

220 W Programmable DC Power Supply



Technical Specifications

	DCX 10M40	DCX 20M20	DCX 30M14	DCX 60M7	DCX 80M5	DCX 160M2.5
Output Voltage (V)	10	20	30	60	80	160
	Multi Ranging (Parabolic)					
Output Current (A)	40	20	14	7	5	2.5
Rated Power (W)	220					
Efficiency at 230 V, full load (%)	82	82	85	85	86	86
Constant Voltage Mode						
Load regulation 0 ~ 100% (mV)	3	3	5	5	10	10
Line Regulation (mV)	2	2	3	3	5	5
Ripple (mVrms) BW=20 MHz	5	5	5	5	20	20
Ripple (mVpp) BW=20 MHz	40	40	50	50	80	80
Constant Current Mode						
Load regulation 0 ~ 100 % (mA)	10	10	7	7	5	5
Line Regulation (mA)	8	8	5	5	3	3

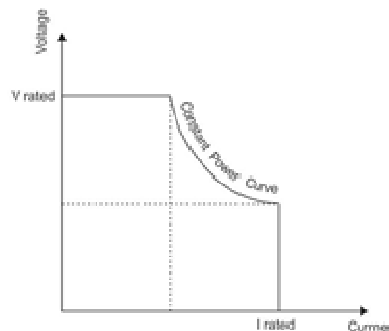
	DCX 10M40	DCX 20M20	DCX 30M14	DCX 60M7	DCX 80M5	DCX 160M2.5
Ripple (mArms) BW=50 MHz	50	40	25	20	15	10
Remote sense drop	1	2	2	2	2	2
Programming Speed						
Rise time (10% to 90%) into resistive load						
Time 100% load (ms)	5V : 4 10V: 6.5	10V:6.5 20V:15	15V:12 30V:20	30V:20 60V:55	40V:30 80V:50	80V: 50 160V:170
Fall time (90% to 10%) into resistive load						
Time 100% load	5V : 3.5 10V: 6.5	10V:6.5 20V:25	15V:25 30V:40	30V:40 60V:70	40V:70 80V:120	80V: 120 160V:200
Time No load	5V : 60 10V: 100	10V:100 20V:250	15V:160 30V:375	30V:375 60V:720	40V:600 80V:1000	80V: 800 160V:1500
Recovery Time						
Recovery within (mV)	50	50	80	80	100	100
Time @ 50 – 100 % load step (µs)	100µS					
Max deviation @ 230 V mains (mV)	5V:160 10V:160	10V:160 20V:160	15V:150 30V:150	30V:150 60V:150	40V:500 80V:500	80V:500 160V:500
Temperature Coefficients	CV : 50 ppm/°C CC : 100 ppm/°C after 30 min of warm up time					
Output Stability & Long Term Drift	CV : 100 ppm CC : 300 ppm after warm up of 30 min and during 8 hrs					
Analog Programing (Rear panel 9 pin D connector)						
Programming:	Voltage : 0 ~ 5 V, Accuracy : 1 % of Vout rated, Input impedance : 1 MΩ Current : 0 ~ 5 V, Accuracy : ± 1 % of Iout rated Input impedance : 1 MΩ					
Monitoring:	Voltage : 0 ~ 5 V, Accuracy : ±1 % of Vout rated Output impedance : <2 Ω / 0.4 mA max Current : 0 ~ 5 V, Accuracy : ±1 % of Iout rated Output impedance : 2 Ω / 0.4 mA max					
V reference	5.1 V ± 10 mV					
Status outputs:	Power Supply : OK = Logic 1 (High), AC Fail = NO / NC Contact DC Fail : NO / NC contacts for DC fail by ± 5% of set value, CV / CC Indication : Logic 1 Remote / Interlock : Dry Contact, once Enabled, DC ON - for short contacts					
Remote shutdown:	with +5V or relay contacts.					

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Remote Programming						
RS232 / USB / RS485	ADC:16 Bits, DAC:16 Bits					
Voltage Programming	Resolution: Better than 15 bit Accuracy: 0.05% Vout + 0.05% Vrated					
Current Programming	Resolution: Better than 15 bit Accuracy: 0.1% Iout + 0.1% Irated					
Monitor Voltage	Resolution: Better than 15 bit Accuracy: 0.1% Vout + 0.1% Vrated					
Monitor Current	Resolution: Better than 15 bit Accuracy: 0.25% Iout + 0.2% Irated					
OVL & UVL Programming	Resolution: Better than 15 bit Accuracy: 0.05% Vout + 0.05% Vrated					
Front Panel controls	Mains ON/ OFF, Voltage and Current setting with Encoders, Switch Settings: Set, Over Voltage, Under Voltage, Foldback, Remote & Output					
Indicators	CV, CC, Over Voltage, Under Voltage, Foldback, Remote & Output ON					
Display						
Accuracy	± (0.5 % + 2 d)					
Resolution	4 digits, voltage and current separately					
Voltage (V)	0 ~ 10.00	0 ~ 20.00	0 ~ 30.00	0 ~ 60.00	0 ~ 80.00	0 ~ 160.0
Current (A)	0 ~ 40.00	0 ~ 20.00	0 ~ 14.00	0 ~ 7.00	0 ~ 5.00	0 ~ 2.50
Protections	Over voltage: Adjustable from 0.5 V ~ 105 % of Vmax, Output shut-down, reset by Output switch.					
	Over current: Selectable from CV to CC mode output switched OFF.					
	Over temperature: Output gets OFF, after preset internal safe temperature					
	Foldback Protection: Selectable from CV to CC mode output switched OFF					
Output Terminals	Bus bar and two wires for remote sense					
Parallel operation	Upto 6 units					
Serial operation	2 units in series of same model					
Mains Input	Universal AC input, Single phase, 90 ~ 270V, 50 / 60 Hz (47 ~ 63Hz) Input connector: IEC320/C14, EN 60320/14 Standby Power: 13 Watts @ 230V (V & I zero) Internal Fuse L: 6 A Fast, 5 X 20 mm ceramic fuse.					
Power Factor	0.97 @ full load at 230V ac					

	DCX 10M40	DCX 20M20	DCX 30M14	DCX 60M7	DCX 80M5	DCX 160M2.5
Turn On Delay	600 ms after mains switched ON					
Inrush current	<15A					
Hold up Time	20ms					
Environment Conditions						
Operating Temperature	0 ~ +50°C with 100% load; derated to 75% at 60°C					
Storage	-40 ~ + 85°C					
Humidity	max. 95% non condensing at 40°C max. 75% non condensing at 50°C					
Safety	Insulation: Input to Output: 1500 Vdc for 1 min Input to case: 1500 Vdc, Output to case: 600 V Insulation resistance: 100 MΩ at 25°C, 70% RH, 500 Vdc					
Dimension	W x D x H: 70 x 421 x 85 mm (2U, 1/6 th 19" Rack size) excluding connectors, terminals, switches, front and back panel controls, handles etc.					
Weight	3.1 kg					
Cooling	Forced, temperature controlled variable Fan speed					
Accessories Supplied	Mains cable, PC Interface Cable					

Subject to change without notice

Multi Range Output



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