Power Supplies



For 3-Wire Flat Packs



35PS Power Supplies

These units provide power for DC-powered transmitters, isolators, and alarm relays.

The 35PS power supply is designed for use with the 300 series family of DC-powered instruments. It features compact packaging and supports high-density mounting on DIN rails. The output is diode-coupled, allowing supplies to be connected in parallel, for additional current capacity or for systems requiring automatic power source redundancy. Two LEDs are located on the front panel; green to indicate power and red to indicate an overcurrent condition.

The -2U models (25mm wide) are able to power two 350T transmitters with 4-20mA outputs or seven 350T transmitters with voltage outputs. The -8U supplies (40mm wide) are able to power eight 350T transmitters with 4-20mA outputs or twenty-eight 350T transmitter units with voltage outputs.

Model	35PS-2U	35PS-8U
350T Transmitter (4-20mA out)	Drives 2 units	Drives 8 units
350T Transmitter (VDC out)	Drives 7 units	Drives 28 units
340i Isolator	Drives 2 units	Drives 8 units
330i Isolator	N/A	Drives 3 units
361A Alarm (single relay)	Drives 2 unit	Drives 8 units
361A Alarm (dual relays)	Drives 1 unit	Drives 5 units

Performance

Output

35PS-2U: Regulated 15V DC at 70mA 35PS-8U: Regulated 15V DC at 280mA

Power requirement

- -1: 115V AC, ±10%, 50/60Hz (35PS-2U: 0.05A, 35PS-8U: 0.10A)
- -2: 230V AC, ±10%, 50/60Hz (35PS-2U: 0.025A, 35PS-8U: 0.05A)
- -10: 10 to 36V DC, 2.4W max. Current draw is a function of the supply voltage.

Supply voltage	Current (-10 option)
10V	240mA
12V	165mA
15V	125mA
24V	75mA
36V	55mA

Ambient temperature range

-13 to 185°F (-25 to 85°C)

For DC-powered (-10) unit, derate max output current above 70°C to 50mA at 85°C.

Isolation

DC output circuit is electrically isolated from the input AC/DC power circuits. Sustains 1500V AC isolation breakdown test between power and output. Complies with test requirements outlined in ANSI/ISA-S82.01-1988 for the voltages specified.

Power output protection

Overcurrent protection:

35PS-2U output limited to 95mA, typical 35PS-8U output limited to 300mA, typical Supply can sustain a continuous short circuit.

Overvoltage protection: Supply is limited at 30V DC.

Redundancy: Output is diode-coupled, allowing supplies to be connected in parallel for systems requiring automatic redundancy.

LED indicators

Green LED indicates power applied. Red indicates excessive current is being drawn from the supply.

RFI resistance

Less than ±0.5%, of output span effect with RFI field strengths of up to 10V/meter at frequencies of 27, 151 and 467 MHz.

EMI resistance

Less than ±0.25% of output span effect with switching solenoids or commutator motors.

Surge withstand capability (SWC)

Power/output terminations rated per ANSI/IEEE C37.90-1978. Unit is tested to a standardized test waveform that is representative of surges (high frequency transient electrical interference), observed in actual installations.

Construction

Circuit boards: Military grade FR-4 epoxy glass. Terminals: Compression type, 14 AWG max. Case: Self-extinguishing NYLON Type 6.6 polyamide thermoplastic UL94V-2, color black. General Purpose, NEMA Type 1 enclosure.

Mounting position: Position insensitive.

Ordering Information

35PS-2U-1-DIN-NCR

15V DC @ 70mA output, 115V AC power, DIN rail mounting

35PS-2U-2-DIN-NCR

Same as above, except 230V AC power

35PS-2U-10-DIN-NCR

Same as above, except 10 to 36V DC power, isolated DC-to-DC converter.

35PS-8U-1-DIN-NCR

15V DC @ 280mA output, 115V AC power, DIN rail mounting

35PS-8U-2-DIN-NCR

Same as above, except 230V AC power



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Dimensions



