

QUALITY CHECKING PROTOCOL FOR PROVISIONAL ACCEPTANCE OF PROTOTYPE OF POWER SUPPLY HV51

Unit serial number: 001 Date:27.7.2000

Parameter	Field name	Definition	Value	Definition	Value	Definition	Measured value	Difference [%]	OK/BAD
Absolute precision									
Ideal output DC voltage level 1 - specified value	U1		X				830.00		
Ideal output DC voltage level 2- specified value	U2		X				950.00		
Input line voltage 230V, output current 16mA to each output									
Output DC voltage -830V level	UM1	U1-0.25%	827.93	U1+0.25%	832.08		829.94	-0.007	OK
Output DC voltage -950V level	UM2	U2-0.25%	947.63	U2+0.25%	952.38		949.93	-0.007	OK
Line regulation									
<i>Input line voltage 230V - 10 % , output current 16 mA to each output</i>									
Output DC voltage -830V level		UM1-0.01%	829.86	UM1+0.01%	830.02		829.93	-0.001	OK
Output DC voltage -950V level		UM2-0.01%	949.84	UM2+0.01%	950.02		949.93	0.000	OK
<i>Input line voltage 230V + 10 % , output current 16mA to each output</i>									
Output DC voltage -830V level		UM1-0.01%	829.86	UM1+0.01%	830.02		829.93	-0.001	OK
Output DC voltage -950V level		UM2-0.01%	949.84	UM2+0.01%	950.02		949.94	0.001	OK
Load regulation									
<i>Reference voltage for load regulation measurement output curr. 1mA</i>									
Output DC voltage -830V level	UR1						829.96		
Output DC voltage -950V level	UR2						949.94		
<i>Input line voltage 230V/output current 18mA all channels</i>									
Output DC voltage -830V level		UR1-0.02%	829.79	UR1+0.02%	830.13		829.88	-0.010	OK
Output DC voltage -950V level		UR2-0.02%	949.75	UR2+0.02%	950.13		949.87	-0.007	OK
<i>Input line voltage 230V output current 4 mA all channels</i>									
Output DC voltage -830V level		UR1-0.02%	829.79	UR1+0.02%	830.13		830.07	0.013	OK
Output DC voltage -950V level		UR2-0.02%	949.75	UR2+0.02%	950.13		950.06	0.013	OK
Overcurrent protection									
Protection initiating current			19mA				19.9		OK
Response time of the current protection			-				not measured		
Undercurrent protection									
Protection initiating current			1.5mA				2.0		OK
Response time of the current protection			-				not measured		
Load characterisation									
Response time of the current protection (channel switched on , capacitive load 1uF			-				200ms	set by software	OK
Disconnection of the load reported as defect			-				<=100ms	not measured	
Ripple and noise due to switching *			-				20 mVpp	15mVpp	OK
Temperature coefficient			-				(50ppm) /deg C	not measured	
Result									OK

* noise measured without channel cards

Measured by : Ivan Hruska