



## SOLUTIONS DESIGNED AROUND YOUR BUSINESS



### NICE TO MEET YOU

We are A&C Solutions, the connector & power supply distribution specialist that offers you a tailormade solution to any industrial application. We complement our offer with customized cable harnesses and we manage your stock on request.



'A connector or power supply solution that matches, we don't settle for anything less'



### 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 customized cable set. We are there to help you find the right match at the best price available in the market.



### BEST PRICE -PERFORMANCE RATIO

Well-known brands that have earned their trust in the past might not always be our customer's best option today. As an independent partner we are driven by brands that deliver the best product performance at a competitive price. That's our focus.



### QUALITY FIRST

Because of ISO 9001, we have a solid organization based on predefined working procedures, incoming and outgoing quality checks and ongoing self-assessment to do things even better next time.



### SOLUTIONS DESIGNED AROUND YOUR BUSINESS

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 deliver 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 MARKETS**



### **E-MOBILITY**

Compact, waterproof signal, motor and battery connectors & splitters



### **LED LIGHTING**

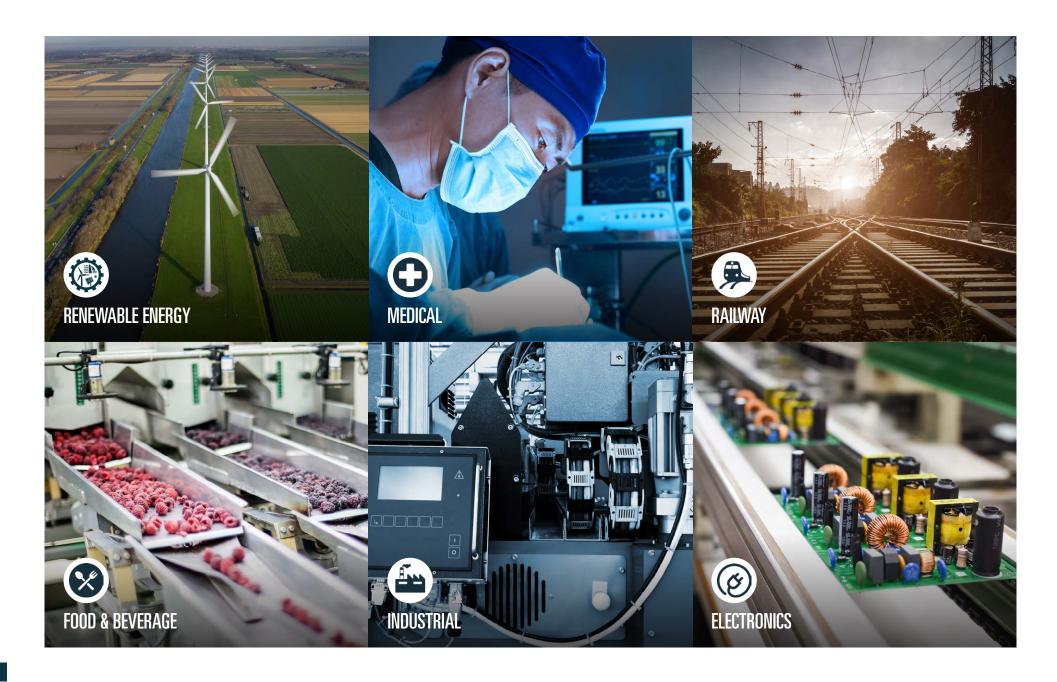
Compact, waterproof plug & socket connectors, junction boxes, SMD connectors & LED drivers



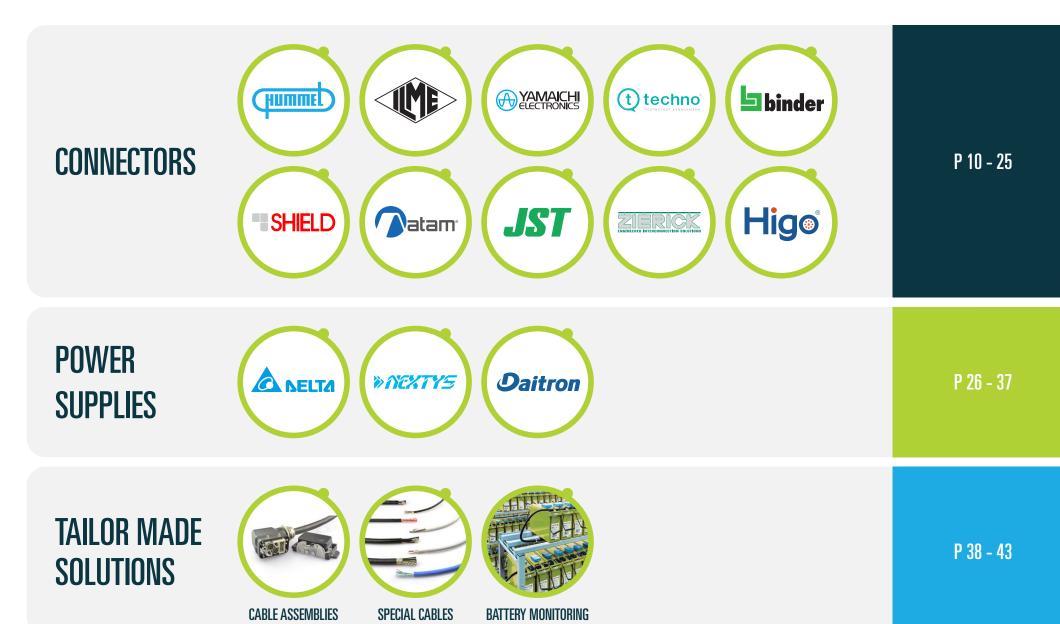
### **ELECTRONICS & AUTOMATION**

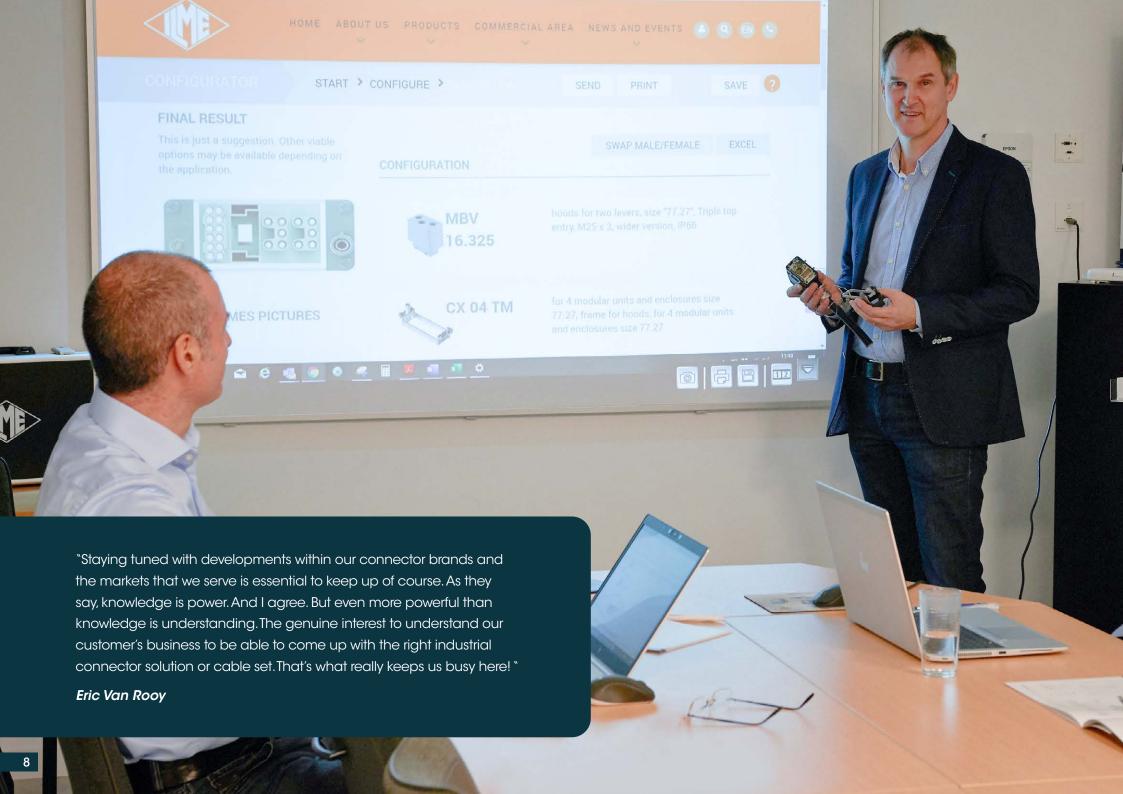
Signal, power and hybrid connectors in a circular and rectangular shape supplemented with AC/DC, DC/DC and UPS power supply solutions

## **APPLICATIONS**

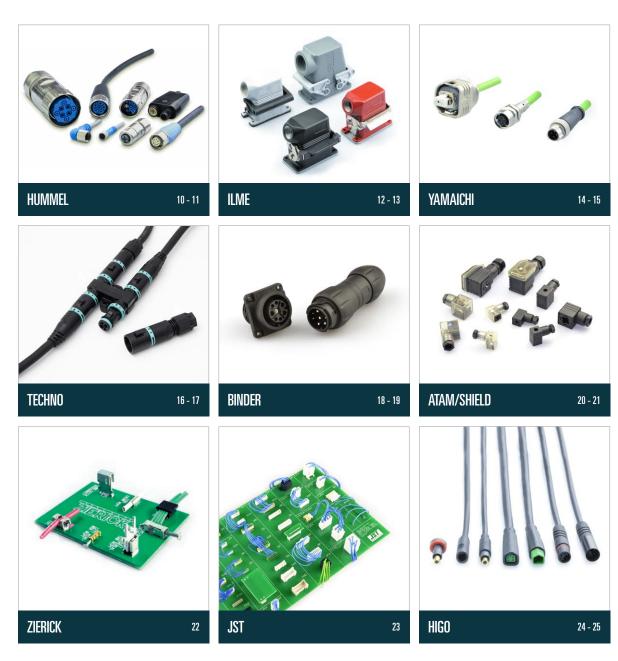


## **OUR BRANDS**











Various hybrid solutions that save time, space and money



#### 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.



Check out how it works here:



#### M12 power connectors

HUMMEL combines compact size with high power.





Wide range of M12, M16, M23, M40 connectors

Available in INOX/moulded version with various coding possibilities.



## A&C

## 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.







M23 RJ45 connectors







#### Stainless steel connectors

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.







#### M16 connector

M16 connector with angled panel mount.

# **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.

#### The SQUICH® way: fast & space saving



The ILME range of SQUICH® inserts for 0,14-2,5mm² 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.



The CDS SQUICH® high-density inserts additionally deliver 70% more connections within the same space.









#### 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.











#### T-type Hygienic

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



#### $Simplex\ housings$

ILME simplex housings are equipped with a hinged lid, which automatically shuts when pulling off the plug shell.



- · An easy cross reference with common brands in the market
- Short lead times
- An easy to use online configurator to compose tailor made connectors



## IP69K



#### 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.

#### IP68 housing



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





## The better one: Y-Circ® push-pull connector

#### 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





 $Angled\ connector\ socket$ 









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. These are protected by the housing and transmit currents up to 3A.



#### 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 interesting benefits like:

- · Safe locking with haptic and acoustic feedback
- 75% faster and toolfree installation
- · Easy device integration
- Blind plugging
- Backward compatible as the socket also locks with M12 screw type
- Requires just the same installation space as a common M12 connection with screw locking







#### 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.

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

















Within a diameter of 14mm, Micronnect can still handle cables of 8,3mm. Perfect to cover longer distances in outdoor projects. Available in a 2- and 3-pole version.

Gaskets are moulded to the contact block. This prevents leakage and therefore installation errors.

TH392 junction connectors, long version

TH391 in-line xDRY®

joint connector

The longer version allows for more space to connect wires and is therefore more installer friendly.





xDRY® TECHNOLOGY

The xDRY® range consist of plug & socket, panel mount and joint connectors as well as junction boxes.

**TECHNO** 





#### IP68 junction box and current distributor

A reliable and fast connection is obtained by a built-in connector. The co-moulded gasket prevents seal leakage or improper installation.





#### Micronnect current distributor TH625

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



# *Techno plug & socket connectors* The Techno TH405 connector has special

designed, silicon gaskets. They ensure a safe locking and a maxium protection.





# **TECHNO**





#### 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. The M12 X-coded connectors have 8 contacts and conform to DIN IEC 61076-2-109.













#### M12 A code F&B connector

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

#### 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. They ensure rational and economic system wiring and can be flexibly configured.













Chemical resistant

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.



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.











#### Electrovalve connectors

Electrovalve connectors are available as cable entry version or with moulded cable with built-in control circuits providing additional functions, e.g. LED visual indication, overvoltage protection and rectification.



Also available as customized solution.

moulded cable



# SHIELD / ATAM







#### Distriboxes

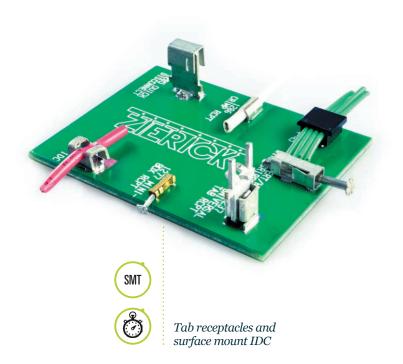
Shield offers various top and side mounting (spider) distribution boxes with M8 and/or M12 sockets. These space saving distriboxes are available in double or triple line and can include 2 up to 15 sockets with 1 to 3 signals each. On request LED signaling can be included.

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



## SHIELD / ATAM









Insulation piercing terminal







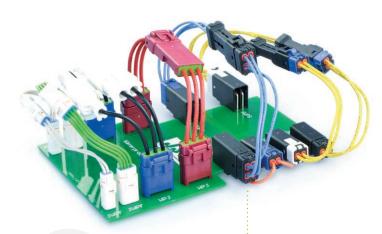
## A&C

## CONNECTORS



#### LED connectors

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.



**JST** 

connectors.



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



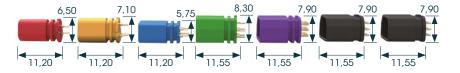
2A

#### 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.





**HIGO** 



*Ultra* compact signal connectors



45A / 2A



#### 2-pole micro A PLUG & PANEL MOUNT

The smallest Higo connector is the Z205A with a diameter of only 4,8mm. It is suitable for wires of 0,14mm<sup>2</sup>.



2A

#### 5-pole micro F PLUG

The Z507F has a 6,5mm diameter and is suitable for wires of 0,14mm<sup>2</sup>.



#### 6-pole micro D PLUG

The Z606D connector design combines 3 male and 3 female contacts in each connector within a diameter of only 6mm for wires of 0.8mm<sup>2</sup>.

#### 6-pole PLUG & PANELMOUNT

The Z615A screw connector has an outside diameter of 15mm and is suitable for wires of 0,2mm<sup>2</sup> and 4mm<sup>2</sup>.





### 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>.



#### $6\hbox{-pole PLUG}$

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**



'An industrial power supply really is the beating heart of a machine or a critical company process', comments Jan Van Dijck, salesmanager 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 Van Dijck

### **POWER SUPPLIES**











## INDUSTRIAL POWER SUPPLIES



Delta Electronics is the world's leading producer of power supplies for top names in industrial, medical and consumer electronics devices. Because of Delta's high operating standard in terms of technology, quality and reliability, it has managed to become a well-regarded and trusted ODM partner by many top tier companies in the past 40 years. Delta has a wide product range at a high price/performance ratio with short delivery times.





#### DIN-rail modules

The DIN-rail modules are useful accessories to enhance your power management solution. The modules include UPS, buffer and redundancy modules which are designed to work perfectly with Delta DIN-rail power supplies.

Delta's DIN-rail power supplies offer numerous features amongst which:

- Start-up at -40 °C
- Advanced Power Boost (CliQ M & CliQ VA)
- Smart monitoring function for demanding applications (CliQ VA)
- Power from 15 up to 1kW in 1, 2 and 3 phases
- Universal approvals

## **DELTA PSU**



## INDUSTRIAL POWER SUPPLIES



#### Open frame power supplies

Delta's open frame power supplies offer varieties of nominal output voltage with versatile configuration options. The latest PJL series comes with lighting approvals such as UL 8750 and IEC 61347-2-13.



#### Panel mount power supplies

Delta offers many series of panel mount power supplies for different needs. For example, the innovative PMC series with corrosion resistant aluminium body and the affordable PMT series with specifications bigger than its price tag. PMH is designed for use in household applications.



#### Delta LED driver with Techno IP68 junction connector

Delta provides a wide range of in and outdoor LED drivers with customized cable set options.

## **DELTA PSU**

## MEDICAL POWER SUPPLIES



Delta provides high quality power supplies for various healthcare and medical applications. The products are produced in factories certified to medical Quality Management System ISO 13485. Designs are compliant to medical IEC 60601-1-1-2 Ed. 4 requirements and are suitable for Type BF medical products.

#### 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.





#### Enclosed power supplies

Encased in a strong metal casing, the medical enclosed power supplies can be used in a wide variety of equipment for medical and industrial applications.

#### Delta MEB-500A24FAA 24V 500W 1 Phase

The Delta MEB-500A24F AA model comes with built-in fan and active PFC. It operates on universal AC input range from 90Vac to 264Vac and has a wide operating temperature of -20°C to +70°C.

#### Additional features include:

- · High power density
- · Built-in remote on/off
- 5V / 1A standby output
- 12V / 0,5A fan output for system







## MEDICAL POWER SUPPLIES



#### 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:

- 1200W with 4 slots
- · 2100W with 6 slots

#### MEB-1K2A 1200W with 5V/2A standby

The Delta MEB-1K2A 1200W 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  $50^{\circ}$ C).

#### Additional features include:

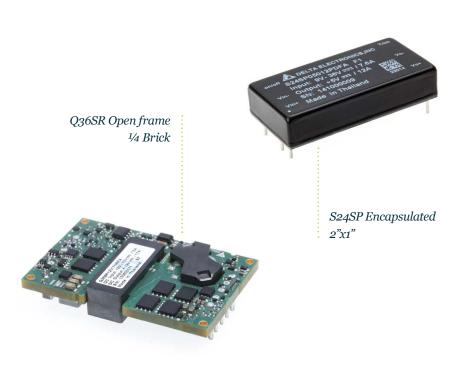
- Current sharing, conformal coating and with analog and digital adjustable voltage regulator
- Remote on/off and power good signal
- Intelligent fan speed control
- PM Bus Ver 1.3 supported and RS485 (option)



## **DELTA PSU**

## DC/DC CONVERTERS FOR INDUSTRIAL & RAILWAY APPLICATIONS





#### Industrial

Delta has an extensive range of DC/DC modules to meet the specific requirements of industrial applications. Delta's creative design topology and patented technologies enable an extremely high efficiency, low power dissipation and greater reliability. These modules, housed in industry standard footprint and pinout, are easy to use and available in a fully encapsulated package for harsh environment applications.

#### Railway

Delta provides isolated DC/DC power converters in the transportation industry for various railway applications such as drive controls, power controls, safety monitors and communications systems under the European Standard EN 50155. Delta designed these products with ultra wide input range for optimal performance.

#### H8oSV Half-Brick

Power: 100W / 200W Input: 16,8V - 137,5V Output: 12V - 54V





#### Q8oSV Quarter-Brick

Power: 150W Input: 14,4V - 170V Output: 5V - 54V



## DC/DC CONVERTERS FOR MOBILE APPLICATIONS

B70SP





#### Panel mount Box Type

Both DC/DC modules have a wide input voltage range, a compact box type package and a robust and shock resistant exterior which makes them very popular in forklift trucks, reach trucks, cleaning trucks, AGVs and electrically driven agricultural vehicles. Furthermore, they offer additional features like:

- Efficiency up to 92%
- Input reverse polarity protection
- · Minimized inrush current
- UL60950 compliant
- Parallel connection of mutiple units
- Input UVLO, output OCL, short circuit protection, OVP, OTP
- Enable on/off
- 2250VDC Isolation
- Operating temperature range 40°C to +75°C



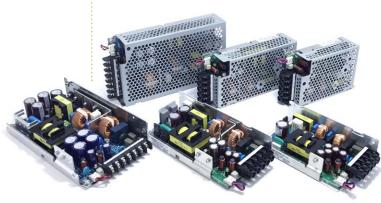
## **DELTA PSU**

## LOW NOISE POWER SUPPLIES

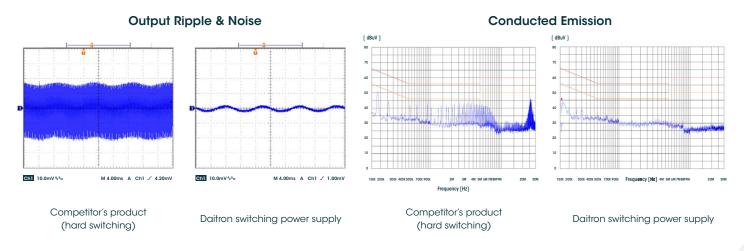


The Japanse firm Daitron has been dedicated to the development and manufacturing of high-quality electronic components, semiconductors, embedded systems and power supplies for over 65 years. One of Daitron's niche specialties is its range of low-noise switching power supplies for measuring instruments 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**

## POWER SUPPLIES











NPSM121 / 241 / 481: 1 Phase power supplies -High Compactness for Demanding Applications

- · Smallest size in the market
- High power density, high efficiency
- Wide, adjustable output voltage range: 11,5...29Vdc and 23...56Vdc
- 150% overload capability
- · Also available in 48 & 72Vdc output







NPSW 120 / 240 /480: 1,2 or 3 Phase power supplies - Top flexibility in premium size

- Allow any input feed by 1, 2 or 3 phases wiring, without any derating
- · High efficiency
- Compact size
- 150% overload capability
- Adjustable output voltage
- Robust input circuitry for withstanding harsh mains conditions
- Short circuit, overload, over temperature, input and output overvoltage protections
- · Also available in 48 & 72Vdc output

## **NEXTYS**

## POWER SUPPLIES







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





#### 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



## **NEXTYS**

## POWER SUPPLIES



#### 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)



NEF210 - 2 Channels Programmable DC Overcurrent Protector/ Protected Static Relay

- 10...31Vdc range, 2 independent channels
- 2/4/6/10A programmable current thresholds
- Programmable time current curves



## **NEXTYS**



### **CUSTOMIZED SOLUTIONS ON DEMAND**

Many of our customers want their connector to be further designed into a customized cable harness and/ or they need a matching power supply or LED driver. At A&C Solutions we offer this full-service solution and we manage your stock on request. 'Being right at the source, our customers are assured that stock is directly at hand and that they have the best price available in the market', comments Mark Tilburgs, inside sales specialist at A&C Solutions.

#### Solid assembly partners worldwide

A&C Solutions works with certified production locations in the Benelux, Eastern Europe and China. These assembly partners have modern, automated equipment and are ISO 9001 certified companies. They have a proven track record and operate in demanding industries like the consumer goods and the automotive industry.

#### **Endless special cable options**

A&C Solutions complements its cable harness service with a wide range of special cable possibilities. These go from simply printing the outer jacket with a company name to the complete assembly of a customized cable according to the application's requirements.

### **Battery monitoring**

'Sometimes when the opportunity is there, we step into a new world. Battery monitoring is such an opportunity', comments Mark. Supplier Nextys, known for its intelligent power supplies, recently introduced the first wireless battery monitoring system called Battmaster®. Battmaster® helps you in a remote way to stay in control of your critical processes and guarantees a high level of uptime. Take a closer look on the next pages.



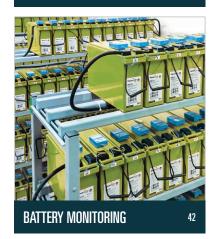
#### **CABLE HARNESSES**

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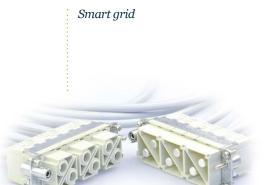
SPECIAL CABLES

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## CABLE HARNESSES









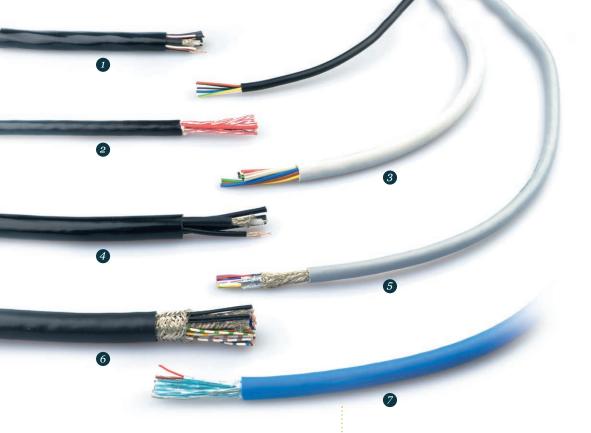






Agricultural machinery

Modular vehicles for road transportation





## SPECIAL CABLES

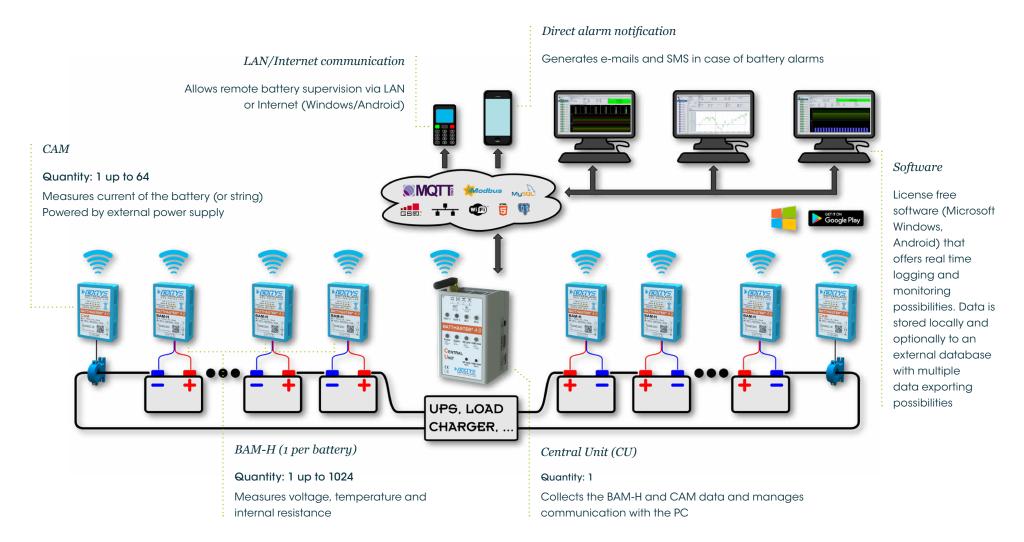
A&C Solutions manufactures hybrid cables of 0,05mm² to 10mm² with a maximum outside diameter of 30mm. For the insulation of your cable, you can choose from the following materials:

- · All types of PVC: flame retardant, oil resistant etc.
- PE / PP / PPE / XL-PE
- TPE-E, ideal as chain cable or spiral cable
- TPE-V, mainly used for cables in the food industry and also medical industry
- PUR, also available in version flame retardant and low smoke zero Halogen

- 1 Hybrid cable with 6 data wires and RG 58 & RG 174
- 2 Twisted pairs, individually shielded together with power supply wires
- 3 Combination of different wire sizes
- 4 Coax cable with 6 x RG 174
- 5 Shielded, twisted pairs
- 6 Hybrid cable with different wire sizes, some are separately shielded
- 7 Twisted pairs, individually shielded

## BATTERY MONITORING

**BATTMASTER®** is a battery monitoring system (BMS) for 2...12V lead acid batteries from Swiss power supply manufacturer Nextys. It's the first wireless BMS that works completely remotely. **BATTMASTER®'S** intuitieve software gives you an accurate visual overview of your batteries' performance and it warns you immediately when measurement values exceed their limits. **BATTMASTER®** helps you to stay in control of your critical processes and guarantees a high level of uptime.





# VISIT US AT ONE OF THE EXHIBITIONS NEAR YOU











**AND MORE** 

#### **CONNECTORS POWER SUPPLIES** YAMAICHI ELECTRONICS (t) techno »NEXTYS HUMMEL TECHNO **NEXTYS** HUMMEL ILME YAMAICHI binder SHIELD **DELTA atam** SHIELD **ATAM** ZIERICK DELTA BINDER Hige ADELS contact Daitron JST HIGO **ADELS** DAITRON

**A&C SOLUTIONS' MARKETS** 

LIGHTING INDUSTRY

E-MOBILITY

**ELECTRONICS &** 

**AUTOMATION** 

If you require more information, please contact us.



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