CAMGRO SYSTEM

MAIN DISTRIBUTION BOARD AND MOTOR CONTROL CENTRES

Low voltage equipment
for high dependability

Energy

Industry

Infrastructure

Residential

asefa CERTIFIED

DEKRA CERTIFIED

KEMA

ISO 9001
ISO 14001
OHSAS 18001
BUREAU VERITAS Certification

VERGER DELPORTE U.A.E. Ltd.

CAMGRO SYSTEM is a comprehensive integration of Schneider Electric Blokset Enclosure System and components.

CAMGRO SYSTEM multi-function range

CAMGRO SYSTEM, offers wide range of LV switchboards to meet all your needs

- **A system aptly designed for applications requiring a high level of dependability** electrical distribution and motor control.
- **A modular structure** fully complying to local standards, practices and requirements.
- **An intelligent system** ready to integrate devices containing advanced protection and communication functions for electrical distribution and motor control.

CAMGRO SYSTEM, a modular multi-function system

A multi-function range

- Main Distribution Boards up to 6000A
- Fixed type motor Control Centres up to 6000A
- Intelligent Motor Control Centres (withdrawable type) up to 6000A

A Modular System and Functional design

- Standardized components
- Fast manufacturing
- Easy modifications.
- Rationalized dimensions and layout inside the switchboard
- Reduced footprint
- Easy power and auxiliary connections
- Easy installation upgrading at a controlled cost.

CAMGRO SYSTEM, A high-dependability system for trouble-free operation of your installation

The CAMGRO SYSTEM is designed to provide a high level of reliability and safety, thus reinforcing the protection of life and property.

CAMGRO SYSTEM offers all the essential guarantees:

- Compliance with international standards, notably IEC 61439-1 & 2, IEC 60529 and IEC 60947
- Compliance with local standards, thus meeting local legal and technical requirements
- A system implementing tested switchgear components to ensure optimum operation.

CAMGRO SYSTEM, Uniform, High-performance, Cost-effective Solutions

CAMGRO SYSTEM's modular design makes it possible to rationalise installation costs.

The high quality and reliability of switchgear guarantee continuity of service and a durable system.

CAMGRO SYSTEM is an attractive offering of consistent solutions:

- The right answer to the specifications of each project
- Ease of installation, optimized dimensions and connections
- Guaranteed procurement and installation times
- Upgrades or modifications at a controlled cost
- Limited maintenance costs due to standardization and system upgradeability.

CAMGRO SYSTEM, The Guarantee of a verger delporte

The CAMGRO SYSTEM wide installed base, in all industrial & large sites sectors, is a guarantee to obtain the best equipment fitting your needs.

The quality and reliability of CAMGRO SYSTEM are based on close collaboration with your local contacts.

In addition to the technical excellence of the product, Camgro system also participates actively in the success of your projects today and tomorrow.

This involvement means:

- Fast response to requests for quotes or tenders
- Design of competitive solutions with outstanding features.

CAMGRO SYSTEM: Quality, Technical Excellence, Service

Camgro System know-how in the design and manufacture of electrical switchboards and switchgear is a guarantee of quality and technical excellence.

- Integration of standardized components shortens delivery and installation times
- The innovative design, consistent with other Camgro system solutions, is a plus for each project
- The proximity of Manufacturer experts guarantees fast response and effective servicing for your installation.

From now on with the Camgro iMCC (intelligent Motor Control Center)…

You anticipate untimely downtime of your processes

You reduce the number and duration of untimely downtime of your processes

- Relay electronics provide a high level of protection for the motor installed base
- Alarms and detailed diagnostics mean a 70% reduction in untimely shutdown
- Immediate corrective actions ensure reduced downtime.

You reduce the cost and time of interventions

- Detailed information concerning motor stoppage conditions allows rapid diagnostics
- Warning alarms enable anticipated diagnostics
- Local or remote downloading allow rapid configuration
- Improved process availability and reduced operating costs, which means you benefit from a very quick return on investment.

You continuously improve process productivity

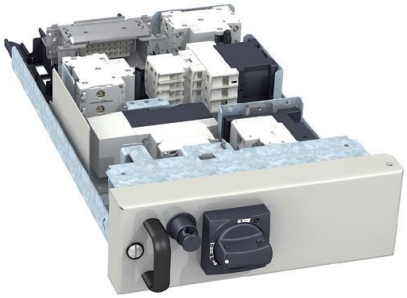
- Embedded statistics in the electronic protection module enable analysis of the stoppages log
- Correlation between process electrical measurements and physical parameters provides process functioning aid
- Conditional maintenance is made possible by the embedded statistics on each motor feeder.

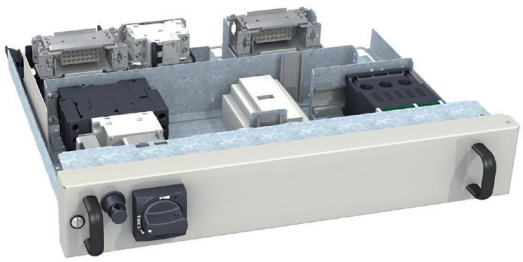
iMCC : The power of information (intelligent Motor Control Center)

The Camgro system iMCC uses TeSys T and TeSys U motor control and protection devices

Compared to traditional MCCs or lower level iMCCs, the Camgro System iMCC allows you to benefit from:

- Comprehensive information concerning 0 to 250 kW motor feeders
- A high level of operating dependability
- A large reduction in the floor space of the switchboard
- A wide choice of functions and communication protocols.





Main *Functions*

Protection

- Full motor protection: thermal capacity, motor overload, rotor blockage, process over/under load, etc.
- Accurate and stable protection through the use of electronics
- Total coordination up to 15 kW, thus enhancing the system availability
- Complete safety for those intervening in the iMCC by protection against indirect contact and prevention of intervention errors.

Information

- All electrical measurements, the state of each motor, fault alarms, etc.
- All information can be available through a web server embedded inside the equipment.

Diagnostics

- Alarms and instantaneous fault diagnostics: short-circuits, thermal faults, earth faults, excessively long starting times, overloads, under loads, etc.

Statistics

- Number of faults and alarms, motor start-ups, operating times
- Conditions of latest faults.

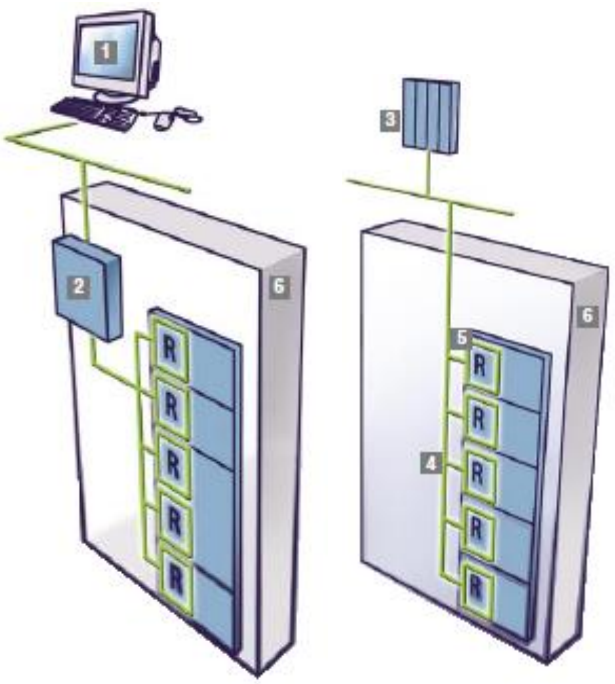
All the simplicity and efficiency of a homogeneous system, open to control & command architectures

1. Supervision station
2. Embedded Web Server
3. Control & Process systems
4. Assembly and bus connection accessories
5. TeSys U or TeSys T motor feeders
6. Camgro system switchboards

Camgro System has integrated Ethernet TCP/IP and Web technologies in its electrical distribution products for several years now.

Its entire LV offer, including products, equipment (IEC) and services is “Transparent Ready™”, communicating by nature.

You optimize your installation, which becomes simpler to operate and maintain and easy to upgrade to meet your requirements.



Information that puts you in control

Transparent Ready™ is a simple solution that gives you access to important data (currents, voltages, powers, energies, device status, etc.) contained in your power equipment.

You can access them wherever you are, from any PC connected to your corporate

Ethernet network via a simple Web browser with secure access.

Better manage your electrical installation

Your electrical installation is constantly monitored with Transparent Ready™. Knowing the status of your electrical equipment means that you can fully benefit from their performance capability.

This allows you to optimize equipment base management and investments.

Ethernet TCP/IP, Modbus and the Web: recognized standards

The Internet and its universal Ethernet TCP/IP communication network have revolutionized the way we think and have opened up new horizons.

However, the protocols still have to be able to work together. Modbus has been the industry communication standard for 25 years, which today enables client/server mode messaging on Ethernet TCP/IP.

Micrologic

PM 800

Altivar 71

TeSys T & TeSys U

EGX 400

A simple, ready-to-connect solution which does not require a specialist

You can directly use all the data contained in the communicating protection and metering devices in your installation: Sepam, Power Meter, Circuit Monitor (Power Logic), LV circuit breakers with Micrologic digital relays, etc.

All of these devices communicate using the Modbus protocol. No additional network or cabling need to be installed: you use your existing Ethernet network. Your Transparent Ready™ equipment is delivered ready to connect, no other devices are needed and you do not require the involvement of a specialist. Simply type in the equipment's IP address and consult the preset screens.

You will be able to consult all of the data you need to easily take decisions without risking any errors either locally or remotely.

In case of a new installation, your electrical equipment will already be Transparent Ready™.

All existing installations whether Camgro System or others can be equipped and become Transparent Ready™.

You can steadily upgrade your installation according to your needs and budget.

Description and characteristics

Internal equipment

Basic frame

The basic frame of a CAMGRO SYSTEM switchboard column is an assembly of prefabricated elements. These elements are available in a number of sizes and may be assembled to form columns with different volumes.

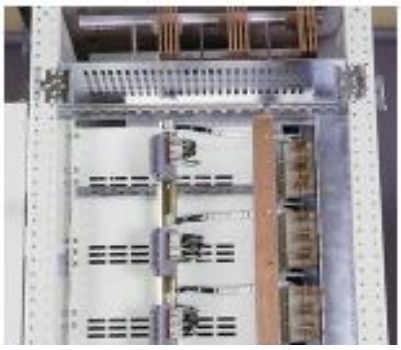
Each column is made up of four distinct zones for:

1. Busbars
2. Switchgear components
3. Cable connections
4. Auxiliaries.

Busbar

Switchgear Components

Cable Connection



Auxiliaries

Description and characteristics

Customer friendly Camgro available in various and choose from…….

Build your Camgro system with the choice of different width and depths.

Basic frames available in depths of

- 400mm
- 600mm

Basic frames fixed compartments available in widths of

- 500mm , 700mm, 800mm, 1200mm.
- 700mm, 900mm
- 900mm, 1100mm, 1300mm,

Basic frames withdrawal compartments available in widths of

- 600mm
- 800mm, 900mm, 1000mm

All column can be extended by adding extensions upto 400mm vertical busbar column or cable allay

DIAMENSIONS

Basic Column for Fixed Compartments

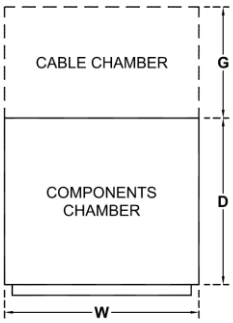
BASIC FRAME					BUSBAR CHAMBE (E)	CABLE CHAMBER				
WIDTH			DEPTH (D)			WIDTH (F)			DEPTH (G)	
W	W1	W2	400	600	200	200	400	600	400	600
500			×	✓	×	×	×	×	✓	✓
700			✓	✓	×	×	×	×	✓	✓
800			×	✓	×	×	×	×	✓	✓
1200			×	✓	✓	×	×	×	✓	✓
	700		×	✓	✓	×	×	×	✓	✓
	900	900	×	✓	✓	✓	×	×	✓	✓
		1100	×	✓	✓	✓	✓	×	✓	✓
		1300	×	✓	✓	×	✓	✓	✓	✓

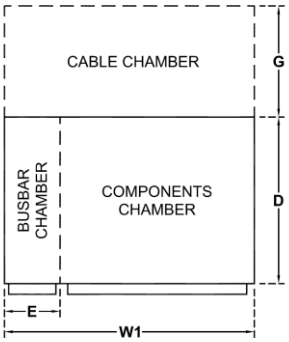
Basic Column for withdrawal Compartments

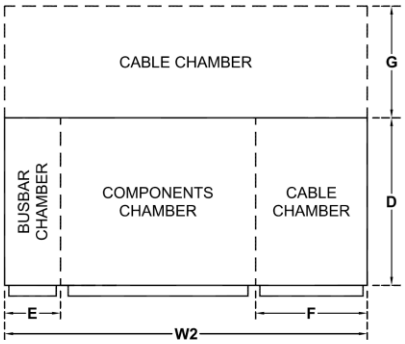
BASIC FRAME				BUSBAR CHAMBE	CABLE CHAMBER				
WIDTH		DEPTH (D)			WIDTH (F)			DEPTH (G)	
W3	W4	400	600		200	300	400	400	600
600		×	✓	✓	×	×	×	✓	✓
	800	×	✓	✓	✓	×	×	✓	✓
	900	×	✓	✓	×	✓	×	✓	✓
	1000	×	✓	✓	×	×	✓	✓	✓

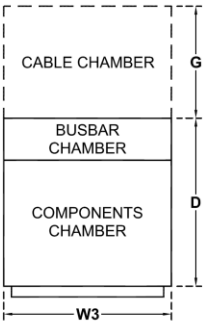
Description and characteristics

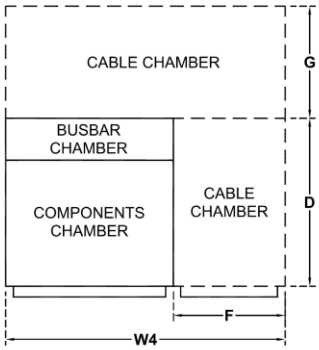
OVERALL DIMENSIONS





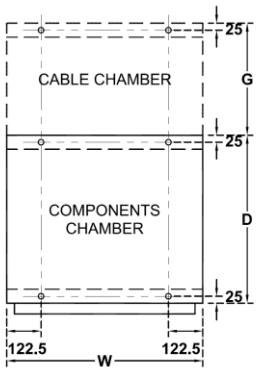


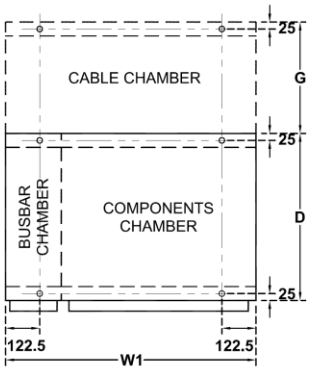


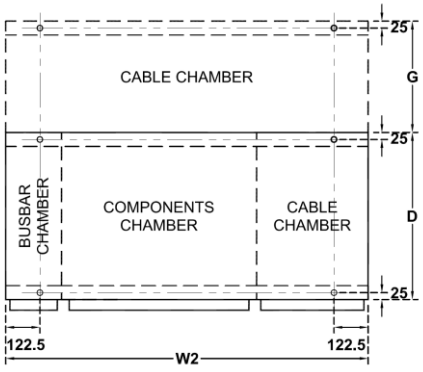


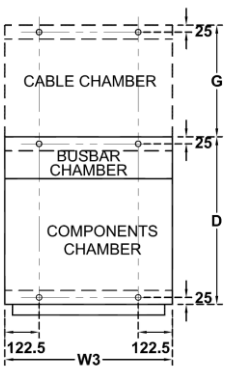
Description and characteristics

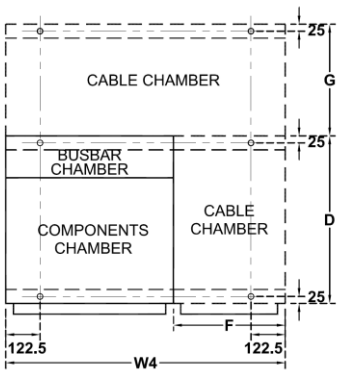
ANCHORING





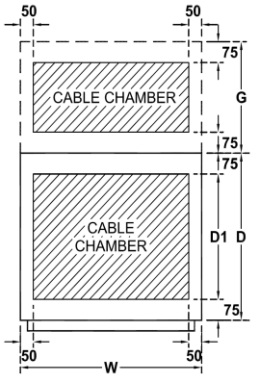


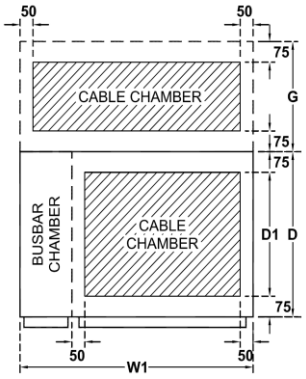


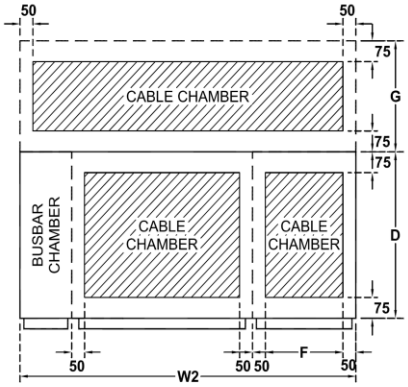


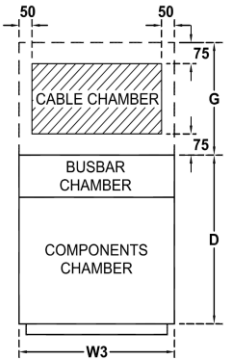
Description and characteristics

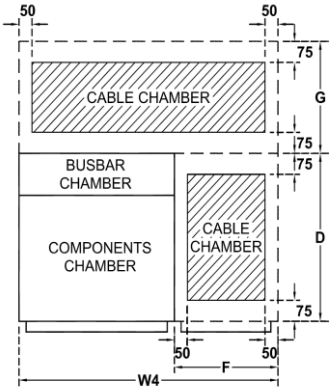
CABLE ENTRY







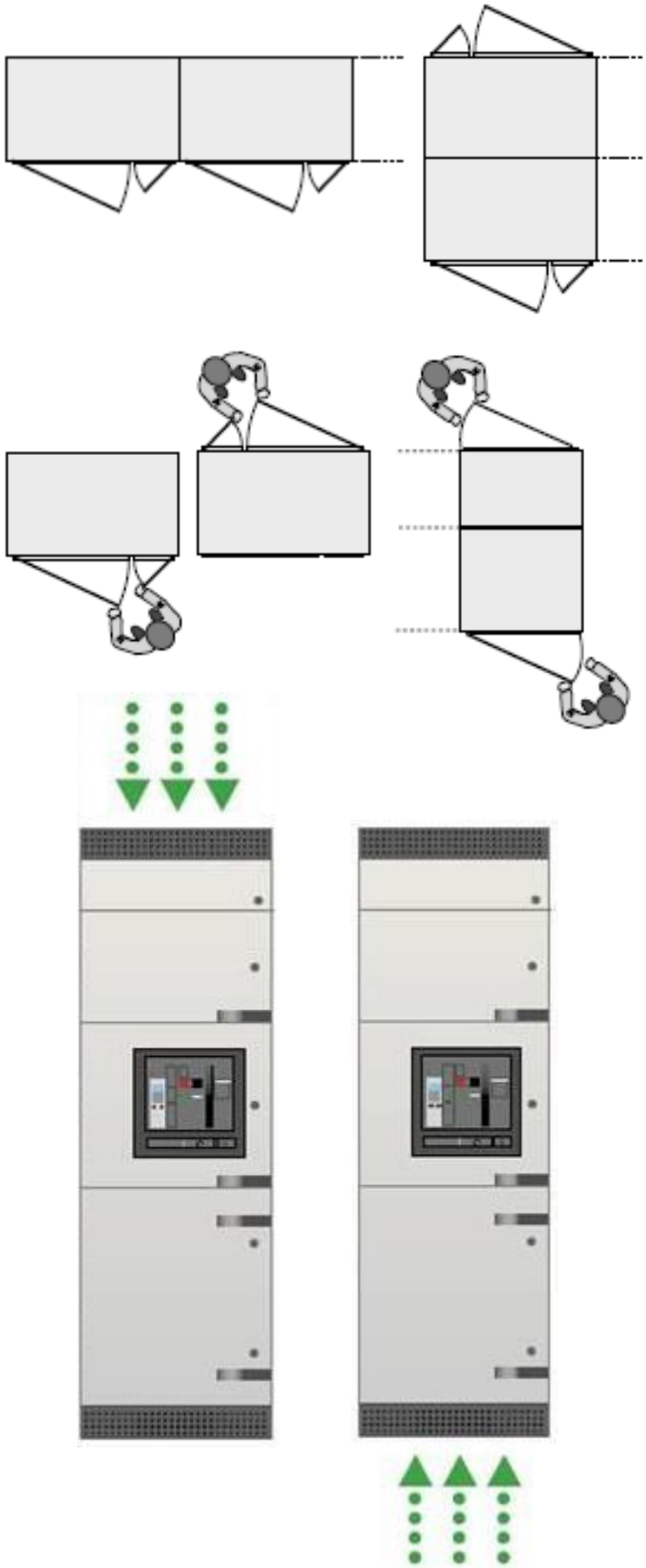




Description and characteristics

Layout of the columns

- CAMGRO SYSTEM modular design makes it possible to match the switchboard layout to the configuration of the electrical room.
- Columns may be positioned side-by-side or back-to-back:
- Depending on the space available in the room, back-to-back installation means the total length of the switchboard can be divided by two.
- Access to connection zones is possible through the front or the back of each column:
- If the connection terminals are located inside a side compartment, access is through the front, making it possible to position the switchboard against a wall.
- If the connection terminals are located behind switchgear components, access is through the back of the column.
- Incoming or outgoing cables may enter through the top or the bottom of columns:
- If the columns are installed on a false floor or above a trench, it is preferable to run the cables through the bottom.
- The switchboard may also be supplied by busways through the top of the columns.



Description and characteristics

Internal equipment

- The switchgear components contained in the columns are installed on mounting plates. The combination of a mounting plate with switchgear components is called a functional unit.
- Functional units are defined by standard IEC 61439-1/ 2 as a part of a low-voltage switchgear and control gear assembly comprising all the electrical and mechanical elements that contribute to the fulfillment of the same function. The height of a functional unit is defined by the number of 50 mm modules it occupies.
- A column may contain 40 modules, each 50 mm high.
- Selection and layout of the electrical switchgear components are subject to a rigorous method designed to enable switchboard definition without risk of error.

Type of Mounting

Mounting of Air circuit breakers:

Air circuit breakers are mounted on horizontal plates and are available in two versions:

- Fixed
- Withdrawable.

Mounting of other switchgear components:

Circuit breakers, contactors, thermal relays, variable-speed drives and starters are installed on vertical mounting plates.

The circuit breakers for vertical mounting plates are available in three versions:

- Fixed
- Plug-in
- Withdrawable.

All circuit breakers may be installed with their controls:

- Behind the door
- On the door.

Capacitor bank cubicle

The equipment for automatic compensation of reactive energy is installed in columns 700 mm wide, containing:

- A fixed set of busbars
- Functional mounting plates equipped with capacitors and contactors for capacitor control
- A reactive energy regulator.

The above equipment may be integrated in a distribution switchboard or remain separate.

Description and characteristics

Enclosure Protection

Depending on the degree of protection required, the frame may be fitted with different cover panels.

Cover panels	Degree of protection	
	IP31	IP54
Front / Plain door	■	■
Transparent door	■	■
Door for external rotary handle	■	■
Acb door	■	■
Acb door with transparent cover	■	■
Perforated upper and lower panels	■	■
Rear Back panel	■	■
Top cover	■	■
Cable gland plate	■	■
Bottom Cable gland plate	■	■

Description and characteristics

Camgro System type withdrawable compartment

Switchgear components making up the switchboard are installed in drawers to ensure rapid and dependable maintenance and servicing.
A column may be equipped with up to 23 drawers each of 1.5 module (75 mm high), given that four modules are reserved for the horizontal busbars.

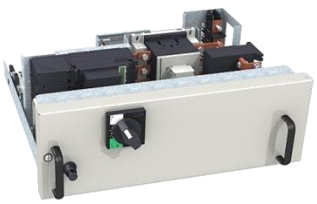
Larger components may be installed in drawers that are 2, 4, 6, 8, 10 or 12 modules high. Motor feeders installed in withdrawable drawers may not exceed 220 kW.

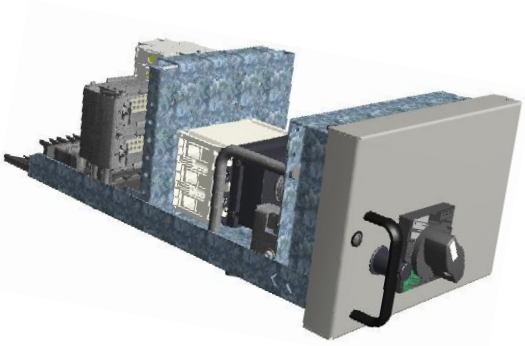
Parts of a withdrawable unit

A withdrawable functional unit is made up of:

- A moving part (chassis) that supports the equipment
- A fixed part bearing the positioning elements for the moving part
- Disconnecting contacts for power connections, which clip onto the busbars
- Disconnecting contacts for auxiliary connections.

Functional units comply with standard IEC 61439-1/2 and with WWW-type withdrawability specifications.



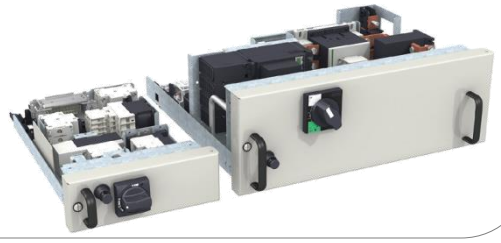


Description and characteristics

The withdrawable drawer is used in a huge range of electrical distribution Functional Units, up to 630A.

The drawer is used to make up a Functional Unit consisting of several mechanically attached devices, that can assume the "plug-in / test / draw out / withdrawn" positions, allowing the padlocking procedures and incorporating the man / switchboard interface elements on the front panel.

- In distribution, the need to indicate and control on the front panel of the FU and the necessity to padlock are the main choice criteria.
- The fixed part is installed and removed with power on and supports the upstream and downstream plug-in clamps.
- The moving part supports the switchgear by means of a mounting plate. It is guided in its movement and positioning, and ball bearings minimize the operating effort.
- The front panel of the drawer gives priority to ergonomics and intuition of operations by the arrangement of the locking facilities and operating mechanisms.
- Access to the inside of the drawer may be necessary during operation, to make settings or carry out a thermo graphic check. A deliberate opening by swiveling the front panel is possible using a tool.
- An IP 2X degree of protection is maintained in the test and draw-out positions. Locking is possible in all positions by a padlock (3 padlocks not supplied), as is also padlocking of empty compartments.



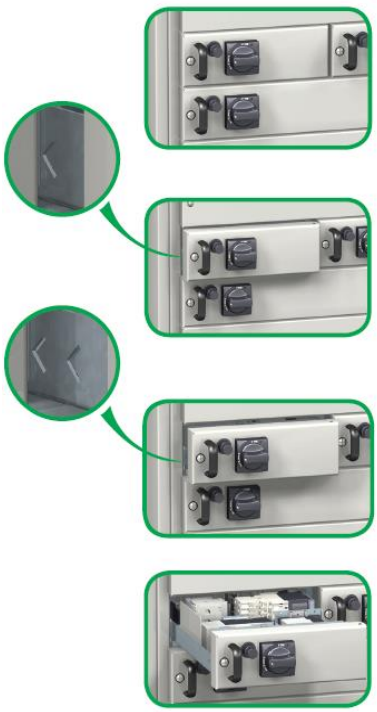
The "plug-in / test / draw-out" positions are mechanically marked by an indexing device associated with a mechanical indicator on the drawer sides.

Plug-in
- The functional unit is operational.
- Power and auxiliaries are connected.

Test
- The power circuit is disconnected
- Only auxiliaries are connected.
- It allows the functional unit verification.
- " < " is visible on the left and right sides of the drawer.

Draw out
- The functional unit is not operational.
- Power and auxiliaries are disconnected.
- "< < " are visible on the left and right sides of the drawer.

Withdrawn
- The drawer can be fully extracted.



Description and characteristics

Busbars

Busbars are used to carry electrical power throughout the switchboard. Each switchboard comprises two types of busbars:

- The main busbars
- The Distribution busbars.

Main busbars, up to 6000 A

The main busbars distribute the electrical current in the switchboard. They are made up of one or several copper bars for each phase, each bar 5 mm thick. The main busbars may be positioned at the top, the middle or the bottom of the column.

Description and characteristics

Distribution busbars

The Distribution busbars carry the electrical current to the various functional units.

Distribution busbars are available in three versions:

(1) - (2):

Busbars in side compartments, up to 3200 A

The busbars are made up of one or several copper bars for each phase and are located in the side compartment of the column. Each bar is 5 mm thick and is drilled for connection to the various switchgear components.

The distribution busbars are connected to the main busbars.

(3)

Standard busbars at rear of columns, up to 1600 A

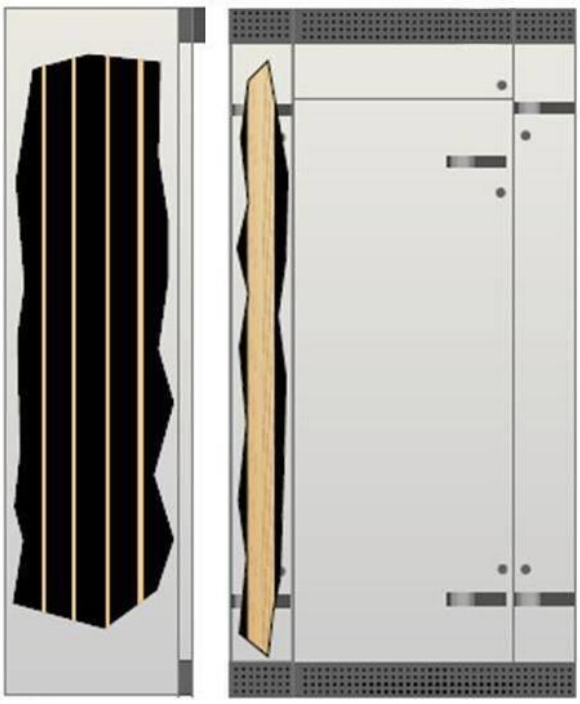
Busbars installed at the rear of columns are made up of one or more copper bars for each phase. Each bar is 5 mm thick and is drilled for connection to the various switchgear components.

The distribution busbars are connected to the main busbars using nuts, bolts and contact washers.

Protective circuit

The busbars of the protective circuit are intended for connection of the protective conductors for the switchgear components, to provide equipotential bonding of exposed conductive parts.

(1)



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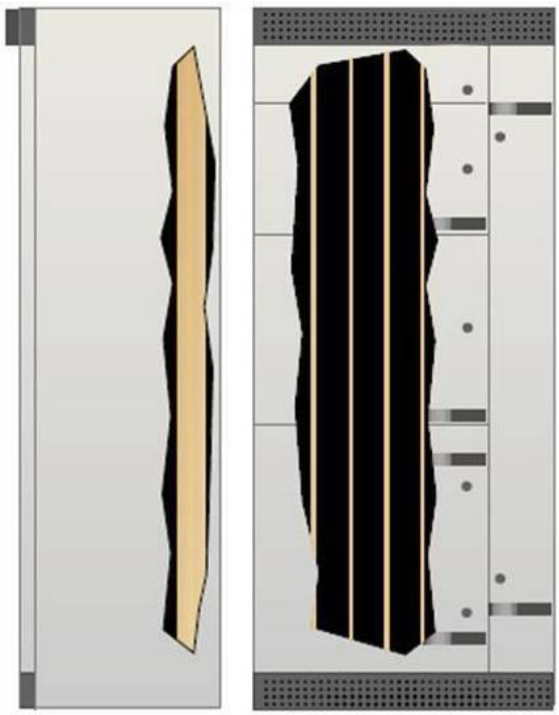


(3)

Description and characteristics

Camgro System type withdrawable compartment

Main busbars, up to 6000 A

The main busbars distribute the electrical current in the switchboard. They are made up of one or several copper bars for each phase, each bar 5 mm thick.

The busbars may be positioned at the top or the bottom of the column.

Distribution busbars, up to 2000 A

The distribution busbars carry the electrical current to the withdrawable units in the drawers.

The busbars are made up of one copper bar, 8 mm thick, for each phase, to which the drawers connect.

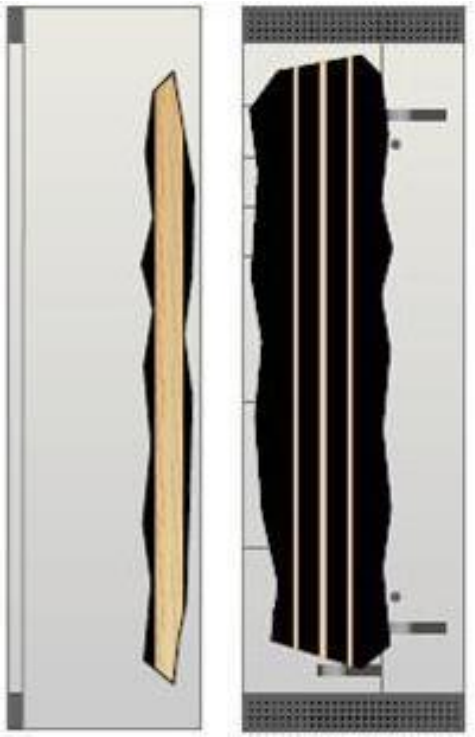
The distribution busbars are connected to the main busbars using nuts, bolts and contact washers.

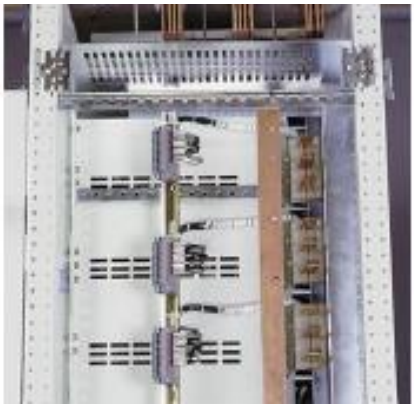
Protective circuit

The busbars of the protective circuit are intended for connection of the protective conductors for the switchgear components, to provide equipotential bonding of exposed conductive parts.

Auxiliary buses

The auxiliary buses supply power to the control and monitoring circuits with power.





General Characteristics

Compliance with International Standards

Type tested assemblies	IEC 61439-1/2
Seismic withstand	Uniform Building Code / California Building Code
Internal arc withstand	IEC 61641

Electric Characteristics

Rated insulation voltage	1000VAC
Rated Operational Voltage	415V
Rated Impulse Withstand Voltage	6 / 8 / 12 kV
Overvoltage category	IV
Degree of Pollution	3
Frequency	50 - 60Hz

Main busbars rated current

Main Busbar	Single Busbar	Double Busbar
Rated current	Up to 3200A	4000 to 6000A
Rated short time current	50kA / 85kA	100kA
Rated peak withstand current	105kA / 187kA	220kA

Surface Protection

External surface protection	Epoxy powder polymerized at high temperature
Standard colors	RAL 7032

Description and characteristics

Application for distribution and motor control

Reference and Type	Fixed Type Distribution Cubicle	Fixed type motor control center	Intelligent motor control center
Functionality	Distribution Cubicle	Motor control center	Withdrawable type motor control center
Rated current	250A to 6000A	250A to 6000A	250A to 6000A
Rated short time withstand current	50 / 85 / 100kA	50 / 85 / 100kA	50 / 85 / 100kA
Rated peak withstand current	105 / 187 / 220kA	105 / 187 / 220kA	105 / 187 / 220kA
Vertical Busbar rating	Up to 3200A	Up to 3200A	Up to 2000A
Motor feeder	-	335 KW	335 KW
Total height	2200	2200	2200
Usable height	40 modules (1 module =50mm)	40 modules (1 module =50mm)	28 to 32 modules 2m-12m full modules 2m-4m half module 1module = 50mm
Width	500 to 1300	500 to 1300	600 to 1000
Depth	400 to 1200mm	400 or 1200mm	400 to 1200mm
Functional unit type	FFF / WWW	FFF	WWW
Form according to IEC 61439 1/2	2b / 4b	2b / 4b	2b / 4b
Degree of protection according to IEC 60529	IP 31 / IP 54	IP 31 / IP 54	IP 31 / IP 54

Description and characteristics

Panorama of switchgear and components for motor protection and control in Camgro System

Panorama of switchgear and components for electrical distribution, available in Camgro System.

Air Circuit Breaker

Circuit breakers provide protection and control functions for low-voltage circuits from 630A to 6300 A.

They are available in fixed or withdrawable versions.

Air Circuit Breakers are equipped with a **Micrologic** control unit designed

to protect low-voltage circuits and provide indication and measurement functions.

Moulded Case Circuit Breakers

Moulded Case circuit breakers cover all ratings from 15 to 3200 A.

Miniature Circuit Breakers

Miniature Circuit Breakers cover all ratings from 1 to 125 A.

Low Voltage Capacitors

The new range of Low Voltage modular capacitors is designed to compensate reactive energy. Combined with contactors for capacitor control and with a regulator, it can be used to form automatic power factor correction systems; with a dramatic space optimization and longest life compared to classic capacitors.

contact us For further information

Panorama of switchgear and components for motor protection and control in Camgro System

Motor circuit breakers

Motor circuit breaker up to 220A starter with protection and communication.

Contactors

Two ranges of contactors are intended for motor control:

- From 9 A to 150 A
- From 115 A to 780 A

Thermal Protection Relays

Two ranges of Thermal protection relays are used :

- From 0.63 to 80A
- From 60 to 630A

Variable Speed Drives

The variable speed drives are dedicated for motor protection and speed control :

- All high performance and accuracy applications.
- Dedicated for ventilation, water distribution and pumping applications.
- Available From 0.75 to 630kW

Soft-starters

The soft starter is dedicated to heavy-duty applications, with high inertia motor loads.

- Up to 630 kW in 400 V

contact us For further information.

Additional Technical Information

IEC 61439-1/2 international standard

A guarantee of quality

Electrical switchboards fulfill a vital function in a company's operations. They must be perfectly suited to the user's needs and take full advantage of the manufacturer's know-how, based on years of experience National and international standards lay down the definitions and essential characteristics of switchboards, as well as the related tests. The aim of the standards is also to facilitate communication between users and manufacturers, enabling users to choose the equipment best suited to their applications.

The standard

The international standard that serves as a reference in this field is IEC standard 61439-1/2. It is reproduced, in each country, by a locally applicable standard.

The various tests specified by IEC standard 61439-1/2

The tests designed to check the characteristics of an assembly consist of:

- type tests, carried out on typical enclosures
- routine tests, carried out on all new enclosures in the factory.

Additional Technical Information

Type tests as per IEC 61439

10.2 Verification of Strength of material and parts
10.3 Verification of the degree of protection
10.4 Verification of Clearances and Creepage Distances
10.5 Verification of the effectiveness of the protective circuits.
10.6 Verification of incorporation of switching devices and components
10.7 Verification of internal electrical circuit and connections
10.8 Verification of terminal of external conductors
10.9 Verification of the dielectric properties
10.10 Verification of temperature-rise limits
10.11 Verification of short-circuit withstand strength
10.12 Verification of electromagnetic compatibility
10.13 Verification of mechanical operation

Routine tests as per IEC 61439

11.1 General
11.2 Degree of protection of enclosure
11.3 Clearance and creepage distance
11.4 Protection against electric shock and integrity of protective circuits
11.5 Incorporation of built-in components.
11.6 Internal electric circuit and connections.
11.7 Terminal of external conductors
11.8 Mechanical operation
11.9 Dielectric properties
11.10 Wiring, operational Performance and function.

Specific tests

Earthquake phenomena: UBC/CBC

Internal arc withstand: AS 3439/1.

Additional Technical Information

FORMS

For the protection of life and property, standard IEC 61439-1/ 2 defines different means, referred to as forms, of dividing switchboard sections into separate compartments.

This separation is achieved by barriers or partitions.

Form 1

No partitioning.

Form 2a

Functional units separated from the busbars.

Terminals for external conductors do not need to be separated from the busbars.

Form 2b

Functional units separated from the busbars.

Terminals for external conductors are separated from the busbars.

Form 3a

Functional units separated from each other and from the busbars.

Terminals for external conductors do not need to be separated from the busbars.

Form 3b

Functional units separated from each other and from the busbars. Terminals for external conductors are separated from the functional units, but not from each other.

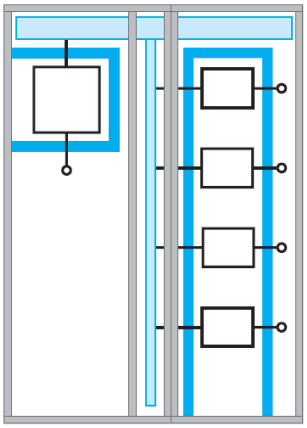
Form 4a

Functional units separated from the busbars, and from each other, including the Terminal for external conductors which are part of the functional unit.

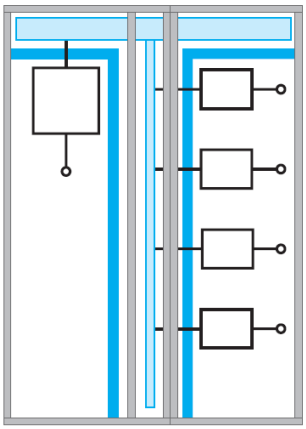
Form 4b

Functional units separated from the busbars and from each other, including the terminal for external conductors.

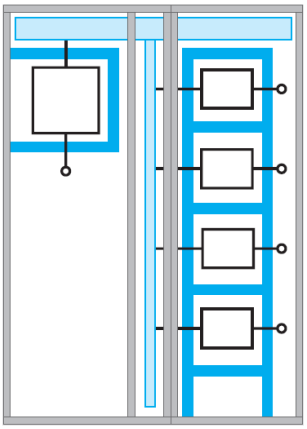
Functional units separated from the terminals for external conductors.



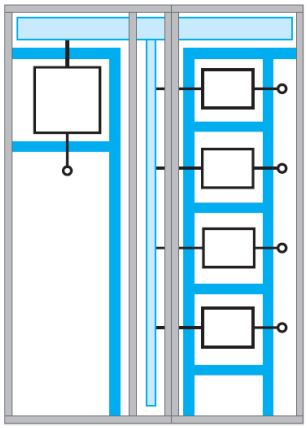
Form 2a



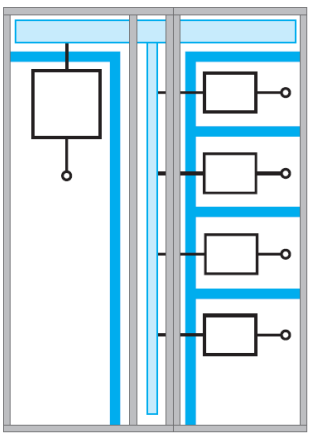
Form 2b



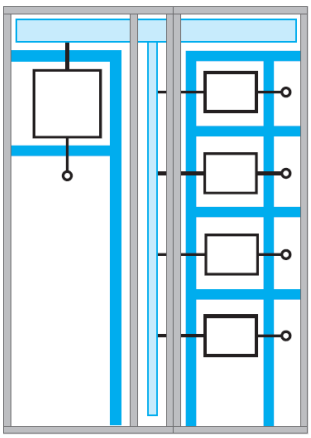
Form 3a



Form 3b



Form 4a



Form 4b

Additional Technical Information

Degrees of protection

External influences

Several national and international standards have classified a number of external influences to which an electrical installation can be exposed,

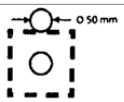
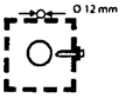
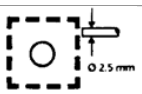
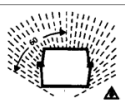
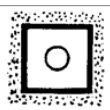
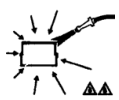
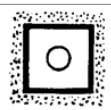
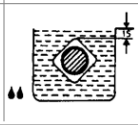
for example the ingress of solid foreign bodies and water.

Degree of protection

Standard IEC 60529 defines IP numbers used to quantify the degree of protection provided by enclosures against:

- Ingress of solid foreign bodies (first number)
- Ingress of water (second number).

Degrees of protection

Protection against solid bodies .			**Protection against liquids.**		
0		No protection	**0**		No protection
1		Protection against solid bodies greater than 50 mm	**1**		Protection against vertical drops of water (condensation)
2		Protection against solid bodies greater than 12.5 mm	**2**		Protection against drops of water falling up to 15° from vertical
3		Protection against solid bodies greater than 2.5 mm	**3**		Protection against rainwater falling up to 60° from vertical
4		Protection against solid bodies greater than 1 mm	**4**		Protection against water projected from all directions
5		Protection against dust (no harmful deposit)	**5**		Protection against hosing with water projected from all directions
6		Total protection against dust	**6**		Protection against swamping with water
7			**7**		Protection against immersion

Franchised Panel Builder Since 1977.

rue Georges de Manteyer
tél. (76) 57.60.60
telex 320842

adresse postale :
38050 GRENOBLE CEDEX
France

A MERLIN GERIN ALPES QUALITY LABEL
FOR THE AGREED L.V. DISTRIBUTION EQUIPMENT WORKSHOPS

Sir,

The manufacture of L.V. Distribution Equipment Assemblies requires serious professional skills from panelbuilders. Especially, it is essential, for the consumer's electrical safety, that they should be familiar with standards in force and comply with them.

In France, since 1974, MGA has been developping a network of L.V. D.E. workshops which are bound with them by a franchising contract.

In the scope of this action, other workshops, like VERGER DELPORTE U.A.E. Ltd in SHARJAH (United Arab Emirates), are bound with MGA by a technical cooperation contract.

Aware of their liabilities in matters of electrical safety and personnel protection, MGA regularly carry out technical tests and organize training sessions for the personnel of these workshops.

So as to concretize the quality of their equipment, conform in every way with technical standards in force at MGA, these workshops have, at present, the possibility to stick thislabel on the equipment they manufacture.

LABEL DE QUALITE · MGA · ATELIERS AGREES

For MGA, a quality label is a means to improve electrical safety.

Yours sincerely.

G. MILLER
Assistance to panelbuilders department MGA

société à responsabilité limitée
capital 2250000 f
siège social : rue Henri Tarze, Grenoble
usines : BP 18
73800 MONTMELIAN

rc : Grenoble B 064500333
ccp : Lyon 1460.49
télég. Merger Grenoble

Note :


asefa

Certificat de conformité / *certificate of conformity* n° 002a-11BT

délivré à / *issued to* : Verger et Delporte UAE Ltd
P.O. BOX: 5629,
Sharjah - UNITED ARAB EMIRATES

pour le matériel / *for the apparatus* : Ensemble d'appareillage à basse tension / *Low-voltage switchgear and controlgear assembly*

référence / *reference* : CAMGRO SYSTEM - 1000A Main Distribution Board / MCC

constructeur / *manufacturer* : Verger et Delporte UAE Ltd
P.O. BOX: 5629, Sharjah and P.O. BOX: 47010, Abu Dhabi
UNITED ARAB EMIRATES

marque commerciale / *trademark* : Verger et Delporte

selon le(s) référentiel(s) / *according to standard(s)* :
CEI / IEC 61439-1 (2009-01), CEI / IEC 61439-2 (2009-01) :

caractéristiques assignées / *rated characteristics* :

document(s) pris en compte (s) / *relevant document(s)* :

Fontenay-aux-Roses,
Le / on : 2011-03-29

Le Président de l'ASEFA / *The chairman of ASEFA*

Michel BRENON


asefa

Certificat de conformité / *certificate of conformity* n° 003a-11BT

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pour le matériel / *for the apparatus* : Ensemble d'appareillage à basse tension / *Low-voltage switchgear and controlgear assembly*

référence / *reference* : CAMGRO SYSTEM - 1600A Main Distribution Board / MCC

constructeur / *manufacturer* : VERGER et DELPORTE UAE Ltd

marque commerciale / *trademark* : Verger et Delporte

selon le(s) référentiel(s) / *according to standard(s)* :

caractéristiques assignées / *rated characteristics* :

document(s) pris en compte (s) / *relevant document(s)* :

Fontenay-aux-Roses,
Le / on : 2011-03-29

Le Président de l'ASEFA / *The chairman of ASEFA*

Michel BRENON


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Certificat de conformité / *certificate of conformity* n° 004a-11BT

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P.O. BOX: 5629,
Sharjah - UNITED ARAB EMIRATES

pour le matériel / *for the apparatus* : Ensemble d'appareillage à basse tension / *Low-voltage switchgear and controlgear assembly*

référence / *reference* : CAMGRO SYSTEM - 2500A Main Distribution Board / MCC

constructeur / *manufacturer* : VERGER et DELPORTE UAE Ltd

marque commerciale / *trademark* : Verger et Delporte

selon le(s) référentiel(s) / *according to standard(s)* :

caractéristiques assignées / *rated characteristics* :

document(s) pris en compte (s) / *relevant document(s)* :

Fontenay-aux-Roses,
Le / on : 2011-03-29

Le Président de l'ASEFA / *The chairman of ASEFA*

Michel BRENON


asefa

Certificat de conformité / *certificate of conformity* n° 062-12BT

délivré à / *issued to* : Verger et Delporte UAE Ltd
P.O. BOX: 5629,
Sharjah - UNITED ARAB EMIRATES

pour le matériel / *for the apparatus* : Ensemble d'appareillage à basse tension / *Low-voltage switchgear and controlgear assembly*

référence / *reference* : CAMGRO SYSTEM - 3200A Main Distribution System / MCC

constructeur / *manufacturer* : VERGER et DELPORTE UAE Ltd
P.O. BOX: 5629, Sharjah - UNITED ARAB EMIRATES

marque commerciale / *trademark* : Verger et Delporte

selon le(s) référentiel(s) / *according to standard(s)* :

caractéristiques assignées / *rated characteristics* :

document(s) pris en compte (s) / *relevant document(s)* :

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Michel BRENON


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Certificat de conformité / *certificate of conformity* n° 130a-11BT

délivré à / *issued to* : Verger et Delporte UAE Ltd
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Sharjah - UNITED ARAB EMIRATES

pour le matériel / *for the apparatus* : Ensemble d'appareillage à basse tension / *Low-voltage switchgear and controlgear assembly*

référence / *reference* : CAMGRO SYSTEM - 6300A Main Distribution Board / MCC

constructeur / *manufacturer* : VERGER et DELPORTE UAE Ltd

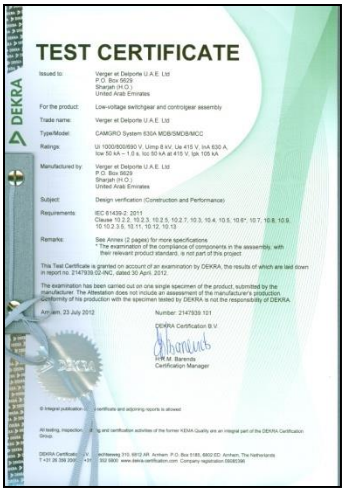
marque commerciale / *trademark* : Verger et Delporte

selon le(s) référentiel(s) / *according to standard(s)* :

caractéristiques assignées / *rated characteristics* :

document(s) pris en compte (s) / *relevant document(s)* :

Le Président de l'ASEFA / *The chairman of ASEFA*


TEST CERTIFICATE

DEKRA

Issued to:	Verger et Delporte U.A.E. Ltd P.O. Box 5629 Sharjah (H.O.) United Arab Emirates
For the product:	Low-voltage switchgear and controlgear assembly
Trade name:	Verger et Delporte U.A.E. Ltd
Type/Model:	CAMGRO System 630A MDB/SMDB/MCC
Ratings:	Ui 1000/800/690 V, Uimp 8 kV, Ue 415 V, InA 630 A, Icw 50 kA – 1.0 s, Icc 50 kA at 415 V, Ipk 105 kA
Manufactured by:	Verger et Delporte U.A.E. Ltd P.O. Box 5629 Sharjah (H.O.) United Arab Emirates
Subject:	Design verification (Construction and Performance)
Requirements:	IEC 61439-2: 2011 Clause 10.2.2, 10.2.3, 10.2.5, 10.2.7, 10.3, 10.4, 10.5, 10.6*, 10.7, 10.8, 10.9, 10.10.2.3.5, 10.11, 10.12, 10.13
Remarks:	See Annex (2 pages) for more specifications * The examination of the compliance of components in the assembly, with their relevant product standard, is not part of this project

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in report no. 2147939.02-INC, dated 30 April, 2012.

The examination has been carried out on one single specimen of the product, submitted by the manufacturer. The Attestation does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

Arnhem, 23 July 2012

Number: 2147939.101

DEKRA Certification B.V.

H.R.M. Barends
Certification Manager


asefa

Certificat de conformité / *certificate of conformity* n° 129c-11BT

délivré à / *issued to* : Verger et Delporte UAE Ltd
P.O. BOX: 5629,
Sharjah - UNITED ARAB EMIRATES

pour le matériel / *for the apparatus* : Ensemble d'appareillage à basse tension / *Low-voltage switchgear and controlgear assembly*

référence / *reference* : CAMGRO SYSTEM - 4000A Main Distribution Board / MCC

constructeur / *manufacturer* : VERGER et DELPORTE UAE Ltd

marque commerciale / *trademark* : Verger et Delporte

selon le(s) référentiel(s) / *according to standard(s)* :

caractéristiques assignées / *rated characteristics* :

document(s) pris en compte (s) / *relevant document(s)* :

Le Président de l'ASEFA / *The chairman of ASEFA*

Michel BRENON


TEST CERTIFICATE

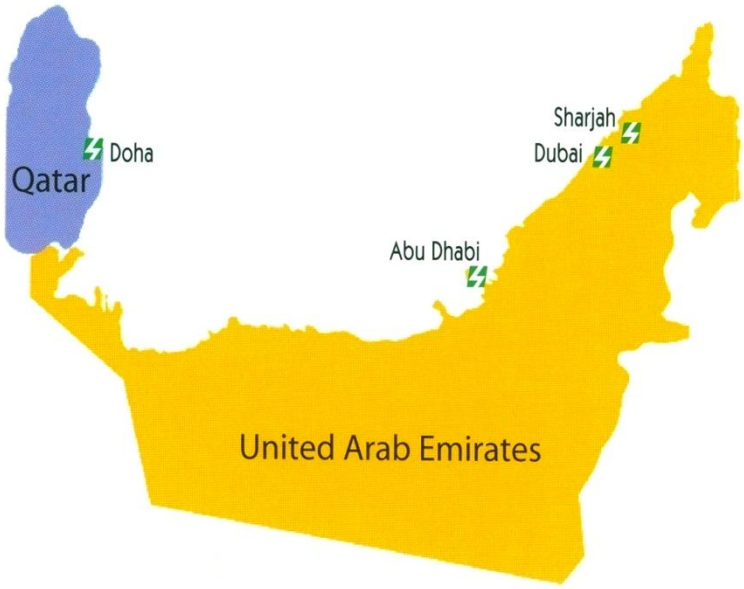
DEKRA

Issued to:	Verger et Delporte U.A.E. Ltd P.O. Box 5629 Sharjah (H.O.) United Arab Emirates
For the product:	Low-voltage switchgear and controlgear assembly
Trade name:	Verger et Delporte U.A.E. Ltd
Type/Model:	CAMGRO System 250A MDB/SMDB/MCC
Manufactured by:	Verger et Delporte U.A.E. Ltd P.O. Box 5629 Sharjah (H.O.) United Arab Emirates
Subject:	Design verification (Construction and Performance)
Requirements:	IEC 61439-2: 2011
Remarks:	See Annex (2 pages) for more specifications

Arnhem, 23 July 2012

DEKRA Certification B.V.

H.R.M. Barends
Certification Manager



Contact us

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Email : krishnaraj@verger-delporte.com.qa

Website : www.verger-delporte.ae Email - mail@verger-delporte.ae