

Vacuum Oil-Purifiers

AEHV

HIGHEST ACCURACY & LOWEST COST



AEHV

amperis

www.amperis.com

 AMPERIS PRODUCTS S.L
Agricultura,34
27003, Lugo, España

 **Contact**

+T [+34] 982 20 99 20 | F [+34] 982 20 99 11
info@amperis.com | www.amperis.com

The most important applications of high vacuum degasifiers are in the field of extra high voltage transmission and in the manufacture of electrical apparatus for it. In addition, the high vacuum process is used in the degasification of cable oils including polybutenes. Outside of the electrical industry, this process is used for dehydration and degasification of oils for radar and electronic equipment, vacuum pump sealing oils, brake fluids, refrigeration oils—including phosphate esters and silicones. Amperis offers the AEHV Vacuum Oil-Purifier series designed for maximum efficiency in your operations...performance tested by experts, requiring minimum maintenance, and providing long, trouble-free service. Backed by the full resources of Amperis' technical specialists, plus "know-how" and thorough research, your Vacuum Oil-Purifier is unique. Designed for unattended operation and suitable for operation on energized equipment—complete monitoring equipment is also available.

Description of Process:

Oil is introduced into the vacuum chamber, where water, dissolved air and gases, and other low-boiling-range volatile contaminants are removed. Special chemically-inert accelerator cartridges in the vacuum chamber are employed to serve the following functions:

1. First, their in-depth design structure allows free water to be rapidly separated from oil by coalescence even before it reaches the evaporation stage.
2. Second, millions of glass fibers 3-10 micrometer diameter provide a large total surface area for exposure of the thin oil film to the vacuum.
3. Third, sharp points of the glass fibers promote fast release of gases and vapors from oil.
4. Fourth, the elements act as a fine filter removing solid contaminants. The cartridges are easily replaced and disposable.

This method is more efficient than previously used spray nozzles and baffles which required several passes to obtain the same degree of degasification.



Performance:

The typical performance achieved with the AEHV series is:

- Dehydration—at minimum oil temperatures of 27°C the water removal is from 50 ppm to less than 5 ppm.
- Degasification—reduce soluble air content from full saturation of approximately 12% to less than 0.25%.
- Particulate matter—standard after-filter provides filtration down to 0.5 micron.

Other contaminants such as products of oil oxidation, thermal degradation, dissolved varnishes, paints and acids can be removed by the addition of optional Fullers Earth filters to the system.

Standar and Special Options for AEHV

Standard Configuration:

Unattended operation
Oil level controller
Foam controller
TEFC motors
Mechanical seal oil pumps
Low watt density heaters
IP52 central control panel
Welded steel piping
Exclusive processing chamber
PLC control
0.5 micron after-filter

Special Options:

Extra heater capacity for faster temperature rise
Outlet heater to assist in maintaining transformer temperature
Diesel or gas boiler to minimise power consumption
Onboard power generator
Onboard Fullers Earth system (E575A series)
Inline dielectric strength tester
Inline RGA
Fully air-conditioned operators cabin
Remote monitoring
Wireless emergency dialout
Touchscreen MMI

TOLMS (Transformer Oil Level Monitoring System)
Reverse flow changeover valves
Mini-dehydrator for vacuum pump oil conditioning
Hose storage reels
Power cable storage reel
Multi-voltage power input
Interstage condenser
Refrigerated cold trap
Full aluminium trailer, from tagalong up to 16m semi-trailer
Soft-side tarpaulin tagalong trailer
EEx or NEMA 7 explosion-proof
Full stainless steel option

Model Nomenclature Chart for AEHV

AEHV - - - -

Heater kW/25°C rise
3
11
16
32
64
96
128
160
192

Option	Code	Features
Filters	P	5 micron pre-filter
Instrumentation	T	Electronic flow totaliser
	M	Electronic flow meter
	H1	Outlet hygrometer
	H2	Inlet and outlet hygrometer
	C1	Vacuum controller
Miscellaneous	W	Caster-mounted
	B	Circuit breakers
	V	Viton gaskets

Option	Code	Features
Electrical input	11	110 V, 1 phase, 50 or 60 Hz
	22	220 V, 1 phase, 50 Hz or 220 V, 3 phase, 60 Hz
	24	240 V, 1 phase, 50 Hz
	38	380 V, 3 phase, 50 Hz
	41	415 V, 3 phase, 50 Hz
	46	460 V, 3 phase, 60 Hz
	57	575 V, 3 phase, 60 Hz
Special	X	Custom engineering

Model number	Oilflow (l/h)	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Total power (kW)	Inlet (mm)	Outlet (mm)	Suggested oil treatment mass (Kg)	Vacuum pump capacity (m³/h)	With Roots booster Option 'VB' (m³/h)
200	200	1120	960	1580	685	6	19	12	850	25	150
500	500	2030	1220	1780	700	15	19	12	2500	40	250
1000	1000	2030	1220	1780	750	21	25	19	5000	65	450
2000	2000	2080	1320	1780	1200	40	25	19	10000	100	450
4000	4000	2310	1570	1980	2270	75	40	25	20000	200	900
6000	6000	2590	1830	1980	3000	110	40	40	30000	300	1450
8000	8000	3000	1830	2200	3700	146	50	40	40000	400	2700
10000	10000	3000	1830	2200	4250	185	50	50	50000	500	2700
12000	12000	4000	2000	2200	5000	225	50	50	60000	600	4500