



SYSTEMS S3000

INDUSTRIAL CONTROLLER

PS3007: POWER SUPPLY

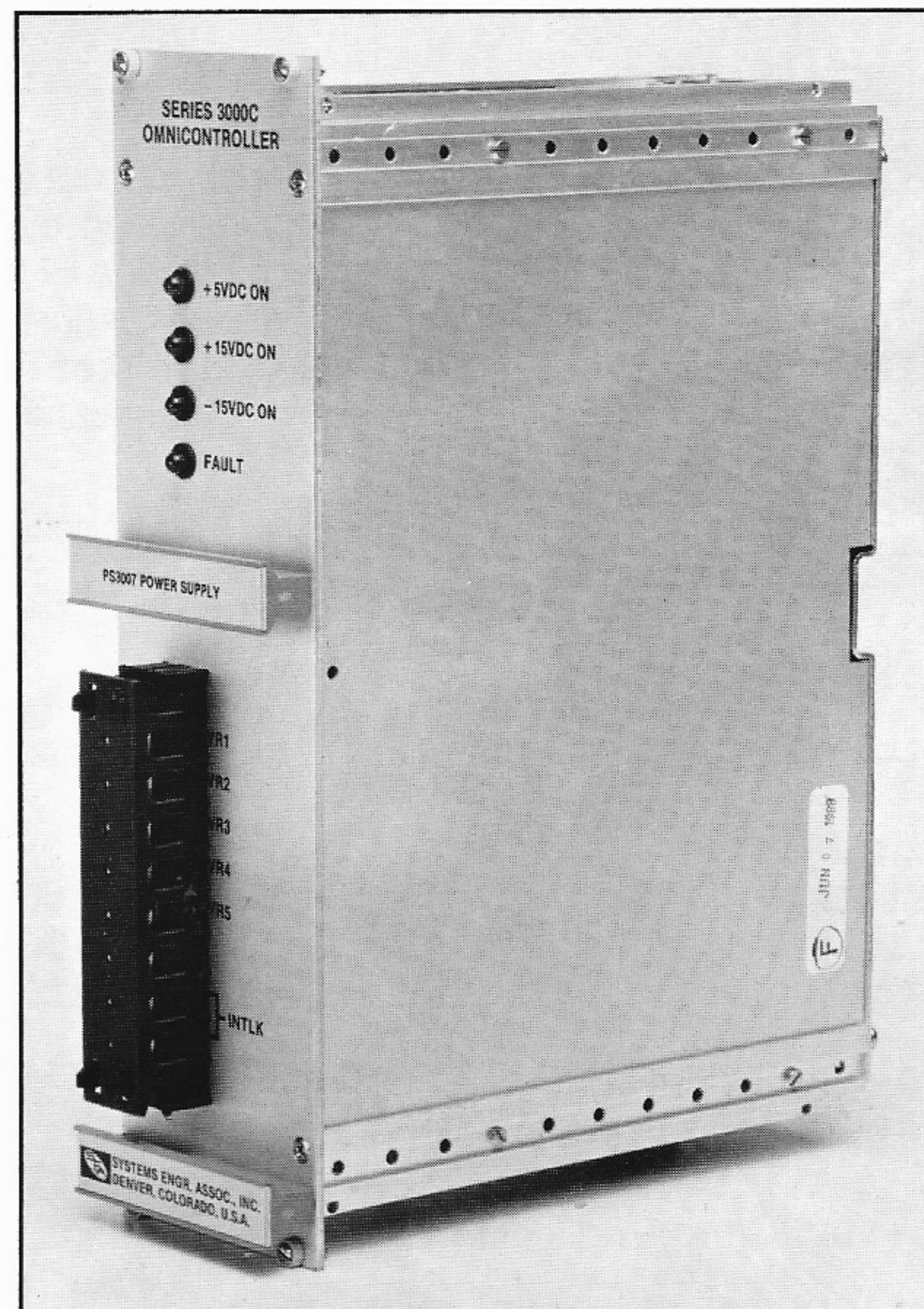
FEATURES:

- LINEAR POWER SUPPLY FOR S3004CHR, S3008CHR, AND S3016CHR RACKS
- PROVIDES +10VDC, +20VDC, AND -20VDC TO S3000 BUS
- INTERNAL FUSING PROVIDED FOR OUTPUTS
- FAULT INTERLOCK RELAY INCORPORATED
- "+5VDC" "+15VDC" "-15VDC", AND "FAULT" LEDS LOCATED ON PS3007 FACEPLATE
- STANDARD DOUBLE HEIGHT 14HP EUROCARD CAGE

GENERAL DESCRIPTION:

The PS3007 Power Supply is a linear power supply which provides all the necessary power voltages for the S3004CHR, S3008CHR, and S3016CHR rack chassis. The PS3007 accepts +10VDC unregulated and 17VAC from the S30XXCHR chassis and converts these voltages to the +10VDC, +20VDC, and -20VDC unregulated voltages used by the various S3000 boards mounted in the chassis. All S3000 boards (processors and I/O boards) contain on-board regulation, thus the power distributed to these boards is unregulated. This reduces problems of voltage drop along the power bus and the susceptibility of the power bus to noise pick-up.

Internal fusing is provided for all three voltage outputs. These fuses are located inside the cage on the



power supply board. The +10VDC circuit fuse is a 7amp AGC located in fuse clips Z9, the +20VDC fuse is a 2amp AGC located in fuse clips Z10, the -20VDC fuse is a 2amp AGC fuse located in fuse clips Z11. To replace a fuse, remove the PS3007 from the S30XXCHR chassis and remove the 4 screws holding the end plate to the cage. The fuses are located on the lower right side of the circuit board inside the cage.

Four status LEDs are located on the PS3007 faceplate. These four are "+5VDC", "+15VDC", "-15VDC", and "FAULT". The +10VDC power is used by the cards for their internal +5VDC. Likewise, the +20 and -20 are used for the +15 and -15VDC regulated voltages on the cards. Thus the "+5VDC"

LED indicates when the +10 volt unregulated power is "on" while the "+15VDC" and "-15VDC" LEDs are used to indicate when the +20 and -20 volt powers are "on". The "FAULT" LED is on when the fault interlock is open, and off when the fault interlock is closed.

The fault interlock relay provides one normally open contact at the "INTLK" terminals on the terminal strip

of the PS3007. The fault interlock is "open" when one of the following faults is detected: watchdog time out on main processor; processor detected fault; loss of +10VDC power in power supply; loss of +20VDC power in power supply; loss of -20VDC in power supply. Upon detection of one of the above faults, the fault contact is opened and the "FAULT" LED is illuminated; in a no-fault condition, the interlock is closed and the "FAULT" LED is off.

INSTALLATION:

The PS3007 is installed in the power supply slot of the S3000 rack, this is the first left position in the rack. Install the PS3007 by aligning the cage with the card guides and sliding in until firmly seated. The cage is held in the rack via captive screws located on the PS3007 faceplate. Connect the

power input leads VR1, VR2, VR3, VR4 and VR5 to the PS3007 terminal strip as well as the interlock wiring. To remove the PS3007, disconnect the input power and interlock wiring and loosen the captive screws, gently pull the cage out of the rack using the handles located on the PS3007 faceplate.

SPECIFICATIONS:

Location Of PS3007 In Rack:

Power Slot

Cage Size:

Length:	9.60"
Height:	6.70"
Width:	2.80"

Voltage Outputs:

(Input to S30XXCHR chassis = 115VAC)

+10VDC(min)-minimum voltage (Iout=7.0 amps):	8.0 VDC
+10VDC(max)-maximum voltage (no load):	10.5 VDC
+20VDC(min)-minimum voltage (Iout=2.0 amps):	17.0 VDC
+20VDC(max)-maximum voltage (no load):	22.0 VDC
-20VDC(min)-minimum voltage (Iout=-2.0 amps):	-17.0 VDC
-20VDC(max)-maximum voltage (no load):	-22.0 VDC

Maximum Current Ratings:

Iout(+10VDC-max)-maximum current output:	7.0 amps
Iout(+20VDC-max)-maximum current output:	2.0 amps
Iout(-20VDC-max)-maximum current output:	2.0 amps

Interlock Contact Ratings:

Current rating:	3.0 amps
Voltage rating:	120 VAC

Temperature Ranges:

Storage:	0 to 85° C
Operating:	0 to 60° C

Relative Humidity:	5 TO 95%
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