

# The reliable partner for intelligent solutions.

There's plenty to do. Let's get started.

The time for renovated electrical installations and intelligent solutions is now.





#### Dear friends and partners,

We all value experience. Routine helps us to be fast and reliable, which can save us time, money and hard work. Yet there are also moments when we need to leave the familiar behind and take advantage of golden opportunities just waiting to be discovered and seized.

This is one of those moments.

Renewable energy sources and innovative building technologies are creating opportunities to make more intelligent and energy-efficient homes. And with our Ambient Assisted Living (AAL) solutions, we will be able to help older people and those who require special care to live safely and independently in the future.

The latest studies indicate that many properties will first have to be adapted to accommodate the solar power systems, energy storage units and intelligent building controls that characterise smart homes. As of 2014, 15.3 million UK homes could benefit from improvements to aid in energy-efficient living and working. Large-scale renovation and modernisation are needed if renewable energy is to help achieve an 80 percent cut in the UK's carbon emissions by 2050.

This work requires specialists. There's plenty to do. Let's get started.

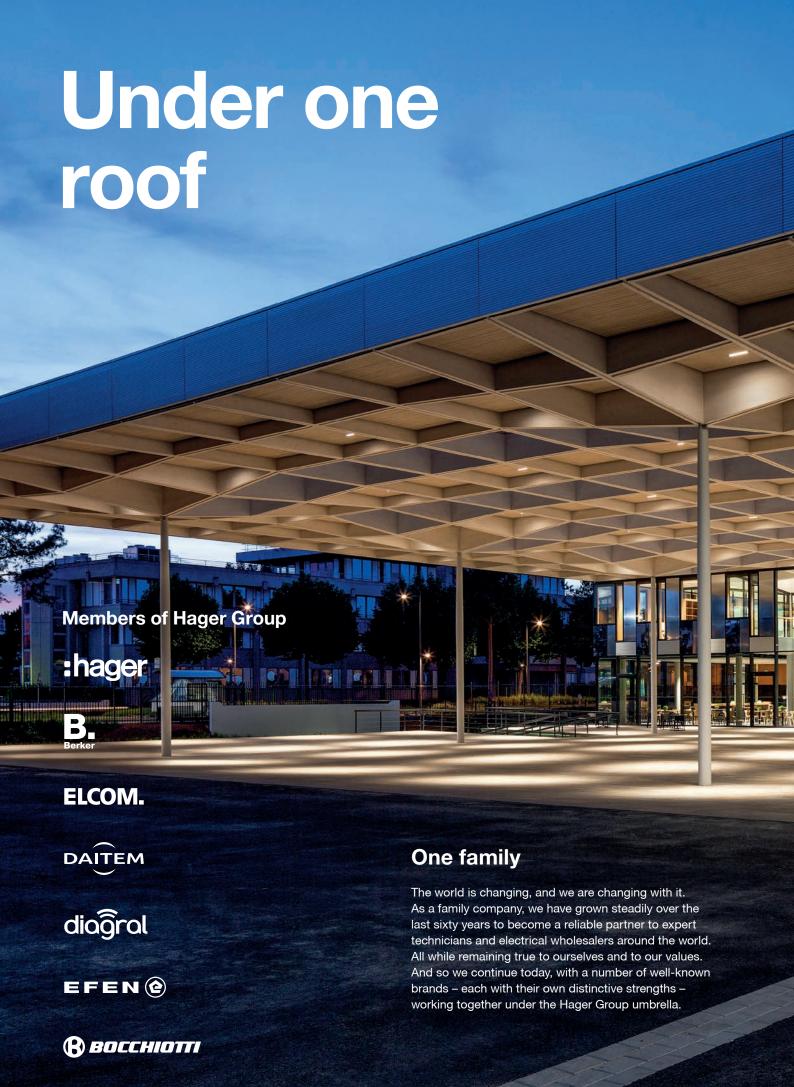
We at Hager Group will support you with the very best products, solutions and services. And we are constantly evolving and improving: we have more than 800 team members working on better products and innovative technologies to make your work easier and your customers' lives more comfortable. At the same time, we are increasing our focus on services so that we can provide you and your customers with expert support.

When it comes to change, we practise what we preach. And we rely on expert partners like you to help us set the trends for the future. This future is starting right now, and I'm looking forward to shaping it with you.

Yours sincerely,

Hand H

Daniel Hager Hager Group CEO





## E3

Global warming, a shortage of natural resources, social cohesion and the transition to renewable energy: there are many challenges facing businesses and society today. Hager Group is pursuing a variety of initiatives to promote sustainable development with its "E3" approach.

## Environ

#### **E for Environment**

We work continuously to reduce our carbon footprint. Our priorities include optimising the transport of our products and cutting the amount of energy we use in production to further reduce our Carbon footprint.



## Ethics

#### **E** for Ethics

We need skilled, motivated and healthy employees in order to offer our customers the best services and products. That's why we provide all our team members with a safe, healthy working environment, support their professional growth and offer them opportunities for further development. We also promote diversity and adherence to an Ethics Code throughout the company.

## ment

## Energy

#### **E** for Energy

Hager Group helps its customers to save energy intelligently. We also analyse and optimise our products' environmental performance throughout development and production. By providing a detailed environmental profile for most of our products, we can be fully transparent with our customers and ourselves.

## Technology as a friend



## Hager Design turns technical products into familiar friends.

Before we start designing a new product, we think about the people it is going to serve. Will it assist or entertain, observe or protect, save time or save energy? Ideally, whatever it does, users will feel it is a reliable 'friend'. We need to know how to connect with people on an emotional level, to ensure that in return they feel connected to our products.



Erwin van Handenhoven Hager Group Design Director

#### **Technology for people**

Responsible design builds on an ethical foundation. At Hager, this foundation is all about respecting people and caring about their well-being. And it's not just about today – we want to inspire our customers for years to come. That's why we include them in every stage of the design process – from installer to planner, to end user.

#### An honest brand

Hager products are world-renowned for their quality, which is visibly and tangibly unveiled in their design. The unmistakeable, explicit and clear brand image tells customers straight away that these products are part of 'the family'. This is our signature, the Hager DNA, which embodies two central principles.

#### Friendly, serene, balanced

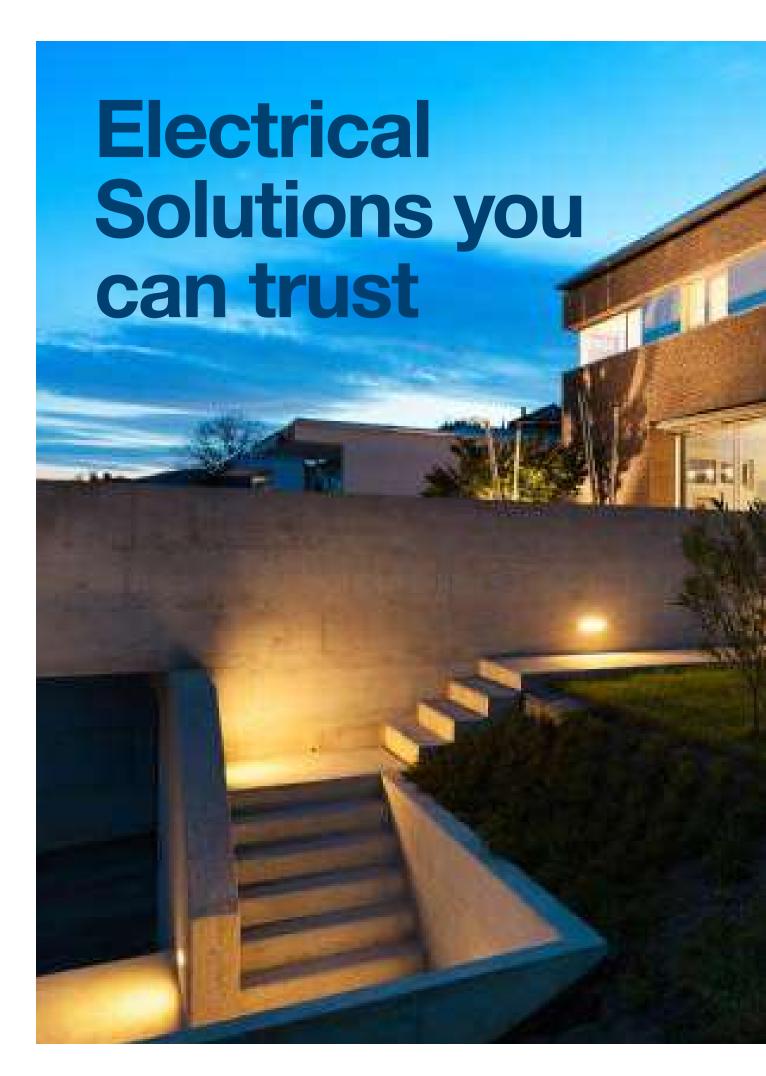
An honest, authentic design that blends naturally into everyday life, without gadgets or cheap effects.

#### Ingeniously simple

Our products are important, but never over-thetop. If it's not necessary, we leave it out. The essence remains. Straightforward in both form and function: simple to install, simple to use. Simply Hager!

#### Looking ahead to the future

Hager systems are not stagnant – they are expanding, gaining more and more visibility in our customer's homes. This has implications for our present design language. We call it 'New Start'. The aim of New Start is to meet our customers where they are, and carry them with us into the future: with innovative ideas, new designs and expressive materials. The new Hager catalogue is full of 'New Starters' – along with lots of 'old friends'. Come and explore!





Energy Infrastructure solutions from Hager form a full integrated electrical distribution system for safe, efficient and effective protection and control of electricity.

### **Energy Infrastructure**



## novello<sup>+</sup> distribution boards

#### golf enclosures





Absolute benchmark! The new age distribution boards with greater convenience and impressive aesthetics.

golf range offers compact, sleek and light weight plastic enclosures for mounting of modular devices in residential & commercial applications.

#### **Technical characteristics:**

- As per IS 8623 III
- SPN, TPN, PPI, Vertical, Phase Segregated, Plug & Socket, Enclosures etc.
- IP30 for Single door DBs
- IP43/54 for double door DBs
- Impact resistance IK09
- Color: RAL 9010, matt finish

- 1-4 rows / 4-48 modules
- Ingress Protection (IP) IP40 with door
- Insulation class Class II (double insulation)
- Impact resistance IK07
- Material Flame retardant plastic
- Colour RAL 9010, white

## novello<sup>†</sup> panel boards

#### vector IP65





The new novello panelboards are professionally designed BS / IEC type tested factory assembled system that incorporates more cabling space and a powder coated rust-proof finish.

vector range of weather proof enclosures answer the needs of electrical distribution in dust and moisture prone environment.

#### **Technical characteristics:**

- Ratings: 250A / 400A / 630A / 800A
- Conforms to BS EN60439-1 / IEC, 60439-1
- Sheet steel with Epoxy powder coating in RAL 9002
- Ingress protection IP41
- Accessories like Key lock, Metering box, Cable box.
- Suitable for 3P MCCBs incomer & 3P MCCBs outgoing

- Conforms to IEC 60695-2-1
- Mounting: Surface mounting
- No. of rows: 1, 2, 3 & 4 rows
- No. of ways: 3 module to 54 modules
- Enclosure Ingress protection level IP65
- Insulation class: Class II (double insulation)
- Impact resistant level: IK07 for < 12 mod
- IK08 for > 12 mod

## Miniature circuit breakers

## Residual current circuit breakers





Comprehensive range offering reliable solution for protection of installations against overcurrent.

Contemporary range with user friendly features to ensure earth leakage protection.

#### **Technical characteristics:**

- Conforms to IS / IEC 60898-1:2002, IEC 60898 1995
- Ratings: 0.5A to 125 A
- No. of poles: 1P, 2P, 3P & 4P
- Tripping characteristics: B, C & D curves
- Breaking capacity: 10kA (as per IS/IEC 60898)
- ISI Marking

- Conforms to IS 12640-1:2008, IEC 61008-1:2012
- ISI marking
- Ratings: 16A, 25A, 40A, 63A, 100A
- No. of poles: 2P & 4P
- Sensitivity: 10mA, 30mA, 100mA & 300mA
- Trip class: class AC and class Hi
- Protection against nuisance tripping caused by switching transients

## Residual circuit breakers with overcurrent

## Accessories for Modular Protection Devices





Make your homes and equipments safe from harmful accidental currents.

Wide range of accessories for device control and its status.

#### **Technical characteristics:**

- Conforms to IS 12640-2:2008, IEC 61009 -1:2012
- ISI marking
- Ratings: 6A to 63 A
- No. of poles: 2 pole and 4 pole
- Sensitivity: 30mA, 100mA & 300mA
- Tripping curve: C
- Trip Class: Class AC
- Breaking capacity: 10kA

- Auxiliary contact
- Trip alarm contact
- Shunt release
- Under voltage release
- Over voltage release-MZ209
- Over + Low voltage-release-MZ215
- Locking kit

#### Air circuit breakers

## Moulded case circuit breakers





range of ACBs provides safe and reliable power distribution for low voltage electrical networks. It features high breaking capacity with intelligent microprocessor based protection releases.

The new range of MCCBs provide safe and easy solution for low voltage electrical circuit protection.

#### **Technical characteristics:**

- Comply with IEC60947-2
- Current Range: 630A-5000 A in 3 frame sizes
- Breaking Capacity: 50, 65, 85, & 100KA
- Rated Voltage: 690 V
- Insulation Voltage: 1000 V
- Impulse Voltage: 12 KV
- 3 kind of Releases (OCR): Basic, Current, Energy

- Conforms to IEC 60947-2
- Current Range: 16A to 1600A 3pole and 4pole
- 6 frame sizes: x160, x250, h250, h630, h1000, h1600
- Breaking capacity (Icu): 18, 25, 40, 50, 65, 70kA
- Thermal magnetic and electronic trip units
- Current limiting type (Cat A)
- Complete range of accessories
- International certification and approvals

## Automatic transfer switches

### Manual changeover switches







ATS offers switching between mains and genset during power failure. It also offers auto genset start along with safe and reliable changeover operation as an additional feature.

MCOS allows manual switch, changeover switch or on load power circuit permutation.

#### **Technical characteristics:**

- Conforms IEC 60947-3
- Rating: 125A 1600A
- Suitable for AC23A / AC23B
- Lockable on position: O

- Complies with IEC 60947-3
- Rating: 63A 1600A
- Suitable for AC23
- Lockable on position: O

## SPN Automatic changeover and current limiter

## TPN Automatic changeover and current limiter





Convenient modular solution for controlling individual loads and automatic changeovers.

Convenient modular solution for controlling individual loads and automatic changeovers.

#### **Technical characteristics:**

- Standard: IEC 60947 3, IEC 60947 6
- Type: SPN Modular
- Voltage: 150VAC to 300VAC
- Mains Rating: 30A
- Genset Rating: 1.5 to 30A
- Utilization category: AC21A (IEC 60947-3),
- AC 31B (IEC 60947-6)
- Short Circuit Withstand: 3kA
- Electrical Endurance: 6000 Operations
- Terminal Size: Flexible: 10sqmm, Rigid: 16sqmm
- Terminals: IP 2X finger touch proof

- Standard: IEC 60947 6 1
- Type: TPN / TPN & TPN / SPN
- Supply voltage: 3Phase, 415VAC
- Line Voltage: 150VAC to 300VAC
- Main Rating 40A, 63A
- Genset Rating: 1.5 to 30A
- Utilization category: AC31A
- Conditional short circuit: 10kA
- Electrical Endurance: 10,000
- Terminals: IP2X finger touch proof
- Time Delay: Mains to Generator: 10-12 secs
- Genset to Mains: 4 secs
- Mains to Generator (if Gen is ON): 4 secs

## Surge protection devices

### Earth leakage relays & torroids





Protection device for equipments from harmful effects of lightning and switching surges.

Electrical solution for earth leakage protection in MCCB, Distribution boards and Panels.

#### **Technical characteristics:**

- Conforms to IEC 61643-11
- No of poles: 1P, 1P+N, 3P, 3P+N
- Discharge current, Imax: 8, 15, 40, 50, 65, 100kA
- Discharge current waveform: 10/350 μs, 8/20 μs
- Voltage protection level: 4kV, 1.5 kV and 800V

- Conforms to IEC 60947-2 annexe B, IEC 61008, IEC 61543
- Supply voltage: 230VAC
- Sensitivity: Fixed 30mA, 300mA, Adjustable - 30mA, 300mA, 500mA, 1A, 3A, 10A
- Trip time: Fixed instantaneous, Adjustable - 0.1, 0.2, 0.3, 0.4, 0.5, 1, 3 sec
- Contact rating: 16A, AC-1, 1 changeover
- Max distance between relay & torroid: 20 meters
- Torroid dia.: 35mm, 70mm, 105mm, 140mm, 210mm

## Fuse carriers and switch disconnectors

## **Surge protection** for PV applications





Photovoltaic fuse carriers and fuses ensure DC protection of photovoltaic strings against overload and short-circuits.

Photovoltaic SPDs offer convenient solution for voltage protection of PV strings.

#### **Technical characteristics:**

- Poles: 4P
- Voltage rating: 1000VDC 21B
- Carrier rating: 32A
- Fuse current rating: 1A to 32A

- 25kA, 4kV, class 2 with end of life indicator
- Polarized +/- for SPV325
- Earth for SPV325

#### **Indicators**

#### Plug & socket outlets





Modular LEDs offer value addition in the DBs with RYB and ON-OFF-TRIP indication in compact one module size.

Insulated / Metal-clad plug & socket outlets for supplying specific loads.

#### **Technical characteristics:**

- Conforms to IEC 60947-1 and IEC 62094-1
- LED technology
- Supply voltage: 230VAC
- Power consumption: 0.8 watts
- Burning hours: upto 100,000 hours

- Conforms to IS 8623
- Rating SPN 10A, 20A & 32A, TPN 32A & 63A
- Mounting Surface / flush mounting
- IP category IP30 for metal clad unit IP54 for insulated P&S (IP30 for enclosure)
- Material CRCA sheet steel
- Color RAL 9010, matt finish

Energy Management Solutions from Hager help to manage the lighting applications in most efficient way with maximum comfort and energy.

Energy Efficiency through Lighting Management solutions keep the energy consumption at the lowest and provide measurable benefits to end users.

## **Energy Management**



#### **Time switches**

## Presence & movement detectors





Time switches are used in residential, commercial and industrial premises to improve comfort and save energy by switching loads automatically as per real time.

Presence and movement detectors are used to switch on/off electrical loads e.g. lights or AC based on human movement and presence in an area.

#### **Technical characteristics:**

- Range: Mechanical daily, weekly, digital daily, weekly, astronomical timer, yearly timer
- Easy programming using keypad on product or using programming software
- Programming of impulses helps in applications like school bells, watering of plants, defrosting refrigerator.
- Holiday mode helps keeping the loads OFF for a pre-defined duration
- Time switches can be programmed without power supply

- Range: Movement detectors, dual lens presence detector, presence sensor with light regulation, wall mounted outdoor movement detector
- Adjustable off time delay
- Adjustable lux setting for daylight override function
- Wider detection area
- Double lens double channel design for advanced application
- Remote controllability
- Wide range of products to meet different applications
- Possibility of regulation of artificial lights with 1/10V, DALI or DSI channel

### Hyper frequency motion detectors

#### **LED** floodlight





The hyper frequency detector employs hyper frequency technology and reacts to movements regardless of the temperature. It can detect movements through low thickness partition, doors and windows.

A weatherproof LED flood light with a movement detector can be used for switching outdoor lighting. The flexible LED floodlight helps to adjust the angle as per user convenience.

#### **Technical characteristics:**

- Standards: EN 60669-2-1 RF Standard ETSI EN 300 440 – 1 V1.3 .1
- Technology: Hyper Frequency
- Voltage: 230V
- Frequency: 50Hz
- Transmitter frequency: 5.8 GHz +/- 0.075GHz
- Transmitter power: max. 1 mW
- Front side protection: IP 54
- Back side protection: IP 54

- Power: 60W
- Standby Consumption: 0.5W
- Light color: 5700k
- Luminous flux: 3400lm
- Power Supply: 230V AC 50/60Hz
- Insulation Class: II
- Wiring: 1 to 1.5 mm<sup>2</sup>
- Protection index: IP55

#### **Latching relay**

#### **Twilight switch**





Latching relay is used to control a single load from multiple points. This can be very useful in staircase, long corridors.

Twilight switch measures ambience light level and switches on artificial lights when natural light level falls below set light-on level.

#### **Technical characteristics:**

- Rating: 16 A
- Available in 1 No, 2 No, 1 No + 1NC, 4 No, 2No + 2 NC pole options
- Coil voltage 230VAC, 50Hz

- Range: Modular twilight switch, surface mounted outdoor twilight switch
- Wide range of products
- User defined setting of lux level and switch on time
- IP 55 version for outdoor use

#### Time lag switch

#### **Light dimmers**





Time Lag Switch automatically switches off lights after predefined on period, there by switching off lights when they are not required.

Light dimmers are used to create the right lighting ambience for different activities. Hager light dimmers can control all standard light sources e.g. incandescent, halogen, fluorescent etc.

#### **Technical characteristics:**

- Pre warning before switch off
- Double delay mode
- 30sec 10 min delay setting
- Rating: 16A

- Range: 300 W, 500 W, 1000 W & 1-10 V pilot dimmer
- Recall user defined scenarios
- Master on/off and dim up/down button for faster and customised control
- Master slave configuration for handling more electrical load
- Adjustable dimming parameters e.g. dimming speed, start time, stop time etc.

Business and Living Space Management solutions present you the spectrum range of wiring accessories from classic to contemporary designs. One can choose between various different materials within a number of series. Such a wide variety emphasizes on designs, quality and innovation.

# Business & Living Space Management



## Berker building automation

## Berker wiring accessories







KNX is the worldwide international standard for home and building control systems. World's leading manufacturers support the KNX standard to future proof their products by ensuring that they will work seamlessly with tomorrow's technology.

Berker and Tebis KNX from Hager works on KNX protocol, ensuring flexibility and future expansion possibilities with changing needs.

Berker switches are the best and the most beautiful designs available globally and has been appreciated by customers, technical juries of international awards which we have won time and again viz. iF design awards, GOOD DESIGN award, reddot design award, German design award special, M GOLD awards, DESIGNPREIS awards to name a few.

Berker switches come with a distinctive form, an attractive surface and technical perfection. All these three elements completes the convincing aesthetics of the Berker switches.

#### insysta<sup>™</sup>





An innovative Indian fusion of Hager's French brand "systo", provides the state of the art solution to your wiring accessories need.

Nature never fails to inspire and that's why this solution brings you fashionable real material cover plate options in Wood, Glass, Stainless Steel, Slate and Plastic.

#### Aluminium trunking PVC trunking





Aesthetics blends with convenience and brought together in Hager BRAP aluminium trunking which is an ideal solution for electrical installations in offices, laboratories, manufacturing sites and any commercial complexes.

Advantage over conventional cable management solution with faster installation time and flexible accessories, with providing solution to most of the commercial cable routing needs.

#### **Technical characteristics:**

- Standard: DIN EN 50085-1(VDE 0604-1)
- Ingress Protection: IP40
- Impact Resistance: IK07

- Comply with DIN EN 50085-1 / EN 50085-2-1
- Ingress Protection: IP40
- Impact Resistance: IK07
- Non-Flame propagating type





#### **Always near**

#### **North**

Delhi & NCR Haryana Uttar Pradesh Uttarakhand

#### North

#### West

Punjab Chandigarh Himachal Pradesh Jammu & Kashmir Rajasthan

#### **East**

Mizoram Nagaland Tripura

West Bengal
Orissa
Bihar
Jharkhand
Arunachal Pradesh
Assam
Manipur
Meghalaya

#### West

Maharashtra Gujarat Goa Madhya Pradesh Chattisgarh

#### South

Tamilnadu Pondicherry Karanataka Kerala Telangana Andhra Pradesh

#### Our network to serve you better

- 150+ Authorised Channel Partners

- 35+ System Integrators

- 25+ Service Centres



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