WALTHER-WERKE®
FORTSCHRITT SEIT 1897

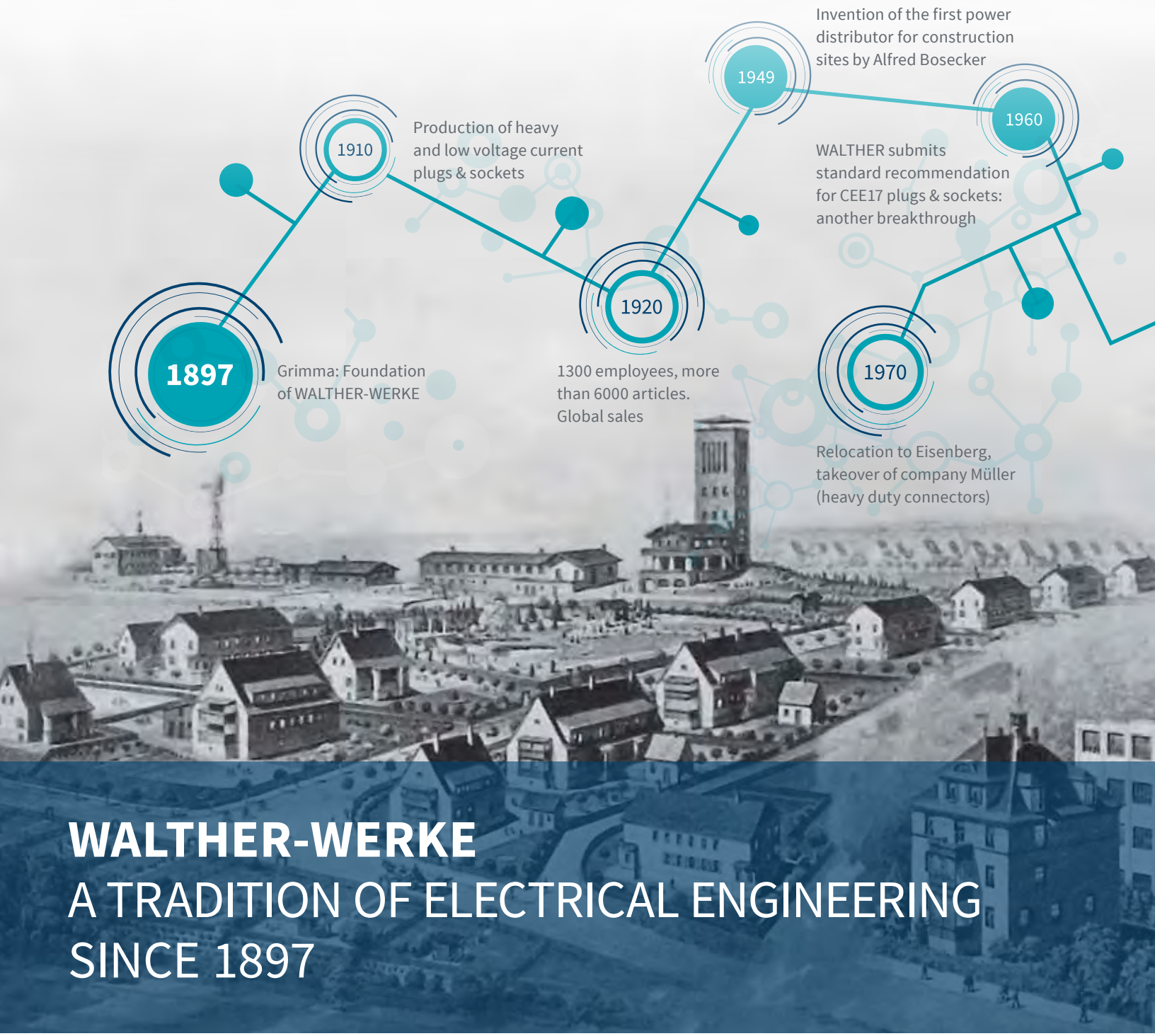
IEC 60309-1 & 2
PIN & SLEEVE DEVICES

Information contained in this catalog is for reference only and is subject to change at any time. For additional information, refer to the original standard or regulation or reach out to a member of our customer care team for clarification.

All specifications are subject to change without notice. Consult a Walther Electric Engineer for the latest specifications or speak with a member of our Customer Care Team +1 (800) 925-8437.

Updates will be posted www.walther-werke.de and/or www.waltherelectric.com
For prices, please refer to our current trade price lists.

Power Distribution Cable Assembly



WALTHER-WERKE
A TRADITION OF ELECTRICAL ENGINEERING SINCE 1897

1897 — Ferdinand Walther founds WALTHER-WERKE. Since this time, the world has changed dramatically. After the second and third industrial revolutions, we are now entering the fourth: Industry 4.0. In the world of work and in our everyday lives, far-reaching changes are on the way. During such dynamic times, reliable partners are needed who are working now to prepare for the future.

WALTHER-WERKE have over a hundred and twenty years of experience and are the experts in low voltage distribution. Since it was first founded, the company has proven its excellence time and time again in providing products and solutions for present-day and future needs. Adaptation and innovation are therefore part of WALTHER's DNA. So it is no coincidence that key innovations, such as the construction site power distributor in the 1940s and the CEE type plug connector in the 1960s were inventions by WALTHER-WERKE.

1990
ISO 9001 certification, establishment of sales offices France and USA

2001
Takeover of company Bosecker. Extension of product range by transformer stations and power distributors

2008
Start E-Mobility business unit

2013
Quality management according to automotive standard ISO/TS 16949. New division WALTHER SYSTEMS for intelligent distribution systems + energy management. The product areas are growing together

2016
CEE NEO and IPD (intelligent power distribution) as solution for energy management and industry 4.0

2020

Today, the Group as a whole employs more than 400 people in the development, production and marketing of CEE type plug and socket connections, plug and socket combinations, industrial plug connectors, electromobility charging infrastructure, power distributors, and transformer stations.

As a company with a global presence, WALTHER-WERKE is represented with its products and services in all of the world's core markets. In addition to more than 60 independent sales partners, the WALTHER Group has fully-owned subsidiaries in the USA, the UK, France, and Austria. These are primarily represented on the markets with sales and in some cases production activities, with the aim of providing our customers and partners with the best possible service.

GROWING COMPLEXITIES CALL FOR INDUSTRY EXPERTISE

Providing energy to our economies efficiently is going to become one of the key challenges over the coming decades. Raw materials are dwindling, yet demand is growing significantly. Subjects such as environmental protection, safety and cost-effectiveness are moving increasingly into focus. Technological developments and complexities in terms of content are growing at a rapid pace across all areas of application. The concentration and training of expertise is therefore essential if we are to overcome the challenges of the future.

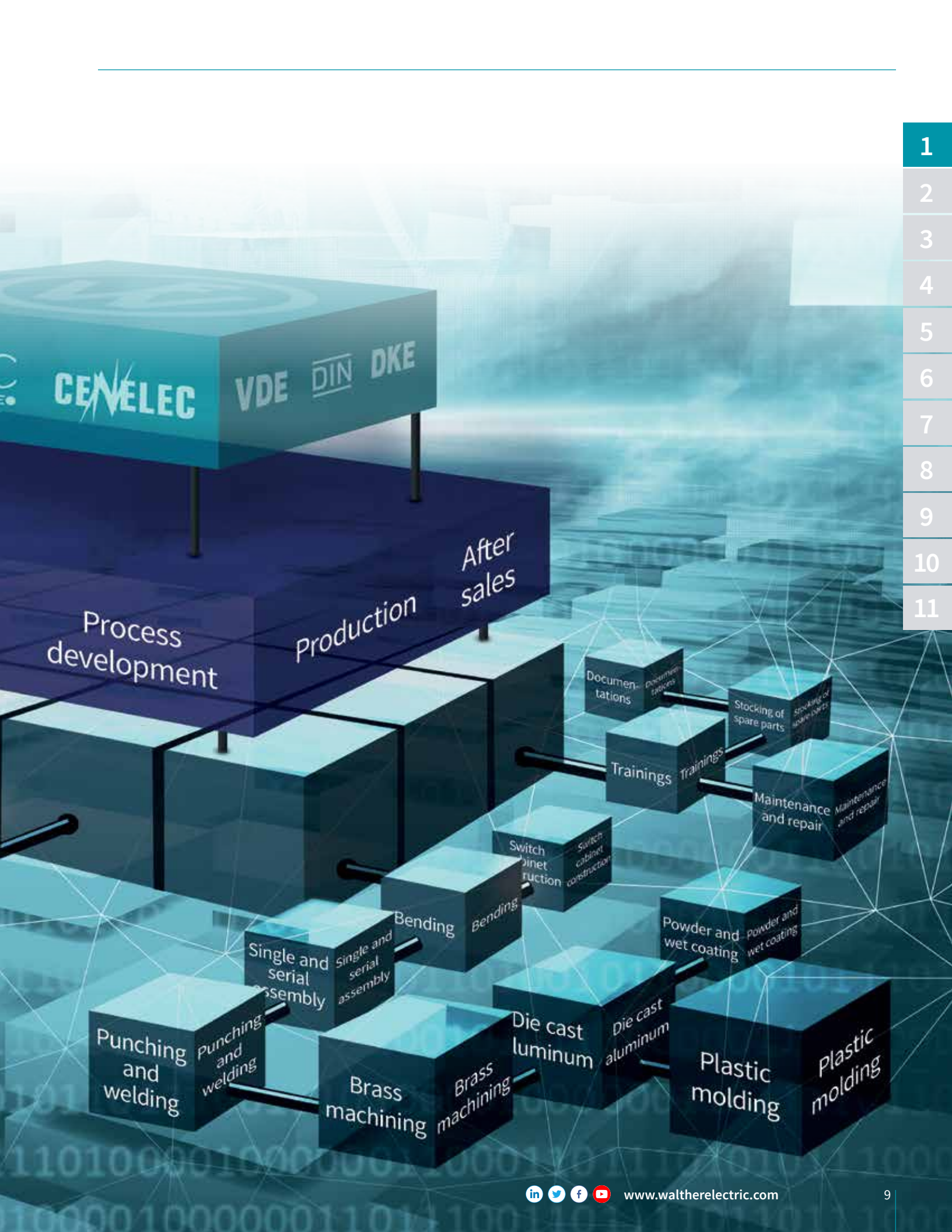
WALTHER-WERKE have made this their maxim. Comprehensive system expertise in selected areas of application is at the heart of our strategic focus. Our mission: To link electrical consumers with the energy supply network, primarily in the areas of construction, leisure, industry and mobility. To do this, we use our unique portfolio of products comprising transformer stations, power distributors, plug and socket combinations and plug systems that are tailored to their application.

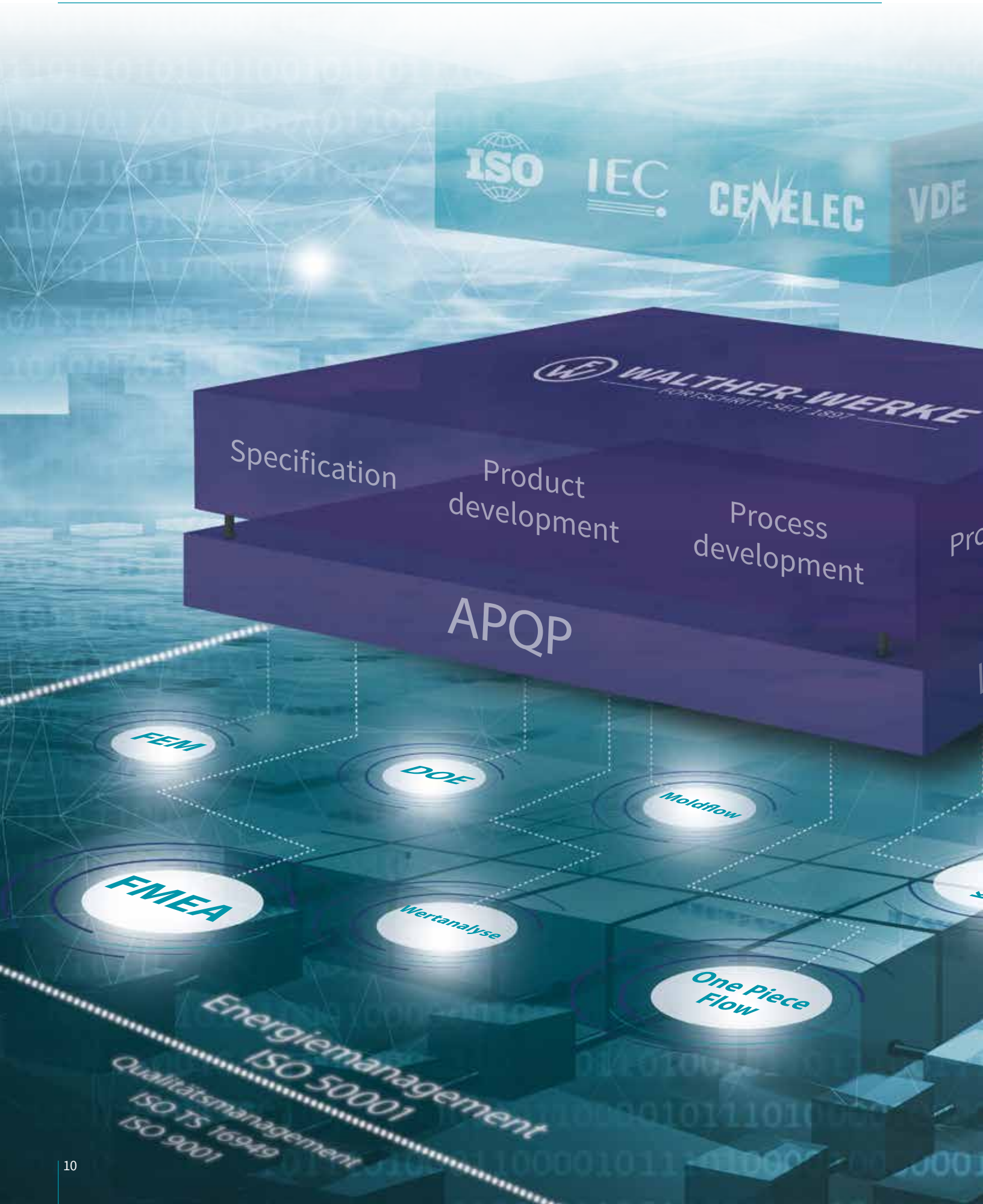
Combined with over 100 years of experience in the field of power distribution, a consistent focus on customer service and high-quality solutions, we want to provide our partners with the maximum benefits possible. Leading energy suppliers, automotive manufacturers, construction companies and industrial firms, as well as operators of campsites or yachting and container harbors, as well as organizers of events worldwide, therefore trust our solutions.

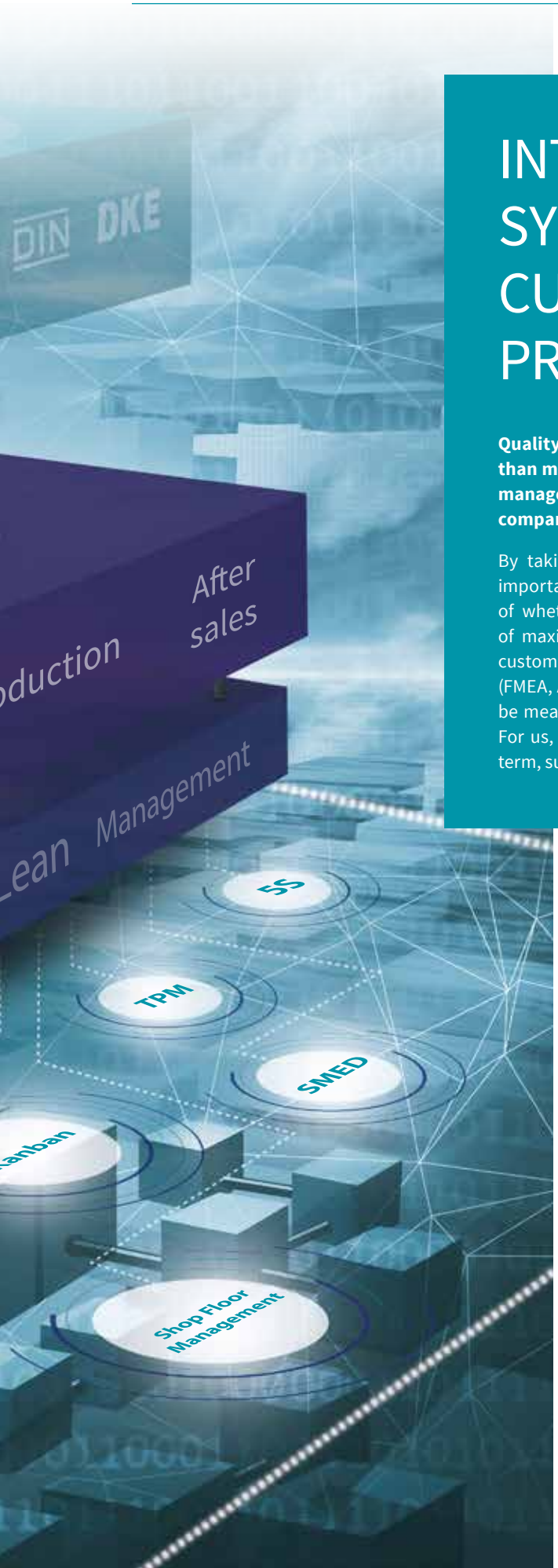
EXPERTISE AND COMMITMENT

WALTHER-WERKE have traditionally had a high degree of vertical integration when it comes to production. This means that virtually all the key products are manufactured at German production sites. This allows us to guarantee our customers maximum flexibility, quality and most importantly technological expertise. WALTHER can handle every kind of customer request. From the creation of product and functional requirements in consultation with our customers and the development, design and creation of tools to products validated by our own, in-house testing laboratory: All from a single source. Components that we do not make ourselves are obtained exclusively from renowned, high-quality manufacturers with whom we have long-standing partnerships. After all, these components end up in a WALTHER product – and so we bear the responsibility for our customers' satisfaction.

But we don't just work under our own roof. WALTHER-WERKE's tradition also includes assuming an honorary role when working and taking responsibility with associations, as well as national and international standardization committees. This means we are able to contribute our extensive product and system expertise to the standardization process and also to ensure the advice we give to our customers always reflects the most up-to-date information.


CENELEC
VDE
DIN
DKE
Process development
Production
After sales
Documen-tations
Stocking of spare parts
Trainings
Maintenance and repair
Switch cabinet construction
Bending
Single and serial assembly
Powder and wet coating
Punching and welding
Brass machining
Die cast luminum
Plastic molding


ISO
IEC
CENELEC
VDE
WALTHER-WERKE
FORTSCHRITT SEIT 1897
Specification
Product development
Process development
APQP
FEM
DOE
Moldflow
FMEA
Wertanalyse
One Piece Flow
Energiemanagement
ISO 50001
Qualitätsmanagement
ISO TS 16949
ISO 9001



INTEGRATED MANAGEMENT SYSTEMS ENSURE CUSTOMER-FOCUSED PROCESSES

Quality and quality management at WALTHER-WERKE means much more than mere product quality in the form of value and reliability. For us, quality management is a holistic management approach and is expressed in all of the company's activities.

By taking this approach, not only do we target quality assurance, but most importantly we aim to continuously improve all of our processes, regardless of whether they are value-creating or supportive – and always with the goal of maximum customer satisfaction. Quality begins with the documentation of customers' and market needs and continues to include product development (FMEA, APQP etc.) through to the entire life cycle of our products. Processes must be measurable in terms of efficiency and effectiveness, and therefore steerable. For us, this comprehensive quality management forms the foundations of long-term, successful commercial relationships with our partners.

To raise our quality management to the highest possible level, we extended our ISO 9001 certification in 2013 to the international automotive standard ISO/TS 16949 – one of the most challenging certification standards. We use this standard not just for our automotive products, but also to all of WALTHER-WERKE's product areas. That's because we are convinced that only consistent quality management will bring long-term success.

Our production has established a lean management system, the 'WALTHER-WERKE production system (PS)', declaring war on loss and waste.

Today we have a modern and regionally referenced production system which, through consistent shop floor management, represents all of the relevant performance indicators in a cascaded manner and optimizes them continuously through problem-solving methods in combination with a broad-based lean methods toolkit (SMED, One Piece Flow, Kanban, TPM, value stream design etc.) to benefit our customers. Skilled CIP teams work daily to improve our processes and integrate ideas from all employees regarding the best solutions. Lean management, and therefore ongoing continuous improvement (CIP), has therefore matured into part of the corporate culture nowadays at WALTHER.

SALES: GLOBAL PRESENCE FOR MAXIMUM CLOSENESS TO THE CUSTOMER

Our slogan, “Your best connection” should be regarded not just as the overriding principle for the best connection technology, but also in particular counts as an incentive and inspiration in our interactions with customers to guarantee a reliable and trusting “connection” at all times. It is only through close communication with our customers that tailor-made solutions even become possible. A dense global sales network, comprising four of our own subsidiaries and 60 international branches across all continents highlights our ambition to satisfy our customers’ wishes through expertise and closeness to the market. We are not interested in short-term successes, preferring instead partnerships of many years’ continuous standing that play a vital role in our customers’ strategic focus and which therefore represent an essential element of their added value process.

BOSECKER VERTEILERBAU SACHSEN GMBH, ZITTAU

WALTHER-WERKE FERDINAND WALTHER GMBH, WALTHER SYSTEMS, LEIPZIG

F. WALTHER ELECTRIC CORP, USA, NORTH AMERICAN HEADQUARTERS

We regard ourselves as the ideal partner to the electrical trade and as a systems supplier to the industry and construction sector. To always ensure the availability of our products, we also use the logistical opportunities made available to us by our electrical wholesale partners. The satisfaction of our customers lies at the heart of everything we do. Worldwide, with high-quality products and flawless service worthy of the label “Made in Germany”.

WALTHER-WERKE, EISENBERG

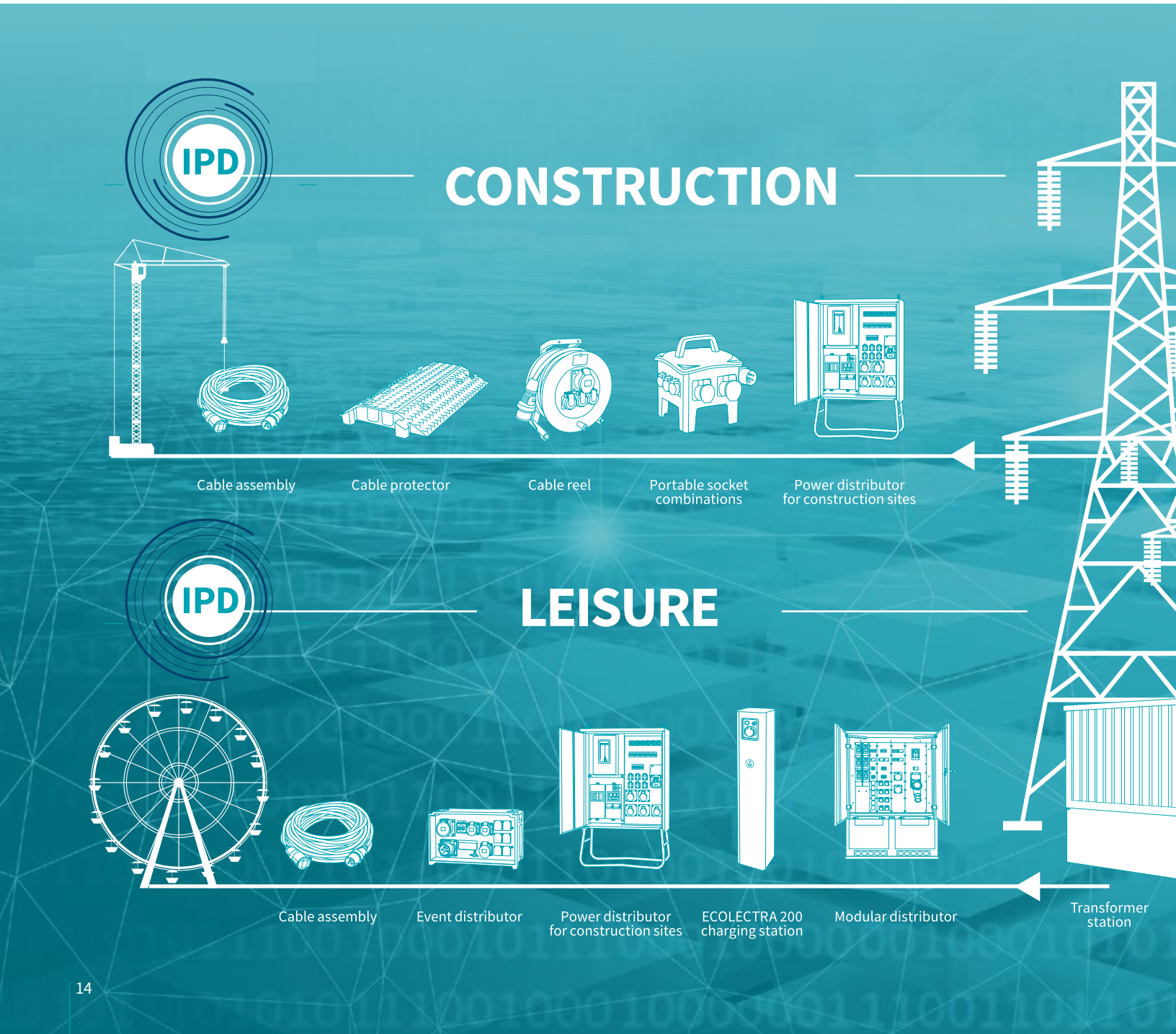
F. WALTHER ELECTRICS LTD,
UNITED KINGDOM

F. WALTHER SARL,
FRANCE

WALTHER ELECTRIC GMBH,
AUSTRIA

WALTHER-WERKE – CREATING CONNECTIONS BETWEEN ELECTRICAL CONSUMERS, CUSTOMERS & THE ENERGY SUPPLY NETWORK

We offer comprehensive solutions for power distribution from medium voltage upwards and bring these to the consumer. Whether it be construction cranes, electric cars, industrial systems or camper vans – with static and mobile transformer stations and switchgear, we transform or switch low voltage to a maximum of 400 V. The decentral distribution then takes place via a broad selection of very different primary, sub and terminal distributors for all kinds of temporary or static applications. The great thing about it is that the power distribution is scalable and can be expanded at any time to reflect the real energy demand.



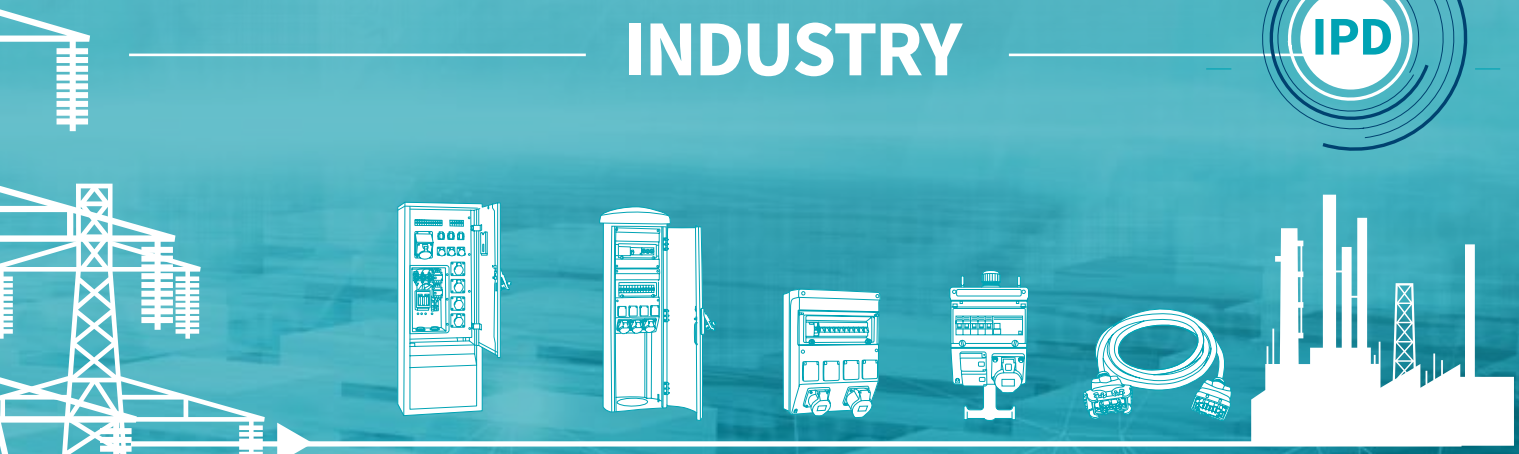
The “handover point” to consumers takes the form of CEE type plug and socket connections, industrial plug connectors and charging connections for electromobility. These are “Made by WALTHER”. This means everything from a single source, and everything is linked; designed to offer the maximum service life, in even the harshest environmental conditions.

The unique breadth and depth of its product portfolio means that WALTHER-WERKE is able to design perfectly coordinated, comprehensive solutions and systems for its customers. The advantage for our customers most importantly lies in the fact that there is only one contact responsible for the entire project, with all of its overall system requirements.

This means that customers are spared the laborious task of compiling the individual components themselves. Even if the needs increase later or if there are other technical challenges, there is only ever one contact. Thanks to their system expertise, this contact will be able to offer effective and efficient solutions quickly.

INDUSTRY

IPD



Industrial power distributor

Bollard

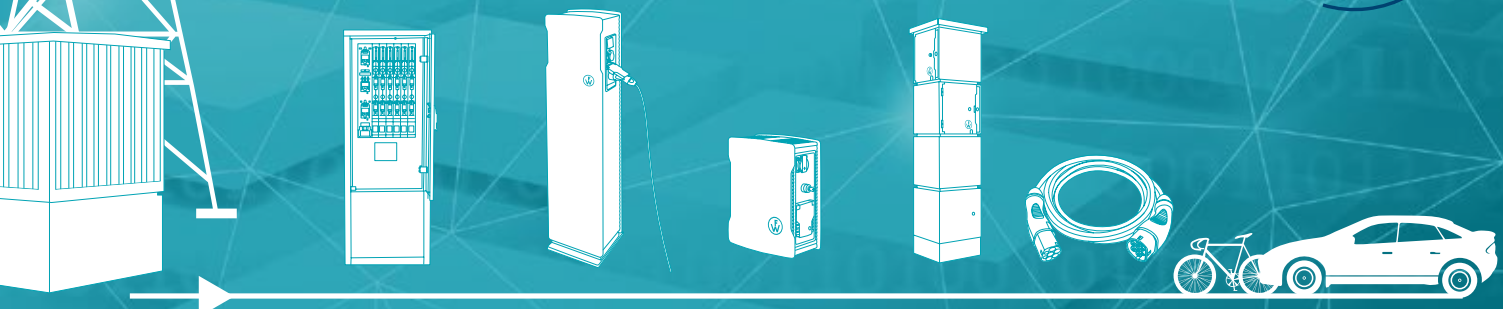
Wall mount socket combination

Suspension-type socket combination

Cable assembly

MOBILITY

IPD



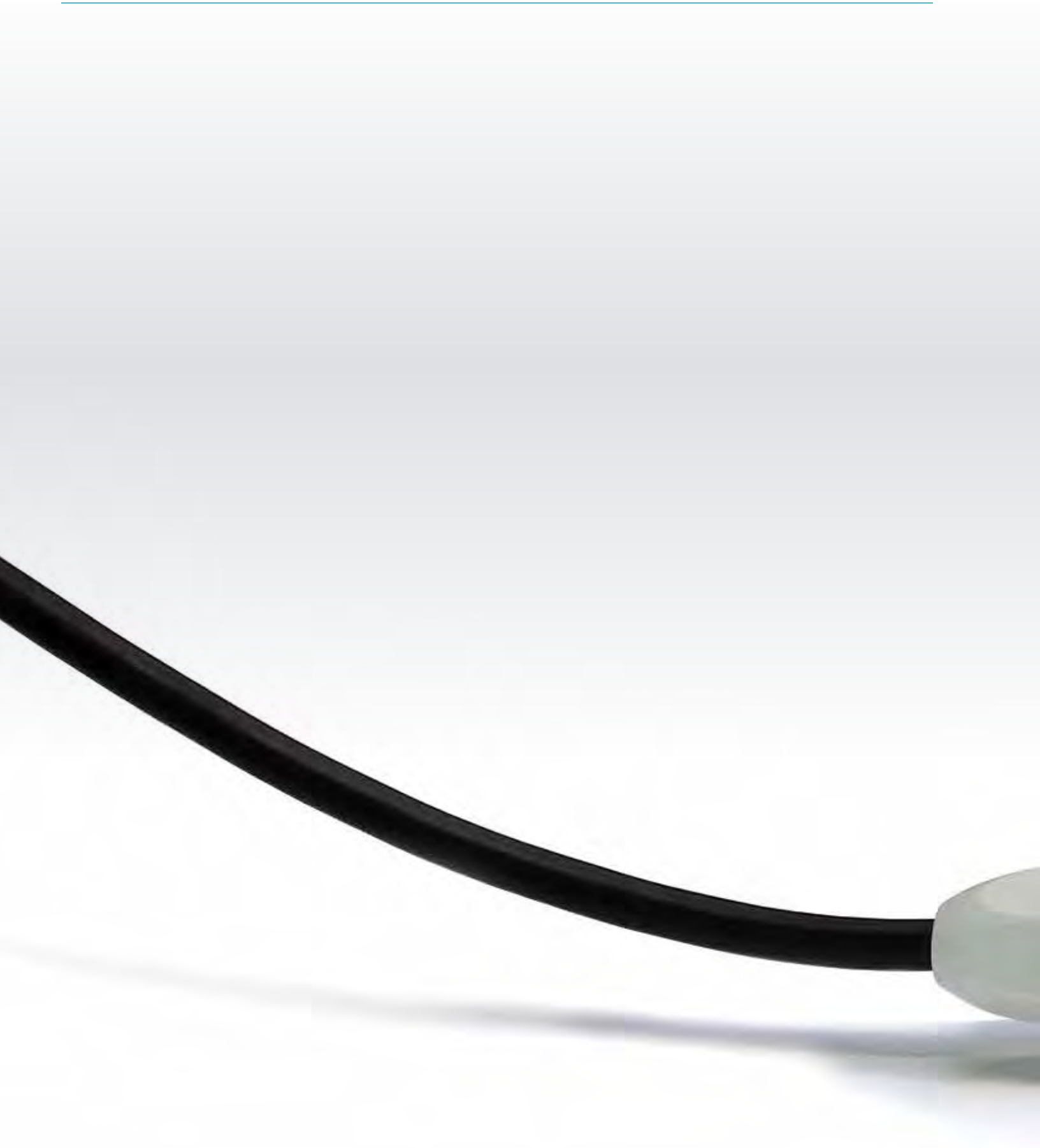
Cable distributor

EVOLUTION 350 Charging station

EVOLUTION Wallbox

CUBE Pedelec charging cabinet

Charging cable



INFORMATION ABOUT PLUGS & SOCKETS

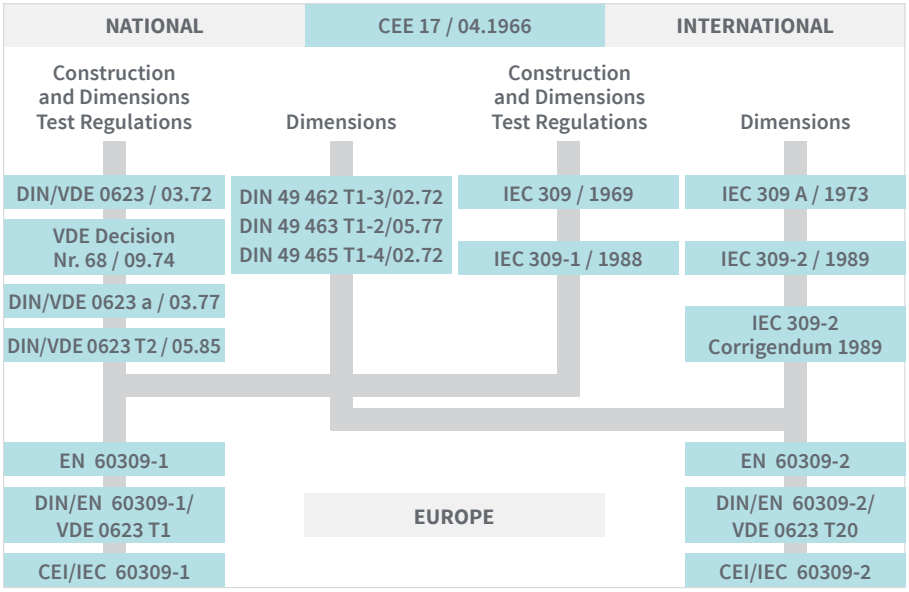
IEC Group Full Assembly

DEVELOPMENT OF THE IEC 60309 STANDARD

WALTHER CEEtyp connectors are CEE connectors according to the international standards IEC / EN 60309-1 and 60309-2.

The international standard for CEE plugs and sockets is specified in IEC 60309. This became the historical standard derived from the CEE17, which is derived from the standardization draft of WALTHER-WERKE in the 1960s. In Great Britain, the CEE17 was used as BS 4343 (also known as the “CEE form”). The IEC 60309 describes the basic requirements for plugs, sockets, couplers and device connectors for industrial applications. This standard was derived from the European standard CEE published in 1966 to create standardization at the global level due to global trade relationships. Thanks to this global standard, it is now possible to place machines, systems and devices anywhere in the world without having to use country-specific plug-in systems.

Overview of the development of standards:



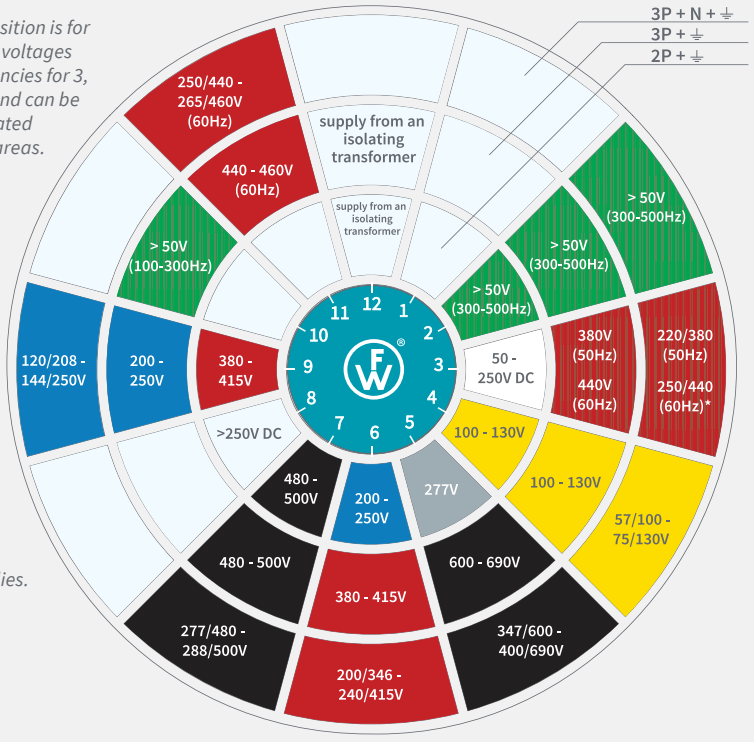
CEE	International Commission on Rules for Approval of Electrical equipment
IEC	International Electrotechnical Commission
CEI	Commission Électrotechnique International
DIN	German Institute for standardization
VDE	Association of German Electrical engineer
EN	European standard

Walther CEE clock according to IEC 60309-1 (Series I)

The 1-hour position is for unmentioned voltages and/or frequencies for 3, 4 and 5 pole and can be used in seperated applications areas.

The 2, 3 and 10-hour position are standard only with 16A and 32A.

Where no frequency is shown the standard 50 - 60Hz applies.



This chart is used to indicate the voltage and frequency in accordance to IEC 60309-1 (Series I). The system has been designed to maximize safety, avoid mismatching, and promote interchangeability among manufacturers.

A clock face is used to represent the location of the ground sleeve for a specific voltage system. The positions of the ground pins are relative to the socket’s key and are designated as a clock hour position depending on the voltage rating of the part.

The general maximum permissible load values are as follows:

- Max. voltage: 690V (DC or AC voltage)
- Max. current carrying capacity: 125A
- Max. frequency: 500Hz
- Operating environment temperature from -25 to +40 °C

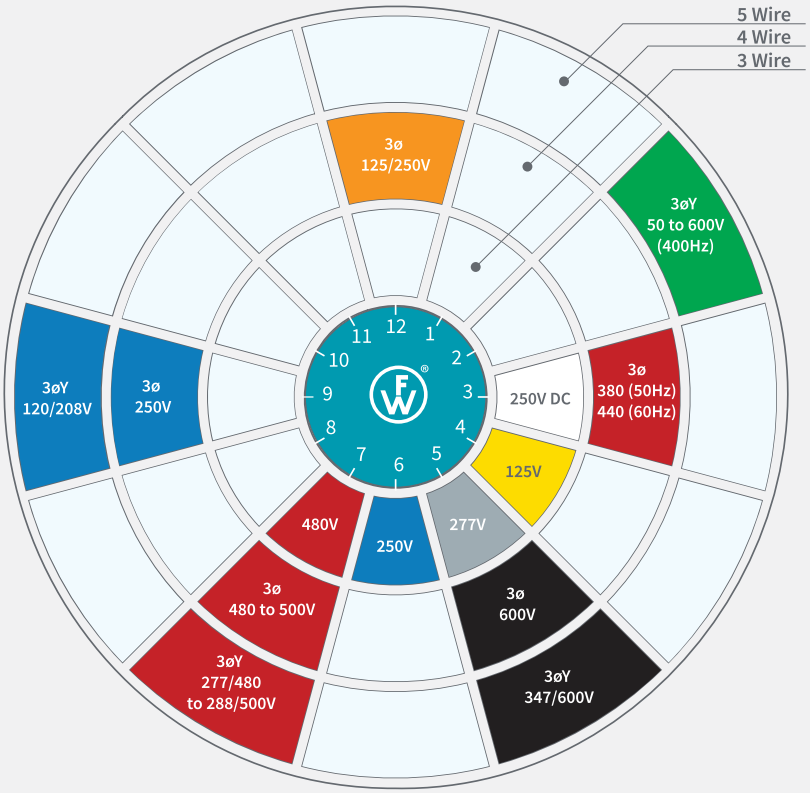
Position of grounding sleeve	Standardized usage examples	Standardized voltages and frequencies Recommended color coding as per IEC 650309-1, -2		
		 2 P + E	 3 P + E	 3 P + N + E
1 h	Open for special applications	For all voltages and frequencies (up to max. 1000 V) that are not listed in one of the other groups		
2 h	Concrete vibrator/compressor, high-frequency motors	> 50V (300-500Hz) 16A / 32A	> 50V (300-500Hz) 16A / 32A	> 50V (300-500Hz) 16A / 32A
3 h	4-pole and 5-pole cooling container (standardized as per ISO)	50 - 250V DC	380V 50Hz 440V 60Hz	220 / 380V 50Hz 250 / 440V 60Hz
4 h	Voltage levels in parts of England or English colonies	100 - 130V 50 / 60Hz	100 - 130V 50 / 60Hz	57 / 100V - 75 / 130V 50Hz / 60Hz
5 h	Open pit mining or tunnel construction	277V 60Hz	600 - 690V 50 / 60Hz	347 / 600 - 400 / 690V 50 / 60Hz
6 h	Standard voltages in Western Europe	200 - 250V 50 / 60Hz	380 - 415V 50 / 60Hz	200 / 346 - 240 / 415V 50 / 60Hz
7 h	Open pit mining or mining	480 - 500V 50 / 60Hz	480 - 500V 50 / 60Hz	480 - 500V 50 / 60Hz
8 h		> 250V DC	1000V	Not occupied
9 h	Voltage level, e.g. Norway	380 - 415V 50 / 60Hz	200 - 250V 50 / 60Hz	120 / 208 - 144 / 250V 50 / 60Hz
10 h		Not occupied	> 50V (100-300Hz)	Not occupied
11 h	e.g. maritime installations	Not occupied	440 - 460V 60Hz	250 / 440 - 265 / 460V 60Hz
12 h	For voltages after isolation and isolating transformers	after isolating transformer	after isolating transformer	

Walther CEE clock according to IEC 60309-2 (Series II)

Clock position seen from the socket side of the connection.

North American rated voltage alternating current (AC), if not specified otherwise.

In countries where series II devices are used, the color orange is reserved for devices for 125V / 250V~ and the color gray is reserved for devices for 277V~.



UL 1682 and UL 1686 C2

Other voltage systems are used in the USA and Canada. The rated frequency is also 60 Hz.

The phase identifiers are:

L1 = X, L2 = Y, L3 = Z

Neutral conductor N = W or white dot.

Protective conductor ⏚ = G or green dot.

The rated currents are 20, 30, 60 and 100 A.

The IEC 60309-2 (Series II) rated voltages:

2 poles - 3 wire (3-pole)					
Volt	125V AC	250V AC	250V DC	277V AC	480V AC
Clock position	4	6	3	5	7
Color code	yellow	blue	white	gray	red

3 poles - 4 wire (4-pole)					
Volt	3ø 125/250V AC	3ø 250V AC	3ø 380 (50Hz) 3ø 440 (60Hz)	3ø 480V AC	3ø 600V AC
Clock position	12	9	3	7	5
Color code	orange	blue	red	red	black

4 poles - 5 wire (5-pole)				
Volt	3øY 120/208V AC	3øY 277/480V AC	3øY 347/600V AC	3øY 50 to 600V 400Hz
Clock position	9	7	5	2
Color code	blue	red	black	green

Setup of a CEE plug and socket device > 50V

Voltage systems with voltages > 50V must have a protective contact. The protective contact as well as the phases and any neutral conductors present are arranged in a circle.

An essential safety feature is that unintentional connecting between different current, voltage and frequency versions is not possible due to several properties. The plug has an outer keying position that can only be plugged into an equivalent recess / groove on the socket. The keying position and recess are always in the 6 o'clock position. The earth contact must have the right clock position both on the plug and socket side guided by this keying position/groove principle. In addition it has a larger diameter. The diameter is to be measured so that it is not inserted through the isolated feedthrough holes of the phases and any existing neutral conductor contact, which protects against reverse polarity. The protective conductor can therefore not be inserted into a live conductor. The larger diameter of the earth contact also leads to less contact resistance, which further increases the protective function. The position of the groove and keying position of the earth contact cannot be changed by the manufacturer for the user. The contact diameters vary in size for increasing currents.

The rated currents as per IEC 60309 that require a protective contact are as follows:

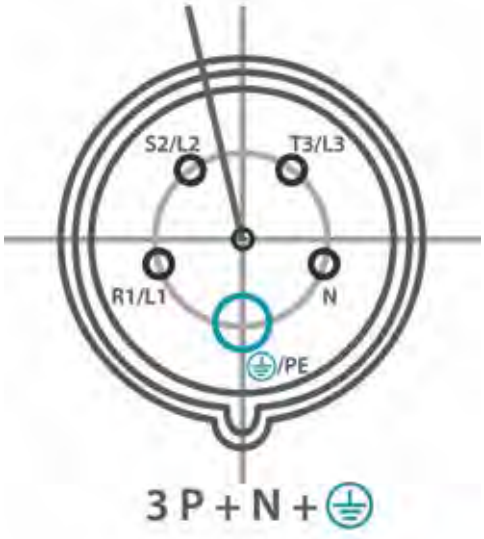
Voltage	Rated current Series I	Rated current Series II
> 50V	16A	20A
	32A	30A
	63A	60A
	125A	100A

The protective contact sleeve has the shortest distance to the plug surface, thus the protective contact connection is pre-mating when plugging a plug into the socket opposite the live contacts and lagging when disconnecting the plug. The sockets have a groove at the 6 o'clock position to eliminate mis-mating. The position of the protective contact sleeve to this groove indicates the coded voltage. The coded voltage may only be adjusted by the manufacturer. If the protective contact coded voltage is color-coded, then the colors as per IEC/EN 60309-1, table 2 are to be used.

During the standardization of the CEE plugs and sockets, emphasis was placed on optimal power transmission with the large contact surfaces between pins and sleeves. The brass sleeves are reinforced with additional tension springs in order to establish a current transfer over the entire contact surface of the pin. This reduces heating under high load. An additional safeguard against contact separation is brought about by the hook function of the spring-loaded hinged cover of the socket and coupler.

All plugs and sockets must have a minimum IP44 degree of protection and sufficient strength to meet the rated data of the marked degree of protection after they were exposed to shocks that occur during proper operation. For currents of 125A or greater, the IP67 degree of protection according to EN 60529 is required by standard. The IP67 degree of protection is achieved by a ring-shaped bayonet closure with a seal between the plug and outlet. However, plugs and sockets in lower currents can also be designed in IP67.

Pilot Contact (63A / 125A)



Arrangement of the contact sockets and terminal designations at 6 h position.

Keyway Groove in 6 h position

Earth Contact in 3 h position

Rating Operating Voltage (V)	Color
20 - 25V	Purple
40 - 50V	White
100 - 130V	Yellow
200 - 250V	Blue
380 - 480V	Red
500 - 690V	Black

SOURCE: IEC/EN 60309-1, table 2

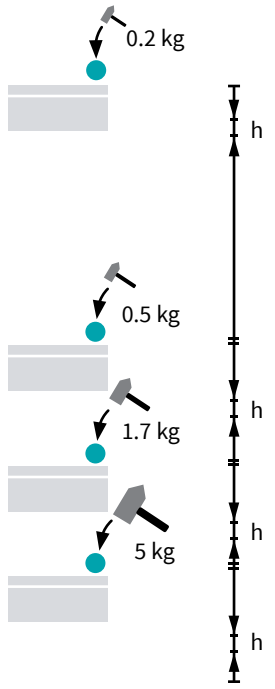
Overview of the classification of IP and IK degrees of protection:

IK identification, EN 62262

The ID identification consists of 2 code digits (e.g. IK 06)

2 code digits

Degree of protection of safety against mechanical damage.



	h (cm)	Impact energy (J)
01	7.5	0.15
02	10	0.20
03	17.5	0.35
04	25	0.50
05	35	0.70
06	20	1
07	40	2
08	29.5	5
09	20	10
10	40	20

Code digit	1st code digit: Protection against foreign bodies and contact		2nd code digit: Protection against water	
0	not protected		not protected	
1	protected against solid foreign bodies > 50 mm		protected against vertically falling drip water	
2	protected against solid foreign bodies > 12.5 mm		protected against dripping water hitting at an angle	
3	protected against solid foreign bodies > 2.5 mm		protected against spray water	
4	protected against solid foreign bodies > 1 mm		protected against splash water	
5	protected against dust		protected against jet water	
6	sealed against dust		protected against strong jet water	
7	–		protected against temporary immersion	
8	–		protected against permanent immersion	...m

ISO 50001 CERTIFIED

QUALITY MANAGEMENT SYSTEM ISO 9001 CERTIFIED

IP44 SPLASHPROOF

DUST TIGHT IP54 SPLASHPROOF

DUST TIGHT IP65 LOW PRESSURE

DUST TIGHT IP66 WATERTIGHT

DUST TIGHT IP67 WATERTIGHT

SAFE. RUGGED. RELIABLE.

Walther's Pin & Sleeve devices are built tough to work reliably and last - even in the roughest terrains, challenging applications and most extreme environments.

Retaining Device

Holds connector lid in place to help prevent accidental disconnect under load.

High Impact Thermoplastic Housing

Heavy-duty industrial insulated housings are made from high impact nylon material which is resistant to corrosion and abrasions. Non-conductive material is UV stabilized to protect against warping or discoloration.

IEC Group

Color Coded

Color coded by voltage for quick identification to prevent mis-matching connection.

Solid Brass Pins

Low contact resistance, high corrosion resistance and excellent conductivity for long lasting, reliable electrical contact.

Split Contact Sleeve With Nickel Plated Steel Spring

Provides optimum insertion/withdraw force and constant contact pressure.

Connector Plug Pins

Double Terminal Screws

Provides safe and secure contact between conductor and terminal. Screws are captive, easily accessible and supplied in the OPEN position.

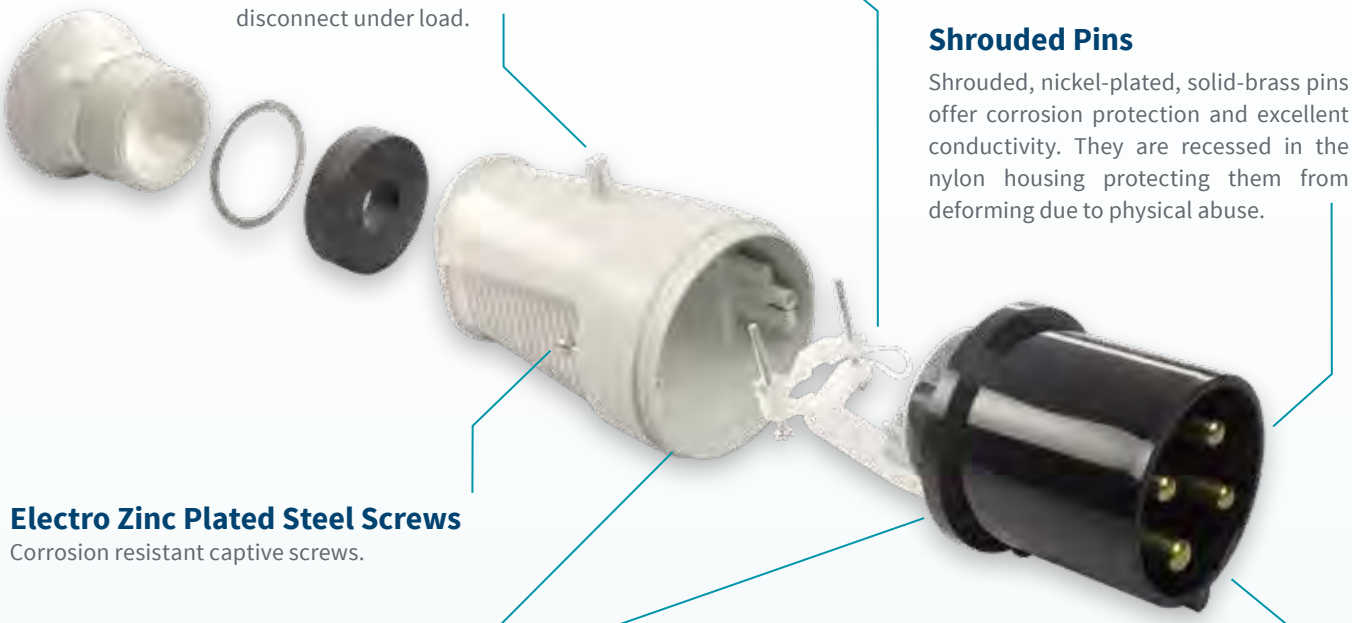
Chamfered Terminals

Transitional edge creates a funnel entry to guide wire stands for ease of installation.

Internal Strain Relief
Designed to firmly grip not only the outer cable jacket but also the internal conductors. Eliminates strain on the terminals while providing high pull-out values. “Swing-Away” feature provides easy access to terminal screws.

Retaining Device
Holds sleeve connector lid in place to help prevent accidental disconnect under load.

Shrouded Pins
Shrouded, nickel-plated, solid-brass pins offer corrosion protection and excellent conductivity. They are recessed in the nylon housing protecting them from deforming due to physical abuse.



Plug 261405 exploded to show features

Electro Zinc Plated Steel Screws
Corrosion resistant captive screws.

Locking Ring Gasket
Protects against intrusion of dirt, dust and moisture when the pin and sleeve devices are connected.

Staggered Contacts
Oversized ground contact is furthest forward, assuring first to mate - last to break. Neutral is next to prevent the possibility of an open netural condition. Phase contact is farthest making it last to mate - first to break for added safety.

First Make/Last Break (FMLB)
Connectors ensure the ground path is established before any other power or signal connections are made preventing making or breaking the circuit under load.

635306

Clock Position (Earth Ground)
Position of earth ground contact pin with respect to the sleeve keyway groove.

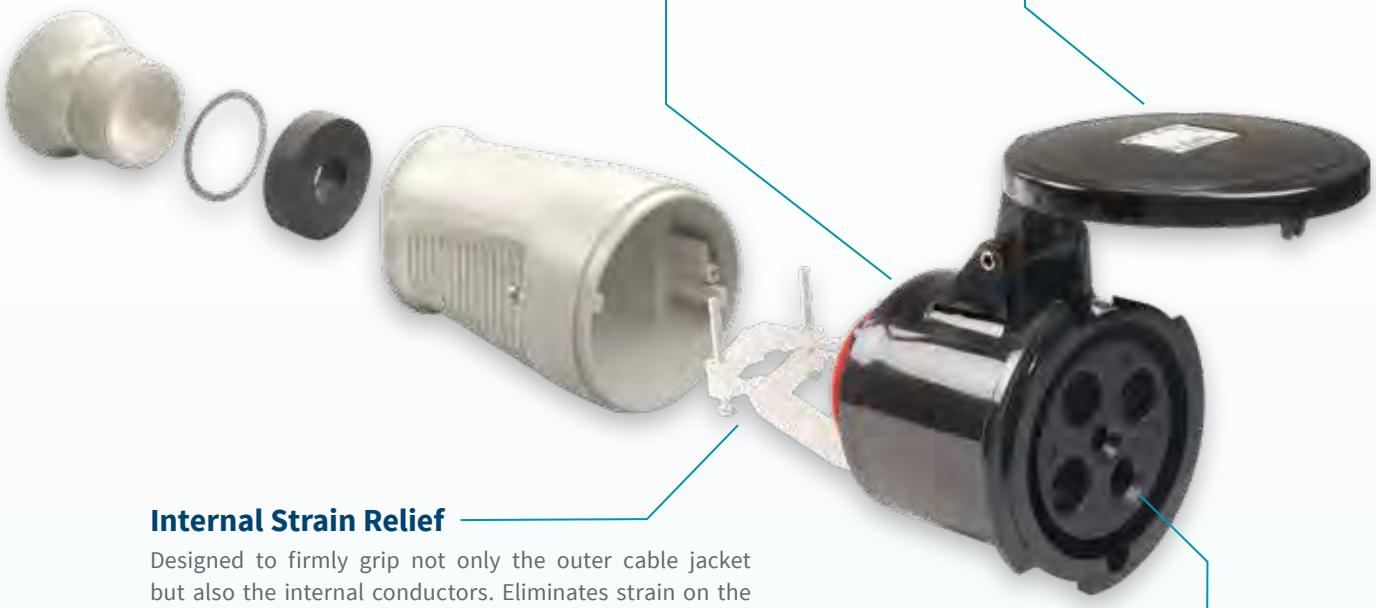
Keyway

Spring Loaded Gasketed Cover

Snaps into place when the plug is removed. Protects against encounter with live contacts while keeping out dirt, dust and moisture.

Terminal Identification

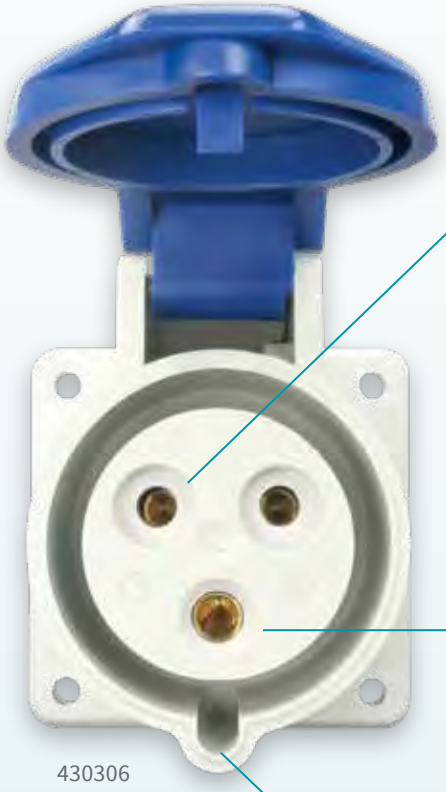
Ground, neutral and phase terminals are clearly identified for easy recognition and ease of wiring.



Connector 361405 exploded to show features

Internal Strain Relief

Designed to firmly grip not only the outer cable jacket but also the internal conductors. Eliminates strain on the terminals while providing high pull-out values. “Swing-Away” feature provides easy access to terminal screws.



430306

Recessed Contacts

Contact sleeves are recessed in the narrow contact tubes protecting against any accidental encounter with live contacts.

First Make/Last Break (FMLB)

Connectors ensure the ground path is established before any other power or signal connections are made preventing making or breaking the circuit under load.

Clock Position (Earth Ground)

Position of earth ground contact sleeve with respect to the sleeve keyway groove.

Keyway Groove

Materials, plastics and metals used:

CEEtyp plug and socket enclosures and contact carriers are made of high-quality halogen and cadmium-free plastics and are suitable for temperature ranges from -25°C to +100°, including contact heating. The plastics used are certified according to UL-94 and are self-extinguishing or non-flammable.

CEEtyp plug and socket contacts are machined from solid brass and can be nickel-plated to provide extra corrosion resistance without sacrificing electrical conductivity. Steel parts, like screws and springs, are galvanized and blue chromed or nickel-plated making them corrosion-resistant while increasing longevity.

The terminal cross sections are designed according to IEC/EN 60309-2 table 107. The contact may heat up by + 50 K to the initial temperature under test conditions according to table 8.

Rated conductor cross-sections:

Nominal values of the plugs and sockets			Internal connections [1]						External connections (if available)		
Voltage	Rated current		Cables for plugs and couplers, single or multi-wire cables for appliance inlets [2]			Single or multi-wire cables for sockets [2]					
V	A										
	Series I	Series II	mm²	AWG	Terminal size	mm²	AWG	Terminal size	mm²	AWG	Terminal size
up to 50	16	20	4 - 10	12 - 8	6	4 - 10	12 - 8	5			
	32	30	4 - 10	12 - 8	6	4 - 10	12 - 8	5			
over 50	16	20	1 - 2.5	16 - 12	2	1.5 - 4	16 - 12	33	6	10	4
	32	30	2.5 - 6	14 - 10	5	2.5 - 10	14 - 8	5	10	8	5
	63	60	6 - 16	10 - 6	7	6 - 25	10 - 4	7	25	4	7
	125	100	16 - 50	6 - 2	9 [4]	25 - 70	4 - 0	9 [4]	25	4	7

Source: IEC/EN 60309-2, Table 107

Preferred rated current series I/II		Test current	Cross-sections of the conductors			
			Plug, appliance inlet and coupler		Sockets	
Duration	A	A	mm²	AWG	mm²	AWG
1 h	16 / 20	22	2.5 [5]	13	4 [5]	11
1 h	32 / 30	42	6 [5]	10	10	7
2 h	63 / 60	Rated current	16	5	25	3
2 h	125 / 100	Rated current	50	1 / 0	70	2 / 0

Source: IEC/EN 60309-1, Table 8

[1] Connection terminals for pilot conductors, if present, must permit the connection of conductors with the same nominal cross-sections as the inner connection terminals of 16A plugs and sockets with rated operating voltages over 50V.

[2] Classification of cables: According to HD 383 S2 § 2 solid (class 1); multi-wire (class 2); flexible (class 5).

[3] For socket terminals, terminal size 2.

[4] Compliance with terminal size 9 is temporarily not required.

[5] The values are increased to 10 for plugs and sockets up to 50V rated operating voltage.

The plastics have a varying chemical resistance depending on the design.

The subdivision usually takes place in three simple categories:

Chemical Resistance:

The material retains its unchanged characteristic mechanical (e.g. strength), physical (e.g. coloring) and chemical (e.g. composition) properties, despite any long-term contact with the chemical substance to be tested. Since this ideal state virtually never occurs, the material being tested is still considered “resistant” due to a very slow rate of degradation.

Conditional Chemical Resistance:

The material retains its characteristic properties for a limited time span acceptable for the purpose or within specific limits of the application conditions.

Chemically Unstable:

The material loses its characteristic properties (see previous) within a very short period of time or faster than the intended use allows. For example, some adhesives utilize the chemical instability of plastics towards a solvent by causing the material to partially dissolve in the area of the adhesive area (loss of mechanical strength), thereby allowing the material to mix with both adhesive parts. Once the solvent has evaporated, the adhesive area hardens again, resulting in a strong connection. However, the plastic would be completely unsuitable for building a container for the solvent in question.

For overview tables of chemical resistance of materials, see the following pages ►

Figure: Use of a chemically-resistant socket combination in the laboratory.

Chemical Resistance	Thermoplastics			Elastomers			Metals		
2 values are specified for each medium left number = value at 20°C right number = value at 50 °C	**Polycarbonate** PC	**Polyamide** PA	**Polystyrene** PS	**Ethylene-propylene Terpolymer** EPDM	**Fluoro polymer** (Viton) FPM/KFM	**Nitrile rubber** NBR	**Aluminum** Al	**Stainless steel** 1.4301 (AISI 304)	**Stainless steel** 1.4401 (AISI 316)
1. Hydrocarbons									
Hexane, n-	(2)	1/0	4/4	4/4	1/1	1/1	1/1	1/1	1/1
Gasoline, aromatic	3/3	1/0	4/4	4/4	(1-3)	3/0	1/1	1/1	1/1
Heating oil	3/3	1/0	3/4	4/4	1/1	1/1	1/1	1/1	1/1
Benzene	4/4	2/0	4/4	4/4	3/3	4/4	1/1	1/1	1/1
Naphthalene	(3)	1/0	3/4	4/4	1/1	4/4	1/1	1/1	1/1
Nitrobenzene	4/4	4/4	4/4	4/4	4/4	4/4	(1)	1/1	1/1
Toluene	4/4	1/0	4/4	4/4	3/3	4/4	1/1	1/1	1/1
2. Alcohols									
Ethyl alcohol, 40%	1/2	1/0	2/3	1/0	1/0	1/1	1/1	1/1	1/1
Ethyl alcohol, 50%	1/1	1/0	1/0	1/0	(2)	1/1	1/1	1/1	1/1
Ethyl alcohol, 96%	1/3	1/0	3/4	1/0	3/0	3/3	1/1	1/1	1/1
Isopropanol	1/2	1/0	4/4	1/0	1/1	3/3	(2)	(1)	(1)
Phenol 10%	4/4	4/4	4/4	4/4	2/3	4/4	1/1	1/2	1/1
Phenol 100%	4/4	4/4	4/4	4/4	3/0	4/4	1/1	1/2	1/1
Glycol	(2)	(3)	4/4	3/0	4/4	4/4	(1)	(1)	(1)
Ethylene glycol	(2)	(3)	4/4	3/0	4/4	4/4	(1)	(1)	(1)
Glycerol	3/3	1/0	1/1	1/0	1/1	1/0	1/1	1/1	1/1
3. Ketone									
Acetone	4/4	1/0	4/4	1/0	4/4	4/4	1/1	1/1	1/1
Methyl isobutyl ketone	4/4	(2)	4/4	3/0	4/4	4/4	(1)	(1)	(1)
Methyl isopropyl ketone	4/4	(2)	4/4	3/0	4/4	4/4	(1)	(1)	(1)
4. Acids (max. conc.)									
Nitric acid (1-10%)	1/2	4/4	2/4	2/0	1/1	4/4	3/4	1/1	1/1
Nitric acid (50%)	4/4	4/4	4/4	4/4	1/0	4/4	4/4	1/2	1/2
Nitric acid (66%)	4/4	4/4	4/4	4/4	1/0	4/4	4/4	1/2	1/2
Nitric acid (100%)	4/4	4/4	0/0	4/4	4/4	4/4	1/1	2/3	3/3
Nitric acid (70%)	4/4	4/4	4/4	4/4	2/3	4/4	4/4	1/2	1/2
Hydrochloric acid (1-5%)	1/1	4/4	1/1	1/0	1/1	3/4	4/4	4/4	4/4
Hydrochloric acid (35%)	4/4	4/4	3/3	3/0	1/2	4/4	4/4	4/4	4/4
Hydrochloric acid (conc.)	4/4	4/4	3/3	3/0	1/2	4/4	4/4	4/4	4/4
Hydrochloric acid (20%)	2/3	4/4	1/1	1/0	1/1	4/4	4/4	4/4	4/4
Phosphoric acid (30%)	1/0	4/4	1/1	1/0	1/1	3/3	4/4	1/3	1/2
Phosphoric acid (85%)	1/2	4/4	1/2	3/0	1/1	4/4	4/4	2/4	1/3
Phosphoric acid (1-5%)	1/1	(3)	2/2	1/0	1/1	2/3	(4)	1/1	1/1
Phosphoric acid (20%)	(2)	4/4	0/0	1/0	1/1	3/3	4/4	1/3	1/2
Sulfuric acid (40%)	2/0	4/4	2/0	(3)	1/1	4/4	3/4	2/3	2/3
Sulfuric acid (60%)	3/3	4/4	2/4	4/4	1/1	4/4	4/4	4/4	3/4
Sulfuric acid (80%)	3/4	4/4	3/4	4/4	1/1	4/4	4/4	2/4	2/3
Sulfuric acid (95%)	4/4	4/4	4/4	4/4	1/1	4/4	4/4	1/3	1/3
Sulfuric acid (fuming)	4/4	4/4	4/4	4/4	1/0	4/4	(3)	1/2	1/1
Sulfuric acid (1-6%)	1/1	4/4	1/2	1/0	1/1	3/0	(3)	2/2	1/2
Sulfuric acid (20%)	1/2	4/4	1/2	2/0	1/1	4/4	(3)	2/3	2/3
Citric acid (10%)	1/2	1/1	1/2	1/0	1/1	1/1	1/0	1/1	1/1
Citric acid (50%)	1/0	3/0	1/0	1/0	(1)	1/1	1/0	1/3	1/2
Citric acid (saturated)	1/0	3/0	1/1	1/0	(1)	1/1	1/0	1/3	1/2
Lactic acid (3%)	1/0	1/2	2/2	3/4	1/1	(2)	(1)	1/1	1/1
Lactic acid (80%)	0/0	1/2	1/1	3/4	1/1	1/4	1/0	1/3	1/2
Lactic acid (85%)	0/0	1/2	2/2	3/4	1/1	1/4	1/0	1/3	1/2
Acetic acid (50%)	1/2	4/4	2/2	4/4	4/4	4/4	1/3	1/1	1/1
Acetic acid (100%)	4/4	4/4	0/0	4/4	4/4	4/4	1/3	1/2	1/2
Acetic acid (90%)	4/4	4/4	4/4	4/4	4/4	4/4	1/3	1/2	1/2
Acetic acid (10%)	1/2	4/4	1/1	(2)	(3)	3/3	1/3	1/1	1/1
Acetic acid (5%)	1/2	4/4	1/1	1/0	3/3	3/3	1/3	1/2	1/1
Oleic acid (technically pure)	1/0	1/0	1/3	4/4	2/2	3/0	1/1	1/1	1/1

Chemical Resistance	Thermoplastics			Elastomers			Metals		
2 values are specified for each medium left number = value at 20°C right number = value at 50 °C	Polycarbonate PC	Polyamide PA	Polystyrene PS	Ethylene-propylene Terpolymer EPDM	Fluoro polymer (Viton) FPM/KFM	Nitrile rubber NBR	Aluminum Al	Stainless steel 1.4301 (AISI 304)	Stainless steel 1.4401 (AISI 316)
5. Bases									
Aniline	4/4	3/4	4/4	4/4	2/4	4/4	1/0	1/0	1/0
Sodium hydroxide solution (conc.)	4/4	1/3	0/0	1/0	4/4	3/4	4/4	(2)	1/3
Sodium hydroxide solution (30%)	4/4	1/0	1/0	1/0	(3)	2/3	4/4	1/3	1/3
Sodium hydroxide solution (45%)	4/4	1/0	1/1	1/0	2/4	2/3	4/4	1/3	1/3
Sodium hydroxide solution (50%)	4/4	1/0	2/2	1/0	3/4	3/3	4/4	1/3	1/3
Sodium hydroxide solution (60%)	4/4	1/0	1/0	1/0	3/4	2/3	4/4	1/3	1/3
Sodium hydroxide solution (41%)	4/4	1/0	2/2	1/0	1/1	1/3	(4)	1/1	1/1
Ammonium hydroxide	1/1	1/1	2/2	1/0	1/1	1/3	(4)	1/1	1/1
6. Halogens									
Bromine	4/4	4/4	4/4	4/4	(2-4)	4/4	(4)	4/4	4/4
Chlorine (10%) wet	2/3	4/4	4/4	2/0	3/0	4/4	4/4	4/4	4/4
Chlorine (97%)	4/4	4/4	4/4	4/4	1/1	4/4	(3)	1/0	1/0
Tincture of iodine	3/4	4/4	3/3	2/0	1/1	3/3	1/0	2/0L	1/0L
7. Oils, greases									
Soybean oil	(1)	(2)	0/0	4/4	1/1	1/0	(1)	1/1	1/1
Olive oil	(2)	(2)	1/1	4/4	1/1	1/1	1/1	1/1	1/1
Vegetable oils	(2)	0/0	0/0	4/4	1/0	1/0	(1)	1/1	1/1
8. Saline solutions									
Potassium carbonate, saturated	3/3	1/1	1/1	1/0	1/0	1/1	4/4	1/1	1/1
Calcium carbonate, aqueous	1/0	1/1	0/0	1/0	1/0	1/1	4/4	1/1	1/1
Sodium thiosulfate, any	(2)	1/0	0/0	1/0	1/0	3/3	1/1	1/1	1/1
Sodium thiosulfate, saturated	(1)	1/0	1/1	1/0	1/1	2/3	1/1	1/1	1/1
Sodium thiosulfate, aqueous	(1)	1/0	0/0	1/0	1/1	1/0	1/1	1/1	1/1
Sodium hypochlorite, diluted	(3)	4/4	1/3	3/0	1/3	4/4	4/4	3/3	L2/2L
Sodium hypochlorite (15%)	2/3	4/4	1/3	3/0	1/3	4/4	4/4	3/3L	2/2L
Sodium hypochlorite, saturated	2/3	4/4	1/3	3/0	1/3	4/4	4/4	3/3L	2/2L
Sodium hypochlorite (12.5%) CL	2/3	4/4	1/3	3/0	1/3	4/4	4/4	3/3L	2/2L
Sea water	1/1	1/0	1/1	1/1	1/1	1/1	3/4	1/3L	1/2L
9. Cleaning agents									
Soap solution, every	(2)	4/4	0/0	1/0	1/1	1/1	(3)	1/1	1/1
Washing detergent, e.g. Persil	1/0	1/1	0/0	1/0	1/1	(2)	1/1	1/1	1/1
Surfactants, wetting agents (5%)	(2)	(2)	0/0	(2)	(2)	(2)	0/0	K	K
10. Other media									
Diethyl ether, ethyl ether techn. pure	4/4	1/1	4/4	4/4	4/4	4/4	1/1	1/1	1/1
Urea, aqueous	1/1	1/0	0/0	1/0	1/1	1/1	1/1	1/0	1/0
Urea	1/1	1/0	1/2	1/0	1/1	1/1	1/1	1/0	1/0
Trichloroethylene, 100%	4/4	3/0	4/4	4/4	1/3	4/4	1/3	1/1L	1/1L
Hydrogen peroxide (30%)	4/4	1/2	1/2	3/0	1/1	4/4	(3)	1/1	1/1
Hydrogen peroxide (100%)	4/4	1/4	4/4	(3)	(2)	4/4	(3)	(1)	(1)
Hydrogen peroxide (90%)	4/4	1/2	1/2	3/0	1/3	4/4	(3)	1/1	1/1
Hydrogen peroxide (3%)	(3)	1/1	1/2	1/0	1/0	4/4	(3)	1/1	1/1

LEGEND

No information available / no statement possible	0	Not resistant	4
Very good resistance / suitable	1	No general information possible	K
Good resistance / suitable	2	Danger of pitting or stress cracking corrosion	L
Limited resistance	3	Estimated value	( )

In countries where series II devices are used, the color orange is reserved for devices for 125/250V~ and the color gray is reserved for devices for 277V~.

In general, CEE plugs and sockets can be plugged and disconnected under load. However, interrupting the circuit can lead to a switch arc between the male and female contacts. This can not only lead to an increased wear of the contacts, but also be a potential danger for people. That is why a pilot contact can optionally be provided for a current of 63A or more. The pilot contact is shorter than all the other contacts and therefore interrupts the system's control circuit first when pulled under load, ensuring the load is shut down. The load circuit is thus shut down before the contacts shut it down.

However, it is also possible to plug and pull the CEE plugs and sockets while the contacts are under load. The plugs and sockets also have sufficient switching capacity to be able to switch load currents. The testing occurs according to the standard IEC/EN 60309-1. Testing is carried out at 1.1-times the rated voltage, 1.25-times the rated current, the cos phi table 6, with a pull-off speed of 0.8 ± 0.1 m/s at 7.5 position changes per minute. After testing, no further damage that impairs further use may be visible.

Switching capacity:

Rated current A			Number of cycles		
Preferred rated values		Other rated values	AC		DC
Series I	Series II	Range	cos ϕ ±0.05	underload	underload
16	20	up to 29	0.6	50	50
32	30	30 to 59	0.6	50	50
63	60	60 to 99	0.6	20	20
125	100	100 to 199	0.6	20	20

Source: IEC/EN 60309-1, Table 6

Plugs and sockets that do not pass the test for switching capacity and behavior in use must have a locking mechanism. Locking mechanisms must interact with the control gear so that the plug can neither be withdrawn from the socket or the coupler while the contacts remain under voltage nor inserted while the control gear is switched on. You can distinguish between two versions:

1. Mechanical locking mechanism
Sockets with a switch. The control gear installed must have a switching capacity according to the use category AC 22 A IEC/EN 60 947-3 table 2. Sockets for DC voltage must be equipped with a switching device suitable for its use. CEEtyp wall sockets have a dual locking mechanism, which means the switch can only be inserted once the plug is inserted in the socket.

2. Electrical locking mechanism
The pre-mating/lagging pilot contact when connecting the plug for 63 A and when withdrawing the plug for 125 A actuates a control gear, thereby preventing a connection or disconnection when voltage is present. The built-in control gear must at minimum have the switching capacity of the switching capacity-tested plugs and sockets and pass the "behavior in use."

Plugs and sockets must withstand the mechanical, electric and thermal stresses occurring during proper use without extraordinary wear or other harmful impacts. The testing is done in accordance to the IEC/EN 60309-1, table 7 standard and is carried out at rated voltage and rated current.

Behavior in use:

Rated current A			Number of cycles at 7.5 position changes per minute				
Preferred rated values		Other rated values	AC			DC Induction-free	
Series I	Series II	Range	cos ϕ ±0.05	underload	without load	underload	without load
16	20	up to 29	0.6	5000	-	5000	-
32	30	30 to 59	0.6	1000	1000	1000	1000
63	60	60 to 99	0.6	1000	1000	500	500
125	100	100 to 199	0.7	250	250	250	250

Source: IEC/EN 60309-1, Table 7

Power supply systems according to the ground connection:

Extract from DIN VDE 0100-100:2009-06	
The abbreviations used have the following meanings:	
First letter: Relation of the power supply system to the earth:	
T	Direct connection on a point to the earth
I	Either all active parts are separated from the earth or a point is connected to earth via a high impedance
Second letter: Relationship of body (from electric equipment) of the electrical system to earth:	
T	Direct electrical connection of the body (of electrical equipment) to earth, regardless of any existing earthing of a point of the supply system
N	Direct electrical connection of the body (of electrical equipment) with the earthed point of the power supply system (in alternating current systems, the earthed point of the power supply system in general is the neutral point or, if a neutral point is not present, an external conductor)
Other letters (if present): Arrangement of the neutral conductor and the protective conductor:	
S	Protective function provided by a conductor separated from the neutral conductor or from the earthed external conductor
C	Neutral conductor and protective conductor function, combined in a single conductor (PEN conductor)

Explanation of symbols according to DIN EN 60617	
	Neutral conductor (N): mid-point conductor (M)
	Protective conductor (PE)
	Combined protective and neutral conductor (PEN)

Source: DIN / VDE 0100-100:2009-06

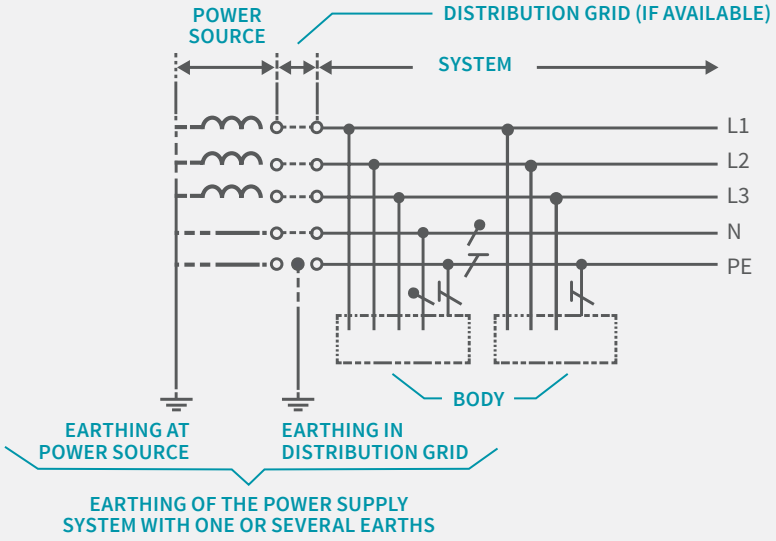
Dual Utility Pedestal with Compact Mechanical Interlock

TN Systems (3 different types)

In the TN supply system, a point is earthed directly. Electrical operating equipment of the electrical system is connected to this point via protective conductors.

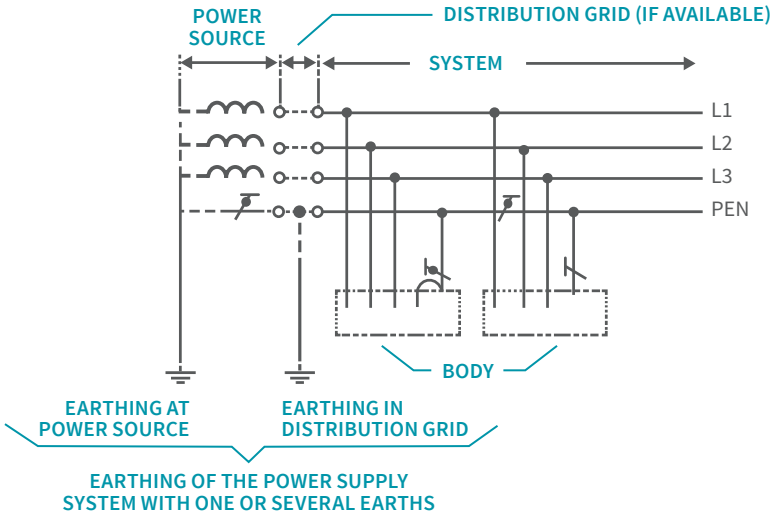
TN-S Systems

This type of grid is safer than the TN-C system. The problems which can result from an interrupted neutral conductor do not occur here. The protective measure is still guaranteed, however, the application is not used too often.



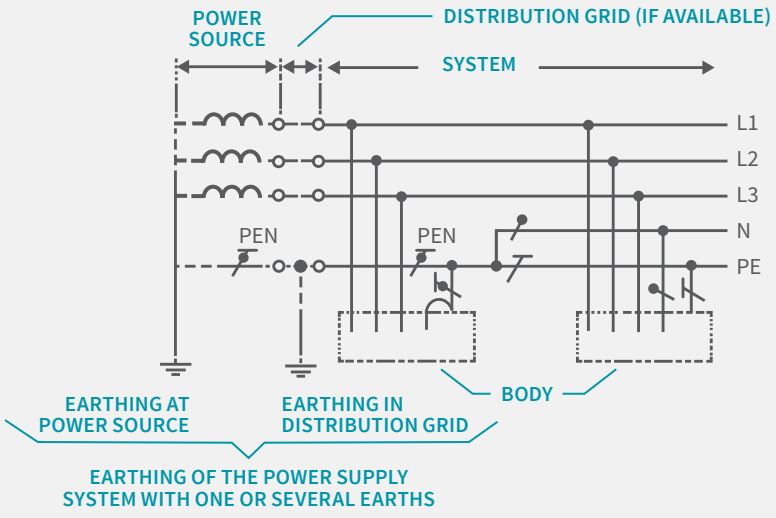
TN-C Systems

The TNC grid is the standard type of network for distributing electricity to the end consumer. It is realized at the last transformer that produces the 400 V level. It is then routed to the meter panel in the domestic connection box, where it is separated into a TNS grid with separate new protective conductors.

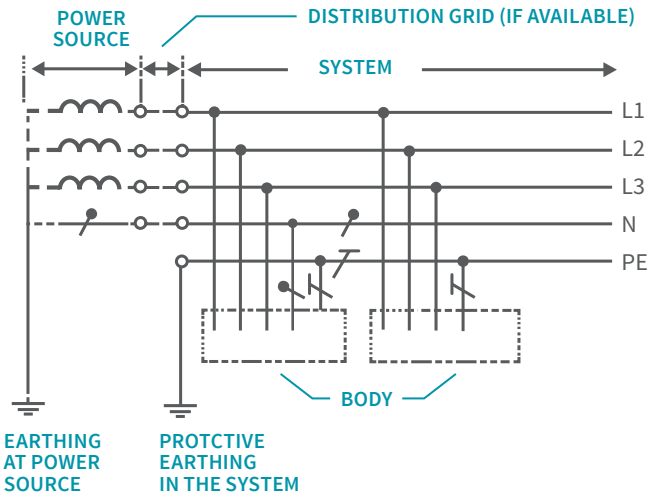


TN-C-S Systems

For example, this system is widely used for home power supply systems in Germany. The separation of protective conductors and neutral conductors usually occurs in the switch cabinet.

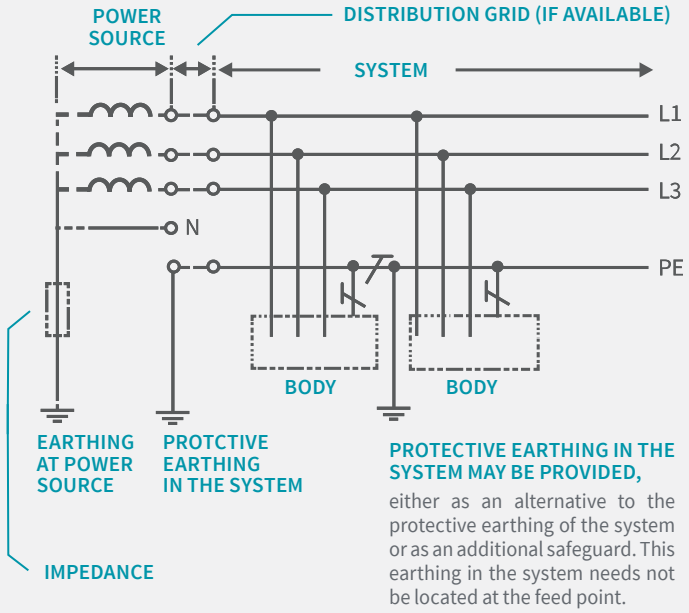


TT & IT Grid Types



TT Systems

In the TT supply system, only one point is earthed directly and the electric operating equipment of the electrical system is connected with earths, which are independent of the earth supply system. The neutral conductor does not have a protective function. The user must have its own earth where the protective ground can be realized. The earth transition resistance are therefore very low and difficult to reach. With trains, it often has to be operated to avoid feedback effects from the 162/3Hz grid on the 50 Hz grid. Due to the problematic earthing conditions, the protective measure to earth is limited to 6-A circuits. If you want stronger circuit protection you must rely on the residual current protection circuit. The tripping current of the residual current circuit also depends on the earthing conditions.



PROTECTIVE EARTHING IN THE SYSTEM MAY BE PROVIDED,

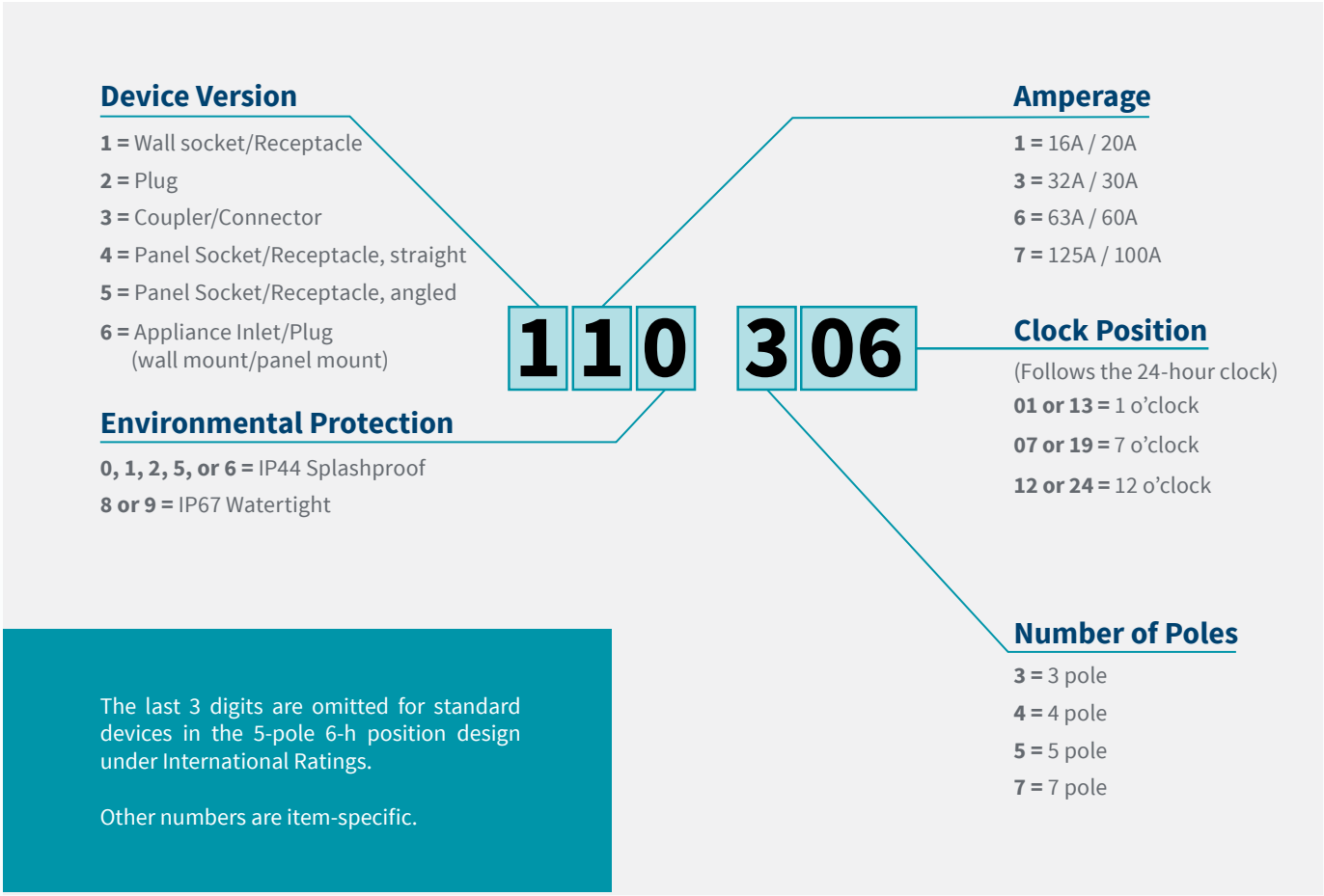
either as an alternative to the protective earthing of the system or as an additional safeguard. This earthing in the system needs not be located at the feed point.

IT Systems

In the IT supply system, all active parts are separated from the earth or a point is connected to earth via a high impedance. The electrical operating equipment of the electrical system is either earthed individually, earthed together, or is connected together with the system earthing. For example, this type of grid is used in workshops for systems and vehicles to be repaired, so that no accident occurs in the event of the first fault. They are also used in hospitals and on ships because of their increased reliability. The three-phase current systems for auxiliary operations of Deutsche Bahn locomotives also work with an IT grid so that train travel can still be terminated in the event of a fault.

IEC Conduit Full Assembly

IEC 330306



Approvals

A distinction is made between three different approval tests worldwide:

National test:

An electro-technical device is set up for testing in just one country and may only bare the test mark of the respective country after passing the test.

European test:

The national testing authorities of the European countries have founded a European Committee for Electrotechnical Standardization called CENELEC (Comité Européen de Normalisation Electrotechnique).

Compliant with the Low Voltage Directive: All member states are required to convert the standards (European Standards (EN)) developed from CENELEC into national standards without amendment. This applies to Belgium, Denmark, Germany, Finland, France, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Austria, Portugal, Sweden, Switzerland, Spain and the United Kingdom. Once the test has been passed according to EN standards in one of the aforementioned countries, a CCA test report is created that can be used in each country to apply for the corresponding national test mark.

Globally applicable test:

All countries in the world have an interest in producing goods that are as interchangeable as possible due to the close trade relations. This is why the IEC (IEC = International Electrotechnical Commission) was constituted. The commission develops IEC standards that countries that are members of the IEC use for testing. After the testing is passed, a CB test report is created that can also be used to apply for the national test mark.

CE
Compliant with the Low Voltage Directive

WALTHER products have the most important test mark worldwide.

UL LISTED
USA

CSA CERTIFIED
USA / Canada

EN 10 DVE
Germany/Europe

CCC
China

EAC
Russia

NORTH AMERICAN RATINGS

IEC 60309 Family

PLUGS

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

UL LISTED

CSA CERTIFIED


218409


211306


210306


216306

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland	Trumpet/ Bell Gland	Flexible Cable Sleeve	Angled 90°
Reference Drawing: (pp. 96-111)				PLG-E	PLG-G	PLG-H	PLG-J
3	2P + G	250 DC ⊣|+	03	219315*	211315*	210315*	216315*
	1P + N + G	125	04	219316	211316	210316	216316
	2P + G	250	06	219306	211306	210306	216306
	1P + N + G	277	05	219317	211317	210317	216317
	2P + G	480	07	219319	211319	210319	216319
4	2P + N + G	3ø 125/250	12	218424	212424	210424	216424
	3P + G	3ø 250	09	218409	212409	210409	216409
	3P + G	3ø 480	07	218419	212419	210419	216419
	3P + G	3ø 600	05	218405	212405	210405	216405
5	3P + N + G	Barge Overflow	01	218501BL*†	-	-	-
	3P + N + G	3øY 120/208	09	218509	212509	210509	216509
	3P + N + G	3øY 277/480	07	218519	212519	210519	216519
	3P + N + G	3øY 347/600	05	218505	212505	210505	216505
Reference Drawing: (pp. 96-111)				-	-	PLG-I	-
7	6P + G	250	09	-	212709*	210709*	-
	6P + G	480	07	-	212719*	210719*	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
† BL devices are US Coast Guard required as per 46CFR Ch. 1, 39.20-9.

CONNECTORS (Couplers)

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

UL LISTED

CSA CERTIFIED


318409


311306


310306


316306

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland	Trumpet/ Bell Gland	Flexible Cable Sleeve	Angled 90°
Reference Drawing: (pp. 96-111)				CONN-E	CONN-F	CONN-G	CONN-I
3	2P + G	250 DC ⊣|+	03	319315*	311315*	310315*	316315*
	1P + N + G	125	04	319316	311316	310316	316316
	2P + G	250	06	319306	311306	310306	316306
	1P + N + G	277	05	319317	311317	310317	316317
	2P + G	480	07	319319	311319	310319	316319
4	2P + N + G	3ø 125/250	12	318424	312424	310424	-
	3P + G	3ø 250	09	318409	312409	310409	-
	3P + G	3ø 480	07	318419	312419	310419	-
	3P + G	3ø 600	05	318405	312405	310405	-
5	3P + N + G	Barge Overflow	01	318501BL*†	-	-	-
	3P + N + G	3øY 120/208	09	318509	312509	310509	-
	3P + N + G	3øY 277/480	07	318519	312519	310519	-
	3P + N + G	3øY 347/600	05	318505	312505	310505	-
Reference Drawing: (pp. 96-111)				-	-	CONN-H	-
7	6P + G	250	09	-	312709*	310709*	-
	6P + G	480	07	-	312719*	310719*	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
† BL devices are US Coast Guard required as per 46CFR Ch. 1, 39.20-9.

RECEPTACLES (Panel Sockets)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Angled 15°	Angled 80°	Straight	Angled 15°	Angled 80°
				419306	519306	518306	410306	510306	514306
Reference Drawing: (pp. 96-111)				REPT-A	REPT-F	REPT-J	REPT-C	REPT-H	REPT-K
3	2P + G	250 DC ⊣|+	03	419315	519315	518315	410315	510315	514315
	1P + N + G	125	04	419316	519316	518316	410316	510316	514316
	2P + G	250	06	419306	519306	518306	410306	510306	514306
	1P + N + G	277	05	419317	519317	518317	410317	510317	514317
	2P + G	480	07	419319	519319	518319	410319	510319	514319
4	2P + N + G	3ø 125/250	12	419424	519424	518424	410424	510424	514424
	3P + G	3ø 250	09	419409	519409	518409	410409	510409	514409
	3P + G	3ø 480	07	419419	519419	518419	410419	510419	514419
	3P + G	3ø 600	05	419405	519405	518405	410405	510405	514405
5	3P + N + G	Barge Overflow	01	419501BL*†	519501BL*†	518501BL*†	-	-	-
	3P + N + G	3øY 120/208	09	419509	519509	518509	410509	510509	514509
	3P + N + G	3øY 277/480	07	419519	519519	518519	410519	510519	514519
	3P + N + G	3øY 347/600	05	419505	519505	518505	410505	510505	514505
Reference Drawing: (pp. 96-111)				-	-	-	REPT-D	-	REPT-L
7	6P + G	250	09	-	-	-	411709*	-	514709*
	6P + G	480	07	-	-	-	411719*	-	514719*

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
† BL devices are US Coast Guard required as per 46CFR Ch. 1, 39.20-9.

INLETS (Appliance Plug)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Angled 80°	Surface Mount	Straight	Angled 80°	Surface Mount
				619306	618306	615306	611306	616409
Reference Drawing: (pp. 96-111)				INL-D	INL-G	INL-B	INL-E	INL-J
3	2P + G	250 DC ⊣|+	03	619315	618315	615315	611315	-
	1P + N + G	125	04	619316	618316	615316	611316	-
	2P + G	250	06	619306	618306	615306	611306	-
	1P + N + G	277	05	619317	618317	615317	611317	-
	2P + G	480	07	619319	618319	615319	611319	-
4	2P + N + G	3ø 125/250	12	619424	618424	615424	611424	616424
	3P + G	3ø 250	09	619409	618409	615409	611409	616409
	3P + G	3ø 480	07	619419	618419	615419	611419	616419
	3P + G	3ø 600	05	619405	618405	615405	611405	616405
5	3P + N + G	Barge Overflow	01	619501BL*†	618501BL*†	-	-	-
	3P + N + G	3øY 120/208	09	619509	618509	615509	611509	616509
	3P + N + G	3øY 277/480	07	619519	618519	615519	611519	616519
	3P + N + G	3øY 347/600	05	619505	618505	615505	611505	616505
Reference Drawing: (pp. 96-111)				-	-	-	INL-F	-
7	6P + G	250	09	-	-	615709*	611709*	616709*
	6P + G	480	07	-	-	615719*	611719*	616719*

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
† BL devices are US Coast Guard required as per 46CFR Ch. 1, 39.20-9.

PLUGS

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


239306


238409


230306


231306


236306

Poles	Number of Wires (N=Neutral / G=Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	External Cable Gland	Trumpet/ Bell Gland	External Cable Gland	Trumpet/ Bell Gland	Angled 90°
Reference Drawing: (pp. 96-111)				PLG-A	-/-	PLG-C	PLG-G	PLG-J
3	2P + G	250 DC	03	239315	-	230315	231315	236315
	1P + N + G	125	04	239316	-	230316	231316	236316
	2P + G	250	06	239306	-	230306	231306	236306
	1P + N + G	277	05	239317	-	230317	231317	236317
	2P + G	480	07	239319	-	230319	231319	236319
4	2P + N + G	3ø 125/250	12	-	238424	230424	232424	236424
	3P + G	3ø 250	09	-	238409	230409	232409	236409
	3P + G	3ø 380/440	03	-	238403‡	-	-	-
	3P + G	3ø 480	07	-	238419	230419	232419	236419
	3P + G	3ø 600	05	-	238405	230405	232405	236405
5	3P + N + G	3øY 50-600 400Hz	02	-	238502	230502	232502	236502
	3P + N + G	3øY 120/208	09	-	238509	230509	232509	236509
	3P + N + G	3øY 400	06	-	238	-	232	-
	3P + N + G	3øY 277/480	07	-	238519	230519	232519	236519
	3P + N + G	3øY 347/600	05	-	238505	230505	232505	236505
Reference Drawing: (pp. 96-111)				-	-	-	PLG-I	-
7	6P + G	250	09	-	-	230709*	232709*	-
	6P + G	480	07	-	-	230719*	232719*	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
‡ Only for refridgerated containers. Supplied with Stainless steel assembly screws and friction ring.
NOTE: For 30A 5 Wire applications – If the design calls for 5C/8AWG, the 238 series trumpet/bell gland back shell MUST be used.

CONNECTORS (Couplers)

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


339306


338409


330306


331306

Poles	Number of Wires (N=Neutral / G=Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	External Cable Gland	Trumpet/ Bell Gland	External Cable Gland	Trumpet/ Bell Gland
Reference Drawing: (pp. 96-111)				CONN-A	CONN-E	CONN-C	CONN-F
3	2P + G	250 DC	03	339315	-	330315	331315
	1P + N + G	125	04	339316	-	330316	331316
	2P + G	250	06	339306	-	330306	331306
	1P + N + G	277	05	339317	-	330317	331317
	2P + G	480	07	339319	-	330319	331319
4	2P + N + G	3ø 125/250	12	-	338424	330424	332424
	3P + G	3ø 250	09	-	338409	330409	332409
	3P + G	3ø 380/440	03	-	338403‡	-	-
	3P + G	3ø 480	07	-	338419	330419	332419
	3P + G	3ø 600	05	-	338405	330405	332405
5	3P + N + G	3øY 50-600 400Hz	02	-	338502	330502	332502
	3P + N + G	3øY 120/208	09	-	338509	330509	332509
	3P + N + G	400	06	-	338	-	332
	3P + N + G	3øY 277/480	07	-	338519	330519	332519
	3P + N + G	3øY 347/600	05	-	338505	330505	332505
Reference Drawing: (pp. 96-111)				-	-	-	-
7	6P + G	250	09	-		330709*	332709*
	6P + G	480	07	-		330719*	332719*

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
‡ Only for refridgerated containers. Supplied with Stainless steel assembly screws and friction ring.

RECEPTACLES (Panel Sockets)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CERTIFIED


439306


539306


538306


430306


530306


534306

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Angled 15°	Angled 80°	Straight	Angled 15°	Angled 80°
Reference Drawing: (pp. 96-111)				REPT-A	REPT-F	REPT-J	REPT-C	REPT-H	REPT-K
3	2P + G	250 DC ⊣⊢	03	439315	539315*	538315	430315	530315	534315*
	1P + N + G	125	04	439316	539316	538316	430316	530316	534316
	2P + G	250	06	439306	539306	538306	430306	530306	534306
	1P + N + G	277	05	439317	539317	538317	430317	530317	534317
	2P + G	480	07	439319	539319	538319	430319	530319	534319
4	2P + N + G	3ø 125/250	12	439424	539424	538424	430424	530424	534424
	3P + G	3ø 250	09	439409	539409	538409	430409	530409	534409
	3P + G	3ø 380/440	03	439403‡	-	-	-	-	-
	3P + G	3ø 480	07	439419	539419	538419	430419	530419	534419
	3P + G	3ø 600	05	439405	539405	538405	430405	530405	534405
5	3P + N + G	3øY 50-600 400Hz	02	439502	539502	538502	430502	530502	534502
	3P + N + G	3øY 120/208	09	439509	539509	538509	430509	530509*	534509
	3P + N + G	3øY 277/480	07	439519	539519	538519	430519	530519	534519
	3P + N + G	3øY 347/600	05	439505	539505	538505	430505	530505*	534505
Reference Drawing: (pp. 96-111)				-	-	-	REPT-D	-	REPT-L
7	6P + G	250	09	-	-	-	431709*	-	534709*
	6P + G	480	07	-	-	-	431719*	-	534719*

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
‡ Only for refridgerated containers. NOTE: See p. 48 for surface mount receptacles and p. 50 for back boxes.

INLETS (Appliance Plug)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CERTIFIED


639306


638306


635306


631306


636306

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Angled 80°	Surface Mount	Straight	Angled 80°	Surface Mount
Reference Drawing: (pp. 96-111)				INL-D	INL-G	INL-B	INL-E	INL-J
3	2P + G	250 DC ⊣⊢	03	639315	638315*	635315	631315	636315*
	1P + N + G	125	04	639316	638316*	635316	631316	636316*
	2P + G	250	06	639306	638306*	635306	631306	636306*
	1P + N + G	277	05	639317	638317*	635317	631317	636317*
	2P + G	480	07	639319	638319*	635319	631319	636319*
4	2P + N + G	3ø 125/250	12	639424	638424*	635424	631424	636424*
	3P + G	3ø 250	09	639409	638409*	635409	631409	636409*
	3P + G	3ø 380/440	03	639403‡	638403*‡	-	-	-
	3P + G	3ø 480	07	639419	638419*	635419	631419	636419*
	3P + G	3ø 600	05	639405	638405*	635405	631405	636405*
5	3P + N + G	3øY 50-600 400Hz	02	639502	638502*	635502	631502	636502*
	3P + N + G	3øY 120/208	09	639509	638509*	635509	631509	636509*
	3P + N + G	3øY 277/480	07	639519	638519*	635519	631519	636519*
	3P + N + G	3øY 347/600	05	639505	638505*	635505	631505	636505*
Reference Drawing: (pp. 96-111)				-	-	-	INL-F	-
7	6P + G	250	09	-	-	635709*	631709*	636709*
	6P + G	480	07	-	-	635719*	631719*	636719*

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
‡ Only for refridgerated containers.

PLUGS

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


269306


261306


260306

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland	Trumpet/ Bell Gland	Flexible Cable Sleeve
Reference Drawing: (pp. 96-111)				PLG-F	PLG-G	PLG-H
3	2P + G	250 DC	03	269315	261315	260315
	1P + N + G	125	04	269316	261316	260316
	2P + G	250	06	269306	261306	260306
	1P + N + G	277	05	269317	261317	260317
	2P + G	480	07	269319	261319	260319
4	2P + N + G	3ø 125/250	12	269424	261424	260424
	3P + G	3ø 250	09	269409	261409	260409
	3P + G	3ø 480	07	269419	261419	260419
	3P + G	3ø 600	05	269405	261405	260405
5	3P + N + G	3øY 50-600 400Hz	02	269502	261502	260502
	3P + N + G	3øY 120/208	09	269509	261509	260509
	3P + N + G	3øY 277/480	07	269519	261519	260519
	3P + N + G	3øY 347/600	05	269505*	261505	260505

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

CONNECTORS (Couplers)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


369306


361306


360306

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland	Trumpet/ Bell Gland	Flexible Cable Sleeve
Reference Drawing: (pp. 96-111)				CONN-E	CONN-F	CONN-G
3	2P + G	250 DC	03	369315	361315	360315
	1P + N + G	125	04	369316	361316	360316
	2P + G	250	06	369306	361306	360306
	1P + N + G	277	05	369317	361317	360317
	2P + G	480	07	369319	361319	360319
4	2P + N + G	3ø 125/250	12	369424	361424	360424
	3P + G	3ø 250	9	369409	361409	360409
	3P + G	3ø 480	7	369419	361419	360419
	3P + G	3ø 600	5	369405	361405	360405
5	3P + N + G	3øY 50-600 400Hz	02	369502	361502	360502
	3P + N + G	3øY 120/208	09	369509	361509	360509
	3P + N + G	3øY 277/480	07	369519	361519	360519
	3P + N + G	3øY 347/600	05	369505	361505	360505

682103TSPWU

RECEPTACLES (Panel Sockets)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

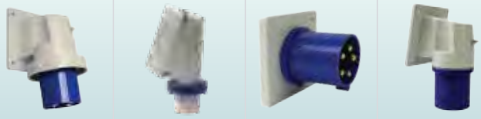
Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Angled 15°	Angled 80°	Straight	Angled 15°	Angled 80°
Reference Drawing: (pp. 96-111)				RECT-A	RECT-F	RECT-J	RECT-E	RECT-I	RECT-M
3	2P + G	250 DC ⊣⊢	03	469315	569315	568315	460315	560315	564315
	1P + N + G	125	04	369316	569316	568316	460316	560316	564316
	2P + G	250	06	469306	569306	568306	460306	560306	564306
	1P + N + G	277	05	469317	569317	568317	460317	560317	564317
	2P + G	480	07	469319	569319	568319	460319	560319	564319
4	2P + N + G	3ø 125/250	12	469424	569424	568424	460424	560424	564424
	3P + G	3ø 250	09	469409	569409	568409	460409	560409	564409
	3P + G	3ø 480	07	469419	569419	568419	460419	560419	564419
	3P + G	3ø 600	05	469405	569405	568405	460405	560405	564405
5	3P + N + G	3øY 50-600 400Hz	02	469502	569502	568502	460502	560502	564502
	3P + N + G	3øY 120/208	09	469509	569509	568509	460509	560509	564509
	3P + N + G	3øY 277/480	07	469519	569519	568519	460519	560519	564519
	3P + N + G	3øY 347/600	05	469505	569505	568505	460505	560505	564505

NOTE: See p. 48 for surface mount receptacles and p. 50 for back boxes.

INLETS (Appliance Plugs)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED



Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Angled 80°	Surface Mount	Straight	Angled 80°
Reference Drawing: (pp. 96-111)				INL-D	INL-H	INL-C	INL-E
3	2P + G	250 DC ⊣⊢	03	669315	668315*	-	661315
	1P + N + G	125	04	669316	668316*	-	661316
	2P + G	250	06	669306	668306*	665306	661306
	1P + N + G	277	05	669317	668317*	-	661317
	2P + G	480	07	669319	668319*	-	661319
4	2P + N + G	3ø 125/250	12	669424	668424*	-	661424
	3P + G	3ø 250	09	669409	668409*	665409	661409
	3P + G	3ø 480	07	669419	668419*	-	661419
	3P + G	3ø 600	05	669405	668405*	-	661405
5	3P + N + G	3øY 50-600 400Hz	02	669502	668502*	665502	661502
	3P + N + G	3øY 120/208	09	669509	668509*	665509	661509
	3P + N + G	3øY 277/480	07	669519	668519*	665519	661519
	3P + N + G	3øY 347/600	05	669505	668505*	665505	661505

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

PLUGS

DUST TIGHT IP67 WATERTIGHT

UL LISTED CSA CERTIFIED

279318

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland
Reference Drawing: (pp. 96-111)				PLG-F
3	2P + G	250 DC	03	279315
	1P + N + G	125	04	279316
	2P + G	250	06	279318
	1P + N + G	277	05	279317
	2P + G	480	07	279319
4	2P + N + G	3ø 125/250	12	279424
	3P + G	3ø 250	09	279421
	3P + G	3ø 480	07	279419
	3P + G	3ø 600	05	279417
5	3P + N + G	3øY 120/208	09	279521
	3P + N + G	3øY 277/480	07	279519
	3P + N + G	3øY 347/600	05	279517

NOTE: 100 Amp devices are only available in IP67 Watertight configurations.

CONNECTORS (Couplers)

DUST TIGHT IP67 WATERTIGHT

UL LISTED CSA CERTIFIED

379318

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland
Reference Drawing: (pp. 96-111)				CONN-E
3	2P + G	250 DC	03	379315
	1P + N + G	125	04	379316
	2P + G	250	06	379318
	1P + N + G	277	05	379317
	2P + G	480	07	379319
4	2P + N + G	3ø 125/250	12	379424
	3P + G	3ø 250	09	379421
	3P + G	3ø 480	07	379419
	3P + G	3ø 600	05	379417
5	3P + N + G	3øY 120/208	09	379521
	3P + N + G	3øY 277/480	07	379519
	3P + N + G	3øY 347/600	05	379517

NOTE: 100 Amp devices are only available in IP67 Watertight configurations.

CABLE ASSEMBLIES

Designed & manufactured to product specifications.

custserv@waltherelectric.com

RECEPTACLES (Panel Sockets)

DUST TIGHT IP67 WATERTIGHT

UL LISTED CSA CERTIFIED


479318


579421

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Angled 15°
Reference Drawing: (pp. 96-111)				RECT-B	RECT-G
3	2P + G	250 DC ⊣|+	03	479315	579315
	1P + N + G	125	04	479316	579316
	2P + G	250	06	479318	579318
	1P + N + G	277	05	479317	579317
	2P + G	480	07	479319	579319
4	2P + N + G	3ø 125/250	12	479424	579424
	3P + G	3ø 250	09	479421	579421
	3P + G	3ø 480	07	479419	579419
	3P + G	3ø 600	05	479417	579417
5	3P + N + G	3øY 120/208	09	479521	579521
	3P + N + G	3øY 277/480	07	479519	579519
	3P + N + G	3øY 347/600	05	479517	579517

NOTE: See pages 44 and 46 for surface mount receptacles and back boxes.

INLETS (Appliance Plug)

DUST TIGHT IP67 WATERTIGHT

UL LISTED CSA CERTIFIED


679318


678421

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Surface Mount
Reference Drawing: (pp. 96-111)				INL-A	INL-I
3	2P + G	250 DC ⊣|+	03	679315	678315*
	1P + N + G	125	04	679316	678316*
	2P + G	250	06	679318	678318*
	1P + N + G	277	05	679317	678317*
	2P + G	480	07	679319	678319*
4	2P + N + G	3ø 125/250	12	679424	678424*
	3P + G	3ø 250	09	679421	678421*
	3P + G	3ø 480	07	679419	678419*
	3P + G	3ø 600	05	679417	678417*
5	3P + N + G	3øY 120/208	09	679521	678521*
	3P + N + G	3øY 277/480	07	679519	678519*
	3P + N + G	3øY 347/600	05	679517	678517*

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

NOTE: See pages 44 and 46 for surface mount receptacles and back boxes.

HEB 64910613504

1 2 3 4 5 6 7 8 9 10

ADDITIONAL PRODUCTS & ACCESSORIES

Cable Assembly Group

SURFACE MOUNT RECEPTACLES

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	20 AMPS	30 AMPS	60 AMPS	100 AMPS	20 AMPS	30 AMPS	60 AMPS
Reference Drawing: (pp. 96-111)				SMR-A	SMR-A	SMR-B	SMR-C	SMR-D	SMR-D	SMR-E
3	2P + G	250 DC ⊣|+	03	119315	139315	-	179315	111315	131315	-
	1P + N + G	125	04	119316	139316	-	179316	111316	131316	-
	2P + G	250	06	119306	139306	-	179318	111306	131306	-
	1P + N + G	277	05	119317	139317	-	179317	111317	131317	-
	2P + G	480	07	119319	139319	-	179319	111319	131319	-
4	2P + N + G	3ø 125/250	12	119424	139424	169424	179424	111424	131424	161424
	3P + G	3ø 250	09	119409	139409	169409	179421	111409	131409	161409
	3P + G	3ø 380/440	03	-	139403*‡	-	-	-	-	-
	3P + G	3ø 480	07	119419	139419*	169419	179419	111419	131419	161419
	3P + G	3ø 600	05	119405	139405	169405	179417	111405	131405	161405
5	3P + N + G	Barge Overflow	01	119501BL*†	-	-	-	-	-	-
	3P + N + G	3øY 120/208	09	119509	139509	169509	179521	111509	131509	161509
	3P + N + G	3øY 277/480	07	119519	139519	169519	179519	111519	131519	161519
	3P + N + G	3øY 347/600	05	119505	139505	169505	179517	111505	131505	161505
Reference Drawing: (pp. 96-111)				-	-	-	-	-	-	-
7	6P + G	250	09	-	-	-	-	111709	131709	-
	6P + G	480	07	-	-	-	-	111719	131719	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
† BL devices are US Coast Guard required as per 46CFR Ch. 1, 39.20-9.
‡ Only for refridgerated containers.

PHASE INVERTERS (CEEtyp)

IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

Poles	Amps	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight
5	16	1P + N + G	400	06	210 PH
	32	2P + G	400	06	230 PH

Phase Inverters

Incorrectly installed rotating fields can easily be set right by quickly changing the polarity of the motor without having to rewire the phasing. Three steps, three minutes or less!

STEP 1 Turn the power OFF

STEP 2 Rotate the phase pins

STEP 3 Turn the power ON

Phase sequence test plugs quickly allow for the inspection of phase rotational direction within seconds.

Verifies correct phase sequence to ensure clockwise motor rotation.
Confirms presence of all 3 phases to prevent 'lost phase' failures.

GREEN LAMP LIGHTS
Phase sequence is correct

RED LAMP LIGHTS
Phase sequence is wrong

GREEN & RED LAMPS LIGHT
One phase is missing

TEST PLUGS (CEEtyp)

IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

230 DF

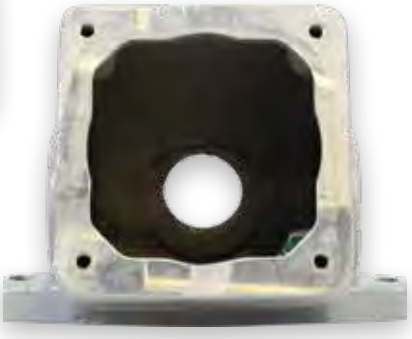
Poles	AMPS	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight
4	16	3P + G	110V - 690V (50Hz - 60Hz)	06	210406 DF
	32	3P + G		06	230406 DF
	63	3P + G		06	260406 DF
5	16	3P + N + G	110V - 690V (50Hz - 60Hz)	06	210 DF
	32	3P + N + G		06	230 DF
	63	3P + N + G		06	260 DF

Test Plugs

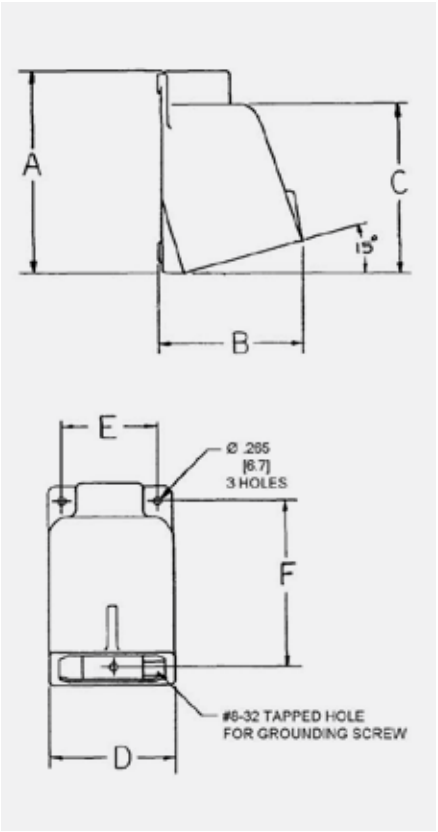
Cast aluminum junction boxes for straight angle watertight & splashproof receptacles (panel sockets):

Epoxy-coated junction boxes are corrosion resistant and designed to pass the 500-hour salt spray test, the UL hose down test and the UL external icing test.

- **One-piece Construction**
- **Lightweight**
- **Rust-Resistant**
- **Non-Magnetic**



Back Box Receptacles



RECEPTACLE (PANEL SOCKET) BACK BOXES

Description (All 20° Angle)	HUB Size	Dimensions							Cubic Inch Capacity	MPN
		A	B	C	D	E	F	G		
20A, 4 & 5 Wire 30A 3, 4 & 5 Wire	3/4"	3.34	0.97	1.12	4.12	4	0.25	-	20.4	BE3-B75
	1"									BE3-B100
60A, 3, 4 & 5 Wire	1 1/4"	4.41	1.41	2.09	5.63	5	0.28	3	59.7	BE6-B125
	1 1/2"									BE6-B150
100A, 3, 4 & 5 Wire	1 1/2"	5.81	1.78	2.5	7.71	5.5	0.34	4	96.6	BE10-B150
	2"									BE10-B200

NOTE: Especially designed for straight angle watertight & splashproof receptacles.

BACK BOX ADAPTER PLATES

Walther Receptacle	Works with Hubbell back box	MPN
20A, 3 Wire	BB201W, BB301W, FT202W, or FT302W	BB20-3W
20A, 4 & 5 Wire 30A 3, 4 & 5 Wire	BB201W, BB301W, FT202W, or FT302W	BB20-345W
60A, 3, 4 & 5 Wire	BB601W, BB602W, or FW60/100	BB60-345W
100A, 3, 4 & 5 Wire	BB1001W, BB1002W or FW60/100	BB100-345W

Back Box Adapter Plate

Thread Adapters

Watertight Closure Caps

613400 - In use with 218409

PG THREAD TO NPT THREAD ADAPTERS

Description	Amperage Rating	MPN
PG13.5 to 1/2" NPT Adapter	20A	PG135-50
PG16 to 1/2" NPT Adapter	20A	PG16-50
PG21 to 3/4" NPT Adapter	20A	PG21-75
PG29 to 1" NPT Adapter	30A	PG29-100
PG29 to 1 1/4" NPT Adapter	30A	PG29-125
PG36 to 1 1/4" NPT Adapter	60A	PG36-125
PG36 to 1 1/2" NPT Adapter	60A	PG36-150

NOTE: Additional adapters are available. Speak with a member of our sales team to learn more.
PG Thread = Panzer-Gewinde
NPT Thread = National Pipe Thread

WATERTIGHT CLOSURE CAPS

DUST TIGHT IP67 WATERTIGHT

Poles & Wires	Amperage Rating	MPN
3	20A	613300
	30A	633400
	60A	663500
	100A	673500
4	20A	613400
	30A	633400
	60A	663500
	100A	673500
5	20A	613500
	30A	633500
	60A	663500
	100A	673500

NOTE: Especially designed for watertight plugs and inlets.

Splashproof Closure Cap

SPLASHPROOF CLOSURE CAPS

IP44 SPLASHPROOF

Poles	Wires	Amperage Rating	MPN
3	2P + G	20A	614300
	2P + G	30A	634400
	2P + G	60A	664500
4	3P + G	20A	614400
	3P + G	30A	634400
	3P + G	60A	664500
5	3P + N + G	20A	614500
	3P + N + G	30A	634500
	3P + N + G	60A	664500

NOTE: Product line has been discontinued, call for stock.

PRE-INSTALLED CLOSURE CAPS

Closure caps provide watertight or splashproof protection to disconnected plugs and inlets. The splashproof chain or watertight nylon strap can be securely installed to avoid misplacing the cap when the plug or inlet is in use. Closure caps are available in packs of 2 or 5 or can be pre-installed by the factory prior to shipment. Consult a member of our customer care team for ordering information.

INTERNATIONAL RATINGS

IEC Group

PLUGS

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


219406

219309

210406

211309

210309

216406

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	External Cable Gland	Trumpet/ Bell Gland	External Cable Gland	Trumpet/ Bell Gland	Flexible Cable Sleeve	Angled 90°
Reference Drawing: (pp. 96-111)				PLG-A	PLG-E	PLG-C	PLG-G	PLG-H	PLG-J
3	2P + G	110	04	-	219304	-	211304	210304†	216304
		230	06	-	219306	-	211306	210306†	216306
		400	09	-	219309	-	211309	210309†	216309
4	3P + G	110	04	219404	-	210404	211404	-	216404
		230	09	219409	-	210409	211409	-	216409
		400	06	219406	-	210406	211406	-	216406
		500	07	219407	-	-	-	-	216407
		> 50 (100-300Hz)	10	219410	-	210410*	211410*	-	216410*
		> 50 (300-500Hz)	02	219402	-	-	211402	-	216402
5	3P + N + G	110	04	219504	-	210504*	211504*	-	216504*
		230	09	219509	-	210509	211509	210509	216509
		400	06	219	-	210	211	-	216
Reference Drawing: (pp. 96-111)				-	-	-	-	PLG-I	-
7	6P + G	230	09	-	-	-	-	210709*	-
		400	06	-	-	-	211706*	210706*	-
		500	07	-	-	-	-	210707*	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
† 210304, 210306, & 210309 are also availible with an eye for a padlock. The lockable plugs are 212304, 212306, and 212309 and locks together with panel socket 512304, 512306, and 512309 respectably.

COUPLERS (Connectors)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


319406

319309

310406

311406

310309

316309

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	External Cable Gland	Trumpet/ Bell Gland	External Cable Gland	Trumpet/ Bell Gland	Flexible Cable Sleeve	Angled 90°
Reference Drawing: (pp. 96-111)				CONN-A	CONN-E	CONN-C	CONN-F	CONN-G	CONN-I
3	2P + G	110	04	-	319304	-	311304	310304	-
		230	06	-	319306	-	311306	310306	-
		400	09	-	319309	-	311309	310309	-
4	3P + G	110	04	319404	-	310404	311404	-	316304
		230	09	319409	-	310409	311409	-	316306
		400	06	319406	-	310406	311406	-	316309
		500	07	319407	-	310407	311407	-	-
		> 50 (100-300Hz)	10	319410	-	310410	311410	-	-
		> 50 (300-500Hz)	02	319402	-	310402	311402	-	-
5	3P + N + G	110	04	319504	-	310504	311504	-	-
		230	09	319509	-	310509	311509	-	-
		400	06	319	-	310	311	-	-
Reference Drawing: (pp. 96-111)				-	-	-	-	CONN-H	-
7	6P + G	230	09	-	-	-	-	310709*	-
		400	06	-	-	-	311706*	310706*	-
		500	07	-	-	-	-	310707*	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

PANEL SOCKETS (Receptacles)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Angled 15°	Angled 80°	Straight	Angled 15°	Angled 80°
Reference Drawing: (pp. 96-111)				RECT-A	RECT-F	RECT-J	RECT-C	RECT-H	RECT-K
3	2P + G	110	04	419304	519304	518304	410304	510304	514304
		230	06	419306	519306	518306	410306	510306	514306
		400	09	419309	519309	518309	410309	510309	514309
4	3P + G	110	04	419404	519404	518404	410404	510404	514404
		230	09	419409	519409	518409	410409	510409	514409
		400	06	419406	519406	518406	410406	510406	514406
		500	07	419407	519407	518407	410407	510407	514407
		> 50 (100-300Hz)	10	419410	519410	518410	410410	510410	514410
		> 50 (300-500Hz)	02	419402	519402	518402	410402	510402	514402
5	3P + N + G	110	04	419504	519504	518504	410504	510504	514504
		230	09	419509	519509	518509	410509	510509	514509
		400	06	419	519	518	410	510	514
Reference Drawing: (pp. 96-111)				-	-	-	RECT-D	-	RECT-L
7	6P + G	230	09	-	-	-	411709*	-	514709*
		400	06	-	-	-	411706*	-	514706*
		500	07	-	-	-	411707*	-	514707*

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

APPLIANCE PLUGS (Inlets)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Angled 80°	Surface Mount	Straight	Angled 80°	External Surface Mount	Internal Surface Mount
Reference Drawing: (pp. 96-111)				INL-D	INL-G	INL-B	INL-E	INL-K	INL-J
3	2P + G	110	04	619304	618304	615304	611304	610304*	-
		230	06	619306	618306	615306	611306	610306*	-
		400	09	619309	618309	615309	611309	610309*	-
4	3P + G	110	04	619404	618404	615404	611404	610404*	616404
		230	09	619409	618409	615409	611409	610409*	616409
		400	06	619406	618406	615406	611406	610406*	616406
		500	07	619407	618407	615407	611407	610407*	616407
		> 50 (100-300Hz)	10	619410	618410	615410	611410	610410*	616410
		> 50 (300-500Hz)	02	619402	618402	615402	611402	610402*	616402
5	3P + N + G	110	04	619504	618504	615504	611504	610504*	616504
		230	09	619509	618509	615509	611509	610509*	616509
		400	06	619	618	615	611	610*	616
Reference Drawing: (pp. 96-111)				-	-	-	INL-F	INL-L	-
7	6P + G	230	09	-	-	-	611709*	610709*	616709*
		400	06	-	-	615706*	611706*	610706*	616706*
		500	07	-	-	-	611707*	610707*	616707*

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

PLUGS

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


239309


230309


231309


236309

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	External Cable Gland	External Cable Gland	Trumpet/ Bell Gland	Angled 90°
Reference Drawing: (pp. 96-111)				PLG-A	PLG-C	PLG-G	PLG-J
3	2P + G	110	04	239304	230304	231304	236304
		230	06	239306	230306	231306	236306
		400	09	239309	230309	231309	236309
4	3P + G	110	04	239404	230404	231404	236404
		230	09	239409	230409	231409	236409
		400	06	239406	230406	231406	236406
		380 - 440	03	239403*‡	-	-	-
		500	07	239407	230407	231407	236407
		> 50 (100-300Hz)	10	239410	230410	231410	236410
		> 50 (300-500Hz)	02	239402	230402	231402	236402
5	3P + N + G	110	04	239504	230504	231504	236504
		230	09	239509	230509	231509	236509
		400	06	239	230	231	236
Reference Drawing: (pp. 96-111)				-	-	-	-
7	6P + G	230	09	-	-	-	-
		400	06	-	230706*	231706*	-
		500	07	-	-	-	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
‡ For Refridgerated Containers ONLY.

COUPLERS (Connectors)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


339309


330309


331309

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	External Cable Gland	External Cable Gland	Trumpet/ Bell Gland
Reference Drawing: (pp. 96-111)				CONN-A	CONN-C	CONN-F
3	2P + G	110	04	339304	330304	331304
		230	06	339306	330306	331306
		400	09	339309	330309	331309
4	3P + G	110	04	339404	330404	331404
		230	09	339409	330409	331409
		400	06	339406	330406	331406
		380 - 440	03	339403*‡	-	-
		500	07	339407	330407	331407
		> 50 (100-300Hz)	10	339410	330410	331410
		> 50 (300-500Hz)	02	339402	330402	331402
5	3P + N + G	110	04	339504	330504	331504
		230	09	339509	330509	331509
		400	06	339	330	331
Reference Drawing: (pp. 96-111)				-	-	-
7	6P + G	230	09	-	-	-
		400	06	-	330706*	331706*
		500	07	-	-	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
‡ For Refridgerated Containers ONLY.

PANEL SOCKETS (Receptacles)

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

Poles	Number of Wires (N=Neutral / G=Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Angled 15°	Angled 80°	Straight	Angled 15°	Angled 80°
				439406	539309	538	430309	530406	534
Reference Drawing: (pp. 96-111)				RECT-A	RECT-F	RECT-J	RECT-C	RECT-H	RECT-K
3	2P + G	110	04	439304	539304	538304	430304	530304	534304
		230	06	439306	539306	538306	430306	530306	534306
		400	09	439309	539309	538309	430309	530309	534309
4	3P + G	110	04	439404	539404	538404	430404	530404	534404
		230	09	439409	539409	538409	430409	530409	534409
		400	06	439406	539406	538406	430406	530406	534406
		500	07	439407	539407	538407	430407	530407	534407
		> 50 (100-300Hz)	10	439410	539410	538410	430410	530410	534410
		> 50 (300-500Hz)	02	439402	539402	538402	430402	530402	534402
5	3P + N + G	110	04	439504	539504	538504	430504	530504	534504
		230	09	439509	539509	538509	430509	530509	534509
		400	06	439	539	538	430	530	534
		440	11	439511	539511	538511	430511	530511	534511
Reference Drawing: (pp. 96-111)				-	-	-	RECT-D	-	RECT-L
7	6P + G	230	09	-	-	-	-	-	-
		400	06	-	-	-	431706*	-	534706*
		500	07	-	-	-	-	-	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

APPLIANCE PLUGS (Inlets)

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

Poles	Number of Wires (N=Neutral / G=Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Angled 80°	Surface Mount	Straight	Angled 80°	External Surface Mount	Internal Surface Mount
				639309	638309	635	631	630309	636
Reference Drawing: (pp. 96-111)				INL-D	INL-G	INL-B	INL-E	INL-K	INL-J
3	2P + G	110	04	639304	638304*	635304	631304	630304*	636304*
		230	06	639306	638306*	635306	631306	630306*	636306*
		400	09	639309	638309*	635309	631309	630309*	636309*
4	3P + G	110	04	639404	638404*	635404	631404	630404*	636404
		230	09	639409	638409*	635409	631409	630409*	636409*
		400	06	639406	638406*	635406	631406	630406*	636406*
		380 - 440	03	639403‡	638403‡	-	-	-	-
		500	07	639407	638407*	635407	631407	630407*	636407*
		> 50 (100-300Hz)	10	639410	638410*	635410	631410	630410*	636410*
		> 50 (300-500Hz)	02	639402	638402*	635402	631402	630410*	636410*
5	3P + N + G	110	04	639504	638504	635504	631504	630504*	636504*
		230	09	639509	538509*	635509	631509	630509*	636509*
		400	06	639	638*	635	631	630*	636*
Reference Drawing: (pp. 96-111)				-	-	-	INL-F	INL-L	-
7	6P + G	230	09	-	-	-	-	-	-
		400	06	-	-	635706*	631706*	630706*	636706*
		500	07	-	-	-	-	-	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
‡ For Refridgerated Containers ONLY.

PLUGS

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


269406


261406


260406

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland	Trumpet/ Bell Gland	Flexible Cable Sleeve
Reference Drawing: (pp. 96-111)				PLG-F	PLG-G	PLG-H
3	2P + G	110	04	269304	261304	260304
		230	06	269306	261306	260306
		400	09	269309	261309	260309
4	3P + G	110	04	269404	261404	260404
		230	09	269409	261409	260409
		400	06	269406	261406	260406
		500	07	269407*	261407*	260407*
5	3P + N + G	110	04	269504	261504	260504
		230	09	269509	261509	260509
		400	06	269	261	260

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

COUPLERS (Connectors)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


369406


361406


360406

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland	Trumpet/ Bell Gland	Flexible Cable Sleeve
Reference Drawing: (pp. 96-111)				CONN-E	CONN-F	CONN-G
3	2P + G	110	04	369304	361304	360304
		230	06	369306	361306	360306
		400	09	369309	361309	360309
4	3P + G	110	04	369404	361404	360404
		230	09	369409	361409	360409
		400	06	369406	361406	360406
		500	07	369407	361407	360407
5	3P + N + G	110	04	369504	361504	360504
		230	09	369509	361509	360509
		400	06	369	361	360

PANEL SOCKETS (Receptacles)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


469406


569406


568


460309


560309


564

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Angled 15°	Angled 80°	Straight	Angled 15°	Angled 80°
Reference Drawing: (pp. 96-111)				RECT-A	RECT-F	RECT-J	RECT-E	RECT-I	RECT-M
3	2P + G	110	04	469304	569304	568304	460304	560304	564304
		230	06	469306	569306	568306	460306	560306	564306
		400	09	469309	569309	568309	460309	560309	564309
4	3P + G	110	04	469404	569404	568404	460404	560404	564404
		230	09	469409	569409	568409	460409	560409	564409
		400	06	469406	569406	568406	460406	560406	564406
		500	07	469407	569407	568407	460407	560407	-
5	3P + N + G	110	04	469504	569504	568504	460504	560504	564504
		230	09	469509	569509	568509	460509	560509	564509
		400	06	469	569	568	460	560	564

NOTE: See p. 48 for surface mount receptacles and p. 50 for back boxes.


IEC Group

APPLIANCE PLUGS (Inlets)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED


669309


668309


665


661

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Angled 80°	Surface Mount	Straight	Angled 80°
Reference Drawing: (pp. 96-111)				INL-D	INL-H	INL-C	INL-E
3	2P + G	110	04	669304	668304*	-	661304
		230	06	669306	668306*	665306	661306
		400	09	669309	668309*	-	661309
4	3P + G	110	04	669404	668404*	-	661404
		230	09	669409	668409*	665409	661409
		400	06	669406	668406*	665406	661406
		500	07	669407	668407*	-	661407
5	3P + N + G	110	04	669504	668504*	665504	661504
		230	09	669509	668509*	665509	661509
		400	06	669	668*	665	661

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

PLUGS

DUST TIGHT IP67 WATERTIGHT

UL LISTED CSA CERTIFIED

279309

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland
Reference Drawing: (pp. 96-111)				PLG-F
3	2P + G	110	04	279304
		230	06	279306
		400	09	279309
4	3P + G	110	04	279404
		230	09	279409
		400	06	279406
		500	07	279407
5	3P + N + G	110	04	279504
		230	09	279509
		400	06	279

NOTE: 125 Amp devices are only available in IP67 Watertight configurations.

COUPLERS (Connectors)

DUST TIGHT IP67 WATERTIGHT

UL LISTED CSA CERTIFIED

379309

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/ Bell Gland
Reference Drawing: (pp. 96-111)				CONN-E
3	2P + G	110	04	379304
		230	06	379306
		400	09	379309
4	3P + G	110	04	379404
		230	09	379409
		400	06	379406
		500	07	379407
5	3P + N + G	110	04	379504
		230	09	379509
		400	06	379

NOTE: 125 Amp devices are only available in IP67 Watertight configurations.

IEC Full Assembly

CABLE ASSEMBLY

60A IEC Connector & Conduit

PG to NPT adapters to convert the threads of a fitting to a different size, thread, config.

custserv@waltherelectric.com

PANEL SOCKETS (Receptacles)

DUST TIGHT IP67 WATERTIGHT

UL LISTED CSA CERTIFIED


479309


579309

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Angled 15°
Reference Drawing: (pp. 96-111)				RECT-B	RECT-G
3	2P + G	110	04	479304	579304
		230	06	479306	579306
		400	09	479309	579309
4	3P + G	110	04	479404	579404
		230	09	479409	579409
		400	06	479406	579406
		500	07	479407	579407
5	3P + N + G	110	04	479504	579504
		230	09	479509	579509
		400	06	479	579

NOTE: See p. 48 for surface mount receptacles and p. 50 for back boxes.

IEC Group

APPLIANCE PLUGS (Inlets)

DUST TIGHT IP67 WATERTIGHT

UL LISTED CSA CERTIFIED


679309


678406

Poles	Number of Wires (N = Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Surface Mount
Reference Drawing: (pp. 96-111)				INL-A	INL-I
3	2P + G	110	04	679304	678304*
		230	06	679306	678306*
		400	09	679309	678309*
4	3P + G	110	04	679404	678404*
		230	09	679409	678409*
		400	06	679406	678406*
		500	07	679407	678407*
5	3P + N + G	110	04	679504	678504*
		230	09	679509	678509*
		400	06	679	678*

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*

SURFACE MOUNT RECEPTACLES

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

Poles	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	16 AMPS	32 AMPS	63 AMPS	125 AMPS	16 AMPS	32 AMPS	63 AMPS
				119306	139306	169409	179309	111306	131306	160409
Reference Drawing: (pp. 96-111)				SMR-A	SMR-A	SMR-B	SMR-C	SMR-D	SMR-D	SMR-E
3	2P + G	110	04	119304	139304	-	179304	111304	131304	-
	2P + G	230	06	119306	139306	-	179306	111306	131306	-
	2P + G	400	09	119309	139309	-	179309	111309	131309	-
4	3P + G	110	04	119404	139404	169404	179404	111404	131404	160404
	3P + G	230	09	119409	139409	169409	179409	111409	131409	160409
	3P + G	400	06	119406	139406	169406	179406	111406	131406	160406
	3P + G	400	11	119411	139411	169411	179411	111411	131411	160411
	3P + G	500	07	119407	139407	169407	179407	111407	131407	160407
	3P + G	>50 (100-300Hz)	10	119410	139410	169410	179410	111410	131410	160410
	3P + G	>50 (300-500Hz)	02	119402	139402	169402	179402	111402	131402	160402
5	3P + N + G	110	04	119504	139504	169504	179504	111504	131504	160504
	3P + N + G	230	09	119509	139509	169509	179509	111509	131509	160509
	3P + N + G	400	06	119	139	169	179	111	131	160
	3P + N + G	400	11	119511	139511	169511	179511	111511	131511	160511
Reference Drawing: (pp. 96-111)				-	-	-	-	-	-	-
7	6P + G	400	06	-	-	-	-	111706	131706	-

** Part numbers have not been UL Listed or CSA Certified. Speak with a member of our sales team to learn more.*
† BL devices are US Coast Guard required as per 46CFR Ch. 1, 39.20-9.
‡ Only for refridgerated containers.

IEC Appliance Inlet and Coupler (Connector) with Back Box and Adaptor Plate

IEC Group

ENTERTAINMENT & STAGE LIGHTING SOLUTIONS

PDU 64910613504

STAGE LIGHTING & ENTERTAINMENT

Stage Lighting

Stage lighting IEC connectors, power distribution units and cable assemblies are used to provide temporary power for movie and TV sets, theaters, concerts, and other special events.

Designed for the entertainment industry, our stage lighting IEC connector's black backshell reduces light reflections making them virtually hidden from view by the audience.

Camlock Cable CXC502343

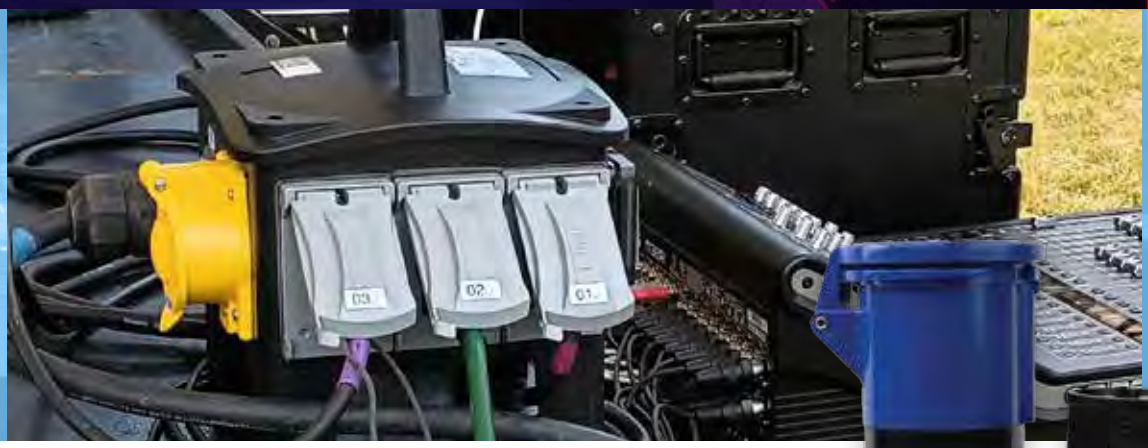


Photo courtesy of AA Sound & Lighting

Cable Assemblies

We manufacture rugged cable assemblies with heavy-duty rectangular connectors, IEC, NEMA, CS, CAMLOK or a connector of your choice for industrial power solutions.

Our power cable assemblies are 100% pretested and labeled for easy installation and accurate tracking. Manufactured in a controlled environment with industrial-grade components, we engineer to the highest level of quality for reliability and safety.

Black IEC Group

Our products are “dual rated” for different product safety standards around the world. The electrical connector will always be rated for what each country allows based on how the different agencies test and rate these industrial electrical components.

PLUGS

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT — IP44 SPLASHPROOF


279SW


210SW


211SW

Poles	Amperage Rating (International)	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/Bell Gland	External Cable Gland	Trumpet/Bell Gland
3	20A (16A)	2P + G	230	06	-	-	211306SW
	30 (32A)				-	-	231306SW
	60A (63A)				-	-	261306SW
	100A (125A)				279306SW	-	-
4	20A (16A)	3P + G	400	07	-	-	211406SW
	30 (32A)				-	-	231406SW
	60A (63A)				-	-	261406SW
	100A (125A)				279406SW	-	-
5	20A (16A)	3P + N + G	400	07	-	210SW	211SW
	30 (32A)				-	230SW	231SW
	60A (63A)				-	-	261SW
	100A (125A)				279SW	-	-

PDU HEB3102U with CAMLOCK cable assembly

CONNECTORS (Couplers)

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

UL LISTED CERTIFIED


379SW


330SW


331SW

Poles	Amperage Rating (International)	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Trumpet/Bell Gland	External Cable Gland	Trumpet/Bell Gland
3	20A (16A)	2P + G	230	06	-	-	311306SW
	30 (32A)				-	-	331306SW
	60A (63A)				-	-	361306SW
	100A (125A)				379306SW	-	-
4	20A (16A)	3P + G	400	07	-	-	311406SW
	30 (32A)				-	-	331406SW
	60A (63A)				-	-	361406SW
	100A (125A)				379406SW	-	-
5	20A (16A)	3P + N + G	400	07	-	310SW	311SW
	30 (32A)				-	330SW	331SW
	60A (63A)				-	-	361SW
	100A (125A)				379SW	-	-


IEC Cable Assembly with Black Backshell


Side A

PDU 649240C35


Side B

POWER DISTRIBUTION UNITS

Speak with a member of our sales team to learn more.

RECEPTACLES (Panel Sockets)

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF


479SW


430SW

Poles	Amperage Rating (International)	Number of Wires (N =Neutral / G = Ground)	Voltage AC (Except where noted)	Clock Position of Ground Contact	Straight	Straight
3	20A (16A)	2P + G	230	06	-	410306SW
	30 (32A)				-	430306SW
	60A (63A)				-	460306SW
	100A (125A)				479306SW	-
4	20A (16A)	3P + G	400	07	-	410406SW
	30 (32A)				-	430406SW
	60A (63A)				-	460406SW
	100A (125A)				479406SW	-
5	20A (16A)	3P + N + G	400	07	-	410SW
	30 (32A)				-	430SW
	60A (63A)				-	460SW
	100A (125A)				479SW	-

STOCK & CUSTOM POWER DISTRIBUTION UNITS

Easily distribute power to multiple units for added flexibility.

Main PDU Power Distribution Center

Walther Electric Employees Building Cable Assemblies

CABLE PROTECTORS

WECP536BL

39870021

CABLE PROTECTORS: CHOOSING THE RIGHT MODEL

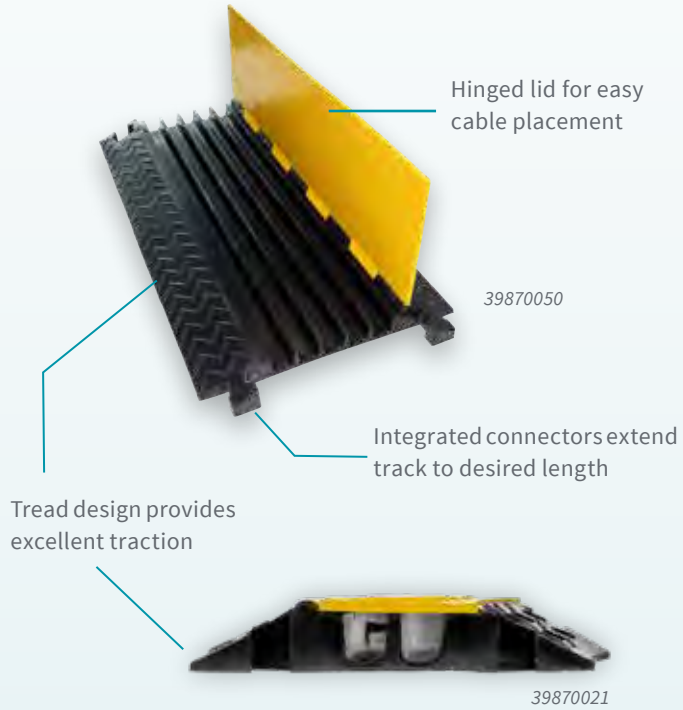
Why Use Cable Protectors

- Protect your cables, cords, and hose lines from pedestrian traffic, vehicle traffic and heavy-duty equipment movement
- Ideal for local events, festivals, sporting events, construction sites, conventions centers, manufacturing floor or warehouse
- Cost-effective solution helps prevent damage caused by wire vibration, contact with other heat producing equipment or from tripping/cable pull
- Improve accessibility

Cable protection systems are offered in a variety of sizes to suit all types of INDOOR/OUTDOOR applications.

What to Consider

- **Size** - How many cables do you want to protect? Protect 1, 2, 4 or 5 cables within the same cable protection system.
- **Cable Diameter** - Make sure that your cables will fit into the cable protector by choosing the proper channel width and height.
- **Load Capacity** - What will be crossing the path of the cables? With capacities up to 800,000 lbs. per axle (load that a vehicle will put on a cable protectors as they drive over them), cable protectors can withstand thousands of pounds and endure constant impact.
- Our **Heavy-Duty** cable protectors are ideal for vehicles, hauling trucks or forklifts and have a maximum axle load of 9 tons.
- Our **Light-Duty** cable protectors are best for light to heavy pedestrian walking, light commercial and utility applications.



All of our cable protector systems are made of SBR/NBR solid rubber and have a max axle load of 9 tons. Our Light Duty Single Track Cable Protector System has a max load of 440 lbs (200 kg).

SINGLE TRACK CABLE PROTECTOR SYSTEMS

Number of Channels	Product Image	Product Number	Type	Channel Size (WxH)	Overall Size (LxWxH)	Net Weight	Integrated Connector
1		39870090	Straight Lite	1x – 0.40" x 1.57" (10 x 40mm)	39.40" x 5.12" x 0.79" (1000 x 130 x 20mm)	4.41 lbs (2 kg)	Yes
2		39870080	Straight Heavy Duty	2x – 3.14" x 3.14" (80 x 80mm)	31.49" x 23.22" x 4.13" (800 x 590 x 105mm)	59.52 lbs (27 kg)	Yes
5		WECP536BL	Straight Heavy Duty	5x – 1.36" x 1.27" (34.54 x 2.26mm)	36.00" x 17.25" x 2.00" (438.15 x 450 x 50.8mm)	20.6 lbs (9.34 kg)	Yes

CABLE PROTECTION SYSTEMS

Number of Channels	Product Image	Product Number	Type	Channel Size (WxH)	Overall Size (LxWxH)	Net Weight	Integrated Connector
2		39870020	Straight	1.10" x 1.18" (28 x 30mm)	39.37" x 9.84" x 1.89" (1000 x 250 x 48mm)	165.35 lbs (7.5 kg)	Yes
		39870021	Curved 30°		9.84" x 1.89" (250 x 48 mm) (WxH)	4.19 lbs (1.9 kg)	No
		39870022	End Cap		5.91" x 9.84" x 1.89" (150 x 250 x 48mm)	4.41 lbs (2 kg)	
-		39870023	Connector	-	1.77" x 1.18" x 1.50" (45 x 30 x 38mm)	0.22 lbs (0.1 kg)	-
4		39870040	Straight	2x – 2.04" x 2.04" (52 x 52mm) 2x – 1.18" x 2.04" (46 x 52mm)	31.49" x 23.22" x 3.07" (800 x 590 x 78mm)	50.71 lbs (23 kg)	No
		39870041	Curved 30°		23.23" x 3.07" (590 x 78 mm) (WxH)	19.62 lbs (8.9 kg)	
		39870042	End Cap		11.81" x 2.28" x 3.07" (300 x 58 x 78mm)	14.55 lbs (6.6 kg)	
-		39870043	Connector	-	4.13" x 1.85" x 1.97" (105 x 47 x 50mm)	0.44 lbs (0.2 kg)	-
5		39870050	Straight	5x – 1.38" x 1.38" (35 x 35mm)	31.50" x 17.72" x 1.97" (800 x 450 x 50mm)	33.07 lbs (15 kg)	Yes
		39870051	Curved 30°		17.72" x 1.97" (450 x 50mm) (WxH)	10.58 lbs (4.8 kg)	
		39870052	End Cap		7.87" x 17.72" x 1.97" (200 x 450 x 50mm)	9.70 lbs (4.4 kg)	No
-		39870053	Connector	-	3.94" x 1.97" x 1.57" (100 x 50 x 40mm)	0.33 lbs (0.15 kg)	-

Mechanical Interlocks Group

MECHANICAL INTERLOCKS

Mechanical interlock devices are electrical receptacles that allow compatible plugs to be attached only when the power is turned off. They also prevent the plug from being removed from the receptacle while the power is on.

Compliance with OSHA Lockout requirements

Walther's Mechanical Interlock's bright red handle can be locked in the "OFF" position as a method of compliance with OSHA lockout requirements. The handle can accept up to a 5/16" padlock shaft.

Watertight NEMA 4X, requirements

Walther's Mechanical Interlocks are gasketed and rated as a Watertight NEMA 4X, 12K enclosure. The nonmetallic enclosure, while abuse and corrosion resistant, is also non-conductive which enhances the safety of the product.

Compact size

All versions and sizes are designed to fit within the web of an 8" column. This compact size allows the use of columns as a mounting location.

Easy identification

Catalog number, rating and certifications are indicated on the label for easy identification of mating devices.

Color coded receptacle covers

Receptacle covers are color-coded by voltage in accordance with IEC60309 standard.

AE139419

AE139419

Grounding plate

Walther's Mechanical Interlocks are supplied with a free floating grounding plate. Because of this unique method of grounding, conduit entry may be made from the top, bottom or side. No other brand offers this type of installation versatility.

AT139419

A pre-molded offset dimple

Walther does not install a hub at the top of our mechanical interlocks, rather a pre-molded offset dimple (drill point) is provided instead of a condit entry hole. This allows the installer to choose the size of the conduit to be used, and the location where the conduit will be attached to the enclosure (top, bottom or side entry) without the use of knockout plugs and reducers. Arranging the conduit entry hole at the dimple location will prevent condensation from falling directly on the interior electrical components, such as the switch. It will also allow for more room to pull conductors when wiring. Approximately 40% of all entry is from the bottom.

Blue Plug Group

Completely compatible

Completely compatible with not only Walther IEC60309-1 and 309-2 plugs, but with any manufacturer's plugs that conform to the IEC60309 standards and color coding system... anywhere in the world. When Walther IP67 plugs are used in-conjunction with NEMA 4X rated Walther mechanical interlocks, both devices are NEMA 4X rated.

AE139419

Swivel mount feet (135°)

Swivel mount feet can be used for installations where irregular or tight fit applications exist.

AE169421

Micro switch

Available upon request. May be used to transmit signal when plug is inserted or when switch is turned to the "ON" position. May also be used for indicator light to display and confirm when switch is turned "ON" or "OFF". Consult technical service for price and delivery.

MECHANICAL INTERLOCKS: SPECS & DIMENSIONS

Electrical

Dialectric Voltage Withstand	3,000 Volts
Maximum Working Voltage	600 Volts RMS (switch version) 480 Volts RMS (circuit breaker version)
Current Interrupting	Certified for current interrupting at full rated current and voltage.
Short Circuit Withstand Rating	Suitable for use on a circuit capable of delivering not more than 10,000 RMS symmetrical amperes at the voltage rating of the receptacle.
Operations	Mechanical: 10,000 cycles Electrical: 6,000 cycles

Mechanical

Impact Resistance	In accordance with UL 746C
Terminal Identification	In accordance with UL, CSA and international conventions.
Product Identification	Identification, ratings and color code in accordance with UL, CSA and IEC requirements.
Lockout/Tagout	"ON" and "OFF" lockout/tagout capability at switch handle. Complies with OSHA. Reg. 29CFR 1910.147
Switch Version Mounting	Internal or external adjustable mounting feet
Compact Version Mounting	Internal mounting
Circuit Breaker Version Mounting	Internal or external adjustable mounting feet

Materials

Enclosure (all exterior components)	UL94-5VA/V0, UV stabilized, impact modified ValoxR.
Contact Carrier	Molded arc resistant UL94-V0 thermoplastic
Gaskets	Neoprene or EPDM
Contacts (NEMA 4X, Watertight IP67)	Brass, Nickel Plated
Contacts (Splashproof IP44)	Brass
Hardware (screws & springs)	Steel with zinc-plated blue chromate or nickel plating.

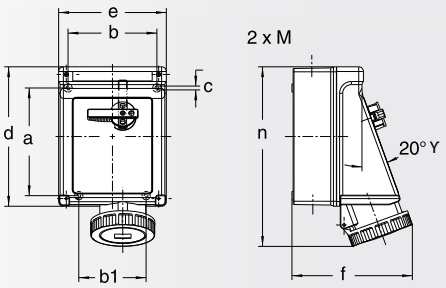
Environmental

Moisture Resistance	Watertight IP67 (Washdown) - UL Type 4X Splashproof IP44
Flammability	UL94-5VA & V0 Classifications
Operating Temperatures	Maximum Continuous: 60°C (140°F) Minimum Continuous: -40°C (-40°F)
UV Resistance	UV stabilized material
Chemicals	Resists most standard industrial hydrocarbons, acids, bases and solvents.

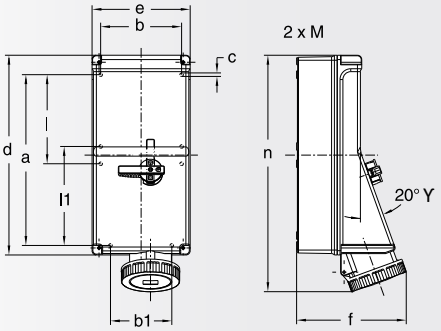
Approvals & Compliances

UL 508 (switch version) Motor Disconnect
UL 508 (compact version) Manual Motor Controller
UL 231 & UL 489 (circuit breaker version)
UL1682 & 1686
CSA C22.2 No. 14, 182.1
IEC60309-1 & IEC60309-2

Drawing A



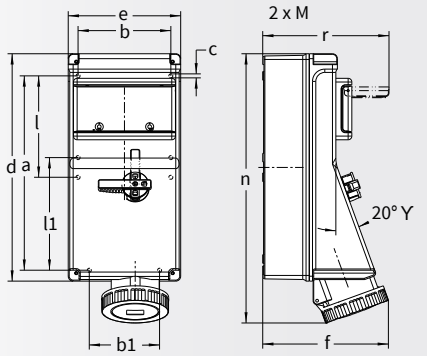
Drawing B



Amps N.A (int'l)	Poles & Wires	Drawing A: Dimension — inches (mm)									
		a	b	b1	c	d	e	IP67 f	IP44 f	IP67 n	IP44 n
20 (16)	2P3W	7.20 (183)	5.94 (151)	4.49 (114)	0.26 (6.5)	9.33 (237)	7.20 (183)	7.60 (193)	7.17 (182)	10.63 (270)	10.55 (268)
	3P4W							7.64 (194)	7.36 (187)	10.71 (272)	10.63 (270)
	4P5W							7.72 (196)	7.24 (184)	10.91 (277)	10.75 (273)
30 (32)	2P3W	7.20 (183)	5.94 (151)	4.49 (114)	0.26 (6.5)	9.33 (237)	7.20 (183)	7.91 (201)	7.36 (187)	11.22 (285)	11.10 (282)
	3P4W										
	4P5W								7.44 (189)	11.38 (289)	11.18 (284)
60 (63)	2P3W	7.20 (183)	5.94 (151)	4.49 (114)	0.26 (6.5)	9.33 (237)	7.20 (183)	8.23 (209)	7.72 (196)	12.17 (309)	11.89 (302)
	3P4W										
	4P5W										

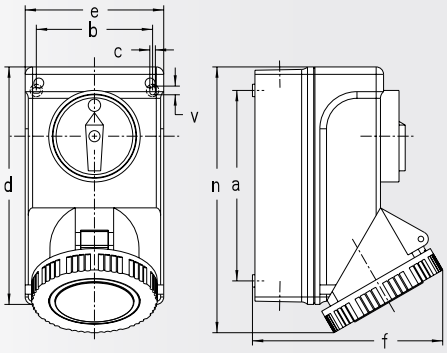
Amps N.A (int'l)	Poles & Wires	Drawing B: Dimension — inches (mm)									
		a	b	b1	c	d	e	IP67 f	IP44 f	IP67 n	IP44 n
100 (125)	2P3W	12.44 (316)	5.94 (151)	4.96 (126)	0.26 (6.5)	14.57 (370)	7.20 (183)	9.57 (243)	9.57 (243)	17.72 (450)	17.72 (450)
	3P4W										
	4P5W										

Drawing C



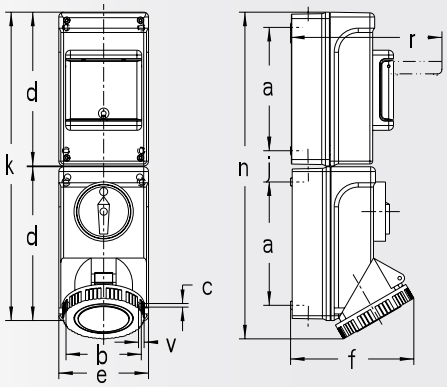
Amps N.A (int'l)	Poles & Wires	Drawing C: Dimension — inches (mm)												
		a	b	b1	c	d	e	IP67 f	IP44 f	l	l1	IP67 n	IP44 n	r
20 (16)	2P3W	12.44 (316)	5.94 (151)	4.49 (114)	0.26 (6.5)	14.57 (370)	7.20 (183)	7.60 (193)	7.17 (182)	6.50 (165)	7.20 (183)	15.91 (404)	15.79 (401)	8.11 (206)
	3P4W							7.64 (194)	7.36 (187)			15.94 (405)	15.91 (404)	
	4P5W							7.72 (196)	7.24 (184)			16.14 (410)	15.94 (405)	
30 (32)	2P3W	12.44 (316)	5.94 (151)	4.49 (114)	0.26 (6.5)	14.57 (370)	7.20 (183)	7.91 (201)	7.36 (187)	6.50 (165)	7.20 (183)	16.46 (418)	16.34 (415)	8.11 (206)
	3P4W													
	4P5W								7.44 (189)				16.42 (417)	
60 (63)	2P3W	12.44 (316)	5.94 (151)	4.49 (114)	0.26 (6.5)	14.57 (370)	7.20 (183)	8.23 (209)	7.72 (196)	6.50 (165)	7.20 (183)	17.44 (443)	17.01 (432)	8.11 (206)
	3P4W													
	4P5W													

Drawing D



Amps N.A (int'l)	Poles & Wires	Drawing D: Dimensions — inches (mm)									
		a	b	c	d	e	IP67 f	IP44 f	IP67 n	IP44 n	v
20 (16)	2P3W	5.00 (127)	3.07 (78)	0.18 (4.5)	6.54 (166)	3.82 (97)	4.72 (120)	4.57 (116)	7.28 (185)	7.28 (185)	0.28 (7)
	3P4W						4.92 (125)	4.72 (120)			
	4P5W						5.20 (132)	4.92 (125)			
30 (32)	2P3W	6.06 (154)	3.70 (94)	0.18 (4.5)	7.60 (193)	4.45 (113)	6.06 (154)	5.71 145	8.46 (215)	8.46 (215	0.28 (7)
	3P4W										
	4P5W							5.83 148			

Drawing E



Amps N.A (int'l)	Poles & Wires	Drawing E: Dimensions — inches (mm)												
		a	b	c	d	e	IP67 f	IP44 f	j	k	IP67 n	IP44 n	r	v
20 (16)	2P3W	5.00 (127)	3.07 (78)	0.18 (4.5)	6.54 (166)	3.82 (97)	4.72 (120)	4.57 (116)	1.54 (39)	13.11 (333)	13.86 (352)	13.86 (352)	6.97 (177)	0.28 (7)
	3P4W						4.92 (125)	4.72 (120)						
	4P5W						5.20 (132)	4.92 (125)						
30 (32)	2P3W	6.06 (154)	3.70 (94)	0.18 (4.5)	7.60 (193)	4.45 (113)	6.06 (154)	5.71 (145)	1.54 (39)	15.24 (387)	16.10 (409)	16.10 (409)	7.52 (191)	0.28 (7)
	3P4W													
	4P5W							5.83 (148)						

MECHANICAL INTERLOCKS STANDARD SWITCH VERSION

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

AE119419

AE130419

Amps	Poles & Wires	Voltage AC	Clock Position of Ground Contact	Horsepower Ratings		
20 Drawing A (pg 78)	2P3W	120	04	0.75	AE119316	AE110316
		240	06	2	AE119318	AE110318
		480	07	4	AE119319	AE110319
	3P4W	3Ø120/240	12	0.75 @ 120V 2 @ 240V	AE119424	AE110424
		3Ø240	09	5	AE119421	AE110421
		3Ø480	07	10	AE119419	AE110419
		3Ø600	05	14	AE119417	AE110417
	4P5W	3ØY120/208	09	5	AE119521	AE110521
		3ØY277/480	07	10	AE119519	AE110519
		3ØY347/600	05	14	AE119517	AE110517
30 Drawing A (pg 78)	2P3W	125	04	1.5	AE139316	AE130316
		250	06	3.5	AE139318	AE130318
		480	07	6	AE139319	AE130319
	3P4W	3Ø120/240	12	1.5 @ 120V 3.5 @ 240V	AE139424	AE130424
		3Ø250	09	7.5	AE139421	AE130421
		3Ø480	07	15	AE139419	AE130419
		3Ø600	05	20	AE139417	AE130417
	4P5W	3ØY120/208	09	7.5	AE139521	AE130521
		3ØY277/480	07	15	AE139519	AE130519
		3ØY347/600	05	20	AE139517	AE130517
32 Drawing A (pg 78)	3P4W	380 50Hz 440 60Hz	03	12	AE139415*	-
60 Drawing A (pg 78)	2P3W	125	04	3.5	AE169316	AE160316
		250	06	7.5	AE169318	AE160318
		480	07	13.5	AE169319	AE160319
	3P4W	3Ø120/240	12	3.5 @ 120V 7.5 @ 240V	AE169424	AE160424
		3Ø250	09	15	AE169421	AE160421
		3Ø480	07	28	AE169419	AE160419
		3Ø600	05	35	AE169417	AE160417
	4P5W	3ØY120/208	09	15	AE169521	AE160521
		3ØY277/480	07	28	AE169519	AE160419
		3ØY347/600	05	35	AE169517	AE160517
100 Drawing B (pg 78)	2P3W	125	04	7.5	AO189316	-
		250	06	14	AO189318	-
		480	07	28	AO189319	-
	3P4W	3Ø120/240	12	7.5 @ 120V 14 @ 240V	AO189424	-
		3Ø250	09	30	AO189421	-
		3Ø480	07	60	AO189419	-
		3Ø600	05	75	AO189417	-
	4P5W	3ØY120/208	09	30	AO189521	-
		3ØY277/480	07	60	AO189519	-
		3ØY347/600	05	75	AO189517	-

** Especially designed for refridgerated containers ONLY.*

MECHANICAL INTERLOCKS — STANDARD SWITCH VERSION with MCBs (Mini Circuit Breakers)

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF


AL119419SA


AL110419SA

Amps	Poles & Wires	MCB Trip Curve**	Voltage AC	Clock Position of Ground Contact	Horsepower Ratings		
20 Drawing C (pg 79)	2P3W	1 Pole C Curve	120	04	0.75	AL11936UD	AL110316UD
			240	06	2	AL119318UD	AL110318UD
			480	07	4	AL119319UD	AL110319UD
	3P4W	3 Pole C Curve	3Ø120/240	12	0.75 @ 120V 2 @ 240V	AL119424SA	AL110424SA
			3Ø240	09	5	AL119421SA	AL110421SA
			3Ø480	07	10	AL119419SA	AL110419SA
			3Ø600	05	14	AL119417SA	AL110417SA
	4P5W	3 Pole C Curve	3ØY120/208	09	5	AL119521TA	AL110521TA
			3ØY277/480	07	10	AL119519TA	AL110519TA
			3ØY347/600	05	14	AL119517TA	AL110517TA
30 Drawing C (pg 79)	2P3W	1 Pole C Curve	125	04	1.5	AL139316UD	AL130316UD
			250	06	3.5	AL139318UD	AL130318UD
			480	07	6	AL139319UD	AL130319UD
	3P4W	3 Pole C Curve	3Ø120/240	12	1.5 @ 120V 3.5 @ 240V	AL139424SA	AL130424SA
			3Ø250	09	7.5	AL139421SA	AL130421SA
			3Ø480	07	15	AL139419SA	AL130419SA
			3Ø600	05	20	AL139417SA	AL130417SA
	4P5W	3 Pole C Curve	3ØY120/208	09	7.5	AL139521TA	AL130521TA
			3ØY277/480	07	15	AL139519TA	AL130519TA
			3ØY347/600	05	20	AL139517TA	AL130517TA
32 Drawing C (pg 79)	3P4W	-	380 50Hz 440 60Hz	03	12	AL139415SA*	-
60 Drawing C (pg 79)	2P3W	1 Pole C Curve	125	04	3.5	AL169316UD	AL160316UD
			250	06	7.5	AL169318UD	AL160318UD
			480	07	13.5	AL169319UD	AL60319UD
	3P4W	3 Pole C Curve	3Ø120/240	12	3.5 @ 120V 7.5 @ 240V	AL169424SA	AL160424SA
			3Ø250	09	15	AL169421SA	AL160421SA
			3Ø480	07	28	AL169419SA	AL160419SA
			3Ø600	05	35	AL169417SA	AL160417SA
	4P5W	3 Pole C Curve	3ØY120/208	09	15	AL169521TA	AL160521TA
			3ØY277/480	07	28	AL169519TA	AL160419TA
			3ØY347/600	05	35	AL169517TA	AL160517TA

** Especially designed for refridgerated containers ONLY.*
*** C Curve means the MCB (Mini Circuit Breaker) trips between 5-10 times full load current.*

MECHANICAL INTERLOCKS — COMPACT VERSION

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

AT119419

AT110419

Amps	Poles & Wires	Voltage AC	Clock Position of Ground Contact	Horsepower Ratings		
20 Drawing D (pg 79)	2P3W	120	04	0.75	AT119316	AT110316
		240	06	2	AT119318	AT110318
		480	07	4	AT119319	AT110319
	3P4W	3Ø120/240	12	0.75 @ 120V 2 @ 240V	AT119424	AT110424
		3Ø240	09	5	AT119421	AT110421
		3Ø480	07	10	AT119419	AT110419
		3Ø600	05	14	AT119417	AT110417
	4P5W	3ØY120/208	09	5	AT119521	AT110521
		3ØY277/480	07	10	AT119519	AT110519
		3ØY347/600	05	14	AT119517	AT110517
30 Drawing D (pg 79)	2P3W	125	04	1.5	AT139316	AT130316
		250	06	3.5	AT139318	AT130318
		480	07	6	AT139319	AT130319
	3P4W	3Ø120/240	12	1.5 @ 120V 3.5 @ 240V	AT139424	AT130424
		3Ø250	09	7.5	AT139421	AT130421
		3Ø480	07	15	AT139419	AT130419
		3Ø600	05	20	AT139417	AT130417
	4P5W	3ØY120/208	09	7.5	AT139521	AT130521
		3ØY277/480	07	15	AT139519	AT130519
		3ØY347/600	05	20	AT139517	AT130517
32 Drawing D (pg 79)	3P4W	380 50Hz 440 60Hz	03	12	AT139415*	-

** Especially designed for refridgerated containers ONLY.*

MECHANICAL INTERLOCKS COMPACT VERSION WITH MCBs (Mini Circuit Breakers)

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

AU119419SA

AU110419SA

Amps	Poles & Wires	MCB Trip Curve **	Voltage AC	Clock Position of Ground Contact	Horsepower Ratings		
20 Drawing E (pg 79)	2P3W	1 Pole C Curve	120	04	0.75	AU119316UD	AU110316UD
			240	06	2	AU119318UD	AU110318UD
			480	07	4	AU119319UD	AU110319UD
	3P4W	3 Pole C Curve	3Ø120/240	12	0.75 @ 120V 2 @ 240V	AU119424SA	AU110424SA
			3Ø240	09	5	AU119421SA	AU110421SA
			3Ø480	07	10	AU119419SA	AU110419SA
			3Ø600	05	14	AU119417SA	AU110417SA
	4P5W	3 Pole C Curve	3ØY120/208	09	5	AU119521TA	AU110521TA
			3ØY277/480	07	10	AU119519TA	AU110519TA
			3ØY347/600	05	14	AU119517TA	AU110517TA
30 Drawing E (pg 79)	2P3W	1 Pole C Curve	125	04	1.5	AU139316UD	AU130316UD
			250	06	3.5	AU139318UD	AU130318UD
			480	07	6	AU139319UD	AU130319UD
	3P4W	3 Pole C Curve	3Ø120/240	12	1.5 @ 120V 3.5 @ 240V	AU139424SA	AU130424SA
			3Ø250	09	7.5	AU139421SA	AU130421SA
			3Ø480	07	15	AU139419SA	AU130419SA
			3Ø600	05	20	AU139417SA	AU130417SA
	4P5W	3 Pole C Curve	3ØY120/208	09	7.5	AU139521TA	AU130521TA
			3ØY277/480	07	15	AU139519TA	AU130519TA
			3ØY347/600	05	20	AU139517TA	AU130517TA
32 Drawing E (pg 79)	3P4W	3 Pole C Curve	380 50Hz 440 60Hz	03	12	AU139415SA*	-

** Especially designed for refridgerated containers ONLY.*
*** C Curve means the MCB (Mini Circuit Breaker) trips between 5-10 times full load current.*

MECHANICAL INTERLOCKS CIRCUIT BREAKER VERSION

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

UL LISTED CSA CERTIFIED

AJ169419SH

AJ160419SH

Amps	Poles & Wires	Voltage AC	Clock Position of Ground Contact		
20 Drawing IP67: B IP44: A (pg 78)	2P3W	120	04	AJ119316SH	AJ110316SH
		240	06	AJ119318SH	AJ110318SH
		480	07	AJ119319SH	AJ110319SH
	3P4W	3Ø120/240	12	AJ119424SH	AJ110424SH
		3Ø240	09	AJ119421SH	AJ110421SH
		3Ø480	07	AJ119419SH	AJ110419SH
	4P5W	3ØY120/208	09	AJ119521SH	AJ110521SH
		3ØY277/480	07	AJ119519SH	AJ110519SH
30 Drawing IP67: B IP44: A (pg 78)	2P3W	125	04	AJ1139316SH	AJ130316SH
		250	06	AJ1139318SH	AJ130318SH
		480	07	AJ139319SH	AJ130319SH
	3P4W	3Ø120/240	12	AJ139424SH	AJ130424SH
		3Ø250	09	AJ139421SH	AJ130421SH
		3Ø480	07	AJ139419SH	AJ130419SH
	4P5W	3ØY120/208	09	AJ139521SH	AJ130521SH
		3ØY277/480	07	AJ139519SH	AJ130519SH
32 Drawing IP67: B IP44: A (pg 78)	3P4W	380 50Hz 440 60Hz	03	AJ139415SH*	-
60 Drawing IP67: B IP44: A (pg 78)	2P3W	125	04	AJ169316SH	AJ160316SH
		250	06	AJ169318SH	AJ160318SH
		480	07	AJ169319SH	AJ160319SH
	3P4W	3Ø120/240	12	AJ169424SH	AJ160424SH
		3Ø250	09	AJ169421SH	AJ160421SH
		3Ø480	07	AJ169419SH	AJ160419SH
	4P5W	3ØY120/208	09	AJ169521SH	AJ160521SH
		3ØY277/480	07	AJ169519SH	AJ160519SH
100 Drawing IP67: B (pg 78)	2P3W	125	04	AO189316SH	-
		250	06	AO189316SH	-
		480	07	AO189319SH	-
	3P4W	3Ø120/240	12	AO189424SH	-
		3Ø250	09	AO189421SH	-
		3Ø480	07	AO189419SH	-
	4P5W	3ØY120/208	09	AO189521SH	-
		3ØY277/480	07	AO189519SH	-

** Especially designed for refridgerated containers ONLY*

AJ139419SH

The Circuit Breaker Mechanical Interlock integrates a circuit breaker (which takes the place of a switch) and receptacle in a non-metallic enclosure that meets NEMA type 4X (Washdown, Corrosion Resistant) requirements.

- Switched, Circuit Breaker Interlock Receptacles are available in 20, 30, 60 & 100 Amp (North American Ratings) and 16, 32, 63, & 125 Amp (International Ratings).
- UL489 Listed 22KAIC protection.

OSHA Lockout/Tagout Compliant

Color-Coded Blue/250 VAC

Twist Locking Ring with Gasket

External Cable Gland

UL LISTED

DUST TIGHT IP67 WATERTIGHT

AE139409

MECHANICAL INTERLOCKS — STANDARD SWITCH

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT IP44 SPLASHPROOF

AE119406

AE119309

Amps	Poles & Wires	Voltage AC	Clock Position of Ground Contact		
16 Drawing A (pg 78)	2P3W	110	04	AE119304	AE110304
		230	06	AE119306	AE110306
		400	09	AE119309	AE110309
	3P4W	110	04	AE119404	AE110404
		230	09	AE119409	AE110409
		400	06	AE119406	AE110406
		500	07	AE119407	AE110407
	4P5W	110	04	AE119504	AE110504
		230	09	AE119509	AE110509
		400	06	AE119	AE110
32 Drawing A (pg 78)	2P3W	110	04	AE139304	AE130304
		230	06	AE139306	AE130306
		400	09	AE139309	AE130309
	3P4W	110	04	AE139404	AE130404
		230	09	AE139409	AE130409
		400	06	AE139406	AE130406
		500	07	AE139407	AE130407
	3P4W	380 50Hz 440 60Hz	03	AE139403*	-
	4P5W	110	04	AE139504	AE130504
		230	09	AE139509	AE130509
		400	06	AE139	AE130
63 Drawing A (pg 78)	2P3W	110	04	AE169304	AE160304
		230	06	AE169306	AE160306
		400	09	AE169309	AE160309
	3P4W	110	04	AE169404	AE160404
		230	09	AE169409	AE160409
		400	06	AE169406	AE160406
		500	07	AE169407	AE160407
	4P5W	110	04	AE169504	AE160504
		230	09	AE169509	AE160509
		400	06	AE169	AE160
125 Drawing B (pg 78)	2P3W	110	04	AO179304	-
		230	06	AO179306	-
		400	09	AO179309	-
	3P4W	110	04	AO179404	-
		230	09	AO179409	-
		400	06	AO179406	-
		500	07	AO179407	-
	4P5W	110	04	AO179504	-
		230	09	AO179509	-
		400	06	AO179	-

** Especially designed for refridgerated containers ONLY.*

MECHANICAL INTERLOCKS — STANDARD SWITCH with MCBs (Mini Circuit Breakers)

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT | IP44 SPLASHPROOF

AL119406SA

AL110406SA

Amps	Poles & Wires	MCB Trip Curve**	Voltage AC	Clock Position of Ground Contact	AL119406SA	AL110406SA
16 Drawing C (pg 79)	2P3W	1 Pole C Curve	110	04	AL119304UD	AL110304UD
			230	06	AL119306UD	AL110306UD
			400	09	AL119309UD	AL110309UD
	3P4W	3 Pole C Curve	110	04	AL119404SA	AL110404SA
			230	09	AL119409SA	AL110409SA
			400	06	AL119406SA	AL110406SA
			500	07	AL119407SA	AL110407SA
	4P5W	3 Pole C Curve	110	04	AL119504TA	AL110504TA
			230	09	AL119509TA	AL110509TA
			400	06	AL119TA	AL110TA
32 Drawing C (pg 79)	2P3W	1 Pole C Curve	110	04	AL139304UD	AL130304UD
			230	06	AL139306UD	AL130306UD
			400	09	AL139309UD	AL130309UD
	3P4W	3 Pole C Curve	110	04	AL139404SA	AL130404SA
			230	09	AL139409SA	AL130409SA
			400	06	AL139406SA	AL130406SA
			500	07	AL139407SA	AL130407SA
	4P5W	3 Pole C Curve	110	04	AL139504TA	AL130504TA
			230	09	AL139509TA	AL130509TA
			400	06	AL139TA	AL130TA
	3P4W	3 Pole C Curve	380 50Hz 440 60Hz	03	AL139403SA*	-
63 Drawing C (pg 79)	2P3W	1 Pole C Curve	110	04	AL169304UD	AL160304UD
			230	06	AL169306UD	AL160306UD
			400	09	AL169309UD	AL160309UD
	3P4W	3 Pole C Curve	110	04	AL169404SA	AL160404SA
			230	09	AL169409SA	AL160409SA
			400	06	AL169406SA	AL160406SA
			500	07	AL169407SA	AL160407SA
	4P5W	3 Pole C Curve	110	04	AL169504TA	AL160504TA
			230	09	AL169509TA	AL160509TA
			400	06	AL169TA	AL160TA

** Especially designed for refridgerated containers ONLY.*
*** C Curve means the MCB (Mini Circuit Breaker) trips between 5-10 times full load current.*

Dual Utility Pedestal with Compact Mechanical Interlock

MECHANICAL INTERLOCKS — COMPACT VERSION

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

UL LISTED

CSA CERTIFIED

AT119406

AT110406

Amps	Poles & Wires	Voltage AC	Clock Position of Ground Contact		
16 Drawing D (pg 79)	2P3W	110	04	AT119304	AT110304
		230	06	AT119306	AT110306
		400	09	AT119309	AT110309
	3P4W	110	04	AT119404	AT110404
		230	09	AT119409	AT110409
		400	06	AT119406	AT110406
		500	07	AT119407	AT110407
	4P5W	110	04	AT119504	AT110504
		230	09	AT119509	AT110509
		400	06	AT119	AT110
32 Drawing D (pg 79)	2P3W	110	04	AT139304	AT130304
		230	06	AT139306	AT130306
		400	09	AT139309	AT130309
	3P4W	110	04	AT139404	AT130404
		230	09	AT139409	AT130409
		400	06	AT139406	AT130406
		500	07	AT139407	AT130407
	3P4W	380 50Hz 440 60Hz	03	AT139403*	-
	4P5W	110	04	AT139504	AT130504
		230	09	AT139509	AT130509
		400	06	AT139	AT130

** Especially designed for refridgerated containers ONLY.*

MECHANICAL INTERLOCKS — COMPACT VERSION with MCBs (Mini Circuit Breakers)

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

AU119409SA

AU110409SA

Amps	Poles & Wires	MCB	Voltage AC	Clock Position of Ground Contact		
16 Drawing E (pg 79)	2P3W	1 Pole C Curve	110	04	AU119304UD	AU110304UD
			230	06	AU119306UD	AU110306UD
			400	09	AU119309UD	AU110309UD
	3P4W	3 Pole C Curve	110	04	AU119404SA	AU110404SA
			230	06	AU119406SA	AU110406SA
			400	09	AU119409SA	AU110409SA
			500	07	AU119407SA	AU110407SA
	4P5W	3 Pole C Curve	110	04	AU119504TA	AU110504TA
			230	09	AU119509TA	AU110509TA
			400	06	AU119TA	AU110TA
32 Drawing E (pg 79)	2P3W	1 Pole C Curve	110	04	AU139304UD	AU130304UD
			230	06	AU139306UD	AU130306UD
			400	09	AU139309UD	AU130309UD
	3P4W	3 Pole C Curve	110	04	AU139404SA	AU130404SA
			230	09	AU139409SA	AU130409SA
			400	06	AU139406SA	AU130406SA
			500	07	AU139407SA	AU130407SA
	4P5W	3 Pole C Curve	110	04	AU139504TA	AU130504TA
			230	09	AU139509TA	AU130509TA
			400	06	AU139TA	AU130TA
	3P4W	3 Pole C Curve	380 50Hz 440 60Hz	03	AU139403SA*	-

** Especially designed for refridgerated containers ONLY.*
*** C Curve means the MCB (Mini Circuit Breaker) trips between 5-10 times full load current.*

MECHANICAL INTERLOCKS — CIRCUIT BREAKER VERSION

UL LISTED CSA CERTIFIED

DUST TIGHT IP67 WATERTIGHT

IP44 SPLASHPROOF

AJ169406SH

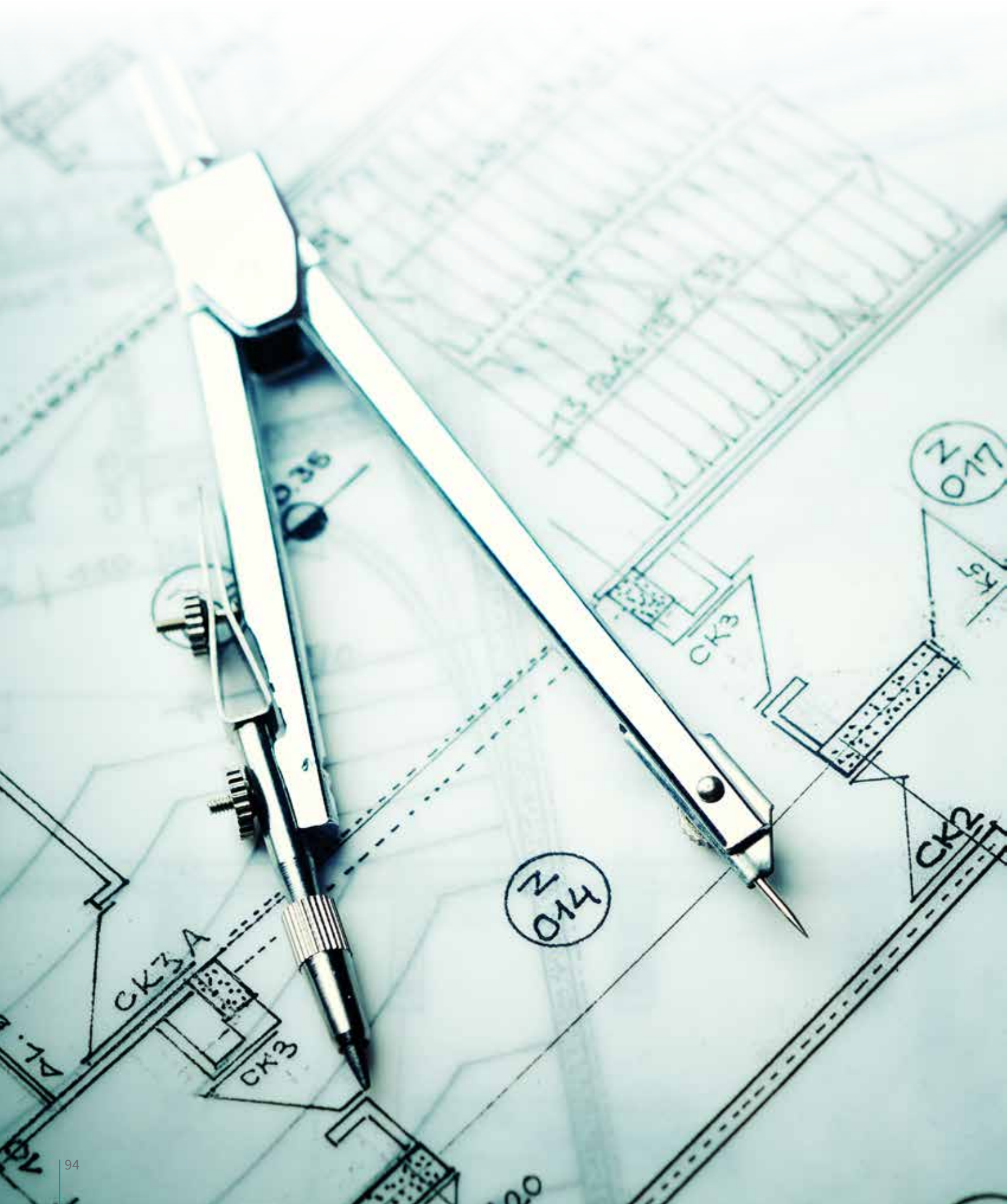
AJ160406SH

Amps	Poles & Wires	Voltage AC	Clock Position of Ground Contact		
16 Drawing B (pg 78)	2P3W	110	04	AJ119304SH	AJ110304SH
		230	06	AJ119306SH	AJ110306SH
		400	09	AJ119309SH	AJ110309SH
	3P4W	110	04	AJ119404SH	AJ110404SH
		230	09	AJ119409SH	AJ110409SH
		400	06	AJ119406SH	AJ110406SH
	4P5W	110	04	AJ119504SH	AJ110504SH
		230	09	AJ119509SH	AJ110509SH
		400	06	AJ119SH	AJ110SH
32 Drawing B (pg 78)	2P3W	110	04	AJ139304SH	AJ130304SH
		230	06	AJ139306SH	AJ130306SH
		400	09	AJ139309SH	AJ130309SH
	3P4W	110	04	AJ139404SH	AJ130404SH
		230	09	AJ139409SH	AJ130409SH
		400	06	AJ139406SH	AJ130406SH
	4P5W	110	04	AJ139504SH	AJ130504SH
		230	09	AJ139509SH	AJ130509SH
		400	06	AJ139SH	AJ130SH
	3P4W	380 50Hz 440 60Hz	03	AJ139403SH*	-
63 Drawing B (pg 78)	2P3W	110	04	AJ169304SH	AJ160304SH
		230	06	AJ169306SH	AJ160306SH
		400	09	AJ169309SH	AJ160309SH
	3P4W	110	04	AJ169404SH	AJ160404SH
		230	09	AJ169409SH	AJ160409SH
		400	06	AJ169406SH	AJ160406SH
	4P5W	110	04	AJ169504SH	AJ160504SH
		230	09	AJ169509SH	AJ160509SH
		400	06	AJ169SH	AJ160SH
125 Drawing B (pg 78)	2P3W	110	04	AO179304SH	-
		230	06	AO179306SH	-
		400	09	AO179309SH	-
	3P4W	110	04	AO179404SH	-
		230	09	AO179409SH	-
		400	06	AO179406SH	-
	4P5W	110	04	AO179504SH	-
		230	09	AO179509SH	-
		400	06	AO179SH	-

** Especially designed for refridgerated containers ONLY.*

MECHANICAL INTERLOCKS

Walther's mechanical interlock receptacles are built to IEC 309-1 and 309-2 specifications and are completely compatible with not only Walther IEC 309-2 plugs, but with any manufacturer's plugs that conform to the IEC standards and coding system...anywhere in the world.

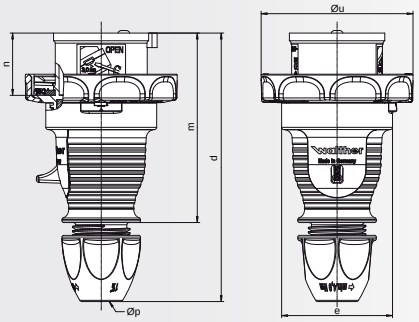

CK3
CK3A
CK3
CK2
Z 014
Z 017

IEC 60309 PIN & SLEEVE DIMENSIONS

DIMENSIONS: PLUGS (EXTERNAL CABLE GLAND)

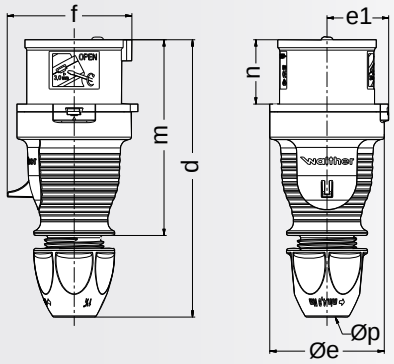
AMPS N.A (Int'l)	Poles & Wires	Drawing PLG-A: Dimensions in (mm)				DUST TIGHT IP67 WATERTIGHT	
		d	Øe	m	n	Øu	Øp
20 (16)	4 & 5	5.91-6.34 (150-161)	2.56 (65)	4.37 (111)	1.44 (36.5)	3.19 (81)	0.30-0.57 (7.5-18.5)
30 (32)	3, 4 & 5	6.81-7.28 (174-183)	2.83 (72)	5.00 (127)	1.79 (45.5)	3.74 (95)	0.39-0.77 (10-22.5)

Drawing PLG-A



AMPS N.A (Int'l)	Number of Wires	Drawing PLG-C: Dimensions in (mm)					IP44 SPLASHPROOF	
		d	Øe	e1	f	m	n	Øp
20 (16)	4	5.91-6.34 (150-161)	2.56 (65)	1.38 (35)	2.48 (63)	4.37 (111)	1.46 (37)	0.30-0.57 (7.5-18.5)
	5				2.28 (71)			
30 (32)	3, 4 & 5	6.81-7.28 (173-185)	2.83 (72)	1.52 (38.5)	2.95 (75)	5.04 (128)	1.79 (45.5)	0.39-0.77 (10-22.5)

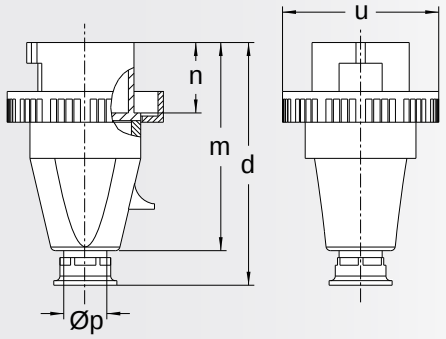
Drawing PLG-C



NOTE: Dimensions are subject to change without notice. Consult a member of our sales team for the most current information +1 (800) 925-8437.

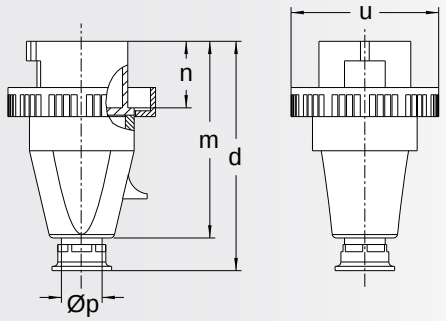
AMPS N.A (Int'l)	Poles & Wires	Drawing PLG-E: Dimensions in (mm)			DUST TIGHT IP67 WATERTIGHT	
		d	m	n	u	Øp
20 (16)	3	4.96 (126)	4.33 (110)	1.46 (37)	2.83 (72)	0.30-0.57 (7.5-14.5)
	4	-/-	-/-	-/-	-/-	-/-
	5	-/-	-/-	-/-	-/-	-/-
30 (32)	3, 4 & 5	-/-	-/-	-/-	-/-	-/-

Drawing PLG-E



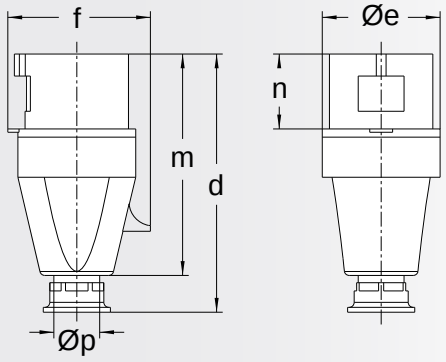
AMPS N.A (Int'l)	Number of Wires	Drawing PLG-F: Dimensions in (mm)			DUST TIGHT IP67 WATERTIGHT	
		d	m	n	u	Øp
60 (63)	3, 4 & 5	9.57 (243)	7.68 (195)	2.64 (67)	4.33 (110)	0.71 - 1.38 (18-35)
100 (125)	3, 4 & 5	12.40 (315)	10.16 (258)	2.97 (75.5)	5.12 (130)	0.94-1.77 (24-45)

Drawing PLG-F



AMPS N.A (Int'l)	Number of Wires	Drawing PLG-G: Dimensions in (mm)				IP44 SPLASHPROOF	
		d	Øe	f	m	n	Øp
20 (16)	3	4.84 (123)	2.01 (51)	2.36 (60)	4.65 (118)	1.46 (37)	0.30-0.57 (7.5-14.5)
	4	5.16 (131)	2.56 (65)	2.68 (68)	4.41 (112)		
	5			2.95 (75)			
30 (32)	3	6.10 (155)	2.87 (73)	3.11 (79)	5.24 (133)	1.81 (46)	0.39-0.77 (10-19.5)
	4						
	5			3.46 (88)			
60 (63)	3, 4 & 5	9.45 (240)	3.19 (81)	3.82 (97)	7.56 (192)	2.64 (67)	0.71-1.36 (18-34.5)

Drawing PLG-G

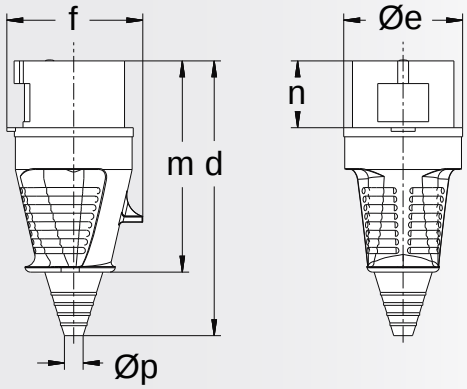


DIMENSIONS: PLUGS (FLEX. CABLE SLEEVE/ANGLED 90°)

Flexible Cable Sleeve:

AMPS N.A (Int'l)	Number of Wires	Drawing PLG-H: Dimensions in (mm)				IP44 SPLASHPROOF	
		d	Øe	f	m	n	Øp
20 (16)	3	5.63 (143)	2.01 (51)	2.36 (60)	4.25 (108)	1.46 (37)	0.28-0.51 (7-13)
60 (63)	3, 4 & 5	9.92 (252)	3.19 (81)	3.82 (97)	7.56 (192)	2.64 (67)	0.59-1.30 (15-33)

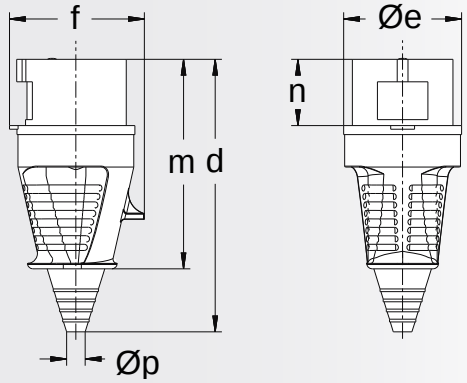
Drawing PLG-H



Flexible Cable Sleeve:

AMPS N.A (Int'l)	Number of Wires	Drawing PLG-I: Dimensions in (mm)				IP44 SPLASHPROOF	
		d	Øe	f	m	n	Øp
20 (16)	7	6.02 (153)	2.56 (65)	2.95 (75)	4.61 (117)	1.46 (37)	0.31-0.83 (8-21)
30 (32)	7	7.13 (181)	2.87 (73)	3.46 (88)	5.43 (138)	1.81 (46)	0.43-0.94 (11-24)

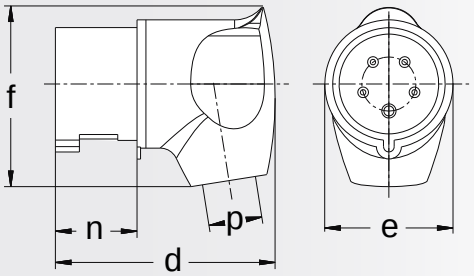
Drawing PLG-I



Angled 90°:

AMPS N.A (Int'l)	Number of Wires	Drawing PLG-J: Dimensions in (mm)			IP44 SPLASHPROOF	
		d	e	f	n	Øp
20 (16)	3	3.35 (85)	1.98 (50.3)	2.76 (70)	1.46 (37)	0.31-0.59 (8-15)
	4	3.86 (98)	2.53 (64.3)	3.39 (86)		0.39-0.65 (10-16.5)
	5					
30 (32)	3	4.53 (115)	2.83 (72)	3.78 (96)	1.80 (45.8)	0.43-0.87 (11-22)
	4					
	5			3.94 (100)		

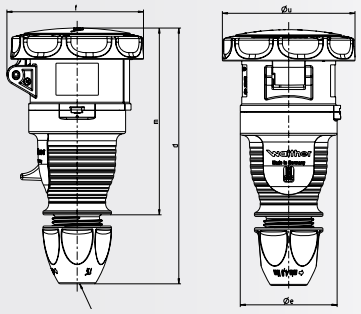
Drawing PLG-J



NOTE: Dimensions are subject to change without notice. Consult a member of our sales team for the most current information +1 (800) 925-8437.

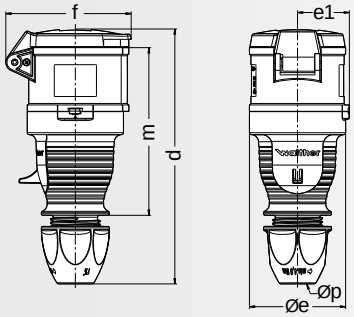
AMPS N.A (Int'l)	Poles & Wires	Drawing CONN-A: Dimensions in (mm)				DUST TIGHT IP67 WATERTIGHT	
		d	Øe	f	m	Øu	Øp
20 (16)	3	5.91-6.39 (150-161)	2.56 (65)	3.35 (85)	4.92 (125)	3.19 (81)	0.30-0.73 (7.5-18.5)
	4			3.62 (92)		3.50 (89)	
30 (32)	3	6.85-7.20 (174-183)	2.83 (72)	3.74 (95)	5.59 (142)	3.74 (95)	0.39-0.89 (10-22.5)
	4						
	5			4.09 (100)		3.94 (100)	

Drawing CONN-A



AMPS N.A (Int'l)	Number of Wires	Drawing CONN-C: Dimensions in (mm)				IP44 SPLASHPROOF	
		d	Øe	e1	f	m	Øp
20 (16)	4	6.50-0.73 (165-176)	2.56 (65)	1.38 (35)	3.03 (77)	4.49 (114)	0.30-0.73 (7.5-18.5)
	5				3.35 (85)		
30 (32)	3	7.44-7.83 (189-199)	2.83 (72)	3.58 (38.5)	3.58 (91)	5.12 (130)	0.39-0.89 (10-22.5)
	4						
	5				3.82 (97)		

Drawing CONN-C

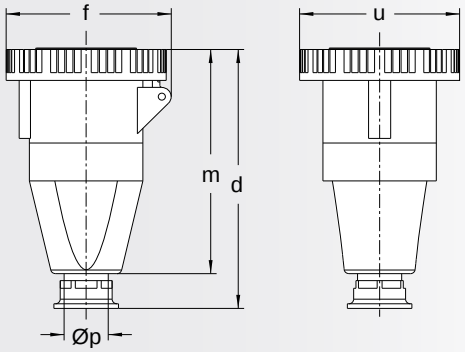


NOTE: Dimensions are subject to change without notice. Consult a member of our sales team for the most current information +1 (800) 925-8437.

DIMENSIONS: CONNECTORS (TRUMPET/BELL GLAND)

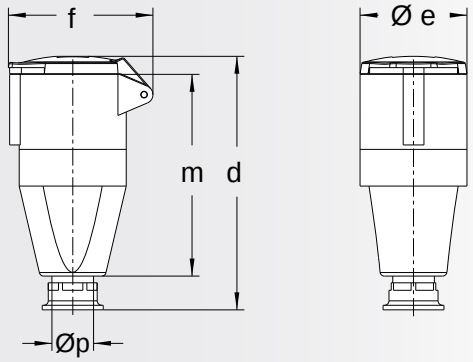
AMPS N.A (Int'l)	Poles & Wires	Drawing CONN-E: Dimensions in (mm)			DUST TIGHT IP67 WATERTIGHT	
		d	f	m	u	Øp
20 (16)	3	5.35 (136)	3.07 (78)	4.76 (121)	2.83 (72)	0.30-0.57 (7.5-14.5)
30 (32)	3, 4 & 5	-/-	-/-	-/-	-/-	-/-
60 (63)	3, 4 & 5	10.04 (225)	4.61 (117)	8.11 (206)	4.33 (110)	0.71-1.36 (18-34.5)
100 (125)	3, 4 & 5	13.07 (332)	5.12 (130)	10.83 (275)	5.12 (130)	0.24-0.94 (24-45)

Drawing CONN-E



AMPS N.A (Int'l)	Number of Wires	Drawing CONN-F: Dimensions in (mm)			IP44 SPLASHPROOF	
		d	Øe	f	m	Øp
20 (16)	3	5.31 (135)	2.01 (51)	2.68 (68)	4.33 (110)	0.3-0.57 (7.5-14.5)
	4	5.94 (151)	2.56 (65)	3.35 (85)	4.45 (113)	
	5					
30 (32)	3, 4 & 5	6.73 (171)	2.83 (72)	3.58 (91)	5.35 (136)	0.39-0.77 (10-19.5)
60 (63)	3, 4 & 5	8.86 (225)	3.78 (96)	4.49 (114)	7.64 (194)	0.71-1.36 (18-34.5)

Drawing CONN-F

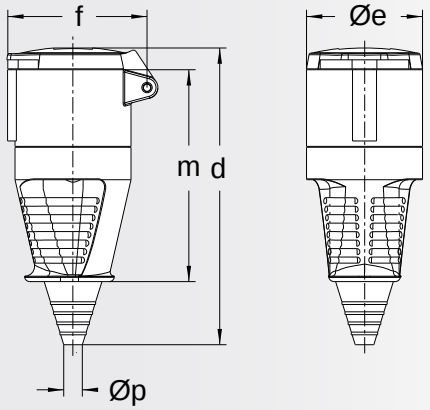


NOTE: Dimensions are subject to change without notice. Consult a member of our sales team for the most current information +1 (800) 925-8437.

Flexible Cable Sleeve:

AMPS N.A (Int'l)	Number of Wires	Drawing CONN-G: Dimensions in (mm)			IP44 SPLASHPROOF	
		d	Øe	f	m	Øp
20 (16)	3	6.06 (154)	2.01 (51)	2.68 (68)	4.29 (109)	0.28-0.51 (7-13)
60 (63)	3, 4 & 5	10.47 (266)	3.78 (96)	4.49 (114)	7.72 (196)	0.59-1.30 (15-33)

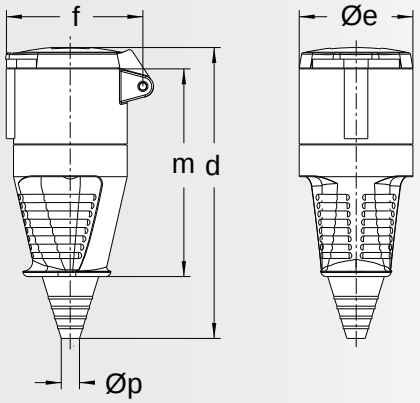
Drawing CONN-G



Flexible Cable Sleeve:

AMPS N.A (Int'l)	Number of Wires	Drawing CONN-H: Dimensions in (mm)			IP44 SPLASHPROOF	
		d	Øe	f	m	Øp
20 (16)	7	6.57 167)	2.56 (65)	3.35 (85)	4.69 (119)	0.31-0.83 (8-21)
30 (32)	7	7.72 (196)	2.83 (72)	3.86 (98)	5.55 (141)	0.43-0.94 (11-24)

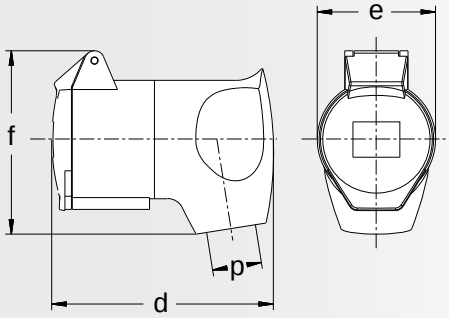
Drawing CONN-H



Angled 90°:

AMPS N.A (Int'l)	Number of Wires	Drawing CONN-I: Dimensions in (mm)		IP44 SPLASHPROOF	
		d	e	f	Øp
20 (16)	3	3.74 (95)	1.98 (50.3)	3.15 (80)	0.31-0.51 (8-13)

Drawing CONN-I



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DIMENSIONS: RECEPTACLES (STRAIGHT)

AMPS N.A (Int'l)	Poles & Wires	Drawing REPT-A: Dimensions in (mm)									DUST TIGHT IP67 WATERTIGHT
		a	b	c	d	e	f	h	n	p	u
20 (16)	3	1.85 (47)	1.85 (47)	0.22 (5.5)	2.44 (62)	2.44 (62)	2.05 (52)	1.81 (46)	1.10 (28)	0.24 (6)	2.83 (72)
	4	2.36 (60)	2.36 (60)		2.95 (75)	2.95 (75)		2.36 (60)		0.35 (9)	3.19 (81)
	5										3.46 (88)
30 (32)	3	2.36 (60)	2.36 (60)	0.22 (5.5)	2.95 (75)	2.95 (75)	2.56 (65)	2.36 (60)	1.06 (27)	0.35 (9)	3.78 (96)
	4										
	5										4.06 (103)
60 (63)	3, 4 & 5	3.35 (85)	3.03 (77)	0.26 (6.5)	4.21 (107)	3.94 (100)	3.27 (83)	3.54 (90)	2.05 (52)	0.47 (12)	4.33 (110)

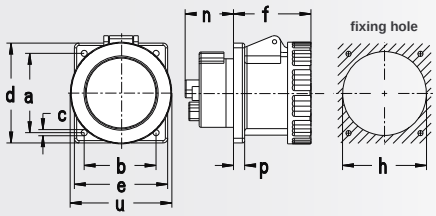
AMPS N.A (Int'l)	Poles & Wires	Drawing REPT-B: Dimensions in (mm)									DUST TIGHT IP67 WATERTIGHT
		a	b	c	d	e	f	h	n	p	u
100 (125)	3, 4 & 5	3.54 (90)	3.54 (90)	0.26 (6.5)	4.49 (114)	4.49 (114)	3.78 (96)	3.54 (90)	2.52 (64)	0.47 (12)	5.12 (130)

AMPS N.A (Int'l)	Number of Wires	Drawing REPT-C: Dimensions in (mm)								IP44 SPLASHPROOF
		a	b	c	d	e	f	h	n	p
20 (16)	3	2.36 (60)	2.36 (60)	0.22 (5.5)	2.95 (75)	2.95 (75)	2.05 (52)	1.81 (46)	1.1 (28)	0.24 (6)
	4						2.09 (53)	2.36 (60)		0.35 (9)
	5									
30 (32)	3, 4 & 5	2.36 (60)	2.36 (60)	0.22 (5.5)	2.95 (75)	2.95 (75)	2.56 (65)	2.36 (60)	1.06 (27)	0.35 (9)

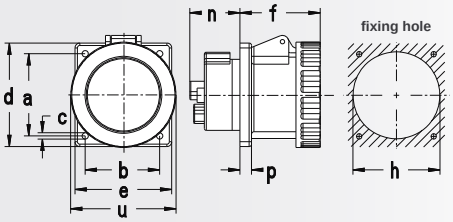
AMPS N.A (Int'l)	Number of Wires	Drawing REPT-D: Dimensions in (mm)								IP44 SPLASHPROOF
		a	b	c	d	e	f	h	n	p
20 (16)	7	2.36 (60)	2.36 (60)	0.22 (5.5)	3.15 (80)	3.15 (80)	2.36 (60)	2.64 (67)	0.93 (23.5)	0.33 (8.5)
30 (32)	7	2.36 (60)	2.36 (60)	0.22 (5.5)	3.15 (80)	3.15 (80)	2.36 (60)	2.8 (71)	0.93 (23.5)	0.33 (8.5)

AMPS N.A (Int'l)	Number of Wires	Drawing REPT-E: Dimensions in (mm)								IP44 SPLASHPROOF
		a	b	c	d	e	f	h	n	p
60 (63)	3, 4 & 5	3.35 (85)	3.03 (77)	0.26 (6.5)	4.21 (107)	3.94 (100)	3.35 (85)	2.54 (90)	2.05 (52)	0.47 (12)

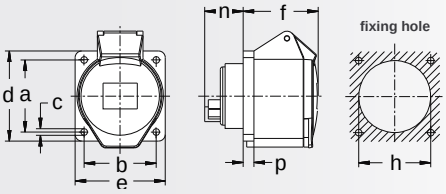
Drawing REPT-A



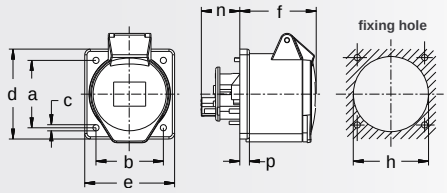
Drawing REPT-B



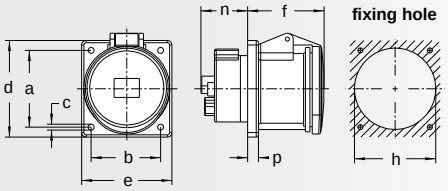
Drawing REPT-C



Drawing REPT-D



Drawing REPT-E



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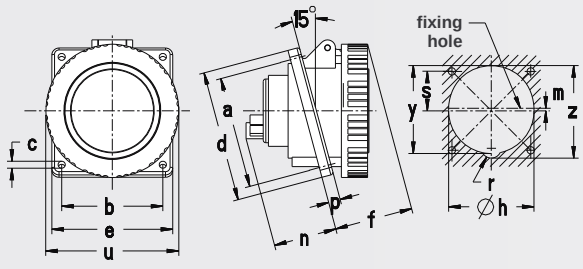
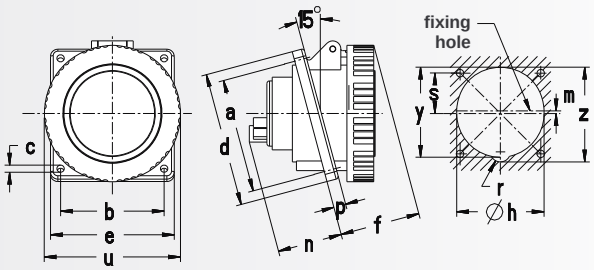
AMPS N.A (Int'l)	Poles & Wires	Drawing REPT-F Dimensions in (mm)												DUST TIGHT IP67 WATERTIGHT		
		a	b	c	d	e	f	h	m	n	p	r	s	u	y	z
20 (16)	3	1.85 (47)	1.85 (47)	0.22 (5.5)	2.68 (68)	2.44 (62)	1.93 (49)	2.01 (51)	-/-	1.61 (41)	0.24 (6)	0.26 (6.5)	-/-	2.83 (72)	2.09 (53)	2.24 (57)
	4	3.35 (85)	3.03 (85)		3.94 (100)	3.62 (92)	2.05 (52)	2.87 (73)	0.08 (2)	1.50 (38)	0.35 (9)	0.30 (7.5)	1.67 (42.5)	3.19 (81)	2.99 (76)	2.23 (82)
	5							2.76 (70)						3.46 (88)	-/-	2.91 (74)
30 (32)	3	3.35 (85)	3.03 (77)	0.22 (5.5)	3.94 (100)	3.62 (92)	2.20 (56)	2.87 (73)	-/-	1.85 (47)	0.35 (9)	0.30 (7.5)	-/-	3.78 (96)	2.99 (76)	3.23 (82)
	4								0.10 (2.5)				1.67 (42.5)			
	5						2.36 (60)	3.07 (78)				.33 (8.5)		4.06 (103)	-/-	2.35 (85)
60 (63)	3	3.35 (85)	3.03 (77)	0.26 (6.5)	4.21 (107)	3.94 (100)	3.23 (82)	3.19 (81)	-/-	2.52 (64)	0.47 (12)	0.31 (8)	-/-	4.33 (110)	3.35 (85)	3.54 (90)
	4								0.10 (2.5)				1.67 (42.5)			
	5							3.31 (84)	0.12 (3)			0.35 (9)			-/-	

AMPS N.A (Int'l)	Poles & Wires	Drawing REPT-G: Dimensions in (mm)												DUST TIGHT IP67 WATERTIGHT		
		a	b	c	d	e	f	h	m	n	p	r	s	u	y	z
100 (125)	3	3.54 (90)	3.54 (90)	0.26 (6.5)	4.49 (114)	4.49 (114)	3.70 (94)	3.54 (90)	-/-	2.95 (75)	0.47 (12)	0.31 (8)	-/-	5.12 (130)	3.78 (96)	4.02 (102)
	4								0.31 (8)				1.77 (45)			
	5							3.46 (88)				0.37 (9.5)				4.09 (104)

Drawing REPT-F



Drawing REPT-G



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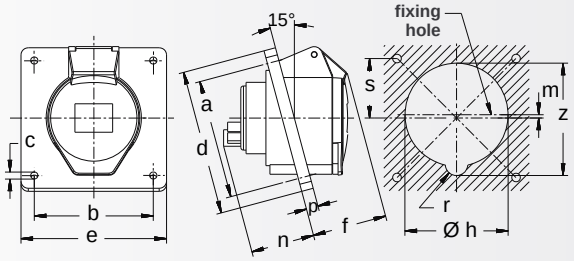
DIMENSIONS: RECEPTACLES (ANGLED 15°)

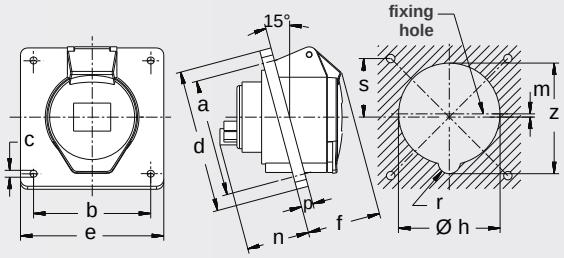
AMPS N.A (Int'l)	Poles & Wires	Drawing REPT-H: Dimensions in (mm)											IP44 SPLASHPROOF		
		a	b	c	d	e	f	h	m	n	p	r	s	y	z
20 (16)	3	1.85 (47)	1.35 (47)	0.22 (5.5)	2.68 (68)	2.44 (62)	1.77 (45)	2.01 (51)	-/-	1.61 (41)	0.24 (6)	0.26 (6.5)	-/-	2.07 (52.5)	2.24 (57)
	4	2.36 (60)	2.36 (60)		2.95 (75)	2.95 (75)	2.01 (51)	1.97 (50)	.08 (2)	1.5 (38)	0.35 (9)	0.3 (7.5)		2.44 (62)	2.52 (64)
	5				3.35 (85)			2.68 (68)				0.31 (8)	1.18 (30)	-/-	2.87 (73)
30 (32)	3	2.36 (60)	2.36 (60)	0.22 (5.5)	3.54 (90)	2.44 (62)	2.05 (52)	2.64 (67)	-/-	1.85 (47)	0.35 (9)	0.3 (7.5)	-/-	2.8 (71)	2.99 (76)
	4					2.95 (75)									
	5	2.76 (70)			3.74 (95)		2.2 (56)	2.99 (76)	0.1 (2.5)			0.33 (8.5)	1.38 (35)	-/-	3.27 (83)

AMPS N.A (Int'l)	Poles & Wires	Drawing REPT-I: Dimensions in (mm)											IP44 SPLASHPROOF		
		a	b	c	d	e	f	h	m	n	p	r	s	y	z
60 (63)	3	3.35 (85)	3.03 (77)	0.26 (6.5)	4.21 (107)	3.94 (100)	3.11 (79)	3.19 (81)	-/-	2.52 (64)	1.47 (12)	0.31 (8)	-/-	3.35 (85)	3.54 (90)
	4				3.94 (100)	3.62 (92)			.012 (3)				1.67 (42.5)		
	5				4.21 (107)	3.94 (100)		3.31 (84)				0.35 (9)		-/-	

Drawing REPT-H



Drawing REPT-I



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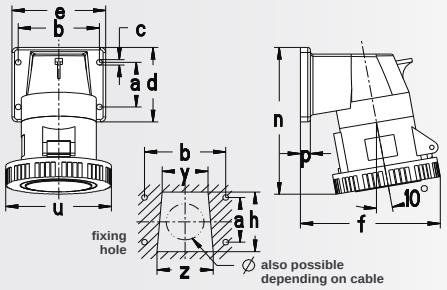
AMPS N.A (Int'l)	Poles & Wires	Drawing REPT-J: Dimensions in (mm)									DUST TIGHT IP67 WATERTIGHT		
		a	b	c	d	e	f	h	n	p	u	y	z
20 (16)	3	1.18 (30)	2.17 (55)	0.22 (5.5)	2.05 (52)	2.56 (65)	3.46 (88)	1.50 (38)	4.29 (109)	0.37 (9.5)	2.83 (72)	1.18 (30)	1.42 (36)
	4	1.57 (40)	2.68 (68)		2.60 (66)	3.15 (80)	(4.25 108)	2.05 (52)	4.84 (123)		3.19 (81)	1.50 (38)	1.81 (46)
	5										3.46 (88)		
30 (32)	3	1.77 (45)	3.07 (78)	0.22 (5.5)	2.95 (75)	3.54 (90)	4.76 (121)	2.36 (60)	5.71 (145)	0.37 (9.5)	3.78 (96)	1.73 (44)	2.13 (54)
	4												
	5						4.84 (123)				4.06 (103)		
60 (63)	3, 4 & 5	3.54 (90)	3.54 (90)	0.24 (6.2)	4.49 (114)	4.49 (114)	5.63 (143)	2.76 (70)	7.99 (203)	0.24 (6)	4.33 (110)	2.20 (56)	2.56 (65)

AMPS N.A (Int'l)	Number of Wires	Drawing REPT-K: Dimensions in (mm)								IP44 SPLASHPROOF		
		a	b	c	d	e	f	h	n	p	y	z
20 (16)	3	1.18 (30)	2.17 (55)	0.22 (5.5)	2.05 (52)	2.56 (65)	3.43 (87)	1.5 (38)	4.57 (116)	0.37 (9.5)	1.18 (30)	1.42 (36)
	4	1.57 (40)	2.68 (68)		2.6 (66)	3.15 (80)	4.33 (110)	2.05 (52)	4.8 (122)		1.5 (38)	1.81 (46)
	5											
30 (32)	3	1.77 (45)	3.07 (78)	.22 (5.5)	2.95 (75)	3.54 (90)	4.72 (120)	2.36 (60)	5.55 (141)	0.37 (9.5)	1.73 (44)	2.13 (54)
	4											
	5						4.88 (124)		2.59 (142)			

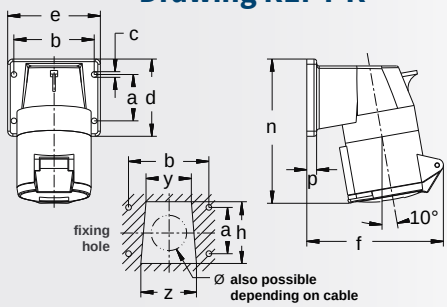
AMPS N.A (Int'l)	Number of Wires	Drawing REPT-L: Dimensions in (mm)								IP44 SPLASHPROOF		
		a	b	c	d	e	f	h	n	p	y	z
20 (16)	7	1.57 (40)	2.68 (68)	0.22 (5.5)	2.6 (66)	3.15 (80)	4.33 (110)	2.05 (52)	4.8 (122)	0.37 (9.5)	1.5 (38)	1.81 (46)
30 (32)	7	1.77 (45)	3.07 (78)	0.22 (5.5)	2.95 (75)	3.54 (90)	4.88 (124)	2.36 (60)	5.59 (142)	0.37 (9.5)	1.73 (44)	2.13 (54)

AMPS N.A (Int'l)	Number of Wires	Drawing REPT-M: Dimensions in (mm)								IP44 SPLASHPROOF		
		a	b	c	d	e	f	h	n	p	y	z
60 (63)	3, 4 & 5	3.54 (90)	3.54 (90)	0.24 (6.2)	4.49 (114)	4.49 (114)	5.51 (140)	2.76 (70)	7.64 (194)	0.24 (6)	2.2 (56)	2.56 (65)

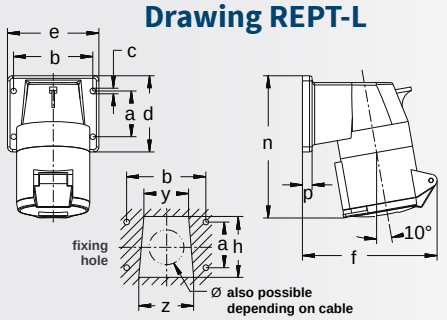
Drawing REPT-J



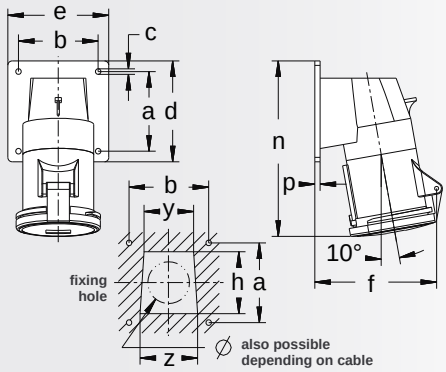
Drawing REPT-K



Drawing REPT-L



Drawing REPT-M



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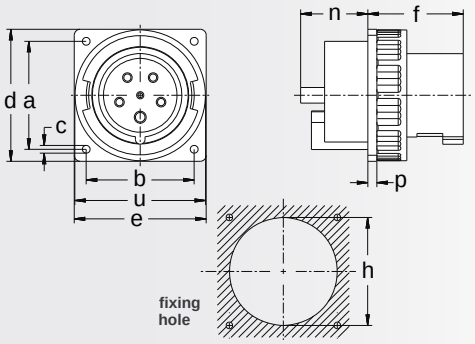
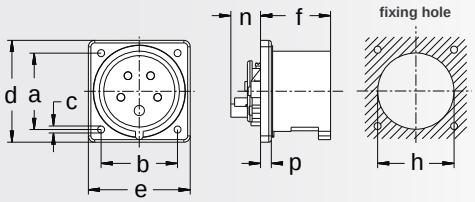
AMPS N.A (Int'l)	Poles & Wires	Drawing INL-A: Dimensions in (mm)								DUST TIGHT IP67 WATERTIGHT	
		a	b	c	d	e	f	h	n	p	u
100 (125)	3, 4 & 5	4.09 (104)	4.09 (104)	0.26 (6.5)	5.12 (130)	5.12 (130)	3.66 (93)	3.54 (90)	2.20 (56)	0.30 (7.5)	5.12 (130)

Drawing INL-A



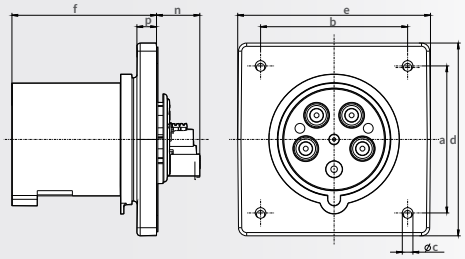
AMPS N.A (Int'l)	Number of Wires	Drawing INL-B: Dimensions in (mm)							IP44 SPLASHPROOF	
		a	b	c	d	e	f	h	n	p
20 (16)	3	1.85 (47)	1.85 (47)	0.22 (5.5)	2.44 (62)	2.44 (62)	1.85 (47)	1.97 (50)	0.87 (22)	0.33 (8.5)
	4	2.36 (60)	2.36 (60)		3.15 (80)	3.15 (80)		2.64 (67)		
	5									
30 (32)	3, 4 & 5	2.36 (60)	2.36 (60)	0.22 (5.5)	3.15 (80)	3.15 (80)	2.20 (56)	2.80 (71)	0.87 (22)	0.33 (8.5)

Drawing INL-B



AMPS N.A (Int'l)	Number of Wires	Drawing INL-C: Dimensions in (mm)						IP44 SPLASHPROOF	
		a	b	c	d	e	f	n	p
60 (63)	3, 4 & 5	3.54 (90)	3.54 (90)	0.26 (6.5)	4.65 (118)	4.65 (118)	3.39 (86)	1.1 (28)	0.47 (12)

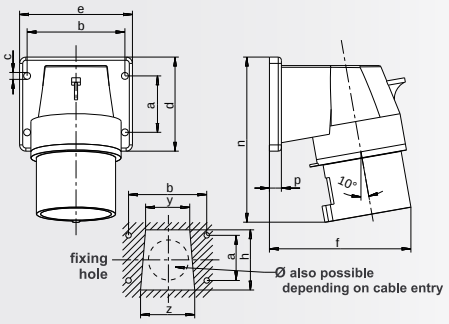
Drawing INL-C



NOTE: Dimensions are subject to change without notice. Consult a member of our sales team for the most current information +1 (800) 925-8437.

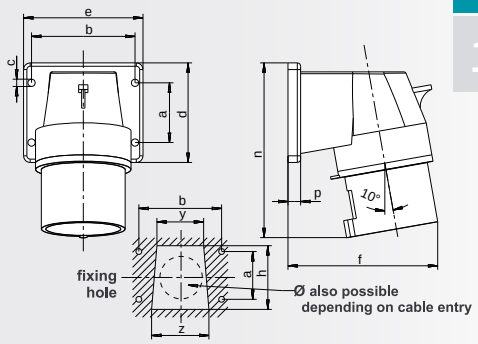
AMPS N.A (Int'l)	Poles & Wires	Drawing INL-D: Dimensions in (mm)									DUST TIGHT IP67 WATERTIGHT		
		a	b	c	d	e	f	h	n	p	u	y	z
20 (16)	3	1.18 (30)	2.17 (55)	0.22 (5.5)	2.05 (52)	2.56 (65)	3.19 (81)	1.50 (38)	3.86 (98)	0.37 (9.5)	2.83 (72)	1.18 (30)	1.42 (36)
	4	1.57 (40)	2.68 (68)		2.60 (66)	3.15 (80)	3.90 (99)	2.05 (52)	4.37 (111)		3.19 (81)	1.50 (38)	1.81 (46)
	5						4.06 (103)		4.45 (113)		3.46 (88)		
30 (32)	3	1.77 (45)	3.07 (78)	0.22 (5.5)	2.95 (75)	3.54 (90)	4.37 (111)	2.36 (60)	5.16 (131)	0.37 (9.5)	3.78 (96)	1.73 (44)	2.13 (54)
	4												
	5						4.61 (117)				4.06 (103)		
60 (63)	3, 4 & 5	3.54 (90)	3.54 (90)	0.24 (6.2)	4.49 (114)	4.49 (114)	5.08 (129)	3.54 (90)	7.24 (184)	0.24 (6)	4.33 (110)	2.20 (56)	2.56 (65)

Drawing INL-D



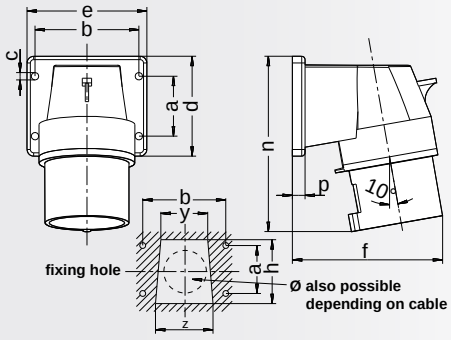
AMPS N.A (Int'l)	Number of Wires	Drawing INL-E: Dimensions in (mm)								IP44 SPLASHPROOF		
		a	b	c	d	e	f	h	n	p	y	z
20 (16)	3	1.18 (30)	2.17 (55)	0.22 (5.5)	2.05 (52)	2.56 (65)	2.83 (72)	1.50 (38)	3.82 (97)	0.37 (9.5)	1.18 (30)	1.42 (36)
	4	1.57 (40)	2.68 (68)		2.60 (66)	3.15 (80)	3.54 (90)	2.05 (52)	4.88 (110)		1.50 (38)	1.81 (46)
	5						3.62 (92)					
30 (32)	3, 4 & 5	1.77 (45)	3.07 (78)	0.22 (5.5)	2.95 (75)	3.54 (90)	4.06 (103)	2.36 (60)	5.08 (129)	0.37 (9.5)	1.73 (44)	2.13 (54)
60 (63)	3, 4 & 5	3.54 (90)	3.54 (90)	0.24 (6.2)	4.49 (114)	4.49 (114)	4.57 (116)	2.76 (70)	7.28 (185)	0.24 (6)	2.20 (56)	2.56 (65)

Drawing INL-E



AMPS N.A (Int'l)	Number of Wires	Drawing INL-F: Dimensions in (mm)								IP44 SPLASHPROOF		
		a	b	c	d	e	f	h	n	p	y	z
20 (16)	7	1.57 (40)	2.68 (68)	0.22 (5.5)	2.6 (66)	3.15 (80)	3.62 (92)	2.05 (52)	4.33 (110)	0.37 (9.5)	1.5 (38)	1.81 (46)
30 (32)	7	1.77 (45)	3.07 (78)	0.22 (5.5)	2.95 (75)	3.54 (90)	4.06 (103)	2.36 (60)	5.08 (129)	0.37 (9.5)	1.73 (44)	2.13 (54)

Drawing INL-F



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DIMENSIONS: INLETS (SURFACE MOUNT)

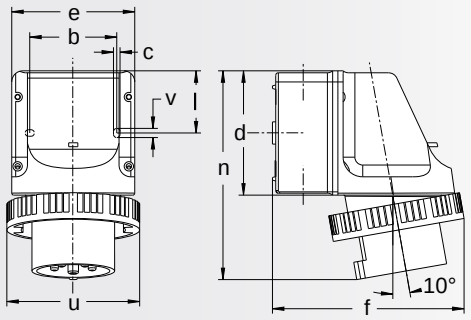
AMPS N.A (Int'l)	Poles & Wires	Drawing INL-G: Dimensions in (mm)										DUST TIGHT IP67 WATERTIGHT
		b	c	d	e	f	l	n	u	v	M	
20 (16)	3, 4 & 5	2.62 (66.5)	0.20 (5)	3.78 (96)	3.74 (95)	5.51 (140)	1.87 (47.5)	6.06 (154)	2.83 (72)	0.28 (7)	0.79-0.98 (20-25)	
									3.19 (81)			
									3.46 (88)			
30 (32)	3, 4 & 5	2.62 (66.5)	0.20 (5)	3.78 (96)	3.74 (95)	5.79 (147)	1.87 (47.5)	6.46 (164)	3.78 (96)	0.28 (7)	0.79-0.98 (20-25)	
						5.91 (150)			4.06 (103)			

AMPS N.A (Int'l)	Poles & Wires	Drawing INL-H: Dimensions in (mm)									DUST TIGHT IP67 WATERTIGHT
		a	b	c	d	e	f	n	u	M	
60 (63)	3	5.35 (136)	4.09 (104)	0.24 (6)	6.69 (170)	4.65 (118)	6.73 (171)	9.84 (250)	4.45 (113)	1.57 (40)	
	4	4.72 (120)	4.17 (106)	0.22 (5.6)	5.98 (152)		4.65 (118)	9.13 (232)			
	5										

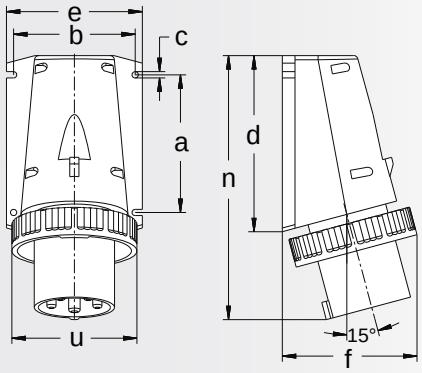
AMPS N.A (Int'l)	Poles & Wires	Drawing INL-I: Dimensions in (mm)										DUST TIGHT IP67 WATERTIGHT
		a	b	c	d	e	f	n	u	M1	M2	
100 (125)	3, 4 & 5	9.45 (240)	7.87 (200)	0.28 (7)	10.35 (263)	8.66 (220)	6.89 (175)	15.35 (390)	5.12 (130)	1.97/0.79 (50/20)	1.57 (40)	

AMPS N.A (Int'l)	Number of Wires	Drawing INL-J: Dimensions in (mm)								IP44 SPLASHPROOF
		b	c	d	e	f	l	n	v	M	
20 (16)	4 & 5	2.62 (66.5)	0.2 (5)	3.78 (96)	3.74 (95)	5.51 (140)	1.87 (47.5)	5.94 (151)	0.28 (7)	0.79/0.98 (20/25)	
30 (32)	3, 4 & 5	2.62 (66.5)	0.2 (5)	3.78 (96)	3.74 (95)	5.51 (140)	1.87 (47.5)	6.3 (160)	0.28 (7)	0.79/0.98 (20/25)	

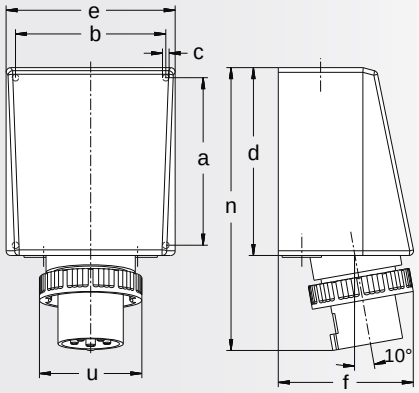
Drawing INL-G



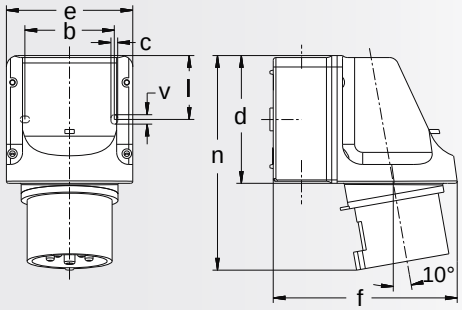
Drawing INL-H



Drawing INL-I



Drawing INL-J



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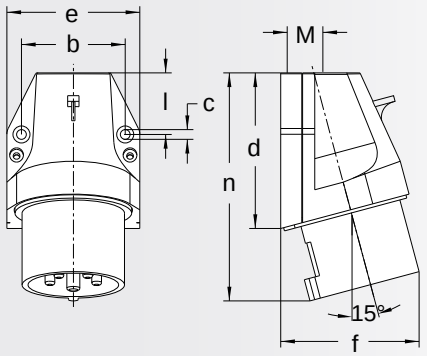
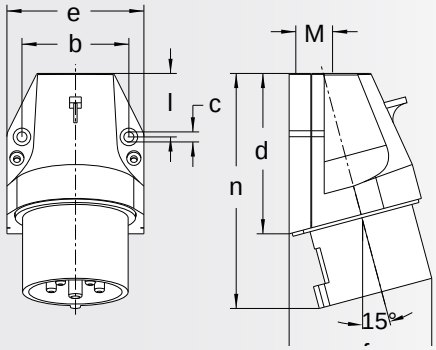
AMPS N.A (Int'l)	Number of Wires	Drawing INL-K: Dimensions in (mm)						IP44 SPLASHPROOF	
		b	c	d	e	f	l	n	M
20 (16)	3	1.79 (45.5)	0.21 (5.3)	2.91 (74)	2.36 (60)	2.36 (60)	1.1 (28)	4.33 (110)	0.79 (20)
	4	2.36 (60)		3.15 (80)	2.91 (74)	2.87 (73)	1.22 (31)	4.61 (117)	
	5								
30 (32)	3, 4 & 5	2.36 (60)	0.21 (5.3)	3.82 (97)	3.23 (82)	3.15 (80)	1.77 (45)	5.55 (141)	0.98 (25)

AMPS N.A (Int'l)	Number of Wires	Drawing INL-L: Dimensions in (mm)						IP44 SPLASHPROOF	
		b	c	d	e	f	l	n	M
20 (16)	7	2.36 (60)	0.21 (5.3)	3.15 (80)	2.91 (74)	2.87 (73)	1.22 (31)	4.61 (117)	0.79 (20)
30 (32)	7	2.36 (60)	0.21 (5.3)	3.82 (97)	3.23 (82)	3.39 (86)	1.77 (45)	5.55 (141)	0.98 (25)

Drawing INL-K



Drawing INL-L



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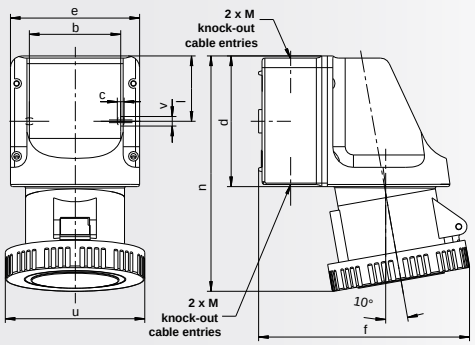
DIMENSIONS: SURFACE MOUNT RECEPTACLES

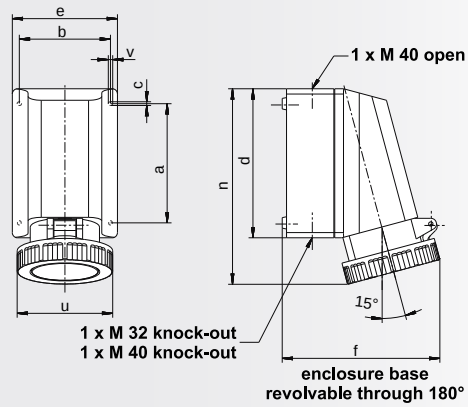
AMPS N.A (Int'l)	Poles & Wires	Drawing SMR-A Dimensions in (mm)								DUST TIGHT IP67 WATERTIGHT	
		b	c	d	e	f	l	n	u	v	M
20 (16)	3, 4 & 5	2.62 (66.5)	0.2 (5)	3.38 (96)	3.74 (95)	5.51 (140) 5.67 (144) 5.79 (147)	1.87 (47.5)	6.46 (164)	2.83 (72) 3.19 (81) 3.46 (88)	0.28 (7)	0.79/0.98 (20/25)
30 (32)	3, 4 & 5	2.62 (66.5)	0.2 (5)	3.38 (96)	3.74 (95)	6.14 (156)	1.87 (47.5)	6.93 (176)	3.78 (96) 4.06 (103)	0.28 (7)	0.79/0.98 (20/25)

Drawing SMR-A



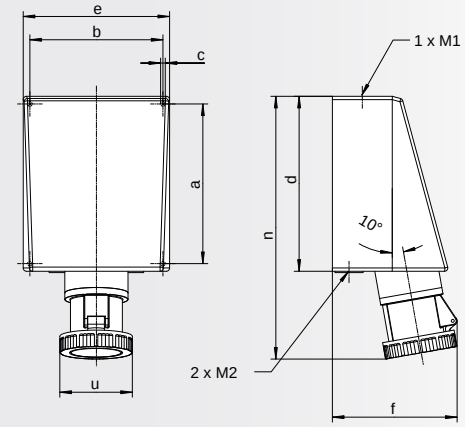
AMPS N.A (Int'l)	Poles & Wires	Drawing SMR-B Dimensions in (mm)							DUST TIGHT IP67 WATERTIGHT	
		a	b	c	d	e	f	n	v	
60 (63)	3, 4 & 5	5.35 (136)	4.09 (104)	0.17 (4.2)	6.77 (172)	4.76 (121)	7.01 (178)	8.82 (224)	0.2 (5)	

Drawing SMR-B



AMPS N.A (Int'l)	Poles & Wires	Drawing SMR-C Dimensions in (mm)								DUST TIGHT IP67 WATERTIGHT	
		a	b	c	d	e	f	n	u	M1	M2
100 (125)	3, 4 & 5	9.45 (240)	7.87 (200)	0.28 (7)	10.35 (263)	8.66 (220)	7.48 (190)	15.98 (406)	5.12 (130)	0.79/1.97 (20/50)	1.57 (40)

Drawing SMR-C



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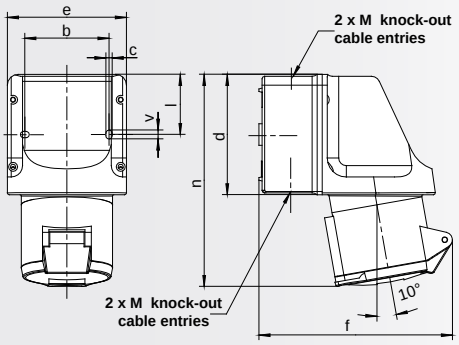
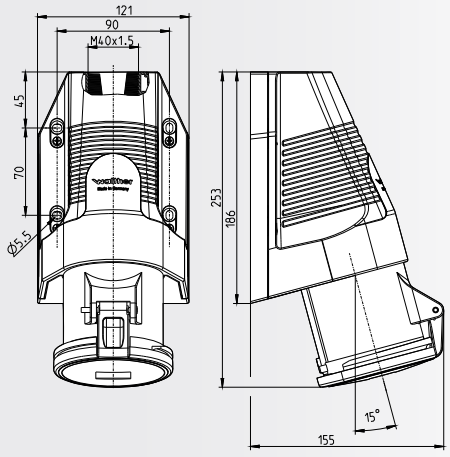
AMPS N.A (Int'l)	Number of Wires	Drawing SMR-D: Dimensions in (mm)								IP44 SPLASHPROOF
		b	c	d	e	f	l	n	v	M
20 (16)	3	2.62 (66.5)	0.2 (5)	3.78 (96)	3.74 (95)	5.51 (140)	1.87 (47.5)	6.3 (160)	0.28 (7)	0.79/0.98 (20/25)
	4					5.51 (140)		6.46 (164)		
	5					5.75 (146)				
30 (32)	3	2.62 (66.5)	0.2 (5)	3.78 (96)	3.74 (95)	6.06 (154)	1.87 (47.5)	6.81 (173)	0.28 (7)	0.79/0.98 (20/25)
	4									
	5					6.18 (157)				

Drawing SMR-D



AMPS N.A (Int'l)	Number of Wires	Drawing SMR-E: Dimensions in (mm)							IP44 SPLASHPROOF
		a	c	c	d	e	f	n	v
60 (63)	3, 4, & 5	5.35 (136)	4.09 (104)	0.17 (4.2)	6.77 (172)	4.76 (121)	7.01 (178)	8.66 (220)	0.2 (5)

Drawing SMR-E



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CABLE AND CONDUCTOR STRIP LENGTH

AMPS	Dimensions in (mm)		
	Outer Jacket	Conductor	Pilot Conductor
20 (16)	2 (50)	1/2 (12)	-
30 (32)	2 1/2 (63)	1/2 (12)	-
60 (63)	3 (76)	3/4 (19)	7/16 (11)
100 (125)	4 (102)	1 1/8 (28)	5/8 (16)

MAXIMUM TORQUE APPLIED TO TERMINAL SCREWS

AMPS	Torque lb. - in (N - m)	
	Terminal Screw	Pilot Screw
20 (16)	7.1 (0.8)	-
30 (32)	7.1 (0.8)	-
60 (63)	17.6 (2)	7.1 (0.8)
100 (125)	35.3 (4)	7.1 (0.8)

CABLE AND CONDUCTOR STRIP LENGTH

Conductor Size		Test Range (Amperage)
mm2	AWG/MCM	
1.0	18	0-8
1.5	16	8-12
2.5	14	12-15
2.5	12	15-20
4.0	10	20-25
6.0	10	25-32
10	8	32-50
16	6	50-65
25	4	65-85
35	3	85-100
35	2	100-115
50	1	115-130
50	1/0	130-150
70	2/0	150-175
95	3/0	175-200
95	4/0	200-225
120	250	225-250
150	300	250-275
185	350	275-300
185	400	300-350
240	500	350-400

CABLE AND CONDUCTOR RANGE

AMPS	Pole and Wires	AWG Type		Cord Grip Range			
		From	To	With Cable Gland		With Cable Sleeve	
				N. American	International	N. American	International
20 (16)	2P3W	16 S	10 S	0.275 - 0.530 (7 - 13.5)		0.275 - 0.675 (7 - 17)	
	3P4W			0.395 - 0.825 (10 - 21)	0.275 - 0.630 (7 - 16)	0.315 - 0.800 (8 - 20)	
	4P5W						
30 (32)	2P3W	12 S	8 S	0.395 - 0.825 (10 - 21)		0.590 - 0.950 (15 - 24)	
	3P4W			0.650 - 1.10 (16.5 - 28)	0.395 - 0.825 (10 - 21)		
	4P5W						
60* (63)*	2P3W	8 S	4 S or W	0.650 - 1.50 (16.5 - 38)		0.635 - 1.30 (16 - 33)	0.600 - 1.30 (15 - 33)
	3P4W						
	4P5W						
100* (125)*	2P3W	6 S or W	2/0 S or W	0.950 - 1.90 (24 - 48)		-	
	3P4W						
	4P5W						

** Pilot conductor 16 to 8 AWG*

Cable Protectors: See pages 74-75 for more details.

NEW PRODUCT ANNOUNCEMENT: CABLE PROTECTORS

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Walther Electric now offers cable protection systems! Guide cables safety across your worksite with 2, 4 or 5 channel cable protection systems designed for light-duty or heavy-duty project areas.

Cable Protection systems are offered in a variety of sizes to suit all types of INDOOR/OUTDOOR applications. Ideal for local events, festivals, sporting events, construction sites, conventions centers, manufacturing floor, or warehouse.

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