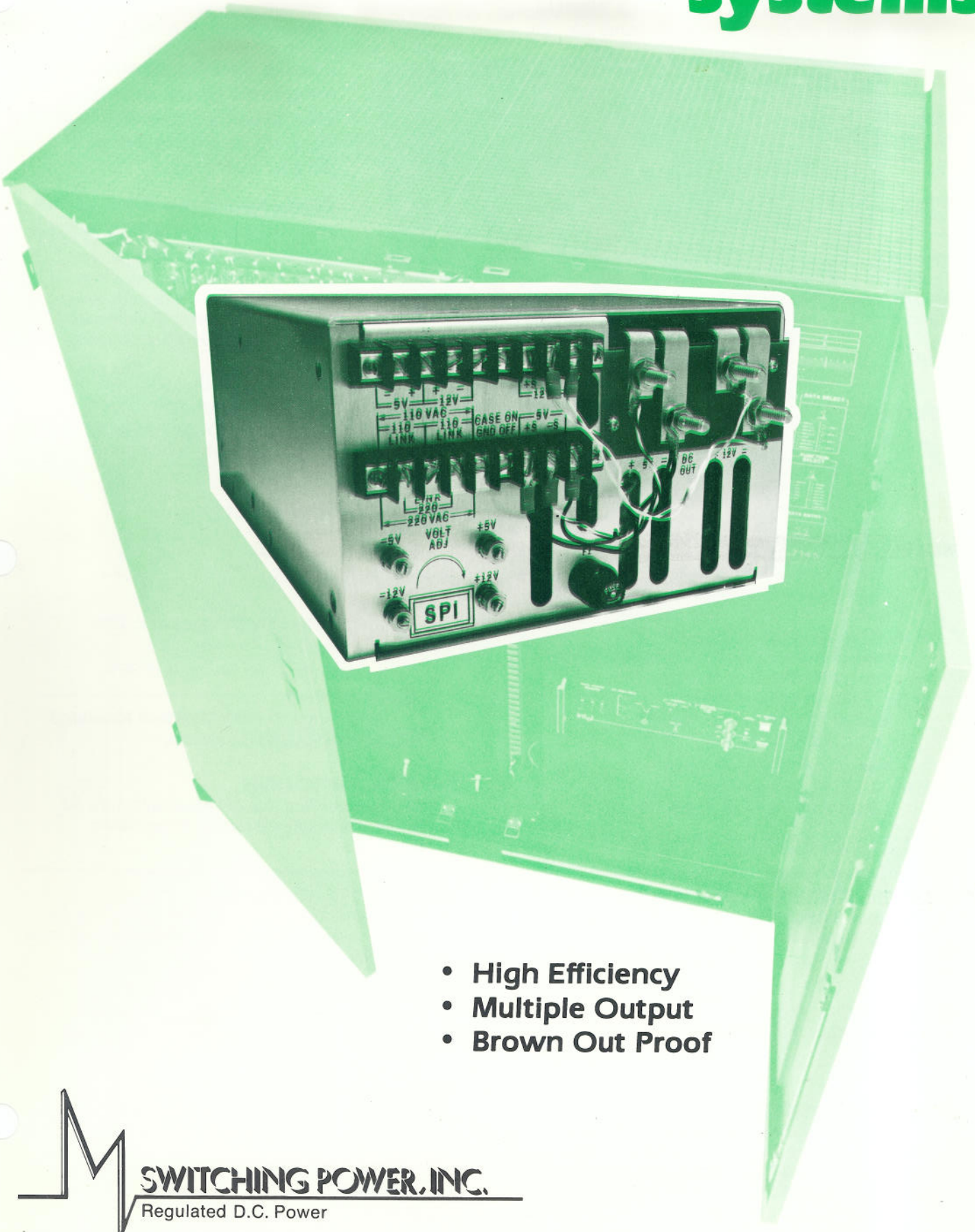
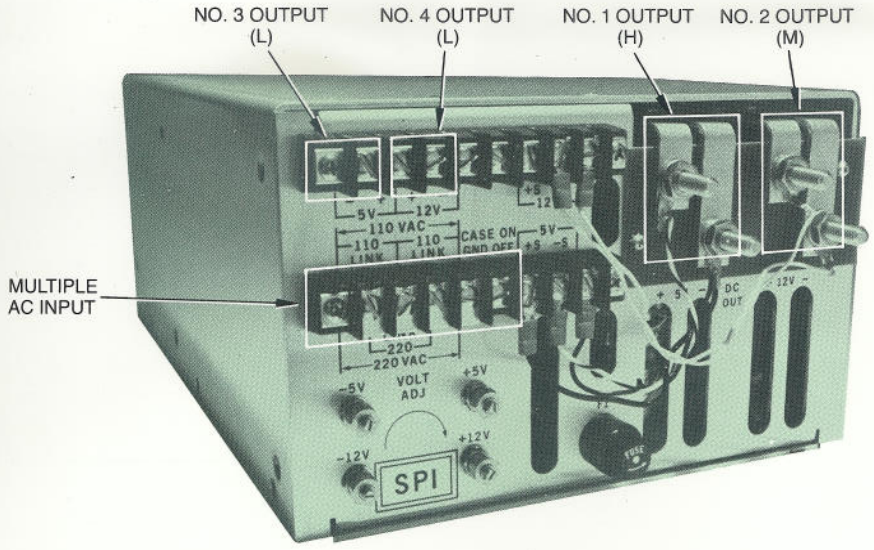
Multiple output DC power systems



- High Efficiency
- Multiple Output
- Brown Out Proof

SWITCHING POWER, INC.
Regulated D.C. Power

Switching Power's new FS series obsoletes custom designed power supplies.



Future System eliminates long lead times and high cost associated with custom multiple output power systems.

FS standard modules allow maximum flexibility with proven reliability.

MULTIPLE

AC INPUT

VAC (90-132/180-256)

47-63 Hz (Field Changeable)

MULTIPLE

DC OUTPUTS

Up to Four outputs (Maximum Power is 375 Watts)

H No. 1. 5, 10, 12, 15 or 20 Volts*

Max. of 75 AMPS or 375 Watts as a single max. of 50 AMPS as Multiplier.

M No. 2.* 5, 10, 12 or 15 Volts

Max. of 10 AMPS or 120 Watts

L No. 3.* 5, 10, 12 or 15 Volts

Max. of 2 AMPS or 30 Watts

L No. 4.* 5, 10, 12 or 15 Volts

Max of 2 AMPS or 30 Watts

*MULTIPLE OUTPUT UNITS REQUIRE A 10% LOAD ON PRIMARY OUTPUT TO MAINTAIN VOLTAGE ON OTHER OUTPUTS.

OPERATING TEMPERATURE

O°c to 50°c at full output power. For each 1°c rise in ambient. Over 50°c derate output power 2% (to 70°c)

STORAGE TEMPERATURE

−40°c to +85°c

SPECIFICATIONS

Line Regulation

± 0.25% for Line Changes of ± 10%

Load Regulation

± 0.25% for Load Changes of 90%

Ripple and Noise

50 MV Peak to Peak Maximum Measured through 50 MHz Bandwidth.

DC RIDE THROUGH

After Loss of Nominal AC Input, with full load the DC Output(s) will remain in regulation for 20 MS.

TEMPERATURE COEFFICIENT

Less than 0.02% output voltage change per degree centigrade change in ambient from 0 to 50°c.

STABILITY

Less than 0.1% output voltage change after 8 Hours.

REMOTE SENSING

Remote sensing capability provided on outputs No. 1 (H) and No. 2 (M) to compensate for up to .25V drop in the DC Distribution Bus (Decoupling or storage capacitors at the load may be required for high frequency load changes).

TRANSIENT RESPONSE

5% Maximum excursion for 50% Load Change, recovery to regulation band in 400 Micro-seconds (Typical).

OVERVOLTAGE PROTECTION

Overvoltage protection is standard on main output (H) and is available as an option for all other DC outputs.

REMOTE ON-OFF (OPTIONAL)

With respect to main output (H) return stud, A + 2 to + 7 volt signal will shut off system.

EMI INPUT FILTER (OPTIONAL)

Filter available to meet VDE 0875 curve N (see graph for typical performance).

PROTECTIVE FEATURES

AC INPUT PROTECTION

Line Fuse on front panel.

THERMAL PROTECTION

Automatic Self resetting thermostat shuts down power system for overtemperature condition. Independent shut down for (H) No. 1 and (M) No. 2 DC Outputs.

SHORT-CIRCUIT PROTECTION

All outputs fold back when an overload condition occurs, self restoring when overload is corrected.

OVERVOLTAGE PROTECTION

Overvoltage shutdown is provided on (H) No. 1 output and is available as an option on all other outputs.

SURGE CURRENT PROTECTION

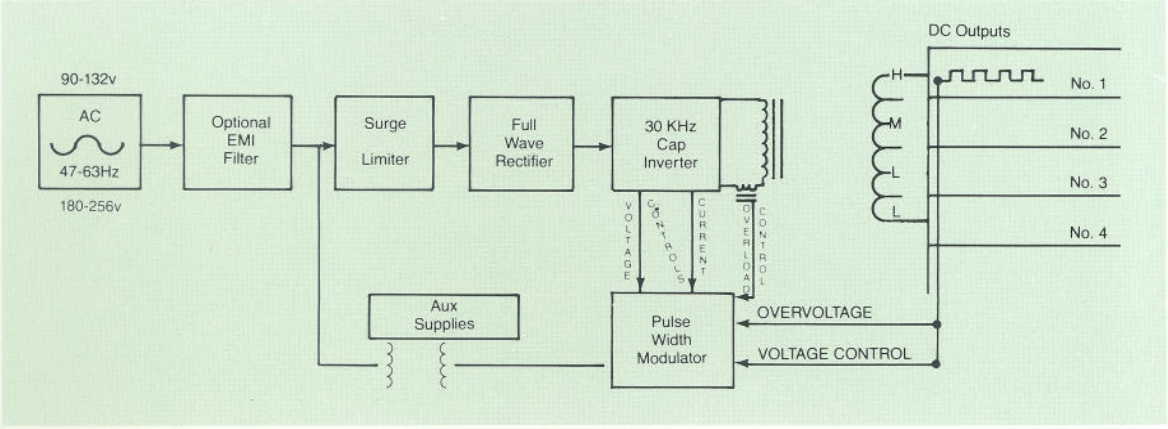
AC inrush current limited to 2½ times normal current when averaged for one cycle.

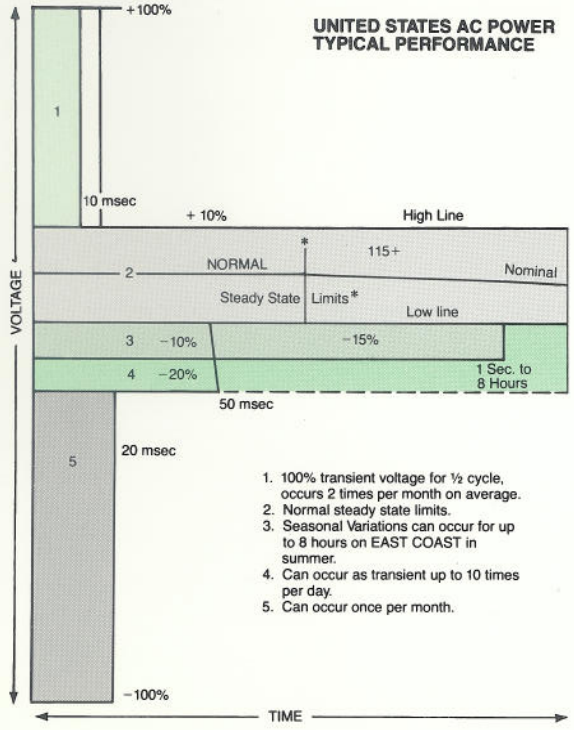
BROWN OUT PROTECTION

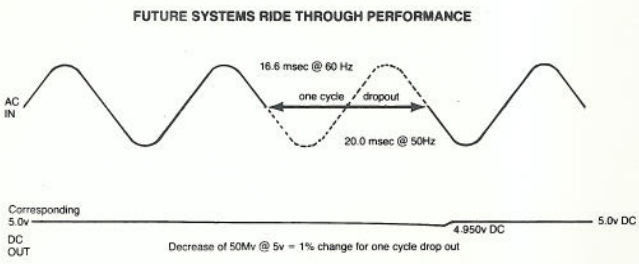
Power system will operate at full load with only 90 or 180V AC input, even total AC loss requires 20 milliseconds for DC deviation from nominal setting.

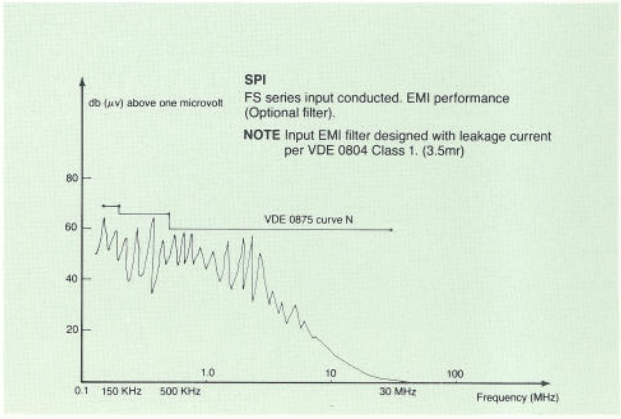
THEORY OF OPERATION

Single phase alternating current applied to the input terminals is passed through an optional EMI filter, then to a surge current limiting rectifier assembly. The rectified AC is then stored on input capacitors, delivered to an inverter which chops the unregulated DC at 30 KHz. This pulse width modulated voltage is then fed to an inverter transformer which provides input/output isolation and the high current output (H). All other outputs are series regulators (M, L & L).









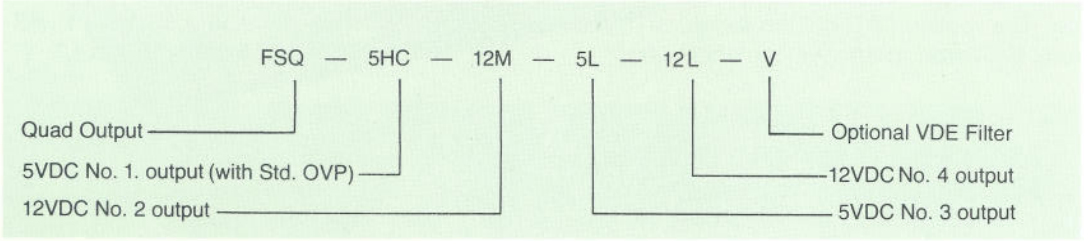
HOW TO ORDER YOUR FUTURE SYSTEM

A) Determine the number of DC outputs required;
FSS (single) FSD (Dual) FST (Triple)
FSQ (Quad)
MAXIMUM **TOTAL POWER** IS 375 WATTS

B) Determine any options required;
- 'C' = Overvoltage protection for outputs 2(M), 3(L) or 4(L). Add letter 'C' after each output needing OVP
- 'R' = Remote on/off Control. Add letter 'R' at end of part number
- 'V' = VDE 0875 curve N EMI Filter. Add Letter 'V' at end of part number
- 'J' = 208 +10%, −20% Volts AC input. Add letter 'J' at end of part number

C) Output No. 1 is designated **H**
5, 10, 12, 15 or 20 VDC, max. of 75 Amps as a single, 50 Amps Multiple
Output No. 2 is designated **M**
5, 10, 12 or 15 VDC, Max of 10 Amps or 120 Watts.
Output No. 3 is designated **L**
5, 10, 12, or 15 VDC, Max of 2 Amps or 30 Watts.
Output No. 4 is designated **L**
5, 10, 12 or 15 VDC Max of 2 Amps or 30 Watts.

EXAMPLE: A four output power system which requires 5V@35A, 12V@10A, 5V@2A and 12V@2A would be a switching power part number.

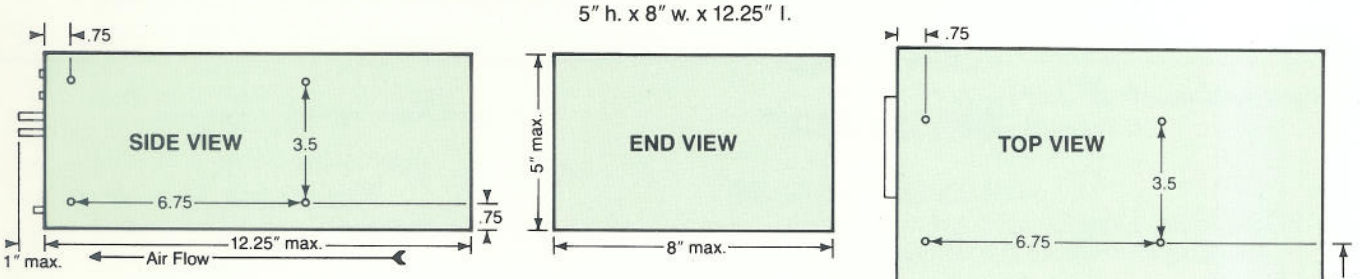


FUTURE SYSTEMS PRICING

FSS Single Output	$449.00	R Remote on/off control	$30.00
FSD Dual Output	519.00	C Overvoltage Protection	30.00
FST Triple Output	549.00	J 208 +10%, −20% VAC input	30.00
FSQ Quad Output	579.00	V VDE EMI filter	60.00

OEM DISCOUNTS AVAILABLE TO VOLUME USERS

5" h. x 8" w. x 12.25" l.



OUTPUT CONNECTIONS: No. 1. (H) and No. 2 (M) output studs are ¼ x 20 No. 3. (L) and No. 4 (L) on heavy duty terminal strip ⅜" spacing

AC INPUT CONNECTION: Heavy Duty terminal strip—⅜" spacing field changeable for 110 or 220 VAC

MOUNTING: 8/32 inserts (4) on four surfaces

VOLTAGE ADJUST: Individual voltage adjustment potentiometers on the front panel (±5% Adjustment)

GENERAL INFORMATION

Prices are USA list, FOB Centereach New York.
All prices and specifications are subject to change without notice.

FOR ASSISTANCE:
EAST COAST 516-981-7231
WEST COAST 415-948-8885

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Regulated D.C. Power
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