

MANAIRCO, INC
MAX POWER
CONSTANT CURRENT REGULATOR
FOR AIRPORT LIGHTING
(FAA L-828 & L-829)



*Ferromagnetic Reactor Type
Air Cooled
"Comparable to Ferroresonant Type"*

Designed and manufactured in accordance with FAA Advisory Circular AC 150/5345-10G. Regulator designs and performance evaluated by personnel with many years of design and test experience. Regulators built by a company with over 50 years manufacturing experience in the airport and heliport field lighting.

- Proven technology for airfield lighting
- Reliable for long life with low life cycle cost
- Exceeds FAA performance requirements
- Durable for various electrical vaults environments
- Versatile for medium and/or high intensity lighting
- Self-protected from overloads and shorts of loads
- Noise emission free
- Air cooled - no hazardous cooling materials
- No harmful harmonics
- No SCR's in series power circuits
- Predictable - no complex electronics
- Easily maintained
- Control circuit for remote operation of #19 AWG 10,000 ft. round-trip
- Control circuits protected by circuit breakers, no spare fuses needed
- Warranty for 2 years from date of shipment or 1 year from date of installation (first occurring)



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Quality Lighting Since 1955

MANAIRCO'S

Constant Current Regulator Catalog Numbers

Built Per FAA AC150/5345-10G

Revised Feb. 2011

FAA L-828 Regulators

Description	Catalog No.	KW	Class	Style
Ferromagnetic Reactor	MSR02L8283B-**	2	1	1
Saturable Type	MSR02L8285B-**	2	1	2
(Air Cooled)	MSR04L8283B-**	4	1	1
	MSR04L8285B-**	4	1	2
	MSR07L8283B-**	7.5	1	1
	MSR07L8285B-**	7.5	1	2
	MR10L8283B-**	10	1	1
	MR10L8285B-**	10	1	2
	MR15L8283B-**	15	1	1
	MR15L8285B-**	15	1	2
	MR20L8283B-**	20	1	1
	MR20L8285B-**	20	1	2
	MR30L8283B-**	30	1	1
	MR30L8285B-**	30	1	2
	MR30L82820-**	30	2	2
	MR50L82820-**	50	2	2

** = 01 for 208 volt 60 hertz input

** = 02 for 240 volt 60 hertz input

** = 03 for 480 volt 60 hertz input

** = 04V for 2400 volt 60 hertz input

First two digits of supply volts for special input voltage followed by first digit of hertz. Example: 380volt 50 hertz = suffix-385

FAA L-829 Regulators with Monitor change Catalog No. 'L828' to "L829"

Class 1 = 6.6 Amp

Class 2 = 20 Amp

Style 1 = 3 step

Style 2 = 5 step

FAA L-827 MONITOR

Description	Catalog No.*	Class	Style*
For 2 & 4KW Regulator	MRML8273B-01	1	1
For 7.5KW Regulator	MRML8273B-02	1	1
For 10KW Regulator	MRML8273B-03	1	1
For 15KW Regulator	MRML8273B-04	1	1
For 20KW Regulator	MRML8273B-05	1	1
For 30KW Regulator	MRML8273B-06	1	1
For 30KW Regulator	MRML8275B-07	2	2
For 50KW Regulator	MRML8275B-08	2	2

REMARKS - For adding to 3 step regulator

*For Style 2, 5 Step Regulator, change 3B to 5B in Catalog No.

CONSTANT CURRENT REGULATOR OPTIONAL EQUIPMENT:

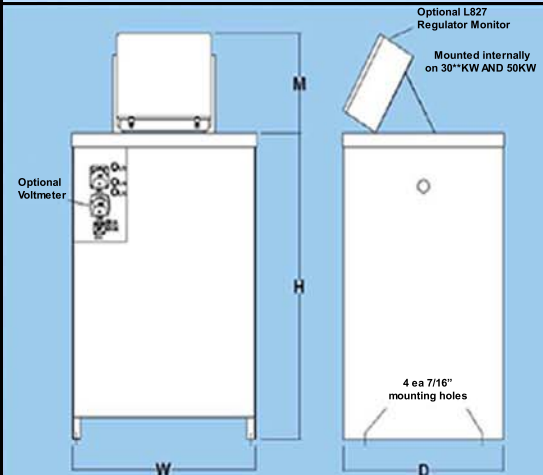
FAA L-827 Monitor with regulator change catalog L-828 to L-829

Suffix Adder	Description	Suffix Adder	Description
24EDC	Special External Control Voltage 24 VDC (10,000 ft. one way control)	WM	Input Wattmeter (with C.T. and P.T. as need)
48EDC	Special External Control Voltage 48VDC (10,000 ft. one way control)	IWT	Input Watts Transducer (with C.T. and P.T. as need)
24IDC	Special Internal Control Voltage 24VDC (10,000 ft. one way control)	OCI	Output Current Indicator with relay dry contacts (for remote indicator)
48IDC	Special Internal Control Voltage 48VDC (10,000 ft. one way control)	OCL	Output Current Indications with Light Indicator (local indicator)
ETMT	Elapsed Time Meter in Hours for Total Time On	OS1	Output Series Plug Cut-out
ETMM	Elapsed Time Meter in Hours for Time on Maximum Brightness	OSCK	Output Short Circuit Jumper Kit
IAM	Input Ammeter (with current transformer)	OVM	Output Voltmeter (with potential transformer)
IPOL	Input Power on Light Indicator (dual lights for failure back-up)	OWT	Output Watts Transducer
IVM	Input Voltmeter (with potential transformer if needed)	OWM	Output Wattmeter (with current and potential transformers)

Other specific site requirements and options available upon request.

STANDARD EQUIPMENT FOR ALL REGULATORS

- User connections readily accessible
- Floor mounted stand along enclosure for ease of replacement parts
- Primary surge arresters
- Primary switch for regulator control
- Control switch for "Remote" (tower) control and "Local" (direct) control
- Internally provided 120 VAC control and equipped for external supply connection
- Control circuit protection by circuit breaker with visual indicator
- Reliable custom transformer design with electronic control for output current
- Efficiency and power factor exceed FAA requirements
- Performance comparable to Ferroresonant Type
- Tapped Output for 50% and 75% load for improved efficiency and power factor
- Other out put taps avail;able upon request
- Precisely controls output current for loads of short circuit to full load and for varying input voltages for - 5% to +10% of nominal input with 30% lamps outage
- Regulator shuts down system for open circuit or over-current in the load
- Output distribution type lightning arresters
- Output electrically isolated from primary
- Control boards interchangeable for different KW sizes and different output currents
- Long life LED indicators for:
 1. Input Power ON
 2. Regulator ON
 3. Fault for Open circuit or Over current



REGULATOR DIMENSIONS						REGULATOR WEIGHTS (APPROX.)	
	2 and 4 KW	7.5 KW	10 KW	20,30 KW	30** KW	50 KW	2KW 300 LBS
							4KW 400 LBS
							7.5KW 600 LBS
							10KW 750 LBS
							15KW 850 LBS
							20KW 1050 LBS
							30KW 1350 LBS
							50KW 2300 LBS
H	36"	47"	47"	70"	70"		
W	24"	28"	34"	36"	44"		
D	21"	28"	30"	32"	36"		
M	12"	12"	12"				

* Add 40 Lbs for Status Monitor (L827)

** 30KW 208,240, and 2400VAC Units, Add 300 Lbs

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