



Transformer technical data sheet

ABB Ltd.

10th RAMADAN CITY - EGYPT

Project No:	-	ABB Design No:	TOA-400-24DXCO
Project Name:	-	Refer. Quotation No:	
Customer:	CIABB	Customer Spec.:	-

Rev.	Issued	Approved	Date	Description
0	Yara Tammam	Ashraf Mobarak	10/7/2021	Issue

General Specification				
Transformer Type		Oil Immersed Transformer-	Distribution	
Standard		IEC60076		
Installation		Outdoor		
Expansion Method		Hermetically Sealed		
Oil type		Oil - Mineral - General		
Phase		3		
Frequency	[Hz]	50		
Vector group		Dyn11		
Type of cooling		ONAN		
Altitude (below -)	[m]	1000		
Insulation class		A		
Ambient Temperature (Max)	[°C]	40		
Average Oil Temperature rise	[K]	60		
Average Winding Temperature rise	[K]	65		
Winding		Primary	Primary	Secondary
Rated Power	[kVA]	400	400	400
Rated Voltage @ No load	[V]	20000	15000	400
Maximum system Voltage	[kV]	24	24	1.1
BIL (Basic Impulse Withstand Level)	[kV]	125	125	-
Power Frequency withstand Level	[kV]	50	50	3
Tapping (Off circuit tap changer)		+2x2.5%-2x2.5%	+2x3.33%-2x3.33%	-
Connections		DELTA	DELTA	WYE
Conductor Material		AL	AL	AL
Guaranteed Performance Data	at Nominal Tap, 75@°C	Guarantee Values @20/0.4		
No load loss	[W]	1000	(+15% Tolerance)	
Load loss	[W]	4800	(+15% Tolerance)	
Total loss	[W]	5800	(+10% Tolerance)	
Impedance	[%]	4.5	(±10% Tolerance)	
Preliminary Dimensions, approximately				
Length	[mm]	1300	(±10% allowance)	
Width	[mm]	750	(±10% allowance)	
Height	[mm]	1600	(±10% allowance)	
Oil Weight	[kg]	380	(±10% allowance)	
Total Weight	[kg]	1580	(±10% allowance)	
Accessories:			Tank: Carbon Steel	
- Rating plate , Lifting Lug , Drain Plug , Tanking Earth , Off-Load Tap Changer			Painting: Electrostatic painting	
- Bi-directional roller-(Diameter,C-C) : 125 / 670			Color: RAL7033,80-120µm , C4	
- High Voltage Bushing : Plug-In Bushing 24KV-250			Customer termination:	
- Low Voltage Bushing : Bus Bar Bushing BT1/1600			Primary	Secondary
-DMCR		Terminals IP	IP00	IP00
- Pressure Relief Valve without contact ,T10		Type	via Cable	via Cable
		Position	Top	Top

Notes
- Other accessories which are not mentioned in the above statements are not included.
- Cable connection and termination materials are not included. (e.g. cable lug, flexible bus bar)
- Tests: Routine tests according IEC standard.
- The tolerances for all guaranteed values are subject to IEC standard.
- If no other standards or rules are specified, transformers are manufactured according to IEC standard.

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