

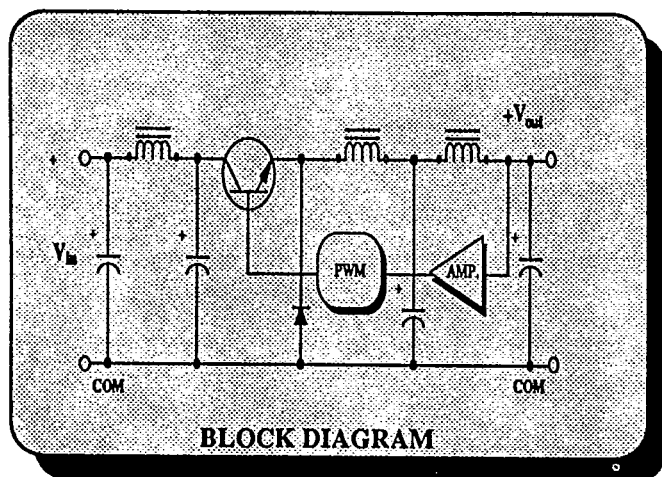
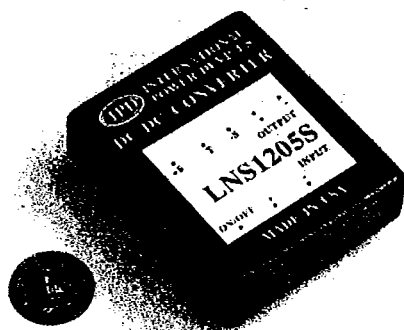


# 20 to 45 WATT

T-57-11

## LNS

## SERIES



### FEATURES:

- HIGH EFFICIENCY
- SIX-SIDED SHIELDING
- UP TO 7 WATT/CU-IN POWER DENSITY
- WIDE INPUT VOLTAGE RANGE

### APPLICATIONS:

- BATTERY OPERATED EQUIPMENT
- TELECOMMUNICATIONS
- PROCESS CONTROL EQUIPMENT
- TRANSPORTATION

The LNS Series is a line of high performance, high efficiency, non-isolated, single output, Pulse Width Modulated (PWM) DC/DC converters encapsulated in a metal case with six-sided EMI/RFI shielding. By using state of the art technology, all models operate at 70KHz highly efficiently and virtually independent of load & line. The LNS Series also features an internal  $\pi$ (Pi) input filter to minimize reflected input ripple current. A long term short circuit protection is provided and the output is clamped for overvoltage protection. Output voltage is trimmable to  $\pm 10\%$ .

### ELECTRICAL SPECIFICATIONS

All Specifications Typical @+25°C, Nominal Line and Full Load unless Otherwise Noted.

### INPUT SPECIFICATIONS

Input Voltage Range ..... See Table  
 Input Filter .....  $\pi$  (Pi) Filter  
 Remote ON/OFF Control ..... Reference to Minus Input  
 Logic Compatibility ..... TTL, CMOS, and Relay  
 On-Control Input ..... 1.8.VDC min. to 40 VDC max.  
 Off-Control Input ..... 0 to 1.2 VDC max.

### OUTPUT SPECIFICATIONS

Output Voltage ..... See Table  
 Output Current ..... See Table  
 Output Trim .....  $\pm 10\%$   
 Ripple and Noise:

LNS Series: ..... 20MHz BW ..... 10 mVRMS, max.  
 ..... 20 MHz BW ..... 50 mVp-p, max.

Average Voltage Temp. Coefficient .....  $\pm 0.01\%/^{\circ}\text{C}$ , max.  
 Voltage Stability, 24 Hours .....  $\pm 0.2\%$ , max.  
 Short Circuit Current Limit ..... 120% of Rated Output  
 Short Circuit Restart ..... Automatic

Overvoltage Protection, Internal Clamp:

5VDC Output ..... 6.8VDC  
 12VDC Output ..... 15VDC  
 15VDC Output ..... 18VDC

### GENERAL SPECIFICATIONS

Efficiency, FL ..... See Table  
 Isolation ..... Not Galvanically Isolated  
 (Minus Input Connected to Minus Output)  
 Switching Frequency : ..... 70 KHz, typ.

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range: .....  $-25^{\circ}\text{C}$  to  $+71^{\circ}\text{C}$   
 Derating ..... None  
 Storage Temperature Range .....  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$   
 Surface Temp. Rise Above Ambient .....  $10^{\circ}\text{C}/\text{Watt Diss.}$   
 Cooling ..... Free-Air Convection  
 EMI/RFI ..... Six-Sided Continuous Metal Case

### PHYSICAL SPECIFICATIONS

Dimensions ..... 2.56 x 3.0 x .83 inches  
 (65.0 x 76.2 x 21.1 mm)  
 Weight ..... 5.5 Oz. (169 g.)  
 Case Material ..... Black Coated Copper  
 (With Non-Conductive Seating Surface)

# SINGLE OUTPUT

**INTERNATIONAL  
POWER DEVICES**



| INPUT<br>VOLTAGE | OUPUT<br>VOLTAGE | OUTPUT<br>CURRENT | INPUT CURRENT |           | %<br>EFF | REGULATION |      | MODEL<br>NUMBER |
|------------------|------------------|-------------------|---------------|-----------|----------|------------|------|-----------------|
|                  |                  |                   | NO/LOAD       | FULL/LOAD |          | LINE       | LOAD |                 |
| 9-40             | 5VDC             | 4000mA            | 20mA          | 2130mA    | 78       | ±2%        | ±2%  | LNS1205         |
| 9-40             | 5VDC             | 4000mA            | 20mA          | 2250mA    | 78       | ±2%        | ±2%  | LNS1205S*       |
| 16-40            | 12VDC            | 3000mA            | 20mA          | 1724mA    | 85       | ±2%        | ±2%  | LNS2412         |
| 16-40            | 12VDC            | 3000mA            | 20mA          | 1724mA    | 85       | ±2%        | ±2%  | LNS2412S*       |
| 19-40            | 15VDC            | 3000mA            | 20mA          | 2110mA    | 87       | ±2%        | ±2%  | LNS2415         |
| 19-40            | 15VDC            | 3000mA            | 20mA          | 2140mA    | 87       | ±2%        | ±2%  | LNS2415S*       |

**\* Model Numbers Ending in "S" Provide Remote Control Input.**

