INSTRUCTION SHEET



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CABLE KIT NO. 219-0444 BOP 1000W MODELS (3) IN SERIES

I. DESCRIPTION.

This kit contains the cables and terminations required to operate three identical 1000 Watt BOP High Power models in series, effectively multiplying the output voltage capacity by three. Only identical models may be configured to operate in series.



This kit can be used with all 1000W BOP models that have revision levels as shown in Table 1. Earlier models that have been upgraded to permit multiple unit configurations must include the letter "A" following the revision number. **CAUTION: Failure to install the ground cables supplied can result in damage to the power supply.**

Refer to the associated technical manual supplied with the High Power BOP power supply for all instructions regarding installation and operation of multiple units in series.

Model	Revision	Revisions for Upgraded Units (Must include "A")
BOP 6-125MG	All	All
BOP 10-75MG	5 or higher	3A or 4A
BOP 20-50MG	8 or higher	5A, 6A or 7A
BOP 25-40MG	All	All
BOP 36-28MG	11 or higher	8A, 9A or 10A
BOP 50-20MG	7 or higher	5A or 6A
BOP 72-14MG	7 or higher	6A
BOP 100-10MG	6 or higher	2A or 4A

TABLE 1. REVISION LEVELS APPLICABLE TO THIS KIT

II. SPECIFICATIONS

Table 3 lists the model parameters unique to a series combination of three identical 1000W BOP Power Supplies. Table 4 lists the general specifications for the series combinations listed in Table 3. For specifications not listed in Table 3, refer to the General Specifications provided in the associated technical manual supplied with each 1000W BOP power supply

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TABLE 2. EQUIPMENT SUPPLIED

Item	Quantity	Purpose	
Output Power cable	2	Connects the OUTPUT terminal of Master to the COMMON terminal of Slave #1 and the OUTPUT terminal of Slave #1 to the COMMON terminal of Slave #2.	
Digital Control (Bitbus) Cable	1	Provides communication between master and two slaves.	
Protection Cable	2	Provides interlock protection signals required for multiple unit operation.	
Series Control cable	2	Provides control signals required for series operation.	118-1120
Protection - OUT Termi- nation (Slave)	1	Provides proper termination for the slave connection to the Protection Cable.	195-0108
Protection - IN Termina- tion (Master)	1	Provides proper termination for the master connection to the Protection Cable.	
Chassis Ground Cable	2	Connects chassis ground terminals of all units.	118-1272
Ground Cable mounting hardware	3 sets	 Each set consists of eight parts, mounted in the following order: No. 10 star lock-washer P/N 103-0106 (at chassis), No. 10 flat washer P/N 103-0031, No. 10 split lockwasher P/N 103-0033, 10-32X3/8 nut P/N 102-0008, No. 10 flat washer P/N 103-0031, [lug(s) from ground cable], No. 10 flat washer P/N 103-0031, No. 10 split lockwasher P/N 103-0033, and 10-32X3/8 nut P/N 102-0008. 	
Output Sense Cable	2	Connects Output sense terminal to Common sense terminal of next unit.	118-1271
Instruction Manual	1	Lists material supplied and specifications for multiple unit combination.	228-1525

TABLE 3. MODEL PARAMETERS FOR THREE (3) IDENTICAL BOP 1000 WATT UNITS (SERIES)

(3) Identical Models (Series)	d-c Output Range		Closed Loop Gain	
	E _{O Max}	I _{O Max}	Voltage Channel (V/V)	Current Channel (A/V)
BOP 6-125MG	±18V d-c	±125A d-c	1.8	12.5
BOP 10-75MG	±30V d-c	±75A d-c	3.0	7.5
BOP 20-50MG	±60V d-c	±50A d-c	6.0	5.0
BOP 25-40MG	±75V d-c	±40A d-c	7.5	4.0
BOP 36-28MG	±108V d-c	±28A d-c	10.8	2.8
BOP 50-20MG	±150V d-c	±20A d-c	15.0	2.0
BOP 72-14MG	±216V d-c	±14A d-c	21.6	1.4
BOP 100-10MG	±300V d-c	±10A d-c	30.0	1.0

TABLE 4. GENERAL SPECIFICATIONS FOR THREE (3) IDENTICAL BOP 1000 WATT UNITS (SERIES)

SPECIFICATION		RATING/DESCRIPTION	CONDITION		
INPUT CHARACTERISTIC	S				
Current -	176 Va-c	28.5A a-c	maximum		
	264 Va-c	19.2A a-c	maximum		
Leakage current		10.5mA a-c	230V a-c, 47-63 Hz		
OUTPUT CHARACTERISTICS					
Programming resolution / accuracy - -	Voltage	14 bits / 0.2%	2% accuracy for Ext Ref Level. Unit gain adjustable between 0 and		
	Current	14 bits / 0.5%	E _{ONOM} /10 (voltage) or I _{ONOM} /10 (current).		
	Voltage Limit	12 bits / 0.5%			
	Current Limit	12 bits / 0.5%			
Readback resolution / accuracy	Voltage	16 bits / 0.2%	main or limit channel		
	Current	16 bits / 0.5%	main or limit channel		

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