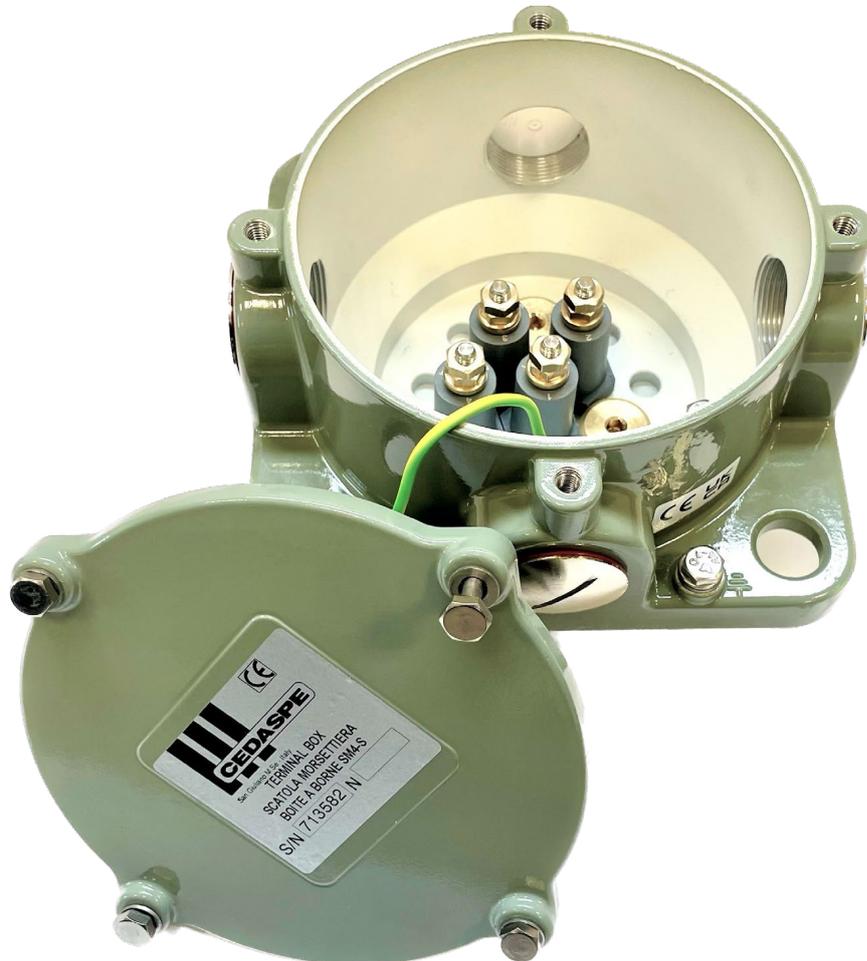


**TERMINAL BOXES FOR
OIL IMMERSED TRANSFORMERS**
(Model year 2022)



GENERAL FEATURES

The measurement, control, check and data recording circuits for medium and high power, oil-cooled, oil-insulated electric transformers require bringing current signals outside from the tank.
CEDASPE terminal boxes allow an easy connection between external and internal measuring circuit of transformer tank.

CONSTRUCTION

CEDASPE SM4 Series terminal boxes have the following constructional characteristics:
casing made of sealed aluminium alloy, its flanged shape allows an easy fixation to the transformer tank with welded studs; casing has also a lowered bottom in order to prevent air pockets from forming when the box is fitted to the transformer tank.
The cover, in aluminium alloy too, closes hermetically the case and protects the terminals; a nylon lid links cover and housing to avoid any mistake during wiring operation if more terminal boxes are used on the transformer.
The terminals allow the connection between wiring inside and outside the transformer tank and are designed in a such way to avoid unscrew during assembly or wiring operation
The terminal box is provided with an external identification plate and an internal numbered plate for terminals.

MANUFACTURING PROGRAM

Four box sizes as below:
Terminal box type SM4-D (dwg 5034): max number of terminal 6 max number of cable exit 2
Terminal box type SM4-C (dwg 5035): max number of terminal 12 max number of cable exit 4
Terminal box type SM4-B (dwg 5039): max number of terminal 36 max number of cable exit 6
Terminal box SM4-A (dwg 5040): max number of terminal 53 max number of cable exit 4
Drawings 5034 – 5035 – 5039 et 5040 illustrate all different execution and location of terminals in standard execution, on demand special execution can be provided.

SETTING TO WORK

Terminal boxes CEDASPE have to be installed as follows
If required (i.e. when terminal boxes on transformer are 2 or more on the same tank) engrave the number of terminal box on the external plate; if the numbering of wiring is different from the numbering of terminals write conversion numbers on the plate inside the box.
Make the wiring inside transformer tank referring to the plate inside the box; wires lug have to be inserted between the two washers M6 and locked by the antirotational nut.
Fit the terminal box on the transformer tank
Make the wiring outside the tank referring to the plate inside the box following the same procedure as above

WORKING CONDITIONS

All the materials, components and constructional characteristics allow the SM4 Series terminal boxes to be used with
environmental temperature -20°C to + 50°C
relative humidity 95% at 20°C * 80% at 40°C * 50% at 50°C
working temperature (mineral oil) -20°C to +110°C
For particular environmental conditions and /or other working conditions, special versions can be supplied.

TEST

Following routine test are performed on 100% of production:
- Visual and dimensional test
- Leakage test on assembled terminal box
- insulation test between terminals and body at 2500V for 1 min
Result of tests are reported on test certificate

FINISHING

All external fittings are made in s/steel or brass nickel plated; body and cover are painted with one 50 µm-thick coat of two-pack epoxy primer (compatible with mineral transformer oil) on all external and internal surfaces, even those in contact with the oil, plus one 50 µm-thick coat of grey RAL 7033 two-pack polyurethane paint on all external surfaces not in contact with the oil; total thickness 100µm.

ORDERING INSTRUCTIONS

The following information have to be provided to ask an offer or issue an order:
In case of a standard execution: only the code shown on drawing and the additional optional parts
In case of special execution: box size; number of terminals, number of cable exit and their size, special working condition (if present)

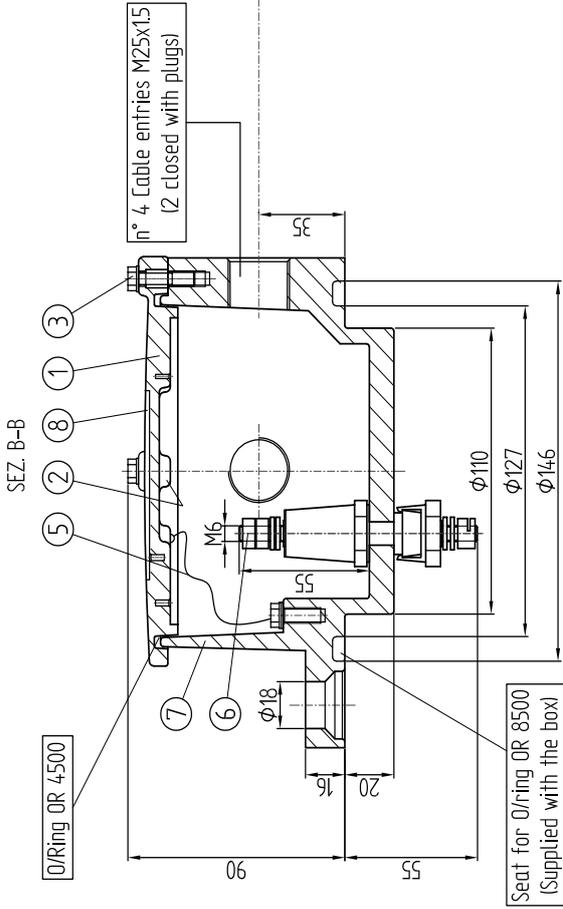
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DATE	NAME	DOCUMENT NO.
29/03/22	Curri M.	5035
29/03/22	Giorgi A.	CHANGE NO.
29/03/22	Giorgi A.	02
SCALE	1:2	

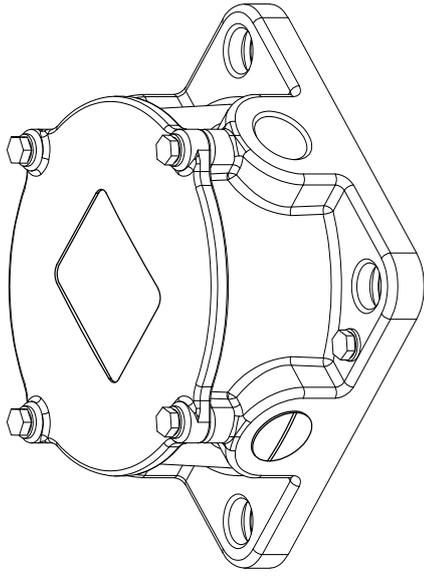
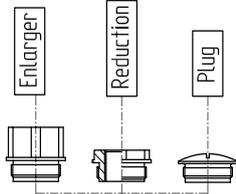
DIMENSION
 IN mm
 EXCEPT AS
 NOTED



Terminal box type SM4-C (S)

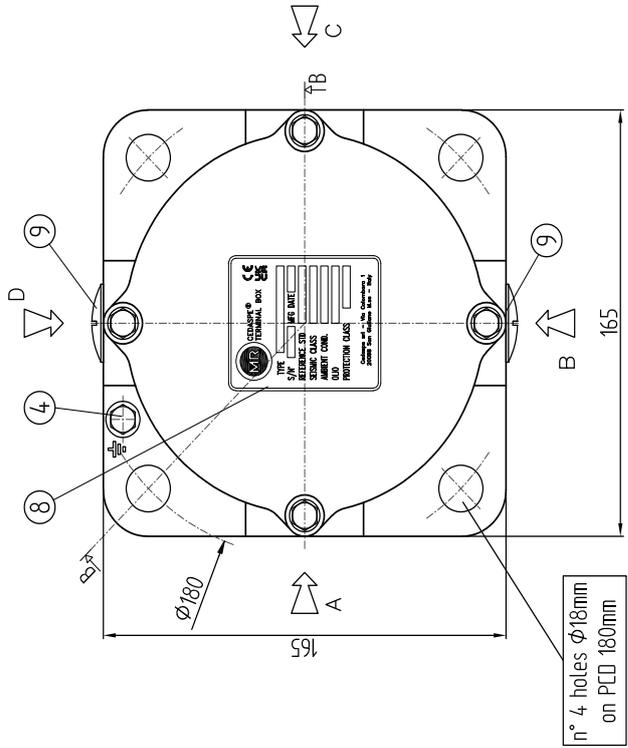


Options for cable entries

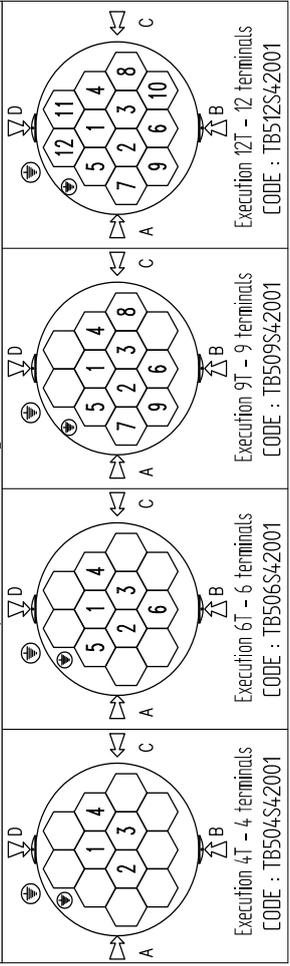


Pos.	Description
1	Terminal box cover
2	Terminal identification label
3	Cover assembly screw
4	Ground terminal
5	Cover holding wire
6	Terminal
7	Terminal box housing
8	Terminal box identification label
9	Plug M25x15

- Execution according to IEC 60076-22-7
- Painting: RAL7033
- Corrosive class: C4-H
- Execution for Oil mineral origin
- IP protection class: IP65
- Withstand insulation voltage between terminals & between terminals and ground : 25 kV a.c.
- Current rating (continuous): 50 A



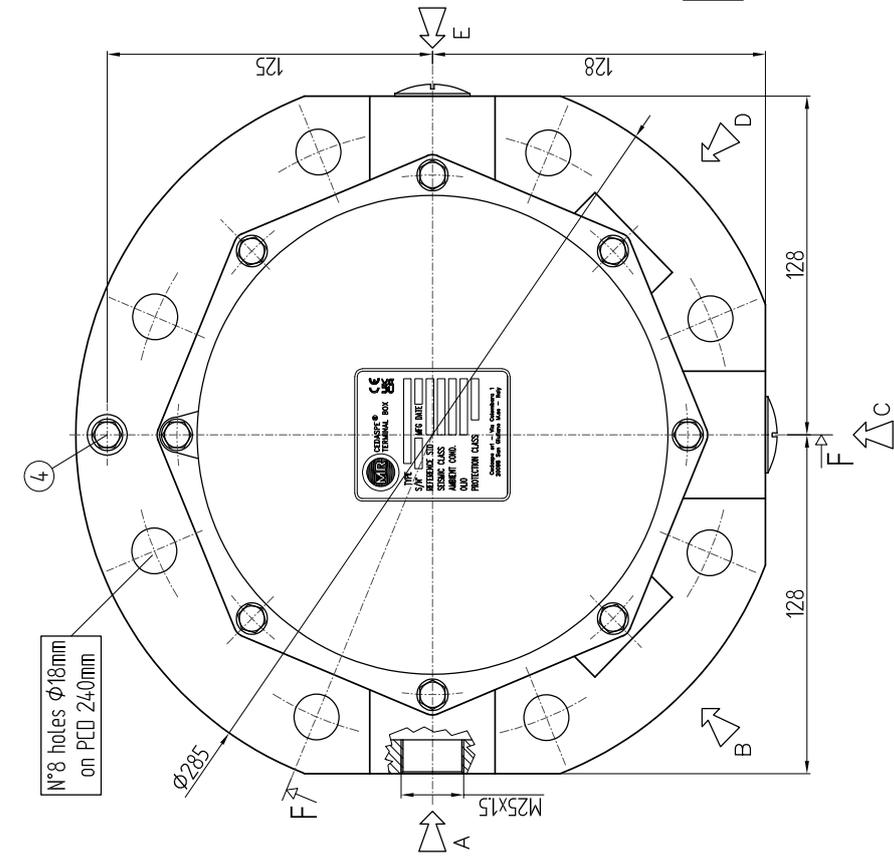
Terminals position & numbering in standard execution



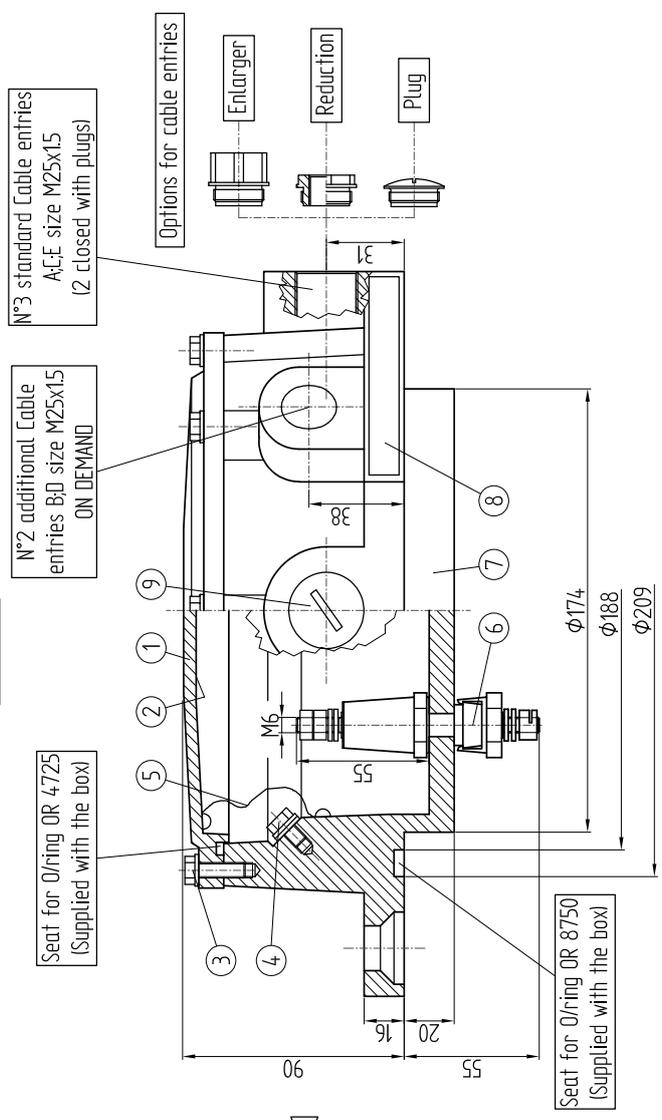
SERIAL NUMBER	
MATERIAL NUMBER	SHEET 1/1

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DATE	NAME	DOCUMENT NO.
29/03/22	Curfi M.	5039
CHKD: 29/03/22	Giorgi A.	CHANGE NO.
STAND: 29/03/22	Giorgi A.	04
		SCALE
		1:2



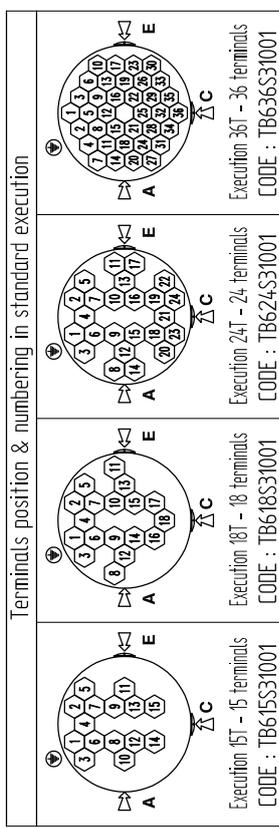
Sez. F-F



Pos.	Description
1	Terminal box cover
2	Terminal identification label
3	Cover assembly screw
4	Ground terminal
5	Cover holding wire
6	Terminal
7	Terminal box housing
8	Terminal box identification label
9	Plug M25x15

Execution according to IEC 60076-22-7

- Painting: RAL7033
- Corrosive Class: C4-H
- Execution for Oil mineral origin
- IP protection class: IP65
- Withstand insulation voltage between terminals & between terminals and ground: 25 kV a.c.
- Current rating (continuous): 50 A



Terminal box type SM4-B (L)

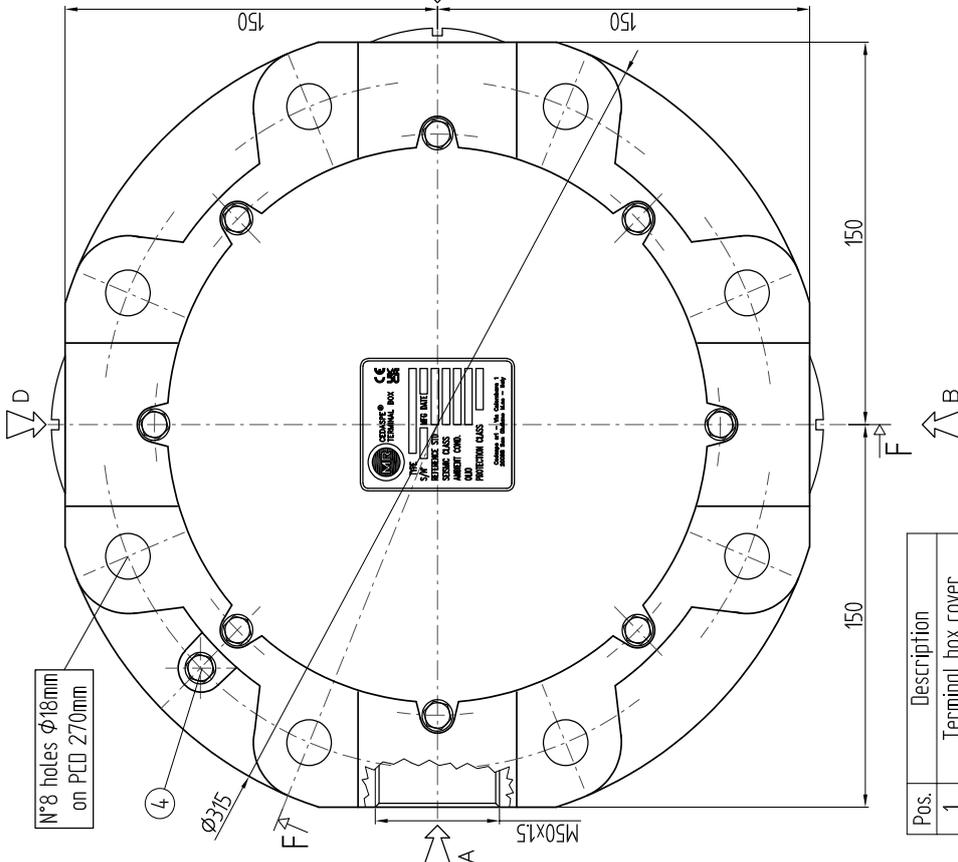


DIMENSION
 IN mm
 EXCEPT AS
 NOTED

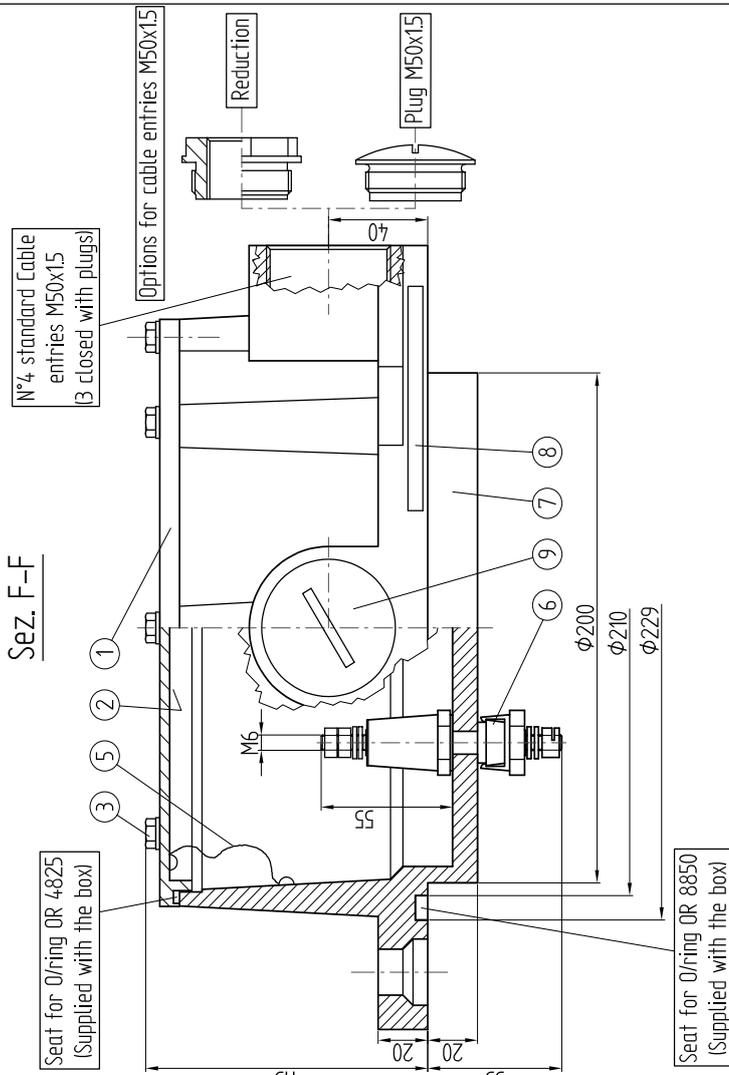
SERIAL NUMBER	
MATERIAL NUMBER	SHEET
	1/1

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DATE	NAME	DOCUMENT NO.
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CHKD.	Giorgi A.	CHANGE NO.
29/03/22	Giorgi A.	05
SCALE		1:2

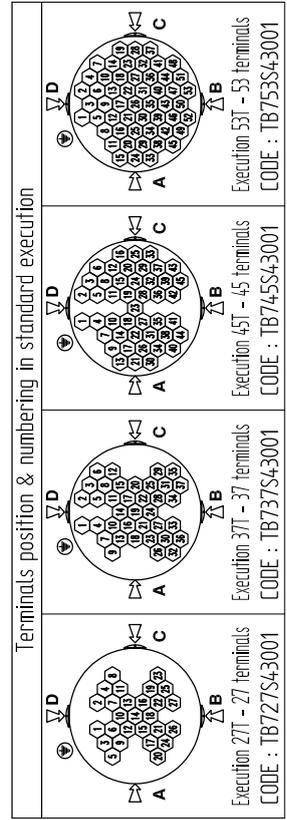


Sez. F-F



Pos.	Description
1	Terminal box cover
2	Terminal identification label
3	Cover assembly screw
4	Ground terminal
5	Cover holding wire
6	Terminal
7	Terminal box housing
8	Terminal box identification label
9	Plug M50x15

-	Execution according to IEC 60076-22-7
-	Painting: RAL7033
-	Consove class: C4-H
-	Execution for Oil mineral origin
-	IP protection class: IP65
-	Withstand insulation voltage between terminals & between terminals and ground : 2.5 kV a.c.
-	Current heating (continuous): 50 A



Terminal box type SM4-A (XL)

SERIAL NUMBER	
MATERIAL NUMBER	SHEET
	1/1