

Front Panel Controls	Knobs with 3½ digit digital displays to control output voltage and current settings. Power on/off switch, output enable/standby switch and local/remote switch. Voltage, current and overvoltage preview push buttons allow you to preview the programmed settings at any time; overvoltage limit is adjusted with a set screw accessible through the front panel.		
Displays and Indicators	Voltage and overvoltage setting 3½ digit LED display, current setting 3½ digit LED display. LED indicators for power on, shutdown, remote, overvoltage protection, overtemperature and front panel lockout, constant voltage and constant current modes. IEEE-488.2 indicators include error, SRQ and address (M9E option).	□	□
Built-in Protection	Output overvoltage (resets by cycling the enable/standby switch), overtemperature (will automatically reset)		

Input

Voltage and Frequency 3 kW	180-264 VAC, 47-63 Hz, single or three phase (<200 VAC range limited to 40°C maximum)
4 kW	180-264 VAC, 47-63 Hz, three phase (<200 VAC range limited to 40°C maximum)
Power Factor	0.95 typical with three phase input, 0.98 typical with single phase input
Current	3 kW: single phase, 21A RMS; three phase, 12A RMS 4 kW: 180-264 VAC, 15A RMS; 345-455 VAC, 8.5A RMS; 432-528 VAC, 6.5A RMS;

Output

Regulation	Line: For input voltage variation over the AC input voltage range, with constant rated load. Load: For 0-100% load variation, with constant nominal line voltage. Voltage: 0.05% of maximum rated output +2mV Current: 0.1% of maximum rated output
Transient Response	Typically recovers in 1.5 ms to within 1% of steady-state output voltage (greater than 50% of Vmax) for 70-100% or 100-70% load change.
Stability	±0.05% of maximum voltage or current over 8 hours after 15 minute warm-up time at fixed line, load and temperature. Current accuracy for 5V, 8V, and 16V models is 1% typical.
Efficiency	5-8V Models: 82% typical 16-80V Models: 87% typical 150-600V Models: 85% typical (at maximum output power)
Temperature Coefficient	0.02%/°C of rated output voltage; 0.03%/°C of rated output current. Change in output per °C change in ambient temperature, with constant line and load.

Weight & Shipping Weight

Weight	40 lbs. (18.2 kg)
Shipping Weight	49 lbs. (22.3 kg)

Physical

Height	3- 1/2" (88 mm)
--------	-----------------

Width 19" (482 mm)
 Depth 18" (508 mm)

Environmental

Operating Temperature 0°C to 50°C,
 no derating (<200 VAC range limited to 40°C maximum)
 Storage Temperature -40°C to 65°C
 Cooling Internal fans with overtemperature protection

Output

Model	Precision Accuracy		OVP Adjustment Range (5% to 110% of Vmax)	Ripple and Noise		Stability		Temperature Coefficient		Maximum Total Remote Sense Drop
	Voltage (0.5% of Vmax +1 count)	Current (1.0% of Imax +1 count)		Ripple (RMS)*	Noise (P-P)	Voltage (0.05% of Vmax)	Current (0.05% of Imax)	Voltage (0.02%/°C of Imax)	Current (0.03%/°C of Imax)	
DLM 5-350E	0.04V	5A	0.3-5.5V	12 mV	100 mV	3 mV	175 mA	1 mV	105 mA	2V
DLM 5-450E	0.04V	6A	0.3-5.5V	12 mV	100 mV	3 mV	225 mA	1 mV	135 mA	2V
DLM 8-350E	0.05V	5A	0.4-8.8V	12 mV	100 mV	4 mV	175 mA	1.6 mV	105 mA	2V
DLM 8-450E	0.05V	6A	0.4-8.8V	12 mV	100 mV	4 mV	225 mA	1.6 mV	135 mA	2V
DLM 16-185E	0.09V	3A	0.8-17.6V	10 mV	100 mV	8 mV	93 mA	3.2 mV	55 mA	2V
DLM 16-250E	0.09V	4A	0.8-17.6V	10 mV	100 mV	8 mV	125 mA	3.2 mV	75 mA	2V
DLM 32-95E	0.3V	1.1A	1.6-35V	10 mV	100 mV	16 mV	48 mA	6 mV	30 mA	5V
DLM 32-125E	0.3V	1.4A	1.6-35V	10 mV	100 mV	16 mV	63 mA	6 mV	38 mA	5V
DLM 40-75E	0.3V	0.9A	2-44V	10 mV	100 mV	20 mV	38 mA	8 mV	23 mA	5V
DLM 40-100E	0.3V	1.1A	2-44V	10 mV	100 mV	20 mV	50 mA	8 mV	30 mA	5V
DLM 60-50E	0.4V	0.6A	3-66V	15 mV	100 mV	30 mV	25 mA	12 mV	15 mA	5V
DLM 60-66E	0.4V	0.8A	3-66V	15 mV	100 mV	30 mV	33 mA	12 mV	19.8 mA	5V
DLM 80-37E	0.5V	0.5A	4-88V	15 mV	120 mV	40 mV	19 mA	16 mV	12 mA	5V
DLM 80-50E	0.5V	0.6A	4-88V	15 mV	120 mV	40 mV	25 mA	16 mV	15 mA	5V
DLM 150-20E	0.9V	0.3A	7.5-165V	30 mV	200 mV	75 mV	10 mA	30 mV	6 mA	5V
DLM 150-26E	0.9V	0.4A	7.5-165V	30 mV	200 mV	75 mV	13 mA	30 mV	7.8 mA	5V
DLM 300-10E	1.6V	0.11A	15-330V	60 mV	300 mV	150 mV	5 mA	60 mV	3 mA	5V
DLM 300-13E	1.6V	0.14A	15-300V	60 mV	300 mV	150 mV	6.5 mA	60 mV	3.9 mA	5V
DLM 600-5E	3.1V	0.06A	30-660V	100 mV	500 mV	300 mV	2.5 mA	120 mV	1.5 mA	5V
DLM 600-6.6E	3.1V	0.08A	30-660V	100 mV	500 mV	300 mV	3.3 mA	120 mV	2.0 mA	5V

* RMS ripple typical from 20 Hz to 300 kHz Specifications subject to change.

Output

Model	Output Ratings		Regulation Line and Load		Meter Accuracy	
	Voltage (VDC)	Current (ADC)	Voltage (0.05% of Vmax + 2 mV)	Current (0.1% of Imax)	Voltage (0.5% of Vmax + 1 count)	Current (0.75% of Imax + 1 count)
DLM 5-350E	0-5	0-350	5 mV	350 mA	0.04V	4A
DLM 5-450E	0-5	0-450	5 mV	450 mA	0.04V	5A
DLM 8-350E	0-8	0-350	6 mV	350 mA	0.05V	4A
DLM 8-450E	0-8	0-450	6 mV	450 mA	0.05V	5A
DLM 16-185E	0-16	0-185	10 mV	185 mA	0.09V	3A
DLM 16-250E	0-16	0-250	10 mV	250 mA	0.09V	3A
DLM 32-95E	0-32	0-95	18 mV	95 mA	0.3V	0.8A
DLM 32-125E	0-32	0-125	18 mV	125 mA	0.3V	1A
DLM 40-75E	0-40	0-75	22 mV	75 mA	0.3V	0.7A
DLM 40-100E	0-40	0-100	22 mV	100 mA	0.3V	0.9A
DLM 60-50E	0-60	0-50	32 mV	50 mA	0.4V	0.5A
DLM 60-66E	0-60	0-66	32 mV	66 mA	0.4V	0.6A
DLM 80-37E	0-80	0-37	42 mV	37 mA	0.5V	0.4A
DLM 80-50E	0-80	0-50	42 mV	50 mA	0.5V	0.5A
DLM 150-20E	0-150	0-20	77 mV	20 mA	0.9V	0.3A
DLM 150-26E	0-150	0-26	77 mV	26 mA	0.9V	0.3A
DLM 300-10E	0-300	0-10	152 mV	10 mA	1.6V	0.09A
DLM 300-13E	0-300	0-13	152 mV	13 mA	1.6V	0.11A
DLM 600-5E	0-600	0-5	302 mV	5 mA	3.1V	0.05A
DLM 600-6.6E	0-600	0-6.6	302 mV	7 mA	3.1V	0.06A

Rear Panel Control/Monitor

Remote Sense	The maximum total allowed sense line drop is 2V for 5V, 8V and 16V models and 5V for all other models. Line drop subtracts from the maximum available output voltage at full rated power.
Remote Sense Protection	Unit will not be damaged due to misconnection of the remote sense leads.
Remote Programming	Voltage, current (0-100%) and OVP (5-110%) of full scale can be programmed by selectable 0-5 VDC, 0-10 VDC, or 0-5 k Ω .
Remote Monitoring	Voltage or current can be monitored with user-selectable ranges, 0-5 VDC or 0-10 VDC
Operational Features	Master/slave parallel* operation, up to 2 units can be connected in parallel with active current sharing control to within 10% of each supply. Series operation, up to 3 units of the same model type can be connected in series (consult manual). Negative terminal rated at 150 Vmax above ground
Software	LabVIEW® driver M9E/M85
Regulatory Compliance	CE Mark

J3 Connector

1	Remote Output Enable	14	Remote Shutdown Input (+). Positive or negative true logic selection with S1
2	Remote Shutdown Return (-)	15	+5 VDC Auxiliary Output
3	Remote OVP Programming Input	16	1 mA Current Source for OVP Programming
4	Remote Programming Indicator	17	OVP Status Indicator
5	Operating Mode Indicator	18	Overtemperature Shutdown Indicator
6	Status Indicator Return (-)	19	DC Voltage Monitor Output
7	Current Monitor Output	20	Remote /Local Voltage Control Select
8	Not Used	21	1 mA Current Source for Voltage Programming
9	Voltage Programming Input	22	1 mA Current Source for Current Programming

10	Current Programming Input	23	Remote/Local Current Control Select
11	Not Used	24	Not Used
12	Programming/Monitor Return (-)	25	Not Used
13	Not Used		

L

┘