



Power Supply Unit

DYNAGEAR

Lakshmi Electrical Control Systems Limited

DRP - 240W

DRP - 240W Single output DIN rail power supply

Summary

- Single Output : power 240W
- Input voltage : 85 ~ 264VAC 120 ~ 370VDC

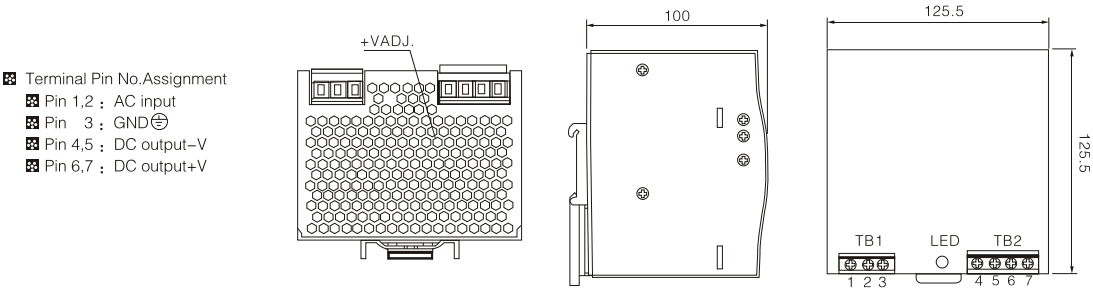


General Specification

125.5 × 125.5 × 100mm

Specification	Model	DRP-240-24	DRP-240-48
DC output voltage, Current		24V 0 ~ 10A	48V 0 ~ 5A
Wave and noise		80mVp-p	150mVp-p
Inlet wire stability		± 0.5%	± 0.5%
Load Stability		± 1%	± 0.5%
Efficiency		84%	85%
Adjustable range for DC voltage		± 10%	± 10%
Input voltage range		85 ~ 264VAC 120 ~ 370VDC 47 ~ 63Hz	
Impact current		Cold start current 27A/115VAC 45A/230VAC	
Overload protection		105% ~ 150% cut off the output, automatic recovery	
Over voltage protection		30 ~ 36V for 24V model; 54 ~ 60V for 48V model	
Setup, rise, hold up time		800ms, 40ms, 20ms/230VAC at full load	
Withstand voltage		I/P-O/P: 1.5kV I/P-FG:1.5kV O/P-FG: 0.5kV 1minute	
Isolation resistance		I/P-O/P I/P-FG O/P-FG: 500VDC/100MΩ	
Working temperature		-10℃ ~ +50℃	
Dimension		125.5 × 125.5 × 100mm	
Weight		1.2kg	
Packing		41.5 × 27.5 × 25CM/12PCS/14.5kg	

Overall dimension(mm)



MDR - 20W

MDR - 20W Single output DIN rail power supply

DYNAGEAR

Summary

- Single output: power 20W
- Input voltage: 85 ~ 264VAC 120 ~ 370VDC

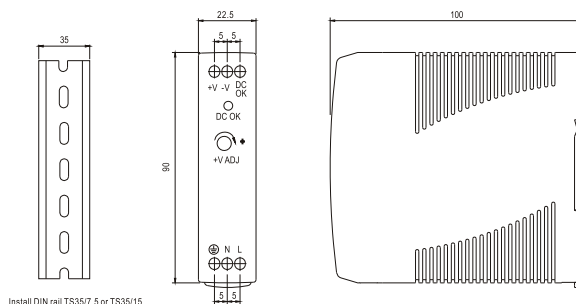


General Specification

22.5 × 90 × 100mm

Specification	Model	MDR-20-5	MDR-20-12	MDR-20-15	MDR-20-24
DC output voltage, current		5V 0 ~ 3A	12V 0 ~ 1.67A	15V 0 ~ 1.34A	24V 0 ~ 1A
Wave and noise		80mVp-p	120mVp-p	120mVp-p	150mVp-p
Inlet wire stability		± 1%	± 1%	± 1%	± 1%
Load stability		± 1%	± 1%	± 1%	± 1%
Efficiency		76%	80%	81%	84%
Adjustable range for DC voltage		± 2%	± 1%	± 1%	± 1%
Input voltage range		85 ~ 264VAC 120 ~ 370VDC 47 ~ 63Hz			
Impact current		Cold start current 20A/115VAC 40A/230VAC			
Overload protection		105% ~ 160% cut off the output, automatic recovery			
Over voltage protection		120% ~ 140% shut down O/P voltage, re-power on to recover			
Setup, rise, hold up time		500ms, 30ms/230VAC at full load 1000ms, 30ms/115VAC at full load			
Withstand voltage		I/P-O/P: 1.5kV I/P-FG: 1.5kV O/P-FG: 0.5kV 1minute			
Isolation resistance		I/P-O/P I/P-FG O/P-FG: 500VDC/100MΩ			
Working temperature		-10°C ~ +50°C			
Dimension		22.5 × 90 × 100mm			
Weight		0.19kg			
Packing		45.5 × 31.5 × 23CM/90PCS/18kg			

Overall dimension(mm)



S - 400W

S - 400W Single output power supply

Summary

- Single Output : power 400W
- Input voltage : 90 ~ 132VAC/180 ~ 264VAC by switch

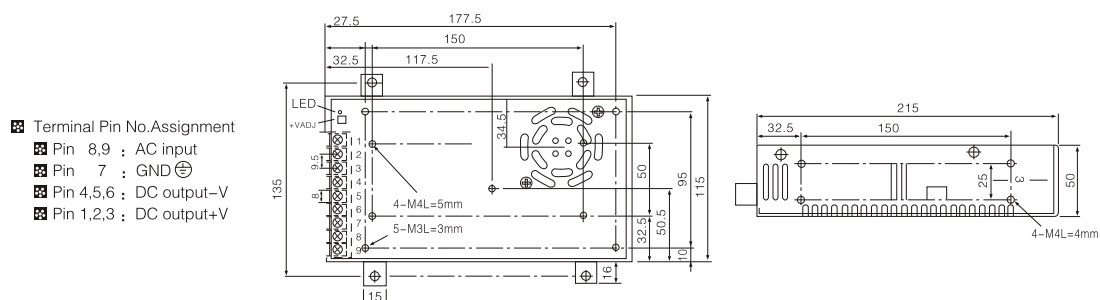


General Specification

215 × 115 × 50mm

	S-400-5	S-400-12	S-400-24	S-400-48
DC output voltage, current	5V 0 ~ 60A	12V 0 ~ 33A	24V 0 ~ 16.5A	48V 0 ~ 8.3A
Wave and noise	100mVp-p	150mVp-p	150mVp-p	200mVp-p
Inlet wire stability	± 0.5%	± 0.5%	± 0.5%	± 0.5%
Load stability	± 1%	± 0.5%	± 0.5%	± 0.5%
Efficiency	73%	74%	81%	83%
Adjustable range for DC voltage	± 10%	± 10%	± 10%	± 10%
Input voltage range	90 ~ 132VAC/180 ~ 264VAC by switch 254 ~ 370VDC 47 ~ 63Hz			
Impact current	Cold start current 25A/115VAC 50A/230VAC			
Overload protection	105% ~ 135% cut off the output, automatic recovery			
Over voltage protection	115% ~ 150% shut down O/P voltage, re-power on to recover			
Setup, rise, hold up time	200ms, 50ms, 20ms/230VAC at full load			
Withstand voltage	I/P-O/P: 1.5kV I/P-FG: 1.5kV O/P-FG: 0.5kV 1minute			
Isolation resistance	I/P-O/P I/P-FG O/P-FG: 500VDC/100MΩ			
Working temperature	-10°C ~ +50°C			
Dimension	215 × 115 × 50mm			
Weight	1.1kg			
Packing	45.5 × 31.5 × 26CM/20PCS/22kg			

Overall dimension(mm)



S - 500W

S - 500W Single output power supply

DYNAGEAR

Summary

- Single Output : power 500W
- Input voltage : 90 ~ 132VAC/180 ~ 264VAC by switch



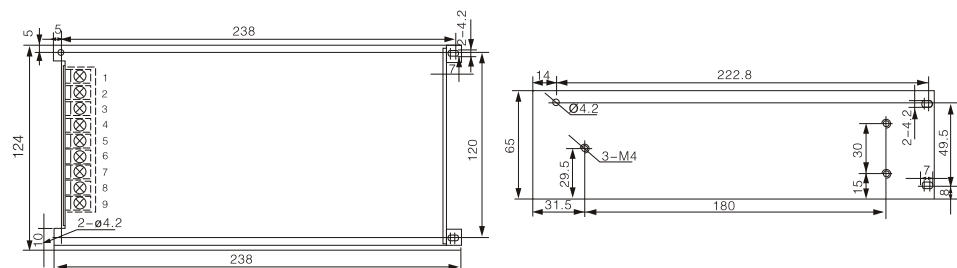
General Specification

238 × 124 × 65mm

Specification	Model	S-500-12	S-500-24	S-500-36	S-500-48
DC output voltage, current		12V 0 ~ 40A	24V 0 ~ 20A	36V 0 ~ 14A	48V 0 ~ 10A
Wave and noise		100mVp-p	150mVp-p	150mVp-p	150mVp-p
Inlet wire stability		± 0.5%	± 0.5%	± 0.5%	± 0.5%
Load stability		± 0.5%	± 0.5%	± 0.5%	± 0.5%
Efficiency		83%	85%	86%	87%
Adjustable range for DC voltage		± 10%	± 10%	± 10%	± 10%
Input voltage range	90 ~ 132VAC/180 ~ 264VAC by switch 254 ~ 370VDC 47 ~ 63Hz				
Impact current	Cold start current 25A/115VAC 50A/230VAC				
Overload protection	105% ~ 300% cut off the output, automatic recovery				
Over voltage protection	115% ~ 140% shut down O/P voltage, re-power on to recover				
Setup, rise, hold up time	800ms, 20ms, 36ms/230VAC at full load				
Withstand voltage	I/P-O/P: 1.5kV I/P-FG:1.5kV O/P-FG: 0.5kV 1minute				
Isolation resistance	I/P-O/P I/P-FG O/P-FG: 500VDC/100MΩ				
Working temperature	-10°C ~ +50°C				
Dimension	238 × 124 × 65mm				
Weight	1.35kg				
Packing	44 × 26 × 27CM/12PCS/16.2kg				

Overall dimension(mm)

- ❑ Terminal Pin No. Assignment
- ❑ Pin 1,2 : AC input
 - ❑ Pin 3 : GND ⊕
 - ❑ Pin 4,5,6 : DC output-V
 - ❑ Pin 7,8,9 : DC output+V



SD - 25 Series

25W Single Output DC - DC converter



Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage
- 1500VAC I/O isolation
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Fixed switching frequency at 83KHz
- Low cost



SPECIFICATION

MODEL		SD-25A-5	SD-25B-5	SD-25C-5	SD-25A-12	SD-25B-12	SD-25C-12	SD-25A-24	SD-25B-24	SD-25C-24
OUTPUT	DC VOLTAGE	5V			12V			24V		
	RATED CURRENT	5A			2.1A			1.1A		
	CURRENT RANGE	0 ~ 5A			0 ~ 2.1A			0 ~ 1.1A		
	RATED POWER	25W			25.2W			26.4W		
	RIPPLE & NOISE (max.) Note.2	100mVp-p			120mVp-p			150mVp-p		
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5VDC			11 ~ 16VDC			23 ~ 30VDC		
	VOLTAGE TOLERANCE Note.3	±2.0%			±1.0%			±1.0%		
	LINE REGULATION	±0.5%			±0.3%			±0.2%		
	LOAD REGULATION	±0.5%			±0.3%			±0.2%		
SETUP, RISE, HOLD UP TIME		2.5s, 50ms, ----- at full load								
INPUT	VOLTAGE RANGE	A: 9.2 ~ 18VDC B: 19 ~ 36VDC C: 36 ~ 72VDC								
	EFFICIENCY (Typ.)	71%	72%	74%	72%	75%	78%	75%	78%	81%
	DC CURRENT	3.2A/12V			1.6A/24V			0.8A/48V		
PROTECTION	OVERLOAD	105 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	5.75 ~ 6.75V/10% load			16.8 ~ 20V/10% load			31.5 ~ 37.5V/10% load		
		Protection type : Hiccup mode, recovers automatically after fault condition is removed								
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes								
SAFETY & EMC (Note 4)	SAFETY STANDARDS	Design refer to LVD								
	WITHSTAND VOLTAGE	I/P-O/P: 1.5KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC / 25°C / 70% RH								
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B								
	EMS IMMUNITY	Compliance to EN61000-4-2, 3, 4, 6, 8, ENV50204, EN55024, heavy industry level, criteria A								
OTHERS	MTBF	374.3K hrs min. (SD-25A)		365.9K hrs min. (SD-25B)		377.5K Hrs min. (SD-25C)		MIL-HDBK-217F (25°C)		
	DIMENSION	99*97*36mm (L*W*H)								
	PACKING	0.38Kg; 45pcs/17.8Kg/0.9CUFT								
NOTE	1. All parameters NOT specially mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.									

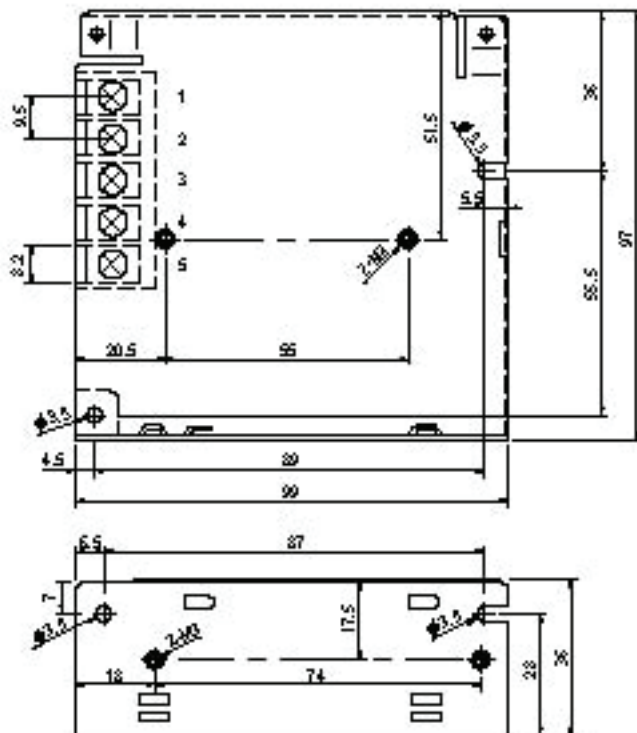
SD - 25 Series

25W Single Output DC - DC converter

DYNAGEAR

Mechanical Specification

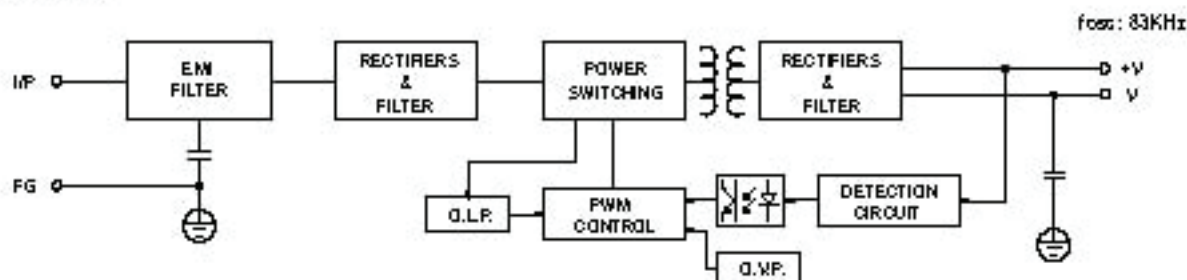
Case No. 905 Unit:mm



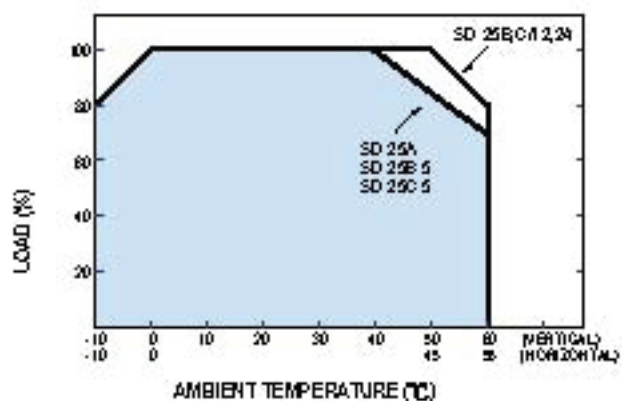
Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	DC INPUT V	4	DC OUTPUT +V
2	DC INPUT V+	5	DC OUTPUT V
3	FG		

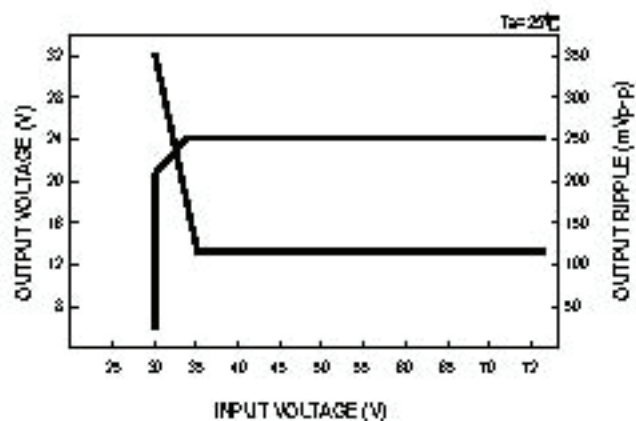
Block Diagram



Derating Curve



Static Characteristics (SD-25C-24V)



SYNAGEAR

Lakshmi Electrical Control Systems Limited (LECS) is one of the leading manufacturer of switchgear products from 1982.

LECS manufactures custom-engineered control panel for Textile Machinery, Machine Tools, APFC, Energy Saver – Lighting, Compressor and many other applications conforming to International Standards.

LECS manufactures Engg. Plastic components with total expertise and facilities to deliver complete design solutions and ready to fit products. The company has strong background in R & D, Engineering, Tooling and Automation.

SYNAGEAR

LAKSHMI ELECTRICAL CONTROL SYSTEMS LIMITED

GST: 33AAACL3737E1ZW

Arasur, Coimbatore - 641 407, Tamil Nadu, India.

Fax: + 91-422-6616555, **Phone:** +91 422-6616500

E-mail: info@lecsindia.com

www.lecsindia.com