INSTRUCTION SHEET

American Magnetics, Inc.





CABLE KIT 219-0527 MODEL 4Q06125PS (2) IN SERIES

I. DESCRIPTION

This kit contains the cables and terminations required to operate two identical 750 Watt Model 4Q06125PS power supplies in series, effectively doubling the output voltage capacity.

Item	Quantity	Purpose	Marking
Output Power cable (1.5 ft.)	1	Connects the OUTPUT terminal of Master to the COMMON terminal of Slave.	
Protection Cable (1 ft.)	1	Provides interlock protection signals required for multiple unit operation.	118-1126
Series Control cable (1.5 ft.)	1	Provides control signals required for series operation.	118-1120
Series Sense cable (1.5 ft.)	1	Connects OUT-S terminal of Master to COM-S terminal of Slave.	118-1203
Protection - OUT Termination (Slave)	1	Provides proper termination for the slave connection to the Protection Cable.	195-0108
Protection - IN Termination (Master)	1	Provides proper termination for the master connection to the Protection Cable.	195-0107
Instruction Manual	1	Lists material supplied and specifications for multiple unit combination.	

TABLE 1. EQUIPMENT SUPPLIED

PO Box 2509, 112 Flint Road, Oak Ridge, TN 37831-2509, Tel: (865) 482-1056, Fax: (865) 482-5472

II. CONFIGURATION

The instructions below are for installation and operation of two Model 4Q06125PS power supplies in series. Reference Figure 1.

1) Confirm master Model 4Q06125PS power switch settings: C. MODE / V. MODE switch set to <u>V. MODE</u>, PARALLEL / SERIES switch set to <u>SERIES</u>, MASTER / SLAVE switch set to <u>MASTER</u>, and ALONE / MULTIPLE switch set to <u>MULTIPLE</u>.

2) Confirm master Model 4Q06125PS terminal block jumpers: jumper between OUT S and OUT MON; jumper between GND NET and GND , jumper between COM MON and COM S.

3) Confirm slave Model 4Q06125PS power switch settings: C. MODE / V. MODE switch set to <u>V. MODE</u>, its PARALLEL / SERIES switch set to <u>SERIES</u>, its MASTER / SLAVE switch set to <u>SLAVE</u>, and its ALONE / MULTIPLE switch to <u>MULTIPLE</u>.

4) Confirm slave Model 4Q06125PS terminal block jumpers: jumper between OUT S and OUT MON; no other terminal block jumpers.

5) Install the KIT 219-1528 cable marked "18-1120" between the master PAR/SER CONTROL PORT OUT connector and the slave PAR/SER CONTROL PORT IN connector.

6) Plug the KIT 219-1528 connector marked "195-0107" into the master PAR/SER PROTECT PORT IN connector.

7) Install the KIT 219-1528 cable marked "118-1126" between the master PAR/SER PROTECT PORT OUT connector and the slave PAR/SER PROTECT PORT IN connector.

8) Plug the KIT 219-1528 connector marked "195-0108" into the slave PAR/SER PROTECT PORT OUT connector.

9) Install the KIT 219-1528 wire marked "118-1203" between the master OUT S terminal and the slave COM S terminal.

10) Using the high-current cable supplied with KIT 219-1528 connect the master OUTPUT terminal to the slave COMMON terminal .

11) Make ANALOG I/O PORT connections only to the master Model 4Q06125PS.

12) Make connections to the power supply load at the master Model 4Q06125PS COMMON terminal and the slave Model 4Q06125PS OUTPUT terminal.



FIGURE 1. SERIES CONFIGURATION

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III. SPECIFICATIONS

Table 2 lists the general specifications for the series combination of two identical 750 Watt Model 4Q06125PS Power Supplies. For specifications not listed in Table 2, refer to the General Specifications provided in the associated technical manual supplied with the Model 4Q06125PS power supply.

SPECIFICATION		RATING/DESCRIPTION	CONDITION			
INPUT CHARACTERISTICS						
Current	176 Va-c	15A a-c	Maximum			
	264 Va-c	10A a-c	Maximum			
Leakage current		7mA a-c	230V a-c, 47-63 Hz			
OUTPUT CHARACTI	ERISTICS		•			
d-c Output Range	E _{O Max}	±12V d-c				
	I _{O Max}	±125A d-c				
Closed Loop Gain	Voltage Channel	1.2				
	Current Channel	12.5				
Source/sink adjustment range	Voltage	-12V to +12V				
	Current	-125A to +125A				
Programming resolution / accuracy	Voltage	±18mV				
	Current	±125mA				
	Voltage Limit	±18mV linearity	±360mV Full Scale tolerance			
	Current Limit	±125mA linearity	±2.5A Full Scale tolerance			
Readback resolution / accuracy	Voltage	Same as individual unit	Independent readings for each unit			
	Current	Same as individual unit	Independent readings for each unit			
Voltage stabilization in v	oltage mode					
	Source effect	±6mV	Min - max input voltage			
	Load effect	±12mV	0 to 100% load current			
	Time effect (drift)	±6mV	0.5 through 24 hours			
	Temperature effect	±6mV / ℃	0°to 50℃			
Ripple and noise		±240mV p-p	Includes switching noise.			
Current stabilization in current mode		Same as individual unit				
Rise/Fall Time	Voltage	400µS/400µS	Nominal resistive load, measured from 10 to 90%, 0 to $\pm 100\%$ of rating			
	Current	500µS/500µS	Short circuit, measured from 10% to 90%, 0 to ±100% of rating			
Frequency bandwidth	Voltage	1KHz	Nominal resistive load, E _{OPK} = E _{ONOM} , I _{OPK} = I _{ONOM} @ 60Hz			
	Current	800Hz	Short circuit, I _{OPK} = I _{ONOM} @ 60Hz			

TABLE 2. GENERAL SPECIFICATIONS FOR TWO (2) MODEL 4Q06125PS UNITS (SERIES)