

Industrial plugs and sockets

INDUSTRIAL PLUGS AND SOCKETS TO IEC309 RATED OPERATING VOLTAGE >50 V

Clock face position

Viewing the socket from the front, the clock face position *h* is established by observing the position of the earth contact with respect to the major keyway, which is always situated at 6 o'clock.

The different voltages are identified by conventional colour codes.

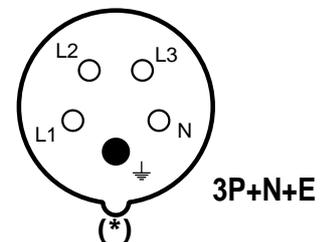
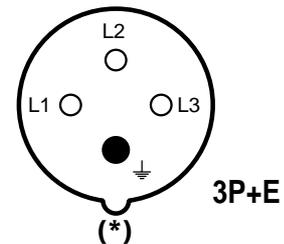
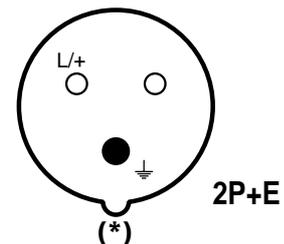
Clock reference:

All the versions required by the IEC309 standard are available, including the more specific:

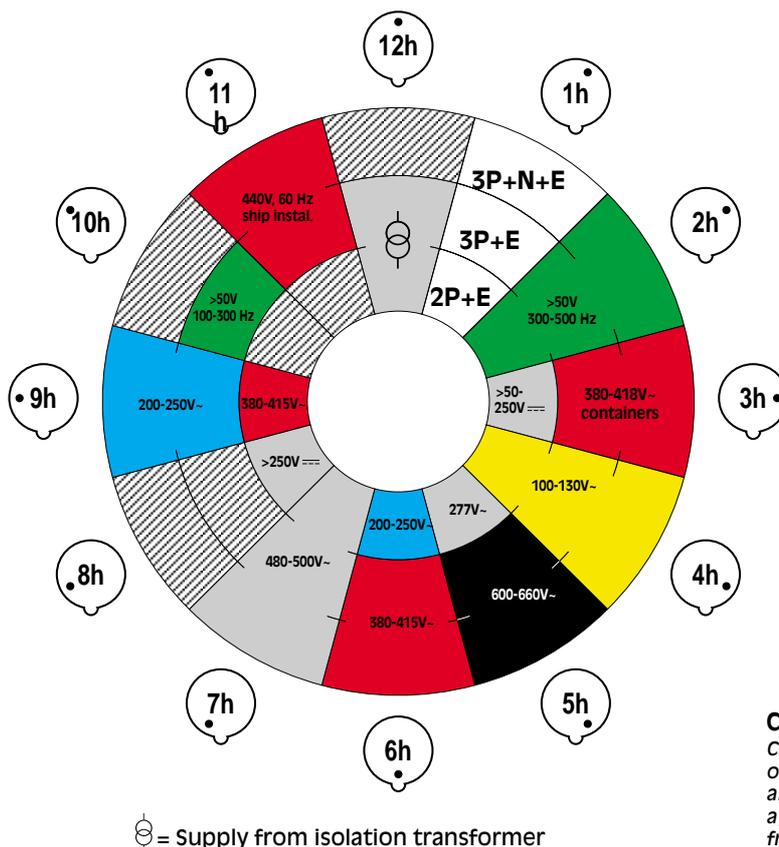
Examples:

- standard use 6 o'clock
- refrigerated container 3 o'clock
- marine, port or ship installation 11 o'clock
- continuous current (2P + E) 3 and 8 o'clock
- supply by isolation transformer (TST) 12 o'clock
- high frequency, from 100 to 300 Hz 10 o'clock
- high frequency, from 300 to 500 Hz 2 o'clock
- specific voltages 100 - 130V 4 o'clock
- 480 - 500V 7 o'clock
- 600 - 690V 5 o'clock

SOCKET (front view)



(*) Major keyway



CLOCK DIAGRAM

Clock face position (*h*) of the earth pole of low voltage (>50 V) industrial plugs and sockets to IEC 309-2 for different applications (polarity, voltage, frequency, current).

SYNOPTIC TABLE OF STANDARD INDUSTRIAL PLUGS AND SOCKETS TO IEC 60309-2

Rated operating voltage > 50 V (LV)

Poles	Frequency Hz	Rated operating voltage V~	Earth contact (1) Clock face pos. (h)		Colour code
			16A 32A	63A 125A	
2P+E	50 and 60	100-130	4	4	
		200-250	6	6	
	60	277	5	5	- (6)
	50 and 60	380-415	9	9	
		480-500	7	7	- (6)
		suppl. by isol. transf.	12	12	- (6)
	100-300	> 50	-	-	(5)
	>300-500	> 50	2	-	(5)
	d.c.	>50-250	3	3	- (6)
		> 250	8	8	- (6)
3P+E	50 and 60	100-130	4	4	
		200-250	9	9	
		380-415	6	6	
	60	440-460 (4)	11	11	
	50 and 60	480-500	7	7	- (6)
		600-690	5	5	(2)
		suppl. by isol. transf.	12	12	- (6)
	50 60	380 440 (3)	3	-	
	100-300	> 50	10	-	(5)
	>300-500	> 50	2	-	(5)
3P+N+E	50 and 60	57/100-75/130	4	4	
		120/208-144/250	9	9	
		200/346-240/415	6	6	
		277/480-288/500	7	7	- (6)
		347/600-400/690	5	5	(2)
	60	250/440-265/460 (4)	11	11	
	50 60	220/380 250/440 (3)	3	-	
	100-300	> 50	-	-	(5)
	>300-500	> 50	2	-	(5)
	ALL TYPES	All types of voltage and/or frequency not within these standardised configurations		1	1

(1) The positions shown by a dash (-) are not standardised
 (2) for ISO standard refrigerated containers
 (3) mainly for shipboard installations
 (4) Combinations of green with the colour of the rated operating voltage can be used to identify frequencies between 60 Hz and 500 Hz inclusive.
 (5) plugs and sockets for which the IEC 309-2 standard sets only the clock face position (h) of the earth contact and not the colour, are supplied by SCAME in RAL 7035 grey.

NOTE
 ❖ SCAME plugs and sockets for specific uses other than 4 - 6 - 9 h are available only on demand and are therefore not kept in stock. Minimum order quantities: 50 pieces.

1 ?
 PLUG & SOCKETS

- IEC309
- EUREKA
- ADAPTORS
- EASIGO
- HEAVY DUTY
- GEEGO

2 ?
 COMBINATION UNITS

- OMNIA
- ADVANCE
- QUADRA
- Distribution assemblies
- MEGA
- MASTERBOX
- DOMINO
- BLOCK
- GOMMA
- PDU

3 ?
 ENCLOSURES & BOXES

- EASYBOX
- DOMINO
- BLOCK
- SCABOX
- ALUBOX
- ACCESSORIES

4 ?
 INSTALLATION ACCESSORIES

- TRUNKINGS
- LUMINAIRES
- CABLE REELS
- FUSES
- SWITCHES
- CONNECTORS

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SYNOPTIC TABLE OF STANDARD INDUSTRIAL PLUGS AND SOCKETS TO IEC 60309-2

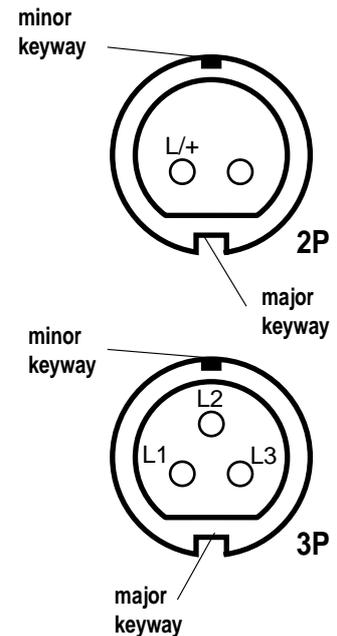
Rated operating voltage <50V~ (ELV)

Poles	Frequency Hz	Rated operating voltage V	Minor keyway (1) clock face position (h) 16A and 32A without reference	Colour code
2P	50 and 60	20-25	without ref.	
	50 and 60	40-50	12	
	100-200	20-25 and 40-50	4	
	300		2	
	400		3	
	>400-500		11	
	d.c.		10	
3P	50 and 60	20-25	without ref.	
	50 and 60	40-50	12	
	100-200	20-25 and 40-50	4	
	300		2	
	400		3	
	>400-500		11	

(1) 1, 8 and 9 h positions are reserved for future standards; 5, 6 and 7 h positions cannot be used for reasons connected with the design.

(2) If necessary, a combination of green with the colour of the rated operating voltage can be used to identify frequencies between 60 Hz and 500 Hz.

SOCKET (front view)



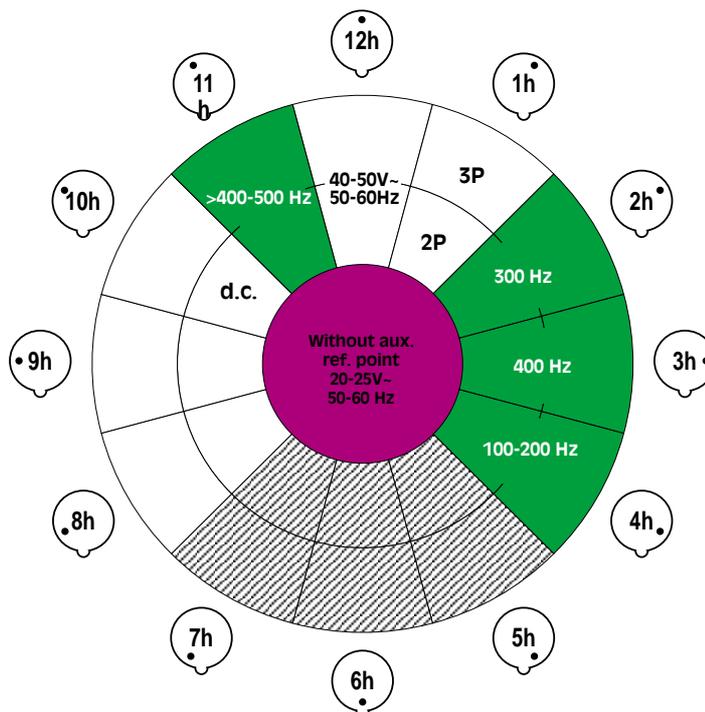
Clock face position

Viewing the socket from the front, the clock face position h is established by observing the position of the minor keyway with respect to the major keyway, which is always situated at 6 o'clock.

The different voltages are identified by conventional colour codes.

Appliance inlets

When viewing the pins of an appliance inlet, please note the pin configuration is a mirror-image of a conventional socket. (eg. 4 hour position becomes 8 hour-position).



CLOCK DIAGRAM

Clock face position (h) of the minor keyway of extra-low voltage (<50 V) industrial plugs and sockets to IEC 309-2 for different applications (polarity, voltage, frequency, current).