

# OPTOTRONIC®

## OT 80/220-240/24 DIM P

Dimmable Constant Voltage LED Power supply for 24V LED - Modules

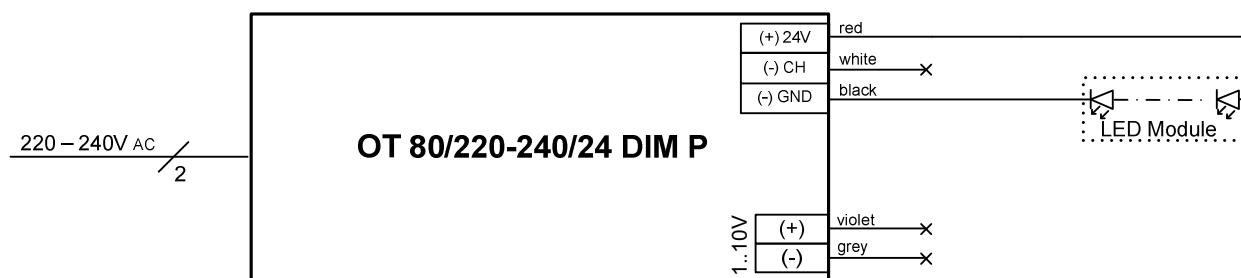
### 1. Technical Data

Nominal Voltage	220 – 240 Vac
Input Voltage	198 – 264 Vac
Line Current, nominal	0,4A@230 Vac
Mains Frequency	50 / 60 Hz
Power Factor	= 0.95 @ 230 Vac
Interface	1...10V insulated
IP Rating	IP 67
Max Output Power	80 Watt

Output Voltage	24 Vdc (-0,5V/+0,9V)
Efficiency	87% @230Vac
Ambient Temperature Ta	-25°C to +55°C
Max. Case Temperature at Tc	+ 80°C
Max. Cable Length	10m
Max load per circuit breaker B10	7
Max load per circuit breaker B16	10
Max load per circuit breaker C10	10

### 2. Connection Schemes

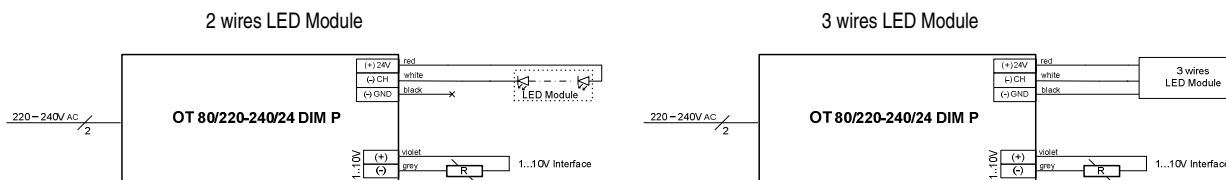
#### a. Non – Dim operation



Ensure proper insulation of not connected wire terminals.

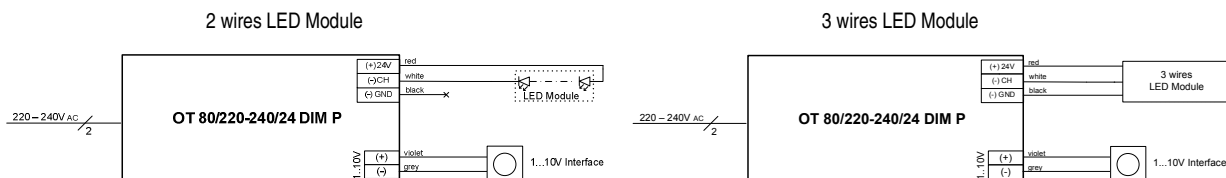
#### b. Dim operation

##### i. Non – Dim operation 3 wires LED module



- Ensure proper insulation of not connected wire terminals.
- The maximum input capacitance of all connected LED modules (dimnable) should be less the 130nF.
- Required type of Potentiometer for use = **47kOhm**.

##### ii. Control via 1...10 Dimmer



- Ensure proper insulation of not connected wire terminals.
- The maximum input capacitance of all connected LED modules (dimnable) should be less the 130nF.



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OSRAM AG

[www.osram.com](http://www.osram.com)

Steinerne Furt 62, 86167 Augsburg, Germany

No. 1, North Industrial Road  
528000 Foshan Guangdong, P.R. China

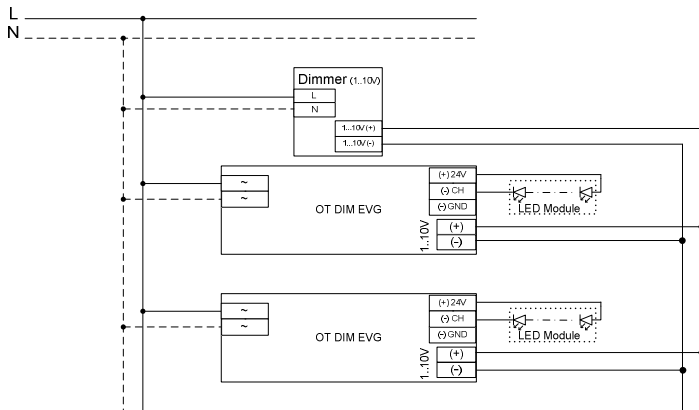


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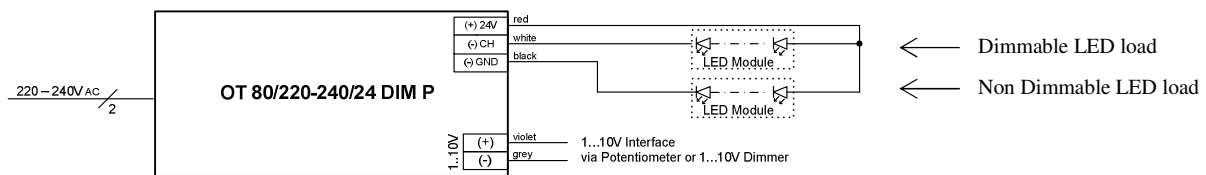
### iii. Single control of more power supplies



Control of more OT 80/220-240/24 DIM P to an external Dimmer/Potentiometer. Thanks to the fully isolated 1...10V interface, two different kind of dimming devices are possible

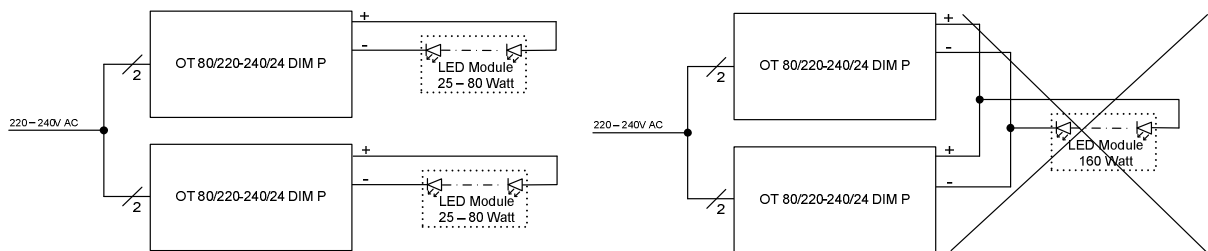
- 1) Potentiometer - the value will be  $47K \text{ Ohm} / n$  where  $n$  is the number of Power supplies to be controlled
- 2) Active Dimmer - Dimmer is connected to mains (see Figure 1c)

### iv. Combination of “dimmable” and “non dimmable” LED Modules



The maximum input capacitance of all connected LED modules (dimmable) should be less the 130nF.

### 3. Safety



Power supplies can be connected in parallel on the primary side, but not on the secondary side



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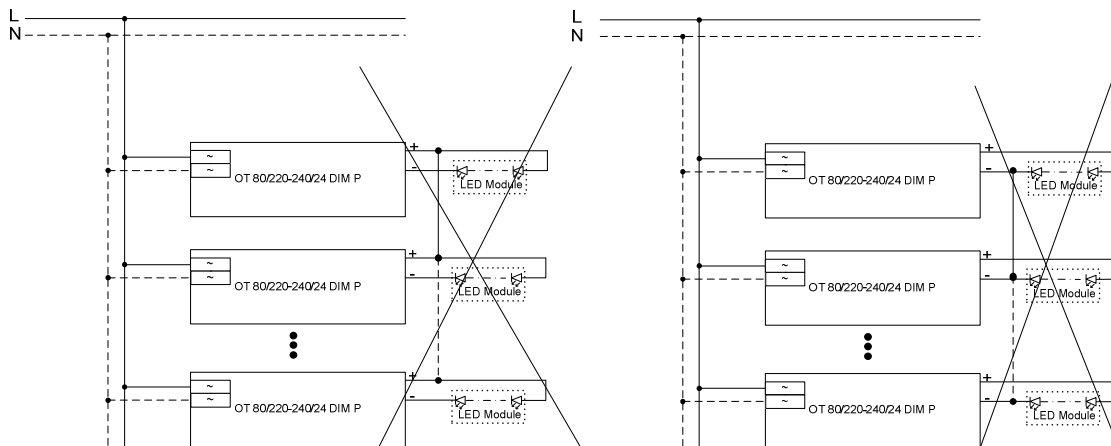
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## OT 80/220-240/24 DIM P

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- a) The installation of two or more OPTOTRONIC® OT 80/220-240/24 DIM P Power supplies with common “-“ or “+“ is forbidden.

### Wiring and Connection

- Ensure that the LED module load is within the range of rated voltage, current and power supply (see Technical data)
- Maximum output cable length is limited by EMI and cross diameter
- Use output cable sections adequate to the load demand
- The luminaire manufacturer is responsible for providing the required clearances and creepage distances and also for protection against electrical shock, especially for the line and load wires
- Please avoid direct exposure of sunlight and in case of exposure to UV rays, protect the cables with suitable silicone sheath.
- Not used output cables have to be insulated separately

### Earth Connection

- OT 80/24 P is a “Protection Class II” power supply, therefore ground connection is not required

### Mounting and Environmental protection

- The control gear is a build in type for luminaire integration
- Maximum permissible ambient temperature must not be exceeded. Make sure there is adequate space to avoid a build-up of heat. In critical installations the temperature at  $t_c$  has to be controlled

### General Note

- Power supplies must be installed by a qualified electrician
- Disconnected from mains supplies before wiring work
- For further information see also “OPTOTRONIC – Technical guide” at [www.osram.com](http://www.osram.com)



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