LOW VOLTAGE DISTRIBUTION EQUIPMENT

POWER CENTRE - 'B' series

EBOMAC

شـــركـــة صـنـــاعـــة الـلـوحـــات الـكـهـربـائـيـــة ش.م.ك (مقفلة)

ELECTRICAL BOARDS MANUFACTURING COMPANY K.S.C.

The Right Electrical Choice

QUALITY ASSURANCE POLICY

Servicing our customers is the primary consideration at Electrical Boards Manufacturing Company. We believe that dedication to quality in every thing we do is the cornerstone upon which a sound business is built.

The basic philosophies of EBOMAC which support this effort include the following:

- All management and employees must be involved in the planning and effective implementation of our documented ISO 9001 quality management system.
- The basic quality criterion of our work is the satisfaction of our customers. We have to strengthen the confidence of customers in EBOMAC not only as a supplier but also as a reliable partner in solving their problems.
- We must work every day to learn more about our business, its fundamental process, and to search for improvement opportunities in every corner of our operation. We must utilize sound data collection and analysis to find and implement those improvement opportunities.
- Every employee at EBOMAC must understand the extreme importance of quality improvement in today's marketplace, and in contributing to the ever improving operation of our business. We will accomplish these goals through teamwork and involvement throughout the organization.

With this strategy, we can achieve the level of overall market performance that is required to excel.

Managing Director /General Manager

Certificate of Approval
Awarded to
EBOMAC
(ELECTRICAL BOARDS MANUFACTURING CO. K.S.C.)
STATE OF KUWAIT
Bureau Veritas Quality International certify that the Quality Management System of the above supplier has been assessed and found to be in accordance with the requirements of the quality standards detailed below
QUALITY STANDARDS

Quality Assurance

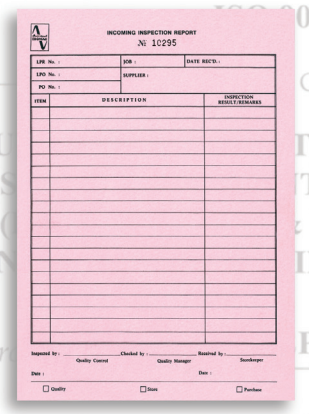
Quality Assurance is given equal importance as to the basic design & manufacture of the products & the parts.

Quality Inspection is carried-out at every stages of manufacture and final inspection is done on finished product. Factory routine test as per quality assurance procedure is carried-out & the product is certified for delivery only when the product meets the acceptance of the quality standard.

However quality of the product, safety & performance also depends on the Switchgear installation & associated items connected with the Switchgear.

Every product is accompanied with Quality Test Certificate

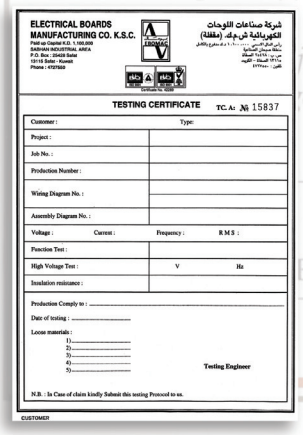
Marks of Excellence


INCOMING INSPECTION REPORT
№ 10295

LPE No. : JOB : DATE RECD. :
LPO No. : SUPPLIER :
PO No. :

ITEM	DESCRIPTION	INSPECTION RESULT/REMARKS

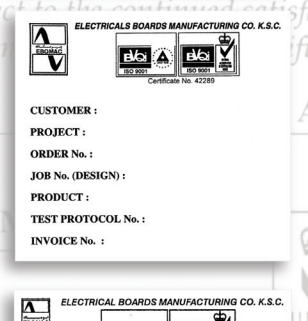
Inspected by : Checked by : Received by :
Quality Control Quality Manager Storekeeper
Date : Date :
☐ Quality ☐ Store ☐ Purchase


ELECTRICAL BOARDS MANUFACTURING CO. K.S.C.
شركة صناعات اللوحات الكهربائية ش.م.ك. (مقفلة)

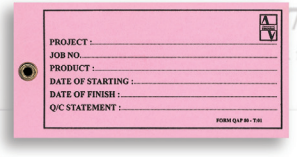
TESTING CERTIFICATE TC.A: № 15837

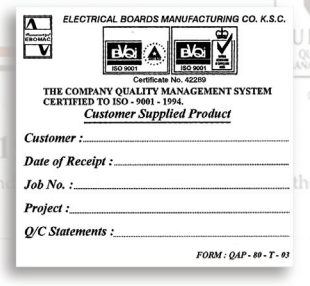
Customer :	Type:	
Project :		
Job No. :		
Production Number :		
Wiring Diagram No. :		
Assembly Diagram No. :		
Voltage :	Current :	Frequency : R M S :
Function Test :		
High Voltage Test :	V	Hz
Insulation resistance :		

Production Comply to :
Date of testing :
Loose materials :
1)
2)
3)
4)
5)
Testing Engineer
N.B. : In Case of claim kindly Submit this testing Protocol to us.
CUSTOMER


ELECTRICALS BOARDS MANUFACTURING CO. K.S.C.
ISO 9001 ISO 9001
Certificate No. 42289

CUSTOMER :
PROJECT :
ORDER No. :
JOB No. (DESIGN) :
PRODUCT :
TEST PROTOCOL No. :
INVOICE No. :

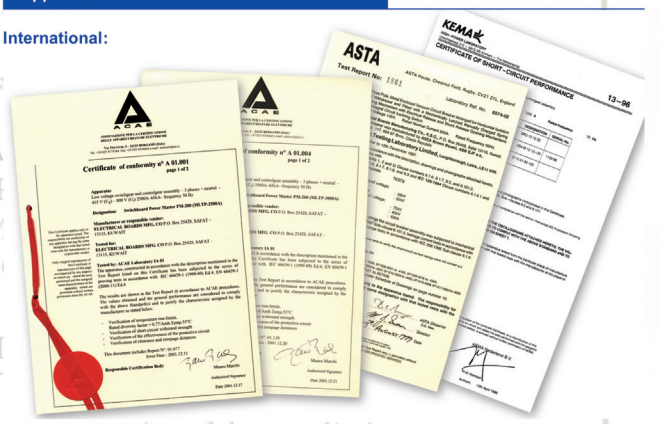

PROJECT :
JOB NO.
PRODUCT :
DATE OF STARTING :
DATE OF FINISH :
Q/C STATEMENT :
FORM QAP 80 - T/H


ELECTRICAL BOARDS MANUFACTURING CO. K.S.C.
ISO 9001 ISO 9001
Certificate No. 42289
THE COMPANY QUALITY MANAGEMENT SYSTEM CERTIFIED TO ISO - 9001 - 1994.
Customer Supplied Product

Customer :
Date of Receipt :
Job No. :
Project :
Q/C Statements :
FORM : QAP - 80 - T - 03

Approvals

International:



ACAE ASSOCIAZIONE PER LA CERTIFICAZIONE DELLE APPARECCHIATURE ELETTRICHE

ASTA TESTED

KEMA TESTED

Different configurations and Busbar ratings are fully Type Tested as per IEC 60439-1

- Verification of temperature rise limits at 55°C ambient temperature
- Verification of dielectric properties
- Verification of short circuit withstand strength
- Verification of effectiveness of the protective circuit
- Verification of clearances and creepage distances
- Verification of mechanical operation
- Verification of degree of protection

MV Switchboards fully Type tested as per IEC 60298 & 60694.
Additionally type tested on Arc fault at 26.5KA for 0.1sec.

Local:

- Kuwait Petroleum Corporation
- Kuwait Oil Company
- Kuwait National Petroleum Corporation
- Petrochemical Industries Company
- Joint Operations
- Ministry of Electricity & Water
- Ministry of Public Works
- Ministry of Defense
- Ministry of Public Health
- National Housing Authority

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INTRODUCTION

Series B200 & B300 is a range of modular Switchgear Assembly with a very high degree of flexibility in the middle range of Switchgear Panels in the Low Voltage Network.

The design of this equipment is based on Publication IEC 60439-1, and with due consideration to Kuwait & Gulf States Specifications & the Tropical Climatic Conditions.

A wide range accessories are available for the basic Installation, Operation & Maintenance.

The enclosures are made of high grade galvanized steel sheet, coated with epoxy-polyester powder on exterior & interior surfaces.

Classification:

Assemblies are basically categorised into two classification:

- Series B200:

Series B200 is constructed from box type enclosure which has very wide range of accessories for floor or wall mounting and indoor or outdoor application. The enclosures are sub - classified and enclosures coded as: A2, B2, C2, D2 & E2 as per the enclosure dimensions.

- Series B300:

Series B300 is constructed from cubicle frame and suitable only for floor mounting and indoor application*. Only one type classification is available in this series & enclosures coded as: F2.

Switchgear Assembly is designed as current and basic function of product.

Range: Available with

160 Amps

250 Amps

400 Amps

630 Amps

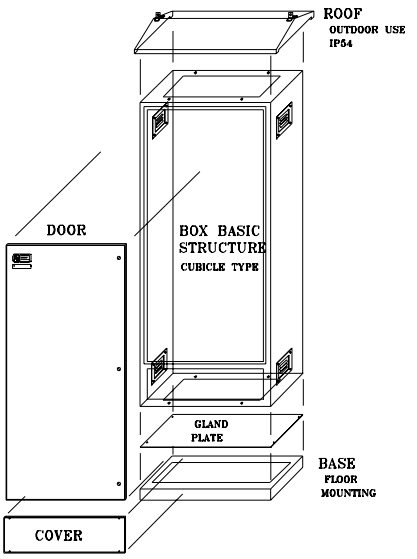
Further the assembly is subdivided to accept different number of outgoing feeders.

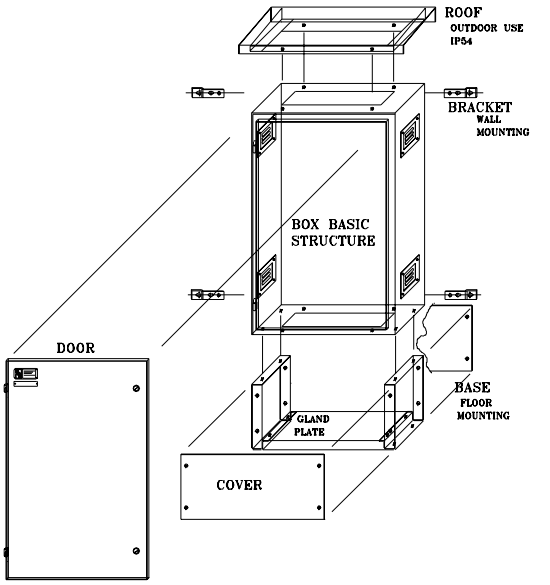
The following combinations & accessories are available for the full range of adaptability to any network applications:

- Floor Mounting.
- Wall Mounting (for Series B200 only).
- Indoor.
- Outdoor (for Series B200 Only).
- Extension.
- Control, Metering & Protection Equipment.
- Top Cable Entry.
- Bottom Cable Entry.

* Outdoor application on request.

INTRODUCTION





Application

Series B200 & Series B300 Switchgear assembies can find wide variety of applications in the Low Voltage Distribution Network of sub-distribution & final distribution range:

- Industrial Power Distribution.
- Commercial Power Distribution.
- Residential Powr Distribution.
- Temporary Power Distribution.

Standard Specifications

Series B200 & Series B300 Switchgear assemblies conform to the National & International Standards:

MEW-S1 (Kuwait-National Standard).

IEC 60439-1 (1999-09).

EN 60439-1 (2000-11) ED-4

IEC 60529

Operational Safety, Maintenance and Quality Assurance are given high priority in the design of the Switchgear assembly. Live Parts are not accessible while in operation & safety instructions are available on the panel for maintenance as a standard feature.

Modular designing ensure excellent flexibility, characterised by:

- High Standardisation of basic parts.
- Interchangeability of the components of the same type.
- Possibility to modify or change the rating of same ampere-frame of circuit breaker without requiring modification on the assembly.

Please refer to separate catalogue:

- Transport Storage.
- Installation & Connection.
- Commissioning.
- Operation & Maintenance

For **EBOMAC** Switchboard.

TECHNICAL FEATURES(1)

Type Series - Type	200-B160	200-B250	200-B400	200-B630
1. Electrical Characteristic				
Rated Operational Voltage (ue)	690 V	690 V	690 V	690 V
Rated Frequency (f)	50 HZ	50 HZ	50 HZ	50 HZ
Rated Current	200 A	300 A	500 A	630 A
Network Type	3ϕ + N + E	3ϕ + N + E	3ϕ + N + E	3ϕ + N + E
Rated Short Time Withstand Current (KA rms/1sec) upto	30 kA	30 kA	40 kA	40 kA
Rated Insulation Voltage (Ui)	800 V	800 V	800 V	800 V
Rated Impulse withstand voltage (Uimp)	8 KV	8 KV	8 KV	8 KV
Over Voltage Catagory	IV	IV	IV	IV
Pollution degree	3	3	3	3
2. Enclosure Characteristic				
Degree of Protection*	IP 52/54/55	IP 52/54/55	IP 52/54/55	IP 52/54/55
Installation Access	Front	Front	Front	Front
Maintenance Access	Front	Front	Front	Front
Paint Colour (epoxy powder coated)	RAL 7032	RAL 7032	RAL 7032	RAL 7032
Max Incomer Rating	160 A	250 A	400 A	630 A
Max Outgoing TP Ways** (100 Ampere-frame)	12	10	8	8
Option: Extension Box (Ht = 250mm) can be supplied if required (if cables are too big/ crowded in enclosure)				
3. Climatic Conditions				
Ambient Temperature (short time)	55 Deg. C.	55 Deg. C.	55 Deg. C.	55 Deg. C.
Max. Mean Value Over 24 Hour Period	45 Deg. C.	45 Deg. C.	45 Deg. C.	45 Deg. C.
Relative Humidity	95%	95%	95%	95%
Altitude (max.) (Meters)	1000	1000	1000	1000

(1) For Electrical Components, please refer to components manufacturer's data.

(*) Degree of Protection can be improved by installing Canopy for outdoor installation, or on request for indoor installation.

(**) This figure also depends on electrical Accessories. Consult EBOMAC Sales Staff.

TECHNICAL FEATURES(1)

Type Series - Type	300-B160	300-B250	300-B400	300-B630
1. Electrical Characteristic				
Rated Operational Voltage (Ue)	690 V	690 V	690 V	690 V
Rated Frequency (f)	50 HZ	50 HZ	50 HZ	50 HZ
Rated Current	200 A	300 A	500 A	630 A
Network Type	30 + N + E	30 + N + E	30 + N + E	30 + N + E
Rated Short Time Withstand Current (KA rms/1sec) upto	30 kA	30 kA	40 kA	40 kA
Rated Insulation Voltage (Ui)	800 V	800 V	800 V	800 V
Rated Impulse withstand voltage (Uimp)	8 KV	8 KV	8 KV	8 KV
Over Voltage Catagory	IV	IV	IV	IV
Pollution degree	3	3	3	3
2. Enclosure Characteristic				
Degree of Protection*	IP 52/54/55	IP 52/54/55	IP 52/54/55	IP 52/54/55
Installation Access	Front	Front	Front	Front
Maintenance Access	Front	Front	Front	Front
Paint Colour (epoxy powder coated)	RAL 7032	RAL 7032	RAL 7032	RAL 7032
Max. Incomer Rating	160 A	250 A	400 A	630 A
Max. Outgoing TP Ways** (100 Ampere-frame)	26	24	22	22
3. Climatic Conditions				
Ambient Temperature (short time)	55 Deg. C.	55 Deg. C.	55 Deg. C.	55 Deg. C.
Max. Mean Value Over 24 Hour Period	45 Deg. C.	45 Deg. C.	45 Deg. C.	45 Deg. C.
Relative Humidity	95%	95%	95%	95%
Altitude (max.) (Meters)	1000	1000	1000	1000

(1) For Electrical Components, please refer to components manufacturer's data.

(*) Degree of Protection can be improved by installing Canopy for outdoor installation, or on request for indoor installation.

(**) This figure also depends on electrical Accessories. Consult EBOMAC Sales Staff.

STRUCTURE , ACCESSORIES

Design

The basic Structure of the enclosure & the assembly is so designed for the maximum flexibility to accommodate any variations or combinations of electrical assembly required in the range of distribution network.

Also the Structure can be modified with ease for any type and method of installation. The enclosure can be extended at any direction by fitting similar enclosure available for protection relays / control/ metering purposes. As a standard feature outgoing feeder cable can enter from top* and/or from bottom & main incoming feeder can enter from bottom.

Standard design assembly structure is Form 1, which comply to National & International standards for this range of Switchgear cubicle.

The enclosure & assembly are divided into three basic components:

- Box or Cubicle frame with covers & doors.
- Front plate.
- Assembly.

Operating control & indicating devices are mounted on the door**. Access to the operating toggle of MCCB's is available only after opening the door, the toggle of MCCB's are projecting from the front plate. The front plate serves as a barrier between the operator and the dangerous voltage within the switch board on the busbars & the MCCB terminals. Access to the busbars & MCCB terminals is only upon removing the front plate.

Enclosure Material

The enclosure is made of galvanised steel sheet. Steel sheet is treated with solutions to remove any accumulated rust on surface followed by extensive washing to remove any chemicals, then coated with polyester paint colour RAL 7032. The steel thickness is 1.5mm to 2.0mm depending on the assembly.

Busbars

Hard drawn high conductive, air insulated, bare copper busbars are used in the standard assembly. Busbars are colour coded for phase identification, fully painted busbars can be supplied on request.

Accessories

Normally enclosure accessories are factory fitted to the customer's requirement. However accessories in the form of wall mounting brackets, floor mounting channels, canopy, extension enclosure are available to accomodate site requirement if need arises for the modifications of the basic structure with ease at site.

(*) for enclosure with canopy, cable entry is from bottom.

(**) for this reason, the outdoor installation is recommended within the sunshade while electrical devices are mounted on the door. If required to install the switchboard exposed to sun radiation, the electrical devices can be mounted inside the switchboard - on specific request.

TYPE TESTED ASSEMBLIES

- Following rigorous and continuous type testing, B Series Boards conforms to all the regulations of major markets throughout the country.
- The following type tests have been successfully carried out at independent test laboratories by ACAE as per IEC 60439-1.
  - Verification of temperature rise-limits at ambient temperature of 55°C.
  - Verification of dielectric properties.
  - Verification of short-circuit withstand strength.
  - Verification of the effectiveness of the protective circuits.
  - Verification of clearance and creepage distance.
  - Verfication of Degree of protection - IP52, IP54, IP55.

ACAE

ASSOCIAZIONE PER LA CERTIFICAZIONE DELLE APPARECCHIATURE ELETTRICHE

Certificate of conformity n° A 02.015

page 1 of 2

Apparatus

Low voltage switchgear and controlgear assembly – 3 phases + neutral - 415 V (U_N) – 800 V (U_i) 300A–30kA– frequency 50 Hz

Designation: Switchboard Power Center type B - 250

Manufacturer or responsible vendor: ELECTRICAL BOARDS MFG. CO P.O. Box 25428, SAFAT – 13115, KUWAIT

Tested for: ELECTRICAL BOARDS MFG. CO P.O. Box 25428, SAFAT – 13115, KUWAIT

Tested by: ACAE Laboratory IA 01

The apparatus, constructed in accordance with the description mentioned in the Test Report listed on this Certificate has been subjected to the series of proving tests in accordance with IEC 60439-1 (1999-09) Ed.4; EN 60439-1 (2000-11) Ed.4

The results are shown in the Test Report in accordance to ACAE procedures. The values obtained and the general performance are considered to comply with the above Standard(s) and to justify the characteristic assigned by the manufacturer as stated below.

- Verification of temperature rise-limits.
  Rated diversity factor = 0,6/Amb.Temp.55°C
- Verification of short-circuit withstand strength
- Verification of the effectiveness of the protective circuit
- Verification of dielectric properties
- Verification of clearance and creepage distances
- Verification of degree of protection

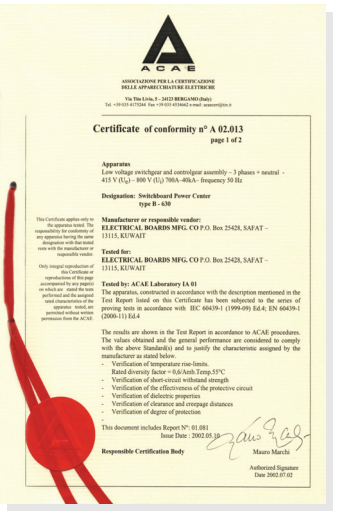
This document includes Report N°: 01.083
Issue Date : 2002.05.10

Responsible Certification Body

Mauro Marchi

Authorized Signature

Date 2002.07.02


ACAE

ASSOCIAZIONE PER LA CERTIFICAZIONE DELLE APPARECCHIATURE ELETTRICHE

Certificate of conformity n° A 02.013

page 1 of 2

Apparatus

Low voltage switchgear and controlgear assembly – 3 phases + neutral - 415 V (U_N) – 800 V (U_i) 700A–40kA– frequency 50 Hz

Designation: Switchboard Power Center type B - 630

Manufacturer or responsible vendor: ELECTRICAL BOARDS MFG. CO P.O. Box 25428, SAFAT – 13115, KUWAIT

Tested for: ELECTRICAL BOARDS MFG. CO P.O. Box 25428, SAFAT – 13115, KUWAIT

Tested by: ACAE Laboratory IA 01

The apparatus, constructed in accordance with the description mentioned in the Test Report listed on this Certificate has been subjected to the series of proving tests in accordance with IEC 60439-1 (1999-09) Ed.4; EN 60439-1 (2000-11) Ed.4

The results are shown in the Test Report in accordance to ACAE procedures. The values obtained and the general performance are considered to comply with the above Standard(s) and to justify the characteristic assigned by the manufacturer as stated below.

- Verification of temperature rise-limits.
  Rated diversity factor = 0,6/Amb.Temp.55°C
- Verification of short-circuit withstand strength
- Verification of the effectiveness of the protective circuit
- Verification of dielectric properties
- Verification of clearance and creepage distances
- Verification of degree of protection

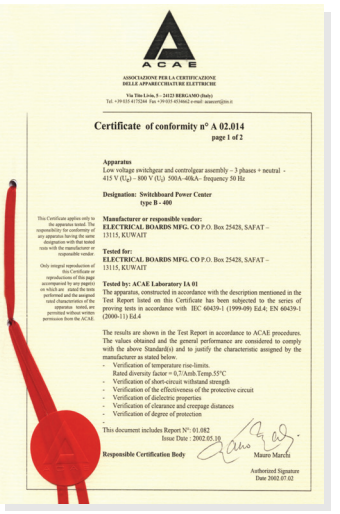
This document includes Report N°: 01.081
Issue Date : 2002.05.10

Responsible Certification Body

Mauro Marchi

Authorized Signature

Date 2002.07.02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ASSOCIAZIONE PER LA CERTIFICAZIONE DELLE APPARECCHIATURE ELETTRICHE

Certificate of conformity n° A 02.014

page 1 of 2

Apparatus

Low voltage switchgear and controlgear assembly – 3 phases + neutral - 415 V (U_N) – 800 V (U_i) 500A–40kA– frequency 50 Hz

Designation: Switchboard Power Center type B - 400

Manufacturer or responsible vendor: ELECTRICAL BOARDS MFG. CO P.O. Box 25428, SAFAT – 13115, KUWAIT

Tested for: ELECTRICAL BOARDS MFG. CO P.O. Box 25428, SAFAT – 13115, KUWAIT

Tested by: ACAE Laboratory IA 01

The apparatus, constructed in accordance with the description mentioned in the Test Report listed on this Certificate has been subjected to the series of proving tests in accordance with IEC 60439-1 (1999-09) Ed.4; EN 60439-1 (2000-11) Ed.4

The results are shown in the Test Report in accordance to ACAE procedures. The values obtained and the general performance are considered to comply with the above Standard(s) and to justify the characteristic assigned by the manufacturer as stated below.

- Verification of temperature rise-limits.
  Rated diversity factor = 0,7/Amb.Temp.55°C
- Verification of short-circuit withstand strength
- Verification of the effectiveness of the protective circuit
- Verification of dielectric properties
- Verification of clearance and creepage distances
- Verification of degree of protection

This document includes Report N°: 01.082
Issue Date : 2002.05.10

Responsible Certification Body

Mauro Marchi

Authorized Signature

Date 2002.07.02

ACAE

ASSOCIAZIONE PER LA CERTIFICAZIONE DELLE APPARECCHIATURE ELETTRICHE

Certificate of conformity n° A 02.012

page 1 of 1

Apparatus

Low voltage switchgear and controlgear assembly – 3 phases + neutral - 415 V (U_N) – 800 V (U_i) - frequency 50 Hz

Designation: Switchboard Power Center type "B" SERIES BOARDS

Manufacturer or responsible vendor: ELECTRICAL BOARDS MFG. CO P.O. Box 25428, SAFAT – 13115, KUWAIT

Tested for: ELECTRICAL BOARDS MFG. CO P.O. Box 25428, SAFAT – 13115, KUWAIT

Tested by: ACAE Laboratory IA 01

The apparatus, constructed in accordance with the description mentioned in the Test Report listed on this Certificate has been subjected to the series of proving tests in accordance with IEC 60439-1 (1999-09) Ed.4; EN 60439-1 (2000-11) Ed.4

The results are shown in the Test Report in accordance to ACAE procedures. The values obtained and the general performance are considered to comply with the above Standard(s) and to justify the characteristic assigned by the manufacturer as stated below.

Verification of the degree of protection

This document includes Report N°: 02.035
Issue Date : 2002.05.10

Responsible Certification Body

Mauro Marchi

Authorized Signature

Date 2002.07.02

E2 - W52 / B250 - 10
STANDARD SWITCHBOARD (Box Type)

E2 - F52 - 1E / B250 - 10
BOX TYPE WITH SIDE EXTENSION

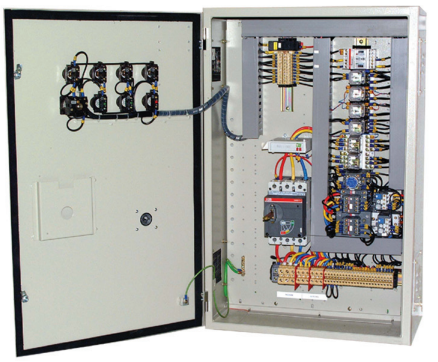
E2 - F52 / B250 - 8
BOX TYPE WITH BOTTOM EXTENSION

E2 - F52 - 1E / B250 - 8
BOX TYPE WITH SIDE / BOTTOM EXTENSION

F2 - 52 - 1D - 1E / B250 - 18 - E - M
CUBICLE TYPE WITH SIDE EXTENSION

F2 - 52 - 2D / B400 - 8 - E - M
CUBICLE TYPE WITH TOP METERING COMPARTMENT

COMPLEMENTARY PRODUCTS (NOT LISTED)



MOTOR STARTER BOX

VARIABLE FREQUENCY DRIVE (VFD PANEL)

CUT - OUT BOX

SERVICE CABINET

ASSEMBLY

Assembly Selection

All assembles are coded: □ / □ □ □ □ - □ □ - □ - □

Enclosure Code

Series - Type

No. of TP Outgoing Ways

Control/protection

Measurement meters

Series-type: B160
B250
B400
B630

No. of TP outgoing ways: (refer assembly drawings)

Control / protection : E

Measurement meters : M

Complete the code from the assembly drawings
in the following sheets in this section or consult
EBOMAC Sales Dept.

□ for quick reference purpose following assemblies are available:

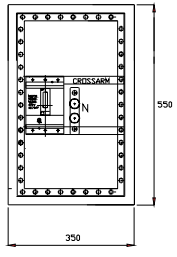
□ / B160-01-□-□
□ / B160-03-□-□
□ / B160-04-□-□
□ / B160-06-□-□
□ / B160-10-□-□
□ / B160-12-□-□
□ / B160-16-□-□
□ / B160-20-□-□
□ / B160-24-□-□
□ / B160-26-□-□

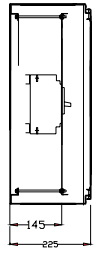
□ / B250-01-□-□
□ / B250-02-□-□
□ / B250-03-□-□
□ / B250-04-□-□
□ / B250-06-□-□
□ / B250-08-□-□
□ / B250-10-□-□
□ / B250-16-□-□
□ / B250-18-□-□
□ / B250-22-□-□
□ / B250-24-□-□

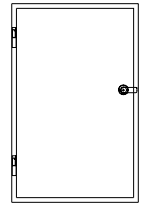
□ / B400-01-□-□
□ / B400-02-□-□
□ / B400-04-□-□
□ / B400-06-□-□
□ / B400-08-□-□
□ / B400-14-□-□
□ / B400-16-□-□
□ / B400-20-□-□
□ / B400-22-□-□

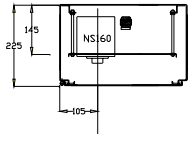
□ / B630-01-□-□
□ / B630-04-□-□
□ / B630-06-□-□
□ / B630-08-□-□
□ / B630-12-□-□
□ / B630-16-□-□
□ / B630-20-□-□
□ / B630-22-□-□

ASSEMBLY OF COMPONENTS-FRONT VIEW

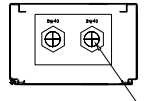






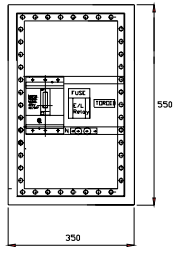


BOTTOM LAYOUT



CABLE GLANDS ARE OPIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)

ASSEMBLY OF COMPONENTS FRONT VIEW
MCCB+E/L RELAY *ACCESSORIES



COMPLETE ASSEMBLY CODE :

B2-W52 /B160
B2-W54 /B160
B2-F52 /B160
B2-F54 /B160

ENCLOSURE CODE(TYPE)
INCOMER & OUTGOING RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING (Ammeter/Voltmeter/Sel. Sw.)

COMPLETE ASSEMBLY CODE :

B2-W52 /B160-E
B2-W54 /B160-E
B2-F52 /B160-E
B2-F54 /B160-E

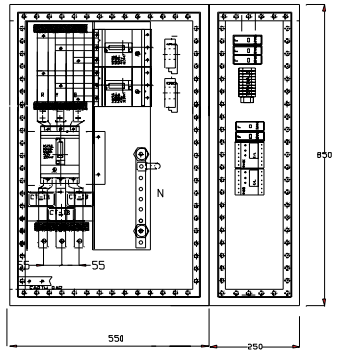
ENCLOSURE CODE(TYPE)
INCOMER & OUTGOING RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METER (Ammeter/Voltmeter/Sel. Sw.)

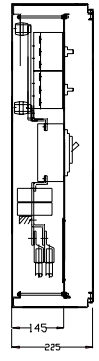
B-160

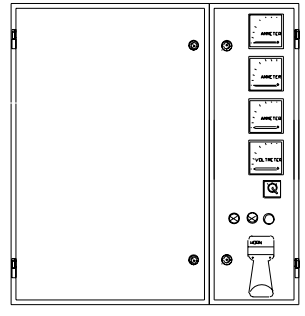
DWG NO.
0-S-11-00370-01

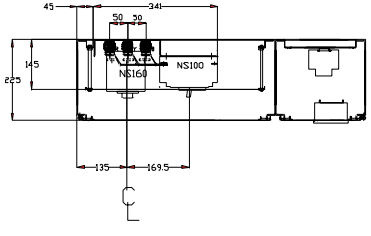
EBOMAC - ELECTRICAL BOARDS MANUFACTURING COMPANY

ASSEMBLY OF COMPONENTS-FRONT VIEW



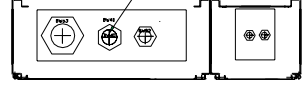






BOTTOM LAYOUT

CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)



COMPLETE ASSEMBLY CODE :

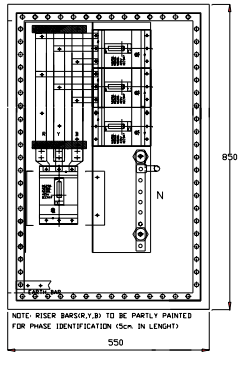
C2-W52-1E	/B160-2-E-M	
C2-W54-1E	/B160-2-E-M	
C2-F52-1E	/B160-2-E-M	
C2-F54-1E	/B160-2-E-M	
ENCLOSURE CODE(TYPE)		
INCOMER RATING		
No. OF WAYS(Max.Outgoing rating,100A)		
PROTECTION: E/L RELAY		
METERING(Anmeter/Voltmeter/Sel.sw.)		
KWHmeter (Space)		
MEW Cut_out		

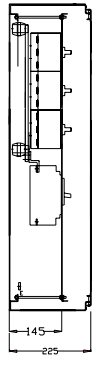
B-160

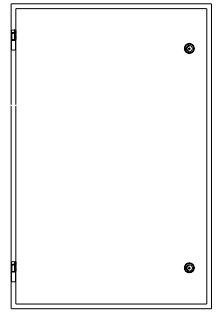
DWG NO.

0-S-11-00369A-01

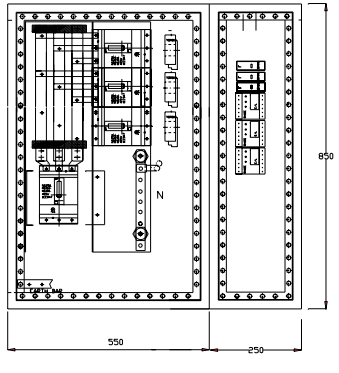
ASSEMBLY OF COMPONENTS-FRONT VIEW

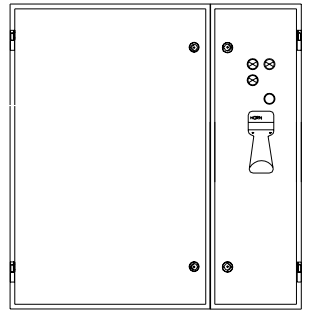


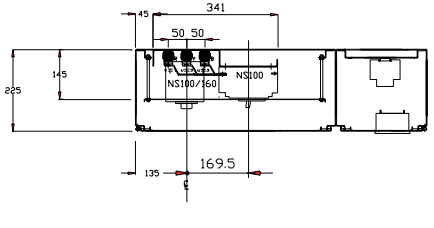




ASSEMBLY OF COMPONENTS-FRONT VIEW







BOTTOM LAYOUT

CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)

COMPLETE ASSEMBLY CODE :

C2-W52 /B160-3
C2-W54 /B160-3
C2-F52 /B160-3
C2-F54 /B160-3

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PRO ELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out

COMPLETE ASSEMBLY CODE :

C2-W52-1E /B160-3-E
C2-W54-1E /B160-3-E
C2-F52-1E /B160-3-E
C2-F54-1E /B160-3-E

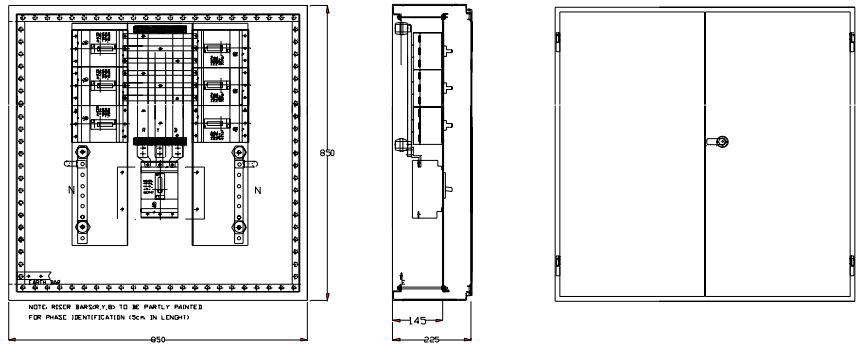
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out

B-160

DWG NO.

0-S-11-00366-01

ASSEMBLY OF COMPONENTS-FRONT VIEW

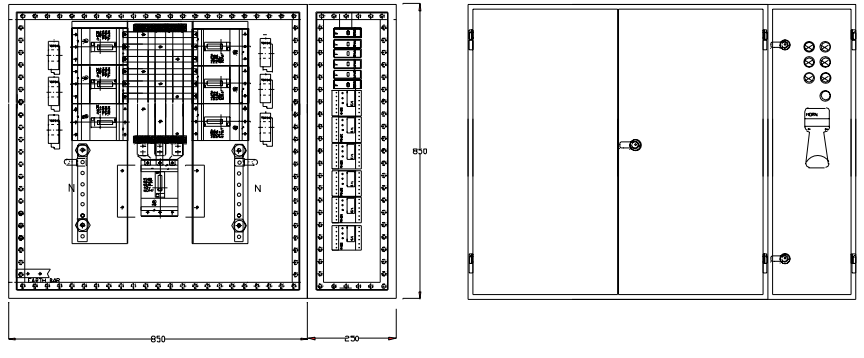


COMPLETE ASSEMBLY CODE :

D2-W52 /B160-6
D2-W54 /B160-6
D2-F52 /B160-6
D2-F54 /B160-6

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating.100A)
PROTF ELAY
METERING(Anneter/Voltmeter/Selsw.)
KWHmeter (Space)
MEW Cut_out

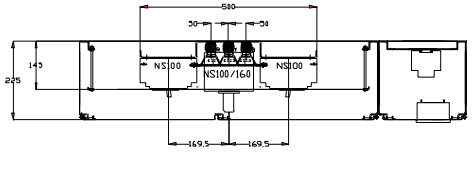
ASSEMBLY OF COMPONENTS-FRONT VIEW



COMPLETE ASSEMBLY CODE :

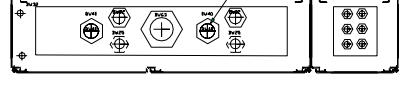
D2-W52-1E /B160-6-E
D2-W54-1E /B160-6-E
D2-F52-1E /B160-6-E
D2-F54-1E /B160-6-E

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating.100A)
PROTECTION E/L RELAY
METERING(Ammeter/Voltmeter/Selsw.)
KWHmeter (Space)
MEW Cut_out



BOTTOM LAYOUT

CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)

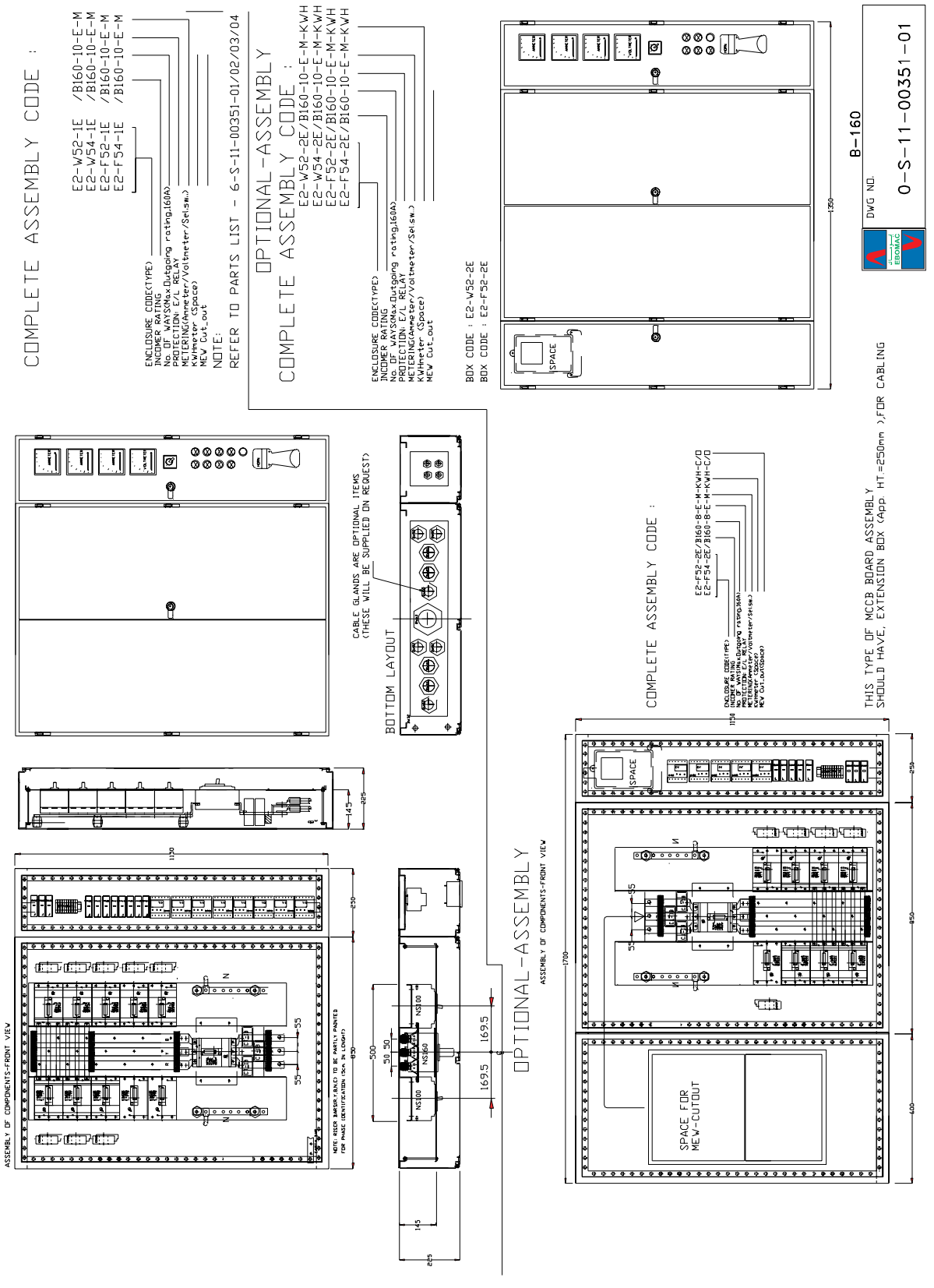


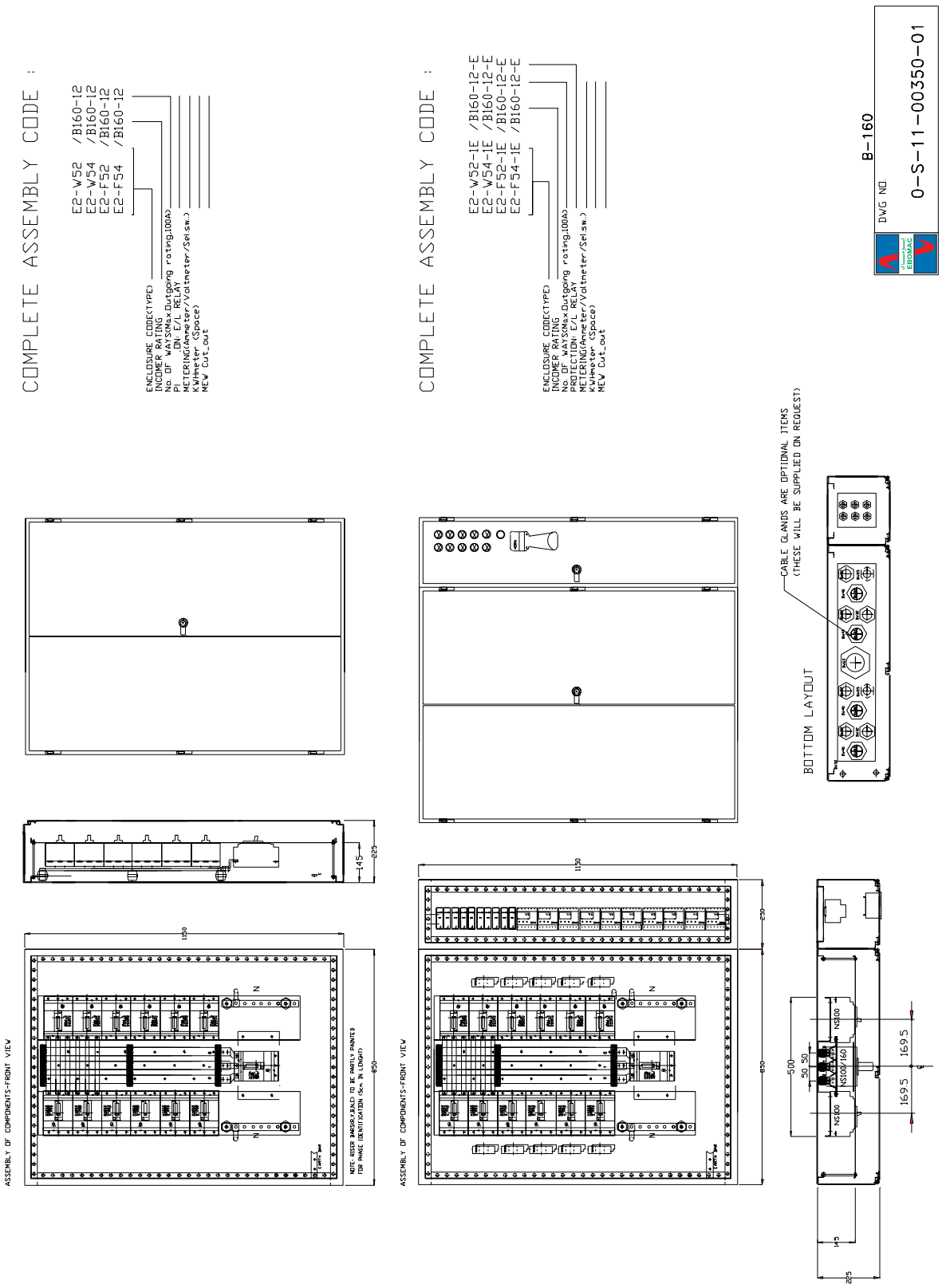
B-160

DWG NO.

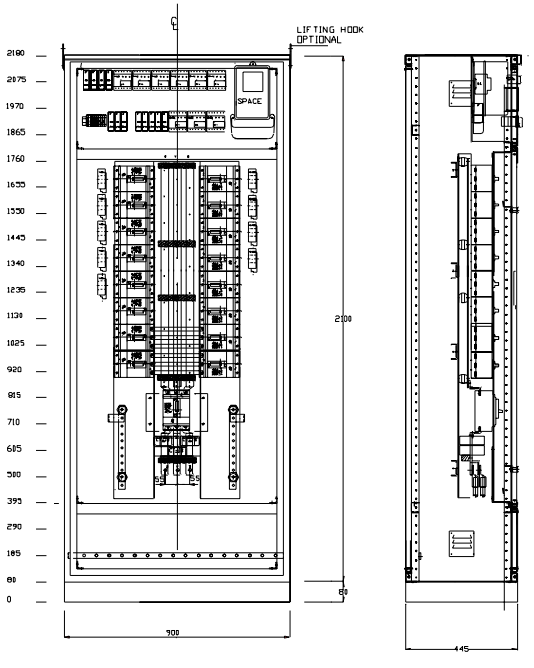
0-S-11-00358-01

EBOMAC - ELECTRICAL BOARDS MANUFACTURING COMPANY

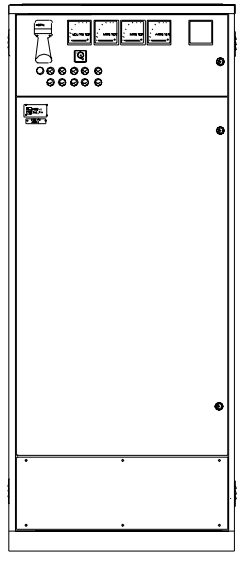

COMPLETE ASSEMBLY CODE :
E2-W52-1E /B160-10-E-M
E2-W54-1E /B160-10-E-M
E2-F52-1E /B160-10-E-M
E2-F54-1E /B160-10-E-M
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
NOTE:
REFER TO PARTS LIST - 6-S-11-00351-01/02/03/04
OPTIONAL-ASSEMBLY
COMPLETE ASSEMBLY CODE :
E2-W52-2E/B160-10-E-M-KWH
E2-W54-2E/B160-10-E-M-KWH
E2-F52-2E/B160-10-E-M-KWH
E2-F54-2E/B160-10-E-M-KWH
BOX CODE : E2-W52-2E
BOX CODE : E2-F52-2E
SPACE
B-160
DWG NO.
0-S-11-00351-01
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
BOTTOM LAYOUT
COMPLETE ASSEMBLY CODE :
E2-F52-2E/B160-8-E-M-KWH-C/O
E2-F54-2E/B160-8-E-M-KWH-C/O
THIS TYPE OF MCCB BOARD ASSEMBLY
SHOULD HAVE, EXTENSION BOX (App. HT.=250mm),FOR CABLING
ASSEMBLY OF COMPONENTS-FRONT VIEW
OPTIONAL-ASSEMBLY
ASSEMBLY OF COMPONENTS-FRONT VIEW
SPACE FOR
MEW-CUTOUT


COMPLETE ASSEMBLY CODE :
E2-W52 /B160-12
E2-W54 /B160-12
E2-F52 /B160-12
E2-F54 /B160-12
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PI ON: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
COMPLETE ASSEMBLY CODE :
E2-W52-1E /B160-12-E
E2-W54-1E /B160-12-E
E2-F52-1E /B160-12-E
E2-F54-1E /B160-12-E
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
DWG NO.
B-160
0-S-11-00350-01
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
BOTTOM LAYOUT
ASSEMBLY OF COMPONENTS-FRONT VIEW
ASSEMBLY OF COMPONENTS-FRONT VIEW
1150
850
145
225
250
500
50 50
169.5
169.5
NS100
NS100/160
NS100

FRONT VIEW-ASSEMBLY



FRONT VIEW-DOORS...

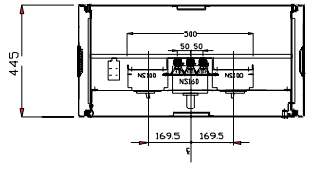


COMPLETE ASSEMBLY CODE :

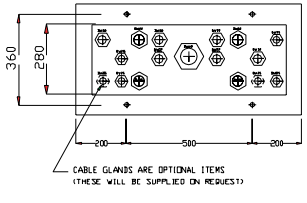
F2-52-2D /B160-16-E-M
F2-52-2D /B160-14-E-M
F2-52-2D /B160-12-E-M

ENCLOSURE CODE(TYPE)
INCOMER RATING
NO. OF WAYS(Max.Outgoing rating,(DOA)
PROTECTION E/L RELAY(max) QTY.=9Nos.)
METERING(Ammeter/Voltmeter/Selsa.)
KWHmeter (Space)
MCW Cut_out

SE .TION A-A

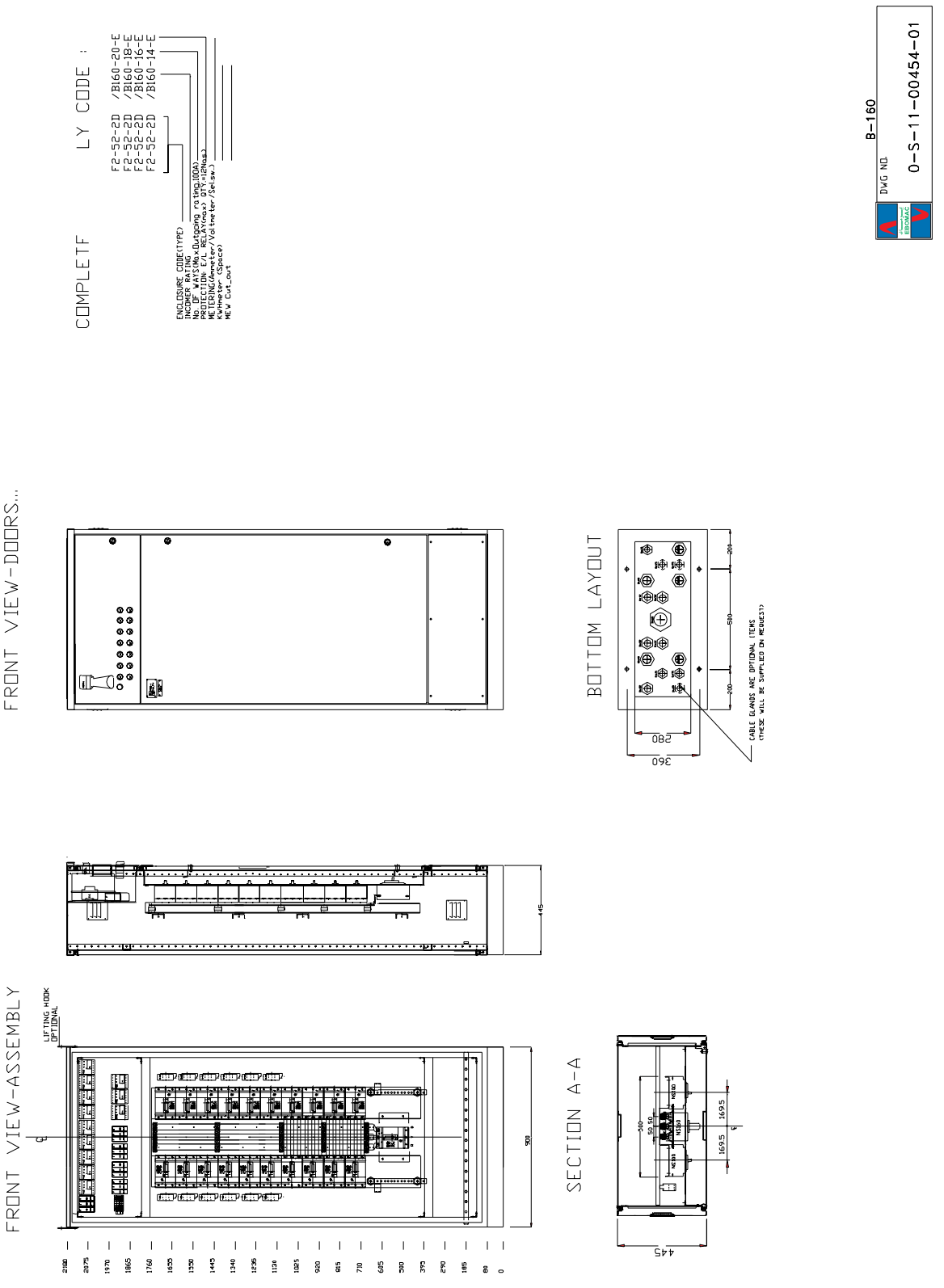


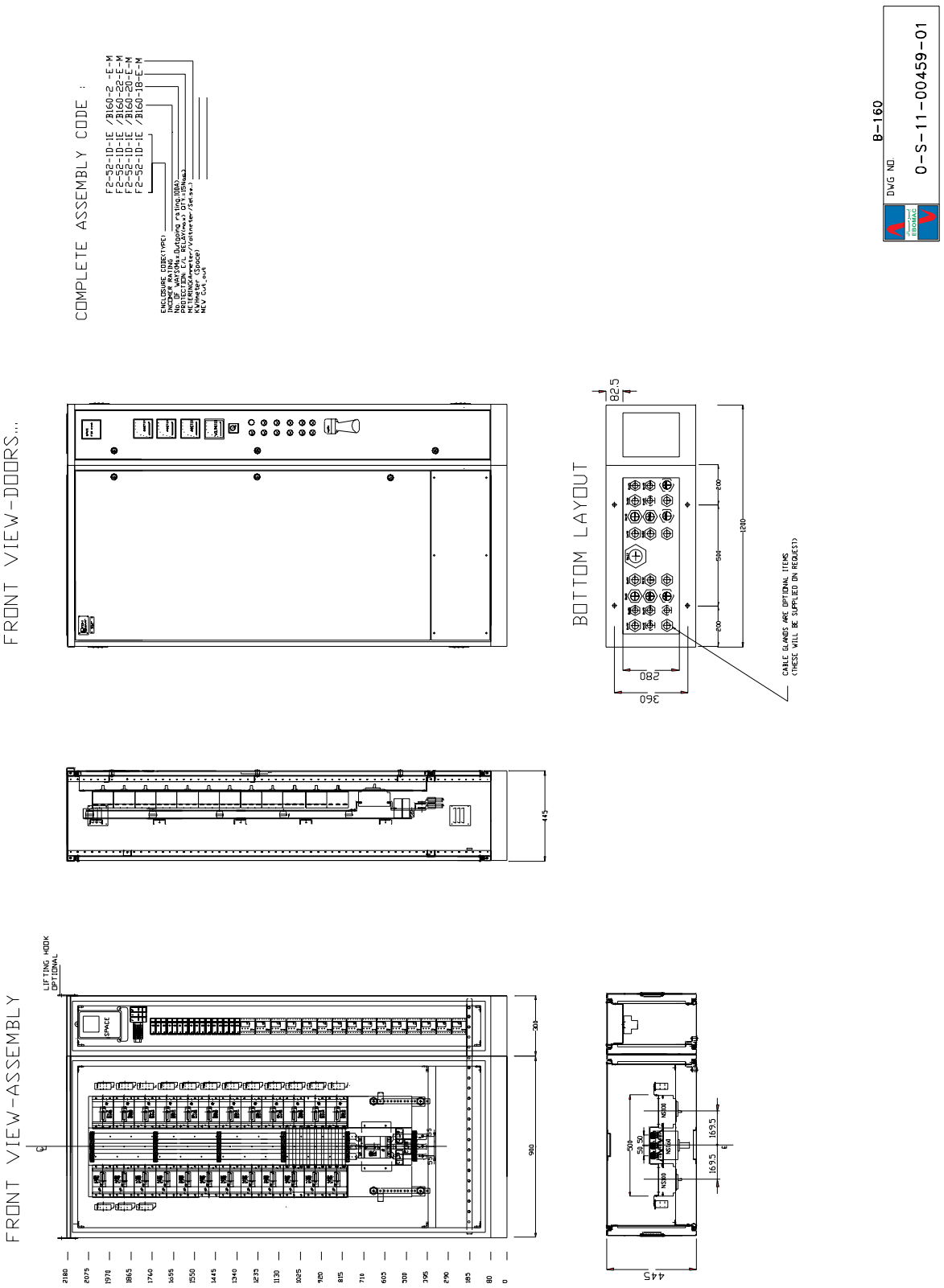
BOTTOM LAYOUT

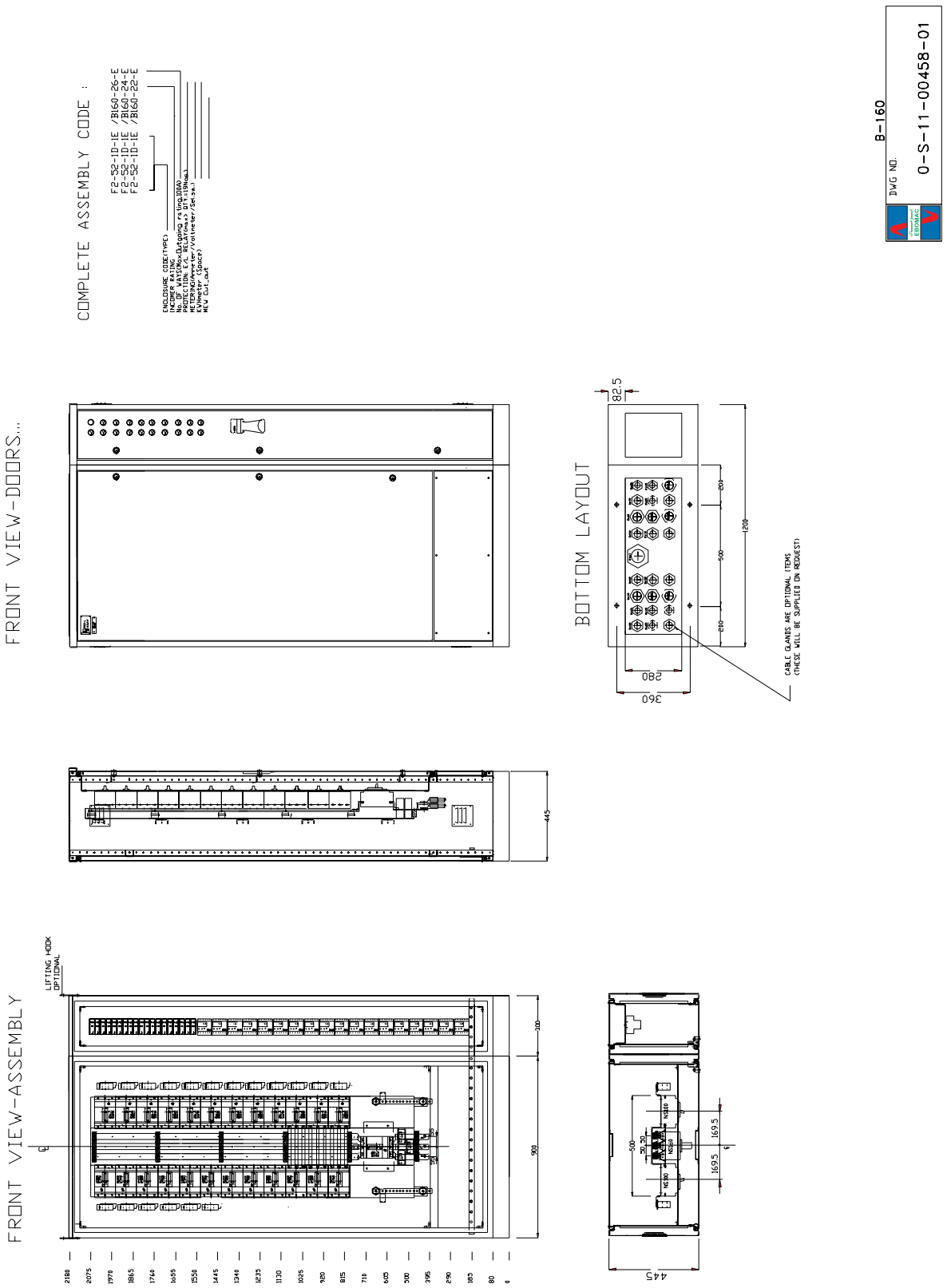


B-160

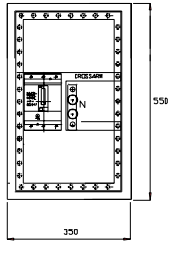
DWG NO.
0-S-11-00450-01

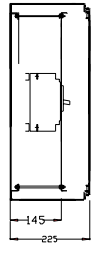

COMPLETF
LY CODE :
F2-52-2D /B160-20-E
F2-52-2D /B160-18-E
F2-52-2D /B160-16-E
F2-52-2D /B160-14-E
ENCLOSURE CODE(TYPE)
INCOMER RATING
No OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY(max) QTY.=12Nos.)
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
FRONT VIEW-DOORS...
BOTTOM LAYOUT
280
360
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
FRONT VIEW-ASSEMBLY
LIFTING HOOK
OPTIONAL
SECTION A-A
445
B-160
DWG NO.
0-S-11-00454-01

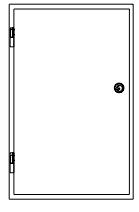

COMPLETE ASSEMBLY CODE :
F2-52-1D-1E /B160-2 -E-M
F2-52-1D-1E /B160-22-E-M
F2-52-1D-1E /B160-20-E-M
F2-52-1D-1E /B160-18-E-M
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION C/L RELAY(max) QTY.=15Max)
METER(KWHmeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MCV Cut_out
FRONT VIEW-DOORS...
BOTTOM LAYOUT
82.5
200
500
200
1200
280
360
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
445
FRONT VIEW-ASSEMBLY
LIFTING HOOK
OPTIONAL
SPACE
300
980
2180
2075
1970
1865
1760
1655
1550
1445
1340
1235
1130
1025
920
815
710
605
500
395
290
185
80
0
500
50
50
169.5
169.5
445
B-160
DWG NO.
0-S-11-00459-01

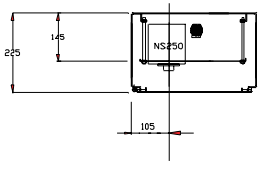

COMPLETE ASSEMBLY CODE :
F2-52-1D-1E /B160-26-E
F2-52-1D-1E /B160-24-E
F2-52-1D-1E /B160-22-E
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,IDMA)
PROTECTION E/L RELAY(max) DT1:19(Max.)
METERING(Ammeter/Voltmeter/Set.sw.)
KWhmeter (Space)
MEW Cut.out
FRONT VIEW-DOORS...
BOTTOM LAYOUT
82.5
280
360
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
445
FRONT VIEW-ASSEMBLY
LIFTING HOOK
OPTIONAL
900
445
169.5
169.5
B-160
DWG NO.
0-S-11-00458-01

ASSEMBLY OF COMPONENTS-FRONT VIEW

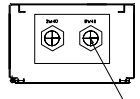








BOTTOM LAYOUT



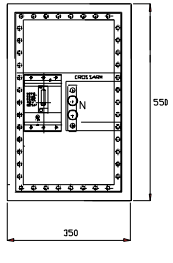
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)

COMPLETE ASSEMBLY CODE :

B2-W52 /B250
B2-W54 /B250
B2-F52 /B250
B2-F54 /B250

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECT
METERING(Ammeter/Voltmeter/Sel.sw.)

ASSEMBLY OF COMPONENTS-FRONT VIEW
MCCB+E/L RELAY *ACCESSORIES



COMPLETE ASSEMBLY CODE :

B2-W52 /B250-E
B2-W54 /B250-E
B2-F52 /B250-E
B2-F54 /B250-E

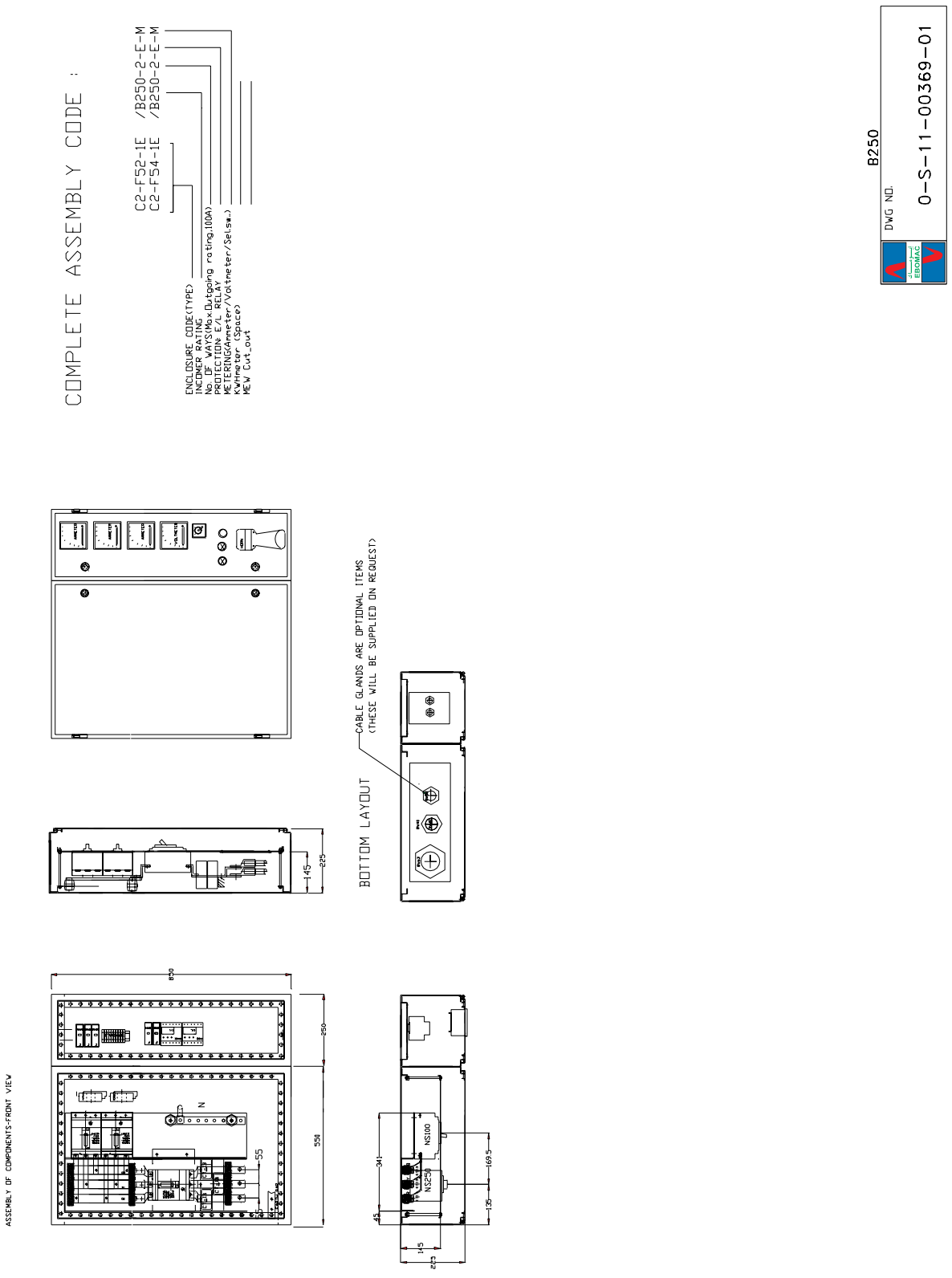
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rati
<DTECTION: E/L RELAY
METERING(Anmeter/Voltmeter/Sel.sw.)

B-250

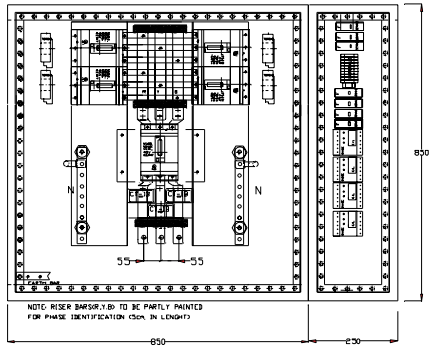
DWG NO.

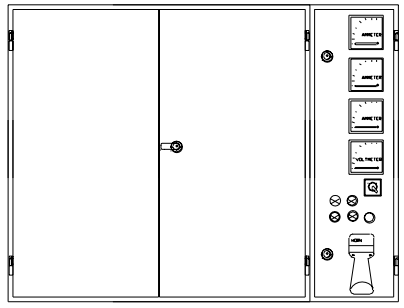
0-S-11-00371-01

EBOMAC - ELECTRICAL BOARDS MANUFACTURING COMPANY


COMPLETE ASSEMBLY CODE :
C2-F52-1E /B250-2-E-M
C2-F54-1E /B250-2-E-M
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
BOTTOM LAYOUT
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
ASSEMBLY OF COMPONENTS-FRONT VIEW
NS100
NS250
B250
DWG NO.
0-S-11-00369-01

ASSEMBLY OF COMPONENTS-FRONT VIEW

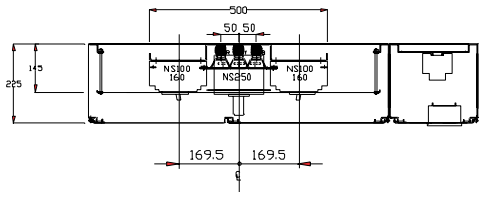




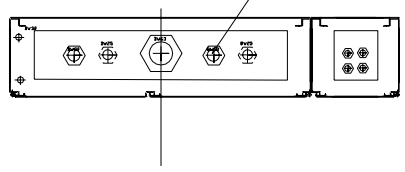
COMPLETE ASSEMBLY CODE :

D2-W52-1E /B250-2-E-M
D2-W54-1E /B250-2-E-M
D2-F52-1E /B250-4-E-M
D2-F54-1E /B250-4-E-M

ENCLOSURE CODE(TYPE) _____
INCOMER RATING _____
No. OF WAYS(Max.Outgoing rating,100A) _____
PROTECTION: E/L RELAY _____
METERING(Ammeter/Voltmeter/Sel.sw..) _____
KWHmeter (Space) _____
MEW Cut_out _____



BOTTOM LAYOUT

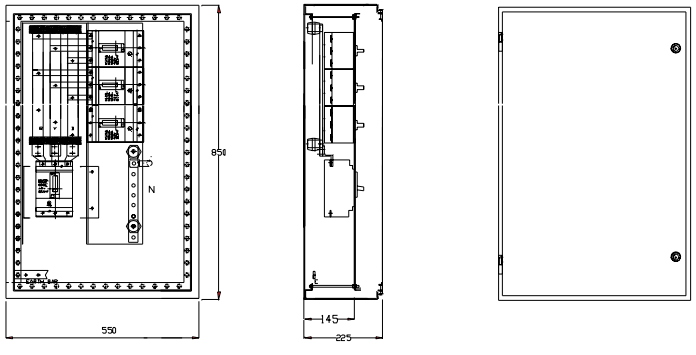


B250

DWG NO.

0-S-11-00361-01

ASSEMBLY OF COMPONENTS-FRONT VIEW

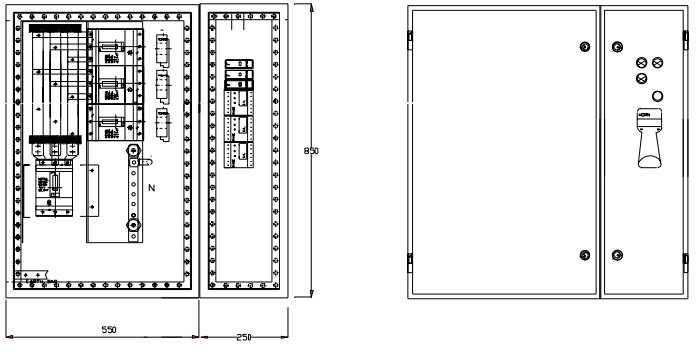


COMPLETE ASSEMBLY CODE :

C2-W52 /B250-3
C2-W54 /B250-3
C2-F52 /B250-3
C2-F54 /B250-3

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PD AY
METERING(Anmeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out

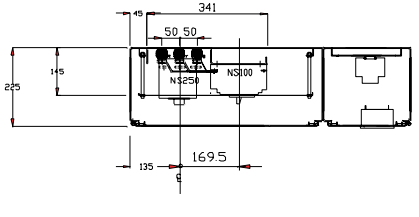
ASSEMBLY OF COMPONENTS-FRONT VIEW



COMPLETE ASSEMBLY CODE :

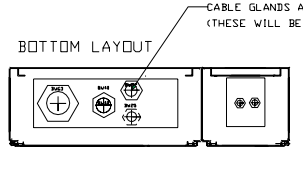
C2-W52-1E /B250-3-E
C2-W54-1E /B250-3-E
C2-F52-1E /B250-3-E
C2-F54-1E /B250-3-E

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION E/L RELAY
METERING(Anmeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out



BOTTOM LAYOUT

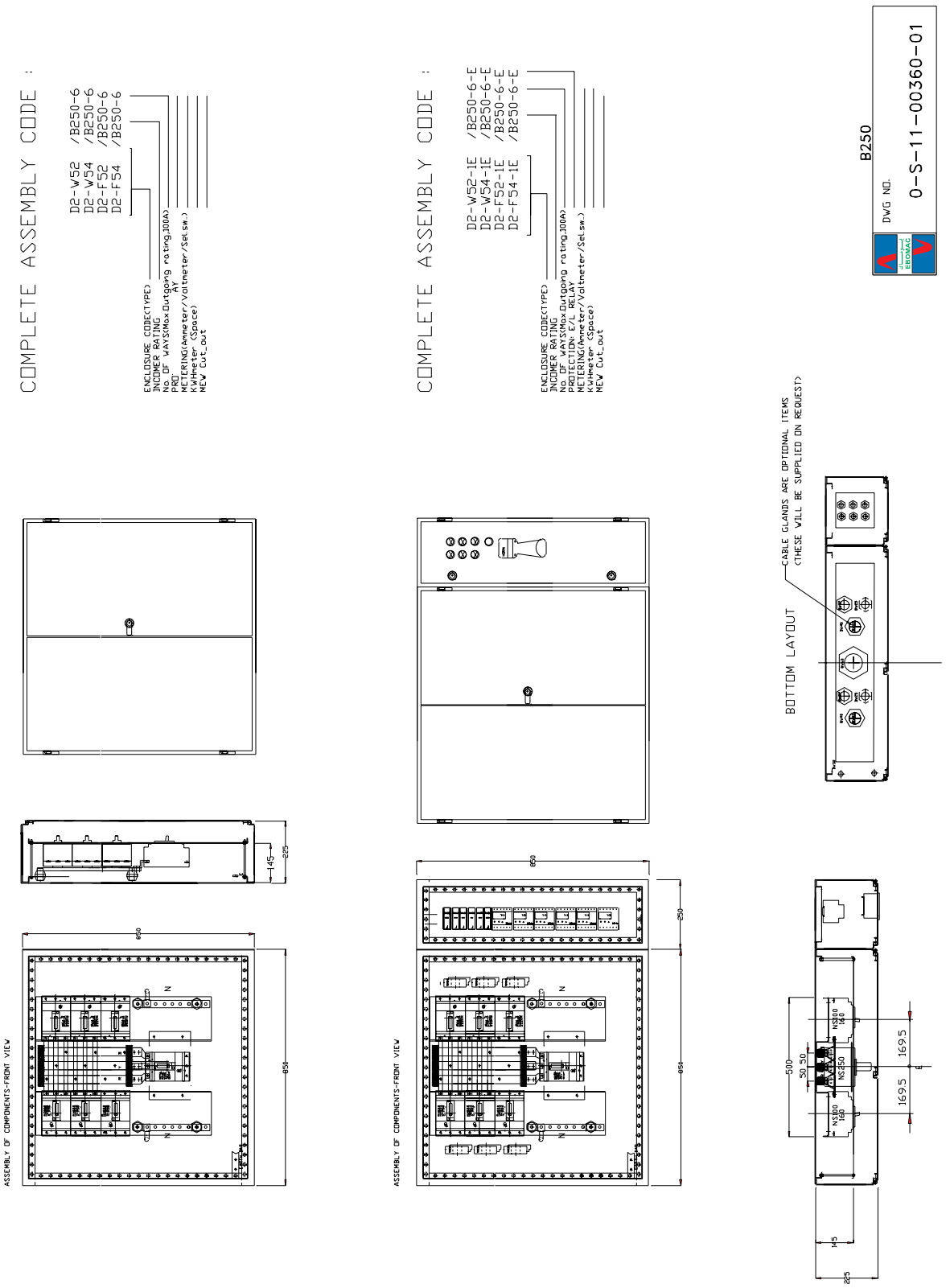
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)

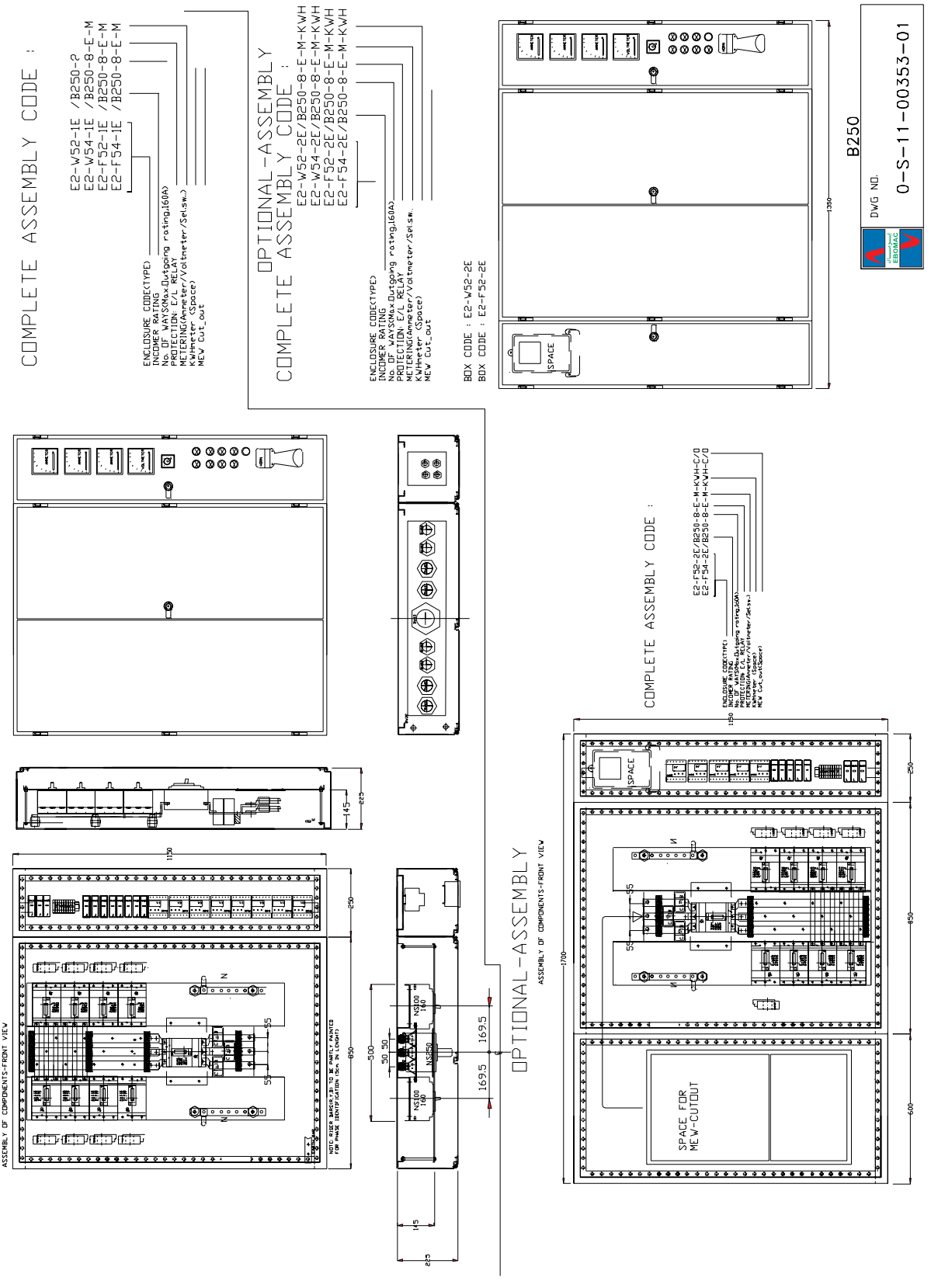


B250

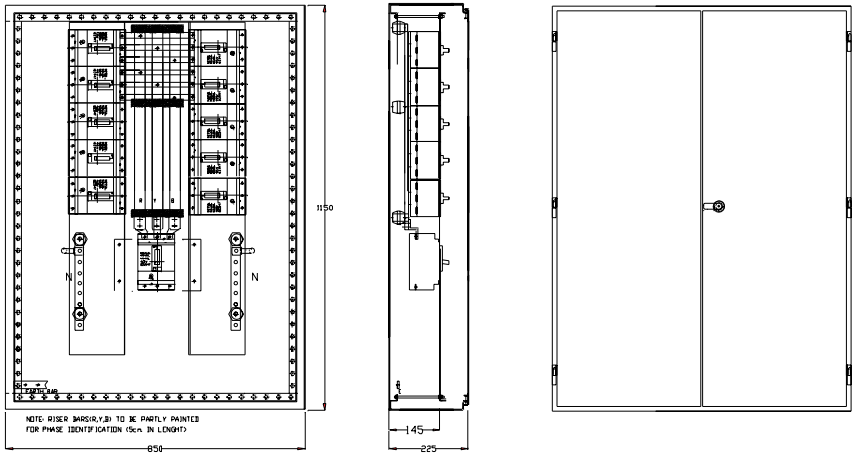
DWG NO.

0-S-11-00368-01


COMPLETE ASSEMBLY CODE :
D2-W52 /B250-6
D2-W54 /B250-6
D2-F52 /B250-6
D2-F54 /B250-6
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEV Cut_out
COMPLETE ASSEMBLY CODE :
D2-W52-1E /B250-6-E
D2-W54-1E /B250-6-E
D2-F52-1E /B250-6-E
D2-F54-1E /B250-6-E
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEV Cut_out
B250
DWG NO.
0-S-11-00360-01
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
BOTTOM LAYOUT
ASSEMBLY OF COMPONENTS-FRONT VIEW
ASSEMBLY OF COMPONENTS-FRONT VIEW


COMPLETE ASSEMBLY CODE :
E2-W52-1E /B250-2
E2-W54-1E /B250-8-E-M
E2-F52-1E /B250-8-E-M
E2-F54-1E /B250-8-E-M
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
OPTIONAL-ASSEMBLY
COMPLETE ASSEMBLY CODE :
E2-W52-2E/B250-8-E-M-KWH
E2-W54-2E/B250-8-E-M-KWH
E2-F52-2E/B250-8-E-M-KWH
E2-F54-2E/B250-8-E-M-KWH
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
BOX CODE : E2-W52-2E
BOX CODE : E2-F52-2E
SPACE
B250
DWG NO.
0-S-11-00353-01
COMPLETE ASSEMBLY CODE :
E2-F52-2E/B250-8-E-M-KWH-C/D
E2-F54-2E/B250-8-E-M-KWH-C/D
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out(Space)
ASSEMBLY OF COMPONENTS-FRONT VIEW
OPTIONAL-ASSEMBLY
ASSEMBLY OF COMPONENTS-FRONT VIEW
SPACE
SPACE FOR
MEW-CUTOUT
1350
1150
1700
850
600
250
145
225
500
50
169.5
NS100
160
NS250

ASSEMBLY DRAWING-FRONT VIEW

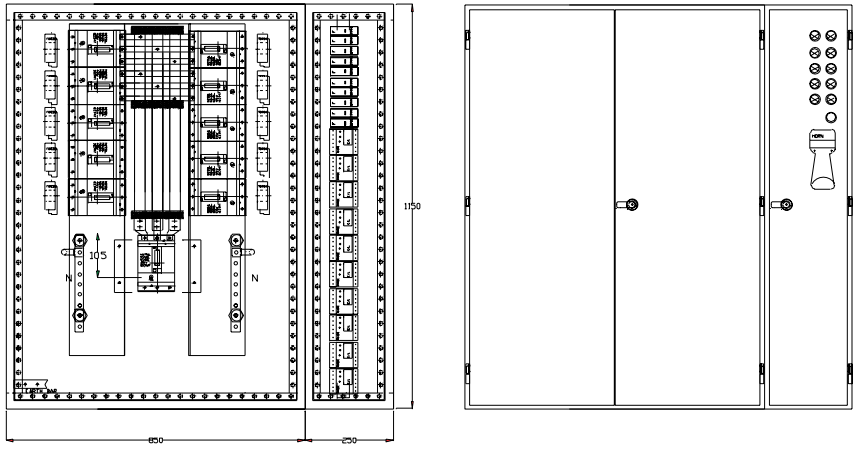


COMPLETE ASSEMBLY CODE :

E2-W52 /B250-10
E2-W54 /B250-10
E2-F52 /B250-10
E2-F54 /B250-10

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw..)
KWHmeter (Space)
MEW Cut_out

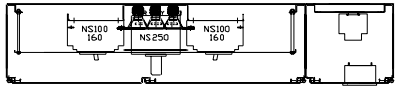
ASSEMBLY DRAWING-FRONT VIEW



COMPLETE ASSEMBLY CODE :

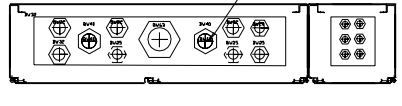
E2-W52-1E /B250-10-E
E2-W54-1E /B250-10-E
E2-F52-1E /B250-10-E
E2-F54-1E /B250-10-E

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw..)
KWHmeter (Space)
MEW Cut_out



BOTTOM LAYOUT

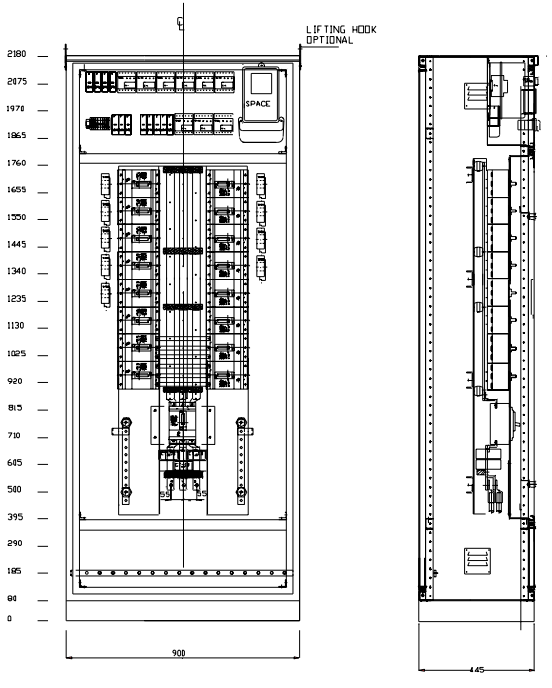
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)



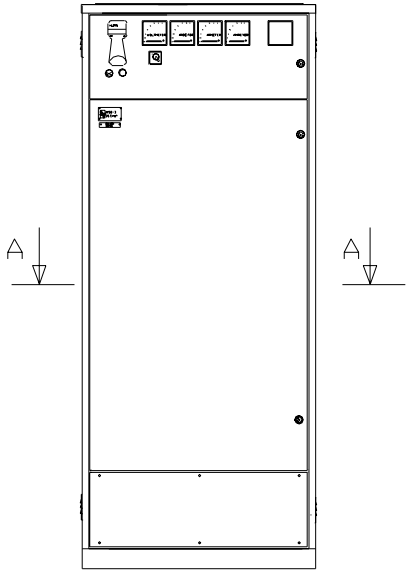
B250

DWG NO.
0-S-11-00352-01

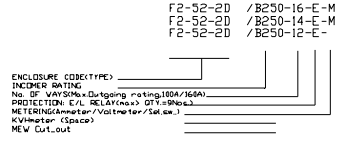
FRONT VIEW-ASSEMBLY



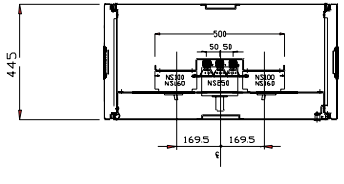
FRONT VIEW-DOORS...



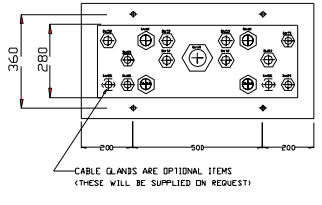
COMPLETE ASSEMBLY CODE :



CTION A-A



BOTTOM LAYOUT



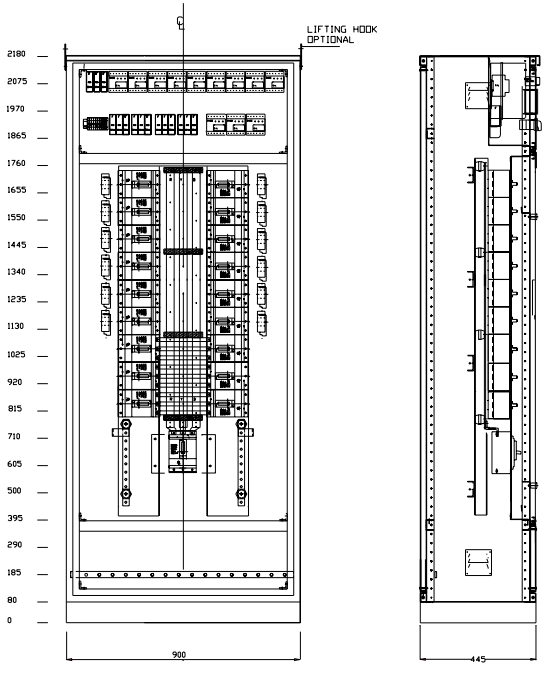
B250

DWG NO.

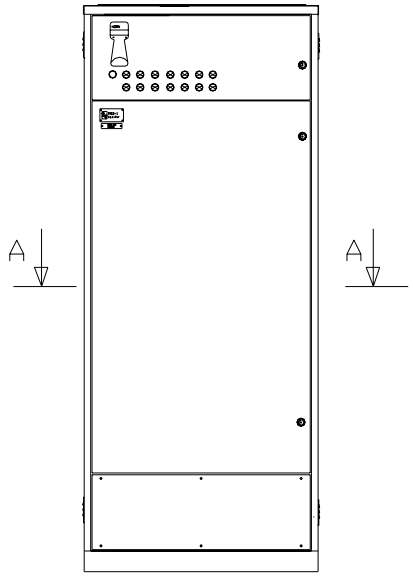
0-S-11-00451-01

EBOMAC - ELECTRICAL BOARDS MANUFACTURING COMPANY

FRONT VIEW-ASSEMBLY



FRONT VIEW-DOORS...

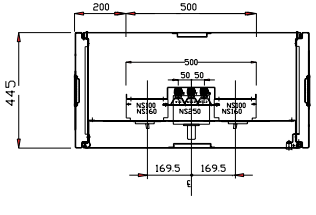


COMPLETE ASSEMBLY CODE :

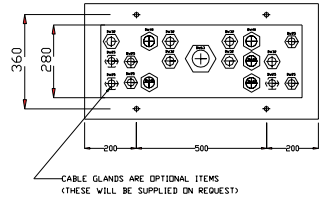
F2-F52-2D /B250-18-E
F2-F52-2D /B250-16-E
F2-F52-2D /B250-14-E
F2-F52-2D /B250-12-E

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY(max) QTY.=12Nos.)
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out

SECTION A-A



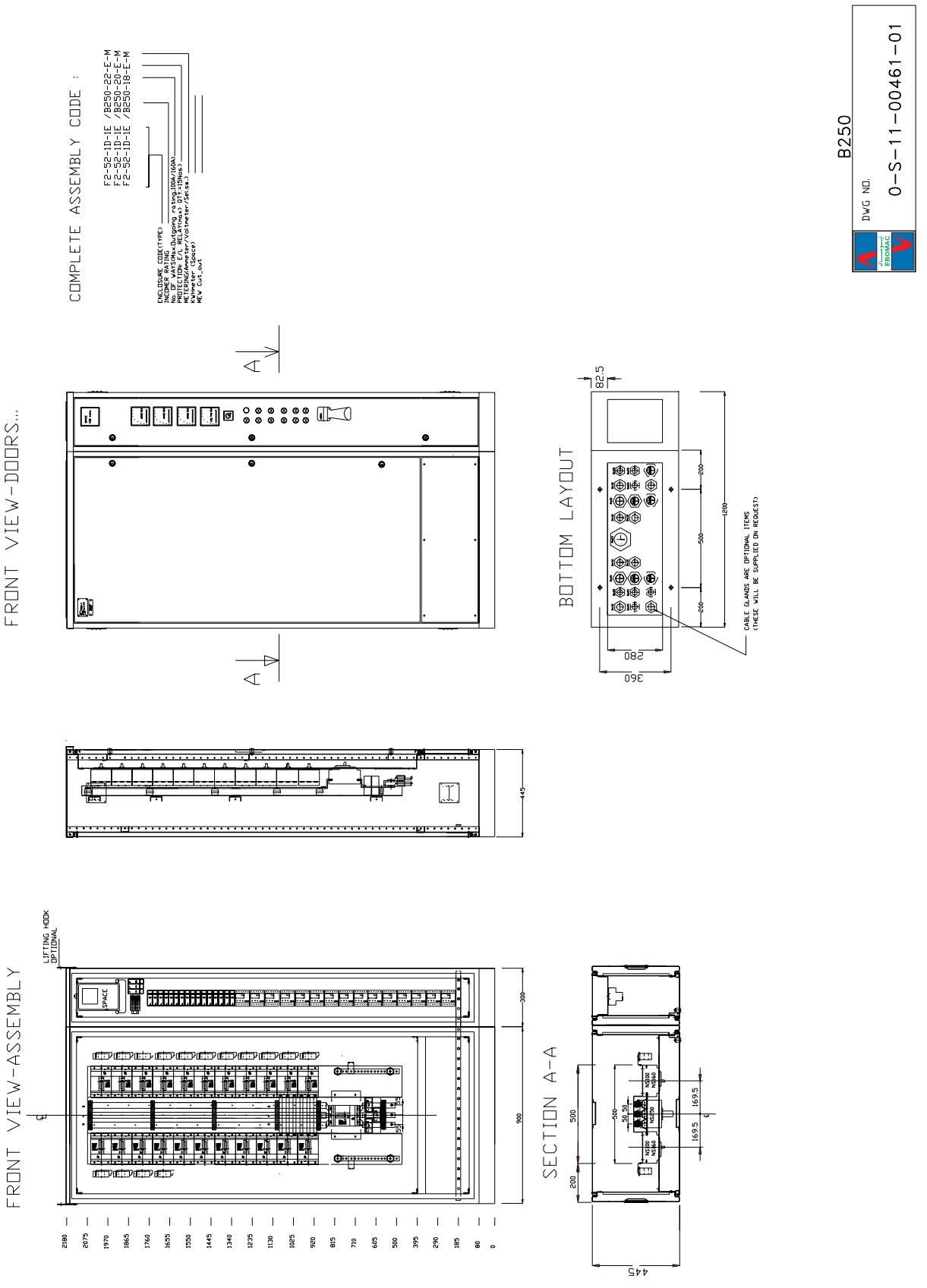
BOTTOM LAYOUT



B250

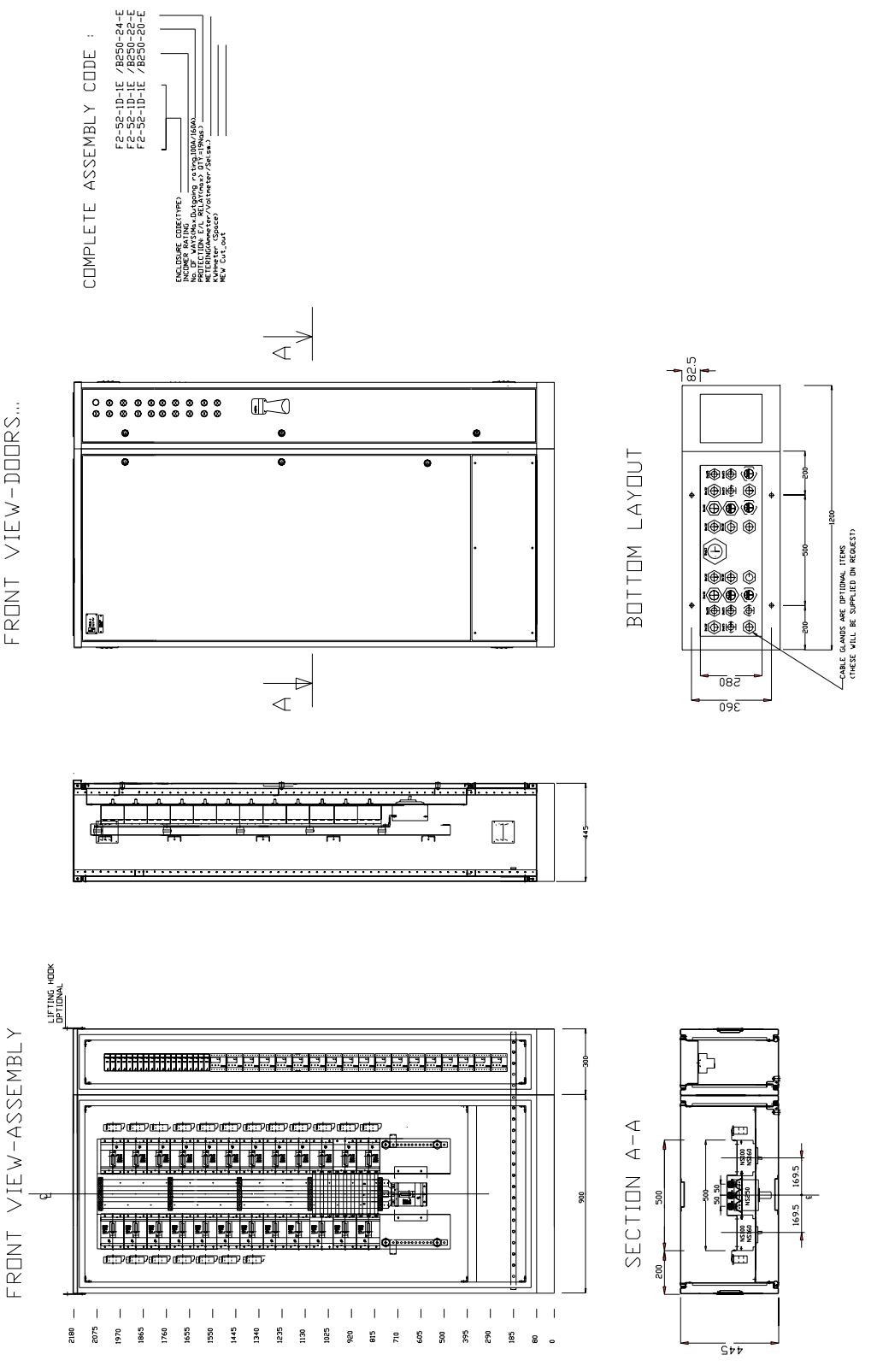
DWG NO.
0-S-11-00455-01

EBOMAC - ELECTRICAL BOARDS MANUFACTURING COMPANY

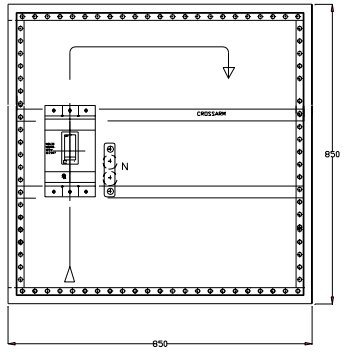

COMPLETE ASSEMBLY CODE :
F2-52-1D-1E /B250-22-E-M
F2-52-1D-1E /B250-20-E-M
F2-52-1D-1E /B250-18-E-M
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A/160A)
PROTECTION E/L RELAY(Max) DIT=15Nos)
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
B250
DWG NO.
0-S-11-00461-01
FRONT VIEW-DOORS...
A
A
BOTTOM LAYOUT
82.5
200
500
200
1200
280
360
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
445
FRONT VIEW-ASSEMBLY
LIFTING HOOK
OPTIONAL
SPACE
300
900
2180
2075
1970
1865
1760
1655
1550
1445
1340
1235
1130
1025
920
815
710
605
500
395
290
185
80
0
SECTION A-A
500
200
50 50
169.5
169.5
445

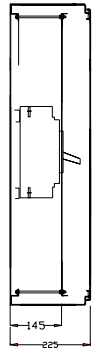
B250

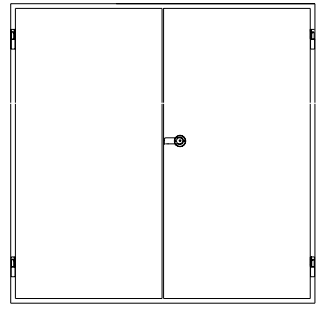
DWG NO. 0-S-11-00460-01



ASSEMBLY OF COMPONENTS-FRONT VIEW





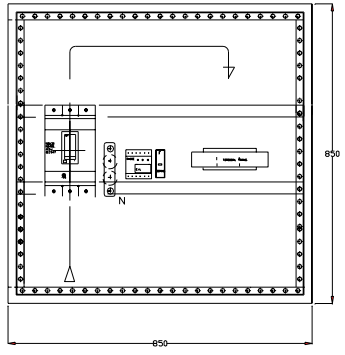


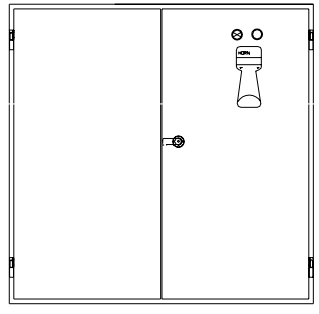
COMPLETE ASSEMBLY CODE :

D2-W52 /B400
D2-W54 /B400
D2-F52 /B400
D2-F54 /B400

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L P
TERING(Ammeter/Voltmeter/Sel.sw..)
KWHmeter (Space)
MEW Cut_out

ASSEMBLY OF COMPONENTS-FRONT VIEW

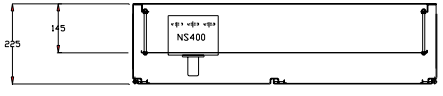




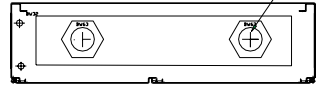
COMPLETE ASSEMBLY CODE :

D2-W52 /B400-1-E
D2-W54 /B400-1-E
D2-F52 /B400-1-E
D2-F54 /B400-1-E

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw..)
KWHmeter (Space)
MEW Cut_out



BOTTOM LAYOUT



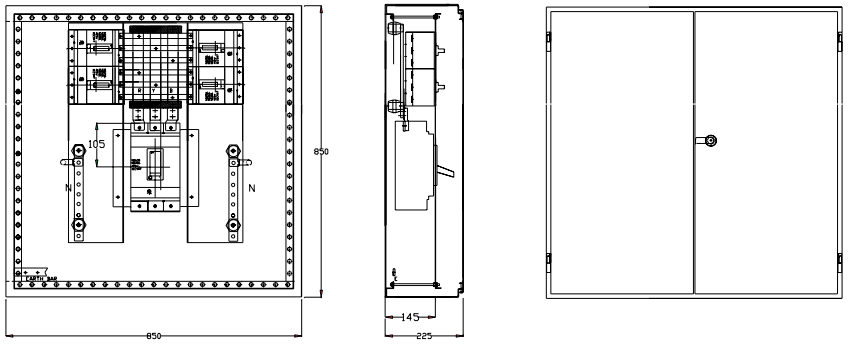
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)

B400

DWG NO.

0-S-11-00364-01

ASSEMBLY OF COMPONENTS-FRONT VIEW



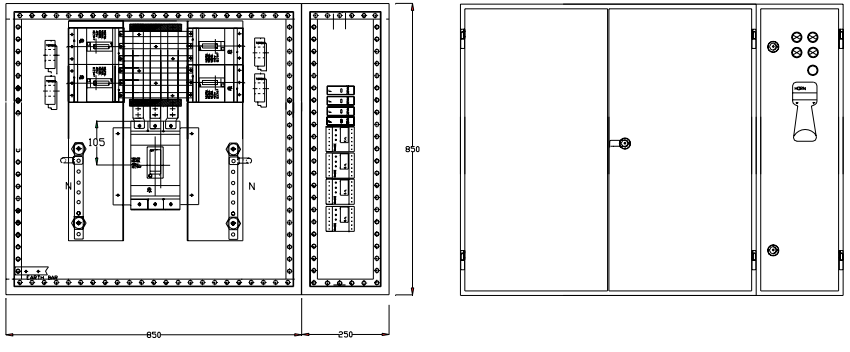
NOTE: RISER BARS(R,Y,B) TO BE PARTLY PAINTED FOR PHASE IDENTIFICATION (5cm IN LENGHT)

COMPLETE ASSEMBLY CODE :

D2-W52 /B400-2
D2-W54 /B400-2
D2-F52 /B400-4
D2-F54 /B400-4

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTI AY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out

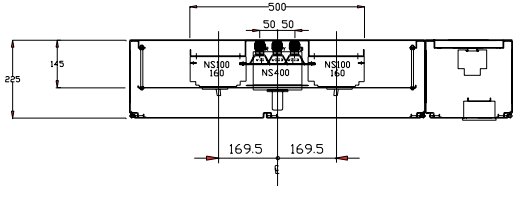
ASSEMBLY OF COMPONENTS-FRONT VIEW



COMPLETE ASSEMBLY CODE :

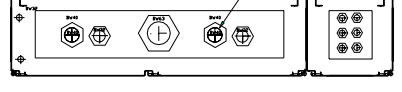
D2-W52-1E /B400-2-E
D2-W54-1E /B400-2-E
D2-F52-1E /B400-4-E
D2-F54-1E /B400-4-E

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out



BOTTOM LAYOUT

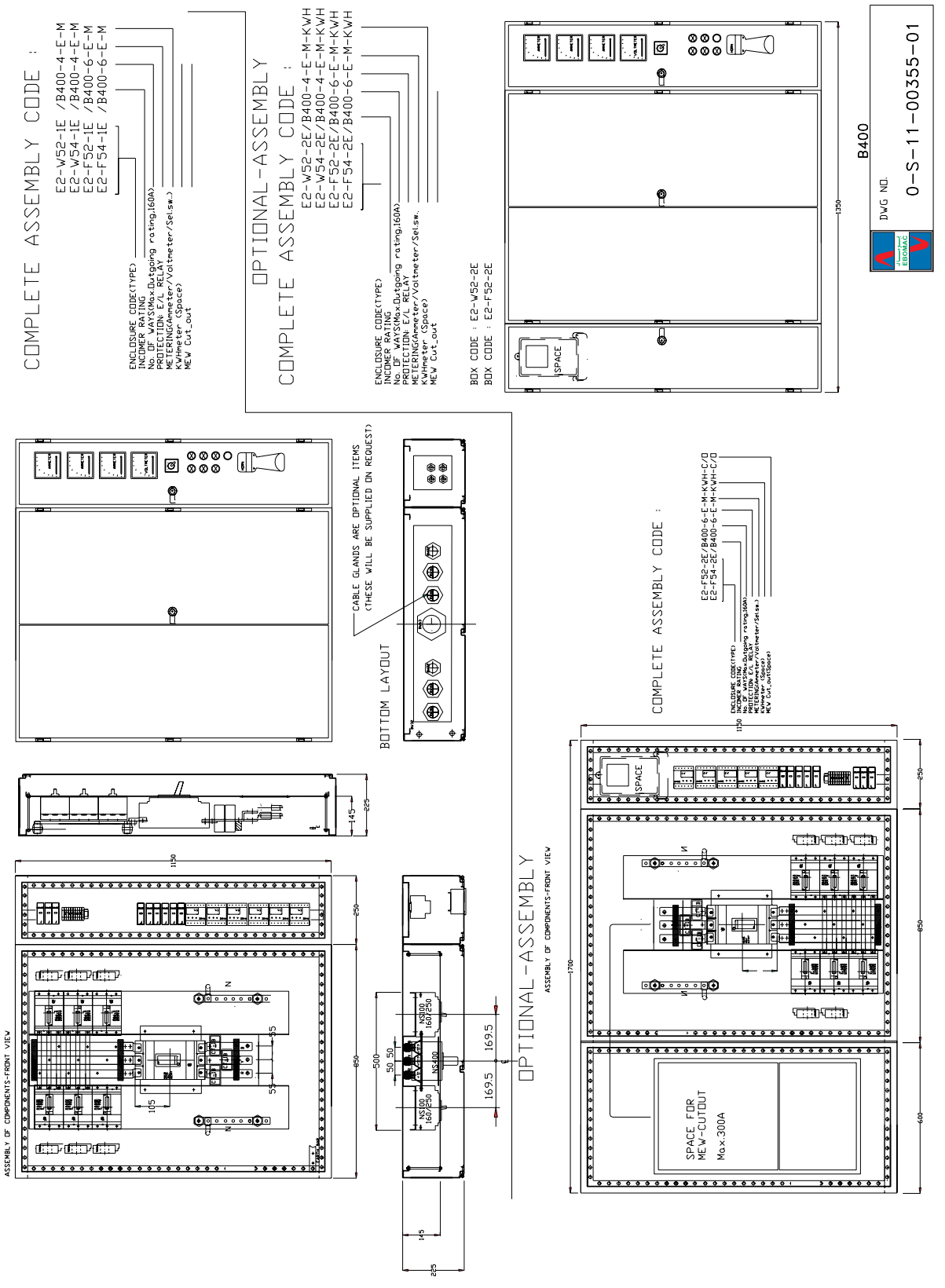
CABLE GLANDS ARE OPTIONAL ITEMS (THESE WILL BE SUPPLIED ON REQUEST)

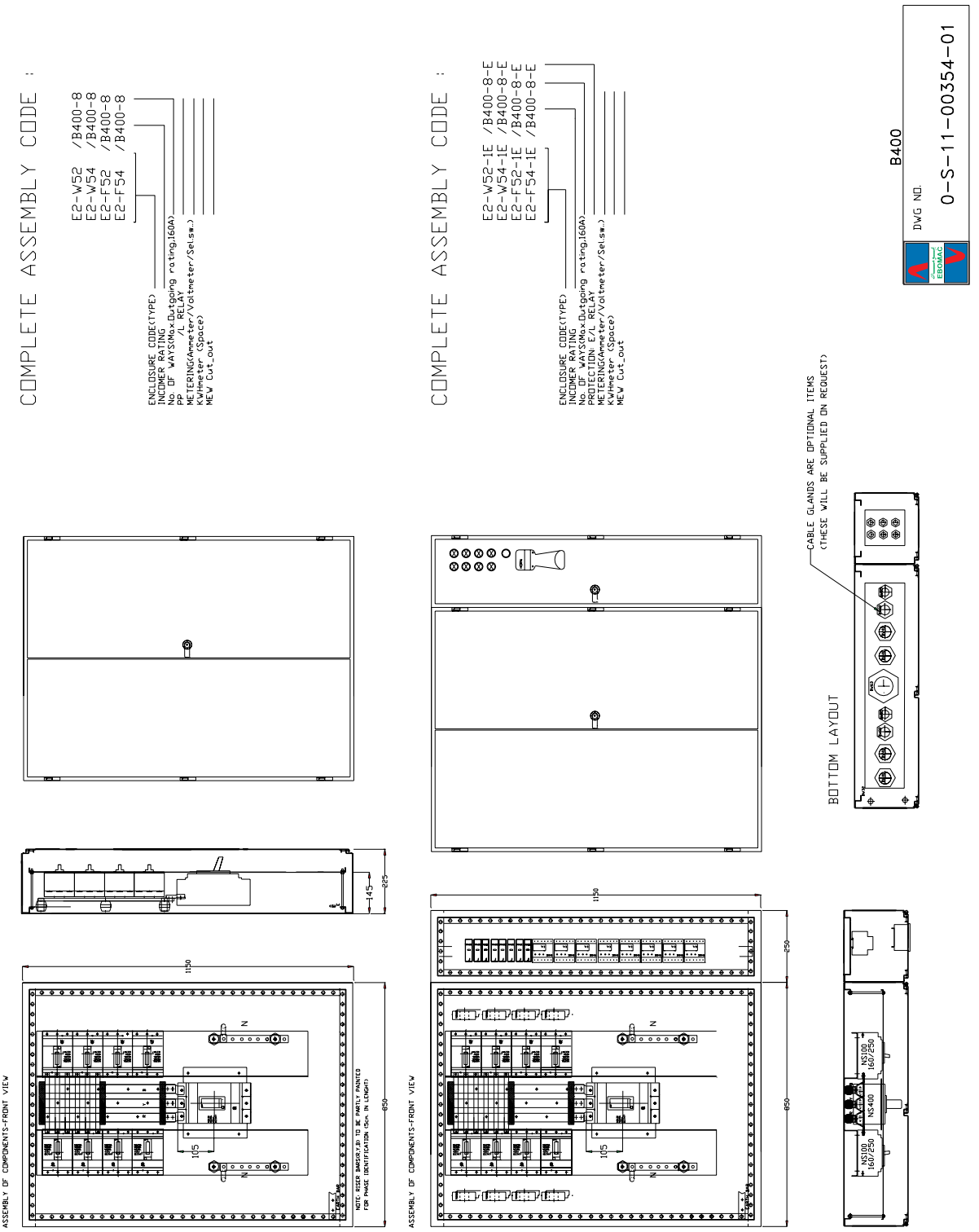


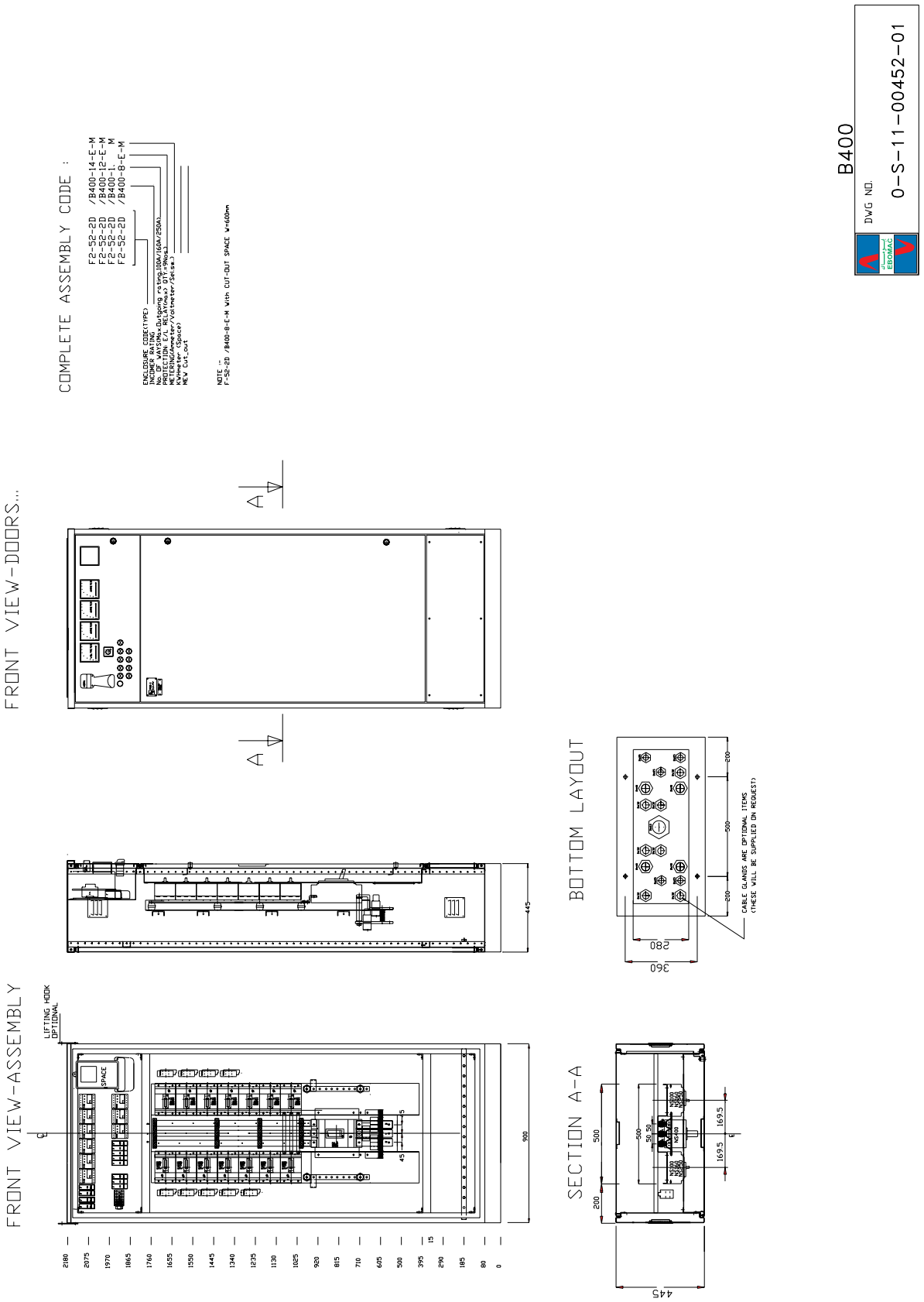
B400

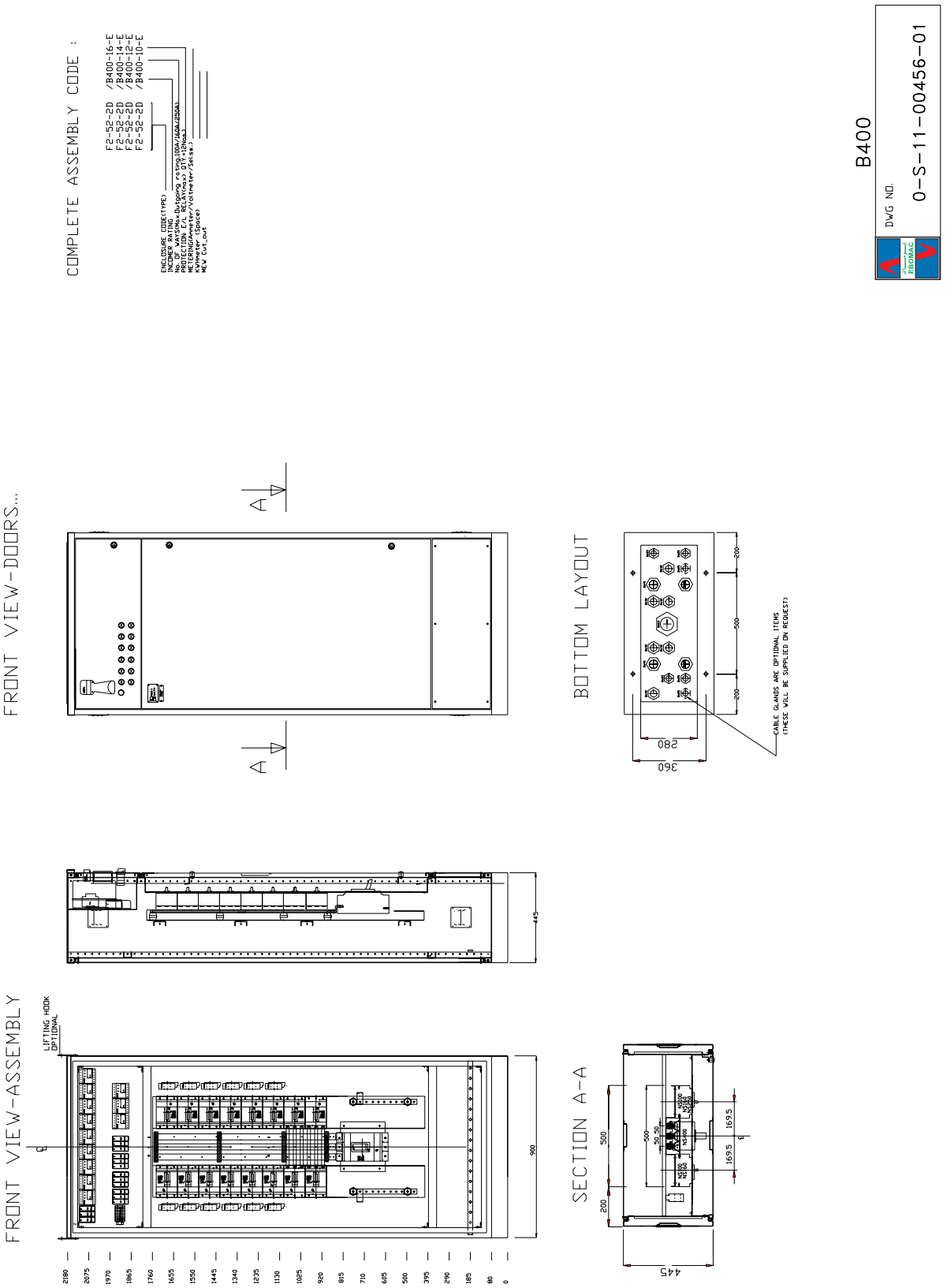
DWG NO.

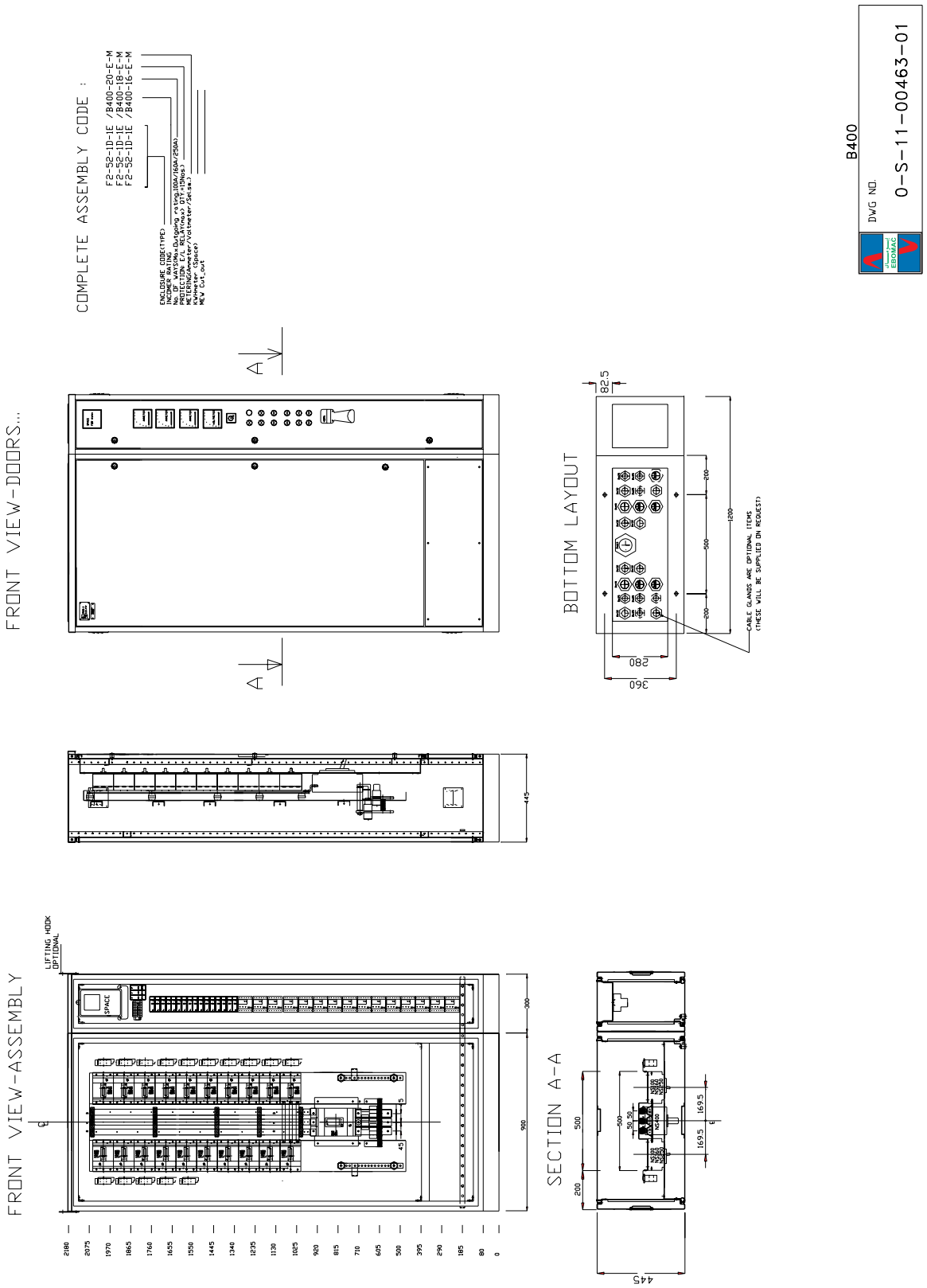
0-S-11-00362-01


COMPLETE ASSEMBLY CODE :
E2-W52-1E /B400-4-E-M
E2-W54-1E /B400-4-E-M
E2-F52-1E /B400-6-E-M
E2-F54-1E /B400-6-E-M
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
OPTIONAL-ASSEMBLY
COMPLETE ASSEMBLY CODE :
E2-W52-2E/B400-4-E-M-KWH
E2-W54-2E/B400-4-E-M-KWH
E2-F52-2E/B400-6-E-M-KWH
E2-F54-2E/B400-6-E-M-KWH
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.
KWHmeter (Space)
MEW Cut_out
BOX CODE : E2-W52-2E
BOX CODE : E2-F52-2E
SPACE
B400
DWG NO.
0-S-11-00355-01
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
BOTTOM LAYOUT
COMPLETE ASSEMBLY CODE :
E2-F52-2E/B400-6-E-M-KWH-C/O
E2-F54-2E/B400-6-E-M-KWH-C/O
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out(Space)
SPACE
OPTIONAL-ASSEMBLY
ASSEMBLY OF COMPONENTS-FRONT VIEW
SPACE FOR
MEW-CUTOUT
Max.300A
ASSEMBLY OF COMPONENTS-FRONT VIEW
NS100
160/250
NS400
169.5
169.5
1150
1700
1350
850
600
250
145
225
500
50
55
105


COMPLETE ASSEMBLY CODE :
E2-W52 /B400-8
E2-W54 /B400-8
E2-F52 /B400-8
E2-F54 /B400-8
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PP /L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
COMPLETE ASSEMBLY CODE :
E2-W52-1E /B400-8-E
E2-W54-1E /B400-8-E
E2-F52-1E /B400-8-E
E2-F54-1E /B400-8-E
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
B400
DWG NO.
0-S-11-00354-01
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
BOTTOM LAYOUT
ASSEMBLY OF COMPONENTS-FRONT VIEW
ASSEMBLY OF COMPONENTS-FRONT VIEW
1150
145
225
250
850
105
NS100 160/250
NS400

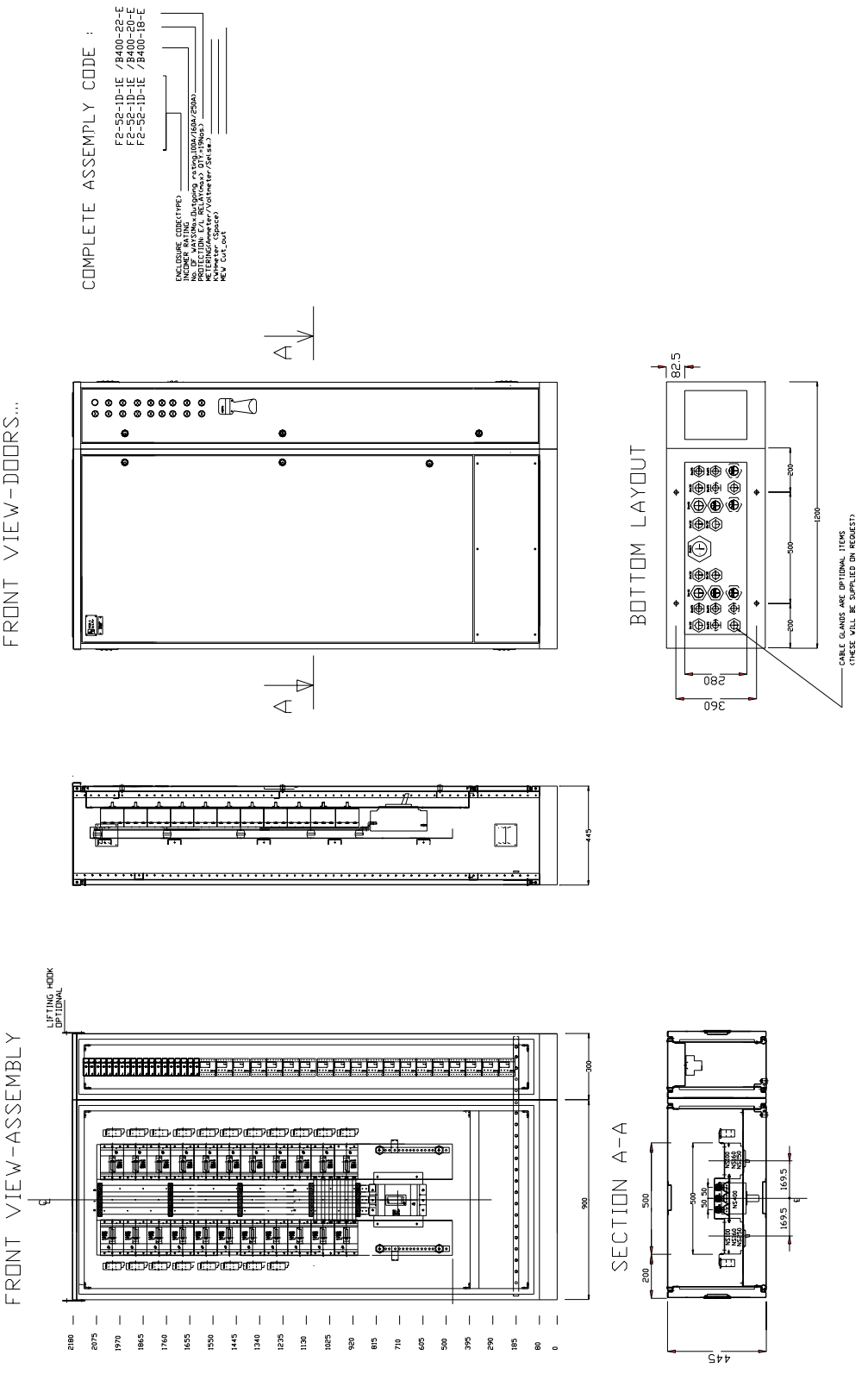

B400
DWG NO.
0-S-11-00452-01
COMPLETE ASSEMBLY CODE :
F2-52-2D /B400-14-E-M
F2-52-2D /B400-12-E-M
F2-52-2D /B400-1. M
F2-52-2D /B400-8-E-M
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. WATSMAX(Outgoing rating,100A/160A/250A)
PROTECTION E/L RELAY(max) QTY=9No(s)
METERING(Ammeter/Voltmeter/Selsw.)
KWHmeter (Space)
MEW Cut_out
NOTE :-
F-52-2D /B400-8-E-M With CUT-OUT SPACE W=600mm
FRONT VIEW-DOORS...
A
A
FRONT VIEW-ASSEMBLY
LIFTING HOOK OPTIONAL
SPACE
BOTTOM LAYOUT
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
SECTION A-A


COMPLETE ASSEMBLY CODE :
F2-52-2D /B400-16-E
F2-52-2D /B400-14-E
F2-52-2D /B400-12-E
F2-52-2D /B400-10-E
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A/160A/250A)
PROTECTION E/L RELAY(max) QTY=1(Max.)
METERING(Ammeter/Voltmeter/Selsw.)
KWHmeter (Space)
MEW Cut_out
B400
DWG NO.
0-S-11-00456-01
FRONT VIEW-DOORS...
A
A
BOTTOM LAYOUT
200
500
200
280
360
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
FRONT VIEW-ASSEMBLY
LIFTING HOOK
OPTIONAL
445
900
2180
2075
1970
1865
1760
1655
1550
1445
1340
1235
1130
1025
920
815
710
605
500
395
290
185
80
0
SECTION A-A
500
200
169.5
169.5
445

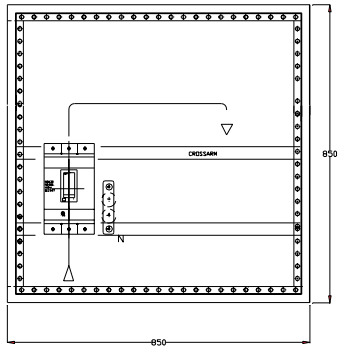

COMPLETE ASSEMBLY CODE :
F2-52-1D-1E /B400-20-E-M
F2-52-1D-1E /B400-18-E-M
F2-52-1D-1E /B400-16-E-M
FRONT VIEW-DOORS...
BOTTOM LAYOUT
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
FRONT VIEW-ASSEMBLY
LIFTING HOOK OPTIONAL
SPACE
SECTION A-A
B400
DWG NO.
0-S-11-00463-01

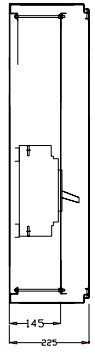
B400

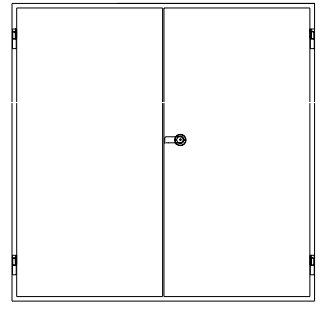
DWG NO. 0-S-11-00462-01



ASSEMBLY OF COMPONENTS-FRONT VIEW





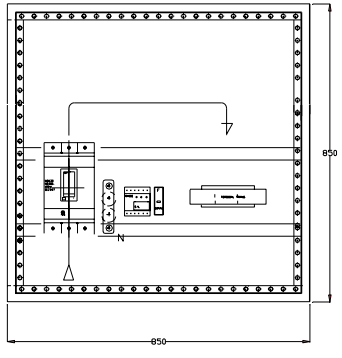


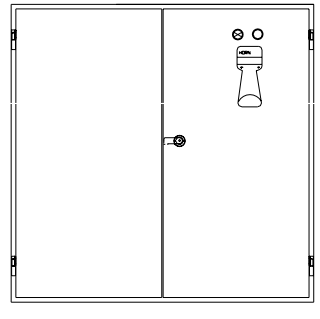
COMPLETE ASSEMBLY CODE :

D2-F52 /B630
D2-F54 /B630

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out

ASSEMBLY OF COMPONENTS-FRONT VIEW

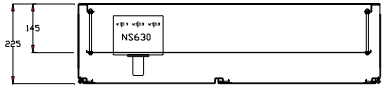




COMPLETE ASSEMBLY CODE :

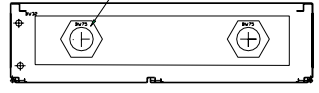
D2-F52 /B630-1-E
D2-F54 /B630-1-E

ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out



BOTTOM LAYOUT

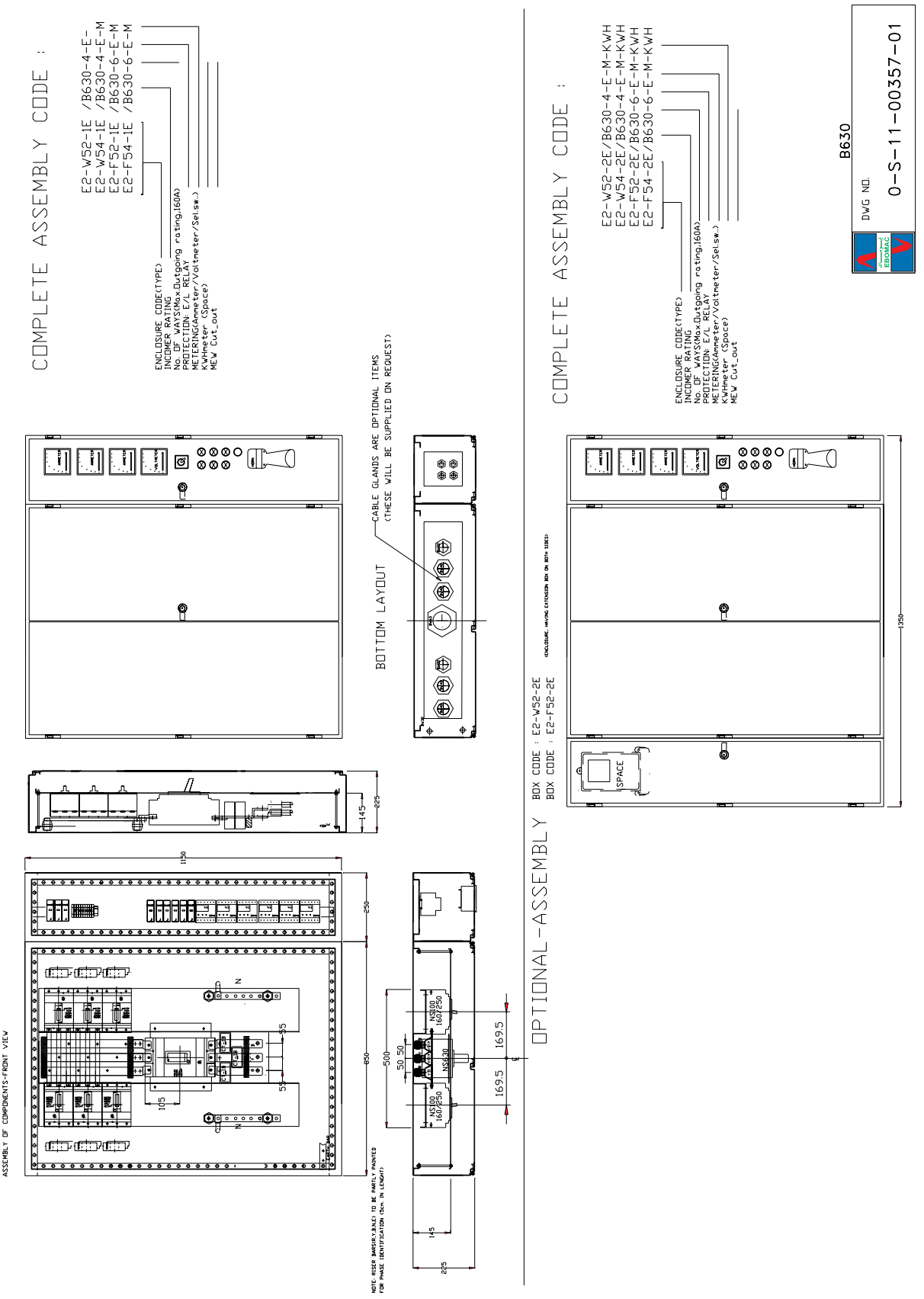
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)

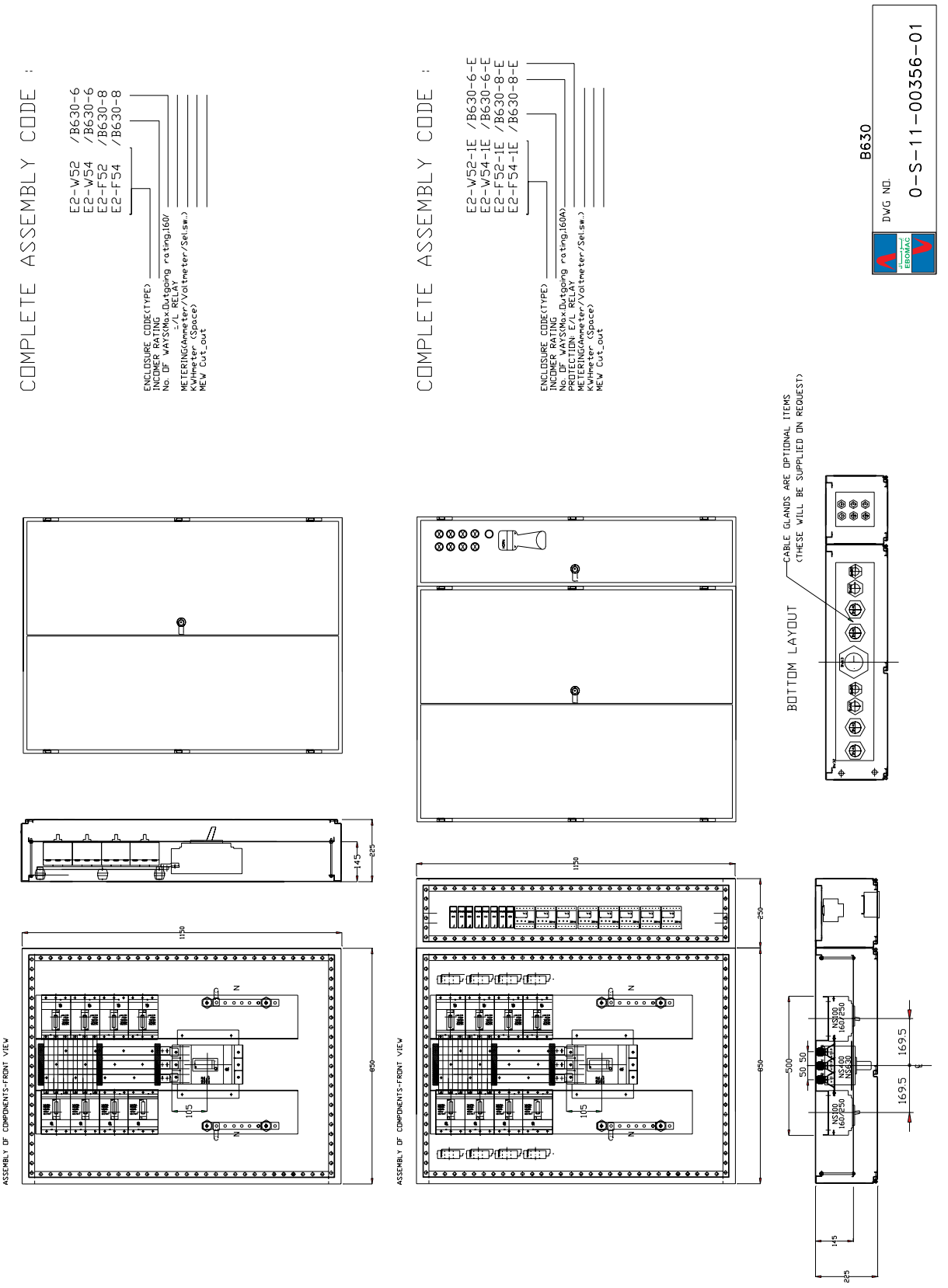


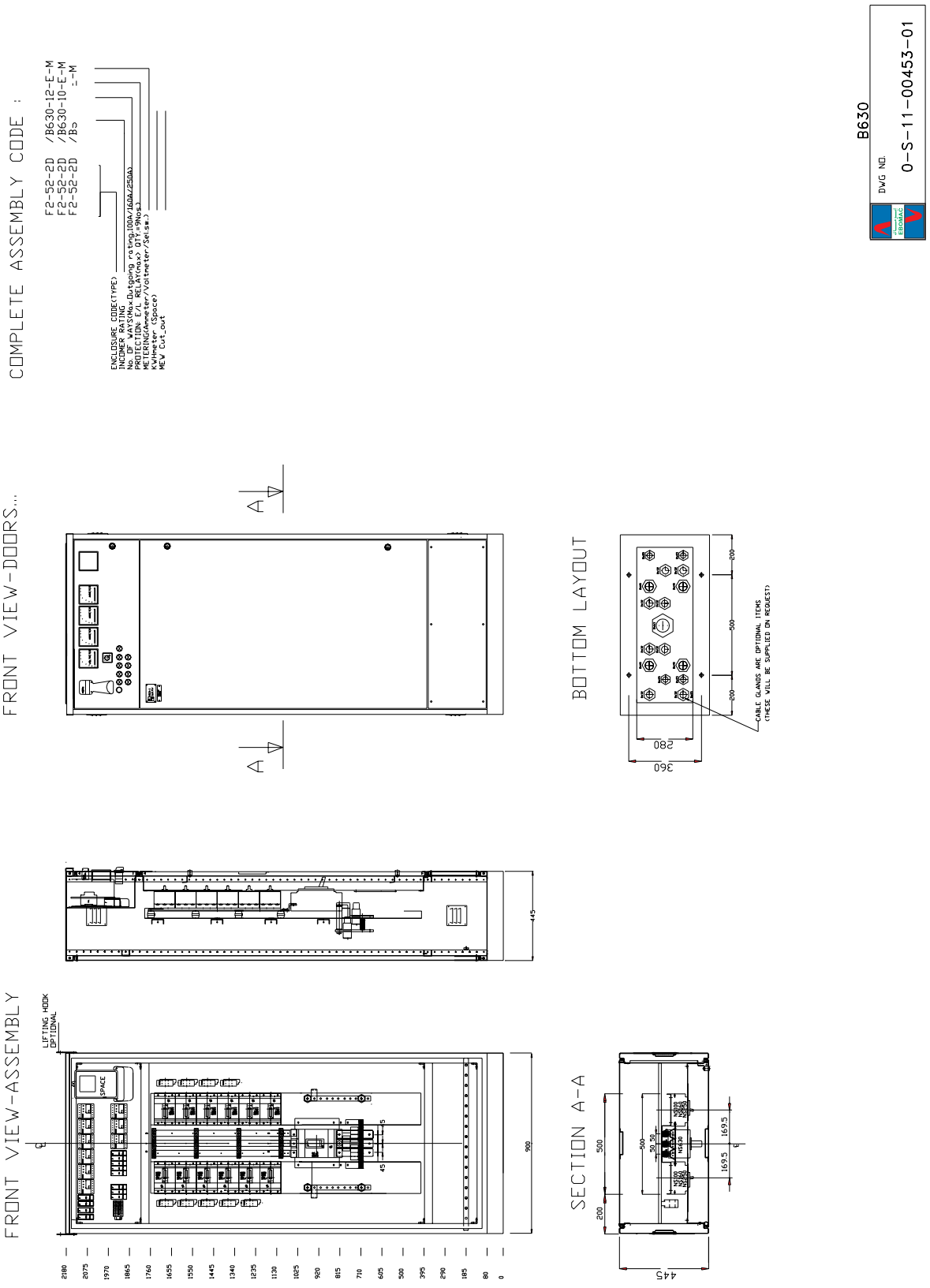
B630

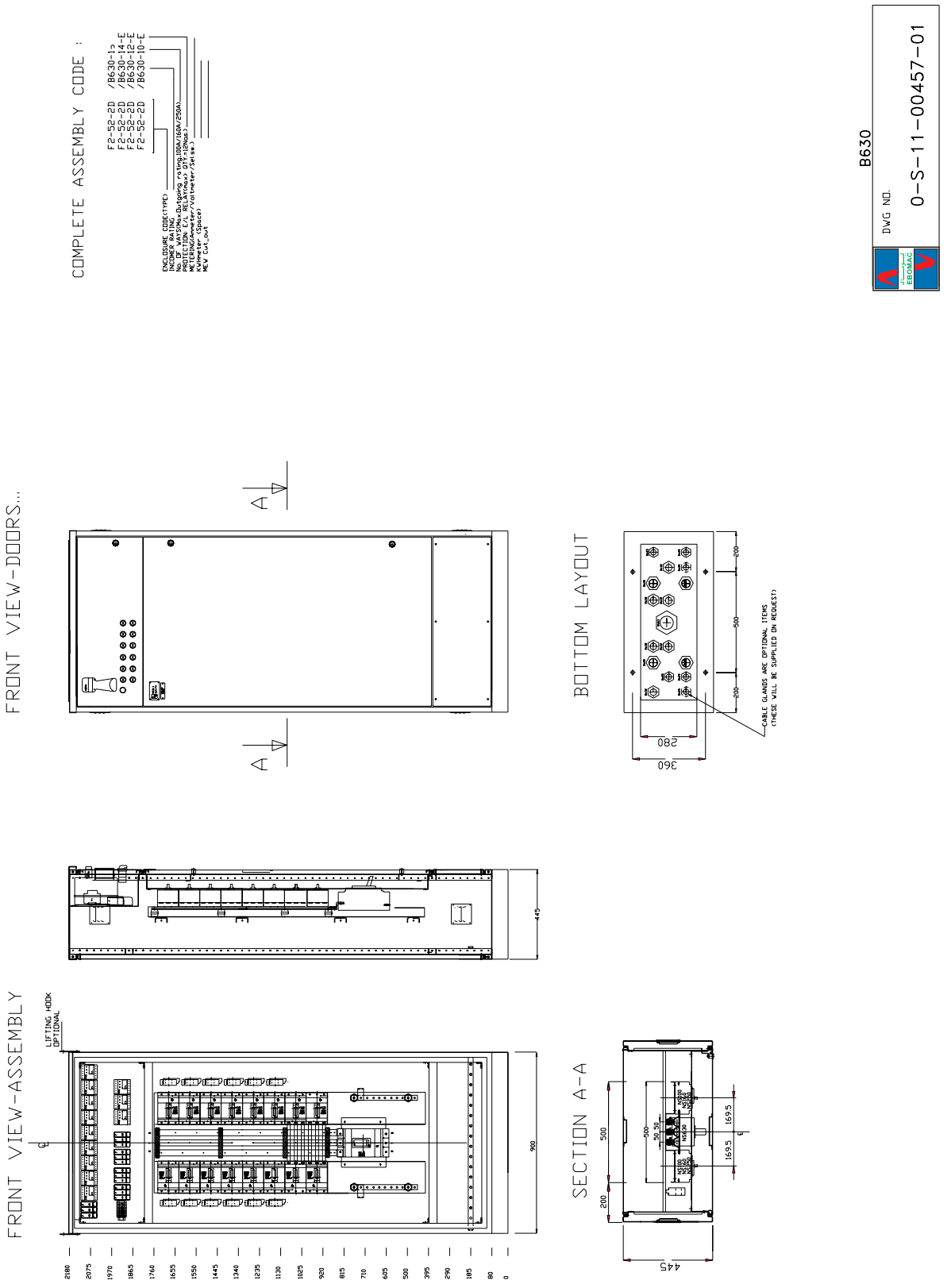
DWG NO.

0-S-11-00365-01


COMPLETE ASSEMBLY CODE :
E2-W52-1E /B630-4-E-
E2-W54-1E /B630-4-E-M
E2-F52-1E /B630-6-E-M
E2-F54-1E /B630-6-E-M
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating.160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
BOTTOM LAYOUT
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
ASSEMBLY OF COMPONENTS-FRONT VIEW
OPTIONAL-ASSEMBLY
BOX CODE : E2-W52-2E
BOX CODE : E2-F52-2E
COMPLETE ASSEMBLY CODE :
E2-W52-2E/B630-4-E-M-KWH
E2-W54-2E/B630-4-E-M-KWH
E2-F52-2E/B630-6-E-M-KWH
E2-F54-2E/B630-6-E-M-KWH
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating.160A)
PROTECTION: E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
SPACE
B630
DWG NO.
0-S-11-00357-01
EBOMAC

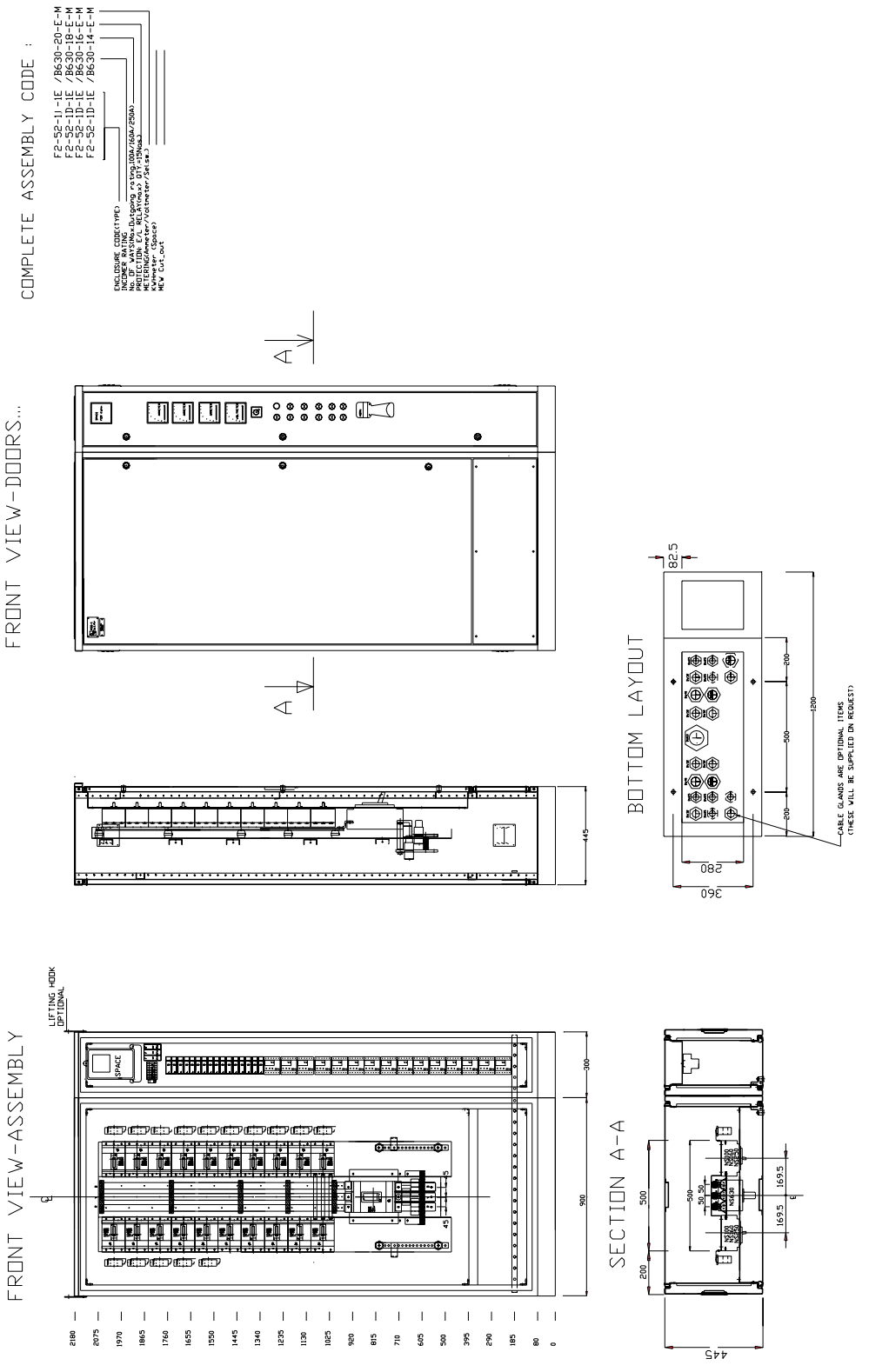

COMPLETE ASSEMBLY CODE
E2-W52 /B630-6
E2-W54 /B630-6
E2-F52 /B630-8
E2-F54 /B630-8
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160/
-/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
COMPLETE ASSEMBLY CODE
E2-W52-1E /B630-6-E
E2-W54-1E /B630-6-E
E2-F52-1E /B630-8-E
E2-F54-1E /B630-8-E
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,160A)
PROTECTION; E/L RELAY
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
B630
DWG NO.
0-S-11-00356-01
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
BOTTOM LAYOUT
ASSEMBLY OF COMPONENTS-FRONT VIEW
ASSEMBLY OF COMPONENTS-FRONT VIEW
1150
850
250
225
145
105
500
50 50
169.5
NS100
160/250
NS400
NS630

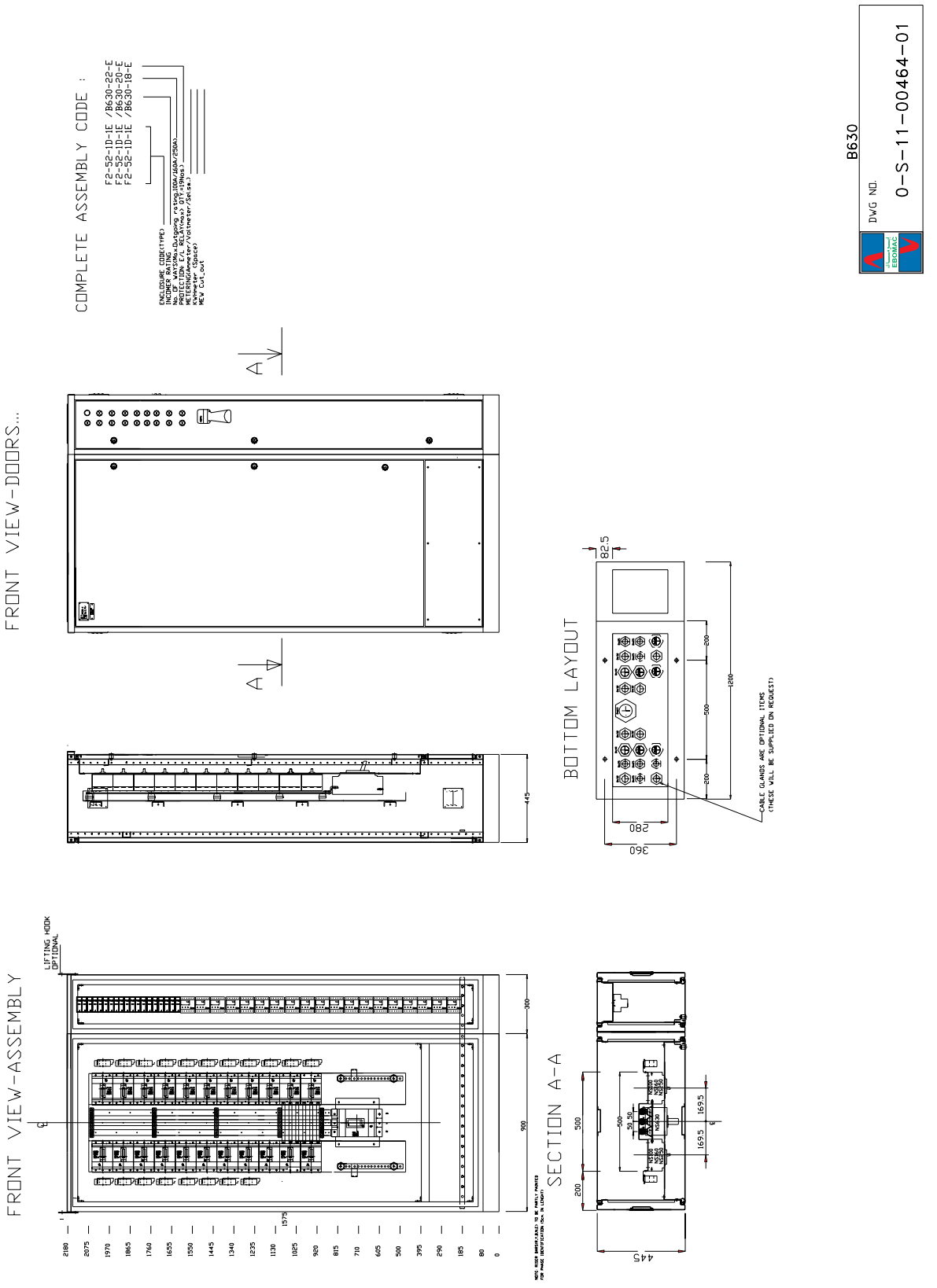

COMPLETE ASSEMBLY CODE :
F2-52-2D /B630-12-E-M
F2-52-2D /B630-10-E-M
F2-52-2D /B5 -M
ENCLOSURE CODE(TYPE)
INCOMER RATING
No. OF WAYS(Max.Outgoing rating,100A/160A/250A)
PROTECTION: E/L RELAY(max) QTY.=9Nos.)
METERING(Ammeter/Voltmeter/Sel.sw.)
KWHmeter (Space)
MEW Cut_out
B630
DWG NO.
0-S-11-00453-01
FRONT VIEW-DOORS...
A
A
BOTTOM LAYOUT
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
280
360
200
500
200
FRONT VIEW-ASSEMBLY
LIFTING HOOK
OPTIONAL
SPACE
445
900
2180
2075
1970
1865
1760
1655
1550
1445
1340
1235
1130
1025
920
815
710
605
500
395
290
185
80
0
SECTION A-A
500
200
445
169.5
169.5


B630
DWG NO.
0-S-11-00457-01
COMPLETE ASSEMBLY CODE :
F2-52-2D /B630-1>
F2-52-2D /B630-14-E
F2-52-2D /B630-12-E
F2-52-2D /B630-10-E
FRONT VIEW-DOORS...
A
A
BOTTOM LAYOUT
360
280
200
500
200
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
445
FRONT VIEW-ASSEMBLY
LIFTING HOOK
OPTIONAL
900
2180
2075
1970
1865
1760
1655
1550
1445
1340
1235
1130
1025
920
815
710
605
500
395
290
185
80
0
SECTION A-A
200
500
445
169.5
169.5

B630

DWG NO. 0-S-11-00465-01




B630
DWG NO.
0-S-11-00464-01
COMPLETE ASSEMBLY CODE :
F2-S2-1D-1E /B630-22-E
F2-S2-1D-1E /B630-20-E
F2-S2-1D-1E /B630-18-E
FRONT VIEW-DOORS...
A
A
445
BOTTOM LAYOUT
82.5
200
500
1200
200
280
360
CABLE GLANDS ARE OPTIONAL ITEMS
(THESE WILL BE SUPPLIED ON REQUEST)
FRONT VIEW-ASSEMBLY
LIFTING HOOK
OPTIONAL
2180
2075
1970
1865
1760
1655
1550
1445
1340
1235
1130
1025
920
815
710
605
500
395
290
185
80
0
1575
300
900
SECTION A-A
500
200
1695
1695
445

ENCLOSURE & MOUNTING

Enclosure Selection

Series B200

All enclosures are coded: □ □ - □ □ □ - □

Classification
Mounting
Degree of Protection
Extension Box

Classification : A2 (: H350mm x W350mm x D225mm)
B2 (: H550mm x W350mm x D225mm)
C2 (: H850mm x W550mm x D225mm)
D2 (: H850mm x W850mm x D225mm)
E2 (: H1150mm x W850mm x D225mm)

Mounting W (: Wall Mounting)
F (: Floor Mounting)

Degree of Protection : 52 (: IP 52)
54 (: IP 54)

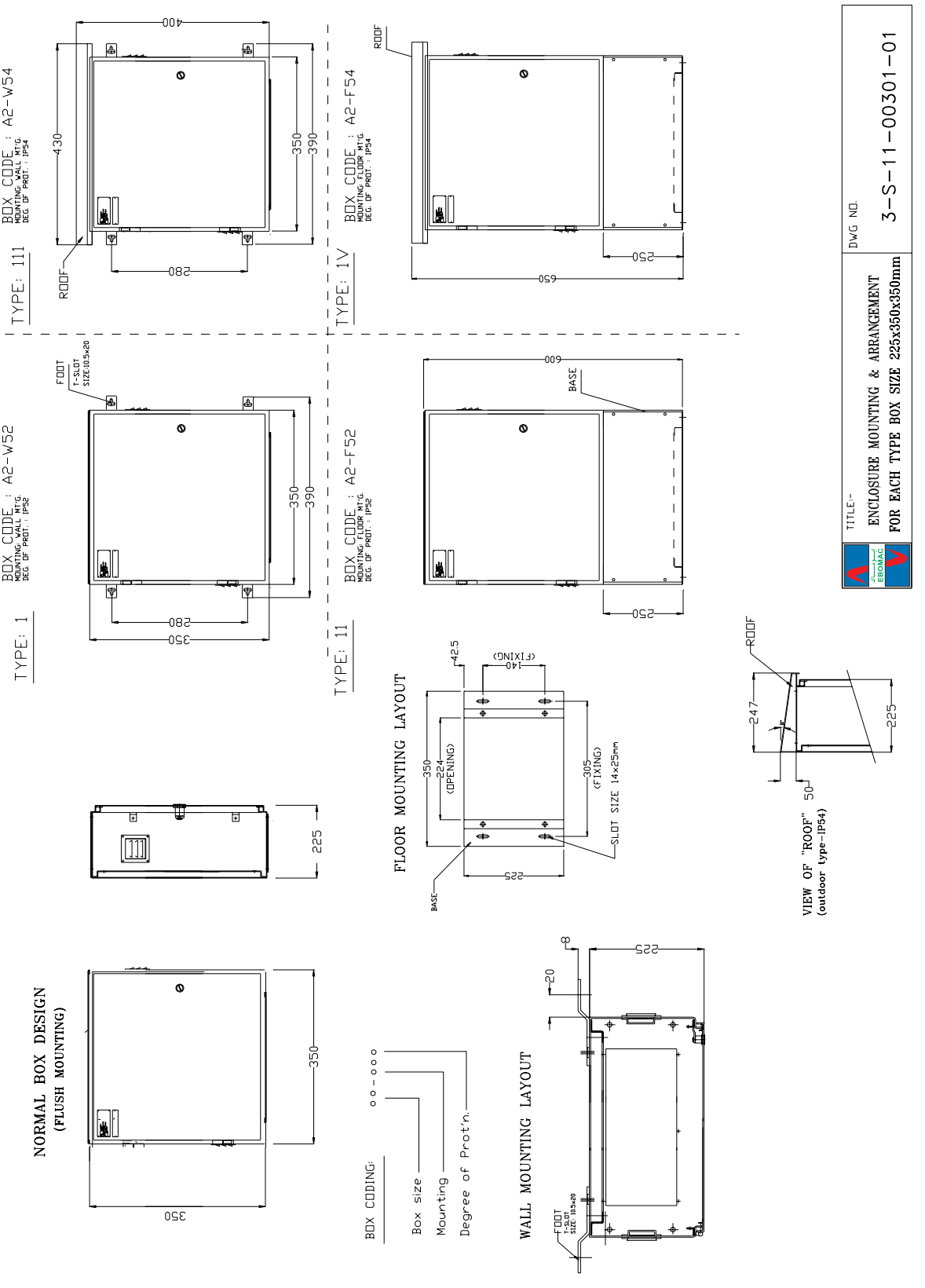
Extension Box : 1E (Right Side Ext.)
2E (Right & Left Side Ext.)

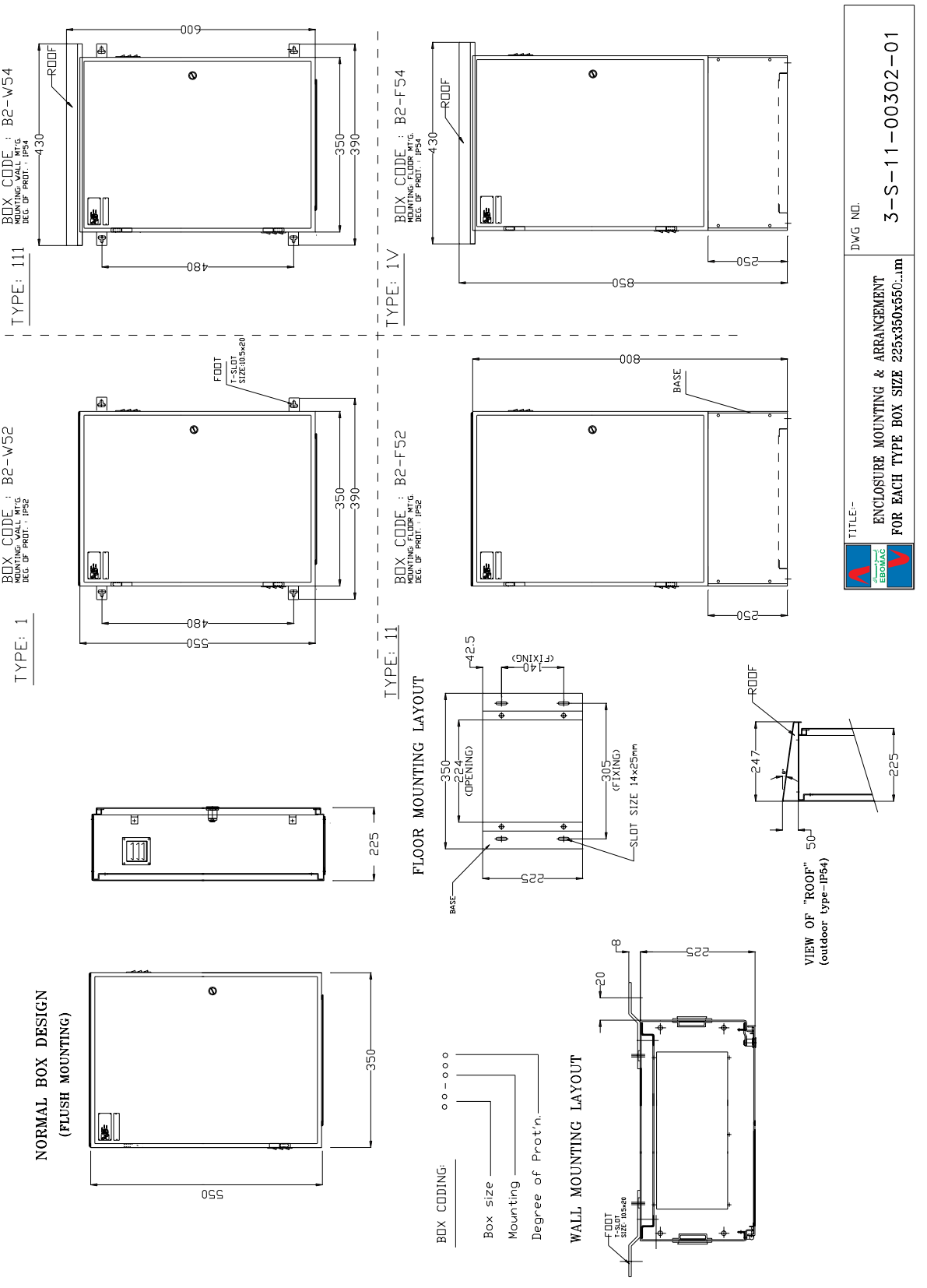
Series B300

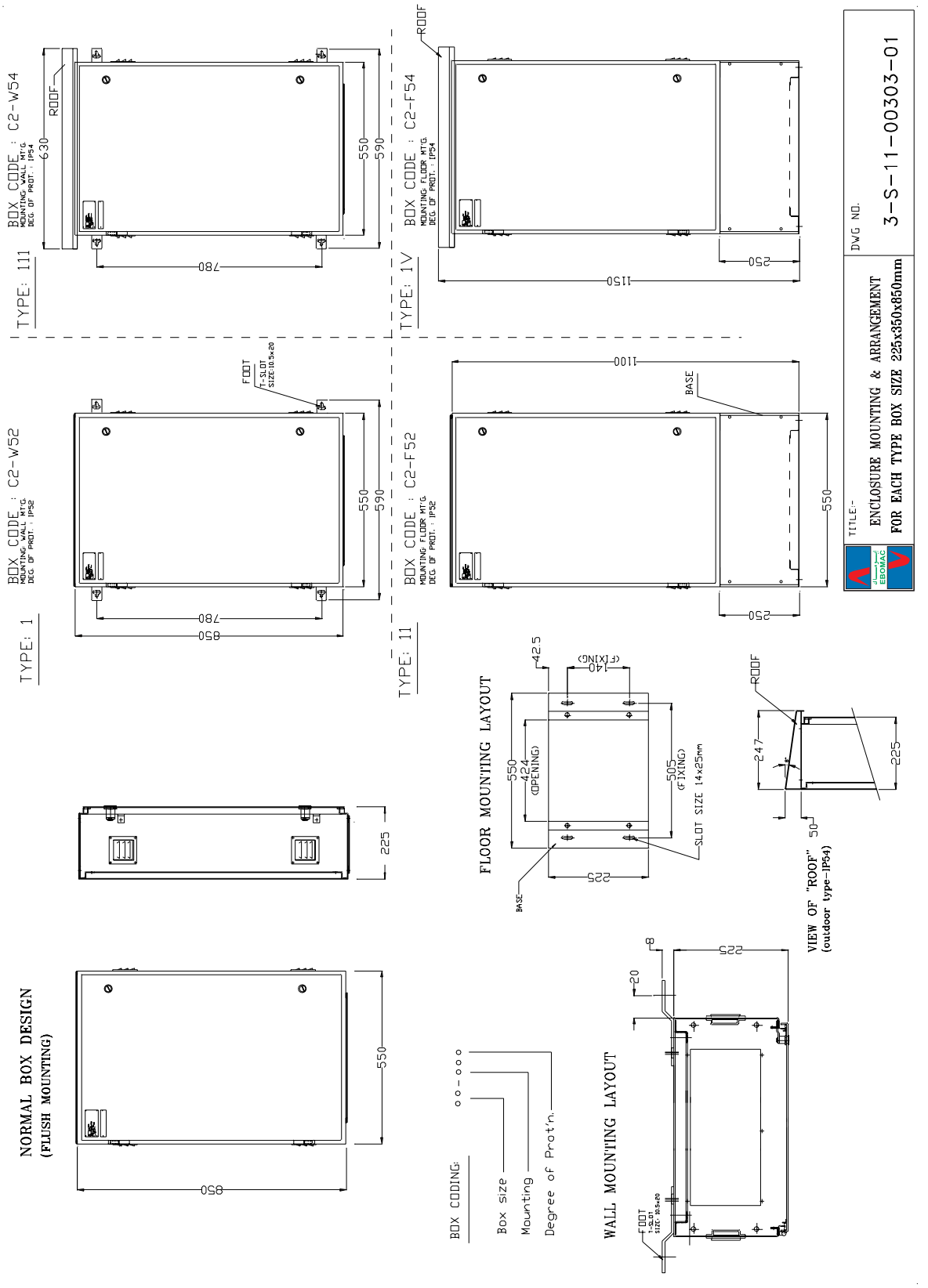
All enclosures are coded : □ □ - □ □ - □ □ - □ □

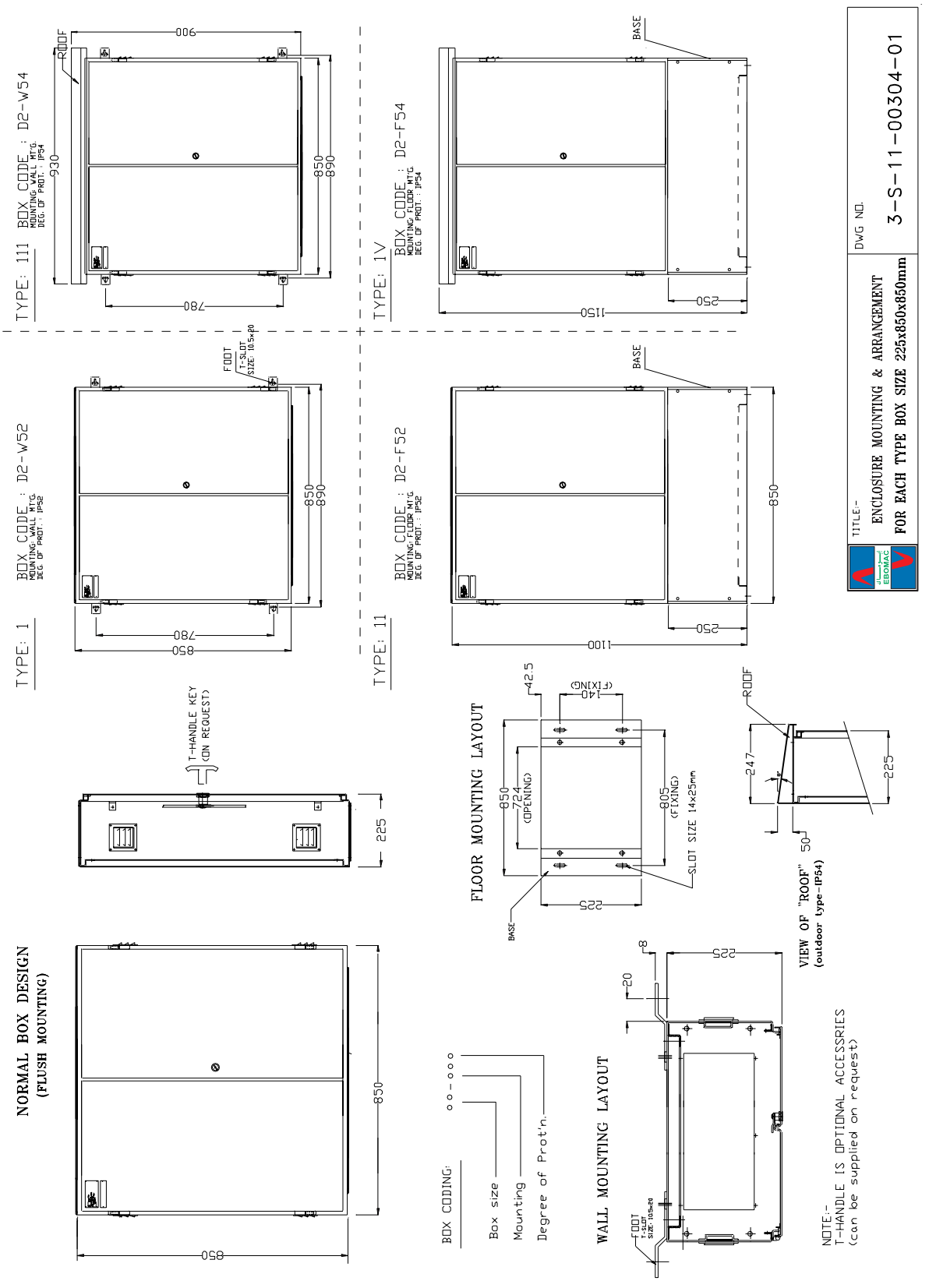
Classification
Degree of Protection
No. of doors
Extension box

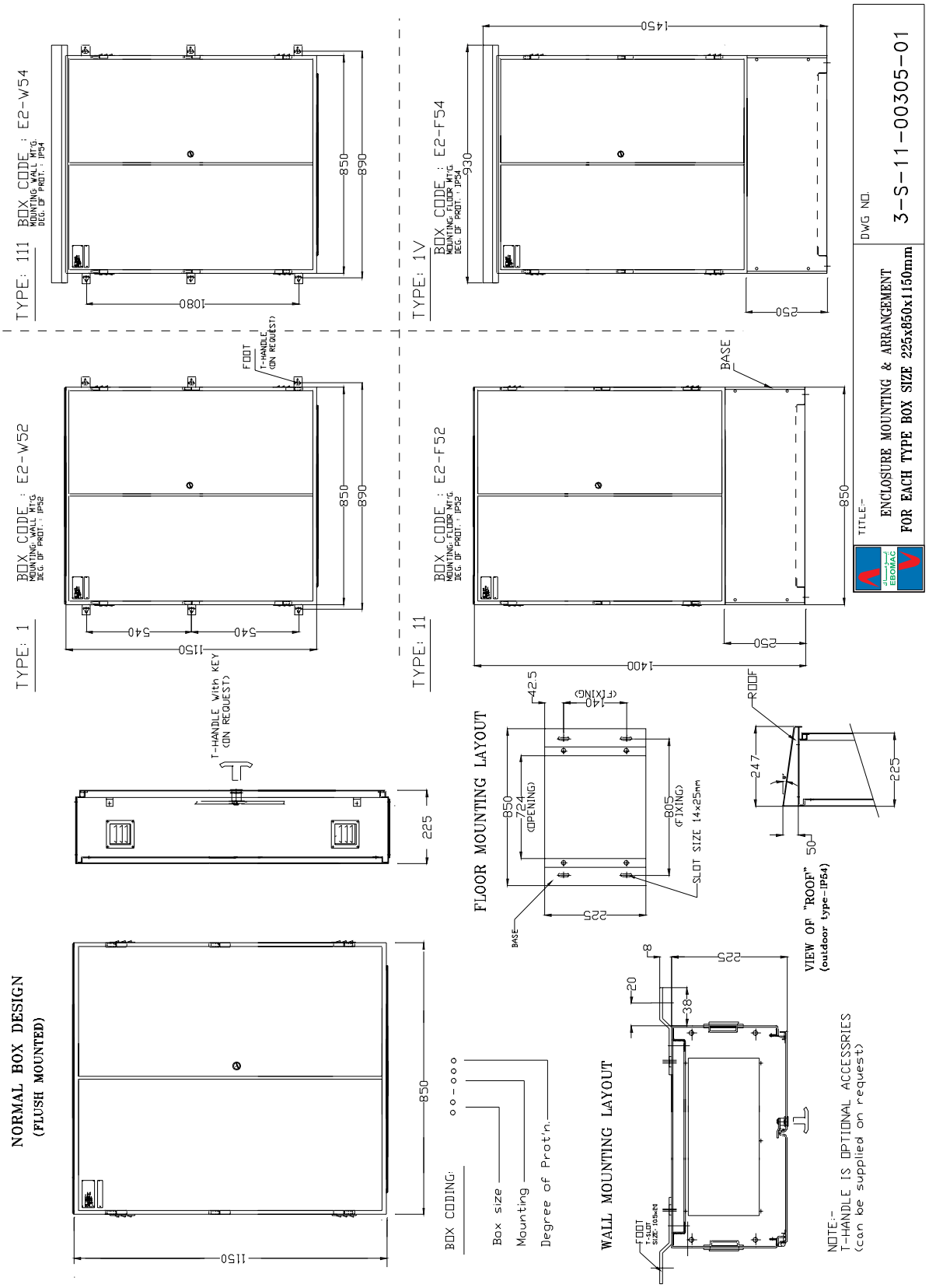
Classification : F2 (: H2180mm x W900mm x D445mm)
Degree of Protection : 52 (: IP 52)
No. of doors : 1D (1 No. door)
: 2D (2 No. door)
Extension : 1E (Right Side Ext.)
: 2E (Right & left side Ext.)

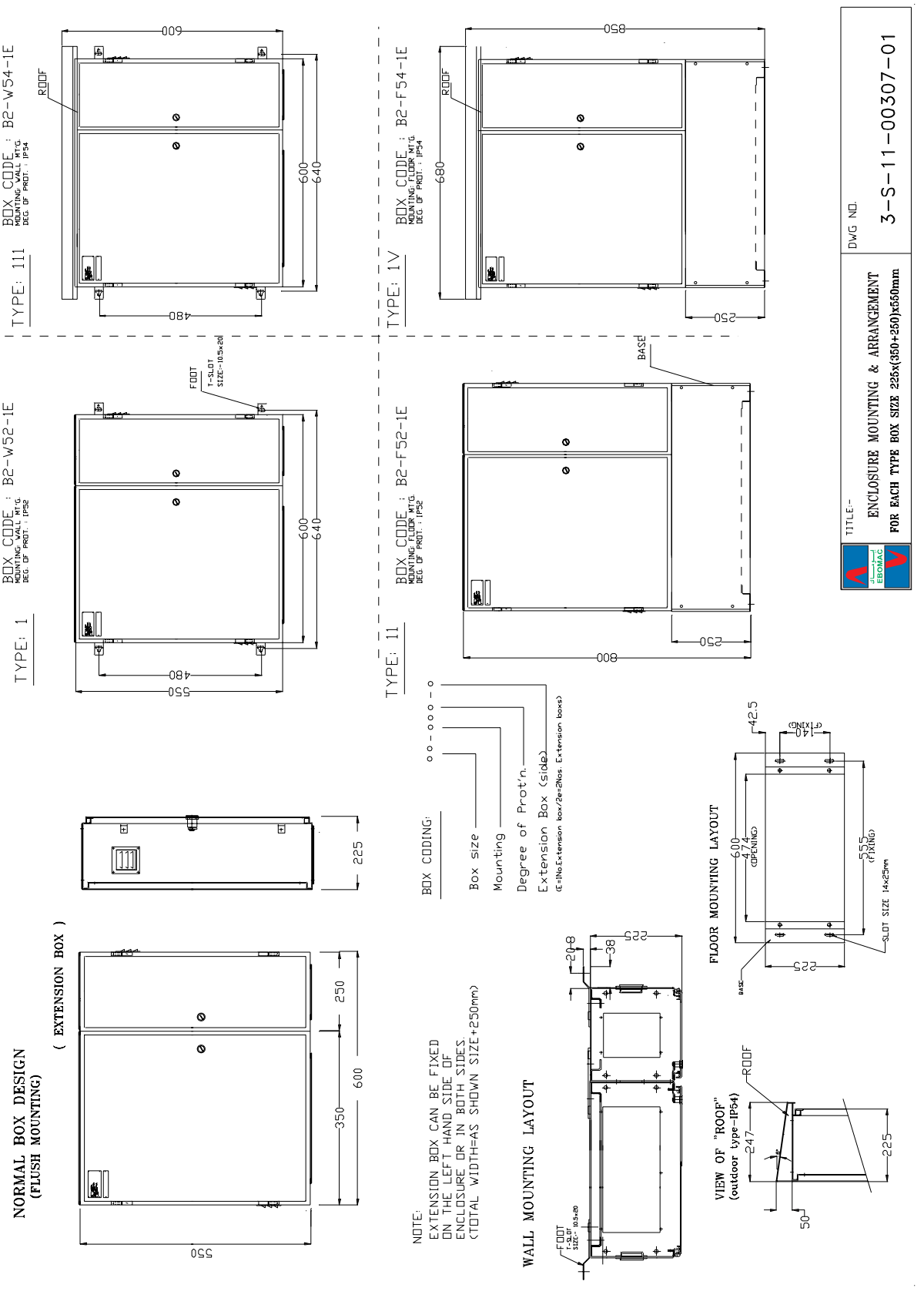

TYPE: 111
BOX CODE : A2-W54
MOUNTING WALL MTG.
DEG. OF PROT. : IP54
400
430
350
390
280
ROOF
TYPE: 1V
BOX CODE : A2-F54
MOUNTING FLOOR MTG.
DEG. OF PROT. : IP54
ROOF
650
250
TYPE: 1
BOX CODE : A2-W52
MOUNTING WALL MTG.
DEG. OF PROT. : IP52
FOOT
T-SLOT
SIZE 10.5x20
350
390
280
350
225
TYPE: 11
BOX CODE : A2-F52
MOUNTING FLOOR MTG.
DEG. OF PROT. : IP52
600
BASE
250
FLOOR MOUNTING LAYOUT
425
40
(FIXING)
350
224
(OPENING)
305
(FIXING)
SLOT SIZE 14x25mm
225
BASE
ROOF
247
225
50
VIEW OF "ROOF"
(outdoor type-IP54)
NORMAL BOX DESIGN
(FLUSH MOUNTING)
350
350
BOX CODING: oo - ooo
Box size
Mounting
Degree of Prot'n.
WALL MOUNTING LAYOUT
8
225
20
FOOT
T-SLOT
SIZE 10.5x20
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 225x350x350mm
DWG NO.
3-S-11-00301-01

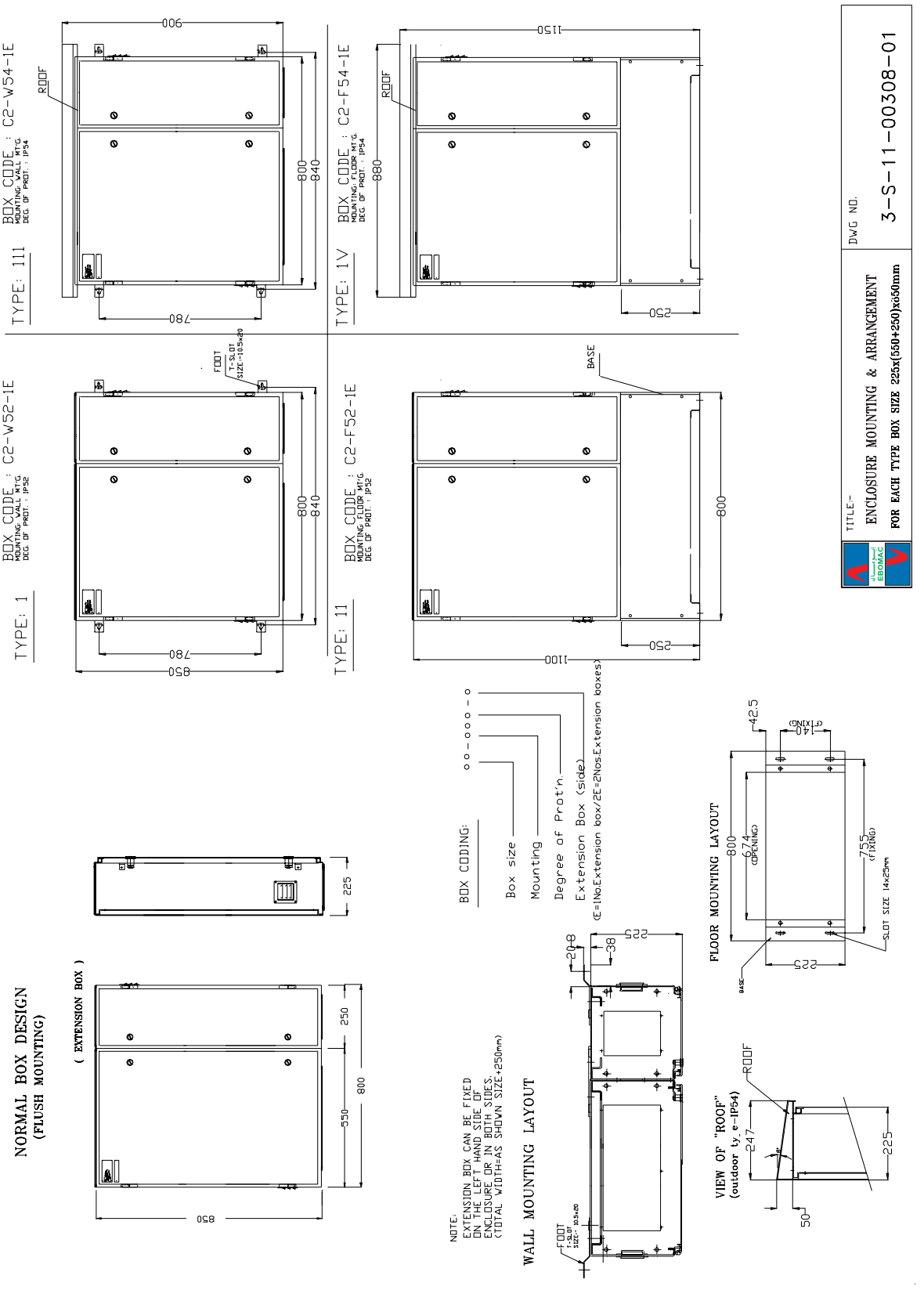

TYPE: 111
BOX CODE : B2-W54
MOUNTING-WALL MT'G.
DEG. OF PROT. : IP54
ROOF
600
480
350
390
430
TYPE: 1V
BOX CODE : B2-F54
MOUNTING-FLOOR MT'G.
DEG. OF PROT. : IP54
ROOF
850
250
430
TYPE: 1
BOX CODE : B2-W52
MOUNTING-WALL MT'G.
DEG. OF PROT. : IP52
FOOT
T-SLOT
SIZE:10.5x20
480
550
350
390
TYPE: 11
BOX CODE : B2-F52
MOUNTING-FLOOR MT'G.
DEG. OF PROT. : IP52
BASE
800
250
NORMAL BOX DESIGN
(FLUSH MOUNTING)
550
350
225
FLOOR MOUNTING LAYOUT
42.5
140
(FIXING)
350
224
(OPENING)
305
(FIXING)
SLOT SIZE 14x25mm
225
BASE
ROOF
247
225
50
VIEW OF "ROOF"
(outdoor type-IP54)
BOX CODING:
oo-ooo
Box size
Mounting
Degree of Prot'n.
WALL MOUNTING LAYOUT
225
8
20
FOOT
T-SLOT
SIZE: 10.5x20
DWG NO.
3-S-11-00302-01
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 225x350x550mm

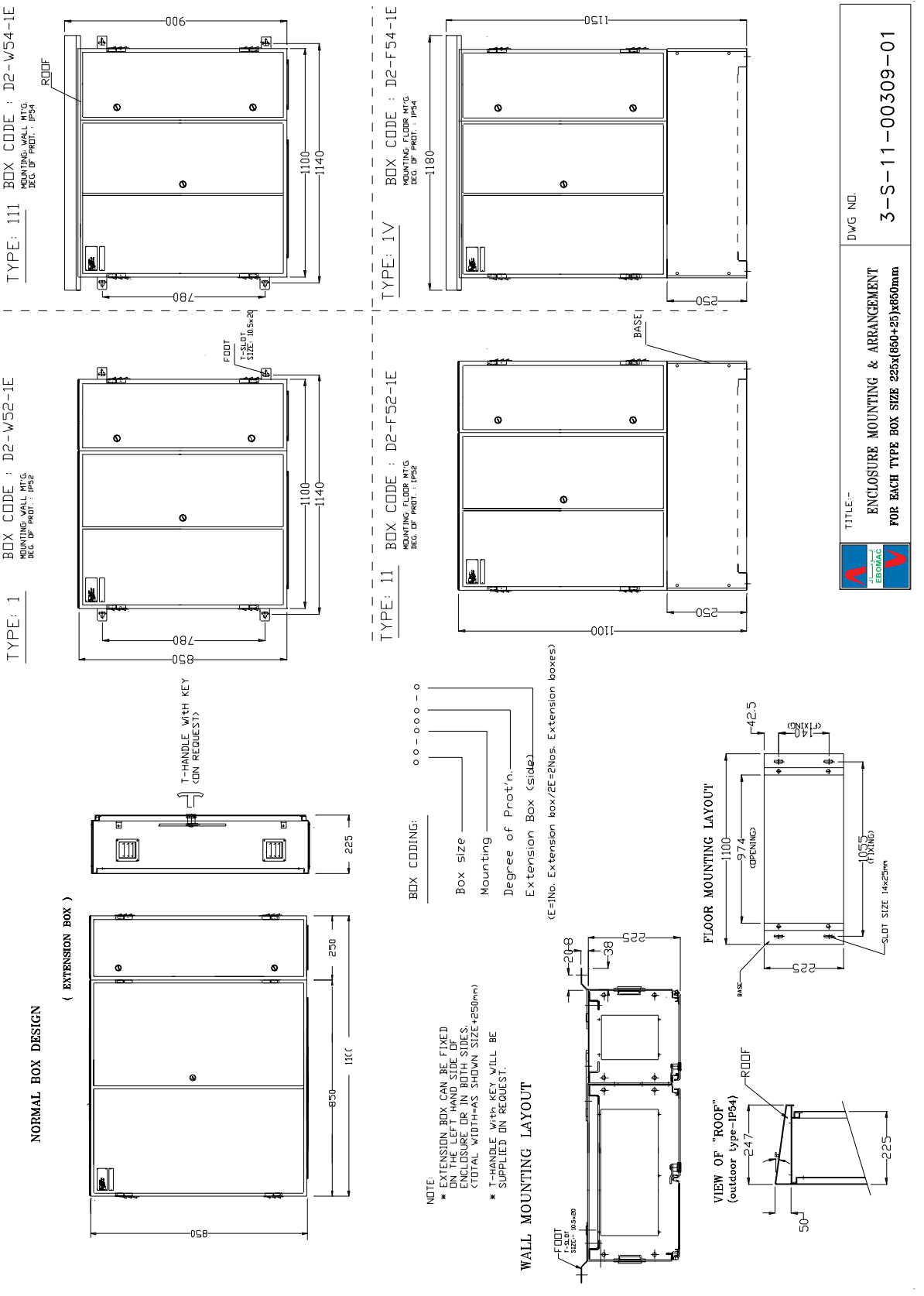

TYPE: 111
BOX CODE : C2-W54
MOUNTING WALL MTG.
DEG. OF PROT. : IP54
630
ROOF
780
550
590
TYPE: 1V
BOX CODE : C2-F54
MOUNTING FLOOR MTG.
DEG. OF PROT. : IP54
ROOF
1150
250
TYPE: 1
BOX CODE : C2-W52
MOUNTING WALL MTG.
DEG. OF PROT. : IP52
FOOT
T-SLOT
SIZE:10.5x20
780
850
550
590
TYPE: 11
BOX CODE : C2-F52
MOUNTING FLOOR MTG.
DEG. OF PROT. : IP52
1100
BASE
550
250
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 225x350x850mm
DWG NO.
3-S-11-00303-01
225
FLOOR MOUNTING LAYOUT
425
140
(FIXING)
550
424
(OPENING)
505
(FIXING)
SLOT SIZE 14x25mm
225
BASE
ROOF
247
225
50
VIEW OF "ROOF"
(outdoor type-IP54)
NORMAL BOX DESIGN
(FLUSH MOUNTING)
850
550
BOX CODING:
oo-ooo
Box size
Mounting
Degree of Prot'n.
WALL MOUNTING LAYOUT
225
8
20
FOOT
SIZE: 10.5x20

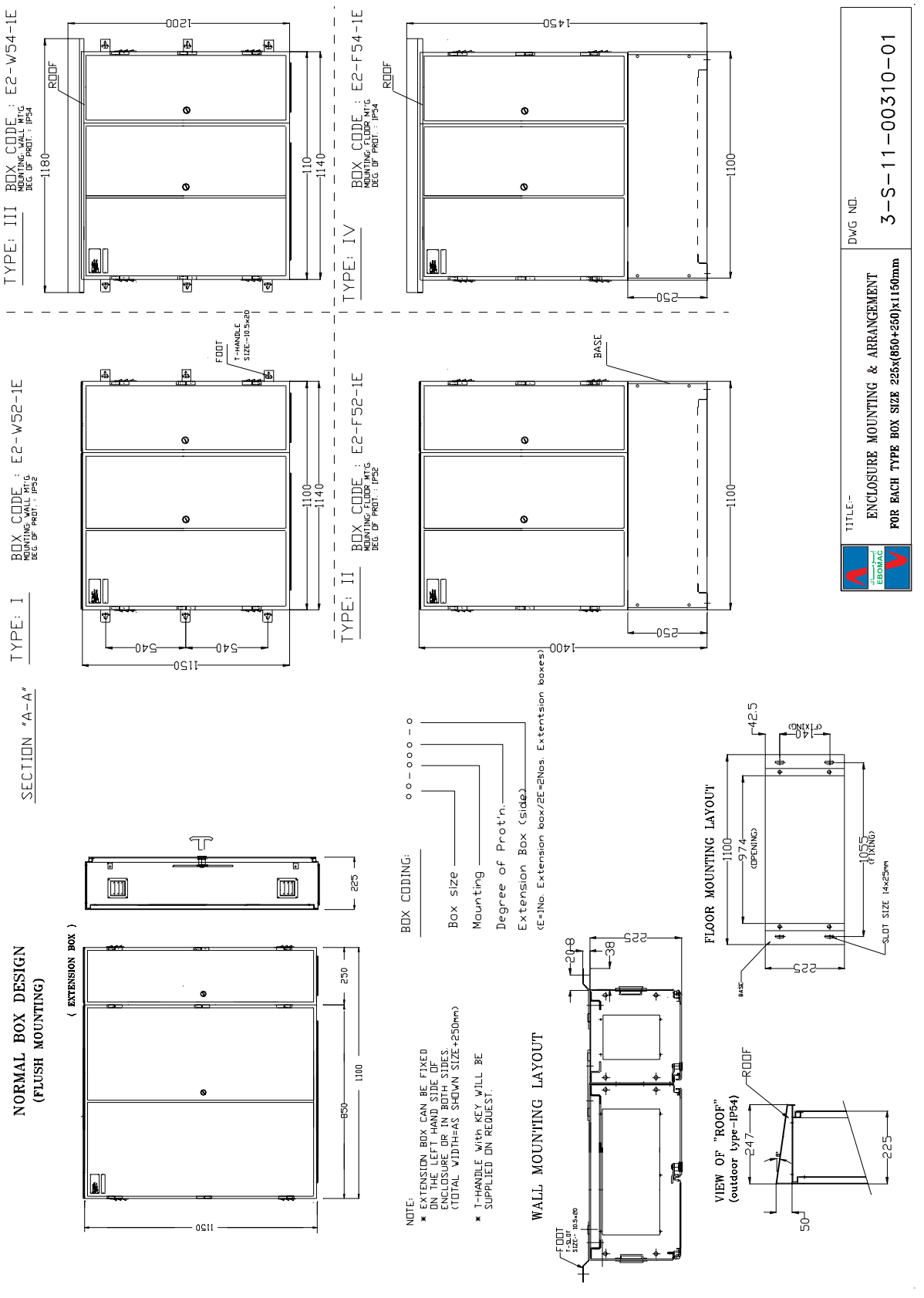

TYPE: 111
BOX CODE : D2-W54
MOUNTING:WALL MTG.
DEG. OF PROT.: IP54
ROOF
900
930
850
890
780
TYPE: 1V
BOX CODE : D2-F54
MOUNTING:FLOOR MTG.
DEG. OF PROT.: IP54
BASE
1150
250
TYPE: 1
BOX CODE : D2-W52
MOUNTING:WALL MTG.
DEG. OF PROT.: IP52
FOOT
T-SLOT
SIZE 10.5x20
850
890
780
850
TYPE: 11
BOX CODE : D2-F52
MOUNTING:FLOOR MTG.
DEG. OF PROT.: IP52
BASE
850
1100
250
T-HANDLE KEY
(ON REQUEST)
225
NORMAL BOX DESIGN
(FLUSH MOUNTING)
850
850
FLOOR MOUNTING LAYOUT
42.5
140
(FIXING)
850
724
(OPENING)
805
(FIXING)
SLOT SIZE 14x25mm
225
BASE
ROOF
247
225
50
VIEW OF "ROOF"
(outdoor type-IP54)
BOX CODING:
oo-ooo
Box size
Mounting
Degree of Prot'n.
WALL MOUNTING LAYOUT
8
225
20
FOOT
T-SLOT
SIZE 10.5x20
NOTE:-
T-HANDLE IS OPTIONAL ACCESSRIES
(can be supplied on request)
TITLE-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 225x850x850mm
DWG NO.
3-S-11-00304-01

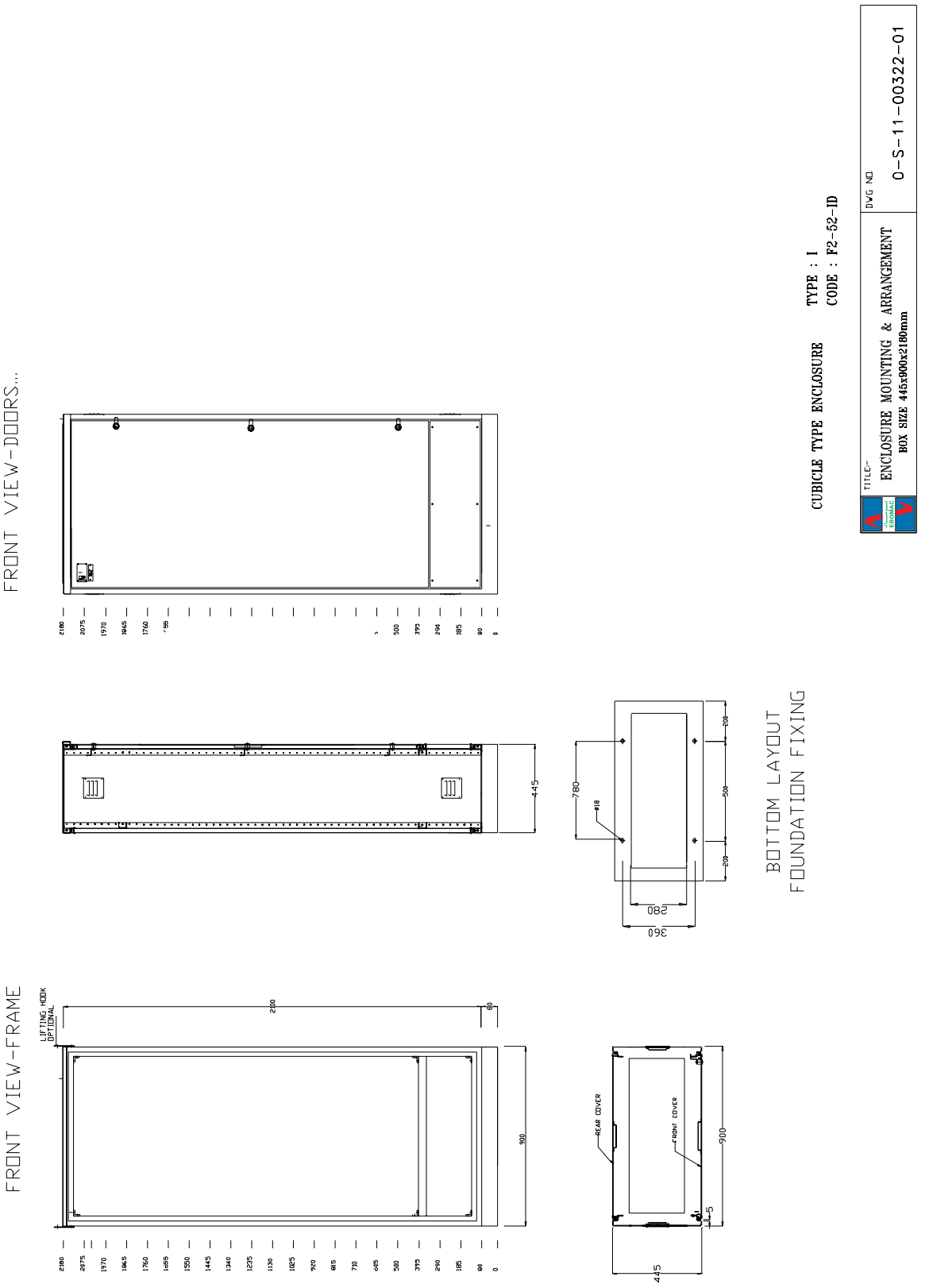

TYPE: 111
BOX CODE : E2-W54
MOUNTING:WALL MTG.
DEG. OF PROT.: IP54
1080
850
890
TYPE: 1V
BOX CODE : E2-F54
MOUNTING:FLOOR MTG.
DEG. OF PROT.: IP54
1450
930
250
TYPE: 1
BOX CODE : E2-W52
MOUNTING:WALL MTG.
DEG. OF PROT.: IP52
FOOT
T-HANDLE
(ON REQUEST)
1150
540
540
850
890
T-HANDLE With KEY
(ON REQUEST)
225
TYPE: 11
BOX CODE : E2-F52
MOUNTING:FLOOR MTG.
DEG. OF PROT.: IP52
BASE
1400
250
850
FLOOR MOUNTING LAYOUT
42.5
140
(FIXING)
850
724
(OPENING)
805
(FIXING)
SLOT SIZE 14x25mm
225
BASE
ROOF
247
225
50
VIEW OF "ROOF"
(outdoor type-IP54)
NORMAL BOX DESIGN
(FLUSH MOUNTED)
1150
850
BOX CODING: oo-ooo
Box size
Mounting
Degree of Prot'n.
WALL MOUNTING LAYOUT
225
8
20
38
FOOT
T-SLOT
SIZE: 10.5x8
NOTE:-
T-HANDLE IS OPTIONAL ACCESSRIES
(can be supplied on request)
TITLE-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 225x850x1150mm
DWG NO.
3-S-11-00305-01

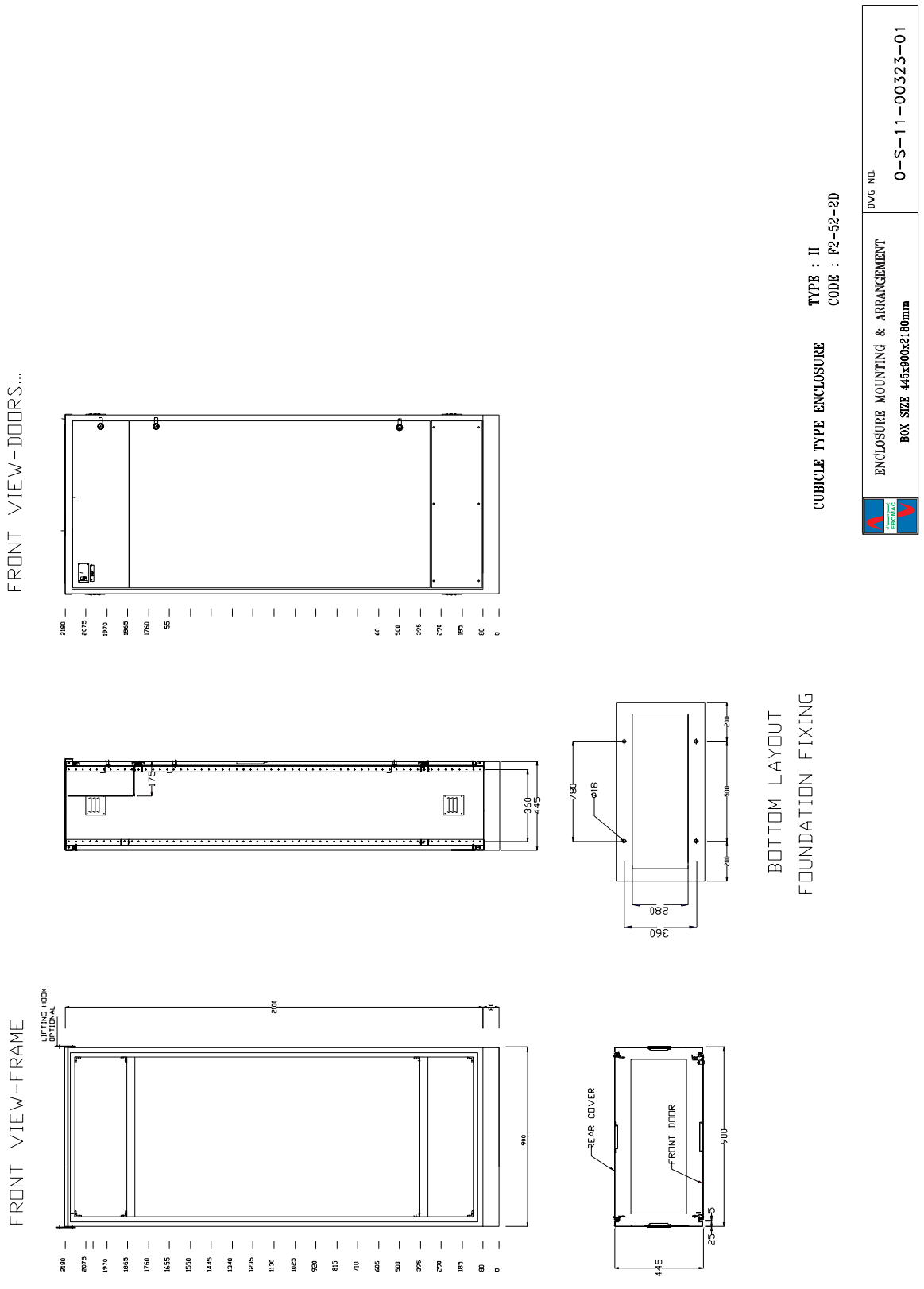

TYPE: 111
BOX CODE : B2-W54-1E
MOUNTING WALL MT'G.
DEG. OF PROT. : IP54
ROOF
600
480
600
640
TYPE: 1V
BOX CODE : B2-F54-1E
MOUNTING FLOOR MT'G.
DEG. OF PROT. : IP54
ROOF
850
680
250
TYPE: 1
BOX CODE : B2-W52-1E
MOUNTING WALL MT'G.
DEG. OF PROT. : IP52
FOOT
T-SLOT
SIZE:-10.5x20
600
640
480
550
TYPE: 11
BOX CODE : B2-F52-1E
MOUNTING FLOOR MT'G.
DEG. OF PROT. : IP52
BASE
250
800
225
BOX CODING:
oo-oooo-o
Box size
Mounting
Degree of Prot'n.
Extension Box (side)
(E-1No.Extension box/2e=2Nos. Extension boxes)
(EXTENSION BOX)
NORMAL BOX DESIGN
(FLUSH MOUNTING)
250
350
600
550
NOTE:
EXTENSION BOX CAN BE FIXED
ON THE LEFT HAND SIDE OF
ENCLOSURE OR IN BOTH SIDES.
(TOTAL WIDTH=AS SHOWN SIZE+250mm)
WALL MOUNTING LAYOUT
208
38
225
FOOT
T-SLOT
SIZE:- 10.5x20
FLOOR MOUNTING LAYOUT
425
140
(FIXING)
600
574
(OPENING)
555
(FIXING)
225
BASE
SLOT SIZE 14x25mm
VIEW OF "ROOF"
(outdoor type-IP54)
ROOF
247
225
50
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 225x(350+250)x550mm
DWG NO.
3-S-11-00307-01

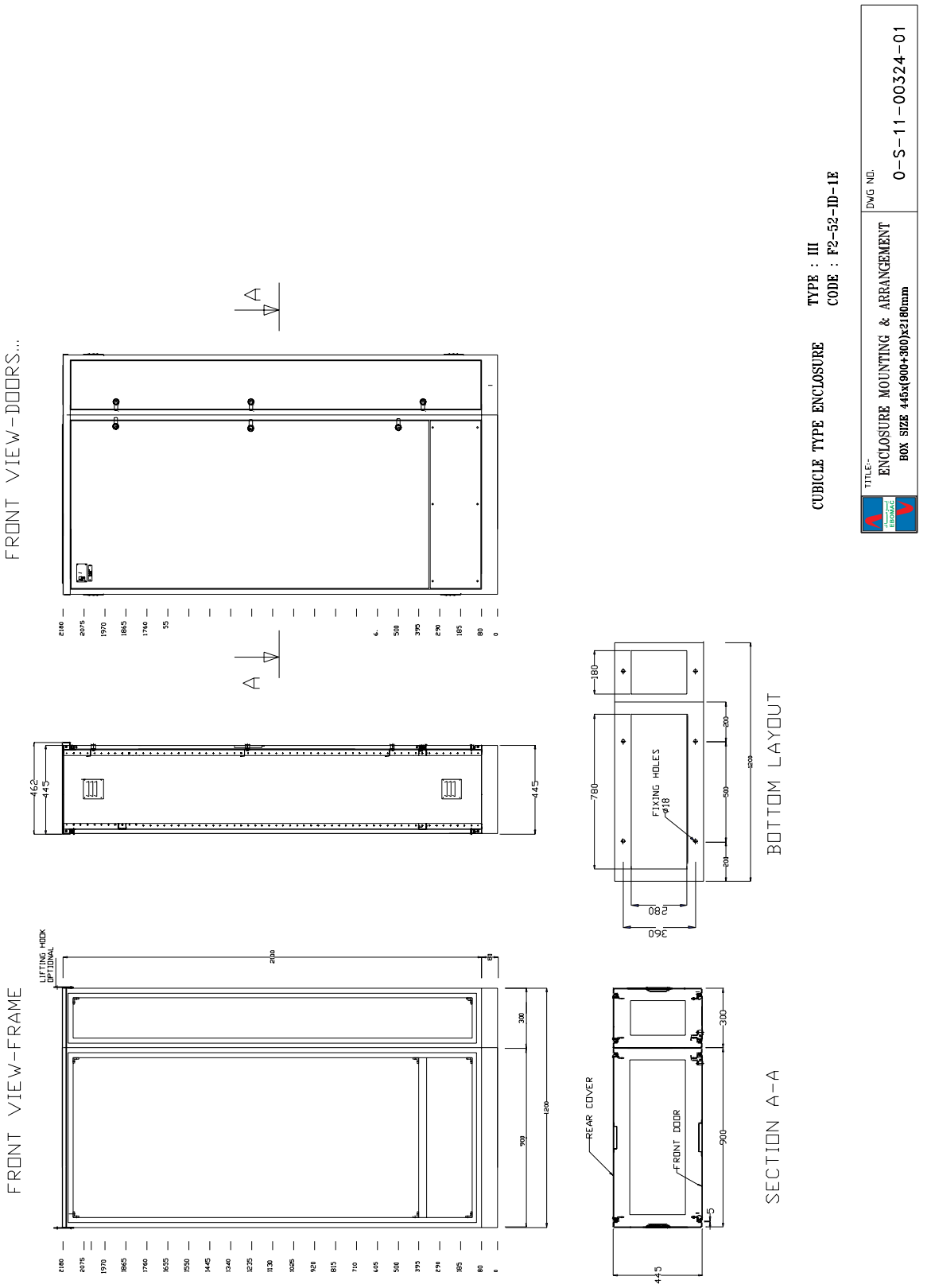

TYPE: 111
BOX CODE : C2-W54-1E
MOUNTING: WALL MTG.
DEG. OF PROT. : IP54
ROOF
900
780
800
840
TYPE: 1V
BOX CODE : C2-F54-1E
MOUNTING: FLOOR MTG.
DEG. OF PROT. : IP54
ROOF
1150
880
250
TYPE: 1
BOX CODE : C2-W52-1E
MOUNTING: WALL MTG.
DEG. OF PROT. : IP52
FOOT
T-SLOT
SIZE-105x40
780
850
800
840
TYPE: 11
BOX CODE : C2-F52-1E
MOUNTING: FLOOR MTG.
DEG. OF PROT. : IP52
BASE
1100
250
800
TITLE-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 225x(550+250)x850mm
DWG NO.
3-S-11-00308-01
NORMAL BOX DESIGN
(FLUSH MOUNTING)
(EXTENSION BOX)
225
250
550
800
850
BOX CODING:
o o - o o o - o
Box size
Mounting
Degree of Prot'n
Extension Box (side)
(E=1No.Extension box/2E=2Nos.Extension boxes)
NOTE:
EXTENSION BOX CAN BE FIXED
ON THE LEFT HAND SIDE OF
ENCLOSURE OR IN BOTH SIDES.
(TOTAL WIDTH=AS SHOWN SIZE+250mm)
WALL MOUNTING LAYOUT
208
38
225
FOOT
T-SLOT
SIZE-105x20
FLOOR MOUNTING LAYOUT
800
674
(OPENING)
42.5
40
(FIXING)
755
(fixing)
225
SLOT SIZE 14x25mm
BASE
VIEW OF "ROOF"
(outdoor ly. e-IP54)
ROOF
247
225
50

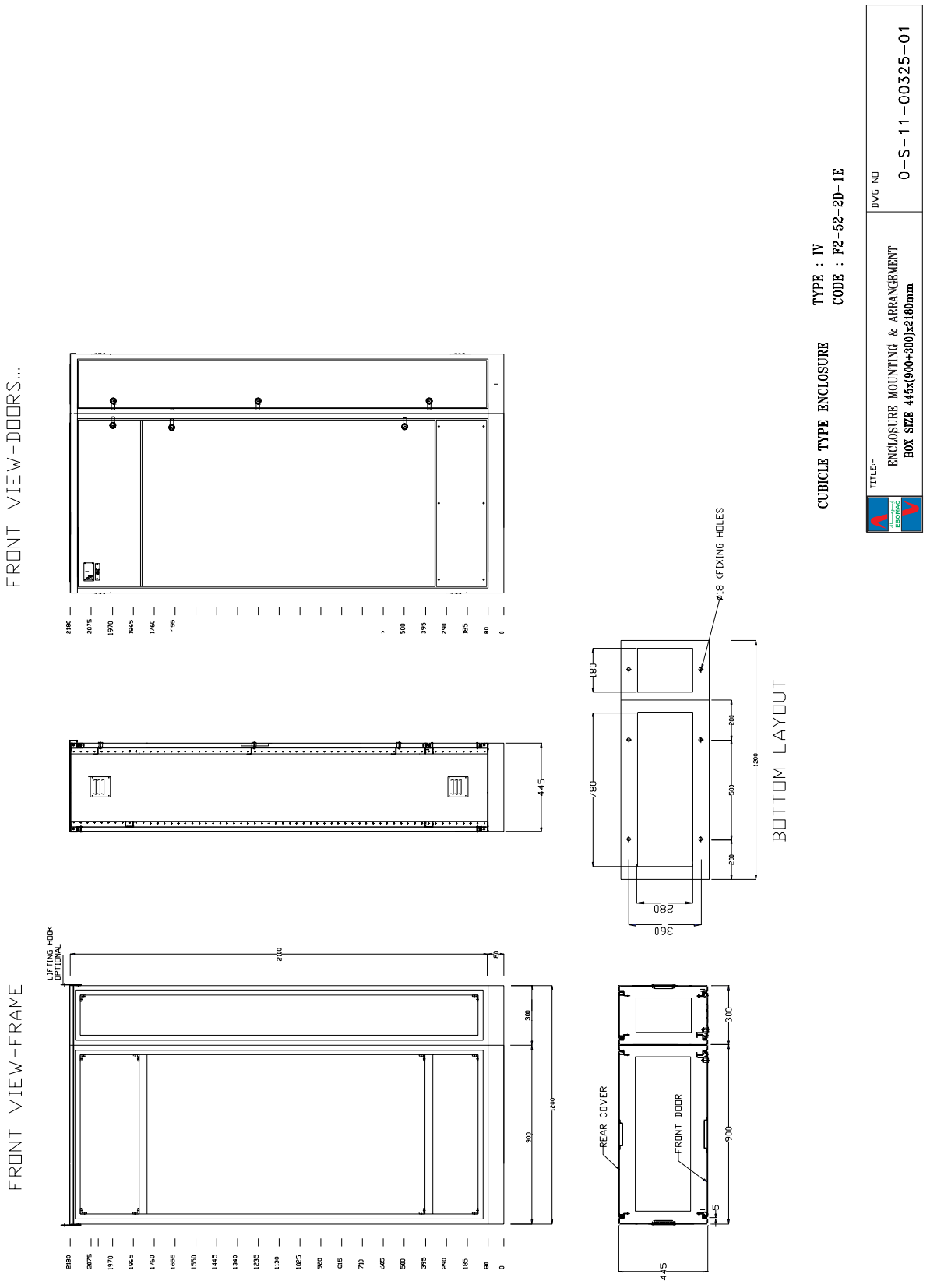

TYPE: 111 BOX CODE : D2-W54-1E
MOUNTING: WALL MTG.
DEG OF PROT.: IP54
ROOF
900
780
1100
1140
TYPE: 1V BOX CODE : D2-F54-1E
MOUNTING: FLOOR MTG.
DEG OF PROT.: IP54
1150
1180
250
TYPE: 1 BOX CODE : D2-W52-1E
MOUNTING: WALL MTG.
DEG OF PROT.: IP52
FOOT
S-SLOT
SIZE: 10.5x20
780
850
1100
1140
TYPE: 11 BOX CODE : D2-F52-1E
MOUNTING: FLOOR MTG.
DEG OF PROT.: IP52
BASE
250
1100
T-HANDLE With KEY
(ON REQUEST)
225
NORMAL BOX DESIGN
(EXTENSION BOX)
250
850
850
BOX CODING:
o o - o o o - o
Box size
Mounting
Degree of Prot'n.
Extension Box (side)
(E=1No. Extension box/2E=2Nos. Extension boxes)
NOTE:
* EXTENSION BOX CAN BE FIXED ON THE LEFT HAND SIDE OF ENCLOSURE OR IN BOTH SIDES. (TOTAL WIDTH=AS SHOWN SIZE+250mm)
* T-HANDLE With KEY WILL BE SUPPLIED ON REQUEST.
WALL MOUNTING LAYOUT
208
38
522
FOOT
S-SLOT
SIZE: 10.5x20
FLOOR MOUNTING LAYOUT
42.5
140
1100
974
(OPENING)
1055
(FIXING)
522
SLOT SIZE 14x25mm
BASE
VIEW OF "ROOF"
(outdoor type-IP54)
ROOF
247
225
50
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 225x(850+25)x850mm
DWG NO.
3-S-11-00309-01

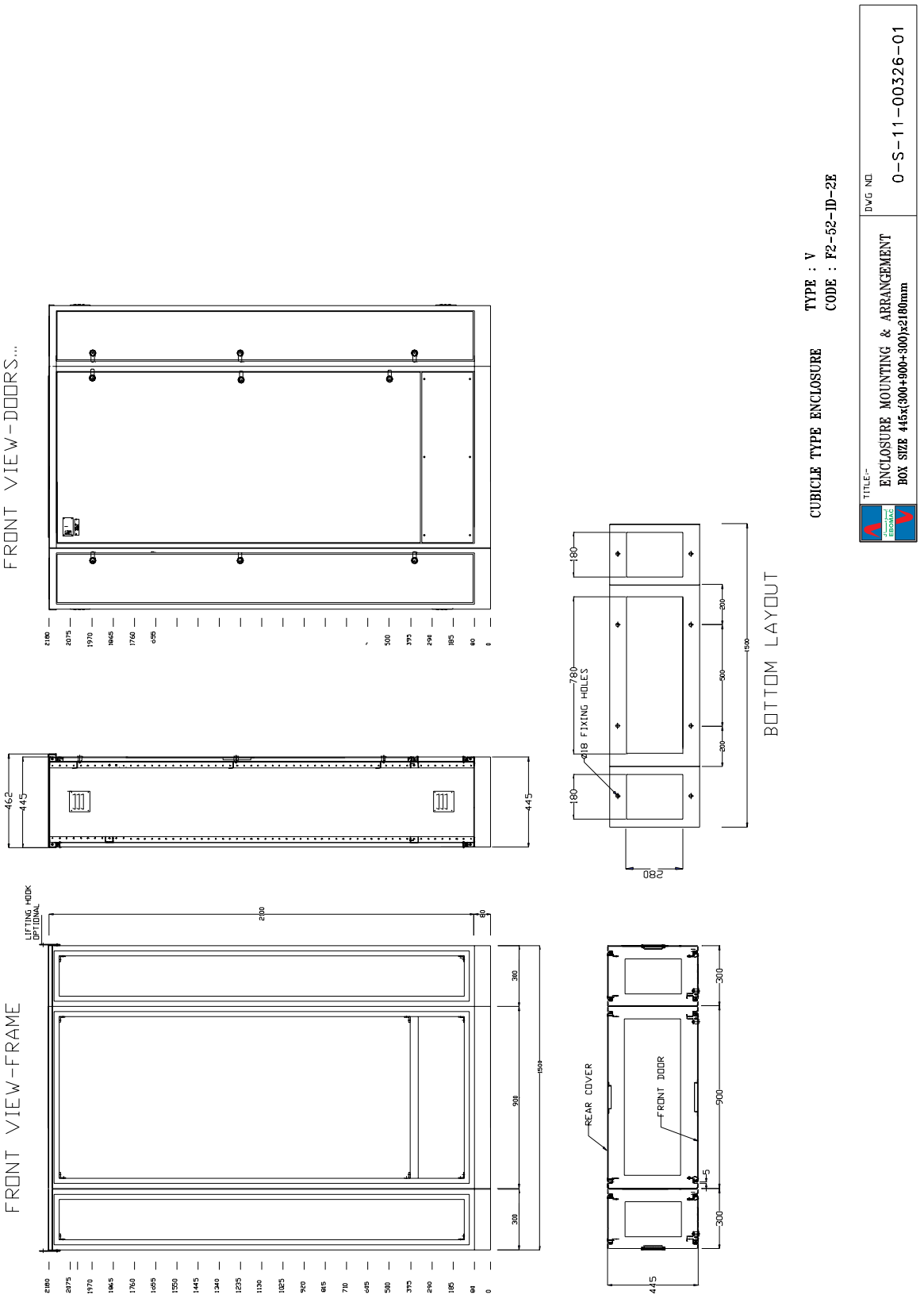

TYPE: III
BOX CODE : E2-W54-1E
MOUNTING: WALL MTG.
DEG. OF PROT.: IP54
ROOF
1200
1180
110
1140
TYPE: IV
BOX CODE : E2-F54-1E
MOUNTING: FLOOR MTG.
DEG. OF PROT.: IP54
ROOF
1450
1100
250
TYPE: I
BOX CODE : E2-W52-1E
MOUNTING: WALL MTG.
DEG. OF PROT.: IP52
FOOT
T-HANDLE
SIZE-10.5x20
1100
1140
540
540
1150
TYPE: II
BOX CODE : E2-F52-1E
MOUNTING: FLOOR MTG.
DEG. OF PROT.: IP52
BASE
1100
250
1400
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 225x(850+250)x1150mm
DWG NO.
3-S-11-00310-01
SECTION "A-A"
NORMAL BOX DESIGN
(FLUSH MOUNTING)
(EXTENSION BOX)
225
250
850
1100
1150
BOX CODING:
o o - o o o - o
Box size
Mounting
Degree of Prot'n.
Extension Box (side)
(E=No. Extension box/2E=2Nos. Extentsion boxes)
NOTE:
* EXTENSION BOX CAN BE FIXED ON THE LEFT HAND SIDE OF ENCLOSURE OR IN BOTH SIDES. (TOTAL WIDTH=AS SHOWN SIZE+250mm)
* T-HANDLE WITH KEY WILL BE SUPPLIED ON REQUEST.
WALL MOUNTING LAYOUT
20.8
38
225
FOOT
T-SLOT
SIZE:- 10.5x20
FLOOR MOUNTING LAYOUT
42.5
140
(FIXING)
1100
974
(OPENING)
1055
(FIXING)
225
BASE
SLOT SIZE 14x25mm
VIEW OF "ROOF"
(outdoor type-IP54)
ROOF
247
225
50

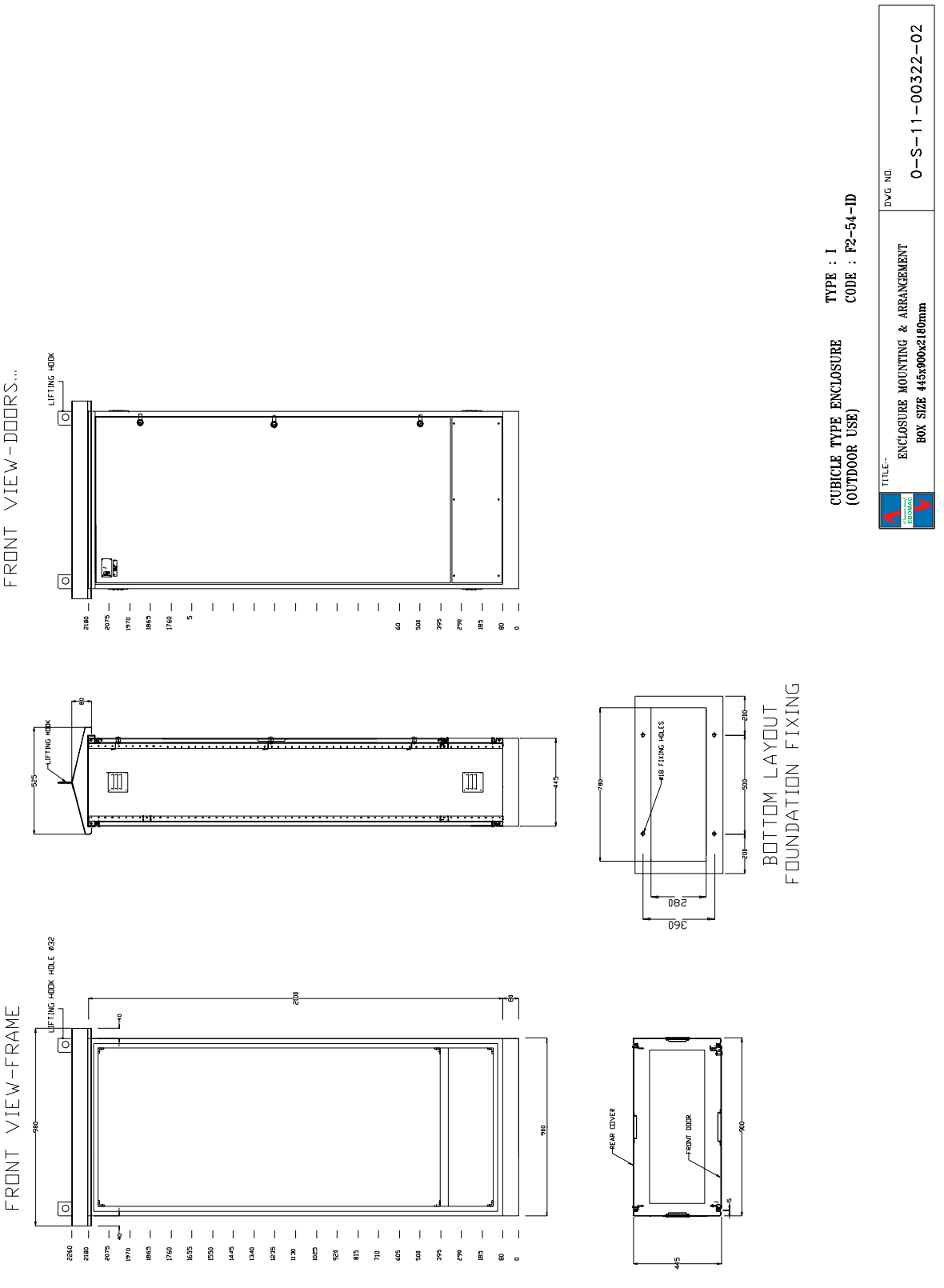

FRONT VIEW-DOORS...
FRONT VIEW-FRAME
LIFTING HOOK OPTIONAL
REAR COVER
FRONT COVER
BOTTOM LAYOUT
FOUNDATION FIXING
CUBICLE TYPE ENCLOSURE
TYPE : 1
CODE : F2-52-ID
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
BOX SIZE 445x900x2180mm
DWG NO.
0-S-11-00322-01

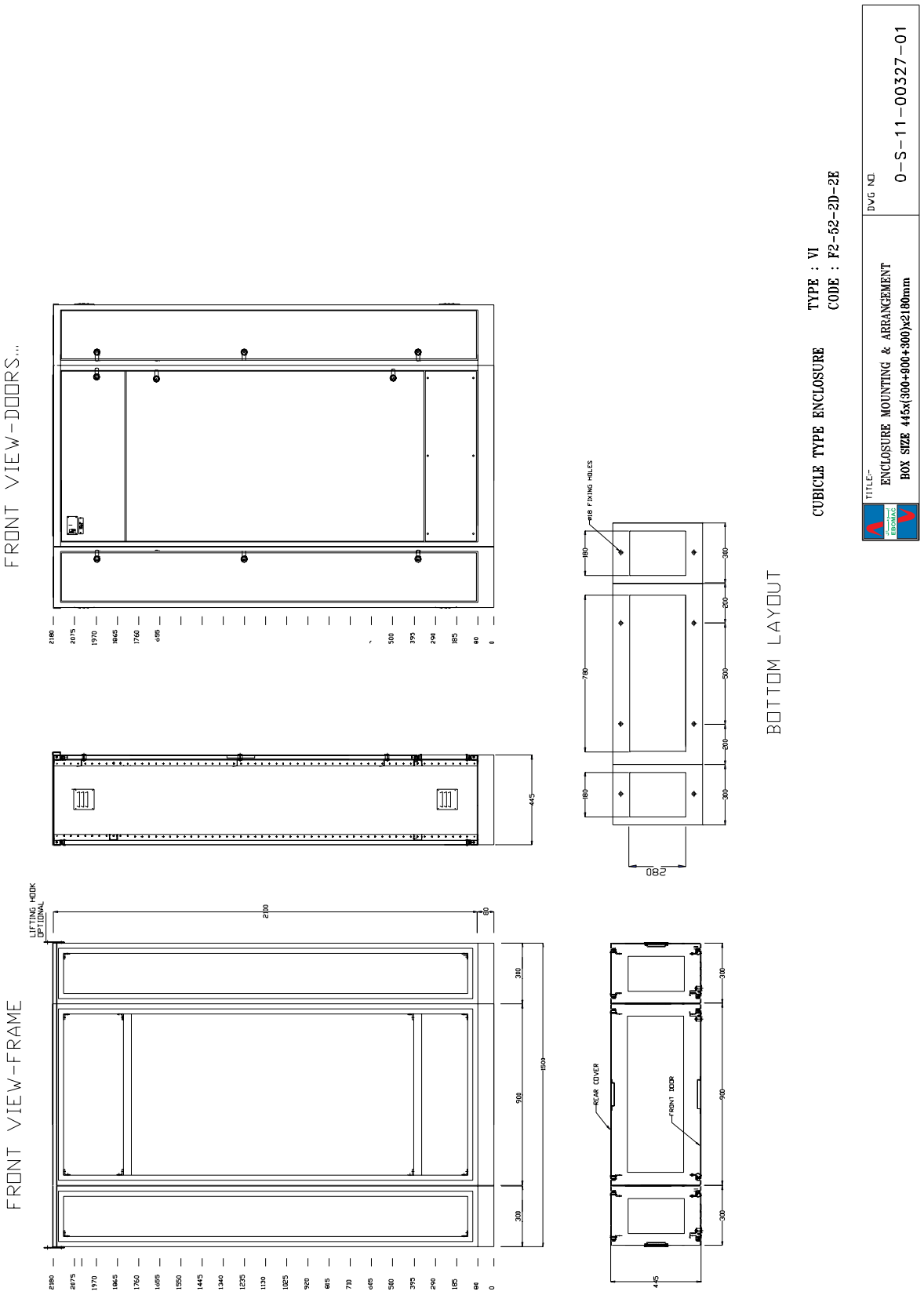

FRONT VIEW-DOORS...
FRONT VIEW-FRAME
LIFTING HOOK OPTIONAL
REAR COVER
FRONT DOOR
BOTTOM LAYOUT
FOUNDATION FIXING
CUBICLE TYPE ENCLOSURE
TYPE : II
CODE : F2-52-2D
ENCLOSURE MOUNTING & ARRANGEMENT
BOX SIZE 445x900x2180mm
DWG NO.
0-S-11-00323-01

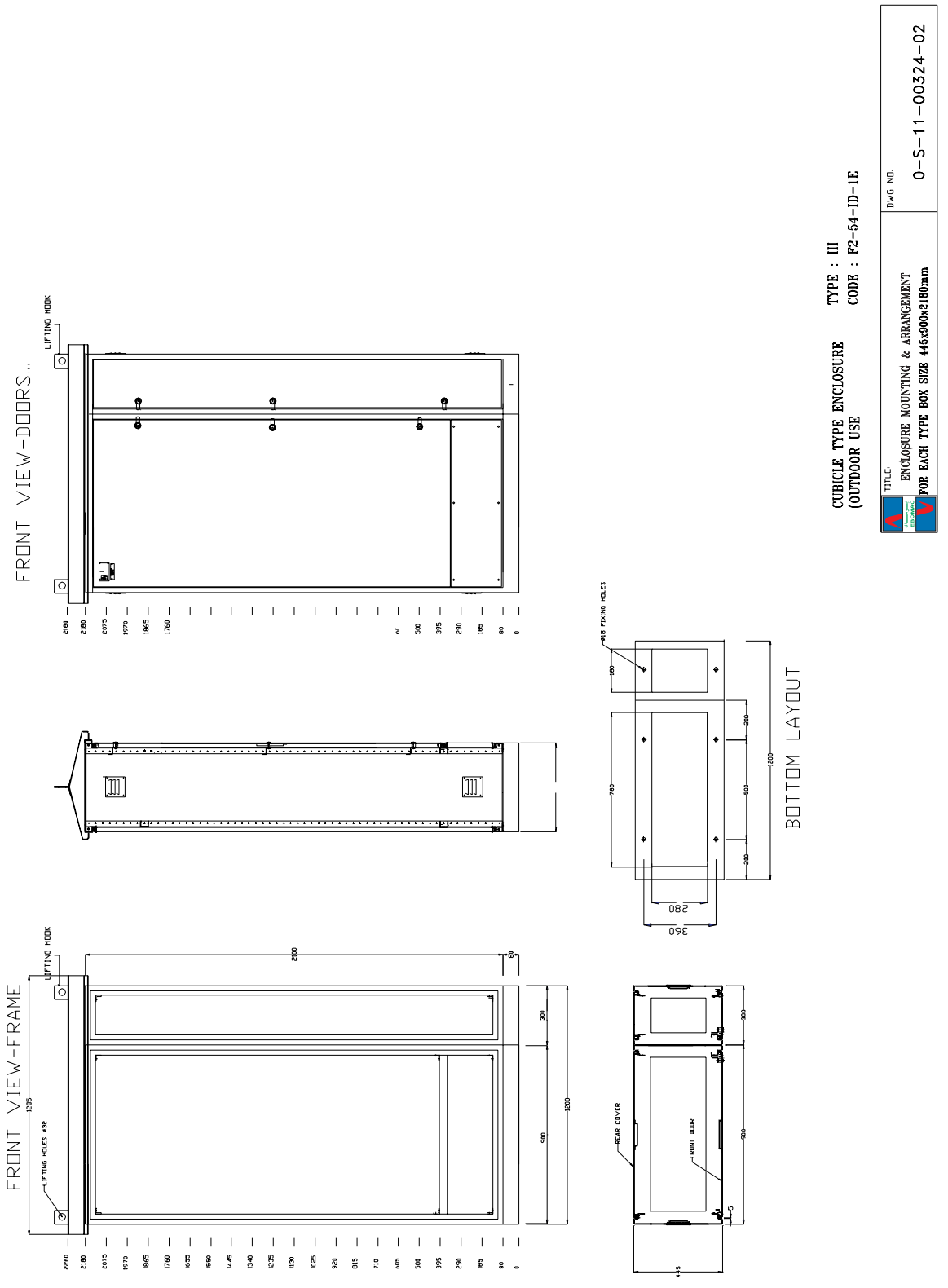

FRONT VIEW-DOORS...
FRONT VIEW-FRAME
BOTTOM LAYOUT
SECTION A-A
FIXING HOLES
REAR COVER
FRONT DOOR
LIFTING HOOK OPTIONAL
CUBICLE TYPE ENCLOSURE
TYPE : III
CODE : F2-52-ID-1E
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
BOX SIZE 445x(900+300)x2180mm
DWG NO.
0-S-11-00324-01


FRONT VIEW-DOORS...
FRONT VIEW-FRAME
BOTTOM LAYOUT
LIFTING HOOK OPTIONAL
REAR COVER
FRONT DOOR
ø18 FIXING HOLES
CUBICLE TYPE ENCLOSURE
TYPE : IV
CODE : F2-52-2D-1E
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
BOX SIZE 445x(900+300)x2180mm
DWG NO.
0-S-11-00325-01


CUBICLE TYPE ENCLOSURE
TYPE : V
CODE : F2-52-ID-2E
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
BOX SIZE 445x(300+900+300)x2180mm
DWG NO
0-S-11-00326-01
FRONT VIEW-DOORS...
FRONT VIEW-FRAME
LIFTING HOOK OPTIONAL
BOTTOM LAYOUT
Ø18 FIXING HOLES
REAR COVER
FRONT DOOR


FRONT VIEW-DOORS...
LIFTING HOOK
FRONT VIEW-FRAME
LIFTING HOOK HOLE Ø32
BOTTOM LAYOUT
FOUNDATION FIXING
Ø18 FIXING HOLES
REAR COVER
FRONT DOOR
CUBICLE TYPE ENCLOSURE
(OUTDOOR USE)
TYPE : I
CODE : F2-54-ID
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
BOX SIZE 445x900x2180mm
DWG NO.
0-S-11-00322-02


FRONT VIEW-DOORS...
FRONT VIEW-FRAME
BOTTOM LAYOUT
LIFTING HOOK OPTIONAL
REAR COVER
FRONT DOOR
CUBICLE TYPE ENCLOSURE
TYPE : VI
CODE : F2-52-2D-2E
TITLE-
ENCLOSURE MOUNTING & ARRANGEMENT
BOX SIZE 445x(300+900+300)x2180mm
DWG NO
0-S-11-00327-01


FRONT VIEW-DOORS...
LIFTING HOOK
FRONT VIEW-FRAME
LIFTING HOLES Ø28
BOTTOM LAYOUT
Ø18 FIXING HOLES
REAR COVER
FRONT DOOR
CUBICLE TYPE ENCLOSURE TYPE : III
(OUTDOOR USE CODE : F2-54-ID-1E
TITLE:-
ENCLOSURE MOUNTING & ARRANGEMENT
FOR EACH TYPE BOX SIZE 445x900x2180mm
DWG NO.
0-S-11-00324-02

WIRING DIAGRAMS

In the following pages are available electrical wiring diagrams for components which are normally used in the electrical distribution panels. Also variations from the listed diagrams can be worked out using the standards wire Nos. and with different combinations of components from the listed diagrams.

The wiring diagrams are presented in this catalogue for the customer selection, then by providing complete understanding of switchgear design to the customer, minimise the approval period & quicken the delivery process.

WIRING DIAGRAMS

List of Wiring Diagrams

Incomer Feeder Wiring Diagrams

Drawing No.	Description
3S2100556-0	Kwh + 3 x Ammeter + Voltmeter/Sel.Sw. + 3 x Ph. Ind. lamp
3S2100557-0	Kwh + Ammeter/Sel. Sw. + Voltmeter/Sel. Sw. + 3 x Ph. Ind. lamp
3S2100558-0	Kwh + 3 x Ammeter + Voltmeter/Sel. Sw. + On/Off/Trip Ind. lamp
3S2100559-0	Kwh + Ammeter/Sel. Sw. + Voltmeter/Sel. Sw. + On/Off/Trip Ind. lamp
3S2100560-0	Kwh + 3 x Ammeter + Voltmeter/Sel. Sw.
3S2100561-0	Kwh + Ammeter/Sel. Sw. + Voltmeter/Sel. Sw.
3S2100562-0	3 x Ammeter
3S2100563-0	Voltmeter / Sel. Sw.
3S2570031-01	3 x Ammeter + Earth Leakage Relay (MCCB Trip)
3S2570029-01	Voltmeter/Sel. Sw. + Earth Leakage Relay (MCCB Trip)
3S2570032-01	Earth leakage Relay (MCCB Trip)

Outgoing Feeder Wiring Diagram

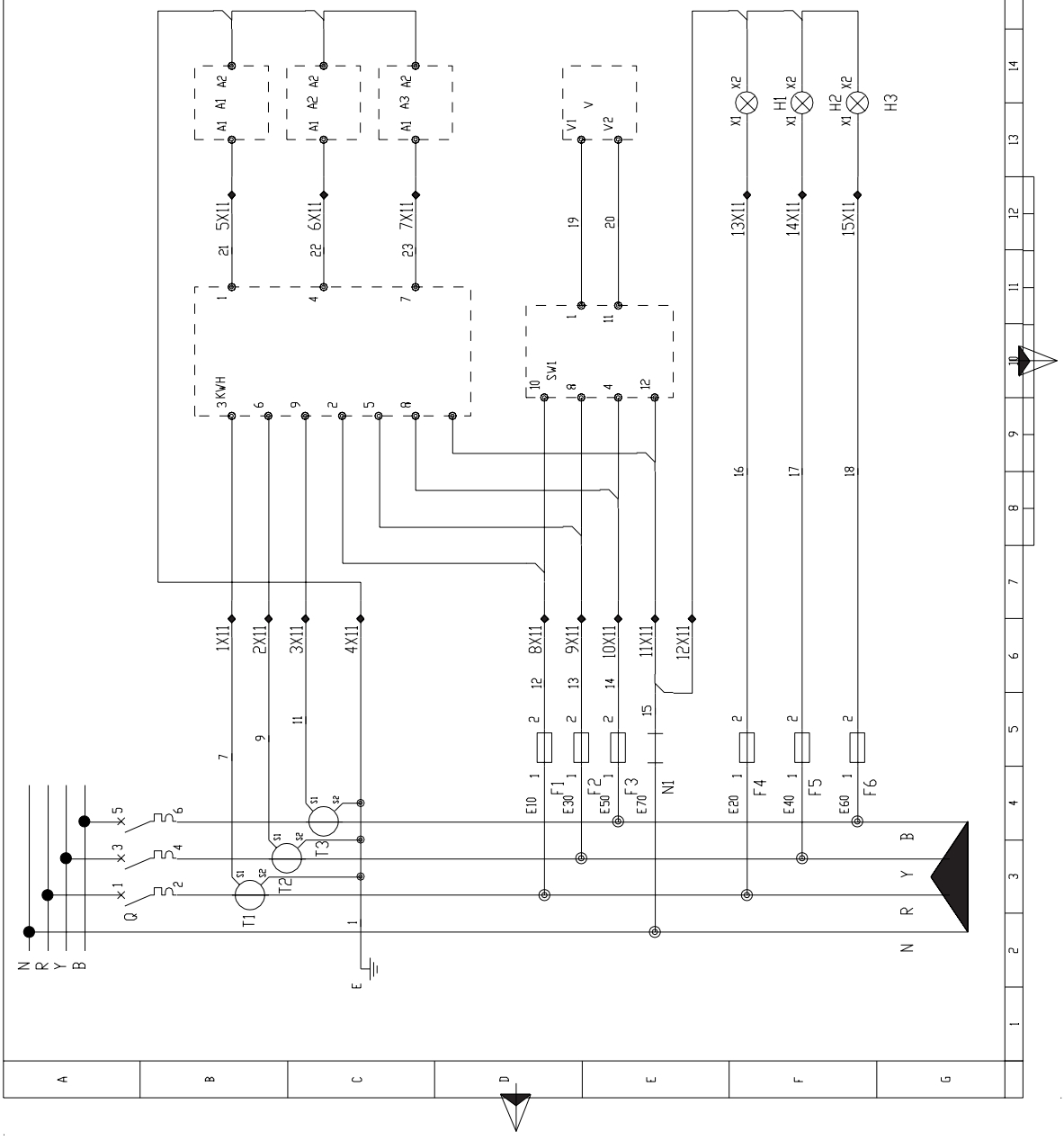
3S2100567-0	Ammeter/Sel. Sw.
3S2100568-0	3 x Ammeter
3S2570026-01	Earth Leakage Relay (MCCB Trip)
3S2570033-01	Ammeter/Sel.Sw. + Earth Leakage Relay (MCCB Trip)
3S2570034-01	3 x Ammeter + Earth Leakage Relay (MCCB Trip)
3S2570035-01	1 x Earth leakage Relay (Audio-Visual Alarm)
3S2570036-01 + 3S2570036-02	2 x Earth Leakage Relay (Audio-Visual Alarm)
3S2570036-01 + 3S2570036-03	3 x Earth Leakage Relay (Audio-Visual Alarm)
3S2570036-01 + 3S2570036-04	4 x Earth Leakage Relay (Audio-Visual Alarm)
3S2570036-01 + 3S2570039-01	from 5 x upto 10 x Earth Leakage Relay (Audio-Visual Alarm

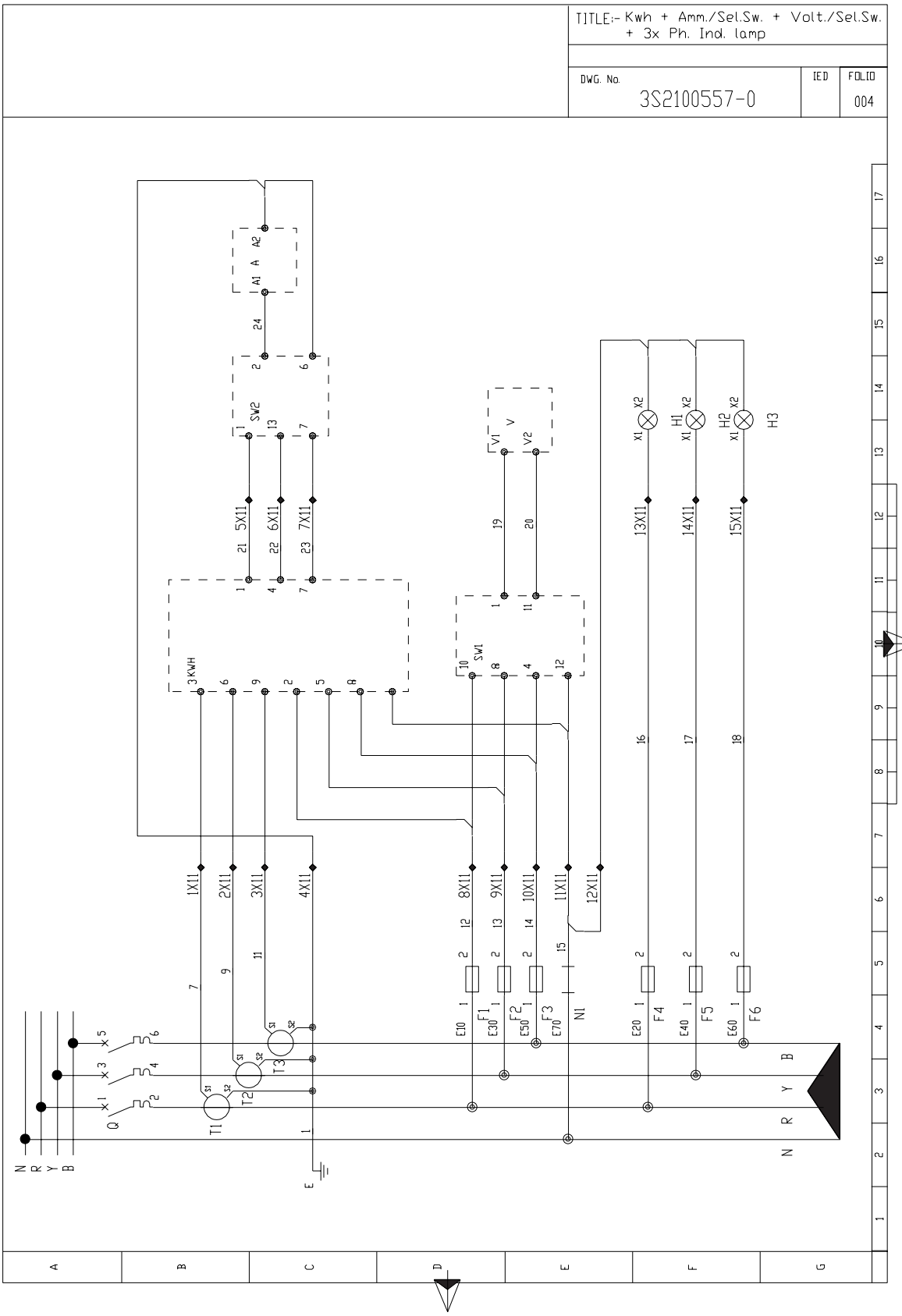
Legend

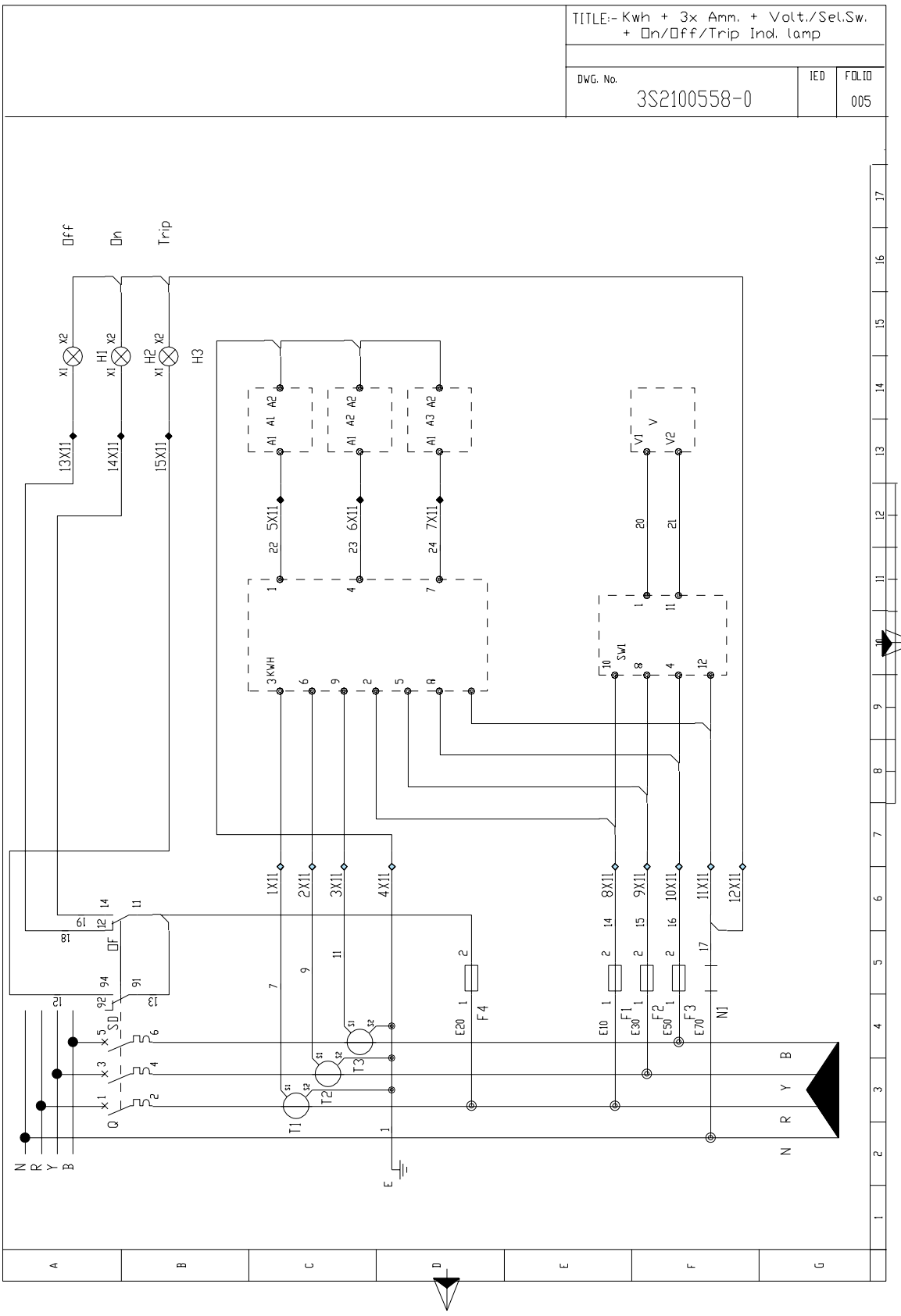
3S2570000-01	Legend of Wiring Diagram

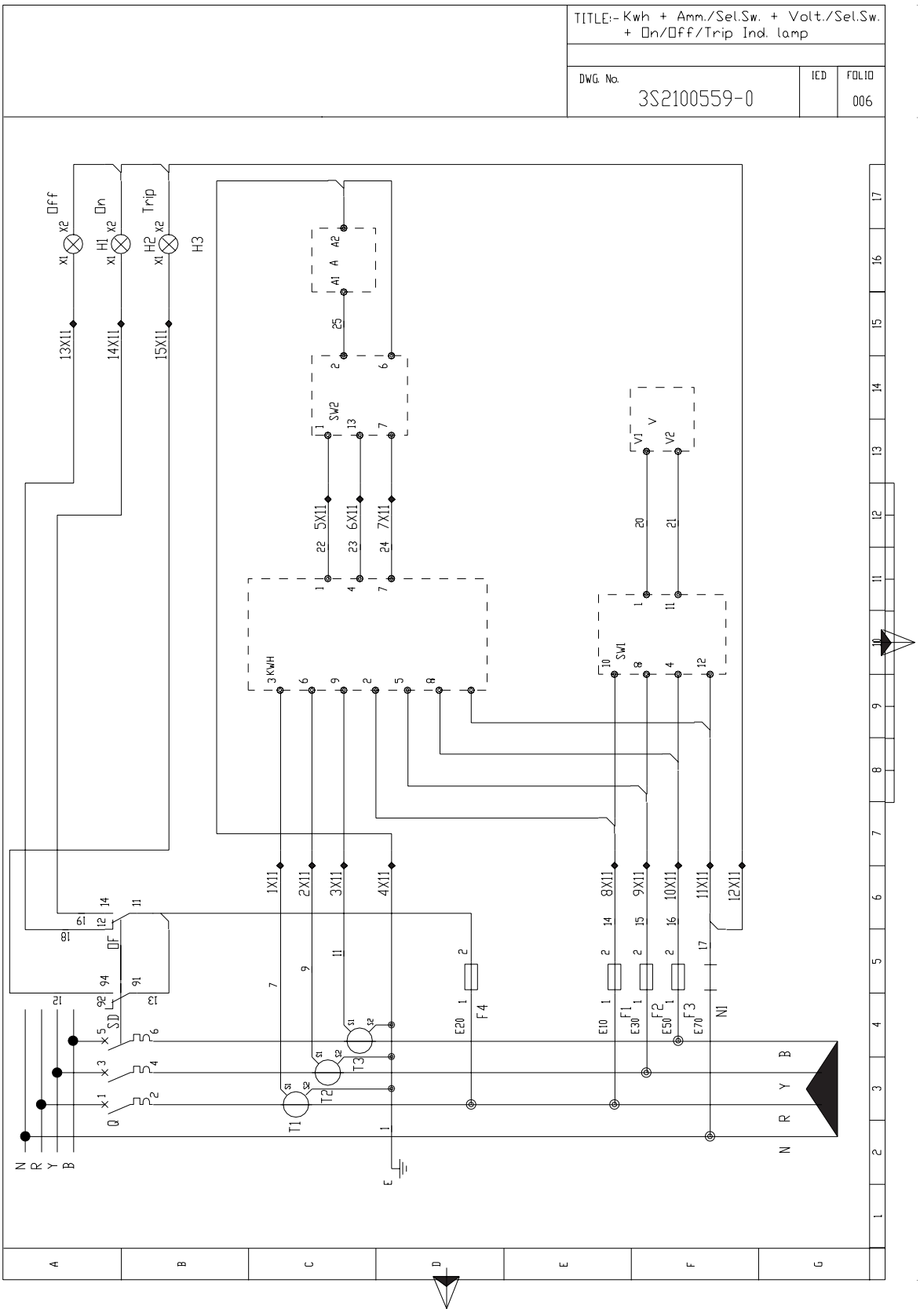
TITLE:- Kwh + 3x Amm. + Volt./Sel.Sw. + 3x Ph. Ind. lamp

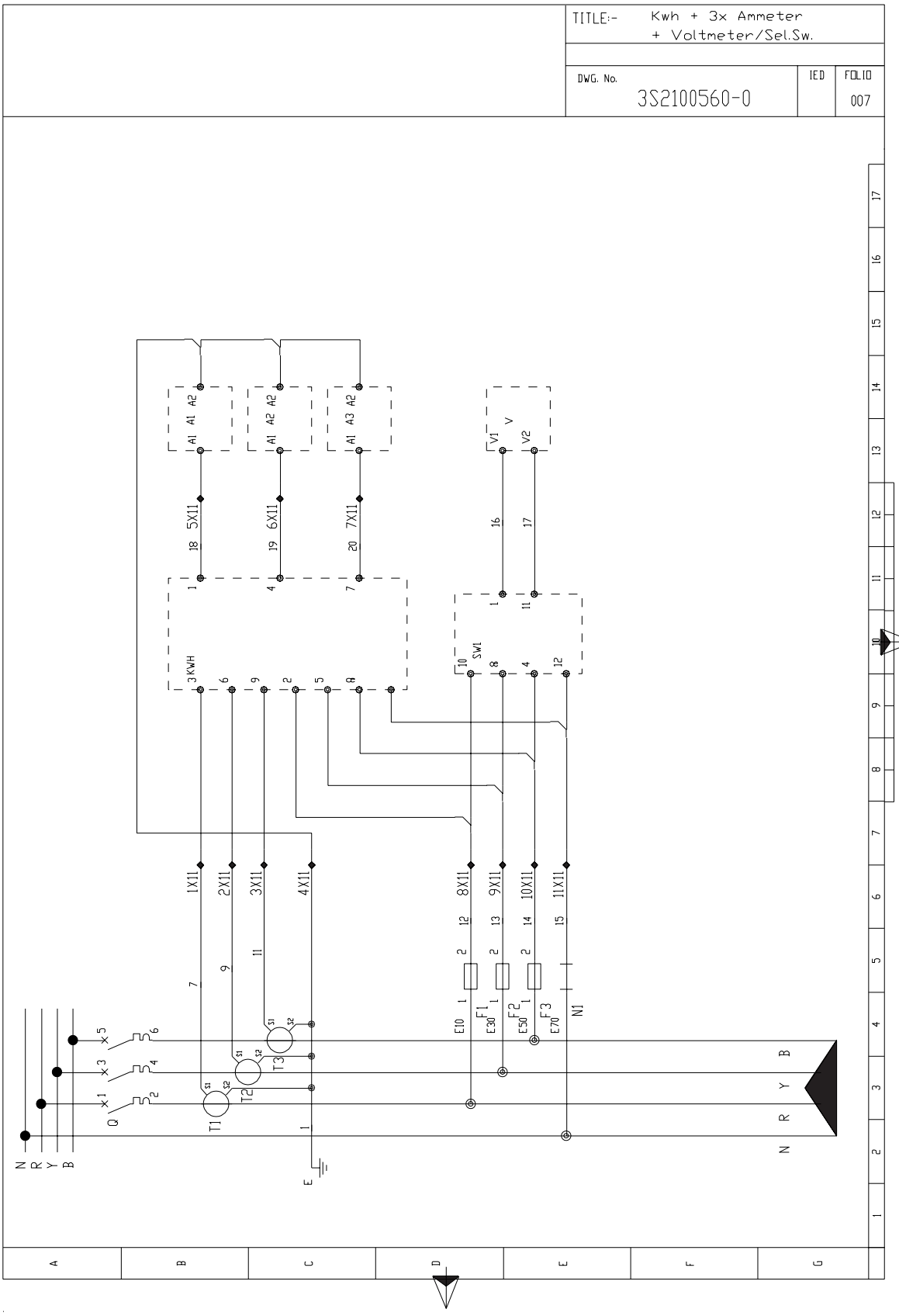
DWG. No.	IED	FOLIO
3S2100556-0		003

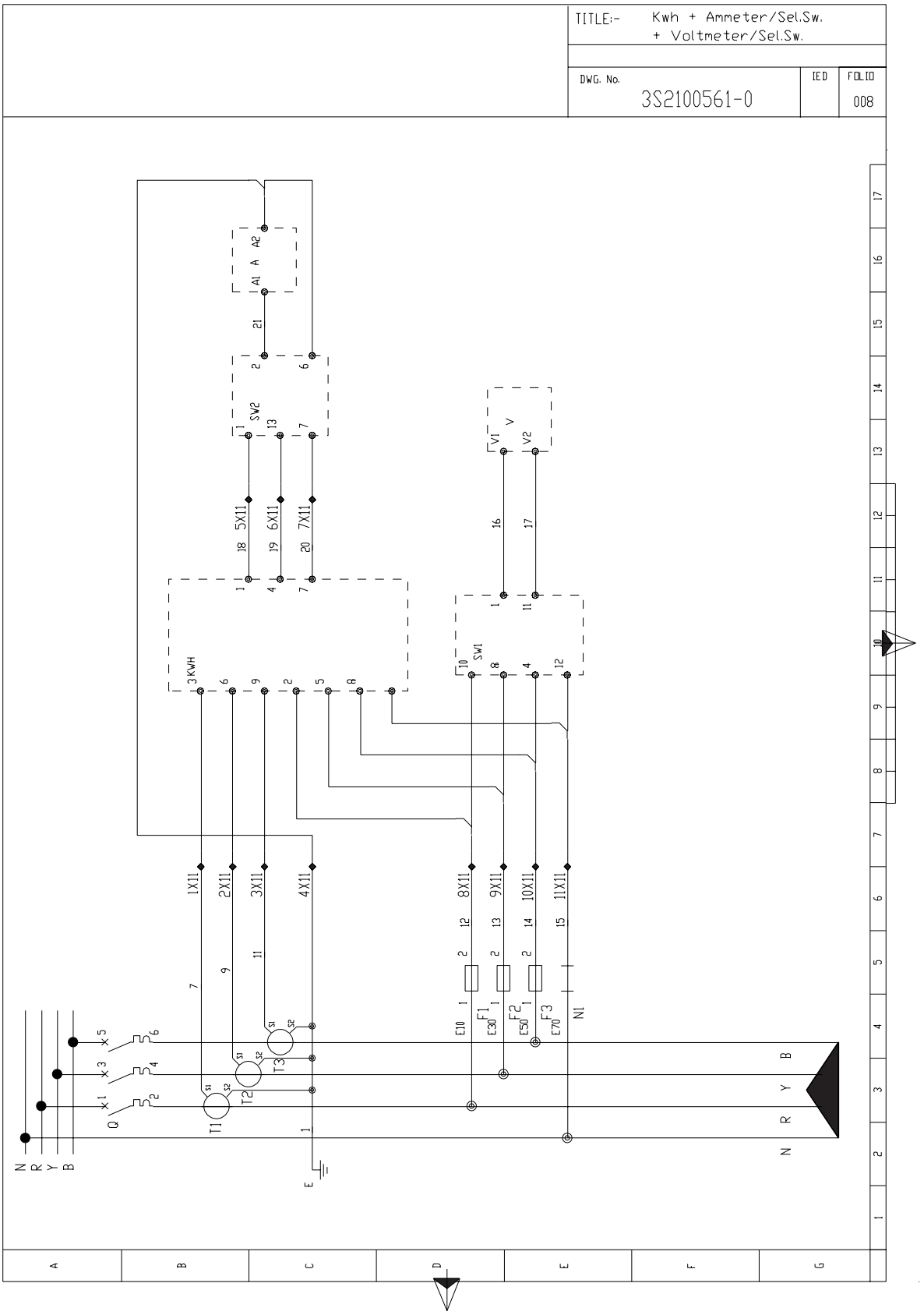


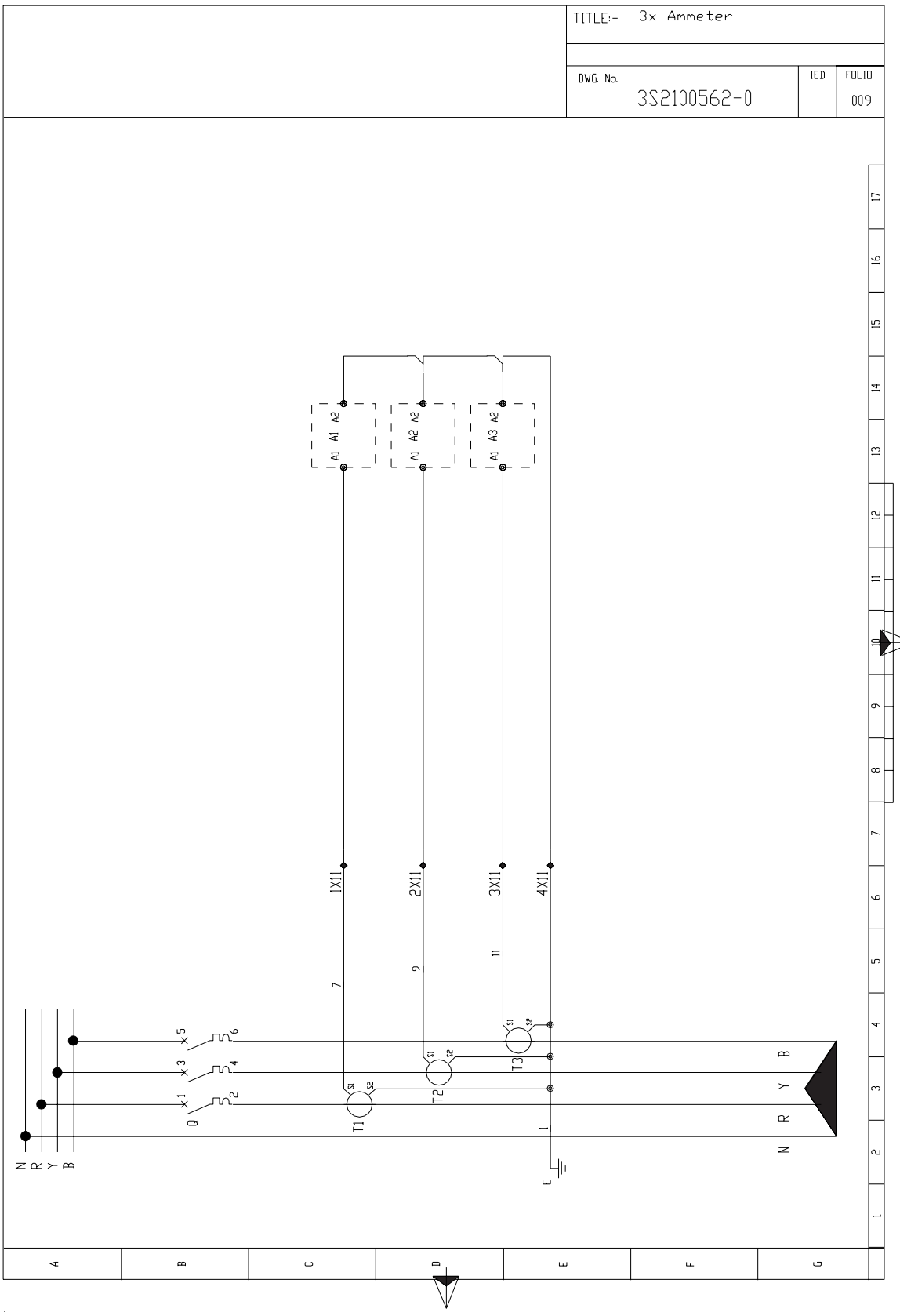

TITLE:- Kwh + Amm./Sel.Sw. + Volt./Sel.Sw. + 3x Ph. Ind. lamp
DWG. No.
3S2100557-0
IED
FOLIO
004

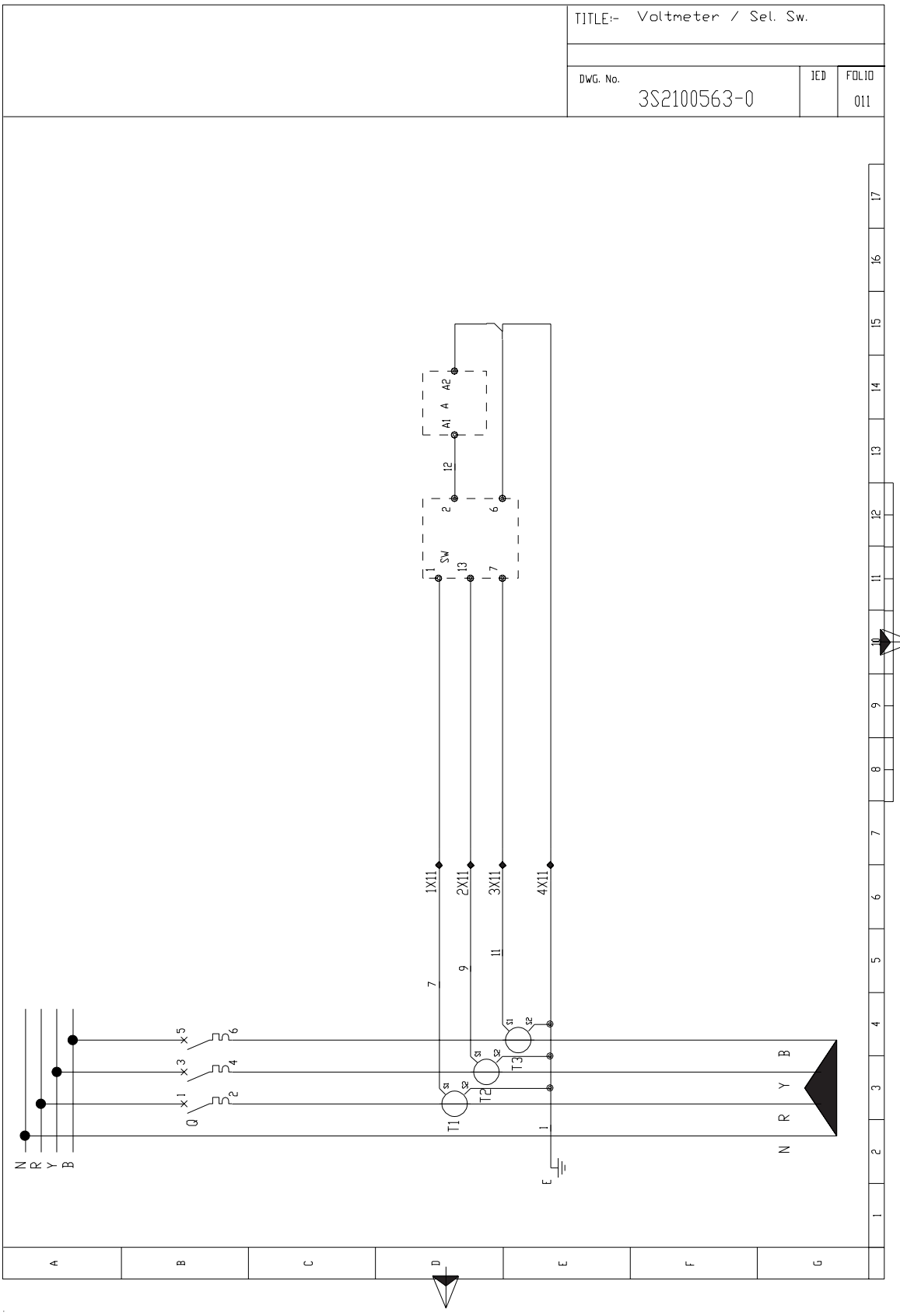

TITLE:- Kwh + 3x Amm. + Volt./Sel.Sw.
+ On/Off/Trip Ind. lamp
DWG. No.
3S2100558-0
IED
FOLIO
005
Off
On
Trip
H1
H2
H3
13X11
14X11
15X11
5X11
6X11
7X11
1X11
2X11
3X11
4X11
8X11
9X11
10X11
11X11
12X11
3 KWH
SW1
V1
V2
V
OF
SD
Q
T1
T2
T3
F1
F2
F3
F4
N1
E
N
R
Y
B

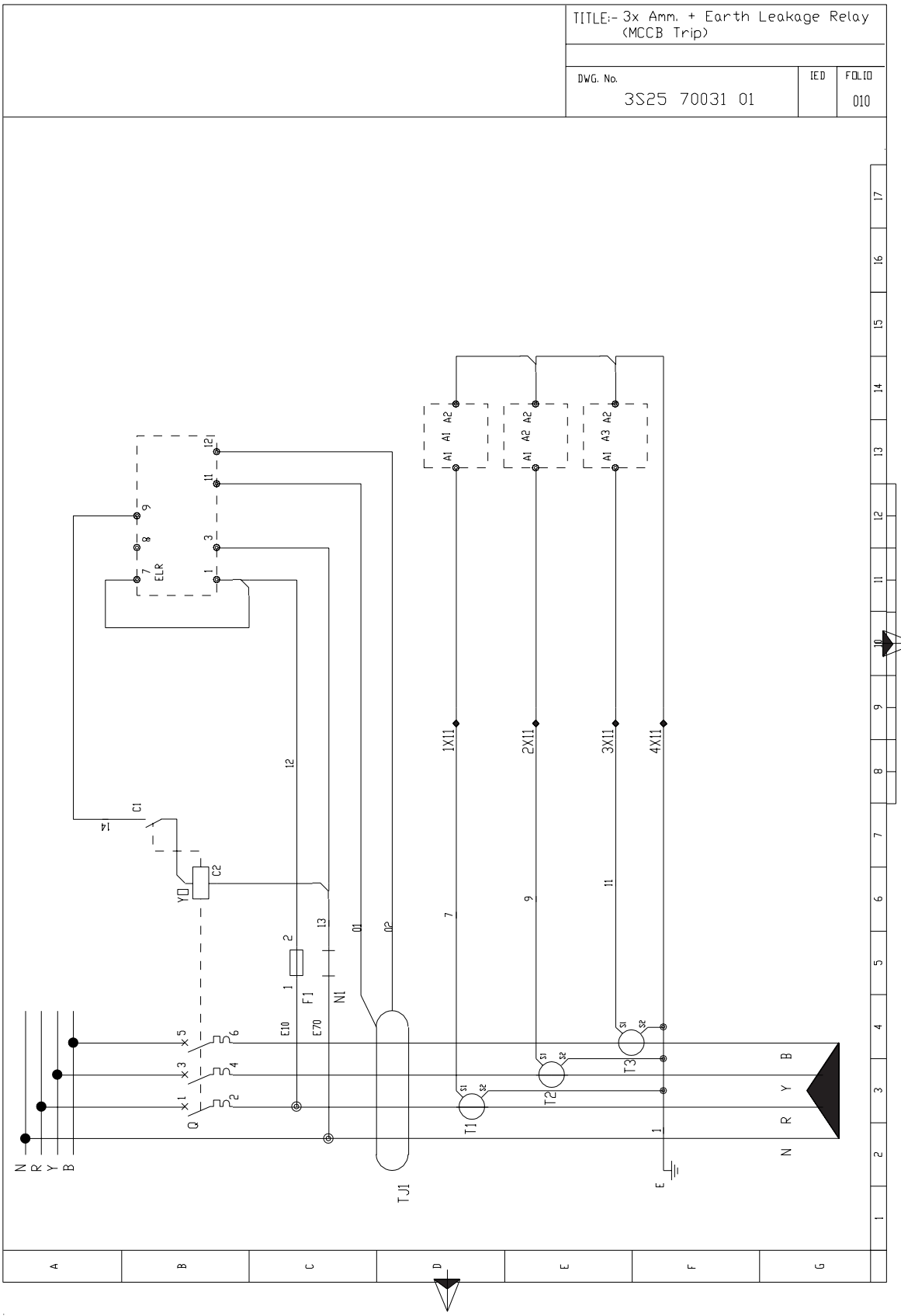

TITLE:- Kwh + Amm./Sel.Sw. + Volt./Sel.Sw.
+ On/Off/Trip Ind. lamp
DWG. No.
3S2100559-0
IED
FOLIO
006
Off
On
Trip
H1
H2
H3
13X11
14X11
15X11
5X11
6X11
7X11
1X11
2X11
3X11
4X11
8X11
9X11
10X11
11X11
12X11
SW1
SW2
KWH
DF
SD
Q
T1
T2
T3
F1
F2
F3
F4
N1
N
R
Y
B
E

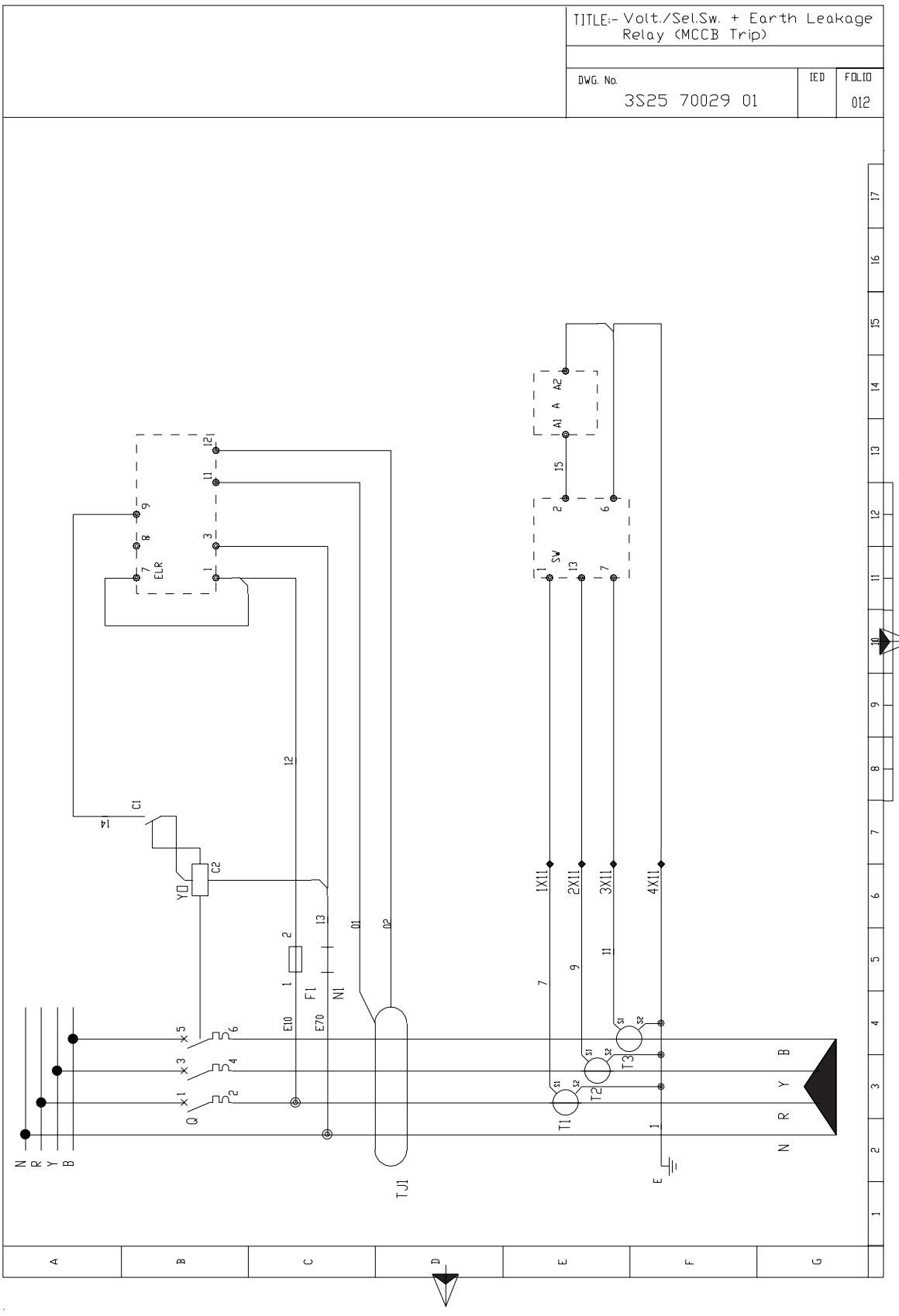

TITLE:- Kwh + 3x Ammeter + Voltmeter/Sel.Sw.
DWG. No. 3S2100560-0
IED
FOLIO 007
3 KWH
SW1
V
V1
V2
A1 A2
A1 A2
A1 A3 A2
5X11
6X11
7X11
1X11
2X11
3X11
4X11
8X11
9X11
10X11
11X11
F1
F2
F3
N1
Q
T1
T2
T3
N
R
Y
B
E


TITLE:- Kwh + Ammeter/Sel.Sw.
+ Voltmeter/Sel.Sw.
DWG. No.
3S2100561-0
IED
FOLIO
008
A1 A A2
SW2
V1 V V2
5X11
6X11
7X11
3KWH
SW1
1X11
2X11
3X11
4X11
8X11
9X11
10X11
11X11
F1
F2
F3
N1
T1
T2
T3
Q
N R Y B


TITLE:- 3x Ammeter
DWG. No.
3S2100562-0
IED
FOLIO
009
A1 A2
A2 A2
A3 A2
1X11
2X11
3X11
4X11
T1
T2
T3
S1
S2
Q
N
R
Y
B
E
A
B
C
D
E
F
G

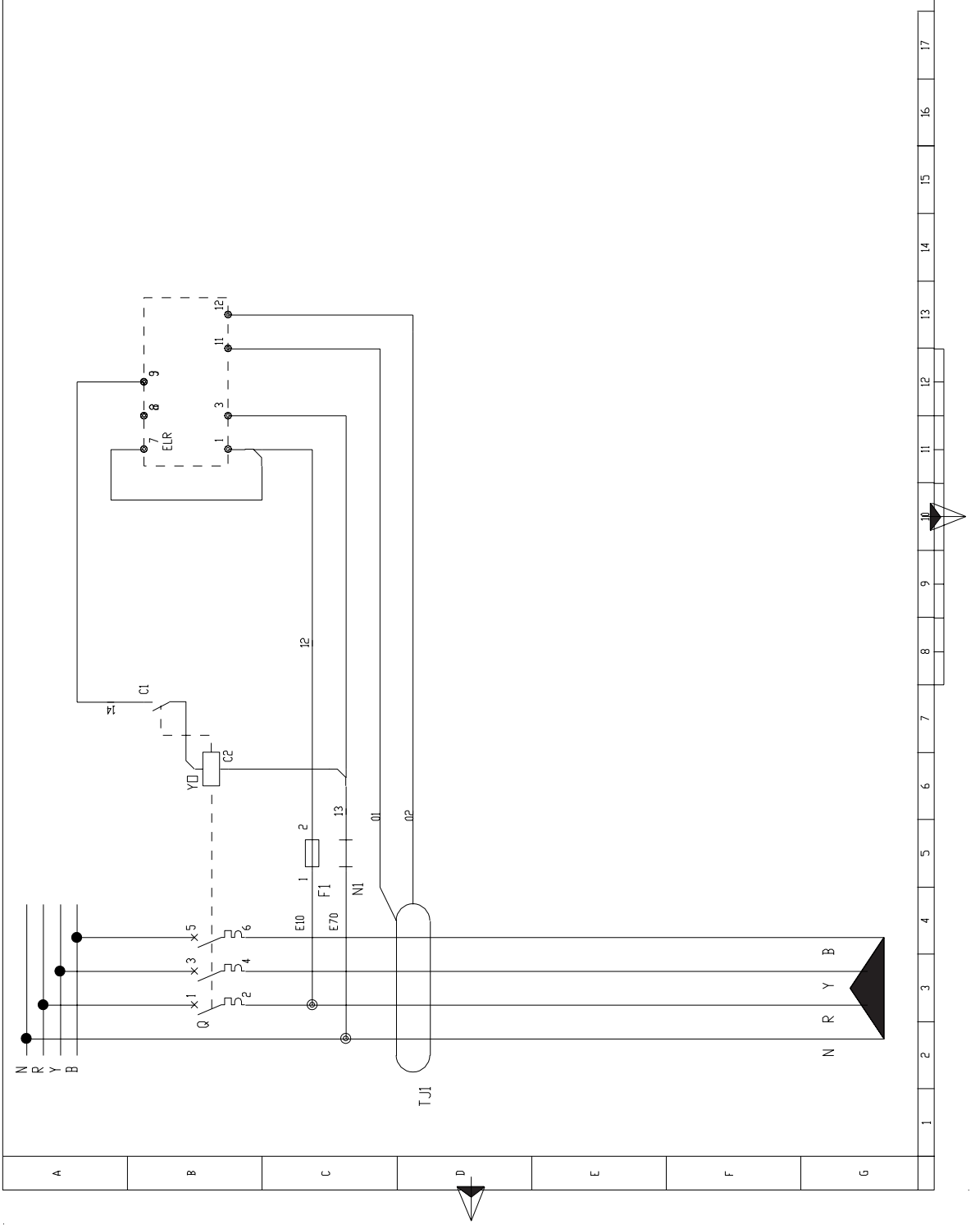

TITLE:- Voltmeter / Sel. Sw.
DWG. No.
3S2100563-0
IED
FOLIO
011
1X11
2X11
3X11
4X11
T1
T2
T3
SW
A1
A
A2
N
R
Y
B
E

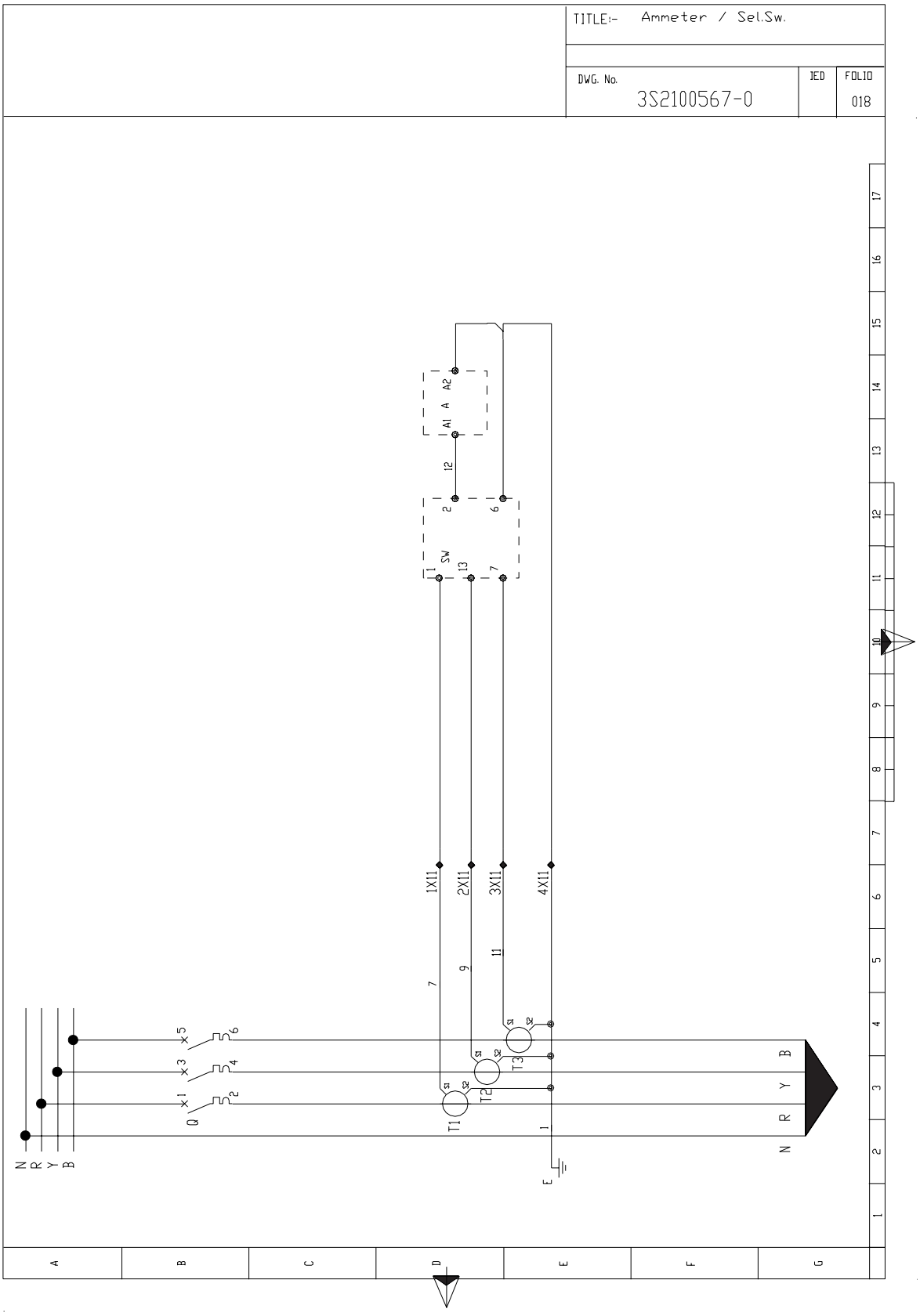

TITLE:- 3x Amm. + Earth Leakage Relay (MCCB Trip)
DWG. No.
3S25 70031 01
IED
FOLIO
010
ELR
C1
C2
F1
N1
TJ1
Q
T1
T2
T3
1X11
2X11
3X11
4X11
N
R
Y
B
E


TITLE:- Volt./Sel.Sw. + Earth Leakage Relay (MCCB Trip)
DWG. No.
3S25 70029 01
IED
FOLIO
012
ELR
SW
C1
C2
Y
F1
N1
E10
E70
Q
TJ1
T1
T2
T3
1X11
2X11
3X11
4X11
N
R
Y
B
E

TITLE:- Earth Leakage Relay (MCCB Trip)

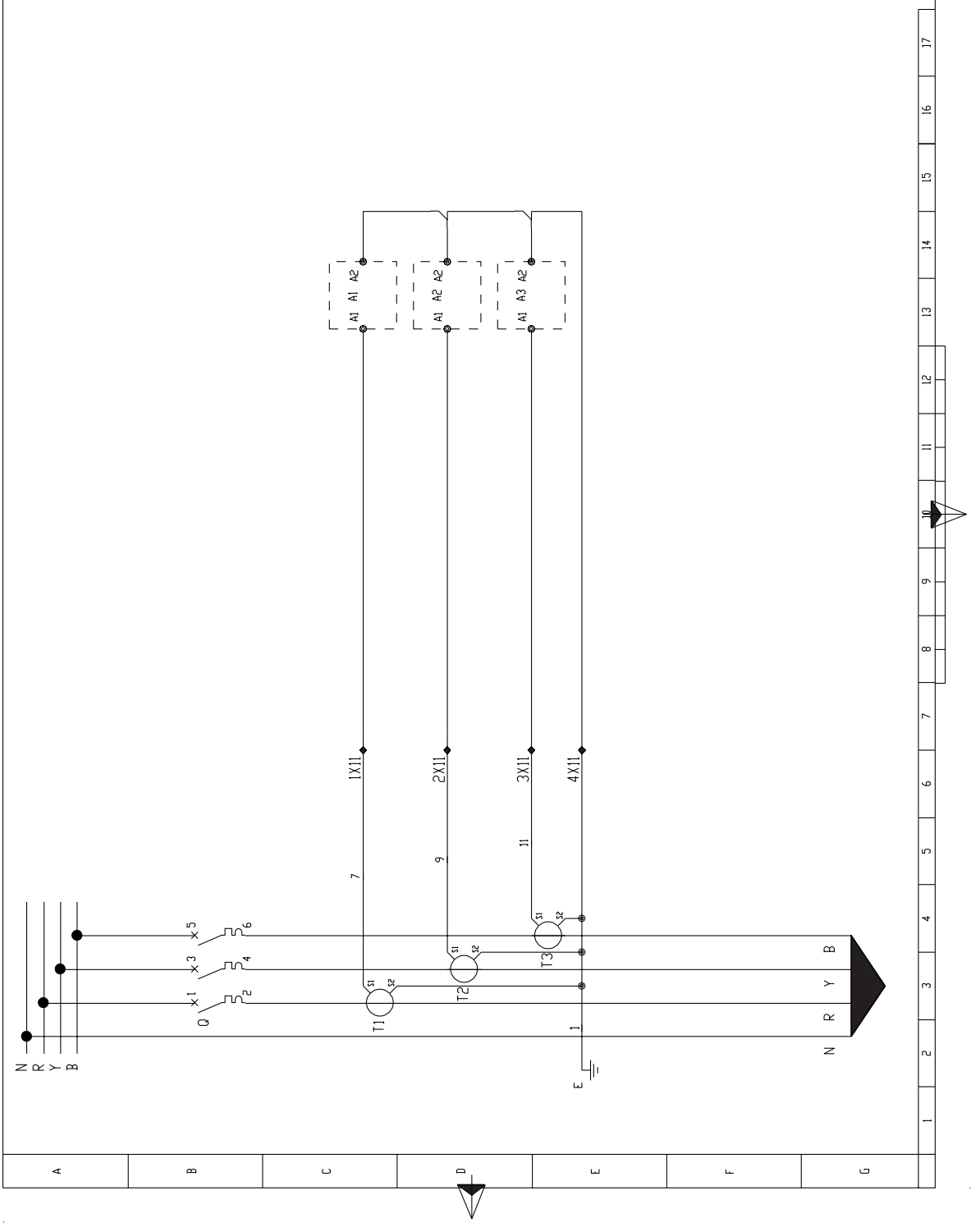
DWG. No.	IED	FOLIO
3S25 70032 01		013

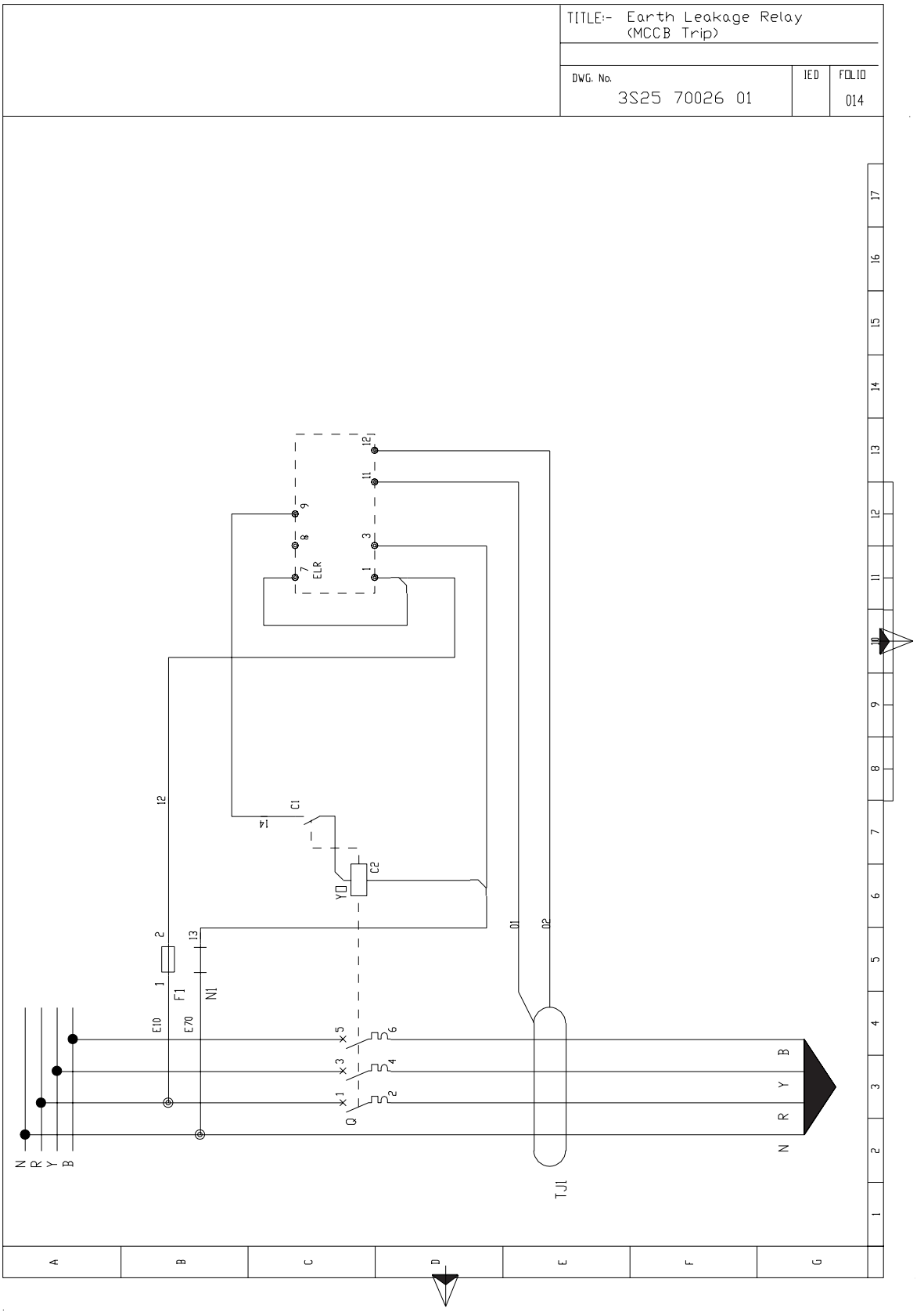


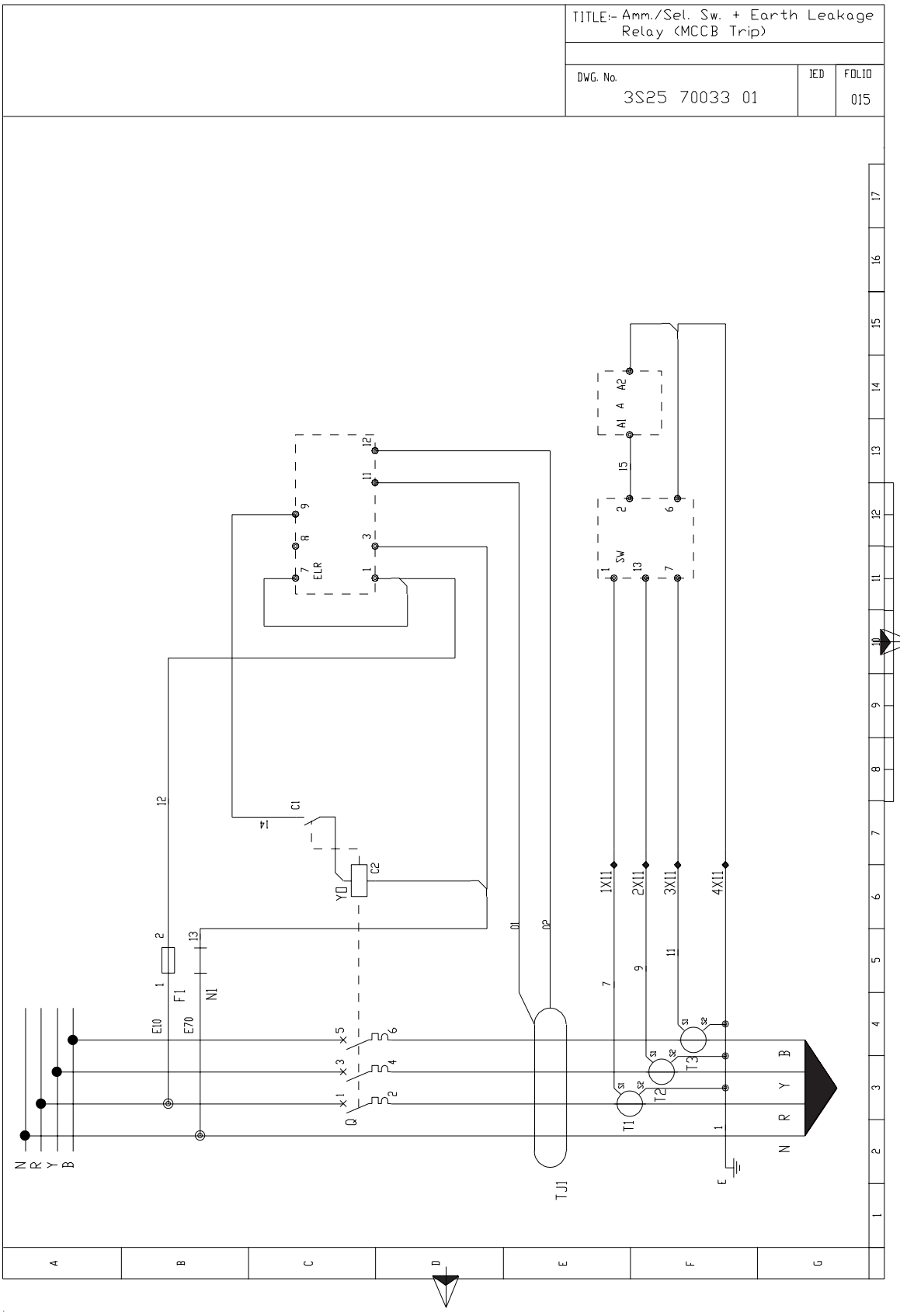

TITLE:- Ammeter / Sel.Sw.
DWG. No.
3S2100567-0
IED
FOLIO
018
1X11
2X11
3X11
4X11
T1
T2
T3
Q
N
R
Y
B
E

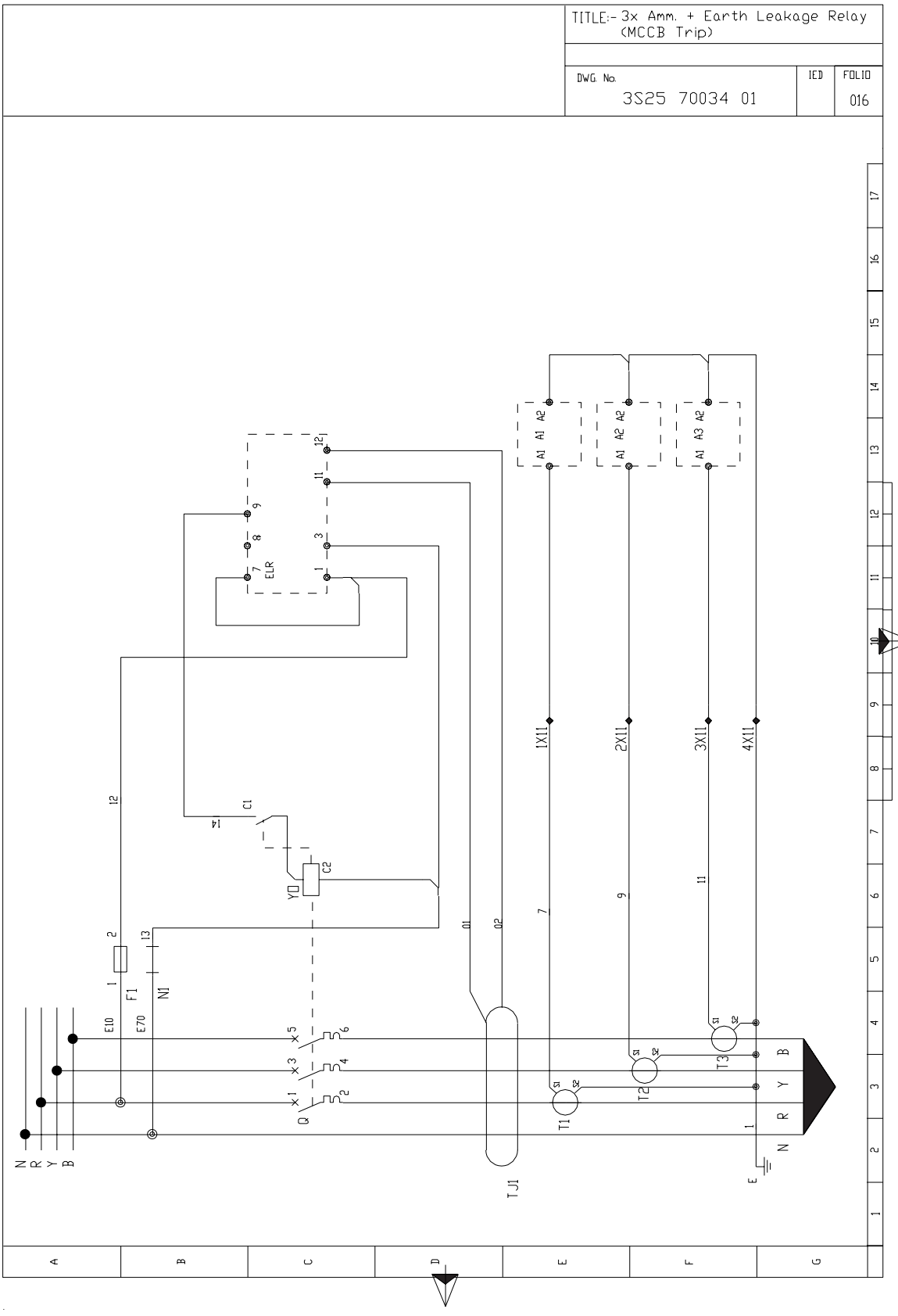
TITLE:- 3x Ammeter

DWG. No.	IED	FOLIO
3S2100568-0		017



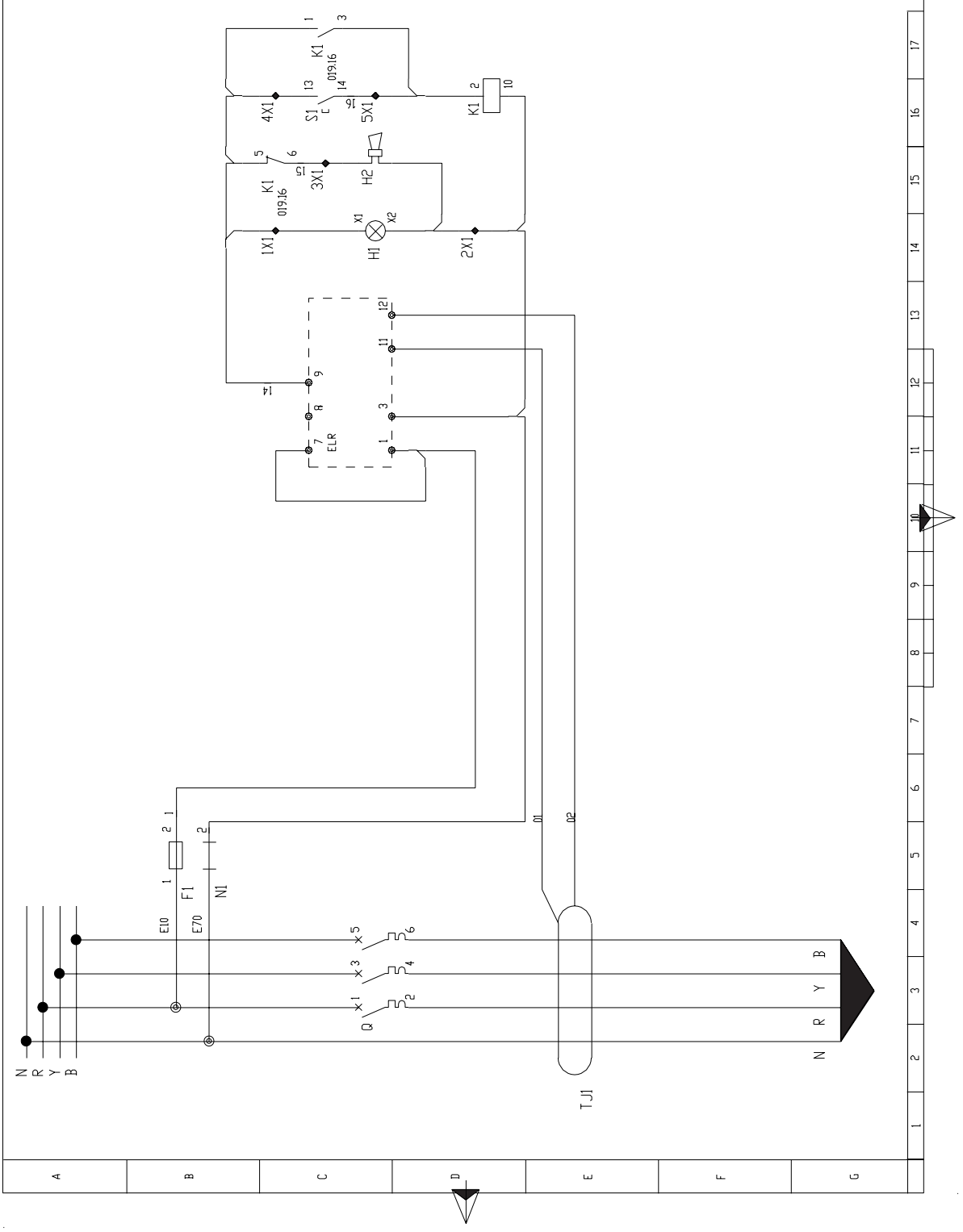

TITLE:- Earth Leakage Relay
(MCCB Trip)
DWG. No.
3S25 70026 01
IED
FOLIO
014
ELR
C1
C2
F1
N1
E10
E70
Y0
Q
TJ1
N
R
Y
B


TITLE:- Amm./Sel. Sw. + Earth Leakage Relay (MCCB Trip)
DWG. No.
3S25 70033 01
IED
FOLIO
015
N
R
Y
B
E
F1
N1
E10
E70
ELR
SW
C1
C2
Y0
Q
T1
T2
T3
TJ1
1X11
2X11
3X11
4X11


TITLE:- 3x Amm. + Earth Leakage Relay (MCCB Trip)
DWG. No.
3S25 70034 01
IED
FOLIO
016
ELR
F1
N1
C1
C2
Y0
Q
TJ1
T1
T2
T3
1X11
2X11
3X11
4X11
N
R
Y
B
E

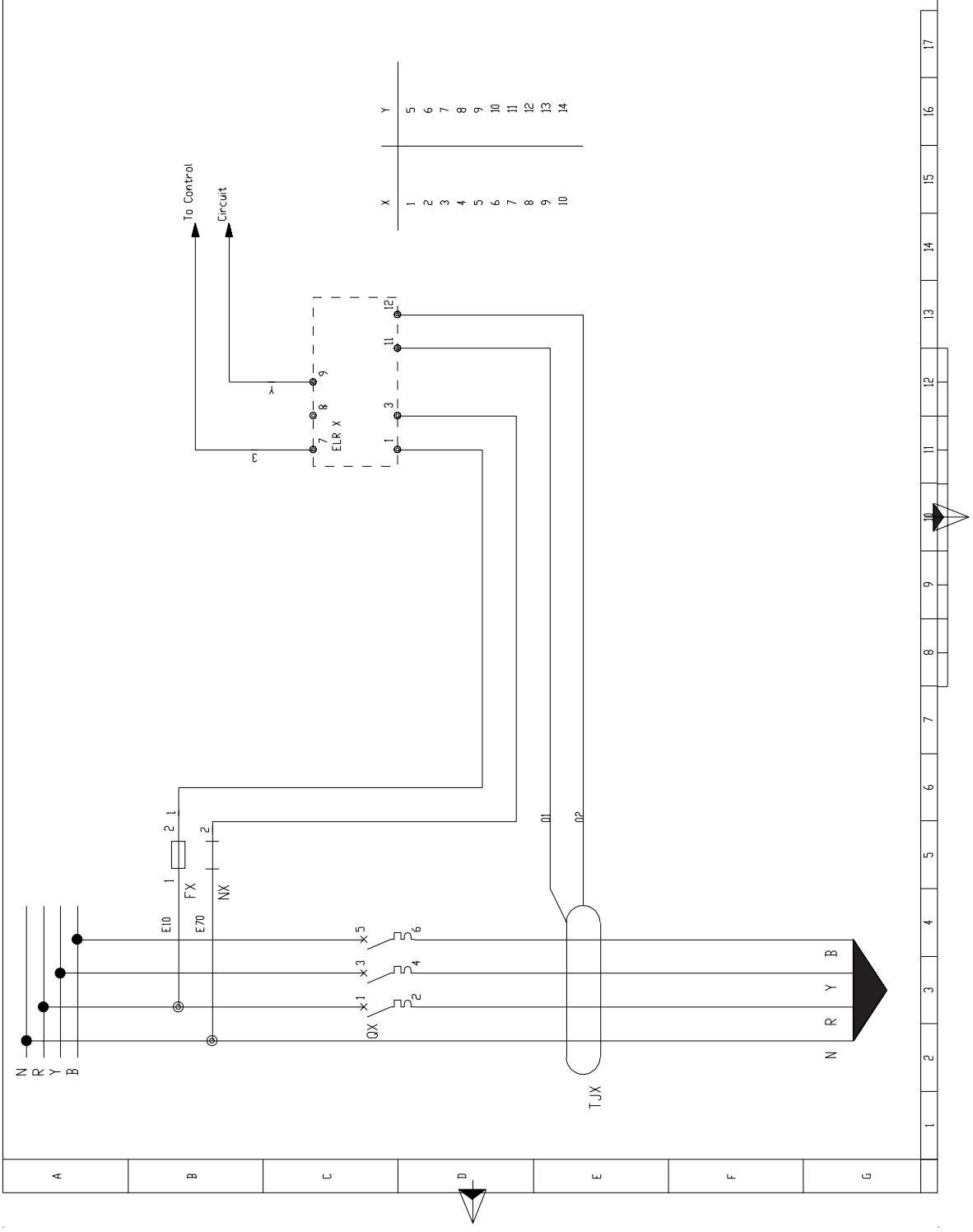
TITLE:- 1x Earth Leakage Relay (Audio-Visual Alarm)

DWG. No.	IED	FOLIO
3S25 70035 01		019



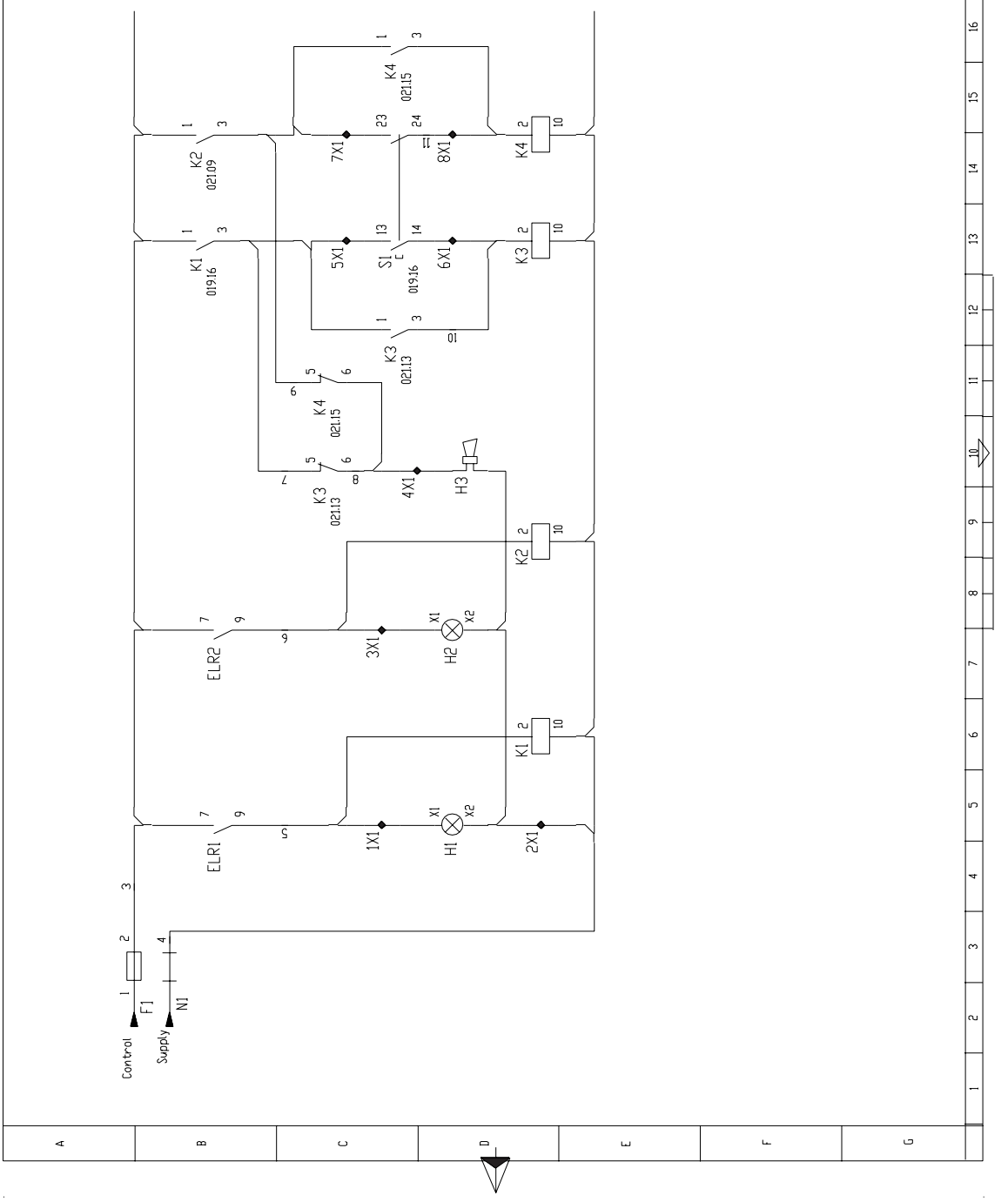
TITLE:- Earth Leakage Relay (Audio-Visual Alarm) (Multi Circuit)

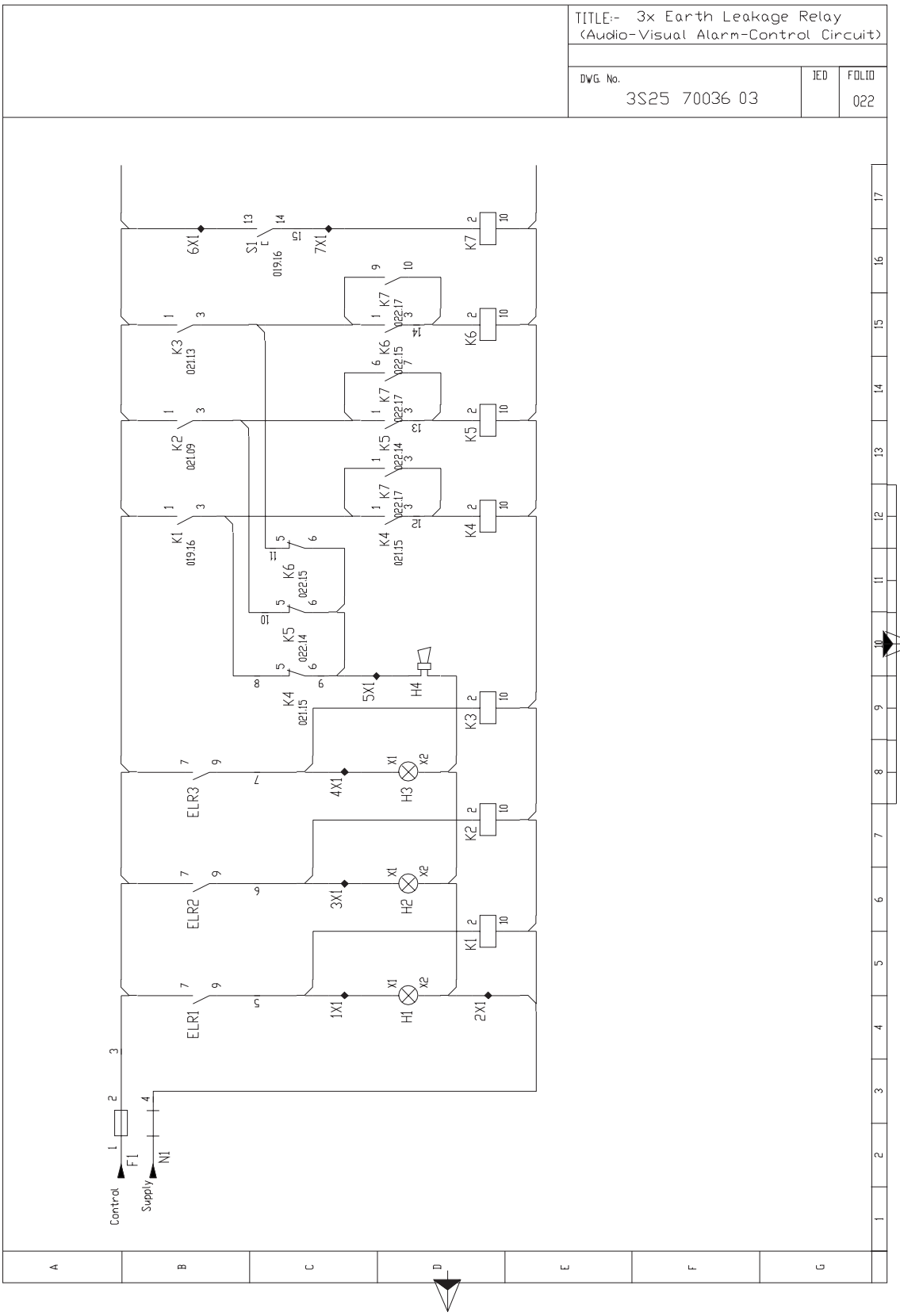
DWG. No.	IED	FOLIO
3S25 70036 01		020

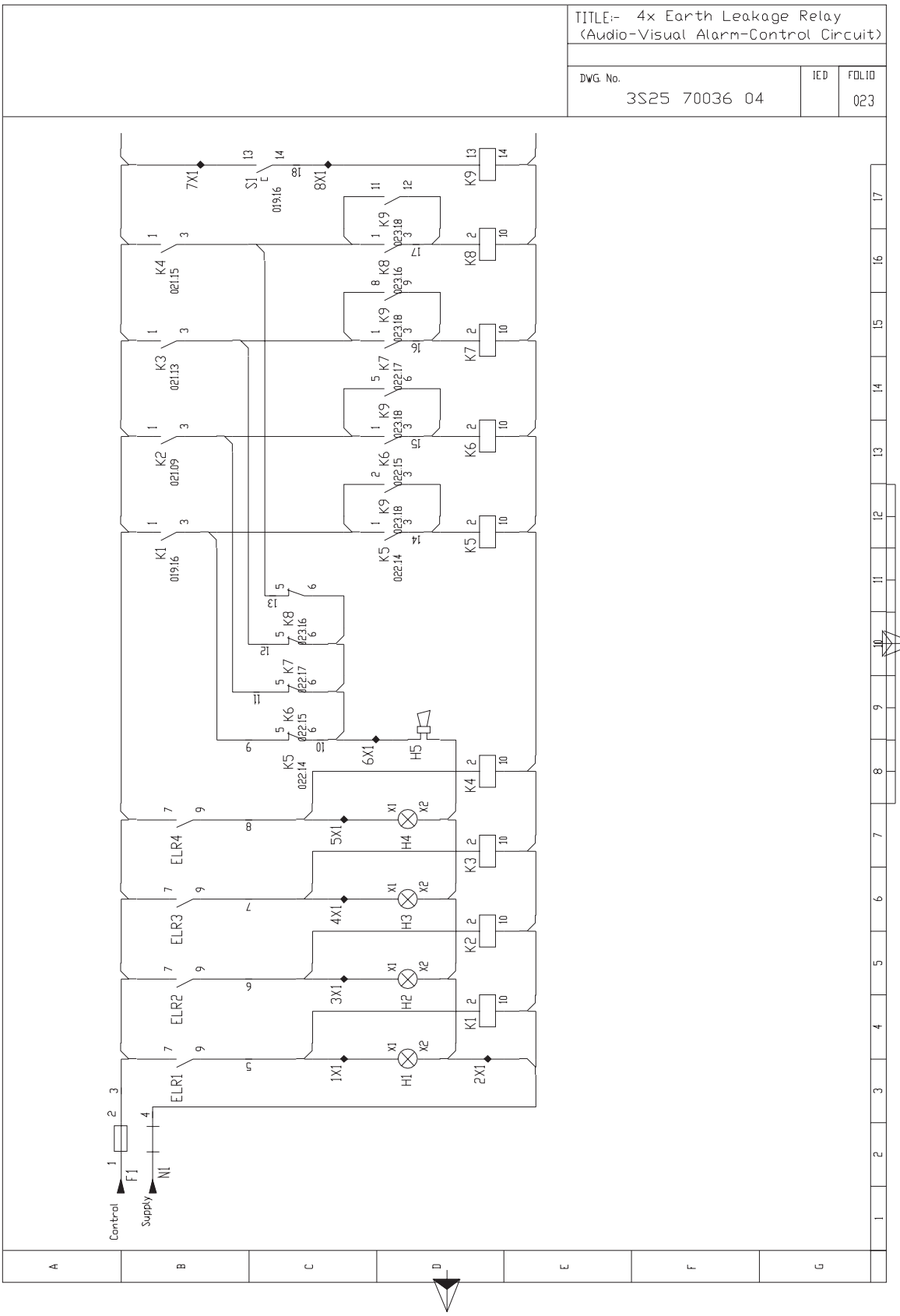


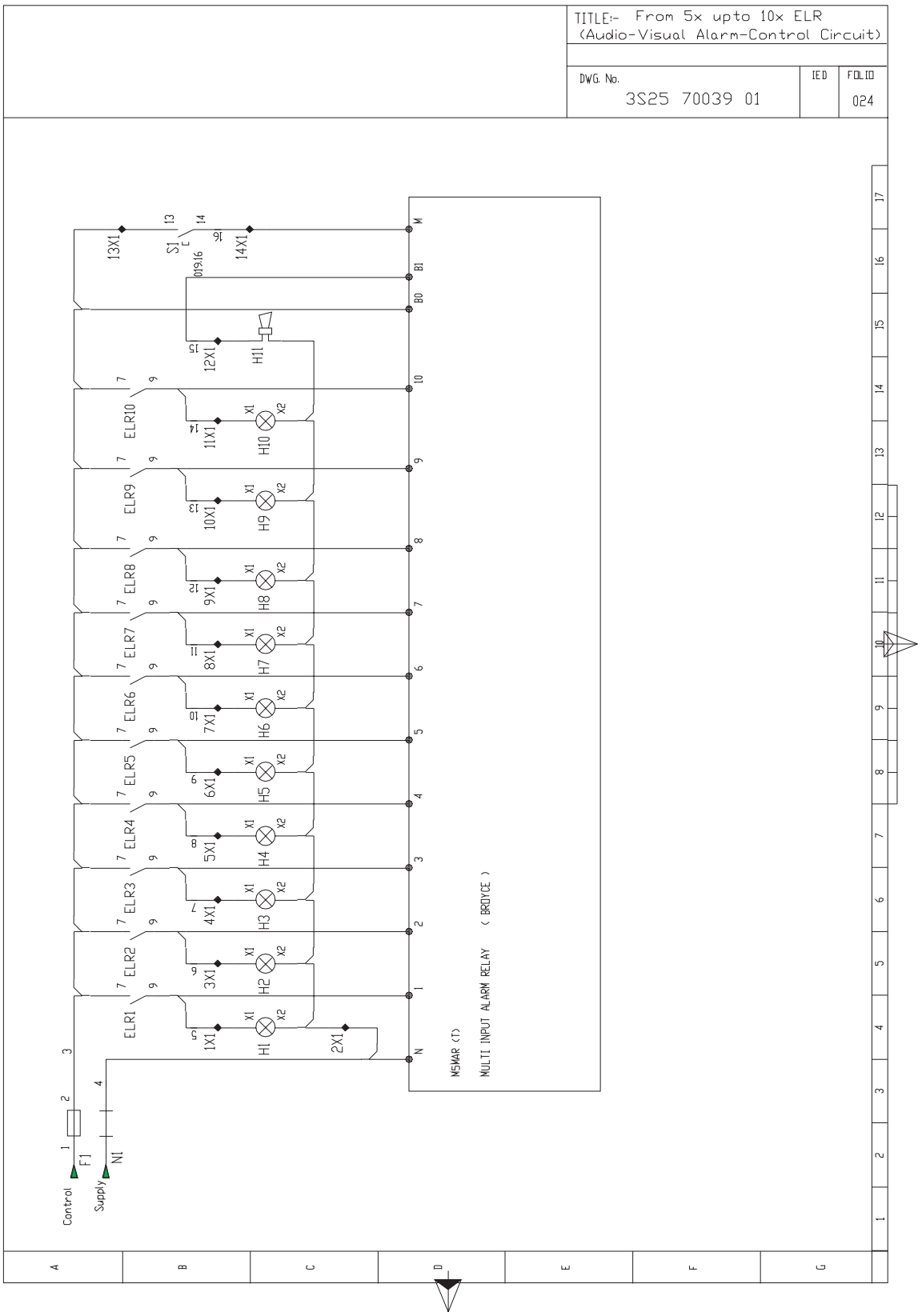
TITLE:- 2x Earth Leakage Relay (Audio-Visual Alarm-Control Circuit)

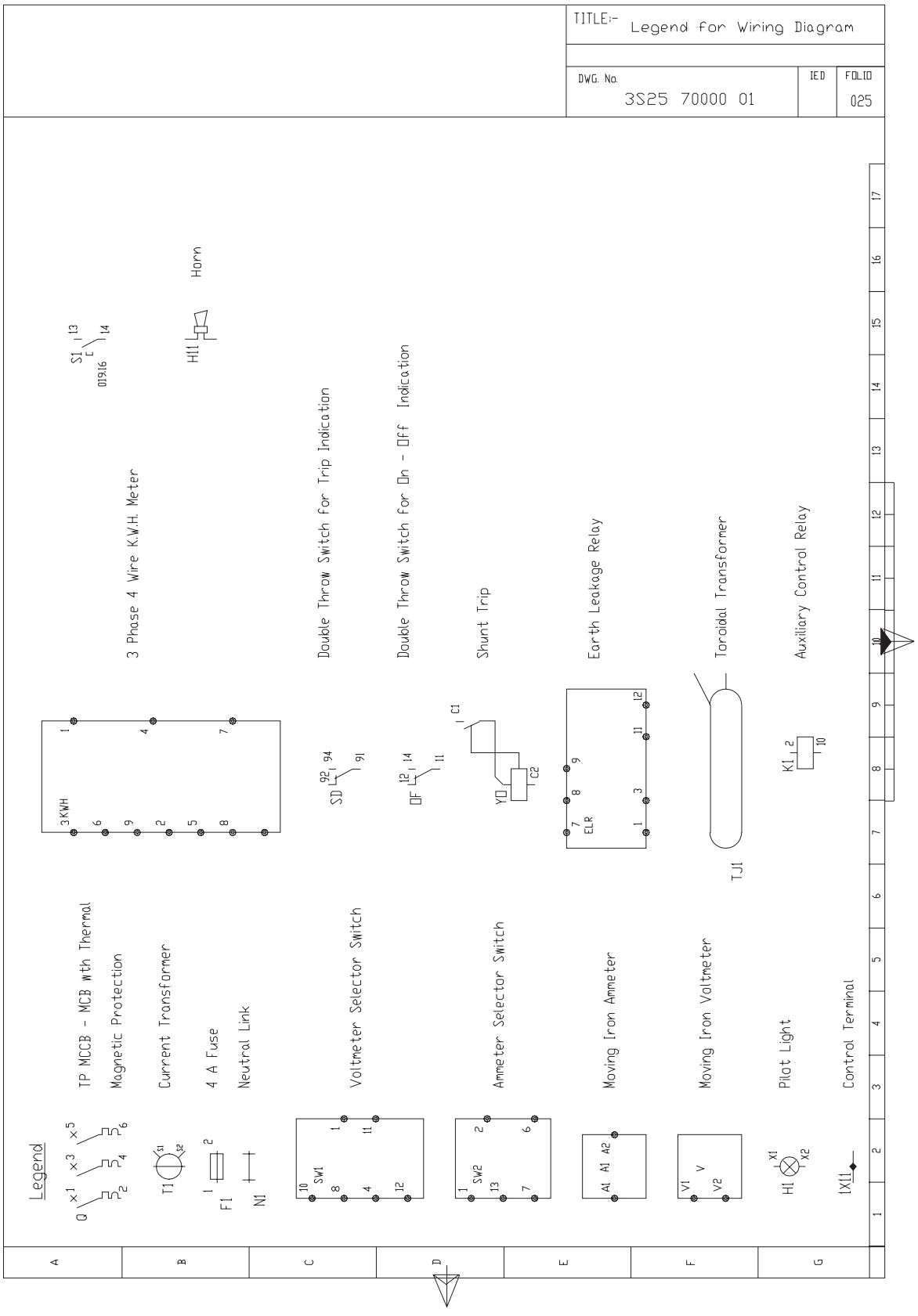
DWG. No.	IED	FOLIO
3S25 70036 02		021




TITLE:- 3x Earth Leakage Relay
(Audio-Visual Alarm-Control Circuit)
DWG. No.
3S25 70036 03
IED
FOLIO
022
Control
Supply
F1
N1
ELR1
ELR2
ELR3
1X1
2X1
3X1
4X1
5X1
6X1
7X1
H1
H2
H3
H4
S1
K1
K2
K3
K4
K5
K6
K7


TITLE:- 4x Earth Leakage Relay
(Audio-Visual Alarm-Control Circuit)
DWG. No.
3S25 70036 04
IED
FOLIO
023
7X1
S1
8X1
K9
K8
K7
K6
K5
K4
K3
K2
K1
H5
H4
H3
H2
H1
5X1
4X1
3X1
2X1
1X1
6X1
ELR4
ELR3
ELR2
ELR1
F1
N1
Control
Supply


TITLE:- From 5x upto 10x ELR
(Audio-Visual Alarm-Control Circuit)
DWG. No.
3S25 70039 01
IED
FOLIO
024
13X1
S1
14X1
12X1
H11
ELR10
11X1
H10
ELR9
10X1
H9
ELR8
9X1
H8
ELR7
8X1
H7
ELR6
7X1
H6
ELR5
6X1
H5
ELR4
5X1
H4
ELR3
4X1
H3
ELR2
3X1
H2
ELR1
1X1
H1
2X1
F1
N1
Control
Supply
NSMAR (T)
MULTI INPUT ALARM RELAY (BRDYCE)


TITLE:- Legend for Wiring Diagram
DWG. No. 3S25 70000 01
IED
FOLIO 025
Legend
TP MCCB - MCB With Thermal Magnetic Protection
Current Transformer
4 A Fuse
Neutral Link
Voltmeter Selector Switch
Ammeter Selector Switch
Moving Iron Ammeter
Moving Iron Voltmeter
Pilot Light
Control Terminal
3 Phase 4 Wire K.W.H. Meter
Double Throw Switch for Trip Indication
Double Throw Switch for On - Off Indication
Shunt Trip
Earth Leakage Relay
Toroidal Transformer
Auxiliary Control Relay
Horn

ORDER FORM

Client Name : **Tel**

Switchgear Panel Title :

Project Name :

Method of Mounting :	☐ Wall	☐ Floor
Installation :	☐ Indoor	☐ Outdoor
Main Incoming Cable Entry :	☐ Bottom	☐ Top
Rated Voltage :	☐ 415/240V	☐ Other (specify)
Rated Frequency :	☐ 50 HZ	☐ Other (specify)
MCCB Breaking Capacity at 415V, AC :	☐ 25kA	☐ Other (specify)

Main Incomer Rating : ☐ 160A ☐ 250A ☐ 400A ☐ 630A

No. of TP Outgoing Ways** :

Earth Leakage Relays/Control/Metering : ☐ Required ☐ Not Required

Assembly Code*** :

Wiring Diagram Code:

Name

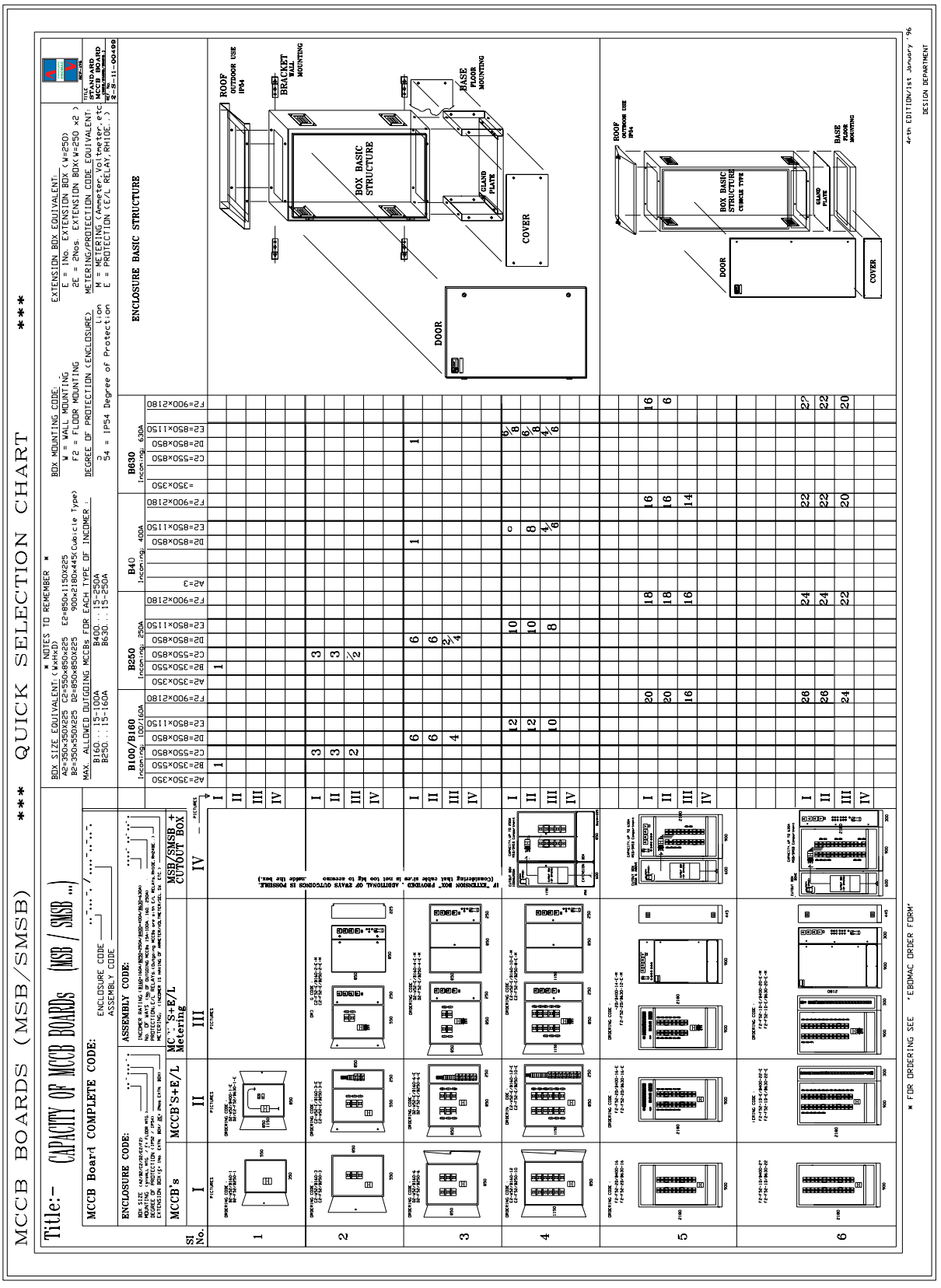
Signature

Date

(*) Order Form is subjected to Order Confirmation From EBOMAC Sales Dept.

(**) Attach Single Line Diagram or incomer or outgoing Feeder details & name plate.

(***) If in Doubt, please contact EBOMAC Sales Dept. Tel: (965) 4727550 - Fax: (965) 4765059/4763016


MCCB BOARDS (MSB/SMSB) *** QUICK SELECTION CHART ***
Title:- CAPACITY OF MCCB BOARDS (MSB / SMSB)
MCCB Board COMPLETE CODE:
ENCLOSURE CODE:
ASSEMBLY CODE:
ENCLOSURE BASIC STRUCTURE
ROOF OUTDOOR USE IP54
BOX BASIC STRUCTURE
GLAND PLATE
BASE FLOOR MOUNTING
DOOR
COVER
BRACKET WALL MOUNTING
4rth EDITION/1st January '96
DESIGN DEPARTMENT
* FOR ORDERING SEE 'EBOMAC ORDER FORM'

NOTES:

NOTES:

NOTES:

Main Office & Factory

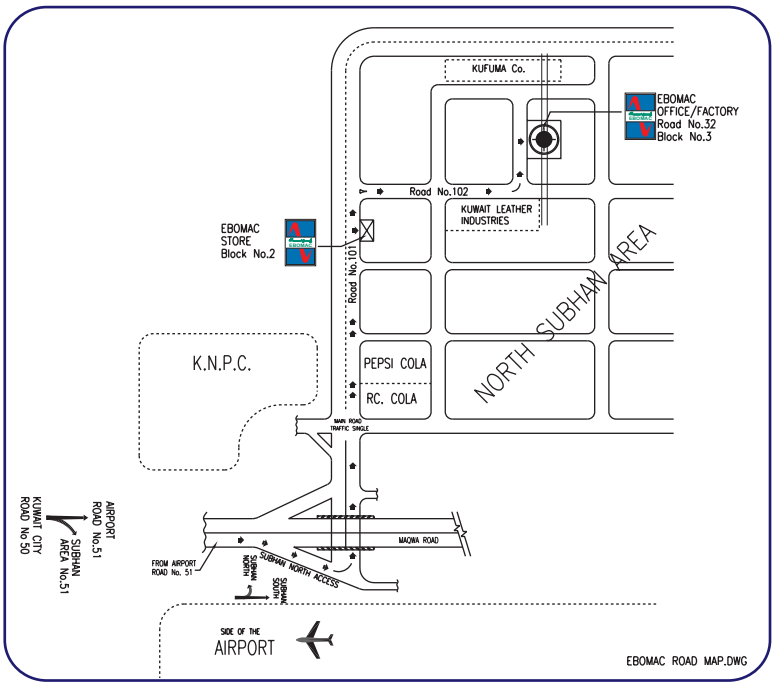
Stores Building

ShowRoom In Hawalli

ShowRoom In Shuwaikh

إبوماك
EBOMAC

The Right Electrical Choice



ELECTRICAL BOARDS MANUFACTURING COMPANY K.S.C.

The right Electrical Choice

شركة صناعة اللوحات الكهربائية

الاختيار الكهربائي الأمثل

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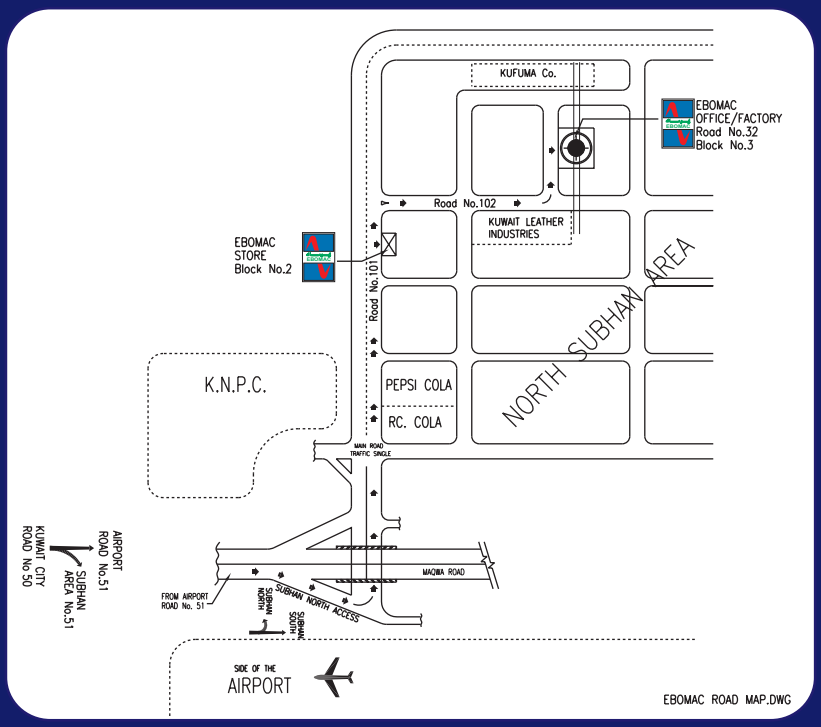
ISO 9001 Certified
Certificate No: 42289



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Development is a continuous process thus **EBOMAC** reserves the right to
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