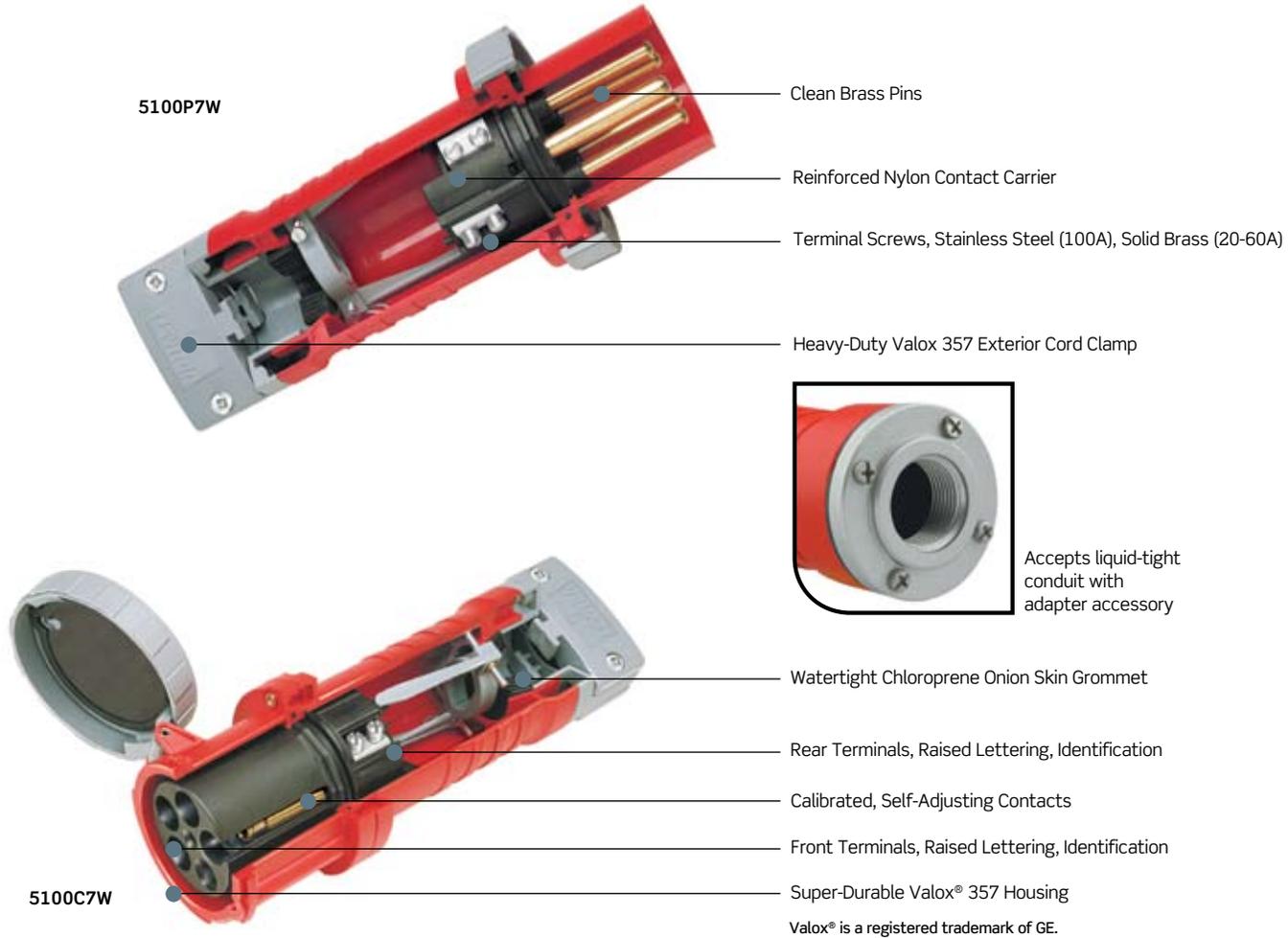


Industrial Grade - North American Rated

The Watertight Line. Superior Connection...Superior Protection



Features and Benefits

- Rugged housing, made of superior performance Valox 357, provides maximum corrosion protection and makes the device resistant to impact and abuse; greater resistance to temperature extremes, V-0 flame rated and superior UV stability
- Contact carrier resists arcing and internal heat build-up; 60 and 100 amp contact/pin carriers are made of reinforced nylon for even greater strength and temperature resistance
- Solid brass terminal screws on 20A, 30A and 60A devices provide maximum clamping pressure
- Stainless steel terminal screws and terminals on 100A devices provide corrosion resistance in caustic environments
- Dependable, clean brass construction for long life, reliable electrical contact, maximum conductivity, and corrosion resistance
- Watertight Chloroprene onion skin grommet provides a precise, reliable seal at the cable entry point
- Ground, neutral and phase terminals are clearly identified by color coding or letters and numbering on both front and back side
- Multiple contact points assure a continuously reliable electrical connection
- Engineered to IP67 Watertight Standards
- North American Rated Devices 20, 30, 60 and 100 Amp
- Meets North American IEC 60309-1 and 60309-2 Standards
- UL Rated for both 50 and 60 Hz applications
- Rockwell Automation Encompass™ Product Partner
- Limited Two-Year Warranty

Industrial Grade - North American Rated



Super Tough Housing

- Provides maximum protection from abuse and environment
- Heavy-wall molding of Valox 357 resists impact, heat, flame and chemicals
- Superior performance in low-to-high ambient temperature extremes (-40°C to 60°C)
- Excellent UV stability for superior outdoor performance (UL1682)
- V-0 flammability rating
- Fully insulated
- Color-coded by voltage for easy identification



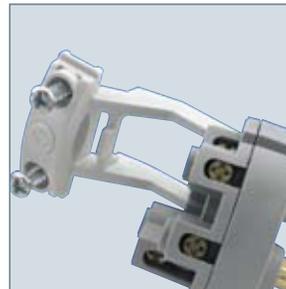
Pin & Contact Carrier 60 & 100 Amp

- Protects pins & contacts, holding them firmly in place
- Pin Carrier and Contact Carrier constructed of glass fiber reinforced nylon for maximum impact resistance and maximum protection of pins and contacts
- Superior arc-tracking resistance
- Excellent heat-resistance and flame resistance
- Chamfered wire entry makes wiring easier



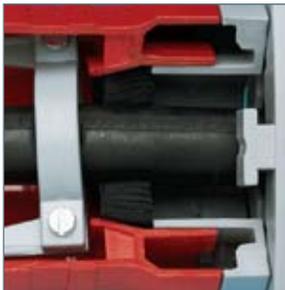
External Cord Clamp

- Protects terminals from strain
- Accommodates a wide variety of cord sizes
- Excellent impact strength
- Excellent UV stability for superior outdoor performance (UL1682)
- V-0 flammability rating
- Accepts wire mesh strain relief



Pin & Contact Carrier 20 & 30 Amp

- Pin Carrier and Contact Carrier constructed of nylon for maximum impact resistance and maximum protection of pins and contacts
- Terminal screws are aligned on a single plane for easier access
- Internal hinged cord clamp adds strain-relief and swings aside when wiring terminals
- Large diameter combination head terminal screws



Internal Cord Clamp

- Secondary method for eliminating strain on terminals and conductors
- True IEC 60309-1 & 60309-2 acceptance
- Constructed of sturdy thermoplastic for tough environments
- Removes easily for user convenience



Pins

- Designed for manageable insertion/withdrawal force
- Clean brass construction resists corrosion, provides superior contact and low electrical resistance
- Rounded tips reduce insertion force and decrease wear on the contact surface area



Spring Loaded Cover, Cover Arm, & Locking Rings

- Rings lock plug to connector
- Spring loaded cover closes automatically
- "Performance grade" Stainless Steel cover spring for superior corrosion-resistance and long life
- Excellent UV stability for outdoor use
- V-0 flammability rating
- Interior arm design in 60 and 100 amp helps eliminate breakage



Sleeves (Contacts)

- Designed for manageable insertion/withdrawal force
- Clean brass construction resists corrosion, provides superior contact and low electrical resistance
- Self-adjusting, machine-calibrated contacts for accurate contact pressure designed for superior wiping and cleaning action
- Made from high performance Swedish Industrial Standard (SIS) Brass 5170-04
- Positioned at sleeve entrance, stainless steel spring enables pin cleaning at earliest point of entry



Gasket/Grommet

- Prevents moisture, dust, and contaminants from entering housing or pin/contact carrier
- Solid Chloroprene for positive seal and excellent chemical/corrosion-resistance
- Onion skin design on grommet provides precise watertight fit, eliminating the need to choose from multiple grommets that may not fit the cable jacket precisely



Terminal Screws

- Engineered to provide maximum holding power and lowest electrical resistance
- Accepts a wide range of conductors
- Double screws ensure secure connection
- Direct bearing pressure terminals for 20, 30 and 60 Amp ratings; pressure clamp termination for 100 Amp devices
- Stainless steel terminal screws and terminals for top performance on 100 Amp

60 AMP and 100 AMP Watertight Pin & Sleeve Devices

Specifications and Features

- Engineered to IP67 Watertight Standards
- Meets North American IEC 60309-1 and 60309-2 Standards
- Limited Two-Year Warranty



PLUG — 4100P12W



CONNECTOR — 4100C12W



RECEPTACLE — 360R6W



INLET — 360B7W



BACK BOX — BX100-V

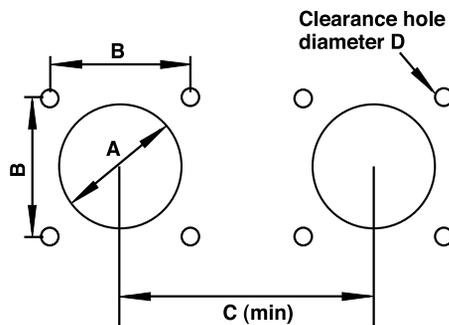
60 AMP AND 100 AMP WATERTIGHT PIN & SLEEVE DEVICES

AMPS	Wiring	Voltage AC	Connector/ Receptacle	Plug/ Inlet	Cat. No. Plug	Cat. No. Connector	Cat. No. Receptacle	Cat. No. Inlet	Cat. No. Back Box
60	2p3w	125			360P4W	360C4W	360R4W	360B4W	BX60-V
	2p3w	250			360P6W	360C6W	360R6W	360B6W	BX60-V
	2p3w	480			360P7W	360C7W	360R7W	360B7W	BX60-V
	3p4w	125/250			460P12W	460C12W	460R12W	460B12W	BX60-V
	3p4w	3Ø250			460P9W	460C9W	460R9W	460B9W	BX60-V
	3p4w	3Ø480			460P7W	460C7W	460R7W	460B7W	BX60-V
	3p4w	3Ø600			460P5W	460C5W	460R5W	460B5W	BX60-V
	4p5w	3ØY120/208			560P9W	560C9W	560R9W	560B9W	BX60-V
	4p5w	3ØY277/480			560P7W	560C7W	560R7W	560B7W	BX60-V
	4p5w	3ØY347/600			560P5W	560C5W	560R5W	560B5W	BX60-V
100	2p3w	125			3100P4W	3100C4W	3100R4W	3100B4W	BX100-V
	2p3w	250			3100P6W	3100C6W	3100R6W	3100B6W	BX100-V
	2p3w	480			3100P7W	3100C7W	3100R7W	3100B7W	BX100-V
	3p4w	125/250			4100P12W	4100C12W	4100R12W	4100B12W	BX100-V
	3p4w	3Ø250			4100P9W	4100C9W	4100R9W	4100B9W	BX100-V
	3p4w	3Ø480			4100P7W	4100C7W	4100R7W	4100B7W	BX100-V
	3p4w	3Ø600			4100P5W	4100C5W	4100R5W	4100B5W	BX100-V
	4p5w	3ØY120/208			5100P9W	5100C9W	5100R9W	5100B9W	BX100-V
	4p5w	3ØY277/480			5100P7W	5100C7W	5100R7W	5100B7W	BX100-V
	4p5w	3ØY347/600			5100P5W	5100C5W	5100R5W	5100B5W	BX100-V

Industrial Grade - North American Rated

DRILLING PLAN (INLETS & RECEPTACLES) DIMENSIONS

Device Size		A		B		C (min)		D	
		inches	mm	inches	mm	inches	mm	inches	mm
20A; 3-wire:	Receptacle	3.26	83	3.12	79.5	3.94	100	0.185	4.7
	Inlet	3.26	83	3.12	79.5	3.94	100	0.185	4.7
20A; 4-wire:	Receptacle	3.26	83	3.12	79.5	4.33	110	0.185	4.7
	Inlet	3.26	83	3.12	79.5	4.33	110	0.185	4.7
20A; 5-wire:	Receptacle	3.26	83	3.12	79.5	4.92	125	0.236	6.0
	Inlet	3.26	83	3.12	79.5	4.92	125	0.185	4.7
30A; 3-wire:	Receptacle	3.26	83	3.12	79.5	5.12	130	0.236	6.0
	Inlet	3.26	83	3.12	79.5	5.12	130	0.185	4.7
30A; 4-wire:	Receptacle	3.26	83	3.12	79.5	5.12	130	0.236	6.0
	Inlet	3.26	83	3.12	79.5	5.12 <td 130	0.185	4.7	
30A; 5-wire:	Receptacle	3.26	83	3.12	79.5	5.71	145	0.236	6.0
	Inlet	3.26	83	3.12	79.5	5.71	145	0.185	4.7
60A	All	2.76	70	2.40	61	6.69	170	0.224	5.7
100A	All	3.47	88	2.80	71	7.87	200	0.280	7.1



North American Watertight

Specifications and Features

- Rockwell Automation Encompass™ Product Partner
- Listed to UL 1682 and 1686
- Certified to CSA Standard C22.2 number 182.1
- Classified to IEC Standards 60309-1 and 60309-2 for both North American-rated and International-rated voltages and services
- CE marking per low-voltage directives 73/23/EEC, 93/68/EEC

MATERIAL SPECIFICATIONS

Description	Part	Material
Inlets	Housing	Valox® 357
	Locking Ring	Valox 357
	Mounting Flange	Valox 357
	Contact Carrier	Nylon for 20 and 30 Amp devices; Reinforced nylon for 60 and 100 Amp devices
	Phase, Ground Pins	Brass
	20, 30, 60A Terminal Screws	Brass
	100A Terminal Screws	Stainless Steel
	Sealing Gasket	Solid Chloroprene

Description	Part	Material
Plugs	Housing	Valox® 357
	Locking Ring	Valox 357
	Sealing Gasket	Solid Chloroprene
	Internal Cord Clamp Assembly	Thermoplastic
	External Cord Clamp Assembly	Valox 357
	Gland Cap	Valox 357
	Grommet	Chloroprene Onion Skin
	Contact Carrier	Nylon for 20 and 30 Amp devices; Reinforced nylon for 60 and 100 Amp devices
	Ground, Phase Pins	Brass
	20, 30, 60A Terminal Screws	Brass
	100A Terminal Screws	Stainless Steel
	Internal Screws	Zinc-plated Steel
	External Screws	Acid-proof Stainless Steel
Connectors	Housing	Valox 357
	Internal Cord Clamp Assembly	Thermoplastic
	External Cord Clamp Assembly	Valox 357
	Gland Cap	Valox 357
	Grommet	Chloroprene Onion Skin
	Cover with Arm	Valox 357
	Arm Spring	"Performance Grade" Stainless Steel
	Cover Eyelet	Nickel-Plated Brass
	Sealing Gasket	Solid Chloroprene
	Contact Carrier	Nylon for 20 and 30 Amp devices; Reinforced nylon for 60 and 100 Amp devices
	Phase, Ground Sleeve	Brass
	Sleeve Spring	Stainless Steel
	20, 30, 60A Terminal Screws	Brass
	100A Terminal Screws	Stainless Steel
	Internal Screws	Zinc-plated Steel
External Screws	Acid-proof Stainless Steel	
Receptacles	Housing	Valox 357
	Mounting Flange	Valox 357
	Cover with Arm	Valox 357
	Arm Spring	"Performance Grade" Stainless Steel
	Cover Eyelet	Nickel-Plated Brass
	Sealing Gasket	Solid Chloroprene
	20, 30, 60A Terminal Screws	Brass
	100A Terminal Screws	Stainless Steel
	Phase, Ground Sleeves	Brass
	Sleeve Spring	Stainless Steel

Valox® is a registered trademark of GE.

TESTING AND CODE COMPLIANCE

- UL Listed 1682 & 1686 (File #E164321 & E164322)
- CSA Listed C22.2 #182.1 (File #LR700925)
- CE and IEC Certified (File #60309-1 & 60309-2)

Industrial Grade - North American Rated

PERFORMANCE SPECIFICATIONS — UL 1682 & 1686

Electrical



460P7W

Category	Specifications										
Dielectric Voltage	Devices rated $\leq 300V$: 2000V for 1 min. Devices rated $> 300V$: 3000V for 1 min.										
Insulation Resistance	500 V for 1 min. Insulation Resistance ≥ 5 megohms										
Ground Path Current	Apply high current for short time and maintain continuity										
Overload	150% of rated current and 100% of rated voltage for 50 cycles (Power factor 0.75-0.80)										
Current Interrupting	Certified for current interrupting at full-rated current and voltage										
Temperature Rise	Max 30°C rise at full rated current (after overload)										
Resistance to Arcing	Continuation of overload for additional 200 cycles										
Endurance with Load	<table border="1"> <thead> <tr> <th>Device</th> <th># Cycles with Load</th> </tr> </thead> <tbody> <tr> <td>20A</td> <td>5000 Rated Current, Voltage</td> </tr> <tr> <td>30A, 60A</td> <td>1000 Rated Current, Voltage</td> </tr> <tr> <td>100A</td> <td>250 Rated Current, Voltage</td> </tr> <tr> <td colspan="2">(Power Factor 0.75 - 0.80)</td> </tr> </tbody> </table>	Device	# Cycles with Load	20A	5000 Rated Current, Voltage	30A, 60A	1000 Rated Current, Voltage	100A	250 Rated Current, Voltage	(Power Factor 0.75 - 0.80)	
Device	# Cycles with Load										
20A	5000 Rated Current, Voltage										
30A, 60A	1000 Rated Current, Voltage										
100A	250 Rated Current, Voltage										
(Power Factor 0.75 - 0.80)											

Mechanical



460C12W

Category	Specifications								
Mold Stress Relief	70°C for 7 hrs								
Humidity	32°C, 93% humidity, 168 hrs								
Cable Secureness	Pull force and apply torque for 1 minute								
Impact	Drop from 30" 8 times after conditioning to -25°C, for 6 hrs								
Crush	250 lbs for 1 min after -25°C for 6 hrs								
Withdrawal Force	Pull for one minute								
Strength of Insulating Base and Support	110% of specified tightening torque on terminal screws								
Endurance	<table border="1"> <thead> <tr> <th>Device</th> <th>Total # Cycles (connect & disconnect)</th> </tr> </thead> <tbody> <tr> <td>20A</td> <td>5000</td> </tr> <tr> <td>30A, 60A</td> <td>2000</td> </tr> <tr> <td>100A</td> <td>500</td> </tr> </tbody> </table>	Device	Total # Cycles (connect & disconnect)	20A	5000	30A, 60A	2000	100A	500
Device	Total # Cycles (connect & disconnect)								
20A	5000								
30A, 60A	2000								
100A	500								
Polarization Integrity	Matching devices will not mate so that ground is energized even when polarization feature is removed and 40-lb insertion force applied								

Environmental

Flammability	V2 or better on 20 and 30 amp devices per UL 94 or CSA 22.2 No. 0.6 ; V-0 on 60 & 100 amp devices
Resistance to Corrosion	Ferrous parts immersed in to Corrosion 10% ammonium chloride solution
Moisture Resistance per UL 1682	Watertight: Device immersed for 24 hrs in 5 cm of 25°C water Splashproof: 1" dia. water stream at 15 PSI from 10 ft. for 5 minutes
UV Resistance	Exposed plastic materials are UV stabilized

Short-Time Grounding Test Currents

Device Rating, Amperes	Minimum Size Equipment Grounding Conductor (Copper)		Time Seconds	Test Current, Amperes
	AWG	(mm ²)		
20	12	(3.3)	4	470
30	10	(5.3)	4	750
60	10	(5.3)	4	750
100	8	(8.4)	4	1180

Ground-path integrity is of critical importance to safe operation of industrial equipment. Leviton pin and sleeve devices are tested by applying a test current through their ground path that far exceeds the device rating. All devices are properly wired and connected to line current at rated values. Then the ground path is subjected to a dramatic, sudden increase in current for 4 seconds. In all cases, the ground pin, sleeve, and terminals of the devices must sustain the test current, continue to function properly, and show no evidence of damage or deterioration in any electrical or mechanical elements of the ground path. Test current values and test parameters are displayed in the above chart.

Cord Secureness Test Values

Device Rating Amperes	Force		Torque		Maximum Displacement	
	lb	N	ft-lb	N • M	inches	mm
20	30	133	0.4	0.54	≤3/32	2.38
30	75	333	0.5	0.68	≤3/32	2.38
60	150	667	1.0	1.4	≤3/32	2.38
100	150	667	2.0	2.7	≤3/32	2.38

Heavy cord stress is typical of industrial applications. To assure you of top performance, Leviton pin and sleeve devices are subjected to a punishing series of tests to confirm they can absorb heavy cord pulls. The cord conductors wired to devices are simultaneously twisted and pulled. Values for the applied twisting torque and force of pull are shown above. In all cases, the cord displacement is less than 3/32 inches.

Minimum Withdrawal Force

Device Rating, Amperes Amperes	Minimum Withdrawal Force	
	lb	N
20	5	22
30	6	27
60	15	67
100	20	89

In industrial settings, inadvertent disconnection of power can be troublesome at best, dangerous at worst, and unacceptable in any case. To verify that Leviton pin and sleeve plugs and connectors remain securely connected, they are tested to establish the minimum force required for withdrawal. In establishing these minimum withdrawal forces, the plugs and connectors are properly mated, but not locked with locking rings or other mechanical means. The pins and sleeves provide the only resistance to the force of withdrawal. In all cases, the values in the table above show the minimum force required to separate the plugs and connectors.

Industrial Grade

Making the Right Connection is as Easy as Matching Colors and Telling Time!

Leviton's pin and sleeve devices are easy to use. Matching amperage and voltage requirements is literally as easy as matching colors and telling time. The amperage rating is related to the size of the device; devices of the same amperage are the same size. The voltage rating is related to the location of the ground sleeve on the female device and the number of conductors. This location is based on a clock face with the key-way at the 6 o'clock position. The ground sleeve is positioned at a specific hour location, depending on the device's voltage rating.

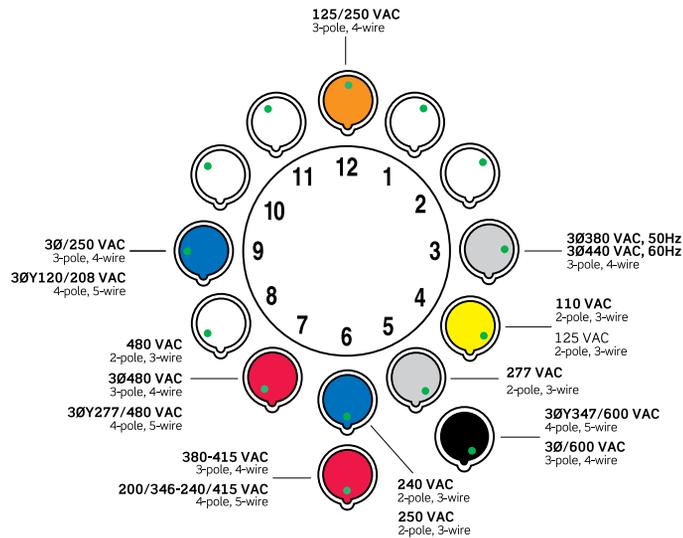
The clock position for plugs and inlets is a mirror image of the position for matching connectors and receptacles. For quick visual identification, voltage ratings are also color-coded and the housings of interconnecting units are always the same color. All 125VAC devices are yellow; 250VAC are blue, etc. Matching up interconnecting devices is as easy as matching colors.

NORTH AMERICAN

Green Dot •

Represents the Ground Sleeve of Female Devices (Connectors & Receptacles)

Rated Voltage	Color
110V-130V	Yellow
125V-250V	Orange
200V-250V	Blue
277V, 380V, 440V	Grey
346V-480V	Red
500V and above	Black



Catalog Numbering System

Leviton's catalog numbering system is easy to use. Each letter or number provides a description of the product. Simply follow the six-part code below, made up of letters and numbers. Each catalog number contains the number of conductors, amperage rating, device type, clock position of the ground sleeve, and environmental rating. For example, the catalog number below refers to a 3-wire, 20 amp receptacle with a grounding sleeve located at the 6 o'clock position and an environmental classification of watertight.

Prefix	3 1st digit	20 2nd-4th digit	R Letter	6 Grounding	W Suffix
SP SP= Splashproof	3 = 3 wire 4 = 4 wire 5 = 5 wire	16 = 16 Amp 20 = 20 Amp 30 = 30 Amp 32 = 32 Amp 60 = 60 Amp 63 = 63 Amp 100 = 100 Amp 125 = 125 Amp	P = Plug C = Connector R = Receptacle B = Inlet MI = Mechanical Interlock MF = Mechanical Interlock Fused AX = Disconnect Switch FAX = Disconnect Switch Fused	Clock position of female grounding contact Not Used for Disconnects	W = Watertight Not Used for Disconnects
DS DS= Disconnect Switch	Not Used for Disconnects				