

# MILITARY

**SERIES LFD** (-40°C to +85°C Operating Temperature)

**SERIES LMD** (-55°C to +85°C Operating Temperature)

**3.3 to 250 VDC Outputs Available**

**Isolated Regulated 75 Watts DC-DC Converters**

**Wide Input Range/200-380 VDC**

**Short Circuit Protected**

**± Parallel Operation**

**Dual Isolated Outputs  
Special Voltage  
Combinations Available**

**Hi Density  
75 Watts**

**Fixed  
Frequency**

## SERIES LFD/LMD SINGLE - 75 WATTS - INPUT 200-380 VDC

INPUT VOLTAGE RANGE (V DC)	OUTPUT VOLTAGE (V DC)	MAX. OUTPUT POWER (W)	EFF. @ FULL LOAD TYPICAL (%)	MAX. LOAD REGULATION (%) **		MAX. LINE REGULATION AT FULL LOAD (%)		OUTPUT VOLTAGE RIPPLE FULL LOAD 1-1 MHz BW (MVP-P)	OUTPUT VOLTAGE TOLERANCE (±%)**	Series LFD single (-40°C to +85°C)		Series LMD single (-55°C to +85°C)	
				10-50%	50-100%	200-300V	300-380V			PICO PART NUMBER	PRICE	PICO PART NUMBER	PRICE
				200-380	3.3	30	73			1.50	1.50	1.00	1.00
200-380	5	50	80	1.25	1.25	1.00	1.00	50	1.5	LFD5S	258.00	LMD5S	387.00
200-380	5.2	50	80	1.25	1.25	1.00	1.00	50	1.5	LFD5.2S	258.00	LMD5.2S	387.00
200-380	9	65	84	1.25	1.25	0.75	0.75	50	1	LFD9S	258.00	LMD9S	387.00
200-380	12	75	84	1.00	1.00	0.75	0.75	50	1	LFD12S	258.00	LMD12S	387.00
200-380	15	75	84	1.00	1.00	0.75	0.75	50	1	LFD15S	258.00	LMD15S	387.00
200-380	24	75	85	0.75	0.75	0.50	0.50	50	0.5	LFD24S	258.00	LMD24S	387.00
200-380	28	75	86	0.50	0.50	0.50	0.50	50	0.5	LFD28S	258.00	LMD28S	387.00
200-380	48	75	85	0.50	0.50	0.50	0.50	50	0.5	LFD48S	258.00	LMD48S	387.00
200-380	100	75	85	0.50	0.50	0.50	0.50	100	0.5	LFD100S	387.00	LMD100S	580.50

10% Minimum load required at all times

\*\*Reading taken at nominal 300 VDC input

\*Using proper thermal management maximum temp of +85°C (case)

## SERIES LFD/LMD DUAL - 75 WATTS - INPUT 200-380 VDC

INPUT VOLTAGE RANGE (V DC)	OUTPUT VOLTAGE (V DC)	MAX. OUTPUT POWER (W)	EFF. @ FULL LOAD TYPICAL (%)	MAX. LOAD REGULATION (%) **		MAX. LINE REGULATION AT FULL LOAD (%)		OUTPUT VOLTAGE RIPPLE FULL LOAD 1-1 MHz BW (MVP-P)	OUTPUT VOLTAGE TOLERANCE (±%)**	Series LFD single (-40°C to +85°C)		Series LMD single (-55°C to +85°C)	
				10-50%	50-100%	200-300V	300-380V			PICO PART NUMBER	PRICE	PICO PART NUMBER	PRICE
				200-380	5	50	80			1.25	1.25	1	1
200-380	9	65	84	1.25	1.25	0.75	0.75	50	1	LFD9D	348.00	LMD9D	522.00
200-380	12	75	84	1	1	0.75	0.75	50	1	LFD12D	348.00	LMD12D	522.00
200-380	15	75	84	1	1	0.5	0.5	50	1	LFD15D	348.00	LMD15D	522.00
200-380	24	75	85	0.75	0.75	0.5	0.5	50	0.5	LFD24D	348.00	LMD24D	522.00
200-380	28	75	86	0.5	0.5	0.5	0.5	50	0.5	LFD28D	348.00	LMD28D	522.00
200-380	48	75	85	0.5	0.5	0.5	0.5	50	0.5	LFD48D	348.00	LMD48D	522.00

10% Minimum load required at all times

\*\*Reading taken at nominal 300 VDC input

\*Using proper thermal management maximum temp of +85°C (case)

## ±HIGH VOLTAGE SERIES LFD/LMD TO 250 VDC - 50 WATTS - INPUT 200-380 VDC

INPUT VOLTAGE RANGE (V DC)	OUTPUT VOLTAGE (V DC)	MAX. OUTPUT POWER (W)	EFF. @ FULL LOAD TYPICAL (%)	MAX. LOAD REGULATION (%) **		MAX. LINE REGULATION AT FULL LOAD (%)		OUTPUT VOLTAGE RIPPLE FULL LOAD 1-1 MHz BW (%)	OUTPUT VOLTAGE TOLERANCE (±%)**	PICO PART NUMBER	PRICE	PICO PART NUMBER	PRICE
				20-50%	50-100%	200-300V	300-380V						
				200-380	125	50	85						
200-380	150	50	85	0.5	0.5	0.3	0.3	1	0.5	LFD150S	387.00	LMD150S	580.50
200-380	175	50	85	0.5	0.5	0.3	0.3	1	0.5	LFD175S	387.00	LMD175S	580.50
200-380	200	50	85	0.5	0.5	0.3	0.3	1	0.5	LFD200S	516.00	LMD200S	774.00
200-380	225	50	85	0.5	0.5	0.3	0.3	1	0.5	LFD225S	516.00	LMD225S	774.00
200-380	250	50	85	0.5	0.5	0.3	0.3	1	0.5	LFD250S	516.00	LMD250S	774.00

10% Minimum load required at all times

\*\*Reading taken at nominal 300 VDC input

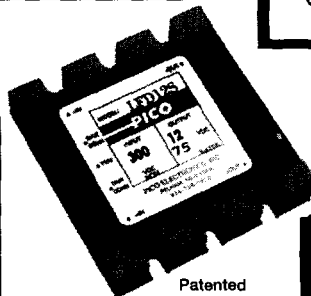
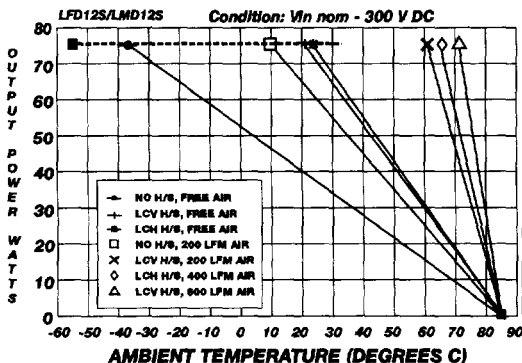
\*Using proper thermal management maximum temp of +85°C (case)

†UL approval recognition pending

**Delivery -  
stock to one week**

**Application Notes  
page 138  
Mechanical  
Configuration  
page 140**

Full thermal analysis can be determined using application notes on page 138. By using the efficiency and thermal resistance of your desired unit to the formula you can complete your evaluation. The curves below were generated for Part #LFD12S/LMD12S using Application Notes. Please consult factory with any questions.



Patented

**100 VDC  
Output  
Models**

**46 Standard  
Models**

**±Parallel  
Operation**  
Consult factory to  
optimize for your  
application

### FEATURES:

- Dual isolated outputs
- Short circuit protection
- Thermal, over temp. shutdown
- Line regulation
- Load regulation
- No external components required
- Hi density, hi efficiency design
- Remote shutdown
- Trim capabilities
- Fixed frequency-100 Khtz

### TYPICAL CHARACTERISTICS:

**Frequency:** 100 Khtz  
**Base plate:** Max. +85° C  
**Operating Temp.:** See thermal chart, -40°C to +85°C base plate -55°C to +85°C base plate  
**Test conditions:** 25° C ambient  
**Isolation Base Input:** 2121 VDC  
**Isolation Input output:** 4242 VDC  
**Isolation Output to Base:** 1000 VDC  
**Storage Temp.:** -55° C to +105° C

For All Variations Call Factory

### SERIES LFD

(-40°C to +85°C Operating Temperature)

### SERIES LMD

(-55°C to +85°C Operating Temperature)

<b>SURGE</b>	Meets MIL STD 704
<b>VIBRATION</b>	Meets MIL STD 202 Method 204 Cond. D
<b>HUMIDITY</b>	Meets MIL STD 202 Method 106
<b>SHOCK</b>	Meets MIL STD 202 Method 213 Cond. I
<b>ALTITUDE</b>	Meets MIL STD 202 Method 105 Cond. D
<b>Selected MIL STD 883 Options also Available</b>	
<b>STABILIZATION BAKE</b>	MIL STD 883 Method 1008 24 Hrs TA=125°C
<b>BURN IN</b>	MIL STD 883 Method 1015 160 Hrs at 90°C
<b>TEMPERATURE CYCLE</b>	MIL STD 883 -55°C to +105°C Method 1010 Cond. B