

NEW
2012



NPM



NETWORK POWER MANAGER SPECIAL FOR CABINET
DESIGNATED MODULARIZED AND MULTI-FUNCTIONAL
POWER DISTRIBUTION UNIT FOR CABINET

HI-TECH



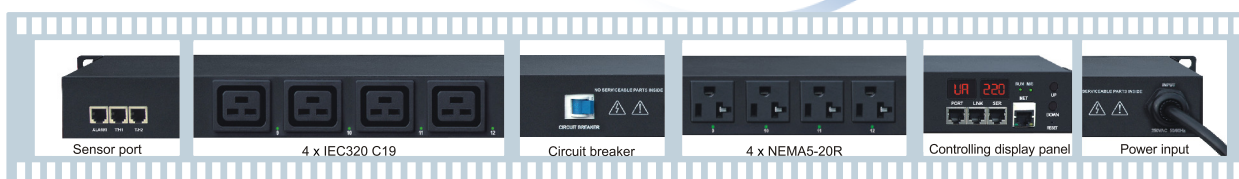
GREENERGY
SOLUTIONS



NETWORK POWER MANAGER

NPM *Network Power Manager*

NEW
2012



NPM Network Power Manager



NEW
2012



NPM



Circuit breaker module



Terminal block module



1 x sensor port module



2 x sensor port module



3 x sensor port module

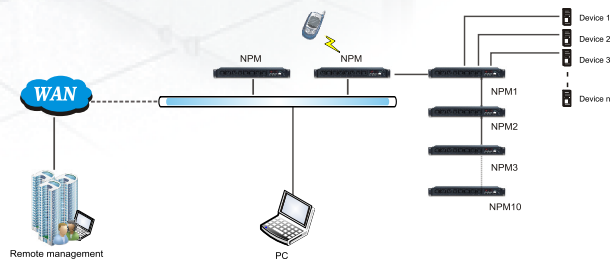
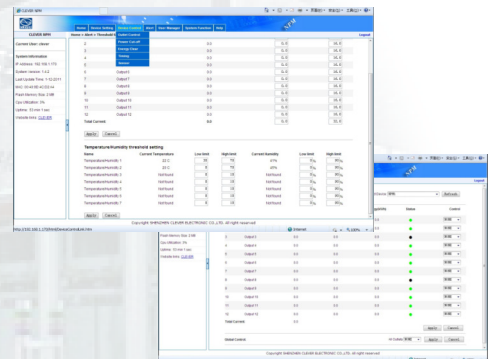


C14 anti-fall device



Main Functions (vertical mount)

- Total current / Voltage monitoring
- Total / Outlet power (kW) monitoring
- Power factor monitoring
- Total / Outlet energy consumption (kWh) metering
- Total / Outlet current monitoring
- Outlet switching
- Outlet time-switching
- Outlet sequential switching
- User defined management
- Log record



Optional components:



IEC320 C13



IEC320 C19



NEMA 5-15R



NEMA 5-20R



DIN49440



GB1002/10A



BS1363



NF C61-314



Circuit breaker



Sensor ports
T/H 3, T/H 4, T/H 5



Sensor ports
T/H6, Smoke, Water



Sensor port
Door1, Door2, T/H7



Rear mount
button

Features (vertical mount)

0 U :

Vertical mount, no rack space occupied;

1 U thickness:

Thin and high strengthen aluminum alloy, do not affect the installation of other devices;

1.5 U width:

Narrow aluminum alloy, easy installation;

2 /Double protection:

Threshold exceeding protection, master circuit breaker protection;

3 access method:

SNMP, Telnet, Web;

4 metering data:

Total and outlet energy consumption (kWh), total and outlet power (kW);

5 function series:

A (Total metered), B (Outlet metered), C (Total metered and Outlet switched), D (Outlet metered and switched), E (Group metered and switched);

6 alarm methods:

E-mail, SNMP trap, indicator on web interface flashes, audible and visible alarm, LCD display flashes and NPM buzzers, SMS alert (not available in some countries);

7 main monitoring data:

Input voltage, total and outlet current, power factor, power (kW) , outlet state, environment state;

8 outlet types:

IEC320 C13, IEC320 C19, NEMA5-15R, NEMA5-20R, GB1002 10A, DIN49440, NFC61-314, BS1363;

9 main controlling functions:

Total current, outlet current, outlet switching, group outlet switching, sequential switching with delay, threshold exceeding alerts, power automatic cut-off when overload occurs, centralized management ;

10 NPM daisy-chain:

10 NPM daisy-chain through serial port connection;

11 sensor ports:

2 temperature and humidity sensor ports on NPM, other sensor ports are on optional modules;

24 outlets at most for 42U rack:

Outlets designed with every 4 on one board, can do customized specification;

32 A Max. load on each phase or circuit:

Voltage 110V, 220V, 380V, Max. 380V with 96A load;

N_x NPM centralized management:

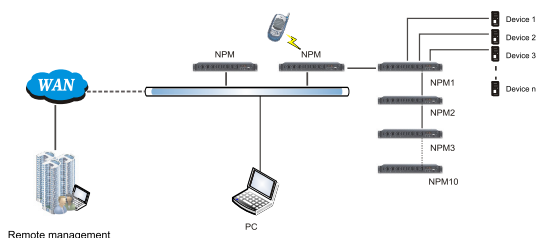
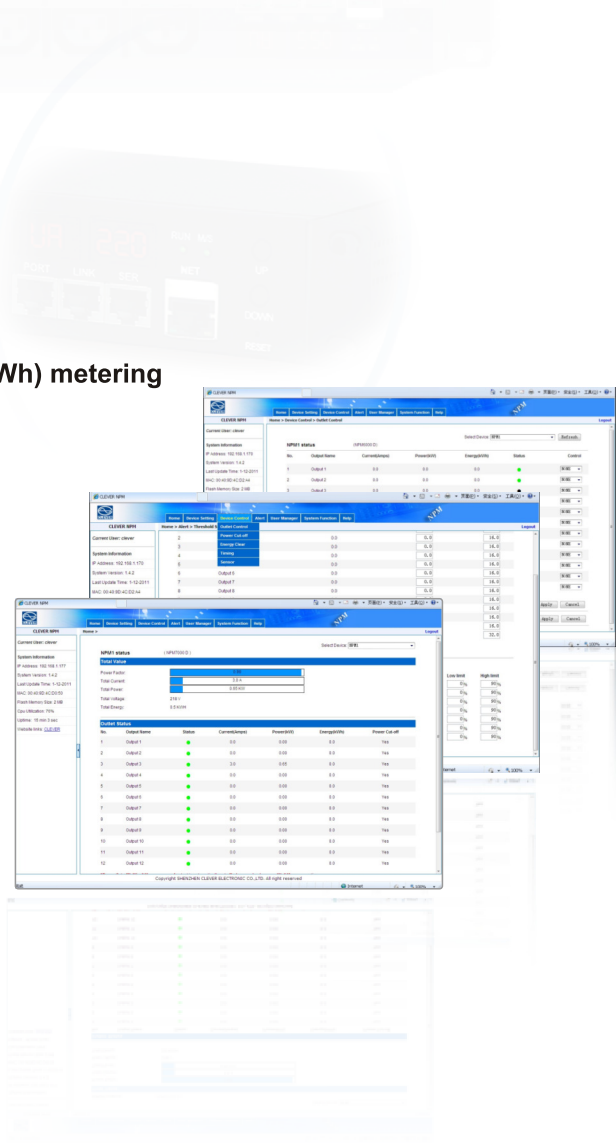
Via CLEVER Manager, administrator or user can do centralized management of thousands of NPM;





Main Functions (horizontal mount)

- Total current / Voltage monitoring
- Total / Outlet power (kW) monitoring
- Power factor monitoring
- Total / Outlet energy consumption (kWh) metering
- Total / Outlet current monitoring
- Outlet switching
- Outlet time-switching
- Outlet sequential switching
- User defined management
- Log record



Optional components:



IEC320 C13



IEC320 C19



NEMA 5-15R



NEMA 5-20R



NBR14136



Circuit breaker



C14 anti-fall device



4 X NEMA5-20R (Rear)



4 X IEC320 C19 (Rear)

Features (horizontal mount)

1 U height:

Cold-rolled steel case which occupying 1U rack space;

2 /Double protection:

Threshold exceeding protection, master circuit breaker protection;

3 access method:

SNMP, Telnet, Web;

4 metering data:

Total and outlet energy consumption (kWh), total and outlet power (kW);

5 outlet types:

IEC320 C13, IEC320 C19, NEMA5-15R, NEMA5-20R, NBR14136;

6 alarm methods:

E-mail, SNMP trap, indicator on web interface flashes, audible and visible alarm, LCD display flashes and NPM buzzers, SMS alert (not available in some countries);

7 main monitoring data:

Total voltage, total and outlet current, power factor, power (kW), outlet state, environment state;

8 outlets on the front:

8 outlets on the front, 4 outlets on the rear, Max. 12 outlets ;

9 main controlling functions:

Total current, outlet current, outlet switching, outlet time-switching, sequential switching with delay, temperature and humidity monitoring, threshold exceeding alerts, power automatic cut-off when overload occurs, centralized management ;

10 NPM daisy-chain:

10 NPM daisy-chain through serial port connection;

32 A Max. load:

Voltage 110V, 220V, Max. 32A load;

N x NPM centralized management:

Via CLEVER Manager, administrator or user can do centralized management of thousands of NPM;



front



front

NPM7000/8000 (vertical mount) function parameters list 1









Main Functions		Details	Function levels						
			Monitor		Control				
			A	B	C	D	E		
Monitor		Total load current	●	●	●	●	●		
		Input voltage	●	●	●	●	●		
		Total energy consumption (kWh)	●	●	●	●	●		
		Total power (kW) and power factor	●	●	●	●	●		
		Outlet power (kW)		●		●			
		Group outlet power (kW)					●		
		Group outlet load current					●		
		Outlet load current		●		●			
		Group outlet state					●		
		Outlet state (on/off)		●	●	●			
		System operating state (RUN indicator)	●	●	●	●	●		
		Temperature and humidity state	●	●	●	●	●		
		Smoke occurs or not	●	●	●	●	●		
		Water-logging occurs or not	●	●	●	●	●		
		Door opened or closed	●	●	●	●	●		
		Control		Outlet switching			●	●	
Group outlet switching							●		
Set the delay of outlet sequential switching					●	●			
Set the delay of group outlet sequential switching							●		
Set the automatic switching time of outlet					●	●			
Set the automatic switching time of group outlet							●		
Set to cut off power or not when overload occurs						●	●		
Keep the former state		Keep the former state of group or individual outlet after reset			●	●	●		
Automatic alarm		User defined alarm		Threshold of total load current	●	●	●	●	●
				Threshold of group outlet load current					●
				Threshold of outlet load current		●		●	
				Threshold of temperature and humidity	●	●	●	●	●
		System automatic alarm		Threshold of total load current is exceeded	●	●	●	●	●
				Threshold of group outlet load current is exceeded					●
				Threshold of outlet load current is exceeded		●		●	
				Smoke occurs	●	●	●	●	●
				Water logging occurs	●	●	●	●	●
				Door opening	●	●	●	●	●
Energy consumption metering		Record the total energy consumption (kWh)	●	●	●	●			
		Record the energy consumption of group outlet					●		
		Record the energy consumption of individual outlet		●		●			
Alarm		RUN indicator on controlling panel flashes and buzzer sounds							
		Indicator on Web interface flashes							
		Send Email to administrator automatically							
		Send SMS to administrator (not available in some countries)							
		SNMP send Trap alarm information							
		Logical port outputs level signal (RJ11 port, ≤ 50VDC)							



NPM7000/8000 (vertical mount) function parameters list 2

Main Functions	Details
Daisy-chain	10 NPM for daisy-chain (≤ 5 is suggested)
Log record	Record and save the operation and alarm information which can be checked and output
Time synchronization	SNTP to realize network time synchronization
User management	Different user permission configuration
	Outlet alarm permission configuration
	Set the permission to clear the energy consumption (kWh) number
Accessing method	Web, access via IE
	SNMP V1, V2 support
	Telnet, SSH (optional)
Software system	Multi-user operation system, support software upgrade






NPM7000/8000 (vertical mount) function parameters list 3

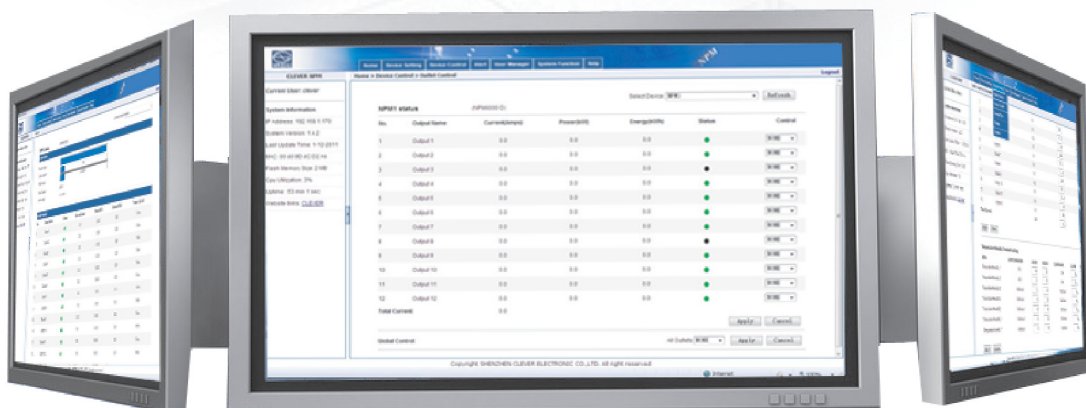
Main Functions	Details	Parameters		
		NPM7000	NPM8000	
Input characteristics	Rated input voltage	110/220VAC 50/60 Hz	380VAC 50/60 Hz	
	Max. load current	32A	3X32A	
	Cable specification	3×2.5mm², 3×6.0mm²	5×2.5mm², 5×6.0mm²	
	Cable length	2.5M	2.5M	
Output characteristics	Rated output voltage	110/220VAC	220VAC	
	Outlet standard	<div><div> IEC320 C13</div><div> IEC320 C19</div><div> DIN49440</div><div> NF C61-314</div><div> NEMA 5-15R</div><div> NEMA 5-20R</div><div> GB1002</div><div> BS1363</div></div>		
	Outlet specification	The standard outlet number is 12, 16, 20 or 24 for A, B, C, D series The standard outlet is 2, 3, 4 or 5 groups for E series. *Standard combination of each group is 5 x IEC320 C13 + 1 x IEC320 C19 *Can produce customized products if standard version cannot meet specific requirement		
	Outlet safety device	IEC320 C13 is patented outlet with anti-fall device to lock C14 plug		
	Sensor port	T/H1, T/H2		
	Logical port	Alarm		
	Physical properties	Product dimension	L: subject to actual length W: 66.6mm H: 44.4mm	
Case material		Aluminum		
Case color		Black, with surface spray coating treatment		
Mounting method		Both ends installation with brackets or rear button mounting		
Factory standard fittings		User Manuel, 2 x RJ 45 network wire		
Environment characteristics	Working environment	Temperature: 0 - +55℃ Relative humidity: 5-95%		
	Storage environment	Temperature: -20- +60℃ Relative humidity: 5-95%		
Optional functions	Master circuit breaker module			
	Rear button mounting			
	Terminal block	Connect optional cables and connectors		
	Centralized management	Via CLEVER Manager to realize centralized monitoring, controlling and management of thousand of NPM		
	Sensor port expanding	Sensor ports module: T/H 3, T/H 4, T/H5		Optional functions (3 different modules can be all equipped, but 2 of the same is not accepted)
		Sensor ports module: T/H 6, Smoke, Water		
Sensor ports module: Door 1, door 2, T/H7				

NPM6000 (horizontal mount) function parameters list 1

Main Functions		Details	Function levels			
			Monitor		Control	
			A	B	C	D
Monitor		Total load current	●	●	●	●
		Input voltage	●	●	●	●
		Total energy consumption (kWh)	●	●	●	●
		Total power (kW) and power factor	●	●	●	●
		Outlet power (kW)		●		●
		Outlet load current		●		●
		Outlet state (on/off)		●	●	●
		System operating state (RUN indicator)	●	●	●	●
		Temperature and humidity state	●	●	●	●
Control		Outlet switching			●	●
		Set the delay of outlet sequential switching			●	●
		Set the automatic switching time of outlet			●	●
		Set to cut off power or not when overload occurs				●
Keep the former state		Keep the former state of group or individual outlet after reset			●	●
Automatic alarm	User defined alarm	Threshold of total load current	●	●	●	●
		Threshold of outlet load current		●		●
		Threshold of temperature and humidity	●	●	●	●
	System automatic alarm	Threshold of total load current is exceeded	●	●	●	●
		Threshold of outlet load current is exceeded		●		●
Energy consumption metering		Record the total energy consumption (kWh)	●	●	●	●
		Record the energy consumption of individual outlet		●		●
Alarm		RUN indicator on controlling panel flashes and buzzer sounds				
		Indicator on Web interface flashes				
		Send Email to administrator automatically				
		Send SMS to administrator (not available in some countries)				
		SNMP sends Trap alarm information				
		Logical port outputs level signal (RJ11 port, ≤ 50VDC)				
Log record		10 NPM for daisy-chain (≤ 5 is suggested)				
Daisy-chain		Record and save the operation and alarm information which can be checked and output				
Time synchronization		SNTP to realize network time synchronization				
User management		Different user permission configuration				
		Outlet alarm permission configuration				
		Set the permission to clear the energy consumption (kWh) number				
Accessing method		Web, access via IE				
		SNMP V1, V2 support				
		Telnet, SSH (optional)				
Software system		Multi-user operation system, support software upgrade				

NPM6000 (horizontal mount) function parameters list 2

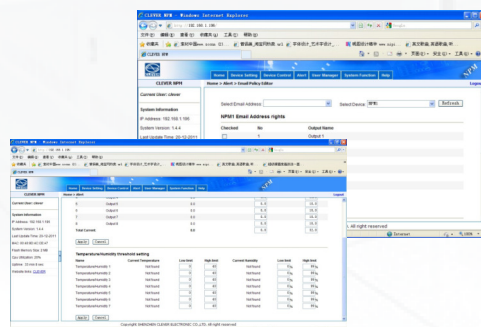
Main Functions	Details	Parameters
		NPM6000
Input characteristics	Rated input voltage	110/220VAC 50/60 Hz
	Max. load current	32A
	Cable specification	3×2.5mm ² , 3×6.0mm ²
	Cable length	2.5M
Output characteristics	Rated output voltage	110/220VAC
	Outlet standard	    
	Outlet number	8
		12 (8 on the front, 4 on the rear)
	Outlet safety device	IEC320 C13 with anti-fall device to lock C14 plug
	Sensor port	T/H1, T/H2
Physical properties	Logical port	Alarm
	Product dimension	L: 482.6mm W: 216mm H: 44.4mm
	Case material	Cold-rolled steel case
	Case color	Black, with surface spray coating treatment
	Mounting method	Both ends installation with brackets
Environment characteristics	Factory standard fittings	User Manuel, 2 x RJ 45 network wire
	Working environment	Temperature: 0 - +55℃ Relative humidity: 5-95%
	Storage environment	Temperature: -20- +60℃ Relative humidity: 5-95%
Optional functions	Master circuit breaker	
	Input	Connect optional cables and connectors
	Centralized management	Via CLEVER Manager to realize centralized monitoring, controlling and management of thousands of NPM



6.1 NPM7000/8000 A series

Remote monitoring functions:

- Total load current;
- Input voltage;
- Total energy consumption (kWh) ;
- Total power (kW) and power factor;
- System running state;
- Temperature and humidity state ;
- Smoke occurs or not;
- Water logging occurs or not;
- Door opened or closed;
- Logical port output;



Typical models

Product code	Socket standard	Outlet quantity	Load current (A)
NA712C1212	IEC320 C13	12	16
NA712H1612	IEC320 C13 / C19	16	16
NA712M2012	NEMA 5-15R	20	16
NA712H2012	NEMA 5-15 / 5-20R	20	16
NA712F2412	NF C61-314	24	16
NA812D1242	DIN49440	12	3×32
NA812B2442	BS1363	24	3×32

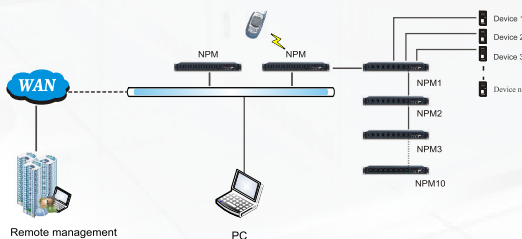
Detailed models and specifications, please ask from CLEVER sales or local distributors.

The detailed functions and technical parameters of this series, please refer to form 1 on page 8 and form 2 and 3 on page 9.

6.2 NPM7000/8000 B series

Remote monitoring functions:

- Total load current;
- Input voltage;
- Total energy consumption (kWh) ;
- Outlet energy consumption (kWh);
- Total power (kW) and power factor;
- Outlet power (kW) ;
- Outlet load current
- Outlet state (on/off);
- System running state ;
- Temperature and humidity state ;
- Smoke occurs or not;
- Water logging occurs or not;
- Door opened or closed;
- Logical port output;



Typical models

Product code	Socket standard	Outlet quantity	Load current (A)
NB712C1212	IEC320 C13	12	16
NB712H1612	IEC320 C13 / C19	16	16
NB712M2012	NEMA 5-15R	20	16
NB712H2012	NEMA 5-15 / 5-20R	20	16
NB712F2412	NF C61-314	24	16
NB812D1242	DIN49440	12	3×32
NB812B2442	BS1363	24	3×32

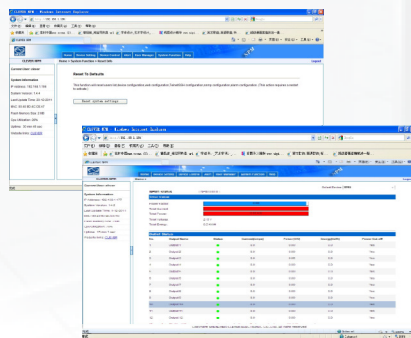
Detailed models and specifications, please ask from CLEVER sales or local distributors.

The detailed functions and technical parameters of this series, please refer to form 1 on page 8 and form 2 and 3 on page 9.

6.3 NPM7000/8000 C series

Remote monitoring and controlling functions:

- Total load current;
- Input voltage;
- Total energy consumption (kWh);
- Total power (kW) and power factor;
- Outlet state (on/off);
- System running state;
- Temperature and humidity state;
- Smoke occurs or not;
- Water logging occurs or not;
- Door opened or closed;
- Logical port output;
- Outlet switching;
- Set the delay of outlet sequential switching;
- Set the time of outlet automatic switching;



Typical models

Product code	Socket standard	Outlet quantity	Load current (A)
NC712C1212	IEC320 C13	12	16
NC712H1612	IEC320 C13 / C19	16	16
NC712M2012	NEMA 5-15R	20	16
NC712H2012	NEMA 5-15 / 5-20R	20	16
NC712F2412	NF C61-314	24	16
NC812D1242	DIN49440	12	3×32
NC812B2442	BS1363	24	3×32

Detailed models and specifications, please ask from CLEVER sales or local distributors.

The detailed functions and technical parameters of this series, please refer to form 1 on page 8 and form 2 and 3 on page 9.

6.4 NPM7000/8000 D series

Remote monitoring and controlling functions :

- Total load current;
- Input voltage;
- Total energy consumption (kWh) ;
- Outlet energy consumption (kWh) ;
- Total power (kW) and power factor;
- Outlet power (kW);
- Outlet state (on/off);
- System running state;
- Temperature and humidity state ;
- Smoke occurs or not;
- Water logging occurs or not;
- Door opened or closed;
- Logical port output;
- Threshold setting of the outlet current;
- Outlet switching;
- Set the delay of outlet sequential switching;
- Set the time of outlet automatic switching;
- Set whether to cut off power when overload occurs;



Typical models

Product code	Socket standard	Outlet quantity	Load current (A)
ND711C1212	IEC320 C13	12	16
ND711H1612	IEC320 C13 / C19	16	16
ND712M2012	NEMA 5-15R	20	16
ND712H2012	NEMA 5-15 / 5-20R	20	16
ND714F2412	NF C61-314	24	16
ND812D1242	DIN49440	12	3×32
ND814B2442	BS1363	24	3×32

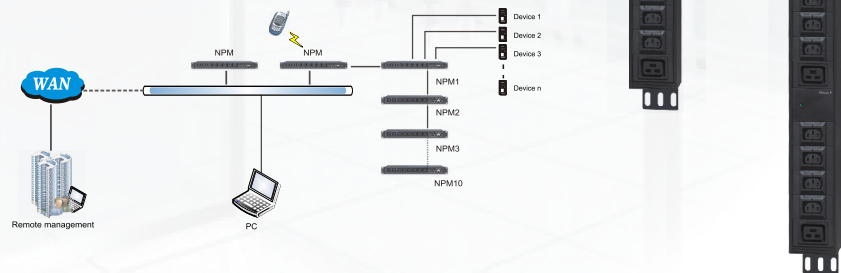
Detailed models and specifications, please ask from CLEVER sales or local distributors.

The detailed functions and technical parameters of this series, please refer to form 1 on page 8 and form 2 and 3 on page 9.

6.5 NPM7000/8000 E series

Remote monitoring and controlling functions:

- Total load current;
- Input voltage;
- Total energy consumption (kWh);
- Group outlet energy consumption (kWh) ;
- Total power (kW) and power factor;
- Group outlet load current;
- Group outlet state (on/off) ;
- System running state;
- Temperature and humidity state ;
- Smoke occurs or not;
- Water logging occurs or not;
- Door opened or closed;
- Logical port output;
- Threshold setting of group outlet current;
- Group outlet switching ;
- Set the delay of group outlet sequential switching ;
- Set the time of group outlet automatic switching;
- Set whether to cut off power when overload occurs;



Typical models

Product code	Socket standard	Outlet quantity	Load current (A)
NE712C1212	IEC320 C13	12	16
NE712H1612	IEC320 C13 / C19	16	16
NE712M2012	NEMA 5-15R	20	16
NE712H2012	NEMA 5-15 / 5-20R	20	16
NE712F2412	NF C61-314	24	16
NE812D1242	DIN49440	12	3×32
NE812B2442	BS1363	24	3×32

Detailed models and specifications, please ask from CLEVER sales or local distributors.

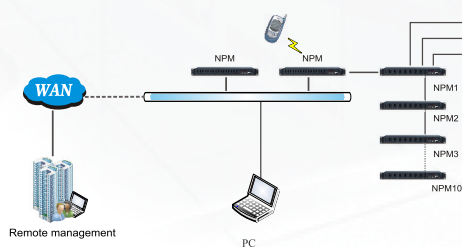
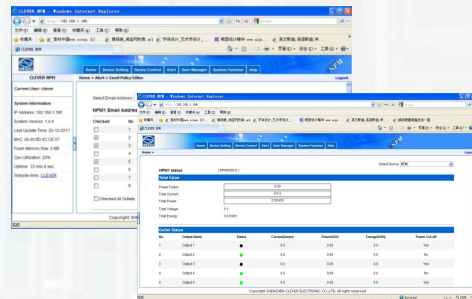
The detailed functions and technical parameters of this series, please refer to form 1 on page 8 and form 2 and 3 on page 9.

7.1 NPM6000 A series



Remote monitoring functions:

- Total load current;
- Input voltage;
- Total energy consumption (kWh);
- Total power (kW) and power factor;
- System running state;
- Temperature and humidity state ;
- Logical port output;



front



rear

Typical models

Product code	Front		Rear		Load current (A)
	Socket standard	Outlet quantity	Socket standard	Outlet quantity	
NA612C0812	IEC320 C13	8	NO	0	16
NA612M0812	NEMA 5-15R	8	NO	0	16
NA612N0812	NEMA 5-20R	8	NO	0	16
NA612H1212	IEC320 C13	8	IEC320 C19	4	16
NA612H1212	NEMA 5-15R	8	NEMA 5-15R	4	16
NA612H1212	NEMA 5-20R	8	NEMA 5-20R	4	16

Detailed models and specifications, please ask from CLEVER sales or local distributors.

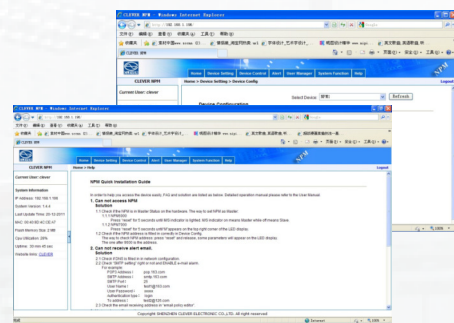
The detailed functions and technical parameters of this series, please refer to form 1 on page10 and form 2 on page11.

7.2 NPM6000 B series



Remote monitoring functions:

- Total load current;
- Input voltage;
- Total energy consumption (kWh);
- Outlet energy consumption (kWh) ;
- Total power (kW) and power factor;
- Outlet power (kW) ;
- Outlet load current
- Outlet state (on/off);
- System running state ;
- Temperature and humidity state ;
- Logical port output;



Typical models

Product code	Front		Rear		Load current (A)
	Socket standard	Outlet quantity	Socket standard	Outlet quantity	
NB612C0812	IEC320 C13	8	NO	0	16
NB612M0812	NEMA 5-15R	8	NO	0	16
NB612N0812	NEMA 5-20R	8	NO	0	16
NB612H1212	IEC320 C13	8	IEC320 C19	4	16
NB612H1212	NEMA 5-15R	8	NEMA 5-15R	4	16
NB612H1212	NEMA 5-20R	8	NEMA 5-20R	4	16

Detailed models and specifications, please ask from CLEVER sales or local distributors.

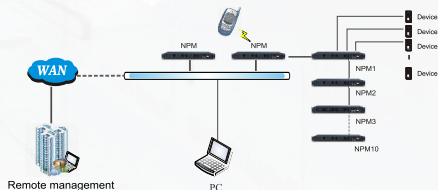
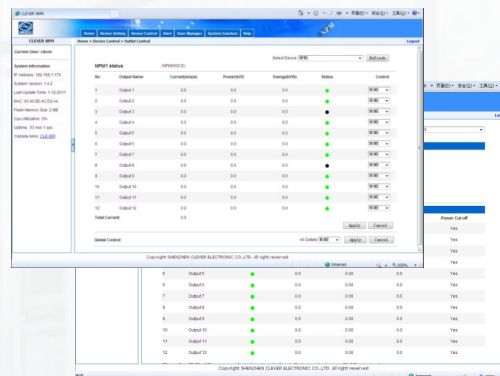
The detailed functions and technical parameters of this series, please refer to form 1 on page10 and form 2 on page11.

7.3 NPM6000 C series



Remote monitoring and controlling functions:

- Total load current;
- Input voltage;
- Total energy consumption (kWh);
- Total power (kW) and power factor;
- Outlet state (on/off);
- System running state;
- Temperature and humidity state ;
- Logical port output;
- Outlet switching ;
- Set the delay of outlet sequential switching;
- Set the time of outlet automatic switching;



front



rear

Typical models

Product code	Front		Rear		Load current (A)
	Socket standard	Outlet quantity	Socket standard	Outlet quantity	
NC612C0812	IEC320 C13	8	NO	0	16
NC612M0812	NEMA 5-15R	8	NO	0	16
NC612N0812	NEMA 5-20R	8	NO	0	16
NC612H1212	IEC320 C13	8	IEC320 C19	4	16
NC612H1212	NEMA 5-15R	8	NEMA 5-15R	4	16
NC612H1212	NEMA 5-20R	8	NEMA 5-20R	4	16

Detailed models and specifications, please ask from CLEVER sales or local distributors.

The detailed functions and technical parameters of this series, please refer to form 1 on page10 and form 2 on page11.

7.4 NPM6000 D series

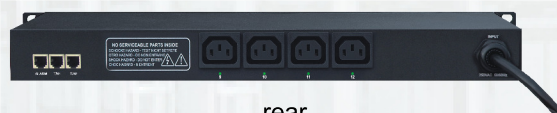


Remote monitoring and controlling functions:

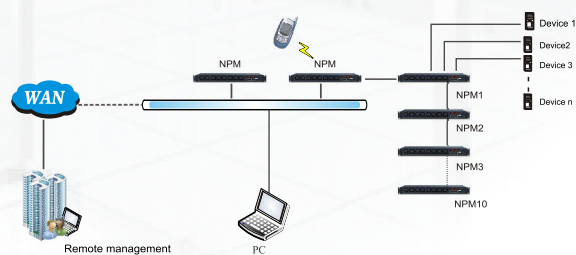
- Total load current;
- Input voltage;
- Total energy consumption (kWh);
- Outlet energy consumption (kWh) ;
- Total power (kW) and power factor;
- Outlet power (kW);
- Outlet state (on/off);
- System running state;
- Temperature and humidity state ;
- Logical port output;
- Set the threshold of outlet current;
- Outlet switching ;
- Set the delay of outlet sequential switching ;
- Set the time of outlet automatic switching;
- Set whether to cut off power when overload occurs;



front



rear



Typical models

Product code	Front		Rear		Load current (A)
	Socket standard	Outlet quantity	Socket standard	Outlet quantity	
ND612C0812	IEC320 C13	8	NO	0	16
ND612M0812	NEMA 5-15R	8	NO	0	16
ND612N0812	NEMA 5-20R	8	NO	0	16
ND612H1212	IEC320 C13	8	IEC320 C19	4	16
ND612H1212	NEMA 5-15R	8	NEMA 5-15R	4	16
ND311H1212	NEMA 5-20R	8	NEMA 5-20R	4	16

Detailed models and specifications, please ask from CLEVER sales or local distributors.

The detailed functions and technical parameters of this series, please refer to form 1 on page10 and form 2 on page11.

● Some NPM examples with optional modules



● Some optional accessories



Network wine 2m



Daisy-chain wine 2m



Temperature&Humidity sensor



Smoke sensor



Door sensor



Water sensor

CATALOGUE

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To meet with EU directive, all materials and electronic components of CLEVER NPM are RoHS approved.

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Network Power Manager



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