

Schneider Series Service Manual

170ADO53050

1. Description

The Schneider Electric 170ADO53050 is a discrete output module designed for Modicon Momentum applications. It incorporates 8 outputs rated at 120 V AC with Triac technology, supporting maximum current per channel of 2 A.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line Modicon Momentum
Part	Number 170ADO53050
EAN	3595861147553
Weight	1.00 lbs (0.45 kg)
Module	Description Discrete Output Module
Number	of Outputs 8
Voltage	Rating 120 V AC
Output	Type Triac
Current	per Channel 2A
Total	Current Rating 16 A
Short-Circuit	Protection Internal fuse, 5 A slow-blow per group
Surge	Current 10 A for 2 cycles, 15 A for 1 cycle, 5 A for 3 cycles
Minimum	Output Current 5 mA
Maximum	Leakage Current 1.9 mA
Maximum	Voltage Drop <1.5 V at 2 A
Output	Overload Protection Internal fuse
Response	Time 0.5 line cycle from state 0 to state 1 or state 1 to state 0
Channel	Isolation 1780 V AC for 1 minute
Power	Dissipation 6 W typical, 7.5 W maximum

3. Product Information

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Technical specifications for 170ADO53050

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Product Line Modicon Momentum

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Number of Outputs 8

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Short-Circuit Protection Internal fuse, 5 A slow-blow per group

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Minimum Output Current 5 mA

Maximum Leakage Current 1.9 mA

Maximum Voltage Drop <1.5 V at 2 A

Output Overload Protection Internal fuse

Response Time 0.5 line cycle from state 0 to state 1 or state 1 to state 0

Channel Isolation 1780 V AC for 1 minute

Power Dissipation 6 W typical, 7.5 W maximum

The 170ADO53050 from Schneider Electric is categorized as a discrete output module within the Modicon Momentum series. This module hosts 8 individual outputs, each rated for operation at 120 volts AC. Utilizing Triac output configuration, it manages a current of 2A per channel, accumulating to a total current capacity of 16 A.

Protection against short circuits is facilitated by an internal fuse, rated at 5 A slow-blow applicable per group. The module is designed to accommodate surge currents with specified thresholds: 10 A for 2 cycles, a higher limit of 15 A for a single cycle, and a lesser threshold of 5 A for 3 cycles, enhancing its robustness.

Its operational requirements include a minimum output threshold of 5 mA and a maximum leakage current of 1.9 mA, ensuring efficient functionality. Under regular use, the maximum voltage drop across each output does not exceed 1.5 volts when operating at 2 A.

The module provides a reliable overload protection mechanism via another internal fuse while maintaining a rapid response time of 0.5 line cycles between state transitions. For channel isolation, it guarantees a potential of 1780 V AC for up to 1 minute, ensuring electrical safety. Standard power dissipation for this module averages around 6 watts, with a peak consumption of 7.5 watts. The 170ADO53050 delivers effectiveness in controlling industrial automation processes through a dependable discrete output system.