



## Product description

This is an external smart driver which adopts Silvair Bluetooth smart technology. It can control on/off, brightness and CCT for all dual color lamps. Silvair is an advanced lighting control solution based on Bluetooth Low Energy (BLE). The luminaire can be easily implemented in the lighting control system or existing lighting scenes. Creating an optimal solution in terms of ease of installation and functionality with minimal additional hardware and deployment costs.

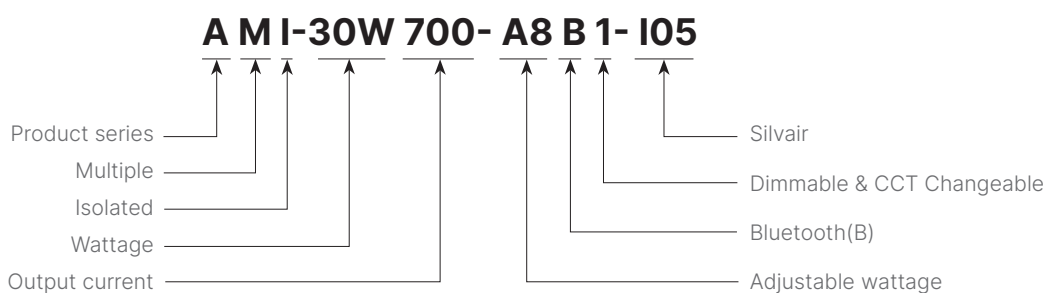


## Features

- Connect equipment via Silvairi App which downloaded from IOS App Store
- Brightness memory function
- External driver, high PF and low THD
- Wattage changeable by DIP switch
- Dimming depth from 1% to 100%
- Dimming and tunable white function
- Nominal life-time up to 50,000h
- Wide range input and output voltage, minimum voltage 3V
- Suitable for class II luminaire

## Application

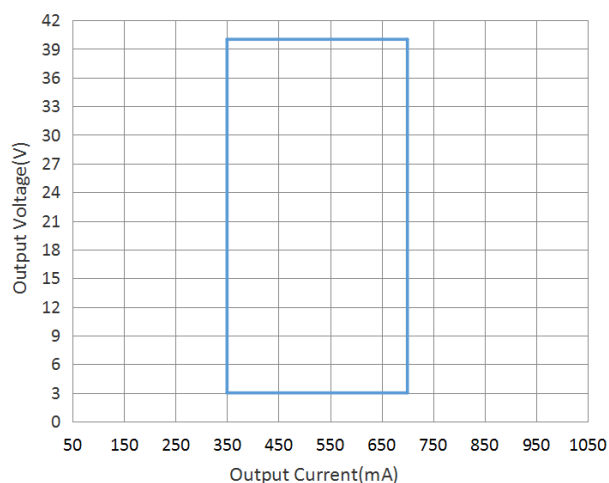
It is widely used for all kinds of lighting fixtures, including led downlight, led panel light, led ceiling light and etc.



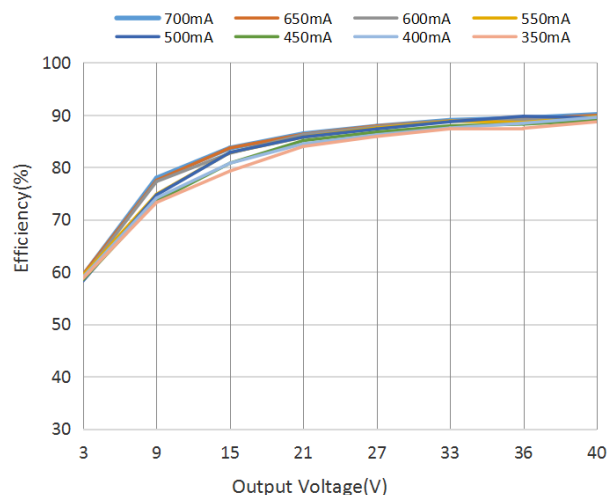
# Specification

| Model        |                               | AMI-30W700-A8B1-I05                                                                                        |
|--------------|-------------------------------|------------------------------------------------------------------------------------------------------------|
| Function     |                               | Bluetooth, dimmable, CCT changeable                                                                        |
| Input        | Input Power(W)                | 30W Max                                                                                                    |
|              | Input Voltage(V)              | AC90-305V                                                                                                  |
|              | Rated Input Voltage(V)        | AC100-277V                                                                                                 |
|              | DC Input Voltage(V)           | DC176-280V                                                                                                 |
|              | Frequency(Hz)                 | 50/60Hz                                                                                                    |
|              | Input Current(A)              | ≤0.38A                                                                                                     |
|              | Rated Input Current(A)        | ≤0.34A                                                                                                     |
|              | Power Factor(typ)             | 0.9C                                                                                                       |
|              | Total harmonic distortion(%)  | <10% @230V                                                                                                 |
|              | Efficiency(typ)               | 88%                                                                                                        |
|              | Inrush current(Typ.)          | 28A/91uS                                                                                                   |
|              | Leakage current(mA)           | <0.7mA@AC230V                                                                                              |
|              | No load wattage(W)            | <0.5W@AC230V                                                                                               |
|              |                               |                                                                                                            |
| Output       | Output Voltage range(V)       | DC3-40V                                                                                                    |
|              | Rated output current          | 350-700mA                                                                                                  |
|              | Line Regulation(%)            | ±5%                                                                                                        |
|              | Open circuit voltage(max)     | 50V                                                                                                        |
|              | Setup time(note1)             | <3S@230V                                                                                                   |
|              | Flickering Index(IEEESD 1789) | <5%(LOW Risk)                                                                                              |
|              | IEC-PST/CIE(SVM)              | ≤1/≤0.4                                                                                                    |
| Protection   | Short circuit protection      | PASS                                                                                                       |
|              | Over voltage protection       | PASS                                                                                                       |
|              | Over temperature protection   | PASS                                                                                                       |
| Environment  | Maximum case temperature tc   | 90°C                                                                                                       |
|              | Operating temperature         | -20°C...+45 °C                                                                                             |
|              | Storage temperature/humidity  | -25°C...+85 °C; 5-95% RH                                                                                   |
|              | Relative humidity             | 5...85%                                                                                                    |
|              | Environmental rating          | Indoor                                                                                                     |
|              | IP rating                     | IP20                                                                                                       |
|              | Life time                     | >50,000H @25°C                                                                                             |
| SAFFTY & EMC | Safety standards              | BS EN/EN61347-1, BS EN/EN61347-2-13 independent, BS EN/EN62384<br>UL8750(type"HL"), CSA C22.2 No.250.13-12 |
|              | Withstand voltage             | I/P-O/P:3.75KVAC                                                                                           |
|              | Isolation Resistance          | I/P-FG: 500VDC, ≥4M Ω                                                                                      |
|              | surge                         | IEC/EN61000-4-5(L-N:1.5KV )                                                                                |
|              | Ring Wave                     | ANSI/IEEE C62.41.2-2002(L-N:2.5KV)                                                                         |
|              | EMC EMISSION                  | BS EN/EN55015, BS EN/EN61000-3-2 Class C ; BS EN/EN61000-3-3;FCC-PART15                                    |
|              | EMC IMMUNITY                  | BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN61547;FCC-PART15                                                   |
|              | EL                            | -                                                                                                          |
| Other        | Dimension                     | Refer to the specification sheet                                                                           |
|              | Weight                        | Refer to the specification sheet                                                                           |

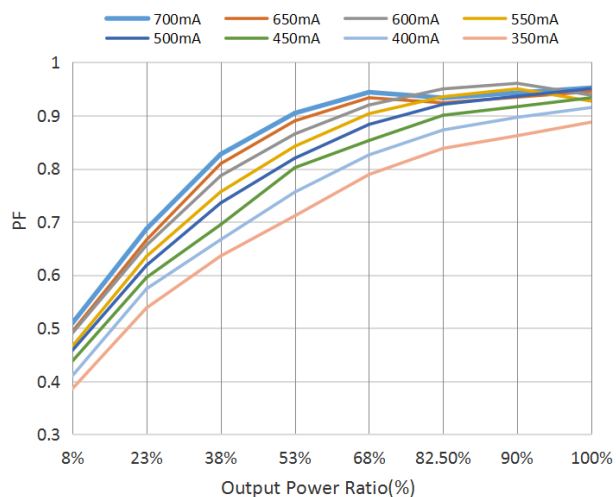
## Output voltage **VS** Output current



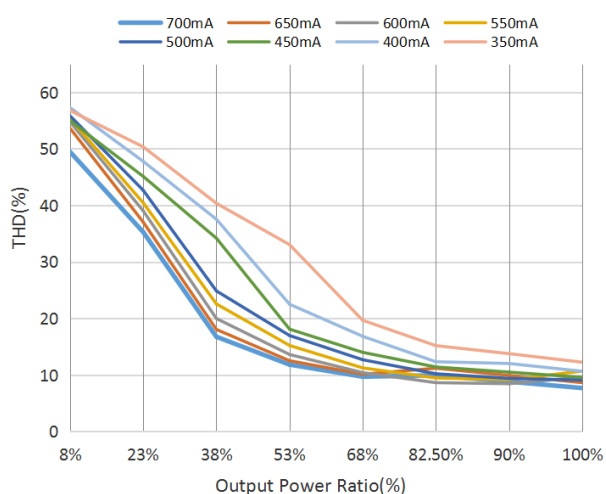
## Efficiency **VS** Output voltage



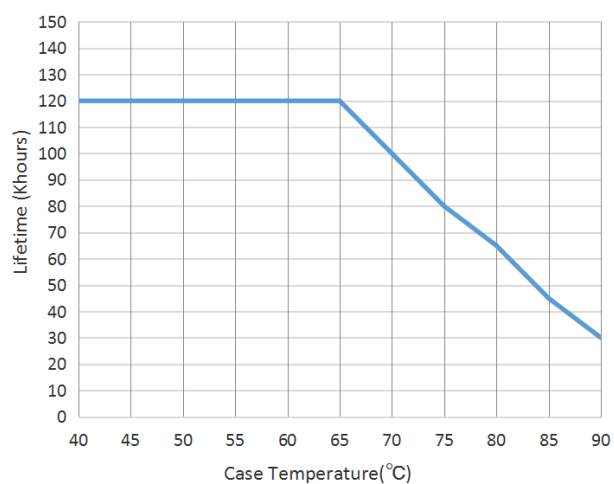
## PF **VS** Output Power Ratio



## THD **VS** Output Power Ratio



## Lifetime **VS** Case Temperature



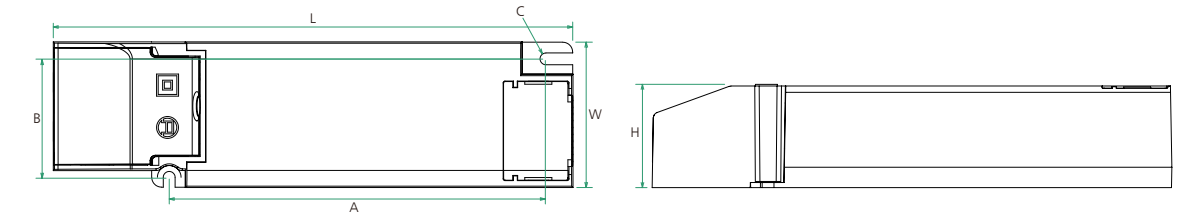
# DIP SWITCH TABLE

AMI-30W700-A8B1-I05

| Vout  | Po Max | Io    | 1   | 2   | 3   |
|-------|--------|-------|-----|-----|-----|
| 3-40V | 28W    | 700mA | ON  | ON  | ON  |
| 3-40V | 26W    | 650mA | OFF | ON  | ON  |
| 3-40V | 24W    | 600mA | ON  | OFF | ON  |
| 3-40V | 22W    | 550mA | OFF | OFF | ON  |
| 3-40V | 20W    | 500mA | ON  | ON  | OFF |
| 3-40V | 18W    | 450mA | OFF | ON  | OFF |
| 3-40V | 16W    | 400mA | ON  | OFF | OFF |
| 3-40V | 14W    | 350mA | OFF | OFF | OFF |

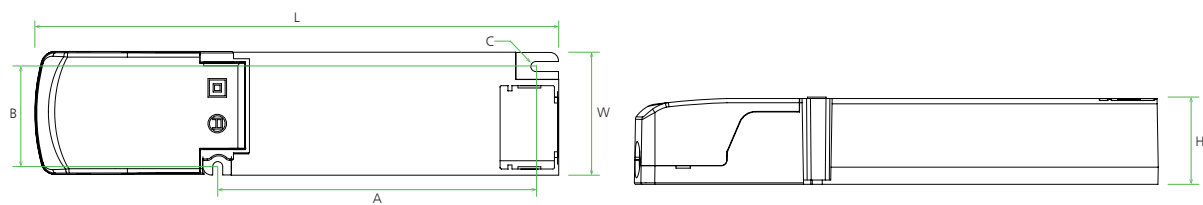
## Mechanical specification

Terminal: S



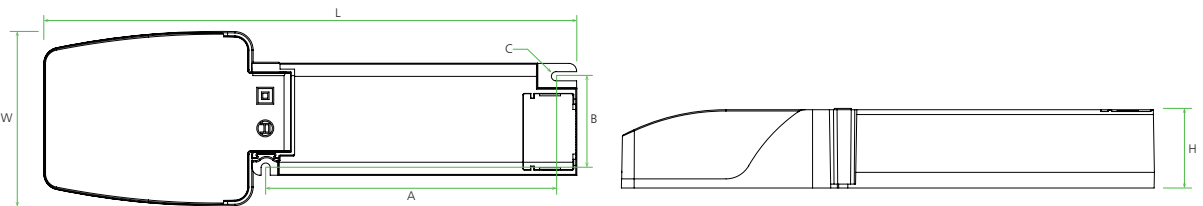
| Code                | Dimension(mm) |    |      |       |    |   | Product Weight(Kg) |        | Package Weight(Kg) |         | Carton Size(cm) | Qty/CTN |
|---------------------|---------------|----|------|-------|----|---|--------------------|--------|--------------------|---------|-----------------|---------|
|                     | L             | W  | H    | A     | B  | C | N.W/PC             | G.W/PC | N.W/CTN            | G.W/CTN |                 |         |
| AMI-30W700-A8B1-I05 | 153.8         | 43 | 30.5 | 111.2 | 35 | 4 | 0.13               | 0.153  | 7.344              | 7.694   | 34*22*23.5      | 48      |

Terminal: M

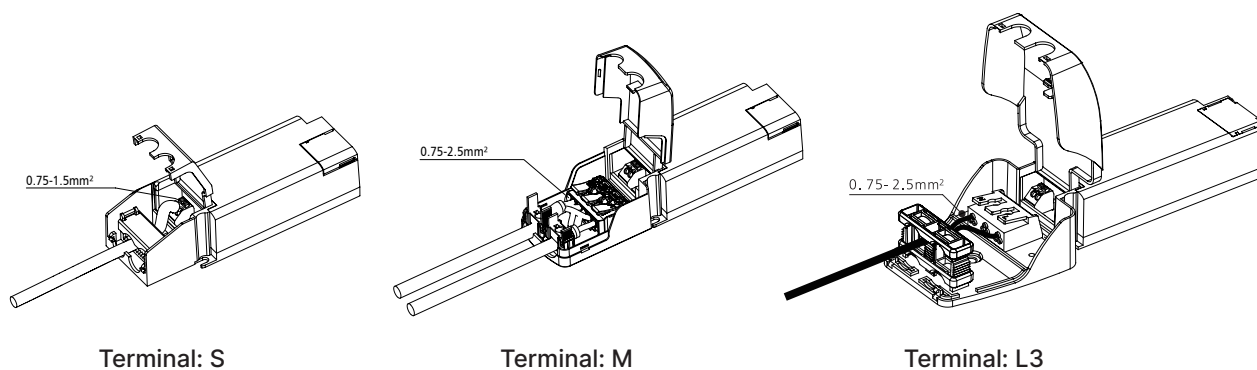


| Code                | Dimension(mm) |    |      |       |    |   | Product Weight(Kg) |        | Package Weight(Kg) |         | Carton Size(cm) | Qty/CTN |
|---------------------|---------------|----|------|-------|----|---|--------------------|--------|--------------------|---------|-----------------|---------|
|                     | L             | W  | H    | A     | B  | C | N.W/PC             | G.W/PC | N.W/CTN            | G.W/CTN |                 |         |
| AMI-30W700-A8B1-I05 | 183.2         | 43 | 30.5 | 111.2 | 35 | 4 | 0.15               | 0.173  | 8.304              | 8.694   | 39.5*22*23.5    | 48      |

Terminal: L3

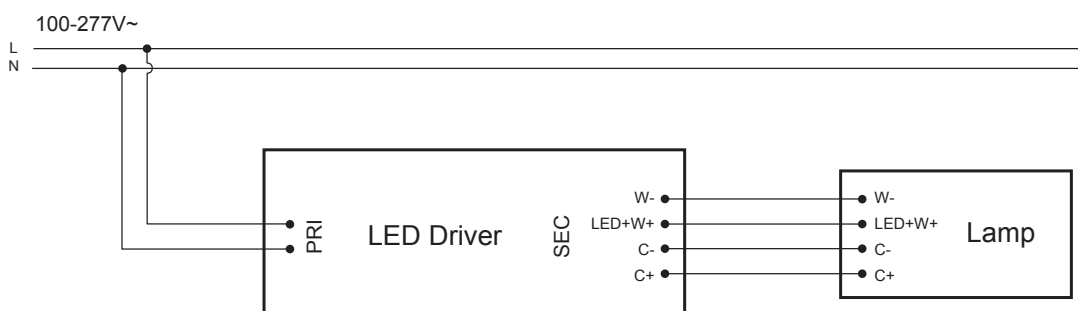


| Code                | Dimension(mm) |      |      |       |    |     | Product Weight(Kg) |        | Package Weight(Kg) |         | Carton Size(cm) | Qty/CTN |
|---------------------|---------------|------|------|-------|----|-----|--------------------|--------|--------------------|---------|-----------------|---------|
|                     | L             | W    | H    | A     | B  | C   | N.W/PC             | G.W/PC | N.W/CTN            | G.W/CTN |                 |         |
| AMI-30W700-A8B1-I05 | 205           | 66.7 | 30.5 | 111.2 | 35 | 3.5 | 0.2                | 0.233  | 11.18              | 11.71   | 44*30*23.5      | 48      |

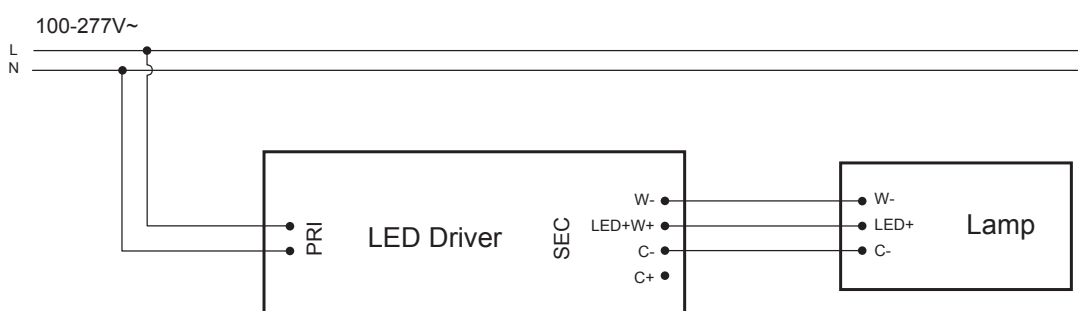


## Wiring Diagram

### Option 1



### Option 2



## MCB Information

| Product Specification |                   |             |                      |                   | Circuit Breaker Specification |     |     |     |     |     |     |     |
|-----------------------|-------------------|-------------|----------------------|-------------------|-------------------------------|-----|-----|-----|-----|-----|-----|-----|
| Model                 | Inrush current(A) | Inrush time | Rated Voltage (AC/V) | Input current (A) | B10                           | B13 | B16 | B20 | C10 | C13 | C16 | C20 |
| AMI-30W700-A8B1-I05   | 7.5               | 88          | 100-277V             | 0.34              | 10                            | 13  | 16  | 20  | 10  | 13  | 16  | 20  |
|                       |                   |             |                      |                   | 19                            | 25  | 31  | 39  | 19  | 25  | 31  | 39  |



## Resetting:

With power on condition, use a magnet to approach the reset icon attachment on the side of the power supply for 3 seconds. When led lighting fixture will flicker three times, reset successful.

## NOTE:

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1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. De-rating may be needed under low input voltages.
5. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.
6. The driver is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.
7. To fulfill requirements of the latest ErP regulation for lighting fixtures , this LED driver can only be used behind a switch without permanently connected to the mains
8. For any application note and IP waterproof function installation caution, please refer our user manual before using.
9. It is recommended that customer should install protection devices for surge, for over voltage and for under voltage to ensure safety before connecting to electricity.
10. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED luminaire. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer re-confirms the EMC of the whole LED light fixture.
11. The total output power of the light fixture should NOT exceed the maximum rated output power of the driver.
12. We are not allowed to cover the LED driver