# Guaranteed protection





# Premium performance

Energy efficiency isn't just a buzzword—it's the foundation of modern and future-ready building projects across Australia. As leaders in the electrical industry, you play a critical role in shaping the performance and reliability of every installation.

Delivering top-tier energy performance means mastering the systems that power it all: precision in system design, smart sizing, proactive maintenance, and real-time monitoring. To ensure low-voltage systems stay reliable, compliant, and cost-effective, you need battle-tested solutions that are simple to implement and built for efficiency—keeping your projects ahead of the curve in a market that demands nothing less.



49% of energy consumption in Australia is accounted for by commercial and residential buildings.

Energy can account for up to 40% of a building's life cycle costs in Australia — a figure that's only rising as energy prices continue to climb.

The challenge? Reducing bills by taking control of consumption. Intelligent buildings offer the solution, dynamically optimising energy use to match real-time demand — delivering efficiency and savings without compromise.

# Hager's h3+ solution — paired with our perfoma DBs — is designed to meet the evolving energy efficiency standards.

In alignment with IEC 60364, it ensures efficient energy use from the design stage, while integrating safety, commissioning, and ongoing performance optimisation. The standard focuses on minimising energy loss, optimising the timing and cost of usage, and maintaining system reliability—critical factors for compliance. With built-in electrical energy management, h3+ enables multi-source energy monitoring and adaptive consumption strategies. It also supports ISO 50001 certification, facilitating structured energy improvements for both new and existing buildings.

The new generation of Hager h3+ moulded case circuit breakers (MCCBs) guarantees reliable protection against overloads and short circuits, as well as targeted, integrated energy monitoring for all low voltage distribution systems.



Performance Service continuity Energy management



h3+, the moulded case circuit breaker

# Your installation is under control

As commercial & institutional buildings grow in scale, so do their energy demands — and with stricter regulations, electrical installations require robust, future-proof protection.

Hager's h3+ MCCBs deliver unmatched reliability, featuring breaking capacities (from 25kA) up to 110 kA to safeguard even the most demanding systems.

Designed for flexibility and performance, the h3+ range offers five trip unit options, intelligent monitoring features, and advanced protection technologies — ensuring compliance, efficiency, and ultimate safety for your electrical installations.

# The choice is yours

From the traditional version to the intelligent connected model: discover the multi-faceted range of h3+ circuit breakers.

Featuring compact frame sizes, available from 25A to 630A with 3 or 4 poles, the h3+ provides superior protection and a breaking capacity up to 110kA.

Equipped with thermal-magnetic or electronic trip units, the h3+ moulded case circuit breaker range delivers precise and adaptable protection, allowing flexible settings to meet the demands of any electrical distribution system.



h3+/P160



h3+/P250



h3+/P630

The new generation of h3+ moulded case circuit breakers is available in two versions: the traditional range for protecting your electrical installations and the energy model for improving the energy efficiency of your buildings.







### **Multi-site**

The new h3+ moulded case circuit breakers are ideal for all types of commercial and public (institutional) buildings, including shops, hotels, offices, and healthcare facilities.

### 01 Traditional version

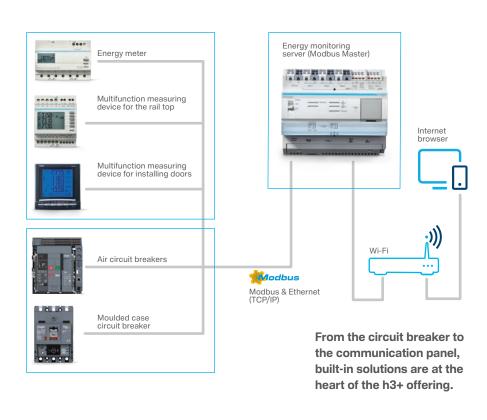
Protect



### 02

### **Energy version**

Protect Measure, Meter Display Communicate



# Guaranteed protection

The new range of MCCBs provides solutions suitable for electrical installations in commercial buildings. It offers reliable protection against overloads and short circuits.

The multiple setting options, created by coordinating the protection systems, offer the best possible combinations. This brings a threefold benefit: guaranteeing user and equipment safety under all conditions, ensuring continuity of service and availability of energy in normal operating situations, and, in case of transient faults, reducing the risks to the installation's components.

All products in the new range can be easily integrated in Hager enclosure systems.





- Most compact product on the market with measurement and communication
- From 25A to 630A
- Three frame sizes
- Can be mounted on the DIN rail in option up to 250A
- TM, MAG, LSI, LSIG and Energy trip units
- Breaking capacity of 25, 40, 50, 70 and 110 kA at 415 VAC
- 3P3D or 4P4D (Neutral adjustable from 0 to 100 %)
- Wide range of auxiliaries and accessories
- Horizontal or vertical installation



### 01 Secure screw

The quarter-turn auxiliary access system saves time when installing the product. The secure screw offers additional comfort.



### 02 Hinged front cover

The front cover offers multiple advantages. It is mounted on hinges. It remains integral with the case once opened, preventing incorrect refitting.



### 03 Auxiliary window

The type of auxiliaries can be seen directly through the windows on the front panel, without removing the cover.



### 04 Integrated padlock

The handle can be directly locked with no need for extra accessories.



## In intelligent and connected mode

A Class 1 energy monitoring and communication system compatible with the Modbus RTU protocol can be used to configure the protection parameters, monitor energy consumption and manage alarms.

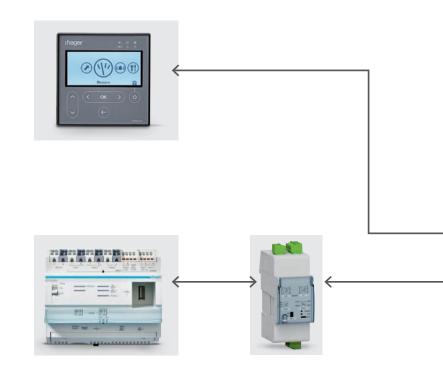
#### **Energy performance**

The h3+ moulded case can be coupled with the modbus master, allowing it to be integrated in an energy efficiency environment.

This allows the energy consumption to be displayed centrally. Class 1 measurement accuracy is guaranteed.

#### **Service continuity**

A specific auxiliary is used to trigger a fault alarm. This function helps prevent a total power outage. The user is notified in advance, allowing the appropriate action to be taken.



- **05** Integrated pre-alarm contact
- 06 OLED screen
- **07** Configurable alarm contact



### **Greater flexibility**

The moulded case circuit breaker can be configured via the built-in screen and the panel display.

#### **Secure connection**

The functions are pre-wired to connectors. The bus connection uses an RJ45 connector, which means there is no risk of incorrect wiring. The power is supplied from the tool and no external source is required.



#### Overview

- Intelligent electronic tripping
- Breaking capacity up to 110 kA
- Intelligent programming (h3+ energy only)

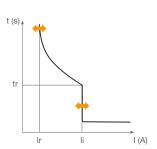


# A needs-based approach

### **TM**

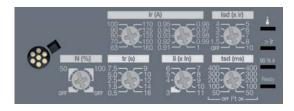
h3+ circuit breakers equipped with magnetothermal trip units are designed for power distribution applications. They are used to protect the conductors and the loads supplied by the transformers or generators, and when the fault current is limited due to impedance caused by the length of the conductors. The settings are made using adjustment dials on the front of the products.



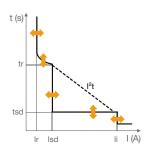


### LSI and LSIG trip units

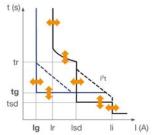
h3+ circuit breakers equipped with LSI or LSIG trip units are designed for power distribution applications for protecting conductors and loads in cases where a wide range of protection settings is required.



Settings made using adjustment dials are accessible on the front of the products, and enable accurate adjustment of the protection and a trip curve independent of the ambient temperature. The LSIG version offers a protection against the ground fault.





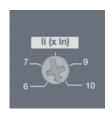


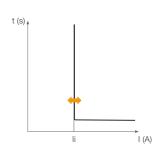
### **Energy trip unit**

Offering a similar protection than LSIG trip unit, the Energy benefits from a class 1 energy monitoring and communication system compatible with Modbus RTU protocol that will allow them to configure protections parameters, monitor energy consumptions and manage alarms.

### MAG (ICB)

h3+ circuit breakers equipped with magnetic trip units are designed for use in power distribution applications in which only magnetic protection \*is required. They are mainly used to protect motors associated with a thermal relay and a power switch.





### TM, MAG, LSI, LSIG, Energy:

Five trip unit versions designed to effectively protect your installations and optimize the cost of your switchboards.

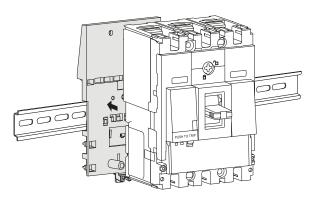
	тм		MAG		LSI			LSIG		Energy		
	P160	P250	P160	P250	P160	P250	P630	P250	P630	P160	P250	P630
Breaking capacity	25,40, 50 or 70kA		25,40, 50 or 70kA		25, 40, 50 or 70kA		40, 50, 70, 110 kA	25, 40, 50, 70 kA	40, 50, 70, 110 kA	25, 40, 50 or 70kA		40, 50, 70, 110 kA
Ratings	25 - 160 A	50 - 250 A	25 - 160 A	100 - 250 A	40 - 160 A	40 - 250 A	250 - 630 A	40, 100, 160, 250 A	250 - 630 A	40 - 160 A	40 - 250 A	250 - 630 A
No. of poles (P) and trip units (D)	3P3D or 4P4D (N: 0 -100% or 0 - 50%)		3P3D or 4P4D		3P3D or 4P4D (N: 0, 50 or 100%)		3P3D or 4P4D (N: 0, 50 or 100%)		3P3D or 4P4D (N: 0, 50 or 100%)			
RCD add-on block	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Configuration tool										Ye	es	
Panel display										Ye	es	
Communicating version										Ye	es	



### easy to install

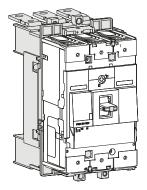
Designed for professionals, the h3+ MCCB range is without doubt the best adapted to installation requirements. Compact and ergonomic, the h3+ is particularly easy to integrate in switchboards. Easy commissioning, fast wiring: everything to optimise installation.

### Horizontal or vertical installation



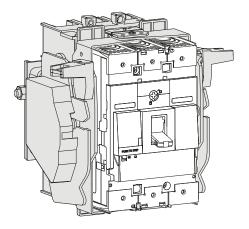
**Mounting** 

P160 and P250 can be mounted on DIN rail



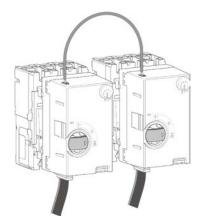
Plug-in

Available for frame P160 and P160, P250 and P630



Withdrawable

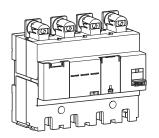
Available for frame P250 and P630



Interlocking

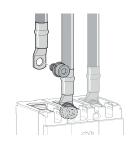
Available for frame P160, P250, P630

### 1. RCD add-on block

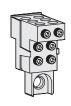


### 2. Connection accessories

**Connection terminals** 



External terminals

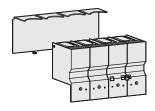


Rear connections

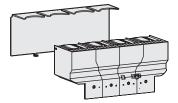


### 3. Terminal enclosures

For extended connections



For spreaded connections



For rear connections



4. Auxiliary contacts

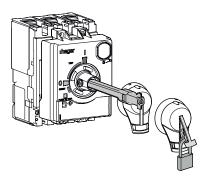


### 5. Control auxiliaries

Direct rotary operation



External rotary operation



Motor operator



6. Locking device

Padlocking device

Ronis type key device





# Pro-business solutions provider

Hager offers solutions tailored to your business and your requirements.
Ranges designed to meet your working requirements: ease, speed, peace of mind.



### Switchboard builders

### Advantages:

- Compact design for space efficiency
- Intelligent features for smarter switchboards
- Simplified integration and commissioning

### **Electrical Contractors**

With easy configuration, connection and setting, and quick case commissioning, the h3+ range saves you a lot of time.

### **Advantages:**

- Reliability & compliance
- Smart monitoring
- Flexible configuration
- Quick and easy commissioning



### Design office

### Advantages:

- Reliability and compliance
- Design flexibility
- Safety in design assurance
- Energy optimisation
- Service continuity





### System Integrators

### **Advantages:**

- Integrated system design
- Centralised control and monitoring
- Customisable protection
- Open protocol

h3+ MCCB variants can fulfill all your project requirements.

#### IM

Basic protection

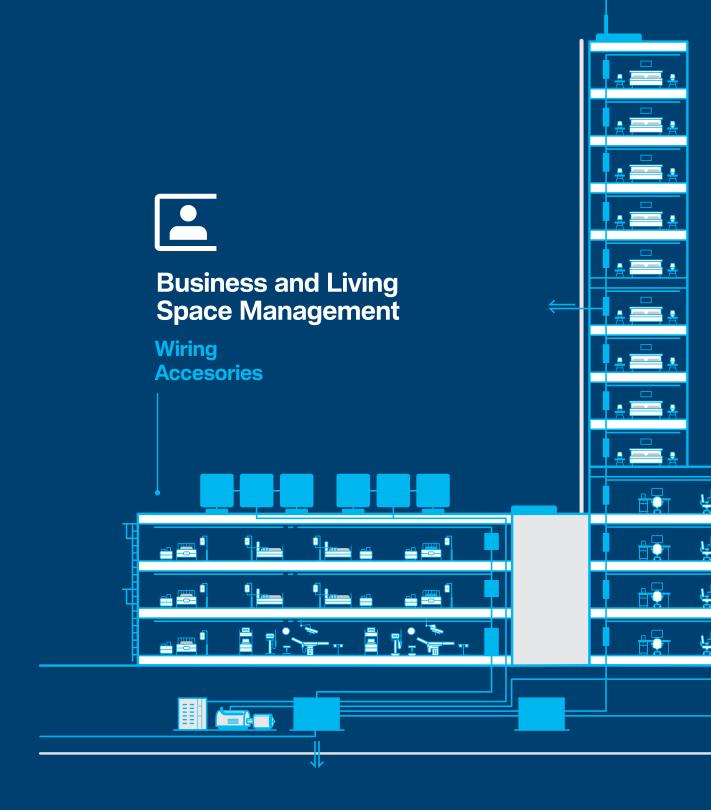
#### LS

Wider settings to offer better performance

### **Energy**

Offers metering and communication capabilities on top of the protection

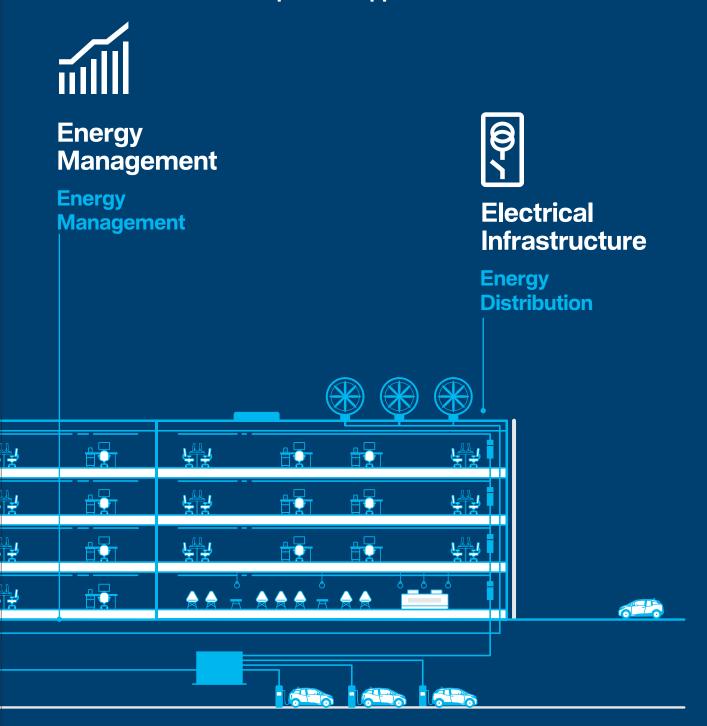
# Hager. A partner made for you.



As an expert partner for electrical building infrastructure with strong expertise in solutions for wiring accessories and efficient energy distribution and energy management, we listen closely to understand your special needs.

We advise and deliver on solutions and services tailored to your individual requirements.

From hotels to offices and retail – we make tomorrow's commercial life and business places happen.



### PW1600 Hybrid MCCB

For maximum protection, the PW1600 is engineered to ensure safer, smarter, and more efficient energy management for your switchboards and electrical systems.

The PW1600 Hybrid MCCBs are designed with a compact frame size and are available in 3 or 4 pole configurations from 630A to 1600A. Designed for high performance, it also delivers reliable protection with a breaking capacity of up to 70kA.



PW1600 3P fixed



PW1600 4P fixed

	Moulded Case Circuit Breaker	Switch Disconnector			
Number of Poles	3P/4P	3P / 4P			
Short Circuit Withstand Capacity	50kA, 70kA	19.2kA/1s			
Current Ratings	630A / 800A / 1000A / 1250A / 1600A	630A / 800A / 1000A / 1250A / 1600A			
Trip Units	sentinel (LI, LSI, LSIG), sentinel Energy (LSIG)	-			
	Locking	Locking			
	Interlocking	Interlocking			
Accessories available	Insulation	Insulation			
	Control and Command				
	Signalling				

# The PW1600 Hybrid MCCB covers all your protection needs with two trip unit ranges.

### The flexible range:

'sentinel' provides all the features for traditional applications.

### The smart range:

'sentinel Energy' offers advanced protection, metering and control functions, making it the premium choice for demanding requirements.

### sentinel for Traditional protections:

- Long-time overcurrent protection (L or ANSI 49)
- Short-time overcurrent protection (S or ANSI 50TD/51)
- Instantaneous overcurrent protection (I or ANSI 50)
- Ground fault protection (G or ANSI 50N/51N LSIG trip unit)
- Neutral pole protection (4P ACBs)

#### Other functions:

- Optional OAC module
- ZSI protection available

Hager PW1600 with sentinel: available in LSI or in LSIG version.



### Hager PW1600 with sentinel Energy: available in LSIG version.



### sentinel Energy for Advanced protections:

- IDMTL overcurrent protection (IEC 60255-151) ● ●
- Undervoltage protection (ANSI 27) ••
- Overvoltage protection (ANSI 59) •
- Underfrequency protection (ANSI 81L) ••
- Overfrequency protection (ANSI 81H) ••
- Reverse active power protection (ANSI 32R) •
- Current unbalance protection (ANSI 46) •
- Voltage unbalance protection (ANSI 47) ••

#### Advanced alarms:

- 12 custom alarms • • •
- DIP and SWELL alarms •••
- Optional customisable OAC module

#### **Metering functions:**

- Current, voltage, frequency, phase sequence
- Power & energy (Accuracy class 1 according to EN 61557-12)
- Demand power & current • • •
- Power Factor and cos ф ● ●
- Total Harmonic Distorsion THD V, THD I, THD IN ••••
- Multi-tariff energy counters (up to 8 tariff slots) • •
- Individual harmonics up to rank 40 ••

### Communication:

Modbus-RTU or Modbus-TCP (optional module) Control functions:

- Closing/opening command
- Dual protection management

Hager PW1600 with sentinel Energy gives you 5 different versions of rating plugs to achieve various functions.

- Standard
- Meter plus
- Harmonic
- Advanced
- Ultimate

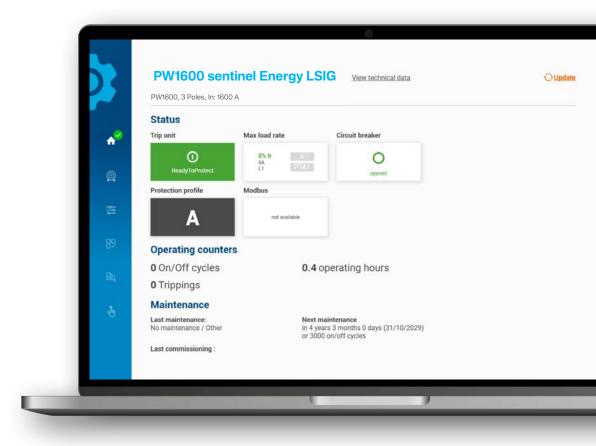
Customise your rating plugs as required. Install calibration card of the rating plug in this slot.

# Digital **Experience**

### **Hager Power**

### **Setup Software**

Test the trip unit and generate a commissioning report proving that the settings conform with the values defined in Hagercad.



### Hager Power Touch App



Use Hager Power Touch from your smart device to monitor the status, measurement and alert information provided by the sentinel Energy trip unit.



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