

August 2016

## Reliability - Simplicity - Isolation

The ECS Economy Power Supply is the low-cost solution for many of the difficulties that can be encountered when powering 24V process instrumentation. It is an ideal process loop component for use with noise-prone 2-wire transmitters and data communications equipment, in most cases exceeding performance specifications of higher-priced supplies.

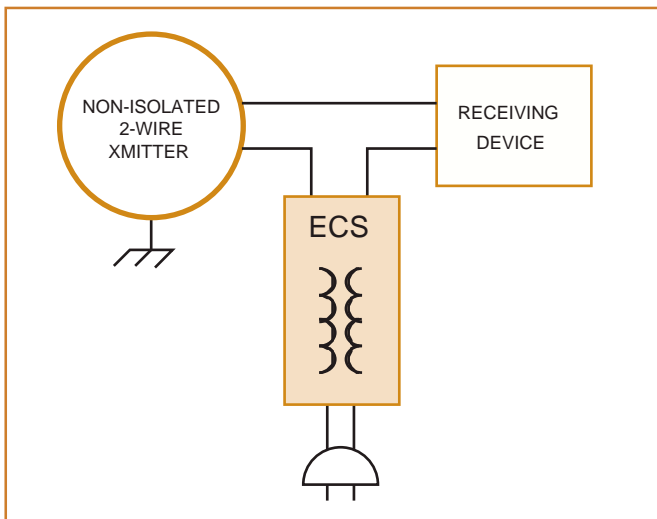
**Protect Your Investment**—ECS outputs incorporate full-time short-circuit and overload protection. Liberal use of heat sinking materials and case venting mean burn-out is not a problem.

**Protect Loop Accuracy**—Unit power-to-output isolation is 2500Vrms, standard. Ground loops between power source and transmitter are eliminated.

**Safeguard Sensitive Signals**—Superior line and load regulating capabilities protect surge-sensitive transmitters and data modules from line irregularities. Noise and resultant data loss due to line power fluctuation is effectively under control.

## Two Drives From Which to Choose

The ECS is available in both 70 and 200mA models covering a wide range process instruments' power requirements and loop loads.



**Figure 1.** The ECS Power Supply provides a high degree of operating isolation in a compact, economical housing.



**Compact thermoplastic housing snaps** quickly and securely onto standard G-type and Top Hat rails.

## Features

- **Superior Isolation.** 2500Vrms protection means process signals will not be affected by even severe ground loops, motor noise, or other electrical transients.
- **Switchable Line Powering.** The standard ECS, while configured at the factory according to customers' specified 117Vac or 230Vac, can be field-reconfigured.
- **Simple Adjustability.** Calibrate the ECS to meet your requirements. The front panel potentiometer provides  $\pm 10\%$  voltage output variance.

## Full Line of Power Supplies

Moore Industries offers a comprehensive line of power supplies including: the DIN-mounted DPS family; the PPS, PPX, and SPS available with angle bracketing and explosion-proof enclosures; and the SMP surface mount unit, designed to work with rack-mounted instrumentation.

## Specifications

<b>Performance</b> <b>Efficiency:</b> 75%, typical, rated at full load <b>Output Regulation:</b> $\pm 0.1\%$ for a $\pm 10\%$ line variation <b>Load Regulation:</b> $\pm 0.5\%$ from 0 to 100% of load <b>Ripple:</b> 50mV, peak-to-peak, maximum <b>Input Frequency:</b> 50 to 60Hz	<b>Performance (continued)</b>  <b>Ambient Conditions</b>	<b>Isolation:</b> 2500Vrms, supply to output  <b>Ambient Temperature Operating Range:</b> 70mA units, $-40$ to $+80$ °C ( $-40$ to $+176$ °F) 200mA units, $-20$ to $+65$ °C ( $-4$ to $+149$ °F)  <b>Ambient Temperature Effect:</b> $\pm 0.03\%$ of output per °C change, for both 70 and 200mA units	<b>Adjustments</b> Multi-turn potentiometer on front panel adjusts output voltage $\pm 10\%$ of span  <b>Weight</b>
	<b>70mA ECS:</b> 167 grams (5.9 oz) <b>200mA ECS:</b> 272 grams (9.6 oz)		

## Ordering Information

Unit	Voltage Output	Current Output	Power Input	Housing
<b>ECS</b> Economy Power Supply	<b>24VDC</b>	<b>70MA</b> <b>200MA</b>	<b>117AC <math>\pm 10\%</math></b> <b>230AC <math>\pm 10\%</math></b>  Power can be switched from one AC voltage to the other in the field by repositioning internal jumper	<b>ECD</b> Thermoplastic, economy DIN-style housing mounts on both 32mm G-type (EN50035) and 35mm Top Hat (EN50022) rail

**When ordering, specify:** Unit / Voltage Output / Current Output / Power Input [Housing]

**Model number example:** ECS / 24DC / 70MA / 117AC [ECD]

Figure 2. ECS Installation Dimensions

