

GENERAL CONTROL RELAY

ETR EMI-1P SERIES

■ FEATURES

- Slim size with 12A rated loaded.
- Proper insulation distance with 5,000VAC dielectric strength between contact and coil.
- 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
EMI AC Coil	NO/NC (AgNi contact) :	
	12A, 250Vac, 40°C, General Use	6K
	12A, 30Vdc, 40°C, L/R=0	6K
	NO (AgNi contact) :	
EMI AC Coil	12A, 277Vac, 85°C, General Use	6K
	12A, 277Vac, 85°C, Resistive	6K
	NO/NC (AgSnO ₂ contact) :	
	12A, 250Vac, 40°C, General Use	6K
EMI AC Coil	NO (AgSnO ₂ contact) :	
	12A, 277Vac, 85°C, General Use	6K
	12A, 277Vac, 85°C, Resistive	6K

VDE 40009648 IEC 61810-1

Model	Load	Cycles
EMI AC Coil	NO/NC (AgNi contact) :	
	12A, 250Vac, 70°C, cosφ=1	40K
EMI AC Coil	NO (AgSnO ₂ contact)	
	12A, 250Vac, 70°C, cosφ=1	20K
	NC (AgSnO ₂ contact)	
	12A, 250Vac, 70°C, cosφ=1	5K
EMI AC Coil	NO/NC (AgSnO ₂ contact) :	
	NO: 12A, 250Vac, 70°C, cosφ=1	5K
	NC: 12A, 250Vac, 70°C, cosφ=1	2K

TUV R50006688 IEC 61810-1

Model	Load	Cycles
EMI AC Coil	NO/NC (AgNi contact) :	
	12A, 250Vac, 85°C, cosφ=1	100K
	10A, 30Vdc, 85°C, L/R=0	100K

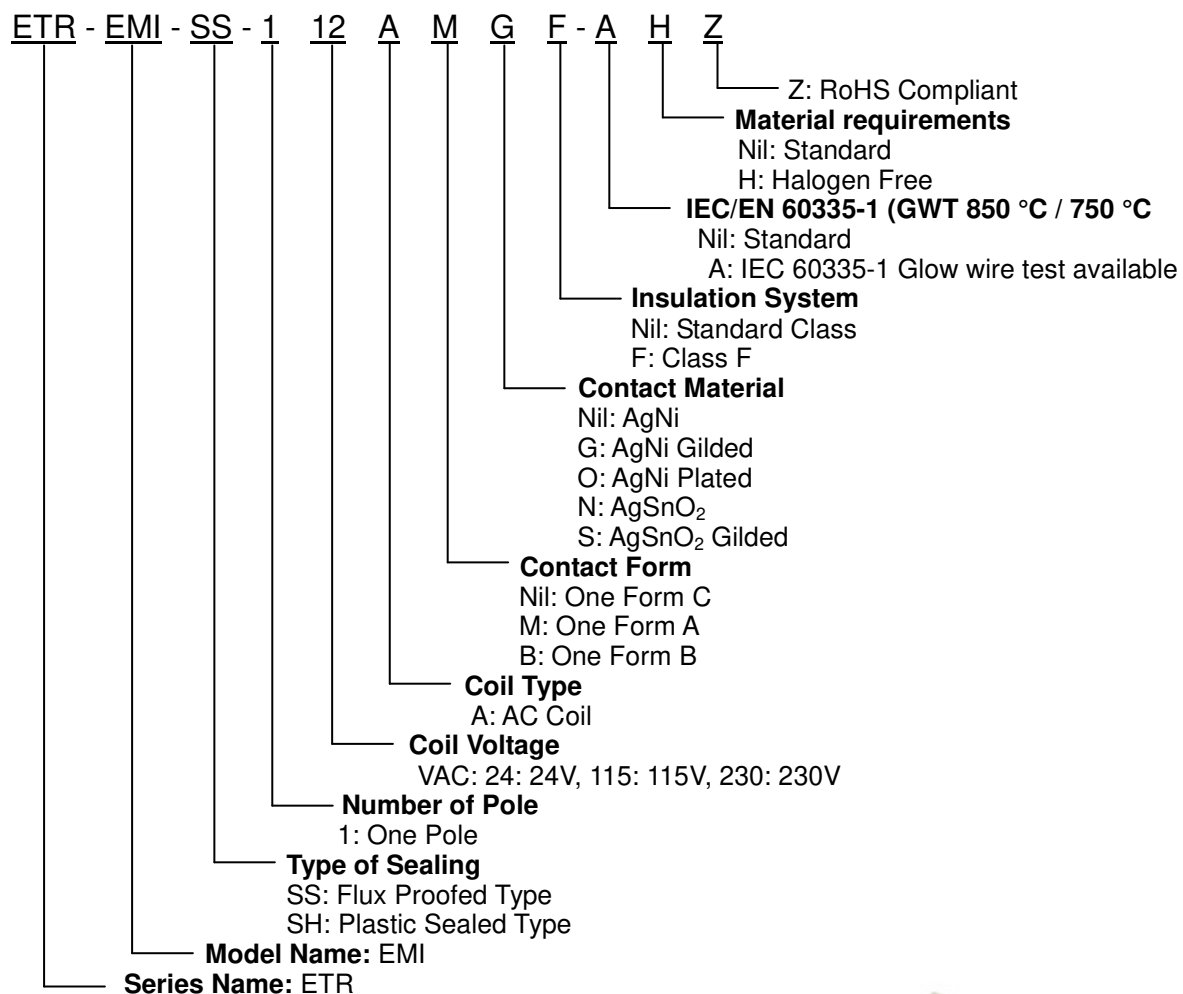
■ SPECIFICATIONS(AT INITIAL VALUE)

Contact Resistance	100 mΩ Max. @1A, 6VDC
Operate Time	20 mSec. Max.
Release Time	20 mSec. Max.
Dielectric Strength	Between Coil & Contact: 5,000VAC at 50/60Hz for one minute Between Contacts: 1,000VAC at 50/60Hz for one minute
Surge Strength	10,000V (between coil & contact 1.2x50μSec.)
Insulation Resistance	100MΩ Min. at 500VDC
Max. On/OFF Switching	Electrical: 6 cycles per Minute Mechanical: 300 cycles per Minute
Temperature Range	-40°C~+85°C
Humidity Range	45~85%RH
Coil Temperature Rise	30°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	10 ⁷ operations at no load condition
Weight	About 12.5g

■ COIL SPECIFICATION AT 20°C

Coil Sensitivity	Nominal Voltage	Nominal Current (mA)		Coil Resistance ($\Omega \pm 10\%$)	Power Consumption (W)		Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max. Allowable Voltage (VDC)
		50Hz	60Hz		50Hz	60Hz			
EMI AC Coil	24	29.75	25.35	350	0.71	0.61	80% Max.	15% Min.	130%
	115	7.65	6.3	8,100	0.88	0.73			
	230	3.42	2.72	32,500	0.79	0.63			

■ 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: $+0.1\text{mm}$)

