

Multi Kilowatt CVCC Regulated Industrial and Military DC Power Supplies



KWDC Series of multi-kW range regulated and variable DC power supplies are solid state units utilizing thyristor technology in a single and three phase full-bridge rectifier topology that offer constant voltage control, constant current control, automatic crossover, series regulation, DC filter, digital metering and various operational and protective monitoring features.

We manufacture DC regulated variable power supplies with power rating from 5kW to 200kW. These are designed to meet Industrial or MIL spec complied versions for Military Applications. The Power Supplies have high efficiency, precise regulation and low output ripple and noise. KWDC Series Power supplies are available in ratings from 5KW to 200kW with current ratings up to 2000A.

Application

KWDC Series of Aplab high power DC power supplies and systems are rugged high-power DC Sources that are today being used in several industrial, research and military applications including electrochemical, steel, welding, plating, circuit breaker testing, bus-bar testing, desalination, aircraft engine starting etc. Each unit is based on standard designs and precision engineered to meet your specific application. These are ideal for use in chemical, automotive and Industrial application such as Electro-coating, Anodizing, Plating, Cleaning etc and also as high power DC testing source in wide variety of Industries and Test Houses.

Available Models

kW	50A	100A	300A	500A	1000A	1500A	2000A
0.8-32kW	1.6/16-50A	1.6/16V-100A	1.6/16V-300A	1.6/16V-500A	1.6/16V-1000A	1.6/16V-1500A	1.6/16-2000A
1.6-32kW	3.2/32-50A	3.2/32V-100A	3.2/32V-300A	3.2/32V-500A	3.2/32V-1000A	3.2/32V-1500A	3.2/32V-1000A
3.75-150kW	7.5/75-50A	7.5/75-100A	7.5/75-300A	7.5/75V-500A	7.5/75-1000A	7.5/75-1500A	7.5/75-2000A
7.5-150kW	15/150-50A	15/150-100A	15/150-300A	15/150-500A	15/150-1000A	--	--
10-200kW	20/200-50A	20/200-100A	20/200-300A	20/200-500A	20/200-1000A	--	--

Custom Designed DC Power Supplies

Please contact us for technical advice which will given without any obligation. We will assist you in specifying a proper DC Power Source for your application.

KWDC Series DC Power Sources are available with Remote Digital Programming and Monitoring features with RS232, RS485 or USB port.

Technical Specifications Note 5

Power Line Input	Phase	3 Phase - 4 Wire		3 Phase - 3 Wire		1 Phase - 2 Wire
	Voltage	415VAC 3Ø or 230VAC 1Ø up to power level of 5kW				
	Voltage Range	±10% ^(Note 1)				
	Frequency	50Hz, ±3Hz or 60Hz, ±3Hz				
DC Output	Voltage	4 - 400V DC (Refer the chart)				
	Settable Limit	10% - 100%				
	Rated Current	50A - 2000A (Refer the chart)				
	Line Regulation	≤1%				
	Load Regulation	≤1%				
	Overload Capacity	110% Continuous 150% 1 minute				
	Ripple(Vrms)	≤1%				
Digital Metering	a. 3.5 Digit Digital Voltmeter ^(Note 2) b. 3.5 Digit Digital Ammeter c. Digital Watt Meter (Optional)					
Features	Cable Drop Compensation					
Protections	a. Input Over/UnderVoltage b. Phase Fail (for 3Ø units) c. DC Over Voltage d. Power Device Guard e. Overheat f. Soft-start Feature					
Enclosure	IP 20 ^(Note 3)					
Enclosure Colour	RAL7807 (Black Structure) or Customised					
Indications	a. Line PowerON b. PhaseFail (for 3Ø input) c. DC Output ON d. Line Over/ Under Voltage e. Overheat f. DC Over/ Under Voltage					
Cooling System	Air Forced					
Environment	0 to 45°C ^(Note 4)					
Humidity	0-95% (Non-Condensing) Continuous Working					
Dielectric Voltage	1500V AC 10mA / 1 Min					
Noise	≤65dB					
Optional Features	a. Output Blocking Diode b. Input MCCB as per Required KIAC c. Auto Phase Correction d. Isolated Output Monitoring Signals e. Droop Characteristics f. Front Access to Electrical Circuitry g. DC Distribution box as per Customer Need					
Digital Programming Option	1. Output Voltage & Current programming through RS 232/USB. 2. PSU Performance Monitoring via RS485/USB.					
Dimensions		up to 10kW	11-20kW	21-40kW	41-75kW	Above 75kW As per customer request
	Height (mm)	940	1225	1325	1650	
	Width (mm)	450	500	600	700	
	Depth (mm)	650	800	800	1000	

- Notes:** (1) Optional upto -30% to +10% on request.
(2) Optional Input Line Metering.
(3) Optional IP-21, IP-30, IP31, IP-40, IP41, IP-42 or IP-54.
(4) Optional 50°C.
(5) All specifications given here are subject to change to meet the newly imposed standards and technology.

WE PURSUE A POLICY OF CONTINUOUS DEVELOPMENT AND PRODUCT IMPROVEMENT.
THUS THE SPECIFICATIONS IN THIS DOCUMENT AND THE LOCATION OF CONTROLS ON THE FRONT PANEL MAY BE CHANGED WITHOUT NOTICE.