

DualSmart
Emergency lighting system



DualSmart

The new generation of decentralized
low power systems



Powering Business Worldwide



DualSmart

Eaton's new DualSmart low power system offers modular flexibility and powerful app control for decentralised emergency lighting.

Eaton's innovative, mobile app-controlled, DualSmart is ideal for compact applications. Flexible DualSmart units can be used singly or combined to power decentralised emergency lighting circuits, eliminating the need for costly, fireproofed E30 wiring depending on planning approach. A touch display group controller monitors up to 16 DualSmart systems.

DualSmart's sleek enclosure can house two to eight final circuits powered by lithium iron batteries that can operate at higher ambient temperatures and also produce no explosive hydrogen. Its intuitive, cybersecure Building Safety Manager mobile app is fully integrated with Eaton's proven Building Safety Management System (BSMS) and complemented by a similarly user-friendly web interface.

DualSmart sets new standards for simpler system planning, installation and convenient app-powered management.



Flexible and modular solution for easy planning

- Decentralized, fire compartment installation with DualSmart
- Reducing E30 cabling and revision costs
- Higher level of redundancy due to decentralised arrangement of the supply units



Simple and cybersecure app-powered management

- Remote control for better maintenance management with BSMS - an 'all-in-one' approach
- Connect and monitor variety of Emergency Lighting Systems across multiple buildings and sites with our VisionGuard



Ease of mind with a fully compliant solution

- 3rd party certified system for all emergency lighting standards
- Logbook available anytime anywhere with BSMS
- Monthly health reports with BSMS

Effortless Integration

Improved System Security

Benefits of an 'all-in-one' approach

- Connect and monitor variety of Emergency Lighting Systems across multiple buildings and sites.
- Quick and intuitive App-based commissioning, maintaining and reporting tools
- Meet sustainability objectives and cost by avoiding unnecessary site visit with remote diagnosis including spare parts list.
- Comply with regulation, evidences of compliance stored on the cloud
- Real-time alert notifications to react quickly and manage criticality
- Forecast OpEx and schedule maintenance operation with Analytics (preventive/predictive).

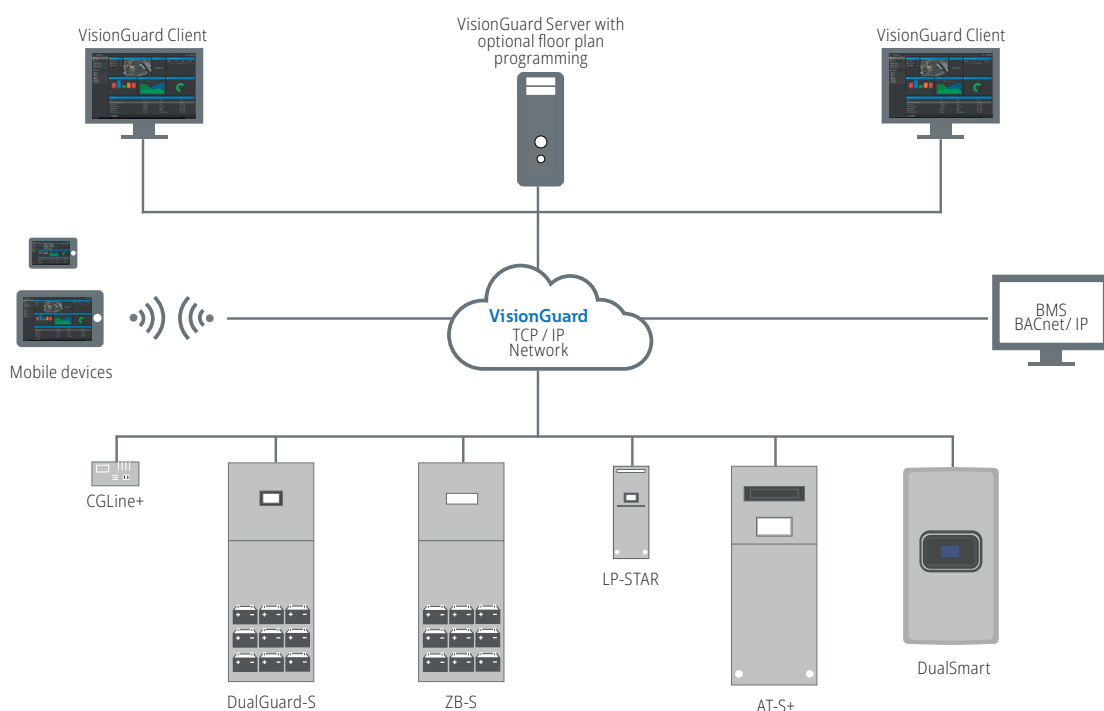
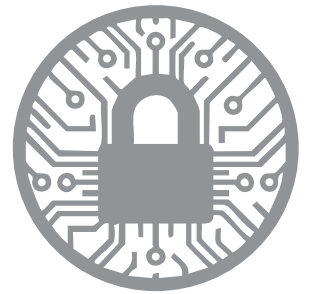


Compatible with VisionGuard

Connect and monitor variety of Emergency Lighting Systems across multiple buildings and sites. VisionGuard software makes it easier to identify when and where emergency lighting system errors occur across large, complex settings and multiple sites.

As the successor to our successful CGVision software it combines proven Eaton visualisation technology with secure, web-based client-server architecture to enable the complete visualisation, control, logbook management and configuration of Eaton's emergency lighting systems.

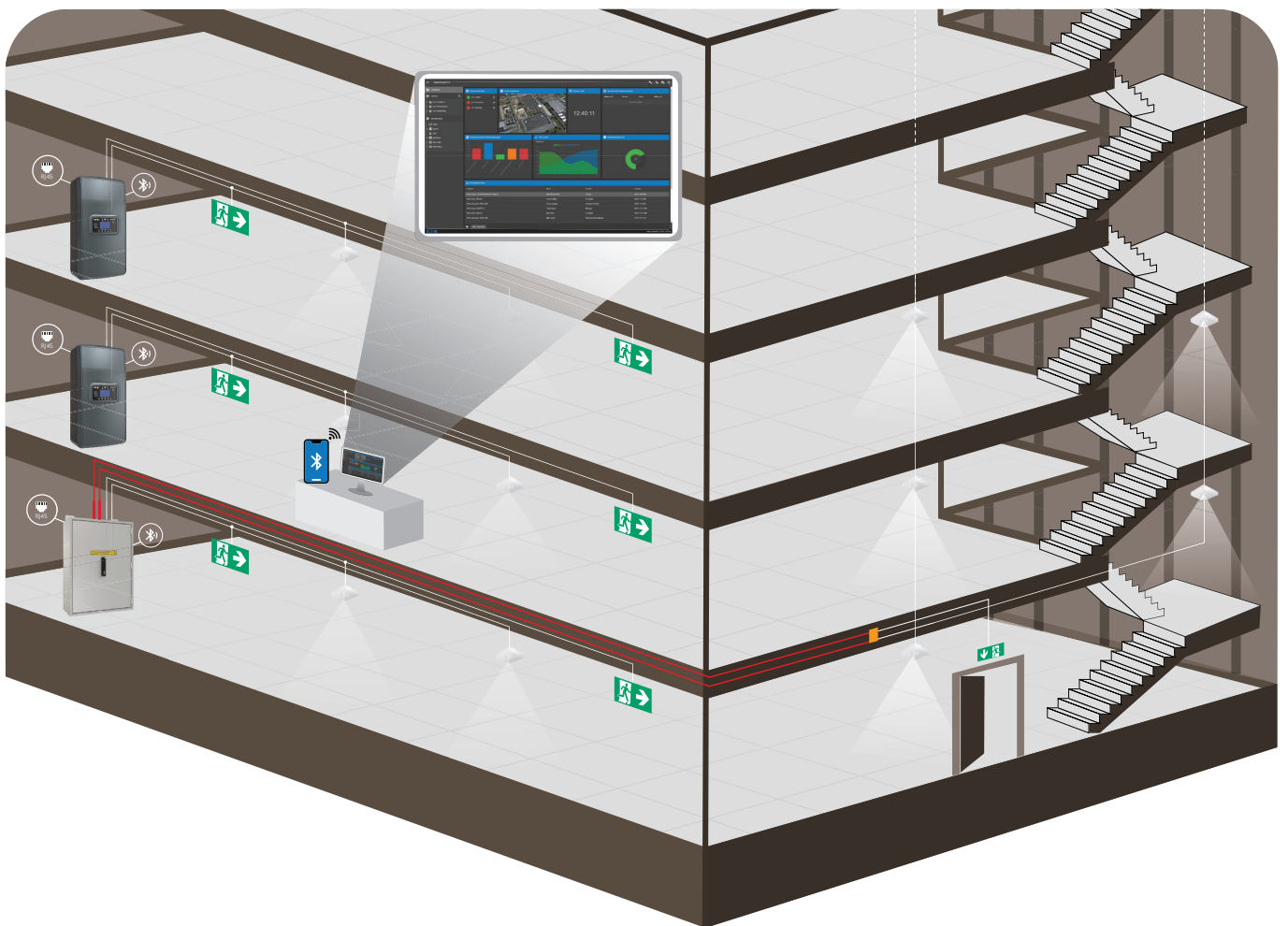
- Quick upgrade
- One product suits all
- Seamless integration into existing systems



Easy Planning

Delivering easy all-round control, DualSmart is fully integrated in Eaton's Building Safety Management System (BSMS). The Building Safety Manager App is available on both Android and iOS for smartphone or tablet and features intuitive system configuration, commissioning and monitoring. The mobile app is complemented by a similarly user-friendly web interface for remote monitoring via dashboard, email notifications and convenient system documentation access for compliance purposes.

Installation example



System compatibility - for all your favourite luminaire series

Switch to safety!

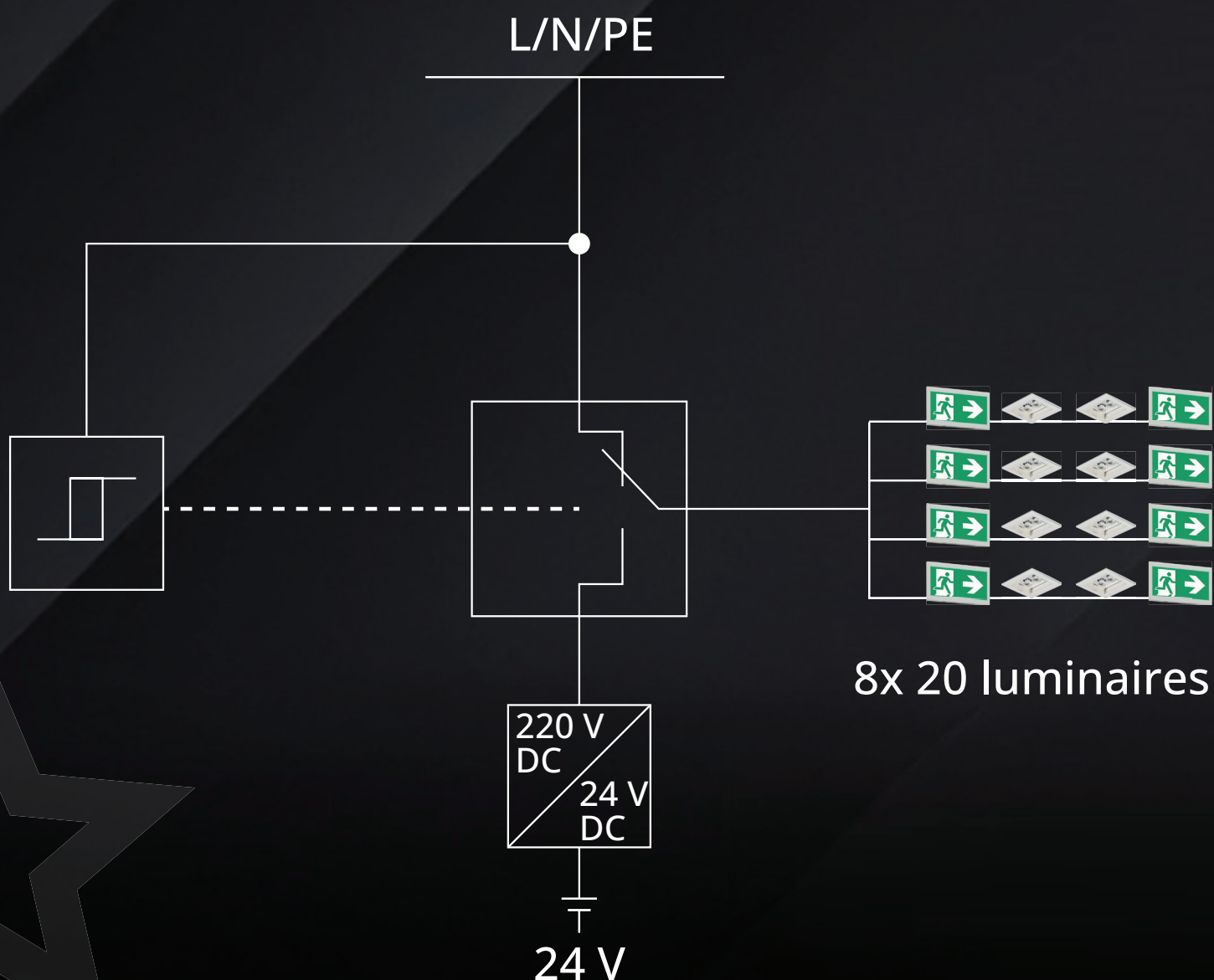
The continuing development of the CEWA GUARD monitoring system has led to the creation of the



Switching
Technology
Advanced
Revision,

or STAR for short. This CG-STAR-technology allows different switching modes to be implemented in the same circuit, and the switching mode of each individual luminaire can be re-programmed at any time.

As a result, this technology not only offers the proven CEWA Guard safety when it comes to operating a safety lighting system, but also gives planners the confidence and flexibility of knowing that the system can respond and adapt at any time to any changes that are made to a building and its use.



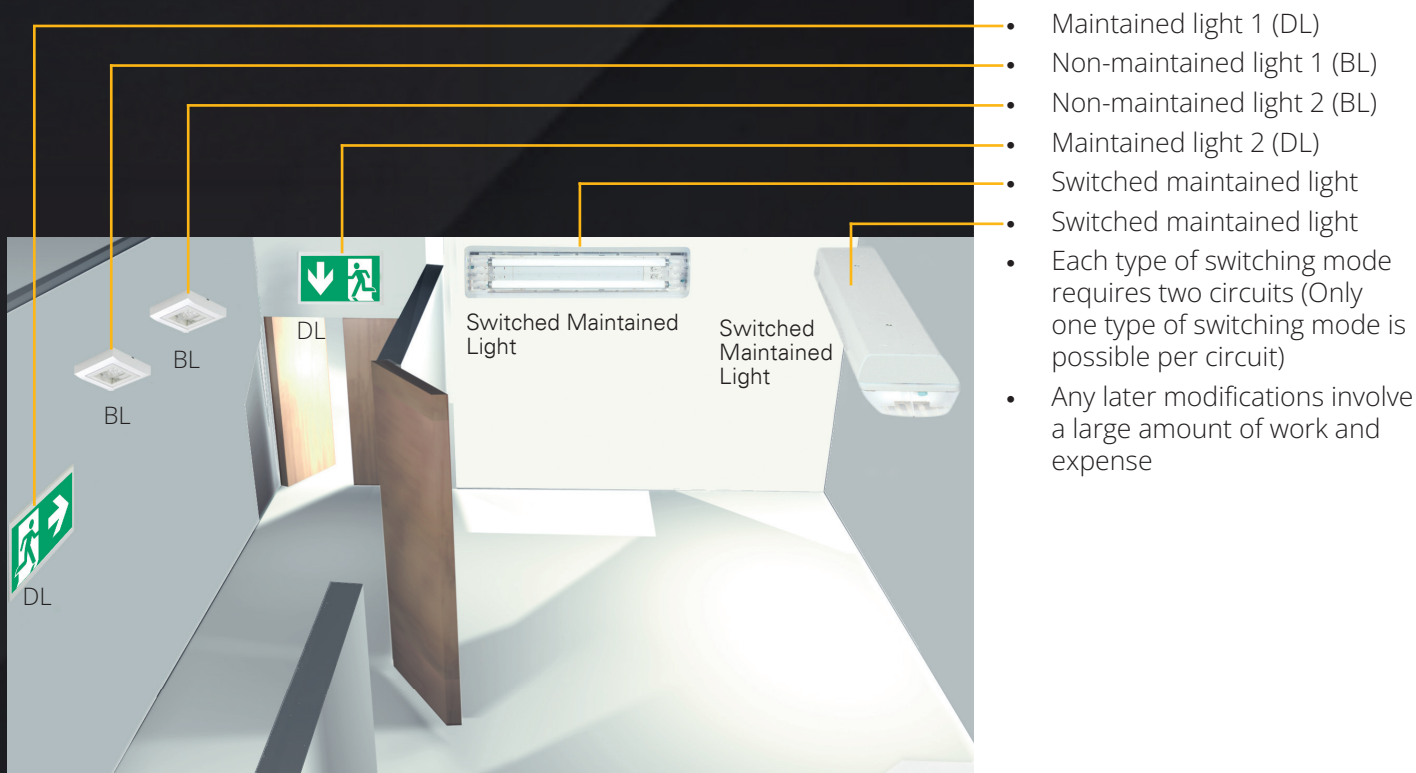
Your Advantages:

The number of outgoing circuits needed can be sharply reduced, since continuously operating, stand-by and switchable permanent lighting can be realised in one common circuit.

This allows the use of shorter cable distances, reduces installation costs and minimises the effects of burning materials. Any mode of operation can be assigned at a later date – without encroachment in the lighting installation. This enables simple project planning without having to take all possible types of operation into account.

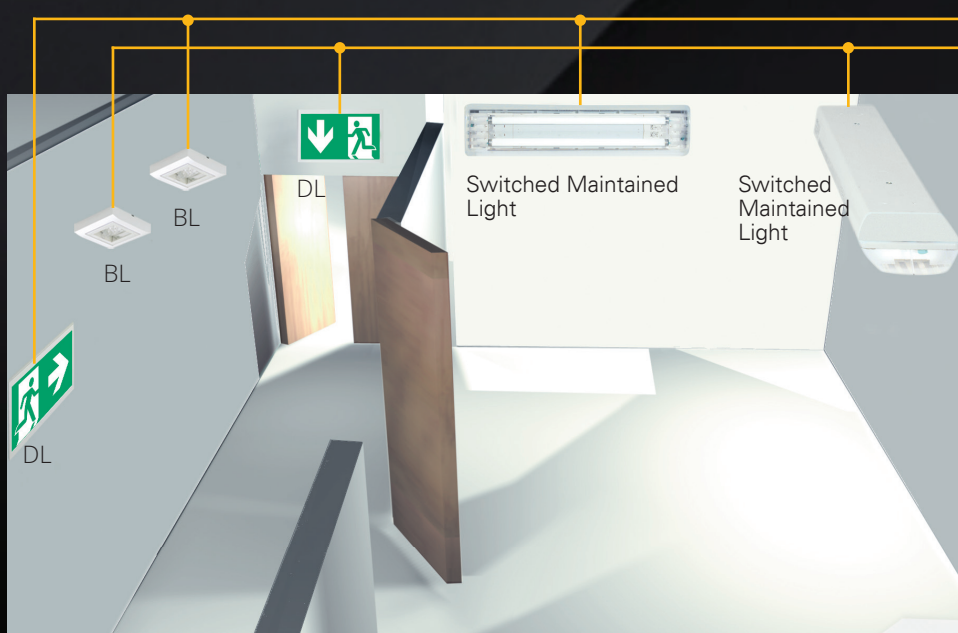
As with CEWA GUARD technology, the patented STAR technology requires no additional data cable to the luminaires.

Conventional Installation:



Installation with STAR Technology:

All types of switching modes



Flexible and modular solutions

DualSmart – Product overview



Available in technopolymer, metal, fireproof and hygienic enclosure with up to 540 W output

Robust technopolymer enclosure with cable entry from top and back in the standard version.

- 2 to 8 end circuits
- 2 circuits per CSD
- Max. 0,625 A per circuit

- 1 to 2 DC/DC Converter
- 270 W per DC/DC Converter
- Max. 540 W per system

- Display for status information
- Buttons for menu navigation
- Bluetooth interface for app connection

LiFePo4 battery

STS - 9Ah to 20Ah
ESF - 12Ah to 64Ah
MET - 9Ah to 64Ah
HYG - 9Ah to 64Ah

Optimized battery charge management and monitoring with error alerts

For commissioning, monitoring and maintenance via local Bluetooth connection

VisionGuard software to remotely configure, control and monitor up to 500 systems
- via TCP/IP

External modules



3PM-S



8PM-I-Bus



RCM



Group controller

More information on technical details



Lithium-Battery

A shift to lithium battery technology not only brings the benefit of a higher operating temperature range, but it also eliminates the emission of explosive hydrogen. As a result, there is no longer a need for cabinet ventilation.

- Higher operating temperature range
- Zero explosive hydrogen emission
- No need for cabinet ventilation



Battery data table

Maximum output power of the system in DC operation (220 V DC)

With 1x DC/DC Converter
(With 2x DC/DC Converter)

Important note: With aging surcharge for the battery of 25%

Duration Time	Max. Output Power Battery: 9Ah	Max. Output Power Battery: 12Ah	Max. Output Power Battery: 20Ah	Max. Output Power Battery: 48Ah	Max. Output Power Battery: 64Ah
1,0h	130W (0,59A)	180W (0,82A)	270W (1,23A) 330W (1,50A)	270W (1,23A) 540W (2,45A)	270W (1,23A) 540W (2,45A)
1,5h	87W (0,40A)	120W (0,55A)	220W (1,00A)	270W (1,23A) 540W (2,45A)	270W (1,23A) 540W (2,45A)
2,0h	65W (0,30A)	90W (0,41A)	165W (0,75A)	270W (1,23A) 450W (2,04A)	270W (1,23A) 540W (2,45A)
3,0h	43W (0,20A)	60W (0,27A)	110W (0,50A)	270W (1,23A) 300W (1,36A)	270W (1,23A) 365W (1,66A)
8,0h	16W (0,07A)	23W (0,10A)	41W (0,19A)	112W (0,51A)	137W (0,62A)

Flexible and modular
solution for
easy planning!



DualSmart STS
Technopolymer enclosure



DualSmart MET
Industrial metal enclosure



DualSmart ESF30
Fire proof enclosure



DualSmart HYG
Enclosure for hygienic requirements



Configuration examples

Different enclosures to meet your needs

The following table shows example configurations of various systems. Thanks to the modular design, you can easily configure and order a wide range of combinations. For more details, please refer to the data sheets.

STS – Technopolymer enclosure

Type	Battery	DC/DC	Conv.	CSD card	Circuits	Order No.	Description
STS	9Ah	1		1	2	DSSTS2109AHEN000	DualSmart in an IP 31 technopolymer enclosure with 9Ah Battery, 1 DC/DC converter and 2 circuits.
STS	12Ah	1		2	4	DSSTS4112AHEN000	DualSmart in an IP 31 technopolymer enclosure with 12Ah Battery, 1 DC/DC converter and 4 circuits.
STS	20Ah	1		3	6	DSSTS6120HEN000	DualSmart in an IP 31 technopolymer enclosure with 20Ah Battery, 1 DC/DC converter and 6 circuits.
STS	20Ah	2		4	8	DSSTS8220HEN000	DualSmart in an IP 31 technopolymer enclosure with 20Ah Battery, 2 DC/DC converter and 8 circuits.

MET - Metal enclosure

Type	Battery	DC/DC	Conv.	CSD card	Circuits	Order No.	Description
MET	9Ah	1		1	2	DSMET2109AHEN000	DualSmart in an IP65 industrial metal enclosure with 9Ah Battery, 1 DCDC-Converter and 2 circuits.
MET	12Ah	1		2	4	DSMET4112AHEN000	DualSmart in an IP65 industrial metal enclosure with 12Ah Battery, 1 DCDC-Converter and 4 circuits.
MET	20Ah	2		3	6	DSMET6220AHEN000	DualSmart in an IP65 industrial metal enclosure with 20Ah Battery, 1 DCDC-Converter and 6 circuits.
MET	48Ah	2		4	8	DSMET8248AHEN000	DualSmart in an IP65 industrial metal enclosure with 48Ah Battery, 2 DCDC-Converter and 8 circuits.
MET	64Ah	2		4	8	DSMET8264AHDE000	DualSmart in an IP65 industrial metal enclosure with 64Ah Battery, 2 DCDC-Converter and 8 circuits.

ESF30 - Fire-retardant enclosure

Type	Battery	DC/DC	Conv.	CSD card	Circuits	Order No.	Description
ESF	12Ah	1		1	2	DSESF2112AHEN000	DualSmart in an IP42 fire proof enclosure with 12Ah Battery, 1 DCDC-Converter and 2 circuits.
ESF	20Ah	1		1	4	DSESF4120AHEN000	DualSmart in an IP42 fire proof enclosure with 20Ah Battery, 1 DCDC-Converter and 4 circuits.
ESF	48Ah	2		2	6	DS ESF6248AHEN000	DualSmart in an IP42 fire proof enclosure with 48Ah Battery, 2 DCDC-Converter and 6 circuits.
ESF	64Ah	2		1	8	DS ESF8264AHEN000	DualSmart in an IP42 fire proof enclosure with 64Ah Battery, 2 DCDC-Converter and 8 circuits.

HYG - Hygienic stainless steel enclosure

Type	Battery	DC/DC	Conv.	CSD card	Circuits	Order No.	Description
HYG	9Ah	1		1	2	DSHYG2109AHDE000	DualSmart in an IP66 enclosure for hygienic requirements with 9Ah Battery, 1 DCDC-Converter and 2 circuits.
HYG	12Ah	1		2	4	DSHYG4112AHDE000	DualSmart in an IP66 enclosure for hygienic requirements with 12Ah Battery, 1 DCDC-Converter and 4 circuits.
HYG	20Ah	1		3	6	DSHYG6120AHDE000	DualSmart in an IP66 enclosure for hygienic requirements with 20Ah Battery, 1 DCDC-Converter and 6 circuits.
HYG	48Ah	2		4	8	DSHYG8248AHDE000	DualSmart in an IP66 enclosure for hygienic requirements with 48Ah Battery, 2 DCDC-Converter and 8 circuits.
HYG	64Ah	2		4	8	DSHYG8264AHDE000	DualSmart in an IP66 enclosure for hygienic requirements with 64Ah Battery, 2 DCDC-Converter and 8 circuits.

DualSmart STS

DualSmart – Low Power System

DualSmart STS



DualSmart STS

- Lightweight and robust technopolymer enclosure without ventilation slots, with control buttons located behind the viewing window
- Cable entry from the rear or top; the optional cover for the top cable entries ensures a clean, professional appearance
- Modular design of circuit outputs (2 to 8) and battery capacity (9 Ah to 20 Ah)
- Gas-free lithium battery with a wide operating temperature range

Input	Values	
Rated voltage AC	1 ~ 220-240 V	
Rated frequency	50/60 Hz	
Max. rated current AC	7,5 A	
Rated voltage DC	20,0- 28,8 V	
Battery	Lithium Battery LiFePo4 25,6 V, max. 60 A for 4 s	
Conductor arrangement and grounding system in Mains/Battery Operation	TNC-S / IT	
Protection class	I	
Input fuse	8A slow-blow (T), 300V, 6,3 x 32mm	
Output		
Rated voltage AC	220-240 V AC	
Rated voltage DC	222-229 V (load-dependent)	
Max. rated power per circuit	150 VA / 140 W	
Rated current per circuit	0,625 A	
Circuit fuse	1 A slow-blow (T), 250 V, 5 x 20 mm	
Max. rated power 24 V auxiliary voltage	2x 14,4 W (LON and DS-Bus)	
Output dependent on DC/DC converter	1 DC/DC installed	2 DC/DC installed
Max. current	2,4 A AC / 1,2 A DC	4,8 A AC / 2,4 A DC
Max. rated power VA/W	575 VA / 270 W	1150 VA / 330 W

Overview

Circuits	2 bis 8
DC/DC converters	1 bis 2
Min. battery capacity	9 Ah
Max. battery capacity	20 Ah
Dimensions (H x W x D mm)	633 x 337 x 158
Storage / transport temperature	-20 °C to 60 °C
Operating ambient temperature	0 °C to 35 °C
Relative air pressure	795 to 1080 hPa
Maximum installation altitude	2000 m above sea level
Sound pressure level during mains operation	0 dB
Enclosure material	Technopolymer
Enclosure color	RAL 7016
Degree of protection	IP31 (Cable entry from above) IP20 (Cable entry from the rear)
Weight without batteries (kg)	ca. 9 kg

Compatible batteries

Rated capacity (Ah) at 20 °C	Dimensions of one Battery H x W x D (mm)	Weight (kg)
9 Ah	169,0 x 183,1 x 78,5	2,6
12 Ah	169,0 x 183,1 x 78,5	2,6
20 Ah	172,0 x 196,0 x 134,0	5,0

Order overview

Sample order number:

DSSTS4220AHDE003

DS
STS
4
2
20AH
EN
003

System type

DS	DualSmart
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Enclosure type

STS	Standard
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Number of circuits

2
4
6
8

Number of DC/DC converters

1
2

Battery capacity

9 Ah
12 Ah
20 Ah

Language

DE	German
EN	English

Accessories

000	No accessories
001	Terminal cover STS
002	Cover cable entry STS
003	Terminal cover STS + Cover cable entry STS
004	Grommet set STS/MET
005	Terminal cover STS+ Grommet set STS/MET
006	Cover cable entry STS + Grommet set STS/ MET
007	Terminal cover STS + Cover cable entry STS+ Grommet set STS/MET

Ordering information – Replacement batteries

Type	Description	Order No.
9 Ah	LiFePo4 Battery 9 Ah capacity at 20 °C Terminal M6	40066071748
12 Ah	LiFePo4 Battery 12 Ah capacity at 20 °C Terminal M6	40066071749
20 Ah	LiFePo4 Battery 20 Ah capacity at 20 °C Terminal M6	40066071750

Ordering information - Replacement components

Type	Description	Order No.
CSD	Circuit card with two circuits, maximum 0.625 A per circuit	400SP363370
DC/DC converter	Converts battery voltage to output voltage, maximum connected load 270 W per DC/DC converter	400SP363380
Charger	Battery charging unit	400SP363360

Ordering information – Replacement fuses

Type	Description	Order No.
Circuit fuses	Replacement fuses 10x 1 A slow-blow (T), 250 V, 5 x 20 mm	40071363199
Mains input fuse	Replacement fuses 10x 8 A slow-blow (T), 300V, 6,3 x 32mm	40071360484

Ordering information accessories

Type	Description	Order No.
Cover cable entry STS	Cover for the upper cable entries DualSmart STS	40071363456
Terminal cover STS	Cover for the installation room DualSmart STS	40071363459
Grommet set STS/MET	Grommet set DualSmart STS/MET (20x M20, 6x M16)	40071363464

DualSmart MET

DualSmart – Low Power System

DualSmart MET



DualSmart MET

- Industrial-grade steel enclosure with high protection rating (IP65) for use in demanding environments
- Pre-punched cable entries at the top, protected by a transport film
- Modular design of circuit outputs (2 to 8) and battery capacity (9 Ah to 64 Ah)
- Gas-free lithium battery with a wide operating temperature range

Input	Values
Rated voltage AC	1 ~ 220-240 V
Rated frequency	50/60 Hz
Max. rated current AC	7,5 A
Rated voltage DC	20,0- 28,8 V
Battery	Lithium Battery LiFePo4 25,6 V, max. 60 A for 4 s
Conductor arrangement and grounding system in Mains/Battery Operation	TNC-S / IT
Protection class	I
Input fuse	8A slow-blow (T), 300V, 6,3 x 32mm

Output	
Rated voltage AC	220-240 V AC
Rated voltage DC	222-229 V (load-dependent)
Max. rated power per circuit	150 VA / 140 W
Rated current per circuit	0,625 A
Circuit fuse	1 A slow-blow (T), 250 V, 5 x 20 mm
Max. rated power 24 V auxiliary voltage	2x 14,4 W (LON and DS-Bus)

Output dependent on DC/DC converter	1 DC/DC installed	2 DC/DC installed
Max. current	2,4 A AC / 1,2 A DC	4,8 A AC / 2,4 A DC
Max. rated power VA/W	575 VA / 270 W	1150 VA / 540 W

Overview

Circuits	2 to 8
DC/DC converters	1 to 2
Min. battery capacity	9 Ah
Max. battery capacity	20 Ah
Dimensions (H x W x D mm)	751 x 401 x 222
Storage / transport temperature	-20 °C to 60 °C
Operating ambient temperature	0 °C to 35 °C
Relative air pressure	795 to 1080 hPa
Maximum installation altitude	2000 m above sea level
Sound pressure level during mains operation	0 dB
Enclosure material	Metal
Enclosure color	RAL 7035
Degree of protection	IP65
Weight without batteries (kg)	ca. 25 kg

Compatible batteries

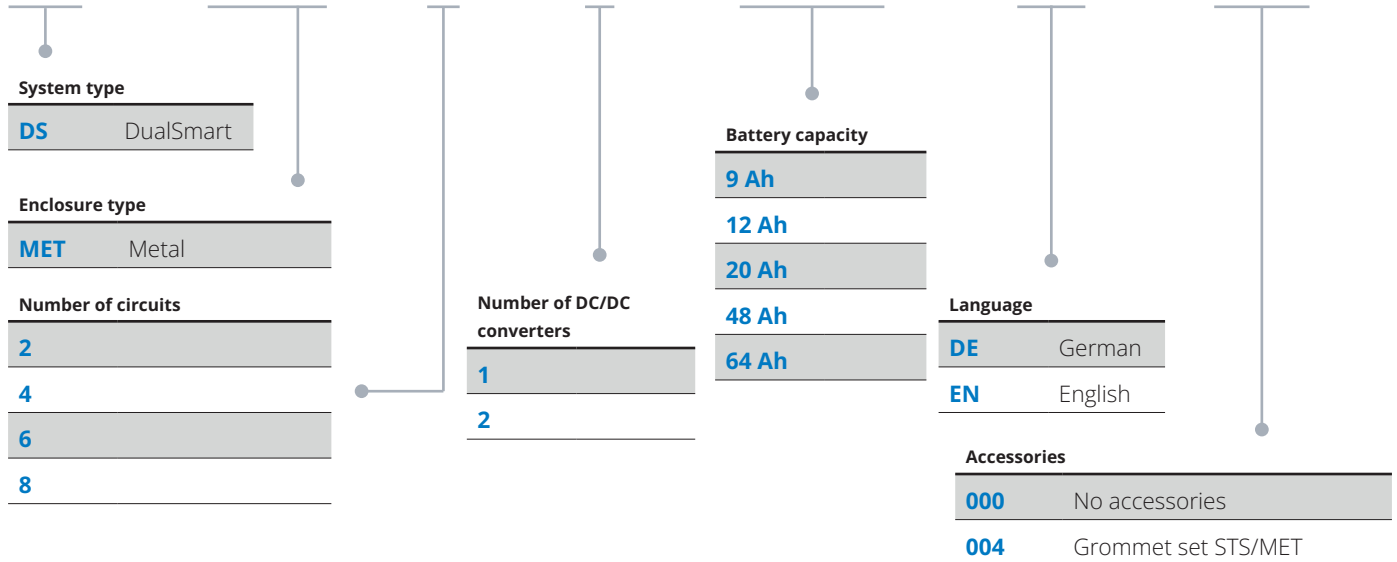
Rated capacity (Ah) at 20 °C	Dimensions of one Battery H x W x D (mm)	Weight (kg)
9 Ah	169,0 x 183,1 x 78,5	2,6
12 Ah	169,0 x 183,1 x 78,5	2,6
20 Ah	172,0 x 196,0 x 134,0	5,0
48 Ah	215,5 x 331,0 x 173,2	10,0
64 Ah	215,5 x 331,0 x 173,2	13,2

Order overview

Sample order number:

DSMET4220AHDE000

DS **MET** **4** **2** **20AH** **EN** **000**



Ordering information – Replacement batteries

Type	Description	Order No.
9 Ah	LiFePo4 Battery 9 Ah capacity at 20 °C terminal M6	40066071748
12 Ah	LiFePo4 Battery 12 Ah capacity at 20 °C terminal M6	40066071749
20 Ah	LiFePo4 Battery 20 Ah capacity at 20 °C terminal M6	40066071750
48 Ah	LiFePo4 Battery 48 Ah capacity at 20°C terminal M8	40066071751
64 Ah	LiFePo4 Battery 64 Ah capacity at 20°C terminal M8	40066071752

Ordering information - Replacement components

Type	Description	Order No.
CSD	Circuit card with two circuits, maximum 0.625 A per circuit	400SP363370
DC/DC converter	Converts battery voltage to output voltage, maximum connected load 270 W per DC/DC converter	400SP363380
Charger	Battery charging unit	400SP363360

Ordering information – Replacement fuses

Type	Description	Order No.
Circuit fuses	Replacement fuses 10x 1 A slow-blow (T), 250 V, 5 x 20 mm	40071363199
Mains input fuse	Replacement fuses 10x 8 A slow-blow (T), 300V, 6,3 x 32mm	40071360484

Ordering information – Accessories

Type	Description	Order No.
Grommet set STS/MET	Grommet set DualSmart STS/MET (20x M20, 6x M16)	40071363199

DualSmart ESF30

DualSmart – Low Power System

DualSmart ESF30



DualSmart ESF30

- Fire protection housing for 30 minutes of functional integrity when exposed to flames from the outside
- Fire test certificates and general building authority approval (AbZ) for the empty enclosure available. DIBt system approval applied for Cable entries from above
- Modular design of circuit outputs (2 to 8) and battery capacity (12 Ah to 64 Ah)
- Gas-free lithium battery with a wide operating temperature range

Input	Values
Rated voltage AC	1 ~ 220-240 V
Rated frequency	50/60 Hz
Max. rated current AC	7,5 A
Rated voltage DC	20,0- 28,8 V
Battery	Lithium Battery LiFePo4 25,6 V, max. 60 A for 4 s
Conductor arrangement and grounding system in Mains/Battery Operation	TNC-S / IT
Protection class	I
Input fuse	8A slow-blow (T), 300V, 6,3 x 32mm

Output	
Rated voltage AC	220-240 V AC
Rated voltage DC	222-229 V (load-dependent)
Max. rated power per circuit	150 VA / 140 W
Rated current per circuit	0,625 A
Circuit fuse	1 A slow-blow (T), 250 V, 5 x 20 mm
Max. rated power 24 V auxiliary voltage	2x 14,4 W (LON and DS-Bus)

Output dependent on DC/DC converter	1 DC/DC installed	2 DC/DC installed
Max. current	2,4 A AC / 1,2 A DC	4,8 A AC/ 2,4 A DC
Max. rated power VA/W	575 VA / 270 W	1150 VA / 540 W

Overview

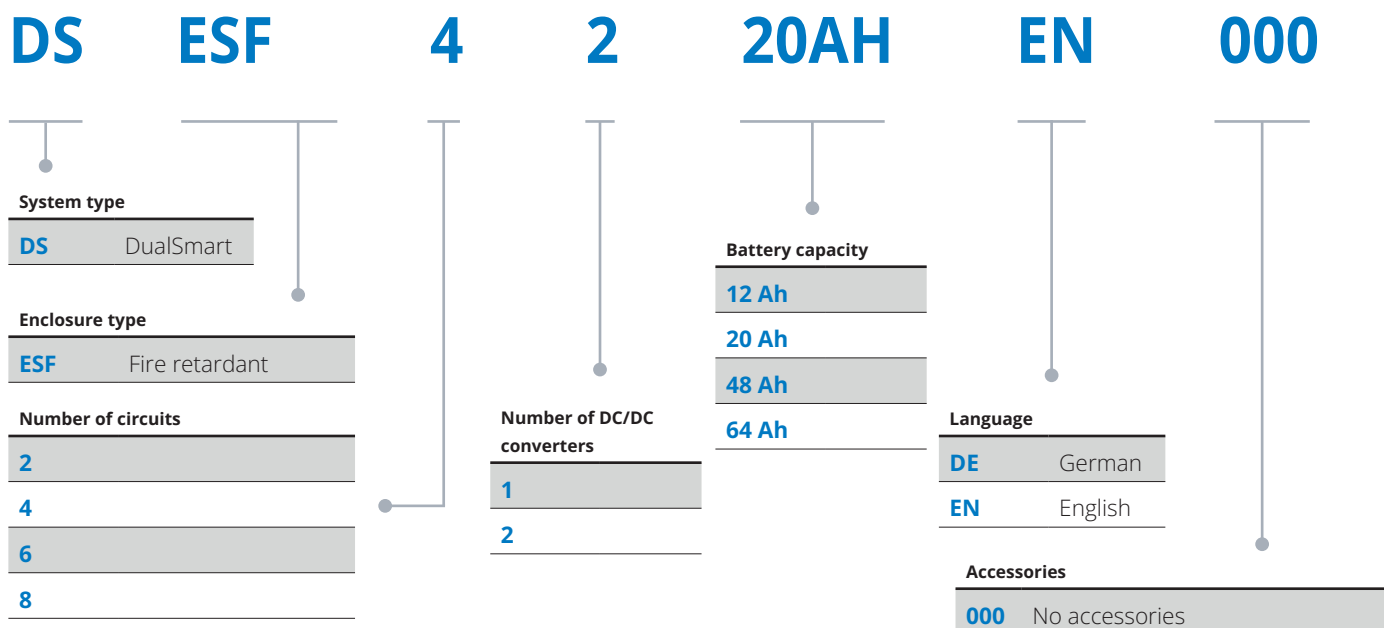
Circuits	2 to 8
DC/DC converters	1 to 2
Min. battery capacity	12 Ah
Max. battery capacity	64 Ah
Dimensions (H x W x D mm)	919 x 669 x 326
Storage / transport temperature	-20 °C to 60 °C
Operating ambient temperature	0 °C to 35 °C
Relative air pressure	795 to 1080 hPa
Maximum installation altitude	2000 m above sea level
Sound pressure level during mains 0 dB operation	
Enclosure material	Non-combustible panel materials with a chemically highly resistant and moisture-insensitive coating
Enclosure color	Colour white, similar to RAL 9010, edges without coating in light grey look
Degree of protection	IP42
Weight without batteries (kg)	ca. 78 kg

Compatible batteries

Rated capacity (Ah) at 20 °C	Dimensions of one Battery H x W x D (mm)	Weight (kg)	Rated capacity (Ah) at 20 °C	Dimensions of one Battery H x W x D (mm)	Weight (kg)
12 Ah	169,0 x 183,1 x 78,5	2,6	48 Ah	215,5 x 331,0 x 173,2	10,0
20 Ah	172,0 x 196,0 x 134,0	5,0	64 Ah	215,5 x 331,0 x 173,2	13,2

Order overview

Sample order number:
DSESF4220AHDE000



Ordering information – Replacement batteries

Type	Description	Order No.
12 Ah	LiFePo4 Battery 12 Ah capacity at 20 °C terminal M6	40066071749
20 Ah	LiFePo4 Battery 20 Ah capacity at 20 °C terminal M6	40066071750
48 Ah	LiFePo4 Battery 48 Ah capacity at 20°C terminal M8	40066071751
64 Ah	LiFePo4 Battery 64 Ah capacity at 20°C terminal M8	40066071752

Ordering information - Replacement components

Type	Description	Order No.
CSD	Circuit card with two circuits, maximum 0.625 A per circuit	400SP363370
DC/DC converter	Converts battery voltage to output voltage, maximum connected load 270 W per DC/DC converter	400SP363380
Charger	Battery charging unit	400SP363360

Ordering information – Replacement fuses

Type	Description	Order No.
Circuit fuses	Replacement fuses 10x 1 A slow-blow (T), 250 V, 5 x 20 mm	40071363199
Mains input fuse	Replacement fuses 10x 8 A slow-blow (T), 300V, 6,3 x 32mm	40071360484

DualSmart HYG

DualSmart – Low Power System

DualSmart HYG



DualSmart HYG

- Stainless steel housing with high degree of protection (IP 66) for use in demanding environments
- Suitable for use in food processing plants with requirements according to HACCP
- Modular design of circuit outputs (2 to 8) and battery capacity (12 Ah to 64 Ah)
- Gas-free lithium battery with a wide operating temperature range

Input	Values
Rated voltage AC	1 ~ 220-240 V
Rated frequency	50/60 Hz
Max. rated current AC	7,5 A
Rated voltage DC	20,0- 28,8 V
Battery	Lithium Battery LiFePo4 25,6 V, max. 60 A for 4 s
Conductor arrangement and grounding system in Mains/Battery Operation	TNC-S / IT
Protection class	I
Input fuse	8A slow-blow (T), 300V, 6,3 x 32mm

Output	
Rated voltage AC	220-240 V AC
Rated voltage DC	222-229 V (load-dependent)
Max. rated power per circuit	150 VA / 140 W
Rated current per circuit	0,625 A
Circuit fuse	1 A slow-blow (T), 250 V, 5 x 20 mm
Max. rated power 24 V auxiliary voltage	2x 14,4 W (LON and DS-Bus)

Output dependent on DC/DC converter	1 DC/DC installed	2 DC/DC installed
Max. current	2,4 A AC / 1,2 A DC	4,8 A AC / 2,4 A DC
Max. rated power VA/W	575 VA / 270 W	1150 VA / 540 W

Overview

Circuits	2 to 8
DC/DC converters	1 to 2
Min. battery capacity	9 Ah
Max. battery capacity	64 Ah
Dimensions (H x W x D mm)	821 x 610 x 307
Storage / transport temperature	-20 °C to 60 °C
Operating ambient temperature	0 °C to 35 °C
Relative air pressure	795 to 1080 hPa
Maximum installation altitude	2000 MASL
Sound pressure level during mains operation	0 dB
Enclosure material	Stainless steel
Enclosure color	Natural stainless steel
Degree of protection	IP66
Weight without batteries (kg)	ca. 39 kg

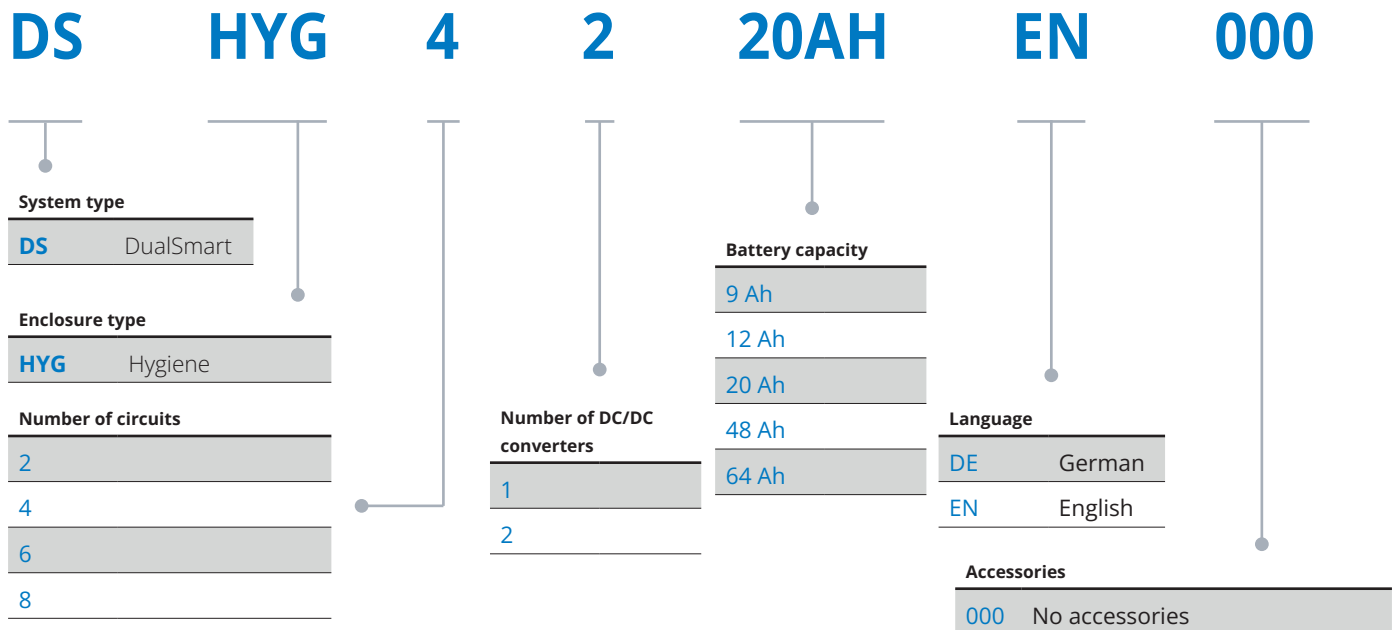
Compatible batteries

Rated capacity (Ah) at 20 °C	Dimensions of one Battery H x W x D (mm)	Weight (kg)
9 Ah	169,0 x 183,1 x 78,5	2,6
12 Ah	169,0 x 183,1 x 78,5	2,6
20 Ah	172,0 x 196,0 x 134,0	5,0
48 Ah	215,5 x 331,0 x 173,2	10,0
64 Ah	215,5 x 331,0 x 173,2	13,2

Order overview

Sample order number:

DSHYG4220AHDE000



Ordering information – Replacement batteries

Type	Description	Order No.
9 Ah	LiFePo4 Battery 9 Ah capacity at 20 °C terminal M6	40066071748
12 Ah	LiFePo4 Battery 12 Ah capacity at 20 °C terminal M6	40066071749
20 Ah	LiFePo4 Battery 20 Ah capacity at 20 °C terminal M6	40066071750
48 Ah	LiFePo4 Battery 48 Ah capacity at 20°C terminal M8	40066071751
64 Ah	LiFePo4 Battery 64 Ah capacity at 20°C terminal M8	40066071752

Ordering information - Replacement components

Type	Description	Order No.
CSD	Circuit card with two circuits, maximum 0.625 A per circuit	400SP363370
DC/DC converter	Converts battery voltage to output voltage, maximum connected load 270 W per DC/DC converter	400SP363380
Charger	Battery charging unit	400SP363360

Ordering information – Replacement fuses

Type	Description	Order No.
Circuit fuses	Replacement fuses 10x 1 A slow-blow (T), 250 V, 5 x 20 mm	40071363199
Mains input fuse	Replacement fuses 10x 8 A slow-blow (T), 300V, 6,3 x 32mm	40071360484

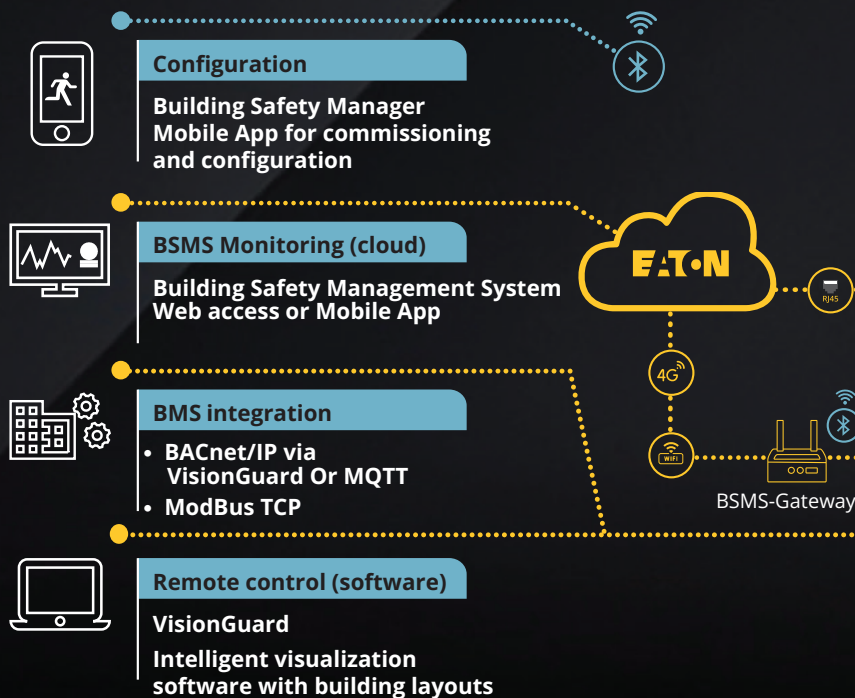
Planning of the system

Eaton's innovative, mobile app-controlled, DualSmart low power system now opens up new installation opportunities thanks to its inherent flexibility. Ideal for compact, smaller applications, DualSmart units can be used singly or combined to power decentralised emergency lighting circuits. The system eliminates the need for costly, fireproofed E30 wiring depending on planning approach. What's more, a group controller with touch display brings fingertip management for up to 16 DualSmart systems.

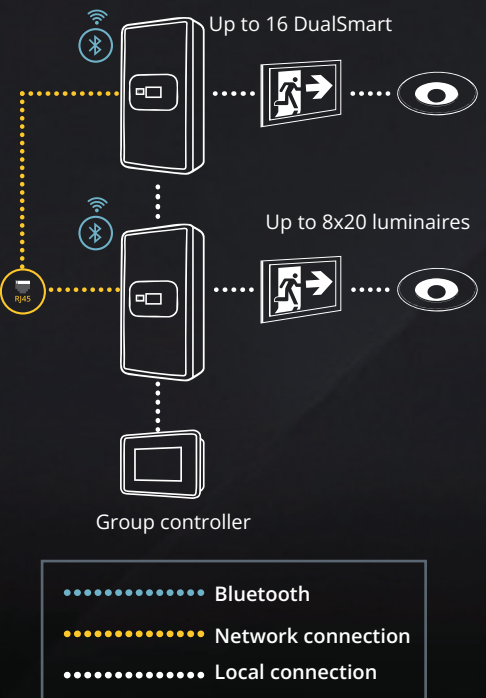


Remote control for better maintenance management

Cloud, Analytics and Apps



DualSmart-Systems



Calculation Example

The following luminaires shall be connected to one power circuit:

- 8 pieces of GuideLed 10011 CG-S RZ
- 4 pieces of V-CG-SLI 350
- 2 pieces of GuideLed SL 13021.2

There are the following conditions:

Battery operation:

Max. output per circuit: 140 W / 0,625A

Mains operation:

575VA (1x DC/DC Converter)

Max. output:

10011 CG-S: 8 x 1,9 W	= 15,2 W / 64 mA	
V-CG-SLI 350: 4 x 10,7 W	= 42,8 W / 194 mA	
13021.2 CG-S: 2 x 3,9W	= 7,8 W / 40 mA	
Total	= 65,8 W / 0,3 A	< 140W / 0,625A -> OK

Max. inrush current:

10011 CG-S: 8 x 1,5 A	= 12,0 A	
V-CG-SLI 350: 4 x 3 A	= 12,0 A	
13021.2 CG-S: 2 x 1,5 A	= 3,0 A	
Total	= 27,0 A	< 250 A -> OK

Max. mains power:

10011 CG-S: 8 x 4 VA	= 32,0 VA	
V-CG-SLI 350: 4 x 11,6 VA	= 46,4 VA	
13021.2 CG-S: 2 x 8 VA	= 16,0 VA	
Total	= 94,4 VA	<575VA -> OK

Attention!

The connected load of all circuits in total may not exceed 270 W (1 X DC/DC Converter) or 540 W (2 X DC/DC Converter) and 575 VA (1 X DC/DC Converter) or 1150 VA (2 X DC/DC Converter) per DualSmart device. When connecting external modules to the 24 V auxiliary supply, consider power consumption with battery sizing.

Eaton is an intelligent power management company dedicated to protecting the environment and improving the quality of life for people everywhere. We make products for the data center, utility, industrial, commercial, machine building, residential, aerospace and mobility markets. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power - today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're helping to solve the world's most urgent power management challenges and building a more sustainable society for people today and generations to come.

Founded in 1911, Eaton has continuously evolved to meet the changing and expanding needs of our stakeholders. With revenues of nearly \$25 billion in 2024, the company serves customers in more than 160 countries. For more information, Visit www.eaton.com.

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Publication No. BR451050EN
September 2025

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