



IEC 60309 Series

Heavy Duty Industrial
Surface Mount Sockets

PDI
Power Dynamics, Inc.

IEC 60309 Series

> INDUSTRIAL SURFACE MOUNTING SOCKET OUTLETS



> VERSIONS

	BASE version
	TOP version
	COMBI version

> 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.

> QUALITY MARKS



> TECHNICAL CHARACTERISTICS

Rated current:	16A - 32A
Rated voltage:	100÷690V~
Frequency:	d.c - 50÷500Hz
Insulating voltage:	500/690V~
Protection degree:	BASE and TOP: IP44 - IP66/IP67 COMBI: IP44 closed cover
Operating temperature according to the reference standard:	-25°C+40°C
Max operating temperature:	60°C
Glow Wire test:	650°C/850°C
Material:	Engineering plastic
IK degree at 20°C:	IK08
Cable inlets:	Cable sleeve IP44 Cable gland IP66/IP67
Halogen free:	Yes
Terminals:	Screw
Safe-in device:	16A
Fuses:	Max 10A - 5x20mm
(COMBI version)	H: high power cutoff (1500A) T: delayed action

> 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	Resistant	Resistant	Not Resistant	Not Resistant	Not Resistant	Limited Resistance	Resistant	Limited Resistance

For specific substances please contact our technical service.

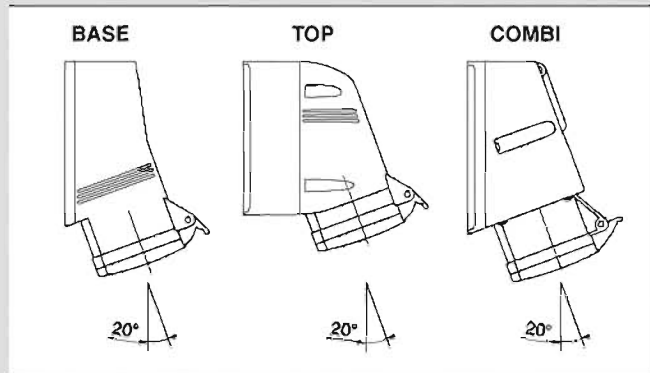
> WIRING AND INSTALLATION

Wiring capacity of the terminals

Cross-section of connectable conductors (mm²)

Rated voltage	Rated current (A)	Socket outlets	
		Min	Max
>50V	16A	1,5	4
	32A	2,5	10

> SURFACE MOUNTING INSTALLATION AXIS



> APPLICATION EXAMPLES



IEC 60309 Series



Fastening to exterior wall.



TOP version: threaded knockout entries to quickly fasten the cable entry device.



Captive screws.



TOP version: ability to create entry-exit.



TOP version: reversible base and removable socket for easy wiring.



TOP IP66/IP67 version: integrated, one-piece gasket, fastening screws outside the gasket.



TOP version: entry-exit terminal board accessory.



TOP version: versions with SAFE-IN (16A) safety device available.



BASE version: easy wiring. Socket fastened at the bottom; positioned and easily accessible open terminals.



COMBI version: combined versions, industrial and household socket.

> THE "SAFE-IN" SAFETY DEVICE

The "SAFE-IN" safety device assembled on the 16A industrial sockets is the most innovative element of the new Series. The "SAFE-IN" device works like the protection installed on household sockets, i.e., by means of an appropriate shutter, it closes the input of the socket contact tubes and prevents accidental and voluntary contact of live parts of the socket with slim objects, such as screwdrivers or wires. This protection offers an additional safety guarantee, in addition to that already provided by the spring-loaded cover assembled on the mobile sockets.

> POTENTIALLY DANGEROUS SITUATIONS



Industrial surface mounting socket outlets >50V

> SURFACE MOUNTING SOCKET OUTLETS

BASE version



Screw - IP44

Poles	Hz.	Volt	Colour	h.	16A	32A
					□ 10/40	□ 1/10
2P+E	50/60	100-130		4	513.1650	513.3250
	50/60	200-250		6	513.1653	513.3253
	50/60	380-415		9		
	50/60	480-500		7		
	50/60	trasf.		12		
	>300-500	>50		2		
	c.c.	>50-250		3		
	c.c.	>250		8		
3P+E	50/60	100-130		4		
	50/60	200-250		9		
	50/60	380-415		6	513.1656	513.3256
	60	440-460		11		
	50/60	480-500		7		
	50/60	600-690		5		
	50 60	380 440		3		
	100-300	>50		10		
>300-500	>50		2			
3P+N+E	50/60	100-130		4		
	50/60	208-250		9		
	50/60	346-415		6	513.1657	513.3257
	50/60	480-500		7		
	50/60	600-690		5		
	60	440-460		11		
	50 60	380 440		3		
	>300-500	>50		2		

Rated operating voltage >50V

- IP44 version: standard supply cable sleeve.

TOP version



Screw - IP44

Screw - IP66/IP67

Screw - IP44			Screw - IP66/IP67		
16A	32A	Safe-in device 16A	16A	32A	Safe-in device 16A
☐ 10/40	☐ 1/10	☐ 10/40	☐ 10/40	☐ 1/10	☐ 10/40
513.1650T	513.3250T	513.1650TH	518.1650T	518.3250T	518.1650TH
513.1653T	513.3253T	513.1653TH	518.1653T	518.3253T	518.1653TH
513.1658T	513.3258T	513.1658TH	518.1658T	518.3258T	518.1658TH
513.16536T	513.32536T		518.16536T	518.32536T	
513.16533T	513.32533T		518.16533T	518.32533T	
513.16532T	513.32532T		518.16532T	518.32532T	
513.16534T	513.32534T		518.16534T	518.32534T	
513.16538T	513.32538T		518.16538T	518.32538T	
513.1651T	513.3251T		518.1651T	518.3251T	
513.1654T	513.3254T	513.1654TH	518.1654T	518.3254T	518.1654TH
513.1656T	513.3256T	513.1656TH	518.1656T	518.3256T	518.1656TH
513.16565T	513.32565T		518.16565T	518.32565T	
513.16566T	513.32566T		518.16566T	518.32566T	
513.16567T	513.32567T		518.16567T	518.32567T	
513.16564T	513.32564T		518.16564T	518.32564T	
513.16561T	513.32561T		518.16561T	518.32561T	
513.16562T	513.32562T		518.16562T	518.32562T	
513.1652T	513.3252T		518.1652T	518.3252T	
513.1655T	513.3255T		518.1655T	518.3255T	
513.1657T	513.3257T	513.1657TH	518.1657T	518.3257T	518.1657TH
513.16576T	513.32576T		518.16576T	518.32576T	
513.16577T	513.32577T		518.16577T	518.32577T	
513.16575T	513.32575T		518.16575T	518.32575T	
513.16574T	513.32574T		518.16574T	518.32574T	
513.16572T	513.32572T		518.16572T	518.32572T	

Industrial surface mounting socket outlets >50V

> SURFACE MOUNTING SOCKET OUTLETS - IP44

COMBI version



Industrial socket	Poles	Volt	Colour	h	D	Without protection		
16A	2P+E	200-250		6	1/10	513.1653-PN	513.1653-DN	513.1653-FN
	3P+E	380-415		6	1/10	513.1656-PN	513.1656-DN	513.1656-FN
	3P+N+E	346-415		6	1/10	513.1657-PN	513.1657-DN	513.1657-FN



Industrial socket	Poles	Volt	Colour	h	D	With protection: fuse		
32A	2P+T	200-250		6	1/10	513.3253-PF	513.3253-DF	513.3253-FF
	3P+T	380-415		6	1/10	513.3256-PF	513.3256-DF	513.3256-FF
	3P+N+T	346-415		6	1/10	513.3257-PF	513.3257-DF	513.3257-FF

- Domestic socket protected with a standard fuse.

> AVAILABLE STANDARDS


ITALIAN STANDARD P30 16A	GERMAN STANDARD 16A	FRENCH-GERMAN STANDARD 16A
Shuttered socket Italian standard CEI 23-50	Unshuttered socket	Unshuttered socket

Rated operating voltage >50V

- Standard supply cable sleeve.
- Solution already wired up to the power supply terminal board.

> ACCESSORIES

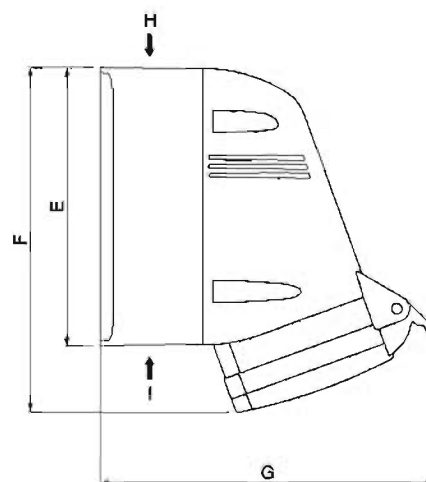
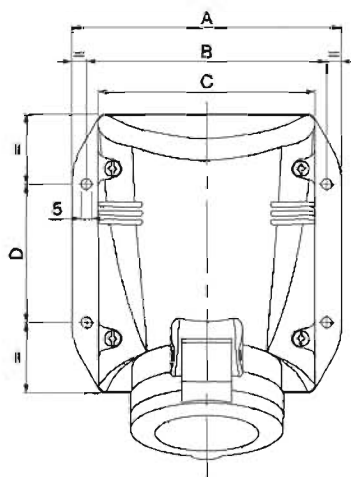


Description			
Entry-exit terminal board for TOP version - 5 poles 6mm²		10/100	654.0352
Threaded cable sleeve IP55	M20	100/1000	805.5020
	M25	100/1000	805.5025
	M32	100/1000	805.5032

IEC 60309 Series

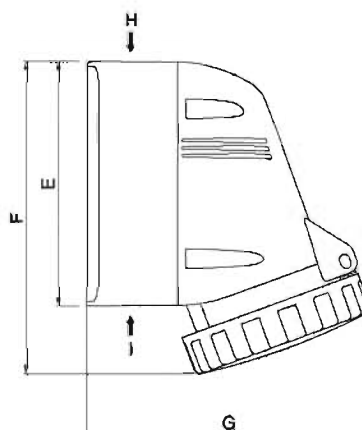
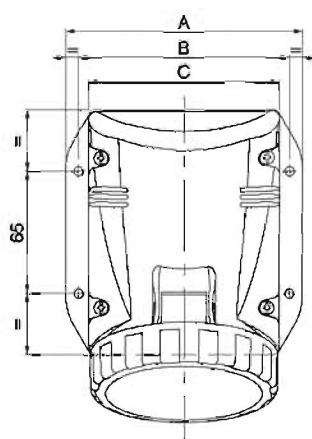
> DIMENSIONS

TOP VERSION - IP44



	A	B	C	D	E	F	G	H	I
2P+E	94	80	70	/	96	126	119	M20X1.5	M20X1.5
16A 3P+E	109	97	85	51	112	140	140	M25X1.5	2X M25X1.5
3P+N+E	109	97	85	51	112	143	141	M25X1.5	2X M25X1.5
2P+E	126	113	102	65	130	159	156	M32X1.5	2X M32X1.5
32A 3P+E	126	113	102	65	130	159	156	M32X1.5	2X M32X1.5
3P+N+E	126	113	102	65	130	162	158	M32X1.5	2X M32X1.5

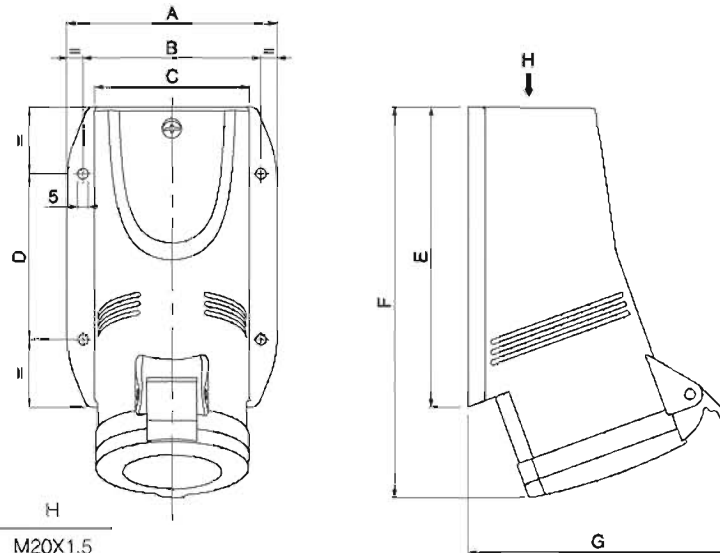
TOP VERSION - IP66/IP67



	A	B	C	D	E	F	G	H	I
2P+E	94	80	70	/	96	131	110	M20X1.5	M20X1.5
16A 3P+E	109	97	85	51	112	146	134	M25X1.5	2X M25X1.5
3P+N+E	109	97	85	51	112	150	135	M25X1.5	2X M25X1.5
2P+E	126	113	102	65	130	166	151	M32X1.5	2X M32X1.5
32A 3P+E	126	113	102	65	130	166	151	M32X1.5	2X M32X1.5
3P+N+E	126	113	102	65	130	167	152	M32X1.5	2X M32X1.5

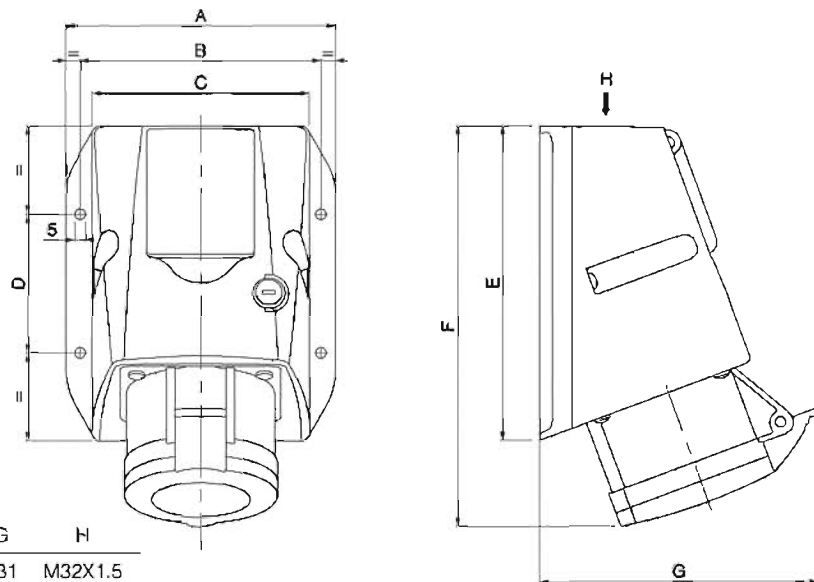
(Dimensions in mm)

BASE VERSION - IP44



	A	B	C	D	E	F	G	H
2P+E	76	63	52	/	103	133	98	M20X1.5
16A 3P+E	91	76	65	60	123	155	103	M25X1.5
3P+N+E	91	76	65	60	123	157	110	M25X1.5
2P+E	99	84	72	78	141	182	115	M32X1.5
32A 3P+E	99	84	72	78	141	182	115	M32X1.5
3P+N+E	99	84	72	78	141	184	122	M32X1.5

COMBI VERSION - IP44



	A	B	C	D	E	F	G	H
2P+E	126	113	102	65	148	188	131	M32X1.5
16A 3P+E	126	113	102	65	148	188	131	M32X1.5
3P+N+E	126	113	102	65	8	188	131	M32X1.5
2P+E	126	113	102	65	148	188	131	M32X1.5
32A 3P+E	126	113	102	65	148	188	131	M32X1.5
3P+N+E	126	113	102	65	148	188	131	M32X1.5

(Dimensions in mm)