

## A new era in protection.

As your partner, the safe supply of power will always be our top priority. Decades of experience, and an attentive ear for our customers, has made it possible for us to develop our new hw+ range air circuit breaker to meet all your requirements: maximum power with minimum volume and a completely unique user experience.





The safety requirements for electrical systems are becoming increasingly stringent due to more stricter standards and more intelligent installations. Our new ACB includes all the features you need for maximum protection against events such as short circuits, ground faults or overloads. It combines all the features you need to make your installation safer and more communicative and to manage your electrical energy. Many extensible accessoiries make our new ACB fully customisable for all your special needs.

But that's not all: with the Hager Power setup software and the new Hager Power touch app commissioning, operating and maintaining are easier than ever. This not only takes the digitalisation of your process to the next level, it also gives you the opportunity to maintain full control over the entire energy flow at all times.

## Protection on board.

Whether in industries, infrastructures or buildings, every environment requires a reliable supply of electrical power. Our power distribution board, univers N, has proven successful with our customers, and as a tailor-made solution, it easily meets the most demanding requirements.

All air circuit breakers of the hw+ range can easily be integrated into the quadro evo power distribution switch board. This way, the core of your power supply is exactly where it belongs – at the heart of your switchgear. This not only provides reliable protection against overload, short circuits and other factors, but also ensures integrated monitoring and energy transparency throughout the entire system, with the appropriate module extensions. This allows you to tap into the potential of your electrical system and make optimizations at any time in order to get the most from your ACB.



## quadro evo at a glance.

The switchgear assemblies made with the quadro evo system, in accordance with Hager recommendations, meet the requirements of the international standard IEC EN 61439-1 and -2. Depending on the level of safety required, the available partitions - 1, 2b, 3b, 4b - and the many possible combinations and equipment options, quadro evo packages will provide you with the right solution for your projects, whatever their size.



### **01** Tested and approved

A system that complies with international standards (IEC 61439), validated by tests carried out in an independent, accredited European laboratory.

This includes component resistance, IP protection, mechanical operation and thermal limits.

#### 02 More robust

The robust mechanical structure and new internal equipment system enable high performance to be achieved (Icw 85 kA up to 4000 A) to suit as many projects as possible.

#### 03 More safety levels

Choice of partitions - 1, 2b, 3b, 4b - for continuity of service during servicing, maintenance and upgrades to the switchboard, in complete safety.

#### 04 More ease

All the components are designed for quick and easy assembly, with preattachment functions on the kits, optimised screwing operations and standardised screw types.

### 05 More flexibility

The new busbar support system uses a reduced number of components to produce the configurations tested, using 10 mm thick profiled aluminium busbars or 5 or 10 mm thick copper busbars.

#### 06 Service Index

The quadro evo range offers a complete solution covering service ratings from 111 to 233. When it comes to internal equipment for departures and storage areas, there are a number of standard combinations that more than meet requirements. The enclosures can also be fitted with an all-SX solution.

6 7

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### Customised for you.

Whether you're an electrical consultant, a panel builder, an installer or operator, our hw+ air circuit breakers offers all the features you need to improve system design, construction and operation, in every commercial sector.

#### Hotel



#### **Retail**



The applications of air circuit breakers are versatile, however their requirements vary depending on the situation. Just as requirements differ, so do the needs of each target group. With the hw+ range, Hager combines everything you could ever want from an ACB: from simple planning, easy commissioning and smart operation to maximum scalability for your projects.

#### Office



#### **Healthcare**



#### **Educational**





### **Benefits for** large installers:

- Easy and fast access to technical documentation via QR code
- Commissioning report generated by Hager Power setup software
- Customer trust assured by the trip test command available with the sentinel Energy trip unit



### **Benefits for** operators:

- User-friendly Hager Power touch app
- Electrical safety: monitor voltage, current, power, energy consumption, and fault events without touching the electrical distribution board
- Electrical safety: user-friendly display, easy to handle
- Easy and fast access to technical documentation via QR code



### **Benefits for** facility managers:

- User-friendly Hager Power touch app
- Electrical safety: monitor the voltage, current, power and energy consumption and faults events without touching the electrical distribution board
- Electrical safety: restore power after a shutdown from a safer distance



### **Benefits for** electrical consultants: panel builders:

- Customisable alarms: alarm features can be adapted on site
- Multi-tariff energy counters included



### **Benefits for**

- Time saving thanks to pre-assembled circuit breaker
- Tool-free mounting of coils
- quickconnect terminal blocks
- Easy to mount

## Say hello to hw+.



Every electrical installation comes with its own requirements. To meet any challenge, the hw+ range offers you the appropriate product to master every demand.

### Product types

- -Air circuit breaker
- -Switch-disconnector

### Available versions

- -Withdrawable
- -Fixed

### Full range of accessories

- -Control & command
- -Signalling
- -Locking
- -Interlocking
- -Insulation
- -Connection

### **Different Trip Units**

- "sentinel" provides basic protection (LI, LSI, LSIG)
-sentinel Energy provides advanced protection (LSI, LSIG) and includes measurement and communication

### hw+ ACB overview

Rated cu	irrent (In)	400 A	630 A	800A	1000A	1250 A	1600 A	2000 A	2500A	3200A	4000A
HW1	N: 42 kA M: 55 kA E: 66 kA	cu =  cs =    cu =  cs =    cs =  cw =	lcw								
HW2	M: 55kA E: 66kA S: 100kA		Icu = Ics Icu = Ics Ics = Icw	= lcw							
HW4	E: 66kA S: 85kA P: 120kA						35kA				

## The choice is yours:

## Trip unit sentinel or sentinel Energy.



### hw+ sentinel: the flexible one

The trip unit sentinel manages to combine all the functions and tools you need in just one system thanks to its intelligent design. This gives you flexibility in reacting to changes in your distribution system at any time. The LCD-display and intuitive navigation views make its operation child's play. All protection settings can be easily carried out directly on the trip unit.



### hw+ sentinel Energy: the smart one

The trip unit sentinel Energy is a high-performance powerhouse that brings your user experience to the next level. The trip unit and the powerful coloured TFT display offer you even more possibilities in the operations. In addition to all the features of the trip unit sentinel, the trip unit sentinel Energy also offers communication, advanced protections, alarms, metering and control functions, and is therefore suitable for particularly high demands.



Compact size



Secure and easy-to-use trip units



Plug & Play Rating Plug



Output alarm contacts



Bluetooth connected\*



Metering functions\*



Advanced protections\*



Modbus communication\*



Easy commissioning via software



Warnings and trip alarms



Easy and safe mounting of accessoires



Easy locking and interlocking



Advanced alarms\*



Control functions\*



Easy maintenance

\*only integrated in ACB sentinel Energy



### **LCD-display**

The easy-to-read LCD display helps you to set the configuration of your the unit.



### **Trip unit sentinel**

Safe adjustment of the sentinel trip unit with the combined dials and LCD display.



### Rating plug

Makes it easier to adapt your system with a plug & play rating plug.



### **OAC-module**

Up to five optional Output Alarm Contacts can be connected via terminal blocks to monitor the main tripping causes.



### **Terminal**

Easy extension by terminals for all the auxiliaries (motor, coils, switches, etc.) via quickconnect.

quickconnect



### Interlock

This locking device enables the blocking of the PUSH ON pushbutton in order to prevent the closing of the ACB.



### **Push & lock coils**

Safe and easy mounting. Coils are easily and safely mounted thanks to Push & lock system.



### Racking handle

Perfectly and safely integrated into storage location.



### Safety shutter

Lockable safety shutters protect the main contacts as soon as the circuit breaker is removed from the chassis, using withdrawable technology.



### Slide-in technology

Easy removal of the ACB from the slide-in frame thanks to laterally extendable guide rails.



### QR code

Get all the information and technical documents of your product by scanning the QR code.



### Release & lock catch

The position latch is not only use to release the chassis position during racking operation but also used to lock it with up to 3 padlocks.

### hw+ sentinel: the flexible one.

The hw+ sentinel from Hager has a single goal: to maximize the reliability of your plant. It combines protection and user-friendly functions with flexible connection options and unbeatable product quality in a highly robust, yet uniquely compact design.



#### Common characteristics ACB hw+ with sentinel

ited operational voltage	Ue	(V AC-50/60 Hz)	690
ted insulation voltage	Ui	(V)	1000
ted impulse-withstand voltage	Uimp	(kV)	12
les		3/4	
rsions		Fixed/Withdrawable	
andards		IEC 60947-2	

### hw+ sentinel Energy: the smart one.

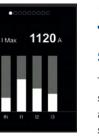
In combination with the sentinel energy trip unit, the hw+ offers even more comprehensive functions compared to the sentinel trip unit. With its advanced performance package, multifunction protection, integrated Bluetoothfunction and connection to the Hager Power touch app, the hw+ sentinel energy makes even the most demanding task easy to handle.





#### Common characteristics ACB hw+ with sentinel Energy

Rated operational voltage	Ue	(V AC-50/60 Hz)	69
Rated insulation voltage	Ui	(V)	10
Rated impulse-withstand voltage	Uimp	(kV)	12
Poles		3/4	
Versions		Fixed/Withdrawable	
Standards		IEC 60947-2	



### **Trip unit** sentinel Energy

The powerful graphical TFT-display shows predefined measurement and settings screens permanently



### **Bluetooth** connected

Monitor your ACB with the Hager Power touch app using the Bluetooth-ready sentinel



### **COM** modules

Optional COM modules allow communication via Modbus-RTU or Modbus-TCP with the agardio. manager and the Stream software.



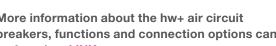
### **USB-C** connection

The integrated USB-C port allows operation even without a network power supply. Simply connect a laptop and use the Hager Power setup software for test and commission.



### Panel display

Optional panel display allows to give a display access to the ACB when it is mounted behind an opaque door or panel.



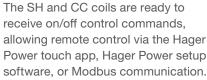


### OAC module which is driving up to

**OAC** module Inform remotely on customisable predefined event with the optional









More information about the hw+ air circuit breakers, functions and connection options can be found on LINK

## Two trip units.

Two sentinels.

Hager ACB hw+ with sentinel: available in LI, in LSI or in LSIG version.



Although applications in buildings, infrastructures and industries require diverse protection capabilities, the hw+ ACB range covers all your needs with two trip units. While the sentinel trip unit provides all the features for conventional applications, the sentinel Energy trip unit offers advanced protection and control functions making it the premier choice for particularly demanding requirements.

#### **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)
- Neutral pole protection

#### Other functions:

- Optional OAC module
- ZSI protection available

#### 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 соѕф
- 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 Control functions:

- Closing/opening command
- Dual protection management

Hager ACB hw+ with sentinel Energy: available in LSI or in LSIG version.



## The trip unit sentinel.

With the clear graphic TFT display, you always have all the important information in view and can make many settings directly on the device itself. This not only facilitates operation but also increases your response speed.

### **01** Display power on



Power the trip unit with a USB Power Bank.

### 02 Dial handle



Handle the dial to display the set value of parameter.

### **03** Protection settings



Each parameter is displayed in real-time, in amps or seconds. You can set all long time delay, short time delay, and instantaneous protection parameters, and depending on your product customisation, either the neutral protection or the ground fault protection.

### **04**Settings overview

The OK button can be used at any time to overview the set parameters.





Current read on the most heavily loaded phase L1, L2 or L3 and as a percentage of the setting Ir.



Long time threshold setting.



Long time delay setting.



Short time exposure limit



Short time delay setting.



Instantaneous threshold setting.



Ground fault threshold setting.



Ground fault delay setting.



Neutral protection setting.

### 05 Neutral protection



Open the battery flap to access the neutral protection dial. Thanks to the battery, the tripping cause is displayed on the screen after a trip.

## The trip unit sentinel Energy.

000000

0.87

0000000

COURT RETARD

11000<sub>A</sub>

**10**xlr

0.5 ms

Off

Off

Multimeter screen.

U12

U13

U31

Isd

Isd

tsd

I²t

ZSI STD

427.2v

431.3v

427.2v

50.1<sub>нz</sub>

With the clear graphic TFT display, you always have all the important information in view and can make many settings directly on the device itself. This not only facilitates operation, but also increases your response speed.

# ●000000 I Max 1480A 120 100 80 60 40 20 Wir IN II I2 I3

Ampmeter screen.



Long time settings screen.

### O1 Live mode

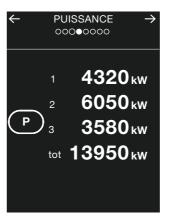
You can choose to scroll through your favourite settings or metering screens by activating Live mode. Up to 36 predefined screens are available.

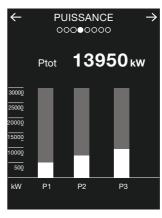


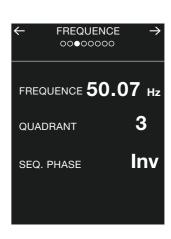
Short time settings screen.

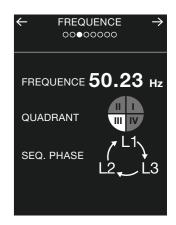
### **02**Measurement display

You can retrieve all parameters at any time by pressing the OK button. Most measured values can be displayed both numerically and graphically.



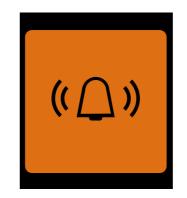






### 03 Trip and alarm pop-ups

You can obtain further information on malfunctions and alarms by using the OK button.











Trip pop-up.

### Digital experience: Checking and operating.

In combination with the sentinel Energy trip unit, the Hager Power touch app provides you with a completely new digital user experience. Checking the operating status and maintenance information, as well as operation, become even easier. Additionionally, you can monitor the measured values at any time.



### **01**Check the operating condition

You can easily check the open/close state and the load rate, and be informed of any alarm occurrences. You can also quickly determine when the next maintenance should be performed.



### **02**Monitor the metering values

Thanks to graphical screens you can monitor the voltage, current, frequency power and energy consumption and all the available measured values.







### 03 Perform a closing command

If the sentinel Energy ACB is equipped with the communicating SH and CC coils, you can perform a closing or opening command from a safe distance of up to 10 meters. These commands are protected by a password.



### 04 Check the fault events

In the history section, you can overview all the fault events directly on the device.



### Monitor the metering values

Thanks to graphical screens you can monitor the voltage, current, frequency power and energy consumption and all the available measured values.

## Maximise the potential.

The hw+ air circuit breakers come with a full package of accessories: commands, signals, protections, locking and interlocking systems. This allows you to configure your ACB according to your individual needs. All accessories are designed to be retrofitted at any time and are very easy to install.

With this type of conception, you always retain full control over the performance of your air circuit breaker and can always react flexibly to changing requirements in your installation.

### Mechanical interlock (MI)



Interlock 2 or 3 ACB together for safety applications. Compatible for all circuit-breaker versions (3P & 4P, Fixed & Drawout).

#### OFF Locking Keylock (OLK)



Lock in OFF the ACB easily thanks to a Ronis keylock.

#### Push Button Cov



OAC

module

Signal remotely the tripping

causes splitted within five

Using sentinel Energy trip

each output contact to one

unit allows to customize

predefined event.

single output contacts.

Prevent push button touching with padlocking systems.
Can also be used to force and lock in OFF the ACB.

### Coils

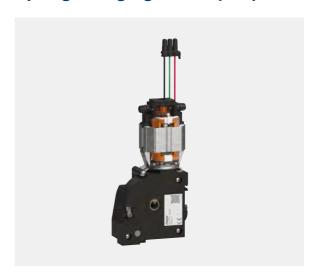


The coils are used to remotely open or close the ACB.

3 coils in total can be mounted in the ACB:

- 1 Shunt trip coil (SH) or 2 if no UV required
- 1 Undervoltage release (UV)
   or 2 if no SH required
- 1 Closing coil (CC)
- Communicating coils option for sentinel Energy

#### **Spring charging Motor (MO)**



The spring charging motor is used to charge the spring mechanism when the ACB is closed.

- Safe and easy to mount
- Suitable with all common power supply voltages

#### **Auxiliary Switches (AX)**

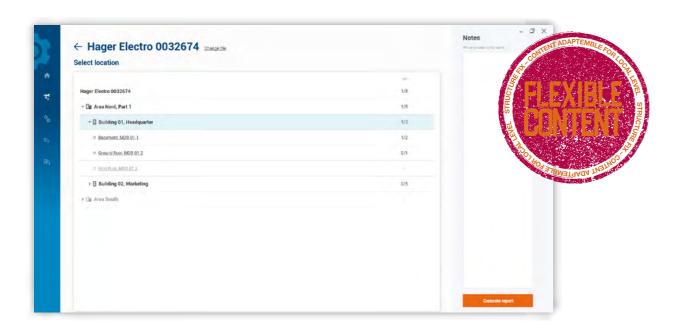


Auxiliary switches are used to signal remotely the ACB status (ON or OFF).

- 4 auxiliary switches (AX) are mounted as standard on ACB HW1 & HW2
- 6 auxiliary switches (AX) are mounted as standard on ACB HW4
- Ready to be connected

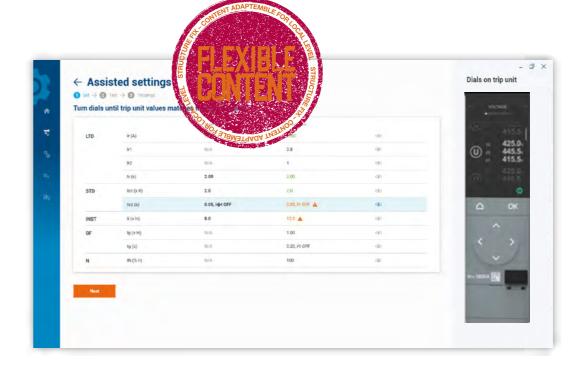
## Simple & safe commissioning.

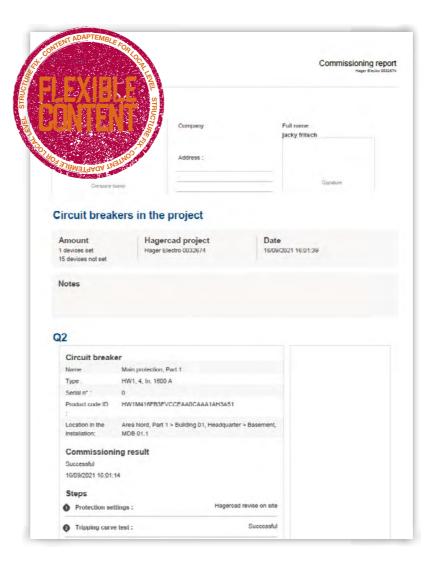
As different as requirements may be, two rules should always apply: commissioning must be performed according to protection settings calculated during design of the installation, and it must be kept to a minimum in terms of complexity and time intensity. The hw+ range is easy to commission thanks to Hagercad software combined with the new Hager Power setup software.



### **01**Assisted commissioning

Although every power supply system must be viewed individually, there are a large number of settings that you can adopt when commissioning new systems. We have therefore compiled some pre-settings in our Hagercad portal which make the initial installation as easy as possible.





Furthermore, Hager Power setup is the software used to test and check the hw+ air circuit breakers and the h3+ moulded case circuit breakers. It also allows you to check all the historical events stored in the trip units.

### **02 Getting protection settings from Hagercad**

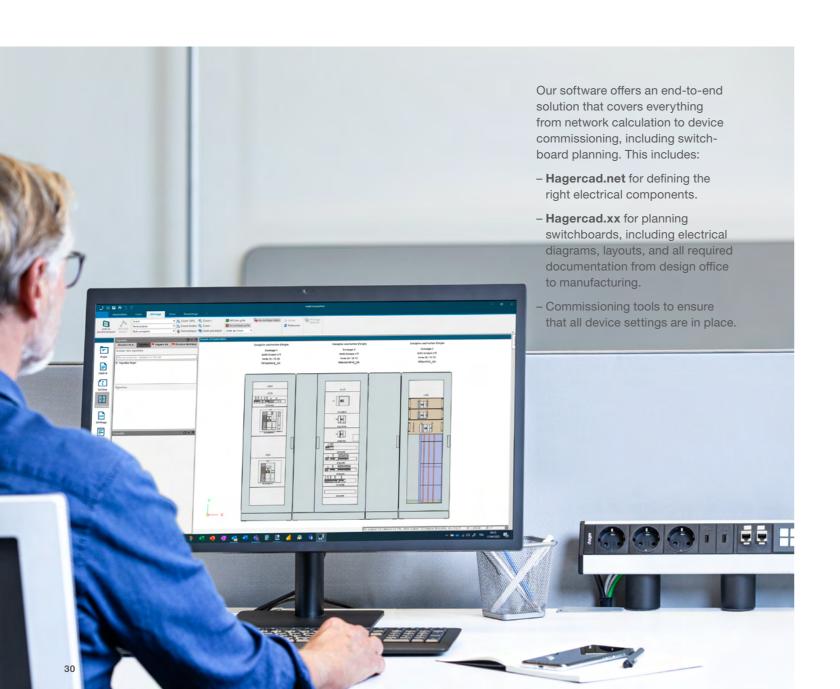
Protection settings can be exported from Hagercad. Test & Commissioning software is guiding you in importing this structure, and in using it to commission the hw+ air circuit breakers in a user-friendly and secure way.

### 03 Get proof with commissioning report

With the software you're able to document all your activities on the circuit breaker in a detailed report. This way, they can provide proof at any time that they have been properly adjusted and maintained.

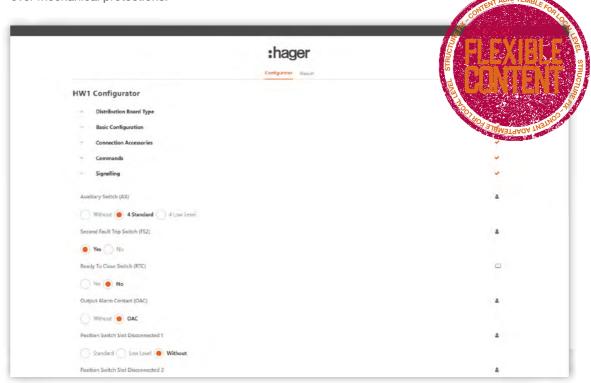
# Easy planning and customisation with Hagercad.

As specialists in simple and safe electrical installation, not only do we understand a great deal about low-voltage distribution system planning and tenders, we also know exactly how to make the commissioning of your ACB as easy as possible for you.



### Customise your ACB with hw+ web configurator:

The web configurator can customise your air circuit breaker according to your needs. For the configuration you'll have free choice over the type, trip unit, command and signaling accessories, locking and interlocking devices as well as over mechanical protections.



### Interface and configuration rules:

Thanks to its ergonomic and intuitive interface, the selection of all components and accessories is done quickly. Association rules save time on the selection and validity of the final configuration. It's possible to create or edit a new configuration in different ways:

- by following the steps of the form
- using a "hw+ product code" configuration identifier
- by reusing a saved configuration

Start your configuration now at hager.com/link



### **Hager Training,** the path to excellence



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- €720 incl. tax (2021 prices).
- Valid for one calendar year.
- Breakfast included.
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### Technical assistance, get answers quickly



hager.com

help.hager.com

**Access any information you** require in a few clicks.



### **Manuals**

Installation, product wiring



#### **FAQ**

Answers to all your questions



### **Videos**

For commissioning a product



Recommendations, configuration, settings, etc.



#### **Retail price**

For project costing



#### Software

Design and cost your electrical installations with Hagercad.T

## **Customise** your ACB.

As your partner, our top priority is to always provide you with perfect products tailored to your preferences and application needs. You can configure your new ACB individually, from the fixed version consisting of 5 components to the withdrawable solution consisting of 6 components. To give you a little guidance, we have preconfigured 6 systems as examples to show you how you can assemble your ACB as a 3 pole or 4 pole solution.

#### ACB sentinel and ACB sentinel Energy are configured as following:

5 catalogue numbers minimum for fixed versions:

- The air circuit breaker
- The sentinel or sentinel Energy trip unit
- The Rating Plug
- The top connection
- The bottom connection

6 catalogue numbers for withdrawable versions:

- The air circuit breaker
- The sentinel or sentinel Energy trip unit
- The Rating Plug
- The chassis
- The top connection
- The bottom connection

The other accessories and auxiliaries are optional and can be added to complete the requested configuration. For every configuration done in Hagercad software or web configurator, a product code is automatically generated. You can enter the product code in the web configurator to generate the configuration and obtain complete details of the bill of materials.





Example 1 Product code : HW1M310FEAEHAAAAL0AAAA0AA0A00

HW1 3 poles 55kA, In max = 1000A, Fixed type, with Trip Unit sentinel Energy LSI,

Horizontal connections on top & bottom						
HW1M310FE	HW1, 3 poles, Fixed type, 55kA, In max = 1000A					
HWW453H	Trip Unit sentinel Energy LSI					
HWW467H	Rating plug 1000A Ultimate					
HWY048H	Horizontal connection for top					
HWY048H	Horizontal connection for bottom					





ample 2 Product code : HW1M412DEAFFAAAAL0AAAA0AA0A00

HW1 4 poles 55kA, In max = 1250A, Drawout type, with Trip Unit sentinel Energy LSI, Front connections on top & bottom

Front connections on top & bottom					
HW1M412DE	HW1, 4 poles, Drawout type, 55kA, In max = 1250A				
HWW453H	Trip Unit sentinel Energy LSI				
HWW467H	Rating plug 1250A Ultimate				
HWY041H	Front connection for top				
HWY041H	Front connection for bottom				

#### 03

#### Example :

#### Product code: HW1M412FB2EFAAAAB0AAA0AA0A00

HW1 4 poles 55kA, In max = 1250A, Fixed type, with sentinel LSI Trip Unit and Rating plug In = 1000A

### HW1 4 poles 55kA, In max = 1250A, Fixed type, with sentinel LSI Trip Unit and Rating plug In = 1000A, Front connection top & vertical connection bottom

HW1M412FB	HW1, 4 poles, Fixed type, 55kA, In max = 1250A
HWW451H	Trip Unit sentinel LSI
HWW467H	Rating plug 1000A
HWY041H	Front connection for top
HWY041H	Front connection for bottom

#### 04

#### Example 4

#### Product code: HW1M410DB2EFAAAAB0AAAA0AA0A00

### HW1 4 poles 55kA, In max = 1000A, Withdrawable type, with sentinel LSI Trip Unit, front connection top & bottom

HW1M410DB	HW1, 4 poles, Withdrawable type, 55kA, In max = 1000A
HW1C4EH	Chassis HW1, 4 poles, In = 1600A
HWW451H	Trip Unit sentinel LSI
HWW467H	Rating plug 1000A
HWY045H	Front connection for top
HWY045H	Front connection for bottom





#### Example 5

#### Product code: HW1M312DB2FFAAAAB0AAAA0AA0A000

### HW1 3 poles 55kA, In max = 1250A, Withdrawable with sentinel LSI Trip Unit, front connection top & bottom

HW1M312DB	HW1, 3 poles, Withdrawable type, 55kA, In max = 1250A
HW1C3EH	Chassis HW1, 3 poles, In = 1600A
HWW451H	Trip Unit sentinel LSI
HWW468H	Rating plug 1250A
HWY044H	Front connection for top
HWY044H	Front connection for bottom



#### Fyample

#### Product code: HW1M310FB2EFAAAAB0AAAA0AA0A00

### HW1 3 poles 55kA, In max = 1000A, Fixed type, with sentinel LSI Trip Unit, Front connections on top & bottom



HW1M310FB	HW1, 3 poles, Fixed type, 55kA, In max = 1000A
HWW451H	Trip Unit sentinel LSI
HWW467H	Rating plug 1000A
HWY040H	Front connection for top
HWY040H	Front connection for bottom

Frequenz:

:hager

50/60 Hz

- mit thermischer und magnetischer Auslösung zum Schutz elektrischer Anlagen und Netze
- Befestigung auf Hutschiene, Montageplatte oder in Bausteinen im Verteiler-Innenausbausystem univers N
- An der Knebelstellung sind die drei unterschiedlichen Betriebszustände "EIN", "AUS" und "ausgelöst" erkennbar
- Rahmenklemmen zum Anschluss von Kupferkabeln sind Standard
- Rahmenklemmen zum Anschluss von Aluminiumkabeln sind erhältlich
- mechanische Prüftaste
- über verschiedene Zubehörteile ist die Funktionserweiterung der Leistungsschalter möglich



HHS025DC

#### Leistungsschalter, P160, 25 kA, 3-polig, thermisch und magnetisch einstellbar

Polanzahl 3 P 220/690 V 25 A 3 P 220/690 V 40 A HHS040DC 63 A 3 P 220/690 V 220/690 V 80 A 3 P 220/690 V 100 A 3 P 220/690 V 125 A 3 P HHS125DC 220/690 V 160 A 3 P HHS160DC



HHS026DC

#### Leistungsschalter, P160, 25 kA, 4-polig, thermisch und magnetisch einstellbar

Frequenz: 50/60 Hz

Bemessungsspannung	Nennstrom	Polanzahl	VPE	PrGr	Preis	Best.Nr.
220/690 V	25 A	4 P	1	H406	271,90 €/St ★	HHS026DC
220/690 V	40 A	4 P	1	H406	271,90 €/St 🖈	HHS041DC
220/690 V	63 A	4 P	1	H406	276,10 €/St 🖈	HHS064DC
220/690 V	80 A	4 P	1	H406	307,20 €/St 🖈	HHS081DC
220/690 V	100 A	4 P	1	H406	347,90 €/St ★	HHS101DC
220/690 V	125 A	4 P	1	H406	670,10 €/St ★	HHS126DC
220/690 V	160 A	4 P	1	H406	771,70 €/St 🖈	HHS161DC



HNS025DC

#### Leistungsschalter, P160, 40 kA, 3-polig, thermisch und magnetisch einstellbar

Frequenz: 50/60 Hz

Bemessungsspannung	Nennstrom	Polanzahl	VPE	PrGr	Preis	Best.Nr.
220/690 V	25 A	3 P	1	H406	268,60 €/St 🔹	HNS025DC
220/690 V	40 A	3 P	1	H406	295,50 €/St 🔹	HNS040DC
220/690 V	63 A	3 P	1	H406	295,50 €/St 🖈	HNS063DC
220/690 V	80 A	3 P	1	H406	328,70 €/St 🔹	HNS080DC
220/690 V	100 A	3 P	1	H406	363,90 €/St 🔹	HNS100DC
220/690 V	125 A	3 P	1	H406	568,40 €/St 🖈	HNS125DC
220/690 V	160 A	3 P	1	H406	628,30 €/St <b>★</b>	HNS160DC



HNS026DC

#### Leistungsschalter, P160, 40 kA, 4-polig, thermisch und magnetisch einstellbar

Frequenz: 50/60 Hz

Best.Nr.		Preis	PrGr	VPE	Polanzahl	Nennstrom	Bemessungsspannung
HNS026DC	*	348,90 €/St	H406	1	4 P	25 A	220/690 V
HNS041DC	*	372,40 €/St	H406	1	4 P	40 A	220/690 V
HNS064DC	*	372,40 €/St	H406	1	4 P	63 A	220/690 V
HNS081DC	*	418,50 €/St	H406	1	4 P	80 A	220/690 V
HNS101DC	*	465,60 €/St	H406	1	4 P	100 A	220/690 V
HNS126DC	*	727,80 €/St	H406	1	4 P	125 A	220/690 V
HNS161DC	+	809 20 €/St	H406	1	4 P	160 A	220/690 V



#### Leistungsschalter, P160, 40 kA, 3-polig, elektronisch einstellbar (LSnI)

Frequenz: 50/60 Hz

Bemessungsspannung	Nennstrom	Polanzahl	VPE PrGr	Preis	Best.Nr.
220/690 V	40 A	3 P	1 H406	467,70 €/St 🔹	HNS040GC
220/690 V	100 A	3 P	1 H406	467,70 €/St ★	HNS100GC
220/690 V	160 A	3 P	1 H406	670,10 €/St ★	HNS160GC



HNS040GC

#### Leistungsschalter, P160, 40 kA, 4-polig, elektronisch einstellbar (LSnI)

Frequenz: 50/60 Hz

Bemessungsspannung	Nennstrom	Polanzahl	VPE PrGr	Preis	Best.Nr.
220/690 V	40 A	4 P	1 H406	630,50 €/St ★	HNS041GC
220/690 V	100 A	4 P	1 H406	630,50 €/St 🔹	HNS101GC
220/690 V	160 A	4 P	1 H406	837,50 €/St 🔹	HNS161GC



HNS041GC

#### Leistungsschalter, P160, 40 kA, 3-polig, elektronisch einstellbar (LSI)

Frequenz: 50/60 Hz

Bemessungsspannung	Nennstrom	Polanzahl	VPE PrGr	Preis	Best.Nr.
220/690 V	40 A	3 P	1 H406	583,40 €/St 🖈	HNS040JC
220/690 V	100 A	3 P	1 H406	583,40 €/St ★	HNS100JC
220/690 V	160 A	3 P	1 H406	791,10 €/St 🖈	HNS160JC



HNS040JC

#### Leistungsschalter, P160, 40 kA, 4-polig, elektronisch einstellbar (LSI)

Frequenz: 50/60 Hz

Bemessungsspannung	Nennstrom	Polanzahl	VPE PrGr	Preis	Best.Nr.
220/690 V	40 A	4 P	1 H406	786,70 €/St 🖈	HNS041JC
220/690 V	100 A	4 P	1 H406	786,70 €/St 🔹	HNS101JC
220/690 V	160 A	4 P	1 H406	905,60 €/St *	HNS161JC



HNS041JC

#### Leistungsschalter, P160, 40 kA, 3-polig, elektronisch einstellbar (Energy)

Frequenz: 50/60 Hz

Bemessungsspannung	Nennstrom	Polanzahl	VPE PrGr	Preis	Best.Nr.
220/690 V	40 A	3 P	1 H406	1.135,60 €/St 🔹	HNS040NC
220/690 V	100 A	3 P	1 H406	1.228,80 €/St 🔸	HNS100NC
220/690 V	160 A	3 P	1 H406	1.343,30 €/St 🔸	HNS160NC



HNS040NC



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