

	Client :	<b>MOLDOVA</b>	Ref.	DT ET 08
			Revision	09
	Project :	-	Date Appl	20-02-2020

# Technical Datasheet

## Three-Phase Distribution Transformers

C59/26	18/02/2026	Creation	Zaouech I.	Zayani S.	Ben Jaffel A.
<b>Ref.</b>	<b>Date</b>	<b>Description</b>	<b>Prepared</b>	<b>Verified</b>	<b>Approved</b>

## Guaranteed Technical Data

### 63 kVA – 10 kV / 0.4 kV – Yy0-12

N°	Description	Requested	Offered
01	Type	-	Three phase Sealed
02	Applied standard	-	IEC 60076
03	Rated power (kVA)	63	63
04	Primary voltage (kV)	10	10
05	Primary connexion	-	Star
06	Primary insulation level (Um/LI/AC) (kV)	-	12/75/28
07	No-load secondary voltage (kV)	0.4	0.4
08	Secondary connexion	-	Star
09	Secondary insulation level (Um/LI/AC) (kV)	-	1.1/NA/3
10	Frequency (Hz)	-	50
11	Vector group	Yy0-12	Yy0-12
12	Tapping range (%)	-	± 2 x 2.5%
13	Cooling method	-	ONAN
14	Conductor material	-	Copper
15	Core material	-	Grain oriented silicon steel
16	Dielectric type	-	Uninhibited mineral oil
17	Paint thickness (µm)	-	120 , C3-M Acc. ISO 12944-5 (2019)
18	Paint colour	-	RAL 7035
19	Design temperature (°C)	-	40
20	Top oil temperature rise (K)	-	60
21	Average winding temperature rise (K)	-	65
22	No load losses (W)	200	200
23	No load current (%)	-	5
24	Load losses (à 75°C) (W)	1150	1150
25	Short circuit impedance (à 75°C) (%)	4.5	4.5
26	Efficiency @ 100% load & cos φ=1 (%)	-	97.90
27	Efficiency @ 100% load & cos φ=0.8 (%)	-	97.39
28	Voltage drop @ cos φ=1 (%)	-	1,79
29	Voltage drop @ cos φ=0.8 (%)	-	3.91
30	Approximate dielectric weight (Kg)	-	150
31	Approximate transformer weight (Kg)	-	530
32	Approximate dimensions (L x l x H) (mm)	-	1100x 680 x 1100
33	Other technical requirements (if applicable)	Not Applicable	
34	Legal and regulatory requirements	PCB-free mineral oil in accordance with Decree No. 2000-2339 of 10/10/2000	

## Proposed Accessories

Requested	Offered
	03 HV porcelain bushings with connexion flags 04 LV porcelain bushings with connexion flags 01 Off load tap changer 01 Pressure Relief Device 01 Oil level indicator 04 Transformer wheels 01 Rating Plate 01 Name plate 02 Earthing terminals 01 Oil Drain valve with sampling facility

The tolerances on the guaranteed values of no-load losses, no-load current, load losses and short-circuit voltage are those indicated in the recommendations of standard IEC 60076-1.

## Guaranteed Technical Data

**100 kVA – 10 kV / 0.4 kV – Yy0-12**

N°	Description	Requested	Offered
01	Type	-	Three phase Sealed
02	Applied standard	-	IEC 60076
03	Rated power (kVA)	100	100
04	Primary voltage (kV)	10	10
05	Primary connexion	-	Star
06	Primary insulation level (Um/LI/AC) (kV)	-	12/75/28
07	No-load secondary voltage (kV)	0.4	0.4
08	Secondary connexion	-	Star
09	Secondary insulation level (Um/LI/AC) (kV)	-	1.1/NA/3
10	Frequency (Hz)	-	50
11	Vector group	Yy0-12	Yy0-12
12	Tapping range (%)	-	± 2 x 2.5%
13	Cooling method	-	ONAN
14	Conductor material	-	Copper
15	Core material	-	Grain oriented silicon steel
16	Dielectric type	-	Uninhibited mineral oil
17	Paint thickness (µm)	-	120 , C3-M Acc. ISO 12944-5 (2019)
18	Paint colour	-	RAL 7035
19	Design temperature (°C)	-	40
20	Top oil temperature rise (K)	-	60
21	Average winding temperature rise (K)	-	65
22	No load losses (W)	250	250
23	No load current (%)	-	4
24	Load losses (à 75°C) (W)	1780	1780
25	Short circuit impedance (à 75°C) (%)	4.5	4.5
26	Efficiency @ 100% load & cos φ=1 (%)	-	98.01
27	Efficiency @ 100% load & cos φ=0.8 (%)	-	97.53
28	Voltage drop @ cos φ=1 (%)	-	1,75
29	Voltage drop @ cos φ=0.8 (%)	-	3.89
30	Approximate dielectric weight (Kg)	-	180
31	Approximate transformer weight (Kg)	-	650
32	Approximate dimensions (L x l x H) (mm)	-	1150x 700 x 1200
33	Other technical requirements (if applicable)	Not Applicable	
34	Legal and regulatory requirements	PCB-free mineral oil in accordance with Decree No. 2000-2339 of 10/10/2000	

## Proposed Accessories

<b>Requested</b>	<b>Offered</b>
	03 HV porcelain bushings with connexion flags 04 LV porcelain bushings with connexion flags 01 Off load tap changer 01 Pressure Relief Device 01 Oil level indicator 04 Transformer wheels 01 Rating Plate 01 Name plate 02 Earthing terminals 01 Oil Drain valve with sampling facility

The tolerances on the guaranteed values of no-load losses, no-load current, load losses and short-circuit voltage are those indicated in the recommendations of standard IEC 60076-1.

## Guaranteed Technical Data

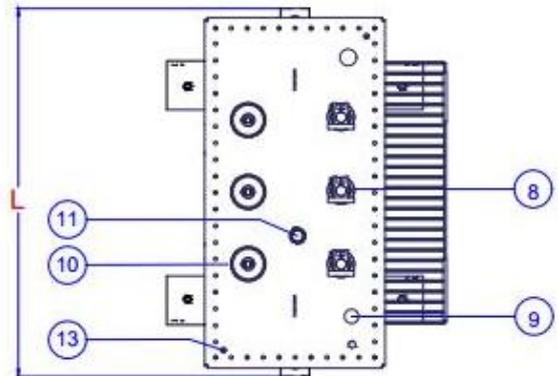
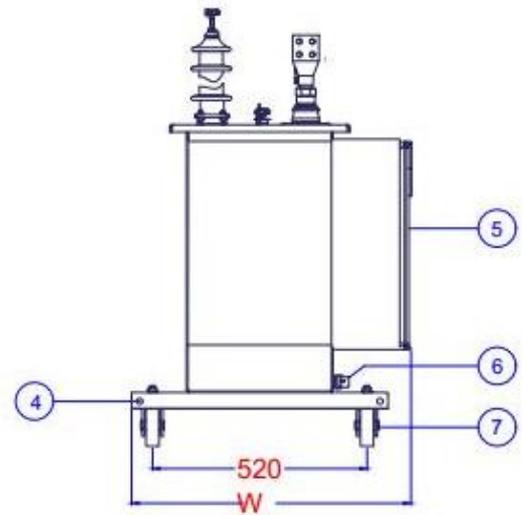
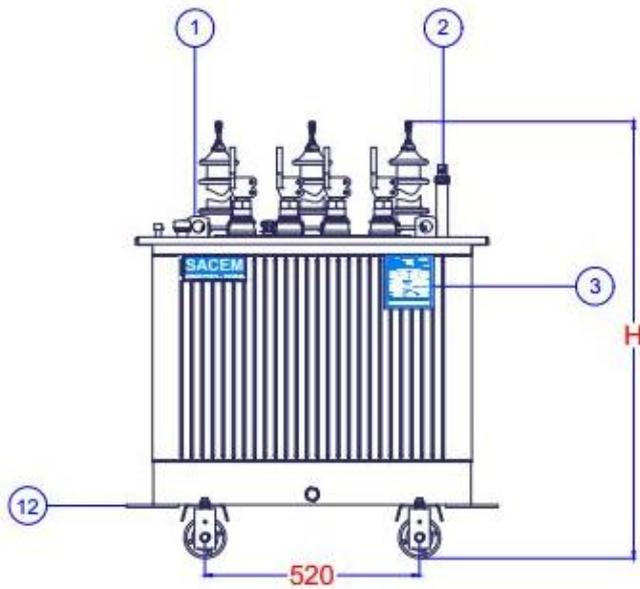
**160 kVA – 10 kV / 0.4 kV – Yy0-12**

N°	Description	Requested	Offered
01	Type	-	Three phase Sealed
02	Applied standard	-	IEC 60076
03	Rated power (kVA)	160	160
04	Primary voltage (kV)	10	10
05	Primary connexion	-	Star
06	Primary insulation level (Um/LI/AC) (kV)	-	12/75/28
07	No-load secondary voltage (kV)	0.4	0.4
08	Secondary connexion	-	Star
09	Secondary insulation level (Um/LI/AC) (kV)	-	1.1/NA/3
10	Frequency (Hz)	-	50
11	Vector group	Yy0-12	Yy0-12
12	Tapping range (%)	-	± 2 x 2.5%
13	Cooling method	-	ONAN
14	Conductor material	-	Copper
15	Core material	-	Grain oriented silicon steel
16	Dielectric type	-	Uninhibited mineral oil
17	Paint thickness (µm)	-	120 , C3-M Acc. ISO 12944-5 (2019)
18	Paint colour	-	RAL 7035
19	Design temperature (°C)	-	40
20	Top oil temperature rise (K)	-	60
21	Average winding temperature rise (K)	-	65
22	No load losses (W)	300	300
23	No load current (%)	-	3.5
24	Load losses (à 75°C) (W)	2136	2136
25	Short circuit impedance (à 75°C) (%)	4.5	4.5
26	Efficiency @ 100% load & cos φ=1 (%)	-	98.50
27	Efficiency @ 100% load & cos φ=0.8 (%)	-	98.13
28	Voltage drop @ cos φ=1 (%)	-	1,32
29	Voltage drop @ cos φ=0.8 (%)	-	3.64
30	Approximate dielectric weight (Kg)	-	240
31	Approximate transformer weight (Kg)	-	900
32	Approximate dimensions (L x l x H) (mm)	-	1200x 750 x 1300
33	Other technical requirements (if applicable)	Not Applicable	
34	Legal and regulatory requirements	PCB-free mineral oil in accordance with Decree No. 2000-2339 of 10/10/2000	

## Proposed Accessories

<b>Requested</b>	<b>Offered</b>
	03 HV porcelain bushings with connexion flags 04 LV porcelain bushings with connexion flags 01 Off load tap changer 01 Pressure Relief Device 01 Oil level indicator 04 Transformer wheels 01 Rating Plate 01 Name plate 02 Earthing terminals 01 Oil Drain valve with sampling facility

The tolerances on the guaranteed values of no-load losses, no-load current, load losses and short-circuit voltage are those indicated in the recommendations of standard IEC 60076-1.



13	Earthing terminal
12	Hauling hole
11	Tap changer
10	H.V Bushing
9	Safety valve
8	L.V Bushing
7	Bidirectional collers
6	Drain valve
5	Cooler plate
4	Earthing terminal
3	Name plate
2	Oil level indicator
1	Lifting lug
N°	DESIGNATIONS

Preliminary drawing and provisional dimensions



### THREE PHASE TRANSFORMER



Scale:

Customer : MOLDOVA

Ref : PTT032/26

I.E: 00

Drawn by : MRAHI

Date : February 2026

Approved: ZAYANI

## Guaranteed Technical Data

**250 kVA – 10 kV / 0.4 kV – Yy0-12**

N°	Description	Requested	Offered
01	Type	-	Three phase Sealed
02	Applied standard	-	IEC 60076
03	Rated power (kVA)	250	250
04	Primary voltage (kV)	10	10
05	Primary connexion	-	Star
06	Primary insulation level (Um/LI/AC) (kV)	-	12/75/28
07	No-load secondary voltage (kV)	0.4	0.4
08	Secondary connexion	-	Star
09	Secondary insulation level (Um/LI/AC) (kV)	-	1.1/NA/3
10	Frequency (Hz)	-	50
11	Vector group	Yy0-12	Yy0-12
12	Tapping range (%)	-	± 2 x 2.5%
13	Cooling method	-	ONAN
14	Conductor material	-	Copper
15	Core material	-	Grain oriented silicon steel
16	Dielectric type	-	Uninhibited mineral oil
17	Paint thickness (µm)	-	120 , C3-M Acc. ISO 12944-5 (2019)
18	Paint colour	-	RAL 7035
19	Design temperature (°C)	-	40
20	Top oil temperature rise (K)	-	60
21	Average winding temperature rise (K)	-	65
22	No load losses (W)	425	425
23	No load current (%)	-	2.8
24	Load losses (à 75°C) (W)	2955	2955
25	Short circuit impedance (à 75°C) (%)	4.5	4.5
26	Efficiency @ 100% load & cos φ=1 (%)	-	98.67
27	Efficiency @ 100% load & cos φ=0.8 (%)	-	98.34
28	Voltage drop @ cos φ=1 (%)	-	1,17
29	Voltage drop @ cos φ=0.8 (%)	-	3.54
30	Approximate dielectric weight (Kg)	-	320
31	Approximate transformer weight (Kg)	-	1200
32	Approximate dimensions (L x l x H) (mm)	-	1300x 800 x 1370
33	Other technical requirements (if applicable)	Not Applicable	
34	Legal and regulatory requirements	PCB-free mineral oil in accordance with Decree No. 2000-2339 of 10/10/2000	

## Proposed Accessories

<b>Requested</b>	<b>Offered</b>
	03 HV porcelain bushings with connexion flags 04 LV porcelain bushings with connexion flags 01 Off load tap changer 01 Pressure Relief Device 01 Oil level indicator 04 Transformer wheels 01 Rating Plate 01 Name plate 02 Earthing terminals 01 Oil Drain valve with sampling facility

The tolerances on the guaranteed values of no-load losses, no-load current, load losses and short-circuit voltage are those indicated in the recommendations of standard IEC 60076-1.

## Guaranteed Technical Data

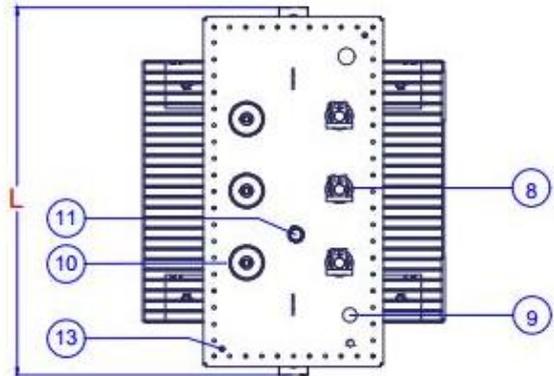
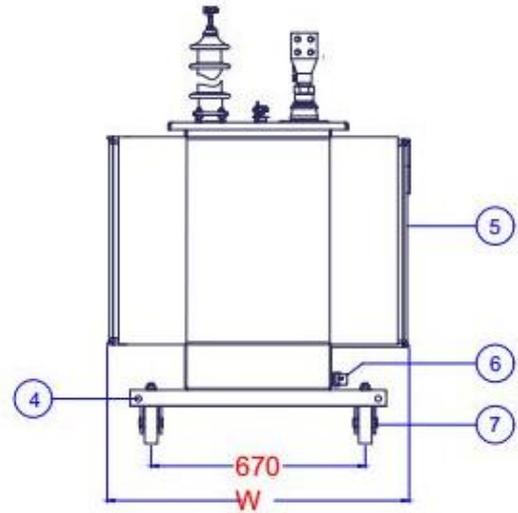
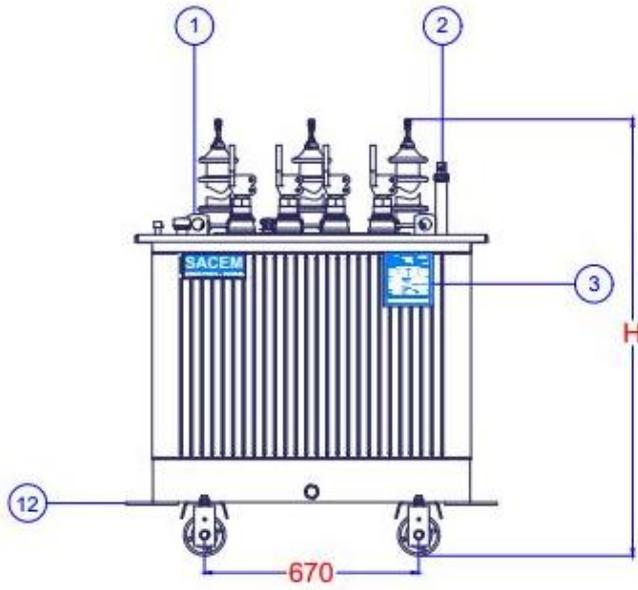
**400 kVA – 10 kV / 0.4 kV – Yy0-12**

N°	Description	Requested	Offered
01	Type	-	Three phase Sealed
02	Applied standard	-	IEC 60076
03	Rated power (kVA)	400	400
04	Primary voltage (kV)	10	10
05	Primary connexion	-	Star
06	Primary insulation level (Um/LI/AC) (kV)	-	12/75/28
07	No-load secondary voltage (kV)	0.4	0.4
08	Secondary connexion	-	Star
09	Secondary insulation level (Um/LI/AC) (kV)	-	1.1/NA/3
10	Frequency (Hz)	-	50
11	Vector group	Yy0-12	Yy0-12
12	Tapping range (%)	-	± 2 x 2.5%
13	Cooling method	-	ONAN
14	Conductor material	-	Copper
15	Core material	-	Grain oriented silicon steel
16	Dielectric type	-	Uninhibited mineral oil
17	Paint thickness (µm)	-	120 , C3-M Acc. ISO 12944-5 (2019)
18	Paint colour	-	RAL 7035
19	Design temperature (°C)	-	40
20	Top oil temperature rise (K)	-	60
21	Average winding temperature rise (K)	-	65
22	No load losses (W)	780	780
23	No load current (%)	-	2.8
24	Load losses (à 75°C) (W)	5900	5900
25	Short circuit impedance (à 75°C) (%)	4.5	4.5
26	Efficiency @ 100% load & cos φ=1 (%)	-	98.36
27	Efficiency @ 100% load & cos φ=0.8 (%)	-	97.96
28	Voltage drop @ cos φ=1 (%)	-	1,45
29	Voltage drop @ cos φ=0.8 (%)	-	3.72
30	Approximate dielectric weight (Kg)	-	370
31	Approximate transformer weight (Kg)	-	1500
32	Approximate dimensions (L x l x H) (mm)	-	1350x 850 x 1400
33	Other technical requirements (if applicable)	Not Applicable	
34	Legal and regulatory requirements	PCB-free mineral oil in accordance with Decree No. 2000-2339 of 10/10/2000	

## Proposed Accessories

<b>Requested</b>	<b>Offered</b>
	03 HV porcelain bushings with connexion flags 04 LV porcelain bushings with connexion flags 01 Off load tap changer 01 Pressure Relief Device 01 Oil level indicator 04 Transformer wheels 01 Rating Plate 01 Name plate 02 Earthing terminals 01 Oil Drain valve with sampling facility

The tolerances on the guaranteed values of no-load losses, no-load current, load losses and short-circuit voltage are those indicated in the recommendations of standard IEC 60076-1.



13	Earthing terminal
12	Hauling hole
11	Tap changer
10	H.V Bushing
9	Safety valve
8	L.V Bushing
7	Bidirectional collers
6	Drain valve
5	Cooler plate
4	Earthing terminal
3	Name plate
2	Oil level indicator
1	Lifting lug
N°	DESIGNATIONS

Preliminary drawing and provisional dimensions



### THREE PHASE TRANSFORMER



Scale:

Customer : MOLDOVA

Ref : PTT031/26

I.E: 00

Drawn by : MRAIHI

Date : February 2026

Approved: ZAYANI

## Guaranteed Technical Data

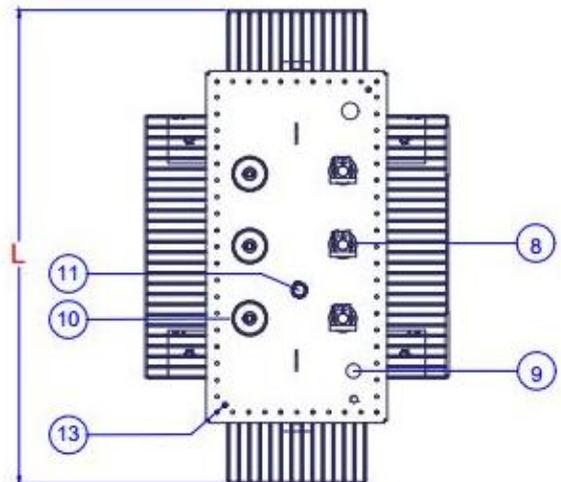
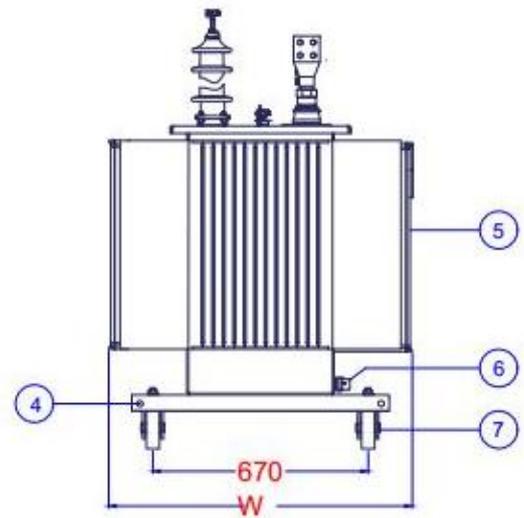
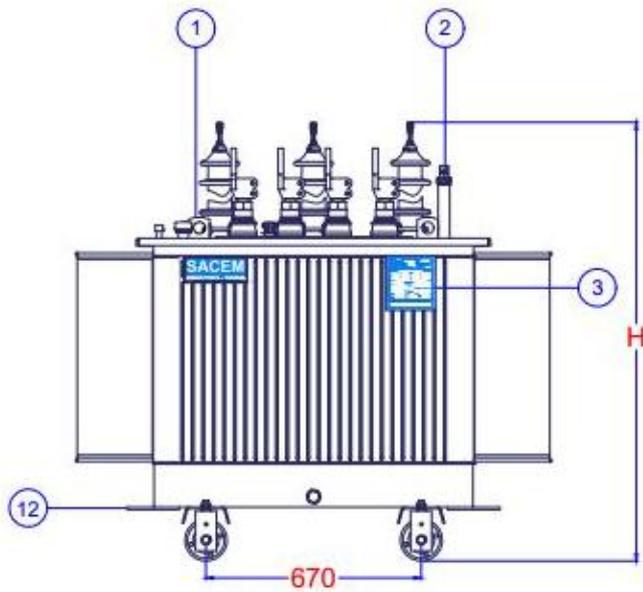
**630 kVA – 10 kV / 0.4 kV – Yy0-12**

N°	Description	Requested	Offered
01	Type	-	Three phase Sealed
02	Applied standard	-	IEC 60076
03	Rated power (kVA)	630	630
04	Primary voltage (kV)	10	10
05	Primary connexion	-	Star
06	Primary insulation level (Um/LI/AC) (kV)	-	12/75/28
07	No-load secondary voltage (kV)	0.4	0.4
08	Secondary connexion	-	Star
09	Secondary insulation level (Um/LI/AC) (kV)	-	1.1/NA/3
10	Frequency (Hz)	-	50
11	Vector group	Yy0-12	Yy0-12
12	Tapping range (%)	-	± 2 x 2.5%
13	Cooling method	-	ONAN
14	Conductor material	-	Copper
15	Core material	-	Grain oriented silicon steel
16	Dielectric type	-	Uninhibited mineral oil
17	Paint thickness (µm)	-	120 , C3-M Acc. ISO 12944-5 (2019)
18	Paint colour	-	RAL 7035
19	Design temperature (°C)	-	40
20	Top oil temperature rise (K)	-	60
21	Average winding temperature rise (K)	-	65
22	No load losses (W)	1070	1070
23	No load current (%)	-	2.5
24	Load losses (à 75°C) (W)	8500	8500
25	Short circuit impedance (à 75°C) (%)	5.5	5.5
26	Efficiency @ 100% load & cos φ=1 (%)	-	98.50
27	Efficiency @ 100% load & cos φ=0.8 (%)	-	98.14
28	Voltage drop @ cos φ=1 (%)	-	1,33
29	Voltage drop @ cos φ=0.8 (%)	-	4.27
30	Approximate dielectric weight (Kg)	-	520
31	Approximate transformer weight (Kg)	-	2080
32	Approximate dimensions (L x l x H) (mm)	-	1800x 1000 x 1500
33	Other technical requirements (if applicable)	Not Applicable	
34	Legal and regulatory requirements	PCB-free mineral oil in accordance with Decree No. 2000-2339 of 10/10/2000	

## Proposed Accessories

<b>Requested</b>	<b>Offered</b>
	03 HV porcelain bushings with connexion flags 04 LV porcelain bushings with connexion flags 01 Off load tap changer 01 Pressure Relief Device 01 Oil level indicator 04 Transformer wheels 01 Rating Plate 01 Name plate 02 Earthing terminals 01 Oil Drain valve with sampling facility

The tolerances on the guaranteed values of no-load losses, no-load current, load losses and short-circuit voltage are those indicated in the recommendations of standard IEC 60076-1.



13	Earthing terminal
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11	Tap changer
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9	Safety valve
8	L.V Bushing
7	Bidirectional collers
6	Drain valve
5	Cooler plate
4	Earthing terminal
3	Name plate
2	Oil level indicator
1	Lifting lug
N°	DESIGNATIONS

Preliminary drawing and provisional dimensions

	THREE PHASE TRANSFORMER		Scale:
	630 kVA_10 kV / 0.4 kV _ Yy-12	Customer : MOLDOVA	
	Drawn by : MRAIHI	Date : February 2026	Ref : PTT030/26
Date : February 2026		Approved: ZAYANI	

# **Tests and Controls**

## **1. Routine tests**

### 1.1 Dielectric tests:

- a- Insulation tests by applied voltage at industrial frequency for 60 s (IEC 60076-3)
- b- Insulation tests by induced voltage: Twice the nominal voltage (IEC 60076-3)

### 1.2 No-load tests (IEC 60076-1, 10.5):

- Measurement of no-load loss
- Measurement of no-load current

### 1.3 Load tests (IEC 60076-1, 10.4):

- Measurement of load loss
- Measurement of short-circuit impedance

### 1.4 Measurement of voltage ratio and check of phase displacement (IEC 60076-1, 10.3)

### 1.5 Measurement of winding resistance (IEC 60076-1, 10.2)

### 1.6 General controls:

- Oil leakage test
- Control of oil dielectric strength
- Visual and dimensional inspection
- Nameplate check

## **2. Type tests on request**

The following type tests are carried out on request and at the customer's expense:

- Temperature rise test (IEC 60076-2)
- Dielectric tests: Full-wave & Chopped wave lightning impulse-voltage withstand test (IEC 60076-3)

# Technical datasheet of the Dielectric fluid



## PRODUCT DATA SHEET NYTRO® LIBRA

PROPERTY	Unit	Test Method	Specification Limits		Typical Data
			Min	Max	
<b>1 - Function</b>					
Viscosity, 40°C	mm <sup>2</sup> /s (cSt)	ISO 3104		12	9.5
Viscosity, -30°C	mm <sup>2</sup> /s (cSt)	ISO 3104		1800	1090
Pour point	°C	ISO 3016		-40	-51
Water content	mg/kg	IEC 60814		30	< 20
Breakdown voltage	kV	IEC 60156			
- Before treatment	kV	IEC 60156	30		40-60
- After treatment	kV	IEC 60296	70		> 70
Density, 20°C	kg/dm <sup>3</sup>	ISO 12185		0.895	0.877
DDF at 90°C		IEC 60247		0.005	< 0.001
<b>2 - Refining/stability</b>					
Colour		ISO 2049		1.5	< 0.5
Appearance at 15°C		IEC 60296	Clear, Free from Sediment		Clear, Free from Sediment
Acidity	mg KOH/g	IEC 62021		0.01	< 0.01
Interfacial tension at 25°C	mN/m	IEC 62961	40		47
Corrosive sulphur		DIN 51353	Non-Corrosive		Non-Corrosive
Potentially corrosive sulphur		IEC 62535	Non-Corrosive		Non-Corrosive
Corrosive sulphur		ASTM D1275	Non-Corrosive		Non-Corrosive
DBDS	mg/kg	IEC 62697-1	Not Detectable		Not Detectable
Antioxidants	wt %	IEC 60666	Not Detectable		Not Detectable
Metal passivator additives	mg/kg	IEC 60666	Not Detectable		Not Detectable
Other additives *			None		None
2-Furfural and related compounds content	mg/kg	IEC 61198		< 0.05	< 0.05
Aromatic content	%	IEC 60590			8
<b>3 - Performance</b>					
Oxidation stability at 120°C, 164 h		IEC 61125			
- Total acidity	mg KOH/g	IEC 61125		1.2	0.8
- Sludge	wt %	IEC 61125		0.8	0.12
- DDF at 90°C		IEC 61125		0.500	0.041
<b>4 - Health, safety and environment (HSE)</b>					
Flash Point, PM	°C	ISO 2719	135		148
PCA	wt %	IP 346		< 3.0	< 3.0
PCB	mg/kg	IEC 61619	Not Detectable		Not Detectable

\*this product contains no undeclared additives

NYTRO LIBRA is an uninhibited insulating oil meeting IEC 60296:2020 edition 5.0 (2020), Type B, TVBU and it is 100% recyclable. Breakdown voltage after treatment as per definition in IEC 60296, section 6,4

Severely hydrotreated insulating oil  
Issuing date: 30-05-2024

# ISO Certifications



# Certificat

Certificate

N°2022/99984.2

AFAQ AFNOR INTERNATIONAL certifie que le système de management mis en place par :  
AFAQ AFNOR INTERNATIONAL certifies that the management system implemented by:

## SACEM INDUSTRIES SA

pour les activités suivantes :  
for the following activities:

**CONCEPTION, FABRICATION, VENTE, REPARATION ET SERVICES APRES-VENTE  
DE TRANSFORMATEURS DE PUISSANCE MONOPHASES, TRIPHASES ET SPECIAUX  
ET DE TABLEAUX ELECTRIQUES MOYENNE TENSION ET BASSE TENSION.**

**DESIGN, MANUFACTURING, SALE, REPAIR AND AFTER SALES SERVICES  
FOR SINGLE-PHASE, THREE-PHASE AND SPECIAL POWER TRANSFORMERS  
AND MEDIUM AND LOW VOLTAGE ELECTRICAL PANELS.**

a été évalué et jugé conforme aux exigences requises par :  
has been assessed and found to meet the requirements of:

## ISO 9001 : 2015

et est déployé sur les sites suivants :  
and is developed on the following locations:

**Rue du Lac Tanganyika, Immeuble Mak Crown, 3ème Etage Appartement N°3  
1053 LES BERGES DU LAC TUNISIE**

**Usine: ZI Sidi Rezig 7032 TINJA TUNISIE**

Ce certificat est valable à compter du (année/mois/jour)  
This certificate is valid from (year/month/day)

**2025-06-05**

Jusqu'au  
until

**2028-04-22**

**Administrateur d'AFAQ AFNOR INTERNATIONAL**  
Administrator of AFAQ AFNOR INTERNATIONAL

**M. AUGEREAU-LANDAIS**



Flashez ce QR Code  
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Seul le certificat électronique, consultable sur [www.afnor.org](http://www.afnor.org), est tel en temps réel de la certification de l'organisme.  
The electronic certificate only, available at [www.afnor.org](http://www.afnor.org), attests in real-time that the company is certified.  
Accréditation TUNAC n° 3-0003, Certification de Systèmes de Management, TUNAC accréditation n° 3-0003, Management Systems Certification  
CERTI INT F 0065.4 MAJ 03/2015. AFAQ est une marque déposée. AFAQ is a registered trademark.



# Certificat

Certificate

N°2022/99986.2

AFAQ AFNOR INTERNATIONAL certifie que le système de management mis en place par :  
AFAQ AFNOR INTERNATIONAL certifies that the management system implemented by:

## SACEM INDUSTRIES SA

pour les activités suivantes :  
for the following activities:

CONCEPTION, FABRICATION, VENTE, REPARATION ET SERVICES APRES-VENTE  
DE TRANSFORMATEURS DE PUISSANCE MONOPHASES, TRIPHASES ET SPECIAUX  
ET DE TABLEAUX ELECTRIQUES MOYENNE TENSION ET BASSE TENSION.

DESIGN, MANUFACTURING, SALE, REPAIR AND AFTER SALES SERVICES  
FOR SINGLE-PHASE, THREE-PHASE AND SPECIAL POWER TRANSFORMERS  
AND MEDIUM AND LOW VOLTAGE ELECTRICAL PANELS.

a été évalué et jugé conforme aux exigences requises par :  
has been assessed and found to meet the requirements of:

## ISO 45001 : 2018

et est déployé sur les sites suivants :  
and is developed on the following locations:

Rue du Lac Tanganyika, Immeuble Mak Crown, 3ème Etage Appartement N°3  
1053 LES BERGES DU LAC TUNISIE

Usine: ZI Sidi Rezig 7032 TINJA TUNISIE

Ce certificat est valable à compter du (année/mois/jour)  
This certificate is valid from (year/month/day)

2025-06-05

Jusqu'au  
until

2028-04-24

Administrateur d'AFAQ AFNOR INTERNATIONAL  
Administrator of AFAQ AFNOR INTERNATIONAL

M. AUGEREAU-LANDAIS



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Accréditation TUNAC n°3-0003 Certification de Systèmes de Management, TUNAC accréditation n°3-0003, Management Systems Certification  
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# Certificat

## Certificate

N°2022/99985.2

AFAQ AFNOR INTERNATIONAL certifie que le système de management mis en place par :  
AFAQ AFNOR INTERNATIONAL certifies that the management system implemented by:

### SACEM INDUSTRIES SA

pour les activités suivantes :  
for the following activities:

**CONCEPTION, FABRICATION, VENTE, REPARATION ET SERVICES APRES-VENTE  
DE TRANSFORMATEURS DE PUISSANCE MONOPHASES, TRIPHASES ET SPECIAUX  
ET DE TABLEAUX ELECTRIQUES MOYENNE TENSION ET BASSE TENSION.**

**DESIGN, MANUFACTURING, SALE, REPAIR AND AFTER SALES SERVICES  
FOR SINGLE-PHASE, THREE-PHASE AND SPECIAL POWER TRANSFORMERS  
AND MEDIUM AND LOW VOLTAGE ELECTRICAL PANELS.**

a été évalué et jugé conforme aux exigences requises par :  
has been assessed and found to meet the requirements of:

### ISO 14001 : 2015

et est déployé sur les sites suivants :  
and is developed on the following locations:

**Rue du Lac Tanganyika, Immeuble Mak Crown, 3ème Etage Appartement N°3  
1053 LES BERGES DU LAC TUNISIE**

**Usine: ZI Sidi Rezig 7032 TINJA TUNISIE**

Ce certificat est valable à compter du (année/mois/jour)  
This certificate is valid from (year/month/day)

**2025-06-05**

Jusqu'au  
until

**2028-04-22**

**Administrateur d'AFAQ AFNOR INTERNATIONAL**  
Administrator of AFAQ AFNOR INTERNATIONAL

**M. AUGEREAU-LANDAIS**



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The electronic certificate only, available at [www.afnor.org](http://www.afnor.org), attests in real-time that the company is certified.  
Accréditation TUNAC n° 3-0093, Certification de Systèmes de Management TUNAC, accréditation n°3-0093, Management System Certification  
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