

IDRC 고전력 프로그래머블 직류전원공급기 DSP-HP Series (High Power Programmable DC power Supply)

IDRC DSP-HP 시리즈 제품은 PWM CV/CC 자동전환이 되도록 설계되었으며, 경쟁사대비 동일한 크기에서 고용량 출력이 가능하도록 디자인 되었습니다.

40kW에서 160kW까지 (16 V~1000V , 40A ~ 5000A) 다양한 모델이 있습니다.



Features

- 출력범위 : 16V~1000V / 40A~5000A / 40kW~160kW
- 직렬연결 (2 대), 병렬연결(5 대, 800kW).
- 병렬연결시 최대 25000A
- 정전압/정전류(Constant voltage / constant current)
- 정전력(Constant Power)기능 (옵션)
- 출력전압전류 설정 : 16 비트 D/A 의 고분해능 장착
- 전압/전류 측정 : 고분해능의 A/D (24 bits H.W.)장착
- True Watt , True RMS current 측정
- 보호기능: OVP, OCP,OTP, 역극성보호.
- 시간조정으로 전압의 상승하강 기울기 정의
- DSP-HP 의 저장 메모리(20)
- 시퀀스 메모리(50): Voltage, current ,time /set
- 패널설정 저장(마지막 상태).
- KEY LOCK 설정
- Embedded 3 RISC Micro-Controller 장착.
- 원격감지(remote-sensing : 최대 5V 보상)
- 표준 GPIB 및 RS-485 전송속도(최대 157600 bps).

- 디지털엔코더 노브 및 푸쉬버튼 설정..
- **GPIB are compatible with SCPI.**
- 아날로그 프로그래밍 및 모니터링, 절연형 (isolated type)은 옵션(Opt).
- 모듈화된 디자인으로 사후관리 및 신뢰성 향상
- 냉각팬(속도제어)
- DC 출력 ON / OFF switch.
- 비상정지 스위치 장착

적용분야

- 1) 항공우주 및 위성 시험
- 2) 수처리(정화)
- 3) 통신 및 IT산업
- 4) 열처리
- 5) 자동테스트장비
- 6) 화학 처리
- 7) 공장자동화
- 8) 반도체 제조
- 9) QC(품질관리) 테스트
- 10) 배터리 충전 및 방전 시험
- 11) 전기도금, 스퍼터링(sputtering) 및 코팅
- 12) 태양광등 신재생에너지

응용분야 예

응용1) 전기자동차(EV) 및 HEVs 시험용 전력



응용 2) 600kW 출력



옵션

직병렬 연결 제어기



DSP-HP 제어 패널



일반 공통 사양:

Panel setting resolution	5 digits
Panel display resolution	5 digits
Command setting resolution	±0.002% of full scale
Command reading resolution	±0.002% of full scale
Panel setting accuracy	Voltage : ±0.1% ± 3Count at rated voltage Current : ±0.5% ± 3Count at rated current
Panel display accuracy	Voltage : ±0.2% ± 3Count at rated voltage Current : ±0.5% ± 3Count at rated current
Command & DA setting accuracy	Voltage ±0.01% ± 3Count at rated voltage Current ±0.01% ± 3Count at rated current
Command & AD Measurement accuracy	Voltage : ±0.02% ± 2Count at rated voltage (Average Measurement) Current : ±0.05% ± 3Count at rated current (Average Measurement) Current : ±0.4% ± 3Count at rated current (AC+DC)offset=50mA (Average Measurement) Watt : ±0.5% ± 3Count at rated power
Analog setting accuracy(V)	Constant Voltagemode(CV) : Voltage ± 5% Constant Currentmode(CC) : Current ± 5%
Analog monitor accuracy(V)	Rate voltage output : 10.00V ± 0.25V; Zero voltage output : 0.00V ± 0.25V; Rate current output : 10.00V ± 0.25V; Zero current output : 0.00V ± 0.25V;
Line regulation	Voltage : ± 0.04% of full scale Current : ± 0.08% of full scale
Load regulation	Voltage : ± 0.05% of full scale Current : ± 0.1% of full scale
Command response time	≤20ms (After received) (note.2)
Sequence time	0.00~558060 sec
Ramp up / down time	0~99.9 sec
Over voltage / Over current setting range	0% ~ 110% of rated voltage ; 0% ~ 110% of rated rated current
Transient response time	Constant Voltage mode : 10~200ms(at Resistance load 10%~90%)(changes with different models)
Output Maximum	Voltage : 105% rated Current : 105% rated
Output slew rate	Output voltage 10 to 100% <300mSec (changes with different models) Output current 10 to 100% <500mSec (changes with different models)
Efficiency	> 85% (Rate voltage , Rate current)
Protective functions	Programmable over voltage protection(POVP), Programmable over current protection(POCP), Over temperature protection(OTP), Fuse blown protection, Line input over/under voltage protection(±10%)
Withstand voltage	Input-Outputs - DC 2250V:1 minute Input-Ground - DC 1500V:1 minute
Operating Temperature	Temperature : 0~40℃ ; Humidity : 30%~90% RH(no condensation)
Storage environment	Temperature : -20~70℃ ; Humidity : 10%~90% RH (no condensation)
Cooling	Speed-Controlled Fan
Output terminal	Rear panel terminal or copper bus way

Note.1 : 모든 파라미터의 데이터는 예열 30 분, 주위 온도 23±5℃ / 습도(Humidity : Under 80% RH), AC Voltage : ±5%, Frequency : ±5%에서 이루어집니다

Note 2. 프로그래밍시간(Programming time) = 명령어 응답시간(Command response time) + 출력응답시간(Output response time). 출력응답 시간은 모델에 따라서 다름, 약 40mS ~ 3000mS

모델번호	이름	기재
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D – 040 – 2000 -HP	(1)D : Series number. IDRC Programmable DC power Supply.
(1) (2) (3) (4)	(2)Output voltage, 040 은 40V 의미
	(3)Output current, 2000 은 2000A 의미
	(4)HP :고전력(High power) 형.

Optional Items :

Model Number	Description
DHP-OPT-TRM	True RMS Current & True Watt
DHP-OPT-API	Analog Programmin Interface
DHP-OPT-CP	Constant Power
DHP-OPT-IS	Impedance Simulation
DHP-OPT-232	RS232 Interface
DHP-OPT-PSC	Parallel & Series Controller

Capacity(용량)	Output		Model	Weight Approx kg	Size	Ripple	
	V	A				CV(mVrms)	CC(mArms)
40kw	40	1000	DSP-040-1000HP	385	35UE	50	1000
40kW	80	500	DSP-080-500HP			96	500
40kW	160	250	DSP-160-250HP			180	250
40kW	250	160	DSP-250-160HP			270	160
40kW	350	115	DSP-350-115HP			370	115
40kW	500	80	DSP-500-080HP			520	80
40kW	600	66	DSP-600-066HP			630	66
60kw	40	1500	DSP-040-1500HP	410	35UE	50	1500
60kw	80	750	DSP-080-750HP			96	750
60kw	160	375	DSP-160-375HP			180	375
60kw	250	240	DSP-250-240HP			270	240
60kw	350	170	DSP-350-170HP			370	170
60kw	500	120	DSP-500-120HP			520	120
60kw	600	100	DSP-600-100HP			630	100
80kw	40	2000	DSP-040-2000HP	435	35UE	50	2000
80kw	80	1000	DSP-080-1000HP			96	1000
80kw	160	500	DSP-160-500HP			180	500
80kw	250	320	DSP-250-320HP			270	320
80kw	350	230	DSP-350-230HP			370	230
80kw	500	160	DSP-500-160HP			520	160
80kw	600	132	DSP-600-132HP			630	132
120kw	40	3000	DSP-040-3000HP	485	35UE	50	3000
120kw	80	1500	DSP-080-1500HP			96	1500
120kw	160	750	DSP-160-750HP			180	750
120kw	250	480	DSP-250-480HP			270	480
120kw	350	340	DSP-350-340HP			370	340
120kw	500	240	DSP-500-240HP			520	240
120kw	600	200	DSP-600-200HP			630	200
160kw	40	4000	DSP-040-4000HP	555	43UE	50	4000
160kw	80	2000	DSP-080-2000HP			96	2000
160kw	160	1000	DSP-160-1000HP			180	1000
160kw	250	640	DSP-250-640HP			270	640
160kw	350	460	DSP-350-460HP			370	460
160kw	500	320	DSP-500-320HP			520	320
160kw	600	260	DSP-600-260HP			630	260