

SnowPure

High Technology Water

SnowPure, LLC ♦ 130-A Calle Iglesia ♦ San Clemente, CA 92672 USA ♦ +1.949.240.2188 ♦ www.snowpure.com

DC Power Supply Requirements

The EDI power supply should be a regulated DC power supply with enough power to cover typical and extreme operating conditions.

SnowPure recommends a constant voltage setting, allowing the current to float with varying EDI feedwater conditions. Voltage range should include the standard (and, if needed, regeneration) condition. The power supply should have current-limiting capability to protect itself and the EDI module(s). Each EDI module may be separately fused.

Current draw depends on the FCE (Feed Conductivity Equivalent, or ionic load) of the RO permeate and the EDI water recovery. There should be excess power capability designed in to cover higher current in case module regeneration is needed, or if RO permeate conductivity increases with system age.

Important: for protection there must be a system interlock to turn the POWER OFF in case of NO WATER FLOW. The interlock may be controllable from a remote source such as a PLC or an open/close switch (e.g., flow or pressure switch). The power supply may have internal diagnostics and an alarm relay output. AC noise (ripple) can be up to 5%. AC low- and high-frequency ripple may affect the readings of local electronic instruments, such as conductivity or resistivity meters.

Power supply should conform to UL, CSA, or CE as required by local code. Sizing, Power Factor Correction (PFC), and EMI wiring and shielding also to be in accordance with NEC/local code.. If NEMA rating is required, the NEMA enclosure must have enough heat removal to keep the power supply cool. Note: AC input power will be about 10% higher than the rated DC power output.

Module(s)	Typical Operating Voltage, DC	Typical Current with 4 ppm RO permeate	Maximum Voltage, DC	Maximum Current with 10 ppm RO permeate	Approximate Power Rating
Zap-10	24V*	.075 A	n/a	.150 A	18 W
Zap-20	48V*	.075 A	n/a	.150 A	40 W
1 XL-060-L	48V**	2-3 Amps	n/a**	8 Amps	500 W
1 XL-100	48V**	2-3 Amps	n/a**	8 Amps	500 W
1 XL-200	100V	2-3 Amps	120V	8 Amps	1 kW
1 XL-300	150V	2-3 Amps	200V	8 Amps	1.5 kW
1 XL-400	200V	2-3 Amps	250V	8 Amps	2 kW
1 XL-500	300V	2-3 Amps	400V	8 Amps	3 kW
3 XL-500	300V	6-9 Amps	400V	24 Amps	3 kW/module
EXL-600	300V	2-3 Amps	400V	8 Amps	3 kW
EXL-700	500V	2-3 Amps	600V	8 Amps	5 kW
5 EXL-700	500V	10-15 Amps	600V	40 Amps	5 kW/module

* Zap modules come with a dedicated universal DC power supply

** XL-060 and XL-100 can use SnowPure's 48V fixed voltage 500W supply