
















OPTIMA[UL] SERIES  
Pins and sleeves

■ NORTH AMERICA - IP67/IP69 WATERTIGHT - TYPE 3R, 4, 4X - 20A-30A >> MALE PLUGS (PINS) - Mates with Connectors & Receptacles



IP: IP67/IP69  
TYPE: 3R, 4, 4X



Poles	h	Volt	Colour	20A		30A	
2P 3W	4	125		SCA320P4W	1/5	SCA330P4W	1/5
	5	277		SCA320P5W	1/5		
	6	250		SCA320P6W <sup>1)</sup>	1/5	SCA330P6W <sup>1)</sup>	1/5
	7	480		SCA320P7W	1/5	SCA330P7W	1/5
3P 4W	5	3Ø600		SCA420P5W	1/5	SCA430P5W	1/5
	6	3Ø380-415		SCA420P6W <sup>1)</sup>	1/5	SCA430P6W <sup>1)</sup>	1/5
	7	3Ø480		SCA420P7W	1/5	SCA430P7W	1/5
	9	3Ø250		SCA420P9W <sup>1)</sup>	1/5	SCA430P9W <sup>1)</sup>	1/5
4P 5W	12	125/250		SCA420P12W	1/5	SCA430P12W	1/5
	5	3ØY347/600		SCA520P5W	1/5	SCA530P5W	1/4
	6	200/346 240/415		SCA520P6W <sup>1)</sup>	1/5	SCA530P6W <sup>1)</sup>	1/4
	7	3ØY277/480		SCA520P7W	1/5	SCA530P7W	1/4
	9	3ØY120/208		SCA520P9W <sup>1)</sup>	1/5	SCA530P9W <sup>1)</sup>	1/4

UL listed.

<sup>1)</sup>Dual rated products - Suitable for International market (16A-32A) and North American market (20A-30A).



IP: IP67/IP69  
TYPE: 3R, 4, 4X

Poles	h	Volt	Colour	32A	
3P 4W	3	3Ø 380V 50Hz / 3Ø 440V 60Hz		SCA432P3W	1/5
















UL listed.



■ NORTH AMERICA - IP67/IP69 WATERTIGHT - TYPE 3R, 4, 4X - 20A-30A >> APPLIANCE MALE INLET (PINS) - Mates with Connectors




IP: IP67/IP69  
TYPE: 3R, 4, 4X

Poles	h	Volt	Colour	20A		30A	
2P 3W	4	125		SCA320B4W	1/5	SCA330B4W	1/5
	5	277		SCA320B5W	1/5		
	6	250		SCA320B6W <sup>1)</sup>	1/5	SCA330B6W <sup>1)</sup>	1/5
	7	480		SCA320B7W	1/5	SCA330B7W	1/5
3P 4W	5	3Ø600		SCA420B5W	1/5	SCA430B5W	1/5
	6	3Ø380-415		SCA420B6W <sup>1)</sup>	1/5	SCA430B6W <sup>1)</sup>	1/5
	7	3Ø480		SCA420B7W	1/5	SCA430B7W	1/5
	9	3Ø250		SCA420B9W <sup>1)</sup>	1/5	SCA430B9W <sup>1)</sup>	1/5
4P 5W	12	125/250		SCA420B12W	1/5	SCA430B12W	1/5
	5	3ØY347/600		SCA520B5W	1/5	SCA530B5W	1/5
	6	200/346 240/415		SCA520B6W <sup>1)</sup>	1/5	SCA530B6W <sup>1)</sup>	1/5
	7	3ØY277/480		SCA520B7W	1/5	SCA530B7W	1/5
	9	3ØY120/208		SCA520B9W <sup>1)</sup>	1/5	SCA530B9W <sup>1)</sup>	1/5

UL listed.  
<sup>1)</sup>Dual rated products - Suitable for International market (16A-32A) and North American market (20A-30A).



IP: IP67/IP69  
TYPE: 3R, 4, 4X

Poles	h	Volt	Colour	32A	
3P 4W	3	3Ø 380V 50Hz / 3Ø 440V 60Hz		SCA432B3W	1/5

UL listed.


















# OPTIMA[UL] SERIES

## Pins and sleeves

**NORTH AMERICA - IP67/IP69 WATERTIGHT -TYPE 3R, 4, 4X - 20A-30A >> FEMALE CONNECTORS (SLEEVES)- Mates with Plugs & Inlets**



**IP: IP67/IP69**  
**TYPE: 3R, 4, 4X**



Poles	h	Volt	Colour	20A		30A	
2P 3W	4	125		SCA320C4W	1/5	SCA330C4W	1/4
	5	277		SCA320C5W	1/5		
	6	250		SCA320C6W <sup>1)</sup>	1/5	SCA330C6W <sup>1)</sup>	1/4
	7	480		SCA320C7W	1/5	SCA330C7W	1/4
3P 4W	5	3Ø600		SCA420C5W	1/5	SCA430C5W	1/4
	6	3Ø380-415		SCA420C6W <sup>1)</sup>	1/5	SCA430C6W <sup>1)</sup>	1/4
	7	3Ø480		SCA420C7W	1/5	SCA430C7W	1/4
	9	3Ø250		SCA420C9W <sup>1)</sup>	1/5	SCA430C9W <sup>1)</sup>	1/4
4P 5W	12	125/250		SCA420C12W	1/5	SCA430C12W	1/4
	5	3ØY347/600		SCA520C5W	1/5	SCA530C5W	1/4
	6	200/346 240/415		SCA520C6W <sup>1)</sup>	1/5	SCA530C6W <sup>1)</sup>	1/4
	7	3ØY277/480		SCA520C7W	1/5	SCA530C7W	1/4
	9	3ØY120/208		SCA520C9W <sup>1)</sup>	1/5	SCA530C9W <sup>1)</sup>	1/4

UL listed.

<sup>1)</sup>Dual rated products - Suitable for International market (16A-32A) and North American market (20A-30A).



**IP: IP67/IP69**  
**TYPE: 3R, 4, 4X**

Poles	h	Volt	Colour	32A	
3P 4W	3	3Ø 380V 50Hz / 3Ø 440V 60Hz		SCA432C3W	1/4
















UL listed.



■ NORTH AMERICA - IP67/IP69 WATERTIGHT - TYPE 3R, 4, 4X - 20A-30A >> FEMALE RECEPTACLES (SLEEVES) - Mates with Plugs





IP: IP67/IP69  
TYPE: 3R, 4, 4X

Poles	h	Volt	Colour	20A		30A	
2P 3W	4	125		SCA320R4W	1/5	SCA330R4W	1/5
	5	277		SCA320R5W	1/5		
	6	250		SCA320R6W <sup>1)</sup>	1/5	SCA330R6W <sup>1)</sup>	1/5
	7	480		SCA320R7W	1/5	SCA330R7W	1/5
3P 4W	5	3Ø600		SCA420R5W	1/5	SCA430R5W	1/5
	6	3Ø380-415		SCA420R6W <sup>1)</sup>	1/5	SCA430R6W <sup>1)</sup>	1/5
	7	3Ø480		SCA420R7W	1/5	SCA430R7W	1/5
	9	3Ø250		SCA420R9W <sup>1)</sup>	1/5	SCA430R9W <sup>1)</sup>	1/5
4P 5W	12	125/250		SCA420R12W	1/5	SCA430R12W	1/5
	5	3ØY347/600		SCA520R5W	1/5	SCA530R5W	1/5
	6	200/346 240/415		SCA520R6W <sup>1)</sup>	1/5	SCA530R6W <sup>1)</sup>	1/5
	7	3ØY277/480		SCA520R7W	1/5	SCA530R7W	1/5
	9	3ØY120/208		SCA520R9W <sup>1)</sup>	1/5	SCA530R9W <sup>1)</sup>	1/5

UL listed.  
<sup>1)</sup> Dual rated products - Suitable for International market (16A-32A) and North American market (20A-30A).



IP: IP67/IP69  
TYPE: 3R, 4, 4X


Poles	h	Volt	Colour	32A	
3P 4W	3	3Ø 380V 50Hz / 3Ø 440V 60Hz		SCA432R3W	1/5

UL listed.



## ■ ACCESSORIES &gt;&gt; NON-METALLIC BACK-BOXES




Description	IP	Type	Code	
BACK BOX	IP67	75x75mm - SMALL	SCMBB01	1/12

UL listed.  
For fixed plugs and sockets EUREKA-HD[UL] Series.


## ■ ACCESSORIES &gt;&gt; GROUND PLATE



Description	Notes1	Code	
EARTH CONTINUITY PLATE	ADV-GRP 20/30A /BACK BOX SMALL	SCMGP01AB	10
	BACK BOX LARGE	SCMGP03B	10
	BACK BOX MEDIUM	SCMGP02B	10

## ■ ACCESSORIES &gt;&gt; COVER FOR IP66/IP67/IP69 PLUGS



Description	IP	Current	Poles	Code	
PLUG CAP	IP66/IP67/IP69	16A 20A	2P+E	570.90163	10/100
	IP66/IP67/IP69	16A 20A	3P+E	570.90164	10/100
	IP66/IP67/IP69	16A 20A	3P+N+E	570.90165	10/100
	IP66/IP67/IP69	30A 32A	3P+N+E	570.90325	10/100
	IP66/IP67/IP69	30A 32A	2/3P+E	570.90324	10/100

# OPTIMA[UL] SERIES

## IEC 60309 PINS AND SLEEVES



## REFERENCE STANDARDS

IEC EN 60309-1

IEC EN 60309-2

UL 1682

UL 1686

## MARKINGS AND DIRECTIVES



## QUALITY MARKS



## VERSIONS

	North America
	Dual ratings
	North America with phase inverter

## TECHNICAL CHARACTERISTICS

Rated current:	20A-30A
Rated voltage:	125V÷600V
Frequency:	50/60Hz
Insulating voltage:	2P+E 500V 3P+E / 3P+N+E 690V
Protection degree:	Watertight 3R,4,4X IP67/IP69 Splashproof IP44
Installation temperature:	-25°C +60°C
Enclosure material:	PC Silossane
Colour:	Grey RAL 7016
Impact resistance (IK degree):	IK10
Construction characteristics/ type of closure:	Separate body and handle / Snap-on (without screws)
Self extinguishing degree (GWT):	960°C (body) 960°C (socket contact carrier)
Self-extinguishing (UL94):	5VA (3mm)
Cable entries:	Screwless cord clamp / cable gland

## 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	Limited resistance	Not resistant	Not resistant	Limited resistance	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

## ■ WIRING CAPACITY OF THE TERMINALS

Rated current			20A	30A
Cross-section of the connectable conductors	AWG (mm <sup>2</sup> )	Min	16 [1]	14 [2.5]
		Max	10 [4]	8 [10]
Tightening torque	lbs-in (Nm)		7 [0.8]	7 [0.8]

## ■ MAX. CABLE SIZE ACCEPTED BY THE CABLE CLAMP

Rated current				20A		30A	
Poles wires				2P3W - 3P4W	4P5W	2P3W - 3P4W	4P5W
Outside Ø mm	mm	Min	inch (mm)	.300 [7.5]	.354 [9]	.354 [9]	.531 [13.5]
		Max		.550 [14]	.630 [16]	.630 [16]	.827 [21]

# OPTIMA[UL] SERIES

## Pins and sleeves



### OPTIMA[UL] Series

OPTIMA[UL] is a complete range of UL/CSA listed industrial plugs (pin) and socket outlets (sleeve) for the North American market and countries where the UL standard is recognized.

Sturdy and safe industrial plugs and sockets thanks to the use of specific technopolymers that give maximum resistance to impact (IK10), to heat and fire (GW960°C according to EN 60695-2-1), to atmospheric agents and UV rays.

Fast to wire thanks to the opening of the body by means of a snap-on steel spring mechanism and to the screwless cable clamp with cable gland function.<sup>7</sup>

### Technical information

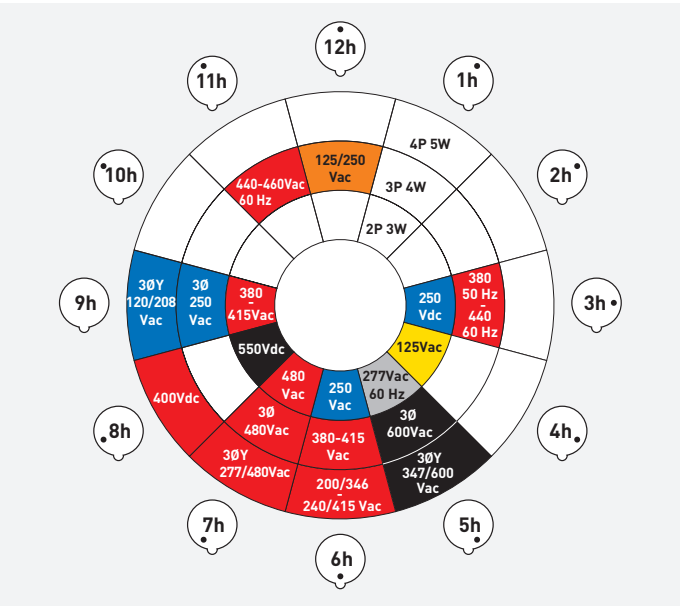
#### Industrial plugs and sockets for the north american market

##### COLOUR CODE

The operating voltages are identified by conventional colours as shown in the table:

Rated operating voltage	Colour
110/130V	Yellow
208/250V	Blue
380/480V	Red
500/690V	Black
277V	Grey
125/250V	Orange

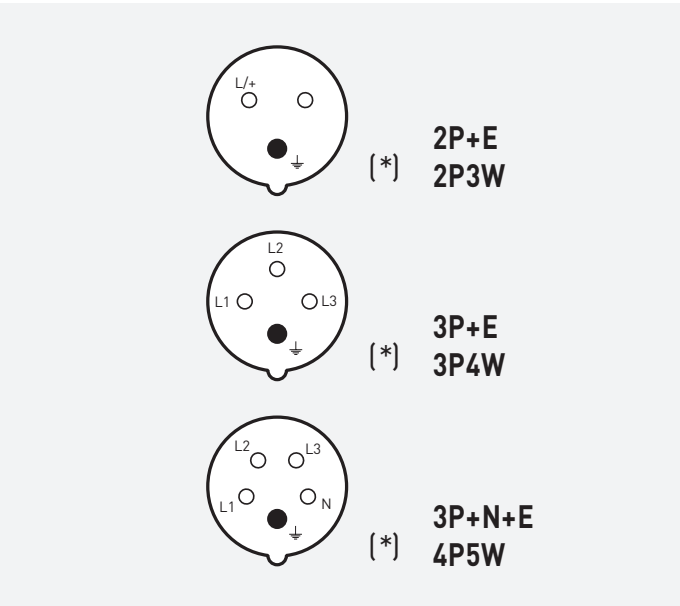
##### CLOCK FACE POSITION - UL RATINGS



##### Clock diagram

Viewing a UL Standard connector and receptacle from the front, clock our position (h) is established by the position of the earth contact restect the major keyway which is always situated at 6h clock position.

##### SOCKET AND RECEPTACLE (FRONT VIEW)



(\*) Major keyway.



## Main characteristics watertight versions - IP67/IP69 TYPE 3R, 4, 4X

### CONNECTOR / PLUG



**01** Screwless external cable gland / cord grip

**02** Internal cord clamp

**03** Multidiameter gasket

**04** Outstanding materials, with high mechanical heat, fire, chemicals and UV rays resistance

**05** Snap-on screwless device with stainless steel spring to speed up cabling operations

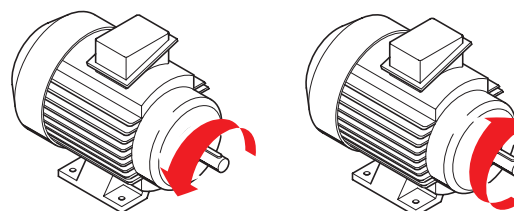
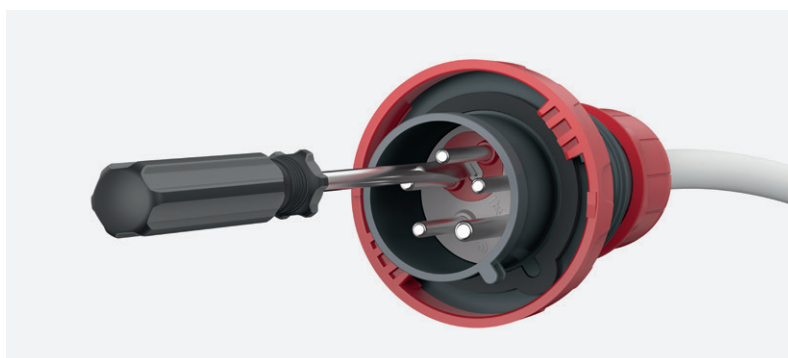
**06** Socket cap with clear indication of open and closed position. IP54 degree is guaranteed even in open position

**07** Ultra smooth anti-corrosion nickel-plated brass pins

Siloxane-Polycarbonate it is a special thermoplastic copolymers with an improved impact and chemical resistance, flame retardance, and UV stabilization over the other thermoplastic material. Si-PC is an excellent solution for outdoor and heavy duty applications such as industrial connectors and electrical enclosures.

**04**

### Special versions with phase inverter



Phase inversion is obtained simply by pushing and turning with a screwdriver the support where the two phase pins are mounted.



# OPTIMA[UL] SERIES

## Pins and sleeves

### Special versions

#### PHASE INVERTER

OPTIMA[UL] with phase inverter is a range of 20 and 30A flush mounting industrial inlets that allow the rapid reversal of two phases to restore the correct direction of rotation for three-phase motors of mobile and fixed loads.

The inversion of the phases is done simply by pushing and turning with a screwdriver the support where the two phase pins are mounted.

The efficiency of the contacts over time is also guaranteed by the use of nickel-plated brass pins, resistant to oxidation and aging, while the IP degree stability is ensured by the co-molded gasket.

The OPTIMA[UL] with phase inverter series plugs do not neglect the environmental aspect, being produced with halogen-free materials.



Building construction site

### Standard applications



Wineries



Agriculture



Food industry



Wind turbines



## Products for special applications

### DATA CENTER APPLICATIONS DUAL RATED PINS AND SLEEVES

The OPTIMA[UL] Series offers a special range of Pin & Sleeve dual rated devices for both US and international markets, UL listing mark by UL laboratory and CE mark (compliance with European regulations and stands).

The series includes a complete range of pins and sleeves products, plugs, connectors receptacles and inlets in all polarities 2 poles 3wires, 3 poles 4 wires and 4 poles 5 wires.

The 20A North American rating is also 16A as International rating and the 30A is 32A too.

The configurations that can be dual rated is with 6h and 9h clock position.

The range includes splashproof IP44 and watertight IP67, IP69 according to IEC 60529 standards and 3R, 4 and 4X according UL 50 standard.

All OPTIMA[UL] Series are RoHS compliant with performance and safety benefits of its rugged material.

A complete line of accessories are also available, such as UL listed back boxes and caps for IP67 watertight plugs covering every application and purpose for indoor and outdoor use.



Datacenter

### REFRIGERATED CONTAINER APPLICATIONS

Container port terminals are among the most rugged and harsh environments due to atmospheric agents and chemical substances present such as oils and solvents.

The frequent insertion, withdrawal and impacts put the pins and sleeves devices to the test everyday.

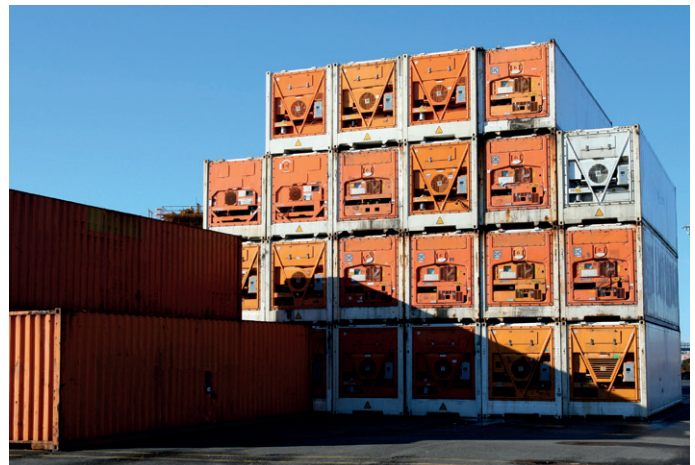
Scame pins and sleeves plugs, connectors receptacles and inlets are the perfect solution to guarantee reliability and safety in any environment and conditions.

The outstanding temperature and impact characteristics of the material makes the UL listed OPTIMA[UL] Series the perfect solution for such harsh environments.

To increase the safety this range of products have the double IP degree protection IP67 and IP69 along with the watertight protection 3, 4 and 4X.

Plugs, receptacles, connectors and inlets can be mated with all IEC 60309 devices.

The only configuration required for this specific application is the 3h clock our position with 3P4W polarity and the 32A rating.



Shipyards - Container terminal