

AGRU-8

SF₆ handling equipment



More recovery and storage capacity on a two-wheel cart

AGRU-8

SF₆ gas recovery unit

amperis

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Recovery, purification, liquid storage and refilling of SF₆ for large-capacity jobs.

Product description



On-board rack for three SF₆ cylinders and control panel

Between the manual cart and the platform unit

The AGRU-8 was created for teams who have outgrown the capacity of manual carts but do not want the bulk or cost of a platform- or trailer-mounted unit. It recovers, temporarily stores, conditions and returns SF₆ from metal-clad switchgear, busbars and individual circuit breakers up to 256 kV, transferring gas at up to 51 kg/h, the fastest rate in its class.

Full service with a single valve

A single valve switches between the recovery, evacuation, purification and regulated refilling modes. The oil-less, direct-drive compressor, with a 1000:1 compression ratio and up to 69 bar, liquefies the SF₆ for on-board storage, backed by a four-stage fan-cooled condenser that sustains liquefaction at high ambient temperatures.

Main features

- Purifies, dries and filters to 0.1 µm during recovery and re-pressurisation: the gas is cleaned twice on every routine.
- Filters can be replaced without disconnecting piping or using special tools.
- Colour-change moisture indicator to monitor the condition of the gas.
- Rack for three cylinders: up to 160 kg on board, or 300 kg with the optional tank.
- Auxiliary connection for external storage with no capacity limit.
- Supplied with 3 m hoses, a lifting eyebolt and a power cord.



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Applications and options



Gas-insulated switchgear, a typical AGRU-8 application

Applications

- Recovery and purification of SF₆ from circuit breakers, switchgear and busbars.
- Evacuation of air and moisture from the equipment before filling.
- Consolidation of partially used SF₆ cylinders.
- Storage of the gas in liquid form on board or in external tanks.
- Regulated refilling of SF₆ equipment.
- Removal of particles, moisture and decomposition by-products from the gas.

Options and upgrades

- PLC control with touchscreen and automatic or manual valve control.
- Stainless steel piping and hoses; DN-20 connections; 6 m hoses.
- Upgraded vacuum compressor: 99.9% recovery instead of 99.6%.
- Vacuum pump upgraded to 40 m³/h; 300 L on-board tank with scale.
- 300 W tank heater with thermostat at 52 °C; electronic scale.
- Special supply voltages on request.

Consumables

The dry (D-1), purification (P-1) and particulate (F-1) filters are replaced every 50 hours of compressor operation; the vacuum pump oil, available in 946 ml and 3780 ml containers, is checked at every start-up.



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AGRU-8 – PERFORMANCE DATA

Designed for	Circuit breakers and switchgear up to 256 kV
SF₆ transfer rate	Up to 51 kg/h
SF₆ residual pressure	Below 1 mbar
Gas recovery	99.6% as standard; 99.9% with the optional vacuum compressor
SF₆ compressor	Oil-less, direct drive, 1000:1; up to 69 bar; 6.6 m ³ /h (60 Hz)
Vacuum compressor	Diaphragm type, 0.24 kW; 5 m ³ /h (60 Hz); ultimate vacuum 20 mbar; optional below 1 mbar
Vacuum pump	25 m ³ /h below 1 mbar; optional 40 m ³ /h; blank-off pressure 0.08 mbar
Evacuation	Air and moisture from the switchgear, hoses and cart before filling
Filtration	Activated alumina (D1 and D2); 5x molecular sieve (P1); 0.1 µm particulate (F1)
On-board storage	3 cylinders, up to 160 kg; optional 300 L tank (300 kg)
External storage	Auxiliary connection for cylinders and tanks rated at least 40 bar

The gas is stored in liquid form at ambient temperature, up to 45.5 °C, without refrigeration.
Performance data as per the manufacturer's current technical datasheet.



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AGRU-8 – TECHNICAL SPECIFICATIONS

Type	Portable SF ₆ gas recovery unit on a two-wheel cart
Compressor	Three oil-less high-pressure single stages; 0.5 kW motor at 3450 rpm
Suction regulator	Brass body, 0-2 bar
Equalisation circuit	Allows the compressor to restart under high pressure
Check valves	Nine, brass
Condenser	High-efficiency, 4-stage, fan-cooled
Discharge pressure switch	Automatic cut-off on reaching the maximum allowable pressure
Vacuum pump	1.1 kW motor, 1750 rpm; non-return, isolation, gas ballast and oil return
Maintenance	D-1, P-1 and F-1 filters every 50 h of compressor operation; pump oil checked at every start-up
Hoses	3 m, with hook; 6 m and stainless steel braided options
Options	PLC with touchscreen; stainless steel; 300 W heater (52 °C); scale; DN-20
Power supply	220 V, single-phase, 50/60 Hz; other voltages on request
Dimensions (H × W × D)	1900 × 1140 × 1470 mm
Weight	432 kg
Mobility	Reinforced two-wheel cart, with lifting eyebolt



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