16A AC Inrush Current Limiter

ICL-16R/16L

User's Manual

Video



(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

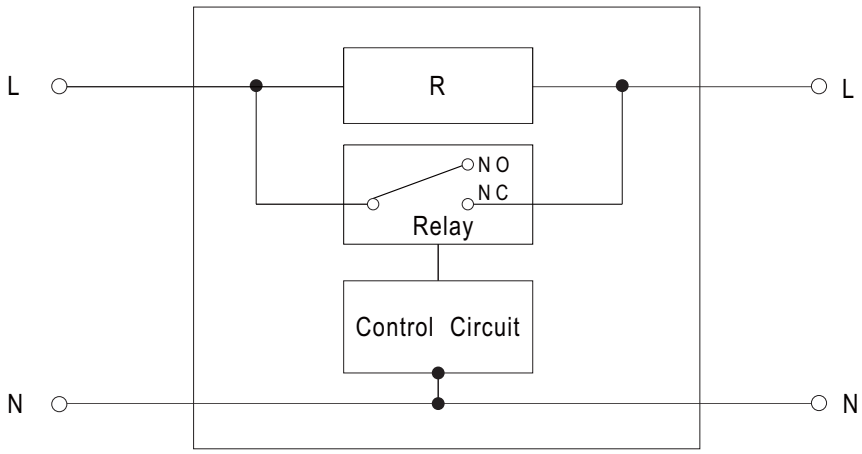
MODEL		ICL-16R		ICL-16L	
AC INPUT VOLTAGE		180 ~ 264VAC			
AC LINE FREQUENCY		47 ~ 63Hz			
INRUSH CURRENT LIMITING		23A			
AC CONTINUOUS RATED CURRENT		16A continuous			
AC INPUT POWER		3680VA (16A x 230VAC)			
AC INPUT CONSUMPTION		<1.5W at 264VAC,50Hz input			
INTERNAL RELAY LIMITING TIME (TON POWER 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		2500 μF 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; atitude 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

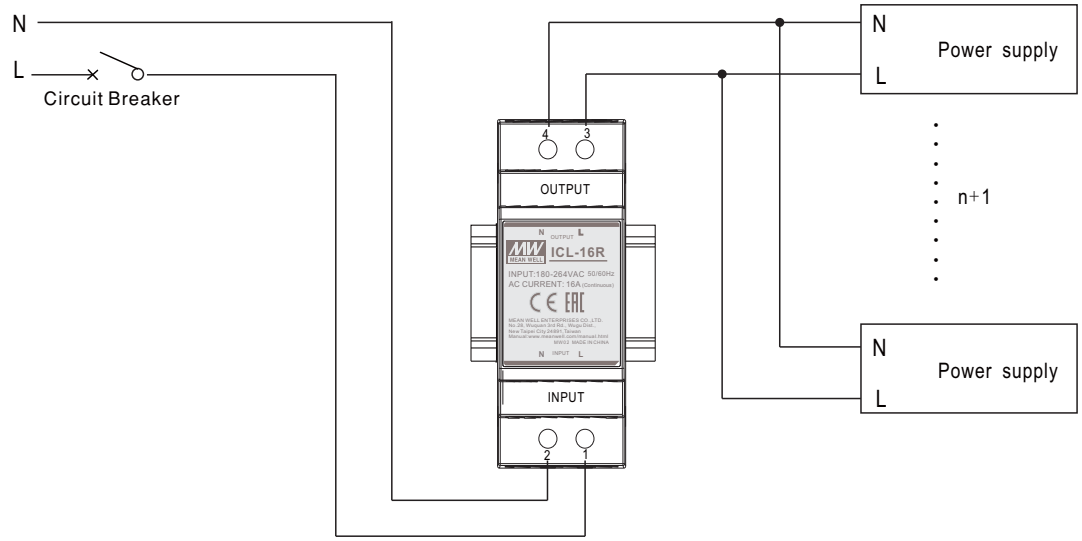
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).
3. The power supply is considered 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)

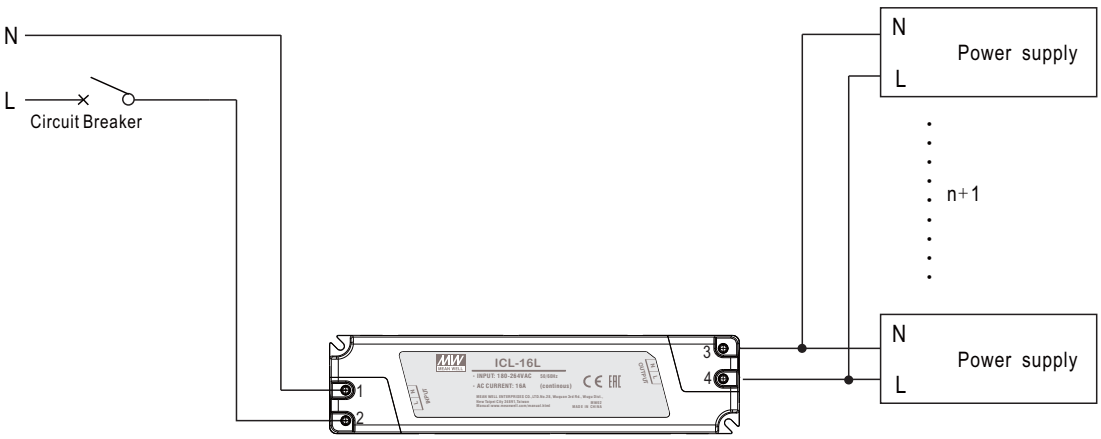
※ Product Liability Disclaimer：For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

■ BLOCK DIAGRAM



■ APPLICATION DIAGRAM





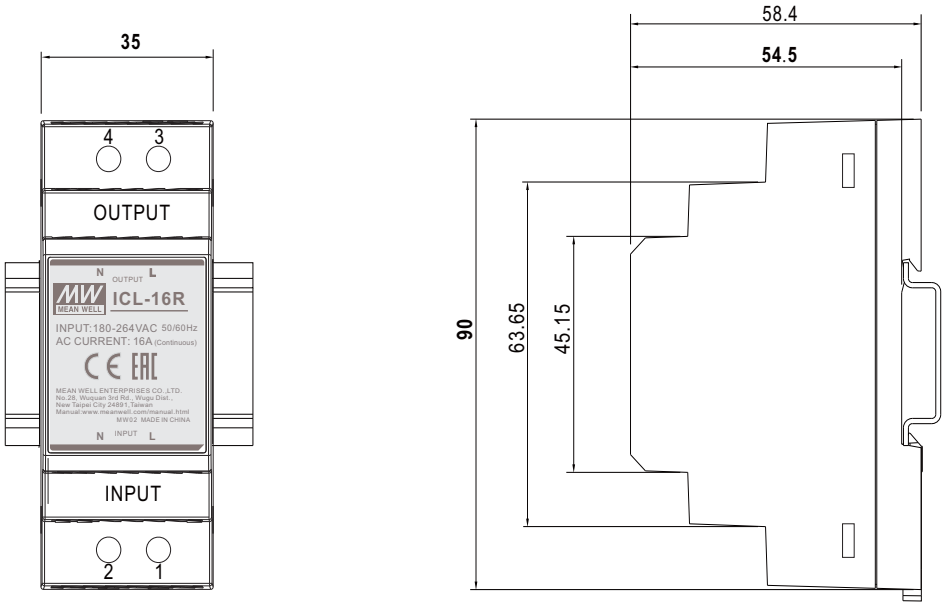
※ How many power supplys can be connected behind ICL-16R/ICL-16L?
Please refer to : http : //www.meanwell.com.

■ MECHANICAL SPECIFICATION

◎ ICL-16R(DIN Rail type)

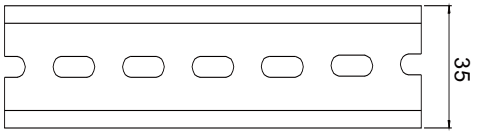
(Unit: mm , tolerance ± 1mm)

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

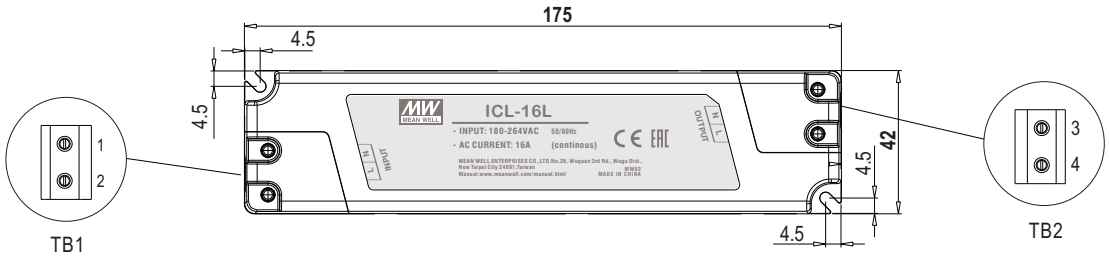


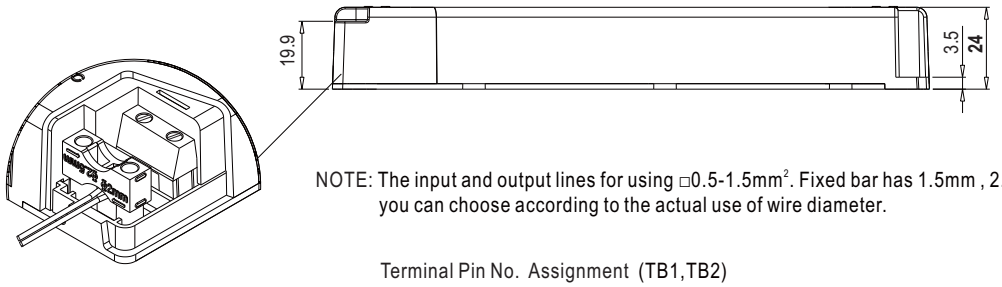
ADMISSIBLE DIN-RAIL:TS35/7.5 OR TS35/15

◎ ICL-16L(Linear type)

(Unit: mm , tolerance ± 1mm)

Case No.PLM-40





NOTE: The input and output lines for using □0.5-1.5mm^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