28A AC Inrush Current Limiter

ICL-28R/28L

User's Manual

Video



(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 tigger 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

- Shape: R: DIN Rail type (Rail mounted) / L: Linear type (Terminal block mounted)
- Continuous rated current
- Series name

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 μF 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)		Parameter	Standard	Test Level / Note
	EMC EMISSION	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

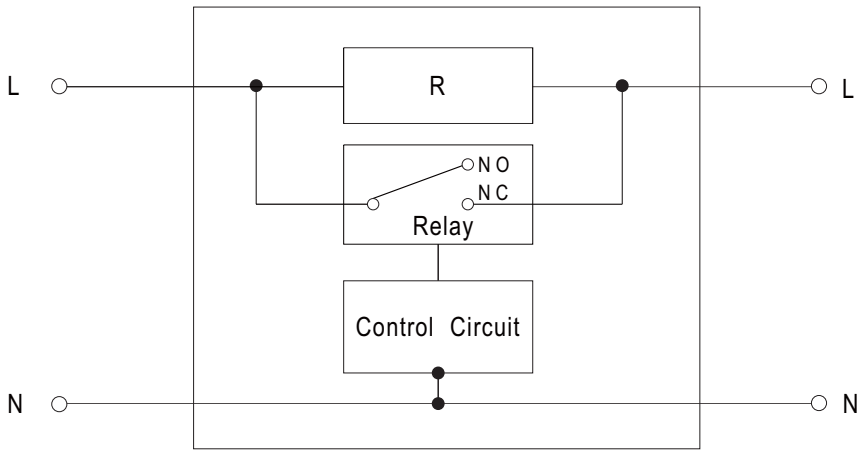
MTBF	6781.7K hrs min. Telcordia SR-332 (Bellcore) ; 1601.8K hrs min. MIL-HDBK-217F (25℃)	6781.7K hrs min. Telcordia SR-332 (Bellcore) ; 1626.6K hrs min. MIL-HDBK-217F (25℃)
DIMENSION	52.5*90*54.5mm (L*W*H)	175*42*24mm (L*W*H)
PACKING	0.16Kg; 80pcs/13.8Kg/1.23CUFT	0.155Kg; 84pcs/14Kg/0.91CUFT

NOTE

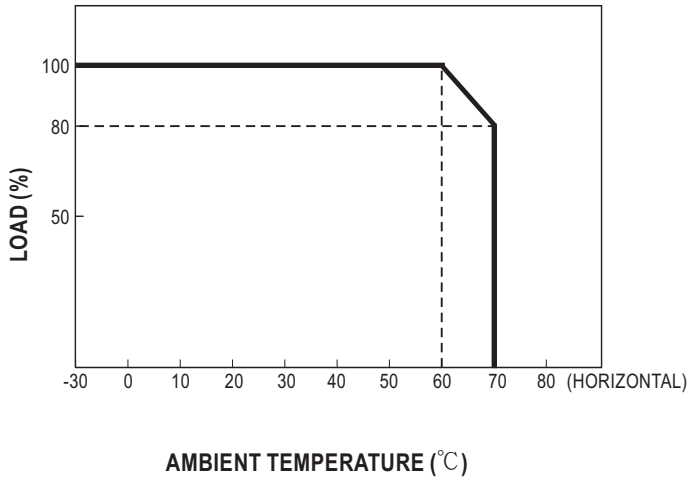
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).
3. The power supply is considered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

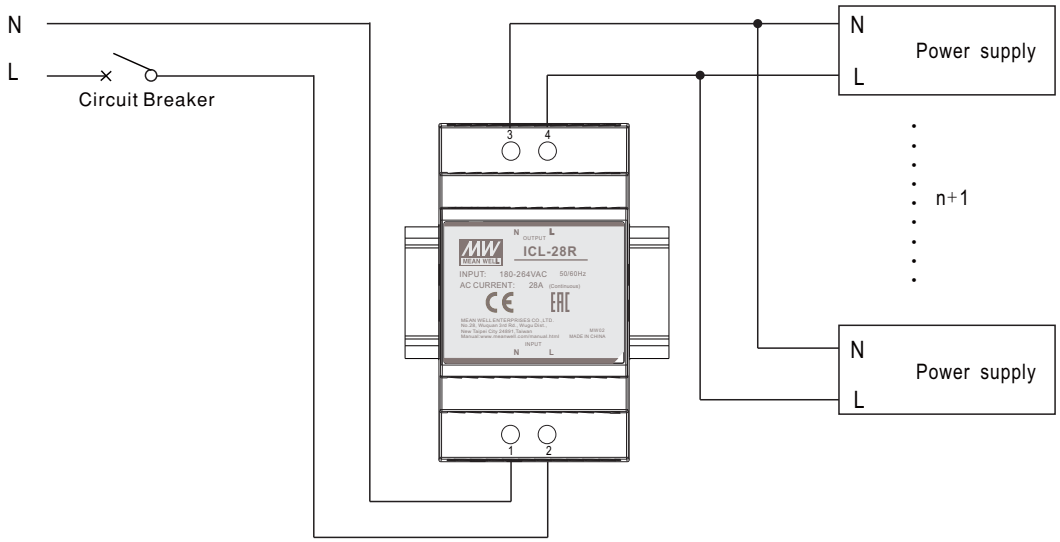
■ BLOCK DIAGRAM

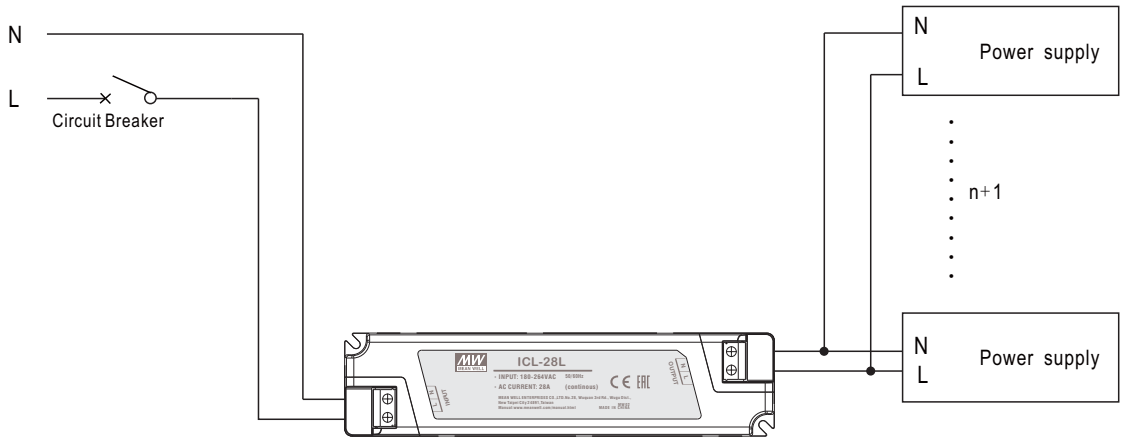


■ Derating Curve



■ APPLICATION DIAGRAM





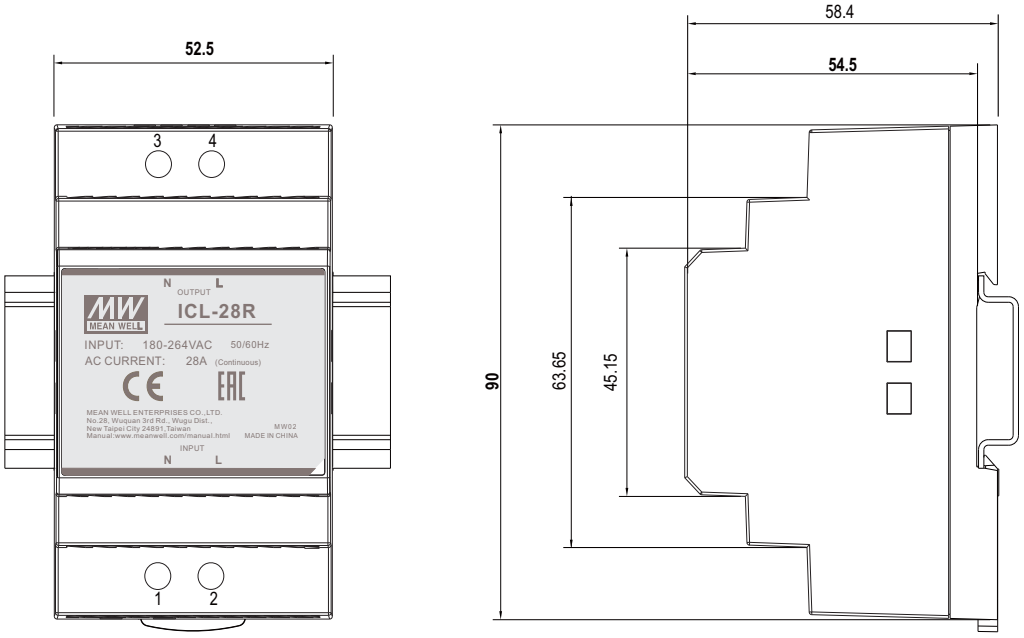
※ How many power supplys can be connected behind ICL-28R/ICL-28L?
Please refer to : http : //www.meanwell.com.

■ MECHANICAL SPECIFICATION

◎ ICL-28R(DIN Rail type)

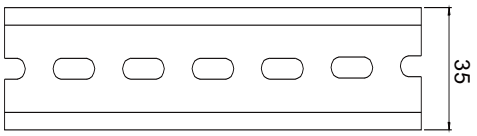
(Unit: mm , tolerance ± 1mm)

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

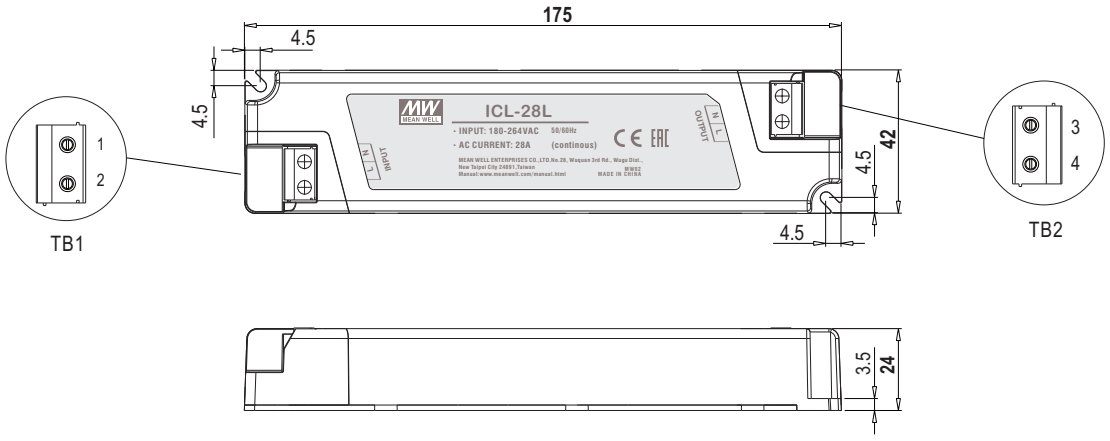


ADMISSIBLE DIN-RAIL:TS35/7.5 OR TS35/15

◎ ICL-28L(Linear type)

(Unit: mm , tolerance ± 1mm)

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