Allen-Bradley Service Manual

1606-XLS480E

1. Description

The 1606-XLS480E model is a fundamental power supply developed by Allen Bradley within the 1606 series of switched mode power supplies. Capable of supporting both AC and DC converter applications, this unit caters to a wide range of voltage inputs with efficient output properties.

2. Specifications

Specification	Value
Manufacturer	**Allen Bradley**
Product	**Type Essential Power Supply**
Product	**Line 1606 Switched Mode Power Supplies**
Part	**Number 1606-XLS480E**
UPC	**662074643974**
Weight	**2.56 lbs (1.16 kg)**
AC/DC	**Converter Applications Supported**
AC	**Input Voltage 100 to 240 Volts AC**
DC	**Input Voltage 110 to 150 Volts DC**
Nominal	**Output Voltage 24 Volts**
Nominal	**Output Current 20 Amps**
Output	**Voltage Adjustment Range 24 to 28 Volts**
Output	**Current Range 20 to 17 Amps**
Output	**Power 480 Watts**
Output	**Power Reserves 50%**
Typical	**Power Factor 0.9 Factor**
Typical	**Efficiency Rating 93.90%**
Typical	**Rated Power Loss 31.4 Watts**
Ambient	**Operating Temperature -13 to 158 degrees Fahrenheit**

3. Product Information

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Technical specifications for 1606-XLS480E

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Nominal Output Voltage 24 Volts

Nominal Output Current 20 Amps

Output Voltage Adjustment Range 24 to 28 Volts

Output Current Range 20 to 17 Amps

Output Power 480 Watts

Output Power Reserves 50%

Typical Power Factor 0.9 Factor

Typical Efficiency Rating 93.90%

Typical Rated Power Loss 31.4 Watts

Ambient Operating Temperature -13 to 158 degrees Fahrenheit

Description

The Allen Bradley 1606-XLS480E is an essential component in electrical systems, functioning as a switched mode power supply. This robust unit supports both AC and DC applications, ensuring compatibility across diverse setups. The power supply can handle AC input voltages ranging from 100 to 240 volts and DC input voltages from 110 to 150 volts.

It outputs a nominal voltage of 24 volts and can deliver a maximum current of 20 amps, with the flexibility for users to adjust the output voltage between 24 and 28 volts. Users can expect an output power rating of 480 watts and a generous 50% output power reserve, enhancing reliability during peak demands.

Efficiency is a critical feature of the 1606-XLS480E, achieving a typical efficiency rating of 93.90%, resulting in a rated power loss of 31.4 watts. This translates into a solid power factor of 0.9, which optimizes performance and minimizes energy waste. The power supply is designed to operate within a range of -13 to 158 degrees Fahrenheit, making it suitable for various environmental conditions. Overall, the 1606-XLS480E power supply is a reliable choice for maintaining operational consistency in numerous industrial applications.