# 16A AC Inrush Current Limiter

# ICL-16R/16L

User's Manual Click Me

Video Click Me




(ICL-16R)




(ICL-16L)

## Features

- 23A inrush limiting current, 16A continuous
- 180~264VAC AC input
- Integrated bypass relay, no simple NTC
- Internal thermal protection
- Installed on DIN Rail TS-35/7.5 or 15 (ICL-16R)
- -30~+70°C wide working temperature
- 3 years warranty

## Applications

- Allow connecting multiple power supply at same line
- Allows smaller and faster Circuit Breaker
- Capacitive load
- Protects against unintended trigger of Circuit Breaker

## GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

## Description

The ICL-16 is a 16A inrush current limiter that can be used to reduce the high starting current due to capacitive load causing the circuit breaker to be false triggered. Several power supplies can be installed on the same AC line after the implementation of an ICL-16.

## Model Encoding

ICL - 16 - R

- Shape: R: DIN Rail type ( Rail mounted ) / L: Linear type ( Terminal block mounted )
- Inrush current
- Series name

# 16A AC Inrush Current Limiter ICL-16R/16L

## SPECIFICATION

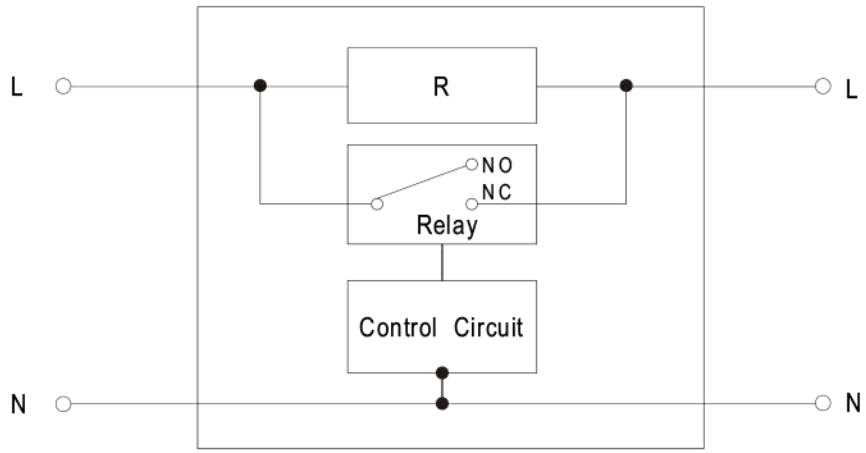
| MODEL | | ICL-16R | | ICL-16L | |
|---|---|---|---|---|---|
| AC INPUT VOLTAGE | | 180 ~ 264VAC | | | |
| AC LINE FREQUENCY | | 47 ~ 63Hz | | | |
| INRUSH CURRENT LIMITING | | 23A | | | |
| AC CONTINUOUS RATED CURRENT | | 16A continuous | | | |
| AC INPUT POWER | | 3680VA (16A x 230VAC) | | | |
| AC INPUT CONSUMPTION | | <1.5W at 264VAC, 50Hz input | | | |
| INTERNAL RELAY LIMITING TIME (TON POWER ON) | | 300±50ms | | | |
| INTERNAL RELAY | LIMITING CYCLES | PSU Set up time<250ms | PSU Set up time 250 ~ 350ms | PSU Set up time >350ms | |
| | | 1 cycle / 5 min | 1 cycle / 1 min | 5 cycle / 1 min (>1500ms per cycle) | |
| | RELEASE TIME | 500±50ms | | | |
| INTERNAL PROTECTION | | Thermal fuse protects overload and fire | | | |
| ALLOWED CAPACITIVE LOAD | | 2500μF max. | | | |
| WORKING TEMP. | | -30 ~ +70℃ | | | |
| WORKING HUMIDITY | | 20 ~ 90% RH non-condensing | | | |
| STORAGE TEMP. | | -40 ~ +85℃ | | | |
| TEMP. COEFFICIENT | | ±0.03%/℃ (0 ~ 50℃) RH non-condensing | | | |
| VIBRATION | | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes; | | | |
| | | Mounting: Compliance to IEC60068-2-6 | | | |
| OPERATING ALTITUDE (NOTE 2) | | 5000 meters | | | |
| OVER VOLTAGE CATEGORY | | III; According to IEC62368-1; altitude up to 5000 meters | | | |
| POLLUTION DEGREE | | 2 | | | |
| SAFETY STANDARDS | | LVD BS EN/EN62368-1 approved | | | |
| SAFETY & EMC (Note.3) | EMC EMISSION | **Parameter** | **Standard** | **Test Level / Note** | |
| | | Conducted | BS EN/EN55032 | Class B | |
| | | Radiated | BS EN/EN55032 | Class B | |
| | | Harmonic Current | BS EN/EN61000-3-2 | Class A | |
| | | Voltage Flicker | BS EN/EN61000-3-3 | ------ | |
| | EMC IMMUNITY | BS EN/EN55035,BS EN/EN61000-6-2 | | | |
| | | **Parameter** | **Standard** | **Test Level /Note** | |
| | | ESD | BS EN/EN61000-4-2 | Level 3, 8KV air; Level 2, 4KV contact, criteria A | |
| | | Radiated Susceptibility | BS EN/EN61000-4-3 | Level 3, criteria A | |
| | | EFT/Burest | BS EN/EN61000-4-4 | Level 3, criteria A | |
| | | Surge | BS EN/EN61000-4-5 | Level 4,2KV/L-N, criteria A | |
| | | Conducted | BS EN/EN61000-4-6 | Level 3, criteria A | |
| | | Magnetic Field | BS EN/EN61000-4-8 | Level 4, criteria A | |
| | | Voltage Dips and interruptions | BS EN/EN61000-4-11 | >95% dip 0. 5 periods, 30% dip 25 periods, >95% interruptions 250 periods | |
| MTBF | | 7229.0K hrs min. Telcordia SR-332 (Bellcore) ; 2157.3K hrs min. MIL-HDBK-217F (25℃) | | 7217.9K hrs min. Telcordia SR-332 (Bellcore) ; 2113.8K hrs min. MIL-HDBK-217F (25℃) | |
| DIMENSION | | 35*90*54.5mm (L*W*H) | | 175*42*24mm (L*W*H) | |
| PACKING | | 0.116Kg; 96pcs/12.2Kg/1.04CUFT | | 0.132Kg; 98pcs/14Kg/1.04CUFT | |

**NOTE**

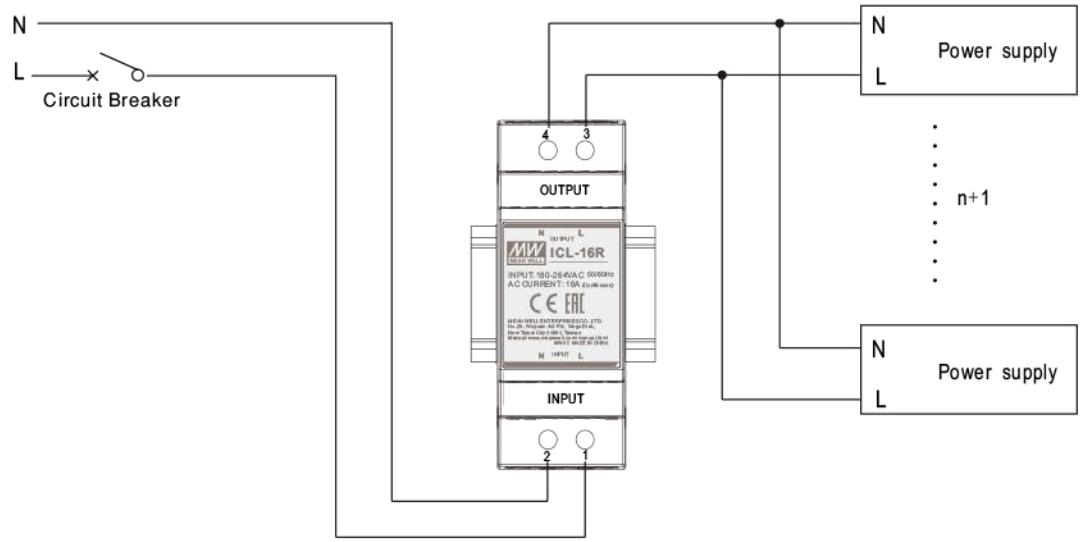
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).
3. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf )

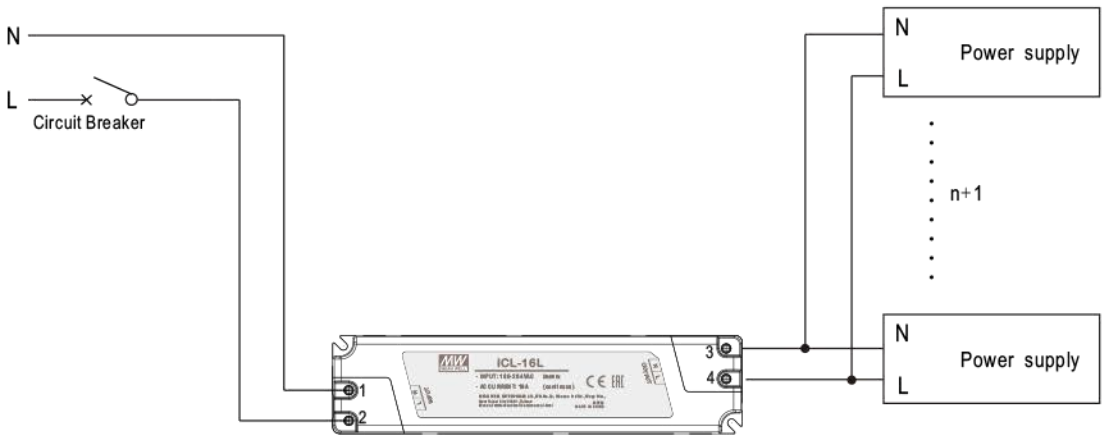
※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

## ■ BLOCK DIAGRAM




## ■ APPLICATION DIAGRAM



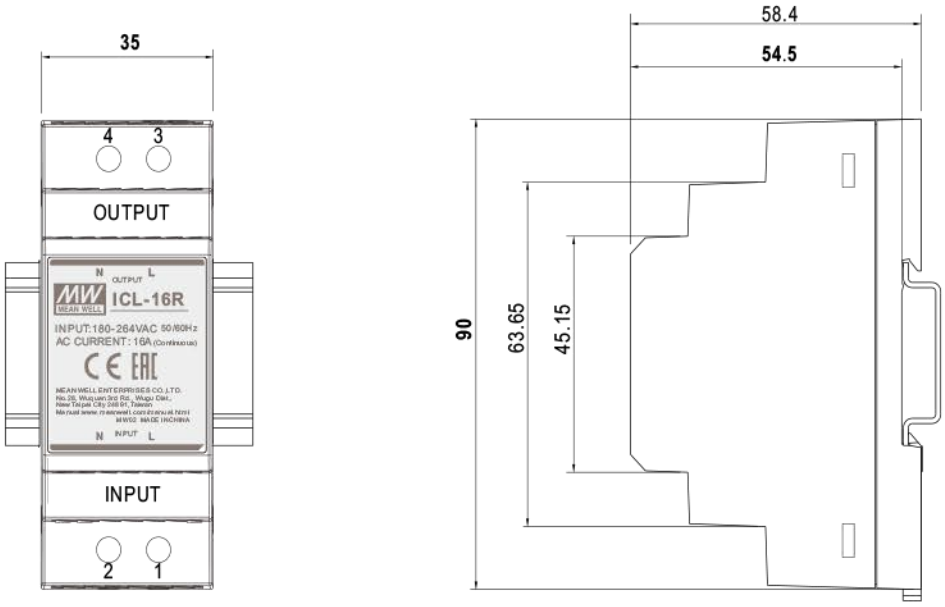

※ How many power supplys can be connected behind ICL-16R/ICL-16L?
Please refer to : http : //www.meanwell.com.

## ■ MECHANICAL SPECIFICATION

### ◎ ICL-16R(DIN Rail type)

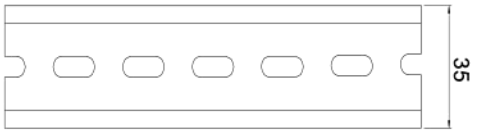
(Unit: mm , tolerance ± 1mm)

Case No.ICL-16R




Terminal Pin No. Assignment

| Pin No. | Assignment | Pin No. | Assignment |
|---|---|---|---|
| 1 | AC/L Input | 3 | AC/L Output |
| 2 | AC/N Input | 4 | AC/N Output |



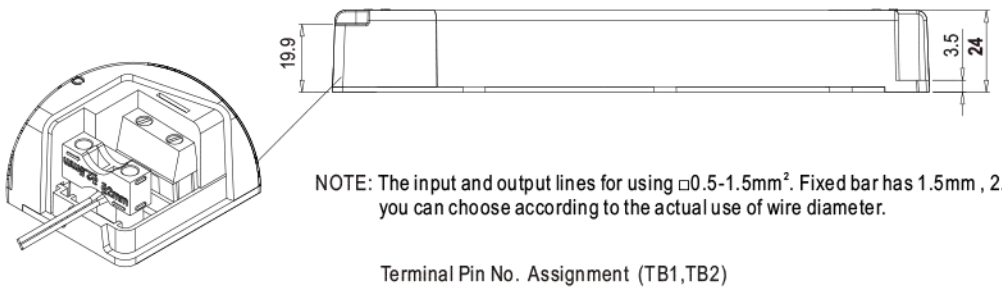

ADMISSIBLE DIN-RAIL:TS35/7.5 OR TS35/15

### ◎ ICL-16L(Linear type)

(Unit: mm , tolerance ± 1mm)

Case No.PLM-40




NOTE: The input and output lines for using □0.5-1.5mm². Fixed bar has 1.5mm , 2.0mm , 2.5mm , 3.0mm four grooves, you can choose according to the actual use of wire diameter.

Terminal Pin No. Assignment (TB1,TB2)
SWITCHLAB MB312-750 equivalent

| Pin No. | Assignment | Pin No. | Assignment |
|---|---|---|---|
| 1 | AC/N Input | 3 | AC/N Input |
| 2 | AC/L Input | 4 | AC/L Input |