

HIGH EFFICIENCY, PRECISE REGULATION, FAST RESPONSE.

The LDC200 series is a high-efficiency, compact MIL-STD-704 input power (18-36V) DC-DC single output power converter for rugged environments and demanding, mission-critical loads. With precise $\pm 0.1\%$ regulation, 90%+ efficiency, and extremely fast transient response, the LDC200 series units are ideal point of load converters for sensitive equipment. Designed to meet MIL-STD-461 EMI/EMC and MIL-STD-810 environmental requirements in an all-in-one package. 3.3 to 28VDC Outputs standard.

This unit is Factory Configurable both electrically and mechanically to best fit your application.

SPECIFICATIONS:

DC INPUT:

MIL-STD-704 Input Power 28 VDC (18-36V) for Normal, Abnormal, Emergency Steady State Voltage.
Under-voltage continued operation available with holdup (H) option.

ELECTROMAGNETIC COMPATIBILITY:

MIL-STD-461 requirements:
CE101, CE102 Input

ISOLATION:

Input to output: 200 VDC
Input to case: 200 VDC
Output to case: 200 VDC

TEMPERATURE RANGE:

Storage: -50°C to +100°C.
Operating temperature: -40°C to +85°C baseplate with no power derating.

OVER TEMPERATURE PROTECTION:

Over-temperature shutdown +110°C $\pm 5^\circ\text{C}$, typical.

CIRCUIT PROTECTION:

Each unit is completely protected against a short circuit or overload of any duration. The current limit is nominally set at 120% of full load. The output voltage automatically restores to normal when the short is removed.

INPUT PROTECTION:

Over-voltage continued operation up to 80 VDC transients (MIL-STD-704), under-voltage shutdown (holdup option available separately).

REMOTE SENSING:

Compensates for voltage drop up to limits of input power. Unit operates at nominal voltage with sense lines disconnected.

CONTROL FEATURES:

ON/OFF "INHIBIT"
Application of TTL Signal (logic 1) 'referenced to input' will inhibit output.

WEIGHT:

2.0lbs max

ENVIRONMENTAL CONDITIONS:

MIL-STD-810

Shock: Method 516.6, Procedure IV

Vibration: Method 514.5

Humidity: Method 507 (Converter operates without any evidence of degraded performance in non-condensing relative humidity up to 95%. All assemblies conformal coated).

Altitude: Method 500.4, Procedure I & II

Salt Fog: Method 509.4

High Temperature: Method 501.4, Procedure I & II

Low Temperature: Method 502.4, Procedure I

Acceleration: Method 513.5, Procedure I & II

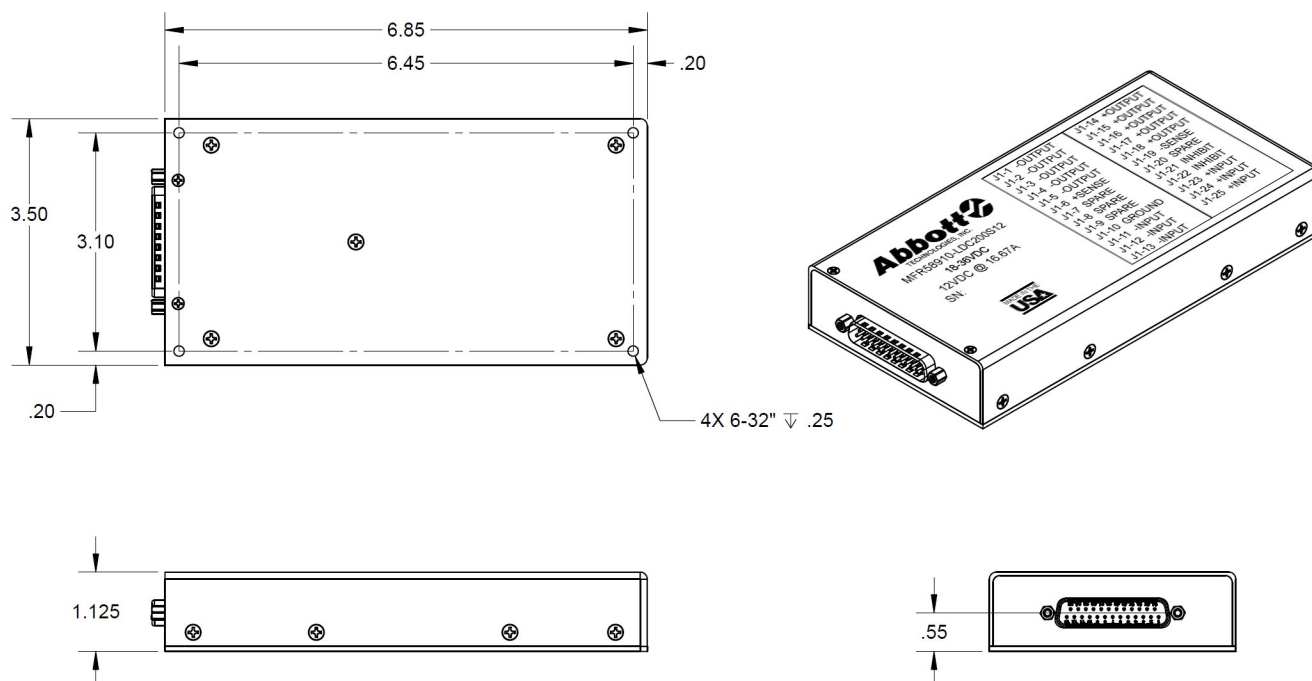


MODEL NO.	LDC200S3.3	LDC200S5	LDC200S12	LDC200S13.6	LDC200S15	LDC200S24	LDC200S28
OUTPUT VOLTAGE	3.3VDC	5.0VDC	12.0VDC	13.6VDC	15.0VDC	24.0VDC	28.0VDC
OUTPUT CURRENT	16.67A	16.67A	16.67A	14.71A	13.33A	8.33A	7.14A
LINE REGULATION	$\pm 0.1\text{VDC}$	$\pm 0.1\text{VDC}$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$
LOAD REGULATION	$\pm 0.1\text{VDC}$	$\pm 0.1\text{VDC}$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$
PARD (RIPPLE AND NOISE MEASURED WITH 20MHZ BANDWIDTH)	$\pm 0.2\text{VDC}$	$\pm 0.2\text{VDC}$	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.5\%$
LOAD STEP RESPONSE	<1% NO LOAD TO FULL LOAD, <50 μs						
TURN-ON OVERSHOOT	<0.2%	<0.2%	<0.2%	<0.2%	<0.2%	<0.2%	<0.2%
EFFICIENCY (FULL LOAD)	70% MIN.	70% MIN.	90% MIN.	90% MIN.	90% MIN.	90% MIN.	90% MIN.
OUTPUT POWER	55W	83W	200W	200W	200W	200W	200W

REV 20250430

*Specifications subject to change without notice

MECHANICAL DRAWING:



NOTES (UNLESS OTHERWISE SPECIFIED):

1. INPUT: 18-36 VDC
2. CONNECTOR: DB25 163A17549X
3. FINISH:
 - 3A: COVER, FRONT PANEL: BLACK ANODIZE PER MIL-A-8625 TYPE 2
 - 3B: BASEPLATE: CHEMICAL FILM PER MIL-DTL-5541 TYPE II, CLASS 3, CLEAR

J1 - D-SUB 25POS 163A17549X			
J1-1	-OUTPUT	J1-14	+OUTPUT
J1-2	-OUTPUT	J1-15	+OUTPUT
J1-3	-OUTPUT	J1-16	+OUTPUT
J1-4	-OUTPUT	J1-17	+OUTPUT
J1-5	-OUTPUT	J1-18	+OUTPUT
J1-6	+SENSE	J1-19	-SENSE
J1-7	SPARE	J1-20	SPARE
J1-8	SPARE	J1-21	INHIBIT
J1-9	SPARE	J1-22	INHIBIT
J1-10	GROUND	J1-23	+INPUT
J1-11	-INPUT	J1-24	+INPUT
J1-12	-INPUT	J1-25	+INPUT
J1-13	-INPUT		