

OPTIMA[UL] SERIES

Pins and sleeves

NORTH AMERICA - IP44 SPLASHPROOF - 20A-30A >> PLUGS



IP: IP44

Poles	h	Volt	Colour	20A		30A	
2P 3W	4	125	Yellow	SCA320P4S	1/5	SCA330P4S	1/5
	5	277	Grey	SCA320P5S	1/5		
	6	250	Blue	SCA320P6S ¹⁾	1/5	SCA330P6S ¹⁾	1/5
	7	480	Red	SCA320P7S	1/5	SCA330P7S	1/5
3P 4W	5	3Ø600	Black	SCA420P5S	1/5	SCA430P5S	1/5
	6	3Ø380-415	Red	SCA420P6S ¹⁾	1/5	SCA430P6S ¹⁾	1/5
	7	3Ø480	Red	SCA420P7S	1/5	SCA430P7S	1/5
	9	3Ø250	Blue	SCA420P9S ¹⁾	1/5	SCA430P9S ¹⁾	1/5
4P 5W	12	125/250	Orange	SCA420P12S	1/5	SCA430P12S	1/5
	5	3ØY347/600	Black	SCA520P5S	1/5	SCA530P5S	1/5
	6	200/346 240/415	Red	SCA520P6S ¹⁾	1/5	SCA530P6S ¹⁾	1/5
	7	3ØY277/480	Red	SCA520P7S	1/5	SCA530P7S	1/5
	9	3ØY120/208	Blue	SCA520P9S ¹⁾	1/5	SCA530P9S ¹⁾	1/5

UL listed.

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

NORTH AMERICA - IP44 SPLASHPROOF - 20A-30A >> APPLIANCE INLETS



IP: IP44

Poles	h	Volt	Colour	20A		30A	
2P 3W	4	125	Yellow	SCA320B4S	1/5	SCA330B4S	1/5
	5	277	Grey	SCA320B5S	1/5		
	6	250	Blue	SCA320B6S ¹⁾	1/5	SCA330B6S ¹⁾	1/5
	7	480	Red	SCA320B7S	1/5	SCA330B7S	1/5
3P 4W	5	3Ø600	Black	SCA420B5S	1/5	SCA430B5S	1/5
	6	3Ø380-415	Red	SCA420B6S ¹⁾	1/5	SCA430B6S ¹⁾	1/5
	7	3Ø480	Red	SCA420B7S	1/5	SCA430B7S	1/5
	9	3Ø250	Blue	SCA420B9S ¹⁾	1/5	SCA430B9S ¹⁾	1/5
4P 5W	12	125/250	Orange	SCA420B12S	1/5	SCA430B12S	1/5
	5	3ØY347/600	Black	SCA520B5S	1/5	SCA530B5S	1/5
	6	200/346 240/415	Red	SCA520B6S ¹⁾	1/5	SCA530B6S ¹⁾	1/5
	7	3ØY277/480	Red	SCA520B7S	1/5	SCA530B7S	1/5
	9	3ØY120/208	Blue	SCA520B9S ¹⁾	1/5	SCA530B9S ¹⁾	1/5

UL listed.

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NORTH AMERICA - IP44 SPLASHPROOF - 20A-30A >> CONNECTORS



IP: IP44

Poles	h	Volt	Colour	20A		30A	
2P 3W	4	125	Yellow	SCA320C4S	1/5	SCA330C4S	1/5
	5	277	Grey	SCA320C5S	1/5		
	6	250	Blue	SCA320C6S ¹⁾	1/5	SCA330C6S ¹⁾	1/5
	7	480	Red	SCA320C7S	1/5	SCA330C7S	1/5
3P 4W	5	3Ø600	Black	SCA420C5S	1/5	SCA430C5S	1/5
	6	3Ø380-415	Red	SCA420C6S ¹⁾	1/5	SCA430C6S ¹⁾	1/5
	7	3Ø480	Red	SCA420C7S	1/5	SCA430C7S	1/5
	9	3Ø250	Blue	SCA420C9S ¹⁾	1/5	SCA430C9S ¹⁾	1/5
4P 5W	12	125/250	Orange	SCA420C12S	1/5	SCA430C12S	1/5
	5	3ØY347/600	Black	SCA520C5S	1/5	SCA530C5S	1/5
	6	200/346 240/415	Red	SCA520C6S ¹⁾	1/5	SCA530C6S ¹⁾	1/5
	7	3ØY277/480	Red	SCA520C7S	1/5	SCA530C7S	1/5
	9	3ØY120/208	Blue	SCA520C9S ¹⁾	1/5	SCA530C9S ¹⁾	1/5

UL listed.

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NORTH AMERICA - IP44 SPLASHPROOF - 20A-30A >> RECEPTACLES



IP: IP44

Poles	h	Volt	Colour	20A		30A	
2P 3W	4	125	Yellow	SCA320R4S	1/5	SCA330R4S	1/5
	5	277	Grey	SCA320R5S	1/5		
	6	250	Blue	SCA320R6S ¹⁾	1/5	SCA330R6S ¹⁾	1/5
	7	480	Red	SCA320R7S	1/5	SCA330R7S	1/5
3P 4W	5	3Ø600	Black	SCA420R5S	1/5	SCA430R5S	1/5
	6	3Ø380-415	Red	SCA420R6S ¹⁾	1/5	SCA430R6S ¹⁾	1/5
	7	3Ø480	Red	SCA420R7S	1/5	SCA430R7S	1/5
	9	3Ø250	Blue	SCA420R9S ¹⁾	1/5	SCA430R9S ¹⁾	1/5
4P 5W	12	125/250	Orange	SCA420R12S	1/5	SCA430R12S	1/5
	5	3ØY347/600	Black	SCA520R5S	1/5	SCA530R5S	1/5
	6	200/346 240/415	Red	SCA520R6S ¹⁾	1/5	SCA530R6S ¹⁾	1/5
	7	3ØY277/480	Red	SCA520R7S	1/5	SCA530R7S	1/5
	9	3ØY120/208	Blue	SCA520R9S ¹⁾	1/5	SCA530R9S ¹⁾	1/5

UL listed.

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■ ACCESSORIES >> 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 >> 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 >> 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 ²)	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.⁷

Technical information

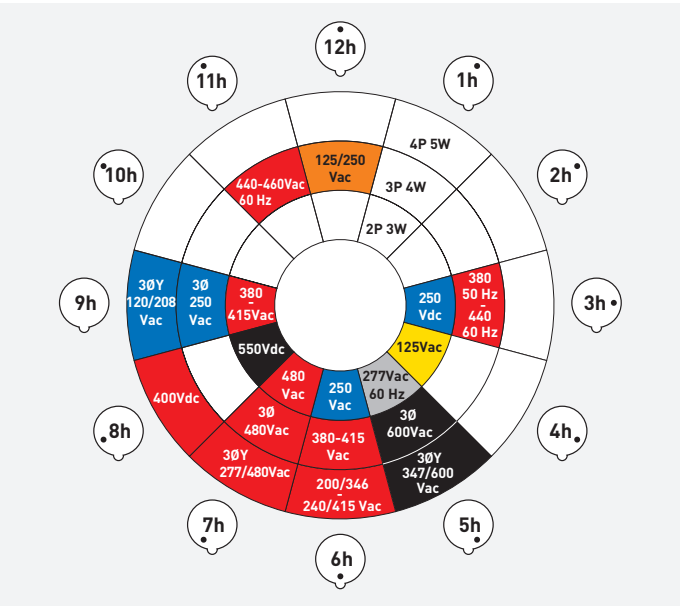
Industrial plugs and sockets for the north american market

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

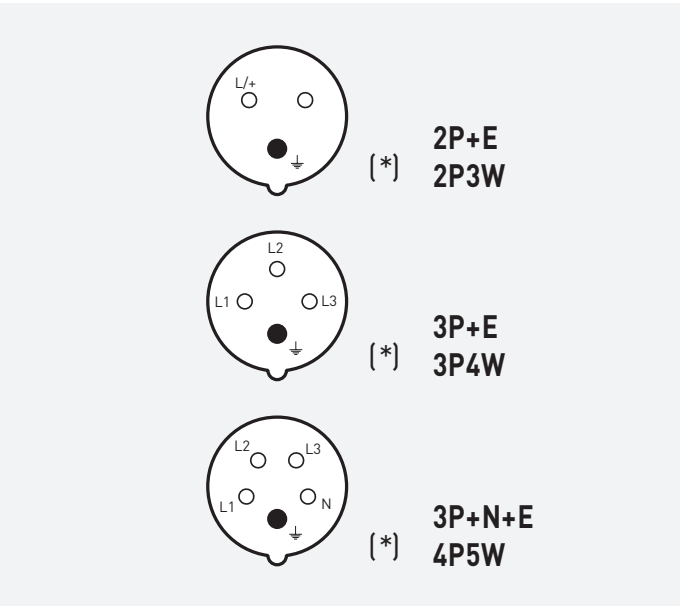
CLOCK FACE POSITION - UL RATINGS



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

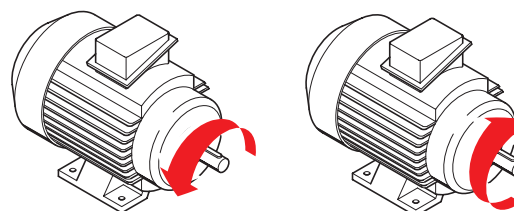
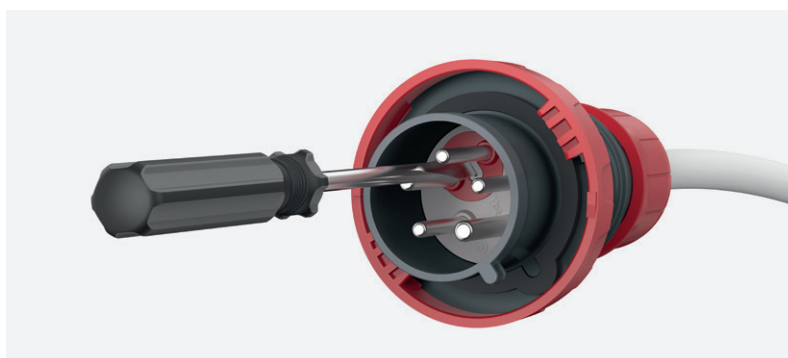
06 Socket cap with clear indication of open and closed position. IP54 degree is guaranteed even in open position

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.

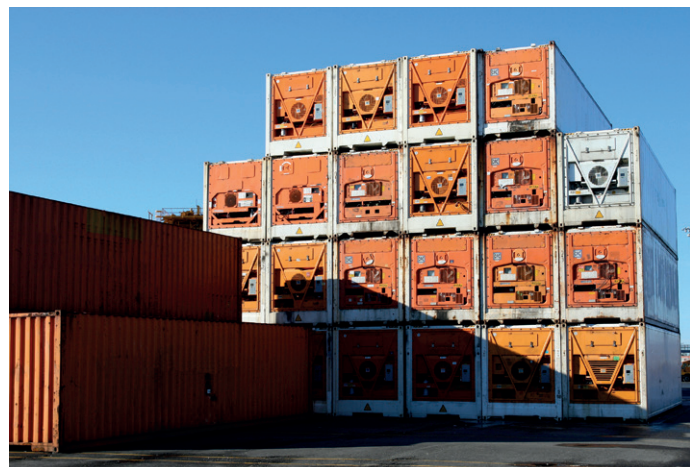
Scame pins and sleeves plugs, connectors receptacles and inlets are the perfect solution to guarantee reliability and safety in any environment and conditions.

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