

# ICL-28R/28L Series

28A AC Inrush Current Limiter



(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
- 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

## GTIN CODE

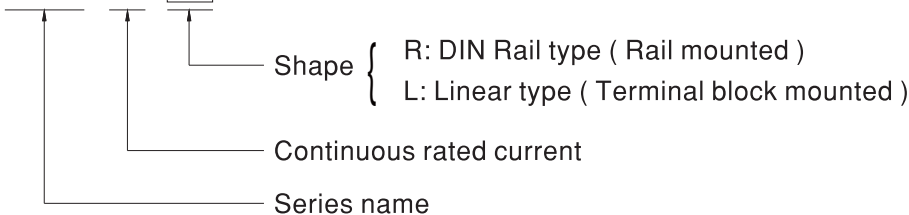
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

## 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

ICL - 28 - R



# ICL-28R/28L Series

28A AC Inrush Current Limiter



## SPECIFICATION

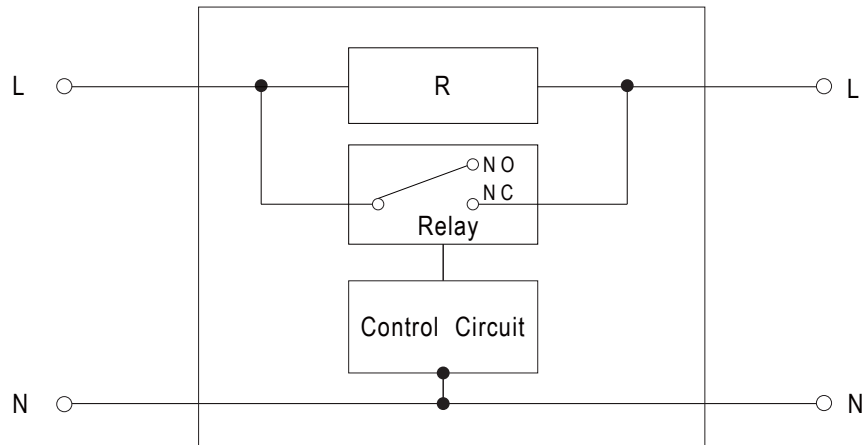
MODEL	ICL-28R	ICL-28L			
AC INPUT VOLTAGE	180 ~ 264VAC	180 ~ 264VAC			
AC LINE FREQUENCY	47 ~ 63Hz				
INRUSH CURRENT LIMITING	48A				
AC CONTINUOUS RATED CURRENT	28A continuous				
AC INPUT POWER	6440VA (28A x 230VAC)				
AC INPUT CONSUMPTION	<2W at 264VAC, 50Hz input				
INTERNAL RELAY LIMITING TIME (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	6000μ F max.				
WORKING TEMP.	-30 ~ +70 (Refer to "Derating Curve")				
WORKING HUMIDITY	20 ~ 90% RH non-condensing				
STORAGE TEMP.	-40 ~ +85				
TEMP. COEFFICIENT	± 0.03%/ (0 ~ 60 ) 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	6781.7K hrs min. Telcordia SR-332 (Bellcore) ; 1601.8K hrs min. MIL-HDBK-217F (25 )	6781.7K hrs min. Telcordia SR-332 (Bellcore) ; 1626.6K hrs min. MIL-HDBK-217F (25 )			
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	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 of ambient temperature.</p> <p>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).</p> <p>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 <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a>)</p> <p>Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>				

# ICL-28R/28L Series

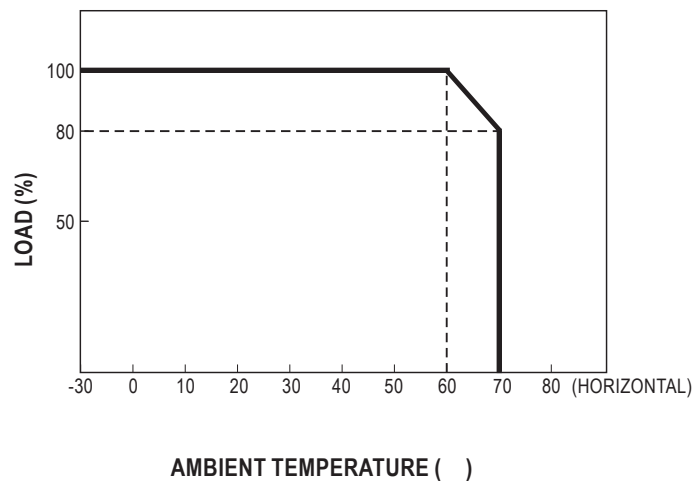
28A AC Inrush Current Limiter



## ■ BLOCK DIAGRAM



## ■ Derating Curve

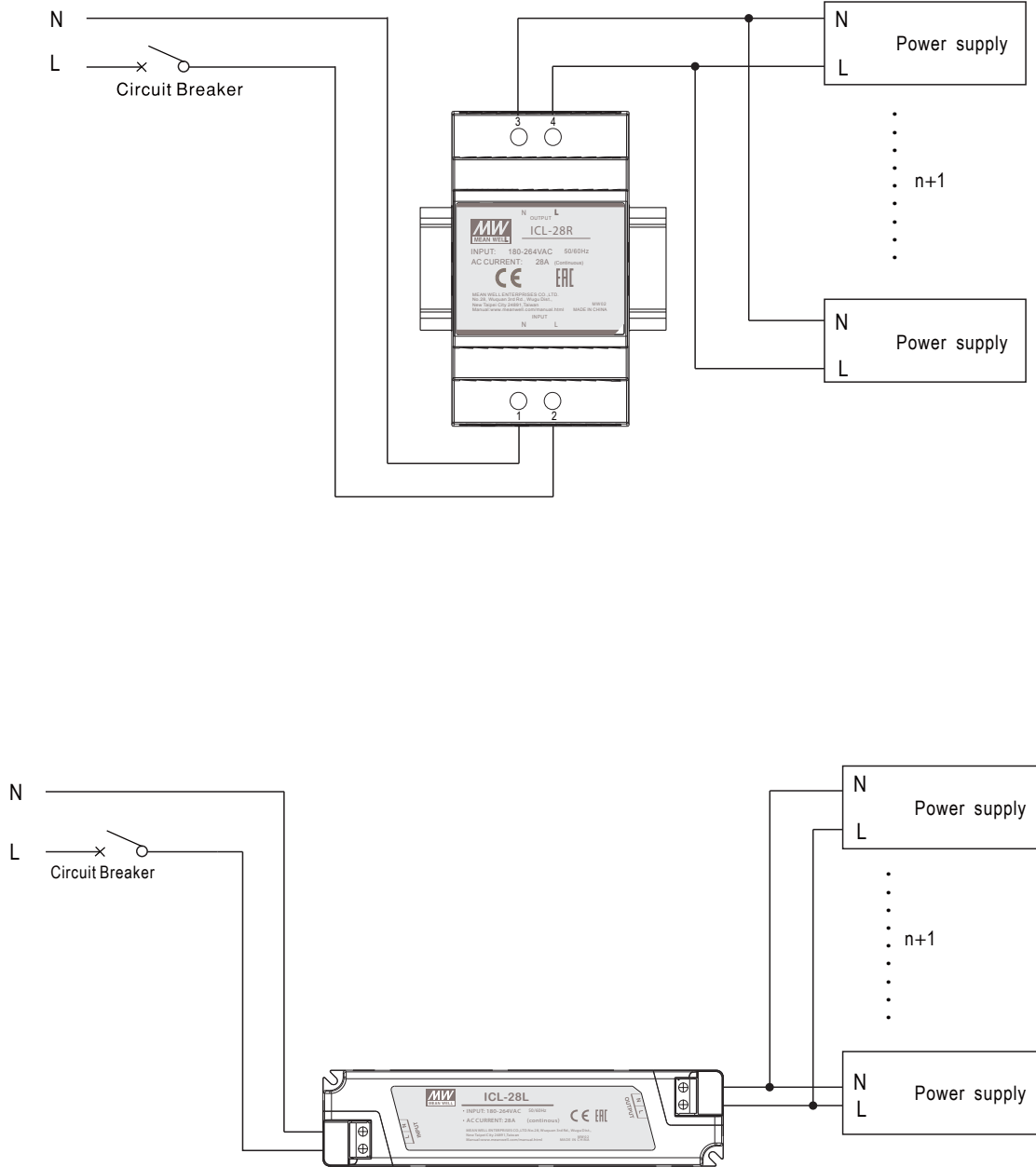


# ICL-28R/28L Series

28A AC Inrush Current Limiter



## APPLICATION DIAGRAM



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

# ICL-28R/28L Series

28A AC Inrush Current Limiter

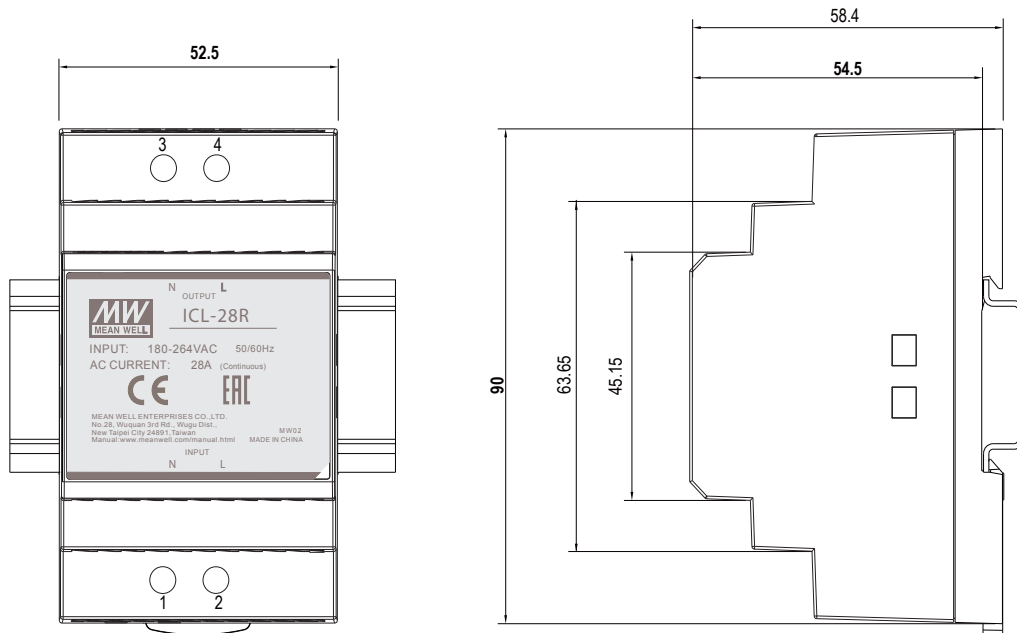


## MECHANICAL SPECIFICATION

ICL-28R(DIN Rail type)

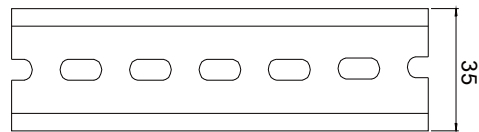
(Unit: mm , tolerance  $\pm 1$ mm)

Case No.ICL-28R



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

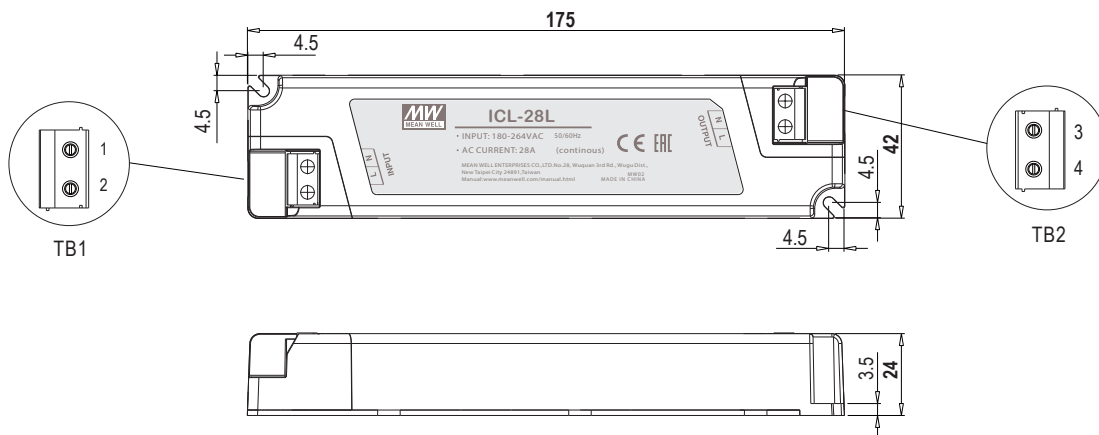


ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15

ICL-28L(Linear type)

(Unit: mm , tolerance  $\pm 1$ mm)

Case No.PLM-40



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