERBOARD WALL FOR FLUSH-MOUNTING VERTICAL SOCKET-OUTLETS IP67 – 16-32A



GW 66 683 PM

### 66 IB HEAVY DUTY SOCKET-OUTLETS

A product range comprising industrial-type socket-outlets conforming to IEC 60309 Standard, with rotary switch mechanical interlock for individual or group applications on modular bases. The robustness of the products and their resistance to the main chemical and atmospheric agents, together with the high IP66 degree of protection, mean they can be installed in tough environments with critical atmospheric, chemical and mechanical (accidental impact) conditions.

#### TECHNICAL DATA AND COMPLIANCE WITH STANDARDS

Component	Reference Standards	Versions	Degree of protection (IP)	Rated current In (A)	Impact resistance of external parts (IK code)		Resistance to abnormal heat and fire	
					At ambient temperature	-20°C	Thermo-pressure with ball (°C)	Glow wire test (°C)
Interlocked switched socket-outlets	EN 60309-1 EN 60309-2 EN 60309-4 EN 61558-2-6 EN 60947-3	With fuse-holder base	IP66	16-32-63	> IK 10	20 J	80	850
		With EN 50022 rail						
Socket-outlets with 160 VA (SELV) transformer		With fuse-holder base	IP66	16				
Shell	EN 60670-1 EN 60670-24	Back-mounting boxes	IP66	16-32-63	> IK 10	20 J	80	850
		Modular bases		16-32-63				

#### BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Agent	Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
		Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Ethyl alcohol		
Socket-outlet	Resistant	Not resistant	Limited resistance	Not resistant	Limited resistance	Resistant	Resistant	Limited resistance	Resistant	Resistant	Resistant
Back-mounting box and modular base	Resistant	Not resistant	Limited resistance	Not resistant	Limited resistance	Resistant	Resistant	Limited resistance	Resistant	Resistant	Resistant

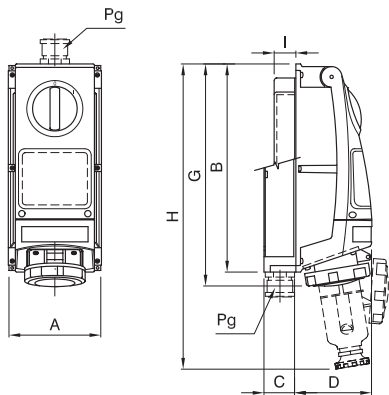
APPLICATION FIELDS							
Sector	Environment	Typical system	Usual rated currents (A)	Recommended version			Recommended installation
				Fuse-holder bases	EN 50022 rail	SELV transformer	
Domestic and commercial	Outdoor places with possibility of accidental impact	Power supply for movable users	16		•		Back-mounting box for surface-mounting
Industrial lighting	Outdoor places with possibility of accidental impact	Power and protection for fixed and movable machinery	16-32	•	•		In back-mounting box or on modular surface-mounting base
	Processing departments		63	•	•		Surface-mounting on modular base
Petrochemical	Refineries	Power and protection for pumps, compressors, mixers and extraction systems	16-32	•	•	•	In back-mounting box or on modular surface-mounting base
	Depots		63	•	•		Surface-mounting on modular base
Boating	Maintenance areas	Power outlets for movable users	16-32		•	•	In back-mounting box or on modular surface-mounting base
			63		•		Surface-mounting on modular base

## 125A SOCKET-OUTLETS

TECHNICAL DATA AND COMPLIANCE WITH STANDARDS								
Component	Reference Standards	Versions	Degree of protection (IP)	Rated currents I <sub>n</sub> (A)	Impact resistance of external parts (IK code)		Resistance to abnormal heat and fire	
					At ambient temperature	-20°C	Thermo-pressure with ball (°C)	Glow wire test (°C)
125A socket-outlets with electric interlock	EN 60309-1 / 2	With miniature circuit breaker	IP 55	125 A	IK 10	20 J	200	960
		With RCCB with overcurrent protection						

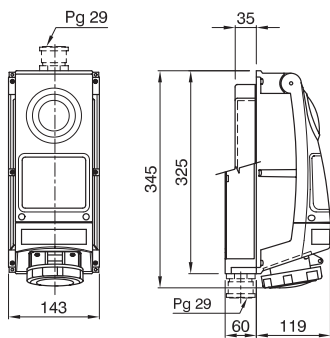
## DIMENSION TABLES

### INTERLOCKED SOCKET-OUTLETS 16 / 32 / 63A - IP66

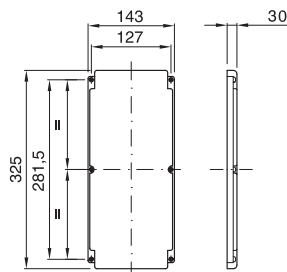


	Type	A	B	C	D	G	H	I	Pg
16A	2P + $\frac{1}{2}$	143	325	60	119	345	362	35	29
	3P + $\frac{1}{2}$						369		
	3P + N + $\frac{1}{2}$						382		
32A	2P + $\frac{1}{2}$	143	325	60	119	345	455	35	29
	3P + $\frac{1}{2}$								
	3P + N + $\frac{1}{2}$								
63A	2P + $\frac{1}{2}$	143	390	75	140	425	570	45	36
	3P + $\frac{1}{2}$								
	3P + N + $\frac{1}{2}$								

### WATERTIGHT SOCKET-OUTLET WITH SAFETY TRANSFORMER (SELV) AND FUSE-HOLDER BASE - IP66

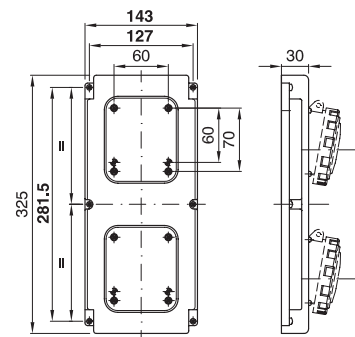


### BLANK COVER FOR MODULAR BASES 16 / 32A - IP66



GW 66 706

### FLANGED COVER FOR MODULAR BASES 16 - 32A - IP66



GW 66 707

### MODULAR BASES FOR INTERLOCKED SWITCHED SOCKET-OUTLETS 16 / 32 / 63A - IP66

	No. "IB" socket-outlets	A	B	C	D	E	F	G
16 - 32A TRANSF.	1	148	555	155	85	210	136	325
	2	305					293	
	3	462					450	
63A	1	148	620				136	390

### SOCKET-OUTLET WITH ELECTRIC INTERLOCK 125A - IP55

### COMBIBLOC COMPACT SOCKET-OUTLETS

Compact industrial socket-outlets complying with the IEC 60309 Standard (EN 60309-1 EN 60309-4), with more simple and intuitive longitudinal operation of the mechanical interlock. The control switch allows the plug to be connected and disconnected only in the open position, and the switch to close only with the plug inserted.

The range of socket-outlets with interlock switch is combined with a complete range of accessories for individual or group surface-mounting, and for flush-mounting (also possible on 3 gang rectangular boxes).

### TECHNICAL DATA AND COMPLIANCE WITH STANDARDS

Component	Reference Standards	Rated voltage Un (V)	Rated current In (A)	Impact resistance at ambient temperature (IK code)	Resistance to abnormal heat and fire	
					Thermo-pressure with ball (°C)	Glow wire test (°C)
Interlocked switched socket-outlets	EN 60309-1 EN 60309-2 EN 60309-4	110 - 230 400	16 - 32	IK 08	125	850
Control switch	EN 60309-1 EN 60309-2 EN 60309-4	110 - 230 400	16 - 32	IK 08	125	850
Container	EN 60670-1 EN 60670-24	-	-	IK 08	80	650

### BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Limited resistance	Not resistant	Limited resistance	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

### APPLICATION FIELDS

Sector	Environment	Typical system	Recommended installation
Commercial	Technical rooms - Warehouses	Socket-outlets for connecting movable users for maintenance	Surface-mounting IP44 On board IP44
	Trade fairs, exhibitions, public entertainment premises	Socket-outlets for connecting movable or temporary systems	Flush-mounting IP44 Surface-mounting IP44
Industrial	Production departments	Connecting machines	Surface-mounting IP55
	Chemical industry		
	Maintenance departments	Socket-outlets for connecting movable users for maintenance	On board IP44
Agriculture	Greenhouses, stables	Connecting movable users	On board IP55 Surface-mounting IP55
Open places	Campsites	Power outlet in service areas	On terminal 68 Q-MC range
	Tourist harbours		

### DIMENSION TABLES

**COMBIBLOC COMPACT SOCKET-OUTLETS - 16-32A - IP44**

Type	E	F	
<b>16A</b>	2P + $\frac{1}{2}$	125	198
	3P + $\frac{1}{2}$	130	202
	3P + N + $\frac{1}{2}$	130	212
<b>32A</b>	2P + $\frac{1}{2}$	138	233
	3P + $\frac{1}{2}$		
	3P + N + $\frac{1}{2}$		

**COMBIBLOC COMPACT SOCKET-OUTLETS - 16-32A - IP55**

Type	A	B	C	
<b>16A</b>	2P + $\frac{1}{2}$	150	170	71
	3P + $\frac{1}{2}$	150	170	80
	3P + N + $\frac{1}{2}$	155	175	87
<b>32A</b>	2P + $\frac{1}{2}$	170	190	95
	3P + $\frac{1}{2}$			95
	3P + N + $\frac{1}{2}$			100

**WATERTIGHT VERTICAL BOARDS FOR COMBIBLOC COMPACT SOCKET-OUTLETS - IP55**

Type	A	B	D
4 modules	105	-	-
8 modules	210	155	105
12 modules	320	220	2 x 105

**BASE BOX FOR COMBIBLOC COMPACT SOCKET-OUTLETS**

**FLUSH-MOUNTING FRAME FOR COMBIBLOC COMPACT SOCKET-OUTLETS AND DRILLING TEMPLATE**

### FUSES

NEOZED (ND), DIAZED (DD) and gG cylindrical-type fuses are available in the sizes shown in the table below.

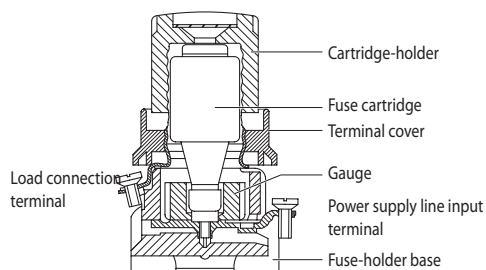
The range is completed with gauges to facilitate the correct use of all the fuses.

### TECHNICAL DATA AND COMPLIANCE WITH STANDARDS

Reference Standards	Cartridge		Rated voltage $U_n$ (V)	Rated current $I_n$ (A)	$I^2t$ pre-arc time at 0.01s		Breaking capacity (kA)	Rated dispersible power $P_{du}$ (W)
	Type	$\varnothing \times L$ (mm)			minimum (A2s)	maximum (A2s)		
EN 60269-1 EN 60269-1 EN 60269-3	ND - D01 E14	11 x 36	380	2	-	-	> 50	0.60
				6	-	-		1.30
				16	300	1000		1.80
	ND - D02 E18	15 x 36	35	1800	5000	3.20		
			63	9000	27000	4.80		
			2	-	-	0.85		
	DD - DI / E18 delayed	13 x 50	500	6	-	-	1.90	
				16	300	1000	2.40	
	DD - DII / E27 quick	22 x 50	500	35	1800	5000	3.60	
				63	9000	27000	6.90	
	DD - DIII / E33 quick	28 x 50	500	2	-	-	100	0.25
				6	-	-		0.45
	gG cylindrical	10.3x38	400	16	300	1000		0.75
				32	1800	5000		2
				32	1800	5000		2
63				9000	27000	4.25		
125				46000	140000	9.5		

### CONSTRUCTION CHARACTERISTICS

USING THE GAUGE TO ENSURE CORRECT HOUSING OF FUSE IN THE RELATIVE BASE



#### Fuse installation directives (CEI 64-8 and Presidential Decree 547)

- Fuses with screwed cartridge-holder must be installed in such a way that the central contact is connected to the power supply side.
- Fuses normally used by untrained personnel must be able to be changed without any risk.
- Fuses must be installed on all poles and phases of protected lines, with the exception of the neutral conductor.

### TRIPPING CHARACTERISTICS AND DISPERSIBLE POWER OF THE FUSES

