TDE-lighttech
illuminating creativity

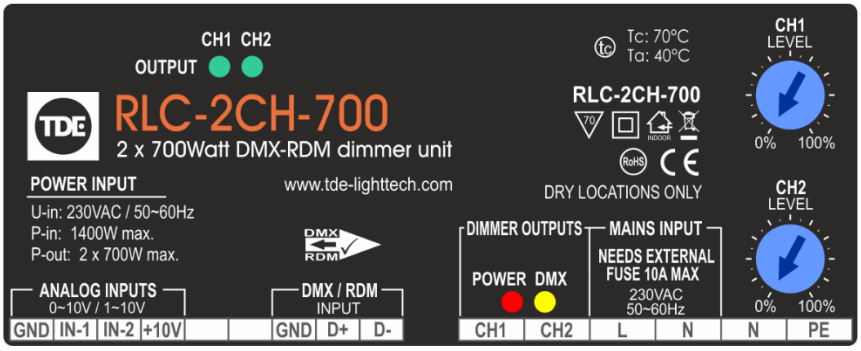
MANUAL
RLC-2CH-700
2 x 700Watt DMX-RDM dimmer unit
TDEL-4010815

RLC-2CH-700 2 x 700W DMX-RDM dimmer unit

Technical specifications:

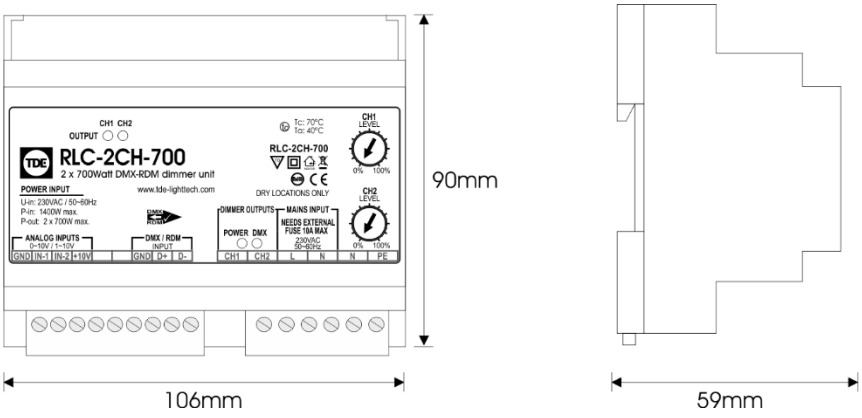
Power:	Input voltage:	230VAC (45 to 60Hz) (Optional: 115VAC version available)
	Output voltage:	230VAC
	Output Power:	2 x 700W/VA or 1 x 1400W/VA
	Channels:	2
	Power dissipation:	0.5W ~6W (standby ~full load per channel)
	Isolation voltage:	3500V
	Phase control:	Leading or trailing edge Automatic detection or manual set
	Loads:	Resistive, Inductive or capacitive loads
Control:	Analog inputs:	2 x 0~10V or 2 x 1~10V control input
	Digital input:	1 x DMX-512 – RDM input
Miscellaneous:	Housing:	DIN-rail housing, ABS plastic
	Weight:	300 gram
	Input connector:	9-pole – Max. 1.5mm²
	Output connector	6 pole – Max. 2.5mm²
Ordercode:	TDEL-4010815	RLC-2CH-700 2 x 700W DMX-RDM dimmer unit

Frontpanel & connections:



Analog inputs DMX-RDM Output power Input power

Dimensions:



The **RLC-2CH-700** is a universal dimmer that is suitable for high-voltage luminaires and LED retrofit lamps.
Two independently controllable outputs which have a **700W output each**. Parallel connection is possible creating a combined 1400W of output power.

Each channel can be configured as **phase leading** or **phase trailing**. The RLC-2CH-700 Universal dimmer is controllable as **DMX-RDM**, **0..10V**, **1..10V** or **stand-alone** and is configurable through on-board dip-switches, RDM or via PC software.

Features:

- High output power of 2 x 700Watts or 1 x 1400Watts in parallel connection
- Leading or trailing edge phase control or manual set to your connected load
- Suitable for Resistive, Inductive and Capacitive loads
- Control options for DMX512-RDM and analog control signals (0~10V & 1~10V)
- DIN-rail mounted housing
- PC Software available for programmable user settings and dimmer optimalisation
- Connect via standard USB connection

Warranty: 5 years

Potentiometers:

The UD-700 universal dimmer has two blue potentiometers on top of the dimmer, when both channel 1 and 2 are separate each potentiometer represents an output channel.
With the potentiometer it is able to set the minimum brightness level of each channel and can be used in stand-alone mode.
Make sure to put all potentiometers to 0% when operating in any mode other than stand-alone mode.

LED-Indications:

1 x Red LED	LED status	Description
	OFF	No operating voltage
	ON	Operating voltage, no error
	1Hz blinking	Too high mains voltage (>400Vs)
	1x blinking + break 1.5s	Self test error
	2x blinking + break 1.5s	No vaild version is detected after selection (DIP switch)
	3x blinking + break 1.5s	No valid parameters available
1 x Yellow LED	LED status	Description
	OFF	No DMX512 / RDM signal detected
	ON	Data for the set address are not transmitted (telegram too short) or data format is wrong
	1Hz blinking	Communication processor receives data
2 x Green LED	LED status	Description
	OFF	Output ‚OFF', no error
	ON	Output ‚ON', no error
	1Hz blinking	Overtemperature (Heatsink > 95°C / > 105°C)
	1x blinking + break 1.5s	Overload (Max permitted peak current >15Amp
	2x blinking + break 1.5s	Overvoltage (>450VAC)
	3x blinking + break 1.5s	Communication failure with the dimmer processor

DIP-switch settings DMX-RDM:

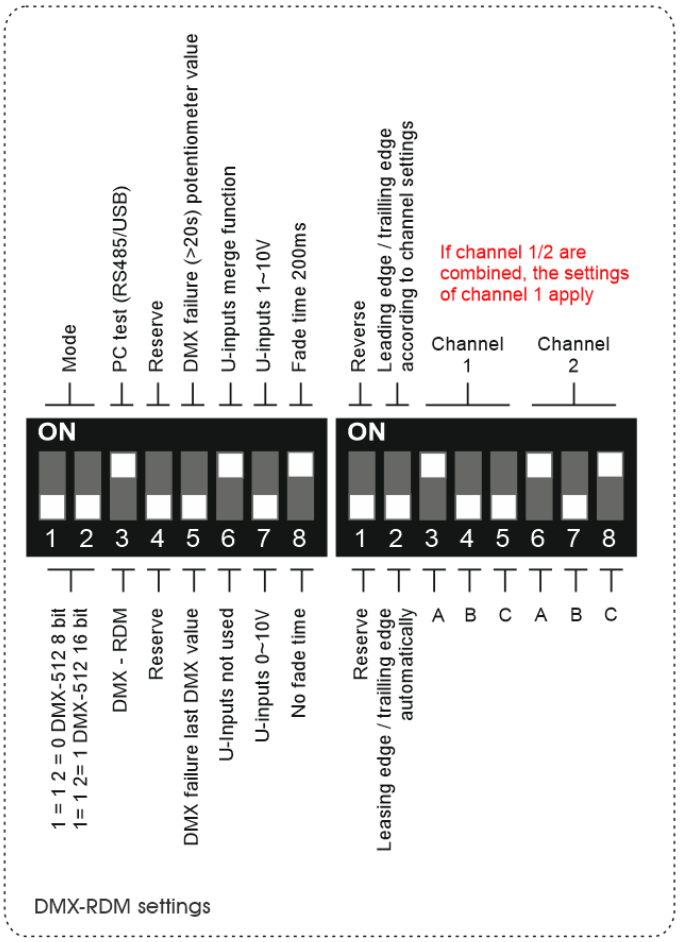
With the on board dipswitches RLC-2CH-700 universal dimmer can be configured.
The dipswitches can be found underneath the top cover.
Both outputs are configured with automatic phase dim detection.
See below the configuration options for each dim option:

Setting options per DMX-RDM:

- DMX address
- Dimmer configuration
  1 = DMX-8-Bit 2 channels
  2 = DMX-16-Bit 2 channels
  3 = DMX-8-Bit 1 channel
  4 = DMX-16-Bit 1 channel
- User designation for the dimmer

Feedback from the dimmer:

- Device name
- Manufacturer name
- Firmware version
- DMX address
- Quantity of channels (1 or 2)
- Active dimmer configuration (1-4)
- Status messages / error messages:
  - OK channel 1, OK channel 2
  - Overload channel 1 / channel 2
  - Overvoltage channel 1 / channel 2
  - Error communication channel 1 / channel 2



DMX-RDM settings

Curves	A	B
Linearly	OFF	OFF
NonDim	OFF	ON
User 1	ON	OFF
User 2	ON	ON

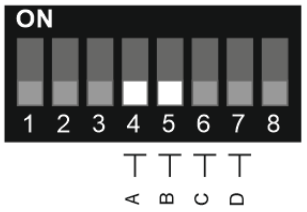
Dimming type	C
Trailling edge	OFF
Leading edge	ON

DIP-switch settings DMX-512 and Stand-alone operation:

With the on board dipswitches RLC-2CH-700 universal dimmer can be configured. The dipswitches can be found underneath the top cover.

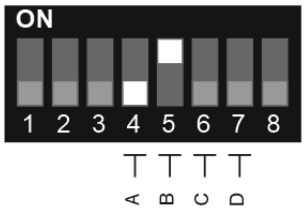
Both outputs are configured with automatic phase dim detection. See below the configuration options for each dim option:

Dimmer Phase Control settings:

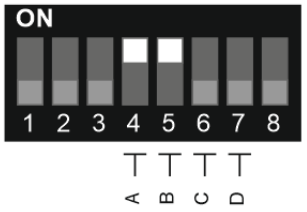


Automatic phase dim detection

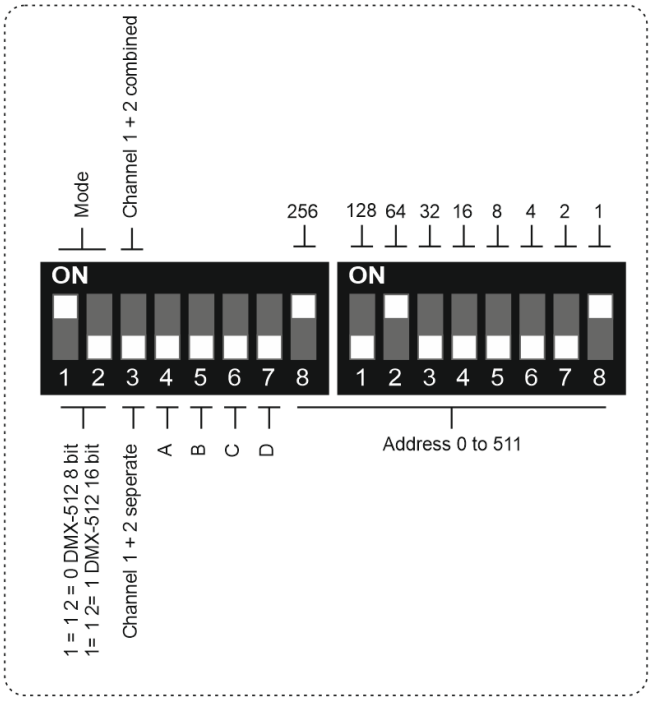
Phase trailing edge



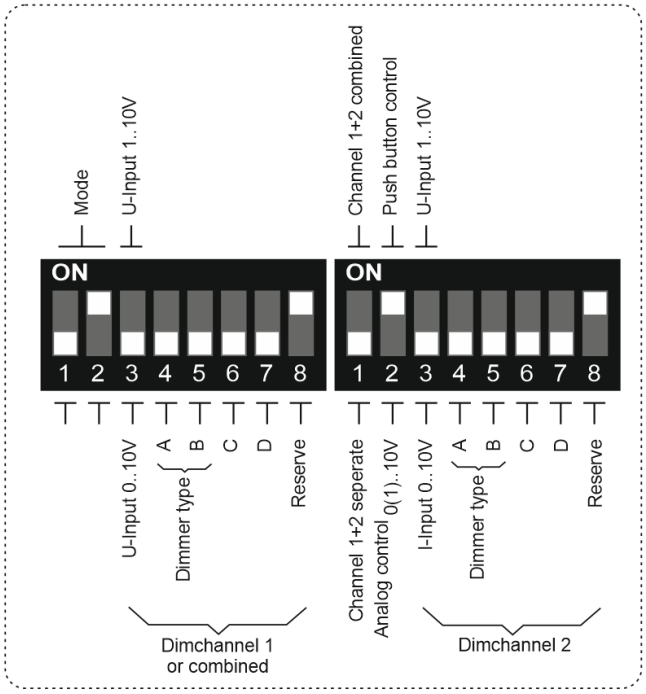
Phase leading edge



Non Dim



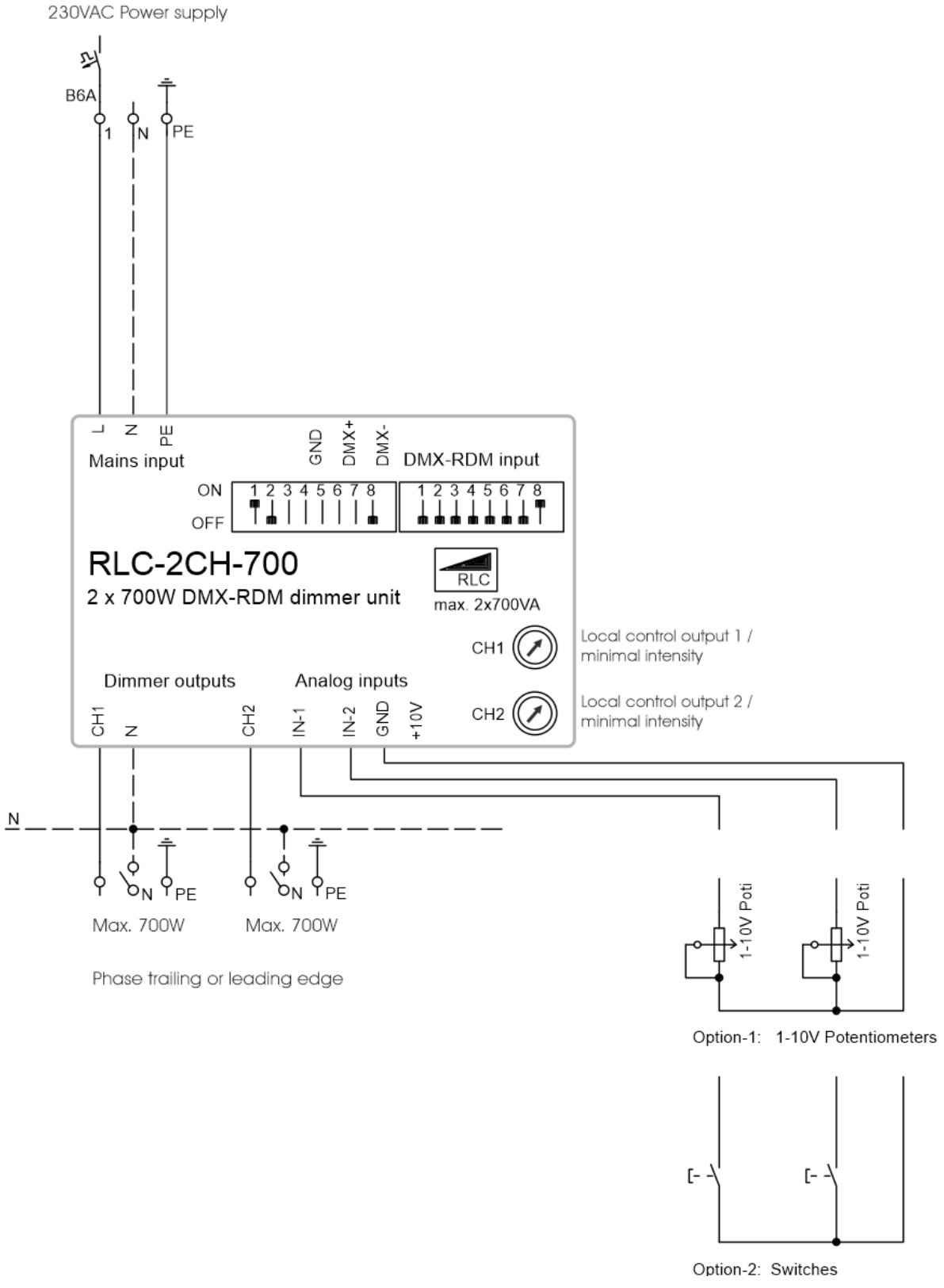
DMX512 settings



Standalone / 0..10V / 1..10V

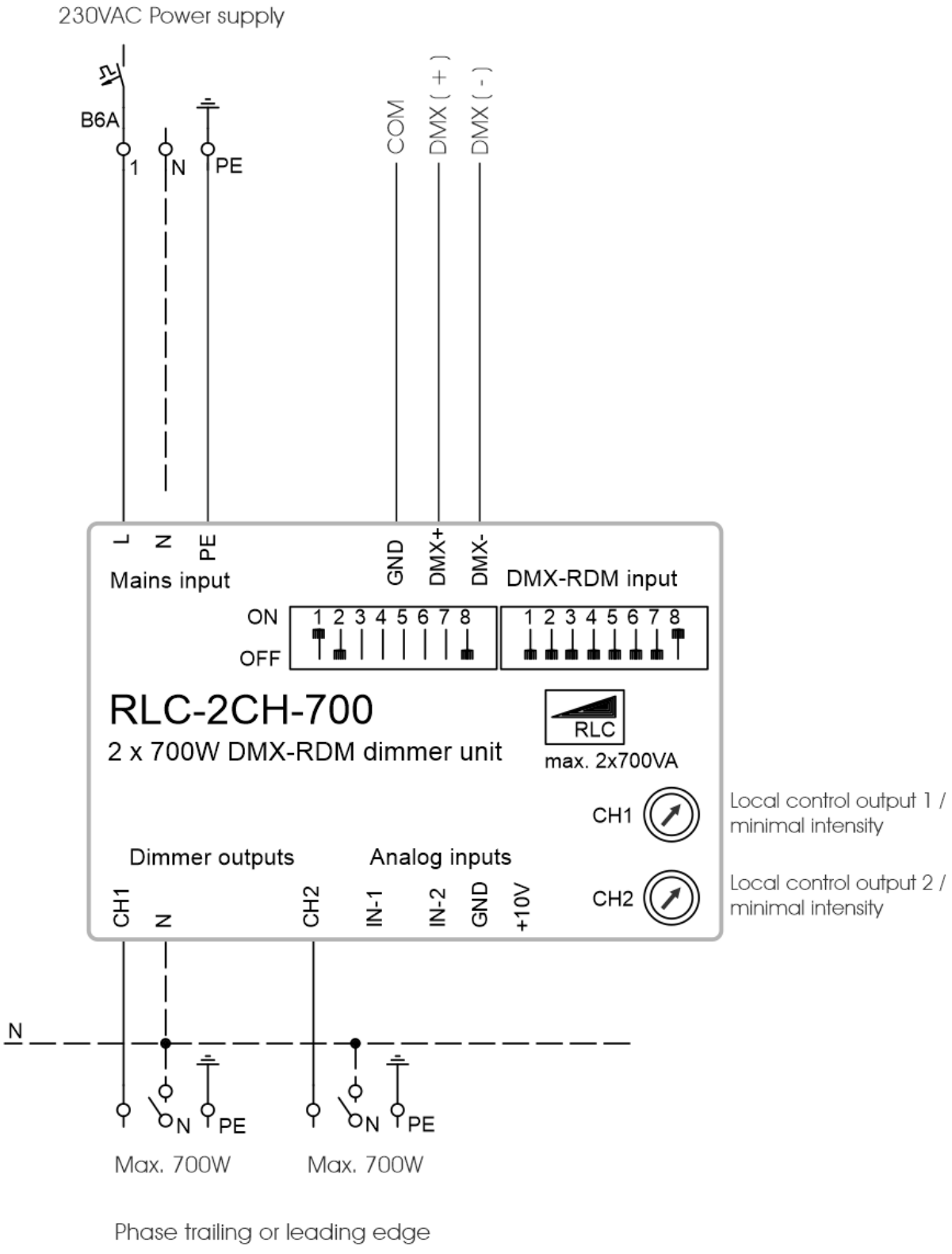
Connections for analog control:

See below connections for standalone or 0..10V / 1..10V, make sure to configure dipswitches appropriately.

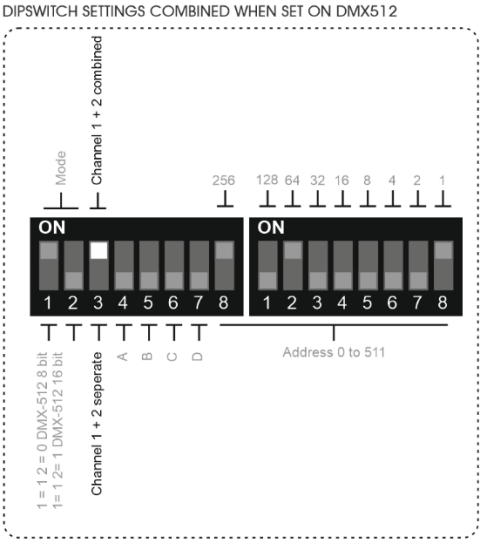
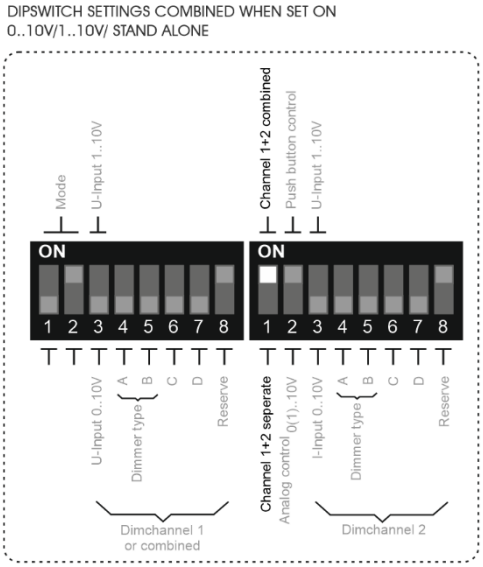
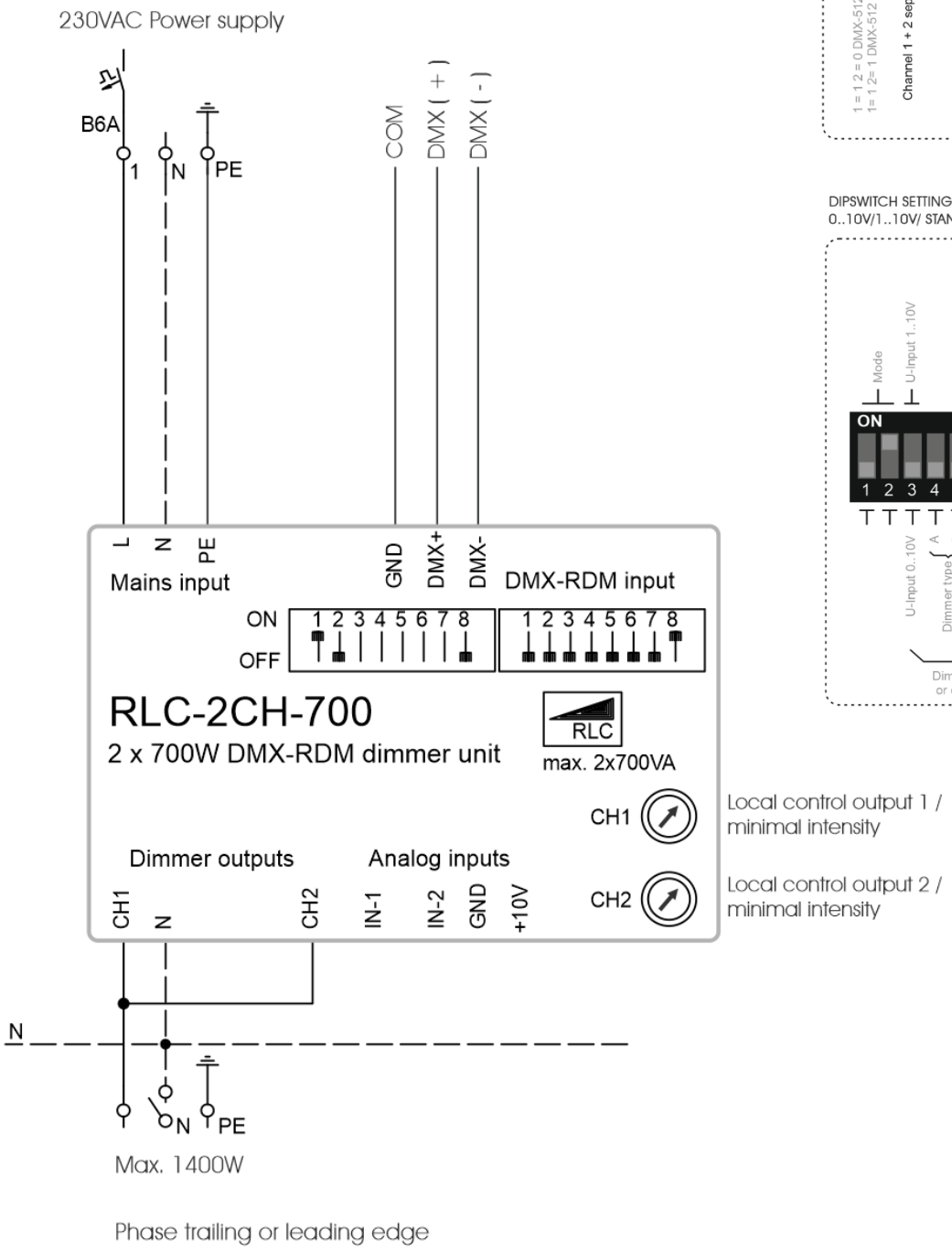


Connections for DMX-512 control:

See below connections for DMX-512, make sure to configure dipswitches appropriately.



Connections: 1 channel 1400W output connections

To create an 1400W output, combine both Output 1 and 2 channels together as shown here below.
Set the dipswitch settings to combined channel 1+2.

Please note that these settings differ between DMX512/RDM and analog control / Stand-alone options: