



(ICL-28R)



(ICL-28L)



### ■ Features

- 48A inrush limiting current, 28A 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-28R)
- -30~+70°C wide working temperature
- Over voltage category III
- Operating altitude up to 5000 meters(Note. 2)
- 3 years warranty

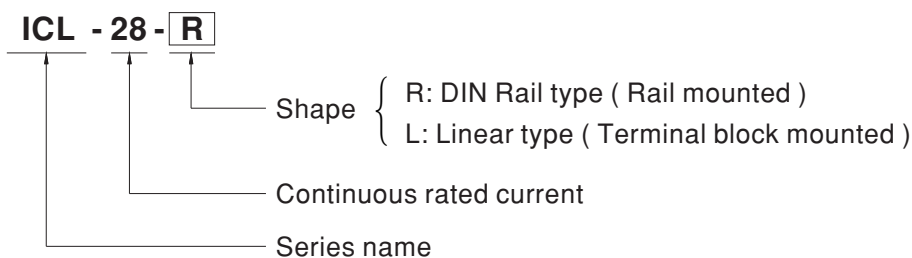
### ■ Applications

- 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-28 is a 28A 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-28.

### ■ Model Encoding





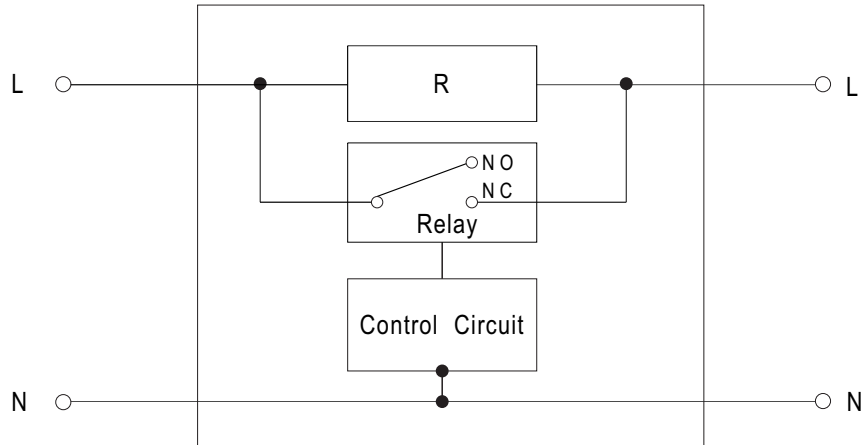
# 28A AC Inrush Current Limiter

# ICL-28R/28L

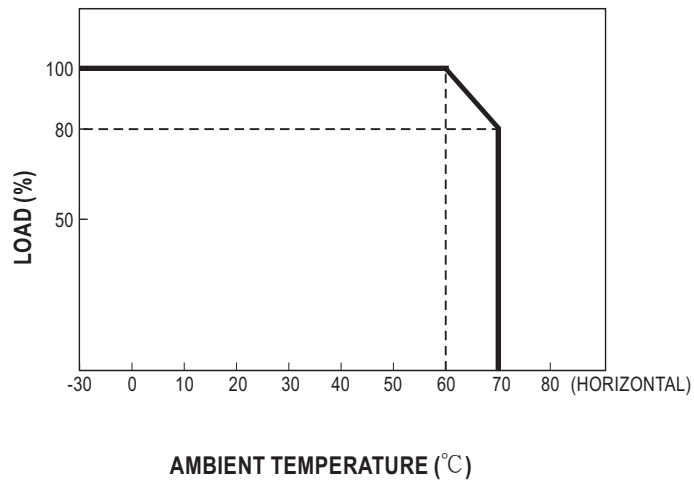
## SPECIFICATION

MODEL	ICL-28R	ICL-28L			
AC INPUT VOLTAGE	180 ~ 264VAC	180 ~ 264VAC			
AC LINE FREQUENCY	47 ~ 63Hz				
INRUSH CURRENT LIMITING	48A				
AC CONTINUOUS RATED CURRENT	28A continuous				
AC INPUT POWER	6440VA (28A x 230VAC)				
AC INPUT CONSUMPTION	<2W at 264VAC, 50Hz input				
INTERNAL RELAY LIMITING TIME (TON POWER ON)	150 ± 50ms				
INTERNAL RELAY	LIMITING CYCLES	3 cycle / 1 min			
	RELEASE TIME	100±50ms			
INTERNAL PROTECTION	Thermal fuse protects overload and fire				
ALLOWED CAPACITIVE LOAD	6000 μ F max.				
WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")				
WORKING HUMIDITY	20 ~ 90% RH non-condensing				
STORAGE TEMP.	-40 ~ +85°C				
TEMP. COEFFICIENT	±0.03%/°C (0 ~ 60°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	1601.76K hrs min. MIL-HDBK-217F (25°C)	1626.62K hrs min. MIL-HDBK-217F (25°C)			
DIMENSION	52.5*90*54.5mm (L*W*H)		175*42*24mm (L*W*H)		
PACKING	0.16Kg; 80pcs/13.8Kg/1.23CUFT		0.155Kg; 84pcs/14Kg/0.91CUFT		
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>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).</li> <li>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 <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> </ol>				

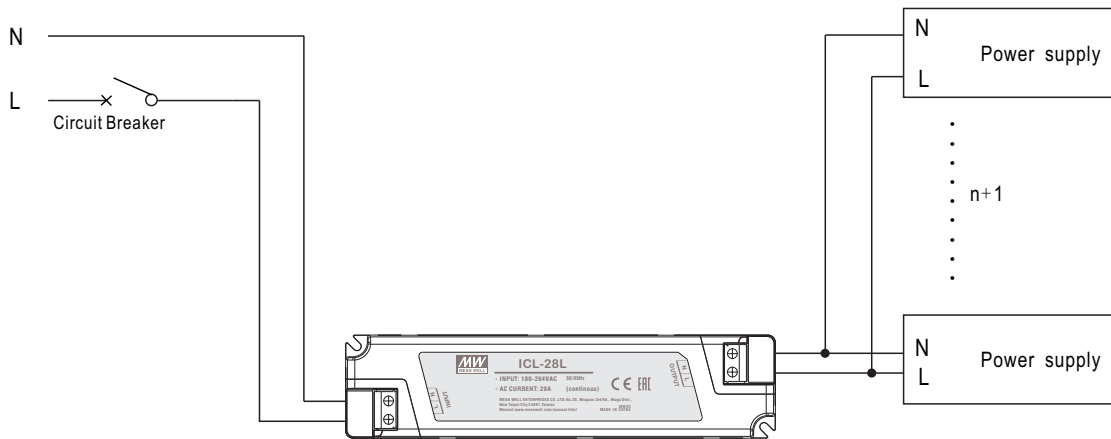
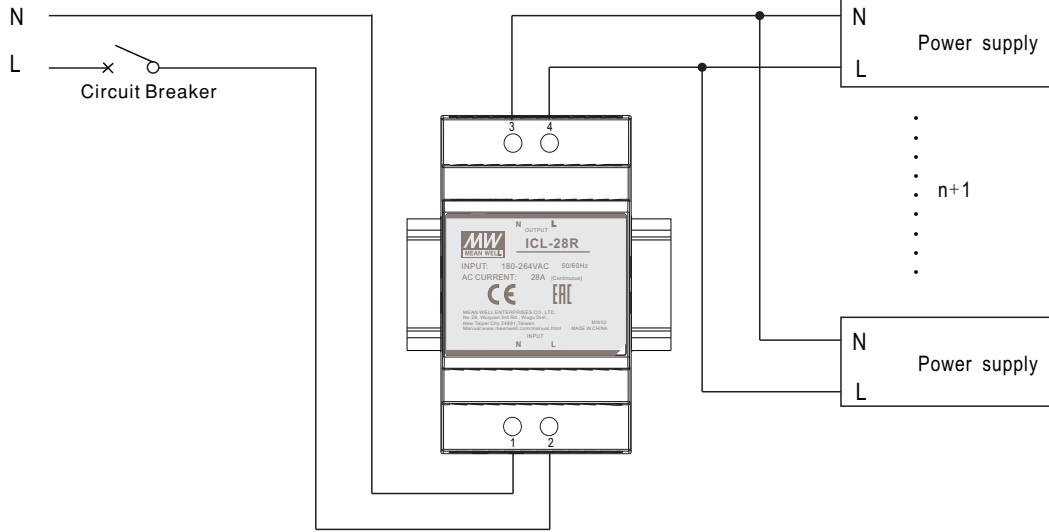
■ BLOCK DIAGRAM



■ Derating Curve



## APPLICATION DIAGRAM

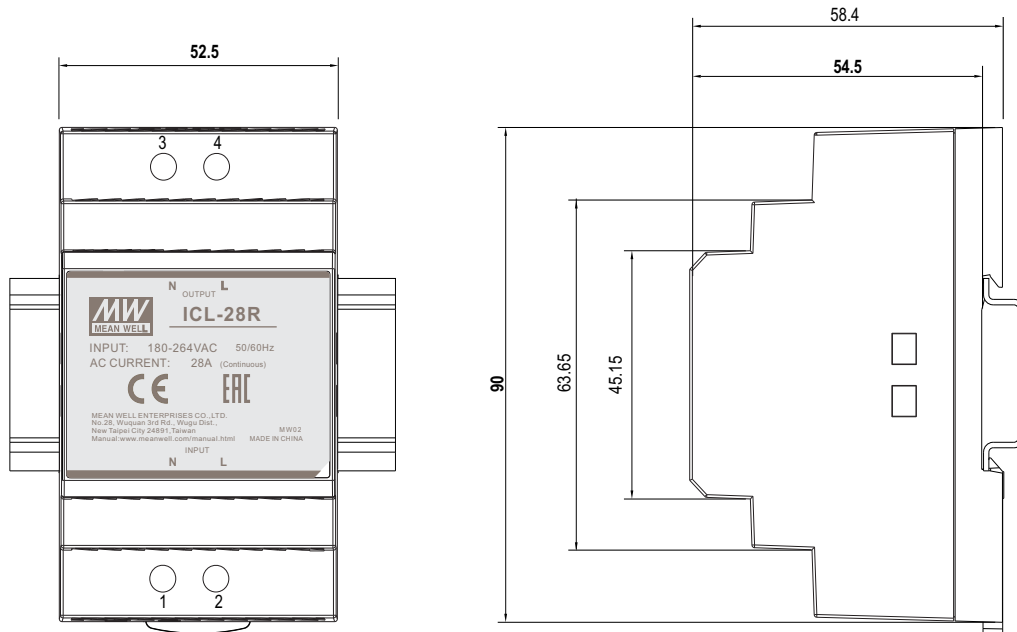


※ How many power supplies can be connected behind ICL-28R/ICL-28L?  
 Please refer to : <http://www.meanwell.com/manual.html>

## MECHANICAL SPECIFICATION

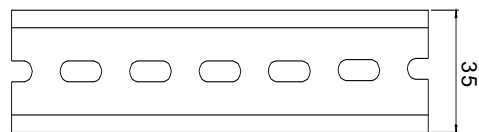
### ICL-28R(DIN Rail type)

Case No. ICL-28R Unit:mm



Terminal Pin No. Assignment

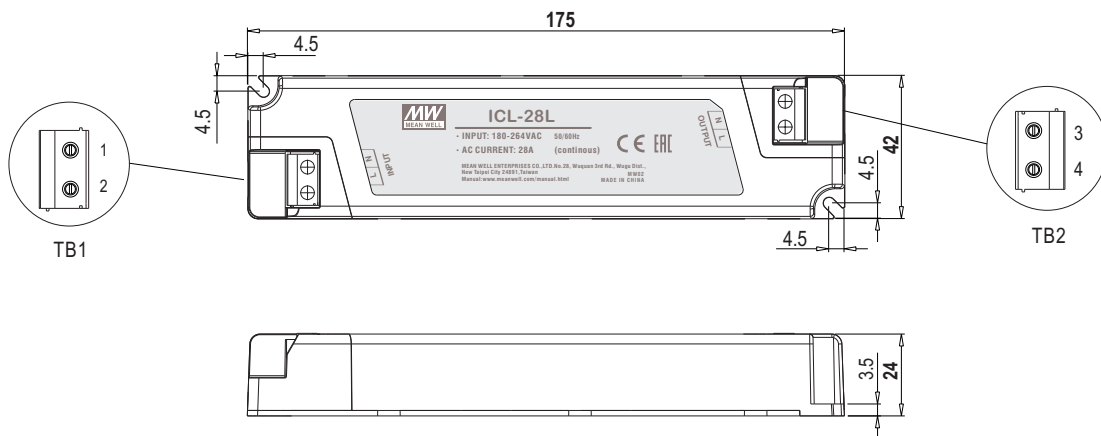
Pin No.	Assignment	Pin No.	Assignment
1	AC/N Input	3	AC/N Output
2	AC/L Input	4	AC/L Output



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

### ICL-28L(Linear type)

Case No. PLM-40 Unit:mm



Terminal Pin No. Assignment (TB1, TB2)  
SWITCHLAB MB422-750 equivalent

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