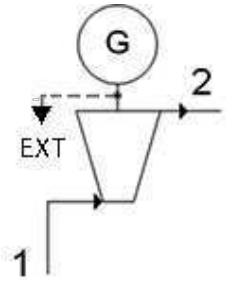
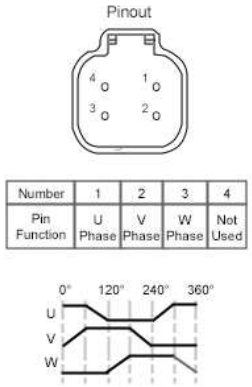
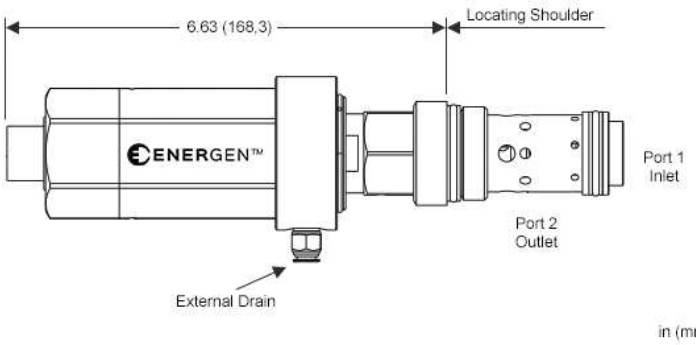
MODEL
EVEC

2-port energy harvester valve
SERIES 3 / CAPACITY: 200 L/min. / CAVITY: T-16A

sunhydraulics.com/model/EVEC







This valve is a 2 port cartridge designed to convert hydraulic power from your application into electrical power. The valve accepts flow from Port 1 to Port 2 and outputs a 3-phase AC voltage signal.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Cavity	T-16A
Series	3
Capacity	200 L/min.
Number of Outputs	1
Vibration	33.3 Hz 6.8g Peak (Spec: S-367 Section 11.0)
Shock	49g Peak (Spec: S-367 Section 12.0)
Maximum Ambient Temperature	160 °F
Minimum Flow Rate to Harvest Energy (No Load)	40 L/min.
External Drain Port Interface	4mm PTC Connector
External Drain Port Leakage Rate	6 drops/hr
Output Voltage - Maximum Flow Rate	30 VDC (After Rectification)
Termination	Deutsch DT04-4P
Maximum Load Current	3A
Maximum Operating Pressure (Port 2)	14 bar
Duty Cycle Rating	100 %
Connector	4-Pin Deutsch (3 Phase AC Output)
Valve Hex Size	31,8 mm
Valve Installation Torque	203 - 217 Nm
IP Rating	IP69K
Seal kit - Cartridge	Viton: 990316006
Model Weight	1.07 kg.

CONFIGURATION OPTIONS

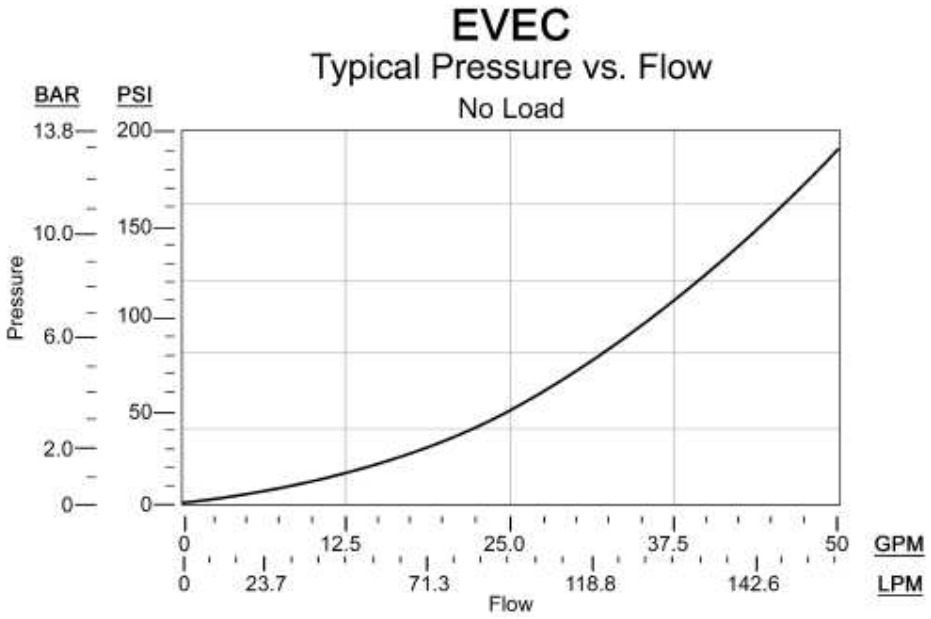
Model Code Example: EVECXXV

CONTROL	(X)	FUNCTIONAL SETTING RANGE	(X)	SEAL MATERIAL	(V)
X Standard		**X** No Check		**V** Viton	

TECHNICAL FEATURES

- Power cable with mating connector is required (not included).
- The valve exhibits up to 6 drops per hour of internal leakage into the electronics housing. The auxiliary drain port must be gravity fed and therefore remain at atmospheric pressure to prevent submersion of the electronics.
- Valve must be installed in an upright or horizontal orientation. When installed horizontally, the collar should be positioned so that the drain is oriented downward.
- This product can handle a maximum of 200 PSI (14 bar) at port 2 and is designed to harvest energy from fluid destined to return to tank.
- Higher electrical loads and lower Port 2 pressure have a positive effect in reducing leakage.
- In addition to elevated leakage, higher than rated pressures at Port 2 result in a reduction in the power output.
- The electrical output is unregulated. Most applications will require external rectification/regulation. Please visit our technical tips for off-the-shelf suggestions on rectification/regulation for 12V systems.
- Meets new NFPA test standard T2.6.1 R2014 for fatigue and burst pressure ratings.
- Zinc-nickel plating standard for 1000-hour salt fog protection.
- Only 3 pins of the Deutsch DT04-4P Connector are used. The 4th pin is unused. Please see pinout for reference.
- Do not apply installation torque to the anodized aluminum motor housing.
- This valve is CE compliant. It meets the requirements for RF Radiated Emissions (IEC 61000-6-4), Radiated Immunity (IEC 61000-4-3), and Magnetic Field Immunity (IEC 61000-4-8).
- When torquing this cartridge into its cavity, a crow's foot wrench or similar will be required since the motor housing precludes the use of a deep socket wrench.

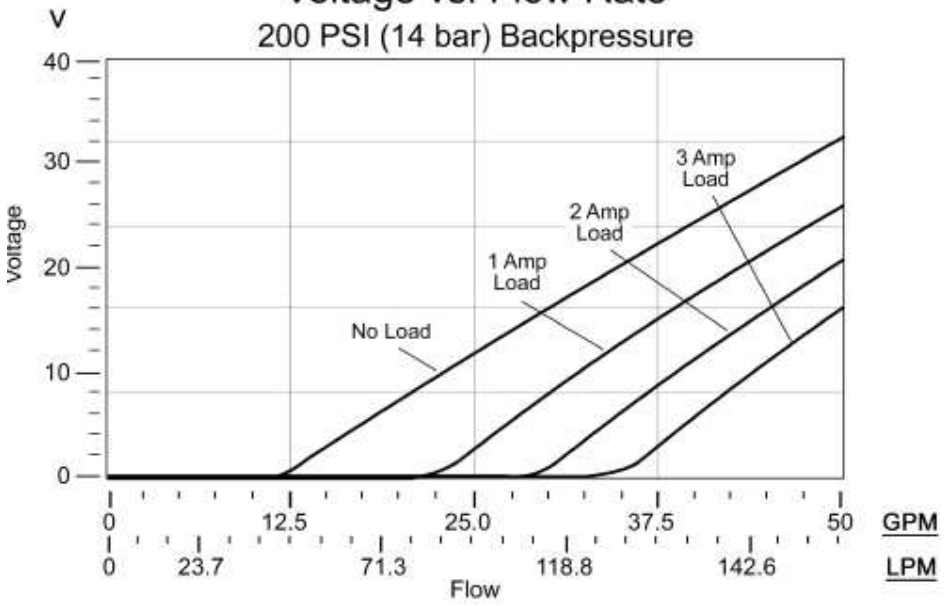
PERFORMANCE CURVES



EVEC

Voltage vs. Flow Rate

200 PSI (14 bar) Backpressure



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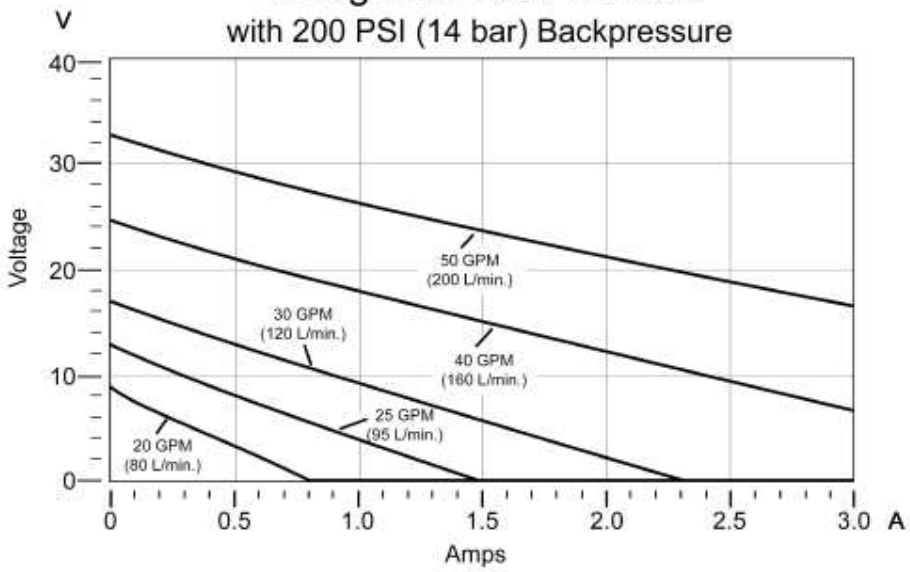
Voltage vs. Load Current

with 200 PSI (14 bar) Backpressure



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Power Output vs. Load Current

with 200 PSI (14 bar) Backpressure