

With "Reliable Partners for Sustainable Development"
as the core concept, SDG Group is constantly developing ESG enterprises
and creating a better environment for our next generation!



Two Mainstream Product Lines Introduction

Date: 27.10.2022
Mac Tu

Mean Well Product Category

2

Main Stream Product Lines

MEAN WELL is regarded as the power brand with the most complete product lines. Two main product lines, Enclosed type and LED driver product lines are the fundamental support for decades of operation and growth, and further consolidate our global leading position in Standard Power Supply.



Enclosed Type



LED Driver

6

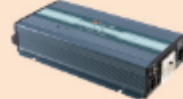
Niche Product Lines



DIN Rail Type



Battery Charger



DC/AC Inverter



On Board Type



Adaptor



DC/DC Converter

MEAN WELL has launched six niche product lines for applications such as medical, green energy, security, transportation, and telecom, providing diversified power supply specifications.

3+N

System solutions

MEAN WELL has over 10,000 standard power supply and global technical services teams providing customized configurable System solutions.



KNX Product



DALI-2 Controller



CMU2 Control and Monitor Unit



19" Rack Power











Modular Power



System Power

Enclosed Type Product Category

None PFC		With PFC	
	Economic Industrial Power LRS series 35/50/75/100/150/150F/200/350/ 450/600W		General Industrial Power RSP series 75~750W NSP series 1600/3200W ● High Power with Parallel Function RSP series 1000~3000W PSP series 600~1000W CSP series 3000W(HV)
	Economic--Mid high Power SE series 1000/1500W		Premium Industrial Power HRP(G) series 75~1000W HRP-N3 series 150/300/600W ● High Power with Parallel Function DPU series 3200W ● 3 Phases - High Power with Parallel Function RST series 5K/7K5(HV)/10K/15K(HV)W SHP series 10K(HV)W
	Economic--Multi-channel Power (Single Vo) RS series 15~150W (Dual Vo) RD/RID series 35~125W (Triple Vo) RT series 50~125W (Quad Vo) RQ series 50~125W		Medical Power (2xMOPP/MOOP Level) MSP series 100~1000W
			Conduction Cooling Power(Half potted) LSP/ UHP series 200~ 1500-HV /1500/2500W PHP series 3500/3500-HV W
			Harsh Environment Power (Fully Potted IP67) HEP series 100~2300(HV)W

NSP-1600/3200 Product Introduction

- 90~264V AC universal input
- Built-in **PV function 40~125%**
- <1U height design(41mm)
- **CC limiting protection >5s shut down.**
- High efficiency up to 94.5%
- **Design refer to SEMI F47**
- **Functions: OTP / DC-OK /AUX
/ Remote On Off / Remote sense**
- 5 Years Warranty
- Released date: 2022.6

NSP-1600



NSP-3200



RST-7K5/15K Product Introduction

- RST series: RST-5000/7K5(HV)/10000/15K(HV)
- 3Ø4W-Y connection (340~530Vac)
- 3Ø3W-△ connection (196~305Vac)
- Output: 115/230/380V DC
- High efficiency up to 95%
- Support with parallel function up to 30KW
- FAN cooling or Water cooling (7K5 L type)
- Output Voltage and Current programmable(PV/PC)
- Functions :Remote On Off/DC-OK/OTP/FAN fail/AC fail
- 5 years warranty
- Released date: 2022.09



RST-7K5L
(Water cooling)



RST-7K5
(FAN cooling)



RST-15K
(FAN cooling)

3 Phase AC Input SHP-10K Product Introduction

- 3Ø3W with 340~530V AC input
- **Output: 55/115/230/380 VDC**
- **High efficiency up to 97%**
- Support **parallel connection up to 40KW**
- Fan cooling or Water cooling (10K L type)
- **Output Voltage and Current programmable(PV/PC)**
- **Protocol : CANBus (standard), PMBus , MODBus (optional)**
- Functions: Remote On Off/DC-OK/**OTP/FAN fail/AC fail**
- 5 Years Warranty
- Released date: 2022.08



SHP-10KL
(**Water cooling**)



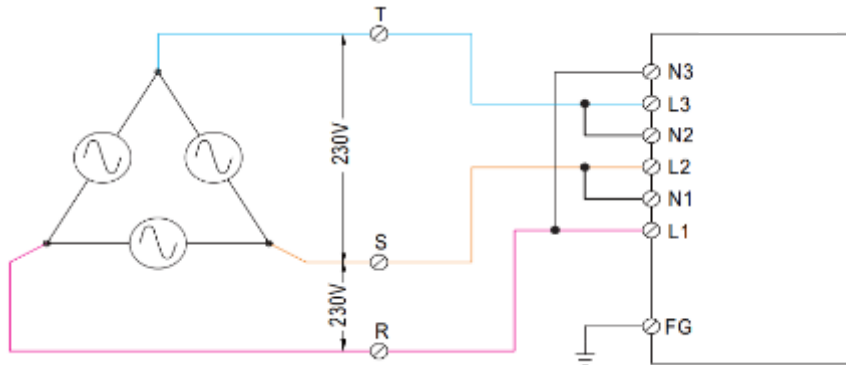
SHP-10K
(**Fan cooling**)

High Voltage Series Comparison

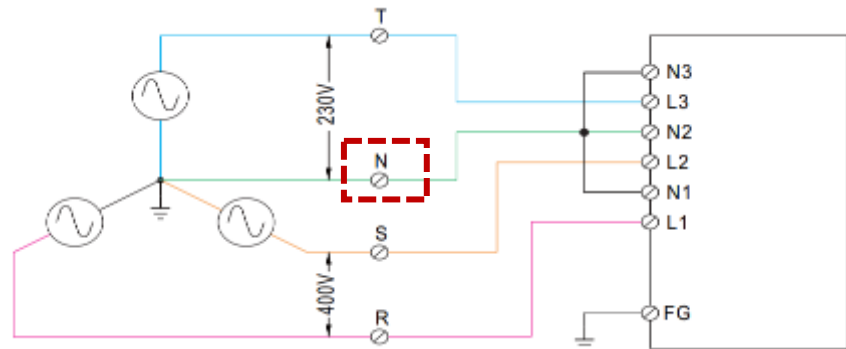
	RST-5K	NEW RST-7K5(L)	RST-10K	NEW RST-15K	NEW SHP-10K(L)
Vout	24/36/48	115/230/380	24/36/48	115/230/380	55/115/230/380
Size	460*211*83.5		540*424*83.5		460*211*83.5
AC input	3Ø4W Y-340~530V AC 3Ø3W Δ-196~305V AC				3Ø3W 340~530V AC
AUX	NA				12V 1A
PV	20%~120%	1%~120%	20%~120%	1%~120%	50%~120%
PC	20%~100%				
Functions	Remote On Off/DC-OK/OTP/FAN fail/AC fail				
Parallel	3+1(20KW)	3+1(30KW)	1+1(20KW)	1+1(30KW)	3+1(40KW)
Cooling	FAN cooling	FAN cooling or water cooling	FAN cooling	FAN cooling	FAN cooling or water cooling
Digital communication	NA				CANBus-standard PM/MODBus- optional

Enclosed Power Supply

RST series

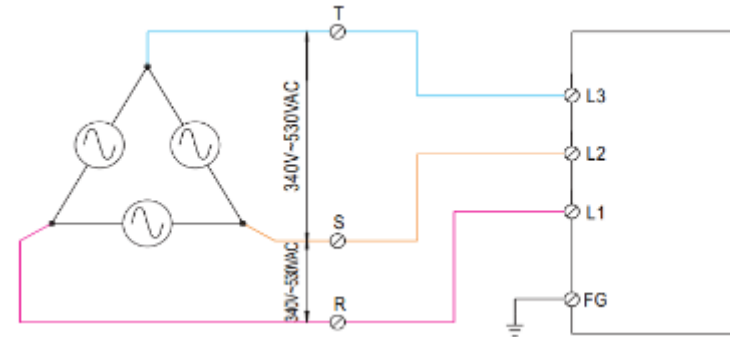


Δ : 196VAC - 305VAC

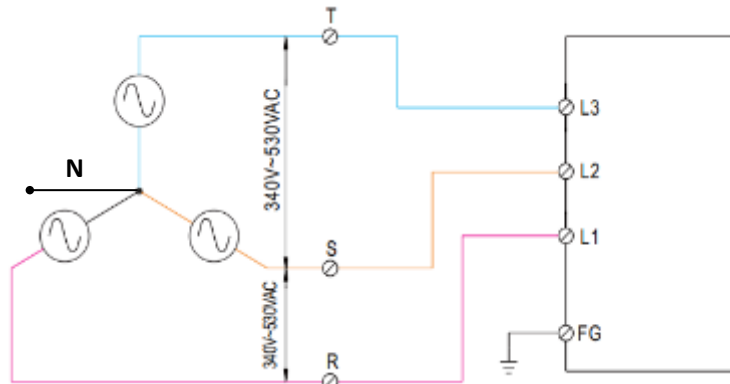


Y: 340VAC - 530VAC

SHP series



Δ : 340VAC - 530VAC



Y: 340VAC - 530VAC

Input Voltage	Models	Note
196~305VAC or 340~530VAC	RST-5K/10K/7K5/15K	Support single phase input
340~530VAC	SHP-10K	Easy for wiring

UHP-1500(HV) Product Introduction

- UHP series: 200/350/500/750/1000/1500/**1500(HV)**/2500
- High voltage application : **115V/230V/380V(380E)**
- **Fanless, conduction cooling design (semi-potted)**
- **Output Voltage and Current programmable**
(**PV** 50~120% / **PC** 20~100%)
- Protocol : **CANBus / PMBus** (optional)
- Built-in DC OK & Remote On Off Signal
- Certification EN/UL62368-1, CE
- Design refer to EN61558-1, EN60335-1
- 5 years warranty
- Released date : 2022.02







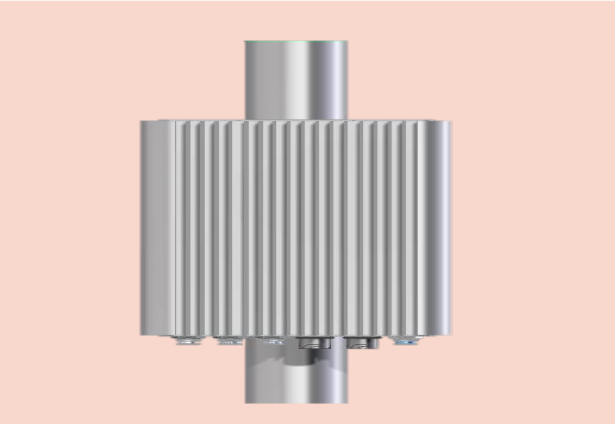
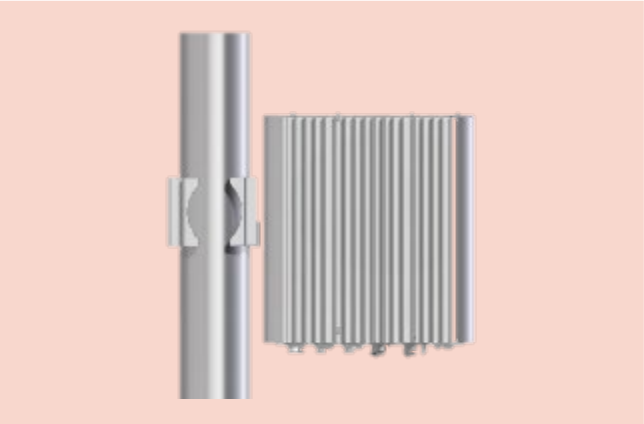
Landing page : [Conduction Cooling](#)

HEP-2300(HV) product Introduction

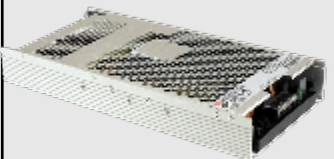

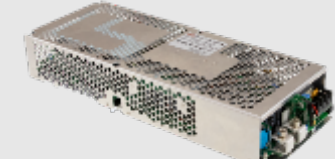

- HEP series: HEP-100/150/185/240/320/480/600/1000/2300
- Output: 55V/115V/230V/380V for harsh environment
- Full potted with IP67/IP66 design and 10G vibration
- Output Voltage and Current programable (PV/PC)
- Protocol: CANBus/PMBus/MODBus(optional)
- Charging curve adjustable with SBP-001 (55V)
- Output types: Terminal/Wiring/Harness connector
- IEC62368-1 approved; Design refer to 60335/61558
- 6 years warranty
- Released date : 2022.04





HEP-2300 Output and Mounting Methods

	Terminal	Wiring(IP67)	Harness connector (IP66)
Output type			
	Standard	Rear Mounted	Side Mounted
Mounting method			

High Voltage Series Comparison

Series	UHP-1500-HV 	HEP-2300-HV 	PHP-3500-HV 	CSP-3000 
Cooling	Fanless design Conduction cooling	Fanless design Conduction cooling	Fanless design Conduction cooling Or water cooling	Built-in FAN cooling
Output	115V/230V/380V			120V/250V/400V
Parallel	N/A			3 units (9KW)
Efficiency	96%			93%
Function	PV (50%~120%) PC (20%~100%)			PV (20%~120%) PC (20%~100%)
Digital control	CANBus /PMBus/MODBus			N/A
Size (mm)	290*140*41	375*280*88	380*140.8*60	278*177.8*63.5
Application	Centralized Bus Power. Indoor/Outdoor application.	Electrolysis equipment Outdoor (charging) application	Laser cutting Energy storage equipment	UV Curing Indoor application

PSU Protocol types

Protocol	Communication Distance	Original Application	Note
	10m	Power supply	<ul style="list-style-type: none">■ Public protocol■ Easy for design-in
CAN bus	200m	Automobile	<ul style="list-style-type: none">■ Support Multiple Masters■ Follow MEAN WELL definition
	200m	PLC	<ul style="list-style-type: none">■ Physical layer: EIA-485(differential signal)■ Follow MEAN WELL definition

New PSU Protocol list

	PMBus	CAN bus	Modbus	PV/PC
NSP-1600/3200				PV only
RST-7K5/15K				●
SHP-10K	●	●	●	●
UHP-1500(HV)	●	●		●
HEP-2300	●	●	●	●

High Voltage DC Output (HVDC) applications



Laser application



UV Curing














Centralized Bus Power



Charging / Energy storage

[HVDC solution](#) ▶

LED Driver Product Categories

Plastic Casing		Metal Casing	
	Non-PFC – Lead Wire Type APV/ APC/ LPV/ LPC Series 8 ~ 150W		Non-PFC – Terminal Block Type ERP Series 200W/350W PFC – Terminal Block Type ERPF Series 400W
	PFC – Cable Type PLN/ ODLV/ ODLC/ PLD/ PCD/ HLN/ GSV/ LPF/ NPF/ PWM Series 16~ 200W		PFC – Cable Type ELG/ ELGC Series 75W~300W XLG Series 20/25/50/75/100/150/200/240/320W (DALI-2 version)
	PFC – Terminal Block Type PLM/ PLC/ IDLC/ LCM/ LDC/ SLD Series LCM-40TW Tunable white(DT8) 12~100W		PFC – High Voltage Input + Cable Type HVG/ HVGC Series 65W~1000W (65/100/150/240/320/480/650/1000W)
	PFC - Open Frame Type PLP/ HLP/ IDPC/ HBGP Series 20~240W		PFC – Cable Type HLG/ HLGC Type 40W ~600W (40/60/80/100/120/150/185/240/320/480/600W)
	DC-DC Type NLDD/ LDDS/ LDB/ LDH Series NHDD-40 (DC 380V input) 9~65W		PFC – Circular Shape Design + Wire Type HBG/ HBGC Series 60W~300W XBG Series 100/160/240W
	Multi-master application controller DALI-2 Controller/KNX Gateway(KNX to DALI) DLC-02/DLC-02-KN		

XLG Series Family

- **XLG series: 20/ 25/ 50/ 75/ 100/ 150/ 200/ 240/ 320 (new DALI-2 dimming function)**
- Full range input 100~305VAC (Class I / Class 2)
- Output Types & Current:

Output Model	12V	24V	L	M	H
XLG-20			350 mA	500 mA	700 mA
XLG-025					0.25~1A
XLG-050(DA)			0.35~0.7A		0.53~2.1A
XLG-075(DA)	V	V	0.7~1A		1.3~2.1A
XLG-100(DA)	V	V	0.7~1A		1.75~2.7A
XLG-150(DA)	V	V	0.7~1A	1.4~2.1A	2.68~4.1A
XLG-200(DA)	V	V	0.7~1A		3.5~5.5A
XLG-240(DA)			0.7~1A	1.4~2.1A	4.28~6.6A
XLG-320(DA)	V(12V/18A or 24V/13A)		1~1.4A	2.1~2.8A	5.5~7.4A



XLG Family

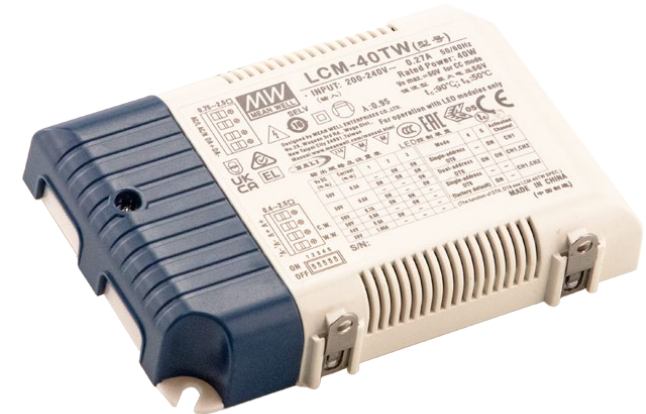
SLD-150 Series Product Introduction

- SLD series : 50/80/**150** (Slim shape).
- Input : 110~305V. Class II design .
- **Output : 12/24V (CC+CV mode)**
- **Output : 48V/56V (CP mode)**
- **Output <60V, SELV and double insulation.**
- Plastic casing, quick plug terminal.
- Protection : Short circuit/OVP/OTP/OCP
- Safety : UL8750, ENEC/CE EN61347-2-13, **EN60335** approved
- 3/5 years warranty
- Application: **Sign board/Backlight/Linear lighting.**
- Release date: Expect in 2023. Q1



LCM-40TW (Tunable-White) DT8 LED Driver

- IEC 62386 DALI 2, Part 101/102/207(DT6)/209(DT8)
- Input 180~277VAC, Plastic case, Class II design (No FG)
- Current via DIP SW : 500/600/700/800/900/1050 mA
- Min. Dimming 0.2%
- Multi-Functional :
 - DALI or Push dim
 - Single or Dual channel output
 - DT6(Dim to warm), DT8(Tunable white)
- Lifetime > 50,000 Hours, 5 years warranty
- Safety: UL8750, ENEC/CE EN61347-2-13, EL approved
- Released date : 2022.05



DC Centralized Bus Application

DC HOUSE



- Low Voltage 48V DC Bus: NLDD-H/HW series
- High Voltage 380V DC Bus: NHDD-40 series

D.C Output
56V
115V
230V
380V

Centralized Power Supply
SHP-7K5

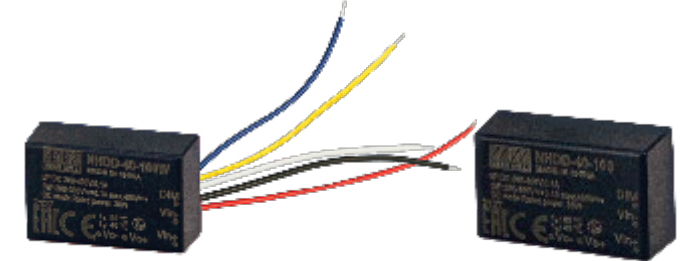
D.C 50~500V

E.V. Charging
BMS

NHDD-40 (DC 380V Input LED driver)

- NHDD-40 series **Step-Down** design
- **High input DC 380V, CC 100mA output**
- **Wire type/Pin type or DOB**
- PWM dimming and Remote On Off
- **Comply with EN61347/EN55015/EN61547**
- **Suitable for DC centralized bus lighting application**
- Released date: 2021.11

NHDD-40(32*20.5*12.5)



Wire type

PIN type

DOB solution

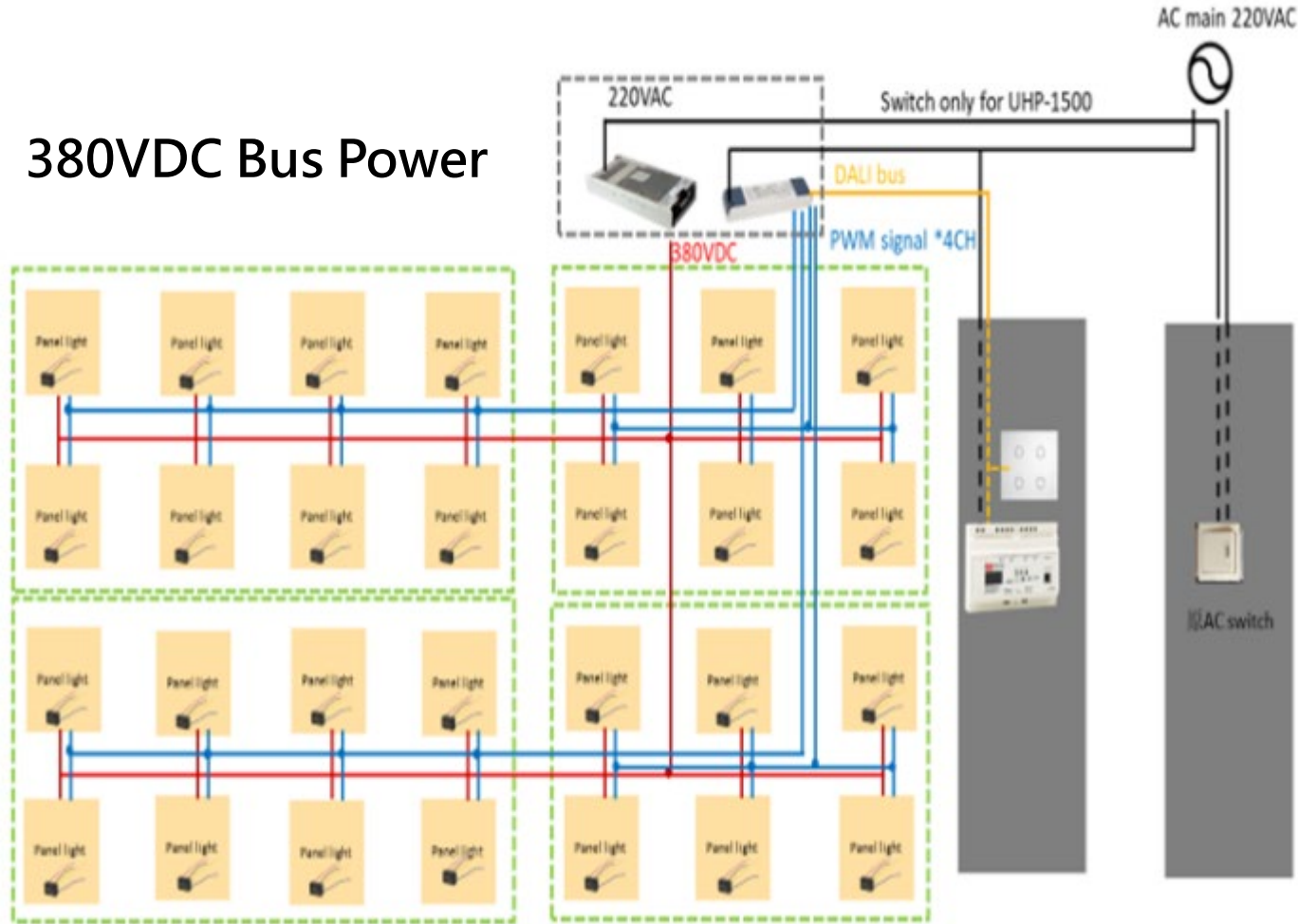


Input range	Output voltage	Output current	Efficiency
360~420 V DC	350V (Typical)	100 m A	95%



DC Centralized Bus Lighting Application

380VDC Bus Power



UHP-1500-380E+NHDD-40

DC House + DALI-2 system



DLC-02 DALI-2 Controller

- IEC 62386 DALI-2, Part 101/103
- Support 207(DT6)/209(DT8)/301/302/303/304
- Dual Channel DALI Bus
- Per channel 64 control gears and 12 input devices
- Built-in 4 Relays with 5A rating
- Built-in Timer/Sequence/Daylight Saving functions
- Software: DLC-02 software
- RJ45 : MODBus communication
- On board LCD display for simple setting and status check
- DLC-02-KN KNX version is available.
- Released date : 2021.06

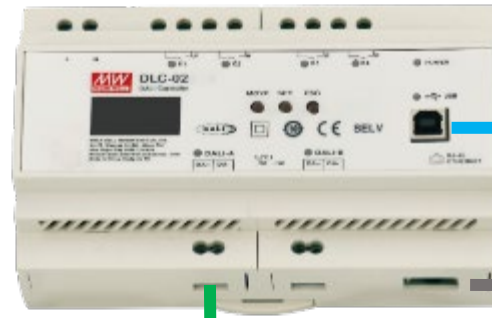


Software and
Firmware
Upgrade ▶

DLC-02 Configuration

DALI Application

**DALI-2 Controller
Part 101/103**



DALI Bus

DALI-2: 24 bits data frame

Send command to DLC-02

LCM do the action by following DALI command from DLC-02.

PWM do the action by following DALI command from DLC-02.



Wall-Dimmer
Or Sensor

**DALI-2 Input devices
Part 301/302**



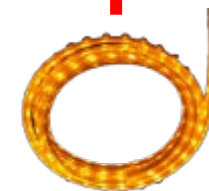
**DALI-2 Control gear
Part 207/209**



**DALI-2 Control gear
Part 207**

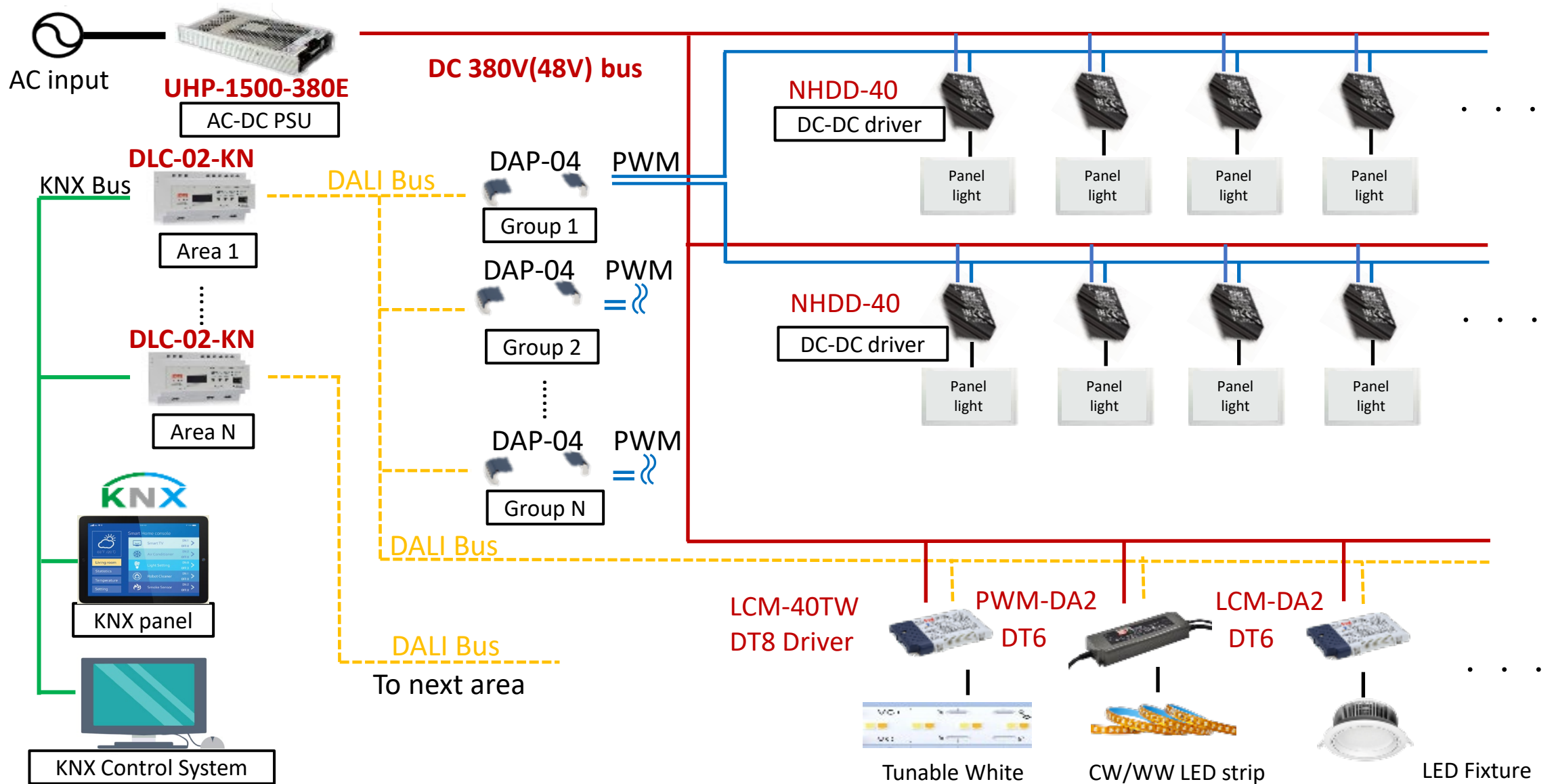


LED lamp



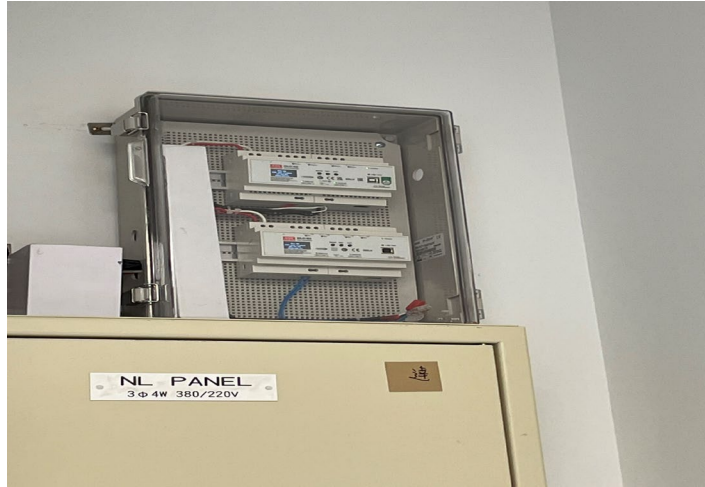
LED strips

Building Automation + DC Centralized Bus Lighting Solution



DLC-02 Case Study

Project : TAIPEI 101 Boutique watch shop



Summary: Two Mainstream Promotion

Enclosed Type

- EN60335/EN61558 application requirements
- Promote to new HVDC applications
- Outdoor equipment applications (UHP/HEP series)

LED Driver

- DC Centralized bus lighting solutions
- Digital lighting control (DALI-2 DT6/DT8 LED driver)
- Building Automation lighting system: DALI + KNX