

# MGate MB3180/MB3280/MB3480 系列

## 1、2 和 4 埠標準序列轉乙太網路 Modbus 閘道



### 特色與優點

- 支援自動裝置路由，輕鬆配置
- 支援 TCP 連接埠或 IP 位址的路由，靈活部署
- Modbus TCP 和 Modbus RTU/ASCII 協定之間進行轉換
- 1 個乙太網路連接埠和 1、2 或 4 個 RS-232/422/485 連接埠
- 16 個同步 TCP 主站，每個主站最多同時 32 個請求
- 硬體輕鬆設定和配置

### 認證



## 簡介

MB3180、MB3280 和 MB3480 是標準 Modbus 閘道，可在 Modbus TCP 和 Modbus RTU/ASCII 通訊協定之間進行轉換。支援最多 16 個同步 Modbus TCP 主站，每個序列埠最多 31 個 RTU/ASCII 從屬站。對於 RTU/ASCII 主站，支援最多 32 個 TCP 從屬站。透過序列埠的路由可透過 IP 位址、TCP 連接埠號碼或 ID 對應來進行控制。透過 TCP 連接埠和 IP 位址進行序列埠路由，最多可存取 4 個 TCP 用戶端/主站 (MB3280/MB3480 型)，而透過 ID 對應進行路由，最多可存取 16 個 TCP 用戶端/主站 (MB3180/MB3280/MB3480)。

### 標準 Modbus 網路整合

三種標準 MGate™ 型號 (MB3180、MB3280 和 MB3480) 專為輕鬆整合 Modbus TCP 和 RTU/ASCII 網路而設計。使用這些模型，Modbus 序列從屬裝置可順利整合至現有的 Modbus TCP 網路，且序列主站可存取 Modbus TCP 從屬站。MB3180、MB3280 和 MB3480 提供的功能使網路整合變得簡單、可自訂，且幾乎與所有 Modbus 網路相容。

### 高密度、性價比高的閘道

MGate™ MB3000 閘道可有效地將高密度的 Modbus 節點連接到相同網路。MB3280 最多可管理 62 個序列從屬節點，且 MB3480 最多可管理 124 個序列從屬節點。每個 RS-232/422/485 序列埠均可針對 Modbus RTU 或 Modbus ASCII 操作以及不同波特率進行單獨配置，允許兩種類型的網路可透過一個 Modbus 閘道與 Modbus TCP 整合。

### 自動裝置路由，輕鬆配置

Moxa 的自動裝置路由功能有助於解決需要配置大量 Modbus 裝置的工程師所遇到的許多問題和不便。只需按一下滑鼠即可設定從屬 ID 路由表並配置 Modbus 閘道，以自動偵測來自監控和資料擷取 (SCADA) 系統的 Modbus 請求。透過解決手動建立從屬 ID 路由表的需求，自動裝置路由功能可以節省工程師大量的時間和成本。

## 規格

### Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	Auto MDI/MDI-X connection
Magnetic Isolation Protection	1.5 kV (built-in)

### Ethernet Software Features

Industrial Protocols	Modbus TCP Client (Master) Modbus TCP Server (Slave)
Configuration Options	All models: Web Console (HTTP), Device Search Utility (DSU), MGate Manager, MCC Tool, Telnet Console MGate MB3280/MB3480 only: Web Console (HTTPS)

Management	All models: ARP, DHCP Client, DNS, HTTP, SNMPv1/v2c/v3, TCP/IP, Telnet, UDP MGate MB3280/MB3240 only: HTTPS, SMTP, SNMP Trap, NTP Client
MIB	RFC1213, RFC1317
Time Management	NTP Client (MGate MB3180 Excluded)

### Security Functions

Authentication	Local database
Encryption	HTTPS AES-128 AES-256 SHA-256
Security Protocols	SNMPv3 HTTPS (TLS 1.2) (except MGate MB3180)

### Serial Interface

No. of Ports	MGate MB3180: 1 MGate MB3280: 2 MGate MB3480: 4
Connector	DB9 male
Serial Standards	RS-232/422/485 (software selectable)
Baudrate	50 bps to 921.6 kbps
Data Bits	7, 8
Parity	None Even Odd Space Mark
Stop Bits	1, 2
Flow Control	DTR/DSR RTS Toggle (RS-232 only) RTS/CTS
RS-485 Data Direction Control	ADDC (automatic data direction control)
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
Terminator for RS-485	MGate MB3180: None MGate MB3280/MB3480: 120 ohms

### Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

### Serial Software Features

Industrial Protocols	Modbus RTU/ASCII Master Modbus RTU/ASCII Slave
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## Modbus (Transparent)

Max. No. of Client Connections	16
Max. No. of Server Connections	32

## Power Parameters

Input Voltage	12 to 48 VDC
Input Current	MGate MB3180: 200 mA @ 12 VDC MGate MB3280: 250 mA @ 12 VDC MGate MB3480: 365 mA @ 12 VDC
Power Connector	MGate MB3180: Power jack MGate MB3280/MB3480: Power jack and terminal block

## Physical Characteristics

Housing	Metal
IP Rating	IP30 <sup>1</sup>
Dimensions (with ears)	MGate MB3180: 22 x 75 x 80 mm (0.87 x 2.95 x 3.15 in) MGate MB3280: 22 x 100 x 111 mm (0.87 x 3.94 x 4.37 in) MGate MB3480: 35.5 x 102.7 x 181.3 mm (1.40 x 4.04 x 7.14 in)
Dimensions (without ears)	MGate MB3180: 22 x 52 x 80 mm (0.87 x 2.05 x 3.15 in) MGate MB3280: 22 x 77 x 111 mm (0.87 x 3.03 x 4.37 in) MGate MB3480: 35.5 x 102.7 x 157.2 mm (1.40 x 4.04 x 6.19 in)
Weight	MGate MB3180: 340 g (0.75 lb) MGate MB3280: 360 g (0.79 lb) MGate MB3480: 740 g (1.63 lb)

## Environmental Limits

Operating Temperature	MGate MB3180: 0 to 55°C (32 to 131°F) MGate MB3280: 0 to 60°C (32 to 140°F) MGate MB3480: 0 to 55°C (32 to 131°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

## Standards and Certifications

EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 1 kV (MB3180/MB3280) IEC 61000-4-5 Surge: Power: 1 kV; Signal: 2 kV (MB3480) IEC 61000-4-6 CS: 3 V IEC 61000-4-8 PFMF IEC 61000-4-11
Safety	MB3180 Models: EN 62368-1 and UL 60950-1 MB3280/3480 Models: IEC/UL 62368-1

## MTBF

Time	MGate MB3180: 2,762,384 hrs MGate MB3280: 749,455 hrs MGate MB3480: 1,213,993 hrs
Standards	Telcordia SR332

1. 關於 MGate MB3480，必須使用壁掛套件隨附的兩顆螺絲將套件緊固在 MGate 底部，且 MGate 必須正確連接到電源輸入的接線端子。

## Warranty

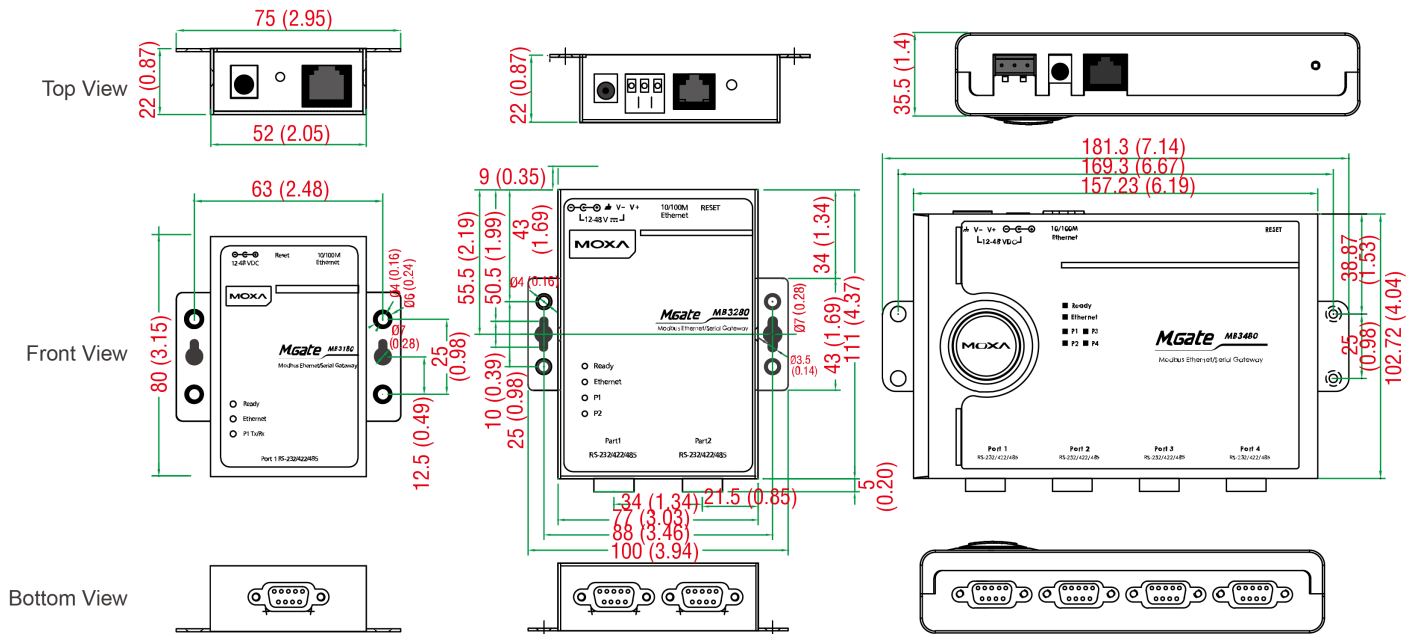
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/tw/warranty">www.moxa.com/tw/warranty</a>

## Package Contents

Device	1 x MGate MB3180/MB3280/MB3480 Series gateway
Power Supply	1 x power adapter, suitable for your region
Documentation	1 x quick installation guide 1 x warranty card

## 尺寸

單位：公釐 (英吋)



## 訂購資訊

Model Name	No. of Serial Ports
MGate MB3180	1
MGate MB3280	2
MGate MB3480	4

## 配件 (選購)

### Cables

CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m
CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm

### Connectors

Mini DB9F-to-TB	DB9 female to terminal block connector
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### DIN-Rail Mounting Kits

DK35A	DIN-rail mounting kit, 35 mm
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## Wall-Mounting Kits

WK-35-01

Wall-mounting kit with 2 plates (35 x 44 x 2.5 mm) and 6 screws

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