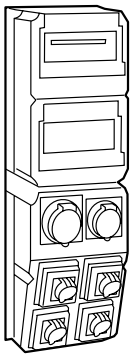
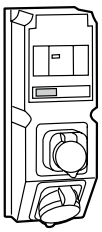
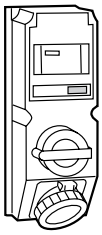
87045 LIMOGES Cedex
Telephone: + 33 0 5 55 06 87 87 - Fax: + 33 0 5 55 06 88 88

Hypra combined units IP 44, 66/67-55

Cat. No.(s): 591 14/15 - 592 00/03/06/07/09/13/14/16/18/19/24/25/26/28/29/34/35/39/40/43/46/47/49/53/54/56/59/60/61/62/63/64/65/66/67/79/83/84/85/86/88/89 - 596 01/02/03/05/07/08/10/12/13/15/17/18/51/52/53/55/57/58/59/60/61/62/63/65/67/68/69/70/81/95 598 41/42/43/44/45/46/47/48/49/50/62/64/65/66/67

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1. DESCRIPTION

- Products for distributing power close to equipment.
- Supply of several current types (amps/volts) for industrial an/or domestic pin configurations.
- Power supply of one or several equipment itams.
- Protection of users and circuits:
  - off load connection and disconnection using units equipped with Prinsinter or locked switch-controlled socket
  - protection by circuit-breaker, residual current circuit-breaker with overload protection (RCBO), residual current circuit-breaker (RCCB), etc...
- Material: plastic
- Colour: Ral 7022
- IK: 09
- IP 44, IP 66/67-55, IP66/67

2. USE

- Cover integral with the case
- Rotary switch with double mechanical locking
  Lock one: switch energizing impossible when the plug is not connected
  Lock two: plug removal impossible when the switch is energized
- Marking of the switch ON and OFF positions
- Padlockable switch.
- Transparent window for rapid view of the protective devices.
- Multiple cable entries (top, rear, bottom) with metric thread.
- Equipped or to be equipped with panel mounting sockets with single fixing centres.
- Stainless steel and captive external screws.
- Units can be juxtaposed on the same plane.

3. RANGE

3.1 Undrilled or predrilled units

Cat. No.	Type	Depth-Height-Width	Max. number of bases	Number of Lexic modules
598 41	Undrilled	120 x 230 x 120	2 x 16 ou 32A	None
598 42	Undrilled	181 x 370 x 230	6 x 16 ou 32A	None
598 43	Undrilled with window and rail	120 x 370 x 140	2 x 16 ou 32A	6
598 44	Undrilled with window and rail	181 x 370 x 230	4 x 16 ou 32A	9
598 45	Undrilled with window and 2 rails	181 x 740 x 230	6 x 16 ou 32A	2 x 9
598 49	Undrilled, double window and 2 rails	181 x 370 x 230	Aucun	2 x 9
598 46	Predrilled with window and rail	173 x 470 x 160	2 x 16 ou 32A	6
598 47	Predrilled with window and 2 rails	181 x 370 x 230	4 x 16 ou 32A	9
598 48	Predrilled with window and 2 rails	181 x 740 x 230	6 x 16 ou 32A	2 x 9
598 50	Predrilled, without window	181 x 370 x 230	6 x 16 ou 32A	None

- IP 44, IP 66/67, IP 66/67-55 according to the bases installed
- Supplied without cable gland
- Predrilled units are supplied with screws and nuts for fixing panel mounting sockets with single fixing centres.
- Can be equipped with 100 VA or 160 VA transformer
- Lock Cat. No. 017 66 for units equipped with window

3. RANGE *(continued)*

3.2 Single socket unit with MCB

			IP 44
200 to 250 V	16 A	2P + E	592 06
	32 A	2P + E	592 46
380 to 415 V	16 A	3P + E	592 13
		3P + N + E	592 18
	32 A	3P + E	592 53
		3P + N + E	592 58
	63 A	3P + E	592 39(1)
		3P + N + E	592 40(1)

(1)Wiring with pilot cable (cf § 7)

3.3 Single socket unit with RCBO

			IP 44
200 to 250 V	16 A	2P + E	592 07
	32 A	2P + E	592 47
380 to 415 V	16 A	3P + E	592 14
		3P + N + E	592 19
	32 A	3P + E	592 54
		3P + N + E	592 59
	63 A	3P + E	592 79(1)

(1)Wiring with pilot cable

3.4 Single socket unit with switch

			IP 44	IP 66/67 - 55
100 to 130 V	16 A	2P + E	592 00	
200 to 250 V	16 A	2P + E	592 03	592 60
	32 A	2P + E	592 43	592 63
380 to 415 V	16 A	3P + E	592 09	592 61
		3P + N + E	592 16	592 62
	32 A	3P + E	592 49	592 64
		3P + N + E	592 56	592 65
	63 A	3P + E	592 34	592 66
		3P + N + E	592 35	592 67

3.5 Single socket unit with switch + MCB

			IP 44	IP 66/67 - 55
100 to 130 V	16 A	2P + E		596 60(1)
200 to 250 V	16 A	2P + E	596 10	596 61
	32 A	2P + E	596 15	596 65
380 to 415 V	16 A	3P + E	596 12	596 62
		3P + N + E	596 13	596 63
	32 A	3P + E	596 17	596 67
		3P + N + E	596 18	596 68
	63 A	3P + E	592 86	596 69
		3P + N + E	592 85	596 70
(1)Equipped with empty rail				

3. RANGE *(continued)*

3.6 Single socket unit with switch + RCBO

			IP 44	IP 66/67 - 55
200 to 250 V	16 A	2P + E	596 01	596 51
	32 A	2P + E	596 05	596 55
380 to 415 V	16 A	3P + E	596 02	596 52
		3P + N + E	596 03	596 53
	32 A	3P + E	596 07	596 57
		3P + N + E	596 08	596 58
	63 A	3P + E	592 83(2)	596 59(2)
		3P + N + E	592 84(1)	596 81(1)

(1)Equipped with RCD
(2)Equipped with MCB and add-on modules

3.7 Prisinter single socket unit + RCBO

			IP 44
200 to 250 V	16 A	2P + E	592 24
380 to 415 V	16 A	3P + E	592 25
		3P + N + E	592 26
	32 A	3P + E	592 28
		3P + N + E	592 29
	63 A	3P + E	592 88(1)
		3P + N + E	592 89

(1)Equipped with RCD
(2)Equipped with MCB and add-on modules

3.8 Unit 125 A with Vistop switch

			IP 66/67 - 55
380 to 415 V	125 A	3P + E	591 14
		3P + N + E	591 15

3.9 Unit for refrigerated container

Worldwide, perishable products are transported in refrigerated containers by land, sea and air hence the use of this combined unit for refrigerated containers by major carriers (container terminals, transfer stations, railway stations, ports, airports, warehouses, marine transports, etc.)

Unit 3P+E 32 A 440 V - 3-hour earth equipped with a switch and socket base IP 66/67-55.

			IP 66/67 - 55
440 V	32 A	3P + E	596 95

Associated mobile products:
Plug: 529 46
Mobile socket: 529 86

Associated fixed products:
Panel mounting socket: 529 26
Appliance inlet : 529 36

3. RANGE *(continued)*

3.10 Multi-socket unit

Unit with 2 sockets IP 44

Cat. No. 598 62
6 modules
2 sockets 16 A 2P - 20/25V~
Transformer 160 A (Cat. No. 428 58)
Two-pole circuit-breaker 6 A (Cat. No. 064 64)
Circuit-breaker 2 x 4 A (Cat. No. 106 463)

Cat. No. 598 64
9 modules
1 Prisinter 16 A 2P+E - 200/250 V~
1 Prisinter 16 A 3P+E - 380/415 V~
Four-pole residual current device 25 A (Cat. No. 086 93)
Two-pole circuit-breaker 16 A (Cat. No. 064 68)
Three-pole circuit-breaker 16 A (Cat. No. 064 88)

Cat. No. 598 65
6 modules
1 socket 16 A 2P+E - 200/250 V AC IEC
1 socket 16 A 2P+E - 250 V AC NFC with shutters
Residual current circuit-breaker 30 mA 2 x 20 A (Cat. No. 079 20)

Cat. No. 598 66
6 modules
1 socket 16 A 2P+E - 200/250V~ IEC
1 socket 32 A 3P+E - 380/415V~
Two-pole circuit-breaker 16 A (Cat. No. 064 68)
Three-pole circuit-breaker 32 A (Cat. No. 064 91)

Cat. No. 598 67
6 modules
Input terminal strip
1 socket 16 A 2P+E - 200/250 V~ IEC
1 socket 32 A 3P+E - 380/415 V~
Two-pole circuit-breaker 16 A (Cat. No. 064 68)
Three-pole circuit-breaker 32 A (Cat. No. 064 91)

Unit with 3 sockets IP 44

Cat. No. 598 61
9 modules
1 socket 16 A 2P - 20/25 V~
1 socket 16 A 2P+E - 200/250 V~ IEC
1 socket 16 A 2P+E - 250 V~ NFC pinout with shutters
Two-pole circuit-breaker 3 A (Cat. No. 064 62)
Circuit-breaker 2 x 20 A (Cat. No. 064 69)
Circuit-breaker 2 x 4 A (Cat. No. 106 463)
Two-pole residual current circuit-breaker (RCCB) 25 A (Cat. No. 086 28)
Transformer 100 VA (Cat. No. 427 11). Modification planned to transformer 100 VA (Cat. No. 428 57)

Unit with 6 sockets IP 44

Cat. No. 598 63
2 x 9 modules
2 sockets 16 A 2P - 20/25 V~
1 socket 16 A 2P+E - 200/250 V~ IEC
2 sockets 16 A 2P+E - 250 V~ NFC pinout with shutters
1 socket 32 A 3P+E - 380/415 V~
Four-pole residual current circuit-breaker (RCCB) 40 A (Cat. No. 086 94)
Two-pole circuit-breaker 6 A (Cat. No. 064 64)
Three-pole circuit-breaker 32 A (Cat. No. 064 91)
Circuit-breaker 2 x 20 A (Cat. No. 064 69)
Circuit-breaker 2 x 4 A (Cat. No. 106 463)
Transformer 160 VA (Cat. No. 428 58)

3. RANGE *(continued)*

3.10 Multi-socket unit *(continued)*

Unit with 2 sockets IP 44

Cat. No. 598 70
2 x 9 modules
2 sockets 16 A 2P - 20/25 V
1 socket 16 A 2P+E - 200/250 V IEC
2 sockets 16 A 2P+E - 250 V NFC pinout with shutters
1 socket 32 A 3P+N+E - 380/415 V
Four-pole residual current circuit breaker (RCCB) 40 A (Cat. No. 086 94)
Two-pole circuit-breaker 6 A (Cat. No. 064 64)
Four-pole circuit-breaker 32 A (Cat. No. 065 66)
Circuit-breaker 2 x 20 A (Cat. No. 064 69)
Circuit-breaker 2 x 4 A (Cat. No. 106 463)
Transformer 160 VA (Cat. No. 428 58)

Unit with 2 sockets IP 66/67-55

Cat. No. 598 71
6 modules
1 socket 16 A 2P+E - 200/250 V IEC
1 socket 16 A 2P+E - 250 V NFC with shutters
Residual current circuit-breaker (RCBO) 30 m A 2 x 20 A (Cat. No. 079 20)

Cat. No. 598 72
6 modules
Input terminal strip
1 socket 16 A 2P+E - 200/250 V~ IEC
1 socket 32 A 3P+E - 380/415 V~
Two-pole circuit-breaker 16 A (Cat. No. 064 68)
Three-pole circuit-breaker 32 A (Cat. No. 064 91)

Cat. No. 598 73
6 modules
Input terminal strip
1 socket 16 A 2P+E - 200/250 V~ IEC
1 socket 32 A 3P+N+E - 380/415 V~
Two-pole circuit-breaker 16 A (Cat. No. 064 68)
Four-pole circuit-breaker 32 A (Cat. No. 065 66)

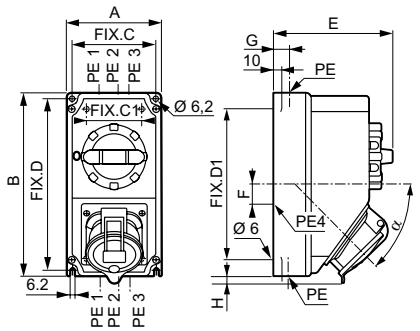
Unit with 3 sockets IP 66/67-55

Cat. No. 598 74
9 modules
1 socket 16 A 2P+E - 200/250 V~ IEC
1 socket 16 A 2P+E - 250 V NFC with shutters
1 socket 32 A 3P+E - 380/415 V~
Three-pole circuit-breaker 32 A (Cat. No. 064 91)
Circuit-breaker 2 x 20 A (Cat. No. 064 69)
Four-pole residual current circuit breaker (RCCB) 63 A (Cat. No. 086 95)

Cat. No. 598 75
9 modules
1 socket 16 A 2P+E - 200/250 V~ IEC
1 socket 16 A 2P+E - 250 V~ NFC with shutters
1 socket 16 A 3P+E - 380/415 V~
Three-pole circuit-breaker 16 A (Cat. No. 064 88)
Circuit-breaker 2 x 20 A (Cat. No. 064 69)
Four-pole residual current circuit breaker (RCCB) 40 A (Cat. No. 086 94)

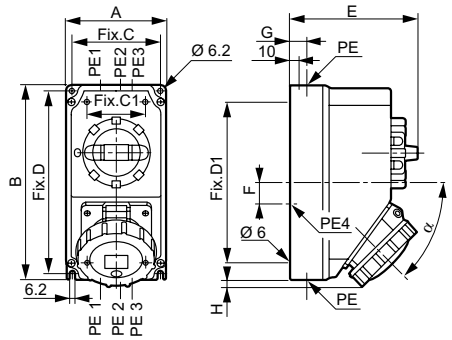
4. DIMENSIONS

Unit with socket + switch IP 44



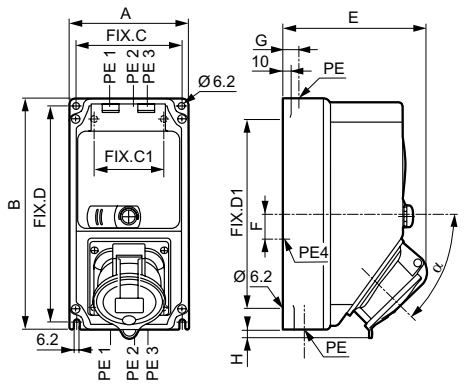
Cat. No.		A	B	C	D	C1	D1	E	F	G	H	∝	Knock-out inlets for cable-gland CG1	CG2	CG3	CG4
16 A																
592 00/03	2P+E										0					
592 09	3P+E	120	230	106	216	70	190	151	25	20	0	46	M20/ M25	/	M20/ M25	ø 29
592 16	3P+N+E											1,5				
32 A																
592 43	2P+E										9					
592 49	3P+E	120	230	106	216	70	190	151	25	20	9	46	M20/ M25	/	M20/ M25	ø 29
592 56	3P+N+E										10					
63 A																
592 34	3P+E	170	320	156	306	100	270	204	65	28	21,5	56	M20/ M25	M25/	M20 M32	ø 38
592 35	3P+N+E															

Unit with socket + switch IP 66/67-55



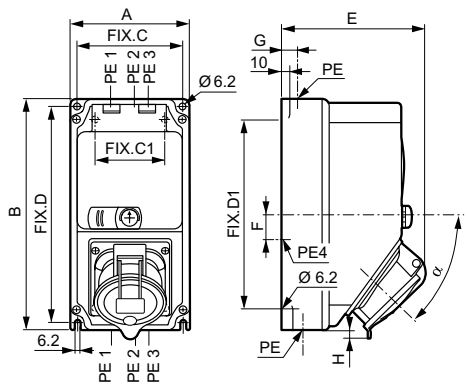
Cat. No.		A	B	C	D	C1	D1	E	F	G	H	∝	Knock-out inlets for cable-gland CG1	CG2	CG3	CG4
16 A																
592 60	2P+E										0					
592 61	3P+E	120	230	106	216	70	190	151	25	20	0	46	M20/ M25		M20/ M25	M25/ ø 29
592 62	3P+N+E										2					
32 A																
592 63	2P+E							152			8					
592 64	3P+E	120	230	106	216	70	190	152	25	20	8	46	M20/ M25		M20/ M25	M25/ ø 29
592 65	3P+N+E							156			12					
63 A																
592 66	3P+E	170	320	156	306	100	270	204	65	28	18	56	M20/ M25	M25/ M32	M20	M25/ M32/ ø 38
592 67	3P+N+E															

Unit with socket + protection (or empty rail) IP 44



Cat. No.		A	B	C	D	C1	D1	E	F	G	H	∝	Knock-out inlets for cable-gland CG1	CG2	CG3	CG4
16 A																
592 01/02	2P+E						132			0		M20/ 46				
592 06/07																
592 13/14	3P+E	120	230	106	216	70	190	134	25	20	0		M20/ M25		M25	ø 29
592 18/19	3P+N+E							138			1.5					
32 A																
592 46/47	2P+E							145						9		
592 53/54	3P+E	120	230	106	216	70	190	145	25	20	9	46	M20/ M25		M20/ M25	ø 29
592 58/59	3P+N+E							148			10					
63 A																
592 39/79	3P+E	170	320	156	306	100	270	188	65	28	21.5	56	M20/ M25	M25/ M32	M20	ø 38
592 40	3P+N+E															

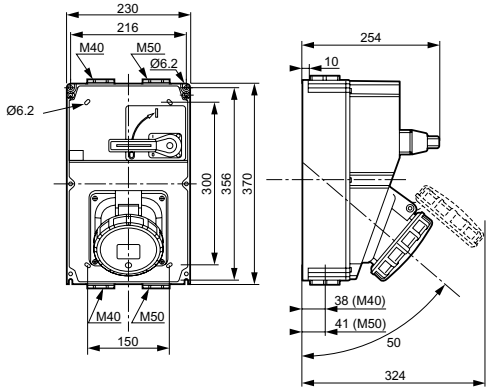
Unit with Prisinter + protection



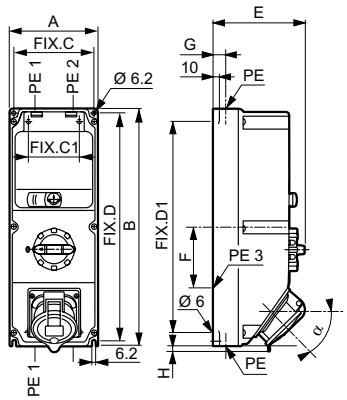
Cat. No.		A	B	C	D	C1	D1	E	F	G	H	∝	Knock-out inlets for cable gland CG1	CG2	CG3	CG4
16 A																
592 23/24	2P+E							195			0					
592 25	3P+E	170	320	156	306	100	270	195	65	28	0	56	M20/ M25	M25/ M32	M20	ø 38
592 26	3P+N+E							202			0					
32 A																
592 27	2P+E							206			0					
592 28	3P+E	170	320	156	306	100	270	206	65	28	0	56	M20/ M25	M25/ M32	M 20	ø 38
592 29	3P+N+E							214			0					
63 A																
592 88	3P+E	170	320	156	306	100	270	225	65	28	20	56	M20/ M25	M25/ M32	M 20	ø 38
592 89	3P+N+E	230	370	216	356	150	300	246	-	38	0	40	M25/ M32	M20	M25/ M32	-

4. DIMENSIONS *(continued)*

Unit with socket + isolating switch

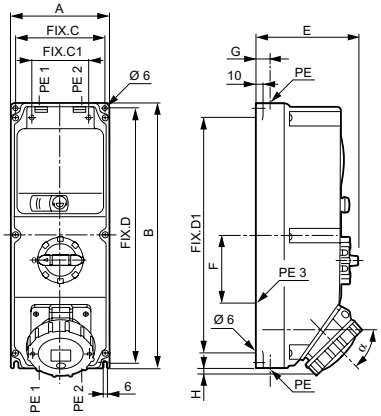


Unit with socket + switch + protection (or empty rail) IP 44



Cat. No.		A	B	C	D	C1	D1	E	F	G	H	∝	Knock-out inlets for cable-gland CG1	CG2	CG3
16 A															
596 00 **596 10/01**	2P+E										0				
596 12/02	3P+E	140	370	126	356	74	330	151	95	20	0	46	M20/ M25	M20/ M25	ø 29
596 13/03	3P+N+E										1,5				
32 A															
596 15/05	2P+E										9				
596 17/07	3P+E	140	370	126	356	74	330	151	95	20	9	46	M20/ M25	M20/ M25	ø 29
596 18/08	3P+N+E										10				
63 A															
592 86/83	3P+E	160	470	146	456	90	420	204	125	28	20	56	M25/ M32	M20/ M25	ø 38
592 85/84	3P+N+E														

Unit with socket + switch + protection (or empty rail) IP 66/67-55

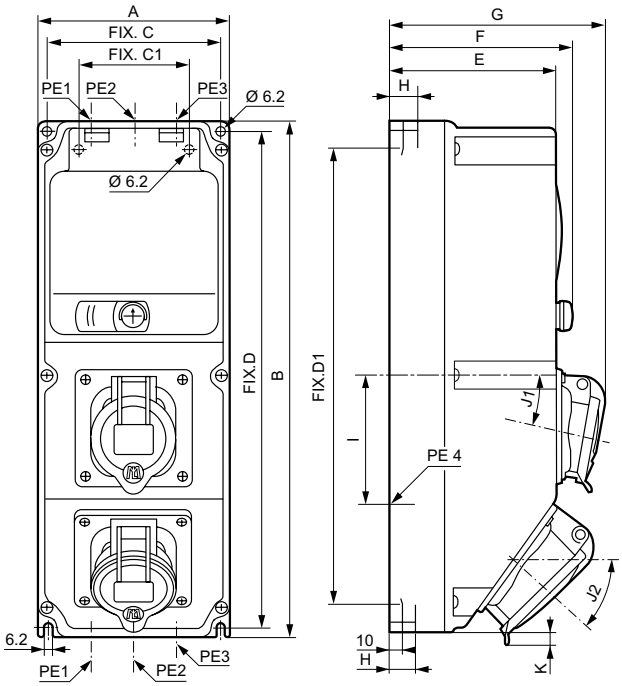


Cat. No.		A	B	C	D	C1	D1	E	F	G	H	∝	Knock-out inlets for cable-gland CG1	CG2	CG3
16 A															
596 60/50 **596 61/51**	2P+E										0				
596 62/52	3P+E	140	370	126	356	74	330	151	95	20	0	46	M20/ M25	M20/ M25	M25/ ø 29
596 63/53	3P+N+E										2				
32 A															
596 65/55	2P+E							152			8				
596 67/57	3P+E	140	370	126	356	74	330	152	95	20	8	46	M20/ M25	M20/ M25	M25/ ø 29
596 68/58	3P+N+E							156			12				
63 A															
596 69/59	3P+E	160	470	146	456	90	420	204	125	28	17	56	M25/ M32	M20/ M25	M25/ M32/ ø 38
596 70/81	3P+N+E														

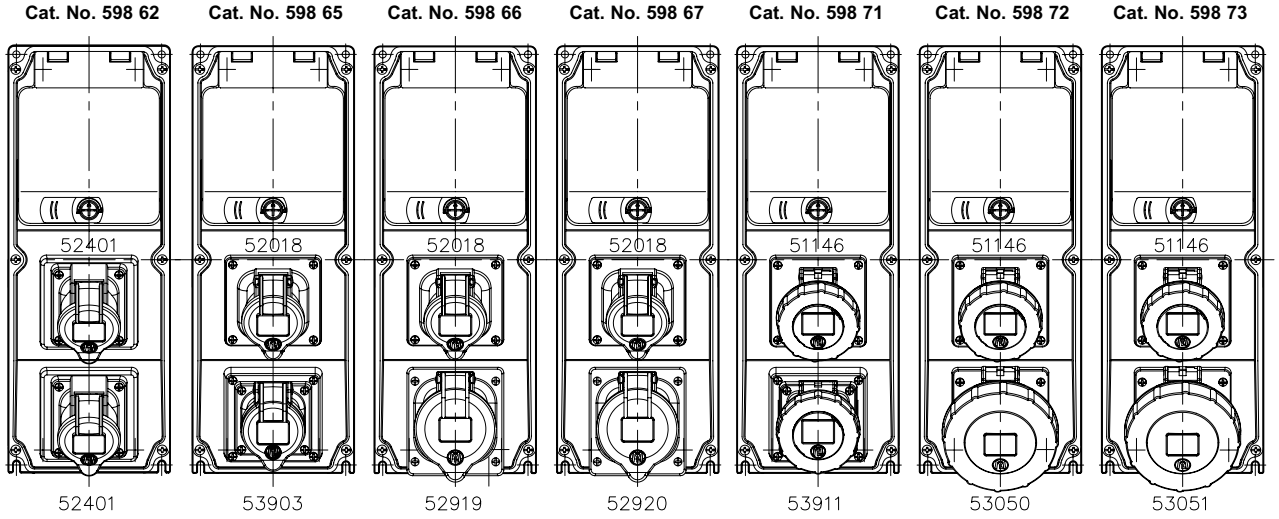
4. DIMENSIONS *(continued)*

Multisocket cable units														Knock-out inlets ISO			
IP 44																	
Cat. No.	A	B	Fix. C	Fix. C1	Fix. D	Fix. D1	E	F	G	H	I	J1	J2	K	CG1	CG2	CG3	CG4
598 65	140	370	126	74	356	330	120	132	155	20	95	10°	46°	0	ISO 20/25	-	ISO 20/25	Ø 28
598 66														7,5				
598 67														9,5				
598 62	160	470	146	90	456	420	173	185	213	28	140	20°	56°	3,5	ISO 20/25	-	ISO 20/25	Ø 28/37
IP 66/67 - 55																		
598 71	140	370	126	74	356	330	120	132	158	20	95	10°	36°	18,5	ISO 20/25	-	ISO 20/25	-
598 72													46°	16,5				
598 73													46°	20				

Generic drawing of 2-socket unit

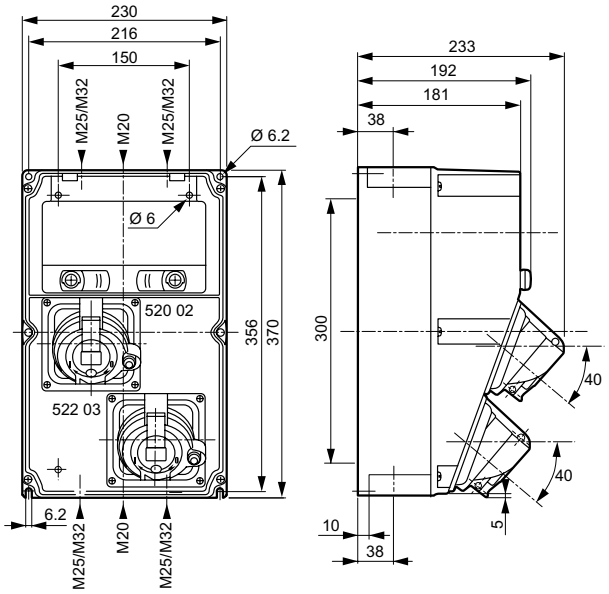


Detail of two-socket units

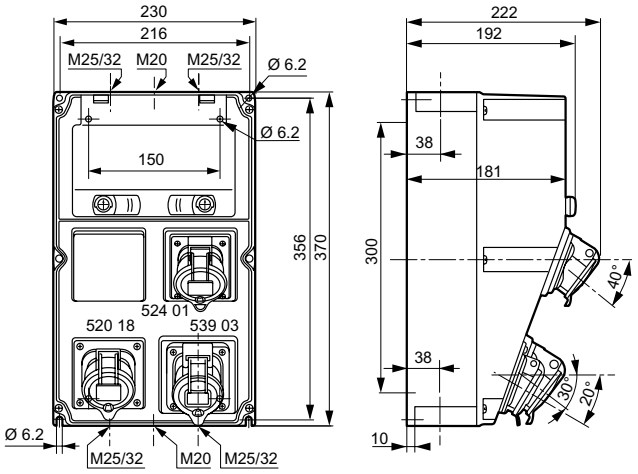


4. DIMENSIONS *(continued)*

Cat. No. 598 64

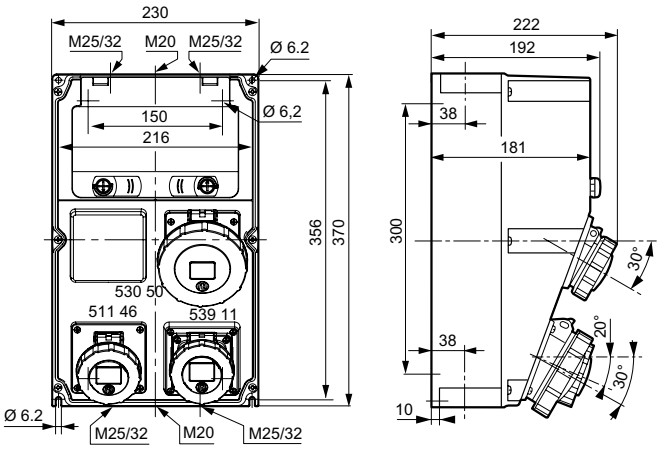


Detail of three-socket units
Cat. No. 598 61

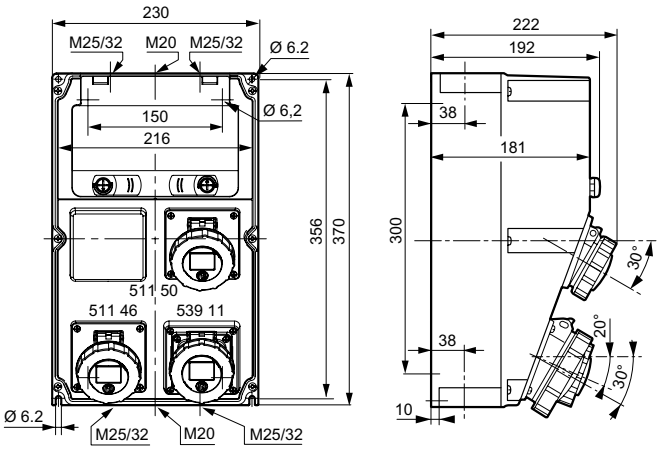


4. DIMENSIONS *(continued)*

Cat. No. 598 74

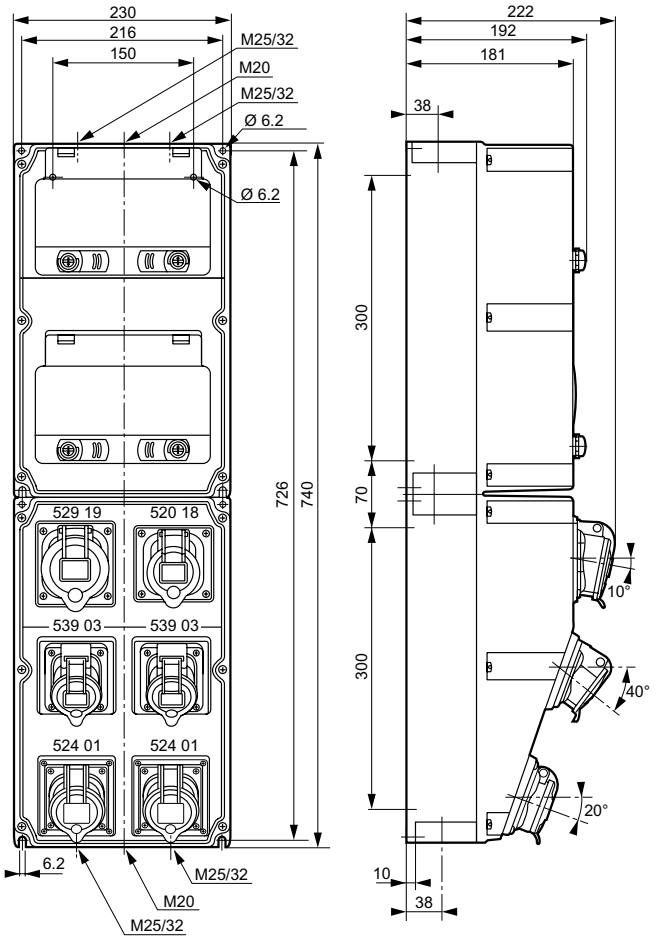


Cat. No. 598 75

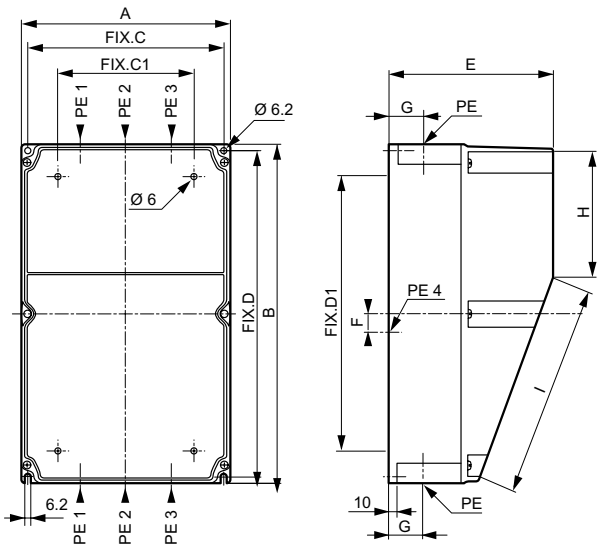


4. DIMENSIONS *(continued)*

Cat. No. 598 63

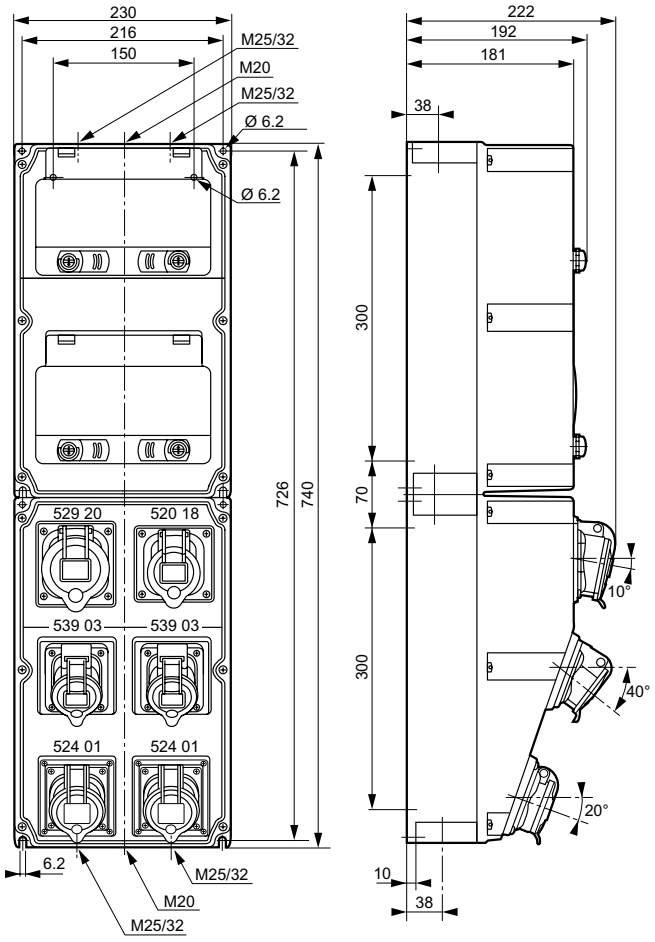


Undrilled unit



4. DIMENSIONS *(continued)*

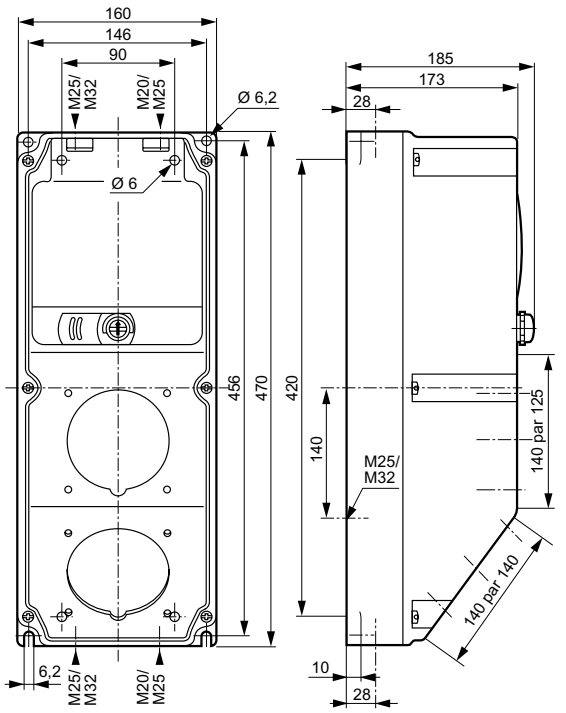
Cat. No. 598 70



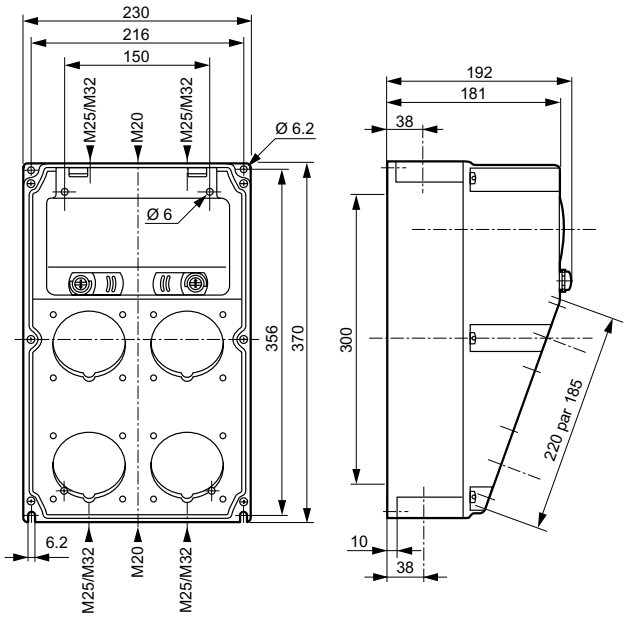
Cat. No.	A	B	C	C1	D	D1	E	F	G	H	I	CG1	CG2	CG3	CG4
598 41	120	230	106	70	216	190	120	25	20	110	90	M20/M25	-	M20/M25	M25
598 42	230	370	216	150	356	300	181	-	38	120	220	M25/M32	M20	M25/M32	-
598 43	140	370	126	74	356	330	120	95	20	264	105	M20/M25	-	M20/M25	M25
598 44	230	370	216	150	356	300	181	-	38	120	220	M25/M32	M20	M25/M32	-
598 45	230	740	216	150	726	670	181	-	38	120	220	M25/M32	M20	M25/M32	-

4. DIMENSIONS *(continued)*

Predrilled unit - Cat. No. 598 46

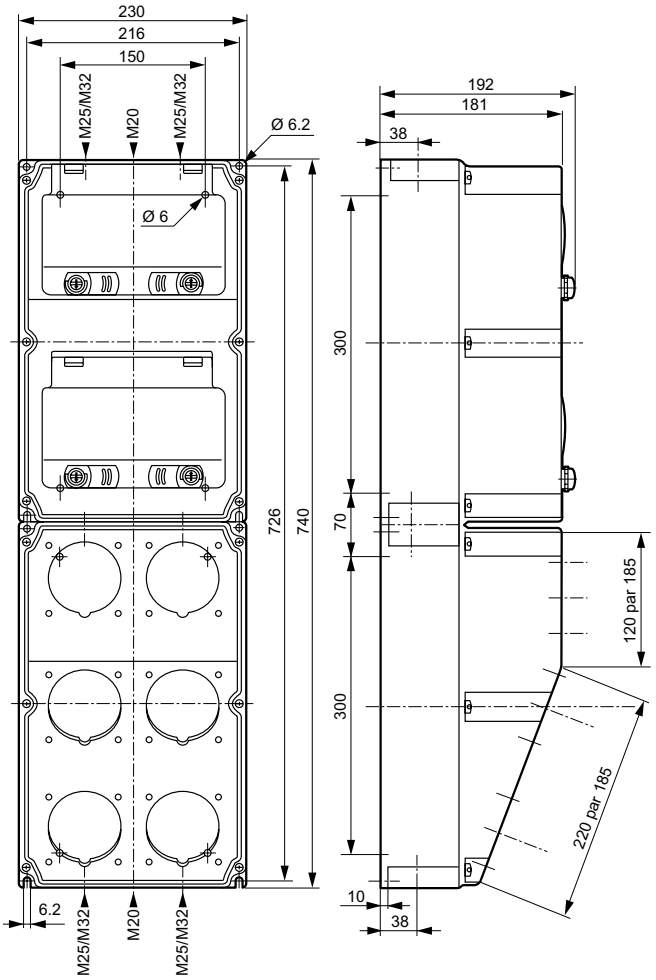


Predrilled unit - Cat. No. 598 47

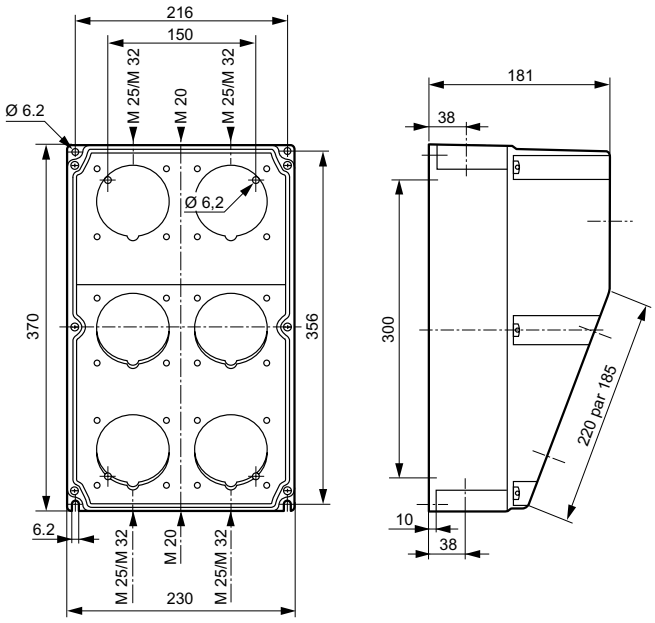


4. DIMENSIONS *(continued)*

Predrilled unit - Cat. No. 598 48



Predrilled unit - Cat. No. 598 50



5. CONNECTION AND PROTECTION

5.1 Connecting socket bases

Cross-section of cables inside the unit according to the current used:
- Socket 16A :. . . . . 2.5 mm^2
- Socket 32A :. . . . . 6 mm^2
- Socket 63A :. . . . . 16 mm^2
- ELV socket :. . . . . 2.5 mm^2 au primaire
. . . . . 2.5 mm^2 au secondaire

NB: Reminder of the pilot wire cabling (§8)

The guide wire is a control conductor used with the power conductor. If it is interrupted, it causes the breaking of the power circuit via a contactor. This arrangement provides an electrical solution to the requirement for breaking circuits greater than 32A (decree dated 14/11/88). An additional (shorter) pin is therefore added to the various models of socket to perform this “guide wire” function.
The “guide wire” solution nonetheless remains restricting in terms of both its implementation (requirement for special cables) and its cost (power contactor).

5.2 Connecting protective devices

	Max. cable	
	rigid	flexible
DNX, DX uni+ N, residual current or not	16	25
DX, DX-h, DX-D 15 kA, DX-MA ≤ 6,3 A Residual current units ≤ 63 A DX-L residual current units	35	25
DX-h, blocs différentiels 80, 100, 125 A DX-L, DX-D 25 kA, DX-MA ≤ 10 A	70	50
Auxiliaries	2.5	2.5

5.3 Types of protection and number of modules

Upstream, Hypra equipped or to-be-equipped units can integrate, according to catalogue numbers, modular protective devices of various kinds:
- Lexic MCB
- Lexic RCBO
- Lexic RCCB

NB: according to the required use, it is essential to check that the protection against indirect contacts (residual current) and the protection against overloads and short circuits (Lexic circuit breakers) are both well covered.

Caution: a residual current device does not provide protection against overloads and short circuits.

Short-circuit withstand: for the short-circuit withstand of modular circuit breakers, RCBOs and RCCBs, refer to the performance pages for these products in the current Legrand catalogue.

Reminder of the ratings for units equipped with residual current device

Ratings	Sensitivy
- 16 A ..... RCCB 25 A - 32 A ..... RCCB 40 A - 63 A ..... RCCB 63 A	30 mA

5. CONNECTION AND PROTECTION *(continued)*

5.3 Types of protection and number of modules *(continued)*

Detail of the type of protection and number of modules per single socket unit.

Cat. No.	Type of protection	Cat. No.	Max. Number of modules
592 06	MCB	064 68	5
592 07	RCBO	079 19	5
592 13	MCB	064 88	5
592 14	RCBO	079 64	5
592 18	MCB	065 63	5
592 19	RCBO	079 64	5
592 24	RCBO	079 19	6
592 25	RCBO	079 64	6
592 26	RCBO	079 64	6
592 28	RCBO	079 67	6
592 29	RCBO	079 67	6
592 39	MCB	064 94	6
592 40	MCB	065 69	6
592 46	MCB	064 71	5
592 47	RCBO	079 22	5
592 53	MCB	064 91	5
592 54	RCBO	079 67	5
592 58	MCB	065 66	5
592 58	Disjoncteur	065 66	5
592 59	RCBO	079 67	5
596 70	MCB	065 69	6
592 83	MCB + add-on module	064 94 + 074 29	6
592 84	RCD	086 95	6
592 85	MCB	065 69	6
592 86	MCB	064 94	6
592 88	MCB + add-on module	064 94 + 074 29	6
592 89	RCBO	080 15	9
596 01	RCBO	079 19	6
596 02	RCBO	079 64	6
596 03	RCBO	079 64	6
596 05	RCBO	079 22	6
596 07	RCBO	079 67	6
596 08	RCBO	079 67	6
596 10	MCB	064 68	6
596 12	MCB	064 88	6
596 13	MCB	065 63	6
596 15	MCB	064 71	6
596 17	MCB	064 91	6
596 18	MCB	065 66	6
596 51	RCBO	079 19	6
596 52	RCBO	079 64	6
596 53	RCBO	079 64	6
596 55	RCBO	079 22	6
596 57	RCBO	079 67	6
596 58	RCBO	079 67	6
596 59	MCB + add-on module	064 94 + 074 29	6
596 60	Empty rail		6
596 61	MCB	064 68	6
596 62	MCB	064 88	6
596 63	MCB	065 63	6
596 65	MCB	064 71	6
596 67	MCB	064 91	6
596 68	MCB	065 66	6
596 69	MCB	064 94	6
596 81	RCB	086 95	6

6. TECHNICAL CHARACTERISTICS

The different tests

6.1 Resistance to glow wire
Enclosure: 650°C
Active parts: 850°C

6.2 Dielectric strength
2500 V equipped with IEC sockets
2000 V equipped with NFC sockets

6.3 Use temperature

- With a mechanical locking only: - 20°C / + 100°C
- Equipped with RCCB 086 28 and 086 95: - 15°C / + 40°C
- Equipped with RCCB (064 68/71/88/91/94, 065 63/66/69): - 15°C / + 40°C
- Equipped with MCB (079 19/22/64/67, 080 15): - 5°C / + 40°C

Reminder on the derating circuit breaker according to ambient temperature.
A standardised circuit breaker is adjusted to operate at in at an ambient temperature of 30°C.
The nominal characteristics of this device, are modified according to the ambient temperature inside the cabinet or the enclosure where the circuit breaker is located.

	Ambiant temperature/IM					
In	- 10° C	0	10° C	20° C	30° C	40° C
0.5 A	0.6	0.57	0.55	0.52	0.5	0.47
0.8 A	0.96	0.92	0.88	0.84	0.8	0.76
1 A	1.17	1.1	1.07	1.03	1	0.97
2 A	2.34	2.21	2.14	2.06	2	1.94
3 A	3.5	3.36	3.24	3.12	3	2.88
4 A	4.7	4.44	4.28	4.12	4	3.88
6 A	7	6.6	6.4	6.18	6	5.8
8 A	9.6	9.2	8.8	8.4	8	7.6
8 A	9.6	9.2	8.8	8.4	8	7.6
13 A	15	14.3	13.9	13.4	13	12.6
16 A	18.7	18	17.3	16.6	16	15.4
20 A	23.2	22.4	21.6	20.8	20	19.2
25 A	29.5	28.3	27.2	26	25	24
32 A	37.8	36.5	34.9	33.3	32	30.7
40 A	48	46	44	42	40	38
50 A	60	57.5	55	52.5	50	47.5
63 A	75.6	72.5	69.9	66.1	63	59.8

6. TECHNICAL CHARACTERISTICS *(continued)*

6.4. Resistance to chemical

Chemical agents	Plastic
Acetaldehyde	++++
Ethyl acetate	++++
Acetic acid	- -
Chromic acid 50%	- -
Citric acid	++++
Formic acid	- -
Lactic acid	+++
Nitric acid 20%	- -
Perchloric acid	- -
Sulphuric acid < 10%	-
Uric acid	++++
Ammonia 10%	++++
Benzene	++++
Benzol	- -
Potassium bicarbonate	++++
Bicarbonate de sodium	++++
Bromine	- -
Butanol	+++
Lime	++++
Potassium chlorate	-
Sodium chlorate	- -
Chlorine (dry)	- -
Chloroform	++++
Vinyl chloride	++++
Zinc chloride	++++
Cream	++++
Cresols	- -
Bleach	-
Sea water	++++
Distilled water	++++
Salt water	++++
Ethanol	++++
Ether	++++
Fuel oil	++++
Glucose	++++
Glycerine	++++
Heptane	++++
Olive oil	++++
Hydraulic oils	++++
Fuel oils (1, 2, 3, 5A, 5B, 6)	++++
Diesel oils (20, 30, 40, 50)	++++
Fruit juice	++++
Kerosene	++++
Lubricants	++++
Heating oil	++++
Molasses	++++
Methanol	+++
Silver nitrate	++++
Nitrobenzene	+++
Paraffin	++++
Potassium permanganate	- -
Petroleum	++++
Phenol 10%	- -
Liquified propane	++++
Lard	++++
Silicon	++++
Zinc sulphate	++++
Turpentine	+++
Carbon tetrachloride	- -
Toluene	++++
Whisky and wine	++++
Xylene	++++

++++ : Exellente resistance
+++ : Good resistance
- : Low resistance
- - : Poor resistance

6. TECHNICAL CHARACTERISTICS *(continued)*

6.5 Resistance to U.V

No colour change or material alteration following the test described below:
Test duration: 168 hours
Infrared and Ultra-Violet filter in order to get as close as possible to the solar spectrum.

6.6 Ageing test

No colour change or material alteration following the test described below: Seven days at + 80°C

6.7 Resistance to harsh environments

Resistance to industrial cleaning procedures:
high-pressure prewash detergent cleaning / high-pressure - high temperature washing.

- *Prewash degreasing test:* test carried out with high-pressure device set between 70 and 90 bar.
  Hot water between 70 and 80°C.
  Spraying at 50 cm for one minute without direct application onto the test product.
- *Detergent cleaning:* two detergents are applied: Galorox acid and Galorox 3%.
  Each detergent is applied by spraying all round the product for 10 seconds.
  Then the detergent is left to work for 30 minutes.
- *Washing:* high-pressure device set between 110 bar and 120 bar.
  Hot water spray between 70 and 80°C.
  The other parameters are the same as for the prewash degreasing test.

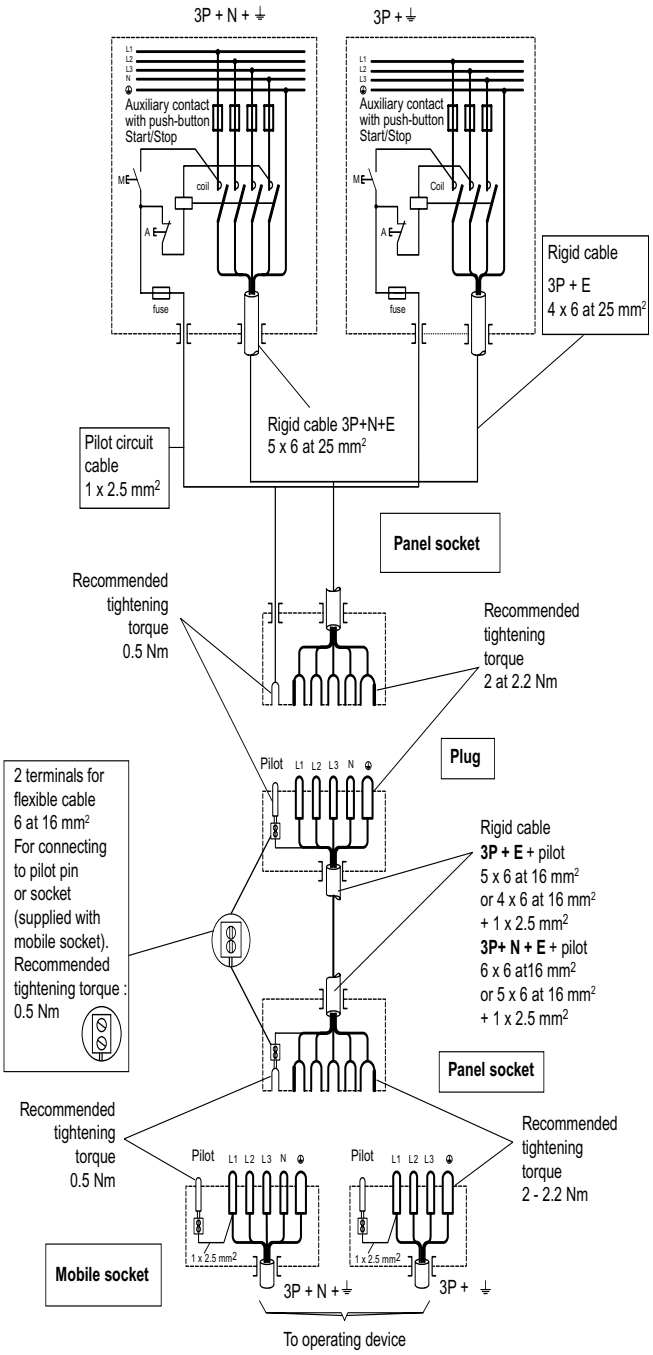
Result: all the tested products successfully passed the detergent tests according to the above requirements.

7. CONFORM WITH STANDARDS AND ORDERS

- IEC 60 309.1 and EN 60 309.2
- NF EN 60 309.1 and NF EN 60 309.2
- NF EN 60 439.1
- Decree dated 14 Nov 1988
- NF EN 62 262
- IEC 60 529

8. CABLING DIAGRAM

8.1 Exemple of diagram with pilot wire (59239/40/79)

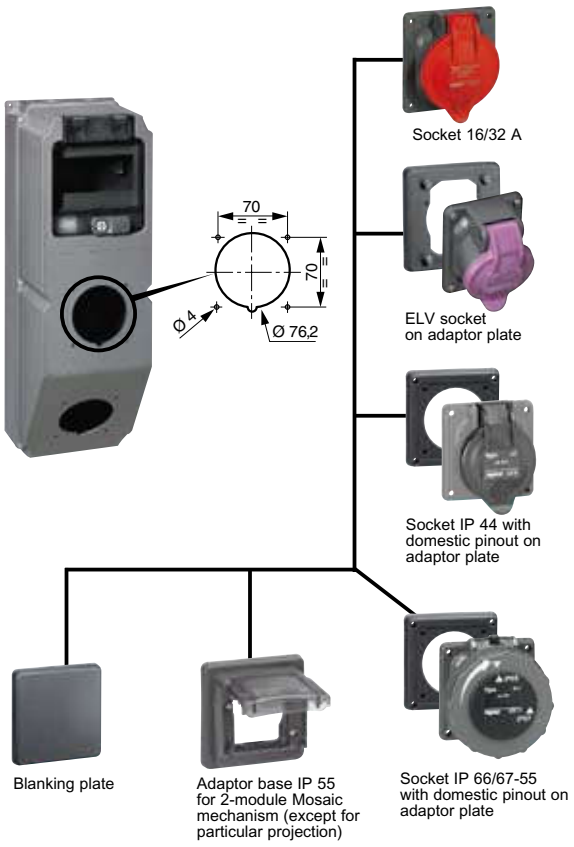


Hypra combined units
IP 44, 66/67-55

Cat. No.(s): 591 14/15 - 592 00/03/06/07/09/13/14/16/18/19/24/25/26/28/29/34/35/39/40/43/46/47/49/53/54/56/59/60/61/62/63/64/65/66/67/79/83/84/85/86/88/89 - 596 01/02/03/05/07/08/10/12/13/15/17/18/51/52/53/55/57/58/59/60/61/62/63/65/67/68/69/70/81/95 598 41/42/43/44/45/46/47/48/49/50/62/64/65/66/67

9. ACCESSORIES FOR COMBINED UNITS

For a rapid and upradable installation, make up your unit according to your specific needs by combining panel mounting socket (with single fixing centres) with predrilled units ans accessories with undrilled or predrilled units.





Cat. No. **521 18**
Adaptor plate for domestic bases IP 44 and IP 66/67-55



Cat. No. **521 19**
Adaptor plate for ELV bases



Cat. No. **521 24**
Blanking plate



Cat. No. **539 49**
Adaptor base IP 55 for Mosaic mechanism (except for projection)

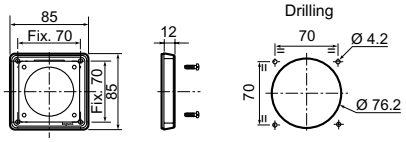


Cat. No. **017 66**
Key lock No. 850

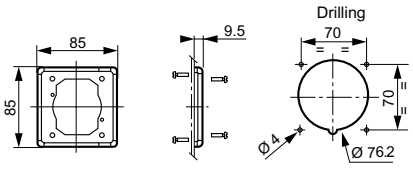


Cat. No. **521 95**
Bag of screws and nuts

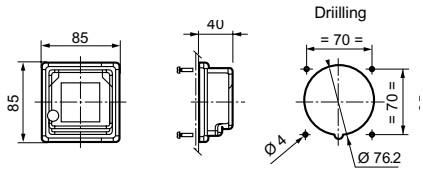
Cat. No. 521 18



Cat. No. 521 19

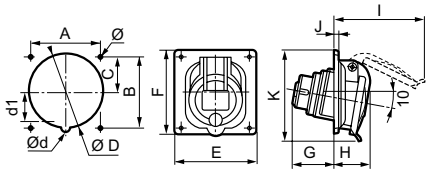


Cat. No. 539 49



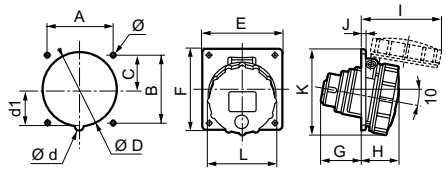
Reminder of panel base dimensions (70 x 70)

IP 44 panel mounting socket



	Weight (kg)	A	B	C	Ø D	Ø d	d1	E	F	G	H	I	J	K	Ø
16 A															
2 P + ⏚	0.110	70	70	35	76.2	-	-	84	84	37	36	89	4.5	88	4.2
3 P + ⏚	0.140	70	70	35	76.2	-	-	84	84	43	36	97	4.5	89	4.2
3 P + N + ⏚	0.165	70	70	35	76.2	-	-	84	84	43	37	106	4.5	91	4.2
32 A															
2 P + ⏚	0.220	70	70	35	76.2	-	-	84	94	54	45	117	4.5	100	4.2
3 P + ⏚	0.220	70	70	35	76.2	-	-	84	94	54	45	117	4.5	100	4.2
3 P + N + ⏚	0.255	70	70	35	76.2	8	36	84	94	54	46	125	4.5	102	4.2

IP 66/67-55 panel mounting socket



	Weight (kg)	A	B	C	Ø D	Ø d	d1	E	F	G	H	I	J	K	L	Ø
16 A																
2 P + ⏚	0.140	70	70	35	76.2	-	-	84	84	42	39	83	4.5	90	72.5	4.2
3 P + ⏚	0.165	70	70	35	76.2	-	-	84	84	43	41	98	4.5	93	81	4.2
3 P + N + ⏚	0.195	70	70	35	76.2	-	-	84	84	43	41	99	4.5	91	86.5	4.2
32 A																
2 P + ⏚	0.240	70	70	35	76.2	-	-	84	94	54	50	113	4.5	101	94.5	4.2
3 P + ⏚	0.240	70	70	35	76.2	-	-	84	94	54	50	113	4.5	101	94.5	4.2
3 P + N + ⏚	0.270	70	70	35	76.2	8	36	84	94	54	51	120	4.5	103	101	4.2