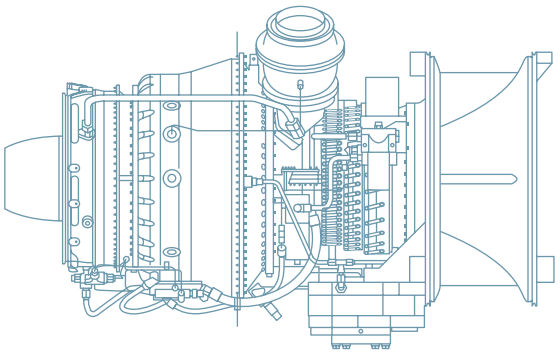
VERICOR

Vericor Power Systems
An MTU Aero Engines Company

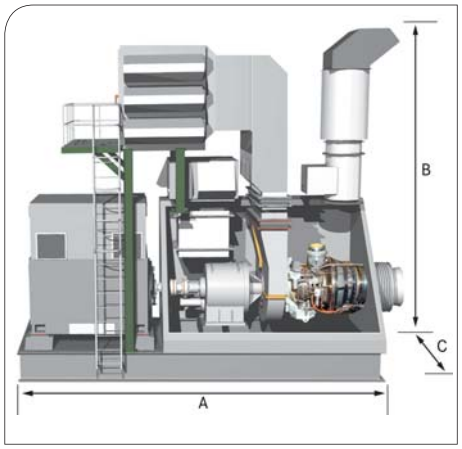
VPS series generator sets for power generation and cogeneration (CHP)



VPS1–487 kW/ VPS3–3,086 kW/ VPS4–3,451 kW

VPS series generator sets
The heart of our generator sets are the reliable ASE™ aeroderivative gas turbines. Our engines originate from the time-tested Lycoming and Garrett gas turbines that have been in service for more than 30 years in a wide variety of industrial, military and commercial marine applications. A fleet of some 600 installations have logged more than 1.5 million operating hours. Our gas turbines feature a compact cold end drive design. A flexible on-condition maintenance plan assures high availability.

Worldwide support 24/7
Customer support is a key part of Vericor's product offerings. Dedicated and responsive customer support teams work to ensure reliable and cost-effective operation. Each customer is assigned a Customer Service Manager (CSM) who is responsible for all support needs 24 hours a day, seven days a week.



Power generation

		VPS1	VPS3	VPS4
Nominal performance*		Natural gas	Natural gas	Natural gas
Output power	kW	487	3,086	3,451
Heat rate	Btu/kWh	16,751	12,716	12,025
	kJ/kWh	17,671	13,415	12,686
Thermal efficiency	%	20.4	26.8	28.4
Fuel flow	lbs/h	397	1,910	2,020
	kg/h	180	866	916
Fuel pressure	psig	250/300	200/250	250/300
required (min./max.)	kPA	1,723/2,068	1,379/1,723	1,723/2,068
Exhaust gas flow	lbs/s	7.8	28.0	30.1
	kg/s	3.56	12.7	13.7
Exhaust gas	F	913	1,115	1,080
temperature	°C	489	602	582
Length (A)	ft	14.00	25.30	25.30
	m	4.27	7.72	7.72
Height (B)	ft	14.10	20.00	20.00
	m	4.29	6.10	6.10
Width (C)	ft	8.50	8.60	8.60
	m	2.59	2.64	2.64

* 59 F, sea level, RH60%, 3" inlet/4" exhaust losses, generator and gear losses included; LHV: 20,548 Btu/lb., 47,486 kj/kg.

VPS series scope of supply

Standard equipment	Optional equipment
ASE series gas turbine	Gas turbine water wash system
Epicyclic reduction gear box (1,800 rpm)	Epicyclic reduction gear box (1,500 rpm)
Generator (synchronous, 60 Hz, 4,160 V, AC), WPII	Open ventilated and totally enclosed water-to-air cooled (TEWAC) enclosures, 50 Hz, other voltages, high voltage generator switchgear
Natural gas fuel system	Distillate fuel system, dual fuel system, fuel gas conditioning skid, fuel gas compressor, water injection system
Lube system (water cooled)	Oil/Air cooler
Electro hydraulic start system	Black start system
Structural steel base, weatherproof acoustic enclosure (gas turbine, reduction gearbox) with ventilation air system	No enclosure, no fire and combustible gas detection or suppression systems
Combustion air intake system (barrier filter)	Self cleaning filter, chilling, evaporative cooling
Allen Bradley PLC	Generator controls, MCC, HMI-Station, uninterruptible power supply (UPS), control room building, remote control interfaces
Exhaust gas diffuser and expansion metal bellows	Exhaust silencer, stack, heat recovery steam generator (20,000 - 65,000 lbs/h)

About Vericor
Vericor is an MTU Aero Engines company based in Alpharetta, Georgia, U.S.A. Vericor supplies gas turbines, systems and related services for marine, oil and gas and power generation customers. Vericor is dedicated to being responsive, flexible and easy to work with while providing quality, cost-effective solutions and services.

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