

Schneider Series Service Manual

171CBU78090

1. Description

The 171CBU78090 processor from Schneider Electric's Modicon Momentum series utilizes the Spear 320s architecture. With a 32-bit word length and operating at a clock frequency of 333 MHz, it efficiently manages a substantial number of tasks in automation applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line Modicon Momentum
Part	Number 171CBU78090
EAN	3595864171388
Weight	1.00 lbs (0.45 kg)
Name	Processor
Processor	Name Spear 320s
Word	Length 32-bit
Supply	Voltage Limits 4.75...5.25 V
Clock	Frequency 333 MHz
Topology	Multidrop Modbus
Register	Words 26048
I/O	Limit Processor Capacity 2048 inputs/2048 outputs
Number	of Devices 32 Modbus
Exact	Time for 1 Kinstruction 83 ns
Current	Consumption 500 mA 5 V DC
Product	Mounting 35 mm symmetrical DIN rail
IP	Degree of Protection IP20
Shock	Resistance 15 gn 11 ms

3. Product Information

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Technical specifications for 171CBU78090

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Product Line Modicon Momentum

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Product Mounting 35 mm symmetrical DIN rail

IP Degree of Protection IP20

Shock Resistance 15 gn 11 ms

The Schneider Electric 171CBU78090 is designed as a robust processor for the Modicon Momentum series, featuring the Spear 320s core technology. This unit operates with a 32-bit word length, allowing it to perform complex calculations effectively. It runs at a clock frequency of 333 MHz, yielding high speed for processing demands.

With supply voltage limits set between 4.75 and 5.25 V, it suits a range of applications that require precision. The processor supports the multidrop Modbus topology, accommodating configurations involving up to 32 devices. It is capable of managing a total of 2048 inputs and 2048 outputs, providing flexibility for extensive input/output configurations.

The processor's efficiency is underscored by its ability to execute each Kinstruction in precisely 83 nanoseconds, ensuring quick task processing for automation projects. It draws a current of 500 mA while operating at 5 volts DC, optimized for power management. The unit also boasts 26048 register words, allowing for extensive data handling.

For physical installation, the device mounts onto a 35 mm symmetrical DIN rail, complying with standards for industrial hardware. It is rated at IP20, indicating its suitability for indoor mounting where exposure to environmental factors is limited. The net weight of the processor is 0.159 kg, making it manageable for installations. Lastly, its shock resistance of 15 gn over 11 milliseconds makes it durable enough to withstand standard industrial conditions.