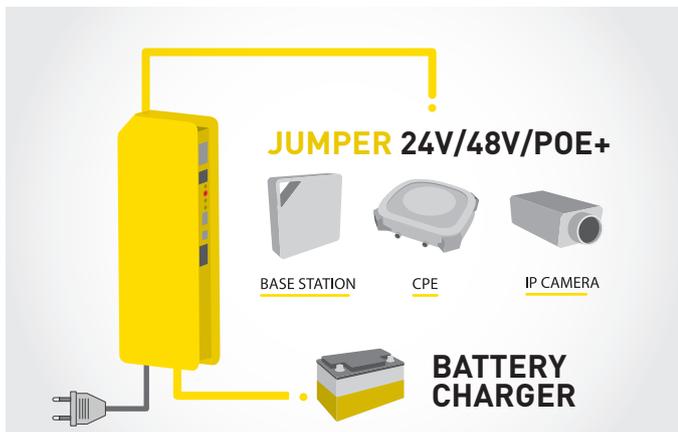


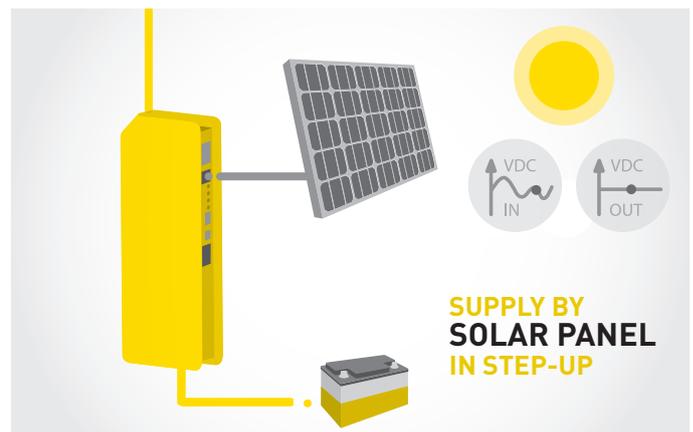
# TW-IDU-NODE 2

## SMART ENERGY STATION

Able to manage multiple energy sources and to protect your devices. second edition introduce the capacity of control and collect datas by remote using web interface.



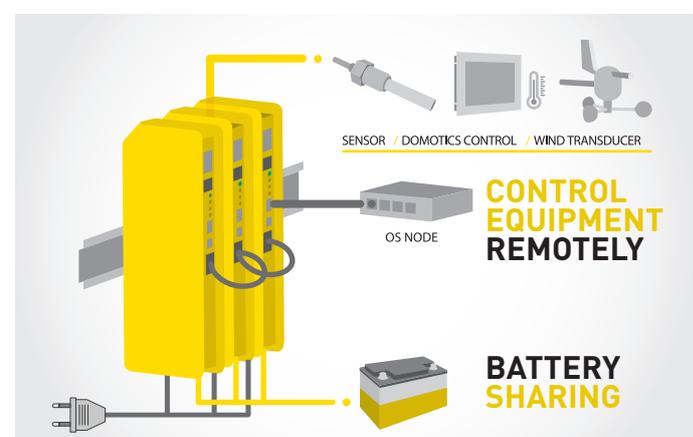
Thanks to smart Gigabit PoE supply every standard load such as PoE+, 802.3af & 802.2at devices, IP-Cameras, IP-Phones, PBXs, Access Point, Switches, CPEs, Routers, providing Output Voltage in case of black out. Output supply is selectable in continuous way between 24V up to 52V.



Easy to use Solar Panel. Work as step-up way and reserve energy on lower radiation. Integrated intelligent Power Management allow to optimize your systems using the battery charger. A great solution for video surveillance or wireless installation on street lamps.



Integrated strong Lightning Protection from overvoltage and shocks. Software overcurrent protection when overloaded and/or output shortcircuit occur. Lightning protection 25KA (8/20us) differential mode. Polarity reversal protection. Overvoltage protection up to 43Vdc.



Device performance and all is linked on CAN Bus can be controlled in remote way by the OS Node operating system. The management can be realized with PC, Tablet and smartphone. In clustered environment sharing and recharging one battery with more PoE, no SPOF technology (Single Point Of Failure)

## POWER SUPPLY

Main Supply	100 ÷ 240 VAC 47 ÷ 53 Hz 0,3A Max Ripple 200mv
DC Input	9V~36V (rated voltage suggested 24V)
Input Battery Voltage	From 12Vdc up to 15Vdc (settable by meas shell)
LAN Input Voltage	up to 36Vdc

## OUTPUT CURRENT & VOLTAGE

PoE Voltage	24 ÷ 52Vdc programmable by means shell interface
PoE Maximum Current	2A@24V - 1A@48V
PoE Maximum Power	50W
Battery Charging Voltage	Programmable charging method using shell interface
Battery Charging Current	Single mode: programmable from 0.5A up to 2.5A depend on the amount of load connected to  Sharing Mode: programmable up to 2.5AxN (N=number of twidunode in cluster)

## OVERVOLTAGE AND SURGE PROTECTION

PoE Output	Software overcurrent protection when overload and/or output shortcircuit occur.
Data & Power Line	Lightning Protection: 25KA (8/20us) differential IEC 61000-4-2 (ESD) ± 15KV (air)/± 8KV (contact) IEC 61000-4-4 (EFT) ±2KV-40A (5/50ns)
Battery Input	Deep Discharge Voltage management (programmable according to the battery type)
DC Input	Polarity reversal protection. Over-voltage protection up to 43Vdc.

## STATUS LED

Green <sup>1</sup>	TW-Idu-node ON
Red <sup>2</sup>	Battery connected or TW-IDU is powered by battery
Red <sup>3</sup>	USB is connected and TW-IDU has been identified as HOST
Orange <sup>4</sup>	TW-IDU is communicating over USB or CAN Bus

## LAN POE

LAN	10/100/1000 Mbps (Gigabit)
PoE output	24V/48V selectable by means external jumper (maximum rated voltage 51V) maximum PoE Power
PoE	In Line/off pair

## BATTERY SPECIFICATION

Type	All types (with proper firmware update and settable with shell interface) Default type: Pb lead
Voltage	12 Vdc
Capacity	2 ÷ 40Ah for each twidunode. 25AhxN in sharing battery mode.

## EXTERNAL CONNECTION PORT

CAN Bus Port	1x Port 2.0 B up to 1 Mbit/sec
CAN Bus Termination	1x Port with 120 Ohm termination
USB Port	1x miniUSB 2.0 type A (device) for fw upgrade & data logging
24V-48V Selection Port	2x Port with jumper connection
Standard Ethernet Port	Gigabit Eth 10/100/1000 base T
1Wire Port	1x 1WIRE Port: standard speed 15Kbps. Up to 8 device connected
Ground Port	1x Earth clamp
DC Port	1x DC power jack 5A 24Vdc ø2mm
AC Port	1x 2.5A 250Vac Housing

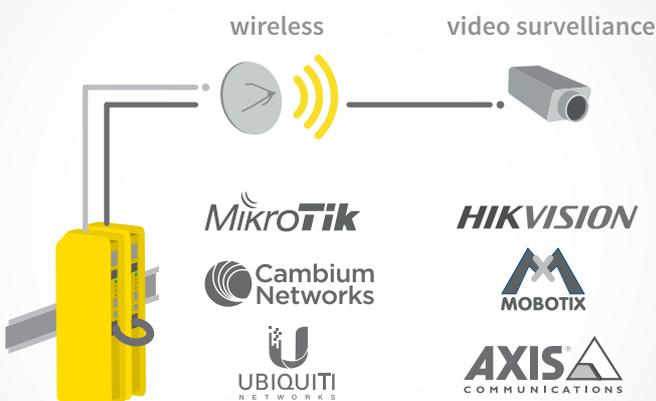
## TEMPERATURE & DIMENSIONS

Operating	0°C~+50°C
Storage Temperature	-20°C~+80°C
Dimensions	77 x 220 x 30 mm
Weight	0.3 Kg.

## SUPPORT & MORE DOCUMENTATION

Web Site	<a href="http://twidunode.com">http://twidunode.com</a>
email	<a href="mailto:support@townet.it">support@townet.it</a>

## TESTED AND MOST USED WITH



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