



## 180 Watt Switched-Mode Xenon Arc-Lamp Power Supply

We provide solutions  
to your special  
light requirements!



- Very high regulation
- Noise only 150 mV peak to peak
- Meets UL, CSA, TUV, VDE and CE standards
- Automatic or manual lamp start

Our new line of switch-mode lamp power supplies use high frequency switching technology to achieve compact size as well as unparalleled performance and reliability.

**The EM180ds** designed specifically for use in OEM applications that use and are dedicated to short arc xenon lamps in the 50 to 180 Watt range. Remote control and monitor capability makes it ideal for completely automated design implementation. Addition of safety features we provide will make your system even more user friendly.

**The EM180ds** feature extremely high performance - less than 0.2% stability after warm-up. Noise measure less than 150 mV peak to peak, ripple is less than 0.1% and line and load regulation is less than 0.5%. This superior performance extends lamp life and reduces arc wander.

### EMSC, LLC

ELECTRO MAGNETIC SCIENCES COMPANY

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# EM180ds

## ABOUT US

With over three decades of experience in the design and manufacture of instrumentation for analytical chemistry, spectroscopy and microlithography, we understand the requirements necessary to make high performance and very reliable products. They are manufactured to the highest of standards. Each unit delivers dependable performance, allowing you to focus on your results.

Our instruments are designed to comply with most world safety agency standards. For additional safety, we feature a unique interlock system which addresses numerous safety concerns.

Our products are built to perform under extreme conditions. Each power supply is burned in at an elevated temperature and line voltage for 24 hours, and must meet our exhaustive quality inspection before being released for shipment. The exceptional reliability is backed by our one-year warranty.

Our team is committed to personal service to our customer, and to your complete satisfaction.

**To learn more visit our website at [www.EMSC-LLC.com](http://www.EMSC-LLC.com)**

## MAIN FUNCTIONS

Current control is factory preset to the lamp nominal value. Intensity control can be readjusted with a 20 turn pot and can be remotely controlled with an opto-isolated proportional voltage. This control can also be used in an optical feedback function.

Igniter produces positive 25 KV pulse of 30ns duration on the positive output terminal. Lamp anode must be isolated from ground and negative output and must withstand at least 30 KV. Time out function disables ignition pulse if the lamp does not start within 5 sec. Igniter is detachable and can be relocated closer to the lamp.

Power Factor Correction circuit automatically selects input voltage. Power supply is protected with an internal thermostat if sufficient cooling is not used.

TYPICAL SPECIFICATIONS	
AC Input:	95-130 VAC/3A 190-260 VAC/1.5A 50/60 Hz
DC Power Output:	50-180 Watts
Output Current:	1 to 16 A
Output Voltage:	Lamp dependent 10 to 26 VDC
Auxiliary Voltage	12 VDC, 1 A Max.
Pre-ignition Voltage:	<100 VDC
Ignition Voltage:	25 KV Typical
Line Regulation:	<0.5% change over 95-130 VAC or 190-260 VAC
Load Regulation:	< 0.5% change of 50% load change
Stability:	<0.2% Lamp Current after 1 hour warm-up
Noise:	< 150 mV peak to peak from 50Hz to 600 KHz
Ripple with Resistive Load:	< 0.1% RMS 20 Hz to 50 kHz
Max. Operating Temp:	40° C
Weight:	2.2 lb. ( 1.0 kg)
Dimensions:	6.0 x 4.5 x 2.5 in. 152 x 114 x 64 cm

## REMOTE FUNCTIONS

- Lamp Current monitor
- Igniter Control
- Remote Current Control
- Lamp On Indicator
- Interlock Shutdown
- Auxiliary 12V output at 1 Amp.

Uses 6 pin header connector  
The Auxiliary 12V is isolated from main output.  
All functions are opto-isolated and referenced to Auxiliary.

ARC LAMP COMPATIBILITY									
XENON LAMPS					CERAMIC COMPACT XENON LAMPS				
POWER	VOLTAGE	CURRENT	FLUX	LIFE	POWER	VOLTAGE	CURRENT	FLUX	LIFE
35W	11V	3.5A	1m	2000 h					
75W	14V	5.4A	950 lm	400 h	150W	12V	13A	2000 lm	1000 h
150W	20V	7.5A	3000 lm	1200 h	175W	13V	14A	3600 lm	1000 h
150W	18V	8.5A	2900 lm	1200 h					



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