



ELECTRICAL PRODUCTS



COMPANY PROFILE

2019

SIEMENS

Under License of Siemens in
Low Voltage

SIVACON S8

Medium Voltage

SIMOPRIME

INDEX

A	ABOUT SEGA-M	A1
	SEGA-M FACTORIES	A2
	SEGA-M PRODUCTS	A3
B	SEN - PLUS	B1
	LOW VOLTAGE DISTRIBUTION BOARDS QUIXTRA 4000	B6
	LOW VOLTAGE DISTRIBUTION BOARDS UP TO 630A - QUIXTRA 630	B10
	MODULA 630K	B12
	LOAD CENTER MCCB DISTRIBUTION BOARD	B13
	DISTRIBUTION BOARD - TYPE FB MCB DISTRIBUTION BOARD	B14
	DISTRIBUTION MEDIUM BOARD - SIMOPRIME	B15
C	SEGA-M DESIGN & TEST SWITCHGEAR	C1
	STEEL PRODUCTS SGWM-1 METAL ENCLOSURES	C2
	NETWORK ENCLOSURES - MODULAR ENCLOSURES	C3
	PANEL METER - DISTRIBUTION BOX	C4
	MODULAR ENCLOSURES SOCKET OUTLETS	C9
	METAL ENCLOSURES IP54 & IP65	C9
	CONTROL DESK - METAL JUNCTION	C10
	DISTRIBUTION BOX - CABLE GLAND IP65 & 67	C11
	INDUSTRIAL PLUGS & SOCKETS - PLASTIC JUNCTION BOX	C12
	TUBE HOLDER - CIRCUIT BREAKER BOX	C13
	WIRING DEVICES PIANO PRODUCTS	C14
D	SOLAR ENERGY PRODUCTS	D1
	SOLAR ENERGY MANAGEMENT	D2
	SOLAR APPLICATIONS	D3
	SPECIFICATIONS FOR SOLAR CAPACITY OF 40 KW CONNECTED TO THE NETWORK	D4
	SOLAR INSTALLATION TOOLS - SIMULATION PARAMETERS FOR GRID CONNECTION SYS	D6
	SOLAR POWERED CHAISE LONGUE	D11
	SEGA M LIGHTING	D14
E	SEGA-M PROJECTS REFERENCE SHORT LIST FOR LOW VOLTAGE SWITCH GEAR	E1
F	SEGA-M ACCREDITATION	F1

About SEGA. M

- **S**EGA. M is an advanced engineering company for electrical products and low voltage switchboards established by experiences of its founders that exceeds **40 years** in industry field
- **O**ur factories are found in the industrial area of the 10th of Ramadan City Egypt, It's located on an area **30.000 m**
- **S**EGA. M factories are equipped with the latest production lines, from the largest manufactures in Europe
- **F**ully equipped factory with the latest machines for making moulds with an Engineering team working in development of the products, and giving new creative solutions

Our Mission

- **I**s to provide the market with High quality Products, that serve the electrical installations sector, with all its installations requirements, that fulfill all our customers' needs

SEGA. M & Global Companies

- **S**EGA. M Co. has GE license in manufacturing and assembly with complete Technical support, also GE audits our manufactured products to meet the European standards
- **A**uthorized to Manufacture & Assemble GE C&I Fully Type Tested **SEN PLUS** switchgear and Motor Control Center in accordance with **EN 60439-1 / IEC 439-1 / IEC 61439-2**
Quixtra 4000 switchgear in accordance with **EN IEC 61439-2**
Quixtra 630 switchgear in accordance with **EN IEC 61439-2**

SEGA.M Factories

SEGA.M factories are equipped with the latest production lines, from largest manufactures in Europe, specially built for this industry

- Computerized Punching, pending, cutting machines.
- Welding robots.
- Large plastics injection machines.
- Electro static powder coating equipped with the latest curing line
Robot powdering.



CNC Milling Machines



Punching



Pending



Roll Forming Machine



Plastic Injection



Welding Robot



Powder Coating



Gasket Robot



Routine Test

SEGA.M Products

- **W**e have a great range of products which cover all the customer needs
- **S**ome of our products in Low Voltage Switchboards are :
 - **P**ower Distribution Switchboards, (Main & Branches Panels)
 - **M**otor Control Center "MCC" Switchboards
 - **P**ower Factor Correction "PFC" Panels
 - **A**utomatic transfer Switch "ATS", 2 out of 3 Switchboards & 3 out of 5
 - **F**uses Panel (Pillar Panel & Coffret Boxes)
 - **N**ow a new range of products are designed to meet our customer's need
- **R**outine Test is carried out for all Low Voltage Switchboards
- **B**eside **Low Voltage** Switchboards we have great range of empty boxes and Enclosures which cover all our customer needs such as **M**etal Products Control Desk **IP54** Distribution Box , Electrical panel , meter Enclosures up to **IP65** .Load Center Enclosures , Network Enclosures and metal junction box
- **S**ome of Plastic electrical products Such as :
plastic Cable gland , plastic junction box up to **IP67** , wiring device, Tube Holder Recessed and Surface mounted plastic junction box **IP65** socket with , Shocko **16 A , 250v** and plastic distribution panels
- **S**olar system stand alone on grid and off grid

Modula 630K

Sheltering as a second nature
Type Tested



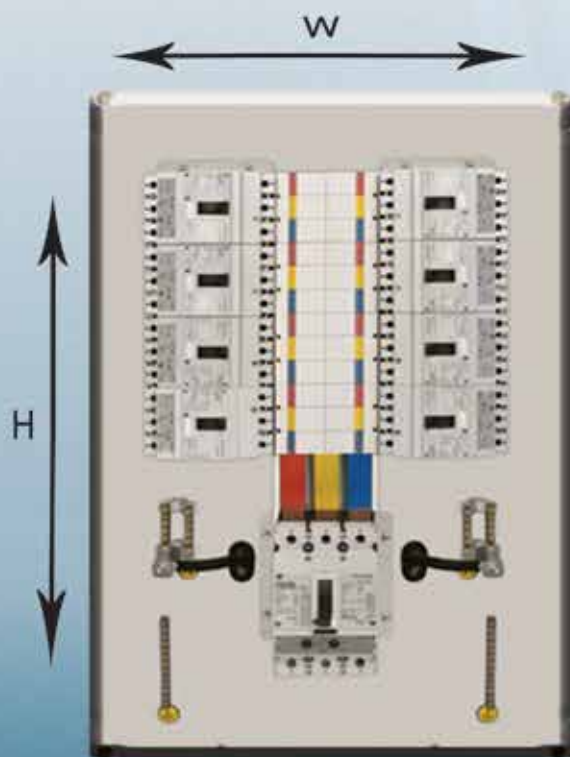
Features

- **T**ype Tested Distribution Board
- **F**orm 1 and Form 2
- **E**asy wiring due to the direct mounting of functional units on the rear panel , used as mounting plate
- **C**ompact space saving design
- **F**ast and easy cabling
- **M**odularity
- **T**he cable or busbar compartment is included in the 900mm wide enclosure
- **T**he compartment can be positioned on the left or right as wished

Brand name	Modula 630K
Standards	IEC 60439 - 1
Type tested assembly certificates	Lovag Testing Laboratory
Applications	Type Tested Distribution Board in industrial and commercial markets
Modular design	yes
Modular coupling	Up, left , right
Cable entry	top or bottom
Main busbar	Medial arrangement
Rated current main busbar	up to 630A
Form of internal separation	Up to Form 2
Rated short time withstand current busbar system	30KA
Rated Peak short Circuit Current Ipk	60KA
Durable surface protection	Shock and scratch resistant powder paint suitable for most applications including marine and tropical conditions

MCCB DISTRIBUTION BOARD

- Incoming FG-400A, Outgoing FD 16-160A
- Incoming FE-250A, Outgoing FD 16-160A



- Perfect Design
- Very Good Quality
- Total Safety
- Time Saving

Art No	Incoming Rate	Outgoing Feeders	H / W / D
MFB-4400160	400 A	4	900 / 700 / 250
MFB-6400160	400 A	6	1000 / 700 / 250
MFB-8400160	400 A	8	1100 / 700 / 250
MFB-10400160	400 A	10	1200 / 700 / 250
MFB-4250160	250 A	4	800 / 700 / 250
MFB-6250160	250 A	6	800 / 700 / 250
MFB-8250160	250 A	8	900 / 700 / 250
MFB-10250160	250 A	10	1000 / 700 / 250

Performance

Busbar rating	630 A
Busbar short circuit capacity	36 /per 1sec KA
Rated voltage	380-415 V
Earth + Neutral out terminal capacity	35 MM ²
Earth + Neutral incoming cable capacity	70 MM ²
No of outgoing feeders MCCB	4- 6- 8- 10
Degree of protection	IP54
Enclosure colour	RAL 7035 or RAL 7032 as Request

Sega-M Distribution Board - Type Tested (NSFB)

MCB DISTRIBUTION BOARD FISHBONE

- Incoming Miniture 3P, Outgoing Miniture
- Incoming FD-100A , Outgoing Miniture
- Incoming FD-160A , Outgoing Miniture



- Perfect Design
- Very Good Quality
- Total Safety
- Time Saving

Art No	Outgoings	H	W	D
Incoming Miniture 3pl Outgoing Miniture				
MSFB-MCB-12R	12	595	400	115
MSFB-MCB-18R	18	595	400	115
MSFB-MCB-24 R	24	595	400	115
Incoming FD-100A Outgoing Miniture				
MSFB-MCCB-12R	12	595	400	115
MSFB-MCCB-18R	18	595	400	115
MSFB-MCCB-24R	24	595	400	115
Incoming FD-160A Outgoing Miniture				
MSFB-MCCB-30R	30	755	400	115
MSFB-MCCB-36R	36	755	400	115

Performance

Busbar rating	160 A
Busbar short circuit capacity	16 1sec KA
Rated voltage	180-415 V
Earth + Neutral out terminal capacity	10- 16 mm ²
Earth + Neutral incoming cable capacity	25 mm ²
No of outgoing MCCB	12-18- 24- 30-36-48- 60
Degree of protection	IP40
Enclosure color	RAL 7035 or RAL 7032 as Request

SIVACON-S8

EN (IEC) 61439-1/2

The interaction of the components described below results in an optimal low-voltage switchboard with advantages as regards

Safety - integrated

Economic efficiency - right from the start

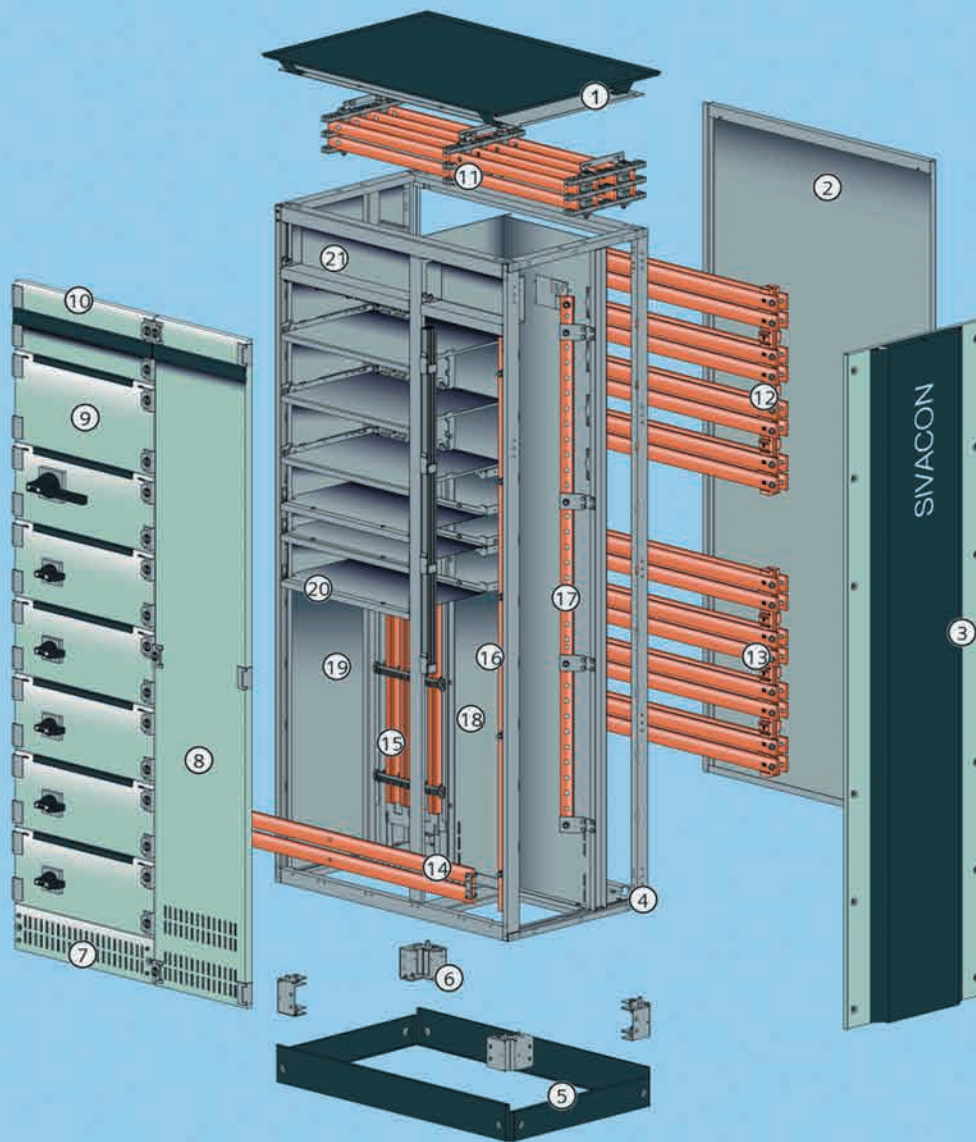
Flexibility – through modularity



Technical data

Standards and approvals		
Standards and regulations	Power switchgear and controlgear assembly (design verification)	IEC 61439-2 DIN EN 61439-2-2 VDE 0660-600-2
	Test of internal fault behaviour (internal arc)	IEC/TR 61641 DIN EN 60439-1 Supplement 2 VDE 0660-500 Supplement 2
	Induced vibrations	IEC 60068-3-3 IEC 60068-2-6 IEC 60068-2-57 IEC 60980 KTA 2201.4 Uniform Building Code (UBC), Edition 1997 Vol. 2, Ch. 19, Div. IV
	Protection against electric shock	EN 50274 (VDE 0660-514)
Approvals	Europe Russia, Belarus, Kazakhstan China	CE marking and EC Declaration of Conformity EAC CCC
	Det Norske Veritas Lloyds Register of Shipping	DNV GL Type Approval Certificate LR Type Approval Certificate
	Shell conformity	"DEP Shell"
Technical data		
Installation conditions	Indoor installation, ambient temperature in the 24-h mean	+ 35 °C (-5 °C to + 40 °C)
Rated operating voltage (U_e)	Main circuit	Up to 690 V (rated frequency f_n 50 Hz)
Dimensioning of creepage distances and clearances	Rated impulse withstand voltage U_{imp}	8 kV
	Rated insulation voltage (U_i)	1,000 V
	Degree of pollution	3
Main busbars, horizontal	Rated current	Up to 7,010 A
	Rated peak withstand current (I_{pk})	Up to 330 kA
	Rated short-time withstand current (I_{cw})	Up to 150 kA, 1s
Rated device currents	Circuit-breakers	Up to 6,300 A
	Cable feeders	Up to 630 A
	Motor feeders	Up to 630 A
Internal separation	IEC 61439-2	Form 1 to form 4
	BS EN 61439-2	Up to form 4 type 7
IP degree of protection	in accordance with IEC 60529	Ventilated up to IP43 Non-ventilated IP54
Mechanical strength	IEC 62262	Up to IK10
Dimensions	Height (without base)	2,000, 2,200 mm
	Height of base (optional)	100, 200 mm
	Cubicle width	200, 350, 400, 600, 800, 850, 1,000, 1,200, 1,400 mm
	Depth (single-front)	500, 600, 800, 1,000, 1,200 mm

Cubicle Design of SIVACON S8



Enclosure

- ① Roof plate
- ② Rear panel
- ③ Design side panel
- ④ Frame
- ⑤ Base cover
- ⑥ Base
- ⑦ Ventilated base compartment cover
- ⑧ Ventilated cubicle door
- ⑨ Compartment door
- ⑩ Head room door

Busbars

- ⑪ Main busbar (L1... L3, N) – top
- ⑫ Main busbar (L1... L3, N) – rear top
- ⑬ Main busbar (L1... L3, N) – rear bottom
- ⑭ Main busbar (PE) – bottom
- ⑮ Vertical distribution busbar system (L1... L3, N) device compartment
- ⑯ Vertical distribution busbar (PE) cable connection compartment
- ⑰ Vertical distribution busbar (N) cable connection compartment

Internal separation

- ⑱ Device compartment/busbar compartment
- ⑲ Cubicle to cubicle
- ⑳ Compartment to compartment
- ㉑ Cross-wiring compartment

System Configuration and Cubicle Design

When the system configuration is planned, the following characteristics must be specified

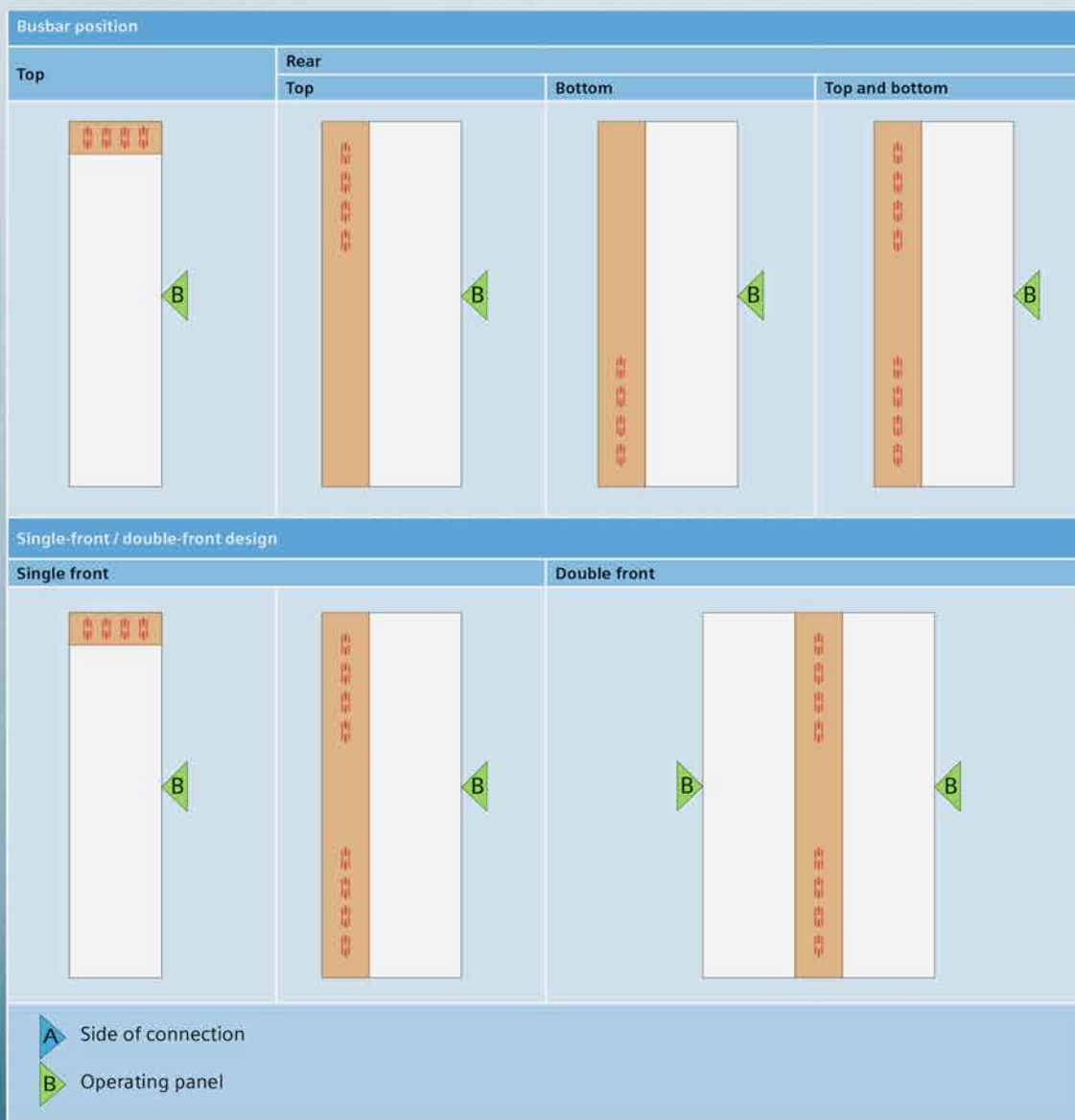
Busbar position (top, rear top, rear bottom, or both rear top and rear bottom)

Single-front or double-front design

Cable/busbar entry (from the top or bottom)

Connection in cubicle (front or rear)

Schematic Overview of Switchboard Configurations



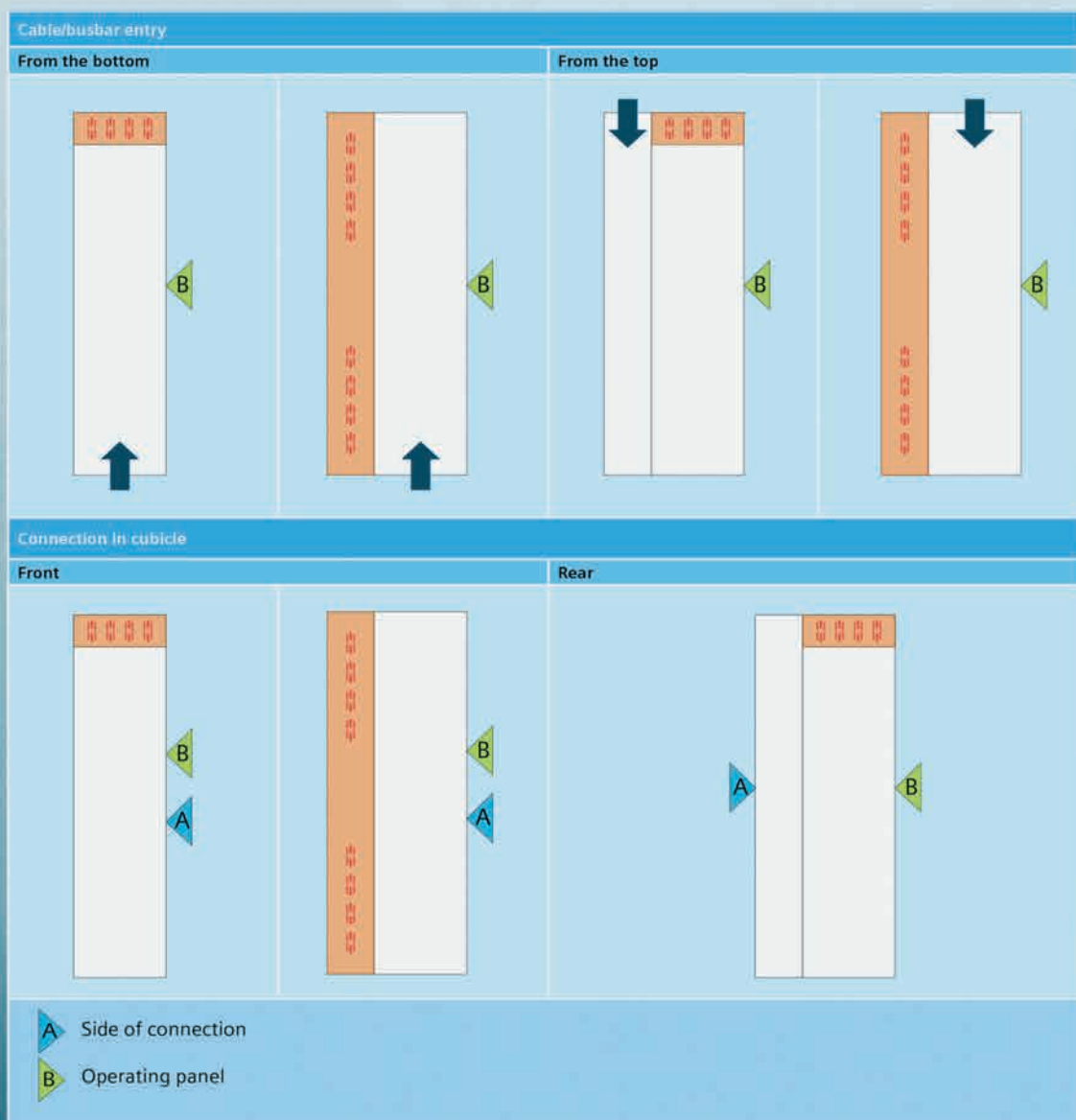
:These characteristics depend on the type of installation among other things

Stand-alone At the wall (only for single-front design)

Back to back (only for single-front design)

These determinations allow to specify cubicle design in more detail
(Fig. 2/1, Tab. 2/2 and Tab. 2/3)

Further information about the switchboard installation can be found in Chapter 8 “Further planning notes



Cubicle Types and Busbar Arrangement

Top busbar position		
Busbar system		Cubicle design
Busbar position Rated current Cable/busbar entry Connection in cubicle	Top Up to 3,270 A Bottom Front	
Busbar position Rated current Cable/busbar entry Connection in cubicle	Top Up to 3,270 A Top Front or rear	
Busbar position Rated current Cable/busbar entry Connection in cubicle	Top Up to 6,300 A Bottom Front	
Busbar position Rated current Cable/busbar entry Connection in cubicle	Top Up to 6,300 A Top Front or rear	

Device/functional compartment

Busbar compartment

Cable / busbar connection compartment

Cross-wiring compartment

Operating panels

Cubicle Types and Busbar Arrangement

Rear busbar position		
Busbar system		Cubicle design
Busbar position Rated current Cable/busbar entry Connection in cubicle	Rear Top or bottom Top and bottom Up to 4,000 A Bottom or top Front	
Busbar position Rated current Cable/busbar entry Connection in cubicle	Rear Top or bottom Up to 7,010 A Bottom or top Front	
Busbar position Rated current Cable/busbar entry Connection in cubicle	Rear Top or bottom Top and bottom Up to 6,300 A Bottom or top Front	
Busbar position Rated current Cable/busbar entry Connection in cubicle	Rear Top or bottom Up to 7,010 A Bottom, top Front	

Device/functional compartment

Busbar compartment

Cable / busbar connection compartment

Cross-wiring compartment

Operating panels

Cubicle Dimensions

Cubicle height					
Frame	2,000, 2,200 mm				
Base	Without, 100, 200 mm				
Cubicle width					
Dependent of:	- Cubicle type - Rated device current - Connecting position and/or cable/busbar entry				
Cubicle depth					
Type	Main busbar		Cubicle depth		
	Location	Rated current	Front connection		Rear connection
			Entry from the bottom	Entry from the top	
Single front	Top	3,270 A	500, 800 mm	800 mm	800 mm
		6,300 A ¹⁾	800, 1,000 mm	1,200 mm	1,200 mm
	Rear	4,000 A	600 mm	600 mm	-
		7,010 A	800 mm	800 mm	-
Double front	Rear	4,000 A	1,000 mm	1,000 mm	-
		7,010 A ¹⁾	1,200 mm	1,200 mm	-

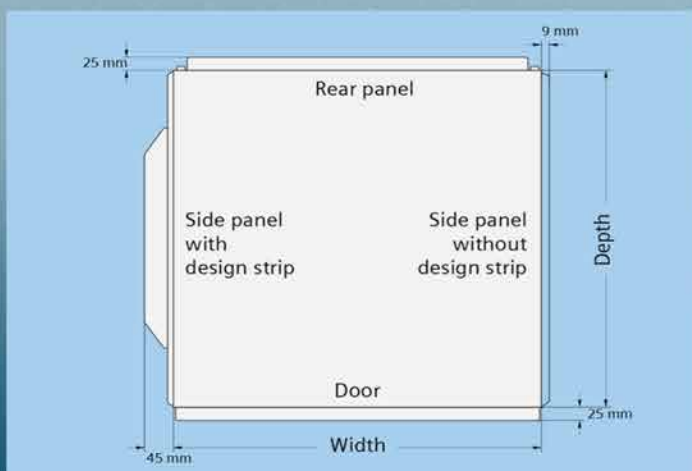
¹⁾ Frame height 2,200 mm

The cubicle dimensions listed in Tab. 2/4 do not factor in the enclosure parts and no outer built-on parts

For the dimensions of the cubicles' enclosure parts, please refer to Fig. 2/2. For degrees of protection IPX1 and IPX3, additional ventilation roof panels are mounted on the cubicle

The dimensions of the enclosure parts are within the required minimum clearances for erecting the switchboard. Doors can be fitted so that they close in escape direction

Surface Treatment



Surface treatment	
Frame components	Sendzimir-galvanised
Enclosure	Sendzimir-galvanised / powder-coated
Doors	Powder-coated
Copper bars	Bare copper, optionally silver-plated, optionally tin-plated
Colour	
Powder-coated components (layer thickness 100 ± 25 µm)	RAL7035, light grey (in accordance with DIN 43656) or upon request
Design components	Blue Green Basic

SIMOPRIME

MV AIS SWGR up to 24kV
IEC62271-200 (LSC2B – PM)

Switchgear for Primary Distribution

Energy
Distribution Medium Voltage

Air-insulated, metal-enclosed, metal-clad
medium voltage switchgear up to 24kV

Withdrawable ROL Vacuum CB

Full compliance with new IEC 62271-200
class (LSC2B – PM)



Agenda

- 1-Overview .
- 2-Benefits & Customer Value proposition .
- 3-How You Will Get the Benefits .
- 4-Summary .

Overview

Typical applications & Market Segments:

- 1-Energy : Generation , Transmission & Distribution .
- 2-Infrastructure: hospitals, air and sea ports .
- 3-Industry: oil & gas, cement plants , Factories .
- 4-Buildings: City Centers, malls, Residential .



Air-insulated, metal-enclosed, metal-clad medium voltage switchgear up to 24kV .

Withdrawable ROL Vacuum CB .

Full compliance with new IEC 62271-200 class (LSC2B – PM) .

3main compartments (CB , BB & Cable) , each compartment is insulated from the other by earthed metallic shutters (Class PM) .

SION 12kV 1250A 800mm delivers 1255@ 55 degree .

Switching Device Compartment (SDC) :



- 1-Rolling on floor truck to accommodate :
 - Vacuum circuit breaker (with/without → VTs + Fuses on cables) .
 - Disconnecter .
 - Vacuum contactor with fuses .
 - Metering VTs + Fuses (For complete metering cubicles) .
- 2-Upwards pressure relief flaps .
- 3-Earthed metallic shutters & shutters operating mechanism for complete isolation against live bus bars & cables when truck is in rack out position (Class PM) .
- 4-Pressure resistance MV door against internal arcs :
 - Maintaining IP up to 5X even when VCB is in Rack out position .
 - With mechanism for all cubicle operations from the front side .
- 5-Side metallic ducts for LV control cables routing
- 6-Mechanical interlock between MV door & truck , ensures interlock-based access to the SDC .

Main Bus bar compartment

- 1-Flat bare high quality copper for main & cubicle bus bars up to 3600A , bolted from cubicle to cubicle .
- 2-Silver plated bolted connections .
- 3-Main bus bar transverse partitioning between cubicles
- 4-Optional : main bus bar insulation (Raychem)
- 5-Bolted rear & top covers ensures tool-based access to the main bus bar compartment
- 6-Possibility of installing :
 - Voltage transformers
 - Bus bar earthing switch
 - Current transformers on the bus bars run
- 7-Upwards pressure relief flaps .



Cable Compartment

- 1-Ample space for compartment to accommodate :
 - Ring core or block type current transformers .
 - Voltage Transformers + Fuses on Cables .
 - Earting Switch with making capacity .
 - Cable copper connections .
 - Earth bus bar .
 - Optional : Surge arresters .
- 2-Upwards pressure relief flaps .
- 3-Front or Rear cable access for easy installation & maintenance for CTs & Cables .
- 4-Cable testing without isolating the switchgear possible by separately opening shutters of switching-device compartment via specific tools .



Electrical & Technical Details

Rated values

Rated voltage		7.5kV	12kV	15kV	17.5kV	24kV
Rated frequency	Hz	50/60	50/60	50/60	50/60	50/60
Rated power frequency - Withstand voltage	kV	20	28	35	38	50
Rated lightening impulse withstand voltage	kV	60	75	95	95	125
Rated short circuit breaking current	max kA	25	40	40	40	40
Rated short time withstand current, 3s	max kA	25	40	40	40	40
Rated short circuit making current	max kA	100/104	100/104	100/104	100/104	63
Rated peak withstand current	max kA	100/104	100/104	100/104	100/104	63
Rated normal current of Busbars	max kA	2500	3600	3600	3600	3600
Rated normal current of Feeders	max kA	2500	3600	3600	3600	3600

Technical Details

Rated values

Rated voltage	7.5kV	12kV	15kV	17.5kV	24kV
Classification according to IEC 62271-200 :					
Partition class	PM	PM	PM	PM	PM
Service continuity category	LSC2B	LSC2B	LSC2B	LSC2B	LSC2B
Default Internal arc design Class	IAC	IAC	IAC	IAC	IAC
max. kA	40	40	40	40	25
sec	0.1/1.0	0.1/1.0	0.1/1.0	0.1/1.0	0.1/1.0
Accessibility	A	A	A	A	A
Sided Internal Arc classification 4	AFLR	AFLR	AFLR	AFLR	AFLR
Accessibility of compartments according to IEC 62271-200 :					
Busbar compartment	Tool based				
Switching device compartment	Interlock based accessible				
Connection compartment (front access)	Tool based and Interlocked based accessible				
Connection compartment (rear access)	Tool based				
Low voltage compartment	Tool based				

Rated values

Rated voltage	7.5kV	12kV	15kV	17.5kV	24kV
Degree of protection for enclosure	IP4X / IP51	IP4X / IP51	IP4X / IP51	IP4X / IP51	IP4X / IP51
Dimensions :					
Width mm	600/800	600/800	600/800	600/800	800/1000
Depth mm	1860	1860	1860	1860	1900
Height with IAC 0.1 Sec. mm	2253	2253	2253	2253	2250
Height with IAC 1.0 Sec. mm	2425	2425	2425	2425	2250
Height with IAC 1.0 Sec (40kA) mm	2460	2460	2460	2460	N/A
Installation	Indoor	Indoor	Indoor	Indoor	Indoor
Number of phases	3	3	3	3	3
Number of busbars	Single	Single	Single	Single	Single
Cable access	Front/Rear	Front/Rear	Front/Rear	Front/Rear	Front/Rear
Cable entry	Bottom/Top	Bottom/Top	Bottom/Top	Bottom/Top	Bottom/Top
CT groups	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2
Maximum site altitude m	1000	1000	1000	1000	1000

SEGA-M Design & Test Switchgear SG-1

Modular free standing enclosures

- Modular design .
- Compact, space saving design .
- No special tools are needed for assembly .
- Reduce space for storage and transportation .
- High flexibility .
- Designed according to customer needs .
- Ability for future to extend .
- Dimensions .
 - Height from 1500 mm up to 2200 mm
 - Width from 400 mm up to 1200 mm
 - Depth from 500 mm up to 800 mm
- Protection degree IP 54 .
- Internal separation from form 1 up to form 4 .
- Can be equipped with cable compartment
- Rated up to 4000A .
- Design and assembled according to IEC 439-1 .
- All routine tests are applied .
- Polyester powder RAL 7032 or 7035 as request .
- Incoming and outgoing feeder from top or bottom
- Applications
 - Main distribution boards and sub main
 - Motor Control Center .
 - Power Factor Correction (PFC)
 - ATS panels . 1 out of 2 2 out of 3 3 out of 5



SGWM -1

Metal Enclosures

- Compact, space saving design .
- No special tools are needed for assembly .
- Reduce space for storage and transportation .
- High flexibility .
- Designed according to customer needs
- Dimensions :
 - Height from 300 mm up to 1200 mm .
 - Width from 300 mm up to 1000 mm .
 - Depth from 200 mm up to 300 mm .



- Protection degree up to IP 65
- Can be equipped cable compartment .
- Rated current up to 630A .
- Design and assembled according to IEC 439-1 .
- All routine tests are applied .
- Polyester powder RAL 7032 or 7035 as request .
- Incoming and outgoing from top or bottom .
- Can be recessed "Frame Must Be added" or wall mounted .
- Applications :
 - Main & outgoing switchboards .
 - Motor Starter .
 - Load Center up to 72 Lines .
- Available in stainless steel as per Request



Steel Products



Network Enclosures

There is wide range of network panel to meet the requirement of network sector.

The panel can be delivered with out side cover make any expansion opportunities .

Frame: 2mm steel profile treated and painted with electrostatic

Panel: with or without side panel

Door: 2mm sheet steel treated and painted with electrostatic powder coating .

Or sheet steel treated and painted with electrostatic powder coating with 5mm safety glass with confort handle .

rear door from 1.5 sheet steel fixed with 6 screw .

Roof: plate steel sheet fixed with 4 screw .

Panting:electrostatic powder Coating .

RAL NO 7032 or 7035 as request .



Modular Enclosures

The cabinet kit is one cell or two, according to Customer Request used to protect equipment against dust, and splashing water.

Protection degree up to IP54

The cabinets are available in carbon steel sheet treated and painted with polyester powder coating RAL NO 7032.

Inside metal plate 2 mm galvanized steel, punched and bended .

All cabinet kits are supplied standard with key lock handle with a three point locking mechanism

- four eye bolts.

- frame, top and base are RAL 7032 or 7035

- door and back cover are RAL 7032 or 7035

The inner mounting panel is galvanized steel

The kit includes

- Frame

- Door

- Back cover

- Top

- Bottom

- Holder channel

- Plinth 100mm height

- Wing plan pocket or 200 mm height RAL 7030



Panel Meter

Electrical panels are used in indoors or outdoors to protect the enclosed controls from dust, dirt, and water splashing. Contain KW/H meter 220V or 380V.

Body are made from high quality carbon steel 1.5 mm formed and robotically welded treated and painted with electrostatic polyester powder coating.

RAL NO 7032 or 7035 as request

Door carbon steel 1.5 mm formed and robotically welded high quality robotically seamless gasket ensures a complete and durable water tight seal.

Inside metal plate 2 mm galvanized steel, punched and bended

Protection degree IP 54

Distribution Box

Body: made of cold rolled steel, chemically treated and painted with electrostatic powder coating

Bar: made of Brass

screws and connecting tools: iron plated with zinc



3 line Panel

designed to be used in houses and hotels and projects in high quality and good design that meet our customer needs

Dimensions	L	W	D
	180	230	90 mm

6 line Panel

designed to be used in houses and hotels and projects in high quality and good design that meet our customer needs

Dimensions	L	W	D
	250	230	90 mm

10/12 line Panel

designed to be used in houses and hotels and projects in high quality and good design that meet our customer needs

Dimensions	L	W	D
	300	230	90 mm



12/24 line Panel

designed in a new shape to be used in houses and commercial shops there is possibility to increase the number of MCBs

Dimensions	L	W	D
	380	350	90 mm



12 line vertical with (INC)

vertical incomer and 12 lines so its a suitable for homes & hotels and small shops

Dimensions	L	W	D
	380	350	90 mm



18 line vertical with (INC)

vertical incomer and 18 lines so its a suitable for homes & hotels and small shops

Dimensions	L	W	D
	380	350	90 mm



24 line vertical with (INC)

vertical incomer and 24 lines so its a suitable for homes & hotels and small shops

Dimensions	L	W	D
	485	350	90 mm



36 line vertical with (INC)

vertical incomer and 36 lines so its a suitable for homes & hotels & large commercial shops and projects

Dimensions	L	W	D
	595	350	90 mm



36/48 line Panel

has the possibility to put the INC switch with 36 lines or 48 lines

Dimensions L W D
595 350 90 mm



12 lines panel with KW/H meter 220 V :

includes KW/H meter 220 V to be used in houses commercial shops and villas

Dimensions L W D
380 350 130 mm



18 lines panel with KW/H meter 220 V :

includes KW/H meter 220 V to be used in houses commercial shops and villas

Dimensions L W D
595 350 130 mm



24 lines panel with KW/H meter 220 V :

includes KW/H meter 220 V to be used in houses commercial shops and villas

Dimensions L W D
595 350 130 mm



18 line with KW/H meter 380 V

its looks like the previous one but there is the possibility to install a 380 V counter to cover needs of clients and give more electricity

Dimensions	L	W	D
	595	350	160 mm



24 line with KW/H meter 380 V

its looks like the previous one but there is the possibility to install a 380 V counter to cover needs of clients and give more electricity

Dimensions	L	W	D
	595	350	160 mm



36 line with KW/H meter 380 V

its looks like the previous one but there is the possibility to install a 380 V counter to cover needs of clients and give more electricity

Dimensions	L	W	D
	755	350	160 mm



counter 2 phase electronic KW/H meter 220V

includes KW/H meter 220 V to be used in houses , commercial , shops and villas.

Dimensions	L	W	D
	300	230	90 mm



counter 3 phase electronic KW/H and meter 380 V

looks like the previous one but there is the possibility to install a 380 V counter to cover all needs of clients and give more electricity

Dimensions	L	W	D
	380	283	90 mm



counter with main 1P MCB KW/H and meter 220 V :

includes KW/H meter 220 V to be used in houses commercial shops and villas

Dimensions	L	W	D
	380	283	90 mm



counter with main 3P MCB KW/H and meter 380V :

includes KW/H meter 380V to be used in houses commercial shops and villas

Dimensions	L	W	D
	380	350	90 mm



Junction box with door

suitable design to facilitate wiring connection

available in dimensions :

- 230*250*90 mm
- 230*300*90 mm
- 350*380*90 mm



Modular Enclosures Socket

Enclosure socket-outlet with different sizes. All models in cold steel treated and painted with polyester powder coating for impact, temperature, weather resistant to be suitable for industrial application

Protection up to IP54

Sockets

Red : 32 A - 250 V - 6 H - 4P

Red : 32 A - 250 V - 6 H - 5P

Blue: 16 A - 250 V - 6 H - 3P

Metal Enclosures IP54 & IP65

Electrical panels are used in indoors or outdoors to protect the enclosed controls from dust, dirt, and water splashing.

Body are made from high quality carbon steel 1.5 mm formed and robotically welded treated and painted with electrostatic polyester powder coating.

RAL NO 7032

Door carbon steel 1.5 mm formed and robotically welded high quality robotically seamless gasket ensures a complete and durable water tight seal

Inside metal plate 2 mm galvanized steel punched and bended

Protection degree IP 54

Available in stainless steel as per Request





Control Desk

Control desks made of steel sheet protected internally and painted with polyester powder coating .

Body and door made of high quality carbon steel 1.5 mm formed and robotically welded treated and painted with electrostatic polyester powder coating . Earthing points on door, body and mounting plate . Inside metal plate 2 mm galvanized steel, punched and bended .

Depth-adjustable for mounting plate .

Double lock operated by key .

Available in stainless steel as per Request

Available in dimensions

W = 600 mm

W = 800 mm

W = 1000 mm

W = 1200 mm

Metal Junction

Junction Box

Body: made of cold rolled steel chemically treated and painted with electrostatic powder coating

screws and connecting tools: iron plated with zinc

Available in dimensions

230 * 250 * (90) - 130 - 160 mm

230 * 300 * (90) - 130 - 160 mm

350 * 380 * (90) - 130 - 160 mm

350 * 595 * (90) - 130 - 160 mm





Distribution Box

Different groups of recessed and surface mounted plastic panels designed in order to allow an easy and quick installation of modular fitting and its wirings.

Protection degree IP 40 complying with IEC 529 Grey RAL 7035

High impact material:IK8 mechanical protection degree according to CEI EN 50102 standard

Flame and fire resistance according to IEC 695-2-1 Halogen Free

Total insulation features (CEI 64-8, EN 60439-1, CEI 17-13/1) (IEC 60309-1).

Temperature rating: - 25°C to + 80°C

Glow-wire test: IEC 598-1, section (13,13.3.2)

- 4/ 6 lines panel recessed
- 4/ 6 lines panel surface mounted
- 8/12 lines panel recessed
- 8/12 lines panel surface mounted
- 24 lines panel recessed
- 24 lines panel surface mounted

Cable Gland IP65 & 67

Cable gland **IP 65**
with stress relief metric threaded connection.

Fiber glass polyamide

Impact & temperature resistant

Grey RAL 7035

Available in different Dimensions

PG9

PG11

PG13.5

PG 16

PG 21

PG 29

PG 36

PG 42

PG 48



Industrial Plugs & Sockets

Plugs, socket-outlets and couplers for industrial purposes .

Protection degree IP 44 complying with IEC 529 in blue for 16 A.

High impact material:IK9 mechanical protection degree according to EN 50102 standard.

Flame and fire resistance according to IEC 695-2-1 Halogen Free.

Rated voltage for 16 A 200-250 2P+E 50-60Hz.

Glow-wire test: IEC598-1

Temp .rating: 50C to 80C

Application: for industrial application machines, factories.

Red : IP 44- 32 A - 250 V - 6 H - 4P

Red : IP 44- 32 A - 250 V - 6 H - 5P

Blue: IP 44- 16 A - 250 V - 6 H - 3P



Plastic Junction Box

Connection Boxes in insulating material in a good design shape

Protection degree Complying with IEC 529 IP 44 & 54 & 67 Grey Ral 7035

High impact material:IK8 mechanical protection degree according to CEI EN 50102 standard

Flame and fire resistance according to IEC 695-2 Halogen Free

Total insulation features (CEI 64-8 EN 60439-1 CEI 17-13/1) (IEC 60309-1)

Temperature rating: - 25 C to + 80 C

Screw close cover

Glow-wire test: IEC 598-1 section (13.13.3.2)

Cable gland Pg: - 16 & 29

Sizes

310 * 230 mm (IP54)

200 * 250 mm (IP54)

200 * 148 mm (IP54)

180 * 116,5 mm (IP54)

150 * 150 mm (IP54)

100 * 100 mm (IP67)

Ø 90 (IP44)

Ø 80 (IP44)



Tube Holder

Plastic tube holder with 20 Ø

Plastic tube holder with 25 Ø

Plastic tube holder with 40 Ø

Plastic tube holder with 50 Ø



Circuit Breaker Box

Protection degree IP 40 complying with IEC 529, Grey RAL 7035

High impact material: IK8 mechanical protection degree according to CEI EN 50102 standard.

Flame and fire resistance according to IEC 695-2-1, Halogen Free

Total insulation features CEI 64-8 EN 60439-1, CEI 17-13/1 (IEC 60309-1)

Temperature rating: - 25 °C to + 80 °C

Simply close clip cover.

Glow-wire test: IEC 598-1, section (13, 13.3.2)

1-2 line surface mounted

1-2 line recessed

3-4 line surface mounted

3 line recessed

Wiring Devices

Piano

Wiring Devices

Residential and Commercial Application that can Meet All Customer Needs





On Grid System
OFF Grid System
Stand Alone
Lighting
Solar Pump

Solar Energy Products

SEGA. M Solar energy Department

- The increasing demand on electric energy grid, the need to reduce the negative environmental impact of fossil fuel generation plants and the rise of different types of electric loads in remote sites inaccessible to grid and many other factors have led to renewable energy sources as an alternate to conventional electricity generation methods
Solar energy, being the most abundant renewable energy source with high flexibility to all applications and sizes (using photo voltaic modules - PV) became a priority for Sega-M
Sega-M deployed its high expertise and manufacturing capabilities in electrical products and installations to provide various PV solutions to individuals, contractors and government institutions
- Sega-M took the initiative providing most solar energy applications :
 1. Solar-powered highway lighting poles.
 2. Solar-powered street lighting poles.
 3. Grid-tied solar energy generation units.
 4. Off-grid solar energy generation units.
 5. Solar powered water pumping units.
 6. Solar powered water desalination units.
 7. Company is ready to implement all PV projects through highly experienced partners with international quality certifications and our own plants advanced capabilities to design, supply and install systems using local products and Egyptian workforce in a percentage up to 50%
 8. Company provides maintenance contracts according to client specifications.
 9. The company is also contented to train workforce on installation and maintenance procedures.

Photos Solar Applications



Stand Alone



Landscape



On Grid , Off Grid



Stand Alone Lighting



Add - Panel



Street Lighting

Grid-tied 40kWp solar PV Plant specifications (with generation and consumption capabilities)

Description	
PV modules	
count	160
Type	Poly-Crystalline
Maximum power (Pmax) at STC	250 W
Maximum power point voltage (Vmpp) at STC	30.15 V
Maximum power point current (Imp) at STC	8.29 A
Efficiency	15.72 %
Operating temperature	(40 -) ~ (85 +) °C
Protection level	IP 65
Dimensions	1650 *992*40 MM
weight	19.5 kg

PV modules are built according to IEC standards and TUV, VDE and CE certified.

General inverter specifications

three phase, 380V, 50Hz	
count	3
Output Power	15 KW
Output current	25 A
Power Factor	0.9 leading 0.9 Lagging
Efficiency	98.2%
Dimensions	516*650*203 MM
weight	39 kg
Protection level	IP 65

- Cooling: Forced
- Communication: Bluetooth, WiFi
- Interface: LCD: 5 inch
- Operating temperature (-20 to 60 c)
- Automatic disconnect in case of grid loss.
- Built according to IEC standards, VDE and CE qualified

Conductors	
Material	Copper
Maximum current	30 AMP
Maximum voltage	1000 V
resistance	Less than 0.5 m.ohm/meter
Protection level	IP 65
Operating temperature	°C (+ 85) ~ (- 40)

Conductors are manufactured according to IEC standards and VDE,CE certified

Cables	
Insulation	Halogen - Polyolefin blocker for fires
sheath	Halogen - Polyolefin blocker for fires
maximum voltage	1000v / 600v
Degree operating temperature	°C (+ 85) ~ (- 40)

Cables are manufactured according to IEC standards and VDE,CE certified

Installation Tools

Mounting Structure

Made of anodized aluminum to withstand harsh weather conditions.

PANEL LAY OUT



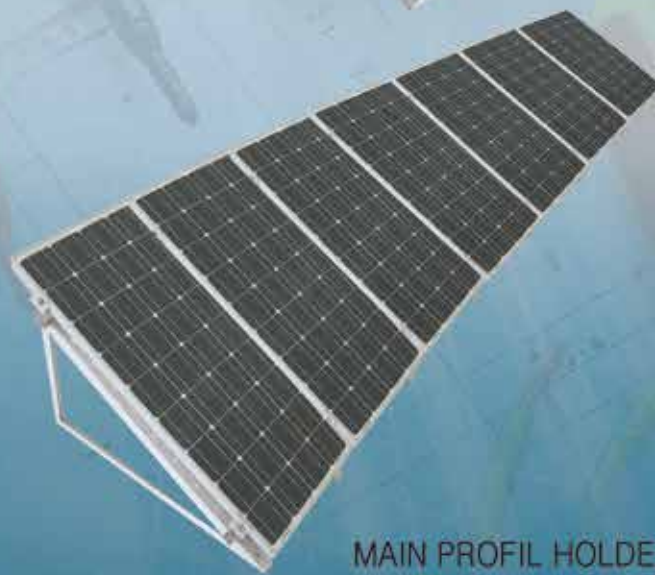
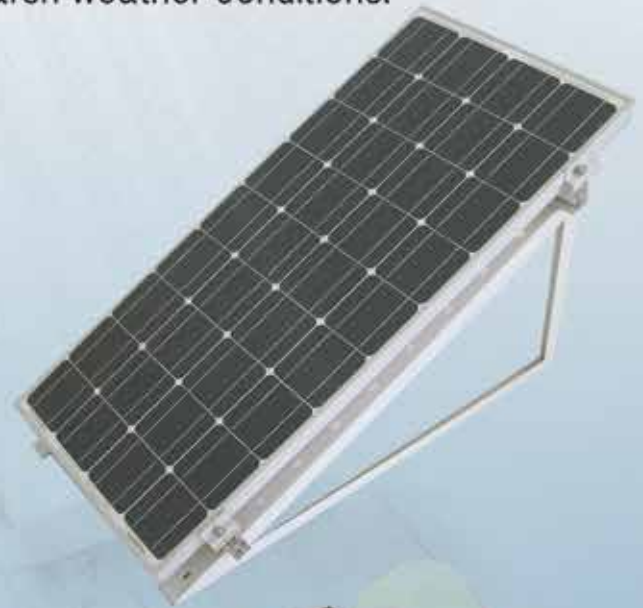
TRIANGLE MOUNT
MATERIAL : SHEET METAL
THICKNESS : 3 MM



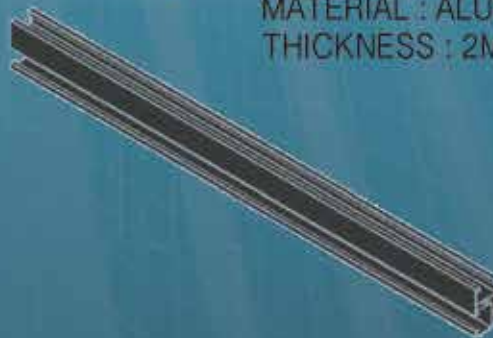
END CLAMP
MATERIAL : ALUMINUM
THICKNESS : 3MM



MID CLAMP
MATERIAL : ALUMINUM
THICKNESS : 3MM



MAIN PROFIL HOLDER SOLAR
MATERIAL : ALUMINUM
THICKNESS : 2MM



Appendix

40kW On-Grid PV Generation plant
simulation report



Grid-Connected System: Simulation parameters

Project : the ministry of electricity

Geographical Site Cairo Country Egypt

Situation Time defined as	Latitude	30.1°N	Longitude	31.2°E
	Legal Time	Time zone UT+2	Altitude	16 m
	Albedo	0.20		

Meteo data : Cairo, Synthetic Hourly data

Simulation variant : 250 W

Simulation date 23/07/13 13h20

Simulation parameters

Collector Plane Orientation Tilt 30° Azimuth 0°

Horizon Free Horizon

Near Shadings Linear shadings

PV Array Characteristics

PV module	Si-poly	Model	ZXP6-60-250/P	
		Manufacturer	ZNSHINE PV-Tech Co., Ltd.	
Number of PV modules		In series	16 modules	In parallel 10 strings
Total number of PV modules		Nb. modules	160	Unit Nom. Power 250 Wp
Array global power		Nominal (STC)	40.0 kWp	At operating cond. 35.9 kWp (50°C)
Array operating characteristics (50°C)		U mpp	442 V	I mpp 81 A
Total area		Module area	262 m²	

Inverter

		Model	GW15K-DT	
		Manufacturer	GOODWE	
Characteristics		Operating Voltage	260-850 V	Unit Nom. Power 15.0 kW AC
Inverter pack		Number of Inverter	3 units	Total Power 45.0 kW AC

PV Array loss factors

Thermal Loss factor	Uc (const)	20.0 W/m²K	Uv (wind)	0.0 W/m²K / m/s
=> Nominal Oper. Coll. Temp. (G=800 W/m², Tamb=20°C, Wind=1 m/s.)			NOCT	56 °C
Wiring Ohmic Loss	Global array res.	144 mOhm	Loss Fraction	2.3 % at STC
Module Quality Loss			Loss Fraction	0.0 %
Module Mismatch Losses			Loss Fraction	2.0 % at MPP
Incidence effect, ASHRAE parametrization	IAM =	1 - bo (1/cos i - 1)	bo Parameter	0.05

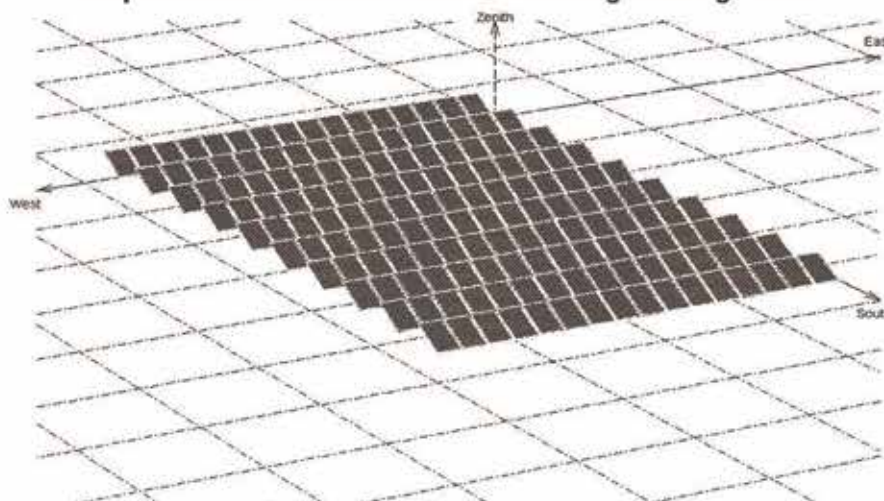
User's needs : Unlimited load (grid)

Grid-Connected System: Near shading definition

Project : the ministry of electricity
Simulation variant : 250 W

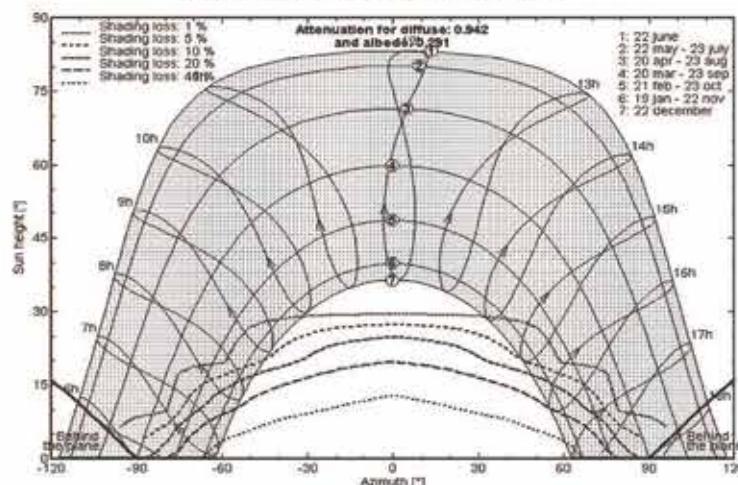
Main system parameters	System type	Grid-Connected		
Near Shadings	Linear shadings			
PV Field Orientation	tilt	30°	azimuth	0°
PV modules	Model	ZXP6-60-250/P	Pnom	250 Wp
PV Array	Nb. of modules	160	Pnom total	40.0 kWp
Inverter	Model	GW15K-DT	Pnom	15.00 kW ac
Inverter pack	Nb. of units	3.0	Pnom total	45.0 kW ac
User's needs	Unlimited load (grid)			

Perspective of the PV-field and surrounding shading scene



Iso-shadings diagram

the ministry of electricity: the ministry of electricity



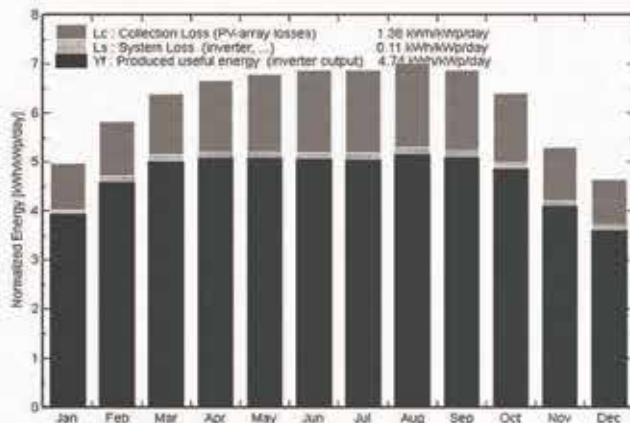
Grid-Connected System: Main results

Project : the ministry of electricity
Simulation variant : 250 W

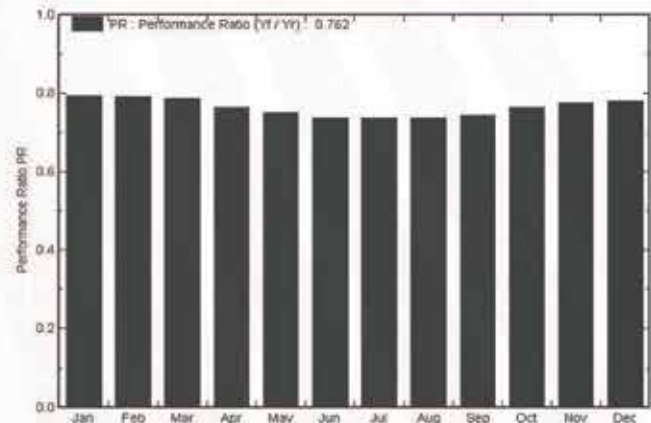
Main system parameters	System type	Grid-Connected		
Near Shadings	Linear shadings			
PV Field Orientation	tilt	30°	azimuth	0°
PV modules	Model	ZXP6-60-250/P	Pnom	250 Wp
PV Array	Nb. of modules	160	Pnom total	40.0 kWp
Inverter	Model	GW15K-DT	Pnom	15.00 kW ac
Inverter pack	Nb. of units	3.0	Pnom total	45.0 kW ac
User's needs	Unlimited load (grid)			

Main simulation results
 System Production **Produced Energy 69.2 MWh/year** Specific prod. 1729 kWh/KWp/year
 Performance Ratio PR **76.2 %**

Normalized productions (per installed kWp): Nominal power 40.0 kWp



Performance Ratio PR



250 W

Balances and main results

	GlobHor	T Amb	GlobInc	GlobEff	EArray	E_Grid	EffArrR	EffSysR
	kWh/m²	°C	kWh/m²	kWh/m²	MWh	MWh	%	%
January	106.0	14.20	154.2	143.7	5.003	4.893	12.39	12.12
February	124.0	15.10	163.0	154.5	5.277	5.164	12.36	12.10
March	172.0	17.70	198.2	188.0	6.380	6.242	12.29	12.03
April	198.0	21.60	199.8	189.2	6.251	6.115	11.95	11.69
May	232.0	24.70	210.2	198.3	6.461	6.316	11.74	11.47
June	239.0	27.40	206.3	194.3	6.231	6.088	11.53	11.27
July	242.0	28.00	213.4	201.2	6.433	6.286	11.51	11.25
August	224.0	27.70	217.5	208.2	6.580	6.418	11.52	11.27
September	189.0	26.80	206.3	196.3	6.283	6.147	11.63	11.38
October	157.0	24.00	198.4	188.7	6.191	6.060	11.92	11.67
November	113.0	19.70	159.2	148.8	5.053	4.942	12.12	11.86
December	96.0	16.00	143.9	133.1	4.600	4.495	12.21	11.93
Year	2091.0	21.94	2270.2	2143.3	70.722	69.166	11.90	11.63

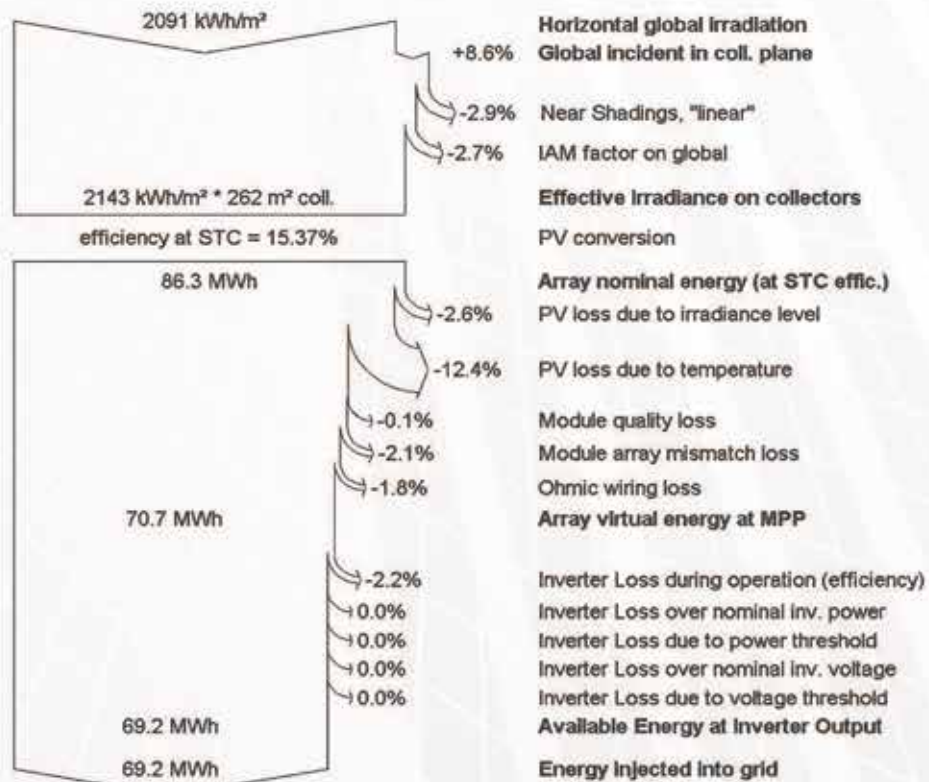
Legends: GlobHor Horizontal global irradiation
 T Amb Ambient Temperature
 GlobInc Global incident in coll. plane
 GlobEff Effective Global, corr. for IAM and shadings
 EArray Effective energy at the output of the array
 E_Grid Energy injected into grid
 EffArrR Effic. Eout array / rough area
 EffSysR Effic. Eout system / rough area

Grid-Connected System: Loss diagram

Project : the ministry of electricity
Simulation variant : 250 W

Main system parameters	System type	Grid-Connected	
Near Shadings	Linear shadings		
PV Field Orientation	tilt	30°	azimuth 0°
PV modules	Model	ZXP6-60-250/P	Pnom 250 Wp
PV Array	Nb. of modules	160	Pnom total 40.0 kWp
Inverter	Model	GW15K-DT	Pnom 15.00 kW ac
Inverter pack	Nb. of units	3.0	Pnom total 45.0 kW ac
User's needs	Unlimited load (grid)		

Loss diagram over the whole year



Solar Powered Chaise longue

Enjoy nature, Without giving up technology!

Stand -alone means freedom to choose location
With self controlled lighting, the system gives
a night light with no need to extend cables or the
fuss of operator personnel or complicated control
circuits. AC and DC capabilities provide the ability
to run your laptop, smart phone or tablet at a finger
touch .



IP 65 means safety against water spraying and dust blowing thus suitable to place in gardens, beaches or around swimming poles

Solar panels

Solar cell, also called photo voltaic cell converts solar radiation to electric energy directly. A group of cells wired together makes a module, making enough voltage for application. Mono Crystalline cells are have best efficiency .



PV

Batteries

They store energy for night use and provide a stable voltage with the varying PV voltage .
They are charged through PV modules and they power different loads through a controller .



Charger



Battery

Loads

System power a built-in light that automatically turns on with sunset and turns off with sunrise, LED Technology offers the most light for least energy. Also an inverter is equipped to power various loads according to client requirement. Also providing USB Charging port for smart phone and tablets .



Inverter



Light

Technical Specs

PV Power : 80-140 Watt peak (STC) - 17.25% efficiency
Battery : 12V 100 Ah maintenance free AGM or GEL @ 20hr
Light : 4W, 12V LED Lighting
Inverter : 220VAC output, 300Watt
USB outlet : 5V , 2A .

High-bay lighting solutions FFL100

SPECIFICATIONS

Housing: The heavy duty Aluminum housing is finished in black polyester powder coat standard .

Power Supply: Meanwell AC input IP65 for indoor and outdoor with high efficiency up to 95% .

LED Type - Cree

Rated power -100 watt

Lens - Clear glass with beam spread 140°

Reflector: Pure Aluminum finished in white polyester powder coating

Available in

WARM ● DAY LIGHT ● COOL LIGHT



High-bay lighting solutions FFL150

SPECIFICATIONS

Housing: The heavy duty Aluminum housing is finished in black polyester powder coating .

Power Supply: Meanwell AC input IP65 for indoor and outdoor with high efficiency up to 95% .

LED Type - Cree or bridge lux

Rated power -150 watt

Lens - Clear flat glass

Reflector: Pure Aluminum finished and anodized

Available in

WARM ● DAY LIGHT ● COOL LIGHT



Flood Light **FL100**

SPECIFICATIONS

Housing: The heavy duty Aluminum housing is finished in gray polyester powder coating .

Power Supply: Meanwell AC input IP65 for indoor and outdoor with high efficiency up to 95% .

LEDType - bridge lux CCT 6000⁰k

FLUX -130 - 140 lm/w

Rated power -100 watt

Lens - Clear glass with beam spread 120 .

Reflector: Pure Aluminum finished in white polyester powder coating



Street Light **STL 120**

SPECIFICATIONS

Housing: The heavy duty Aluminum housing is finished in gray polyester powder coating .

Power Supply: Meanwell AC input IP65 for indoor and outdoor with high efficiency up to 95% .

LEDType - bridge lux TC 6000k

FLUX -130 - 140 lm/w

Rated power -120 watt

Lens - Clear borosilicate glass with beam spread 160x60x20



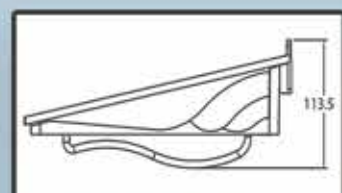
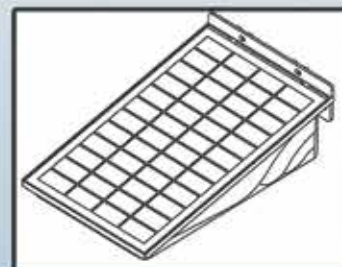
Available in

WARM ● DAY LIGHT ● COOL LIGHT



5W

Protection Degree
IP65



Features

Quick and easy installation .

No wiring, solar energy powered .

Long life LED chip , 50,000 hrs , lifetime .

Durable , weather resistant & heatproof .

Automatic switching - Auto on at sunset / auto off at sunrise .

High efficiency poly-crystalline silicon PV to charge battery
Even with cloudy weather .

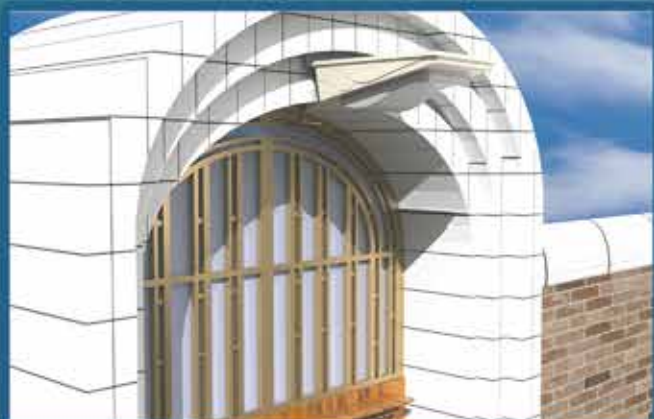
IP 65 protection degree .

SEGA.M Lighting

SOLAR WALL MOUNTED LUMINAIRE

POWER	5W PV
BATTERY	3.7 - 6Ah Lithium-ion
EFFICACY	110 lumen/watt
ENDURANCE	10 - 12 hours
DIMENSIONS	290x115x190 mm

Available in colors





Your perfect solution for indoors emergency lighting signs. High efficiency LED lighting and clear panel ensures high visibility and power saving. Adaptable base is suitable for ceiling and wall mounting. AC Powered with battery reserve to operate during power outage long enough for all kinds of emergency situations. Isolation transformer shields against voltage fluctuations.

Specifications

Body: Anodized aluminum section (also available in black and white powder coating), plastic rotary base: adaptable to ceiling and wall mounting .

Panel: Injection molded double sided acrylic panel supported by thin acrylic reflector.

Light source: Super bright LEDs (available in Green and White color).

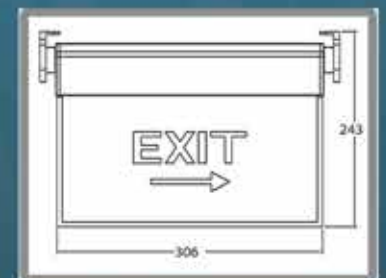
Exit Unit

Electronics Specifications

Input	220:230 VAC,50 hz.
Operation Temperature	20:35 °C
Power Consumption	1.5 watt
Battery	3.7V 18650 Li-ion battery



Available in any shape as per request



LED Grill Light 40WATT

SPECIFICATIONS

LED Type: LED strip 2835

LED Driver: External constant current driver

Input Voltage 175 - 265 VAC

Dimensions 600x600x20 mm

Color Temperature warm:3000K
Daylight:4500K
Cool:6500K

Using aluminum structure ,good appearance ,good heat dissipating capacity.

External constant current driver, high efficiency and stability.

Using SMD LEDs as light source,high efficacy, long life span, 2 years warranty.

Environment friendly, no heavy metals or harmful gas.

Energy-saving, saves 80% more than traditional fluorescent lights.

No flicker, start quickly, soft light, protect your eyes. .

Easy to install and use.



Aluminum Section Lighting

SPECIFICATIONS

Type: General Lighting

Light Source:LED-SMD

Efficacy:80 Lumen/W

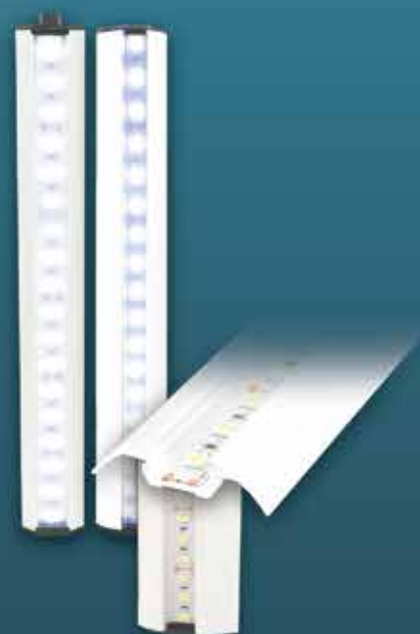
Power: 1 WATT

CCT:6500K

CRI:80

Driver:Meanwell AC Input

Body:Aluminum,Anodized or electrostatic painted



LV Projects reference short list

(A) Frame 3 projects (4000, 5000 and 6300A)

- **N**ew Saudi Embassy in Cairo
- **S**ECO factory in Badr City (Industry Segment)
- **A**cademy of Arts – Higher Institute of Arts
- **PPg** & hail in SEC- KSA (Infra Structure & Utilities Segment)
- **P**orto El Sokhna – behind towers project
- **N**ile Badrawy Hospital
- **N**etworks Drinking Water and Sanitation District Fourth and Fifth for New arabs Tower

(B) Frame 2 projects (2500 & 3200A)

- **S**amanoud Hospital
- **P**orto El Sokhna – Old Town Mall
- **M**UST Academic University Hospital
- **A**in Shams University Obour Hospital
- **A**in Shams University Eldemerdash Hospital
- **W**EPCO- Revamping of WAQ platform Elec. System Oil & gas Segment
- **N**ew Saudi Embassy Chancellery
- **A**cademy of Arts – Sayed Darwish hall
- **M**onopharma Factory in Badr City (Industry Segment)
- **O**ctober pharma factory in October City (Industry Segment)
- **T**he Liver Institute
- **P**yramid Plateau Project
- **M**akadi Village in Hurghada

- Venus ceramic factory (Industry Segment)
- Sahragat village plant Sewage Water Purification Infra Structure & Utilities Segment
- Mansoura for Resins & Chemical Industries factories (Industry Segment)
- Faculty of Commerce – Alexandria University
- Faculty of Dentistry- Ain Shams University
- Faculty of Pharmacy – Ain Shams University
- Badr University
- Ain Shams University – Campus Restaurant
- Egyptian Railways Stations Renewal (Infra Structure & Utilities Segment)
- Nasr City Public Insurance Hospital
- Telal El Sokhna

(C) Frame 1 Project (Up to 2000A

- **More** than 1000 projects in the last 5 years only, in several segments such as building and Tourism (Mivida, Marrasi, etc) Industrial (a lot of factories at all industrial cities all over Egypt) and Infrastructure Qena water treatment Station ,West Damietta Simple Cycle gas Turbine Units DBs, El Atf Pump Station , etc.....

Busway

- Jockey Factory 5000 A
- October pharma factory in October City (Industry Segment 2500 A
- National Bank of egypt 800 A
- El obour hospital 2500 A
- Childeren hospital 2500 A

Lighting Projects

- Mercedes-benz
- Dt. Greiche Glass

Projects Reference Short List

Saudi Embassy





Alexandria Cement



Mansoura Combank



Porto Sokhna

Porto Sokhna



Misr University



Al Ahram



Emac



WADI DEGLA



CREDIT AGRICOLE



Networks Drinking Water and Sanitation District Fourth and Fifth for New arabs Tower

Sega M Company is a leading partner for GE in Africa and Mildest, Due to confidence of GE on SEGA M Partner, GE give the rights to Sega M to assemble and Manufacture the latest .6400A 5000A and Technology of SEN PUS



SEGA. M Accreditation

As result of our effort to produce high quality products we have the pleasure to announce that we have obtained these Certificates

- **SIEMENS,AG** Certificates for medium voltage SIMOPRIME
- **ISO** 9001, 14001, 18001 Certificates by Tuv Nord
- **P**roducts certificates
- **E**xtra High Voltage Research Center Test Certificate for Load Center
- **Kema** Certificates for Plastic Junction Box
- **TUV** Certificates for load Counter MCCB
- **EGAC** Certificates
- **EOS** Certificates for Residention Plugs and Socket

Certificates





SIEMENS
Ingenuity for life

Certificate

SIVACON Technology Partner

siemens.com/technology-partner

Siemens Aktiengesellschaft,
hereby certifies that

SEGA M Company for Electrical Products

A3 Industrial Area, 10th of Ramadan City
Sharkia

Egypt

is a SIVACON Technology Partner.

In the context of the cooperation agreement we grant the company named above the right to manufacture and sell the SIVACON design verified low-voltage power distribution board.

The certificate is valid until: 15.10.2019

Certificate no: ID-0620*00

Leipzig, den 07/12/2018
Siemens Aktiengesellschaft



Eckhard Schönfisch

Kathleen Koch



SIEMENS

SIMOPRIME

SIMOPRIME Technology Partner

Certificate

Siemens AG,
hereby certifies that

SEGA M Company for Electrical Products

A3 Industrial Area, 10th of Ramadan City
Sharkia
Egypt

is a SIMOPRIME Technology Partner.

In the context of the cooperation agreement we grant the company named above the right to manufacture and sell the SIMOPRIME type-tested medium-voltage switchgear (7.2 - 17.5 kV). To ensure adherence to quality specifications, the corporation named above maintains a quality management system. The effectiveness of this system and adherence to contractual requirements are regularly audited and certified.

The certificate is valid until: 07/09/17

Certificate no: MV620/00

Leipzig, 17.03.2017
Siemens AG



Eckhard Schönfisch

Nadine Pürthner



siemens.com/technology-partner



CERTIFICATE of Conformity



Certificate No.: MK 69241826 0001
Test Report No.: 28213374 002
Certificate Holder: SEGA-M Company
Industrial Area A3'10th
Ramadan City
Egypt
Manufacturer: SEGA-M Company
Industrial Area A3'10th
Ramadan City
Egypt

Product: Distribution boards type FB

Identification: Type designaton:

	incoming MCCB: (busbar rating)	Number of outgoing circuits:
MFB-4250160-GE	FE 250 A	4
MFB-6250160-GE	FE 250 A	6
MFB-8250160-GE	FE 250 A	8
MFB-10250160-GE	FE 250 A	10
MFB-4400160-GE	FG 400 A	4
MFB-6400160-GE	FG 400 A	6
MFB-8400160-GE	FG 400 A	8
MFB-10400160-GE	FG 400 A	10

Type of outgoing MCCB:FD 16-160 A

Tested according to: EN 61439-2:2009

This certificate refers to the above mentioned product. This is to certify that the test sample is in conformity with the requirements stated above. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

Date of Issue:

Budapest, 2012.03.19



TÜV Rheinland InterCert Kft. – Product Certification Body – H-1132 Budapest, Váci út 48/A-B – www.tuv.hu
IT_07-D-Pe_4_0



ATTESTATION OF CONFORMITY

No. 200804-02

Issued to: URS-Egypt
4 Queen El-San el-Aghy, El-Haram
Giza
Egypt

For the product: wiring enclosure

Trade name: SEDA 33

Type/Model: P-NAE, P-SAB, P-NA-E, P-SB-12, P-SB-14, P-R-24

Range:

Manufacturer: Segs M Company electrical products
Industrial Area (AS)
P.O. BOX 12711 OF RAMADAN
EGYPT

Subject: Degree of protection test IP30C and IP20C, according to clause 9.7 of IEC 62208
Insert strength test (R25), according to clause 9.8 of IEC 62208
Dielectric tests, according to clause 8.8.3 of IEC 62208

Requirements: IEC 62208-2002

This Attestation is granted on account of an examination by KEMA, the results of which are laid down in a confidential file no. 200804-02.

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 the production with the specimen tested by KEMA is not the responsibility of KEMA.

KEMA Quality B.V.

Arnhem, October 8, 2008

P.L. Schreiner

Producten of/of diensten e.d. worden in overeenstemming met de eisen van de betreffende technische specificaties geïnspecteerd en/of getoetst op basis van een steekproef van de productie. Het is niet mogelijk om de kwaliteit van de productie te garanderen.

KEMA Quality B.V. - Utrechtseweg 310, 6812 AR Arnhem, P.O. Box 5188, 6802 ED Arnhem, The Netherlands
T +31 (0) 26 38 20 00 F +31 (0) 26 38 50 00 quality@kema.com www.kema.com Registered Arnhem 200804-02



CERTIFICATE

KEMA No.: 200802-01

Issued to: Apollon
Segs M Company electrical products
Industrial Area (AS)
100 of Ramadan City
Egypt



Manufacturer/Supplier:
Segs M Company electrical products
Industrial Area (AS)
100 of Ramadan City
Egypt

Product: Junction box with screw cover
Trade name: Segs M
Type: PR201, PR202

The product and any accessories variation hereby is specified in the Annex to this certificate and the documents therein referred to.

KEMA hereby declares that the above-mentioned product has been certified on the basis of:
- a type test according to the standard KEMA 132-1983
- an inspection of the production location according to CENELEC Operational Document OIG 021
- a certification agreement with the number 2003283

KEMA hereby grants the right to use the KEMA-KEUR certification mark.

The KEMA-KEUR certification mark may be applied to the product as specified in this certificate for the duration of the KEMA-KEUR certification agreement and under the conditions of the KEMA-KEUR certification agreement.

This certificate is issued on October 30, 2008 and expires upon withdrawal of one of the above mentioned aspects.

KEMA Quality B.V.

Arnhem, October 8, 2008

P. Nieuwe

Managing director

H.M. Barends

Certification manager

ACCREDITED BY
THE DUTCH COUNCIL
FOR ACCREDITATION

KEMA Quality B.V. - Utrechtseweg 310, 6812 AR Arnhem, P.O. Box 5188, 6802 ED Arnhem, The Netherlands
T +31 (0) 26 38 20 00 F +31 (0) 26 38 50 00 quality@kema.com www.kema.com Registered Arnhem 200804-02



CERTIFICATE

KEMA No.: 200802-02

Issued to: Apollon
Segs M Company electrical products
Industrial Area (AS)
100 of Ramadan City
Egypt



Manufacturer/Supplier:
Segs M Company electrical products
Industrial Area (AS)
100 of Ramadan City
Egypt

Product: Junction box with screw cover
Trade name: Segs M
Type: PR2003, PR2004, PR2005

The product and any accessories variation hereby is specified in the Annex to this certificate and the documents therein referred to.

KEMA hereby declares that the above-mentioned product has been certified on the basis of:
- a type test according to the standard KEMA 132-1983
- an inspection of the production location according to CENELEC Operational Document OIG 021
- a certification agreement with the number 2003283

KEMA hereby grants the right to use the KEMA-KEUR certification mark.

The KEMA-KEUR certification mark may be applied to the product as specified in this certificate for the duration of the KEMA-KEUR certification agreement and under the conditions of the KEMA-KEUR certification agreement.

This certificate is issued on October 30, 2008 and expires upon withdrawal of one of the above mentioned aspects.

KEMA Quality B.V.

Arnhem, October 8, 2008

P. Nieuwe

Managing director

H.M. Barends

Certification manager

ACCREDITED BY
THE DUTCH COUNCIL
FOR ACCREDITATION

KEMA Quality B.V. - Utrechtseweg 310, 6812 AR Arnhem, P.O. Box 5188, 6802 ED Arnhem, The Netherlands
T +31 (0) 26 38 20 00 F +31 (0) 26 38 50 00 quality@kema.com www.kema.com Registered Arnhem 200804-02



ANNEX TO KEMA-KEUR CERTIFICATE 200802-02

page 1 of 1

SPECIFICATION OF THE CERTIFIED PRODUCT

Product data
product: junction box with screw cover
trade name: Segs M
type: PR2003, PR2004, PR2005
nature of supply: surface mounting
temperature rating: -25°C up to +80°C
degree of protection: IP54
material: insulating compound

Product data - type PR2003

dimensions: 160x118x76mm
glands type: 10
number of glands: 10

Product data - type PR2004

dimension: 300x188x60mm
glands type: P205
number of glands: 12

Product data - type PR2005

dimension: 350x200x60mm
glands type: P209
number of glands: 12

TESTS

Test requirements
IEC 60574-1:2002
KEMA 132-1983 +M1-1993 +W2-1994 +W4-1997 +W6-1996

Test result
The test results are laid down in KEMA test file 2008382-03.

Conclusion
The examiner proved that all test requirements were met.

Tested by: B. Vos

Checked by: A.A. Miederbeek

Factory-Location
Segs M Company electrical products
Industrial Area (AS)
100 of Ramadan City
Egypt

KEMA Quality B.V. - Utrechtseweg 310, 6812 AR Arnhem, P.O. Box 5188, 6802 ED Arnhem, The Netherlands
T +31 (0) 26 38 20 00 F +31 (0) 26 38 50 00 quality@kema.com www.kema.com Registered Arnhem 200804-02



HELLenic ORGANIZATION FOR STANDARDIZATION S.A.

MEMBER OF ISO 9001:2000 CERTIFIED

To: SEGA.M Electrical Products Industrial Area (A3), P.O. BOX 93 19th of RAMADAN - EGYPT

Year reference: Application- 1991/2009 Our reference: 00.335/08.345/EL/vou Date: 2009-01-23

Dear Sirs,

Find attached the Test Report with ref. No: 03-00/00.335/ 2009-01-23 and the Test Results with ref. No: 00.335/ 2009-01-23, which are referred to an empty switch-gear metallic box TYPE: IP65Hw065, applied to our Laboratory for IP Testing.

According to the Test Report and Test Results, the tested item complies with the requirements of the Standard: EN 60529:1991 (incl. Corrigendum 1993)-A1:2000, regarding the degree of protection IP65.

Faithfully yours, EL0T TESTING LABORATORIES

Signature of G. Lavrentzakis

G. Lavrentzakis Head, Low Voltage Laboratory

Attached: - Test report - Test results

1/1

Contact Office: Athina, 115 27 Athens, Tel: +30210 7720 900, Fax: +30210 220 270, Web: www.eaot.gr, Email: info@eaot.gr Testing Labs: Kifissia (2nd, 104 37 Athens, Tel: +30210 5240 830, +30210 5247 1754, Fax: +30210 524 5271) Thessaloniki (Industrial Area, 556 12 Thessaloniki, Tel: +30510 798 800, Fax: +30510 797 800) Laboratory in North Coast: Industrial Area, 570 02 Saida, Thessaloniki, Tel: +30510 798 845, Fax: +30510 797 802

ELOT 0000-001-0000017-2000-07-00



HELLenic ORGANIZATION FOR STANDARDIZATION S.A.

MEMBER OF ISO 9001:2000 CERTIFIED

TESTING LABORATORIES: LOW VOLTAGE LABORATORY: Industrial Area (A3), P.O. BOX 93, 19th of RAMADAN, EGYPT. Tel: +30 210 7720 900 Fax: +30 210 220 270

ΕΚΘΕΣΗ ΑΠΟΤΥΧΩΝ (ΣΧΗΜΑ CB/CCA) TEST REPORT (CB/CCA SCHEME)

Table with 2 columns: Field (e.g., Client, Application, Specifications) and Value (e.g., SEGA.M, EN 60529:1991, Empty switch-gear metallic box)

TEST REPORT: 0000-001-0000017-2000-07-00



Αποκρίσεις: To δοκιμαστέο δείγμα συμμορφώνει τις απαιτήσεις του Προτύπου, ως προς το βαθμό προστασίας IP65.

ΣΗΜΕΙΩΣΗ: Ο βαθμός προστασίας δεν αποτελείται μόνο από τον αριθμό, που το εκθέτη αξίζει, αλλά και από τον τύπο.

Results: The tested sample complies with the requirements of the Standard, regarding the degree of protection IP65.

NOTE: The empty switch-gear is not accompanied by glands for additional safety by being installed.

Επιβλέπων: G. Lavrentzakis Head, Low Voltage Laboratory

Signature of G. Lavrentzakis



G. Lavrentzakis

Η παρούσα Έκθεση αποτελεί ανεξάρτητο έγγραφο και είναι αποκλειστικά δική του δικαιοδοσία και οι όροι της πραγματοποιήθηκαν ανεξάρτητα από/από την επιχορήγηση Έκθεσης Αποκρίσεων/Αποκρίσεων με στοιχεία 00.335/2009-01-23.

Η έκθεση που συζητήθηκε αφορά τον βαθμό προστασίας, Παρακολούθηση ή Επισκευή από τον ΚΑΤ/Α.Ε. για αποδοτικότητα προϊόντος.

Το παρόν έγγραφο δε θα αποκαταστήσει, χωρίς τη γραπτή άρνηση των Εργαστηρίων, κατά πόσο οι δείκτες μπορεί.

This Test Report applies only to the particular sample tested and the specific tests carried out are detailed in the attached Test Report, with ref. No: 00.335/2009-01-23.

The issuing of this Test Report, does not indicate any measure of Approval, Certification or Surveillance by ELOT S.A. of any product.

Reproduction of this document is allowed only in an integral form.

TEST REPORT: 0000-001-0000017-2000-07-00



ΕΛΛΗΝΙΚΟ ΟΡΓΑΝΙΣΜΟ ΤΥΠΟΠΟΙΗΣΗΣ Α.Ε.
 HELLENIC ORGANIZATION FOR STANDARDIZATION S.A.
 MEMBE ISO / MEMBER OF ISO/IEC/EN/CELEC/ETSI/AFNOR

ΑΔΕΛΦΟΙ ΚΑΡΑΪΩΝΗ
 ΤΕΧΝΙΚΑ ΕΡΓΑΣΤΗΡΙΑ
 Ε.Ο.Ν. ΠΕΤΡΕΑ ΛΑΜΙΑΣ
 Αρ. Πρωτ. 2009-01-23
 Αρ. Πρωτ. 2009-01-23
 Αρ. Πρωτ. 2009-01-23

**ΕΚΘΕΣΗ ΔΟΚΙΜΩΝ (ΣΧΗΜΑ C/B/CCA)
 TEST REPORT (CB/CCA SCHEME)**

Διεύθυνση:	1. "SEGA M" Ηλεκτρικά προϊόντα Διευρ. Πρωτ. (Α) P.O. BOX 93, 1 ^η RAMADAN-ΔΕΥΤΕΡΑ
Κλιμα:	1. "SEGA M" Electrical Products Industrial Area (A), P.O. BOX 93, 1 st RAMADAN-EGYPT
Αίτηση / Application:	1. 3402009-01-19
Προδιαγραφές / Specifications or Standards:	1. EN 60529:1991 (in cl. Corrigendum 1:1993) + A1:2000
Αποστέλλει / Item:	1. Κίβωτο μετατάξι μετρητή για ηλεκτρικούς συσσωματωμένους 2. Empty switch-gear metallic box
Χαρακτηριστικά βαθμολογίας / Rating characteristics:	1. ΤΥΠΟΣ / TYPE: B4006 ΔΕΓΡΑΣΙΑΣ ΠΡΟΣΤΑΣΙΑ: IP54
Κατασκευαστής / Importer:	1. SEGA.M
Εμπορική Ονομασία / Trade Name:	1. SEGA.M
Χώρα καταγωγής / Country of Origin:	1. ΑΡΓΥΝΙΑ 1. EGYPT

ΥΠΟ ΕΠΙΣΤΡΟΦΗΣ ΕΙΣ ΤΟΝ ΑΡΧΟΝΤΑ ΕΠΙΣΤΡΟΦΗΣ ΕΙΣ ΤΟΝ ΑΡΧΟΝΤΑ



Αποτελέσματα

1. Το δοκιμαστικό δείγμα συμμορφώνεται με τις απαιτήσεις του Προτύπου, ως προς το βαθμό προστασίας IP54.

ΣΗΜΕΙΩΣΗ:
 Ο κίβωτος πληροί τις προδιαγραφές ως προς τον βαθμό προστασίας IP54.

Αποτελέσματα

1. The tested sample **complies** with the requirements of the Standard, regarding the degree of protection IP54.

NOTE:
 The empty switch-gear is not accompanied by glands for cable-entries other by fitting facilities.

Υπεύθυνος Εργαστηρίου Διαπίκνωσης / Head, Low Voltage Laboratory

Γ. Λουρενçάκης
 G. Lourençakis



Η παρούσα Έκθεση Δοκιμών αποτελείται από μέρη στο συγκεκριμένο δείγμα και δεσμεύεται να ισχύει για το συγκεκριμένο δείγμα και να μην επεκταθεί σε άλλα δείγματα. Η έκθεση αυτή αφορά μόνο το συγκεκριμένο δείγμα με αναφορά: 00.136/2009-01-23. Η έκθεση αυτή αποτελεί μέρος, του Δελτίου Έργου, Διαπίκνωσης ή Επιστήρησης και αν ΕΛΟΤ Α.Ε. για οποιαδήποτε χρήση.

This Test Report applies only to the particular sample tested and the specific tests carried out are detailed in the attached Test Report, with ref. No: 00.136/2009-01-23. The issuing of this Test Report, does not indicate any measure of Approval, Certification or Surveillance by ELOT S.A. of any product.

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ΥΠΟ ΕΠΙΣΤΡΟΦΗΣ ΕΙΣ ΤΟΝ ΑΡΧΟΝΤΑ ΕΠΙΣΤΡΟΦΗΣ ΕΙΣ ΤΟΝ ΑΡΧΟΝΤΑ



Accreditation Certificate No. (214038A)

Arab Republic of Egypt
Egyptian Accreditation Council (EGAC)

Certifies that

SEGAM Laboratory
SEGAM Company for Electrical Products
A3 Industrial Area - 10th of Ramadan
Sharkia - Egypt

Has been accredited by EGAC in compliance with the requirements of
ISO/IEC 17025:2005

In coating thickness measurement
and evaluation of the degree of protection for electrical equipments
The scope of accreditation is described in the attached schedule No. (214038)
scope issue No. (1)

Issue No. (1): August 14, 2014

Valid for August 13, 2018

Subject to continued compliance to the above standard
and the requirements of EGAC

EGAC is an ILAC-MRA signatory in the field of Calibration and Testing Labs accreditation

Hany El-Desouki
EGAC Executive Director



Mounir Fakhey Abdel Nour
Chairman of EGAC
Minister of Industry, Trade and Small &
Medium Enterprises

شهادة اعتماد رقم (٢١٤٠٣٠٢)



جمهورية مصر العربية
المجلس الوطني للاقتصاد (إيساك)

يشهد بأن

معمل سيجا.ام
شركة سيجا.ام للمنتجات الكهربائية
١٣ المنطقة الصناعية - العاشر من رمضان
الشرقية - مصر

قد حصل على اعتماد المجلس حيث تم تقييمه طبقاً للمواصفة الدولية

ISO/IEC 17025:2005

في قياس سمك طبقة الطلاء وتقييم درجة العزل للأجهزة الكهربائية
والمواصفة بالبيان المرفق رقم (٢١٤٠٣٠٢)
رقم إصدار المجال (١)

إصدار رقم (١) : ١٤ أغسطس ٢٠١٤ - صالحة حتى: ١٣ أغسطس ٢٠١٨

شرط الحفاظ على التوافق مع المواصفات وأعلام والمنظمات الخاصة بالمجلس

والمجلس الوطني للاقتصاد موقع على اتفاقية الاعتراف المتبادل مع منظمة التعاون الدولي لاقتصاد الأعمال (ILAC)
في مجال اعتماد معامل المعايرة والاصحار

مدير تقوى عبد القادر
رئيس المجلس
وزير الصناعة والتجارة
والشروعات الصغيرة والمتوسطة



عائز النوراني
المدير التنفيذي للمجلس

أمر رقم ١٤٤٧
تاريخ ١٤٤٧/١٠/١٠
مجلس إدارة الشركة القابضة للكهرباء بمصر

السند / الشركة العربية العملاقة للصناعات الكهربائية
٢٠ من المنشط الزراعي - العجوزة - الجزء - أ / ١٤٤٧/٢٢

لجنة عليا ... و بعد ...
بالإشارة إلى كتاب سؤلكم بتاريخ ١١/١٠/٢٠١٧ بشأن طلب إنشاء سفينة كهربوز
تلكلية "Eco-boat" جوده منطخلن ٥٠٠ فولت سعة ١٢٠٠ أمبير طرف (3) سعة
شركة Procelec الألمانية.
لتراف بالإضافة بأن اللجنة المتخصصة بمراجعة المواصفات الفنية والتقارير الاختبارية
ومعدلة عينا الصيغة الخاصة له تحت الترقوا في حيا للضموس وقد انتهى إلى ما يلي :-
- قول سفينة القورز تلكلية جوده منطخلن ٥٠٠ فولت - سعة ١٢٠٠ أمبير طرف (3) NED
من فئة (22٥) A) سعة شركة Procelec الألمانية
- ضرورة إتمام الشركة العربية العملاقة للصناعات الكهربائية بتفصيل كافة المتطلبات
والمواصفات الفنية التي تلتزم بها تركات الكهرباء التامة

ولفتوا ويكون لقب القرار ...
رئيس مجلس الإدارة
مهندس / جابر سمواي مصطفى "

١٦٤
٦٢

السند / شركة سيجنا أم
١١ من نو بار الصديق - ميدان طير - مصر الجديدة - القاهرة - ق / ٢٢/١٤٤٧

لجنة عليا ... و بعد ...
بالإشارة إلى كتاب سؤلكم بتاريخ ٢٠/١٢/٢٠١٧ بشأن طلب إنشاء
لوحة جوده منطخلن إلتاح التركام بطرح عرضي ٢٠٠٠ أمبير - ١٠٠٠ أمبير
التربة، بالإضافة بأن اللجنة المتخصصة بمراجعة المواصفات الفنية والتقارير الاختبارية قد
انتهت الترقوا في حيا للضموس وقد انتهى إلى ما يلي :-
١- قبول لوحة الجوده المنطخلن من إلتاح شركة سيجا إرسعة كلفه ٢٠٠٠ أمبير
شخص (MDD2000MGE) بسعة ١٠٠٠ أمبير
(MDD1000MGE)
٢- ضرورة إتمام الشركة بتفصيل كافة المتطلبات الفنية بمطابقة التربة والمواصفات
التي تطرح بالإضافة لتركات الكهرباء التامة

رئيس مجلس الإدارة
مهندس / جابر سمواي مصطفى "

تقرير اختبار
رقم التقرير : (٢٠١٧ / ٤)

المختبر : شركة سيجنا أم منتجات كهربوية
تاريخ التقرير : ٢٠١٧ / ٤ / ٢٠
مكان الاختبار : مركز إلتاح الجوده
كود داخلي : TOAC-12-02-13-01
المنتجات : أجزاء الاختبار اللازمة طبق المواصفات القياسية العالمية
الهدف : جوده منطخلن - سعة ١٠٠٠ أمبير - طرف : (MDD2000MGE) - إلتاح سيجنا أم للمنتجات الكهربوية
التيكاز جوده الاختبار : اختبار جوده عيانت الاختبار تحت سيطرة الصعل

المواصفات القياسية العالمية المستخدمة :
IEC 60439-1: Low-voltage switchgear and controlgear assemblies-part1 approved and partially open-closed assemblies.
الاختبارات :
١- القصد التقاري، ويحسب الإلتاح
٢- التيكاز الإلتاح في درجة الحرارة
٣- التحليل من خصائص القورل بأجراء الاختبارين الآتيين :
٢.٢ التيكاز الجوده المتكرر جوده قور ٣.٥ طرف - إلتاح ١٠٠٠ أمبير
٢.٣ التيكاز الجوده المتكرر بتكثيل جوده قور ٧ طرف - إلتاح ١٠٠ أمبير ثقلية
٤- التيكاز التشكيل الميكانيكي

معدات الاختبار :
١- معول التيار ١٠٠٠ أمبير - ١٢٠ أمبير - طرف : (VT111E) ورقم مسلسل : J57064
٢- معولتي جوده ١٠ طرف - طرف : (UTZ1) - برقم : (55929130) - 65-592907

طريقة الاختبار والاختبارات
١- القصد التقاري، ويحسب الإلتاح

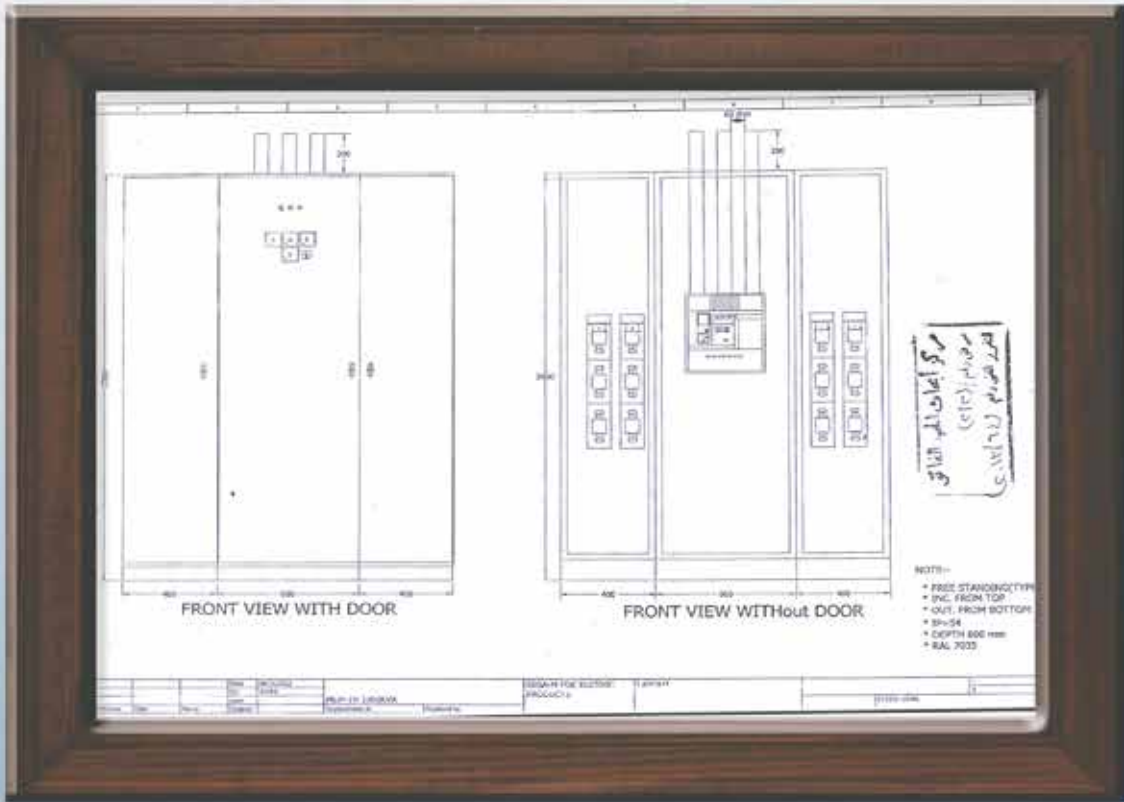
الكهربوية سعة ١٠٠٠ أمبير - ١٠٠٠ أمبير - طرف : (MDD2000MGE) - إلتاح سيجنا أم للمنتجات الكهربوية
١- كلفه إلتاح جوهاني ١٠٠٠ أمبير - طرف : (MDD2000MGE) - إلتاح سيجنا أم للمنتجات الكهربوية
٢- كلفه إلتاح جوهاني ١٠٠٠ أمبير - طرف : (MDD2000MGE) - إلتاح سيجنا أم للمنتجات الكهربوية
٣- كلفه إلتاح جوهاني ١٠٠٠ أمبير - طرف : (MDD2000MGE) - إلتاح سيجنا أم للمنتجات الكهربوية
٤- كلفه إلتاح جوهاني ١٠٠٠ أمبير - طرف : (MDD2000MGE) - إلتاح سيجنا أم للمنتجات الكهربوية

الاختبارات في درجة الحرارة :
١- إجراء الاختبار طبقا لمتطلب (2.2.2) من المواصفة القياسية العالمية (IEC 60439-1) وإتمام اختبار العزل
التيكاز (١٠٠٠ أمبير) حتى حدوث التران حراري بحيث لا يزيد أعلى فوق لدرجة الحرارة عن ٧٠ °م لا تفراف
التوصيل (القياس)
٢- اختبار قورمسة الاختبار - حيث تحت القصد إلتاح لدرجة الحرارة (١٠٠ °م) عند لوجة حرارة الإلتاح (٢٠ °م)

التحقق من خصائص الصلابة واختبار الصلابة الجوده :
١-٢ اختبار جوده الصلابة بجوده المتكرر ٥٠ ذات طبقا لمتطلب رقم (2.2.2) من المواصفة القياسية العالمية
IEC 60439-1 وذلك بتطبيق جوده قور ٣.٥ طرف - إلتاح ١٠٠٠ أمبير
٢- اختبار قورمسة الاختبار الجوده المتكرر عند جوده قورمسة الاختبار الجوده المتكرر
٣-٢ اختبار جوده الصلابة بجوده المتكرر ٥٠ ذات طبقا لمتطلب رقم (2.2.2) من المواصفة القياسية العالمية
IEC 60439-1 وذلك بتطبيق جوده قور ٧ طرف - إلتاح ١٠٠ أمبير
٤- اختبار قورمسة الاختبار الجوده المتكرر عند جوده قورمسة الاختبار الجوده المتكرر - إلتاح ١٠٠ أمبير

الاختبار التشكيل الميكانيكي :
١- إجراء الاختبار طبقا لمتطلب رقم (2.2.2) من المواصفة القياسية العالمية (IEC 60439-1) وذلك بإجراء
الهدف (٢٠ °م) قور و نقل القياس
٢- اختبار قورمسة الاختبار وذلك بدون حدوث التران الحادة لتفصيل القصد

الخلاصة :
المنتجات لوجة الجوده المنطخلن طرف : (MDD2000MGE) - سعة ١٠٠٠ أمبير إلتاح شركة سيجنا أم
مطابقة كيرمالية - الاختبارات المتكررة بوجه التقرير وعلى الجوده المستخدمة لذلك من أجزاء باقي الاختبارات
الضموس عليها بالمواصفات القياسية العالمية والتركيب وكذا كلفة بوجه التقرير وهي :
١- اختبار جوده الصلابة
٢- اختبار جوده الصلابة



التقرير الفني
رقم التقرير : (٢٠١٤/١٢)

المستخلص

• تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-1) من المرفق الثاني
 • تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-2) من المرفق الثالث
 • تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-3) من المرفق الرابع

البيانات الفنية المستخدمة

• IEC 60439-1: Low-voltage switchgear and controlgear assemblies (part 1) type-tested and partially type-tested assemblies.
 • IEC 60439-2: Low-voltage switchgear and controlgear assemblies (part 2) type-tested and partially type-tested assemblies.
 • IEC 60439-3: Low-voltage switchgear and controlgear assemblies (part 3) type-tested and partially type-tested assemblies.

ملاحظات الاختبار

١- تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-1) من المرفق الثاني
 ٢- تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-2) من المرفق الثالث
 ٣- تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-3) من المرفق الرابع

طريقة ونتائج الاختبار

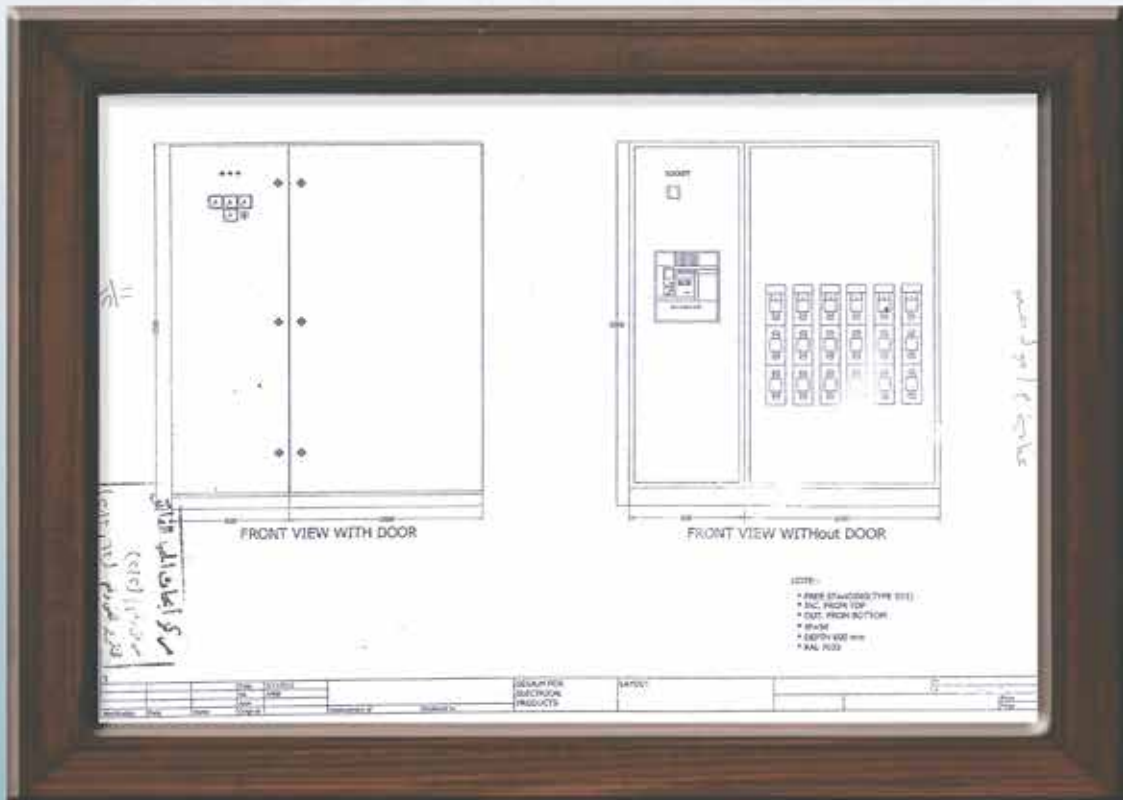
• تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-1) من المرفق الثاني
 • تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-2) من المرفق الثالث
 • تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-3) من المرفق الرابع

البيانات الفنية المستخدمة

• IEC 60439-1: Low-voltage switchgear and controlgear assemblies (part 1) type-tested and partially type-tested assemblies.
 • IEC 60439-2: Low-voltage switchgear and controlgear assemblies (part 2) type-tested and partially type-tested assemblies.
 • IEC 60439-3: Low-voltage switchgear and controlgear assemblies (part 3) type-tested and partially type-tested assemblies.

ملاحظات الاختبار

١- تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-1) من المرفق الثاني
 ٢- تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-2) من المرفق الثالث
 ٣- تم إجراء الاختبار طبقاً لمتطلبات المواصفة القياسية العالمية (IEC 60439-3) من المرفق الرابع



GINDRE DUCHAVANY

INSPECTION CERTIFICATE 3.1 EN 10204		Date: 24/09/2015	
		Nr : RCF155077-0	
SEGA-M INDUSTRIAL AREA A3 . 10TH OF RAMADAN CITY EGYPTE	Our Order Nr :	Order Qty :	
	GD044633*5 - F471761	1500 KG	
		Your Order Nr: MAIL 17.08.15	
LENGTH 4000 MIN 4000 MAX 4100 EN 13801 CAISSE MARITIME AV PLAST SS PAPIER MAX QTY/PACK : 1300 KG			
EN 13801	CUA1 H12 100X10 AV BARRE		
Drawing Nr :	CW004A/CuA1/E-Cu57/C101/_/C11000		
Your item Ref :			
Parameters	Min	Max	Values
WIDTH	99.7	100.3	100.04 mm
THICKNESS	9.85	10.15	9.98 mm
CONDUCTIVITY	57		58.26 MS/m
HARDNESS HB 2.5/62.5	65	90	84.9
CHEMICAL COMPOSITION			CU(+Ag)>99.90%
WEIGHT CONTROLLED (KG)			1 589.00
This certificate is generated automatically and valid without personal sign We hereby certify that the material described above complies with terms of the order contract			
Certificat ISO 9001	Page: 1/1		Quality ASSURANCE D.
INTERTEK 200207468			PEDRO Jean Paul

31, Rue Giffard - B.P.23 - 38231 PONT DE CHERUY FRANCE. Tél.: 04 72 46 09 00 FAX: 04 78 32 66 65 TELEX 370 871
S.A. au capital de 8 568 300 Euro - R.C. Lyon B 955 508 817 - SIRET 955 508 817 00074 - Cod



شهادة تقدير

غرفة الصناعات الهندسية

تتقدم غرفة الصناعات الهندسية بمطيم الشكر والتقدير

للسادة / شركة سيجا ام للمنتجات الكهربائية

معرض صناعات مصر في حب مصر / وذلك للمشاركة المميزة في

خلال الفترة / ٢٣ : ٢٦ يناير ٢٠١٢

وهذه شهادة شكر وتقدير منا بذلك

رئيس مجلس الإدارة

مهندس / حمدى عبد العزيز

القاهرة في ٢٠١٢/٢/١

رئيس لجنة المعارض

مهندس / مصطفى عبد



شهادة تأهيل

تاريخ إصدار الشهادة : ٢٠١٤/١١/١٠

شهادة تأهيل رقم (٥)

تشهد هيئة تنمية واستخدام الطاقة الجديدة والمتجددة بأن شركة (Sega - M) سجل تجاري (٣٦٥٧) مؤهلة للعمل في مجال توريد وتركيب وتشغيل وصيانة وربط أنظمة الخلايا الشمسية أعلى الأسطح المرتبطة بالشبكة الكهربائية العامة، حيث تقوم الشركة بأداء الأعمال التالية للعملاء:-

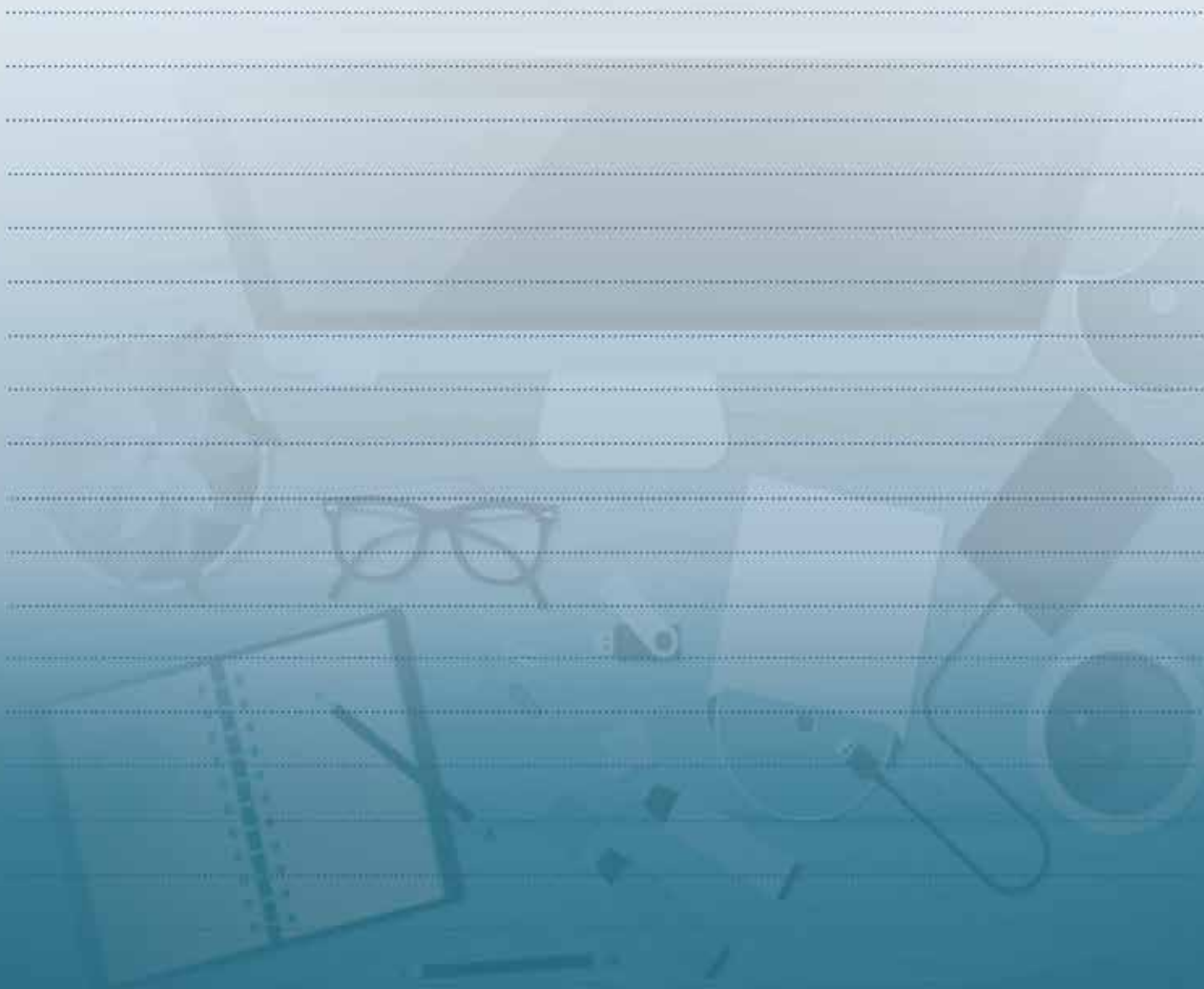
- ١- تقديم عرض يتضمن المواصفات الفنية والقياسية لمكونات نظام الخلايا الشمسية .
 - ٢- إبرام العقد بين العميل والشركة.
 - ٣- الحصول على الموافقات اللازمة من شركة توزيع الكهرباء طبقاً للمتطلبات الفنية والقواعد التنظيمية الصادرة في هذا الشأن .
 - ٤- تنفيذ أعمال التركيبات المطلوبة طبقاً للقواعد المهنية والمعايير واللوائح التنظيمية المطبقة في هذا الشأن.
 - ٥- تشغيل واختبار جميع المعدات وتسليم نظم الخلايا الشمسية في حضور: كل من العميل ومدرب شركة الترخيص مع تسليم العميل جميع الرسومات والكتالوجات الخاصة بالمعدات بالإضافة إلى كتالوجات الصيانة موضحاً بها شرح وافى لأعمال الصيانة الدورية والوقائية ، وايضا جميع النشرات والمستندات المتعلقة بشروط ضمان وصيانة المعدات والمحافظة عليها.
 - ٦- وضع تعليمات الأمان على المعدات والتجهيزات مع تدريب العاملين على إجراءات التدخل وتأمين نظام الخلايا الشمسية .
 - ٧- تقديم مشروع عقد صيانة فيما بعد إنتهاء فترة الضمان الكلية لنظام الخلايا الشمسية للعميل في حالة طلبه ذلك.
 - ٨- القيام بالإصلاحات الضرورية طبقاً للتعاقد المبرم بين العميل والشركة.
- مدة التأهيل ثلاث سنوات سارية من ٢٠١٤/١١/١٠ إلى ٢٠١٧/١١/٠٩
- للهيئة الحق في إلغاء هذه الشهادة إذا حدثت مخالفات تتفق وما جاء في البند الخامس الوارد في إشتراطات التأهيل .

وهذه شهادة من الهيئة بذلك دون أي مسؤولية عليها قبل الغير

الرئيس التنفيذي
دكتور / محمد صلاح المسبكي



NOTES





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