AYR ENERGY

Distribution Transformer

Design, engineering and manufacturing of power grid equipments the world runs on.

Custom-engineered • Certified and on-site • 50% faster delivery than industry norms

AYR ENERGY

Pad Mounted Transformers

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Pad Mounted Transformers

Compact liquid-filled units optimized for commercial, residential and utility distribution.

AYR Pad-Mounted Transformers are ground-mounted electrical transformers enclosed in a tamper-proof, weather-resistant metal cabinet as per IEEE Std C57.12.34 /IEEE Std C57.12.28/29, tested in accordance with IEEE Std C57.12.90 & IEEE Std C57.12.00.

Design

HV Bushing Config	• Dead front or live front • Loop feed or radial feed
Fluid Options	• Type II Mineral Oil • Natural ester: Envirotemp™ FR3™ / Bio TRANSOL • Synthetic ester
Standard Gauge/ Accessory Package	• Pressure relief valve • Pressure vacuum gauge • Liquid-level gauge • 1-in NPT upper valve for filling (low-voltage compartment.) • 1-in NPT drain valve with built-in sampling device (low-voltage compartment.) • De-energized tap changer • Liquid temperature indicating device Grounding provisions
Switch Options under insulating	Underinsulating liquid loadbreak switches (200 A, 300 A, or 600 A. min 10 kA rms symmetrical for a minimum of 0.17 s) as per Annex A of IEEE Std C57.12.34 • Loadbreak four-position (STRIGHT / V / T- BLADE) • Loadbreak Two-position

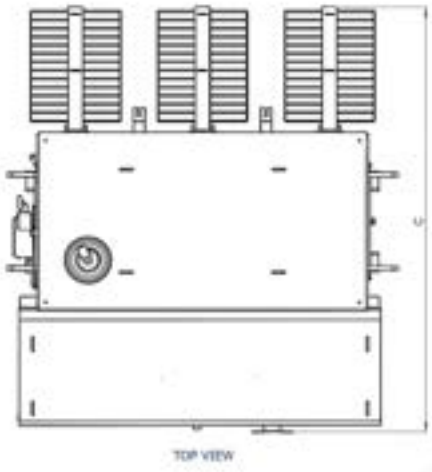
Fusing Options	• Bayonet type fuse canister with cartridge holder in series with current-limiting fuse/Isolation link • Internal cartridge in an insulated holder in series with current-limiting fuse
Construction	• 5 or 3- legged core • Round/oval wound copper or aluminum windings • Carbon reinforced or stainless steel tank • Steel divider between HV and LV cabinets Penta-head captive bolt
Optional Design Features & Accessories	• Gauges w/ Contacts & RS 485 modbus communication • External drain and sample valve • Electrostatic Shielding • K-Factor Design • Step-up/down (bidirectional) Design • Surge-Arresters • IR window • Oil moisture measurement • Dissolved Gas Analyser (DGA) with 2/3/5 or 9 gas options. • PD sensors (1/3 channel) • Dual-voltage (series multiple) switch • Delta-wye switch • Hot-spot thermal sensor—Winding temperature indicator • Hot-spot thermal sensor—Resistor temperature detector • Accessory weather-resistant boxes • Current transformer with RS-485 modbus communication • LV Voltage measurement with RS-485 modbus communication • 30'' Depth compartment • Low-Voltage Circuit Breaker • Low-Voltage Surge Suppressor

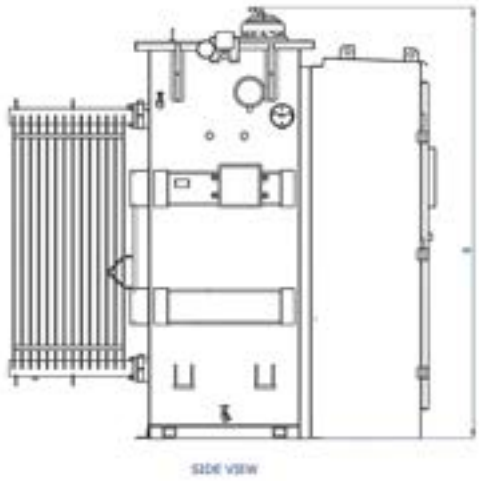
AYR ENERGY

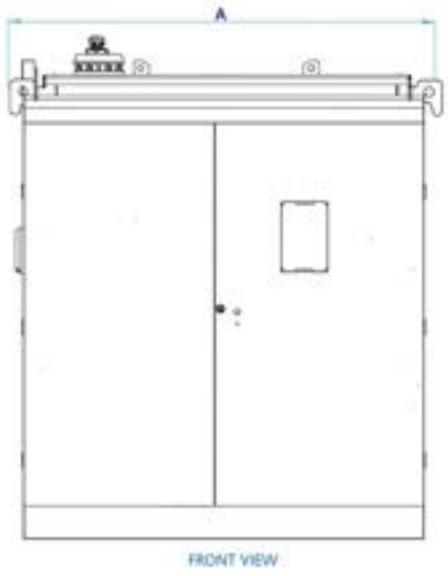
Available Rating

HV Bushing Config	• Upto 10 MVA
Frequency	• 60 Hz
Cooling Class	• ONAN, ONAN/ONAF, KNAN, KNAN/KNAF
Temp Rise	• 55°C, 65°C, 55/65°C, 75°C(With Ntural/synthetic ester) if required.
Voltages	• MV form 2,400 Δ to 46,000 Δ Volts • LV from 208Y/120 to 13,800 Δ Volts • Grd Y or Δ or Y configurations

3D Renders







Transformer Rating (in kVA)	Width A (Inch)	Depth C (Inch)	Height B (Inch)	Content (Gallons)	Total Weight (Lbs.)
45	68	39	58	110	2500
75	68	42	58	112	2700
112.5	70	43	58	120	3000
150	72	45	64	125	3400
225	72	53	64	145	3800
300	72	55	64	165	4200
500	89	55	70	200	5800
750	89	57	70	270	7500
1000	89	65	76	380	8200
1500	89	86	76	410	10500
2000	89	88	76	490	12500
2500	102	89	80	540	14000
3000	105	89	89	555	14500
3750	110	89	89	700	17000

AYR ENERGY

Sub-Station Distribution Transformer

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Sub-Station Distribution Transformer

Engineered for decades of continuous operation, these transformers are designed for high reliability, efficiency, and safety. They step down medium-voltage power from local distribution lines for residential, commercial, and industrial applications.

AYR Sub-Station Distribution Transformers are ground-mounted electrical transformers as per IEEE Std C57.12.00, tested in accordance with IEEE Std C57.12.90.

Design

HV Bushing Config	• Open bushing • Inside ATC / Throat
Fluid Options	• Type II Mineral Oil • Natural ester: Envirotemp™ FR3™ / Bio TRANSOL • Synthetic ester oil
Standard Gauge/ Accessory Package	• Pressure relief valve • Pressure vacuum gauge in Segment 1 • Liquid-level indicating device in Segment 1 • 1-in NPT upper plug (or cap) for filling and pressure testing in Segment 1 • 1-in NPT drain valve with built-in sampling device in Segment 1 • Deenergized tap changer in Segment 1 • Liquid temperature indicating device in Segment 1 • Grounding provisions
Switch Options	• Primary load-interrupter switch (optional)
Fusing Options	• Not Applicable

Construction	• 5 or 3-legged core • Round/oval wound copper or aluminum windings • Carbon reinforced or stainless steel tank
Optional Design Features & Accessories	• Gauges w/Contacts & RS 485 modbus communication • External drain and sample valve • Electrostatic Shielding • K-Factor Design • Step-up/down (bidirectional) Design • Surge-Arresters • IR window • Oil moisture measurement • Dissolved Gas Analyser (DGA) with 2/3/5 or 9 gas options. • PD sensors (1/3 channel) • Dual-voltage (series multiple) switch • Delta-wye switch • Hot-spot thermal sensor—Winding temperature indicator • Hot-spot thermal sensor—Resistor temperature detector • Accessory weather-resistant boxes • Current transformer with RS-485 modbus communication • LV Voltage measurement with RS-485 modbus communication • On load tap changer (LTC) • Sudden pressure relay • Cooling fans (ONAN/ONAF or KNAN/KNAF) • ATC for closed couple switchgear on HV side. • Low-Voltage Circuit Breaker • Low-Voltage Surge Suppressor

Available Rating

Sizes (kVA)	• Upto 20 MVA (STD), Any rating on special request
Frequency	• 60 Hz
Cooling Class	• ONAN, ONAN/ONAF, KNAN, KNAN/KNAF
Temp Rise	• 55°C, 65°C, 55/65°C, 75°C (With Ntural/synthetic ester) if required.
Voltages	• MV form 2,400 Δ to 46,000 Δ Volts • LV from 208Y/120 to 13,800 Δ Volts • Grd Y or Δ or Y configurations

AYR ENERGY

Dry Type Transformer

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Dry Type Transformer

Dry type transformers enhance safety by eliminating flammable or toxic liquids, maintenance-free and pollution-free.

AYR Dry type (Resin cast /VPI) Transformers are ground-mounted electrical transformers as per IEEE Std C57.12.01 ,tested in accordance with IEEE Std C57.12.91.

Design

HV Bushing Config	• Open Terminals
Fluid Options	• Insulation systems : class F, H & C
Standard Gauge/ Accessory Package	• PT100 Winding temperature sensors • Tap links on MV side.
Switch Options	• Environment : E2, C2 & F1
Fusing Options	• Ingrees of protection: up to NEMA 3S
Construction	• 5 or 3- legged core • Round/oval wound copper or aluminum windings
Optional Design Features & Accessories	• Rs.485 modbus communication for winding temperature.

AYR ENERGY

Available Rating

Sizes (kVA)	• Upto 30 MVA
Frequency	• 60 Hz
Cooling Class	• AA,AFA,AA/FA,ANV,GA
Temp Rise	• 75°C, 95°C, 115°C , 135°C & 150°C
Voltages	• MV form 2,400 Δ to 34,500 Δ Volts • LV from 208Y/120 to 13, 800 Δ Volts • Grd Y or Δ or Y configurations