



GENERAL CONTROL RELAY ETR LR SERIES

■ FEATURES

- 5mm slim size with 8A rated load.
- 170mW low power consumption.
- Dielectric Strength up to 4,000VAC and Surge Strength reached 6,000V.
- 8mm creepage and clearance safety distance.
- UL Class F insulation available.
- In accordance with IEC 60335-1.
- Halogen Free series available.
- Comply with RoHS and REACH regulations.

■ SAFETY STANDARD

UL&CUL E141060 UL 508

Model	Load	Cycles
LR	NO (AgNi & AgSnO ₂ contact) :	
	6A, 250Vac, 85°C, General Use	30K
	6A, 30Vdc, 85°C, L/R=0	30K
	6A, 277Vac, 40°C, General Use	6K
	1A, 277Vac, 40°C, Tungsten	6K
	1A, 277Vac, 40°C, Stand Ballast	6K
	1/8 HP(2FLA) ,277Vac, 85°C	30K
	Polit Duty D300, 0.8A at 240 V	6K
LR	NC (AgNi & AgSnO ₂ contact) :	
	6A, 250Vac, 85°C, General Use	30K
	6A, 30Vdc, 85°C, L/R=0	30K
	1/8 HP(2FLA) ,277Vac, 85°C	30K
	Polit Duty D300, 0.8A at 240 V	6K

VDE 40029874 IEC 61810-1

Model	Load	Cycles
LR	NO (AgNi contact) :	
	8A, 277Vac, 85°C, cosφ=1,	40K
	8A, 30Vdc, 85°C, L/R=0	40K
	NC (AgNi contact) :	
	8A, 277Vac, 85°C, cosφ=1	12K
LR	8A, 30Vdc, 85°C, L/R=0	3K
	NO (AgSnO ₂ contact) :	
	8A, 277Vac, 85°C, cosφ=1	10K
	NC (AgSnO ₂ contact) :	
	8A, 277Vac, 85°C, cosφ=1	5K

UL&CUL E175730 UL508(Motor Controllers, Magnetic)

Model	Load	Cycles
LR	NO/NC (AgNi & AgSnO ₂ contact) :	
	2A @ 277VAC/ 125VAC @ 85°C les	30K
	1/8 HP, 250Vac, 85°C	30K
	Polit Duty D300, 0.8A at 240 V	6K



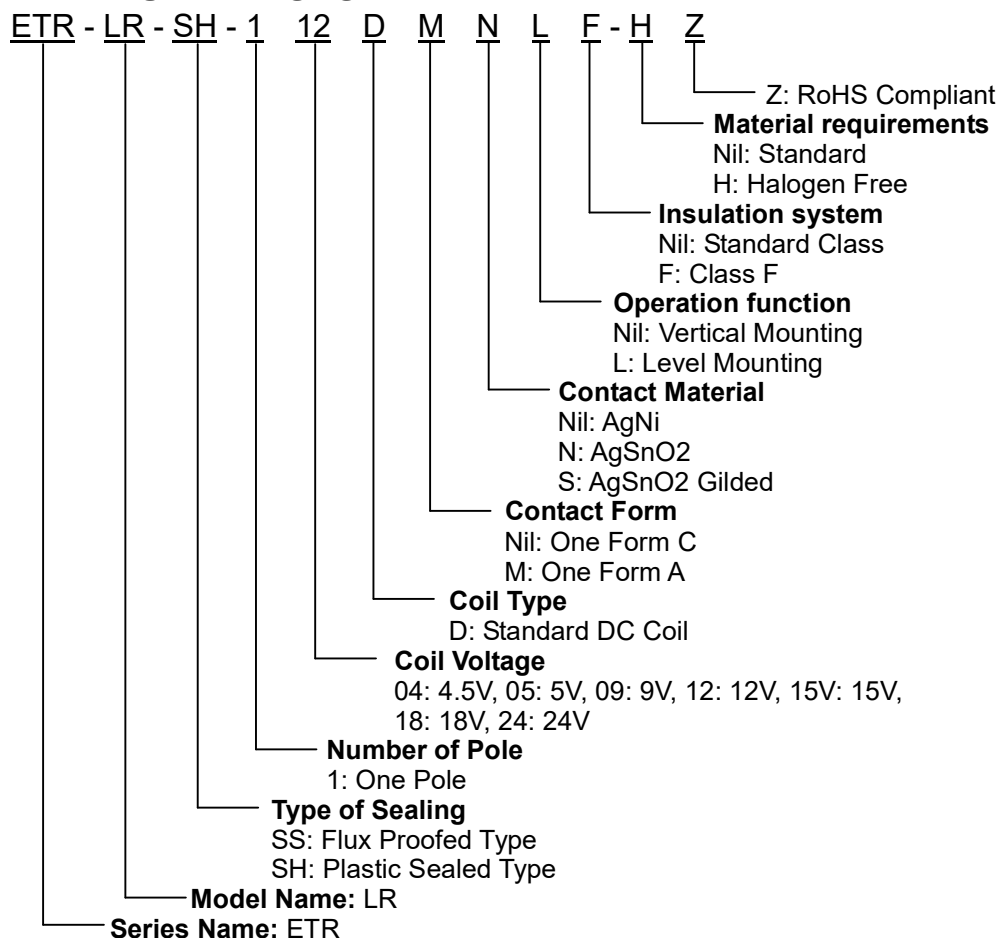
■ SPECIFICATIONS(AT INITIAL VALUE)

Contact Resistance	100 mΩ Max. @1A,6VDC
Operate Time	8 mSec. Max.
Release Time	4 mSec. Max.
Dielectric Strength	Between Coil & Contact: 4,000VAC at 50/60Hz for one minute Between Contacts: 1,000VAC at 50/60Hz for one minute
Surge Strength	6,000V (between coil &contact 1.2x50μSec.)
Insulation Resistance	100MΩ Min. at 500VDC
Max. On/OFF Switching	Electrical: 6 Cycles per Minute Mechanical: 180 Cycles per Minute
Temperature Range	-40°C~+85°C
Humidity Range	45~85%RH
Coil Temperature Rise	40°C Max.
Vibration	Destruction: 10 to 55 to 10 Hz, 0.75 mm single amplitude(1.5mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75 mm single amplitude(1.5mm double amplitude)
Shock	Destruction: 1,000 m/s ² Malfunction: 100 m/s ²
Mechanical Life	5x10 ⁶ operations at no load condition
Weight	About 6g

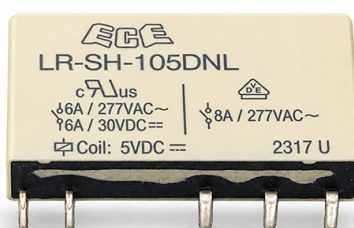
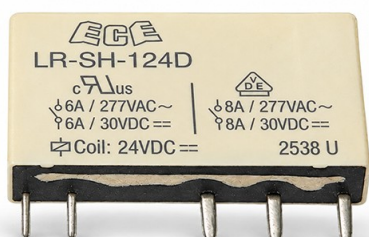
■ COIL SPECIFICATION AT 20°C

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max. Allowable Voltage (VDC)
LR	4.5	37	121	Abt. 0.17	70% Max.	5% Min.	150%
	5	34	147				
	9	18.8	476				
	12	14.2	847				
	15	11.3	1,323				
	18	9.4	1,905				
	24	7.1	3,388				

■ PART NUMBER SYSTEM



*Marking without: "ETR" & "Z".



■ **DIMENSIONS** ($\leq 5\text{mm} \pm 0.2\text{mm}$, $> 5\text{mm} \pm 0.3\text{mm}$, the tolerance of PCB thru hole: $+0.1\text{mm}$)

