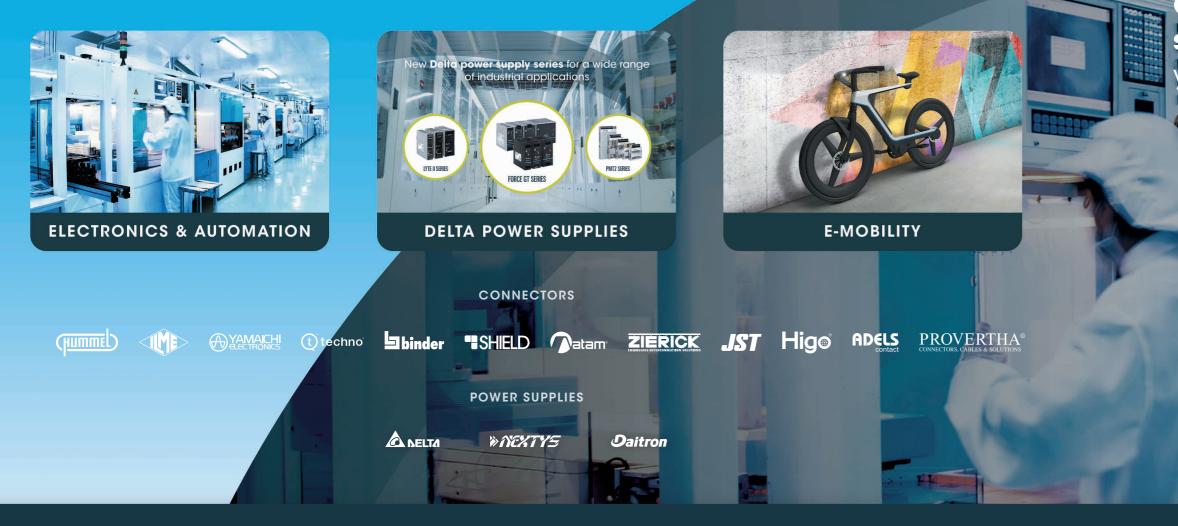
### Discover our complete connector & power supply range





Slachthuisstraat 68, B-2300 Turnhout +32 (0)14 73 53 70 - info@ac-solutions.be www.ac-solutions.be





### Connector & power supply solutions designed around your business



### ELECTRONICS & AUTOMATION

111

### **OUR MISSION**

Relieving manufacturers by advising, customizing & stocking the right connector and/or power supply solution.



2

### OUR BACKGROUND



### **OUR VISION**

"We want to be the online & offline preferred connector & power supply partner for the industrial Benelux markets, bringing to life every customer's great automation project by a customer centric and sustainable approach with passion for technology and a clear focus on JIT delivery and operational excellence."



### THIS IS HOW WE WORK



ALL EYES On you

We don't sell products, we sell solutions. A solution only becomes one when it fully meets your requirements. It doesn't matter whether you are looking for a single connector, a power supply or a fully customised cable set. We are there to help you find the right match at the best price available in the market.



### TOTAL COST OF OWNERSHIP For a long term value

Besides a connector or power supply solution that fits from a technical point of view, we also look at the bigger picture, i.e. the total cost of ownership (TCO). As an independent partner we work with brands that offer sustainable solutions that deliver the best product performance at a competitive price for a better long-term value. That's our focus.



### OUALITY & ENVIRONMENTAL BASED MANAGEMENT

Quality and environmental management systems enable us to create a solid & sustainable organization based on predefined working procedures, incoming and outgoing quality checks and ongoing self-assessments to do things even better in the future.



We have a clear focus on connector & power supply solutions. In both fields, we have built a strong expertise that helps us to advise you the best solution for your application.



### Longterm Partnerships

We are a partnership builder who is convinced that success can only come from a long term focus. This is how we approach our suppliers, assembly partners and above all, our customers.



### YOUR STOCK Manager

Our stock management services are designed to support your ongoing production process. We ship a large part of the conventional connector & power supply solutions directly from stock within 24 hours. And we keep designated customer stock on demand or based on periodic forecast information.

### OUR HOME BASE Located in turnhout with a 1000M<sup>2</sup> Warehouse



### OUR MARKETS



### **E-MOBILITY**

Compact, waterproof signal, motor and battery connectors & splitters



### LED LIGHTING

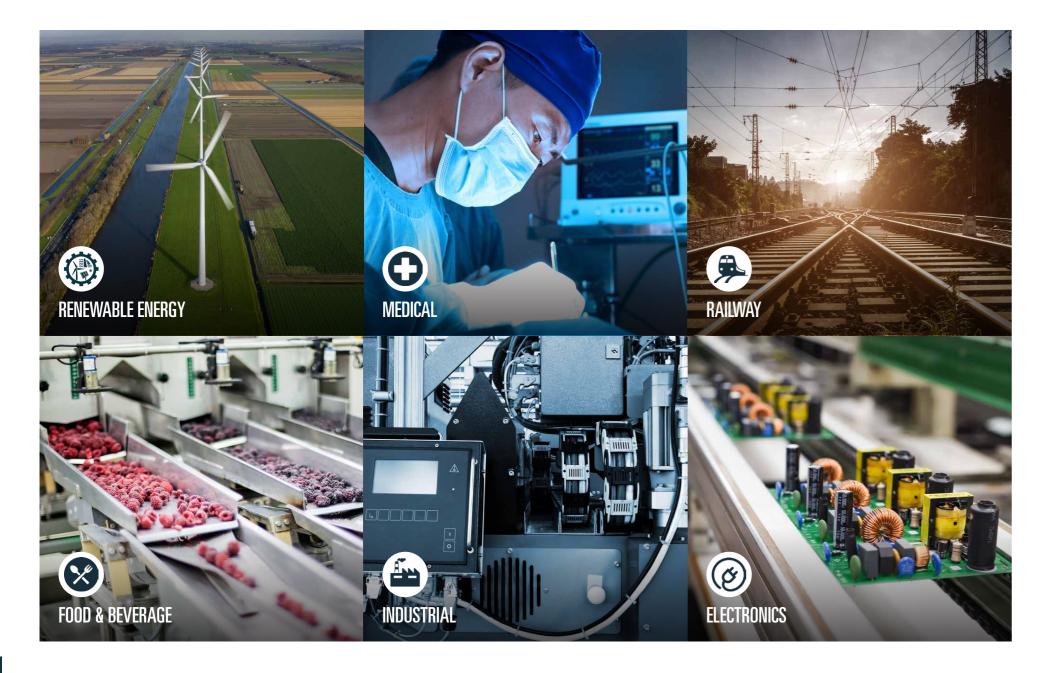
Compact, waterproof plug & socket connectors, junction boxes, SMD connectors & LED drivers



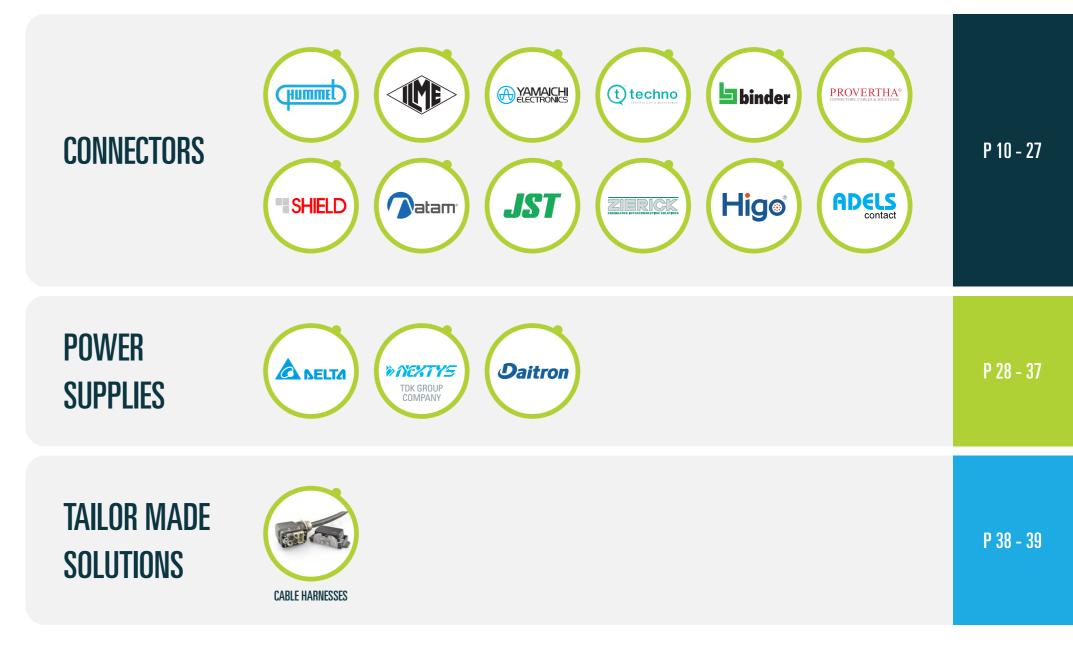
### **ELECTRONICS & AUTOMATION**

Signal, power and hybrid connectors in a circular and rectangular shape supplemented with AC/DC, DC/DC and UPS power supply solutions

### APPLICATIONS



### OUR BRANDS



"Staying tuned with developments within our connector brands and the markets that we serve is essential to keep up of course. As they say, knowledge is power. And I agree. But even more powerful than knowledge is understanding. The genuine interest to understand our customer's business to be able to come up with the right industrial connector solution or cable set. That's what really keeps us busy here! "

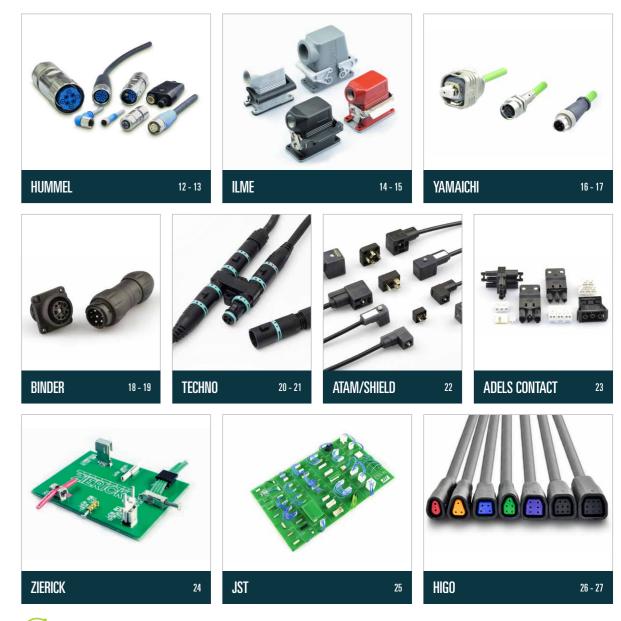
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MIXO SERIES

Marco Stelleman



### CONNECTORS



IP68

On the following pages, we will use icons to emphasize a special feature of a connector type or power supply. This doesn't mean that other products that don't show this icon, can't have the same feature. To get a complete overview of all features, please request technical data sheets via sales@ac-solutions.be.

(A<sub>&</sub>C)



M12 power connectors

HUMMEL combines compact size with high power.



HUMMEL



Wide range of M12, M16, M23, M40 connectors

> Available in INOX/moulded version with various coding possibilities.

### Unique wire crimping technology

HUMMEL's wire crimping connection is a strong piece of technology that ensures a reliable and stable connection with high mating cycles.







### CONNECTORS

### Circular moulded connector

Circular connector, moulded version, available as M16 and M23.

#### TWILOCK

TWILOCK is a quick-release fastening system for Series M16 and M23 circular plug-in connectors. With one simple click, just a slight twist, the plug-in system goes from "Open" to "Close" and locks.



### P67 M23 RJ45 connectors

### Stainless steel connectors

STAINLESS

IP69K

Stainless steel, circular connectors from HUMMEL are suitable for rough industrial environments, as well as hygienic areas in the food, chemical and pharmaceutical sectors. Available in sizes M16 and M23.



# HUMMEL



ILME is a market-oriented, niche brand that offers the best deal in high performance rectangular connectors for a wide range of applications. Every year, 10-15% of ILME's turnover is reinvested into R&D to come up with more advanced technologies and new connector designs that meet the demanding needs of the future. In the past 70 years, this continuous drive for innovation has allowed ILME to build up a strong reputation with engineers.



Full flexibility with the ILME MIXO series

The MIXO series is a system of modular units for special applications that use the traditional ILME enclosures. Each enclosure can house different types of connections.



#### AXYR®: High density toolless connections

The new ILME AXYR® inserts offer an extremely compact spring push-in termination that equals high density crimp connectors but requires no special crimping tool.



### SQUICH®: fast & toolless connections

The ILME range of SQUICH® inserts for 0,14-2,5mm<sup>2</sup> wires uses a spring clamp terminal. To lock the wires you simply plug them in and lock them manually by pushing a button without toolings. This saves you up to 50% installation time.







### CONNECTORS

Ilme offers an easy to use online configurator. Scan the QR code and put together your Ilme connector:





#### E-Xtreme

The ILME E-Xtreme housing series is made of die-cast aluminium with titanium plasma coating to resist high corrosive environments. The E-Xtreme achieves a resistance of 3000 hours in salt spray tests.

T-type Hygienic

ILME

The ILME plastic T-Type Hygienic housing offers the F&B industry ultimate hygiene at an economical price.





### IP68 housing

The IP68 housing is made of corrosionresistant aluminum die-casting with powder coating and stainless steel hexagon head screw or bayonet locking mechanism.

IP68



### 100% made in Germany

With R&D and production based in Frankfurt/Oder, Yamaichi is able to respond quickly to individual customer requirements. Yamaichi's integrated manufacturing enables the highest quality coupled with short delivery times, even for small quantities.



### Shorter & lighter

Y-Circ® P push-pull is a lightweight connector and up to 20% shorter than comparable connectors on the market.

#### Benefits:

- It reduces material, weight and processing cost
- It saves space in your application
- It enables you to use shorter connector sockets
- It makes the connector less vulnerable for vibrations



IP68

The better one: Y-Circ®

push-pull connector

#### Angled connector socket







### CONNECTORS



#### The industrial one: The Y-Con Cover-40 with push-pull locking

The Y-Con Cover-40 is the IP-protected version of the RJ45 housing with push-pull locking. Two additional power supply contacts can be integrated into the RJ45.



The new one: Y-Circ M12 push-pull

Yamaichi leads the way when it comes to push-pull connector design. It's the first manufacturer to launch an M12 push-pull system with inner locking that is interchangeable with standard M12 connectors. This revolutionary push-pull technology offers 75% faster and toolfree installation.

# YAMAICHI

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#### M12 power cable connector

Field assembly cable connector with screw terminal provides K- and L- coding for power supply. It allows for a cable diameter of 8,13mm and can be used with 12A or 16A per pin depending on the coding.



#### M12 X code connectors

Binder has expanded its M12 X-coded product family with new receptacles, cordsets and feed-through connectors. The X-coded products meet CAT6a specifications with data transmission rates up to 10 Gbps.



#### Sensor connectors

Binder offers a wide range of M5, M8 and M12 sensors connectors. These are available as cable, panel-mount and flange connectors both in shielded and unshielded versions in all possible codes.







#### M12 A code F&B connector

M12 A-coded connector in an overmoulded design for applications in food, pharmaceutical and chemical industries.

# BINDER



### CONNECTORS



### MED series

Bayonet connector series in medical, home care and industrial devices for the easy detection of contamination. Cost-effective alternative for classic medical connectors in simple applications.



#### Snap-in connector

Snap-in connector series with a diameter of 11,5 or 16mm, IP67 protected.



# Chemical resistant

BINDFR

IP69K

### HEC connector with hinged cover

The Harsh Environment Connector combines hybrid features with a tough character. It's resistant against climatic influences, industrial and chemical substances. The bayonet locking mechanism ensures a secure and fast locking.

#### Power connectors

Popular power connector series available with solder-, screw- or crimp contacts. Also available in moulded version. VDE, SEV and UL-approved.

19



#### Allround outdoor connector specialist Techno

Techno offers a wide range of IP68 fixed and plug & socket connectors. Techno connectors are known for their compact design, reliable performance and easy & quick installation in the field.



Fast wiring with TH389 mini plug & socket connector

It only takes 15 seconds to connect the push-pull, screwless TH389. The TH389 is available in flying and M20 panel version from 2 to 5 poles and allows absorption up to 17,5 A and applications up to 500V in alternating current (AC) and continues (DC).



### TH381 Micronnect: smallest 3-pole IP68/IP69K plug & socket connector







therefore installation errors.

*Quick wins with the TH629 current distributor* The TH629 is available in both a 3- and 4-pole version and has 1 entry and three exit points.





IP68

1

#### *Techno plug & socket connectors*

**TECHNO** 

The Techno TH405 connector has special designed, silicon gaskets. They ensure a safe locking and a maxium protection.

#### Micronnect current distributor TH625

IP68

This distributor comes with integrated LED lights and has 1 entry and three exit points. Available in a 2- and 3-pole version.

**- Č**r

### IP66 IP67

The TH212 Family from Techno is a modular IoT "smart" box able to integrate different devices (standard and custom electronic) and connection parts (single wire or cable connection). It's available in different configurations for outdoor and indoor applications.

- Mini Junction Box 5 ways M16/M20 IP54-65-66 screwless and IP67 with screws
- Zhaga Book 18 ready
- Plug & Play Ready

### CONNECTORS







### Double valve with moulded cable

Also available as customized solution.



#### Distriboxes

Shield offers various top and side mounting (spider) distribution boxes with M8 and/or M12 sockets. These space saving distriboxes are available in double or triple line and can include 2 up to 15 sockets with 1 to 3 signals each. On request LED signaling can be included.

#### M8/M12 connectors

M8 and M12 connectors are available with Atam in both screw and moulded version and can be provided upon request with different special cables.



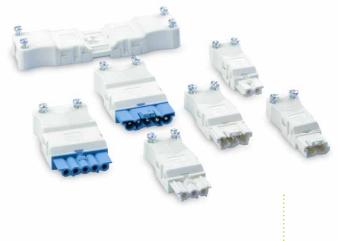
## CONNECTORS



### AC166 series, the mainstream indoor plug & play connector

Adels contact offers high-end solutions in the field of pluggable electrical installations for interior lighting since 1930. Their bestseller series is the AC166 series, a mainstream indoor plug & play connector according to EN61535.





#### Little brother AC164

The AC164 is half the size of the conventional AC166. The AC164 offers an enlarged modular system with smaller dimensions. The range enables you to realize compact lighting installations quickly and cost-effectively.

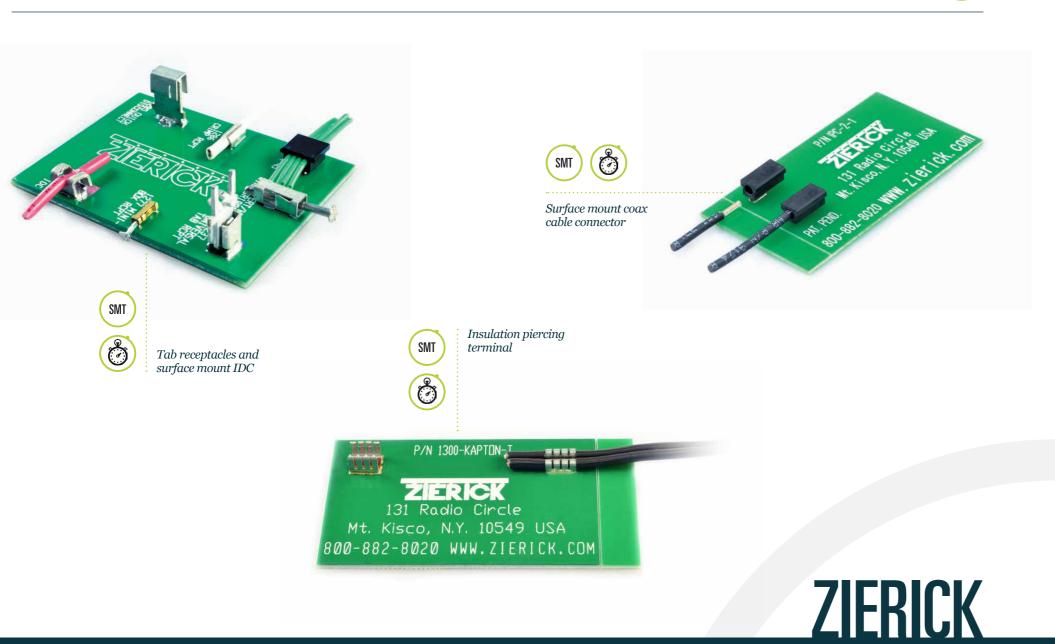


#### LCS75 cable gland for outdoor lighting

The LCS75 connector is a waterproof solution specifically designed for outdoor lighting in parking lots, industrial buildings, cold rooms etc. By integrating the LCS75 connector into the luminaire upfront, the manufacturer is assured that the luminaire itself remains sealed during installation. Both are available in a 3-pole and 5-pole version.



# ADELS



### CONNECTORS

#### LED connectors

E

A&C

LED connectors are low profile and space saving solutions for the LED lighting industry. A pitch size of only 1,8mm already has a current rating of 4A.

#### IP rated connectors

IPX7

Connectors with a solid rubber seal for wire sealing.

A&C

#### Wire-to-board connectors

Wire-to-board crimp style/IDC connectors.

JST

25

Higo is European marketleader in E-bike connectors. Although Higo connectors are originally developed for the E-bike market, we often come across industrial applications' requirements that also need to operate in outdoor/humid environments where space is limited. In these situations, ultra-compact and IP66/IP67 connectors are the ideal solution.



A<sub>&</sub>C

2A

2-9 pole mini F signal connector PLUG

Higo's mini F push-pull range can handle a rated current of 2A for wires of 0,12mm<sup>2</sup> and 0,2mm<sup>2</sup>. Each pole number has a different shape and colour in order to preclude interchangeability and therefore installation errors in the field.



The mini-C range has a 9mm diameter with threaded locking system. It offers 2A for 0,12mm<sup>2</sup> and 0,2mm<sup>2</sup> wires.

2-9 pole mini F signal connector PANEL MOUNT

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8.15



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2-pole micro A signal plug & panel mount connector



2A



## CONNECTORS



#### 6-pole PLUG

The L615A screw connector has an outside diameter of 15mm and is suitable for wires of (40A/2A) 0,2mm<sup>2</sup> and 4mm<sup>2</sup>.





Higo offers a wide range of splitters that can be fully

designed around each customer's requirements. It's up to

the customer to determine the cable length, the cable type

(PVC or TPU) and the level of finishing (crimped, stripped or with a different connector) needed for the application.

Higo splitters

### 30A / 2A

### 10-pole PLUG & PANELMOUNT

The L1019A has an outside diameter of 19mm and is suitable for wires of 0,14mm<sup>2</sup> and 4,0mm<sup>2</sup>.



### 6-pole PLUG

The Z610C plug & play connector has an outside diameter of 8,70mm x 9,20mm and is suitable for wires of 0,14mm<sup>2</sup> and 1,5mm<sup>2</sup>.



# HIGO



FORCE-L

LYTEII

## Industrial power supplies

FORCE-GT 1 phone-backwind

### 'An industrial power supply really is the beating heart of a machine or a critical company process', comments Jan Peeters, sales engineer at A&C Solutions.

In the 24/7 world that we are living in, we just can't afford downtime anymore. Therefore, we count on performance indicators like MTBT (Mean Time Between Failure) and service life to give us important information on the quality of a power supply.

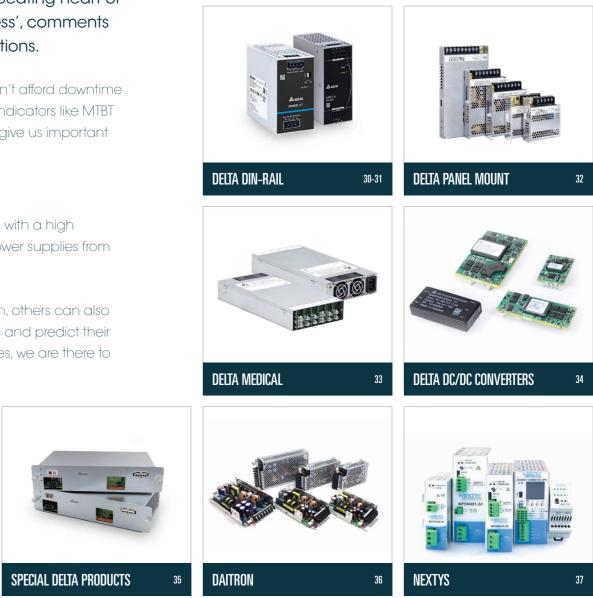
### Industrial power supplies for every need

I am proud to say that at A&C Solutions we work with a high performing and complete range of industrial power supplies from market leader Delta and niche brand Nextys.

Some can serve a more mainstream application, others can also monitor the performance of critical applications and predict their maintenance. Whatever your application requires, we are there to advise you the best possible solution.

### Jan Peeters

### **POWER SUPPLIES**



### DIN-RAIL POWER SUPPLIES

#### Delta Force GT series

Ultimate performance, efficiency and reliability

Ultra-compact design

Cold start at -40°C

Conformal coating on PCBAs to protect against common dust and pollutants

Built-in constant current circuit for reactive loads



K47

### Delta Chrome series

Compact design

Class II double isolation





#### Delta Sync series

Ultra-compact design
Low earth leakage current
NEC Class 2

Complete output voltage range 12V, 24V, 48V Universal AC input voltage range

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Delta LYTE II series

A DELTA

FORCE-G

18 . C.

A NELTA

FORCE-G

L N ®

<0,3W No load power consumption

Compact design and high power density

ADELTA

FORCE-G

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A NELTA

FORCE-GT



80 PLUS<sup>®</sup> PLATINUM

ANELTA

FORCE-GT

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# **DELTA PSU**



### CliQ M series set with DC uninterruptible systems

CliQ M Power Supply

With the new DC-UPS and battery modules, the CliQ M series helps to extend battery life and provides a better power solution for uninterruptible systems in a wide range of industrial applications.





#### CliQ M Battery Pack (without battery)

The CliQ M battery module (DRN-24V7AAEN) allows users to monitor the battery temperature and prevent the lead-acid battery from overcharging and overheating to extend battery life.

Additional features:

- Suitable for 7.2 AH Lead-acid battery
- Built-in battery voltage LED indicator
- Built-in diagnostic monitoring

### CliQ M DC-UPS Modules

The 3 new DC-UPS modules (10A, 20A, 40A) for the CliQ M series offer a 150% power boost function at both main operation mode and battery operation mode.

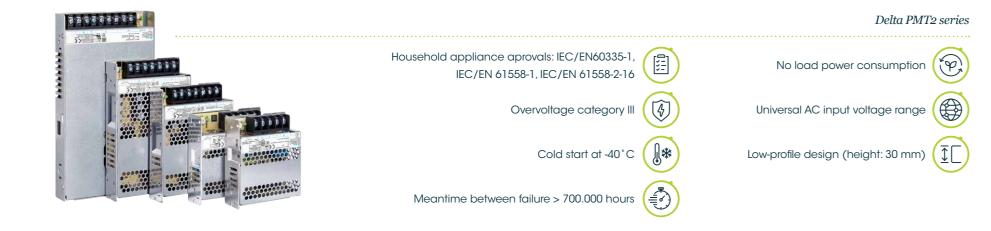
Additional features:

- Adjustable charging current and buffering time
- · Communication link between DC-UPS and Battery module to monitor battery status
- Automatic output voltage adjustment to ensure battery is fully charged

# DELTA PSU

## PANEL MOUNT POWER SUPPLIES





### Delta PMR series

- 30mm or < 1 U height
- Built-in PFC
- Universal AC input
- 150W ~ 320W

#### Delta PMU series

- DC UPS function
- Battery monitoring signals
- Zero switch over time to DC-UPS

#### Delta PMC series

- Power will not de-rate for the entire input voltage range
- Aluminium casing
- Universal AC input voltage





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## MEDICAL POWER SUPPLIES

### Open frame power supplies

The medical open frame provides high performance and a reliable solution as an internal power supply for various types of medical equipment.





### Configurable

The MEG configurable power supply is designed for use in both medical and industrial applications. It supports up to 6 isolated outputs. The products can be configured for output voltages ranging from 2Vdc to 60Vdc.

#### Available in:

- 700W with 3 slots
- 1200W with 4 slots
- 2100W with 6 slots
- 3000W with 9 slots

#### MEB-1K5A 1500W with 5V/2A standby

The Delta MEB-1K2A 1500W 1U enclosed power supply offers a universal AC input from 90Vac to 264Vac and wide operating temperature of -20°C to +70°C (with full power and no de-rating up to 50°C).

Additional features include:

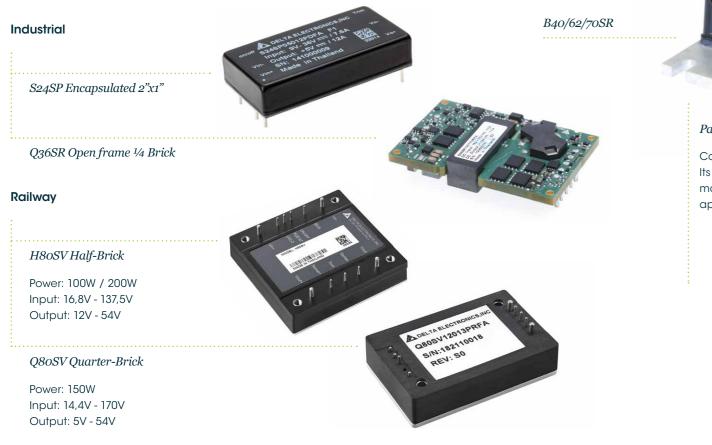
- Current sharing, conformal coating and with analog and digital adjustable voltage regulator
- Remote on/off and power good signal
- Intelligent fan speed control
- PM Bus Ver 1.3 supported and RS485 (option)

# **DELTA PSU**



## DC/DC CONVERTERS for industrial & railway applications

Delta has an extensive range of DC/DC modules to meet the specific requirements of industrial & railway applications. The products are housed in industry standard footprint and pinout. Delta's creative design topology and patented technologies enable an extremely high efficiency, low power dissipation and greater reliability. The railway products comply to European standard EN50155 and are designed with ultra-wide input range.





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#### Panel mount Box Type

Compact box type DC/DC converter. Its robust and shock resistant exterior makes it very popular in mobile applications. Additional features:

- Wide input range
- High efficiency
- Enable on/off
- Operating temp -40°C to +75°C

# **DELTA PSU**

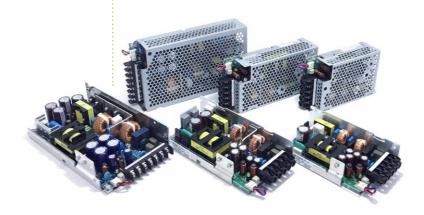
## SPECIAL DELTA PRODUCTS



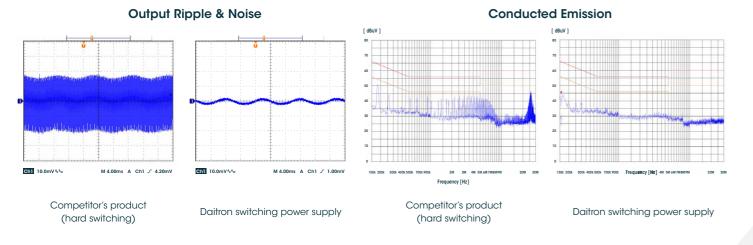
Wireless charging systems As market leader, DELTA has a very extensive range of power solutions. AC/DC power supplies, DC/AC inverters, battery chargers, LED power drivers. In addition, New innovative wireless battery charging systems for AGV and forklift they have various R&D teams worldwide to also offer customized products. applications. Safe, highly reliable, programmable charging for any battery type. CAN bus communication is available for integration with smart vehicles or BMS systems. Wall box Single Phase inverter API 1250B • Input Voltage (range): 42 – 58 VDC Output Voltage (default) 230 VAC Base plates Onboard unit • Voltage (adjustable range) 208 / 220 / 230 / 240 VAC • Frequency 50 Hz / 60 Hz 1250 W / 1250 VA Power Density EUCO Arena Sport LED driver series for stadium lighting A versatile solution for numerous industrial and commercial lighting applications. These LED drivers can be installed remotely up to 200 metres which makes it easy to perform maintenance on-site. High efficiency modular battery charger PM3000 Designed for installation in charging cabinets where each module delivers up to 3.2 kW or 70A. The module is controlled by a system controller via CAN bus. It's capable of charging a wide range of battery types. **DELTA PSU** 

## LOW NOISE POWER SUPPLIES

The Japanse firm Daitron has been dedicated to the development and manufacturing of high-quality electronic components, semiconductors, embedded systems and power supplies for over 65 years. One of Daitron's niche specialties is its range of low-noise switching power supplies for measuring instruments and medical devices with high precision. Daitron is a forerunner in this field thanks to the application of its unique 'soft switching' technology. This technology makes sure that the level of noise remains limited. This enhances the accuracy of measuring results substantially. Daitron's range comprises 3 designs with output voltage ranging from 15Vdc to 48Vdc and output power ranging from 50W to 300W.



### 10% noise level compared to standard power supplies



# DAITRON

4<sub>&</sub>C

## DIN-RAIL POWER SUPPLIES



A&C

### NPS2400 Series: 2400W 3 Phases Multipurpose Digital DIN Rail Power Supply

- 3 phase AC + DC input configuration
- Models for 24/48/72/170Vdc dc output
- Rich auxiliary interface for remote measuring and control
- Multiple user user-settable parameters; integrated data logger and events counter
- Parallelable for power increase up to 4 units



# **NEXTYS**



### DCW20 – 20A Programmable COMBO DC UPS / DC-DC Converter

- CPU controlled, supports any voltage 12 to 55Vdc
- UPS mode: load voltage is independent on the battery voltage
- DC/DC converter mode: any IN/OUT combination user-settable
- Multiple battery chemistry: lead-acid, lithium, NiMH or supercapacitors



### NDW 240: the flexible, programmable DC/DC converter for DIN rail

With the compact NDW240, NEXTYS is consistently pursuing its flexible, one-for-all product strategy: it converts voltages between 11 and 55 V into any voltage from 5 to 55 V. The output voltage can be adjusted on the front panel or via USB.

Key features include:

- Up to 240W output power High efficiency and compact size
- · Constant current or hiccup mode, user adjustable
- Modbus over USB interface for control and monitoring
- Suitable for POWERMASTER software (Windows or Android OS)



"Every project is different. That's why we match each project with the right partner. Depending on the type of connector, the quantities ordered, the required tooling, the flexibility needed and the desired lead time, we decide which assembly partner matches best."

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Maarten Voermans



### CABLE HARNESSES

