## EMI Suppression Filters for AC Power Lines: PLY10A14 **Hybrid Choke Coil**

The PLY10 is a compact and high performance hybrid choke coil which can handle differential mode noise caused by the harmonics currents regulation circuit as well as common mode noise. It can handle noise problems much more compactly than a combination of a conventional common mode choke coil and a differential mode choke coil.

### Features

1. PLY10 has both functions of a common mode choke

coil and a differential mode choke coil in its compact body.

- 2. Low profile in vertical core layout
- 3. PLY10 has the same pin layout as a general type common mode choke coil which enables it to replace conventional components.
- 4. Both a standard winding type and a sectional winding type for higher frequency noise are available.

### **EMI** Problem for harmonics currents regulation

There are some methods meet harmonics currents regulations (IEC1000-3, EN60555-2) such as an active filter type and one converter type. However, they cause new EMI problems of differential mode noise because they use active components. For that reason, additional filter components to meet differential mode noise must be applied.



Specification	
Previous Part Number	PLY10A1430R5R02
Global Part Number	PLY10AN1430R5R2B
Common Mode Inductance (min.)	14.0mH
Normal Mode Inductance (min.)	1000µH
Rated Current	0.5A
Rated Voltage	300Vac
Insulation Resistance (min.)	10M ohm
Withstand Voltage	1600Vac /1minute or 2000Vac/1second
Minimum Operating Temperature	-25°C (Ambient Temperature Range + Winding Temperature Rise)
Maximum Operating Temperature	120°C (Ambient Temperature Range + Winding Temperature Rise)
Winding Temperature Rise (at Rated Current) (max.)	60K
Length	18mm max.
Width	16mm max.
Thickness	17.5mm max.
Weight (Typ.)	9.78g

### Equivalent Circuit Diagram

# ■ Common Mode Insertion Loss-Frequency Characteristics



■ Differential Mode Insertion Loss-Frequency Characteristics

