



16A AC Inrush Current Limiter

ICL-16R/16L



(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

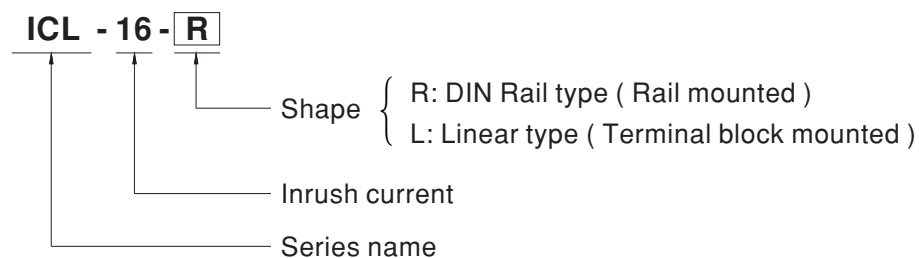
■ Applications

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

■ 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





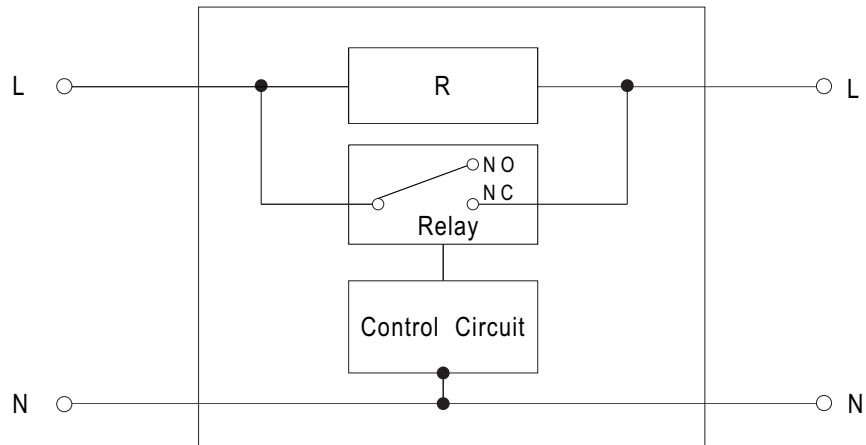
16A AC Inrush Current Limiter

ICL-16R/16L

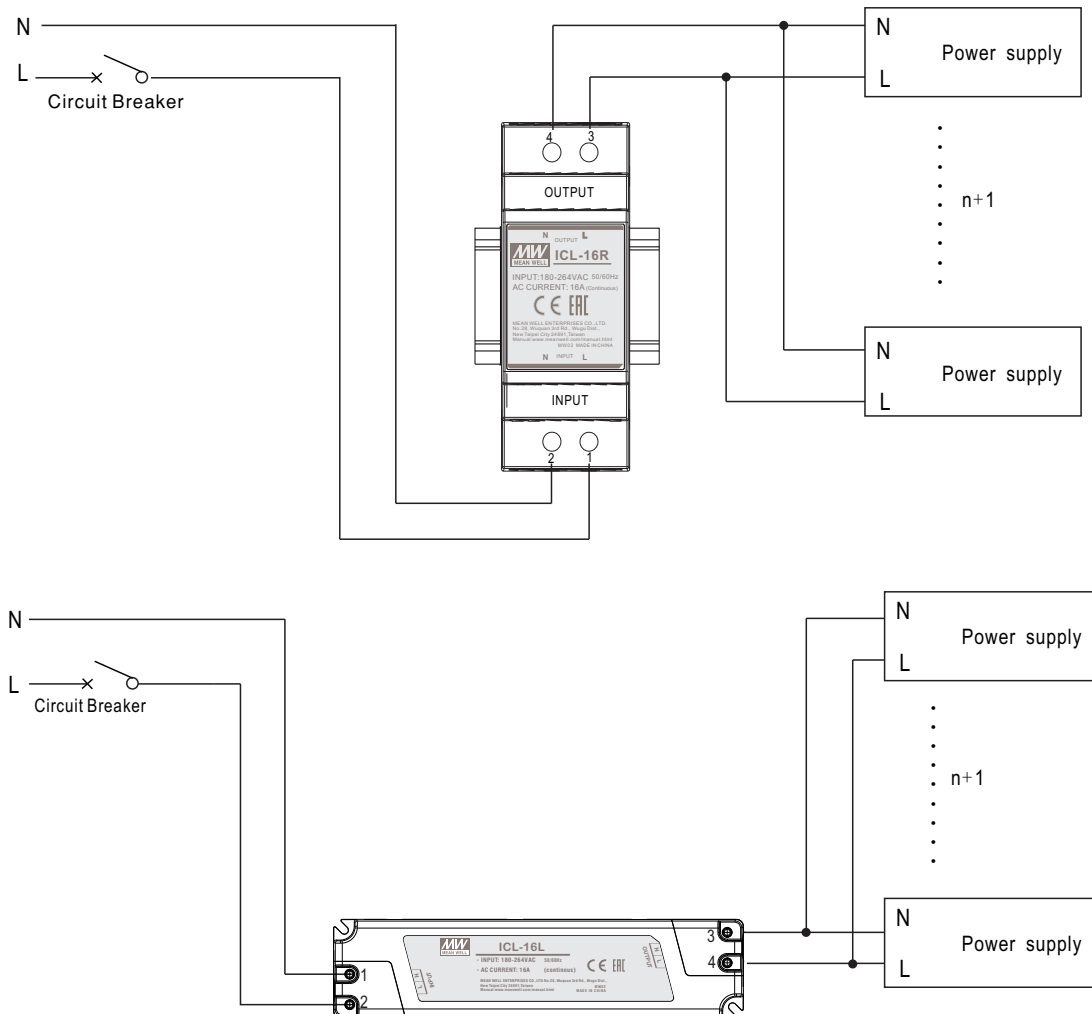
SPECIFICATION

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		2500 μ F 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		IEC62368-1(LVD)				
SAFETY & EMC (Note.3)	EMC EMISSION	Parameter	Standard	Test Level / Note		
		Conducted	EN55032	Class B		
		Radiated	EN55032	Class B		
		Harmonic Current	EN61000-3-2	Class A		
		Voltage Flicker	EN61000-3-3	-----		
	EMC IMMUNITY	EN55024, EN55035, EN61000-6-2				
		Parameter	Standard	Test Level /Note		
		ESD	EN61000-4-2	Level 3, 8KV air; Level 2, 4KV contact, criteria A		
		Radiated Susceptibility	EN61000-4-3	Level 3, criteria A		
		EFT/Burest	EN61000-4-4	Level 3, criteria A		
		Surge	EN61000-4-5	Level 4, 2KV/L-N, criteria A		
		Conducted	EN61000-4-6	Level 3, criteria A		
		Magnetic Field	EN61000-4-8	Level 4, criteria A		
		Voltage Dips and interruptions	EN61000-4-11	>95% dip 0. 5 periods, 30% dip 25 periods, >95% interruptions 250 periods		
MTBF		2433.76K hrs min. MIL-HDBK-217F (25℃)		2508.62K 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 http://www.meanwell.com) ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx				

■ BLOCK DIAGRAM



■ APPLICATION DIAGRAM

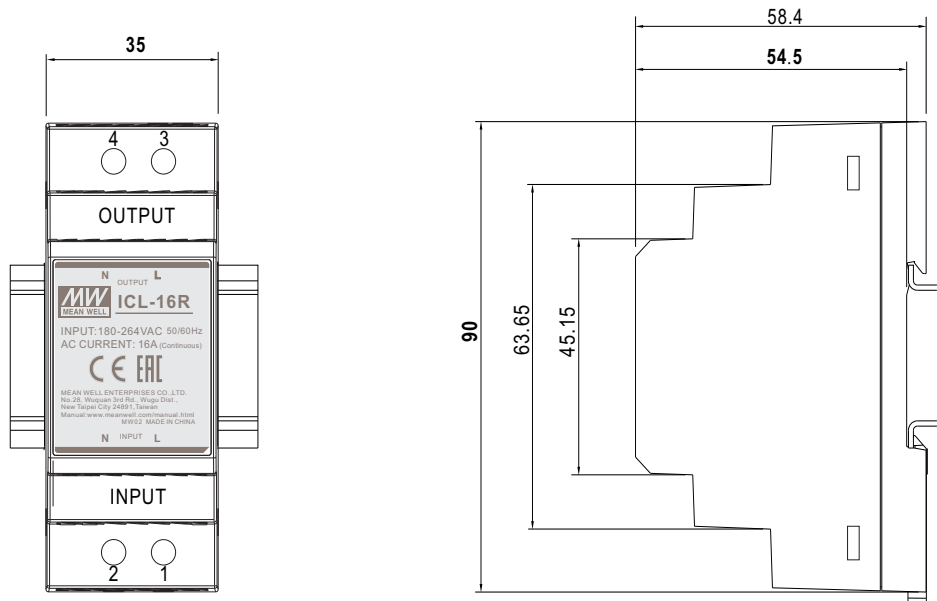


※ How many power supplies can be connected behind ICL-16R/ICL-16L?
Please refer to : <http://www.meanwell.com>.

MECHANICAL SPECIFICATION

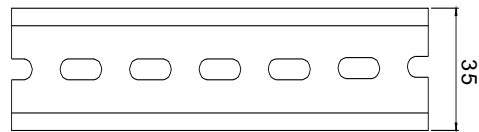
ICL-16R(DIN Rail type)

Case No. ICL-16R Unit:mm



Terminal Pin No. Assignment

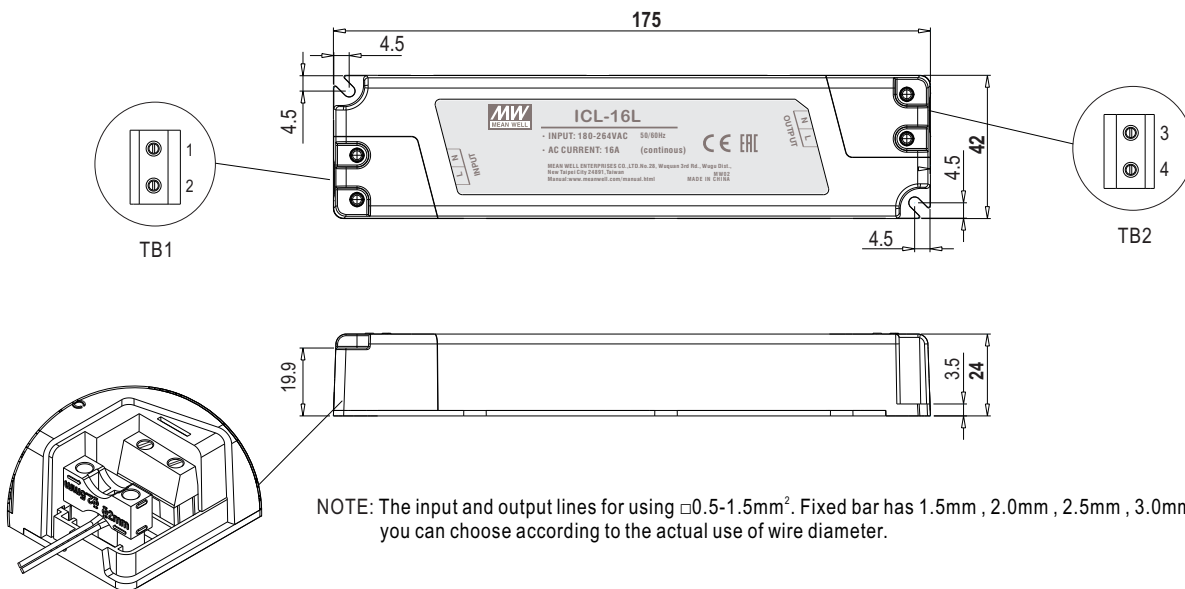
Pin No.	Assignment	Pin No.	Assignment
1	AC/L Input	3	AC/L Output
2	AC/N Input	4	AC/N Output



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

ICL-16L(Linear type)

Case No. PLM-40 Unit:mm



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)

SWITCLAB 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



Declaration of Conformity

For the following equipment :

Product Name: Switching Power Supply

Model Designation: ICL-16R, ICL-16L

is herewith confirmed to comply with the requirements set out in the Council Directive, the following standards were applied :

RoHS Directive (2011/65/EU) (2015/863/EU)

Low Voltage Directive (2014/35/EU) :

EN62368-1:2014+A11:2017

LVD Report No : 1922004S.50A

Electromagnetic Compatibility Directive (2014/30/EU) :

EMI (Electro-Magnetic Interference)

Conducted emission / Radiated emission

EN55032:2015

Class B

Harmonic current EN61000-3-2:2014

Voltage flicker EN61000-3-3:2013

EMS (Electro-Magnetic Susceptibility)

EN 55035: 2017 EN61000-6-2:2005 EN61000-6-4:2007+A1:2011

ESD air EN61000-4-2:2009 Level 3 8KV

ESD contact EN61000-4-2:2009 Level 2 4KV

RF field susceptibility EN61000-4-3:2006+A1:2008+A2:2010 Level 3 10V/m

EFT bursts EN61000-4-4:2012 Level 3 2KV/5KHz

Surge susceptibility EN61000-4-5:2014 Level 4 2KV/Line-Line

Conducted susceptibility EN61000-4-6:2014 Level 3 10V

Magnetic field immunity EN61000-4-8:2010 Level 4 30A/m

Voltage dip, interruption EN61000-4-11:2004 >95% dip 0.5 periods 30% dip 25 periods >95% interruptions 250 periods

Note:

A component power supply with load will be installed into final equipment which consists of an electronically shielded metal enclosure. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.

The EMC tests mentioned above are performed using a well defined metal plate to simulate said metal enclosure.

For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies".(as available on <http://www.meanwell.com>)" and TDF (Technical Documentation File).

This Declaration is effective from serial number EB9xxxxxx

Person responsible for marking this declaration :

MEAN WELL Enterprises Co., Ltd.

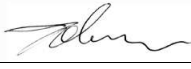
(Manufacturer Name)

No.28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 24891, Taiwan

(Manufacturer Address)

Johnny Huang/Manager, Certification Center :

(Name / Position)


(Signature)

Taiwan

(Place)

Jul. 22nd, 2019

(Date)

Alex Tsai/Director, Marketing Department :

(Name / Position)


(Signature)