



**MADE OF
THERMOSETTING
MATERIAL**



ADVANCE GRP System

Switched Interlocked socket outlets



ADVANCE GRP System

> SWITCHED INTERLOCKED SOCKET OUTLETS



> VERSIONS WITH MECHANICAL INTERLOCK

	With switch-disconnector
	With switch-disconnector and fuse

> REFERENCE STANDARDS

EN 60309-1

Plugs, socket outlets and couplers for industrial purposes.
Part 1: general requirements.

EN 60309-2

Plugs, socket outlets and couplers for industrial purposes.
Part 2: dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.

EN 60309-4

Plugs, socket-outlets and couplers for industrial purposes.
Part 4: Switched socket-outlets and connectors with or without interlock.

> TECHNICAL CHARACTERISTICS

Rated current:	16A-32A-63A
Rated voltage:	100÷690V~
Frequency:	50+60Hz
Insulating voltage:	500/690V~
Protection degree:	IP66/IP67
Operating temperature according to the reference standard:	-25°C +40°C
Minimum operating temperature:	-40°C
Max. operating temperature:	+60°C
Self-extinguishing GW test:	960°C
Self-extinguishing UL94:	V0
Material:	Thermosetting
IK degree at 20°C:	IK10 (20J)
Switch-disconnectors 16A-32A-63A:	COMMAND Series
Fuse:	
16A-32A	gG 10,3x38mm
63A	gG 22x58mm
Colour:	Grey RAL7037

> BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Limited Resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

For specific substances please contact our technical service.

> CABLE ENTRY

Maximum entry with cable glands

Rated current (A)	Single socket		Socket with switchboard		
	Upper	Lower	Upper	Lower	Side
16A / 32A	M32	M32	M32	M32	M32
63A	M40	M40	M40	M40	M32

> WIRING OPERATIONS

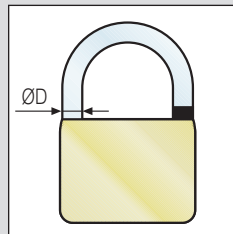
Wiring capacity of the terminals (mm²)

Rated current (A)	Socket outlets		Plugs	
	Min	Max	Min	Max
16A	1,5	4	1	2,5
32A	2,5	10	2,5	6
63A	6	25	6	16

> PADLOCK TO BE USED

Choice of padlock for socket knob, fuse door and switchboard door

Rated current (A)	Padlock arc diameter (mm)
16A-32A	5
63A	6,3
125A	6,3



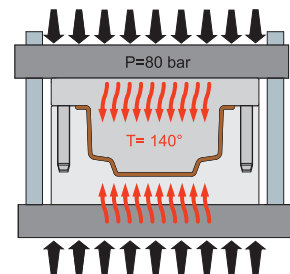
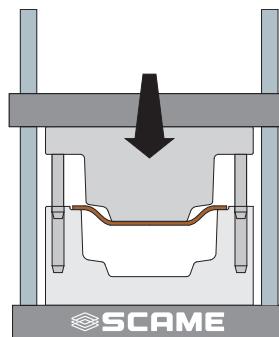
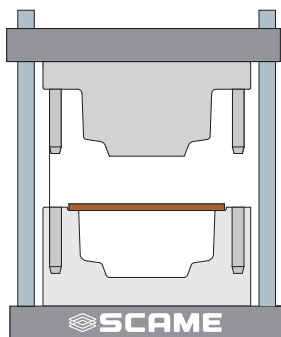
> SPECIAL CHARACTERISTICS

ADVANCE GRP CHARACTERISTICS

The **ADVANCE GRP** product line includes a series of 16A, 32A, 63A, 125A interlocked sockets (compliant with EN60309-4 standards) and the casings to contain them. It's the most complete range of interlocked sockets produced in GRP (*Glass Reinforced Polyester*) thermosetting material.

A unique feature which enhances the exceptional mechanical strength of **ADVANCE GRP** products is the **SMC** (*Sheet Moulding Compound*) production process used for the casings.

SMC is a technology which uses exclusively non-woven sheets, pre-impregnated with polyester resin. This method consists in preparing the sheet material inside a mould which, equipped with a negative mould, presses the composite so as to allow compaction.



SMC is an advanced technology which enhances the quality of the raw material without reducing the high-strength characteristics during transformation; it's a high-performing technology in terms of the mechanical performance of the resultant product (glass fibre length, homogeneity of the material, integrity of the fibres).

On the contrary, the **BMC** (*Bulk Moulding Compound*) technology is a technology for moulding composite materials which uses a raw material available in "blocks" (short, charged fibres) which are subjected to high thermomechanical stress during the transformation process, consequently diminishing the mechanical properties of the details, thereby reducing the impact strength and flexural strength.

The glass-fibre reinforced polyester used in **ADVANCE GRP** guarantees excellent mechanical strength and a long lifetime: this material is highly resistant to contamination, completely corrosion resistant and suited for applications requiring the use of components with low smoke emission and no halogens, **LSOH** (*Low Smoke Zero Halogen*) components. The outstanding properties of the material are also guaranteed over time, thanks to the high **RTI** value (*Relative Temperature Index*), measured to be 20,000h. Numerous verifications and tests have been carried out, even UV resistance tests, in order to guarantee the long duration of the material's initial performance.

The thickness of the walls is sufficient to offer an excellent alternative to aluminium, stainless steel or cast iron.



OUTSTANDING HEAT AND FIRE RESISTANCE



The glass-fibre reinforced polyester used in **ADVANCE GRP** guarantees excellent heat and fire resistance: it does not propagate flames, emit halogens or smoke.

This material has outstanding flame retardancy: Glow Wire 960°C according to EN 60695-2-1; V0 according to UL94. It's suited for applications requiring the use of components with low smoke emission and no halogens, **LSOH** (*Low Smoke Zero Halogen*).



OUTSTANDING IMPACT RESISTANCE



The glass-fibre reinforced polyester used in **ADVANCE GRP** and the high thickness of the casing walls guarantee an excellent mechanical resistance to impacts. The **SMC** technology used to produce the casings makes **ADVANCE GRP** an indestructible product.

The impact resistance of the casings is higher than 20J (IK10) according to EN50102, even under limit temperature conditions (-40°C +60°C).



RESISTANCE TO CHEMICAL AGENTS



The **ADVANCE GRP** interlocked sockets and casings, thanks to the glass-fibre reinforced polyester with which they are produced, have excellent resistance to aggressive chemical substances, saline solutions, diluted acids, hydrocarbons, mineral oils, alcoholic substances. They are ideal for use in highly corrosive atmospheres.



RESISTANCE TO ATMOSPHERIC AGENTS



The structure and materials used also make **ADVANCE GRP** a product suited for the most extreme environmental conditions. The double degree of protection IP66 and IP67 (IP66 for 125A), guarantees an excellent seal against the entry of solid objects or liquids into the casings.

Outstanding resistance to UV radiation, exceptional reliability under environmental stress and use at both low and high ambient temperatures (-40°C +60°C).



EX VERSIONS



The **ADVANCE GRP** product line also includes a series of 16A, 32A, 63A and 125A interlocked sockets for installation in environments with a potential risk of explosion identified as zone 22 (dust) which fall under the area of application of the Atex Directive (European Directive 94/9/EC), compliant with the standards EN61241-0 and EN61241-1.

Type of protection (Ex): Ex II 3D - Ex tD A22 IP66 T90°C
Ta -25°C +60°C.

ADVANCE GRP System

> APPLICATION EXAMPLES



> TECHNICAL DATA SWITCH DISCONNECTORS

		with fuse		without fuse			with and without fuse		
		16A	32A	16A	32A	63A	125A		
Rated insulation voltage Ui		Vac	690	690	690	690	690	750	
		Vdc	400	400	400	400	-	750	
Rated impulse withstand voltage Uimp		kV	4	4	4	4	8	12	
Thermal current Ith		A	25	32	30	40	63	200	
Thermal current Ithe		A	25	32	30	40	63	-	
Nominal current rating Ie	AC21A Resistive loads, including moderate overloads	400V A	-	-	-	-	-	200	
		500V A	-	-	-	-	-	-	
		690V A	25	32	30	32	63	160	
	AC22A Mixed resistive and inductive loads, including moderate overloads	400V A	-	-	-	-	-	-	200
		500V A	-	-	-	-	-	-	-
		690V A	30	32	20	32	63	160	
	AC23A Switching off motor loads or other highly inductive loads (3 phase/3 pole)	400V A	-	-	20	32	63	135	
		500V A	-	-	-	-	40	125	
		690V A	16	25	16	25	30	80	
	AC3 Squirrel-cage motor: starting, switching off motor during running (3 phase/ 3 pole)	400V A	-	28,5	-	28,5	40	-	
		690V A	12	20	12	20	25	-	
	DC21A Resistive loads, including Moderate overloads	300V A	25	32	20	32	-	160(*)	
DC22A Mixed resistive and inductive loads, including moderate overloads	250V A	20	32	25	32	-	160(*)		
	600V A			10(*)	10(*)	-	-		
Rated short-time withstand current Icw (s)		A	400	400	400	400	1500	4000	
Short-circuit protection	Conditional short-circuit current	kAeff	10	10	10	10	10	24	
	Associate fuse size for conditional short-circuit current - Type gG	A	16	32	16	32	63		
	Rated short-circuit making capacity Icm	A	1500	1500	1500	1500	2850	24000	
Rated current UL	General applications - Single-phase and Three-phase	600V A	20	30	32	40	63	125	
	AC motor, all-pole interruption - Single-phase	120V Hp	1,5	2	1,5	2	3	7,5	
		240V Hp	3	5	3	5	7,5	20	
	AC motor, B, C, D, all-pole interruption - Three-phase	240V Hp	7,5	10	7,5	10	10	40	
		480V Hp	10	15	10	15	20	75	
600V Hp	15	20	15	20	25	100			
Permissible wire range	Flexible wire	mm ²	1,5-10	1,5-10	1,5-10	1,5-10	10-35	10-70	
		AWG	16-8	16-8	16-8	16-8	10-2	8-1/10	
	Rigid wire	mm ²	1,5-16	1,5-16	1,5-16	1,5-16	10-35	10-70	
		AWG	16-8	16-8	16-8	16-8	10-2	8-1/10	

(*) 2+2 poles in series IMQ approved UL approved

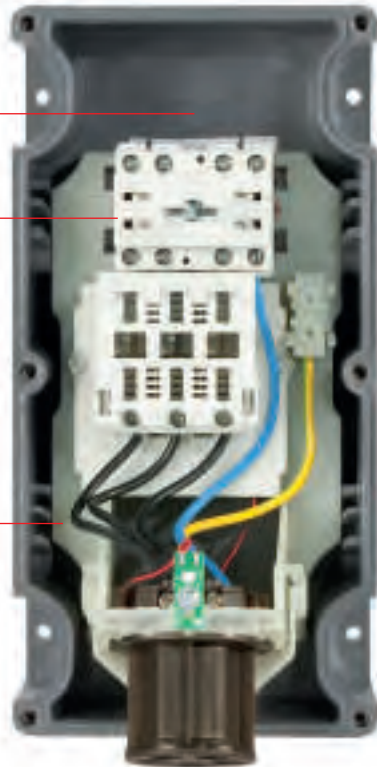
ADVANCE GRP System

> TECHNICAL CHARACTERISTICS 16A-32A-63A VERSIONS

Ample space for easy wiring

Switch-disconnector with mechanical lock that can be accessorized with auxiliary contacts

Easily extractable support



Outdoor wall fastening

Under-plate cable runway

Threaded metal inserts

Possibility for plug-inserted control microswitch assembly



BOTTOM VIEW

Module in high-temperature resistant engineering polymer



Possible entry from bottom side (input-output also)

TOP VIEW



Self-centering punch marks to facilitate drilling

Single-piece waterproof gasket



Dual mechanical lock as required by the ATEX Directive

High-strength material with superior UV and chemical resistance



Ergonomic knob which can be padlocked in position 0 and 1, manoeuvrable even with gloves

Fuse inspection door, tamper-proof, lockable, with assisted opening

Cover entirely separate from the base for easy installation

Captive stainless steel closing screws



I-Device

An electronic device controls (*Intelligence Device*) the status of the interlocked socket, monitoring the electrical functionality:

- operation of the signalling and control card is guaranteed even when the load is not connected;

● **INDICATOR LIGHT ON**

- indicates that the fuses are not open and all the phases are present;
- indicates that the socket outlet is powered correctly;

◉ **INDICATOR LIGHT FLASHING**

- signals the interruption of one or more fuses;
- signals the absence of a phase*;

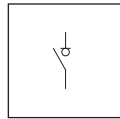
○ **INDICATOR LIGHT OFF**

- indicates that the socket outlet is not powered.

* for single-phase products in the event of phase/neutral loss led signaling appears off.

ADVANCE GRP System

> IP66/IP67 WITHOUT BASE VERSION - VOLTAGE >50V



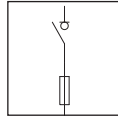
Without fuse holder

Poles	Hz	Volt	Colour	h.	16A	32A	63A
					☐ 1	☐ 1	☐ 1
2P+E	50/60	100-130		4	402.1670	402.3270	402.6370
	50/60	200-250		6	402.1683	402.3283	402.6383
	50/60	380-415		9	402.1678	402.3278	402.6378
	50/60	480-500		7	402.16836	402.32836	402.63836
	50/60	trasf.		12	402.16833	402.32833	402.63833
	>300-500	>50 (1)		2	402.16832	402.32832	402.63832
	c.c.	>50-250		3	-	-	-
	c.c.	>250		8	-	-	-
3P+E	50/60	100-130		4	402.1672	402.3272	402.6372
	50/60	200-250		9	402.1674	402.3274	402.6374
	50/60	380-415		6	402.1686	402.3286	402.6386
	60	440-460		11	402.16865	402.32865	402.63865
	50/60	480-500		7	402.16866	402.32866	402.63866
	50/60	600-690 (2)		5	402.16867	402.32867	402.63867
	50...60	380...440		3	402.16864	402.32864	402.63864
	100-300	>50 (1)		10	402.16861	402.32861	402.63861
>300-500	>50 (1)		2	402.16862	402.32862	402.63862	
3P+N+E	50/60	100-130		4	402.1679	402.3279	402.6379
	50/60	208-250		9	402.1675	402.3275	402.6375
	50/60	346-415		6	402.1687	402.3287	402.6387
	50/60	480-500		7	402.16876	402.32876	402.63876
	50/60	600-690 (2)		5	402.16877	402.32877	402.63877
	60	440-460		11	402.16875	402.32875	402.63875
	50...60	380...440		3	402.16874	402.32874	402.63874
	>300-500	>50 (1)		2	402.16872	402.32872	402.63872

(1) Versions >60Hz = 25% Reduced current.

(2) Particular attention is required in selecting the fuse suited to the system's voltage.

☐ Pack Quantity.



With fuse holder

16A

□ 1

32A

□ 1

63A

□ 1

402.1670-F	402.3270-F	402.6370-F
402.1683-F	402.3283-F	402.6383-F
402.1678-F	402.3278-F	402.6378-F
402.16836-F	402.32836-F	402.63836-F
402.16833-F	402.32833-F	402.63833-F
402.16832-F	402.32832-F	402.63832-F
-	-	-
-	-	-
402.1672-F	402.3272-F	402.6372-F
402.1674-F	402.3274-F	402.6374-F
402.1686-F	402.3286-F	402.6386-F
402.16865-F	402.32865-F	402.63865-F
402.16866-F	402.32866-F	402.63866-F
402.16867-F	402.32867-F	402.63867-F
402.16864-F	402.32864-F	402.63864-F
402.16861-F	402.32861-F	402.63861-F
402.16862-F	402.32862-F	402.63862-F
402.1679-F	402.3279-F	402.6379-F
402.1675-F	402.3275-F	402.6375-F
402.1687-F	402.3287-F	402.6387-F
402.16876-F	402.32876-F	402.63876-F
402.16877-F	402.32877-F	402.63877-F
402.16875-F	402.32875-F	402.63875-F
402.16874-F	402.32874-F	402.63874-F
402.16872-F	402.32872-F	402.63872-F



Base



Base with consumer unit



Base with derivation box

Bases and switchboards available on page 16

ADVANCE GRP System

> IP66/IP67 WITHOUT BASE VERSION **I-Device** IP66/IP67 - VOLTAGE >50V



Poles	Hz	Volt	Colour	h.	16A	32A	63A
					☐ 1	☐ 1	☐ 1
2P+E	50/60	100-130	Yellow	4	403.1670	403.3270	403.6370
	50/60	200-250	Blue	6	403.1683	403.3283	403.6383
	50/60	380-415	Red	9	403.1678	403.3278	403.6378
	50/60	480-500	Grey	7	403.16836	403.32836	403.63836
	50/60	trasf.	Grey	12	403.16833	403.32833	403.63833
	>300-500	>50 (1)	Green	2	on request	on request	on request
	c.c.	>50-250	Grey	3	-	-	-
	c.c.	>250	Grey	8	-	-	-
3P+E	50/60	100-130	Yellow	4	403.1672	403.3272	403.6372
	50/60	200-250	Blue	9	403.1674	403.3274	403.6374
	50/60	380-415	Red	6	403.1686	403.3286	403.6386
	60	440-460	Red	11	403.16865	403.32865	403.63865
	50/60	480-500	Grey	7	403.16866	403.32866	403.63866
	50/60	600-690 (2)	Black	5	403.16867	403.32867	403.63867
	50...60	380...440	Red	3	403.16864	403.32864	403.63864
	100-300	>50 (1)	Green	10	on request	on request	on request
>300-500	>50 (1)	Green	2	on request	on request	on request	
3P+N+E	50/60	100-130	Yellow	4	403.1679	403.3279	403.6379
	50/60	208-250	Blue	9	403.1675	403.3275	403.6375
	50/60	346-415	Red	6	403.1687	403.3287	403.6387
	50/60	480-500	Grey	7	403.16876	403.32876	403.63876
	50/60	600-690 (2)	Black	5	403.16877	403.32877	403.63877
	60	440-460	Red	11	403.16875	403.32875	403.63875
	50...60	380...440	Red	3	403.16874	403.32874	403.63874
	>300-500	>50 (1)	Green	2	on request	on request	on request

(1) Versions >60Hz = 25% Reduced current.

(2) Particular attention is required in selecting the fuse suited to the system's voltage.

☐ Pack Quantity.



With fuse holder

16A	32A	63A
1	1	1
403.1670-F	403.3270-F	403.6370-F
403.1683-F	403.3283-F	403.6383-F
403.1678-F	403.3278-F	403.6378-F
403.16836-F	403.32836-F	403.63836-F
403.16833-F	403.32833-F	403.63833-F
on request	on request	on request
-	-	-
-	-	-
403.1672-F	403.3272-F	403.6372-F
403.1674-F	403.3274-F	403.6374-F
403.1686-F	403.3286-F	403.6386-F
403.16865-F	403.32865-F	403.63865-F
403.16866-F	403.32866-F	403.63866-F
403.16867-F	403.32867-F	403.63867-F
403.16864-F	403.32864-F	403.63864-F
on request	on request	on request
on request	on request	on request
403.1679-F	403.3279-F	403.6379-F
403.1675-F	403.3275-F	403.6375-F
403.1687-F	403.3287-F	403.6387-F
403.16876-F	403.32876-F	403.63876-F
403.16877-F	403.32877-F	403.63877-F
403.16875-F	403.32875-F	403.63875-F
403.16874-F	403.32874-F	403.63874-F
on request	on request	on request



Base



Base with consumer unit



Base with derivation box

Bases and switchboards available on page 16

ADVANCE GRP System

> SWITCHED INTERLOCKED SOCKET OUTLETS



> VERSIONS



Version with transformer.
SELV transformer 230/24V~ 150VA



Version without transformer.

> REFERENCE STANDARDS

EN 60309-1

Plugs, socket outlets and couplers for industrial purposes.
Part 1: general requirements.

EN 60309-2

Plugs, socket outlets and couplers for industrial purposes.
Part 2: dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.

> TECHNICAL CHARACTERISTICS

Rated current:	16A-32A
Rated voltage:	20÷50V~
Frequency:	50÷60Hz
SELV transformer 220/24V:	150VA
Insulating voltage:	500/690V~
Protection degree:	IP66/IP67
Operating temperature according to the reference standard:	-25°C +40°C
Minimum operating temperature:	-40°C
Max. operating temperature:	+60°C
Self-extinguishing GW test:	850°C
Material:	Thermosetting
IK degree at 20°C:	IK10
Colour:	Grey RAL7037

> BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Limited Resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

For specific substances please contact our technical service.

> IP66/IP67 WITHOUT BASE VERSION - VOLTAGE <50V



Description	Plug	Colour	Rated voltage		
With transformer (*)	2P-16A		20-25V~	1	403.2416
Without transformer	2P-16A		20-25V~	1	403.2420
			40-50V~	1	403.2421
	2P-32A		20-25V~	1	403.2620
			40-50V~	1	403.2621

(*) SELV transformer \varnothing 220/24V~ 150VA.

For the choice of bottoms, refer to the 16A-32A module.

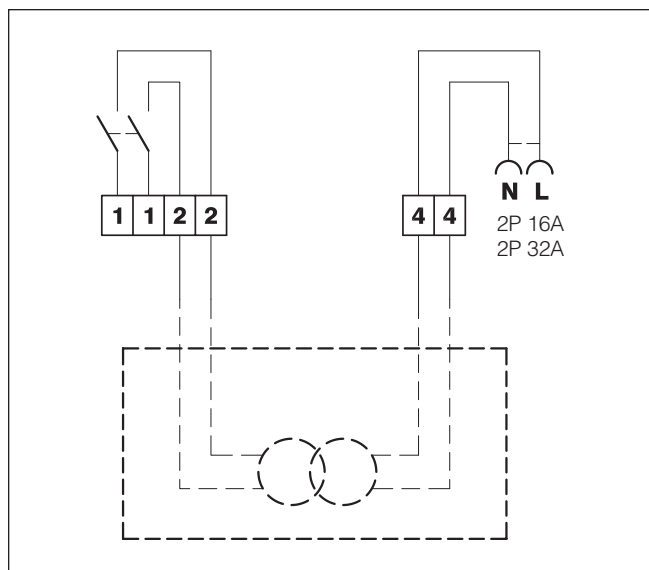
Pack Quantity.

> WIRING OPERATIONS

Wiring capacity of the terminals (mm²)

Rated current (A)	Socket outlets	
	Min	Max
16A	4	4
32A	4	10











> SOCKET WITHOUT TRANSFORMER WIRING DIAGRAM



Note: external transformer

ADVANCE GRP System



> IP66/IP67 BASES AND CONSUMER UNIT




Description	Module	DIN modules	HxB (mm)	Power dissipation (W)	☐		
Base for one socket	16A-32A	-	260x130	-	1	579.5100	579.5200
	63A	-	380x170	-	1		
Description	Module	DIN modules	HxB (mm)	Power dissipation (W)	☐		
Base for one socket with derivation box	16A-32A	-	460x130	9	1	579.5110	579.5210
	63A	-	580x170	13	1		
Description	Module	DIN modules	HxB (mm)	Power dissipation (W)	☐		
Base for one socket with consumer unit	16A-32A	6	460x130	9	1	579.5111	579.5211
	63A	8	580x170	13	1		
Description	Module	DIN modules	HxB (mm)	Power dissipation (W)	☐		
Base for two sockets with derivation box	16A-32A	-	460x260	16	1	579.5120	63A
	63A	-	-	-	-		
Description	Module	DIN modules	HxB (mm)	Power dissipation (W)	☐		
Base for two sockets with consumer unit	16A-32A	13	460x260	16	1	579.5121	63A
	63A	-	-	-	-		

Power dissipation in conformity with CEI 23-48 CEI 23-49. IP66/IP67 when coupled with the respective component.

☐ Pack Quantity.

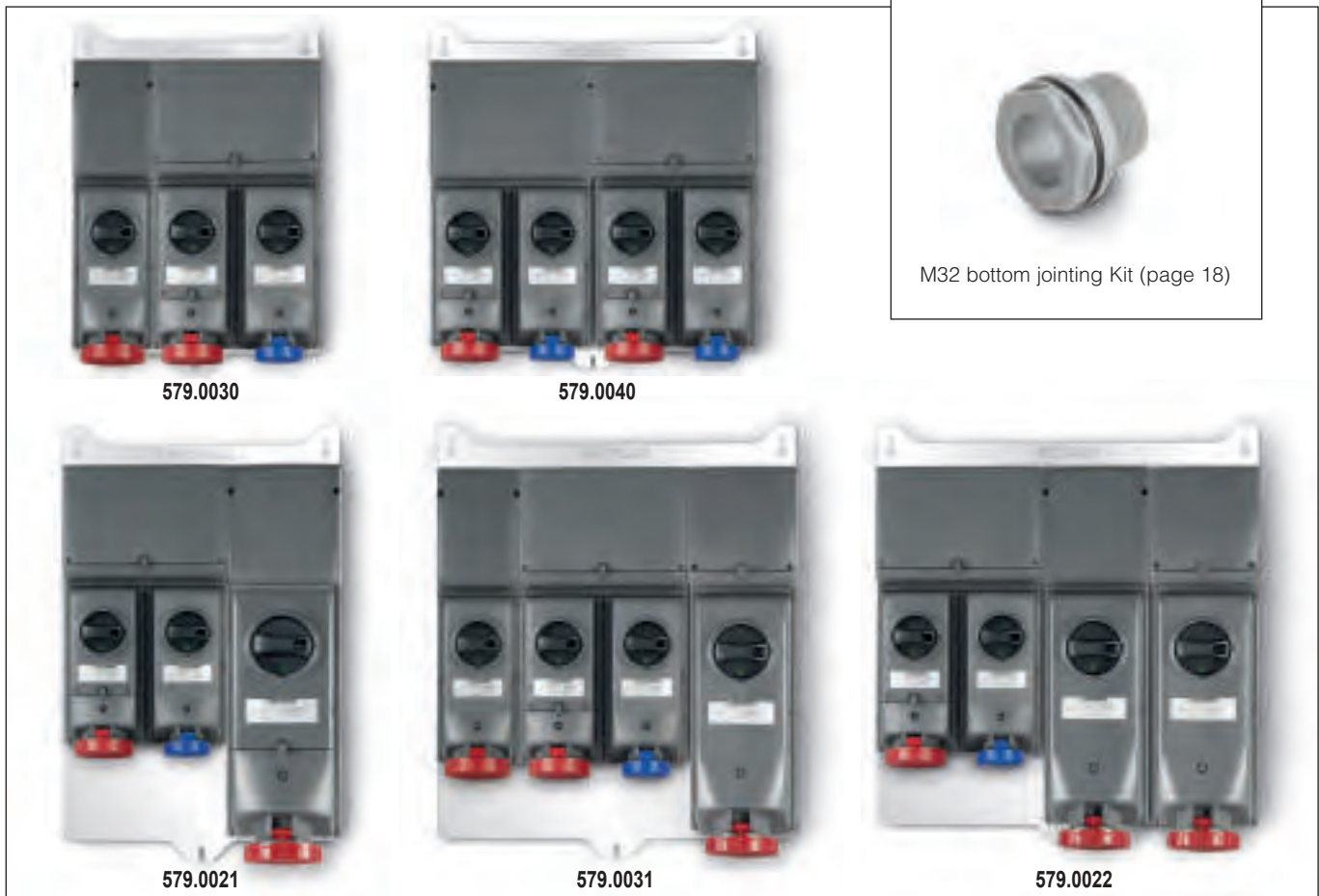
> GALVANIZED STEEL SUPPORTS

Description	HxB (mm)	☐		
3 x 16A-32A	555x390	1	579.0030	
4 x 16A-32A	555x520	1		579.0040

Description	HxB (mm)	☐			
2 x 16A-32A + 1 x 63A	685x430	1	579.0021		
3 x 16A-32A + 1 x 63A	685x560	1		597.0031	
2 x 16A-32A + 2 x 63A	685x610	1			579.0022

☐ Pack Quantity.

> COMPOSITION EXAMPLES



ADVANCE GRP System

> ACCESSORIES



Description	Contacts		
Microswitch Kit for Advance GRP 16A-32A-63A for plug-inserted control	1NO/1NC	1/12	579.0100

Max 1 kit for 16A-32A sockets; Max 2 kit for 63A sockets.



Description			
Junction box Kit IP66/IP67 M40 (*)	1/12	579.0200	
Junction box Kit IP66/IP67 M50 (*)	1/12		579.0201
M32 bottom jointing Kit M32	1/12		579.0332

(*) Includes cable gland and gasket.
IP66/IP67 when coupled with the respective component.

Pack Quantity.

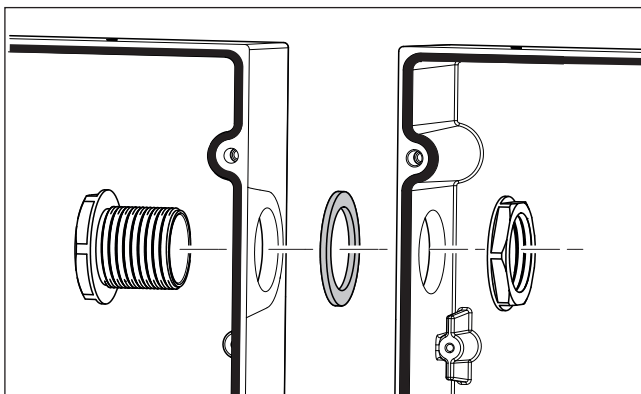
> AUXILIARY CONTACTS



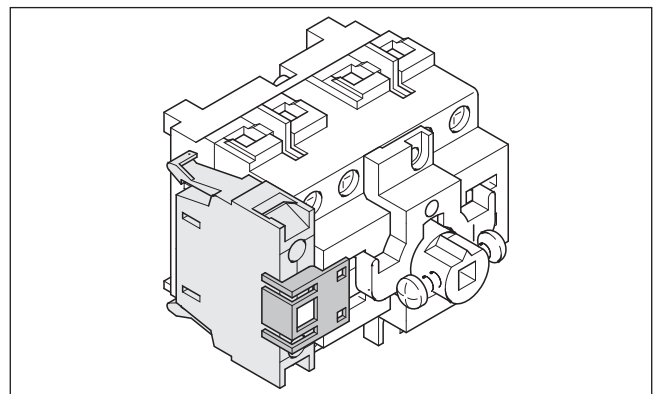
Description	For switches		
NC contact	16A-32A	10	590.PL004001
	63A	10	590.PL004003
NO contact	16A-32A	10	590.PL004002
	63A	10	590.PL004004

NC= normally closed.
NO= normally open.

Pack Quantity.



M32 bottom jointing Kit.



Auxiliary contact assembled.

> AS PANELS








Example of Mega Panel available in customized configuration.


> SWITCHED INTERLOCKED SOCKET OUTLETS



> VERSIONS WITH MECHANICAL INTERLOCK

	With switch-disconnector	
	With switch-disconnector and fuse	
	With fuse and switch-disconnector	125A
	With molded case circuit breaker with thermal magnetic trip unit	125A
	With molded case circuit breaker with thermal magnetic and residual current release trip units	125A

> VERSIONS WITH ELECTRICAL INTERLOCK

	With contactor	125A
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> REFERENCE STANDARDS

EN 60309-1
Plugs, socket outlets and couplers for industrial purposes.
Part 1: general requirements.

EN 60309-2
Plugs, socket outlets and couplers for industrial purposes.
Part 2: dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.

EN 60309-4
Plugs, socket-outlets and couplers for industrial purposes.
Part 4: Switched socket-outlets and connectors with or without interlock.

IEC 61241-0 / EN 61241-0
Electrical apparatus for use in the presence of combustible dust.
Part 0: General requirements.




IEC 61241-1 / EN 61241-1
Electrical apparatus for use in the presence of combustible dust.
Part 1: Protection by enclosures 'tD'.

> PRODUCTS FOR USE IN A POTENTIALLY EXPLOSIVE ENVIRONMENT

Scame offers products suitable for installation into environments under potential risk of explosion identified as Zone 22 and that enter into the field of application for the ATEX Directive (European Directive 94/9/CE).

SCAME

Via Costa Erta 15 Parre BG ITALY
3P+N+⊕ - 125A - 6h / 346-415V~

Cod. 503.12587-F		 
SCAME ATEX 02		
Ex tD A22 Ta -25°C +60°C		
IP66 T90°C		

DO NOT OPEN WHEN ENERGIZED
IN PRESENCE OF EXPLOSIVE ATMOSPHERE

> BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Limited Resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

For specific substances please contact our technical service.

> TECHNICAL CHARACTERISTICS



Rated current:	16A-32A-63A-125A
Rated voltage:	100÷690V~
Frequency:	50÷60Hz
Insulating voltage:	500/690V~
Self-extinguishing GW test:	960°C
Self-extinguishing UL94:	V0
Switch-disconnectors:	
16A-32A-63A	COMMAND Series
125A	Switch ABB OT 160
Fuse:	
16A-32A	gG 10,3x38mm
63A	gG 22x58mm
125A	NH00
Colour:	Grey RAL7037
ATEX Code:	Ex II 3D
Ex Protection type:	Ex tD A22 IP66 T90°C Ta -25°C +60°C
Operating temperature according to the reference standard:	-25°C +60°C
Maximum permissible surface temperature:	T90°C
Switched socket outlets with interlock degree of Protection:	IP66
Plugs - degree of Protection:	IP66/IP67
Impact Resistance:	IK10 (20J) - (24V 4J)
Switched socket outlets with interlock material:	Thermosetting
Interlocked switch sockets outlets CE certificate:	
16A-32A-63A	SCAME ATEX 04
125A:	SCAME ATEX 02
Plugs CE certificate:	SCAME ATEX 03

Thermal magnetic protection: **Molded case circuit breaker ABB Tmax T1B (16kA) with thermal magnetic trip unit TMD (adjustable thermal threshold 0,7...1 x In fixed magnetic threshold 10 x In)**

Thermal-magnetic and residual current protection: **Molded case circuit breaker ABB Tmax T1B (16kA) with thermal magnetic trip unit TMD (adjustable thermal threshold 0,7...1 x In fixed magnetic threshold 10 x In) + residual current release trip units RC221/1 (adjustable residual current trip 0,03 - 0,1 - 3A and time limit for non-trip instantaneous)**

Version with contactor: **Contactor CL09 GE POWER CONTROL**

> CABLE ENTRY

Maximum entry with cable glands

Rated current (A)	Single socket	
	Upper	Lower
16A-32A	M32	M32
63A	M40	M40
125A	M63	M63


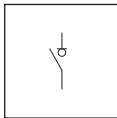







> WIRING OPERATIONS


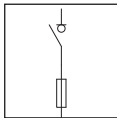







Wiring capacity of the terminals (mm²)

Rated current (A)	Socket outlets		Plugs	
	Min	Max	Min	Max
16A	4	4	2,5	2,5
32A	10	10	6	6
63A	25	25	10	16
125A	50	95	25	50



> MECHANICALLY INTERLOCKED SOCKET OUTLETS WITH I-Device 16A-32A-63A IP66 - VOLTAGE >50V




Description	Socket	Hz	Volt	Colour	h				
							16A	32A	63A
Switch-disconnector	2P+E	50/60	200-250V		6	1			
	3P+E	50/60	380-415V		6	1	503.1683	503.3283	503.6383
	3P+N+E	50/60	346-415V		6	1	503.1686	503.3286	503.6386
	3P+N+E	50/60	346-415V		6	1	503.1687	503.3287	503.6387



Description	Socket	Hz	Volt	Colour	h				
							16A	32A	63A
Switch-disconnector and fuse (*)	2P+E	50/60	200-250V		6	1			
	3P+E	50/60	380-415V		6	1	503.1683-F	503.3283-F	503.6383-F
	3P+N+E	50/60	346-415V		6	1	503.1686-F	503.3286-F	503.6386-F
	3P+N+E	50/60	346-415V		6	1	503.1687-F	503.3287-F	503.6387-F

(*) Fuses not included.

 Pack Quantity.

> WITH FUSE HOLDER IP66 - VOLTAGE <50V

Description	Socket	Colour	Rated voltage		
With transformer (*)	2P-16A		20-25V~	1	503.2416-F


(*) SELV transformer  220/24V~ 150VA.  Pack Quantity.



EX batteries can be produced by request with special order.

> ACCESSORIES AND COMPLEMENTARY PRODUCTS




Description	Contacts		
Microswitch Kit for Advance GRP 16A-32A-63A for plug-inserted control	1NO/1NC	1/12	579.0100


Max 1 kit for 16A-32A sockets; Max 2 kit for 63A sockets.

> AUXILIARY CONTACTS







Description	For switches		
NC contact	16A-32A	10	590.PL004001
	63A	10	590.PL004003
NO contact	16A-32A	10	590.PL004002
	63A	10	590.PL004004



NC= normally closed.
NO= normally open.

 Pack Quantity.

> COMPLEMENTARY PRODUCTS - OPTIMA EX SERIES - PLUGS 16A-32A-63A IP66/IP67

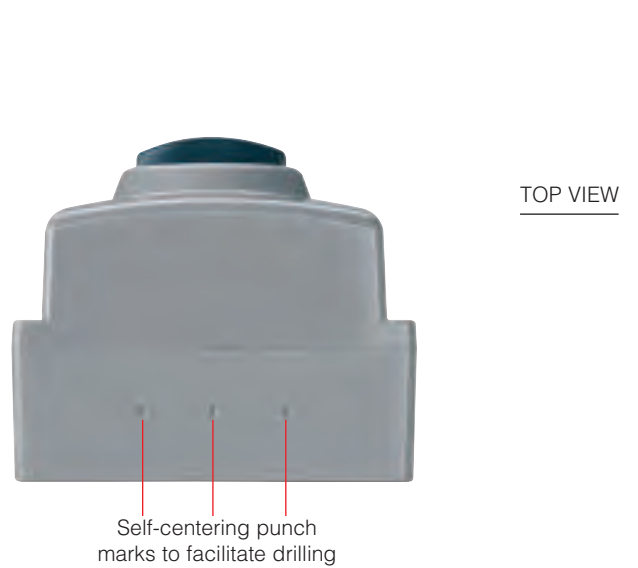
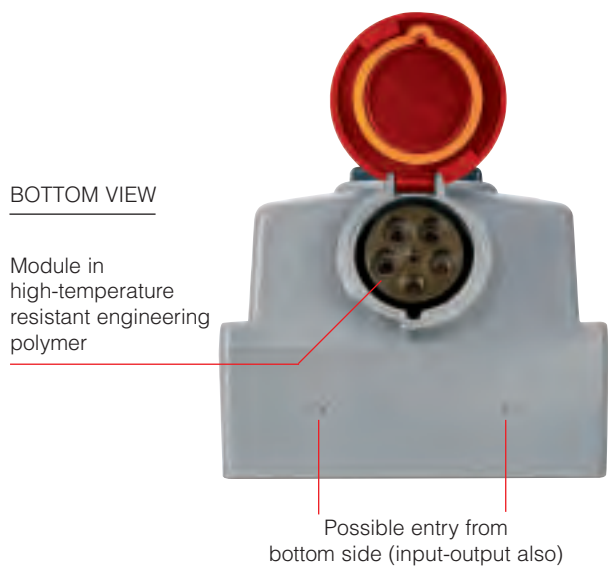
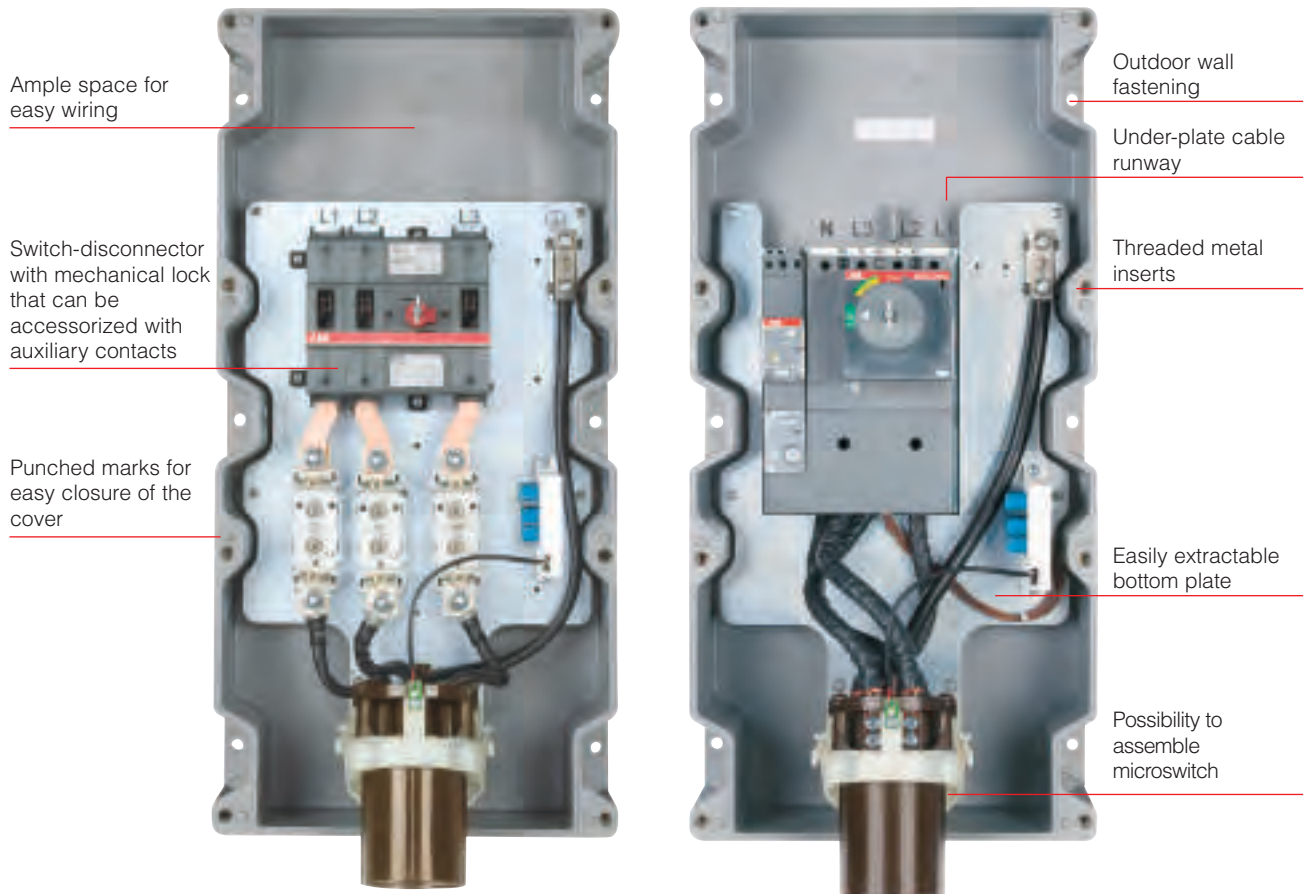


Description	Poles	Hz	Volt	Colour	h		16A	32A	63A
Plug	2P+E	50/60	200-250V		6	1	218.EX1633	218.EX3233	218.EX6333
	3P+E	50/60	380-415V		6	1	218.EX1636	218.EX3236	218.EX6336
	3P+N+E	50/60	346-415V		6	1	218.EX1637	218.EX3237	218.EX6337

Description	Poles	Hz	Volt	Colour	h		16A
Plug	2P	50/60	20-25		-	1	235.EX1600

 Pack Quantity.

> TECHNICAL CHARACTERISTICS VERSION 125A



Single-piece waterproof gasket



Dual mechanical lock as required by the ATEX Directive

Rating on metal plate

Captive stainless steel closing screws

Ergonomic knob which can be padlocked in position 0 and 1, manoeuvrable even with gloves

High-strength material with superior UV and chemical resistance



Residual current release trip units test push button

Cover entirely separate from the base for easy installation



I-Device

An electronic device controls (*Intelligence Device*) the status of the interlocked socket, monitoring the electrical functionality:

- operation of the signalling and control card is guaranteed even when the load is not connected;

INDICATOR LIGHT ON

- indicates that the fuses are not open and all the phases are present;
- indicates that the socket outlet is powered correctly;



INDICATOR LIGHT FLASHING

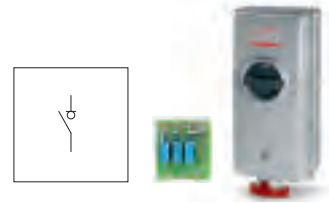
- signals the interruption of one or more fuses;
- signals the absence of a phase*;




INDICATOR LIGHT OFF

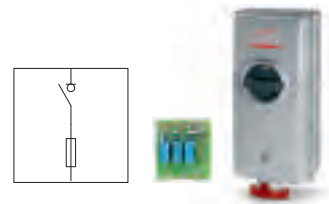
- indicates that the socket outlet is not powered.




* for single-phase products in the event of phase/neutral loss led signaling appears off.

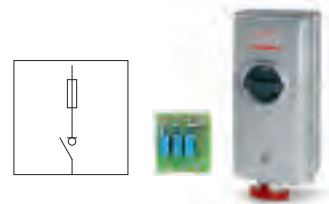
> MECHANICALLY INTERLOCKED I-Device SOCKET OUTLETS 125A - IP66






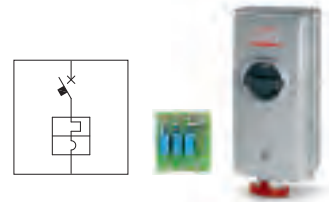
Description	Plug	Hz	Volt	Colour	h	□	
Switch-disconnector	2P+E 125A	50/60	200-250V		6	1	503.12583
	3P+E 125A	50/60	380-415V		6	1	503.12586
	3P+N+E 125A	50/60	346-415V		6	1	503.12587






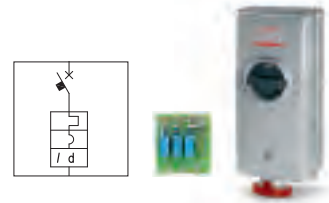
Description	Plug	Hz	Volt	Colour	h	□	
Switch-disconnector and fuse (*)	2P+E 125A	50/60	200-205V		6	1	503.12583-F
	3P+E 125A	50/60	380-415V		6	1	503.12586-F
	3P+N+E 125A	50/60	346-415V		6	1	503.12587-F






Description	Plug	Hz	Volt	Colour	h	□	
Fuse (*) and switch-disconnector	2P+E 125A	50/60	200-205V		6	1	503.12583-FS
	3P+E 125A	50/60	380-415V		6	1	503.12586-FS
	3P+N+E 125A	50/60	346-415V		6	1	503.12587-FS



Description	Plug	Hz	Volt	Colour	h	□	
Molded case circuit breaker with thermal magnetic trip unit	2P+E 125A	50/60	200-205V		6	1	503.12583-M
	3P+E 125A	50/60	380-415V		6	1	503.12586-M
	3P+N+E 125A	50/60	346-415V		6	1	503.12587-M

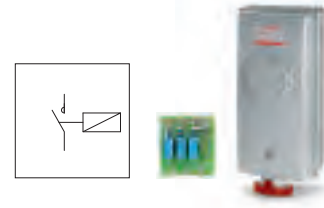





Description	Plug	Hz	Volt	Colour	h	□	
Molded case circuit breaker with thermal magnetic and residual current release trip units	2P+E 125A	50/60	200-205V		6	1	503.12583-RM
	3P+E 125A	50/60	380-415V		6	1	503.12586-RM
	3P+N+E 125A	50/60	346-415V		6	1	503.12587-RM

(*) Fuses not included

□ Pack Quantity.

> ELECTRICALLY INTERLOCKED SOCKET OUTLETS - IP66



Description	Plug	Hz	Volt	Colour	h	☐	
Contactor (*)	2P+E 125A	50/60	200-205V		6	1	503.12583-T
	3P+E 125A	50/60	380-415V		6	1	503.12586-T
	3P+N+E 125A	50/60	346-415V		6	1	503.12587-T

(*) Microswitch already provided.
Contactor operated by microswitch.

☐ Pack Quantity.

> ACCESSORIES






Description	Contacts	Terminals	
Microswitch kit 400V 10A (microswitch + terminal block)	1NO+1NC	4x4 mm ²	579.0125

Max 2 kit.

For products with mechanical interlock.

> COMPLEMENTARY PRODUCTS - OPTIMA-EX SERIES - PLUGS 125A IP66/IP67

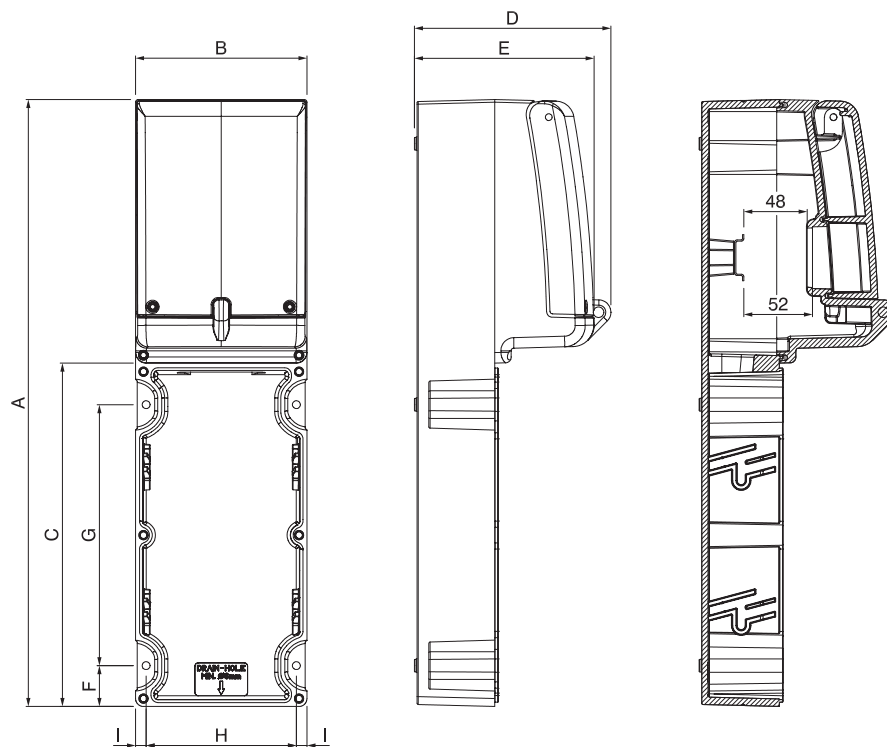


Description	Plug	Hz	Volt	Colour	h	☐	
Plugs	2P+E 125A	50/60	200-250V		6	1	218.EX12533
	3P+E 125A	50/60	380-415V		6	1	218.EX12536
	3P+N+E 125A	50/60	346-415V		6	1	218.EX12537

☐ Pack Quantity.

ADVANCE GRP System

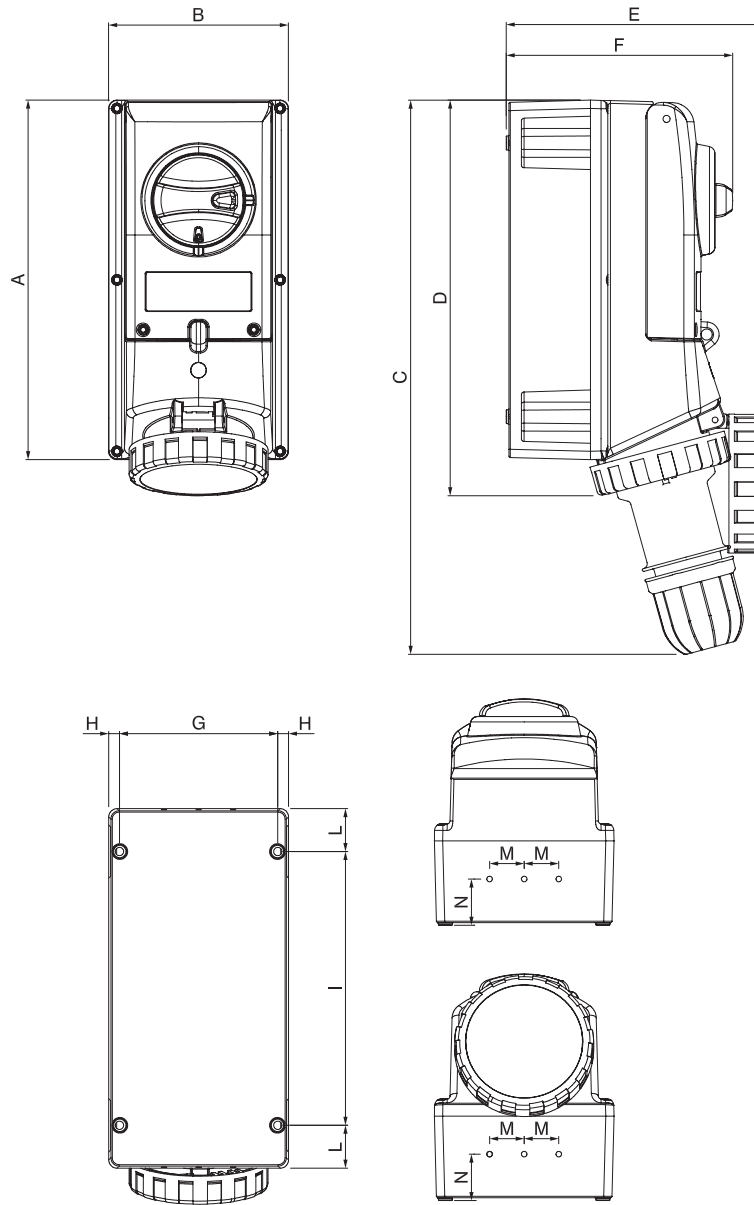
> VERSION 16A-32A-63A BASES AND CONSUMER UNIT DIMENSIONS



VERSION	A	B	C	D	E	F	G	H	I
579.5110	460	130	260	-	137	31	198	114	8
579.5111	460	130	260	150	137	31	198	114	8
579.5121	460	260	260	-	137	31	198	244	8
579.5120	460	260	260	150	137	31	198	244	8
579.5210	580	170	380	-	181,5	35	310	150	10
579.5211	580	170	380	168	181,5	35	310	150	10

(Dimensions in mm)

> VERSION 16A-32A-63A SOCKET DIMENSIONS

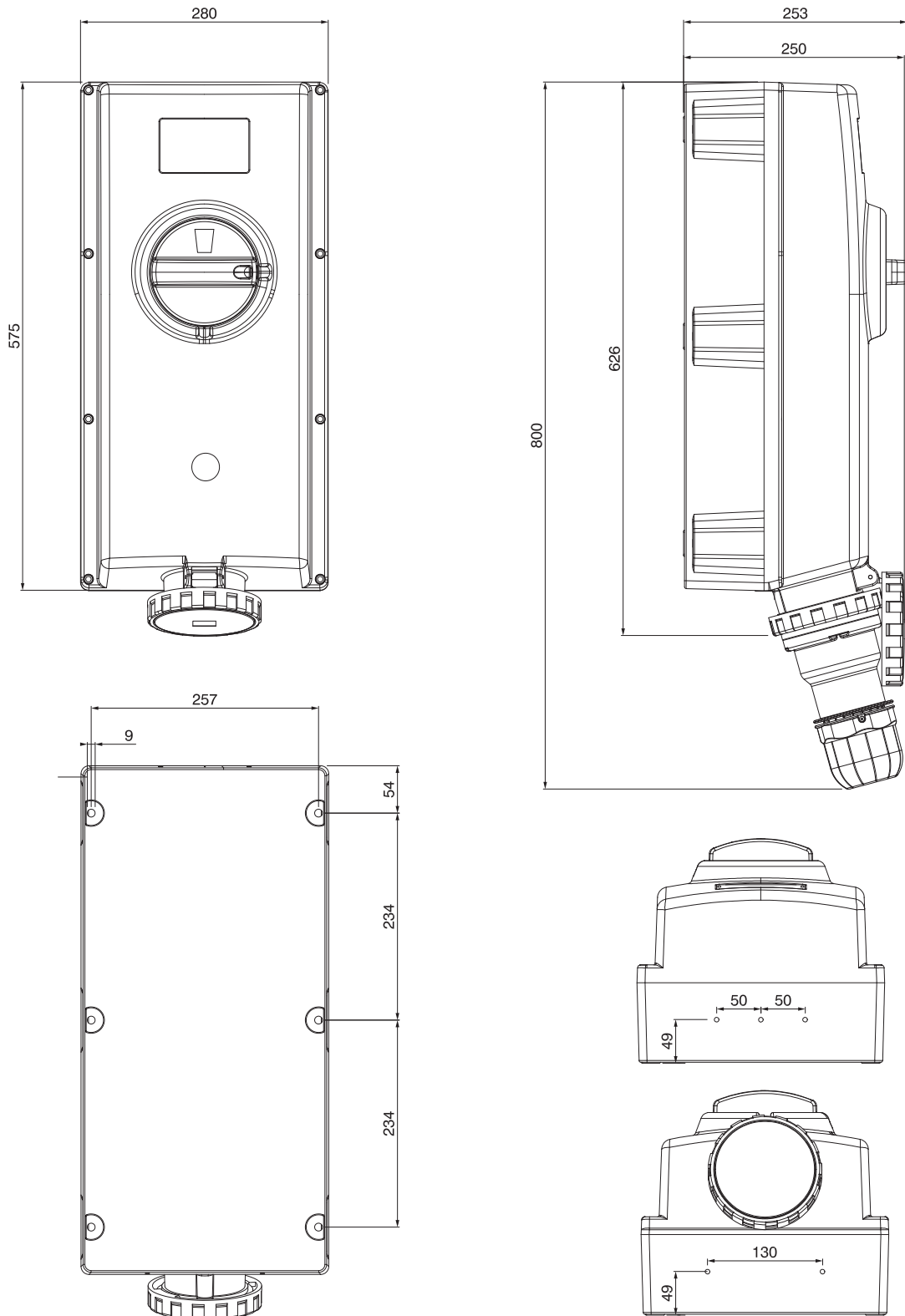


VERSION	A	B	C	D	E	F	G	H	I	L	M	N
2P+E 16A	260	130	360	280	170	164	114,5	7,75	198	31	25	33,5
3P+E 16A	260	130	365	282	175	164	114,5	7,75	198	31	25	33,5
3P+N+E 16A	260	130	390	282	182	164	114,5	7,75	198	31	25	33,5
2/3P+E 32A	260	130	390	285	189	164	114,5	7,75	198	31	25	33,5
3P+N+E 32A	260	130	400	286	185	164	114,5	7,75	198	31	25	33,5
2P+E 63A												
3P+E 63A	380	170	550	420	225	203	150	8,3	310	35	32,5	40
3P+N+E 63A												

(Dimensions in mm)

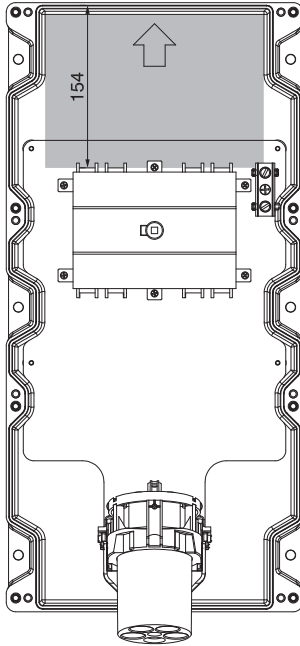
ADVANCE GRP System

> VERSION 125A SOCKET DIMENSIONS

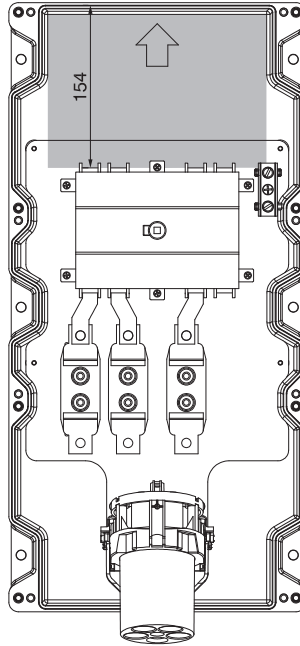


(Dimensions in mm)

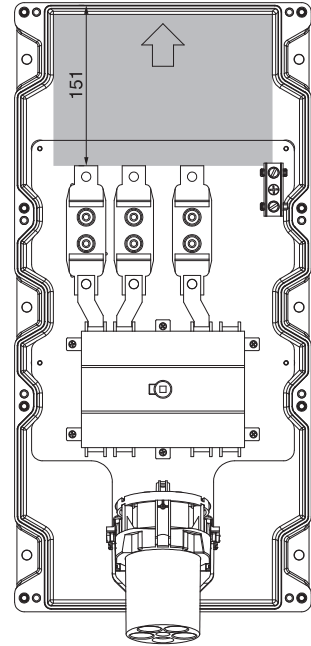
Switch-disconnector



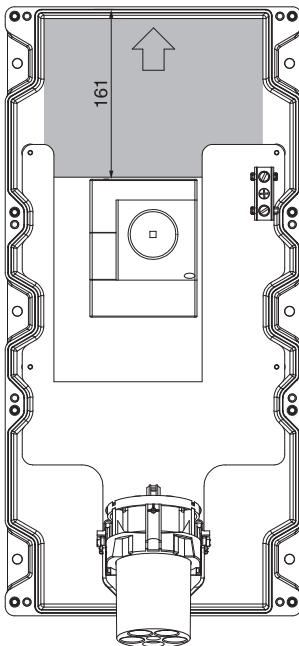
Switch-disconnector and fuse



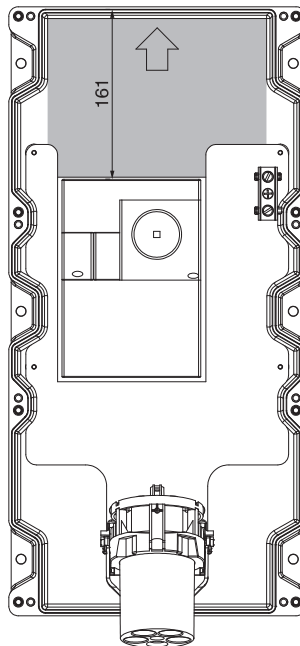
Fuse and switch



Molded case circuit breaker with thermal magnetic trip unit



Molded case circuit breaker with thermal magnetic and residual current release trip units



Contactor

