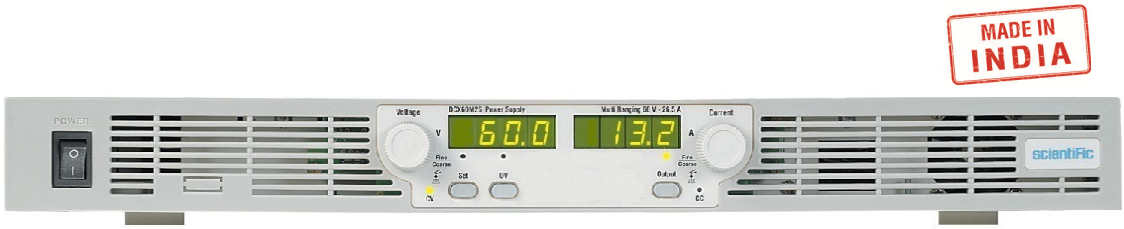
800 W Programmable DC Power Supply



Technical Specifications

	DCA20M80	DCA60M26	DCA160M10	DCA600M2.67	DCA1000M1.6
Output Voltage	20 V	60 V	160 V	600 V	1000V
	Multi Ranging (Stepped)				
Output Current	80 A	26.5 A	10 A	2.67 A	1.6A
Rated Power	800 Watts				
Efficiency at 230 V, full load	82 %	87 %	87 %	88 %	86%
Constant Voltage Mode					
Load regulation 0 ~ 100% (mV)	1 mV	2 mV	5 mV	20 mV	40 mV
Line Regulation (mV)	1 mV	1 mV	2 mV	2 mV	10 mV
Ripple (mVrms) BW=300 kHz	5 mVrms	5 mVrms	8 mVrms	20 mVrms	90 mVrms
Ripple (mVrms) 5Hz~1MHz	15 mVrms	5 mVrms	8 mVrms	30 mVrms	100 mVrms
Ripple (mVpp) 20 MHz	20 mVpp	20 mVpp	30 mVpp	50 mVpp	200 mVpp
Constant Current Mode					
Load regulation 0 ~ 100 % (mA)	25 mA	7 mA	3 mA	10 mA	10 mA
Line Regulation (mA)	2 mA	3.5 mA	2 mA	5 mA	2 mA
Ripple (mArms) BW=300 kHz	20 mArms	8 mArms	3 mArms	3 mArms	3 mArms
Ripple (mArms) BW=5 Hz ~ 1MHz	25 mArms	10 mArms	5 mArms	5 mArms	5 mArms
Ripple (mApp) 20 MHz	100 mApp	25 mApp	15 mApp	20 mApp	20 mApp
Remote sense drop	1 V typically	2 V typically		5 V typically	

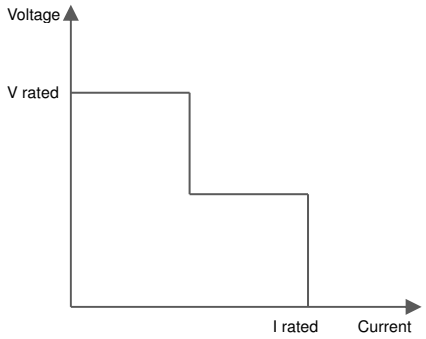
	DCA20M80	DCA60M26	DCA160M10	DCA600M2.67	DCA1000M1.6
Programming Speed					
Rise time (10% to 90%) into resistive load					
Time 100% load	10V : 6.5ms 20V : 12ms	30V : 6ms 60V : 25ms	80V : 30ms 160V : 80ms	300V : 70ms 600V : 225ms	500V : 45ms 1000V:180ms
Time 10% load	10V : 2.5ms 20V : 5ms	30V : 2.5ms 60V : 10ms	80V : 20ms 160V : 50ms	300V : 20ms 600V : 100ms	500V : 40ms 1000V:160ms
Fall time (90% to 10%) into resistive load					
Time 100% load	10V : 6.5ms 20V : 12ms	30V : 8ms 60V : 25ms	80V : 30ms 160V : 100ms	300V : 60ms 600V : 220ms	500V :50ms 1000V:190ms
Time 10% load	10V : 30ms 20V : 120ms	30V : 60ms 60V: 250ms	80V : 250ms 160V : 900ms	300V : 600ms 600V : 2.5s	500V : 500ms 1000V : 1.8s
Time No load	10V : 0.8s 20V : 1.2s	30V : 1s 60V : 2.5s	80V : 3s 160V : 6s	300V : 6s 600V : 12s	500V : 10s 1000V :15s
Recovery Time					
Recovery within	80mV	80mV	100mV	0.5V	1V
time @ 50 – 100 % load step	100µs	100µs	100µs	100µs	100µs
max deviation @ 230 V mains	10V : 300mV 20V:160mV	30V : 300 mV 60V : 150 mV	80V : 1V 160V : 500mV	300V : 1V 600V : 1.5V	500V : 1.5V 1000V : 3V
Output Impedance					
CV, 0-1kHz CV, 1-100kHz	< 1 mΩ < 30 mΩ	< 10 mΩ < 30 mΩ	< 10 mΩ < 30 mΩ	< 200 mΩ < 2 Ω	< 400 mΩ < 3 Ω
Temperature Coefficients	CV : 50 ppm/℃ CC : 60 ppm/℃ after 30 min of warm up time				
Output Stability	CV : 80 ppm CC : 100 ppm after warm up of 30 min and during 8 hrs				
Analog Programing (Rear panel 25 pin D connector)					
Programing:	Voltage : 0 ~ 5 V, Accuracy : ± 0.5 % 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 : <150 Ω / 4 mA max Current : 0 ~ 5 V, Accuracy : ±1 % of Iout rated Output impedance : 150 Ω / 4 mA max				
V reference	5.1 V ± 15 mV				

	DCA20M80	DCA60M26	DCA160M10	DCA600M2.67	DCA1000M1.6
Status outputs :	Power Supply : OK = Logic 1 (High), AC Fail = Logic 0 (Low), DC Fail : Logic 0 (low) for DC fail by ± 5% of set value, CV / CC Status : CV = Logic 0 / CC = Logic 1 Interlock : Short = Power Supply Enabled, Open = Power Supply Disabled DC ON Status : ON = Logic 1, OFF= Logic 0, OVP Status : Fault = Logic 0, OK = Logic 1, OTP Status : Fault = Logic 0, OK = Logic 1				
Remote shutdown :	+5 V				
Front Panel controls: Indicators :	Mains ON/ OFF, Voltage and Current setting with multi-turn potentiometer, Switch setting : Set Overvoltage & Output LEDs for : Set, CV, CC, Over Voltage, AC-Fail, Over Temperature, Output Display : Voltage, Current				
Display					
Resolution					
Voltage	3 Digit	3 Digit	3 Digit	3 Digit	4 Digit
Current	3 Digit	3 Digit	3 Digit	3 Digit	3 Digit
Accuracy	± (0.5 % + 2 d)				
Voltage	0 ~ 20.0 V	0 ~ 60.0 V	0 ~ 160 V	0 ~ 600 V	0 ~ 1000 V
Current	0 ~ 80.0 A	0 ~ 26.5 A	0 ~ 10.0 A	0 ~ 2.67 A	0 ~ 1.60 A
Protections	Over Voltage, Over Current, Short Circuit, Over Temperature				
Output Terminals	Bus bar with M5 bolts				
Parallel operation	N number of units in parallel to increase current				
Serial operation	max 600 V to chassis			Ne series operation	
Mains Input	Universal AC input, Single phase, 90 ~ 270V, 50 / 60 Hz (47 ~ 63Hz) Input connector : IEC320/C14 , EN 60320/14 Standby Power : 30 Watts @ 230V (Vout max, No load) Internal Fuse L : 20 A Fast , 6.3 x 32 mm ceramic fuse.				
Power Factor	0.99 @ full load / 0.98 @ 50% load				
Turn On delay	600 ms after mains switched ON				
Inrush current	<25A				
Hold up Time	20ms				
Environment Conditions					
Operating Temperature	0 ~ +50℃ with 100% load; derated to 75% at 60℃				
Storage	-40 ~ + 85℃				
Humidity	max. 95% non condensing at 40℃ max. 75% non condensing at 50℃				

	DCA20M80	DCA60M26	DCA160M10	DCA600M2.67	DCA1000M1.6
Insulation	Insulation : Input to Output : 3750 V for 1 min Input to case : 2500 Vrms, Output to case : 600 V Insulation resistance : 100 MΩ at 25℃, 70% RH, 500 Vdc				
Safety Standard	EN 60950-1 / IEC61010				
EMC Standards	ESD :EN 61000-4-2: 2009, Fast Transients :EN 61000-4-4: 2012 Conducted & Radiated Emission :EN 61000-6-3/CISPR 11 Conducted Immunity : EN 61000-4-6, Radiated Immunity : EN 61000-4-3 Voltage dips & Interruption : EN 61000-4-11 Harmonics : EN 61000-3-2, Flicker : EN 61000-3-3				
Dimension	W x D x H : 443 x 445 x 43.5 mm (1U, 19" Rack size) excluding connectors, terminals, switches, front and back panel controls, handles etc.				
Weight	8.9 kg				
Cooling	Forced , variable Fan speed				
Accessories Supplied	Mains cable				

Subject to change without notice

Multi Range Stepped Output



scientific
Scientific Mes-Technik Pvt. Ltd.
B-14, Pologround, Industrial Estate, Indore 452 015, India
0731-2422330/31/32/33 0731-2422334 sales@scientificindia.com www.scientificindia.com

Bengaluru 080-23452635 bangalore@scientificindia.com
Chennai 044-42054180 chennai@scientificindia.com
Gujarat +917567463752 gujarat@scientificindia.com
Hyderabad +917095228811 hyderabad@scientificindia.com
Kolkata +919673162333 kolkata@scientificindia.com
Mumbai +919850901735 mumbai@scientificindia.com
New Delhi +918889912554 ndelhi@scientificindia.com
Pune +919850901735 pune@scientificindia.com