



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

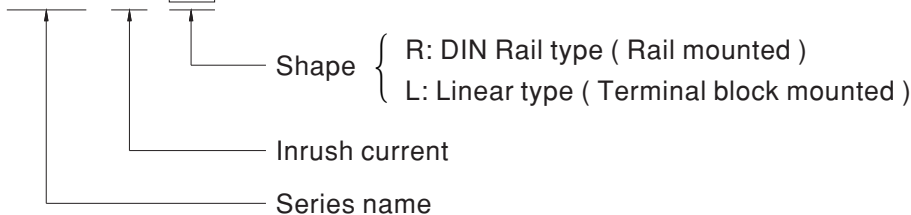
- Allow connecting multiple power supply at same line
- Allows smaller and faster Circuit Breaker
- Inductive and capacitive load
- Protects against unintended trigger of Circuit Breaker

■ Description

The ICL-16 is a 16A inrush current limiter that can be used to reduce the high starting current due to capacitive load or inductive 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





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SPECIFICATION

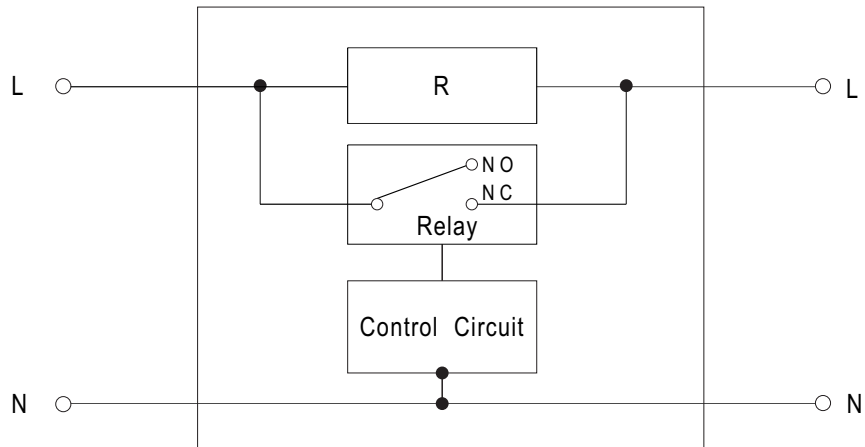
MODEL	ICL-16R		ICL-16L		
AC INPUT VOLTAGE	180 ~ 264VAC				
AC LINE FREQUENCY	47 ~ 63Hz				
INRUSH CURRENT LIMITING	23A				
AC CONTINUOUS RATED CURRENT	16A continuous				
AC INPUT POWER	3680VA (16A x 230VAC)				
AC INPUT CONSUMPTION	<1.5W at 264VAC,50Hz input				
INTERNAL RELAY LIMITING TIME (TON POWER ON)	300 ± 50ms				
INTERNAL RELAY	LIMITING CYCLES	PSU Set up time < 250ms 1 cycle / 5 min	PSU Set up time 250 ~ 350ms 1 cycle / 1 min		
	RELEASE TIME	500 ± 50ms			
INTERNAL PROTECTION	Thermal fuse protects overload and fire				
ALLOWED CAPACITIVE LOAD	2500 μF max.				
AC PEAK CURRENT	165A for 20ms / 800A for 200 μs (even while switching internal bypass relay)				
WORKING TEMP.	-30 ~ +70°C				
WORKING HUMIDITY	20 ~ 90% RH non-condensing				
STORAGE TEMP.	-40 ~ +85°C				
TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C) 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°C)		2508.62K hrs min. MIL-HDBK-217F (25°C)		
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°C of ambient temperature. 2. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/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)				



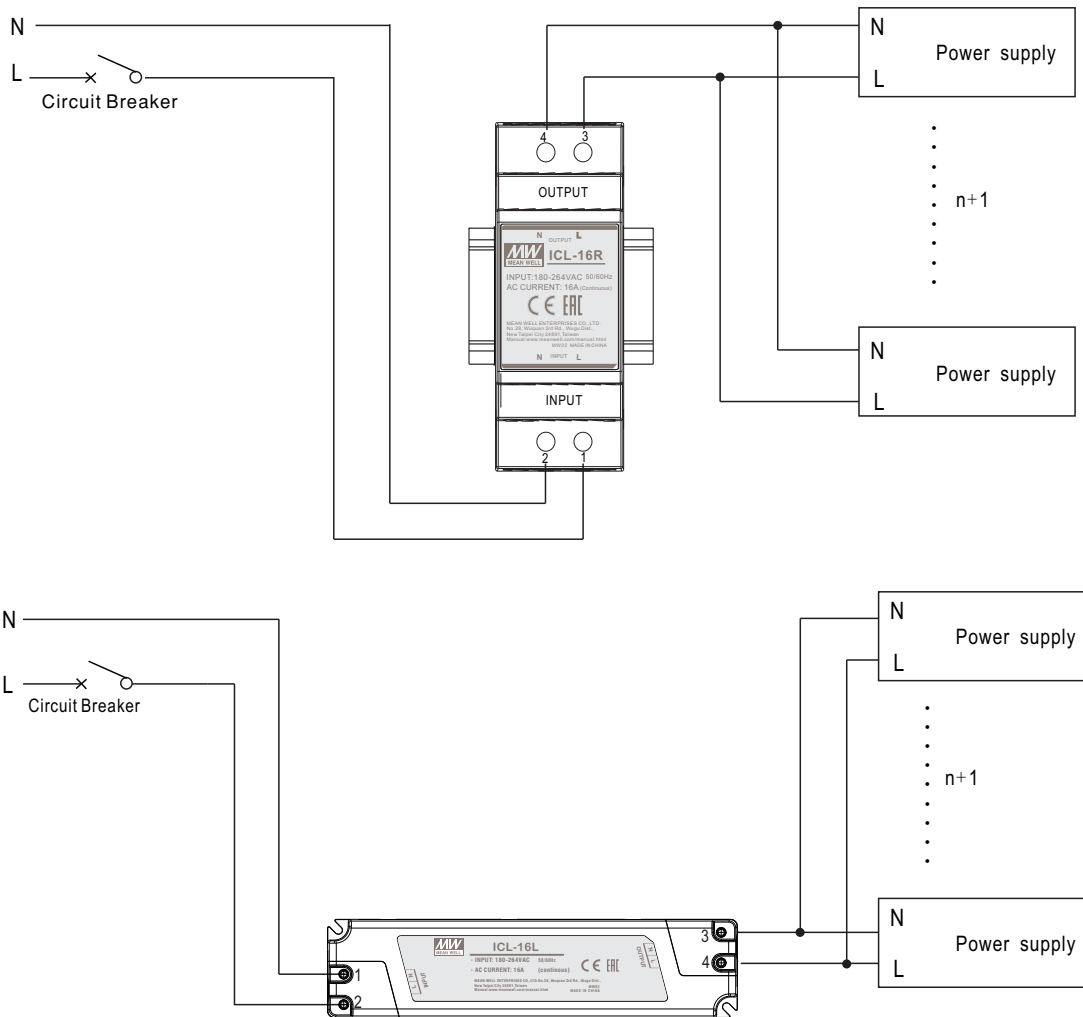
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■ BLOCK DIAGRAM



■ APPLICATION DIAGRAM



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



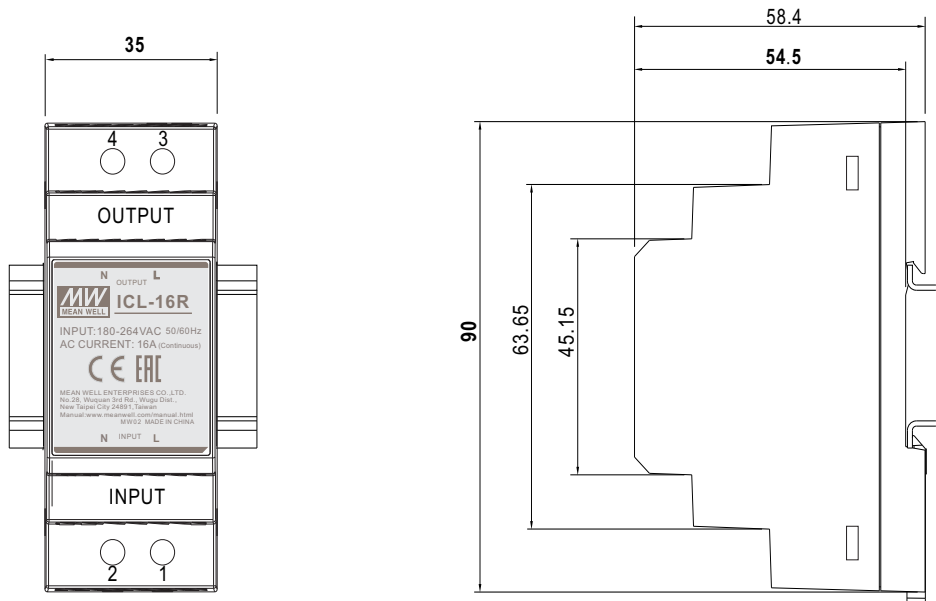
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MECHANICAL SPECIFICATION

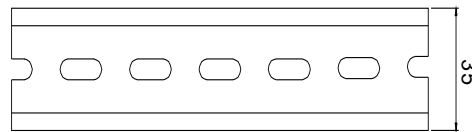
ICL-16R(DIN Rail type)

Case No. ICL-16R Unit:mm



Terminal Pin No. Assignment

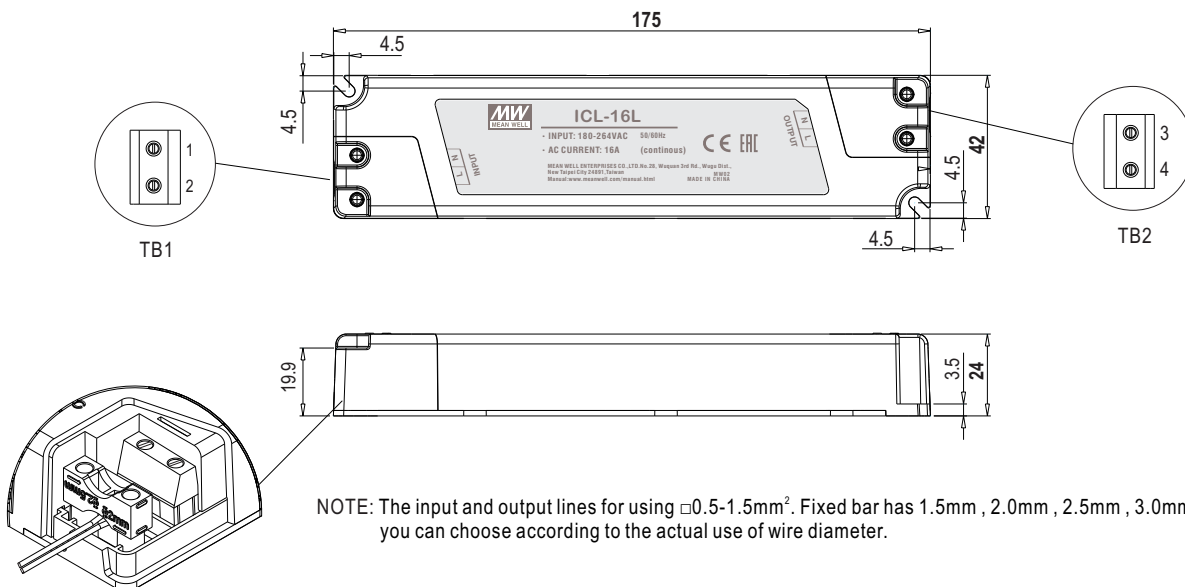
Pin No.	Assignment	Pin No.	Assignment
1	AC/L Input	3	AC/L Output
2	AC/N Input	4	AC/N Output



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 $\square 0.5-1.5\text{mm}^2$. 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