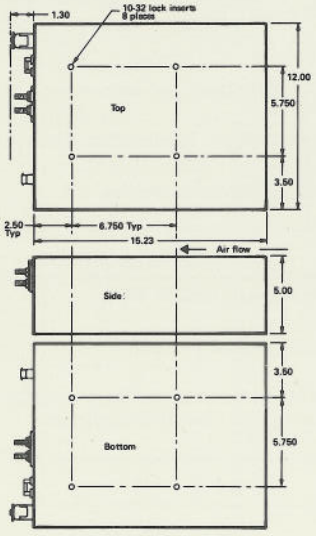
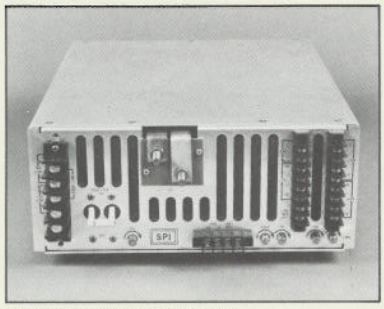
SWITCHING POWER INC

High current, multiple output DC Power Systems for mainframe applications

1800 Watts

TS, up to 250 amps
up to 4 outputs





208/230 VAC INPUT

How to design your TS-System –Type One

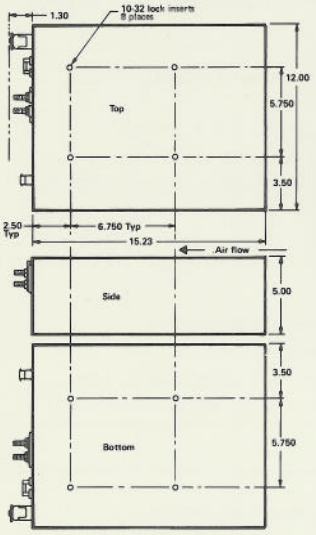
Determine the number of outputs required;
TSD (Dual) TST (Triple TSQ (Quad)
Maximum total power is 1800 Watts.
Output no. 1 is designated H
2 to 24 VDC, max. of 250 Amps or 1250 Watts.
Output no. 2 is designated HH
2 to 24 VDC, max. of 75 Amps or 375 Watts.
Output no. 3 is designated L
2 to 24 VDC, max. of 5 Amps or 75 Watts.
Output no. 4 is designated L
2 to 24 VDC, max. of 5 Amps or 75 Watts.
Example: A triple output system requiring 5 VDC @ 250 Amps, 5.2 VDC @ 75 Amps, 12 VDC @ 5 Amps would be:

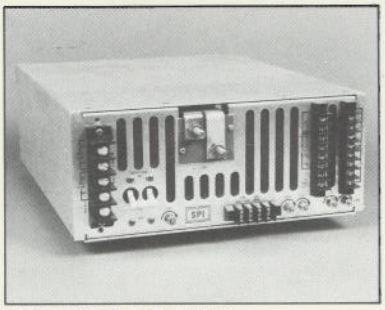
TST 5HC 5.2HHC 12L

- Triple output
- 5VDC no. 1 output w/std. OVP
- 5.2VDC no. 2 output w/std. OVP
- 12VDC no. 3 output

1800 Watts

TS, up to 250 amps
up to 5 outputs





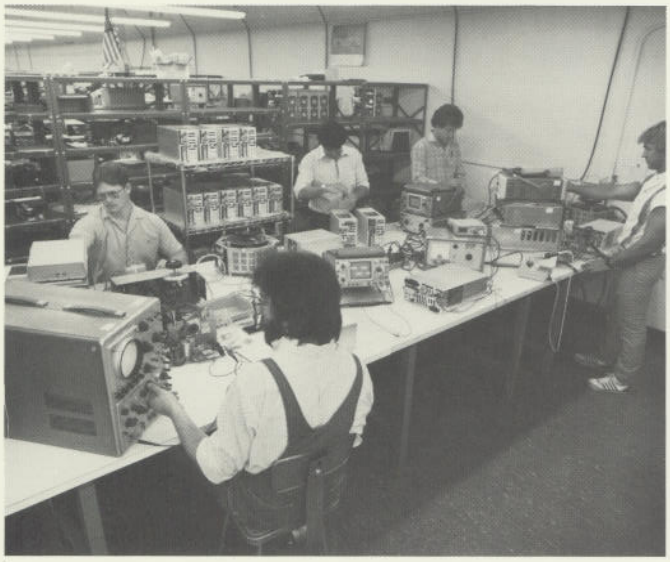
208/230 VAC INPUT

How to design your TS-System –Type Two

Determine the number of outputs required;
TSD (Dual) TST (Triple) TSQ (Quad) TSF (Quint)
maximum total power is 1800 Watts.
Output no. 1 is designated H
2 to 24 VDC, max. of 250 Amps or 1250 Watts
Output no. 2 is designated HH
2 to 24 VDC, max. of 75 Amps or 375 Watts.
Output no. 3 is designated M
2 to 24 VDC, max. of 10 Amps or 120 Watts.
Output no. 4 is designated M
2 to 24 VDC, max. of 10 Amps or 120 Watts.
Output no. 5 is designated L
2 to 24 VDC, max. of 5 Amps or 75 Watts.
Example: A Quint output system requiring 5 VDC @ 240 Amps, 12 VDC @ 30 Amps, 12 VDC @ 10Amps, 24 VDC @ 3 Amps, 5 VDC @ 5 Amps would be:

TSQ 5HC 12HHC 12M 24L 5L

- Quint output
- 5VDC no. 1 output w/std. OVP
- 12VDC no. 2 output w/std. OVP
- 12VDC no. 3 output
- 24VDC no. 4 output
- 5VDC no. 5 output





Electrical specifications and features–TS series

TS

AC INPUT

NOMINAL	200/208/230/240 VAC
OPERATING RANGE	165 to 256 VAC or 180 to 264 VAC. 115 VAC operation on Type 1 limited to 1kw of output power.
FREQUENCY	47 to 63 Hz.; single phase.
INRUSH CURRENT	Peak cold start inrush current is limited to 100 amps when operating at 115 VAC and 160 amps when operating at 230 VAC. Duration of peak current is less than 4 msec.
FUSING	All models incorporate ceramic body fuses rated 250V. Fuse is instantaneous type. Replacement ratings are as follows: TS Type 1 – 30A/250V Ckt. Bkr. 6A Internal V2 V3 Module. TS Type 2 – 20A/250V Front Panel 6A Internal V2, V3 Module.
TURN ON TIME	Turn on time is less than 200 msec, typical for AC application and less than 200 msec after on-off remote activation.

DC OUTPUT

REGULATION (Main Output) V1, V2, V3	±.5% for 10 to 100% load changes. ±.5% for ±15% line changes around nominal 115/230 VAC.
REGULATION (Secondary Regulated) V1, V2, V3	±.25% for 10 to 100% load changes. ±.25% for ±15%. line change around nominal 115/230 VAC. 25% minimum load is required on V1 to maintain regulation on V4 at full load on these outputs. If full load is not required on secondary outputs and a proportioned load is used, the 25% minimum current may be relaxed.

GENERAL FEATURES

RIPPLE & NOISE (47 Hz. to 50 mHz.)	100 MV peak to peak.
TRANSIENT RESPONSE V1, V2, V3	Output maximum excursion of ±5% for 25% load. Step recovery in less than 500 msec.
TRANSIENT RESPONSE (Regulated Outputs) V4	±2% for 25% output load step. Recovery in less than 500 msec.
OVERLOAD PROTECTION V1, V2, V3, V4, V5	All outputs are overload protected. V1 main output is set 120 to 160% of rated output. Output fold back to 60% of output load typical.
SHORT CIRCUIT PROTECTION	All outputs are short circuit protected. Current is limited to 60% of maximum rated current.
OVERVOLTAGE PROTECTION V1	Overvoltage protection is standard as a voltage clamp set at 20 to 30% above the nominal output voltage. This protective feature gives user protection while avoiding nuisance trips in the field. Automatically resets.
OVERTEMPERATURE PROTECTION	Unit shuts down when temperature exceeds a maximum safe value.
OVERSHOOT (all outputs)	No turn-on or turn-off overshoot.
REVERSE VOLTAGE PROTECTION (all outputs)	All outputs protected for reverse voltage up to rated voltage and current.
REMOTE SENSE (V1 output where present)	Remote sense of up to 1.2 Volt total in load. Senses for cables or redundant diodes on models with this feature.
REMOTE ON-OFF (all outputs)	Barrier block or internal connector available for remote on-off supply control.
AC LOSS RIDE THROUGH	All outputs will remain in regulation for 20 msec, during removal of input AC when operating at nominal AC input. 30 msec @ 80% rating, 50 msec @ 60% rating. All measured from nominal input.

ENVIRONMENTAL

OPERATING TEMPERATURE	0° to 50° full output. 0° to 75° with derating 2%/ C° above 50° C. Cooling air is required above 50° C, or when using units above specified maximum ratings.
STORAGE TEMPERATURE	–20° to +85° C.
TEMPERATURE COEFFICIENT	.02%/° C.
STABILITY V1, V2, V3, V4	.5% for 8 hr. period following an initial 1 hour warm up.
COOLING	Internal fan provides cooling air flow. Air exits terminal end.
HUMIDITY	UP to 95% R.H. non-condensing.
EMI	Internal filters available to FCC, VDE specifications. Please consult factory.
SAFETY (all units) UL, CSA, TUV	UL File E-69760, CSA File LR-50228, TUV Licenses – TS Series Geprueft Nach: DIN IEC 380/VDE 0806/8.81.
SIZE	5" x 12" x 15.23"
WEIGHT	TS – 28 lbs.