


PROJECT

<i>Secondary Doc Ref</i>		<i>PO</i>	
<i>Document Item</i>			

**Dry transformer
0.69-0.42 kV – 100kVA
Data Sheet + identification
plate**



A	12 Nov 13	Issued for Review		
Rev	Date	Description	Written By	Approved By
Document Revisions				

DISTRIBUTION TRANSFORMERS

Rev	DRY LV/LV (0.69/0,420kV) TRANSFORMER			
1	ITEM:	QUANTITY		X
2	Job specification:	9806J 0440 JSS 1641 002	Standards, codes:	IEC
3	Manufacturer:			
4	ENVIRONMENTAL CONDITIONS			
5	Installation (indoor/outdoor) / Ambient Type	Indoor , in safe area	Industrial, dusty & corrosive atmosphere (Mining).	
6	Ambient Design Temperature	Max: 30 °C	Min: 10°C	
7	Altitude/Relative Humidity	a.s.l.: <1000m		
8	GENERAL REQUIREMENTS (VENDOR TO COMPLY WITH)			
9	Type	Dry type: <input checked="" type="checkbox"/> Impregnated <input type="checkbox"/> Cast resin <input checked="" type="checkbox"/>		
10	Kind of transformer	With separate windings <input checked="" type="checkbox"/> Autotransformer <input type="checkbox"/>		
11	No Load Voltage Ratio / Highest voltage Um	0,690 / 0,420-0,240 KV / KV	Refer to IEC 60076-3	kV / kV
12	Secondary voltage at rated power & P.F. of 0.8	0,400 - 0,230 kV		
13	Mode of operation (individual / parallel)	individual operation		
14	Frequency/Phases	50 Hz	2+/- %	No: 3 phase
15	Maximum primary system short circuit rating	50 kA rms		
16	Maximum short circuit duration	2 sec According to IEC 60076-5		
17	Off Circuit Tap Changer	± 2,5 % per step	N° steps: 5	Total range: ± 5 %
18	Windings	Copper		
19	Winding Connection and Vector Group	Dyn 11		
20	Insulation class	Class F minimum		
21	Ambient / climate / fire resistance	Certified E2/C2/F1 according to standard CEI 60076-11		
22	Transformer mounting	Skid <input checked="" type="checkbox"/> Rollers <input type="checkbox"/> Bidirectional roller <input type="checkbox"/>		
23	Metallic enclosure	protection : IP 31		
24	Accessories			
25	Lifting rings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
26	2 grounding clamps	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
27	Lugs and hooks	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
28	Monitoring box for temperature sensors	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
29		<input type="checkbox"/>	<input type="checkbox"/>	
30	TRANSFORMER SPECIFIC'S DATA (VENDOR TO COMPLY WITH)			
31				
32	Transformer tag:	See line 1	Quantity:	See line 1
33	Nominal Rating Natural Cooling (AN)	100 kVA		
34	Cooling type	AN		
35	Impedance Voltage	4%		
36	Primary Connections	Bus Duct <input type="checkbox"/> Cable <input checked="" type="checkbox"/>	5G120 4G50	mm ²
37	Secondary Connections	Bus Duct <input type="checkbox"/> Cable <input checked="" type="checkbox"/>	4G95	mm ²
38	Cable Type & n° per phase	Primary:	1000RVFV-multicore cable	
39	Cable Type & n° per phase	Secondary	1000RVFV-multicore cable	
40	Primary terminals	Suppliers to specify transformers facilities for the cables connection on all terminals, primary, secondary and neutral. (to be included in scope and supply)		
41	Secondary terminals			
42	Secondary: neutral brought out:	YES		
43	Neutral connection: cable type / section	HOLD	HOLD	mm ²
44	CT on neutral (ratio / class)	NA		
45	System earthing	Primary : TNC Secondary: TNS		
46	Sound press. Level at 1 m / Sound power level	< 85 LPA (dB)		LWA (dB)
47	TRANSFORMER MANUFACTURER'S DATA (PART TO BE FILLED IN BY VENDOR)			
48	Manufacturer / Model	type	Schneider Electric	Tricast

DISTRIBUTION TRANSFORMERS

49	No Load Losses / No Load Current (primary)	600	W	After Order	%
50	Load Losses	4/4 Load: 2000	3/4 Load: 1130	2/4 Load: 500	
51	Full Load Voltage Drop at 0.8 Power Factor			3,69	%
52	Efficiency at 0,8 Power Factor	4/4 Load: 96,85%	3/4 Load: 97,21%	2/4 Load: 97,32%	
53	Efficiency at 1 Power Factor	4/4 Load: 97,47%	3/4 Load: 97,75%	2/4 Load: 97,85%	
54	Impedance voltage (%) / with tolerance of %	4	Ucc: %	Tolerance: 10	%
55	Magnetizing / Inrush current	After Order	A	After Order	A
56	Primary Bushing Quantity / Type	N°: 3	copper termil plate		
57	Secondary Bushing Quantity / Type	N°: 4	copper termil plate		
58	Total Weight	955	kg		
59	Overall Dimensions (Length/Width/Height)	L 1525mm	W 1200mm	H 1600mm	
60	When applicable, dimensions between rollers	mm			
61	Painting (Mfr standard,... / color)	Specification: acc. N21240023 / color 7032			
62	Tropicalization	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
63	Sound press. Level at 1 m / Sound power level	45	LPA (dB)	58	LWA (dB)
64	current density	A/ mm2			
65	Core material and grade	M5 Type cold grain-oriented steel			

1 2 3 4

148

Schneider Enerji End. San. ve Tic. AS 41420 Kocaeli - Turkey

3-PHASES-TRANSFORMATEUR SEC AVEC ENVELOPPE
POUR INSTALLATION INTERIEURE

TYPE :	Tricast	NR. :	NORME :	IEC 60076-11
PUISSANCE NOMINALE :	100 kVA	ANNEE :		
POS.1 :	723 V	FREQUENCE :	50 Hz	
POS.2 :	709 V	COUPLAGE :	Dyn11	
TENS. NOMINALE	POS.3 : 690 V	420 V	REFROIDISSEMENT :	AN
	POS.4 : 676 V		PROTECTION :	IP31
	POS.5 : 658 V		POIDS :	955 kg
COURANT NOMINALE :	83.7 A	137.5 A		
Um :	< 1.1 kV	NIVEAUX D'ISOLEMENT: LI: AC: 3 / LI: AC: 3	kV	
TENSION DE COURT-CIRCUIT :	%	DUREE MAX. DU COURANT DE COURT-CIRCUIT :	2 s	
COURANT DE COURT CIRCUIT :	kA	CLASSE DE TEMPERATURE HT/BT :	H / H	
TEMPERATURE AMBIANTE MAXI :	30 °C	NATURE DES ENROULEMENTS HT/BT :	CU / CU	

180

ALL RESERVED RIGHTS

CONNEXION

DIAGRAMME DE CONNEXION

CONNEXION DES PRISES

E5821613

PLATE D 148 x180 CR-NI

FOR APPROVAL

Les cellules vides seront remplies après les essais

				Dimensions sans tolerance suivant ISO 2768-m	Approuve par	Definition :	Code No:
				Date	01.11.2013	Description: PLAQUE SIGNALTIQUE	Echelle :
				Group	ADH-E1		1/1
				Etabli par			
				Controle par		No du plan	Node Pg
							Pg.
						1	1
Pos	Revision	Date	Nom	Remplace par		Annule par	

1 2 3 4

CAD

1 2 3 4

148

180

Schneider Enerji End. San. ve Tic. AS 41420 Kocaeli - Turkey

3-PHASE DRY TYPE TRANSFORMER WITH ENCLOSURE
FOR INDOOR INSTALLATION

TYPE : Tricast	NO.:	STANDARD : IEC 60076-11
RATED POWER : 100 kVA		YEAR :
POS. 1 : 723 V		FREQUENCY : 50 Hz
POS. 2 : 709 V		VECTOR GROUP : Dyn11
RATED VOLTAGE POS. 3 : 690 V	420 V	TYPE OF COOLING : AN
POS. 4 : 676 V		PROTECTION : IP 31
POS. 5 : 658 V		WEIGHT : 955 kg
RATED CURRENT : 83.7 A	137.5 A	
Um : < 1.1 kV	INSULATION LEVEL : LI: AC: 3 / LI: AC: 3 kV	
RATED IMPED. VOLTAGE : %	DURATION OF SHORT-CIRCUIT MAX. : 2 s	
SHORT-CIRCUIT CURRENT : kA	THERMAL CLASS HV/LV : H / H	
MAX. AMBIENT TEMPERATURE : 30 °C	COILS MATERIAL HV/LV : CU / CU	

5853195

PLATE D 148x180 CR-NI

FOR APPROVAL

Blank fields will be filled out after the test.

EN

				Dimensions without tol.acc.to ISO 2768-m	Approved by	Definition :	Class code
				Date	01.11.2013	Description: Rating Plate	Scale
				Group	ADH-E1		1 : 1
				Drawing No:			Sh.No: 1
				Replaces by Drawing no:		Canceled by Drawing no:	
Pos	Revision	Date	Name	Schneider Electric		CAD AutoCAD	
1							

ALL RESERVED RIGHTS

A

B

C

D

E

F

A

B

C

D

E

F

1 2 3 4