## Signet 7300 Switching Power Supplies



Signet 7300 Switching Power Supplies provide regulated output voltage in compact and lightweight plastic housings that can be DIN Rail or surface mounted. The series includes five different output capacities from 300 mA to $4.2 \mathrm{~A}(7.5 \mathrm{~W}$ to 100 W ), all of which accept universal AC line voltage input and meet worldwide standards for performance and safety. These units meet the power requirements for a single system, multiple Signet instruments or other devices requiring 24 VDC operation.

## Features

- Regulated 24 VDC output voltage
- Five output capacities: $\mathbf{3 0 0} \mathrm{mA}, 600 \mathrm{~mA}, 1.3 \mathrm{~A}$, 2.1 A and 4.2 A
- DIN rail or surface mount
- Universal AC input (85 to 264 VAC)
- DC compatible input (105 to 370 VDC)
- Fused input
- Auto resetting output overcurrent protection
- Unique spring-up, finger-safe terminals
- Short-circuit protection
- Output voltage adjust ( $\mathbf{\pm} \mathbf{1 0 \%}$ )
- Light-weight plastic housing
$c \epsilon$
CNUS


## Compatibility

- Signet Instruments
- Electromagnetic Flow Sensors
- Suitable for Electric Actuated Valves, including Solenoid
- Suitable for powering passive outputs and relays

|  | 7300-7524 | 7300-1524 | 7300-3024 | 7300-5024 | 7300-1024 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Output Capacity | 300 mA | 600 mA | 1.3 A | 2.1 A | 4.2 A |
| General |  |  |  |  |  |
| Operation Indicator | LED |  |  |  |  |
| Dielectric Strength | Between input and output terminals: 3,000 VAC, 1 minute |  |  |  |  |
|  | Between input terminals and housing: 2,000 VAC, 1 minute |  |  |  |  |
|  | Between output terminals and housing: 500 VAC, 1 minute |  |  |  |  |
| Insulation Resistance | Between input and output terminals/input terminals and housing: $100 \mathrm{M} \Omega \mathrm{min}$. ( 500 VDC megger) |  |  |  |  |
| Termination | Spring-up, finger safe terminals with captive M3.5 screws |  |  |  |  |
| Materials | Housing: PPHOX (polyphenylene oxide) |  |  |  |  |
| Mounting | DIN Rail or Surface Mount |  |  |  |  |
| Dimensions (L/W/H) | 75/45/70 mm | 75/45/95 mm | 75/90/95 mm | 75/90/95 mm | 75/145/95 mm |
|  | 2.9/1.7/2.7 in. | 2.9/1.7/3.7 in. | 2.9/3.5/3.7 in. | 2.9/3.5/3.7 in. | 2.9/5.7/3.7 in. |
| Package Dimensions (L/W/H) | 108/82/51 mm | 133/89/51 mm | 133/95/89 mm | 133/95/89 mm | 209/101/89 mm |
|  | 4.25/3.25/2.0 in. | 5.25/3.5/2.0 in. | 5.25/3.75/3.5 in. | 5.25/3.75/3.5 in. | 8.25/4.0/3.5 in. |
| Input |  |  |  |  |  |
| Input Voltage | 100 to 240 VAC nominal ( 85 to 264 VAC ), $\pm 10 \%$ regulated, $50 / 60 \mathrm{~Hz}(47$ to 63 Hz ) |  |  |  |  |
| Input Current (typical) | 0.17 A @ 100 VAC | 0.3 A @ 100 VAC | 0.68 A @ 100 VAC | 1.15 A @ 100 VAC | 2.5 A @ 100 VAC |
| Internal Fuse Rating | 2 A | 2 A | 3.15 A | 3.15 A | 4 A |
| Inrush Current | 50 A maximum lat cold start at 200 VAC |  |  |  |  |
| Leakage Current (at no load) | 0.75 mA maximum ( 60 Hz , measured in conformance with UL, CSA, VDE) |  |  |  |  |
| Typical Efficiency | $75 \%$ at 24 V | $79 \%$ at 24 V | $75 \%$ at 24 V | $79 \%$ at 24 V | $85 \%$ at 24 V |
| Overvoltage Protection | Outputs turn off at 105\% (typical) |  |  |  |  |
| Output |  |  |  |  |  |
| Voltage \& Current Ratings | $24 \mathrm{~V}, 0.3 \mathrm{~A}$ | $24 \mathrm{~V}, 0.6 \mathrm{~A}$ | $24 \mathrm{~V}, 1.3 \mathrm{~A}$ | $24 \mathrm{~V}, 2.1 \mathrm{~A}$ | $24 \mathrm{~V}, 4.2 \mathrm{~A}$ |
| Voltage Adjustments | $\pm 10 \%$ (V.ADJ screw on top) |  |  |  |  |
| Output Holding Time | 20 minutes maximum (at full rated input and output) |  |  |  |  |
| Rise Time | 200 minutes maximum (at full rated input and output) |  |  |  |  |
| Fluctuation due to Input Voltage change | 0.4\% maximum |  |  |  |  |
| Fluctuation due to Load Change | 1.5\% maximum |  |  |  |  |
| Fluctuation due to Ambient Temperature Change | 0.05\% maximum |  |  |  |  |
| Ripple Voltage | $2 \%$ peak to peak maximum (including noise) |  |  |  |  |
| Overload Protection | 120\% typical (Zener-limiting) |  | 120\% typical, auto reset |  |  |
| Environmental |  |  |  |  |  |
| Operating Temperature | $-10^{\circ} \mathrm{C}$ to $60^{\circ} \mathrm{C}\left(14^{\circ} \mathrm{F}\right.$ to $\left.140{ }^{\circ} \mathrm{F}\right)$ - see derating curves |  |  |  |  |
| Storage Temperature | $-30^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left(-22{ }^{\circ} \mathrm{F}\right.$ to $\left.185{ }^{\circ} \mathrm{F}\right)$ |  |  |  |  |
| Operating Humidity | $20 \%$ to $90 \%$ relative humidity (no condensation) |  |  |  |  |
| Vibration Resistance | $45 \mathrm{~m} / \mathrm{s}^{2}, 10$ to $55 \mathrm{~Hz}, 2$ hours on each of 3 axes |  |  |  |  |
| Shock Resistance | $294 \mathrm{~m} / \mathrm{s}^{2}, 3$ shocks in each of 6 directions |  |  |  |  |
| Shipping Weight |  |  |  |  |  |
|  | $0.40 \mathrm{lb}(0.18 \mathrm{~kg})$ | $0.48 \mathrm{lb}(0.22 \mathrm{~kg})$ | $0.92 \mathrm{lb}(0.42 \mathrm{~kg})$ | $0.98 \mathrm{lb}(0.44 \mathrm{~kg})$ | $1.54 \mathrm{lb}(0.70 \mathrm{~kg})$ |
| Standards and Approvals |  |  |  |  |  |

## Dimensions

7300-1024


Front View

7300-3024
7300-5024


Front View


Top View


Top View


Top View

7300-7524


Front View


Top View


## Installation

The innovative terminals on these Signet power supplies use a special spring-loaded screw. This makes installation as easy as pushing down and turning with a screwdriver. Installation time is cut in half since the screws do not need to be backed out to install wiring. The screws are held captive once installed and are $100 \%$ finger-safe. Screw terminals accept bare wire or ring or fork connectors.


1) Insert the wire connector into the slot on the side of the power supply.
2) Using a Phillips screwdriver, push down and turn the screw.

## Ordering Information

| $\bigcirc \cdot 00$ | Mfr. Part No | Code | Power and Input Current Options |
| :---: | :---: | :---: | :---: |
| $\because{ }^{\circ}$ | 7300-7524 | 159000687 | 24 VDC Power Supply, 7.5 W, 300 mA |
| $\cdots$ | 7300-1524 | 159000688 | 24 VDC Power Supply, 15 W, 600 mA |
| [-0. | 7300-3024 | 159000689 | 24 VDC Power Supply, 30 W, 1.3 A |
|  | 7300-5024 | 159000690 | 24 VDC Power Supply, 50 W, 2.1 A |
|  | 7300-1024 | 159000691 | 24 VDC Power Supply, 100 W, 4.2 A |

## Accessories and Replacement Parts

DIN rail in one meter ( 1000 mm ) lengths, and DIN rail clips are available. The standard packaging of these power supplies are to be fastened to DIN rails, and accessory clips will keep the supplies from sliding if the rail itself is mounted vertically, for example. Contact the factory for more details.

| Mfr. Part No. | Code | Description |
| :--- | :--- | :--- |
| $6205-0002$ | $\mathbf{1 5 9 0 0 0 8 5 8}$ | 1-meter length DIN Rail |
| $6205-0003$ | 159000859 | End clip for DIN Rail |

