

FURNACE TRANSFORMER FOR EAF



Three-Phase Oil Immersed Furnace
Transformer for EAF Furnace
Make "TES" (Transformer Electro Service) –
nowadays "TAMINI"

37MVA + 10%
35000 / 700
400 V

Status: **NEVER USED**

Availability: **in Italy**

Q.ty available: **1**

Year of production: **2016**

Warranty: **NO WARRANTY**

Delivery terms/packing/payment: **to be defined**

Price: upon request

Documentation available upon request

MADE IN ITALY

Viviana Stocco (Spare Parts Dept)
v.stocco@daniemi.com



Rated values

JOB Nr.

S-05.3/1 - Rev. 02-04/12

Customer	-	DANIELI & C.
Object of tests	-	Indoor three-phase transformer for EAF
Type	-	OFWF
Serial number	-	
Year of manufacture / repair	-	2016
Frequency	(F _i) -	50 Hz
Rated power OFWF	(S _i) -	37000 + 22595 kVA
Rated voltage		
HV	(U _i) -	35000 V
MV	(U _r) -	700 + 655 + 400 V
Insulations levels		
HV	-	Um 40,5 - LIL 190 - ACL 85
MV	-	Um 3,6 - LIL - ACL 10
Short-circuit impedance (Z _%)		
Pos. 17 - 35 / 0,7 kV - 37 MVA	-	7,39 %
Pos. 15 - 35 / 0,655 kV - 37 MVA	-	8,66 %
Pos. 1 - 35 / 0,4 kV - 22,595 MVA	-	18,49 %
Connections		
HV	-	Star
MV	-	Open windings
Connection symbol	-	Yiii
Nr. of Tappings	-	17
Type of Insulation	-	Mineral oil
Max estimated total Mass	-	61000 kg
Max estimated oil Mass	-	16000 kg
Tests according to	-	IEC 60076
Test result	-	Satisfactory

Test witnessed by:

Notes:

Date	Serial number	Tester	Customer
16-17/02/2016			DANIELI & C.

INDOOR TWO WINDINGS THREE - PHASE TRANSFORMER FOR ELECTRIC ARC FURNACE

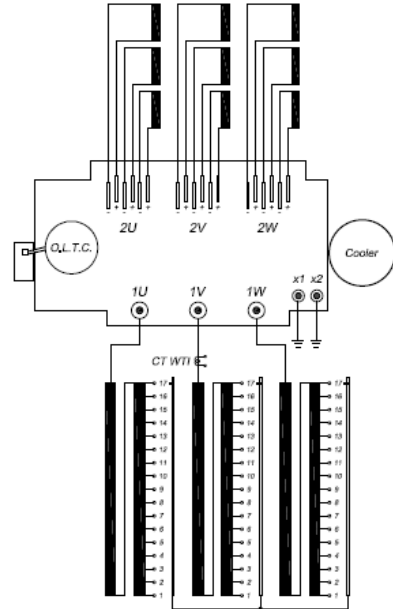
WITH ON - LOAD TAP CHANGER MR type " VRC III 700 Y - 72,5/C - 18 17 0 "

Equipment code =GD11E10+ACT01
 Serial number 15HN207/1
 Year of manufacture 2016
 Type of cooling OFWF
 Frequency 50 Hz
 Rated power 37000 ÷ 22595 kVA
 Rated voltage HV 35000 V
 Rated current HV 610,3 ÷ 372,7 A
 Rated voltage LV 700 ÷ 655 ÷ 400 V
 Rated current LV 30517 ÷ 32614 A
 Insulation level HV LI 190 - AC 85 kV
 LV AC 10 kV
 Connection symbol Yd (open)
 Impedance voltage at the ratio 35000 / 700 V - 37 MVA %
 Rated working conditions 37 + 22,595 MVA:
 Max oil rise temperature 50 K
 Windings rise temperature 55 K
 Overload working conditions 40,7 + 24,855 MVA:
 Max oil rise temperature 60 K
 Windings rise temperature 65 K
 Cooler capacity 1 x 100%
 Max inlet water temperature 35 °C
 Water flow rate cooler 60 m³/h
 Max inlet water pressure 8 bar
 Water pressure drop 0,35 bar
 Oil flow rate cooler 60 m³/h
 Total mass 61000 kg
 Untanking mass 33000 kg
 Oil mass 16000 kg
 Min height of crane hook 10 m
 Max pressure inside 0,4 kPa

O.L.T.C.		HV SIDE				LV SIDE			
Pos.	Con.	Power (kVA)	Power overload 10 % (kVA)	No load Voltage (V)	Current (A)	Current overload 10 % (A)	No load Voltage (V)	Current (A)	Current overload 10 % (A)
1	1	22595	24855		372,7	410	400		
2	2	23386	25725		365,8	424,4	414		
3	3	24234	26657		359,8	439,7	429		
4	4	25137	27651		414,7	456,1	445		
5	5	26098	28707		430,5	473,8	462		
6	6	27171	29888		448,2	493	481		
7	7	28357	31193		467,8	514,6	502	32614	35875
8	8	29600	32590		489,3	537,1	524		
9	9	30956	34051	35000	510,6	561,7	548		
10	10	31960	35045		525,5	578,1	564		
11	11	32763	36040		540,5	594,5	580		
12	12	33724	37096		556,3	611,9	597		
13	13	34740	38215		573,1	630,4	615		
14	14	35814	39395		590,8	649,9	634		
15	15						655		
16	16	37000	40700		610,3	671,4	677	31554	34709
17	17						700	30517	33569

CT for WT1	Ratio	Power	Class
CT WT1	680 / 2 A	20 VA	3

Terminal x1	Earthing bushing for core lamination
Terminal x2	Earthing bushing for clamps



Load cycle : 38 min. at 40,7 MVA - 10 min. at 0 MVA
 Check the contacts of O.L.T.C. and change the oil every 300000 operation

	As Built/Tested	Recalculated Values @33kV Primary Voltage
Rated Power	37+10% MVA	34.9 +10% MVA
Rated primary voltage	35 kV	33 kV
Secondary voltage range	700-655-400V	660-617-377 V
Max secondary current	32.6+10% kA	32.6+10% kA
Impedance voltage	7.4-8.7-18.5%	7.8-9.2-19.6%
Primary/secondary connection	Star / delta open	Star / delta open
Oil weight / liters	16000kg/18300 liters	16000kg/18300 liters
Weight in service	61000 kg	61000 kg
Insulation level MV	85/190 kV	85/190 kV
Number of tap position	17	17
Type of construction	Variable Flux	Variable Flux
Tap changer type	On load tap changer MR VRC 700Y	On load tap changer MR VRC 700Y