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# SPECIFICATIONS

Model: NBM-D88NN

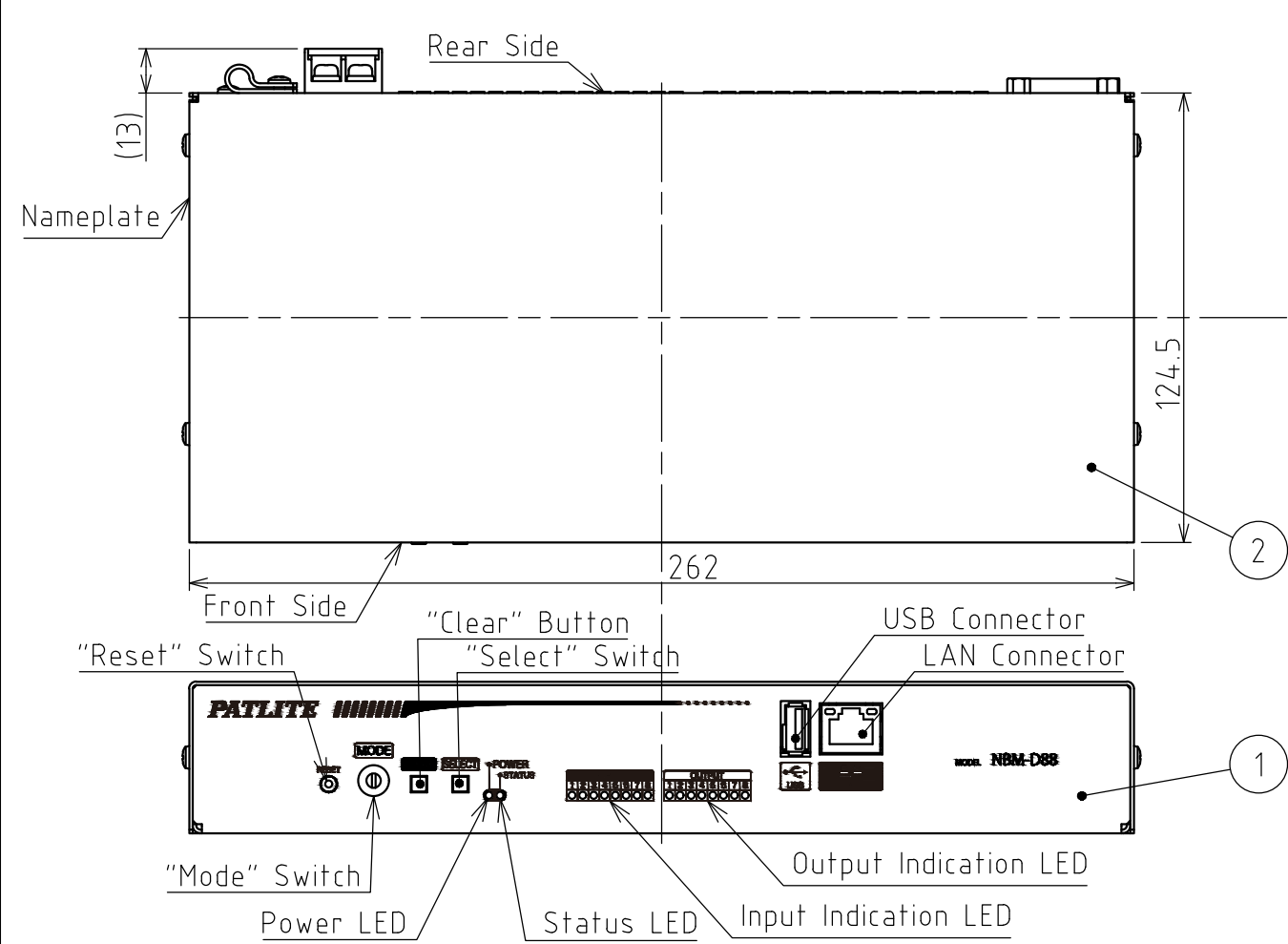
**PATLITE Corporation**

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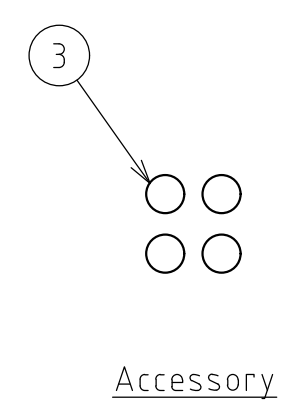
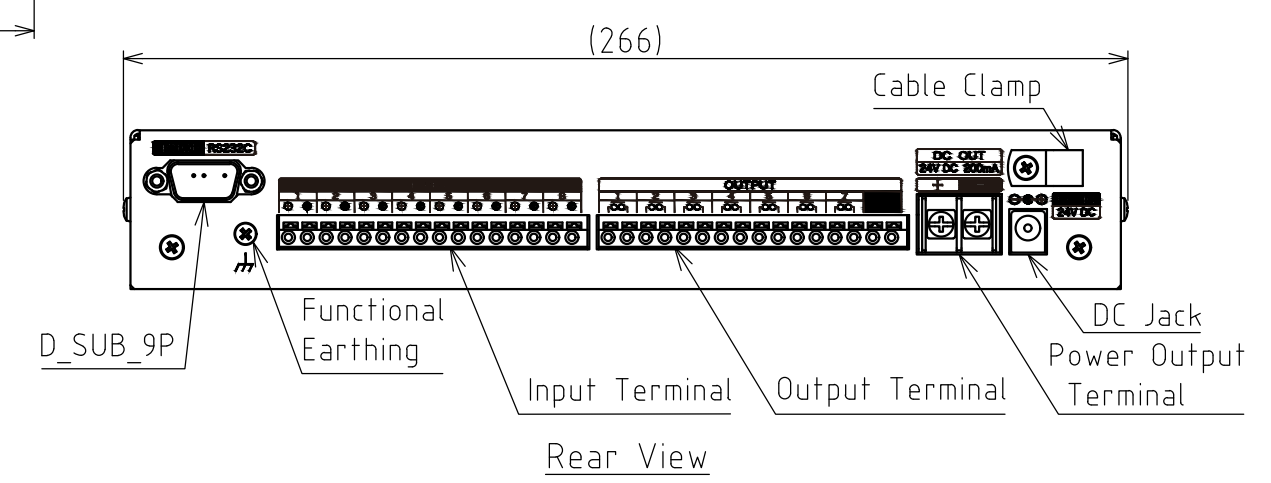
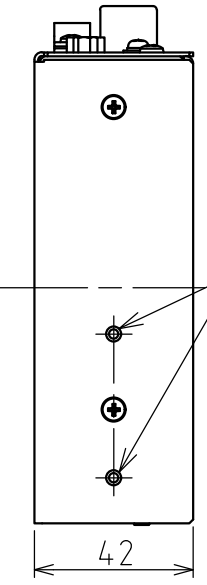
Model		NBM-D88NN
Rated Voltage		24VDC
Operating Voltage Range		Rated Voltage $\pm 10\%$
Rated Current Consumption	Max.	0.6A
Operating Ambient Temperature		0°C to +40°C
Operating Ambient Humidity		20 - 80% (No condensation)
Storage Ambient Temperature		-20 °C to +65°C
Storage Ambient Humidity		Less than 80% (No condensation)
Mounting Location		Indoors
Mounting Direction		Upright
Protection Rating		IP 20 (IEC 60529)
Vibration Resistance		9.8m/s <sup>2</sup> (IEC 60529)
Mass (Tolerance $\pm 10\%$ )		1.15kg
Outer Dimensions		Refer to the Outer Dimension Drawing
Conformity Standards		RoHS Directive (EN IEC 63000) FCC Part 15 SubpartB Class A CAN/CSA C22.2 UL/CSA 60950-1 EMC directive (EN 55032 (ClassA), EN 55035)
Communication Method		Ethernet (Conforms to the IEEE 802.3)
Physical Layer		10BASE-T/100BASE-TX (Auto-negotiation • Full Duplex/Half Duplex)
Data Link Layer		CSMA/CD
Network Layer		IP • ARP • ICMP
Transport Layer		TCP • UDP
Application Layer		HTTP • SNMP(V1, V2c) • RSH • SMTP • NTP POP3 • DNS • Socket (PHN • PNS) • DHCP
Interface	USB Port	USB2.0/1.1 TYPE-A 1ch
	Serial Port	RS232C D_SUB_9P (Used for expanding additional functions)
Power Output		One screw Terminal Block 24VDC $\pm 10\%$ , maximum 200mA
Digital Output		Non-voltage contact output; "A" contact (setup can be changed for "B" contact)
Number of Contacts		8
Contact Capacity		(30V DC @ 3A) inrush current under 5A Minimum (1mA, 5VDC, Reference) (30V DC @ 3A) inrush current under 78A (TV-5 rating) Minimum (5V DC, 10mA) *
Wire Diameter		Solid Wire: $\phi 0.4-1.2\text{mm}$ (AWG26-16) / Stranded Wire: $0.2-1.25\text{mm}^2$ (AWG24-16)
Wiring Method		Screwless Terminal Block
Digital Input		Non-voltage Contact
Number of Contacts		8
Transistor Input		NPN Transistor
Contact Capacity		Output "ON" current @ 6mA or less per channel. Terminal OFF condition Voltage: 24V
Wire Diameter		Solid Wire: $\phi 0.4-1.2\text{mm}$ (AWG26-16) / Stranded Wire: $0.2-1.25\text{mm}^2$ (AWG24-16)
Wiring Method		Screwless Terminal Block
Input Reaction Time		110msec or more
Output Response Time		200msec or less
Display Part		18 green LED (power, status, DO x8 Contacts, DI x8 Contacts)
Operation Part		"Select" Switch, "Reset" Switch, "Clear" Button, "Mode" Switch
Accessory		Rubber Feet
Optional Parts		Server Rack Mounting Bracket (NBM-ANG)
Remarks		Conforms to the CE requirements When connecting a product with a large inrush current, such as a revolving light etc., wire it to output terminal Port 8.

[Functional Specifications]	
The contact output of this product is controlled by contact input information, or by software commands. Moreover, when abnormalities occur, the NBM can control contact output and command transmissions with its network monitoring function.	
Digital Output	External instruments are connected and the contacts are controlled for ON/OFF outputs.
Digital Input	The status condition of a non-voltage contact input can be detected. When detection occurs, the following operations will be executed: Digital Output ON/OFF, RSH Command Transmission, PNS/PHN Socket Transmission, E-mail Transmission, SNMP TRAP Transmission
"CLEAR" Button	When pressing the "Clear" button, the following actions are executed: Digital output ON/OFF (a default is turned off), E-mail transmission, RSH command transmission, PNS/PHN socket transmission, SNMP TRAP transmission
"Reset" Switch	The product is rebooted.
TRAP Transmission	An SNMP TRAP (V2C) is sent when an event occurs.
TRAP Reception	When an SNMP TRAP is received, the following operations are executed: Digital Output ON/OFF, RSH Command Transmission, PNS/PHN Socket Transmission, E-mail Transmission, SNMP TRAP Transmission
E-mail Transmission	Sends an E-mail when an event occurs. (up to 8 addresses).
E-mail Transmission	Sends an RSH command when an event occurs.
RSH Command Reception	When an RSH command is received from an external device, it controls the ON/OFF of the digital output and acquires the contact status.
Socket Reception	When receiving a PNS or PHN command, it controls the ON/OFF of the digital output and acquires the contact status.
Socket Transmission	When an event occurs, it sends a PNS or PHN command.
Test Function	The RSH command for checking operation. The Digital Output operates in sequential order.
Ping Monitoring	The PING Command is sent to an external device to check its connection status. (Max. 24)
Application Monitor	The operation status of a working application to an external device can be checked.
Data Log	A status log and operation log are saved. (Transmission to syslog server / Save to USB memory)
SNMP SET/GET	The digital output can be controlled, contact information can be acquired, traps can be sent and received. (MIB file application) (V1, V2C)
Time Correction	Automatically correct time (register and connect to an NTP server) The time correction is reflected on the PC.
"Select" Switch	The operation for each mode can be determined.
Web Setup Tool	The tool necessary for making various settings on the WEB screen.
PNS/PHN Series Control Function	Remote control of NHL Series and PHN series with Socket Communication and PNS/PHN control signal.
Xml Function	Obtain the data for the Input/Output contact status in xml format.
PNS Manager Function	It corresponds to the PNS manager (Network Setup Application).
Initialization Function	=Web Setup Tool= Factory default. Initialization other than Network Setup. = "Mode" Switch = Network Setup initialization. Factory default. Password initialization.

Mode Change	<p>Change to the following mode with the "Mode" Switch.</p> <ul style="list-style-type: none"> <li>0. Normal Mode</li> <li>1. Configuration Download Mode</li> <li>2. Configuration Upload Mode</li> <li>3. Network Setting Initialization Mode</li> <li>4. Factory Default Mode</li> <li>5. Reserved</li> <li>6. Firmware Update Mode</li> <li>7. Password Initialization Mode</li> <li>8. Reserved</li> <li>9. Reserved</li> </ul> <p>* Initialization : Return to factory default setup.</p>	
Configuration Data Setup	Save / write setting information with Web setup tool and USB memory.	
"A" Contact/"B" Contact Changeover	The Web Setup Tool can be used to logically set between the "A" contact or "B" contact.	
Contact Status Display	The contact status is displayed on the WEB screen.	
USB	<p>Log data can be stored onto USB memory (storage place can be changed to internal memory or USB memory).</p> <p>Update firmware onto USB memory</p> <p>Upload/download Configuration data</p>	
Firmware Update	<p>Update using the Web Setup Tool</p> <p>Update using a USB memory</p>	
Digital Input Condition Setup	<p>Setup the digital input detection method to the following method.</p> <p>AND detection: It detects when specified multiple digital inputs turn ON.</p> <p>Number of Detection Times: Detects when the digital input is turned ON for the specified number of times.</p> <p>Continued Detection Duration: Detects when the digital input continues to be ON for the specified time.</p>	
[Recommended AC Adaptor Specifications]		
DC Output	Voltage	24V DC $\pm$ 5%
	Current	0.75A to 1A max
	Plug Length	9.5mm or more
	Plug Length	10mm dia. or less
	Plug Connector Outer Diameter	5.5mm dia
	Plug Connector Inner Diameter	2.1mm dia



Please use Server Rack Mounting Bracket(NBM-ANG) to install at Server Rack (19 inches).



3	Rubber Feet	4	
2	Cover	1	SECC Offwhite
1	Case	1	SECC Offwhite
番号 No.	部品名 Part Name	数量 Qty.	記事 Remarks
機種 Model	NBM-D88NN	特注No. S.P.No.	-
		図名 Name	Outer Dimension Drawing
品目コード Part No.	-	尺度 Scale	1:2
		三角法 3rd Angle P.	単位 Unit mm
株式会社 パトライト PATLITE Corporation			