

**ELETTROMECCANICA**

**PIOSSASCO**



**TRASFORMATORI**

***50 YEARS OF  
EXPERIENCE  
AND  
QUALITY***

# ***STRENGTH***

- ✓ ***TRADITION***
- ✓ ***MADE IN ITALY***
- ✓ ***TRACEABILITY OF SUPPLIERS***
- ✓ ***CUSTOMIZED***
- ✓ ***AWARNESS***

# ***OPPORTUNITIES***

- ✓ ***ACQUIRE NEW CUSTOMERS***
- ✓ ***IMPROVING OF OUR SERVICES***
- ✓ ***EXPANSION IN NEW COUNTRIES***



✓ **Elettromeccanica Piossasco** was established in 1950 by Mr. Giacinto and his son Eng. Alessandro.

**At the beginning the production included every electrical machine, power generator sets also. In 1962 the factory specialized its production in distribution transformers only.**



***OUR PRODUCTS***



# OIL TRANSFORMERS



# CUSTOMIZED PROJECTS





# CAST RESIN TRANSFORMERS





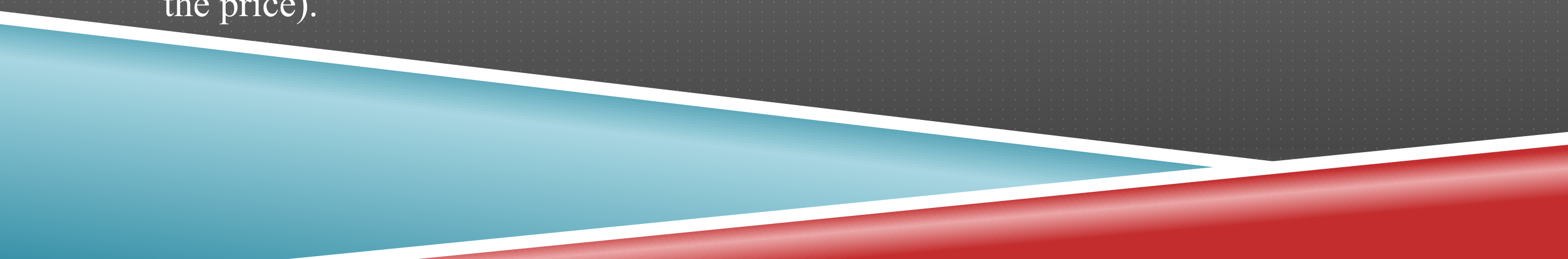
# CUSTOMIZED PROJECTS



# OIL TRANSFORMERS

## INTRODUCTION



1. HV Brown porcelain bushings
  2. Brown porcelain bushings for LV and neutral
  3. HV off- load tap- changer
  4. Thermometer pocket
  5. Lifting lugs
  6. Oil conservator (from kVA 630 to kVA 3.000)
  7. Oil level (for transformer with oil conservator)
  8. Silicagel breather with salts (for transformers with oil conservator)
  9. Bursting valve, type: - relief valve for transformer with oil conservator –over pressure valve for hermetical transformers
  10. Wheels
  11. Drain valve
  12. Earthing terminal
  13. Name plate
  14. Thermometer with two contacts normally open (NO) , from (kVA 630 included in the price).
- 



15. Buchholz Relay for transformer with oil conservator (from kVA 630 included in the price )

16. DGPT2 relief device for hermetical transformers

- Double HV voltages
- Losses and voltages different from standards
- Connections and vectorial groups different than indicated
- Frequency HZ 60
- HV plug-in bushings type Elastimold
- Air cable box for HV and/or LV bushings
- Skids for pole mounted
- Centralized box for auxiliary circuits
- Siliconic fluid
- Sheet screen between HV and LV windings with earthing terminal





Design



Production



Tests and Trial



# DESIGN

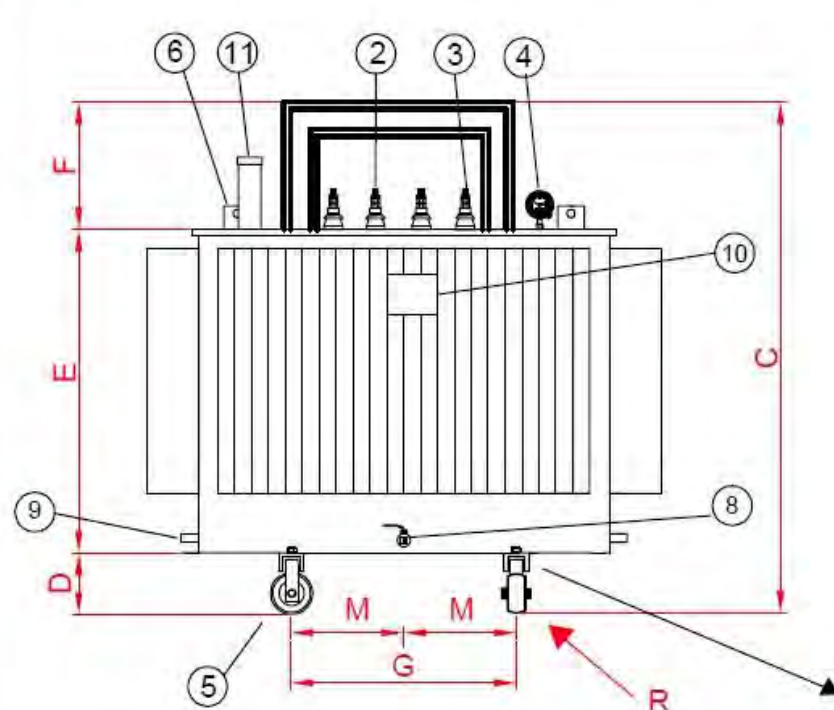


ELETTROMECCANICA  
PIOSSASCO  
s.r.l.

## OIL FILLED TRANSFORMER HERMETICALLY SEALED TYPE EXECUTION

COMPANY WITH QUALITY MANAGEMENT  
SYSTEM CERTIFIED BY DNV  
= ISO 9001:2008 =

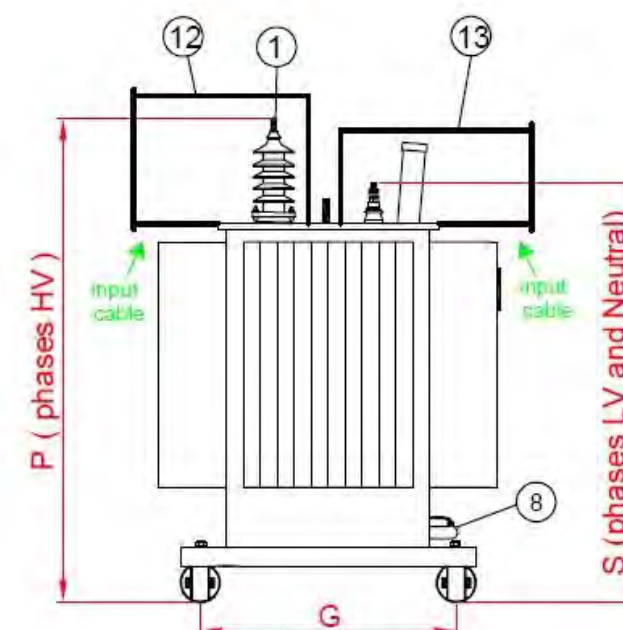
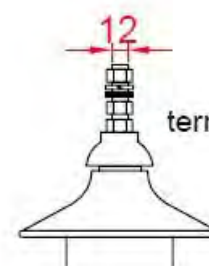
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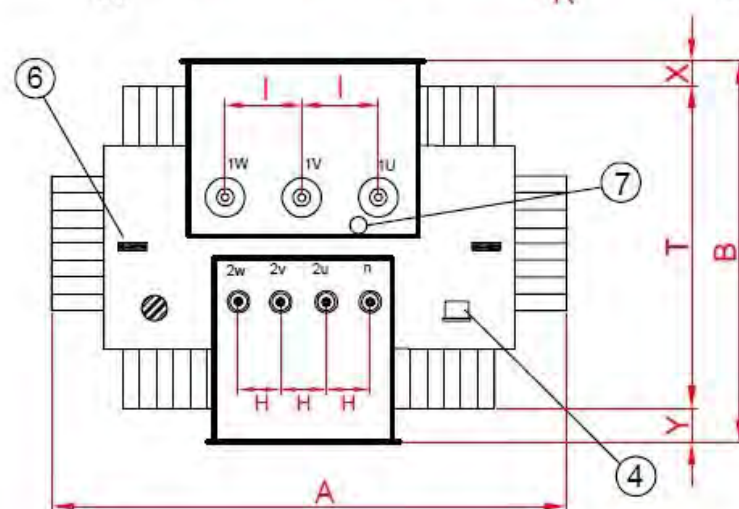
terminal LV and neutral



terminal HV



DRAWING NOT IN SCALE  
TOLLERANCE DIMENSIONS : 1%



color RAL 7031

A	1270
B	1140
C	1705
D	170
E	875
F	660
G	670
M	335
H	120
I	260
S	1205
P	1475
X	150
Y	200
T	790
R	Ø 125 X 50

Pos.	Description
1	BUSHING HV - porcelain type
2	BUSHING LV - porcelain type
3	NEUTRAL BUSHING - porcelain type
4	THERMOMETER ( with n.2 contacts N.O.)
5	ROLLERS
6	LIFTING LUGS
7	TAP-CHANGER at 5 steps (+/- 2 x 2,5%)
8	DRAIN VALVE
9	EARTING TERMINAL
10	DATA PLATE
11	BURSTING VALVE
12	HV AIR CABLE BOX
13	LV AIR CABLE BOX

Rated Power : kVA 400

Type : ONAN Series : E P

kV primary : 11 +/- 2 x 2,5%

V secondary : 400 + n (at no load)  
380 + n. (at load)

Hz 50 Vcc 4,5 % Group: Dyn11

TOTAL WEIGHT : 1350 Kg.

OIL WEIGHT : 270 Kg.

Customer:

☒ Ref. enquiry dt 24/03/14

☒

date : 24/03/2014

Signature for acceptance

NOTE:



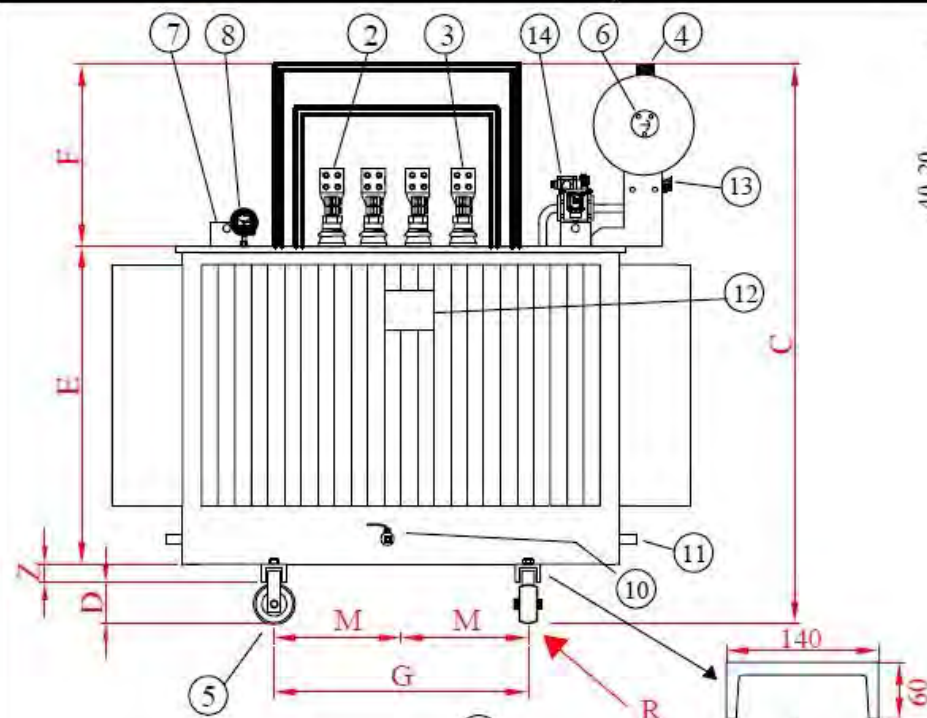


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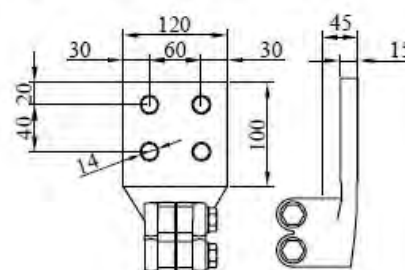
## OIL FILLED TRANSFORMER OIL KEEPER EXECUTION

COMPANY WITH QUALITY MANAGEMENT  
SYSTEM CERTIFIED BY DNV  
= ISO 9001:2008 =

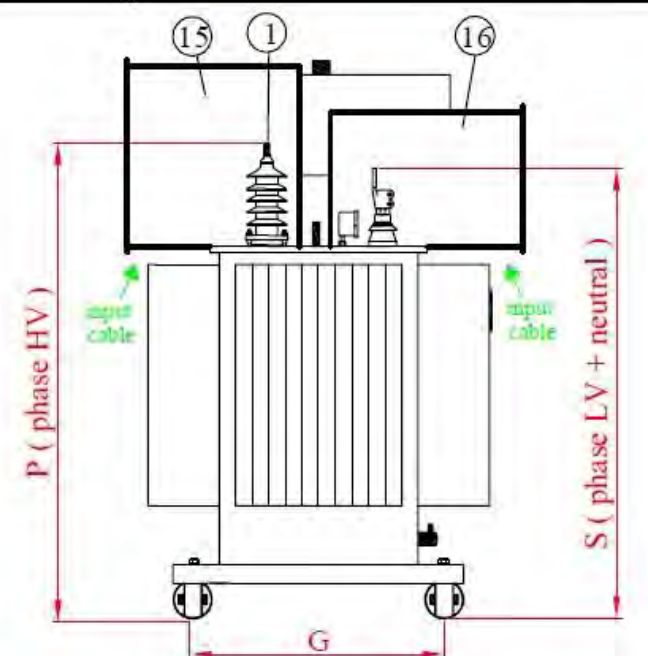
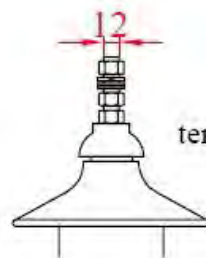
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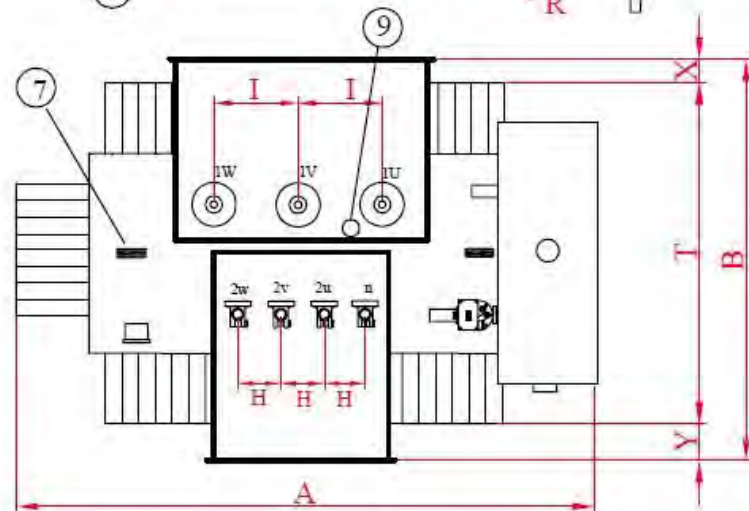
terminal LV and NEUTRAL



terminal HV



DRAWING NOT IN SCALE  
TOLLERENCE DIMENSIONS : 1°



color RAL 7031

Pos.	Description	
A 2000		Rated Power : KVA 1600
B 1760		Type : ONAN Series : E P
C 2110		kV primary : 11 +/- 2 x 2,5%
D 140		V secondary : 400 + n. (at no load) 380 + n. (at load)
E 1250		Hz 50 Vcc 6 % Group: Dyn11
F 660		TOTAL WEIGHT : 3900 Kg.
G 820		OIL WEIGHT : 800 Kg.
M 410		Customer:
H 230		<input checked="" type="checkbox"/> Ref. enquiry dt 24/03/14
I 260		date : 24/03/2014
P 1880		Technical Engineering
S 1800		
Z 60		
X 200		
Y 300		
T 1260		
R Ø 150 x 60		

# PRODUCTION

1. WINDINGS : All our windings are mainly copper made. For HV windings we use enamelled copper wire or Kraft insulated
2. CORE : Core is made with top quality «grain oriented» magnetic steel
3. TANKS : Tanks are made with cold rolled steel and are reinforced in order to reach an higher strenght
4. TAP-CHANGER : HV tap-changer is linear type and must be handled only when the transformer is disconnected from network
5. BUSHINGS : Normally are used brown porcelain outdoor bushings for HV, LV and neutral standardized type.

# TESTS AND TRIAL

All our transformers, before being marketed, are tested in compliance with CEI EN 60076-1/12 standards with the following routine tests:

1. Voltage ratio measurement
2. Polarity and connection group tests
3. Insulation test with applied voltage
4. Insulation test with induced voltage
5. Losses and no load current measurement
6. Winding resistance at ambient temperature measurement
7. Measurement of losses and short circuit voltage at required reference temperature

It is also possible, under customers' request (with an extra cost ) to run or repeat both routine tests and type tests, in addition to special tests, at accredited external laboratory (as, for example CESI- Milan Italy)