

MDR-20LY

Single Output, DIN-Rail, Very Compact 20W AC/DC Power Supplies



Key Features:

- Up to 24W Output Power
- 3,000 VAC I/O Isolation
- DIN-Rail TS-35/7.5 or 15
- Universal AC Input
- Takes AC or DC Input
- Ultra Slim Case
- UL Approved
- -20°C to 70°C Operation
- DC OK Relay Contact
- Adjustable DC Output
- Meets EN 55032 B
- >500 kHour MTBF

Electrical Specifications

Specifications typical @ +25°C, nominal input voltage & rated output current, unless otherwise noted. Specifications subject to change without notice.

Input	Parameter	Conditions	Min.	Typ.	Max.	Units
	Input Voltage Range		90		264	VAC
			127		370	VDC
	Input Frequency		47		63	Hz
	Input Current	See Model Selection Guide				
	Leakage Current	240 VAC			1.0	mA
	Rise Time	Full Load			30	mS
	Start Up Time, Full Load	115 VAC			1,000	mS
		230 VAC			500	mS
	Inrush Current, Cold Start	115 VAC		35		A Pk
		230 VAC		70		

Output	Parameter	Conditions	Min.	Typ.	Max.	Units
	Output Voltage Accuracy	At Rated Load		±2.0		%
	Line Regulation			±1.0		%
	Load Regulation, 0 - 100% Load			±5.0		%
	Ripple & Noise (20 MHz), See Note 1	5V Output			80	mV
		12V Output			120	
		15V Output			120	
		24V Output			150	
	Hold-Up Time	115 VAC		20		mSec
		230 VAC		50		
	Temperature Coefficient			±0.03		%/°C
	Over Current Protection		105			%IOUT
	Short Circuit Protection, See Note 2	Continuous (Autorecovery)				

General	Parameter	Conditions	Min.	Typ.	Max.	Units
	Isolation Voltage, See Note 3	Input to Output	3,000			VAC
		Input to Field Ground	2,000			
		Output to Field Ground	500			
	Isolation Resistance	Input to Output		>100		MΩ
		Input to Field Ground				
	Switching Frequency	Output to Field Ground		50/60		kHz

EMI See Page 2

Environmental

Parameter	Conditions	Min.	Typ.	Max.	Units
Operating Temperature Range	Ambient	-20	+25	+70	°C
Storage Temperature Range		-40		+85	°C
Cooling	Free Air Convection (See Derating Curves)				
Humidity, RH, Non-condensing	Working	20		90	%
	Storage	10		95	

Physical

Size and Weight	See Mechanical Drawing (Page 3)				
Case Material	Plastic, UL 94V-0, Heat Resistant				
DIN Rail	TS35X7.5 & TS35x15 "TOP HAT" Rail				

Reliability Specifications

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	500			kHours
Safety Standards	UL 508, Meets UL 62368-1, Meets EN 61558-1, OVC II				
Vibration	IEC 60068-2-6, 10-500 Hz, 2G 10 min/1 cycle, 60 min each along X, Y, Z axis				
Safety Class	Class I				



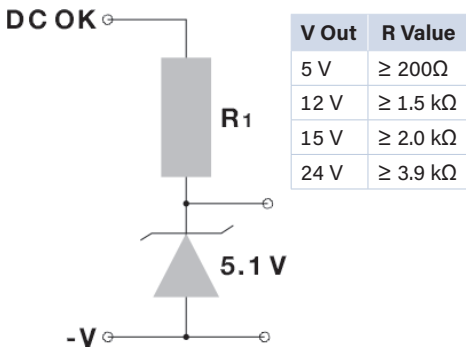
RoHS

MicroPower Direct

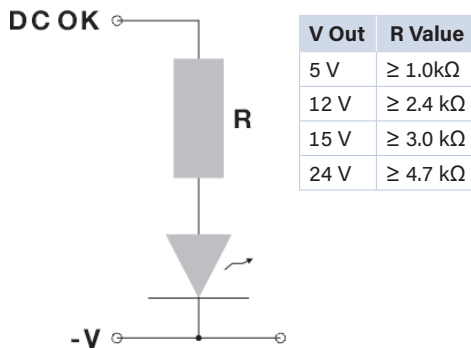


Using The DC OK Signal

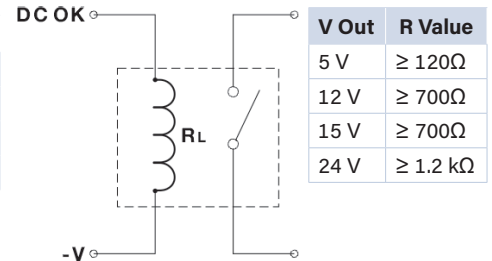
1: 5V Signal



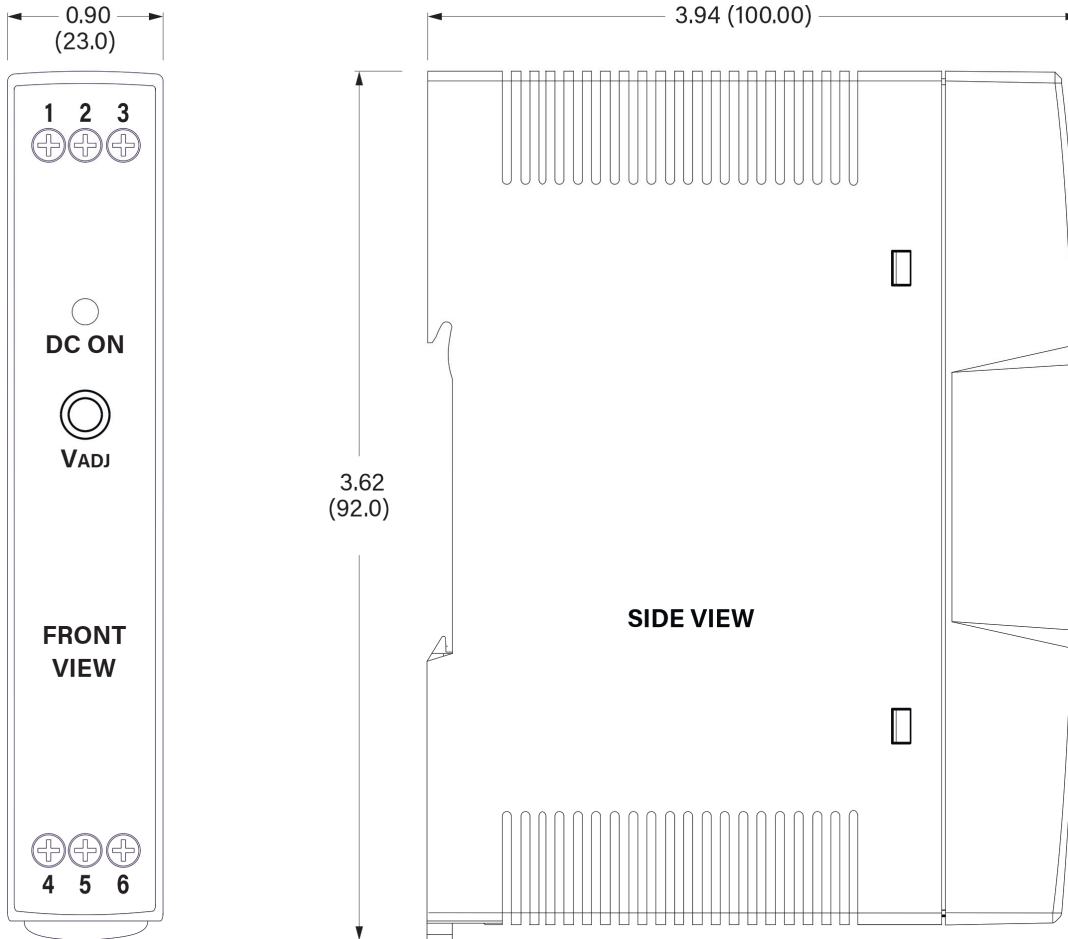
2: LED Signal



3: Relay Signal



Mechanical Dimensions



Connections

- Wire range - 24 -12 AWG
- Max Tightening Torque: 0.4 N•m

Pin	Function
1	+VOUT
2	-VOUT
3	DC OK

Pin	Function
4	GND
5	AC-Neutral
6	AC-Line

Notes:

- All dimensions are typical in inches (mm)
- Tolerance x.xx = ± 0.039 (± 1.00)
- Mounting Rail: TS35
- Weight = 5.29 Oz (150g)