

ecoline™



ENERGEN™

generate +
recover energy



Rev. 2025-11

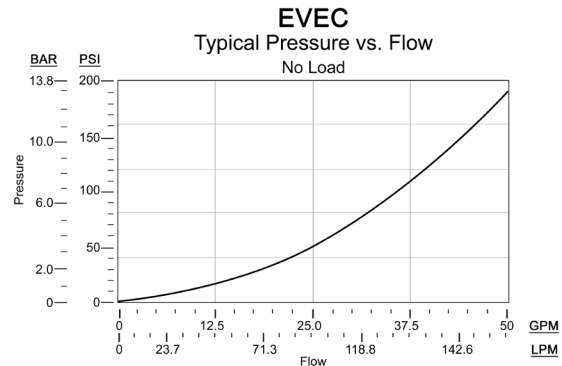
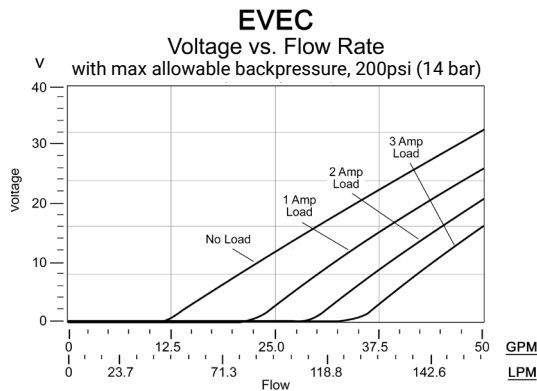
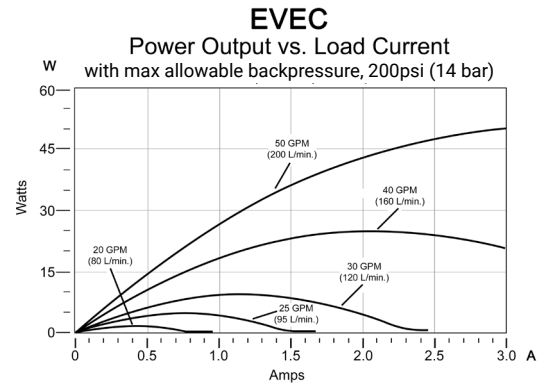
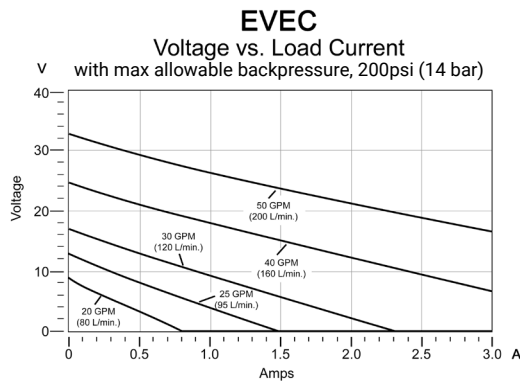
 **hydraulics®**

A HELIOS TECHNOLOGIES COMPANY

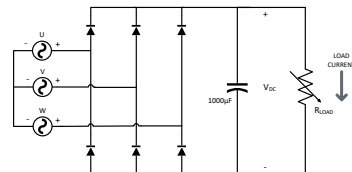


GENERATE + RECOVER ENERGY

Energen™ is the new energy harvester cartridge valve designed to convert hydraulic power from your application into electrical power. Composed of an integrated generator, Energen™ delivers a robust approach to local and remote electrical power generation.

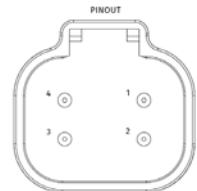
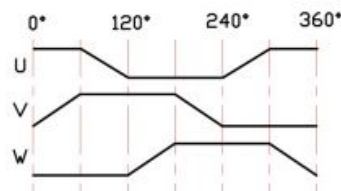


Electrical performance curves (above) were generated using a 3-phase, full-wave, silicon passivated rectifier circuit, as shown here:



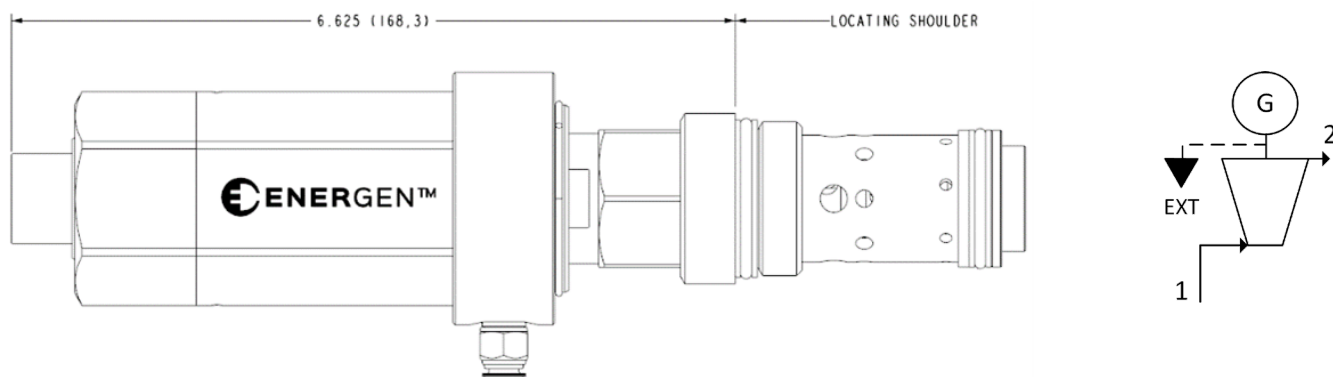
Electrical Pinout

Number	1	2	3	4
Pin Function	U Phase	V Phase	W Phase	Unused



Energen™ Benefits & Features

- Power generation in cartridge valves for sensors, solenoid valves, and other electronics
- Generates power for attachments or implements where the harness can be damaged improving reliability and safety



Energen™ Technical Data

Cavity (Series)	T-16A (Series 3)
Maximum Operating Pressure Port 2	200 PSI (14 bar)
Maximum Flow Rate	50 GPM (200 L/min.)
Maximum Power Output @ 50 GPM (200 L/min.)	42 W
External Drain Port	4mm OD push-to-connect tube fitting
External Drain Port Leakage Rate	6 drops/hour
Connector	4-Pin Deutsch (3 Phase AC output)
Maximum Current Draw	3A
Number of Outputs	1
Duty Cycle Rating	100%
Vibration	33.3 Hz 6.8g Peak (Spec: S-367.11.0)
Shock	49g Peak (Spec: S-367-12-0)
IP Rating	IP69K

about ecoline™

As a leading manufacturer of high-performance cartridge valves and integrated packages, Sun Hydraulics has gathered a collection of innovative solutions proven to significantly boost and improve energy efficiency, reduce fuel consumption, and ultimately provide cost savings for the end user.

Sun's ecoline™ program is comprised of popular products such as the LoadMatch™ cartridge valve, LoadAdaptive™, Series 4 PLUS cartridges, T-18AU & T-19 AU cavities, Sun Cavity & QuickDesign™, Energen and the latest ecofriendly addition, the eSense™ solution. Contact us to learn more about ecoline™ and how these products can optimize the efficiency of your application.



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