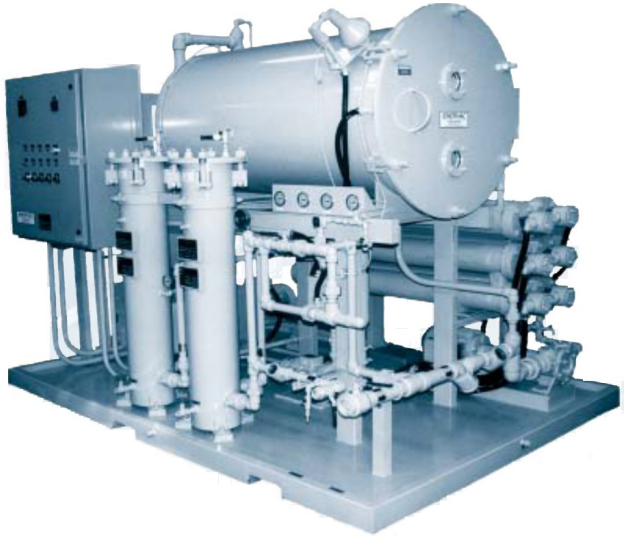
# AEHV

HIGHEST ACCURACY & LOWEST COST



Vacuum Oil-Purifiers

# AEHV

amperis

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The most important applications of high vacuum degasifiers are inthe field of extra high voltage transmission and in the manufacture of electrical apparatus for it. In addition, the high vacuum process isused in the degasification of cable oils including polybutenes. Outsideof 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 thevacuum 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 theevaporation 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 gasesand 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.

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# Standar and Special Options for AEHV

**Standard Configuration:**

- Unattendedoperation
- Oillevelcontroller
- Foamcontroller
- TEFC motors
- Mechanical seal oil pumps
- Low watt density heaters
- IP52 central control panel
- Welded steel piping
- Exclusive processing chamber
- PLC control
- 0.5 micronafter-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 stainlesssteeloption

# Model Nomenclature Chart for AEHV

**AEHV -_____ -_____ - _____ - _____**

| Heater kW25°C rise |
|---|
| 3 |
| 11 |
| 16 |
| 32 |
| 64 |
| 96 |
| 128 |
| 160 |
| 192 |

| Option | Code | Features |
|---|---|---|
| Filters | P | 5 micron pre-filter |
| Instrumentation | T | Electronicflowtotaliser |
| | M | Electronicflow meter |
| | H1 | Outlethygrometer |
| | H2 | Inlet and outlethygrometer |
| | C1 | Vacuumcontroller |
| Miscellaneous | W | Caster-mounted |
| | B | Circuitbreakers |
| | V | Vitongaskets |

| Option | Code | Features |
|---|---|---|
| Electrical input | 11 | 110 V, 1 phase, 50 or 60 Hz |
| | 22 | 220 V, 1 phase, 50 Hz or220 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 | Customengineering |

| Model number | Oilflow (l/h) | Length (mm) | Width (mm) | Height (mm) | Weight (kg) | Totalpower (kW) | Inlet (mm) | Outlet (mm) | Suggested oil treatment mass (Kg) | Vacuum pump capacity ($m^3$/h) | With Roots booster Option 'VB' ($m^3$/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 |

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