42-SDMS-01

REV. 06

SPECIFICATION

FOR

FIBERGLASS REINFORCED POLYESTER

METERBOXES

Recommended by:

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42-SDMS-01

REV. 06

SPECIFICATION

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FIBERGLASS REINFORCED POLYESTER

METERBOXES

No.	Name	Department / Sector	Signature	Date
1	Mofeed M.Almajed	Dept. - EOA		10/11/2021
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Revision History

#	Date	Revision No.	Major Revision Description
1	September, 2021	6	update international Standard
2			Add mechanical protection index of at least IK 09
3			Remove Bill Pocket
4			Modified meter window to be easily opened from the front cover
5			Modified box 200A to be 200/250A
6			Add new table (meter boxes incoming terminal block summarized)
7			Add lugs for power terminal incomer and consumer outgoing to be provided by the manufacturer
8			Modified the current rating of outgoing consumer terminal block for 200/250 Amps CT meter box, to be 250A instead of 200A
9			Update test requirement

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1. SCOPE

This specification describes the minimum technical requirement for design, materials, manufacture, testing, performance and supply of fiberglass reinforced polyester meterboxes to be used for Kilo-Watthour (KWH) meters in the distribution system of Saudi Electricity Company (SEC).

These meterboxes are to be installed outdoor and indoor (the meter rooms) on the surface of masonry walls with external support, or recessed into the walls. The internal wiring, supports for Kilo-Watthour meters and circuit breakers, earthing and bonding, terminal blocks and cable clamps are to be supplied and fixed by the manufacturer. The molded case circuit breakers (MCCB's), KWH meters and low voltage (LV) current transformers will be supplied and installed by SEC.

2. CROSS REFERENCE

2.1 The technical requirements of KWH Meter, MCCB, and Low-Voltage Power and Control cables that shall be respectively installed inside the meterboxes shall comply on the latest revisions of the following specifications:

SN	SPECIFICATION	TITLE
1	11-SDMS-01	Specifications for Low-Voltage Power and Control Cables
2	12-SDMS-02	Specifications for Lugs and Connectors for MV/LV Distribution System
3	37-SDMS-01	Specifications for Low-Voltage Molded Case Circuit Breakers for Service Connections
4	40-SDMS-01	Specifications for Bottom Connected Kilo-Watthour Meters
5	40-SDMS-02A	Specifications for Electronic Revenue CT and CT-VT Meters
6	40-SDMS-02B	Specifications for Electronic Revenue Whole Current Meter

Table 1: Applicable SEC SPECIFICATION

2.2 This specification shall be read in conjunction with SEC specification 01-SDMS-01 (latest revision) titled "General Requirement for all Equipment/ Materials", which shall be considered as an integral part of this specification.

2.3 This specification shall be read in conjunction with SEC purchase order, as applicable.

3. APPLICABLE CODES & STANDARDS

The latest revision of the following codes and standards shall be applicable to the equipment/material covered by this specification. In case of any deviation, the manufacturer/vendor may propose equipment/material conforming to alternate codes or standards. However, the provision of SEC standards shall supersede the provisions of these standards in case of any conflict.

STANDARD	TITLE
SASO 775	Fiberglass Reinforced Polyester Meterboxes
SASO 774	Methods of Testing Fiberglass Reinforced Polyester Meterboxes
IEC 60529	Degrees of Protection Provided by Enclosures (IP Code)
IEC 60947-7-1	Low-Voltage Switchgear and Controlgear – Part 7-1: Ancillary Equipment – Terminal Blocks for Copper Conductors
IEC 61439-1	Low-voltage switchgear and controlgear assemblies - Part 1: General rules
IEC 61140	Protection against electric shock – Common aspects for installations and equipment
IEC 60068-2-75	Environmental testing - Part 2-75: Tests - Test Eh: Hammer tests
ASTM A153	Standard Specification for Zinc Coating (Hot Dip) on Iron and Steel Hardware
DIN 53452	Testing of Plastics, Flexural Test
DIN 53453	Testing of Plastics, Impact Flexural Test
DIN 53458	Determination of Dimensions
DIN 53472	Absorption of Water
DIN 53480	Tracking Resistance Test
DIN 53482	Measurement of the Electrical Resistance of Non-Metallic Materials
DIN 53388	Exposure to Daylight Under Glass Test
DIN 65382	Tensile Test of Impregnated Yarn Test Specimens

Table 2: Applicable Codes and standards.

In case of any deviation from the listed standards, it should be indicated in the list of deviations submitted by the supplier.

4. SERVICE CONDITIONS

4.1 Meterboxes shall be suitable for operation under the service conditions as per latest revision of SEC General Specification No. 01-SDMS-01.

4.2 The outdoor cabinets with all accessories and fittings shall withstand the effect of direct solar radiation at their installed locations. The temperature of exposed surfaces shall be regarded as 75°C plus the effect of internal heating.

5. SYSTEM CONDITIONS

The meterboxes shall be suitable for installation in a system of the given characteristics:

Frequency	60 Hertz
No. of Phases	3
No. of Wires	4
Voltage	127/220 ±5% 230/400 ±5%
Neutral	Solidly Grounded

Table 3: System characteristics.

However, for detailed systems conditions refer to the latest revision of SEC specification 01-SDMS-01.

6. CLASSIFICATION OF METERBOXES

The meterboxes under the following classification shall be supplied completely wired and ready for use:

SN	DESCRIPTION	DRAWING
1	Single Meterbox for 1-Consumer, Indoor & Outdoor, 1-Whole Current KWH Meter rated up to 150A	SEC/MB-1 (A & B)
2	Double Meterbox for 2-Consumers, Indoor & Outdoor, 2-Whole Current KWH Meters each rated up to 150A	SEC/MB-2 (A & B)

SN	DESCRIPTION	DRAWING
3	Quadruple Meterbox for 4-Consumers, Indoor & Outdoor, 4-Whole Current KWH Meters each rated up to 150A	SEC/MB-3 (A & B)
4	CT Meterbox for 1-Consumer, Indoor & Outdoor, rated 200/250A	SEC/MB-5
5	CT Meterbox for 1-Consumer, Indoor & Outdoor, rated 300/400A	SEC/MB-6
6	CT Meterbox for 1-Consumer, Indoor & Outdoor, rated 500/600A	SEC/MB-7
7	Remote Meterbox for Bulk Consumers	SEC/MB-4

Table 4: Meter boxes classification.

7. MATERIAL DESIGN AND CONSTRUCTION

7.1 Enclosure

The body and cover of the meterboxes shall be made of non-flammable, impact proof, heat resistant, self-extinguishing, hot molded, fiberglass reinforced polyester with at least 25% of fiberglass by weight. It shall be ultraviolet resistant to prevent surface degradation, non-hygroscopic and insulating. The minimum overall thickness is 3.0 mm. However, the sections to where the hinges and lever (cover-stay) are to be affixed shall have an increased thickness of 6.0mm ±1.

7.1.1 The meterboxes shall have an adequate mechanical strength to withstand rough-handling as may be expected in normal uses.

7.1.2 The meterboxes shall be protected by using UV stabilizing material or coating to protect the box against the effect of solar radiation and surface deterioration.

7.1.3 All ferrous fasteners used in outdoor meter boxes that are exposed shall be made of stainless steel.

7.1.4 The degree of protection for meter boxes shall be IP54 as per IEC 60529.

7.1.5 Must have a mechanical protection index of at least IK 09, a requirement to be verified by performing the "external mechanical impact – IK" type test as per IEC 61439-1.

7.1.6 The meter boxes shall be vermin, dust and weatherproof with sloping roof.

7.1.7 The cover shall be fixed on the top of the boxes by stainless steel hinges and shall be equipped with stainless steel lever (cover-stay) of adequate size, which will permit to hold the cover in the open position. Stainless steel locking provisions shall also be provided to fix SEC sealing/locking facilities. Galvanized steel fasteners, i.e. bolts, nylon ring nuts, washers, and stainless steel plates, shall be used for mounting the hinges and assembly of the lever (cover-stay).

7.1.8 4.0mm diameter holes for fixing the source of supply number plates (30mm x 80mm), consumer number plates (30mm x 80mm), and CT meter ID tag (30mm x 80mm) shall be provided as indicated in the drawings: SEC/MB-01, SEC/MB-02, SEC/MB-03, SEC/MB-04, SEC/MB-05, SEC/MB-06 and SEC/MB-07.

7.1.9 Single and remote meterboxes shall be fitted with three fixing brackets while all other meterboxes shall be fitted with four fixing brackets for stand-off wall mounting as per drawings: SEC/MB-01, SEC/MB-02, SEC/MB-03, SEC/MB-04, SEC/MB-05, SEC/MB-06 and SEC/MB-07.

7.1.10 The design and construction of the meterboxes shall guarantee the safety of personnel against electrical shocks and satisfactory performance at rated current without exceeding permissible temperature-rise within the enclosure.

7.1.11 All meterboxes having the original color of the SMC, i.e. light gray RAL 7035, shall have a smooth outer finish, free from cracks and molding imperfections.

7.1.12 SEC monogram shall be molded on the front side of the meter box cover.

7.1.13 A danger sign plate per Figure-49A of 20-SDMS-02 (latest revision) shall be provided.

7.2 Meter Window and Protective Cover

The meter window shall be U.V. resistant, unbreakable, transparent, minimum 2.0 mm thick, heat resistant, non-hygroscopic insulating, polycarbonate (Lexan 143-R or better). It shall be top hinged easily opened from the front cover and replaceable from inside. The meter window shall be fully covered to protect against sunshine by a separable movable flap cover top hinged and bottom latchable made of the same material as of the boxes. The hinges shall be made of durable material.

7.3 Breaker Window

The breaker window shall be same as meter window, but it shall be top hinged and bottom fastening with sealable retaining type M4 screws, and replaceable from inside.

7.4 Cable Bushing and Cable Clamp

7.4.1 Cable bushings shall be dust, temper and temperature proof, UV stabilized rigid PVC and provided in the base of the meterboxes to accommodate 50 mm inside diameter conduit for single meter box only, and up to 80 mm inside diameter for the rest of meter boxes.

7.4.2 Stainless steel cable clamp fittings 2.0 mm thick with 2.0 mm thick rubber sleeves or heat-shrink tubes shall be provided inside the box to support the incoming and outgoing conduits up to 70 mm. Cable entry plate shall not be removable unless door is opened.

7.4.3 Cable side opening with sealed cable bushings for direct coupling of meterboxes shall be provided near the bottom of the lateral sides of the box, one on each side.

7.5 Breakers and Meter Mounting Rails

Hot-dip galvanized steel rails equipped with adjustable sliding spring-loaded steel nuts size M4, suitable for a range of MCCBs and KWH meters of various sizes, shall be provided.

7.6 Internal Wiring

7.6.1 The manufacturer shall carry out internal wiring and supply the meterboxes ready for use. All cables shall be single core 750 volts, insulated as per latest revision of SEC specification No. 11-SDMS-01, and supported by clamps or ties, stripped to fit in the terminals of the equipment to be installed by SEC, such as, meters, circuit breakers, etc. The rated temperature of internal wiring shall be 90 °C.

7.6.2 The internal wiring shall be insulated as per SEC specification No. 11-SDMS-01 latest revision, the sizes of these wiring shall be as follows:

- 35 mm² soft drawn copper for single, double and quadruple meter boxes
- 120 mm² soft drawn copper for 200/250 Amps CT meter box
- 185 mm² soft drawn copper for 300/400 Amps CT meter box
- 240 mm² soft drawn copper for 500/600 Amps CT meter box
- 2.5 mm² soft drawn copper single strand, for remote type meter boxes

7.6.3 Number of wires to be supplied in the meter box is as follows:

a) Four wires from each incoming terminal block, three phase wires to the source side of the circuit breaker and one neutral wire to the neutral side of the KWH meter.
b) Three wires from each load side of the circuit breaker to the phase terminals of the KWH meter.
c) Four wires from each KWH meter to each consumer's terminal block.
d) The neutral and grounding of meter box and consumer shall be connected to one point. However for direct meters the neutral of consumer shall be connected to the neutral of SEC incoming source through the KWH meter.

7.6.4 The neutral of the incoming and outgoing terminal blocks shall be bonded with a conductor of rating equal to that of the internal wiring. In addition,

the cable clamps of the incoming and outgoing cables and any exposed metal works shall be bonded to the neutral with 10 mm² insulated copper conductor.

7.6.5 Provision shall be made also for connecting an earth electrode externally to the meter box.

7.7 Test Terminal Block

7.7.1 CT meter boxes and remote meter box shall be equipped with test terminal blocks for current and voltage circuits and wired on the outgoing poles to meter terminals with numbered and color coded cables.

7.7.2 It shall consist of (12) terminal safety test devices for use with metering current transformers and voltage circuits. (12) Poles (three voltages, three neutral and six current) with test jack, current element short circuiting, voltage measuring and voltage disconnecting facilities without disturbing in and out wires from this device. Terminal arrangement shall be as per Drawing No: SEC/MB-04.

7.7.3 The connection shall not be braided or soldered. Wiring shall be of 2.5mm² and shall be identified by colors and numbers.

7.8 Power Terminal Blocks

All incoming and outgoing termination from the terminal blocks shall be connected with lugs except for the outgoing consumer terminal blocks for single meter box.

The incoming and the outgoing terminal blocks shall be suitably designed for easy connection for bottom entry of 4-core copper/aluminum XLPE cables. Separate neutral terminal block shall be provided for connection of neutral conductors. Terminals shall be protected against accidental short circuit. Dangers of loose connections and overheating of terminals due to vibration or unscrew shall not be permitted.

Incoming and outgoing terminal blocks shall be provided with phase barriers and removable and sealable covers of insulated material. The covers shall not be interchangeable and shall bear the marking “SEC Terminals” and “Customer Terminals”.

7.8.1 Incoming Terminal Blocks

7.8.1.1 Incoming terminal blocks shall be bolted-type made of tin plated copper/bronze or brass with fixed-head/stud bolt, nylon ring hex-nut, flat washer, and lock washer sized according to palm-hole diameter of applicable size of cable lugs. Terminals shall be front mounted and removable. The minimum thickness of tin plating shall be 20 µm.

7.8.1.2 For single meter box, the incoming terminal block shall be designed for continuous current rating of 200 Amps and shall be suitable for fixing two separate cables up to 4x70 mm² aluminum each with the use of cable lugs. The outgoing side of it must be capable of accepting 35 mm² copper, single core wires per phase, as per Drawing No: SEC/MB-09.

7.8.1.3 For double meter box, the incoming terminal block shall be designed for continuous current rating of 300 Amps and shall be suitable for fixing two separate cables up to 4x185 mm² aluminum each with the use of cable lugs. The outgoing sides of it must be capable of accepting two separate 35 mm² copper, single core wires per phase with the use of cable lugs.

7.8.1.4 For quadruple meter box, the incoming terminal block shall be provided with removable solid copper links inserted in the bases rated 400 Amps. Those Links bases shall be DIN standard, type size two (2) with non-flammable interphase barriers and cover. The base shall be suitable for fixing two separate cables of size up to 4x300 mm² aluminum with the use of cable lugs.

The outgoing sides of this must be capable of accepting four separate 35 mm² copper, single core wires per phase with the use of cable lugs.

7.8.1.5 For 200/250 Amps CT meter box, a separate incoming terminal block shall be provided with a continuous current rating of 400 Amps and shall be capable for fixing two cables up to one 4x300 mm² + one 4x185 mm² separately by using cable lugs. The

outgoing side of it must be capable of accepting 120 mm² copper, single core wire per phase with the use of cable lugs in the terminal block.

7.8.1.6 For 300/400 Amps CT Meterbox, no incoming terminal block is needed since the MCCB terminals are suitable for fixing two back to back cables of sizes up to one 4x300 mm² + one 4x185 mm² with the use of cable lugs.

7.8.1.7 For 500/600 Amps CT Meterbox, no incoming terminal block is needed since the MCCB terminals are suitable for fixing two back to back cables of sizes up to 4x300 mm² with the use of cable lugs.

7.8.1.8 For both remote and CT meterbox, test terminal block should be designed to have a continuous current rating of 5 Amps.

7.8.1.9 All cable lugs for the incoming cables shall be supplied by meterbox manufacturer. Lugs shall be supplied as per specification No. 12-SDMS-02 Cable Lugs and Connectors latest revision.

Meter Box type	No. and type of meter	Meter CB Rating	Max size of LV Cables suitable for the incoming terminals	Continues current rating
Single Meter Box	One whole current meter	Rated up to 150 A	Two cables up to 4x70 mm^2 Al	200 A
Double Meter Box	Two whole current meter	Each rated up to 150 A	Two cables up to 4x185 mm^2 Al	300 A
Quadruple Meter Box	Four whole current meter	Each rated up to 150 A	Two cables up to 4x300 mm^2 Al	400 A
200/250 A CT Meter Box	One CT Meter	Rated 200/250 A	Two cables up to one 4x300mm^2 + one 4x185 mm2	400 A
300/400 A CT Meter Box	One CT Meter	Rated 300/400 A	Two back to back cables of sizes up to one 4x300 mm^2 + one 4x185 mm^2	400 A
500/600 A CT Meter Box	One CT Meter	Rated 500/600 A	Two back to back cables of sizes up to 4x300 mm^2	600 A

Table 5: Meter boxes incoming terminal block summarized.

7.8.2 Outgoing Consumer Terminal Blocks

All the incoming and outgoing consumer terminal blocks shall be bolted-type with stud-bolt size according to appropriate size and material of cable lugs.

7.8.2.1 For single, double and quadruple meterboxes, each outgoing terminal block shall be designed for a continuous current rating of 150A and should be suitable for incoming cable size of 35 mm² and the outgoing consumers copper cable size of 4x50 mm² with the use of cable lugs except for the outgoing consumer terminal blocks for single meter box.

7.8.2.2 For 200/250 Amps CT meter box, the outgoing consumer terminal block shall be designed for a continuous current rating of 250 Amps and shall be suitable for incoming and outgoing copper cable sizes of 120 mm² with the use of lugs.

7.8.2.3 For 300/400 Amps Meter Box, the outgoing terminal block shall be designed for a continuous current rating of 400 Amps and shall be suitable for incoming and outgoing copper cable sizes of 185mm² with the use of cable lugs.

7.8.2.4 For 500/600 Amps Meter Box, the outgoing terminal block shall be designed for a continuous current rating of 600 Amps and shall be suitable for incoming and outgoing copper cable sizes of 240mm² with the use of cable lugs.

7.8.2.5 All cable lugs for the outgoing consumer cables shall be supplied by Meterbox manufacturer. Lugs shall be supplied as per specification No. 12-SDMS-02 Cable Lugs and Connectors latest revision.

8. TESTING

8.1 One (1) meterbox of each class shall be type tested in an independent testing laboratory for all the applicable tests as per SASO 774, IEC 60529 and IEC 61439-1. External mechanical impact – IK, Degree of protection of Assemblies – IP, Dielectric properties, Marking, Dimension verification, Thermal stability, Resistance of insulating materials to normal heat, Resistance to abnormal heat and fire due to internal electric effects, Resistance to corrosion, Resistance to ultra-violet (UV) radiation.

8.2 Terminal blocks shall be type tested in an independent testing laboratory as per IEC 60947-7-1 at an ambient temperature of 55°C.

8.3 Certified type test reports carried out on SEC approved international laboratory for both meterbox and terminal blocks shall be submitted along with the tender documents.

8.4 SEC reserves the right to witness the routine tests, or visit the factory to conduct inspection on the production lines and performing routine tests required (Dielectric properties, Verification of the components of the meter box, Marking, Dimension verification).

8.5 Special tests like determination of the percentage content of the glass fiber shall also be conducted, if required.

9. MARKING

9.1 The following information shall be clearly embossed on the outer surface of the meterbox cover by means of hot molding method:

9.1.1 SEC Monogram
9.1.2 SEC Item Number
9.1.3 Manufacturer's Name

9.2 Year of manufacturing shall be legibly marked at a suitable place inside the meter box cover and body.

9.3 Purchase order number shall be legibly marked at a suitable place inside the meter box body.

9.4 Colored cables shall be used for the internal wiring. The arrangements of these cables shall be from left to right as per the followings:

PHASE	COLOR
Phase One (1)	Red
Phase One (2)	Yellow
Phase One (3)	Blue
Neutral (N)	Black
Earth (E)	Green and Yellow

Table 6: Internal wiring phase color.

9.5 Colored wires shall be used for internal wiring of the C.T. meter and remote meterboxes. The arrangements of these wires shall be from left to right as per the followings:

VOLTAGE CONNECTIONS

PHASE	COLOR	CORRESPONDING NUMBER IN THE TESTING TERMINALS
Phase One (1)	Red	2
Phase One (2)	Yellow	5
Phase One (3)	Blue	8
Neutral (N)	Black	10

Table 7: C.T. meter and remote meterboxes voltage connections.

CURRENT CONNECTIONS

PHASE	COLOR	CORRESPONDING NUMBER IN THE TESTING TERMINALS
Phase One (1)	Red	1 & 3
Phase One (2)	Yellow	4 & 6
Phase One (3)	Blue	7 & 9

Table 8: C.T. meter and remote meterboxes current connections.

9.6 Terminal blocks shall be indelibly numbered from left to right as per the following:

Whole Current Metering

Phases: 1, 2 and 3

Neutral: N

Grounding: E

C.T. Metering

Phases: 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10

Neutral: N

Grounding: E

10. PACKING AND SHIPMENT

10.1 Each meterbox and its accessories shall be separately packed as complete unit/assembly and shall be delivered ready for service.

10.2 Packing shall be protected against damage during shipment and handling up to installation site.

10.3 Packing shall be designed to prevent entry of dust, ingress of moisture and other foreign matters.

10.4 Packing shall be marked with the following:
10.4.1 Manufacturer's name
10.4.2 Country of origin
10.4.3 SEC item number
10.4.4 SEC purchase order number
10.4.5 Weight in kilogram
10.4.6 Handling instructions

10.5 Supplier shall contact Materials Management Department for additional packing, handling, and shipment instructions, as applicable.

10.6 Packing note in Arabic and English shall be included in each case giving description of goods packed.

11. GUARRANTEE

11.1 Vendor shall guarantee the meterboxes against all the defects arising out of faulty design, workmanship or defective material for a period of five (5) years from the date of delivery.

11.2 If no exception/deviations are taken to this specification and no list of deviations is submitted, it shall be deemed that, in every respect, the offered meter boxes and their accessories conform to this specification.

12. SUBMITTALS

The following documents shall be submitted with the tender.

12.1 The vendor shall complete and return one copy of the attached Data Schedule with quotation. In addition to Data Schedule, clause by clause compliance to this specification shall also be confirmed / submitted.

12.2 Detailed dimensional drawing of the box showing internal and mounting arrangements of wiring and all accessories including that for KWH meters and circuit breakers, where applicable.

12.3 Detailed drawings of cover, locking device, meter window and protective cover, breaker access window, bill pocket, enclosure bottom plate, and terminals.

12.4 Diagram for the internal wiring indicating color codes or numbers for each wires and terminals.

12.5 Material description of each component shall be indicated in the drawing.

12.6 Copies of type test certificates.

12.7 Samples (complete assembly with dummy MCCB and KWH Meter) conforming to approved design shall be inspected/submitted for approval prior to mass production.

13. TECHNICAL DATA SCHEDULE:

13.1 The vendor shall complete and return one copy of the attached data Schedule with quotation. In addition to data Schedule, clause-by-clause compliance to this specification shall be confirmed/ submitted.

13.2 Detail dimensional drawing of each item shall be submitted.

13.3 Type test certificates.

TECHNICAL DATA SCHEDULE

FIBERGLASS METERBOXES

(Sheet 1 of 3)

SEC Enquiry No. _____ **Item No.** _____

S.No.	DESCRIPTION	SEC SPECIFIED VALUES	VENDOR PROPOSED VALUES
7.0	MATERIAL, DESIGN & CONSTRUCTION		
7.1	Enclosure:		
	Material	Hot-Molded Fiberglass Reinforced Polyester	
	Impact Strength, KJ/m^2		
	Flexural Strength, MPa		
	Tensile Strength, MPa		
	Tracking Resistance		
	Surface Resistivity		
	Specific Resistivity, Ω/cm		
	Martens Deflection Temperature Under Load, °C		
	Vica Softening Point		
	Continuous Temperature Resistance, °C		
	Color Fastness		
	Tropicalization and Resistance to Mold and Fungus Growth		
	Water Absorption, mg		
	Limit Oxygen Index, % O_2		
	Flammability		
	Hot Wire Resistance, Stuff		
	Resistance to Splash and Vapors		

Table 9: Technical Data Schedule 1.

TECHNICAL DATA SCHEDULE

FIBERGLASS METERBOXES

(Sheet 2 of 3)

SEC Enquiry No: _____ **Item No:** _____

S.No.	DESCRIPTION	SEC SPECIFIED VALUES	VENDOR PROPOSED VALUES
7.1.4	Degree of Protection	IP 54	
7.1.11	Color, SMC Original Color	Light Grey (RAL 7035)	
7.2	Meter Window Material	Polycarbonate (Lexan 143 R)	
7.6.2	Internal Wire Size		
7.7	Provision for Test Terminal Block	Yes	
7.8.1	Incoming Terminal Block		
	Rating, Amperes		
	Suitable for Single or Double Cable Connection		
	Cable Sizes		
7.8.2	Outgoing Consumer Terminal Block		
	Rating, Amperes		
	Suitable for Cable Sizes		
	Overall Dimensions:		
	Meterbox Height, mm		
	Meterbox Width, mm		
	Meterbox Depth, mm		
	Meterbox Height, Kg		
	Meterbox Shipping Weight, Kg		
8.0	Testing		
8.1	Type Test Report for Meterbox, Enclosed	Yes / No	
8.2	Type Test Report for Terminal Blocks, Enclosed	Yes / No	

Table 10: Technical Data Schedule 2.

TECHNICAL DATA SCHEDULE

FIBERGLASS METERBOXES

(Sheet 3 of 3)

A) Additional technical information or features specified by SEC.

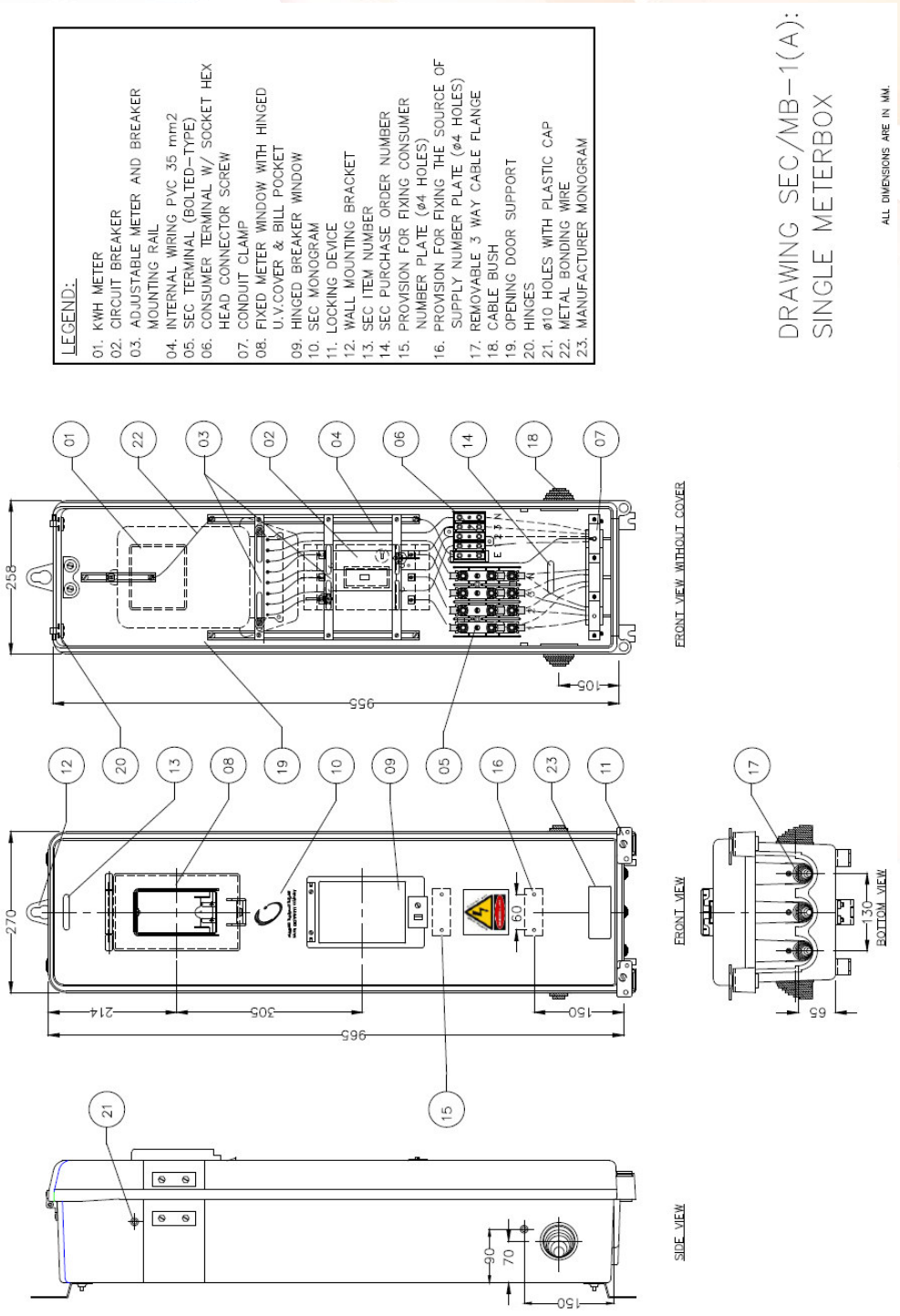
B) Additional supplementary data or features proposed by Vendor/Supplier.

C) Other particulars to be filled up by Vendor/Supplier. (Use separate sheet if needed).

D) List of deviations and clauses to which exceptions is taken by the Bidder/Vendor/Supplier. (Use separate sheet, if needed).

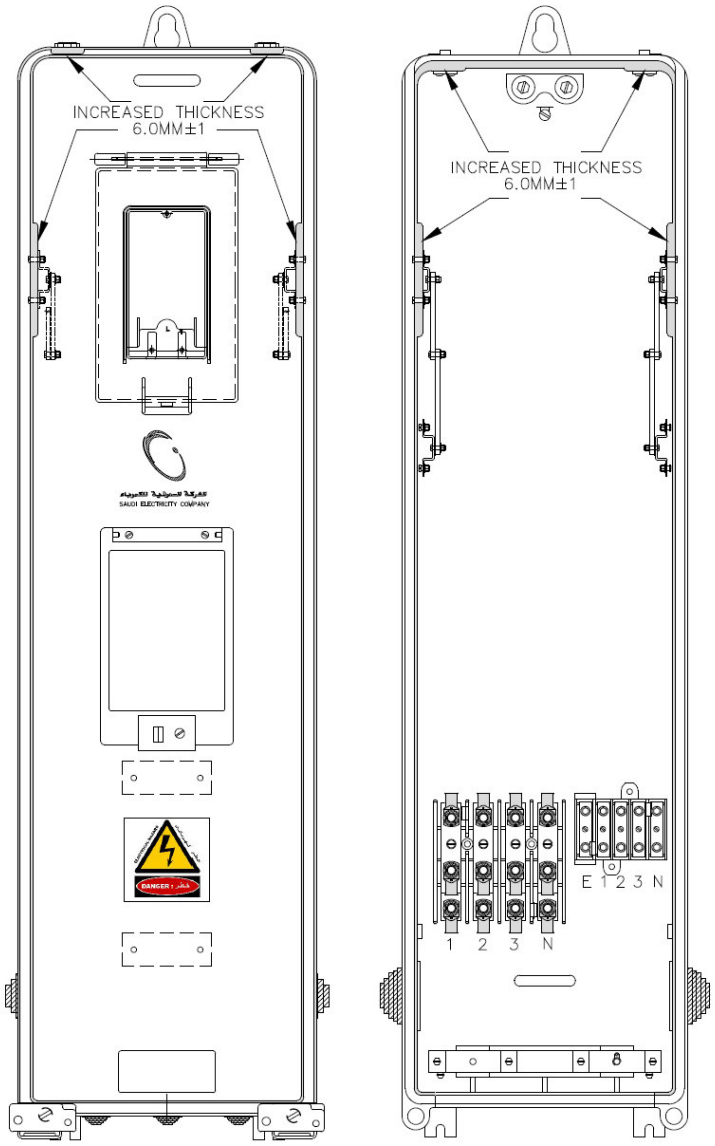
Description	Manufacturer of Material/Equipment	Vendor/Supplier
Name of Company		
Location and Office Address		
Name and Signature of Authorized Representative with Date		
Official Seal / Stamp		
Name of Company		

Table 11: Technical Data Schedule 3.



DRAWING SEC/MB-1(A): SINGLE METERBOX

All dimensions are in mm.

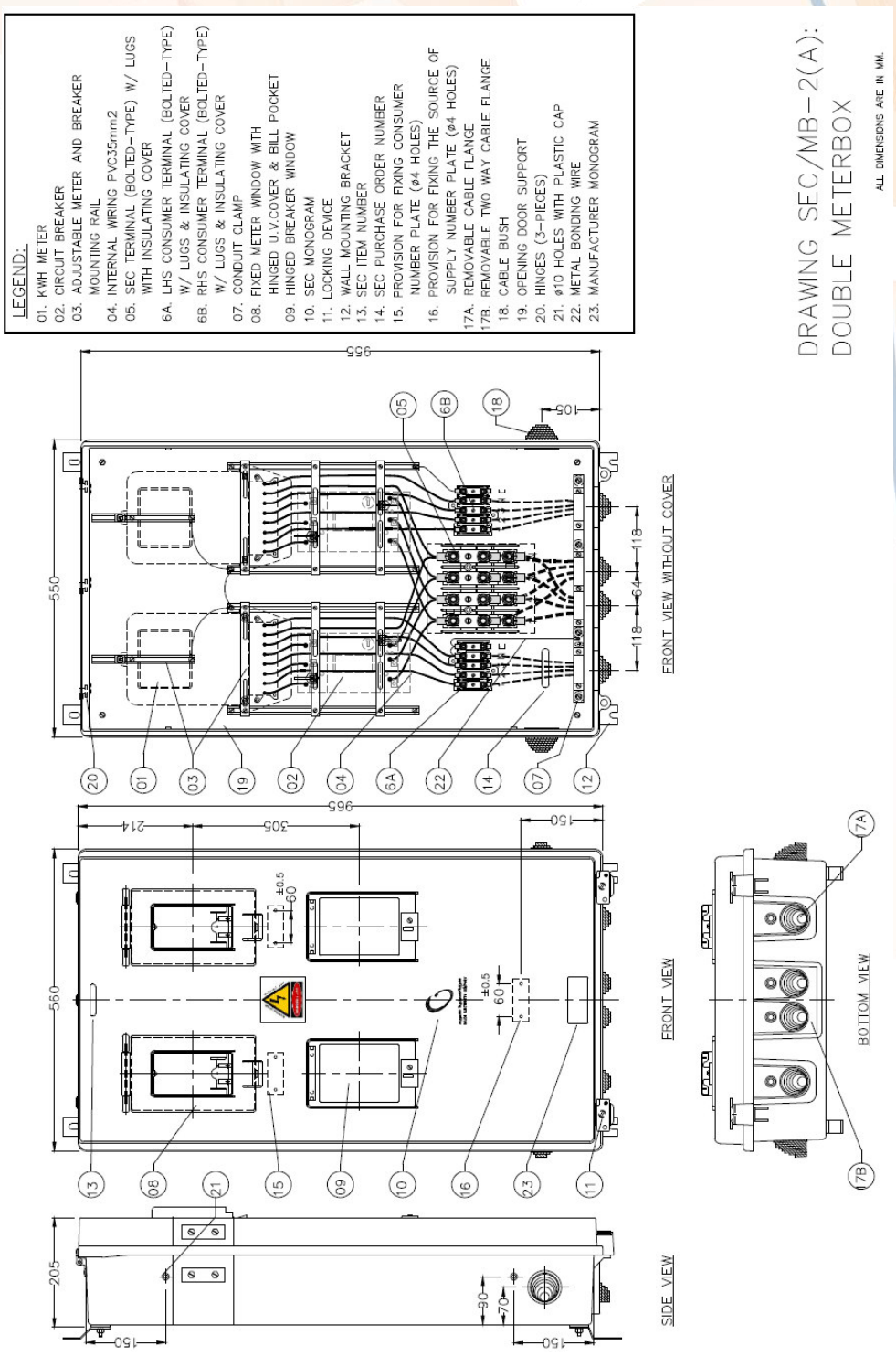


FRONT VIEW FRONT VIEW WITHOUT COVER

Note: The same increase in thickness on the sections where the hinges and support lever (cover-stay) are affixed is applicable to Drawing SEC/MB-4: Remote Meterbox.

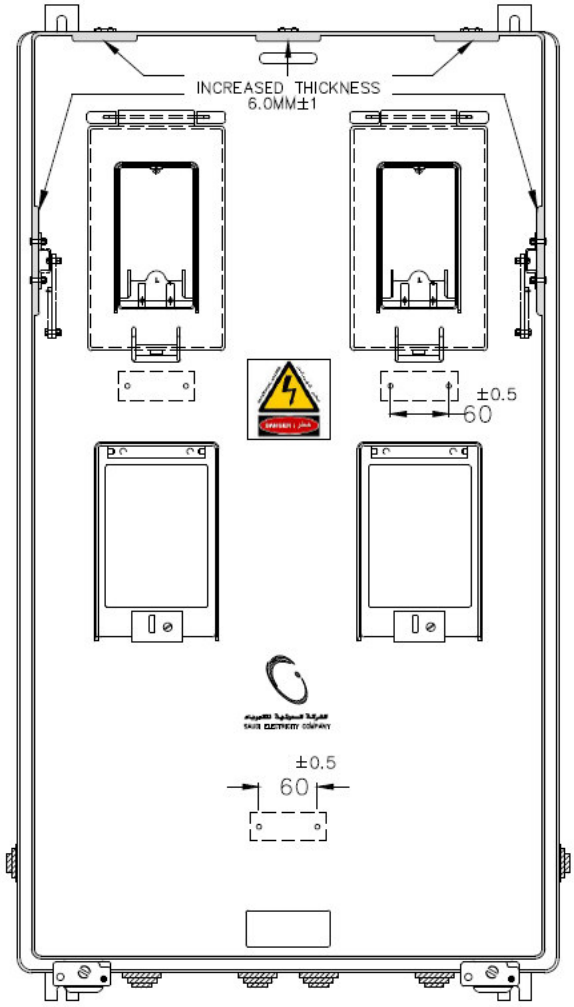
DRAWING SEC/MB-1(B): DETAILS ON SINGLE METERBOX THICKNESS

All dimensions are in mm.

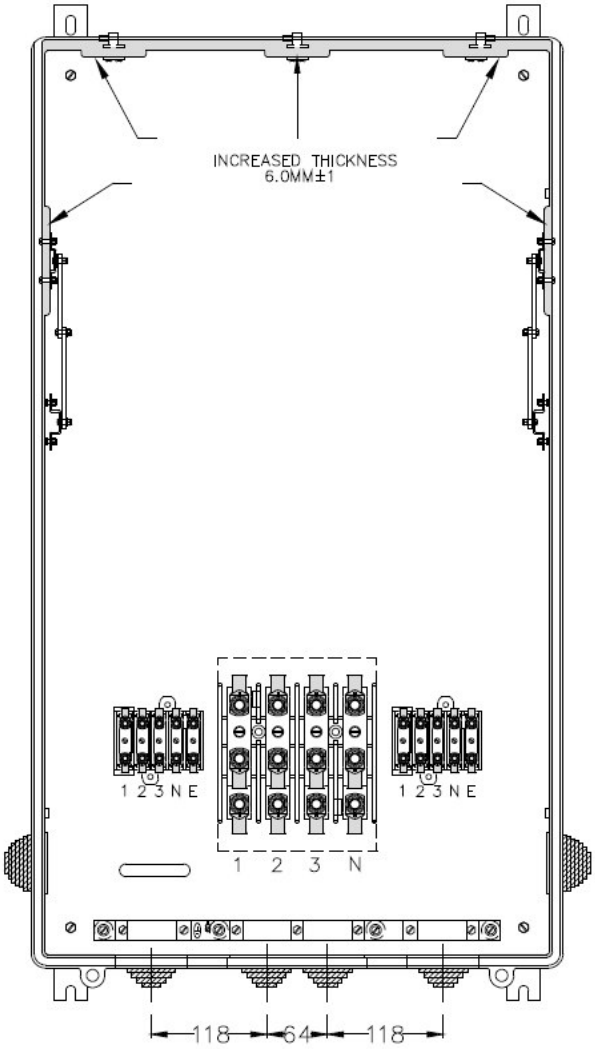


DRAWING SEC/MB-2(A): DOUBLE METERBOX

All dimensions are in mm.



FRONT VIEW

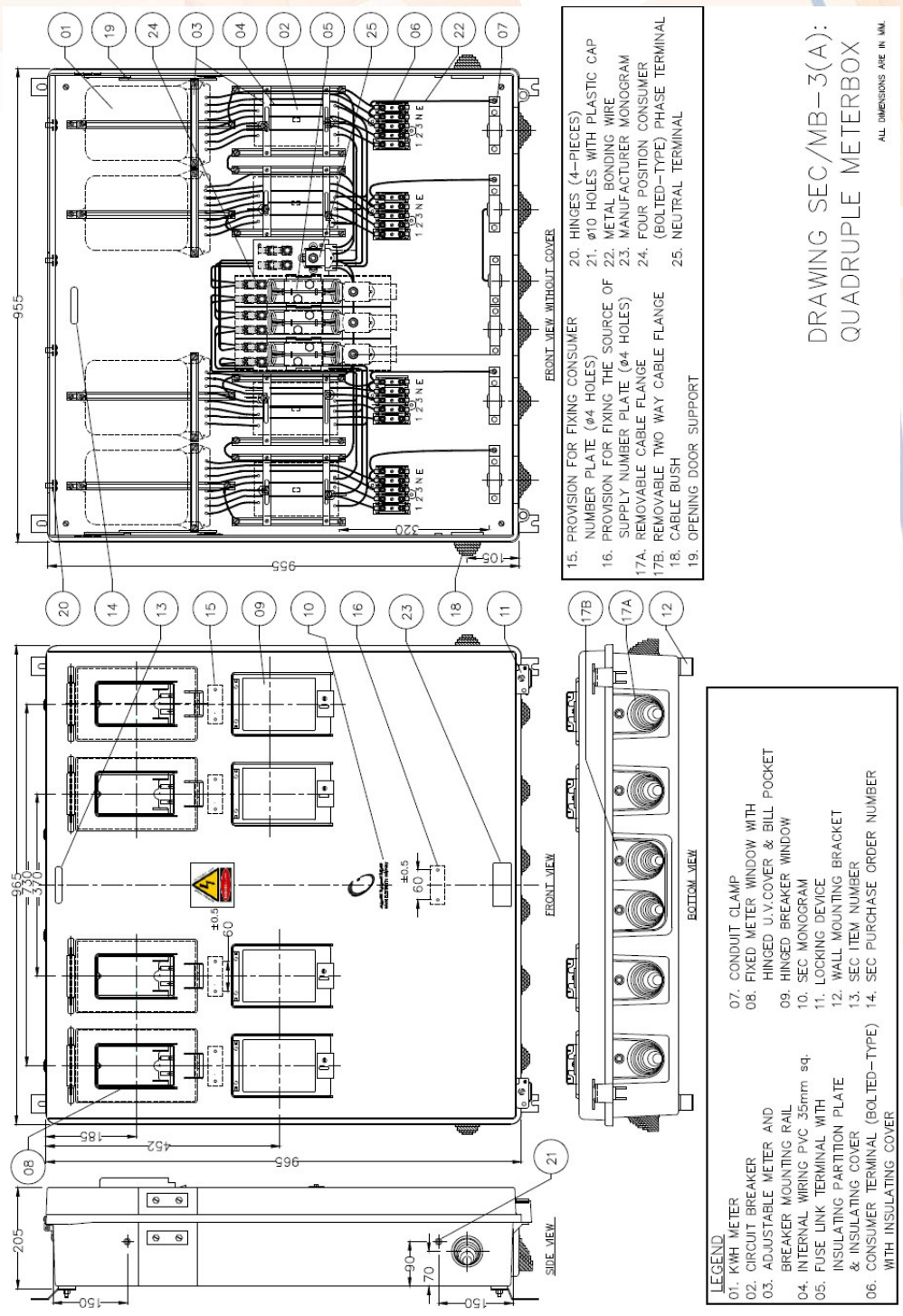


FRONT VIEW WITHOUT COVER

Note: The same increase in thickness on the sections where the hinges and support lever (cover-stay) are affixed is applicable to Drawing SEC/MB-5, SEC/MB-6, and SEC/MB-7.

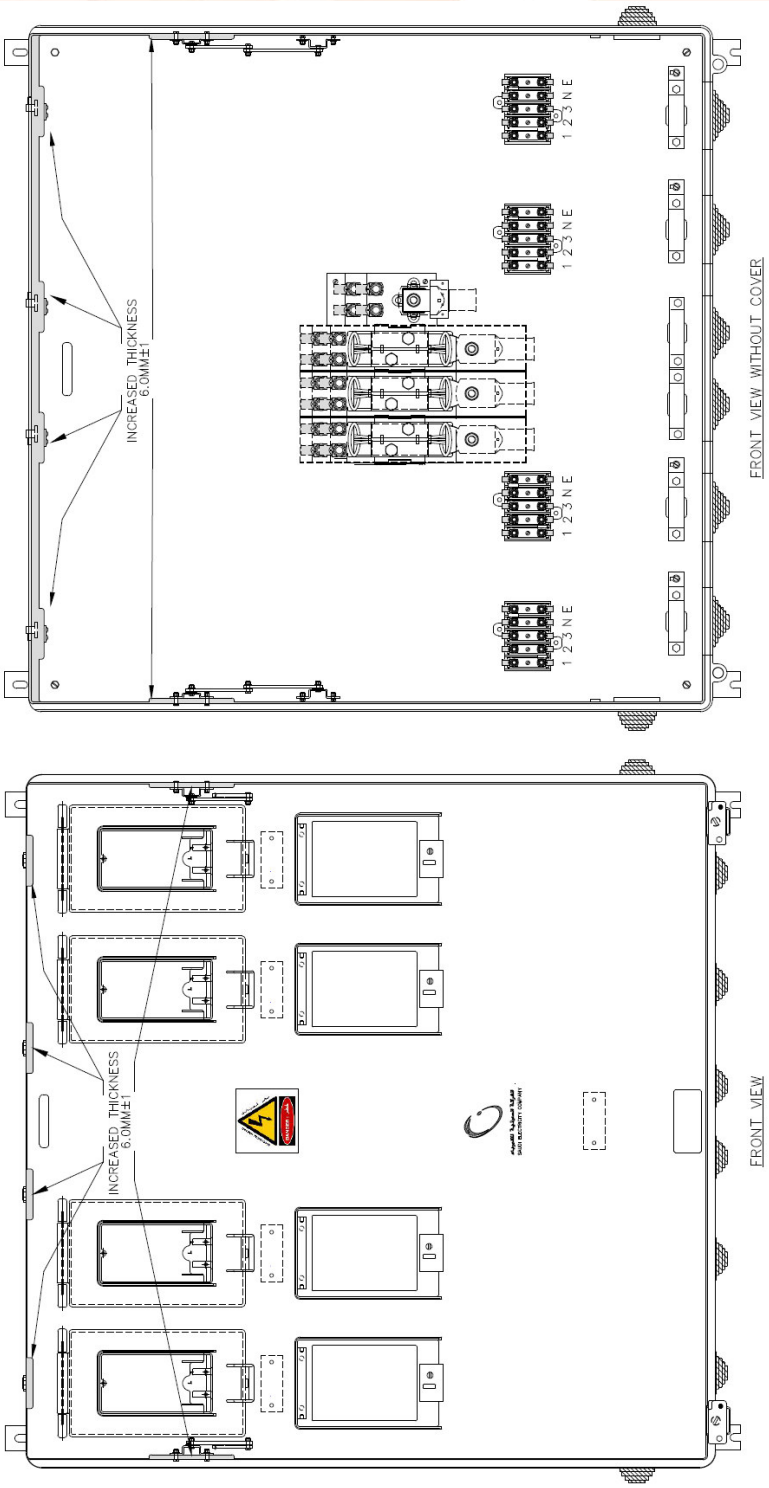
DRAWING SEC/MB-2(B): DETAILS ON DOUBLE METERBOX THICKNESS

All dimensions are in mm.



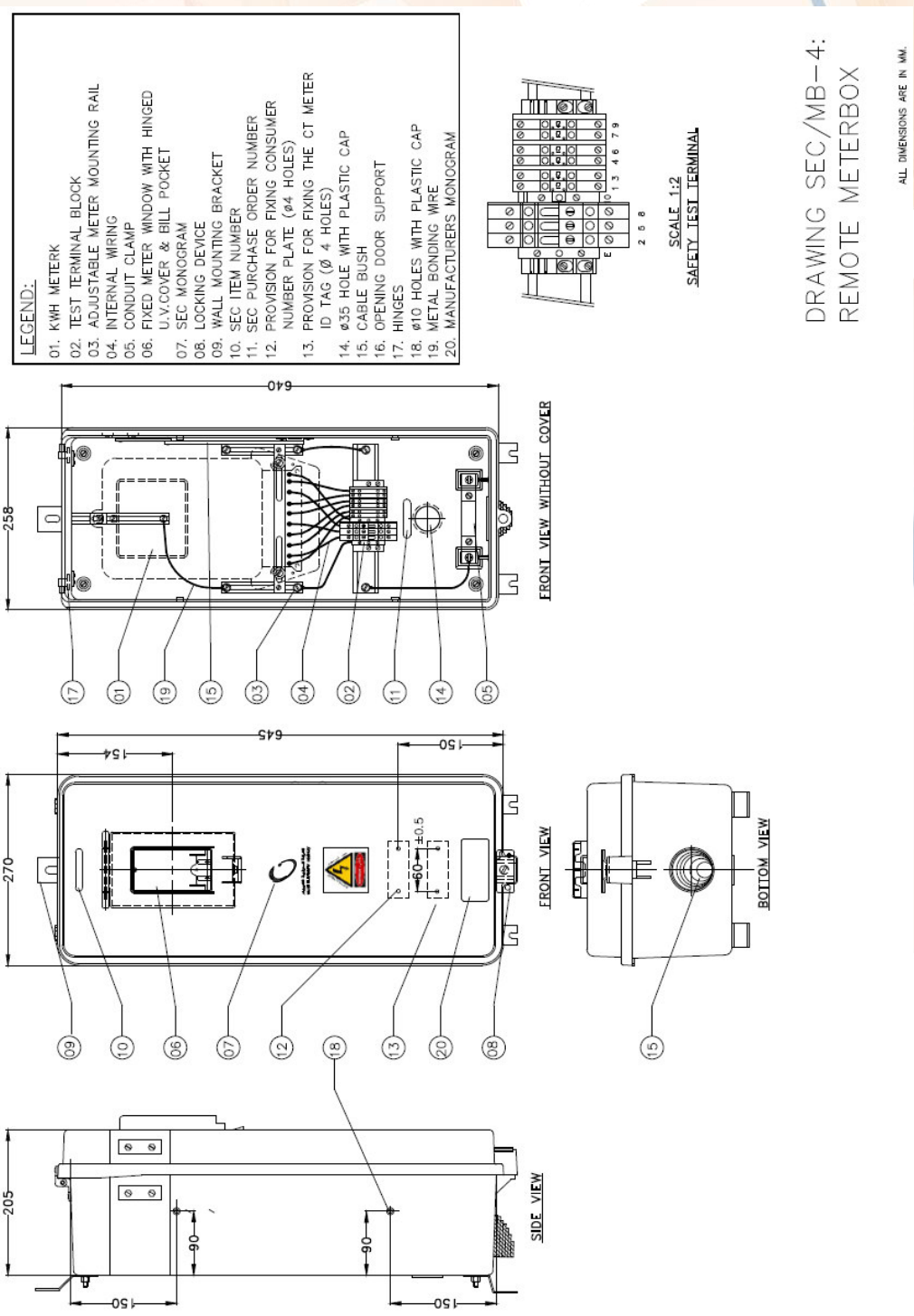
DRAWING SEC/MB-3(A): QUADRUPLE METERBOX

All dimensions are in mm.



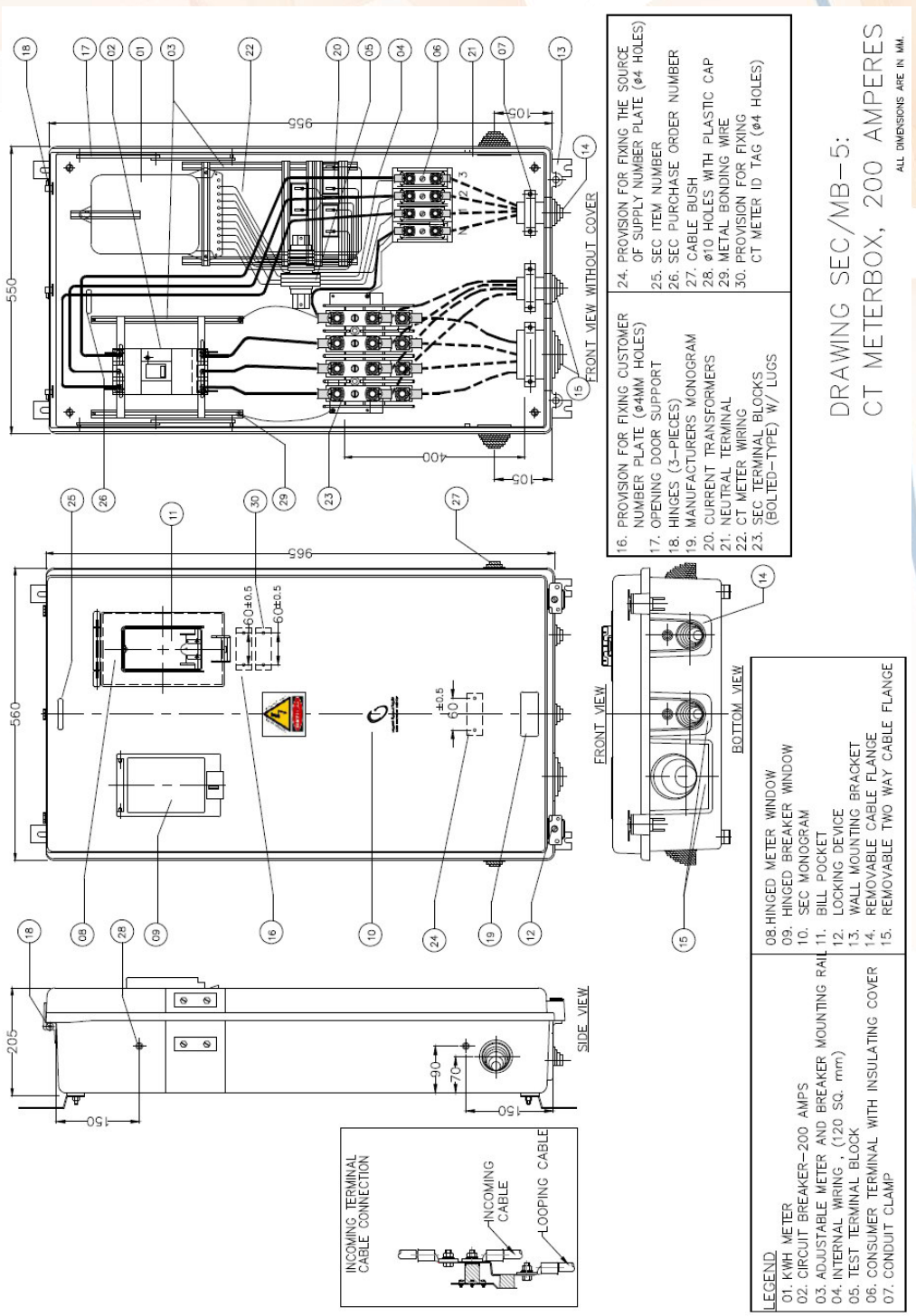
DRAWING SEC/MB-3(B): DETAILS ON QUADRUPLE METERBOX THICKNESS

All dimensions are in mm.



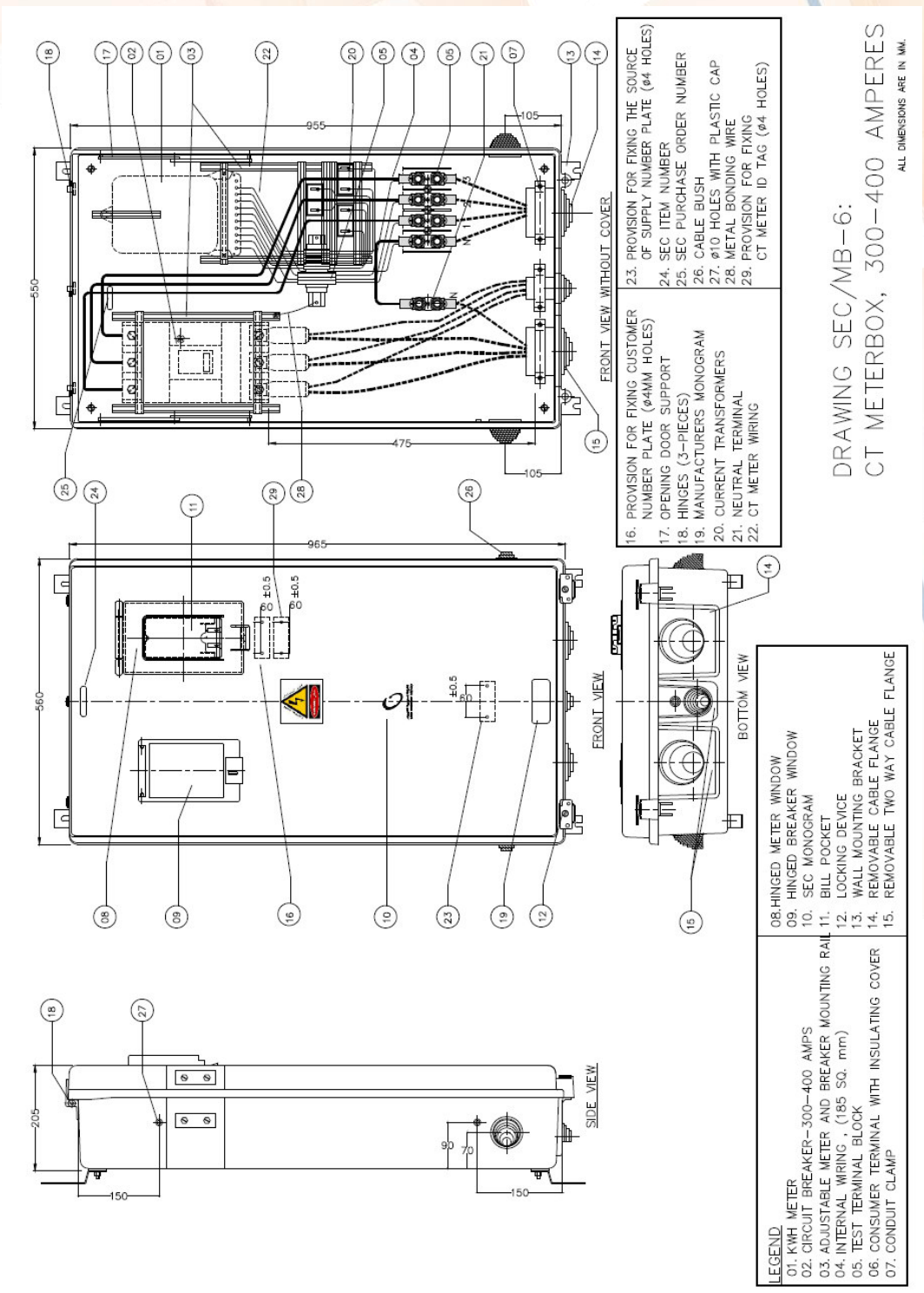
DRAWING SEC/MB-4: REMOTE METERBOX

All dimensions are in mm.



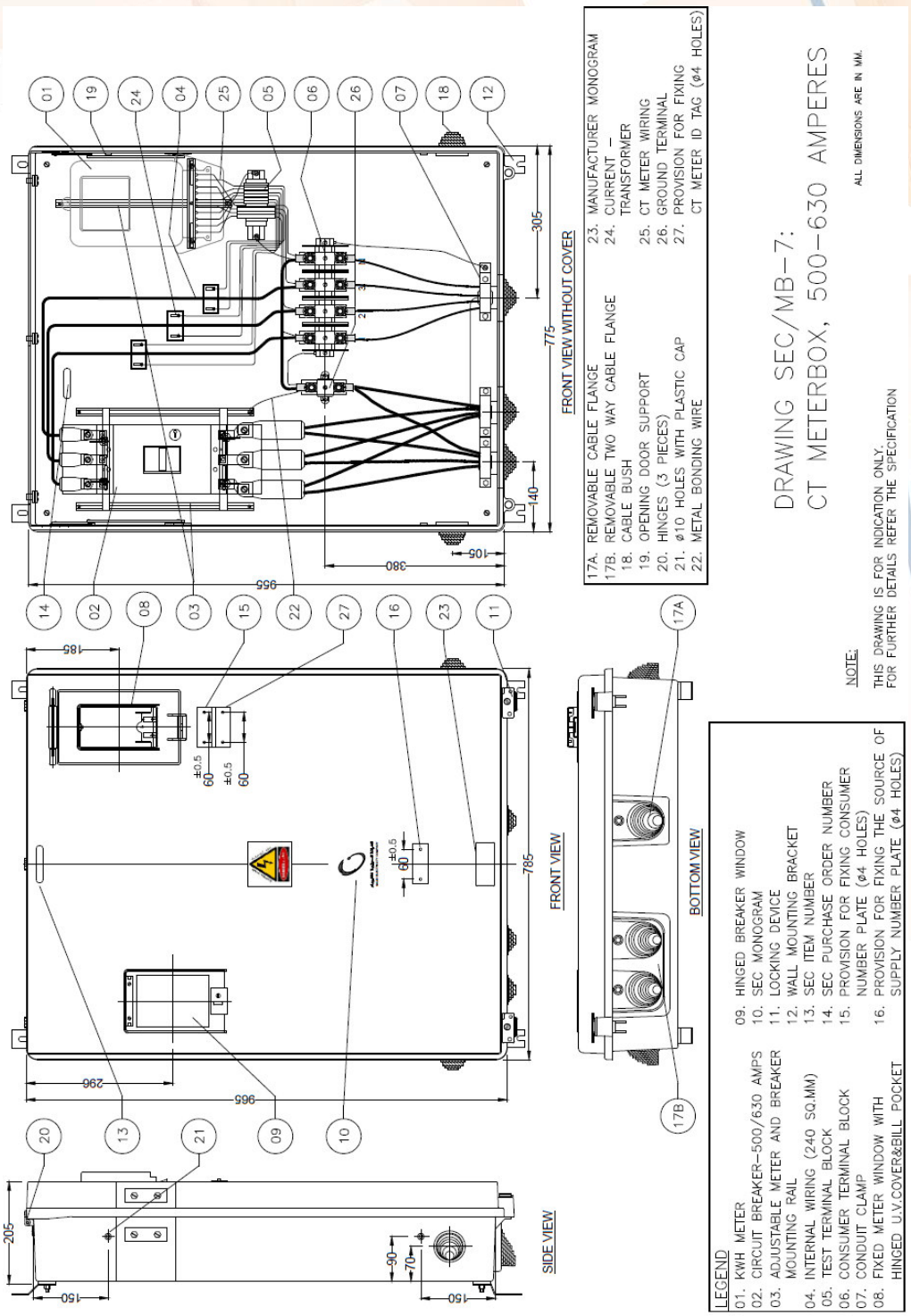
DRAWING SEC/MB-5: CT METERBOX RATED 200/250 AMPERES

All dimensions are in mm.



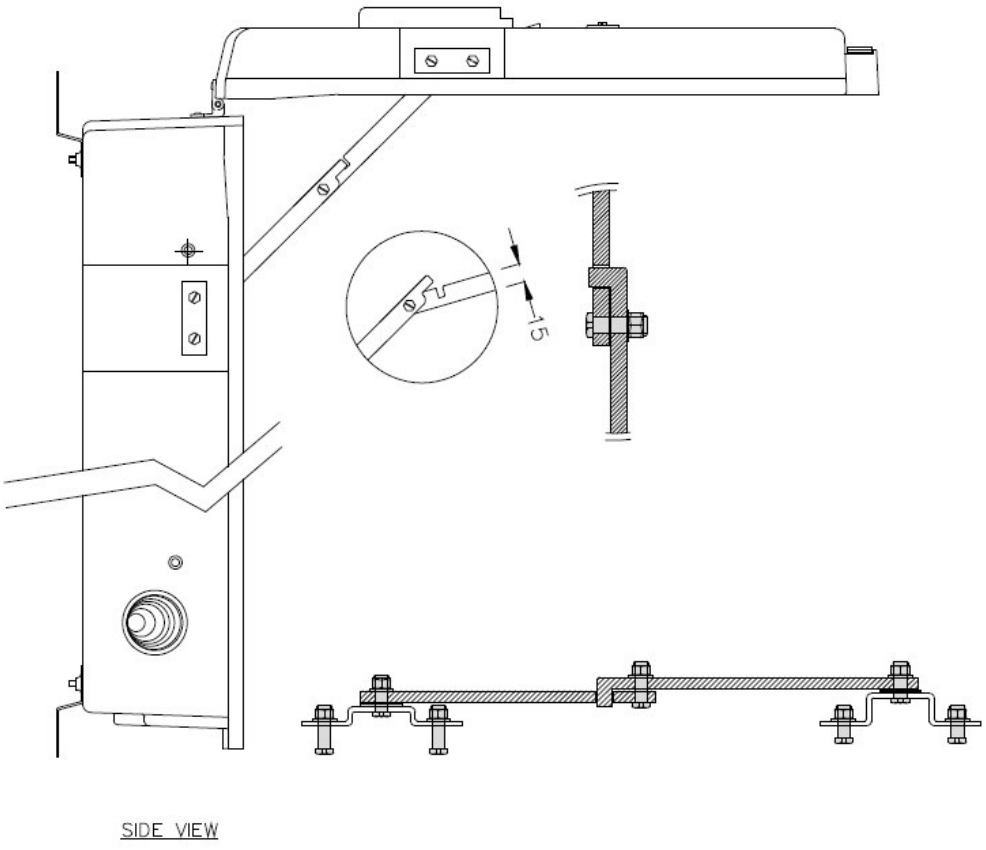
DRAWING SEC/MB-6: CT METERBOX, RATED 300/400 AMPERES

All dimensions are in mm.



DRAWING SEC/MB-7: CT METERBOX, RATED 500/600 AMPERES

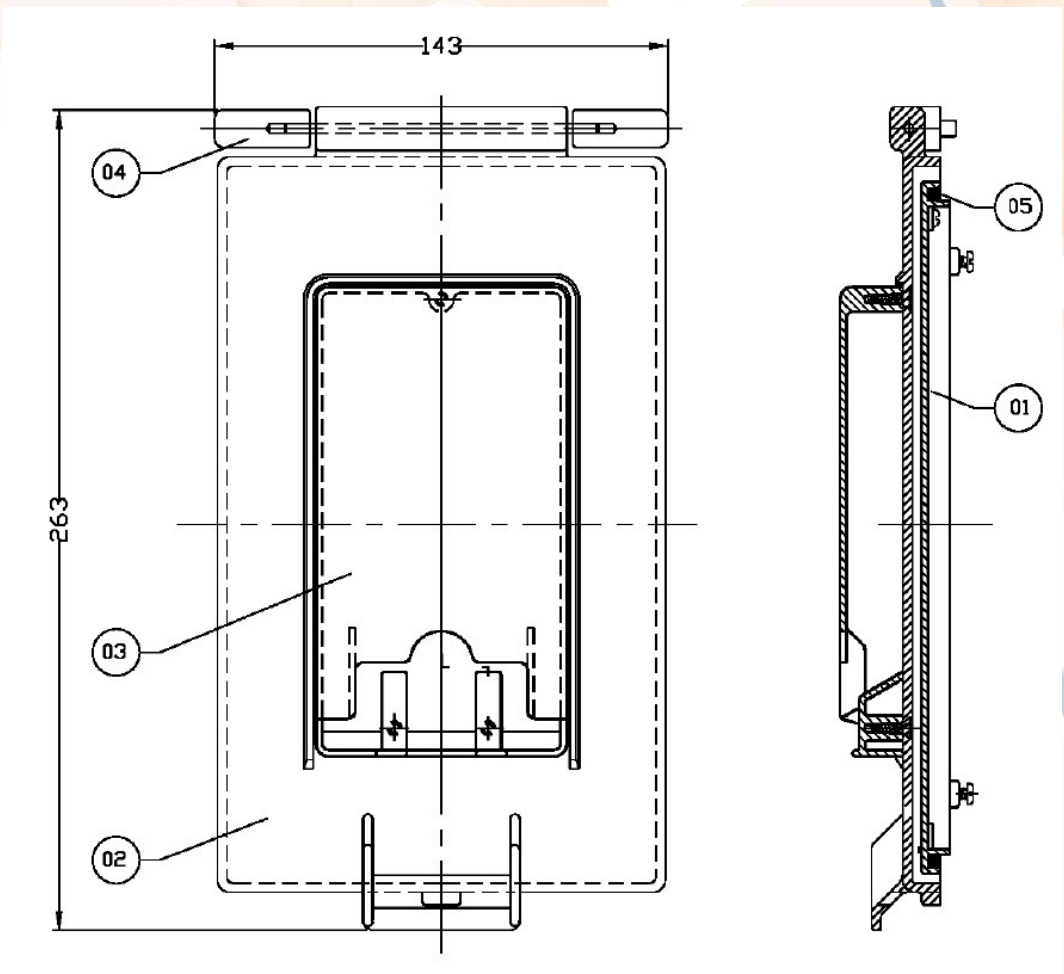
All dimensions are in mm.



DRAWING SEC/MB-8:
COVER OPENING SUPPORT LEVER (COVER-STAY)

DRAWING SEC/MB-8: COVER OPENING SUPPORT LEVERS (COVER-STAY)

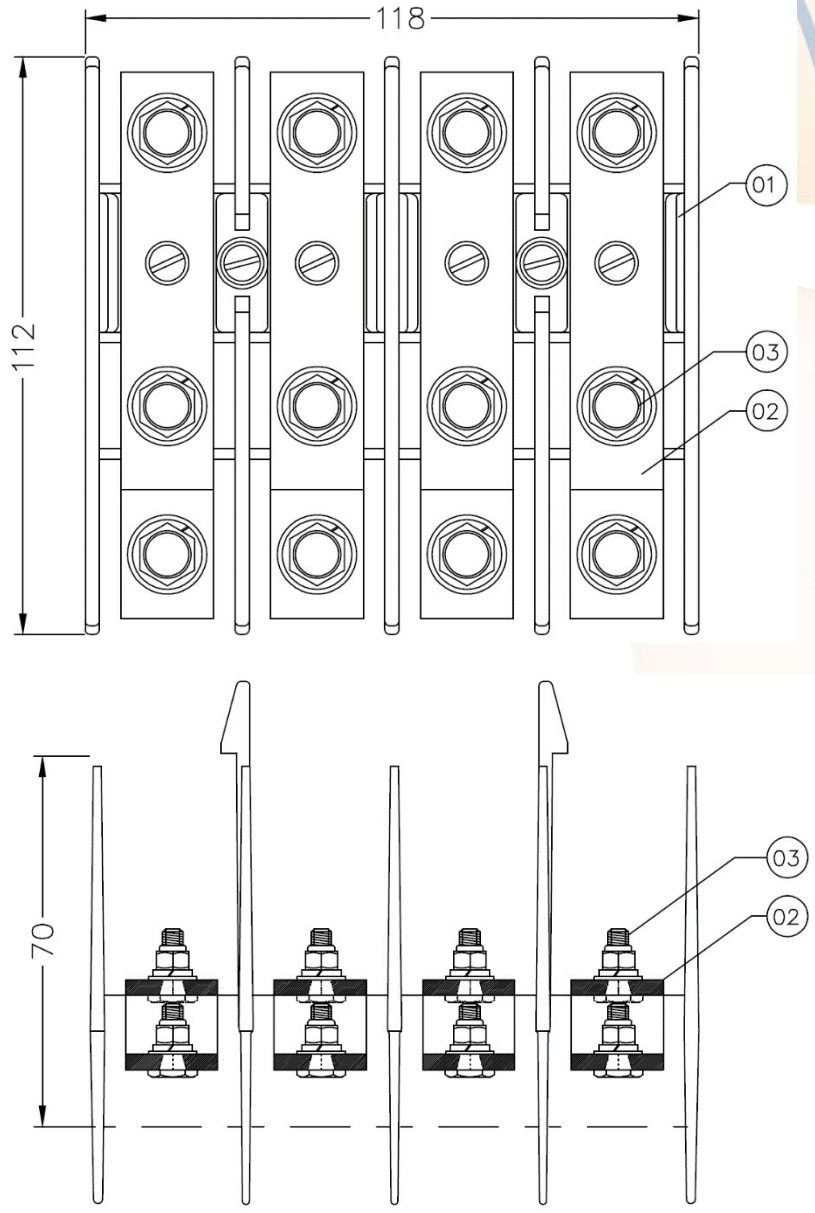
All dimensions are in mm.



NO.	DESCRIPTION
1	METER WINDOW
2	U.V. COVER
3	BILL POCKET
4	PIVOT
5	GASKET

DRAWING SEC/MB-9: METER WINDOW ASSEMBLY

All dimensions are in mm.



LEGEND

01. TERMINAL BLOCK, POLYAMIDE 66, 25% FIBER AND FLAME RETARDENT TO UL 94/V2
02. CONNECTION BAR 4X18 MM, COPPER (E-Cu,F-30, DIN 1759/40500-3)
03. FIXED HEAD BOLT M10X30, STEEL, GRADE 8.8, Fe/Zn 5 WITH NYLON RING NUT, FLAT WASHER, & LOCK WASHER

NOTE: This drawing is for indication only. For further details refer to specification.

DRAWING SEC/MB-10: 70 mm² TERMINAL ASSEMBLY FOR SINGLE METERBOX

All dimensions are in mm.