

45Watt 0/1-10V Dimmable LED Driver



Features:

- Three in one dimming function (0/1-10Vdc or PWM signal or resistance)
- Dimming range: 0-100%
- Built-in active PFC function (>0.98)
- High efficiency up to 83%
- Protections: Short circuit/Over current/Over loading
- Fully isolated plastic case with terminals IP20
- Compliance to worldwide safety regulations for lighting



Models

RND 500-00064

RND 500-00065

Output Specifications

| | | |
|-------------------|--------|-------|
| Output Voltage | 12V | 24V |
| Voltage Tolerance | ± 0.5% | |
| Output Current | 3.75A | 1.87A |
| Rated Power | 45W | |

Input Specifications

| | | |
|-----------------------------|---|-------|
| Input Voltage | 100-265VAC | |
| Frequency Range | 47-63Hz | |
| Inrush Current | 15.6A (Twidth=42µs 230VAC) | |
| Full Load Efficiency (Typ.) | 81% | 85% |
| AC Current (Max.) | 0.51A | 0.49A |
| Leakage Current | <0.50mA | |
| Power Factor | PF>0.95/120VAC PF>0.90/230VAC PF>0.90/265VAC (Full Loading) | |

Protection

| | |
|---------------|---|
| Short Circuit | Hicup mode, recovers automatically after fault condition is removed |
| Over Loading | ≤120% |
| Over Current | ≤1.2*Iout |

Environment

| | |
|-------------------------------|-------------------------------------|
| Working Temperature | -40~+60°C (Refer to derating curve) |
| Working Humidity | 20-90% RH, non-condensing |
| Storage Temperature, Humidity | -40~+80°C, 10-95% RH |
| Temperature Coefficient | ±0.03%/°C (0-50°C) |

Art. Nr.302-94-974 & 302-94-975

RND 500-00064 & RND 500-00065

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Vibration 10-500Hz 2G 12min./ 1 cycle, period for 72min. each along X, Y, Z axes

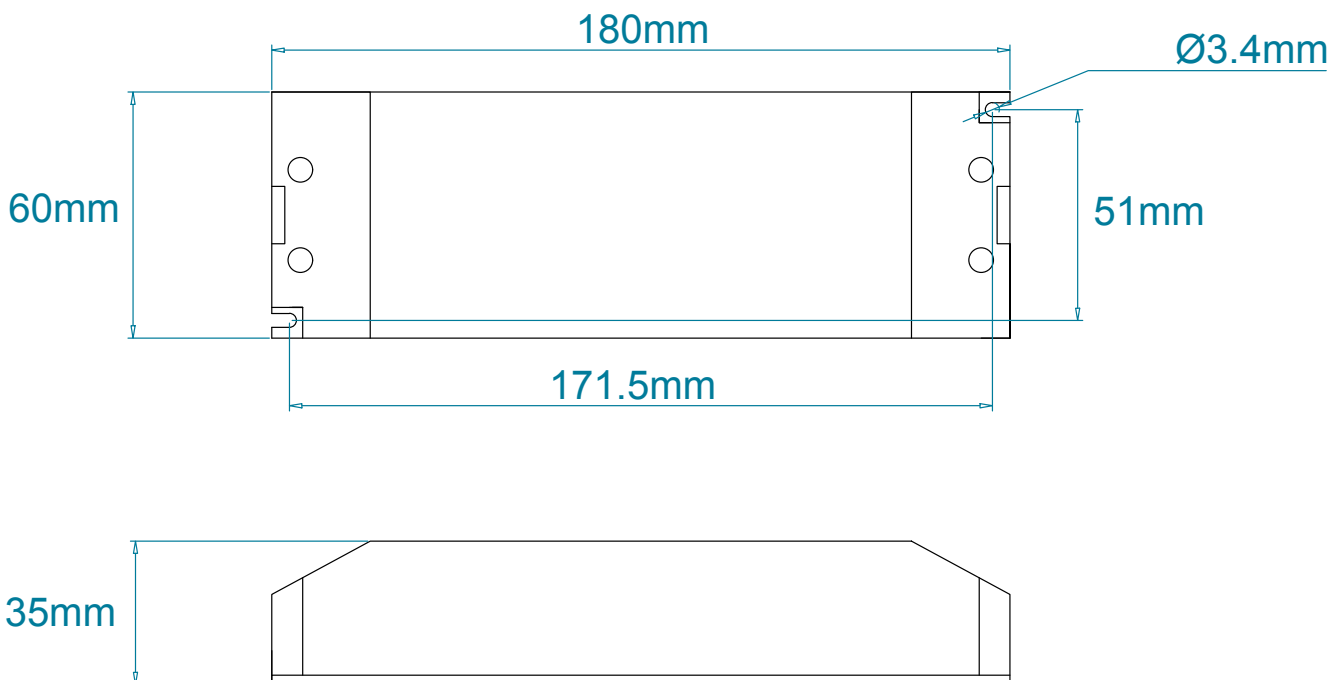
Safety & EMC

| | |
|----------------------|--|
| Safety standards | EN61347-1, EN61347-2-13 |
| Withstand voltage | I/P-O/P:3.75KVAC |
| Isolation resistance | I/P-O/P:100MΩ/500VDC/25°C/70%RH |
| EMC Emission | Compliance to EN55015, EN61000-3-2 |
| EMC Immunity | Compliance to EN61000-4-2,3,4,5,6,11, EN61547, light industry Level Criteria A |

Other Specifications

| | |
|---------|--------------------------------|
| Weight | 0.45 Kg |
| Size | 180 x 60 x 35 mm |
| Packing | 355 x 215 x 215 mm (20PCS/CTN) |

Mechanical Specifications



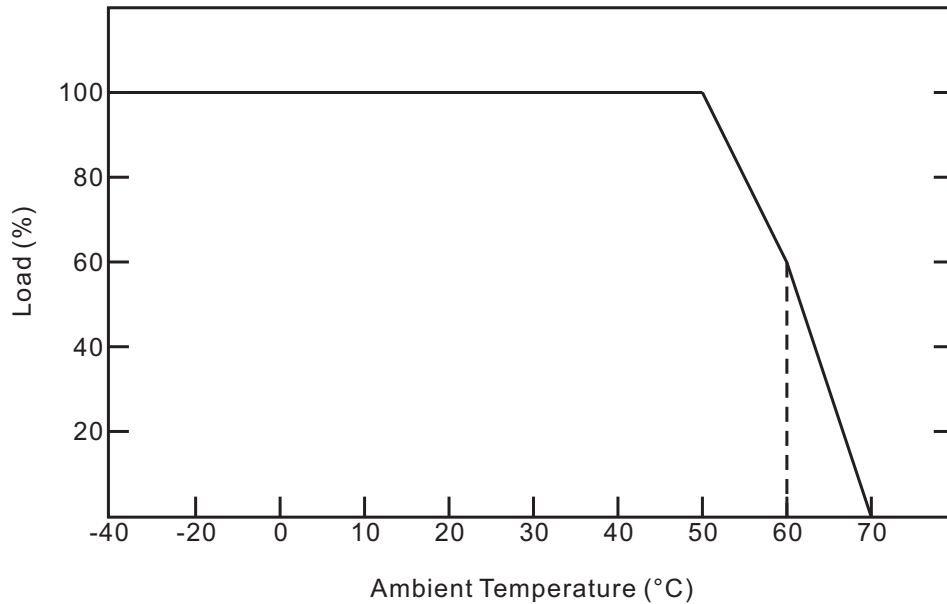
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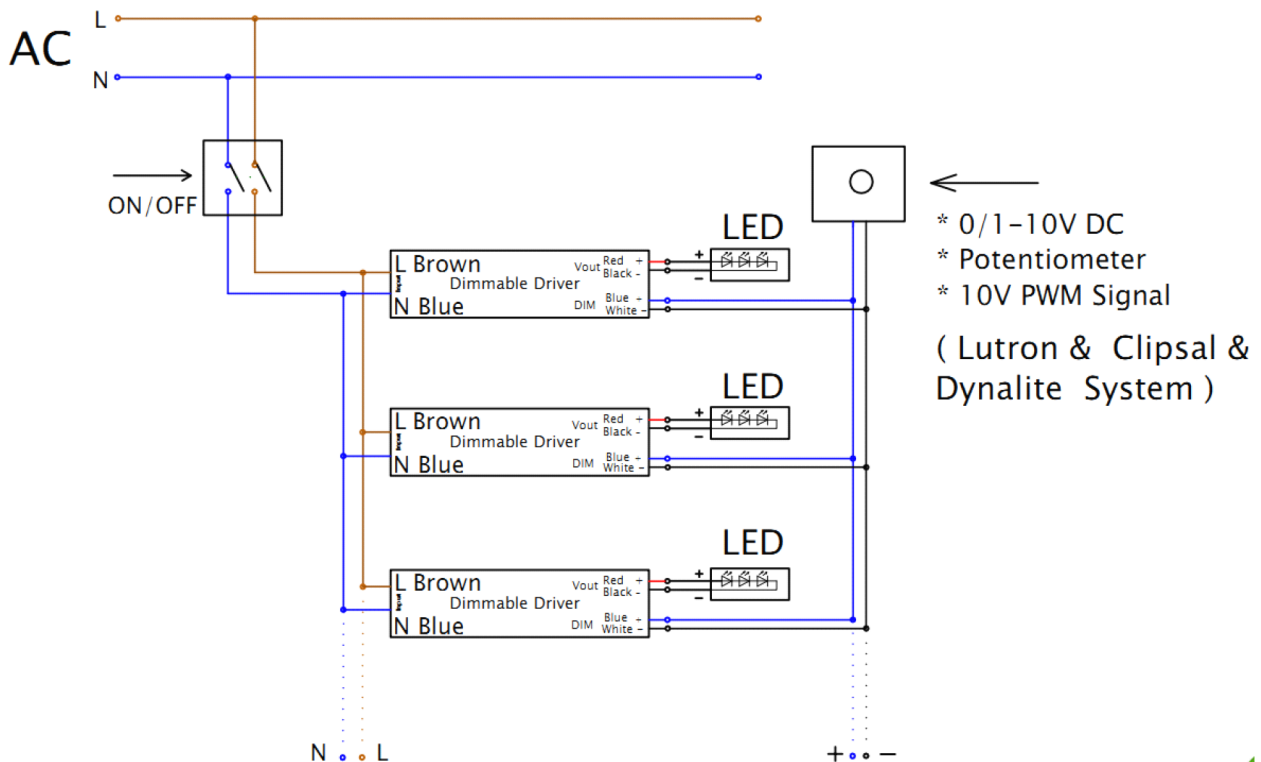
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Derating Curve



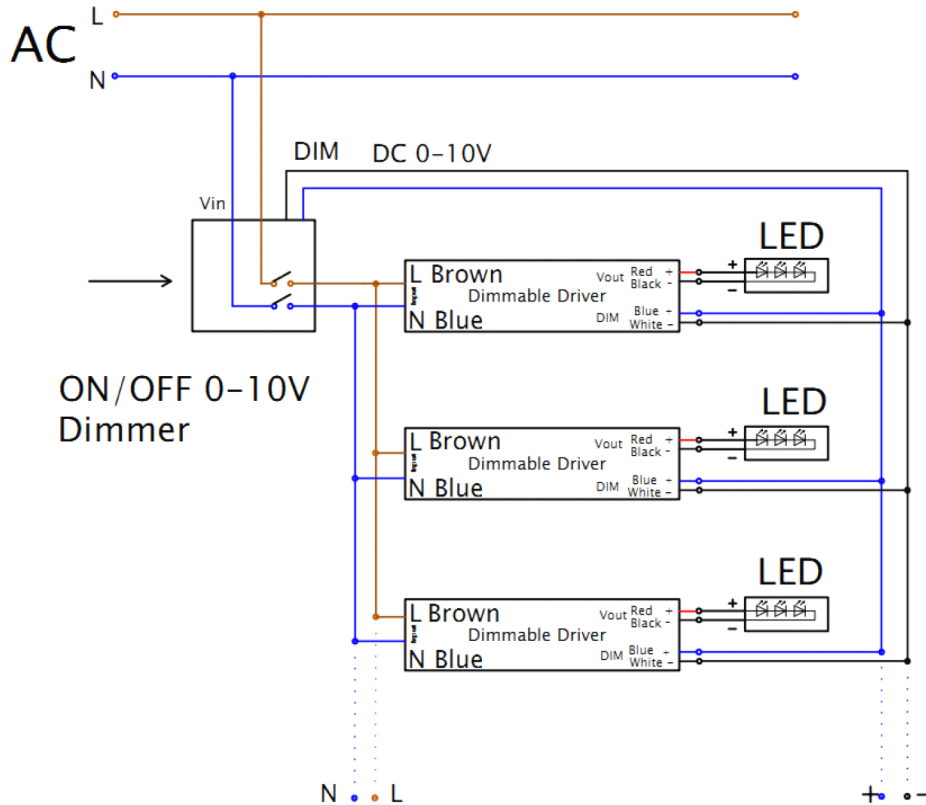
Connection Drawing



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Connection Drawing



Dimming Operation

※Reference resistance value: (Typical)

| Resistance value | Single driver | 0Ω | 10KΩ | 20KΩ | 30KΩ | 40KΩ | 50KΩ | 60KΩ | 70KΩ | 80KΩ | 90KΩ | 100KΩ | OPEN |
|------------------------|------------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|------|
| | Multiple drivers | 0Ω/N | 10KΩ/N | 20KΩ/N | 30KΩ/N | 40KΩ/N | 50KΩ/N | 60KΩ/N | 70KΩ/N | 80KΩ/N | 90KΩ/N | 100KΩ/N | — |
| Percentage of luminous | | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 100% |

※1-10/0-10V dimmable function :(Typical)

| Dimming value | 0V | 1V | 2V | 3V | 4V | 5V | 6V | 7V | 8V | 9V | 10V | OPEN |
|------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Percentage of luminous | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 100% |

※10V PWM signal: (Typical): Frequency range:100Hz-3KHZ

| Duty value | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | OPEN |
|------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Percentage of luminous | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 100% |

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