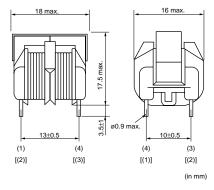
# **Data Sheet**

# AC Line Filters Hybrid Choke Coils

# PLY10 Series (Safety Standard Recognized)

# PLY10 Series (Safety Standard Recognized) Standard Winding Type

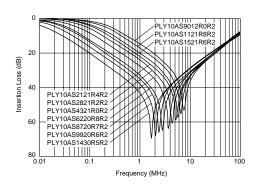
# ■ Dimension



■ Common Mode Insertion Loss-Frequency Characteristics

# 20 PLY10AS9012R0R2 PLY10AS9121R8R2 PLY10AS121R8R2 PLY10AS1221R4R2 PLY10AS4321R0R2 PLY10AS4321R0R2 PLY10AS4321R0R2 PLY10AS4321R0R2 PLY10AS6320R8R2 PLY10AS6320R8R2 PLY10AS920R8R2 PLY10AS920R8R2 PLY10AS920R8R2 PLY10AS9320R8R2 PLY10AS9320R8R2 PLY10AS9320R8R2 PLY10AS9320R8R2 PLY10AS9320R8R2 PLY10AS9320R8R2 PLY10AS9320R8R2 PLY10AS9320R8R2

# ■ Differential Mode Insertion Loss-Frequency Characteristics



# ■ Rated Value (□: packaging code)

Part Number	Common Mode Inductance (min.)	Normal Mode Inductance (min.)	Rated Current	Rated Voltage
PLY10AS9012R0R2□	0.9mH	65μΗ	2.0A	300Vac
PLY10AS1121R8R2□	1.1mH	90μΗ	1.8A	300Vac
PLY10AS1521R6R2□	1.5mH	110μH	1.6A	300Vac
PLY10AS2121R4R2□	2.1mH	150μΗ	1.4A	300Vac
PLY10AS2821R2R2□	2.8mH	190μΗ	1.2A	300Vac
PLY10AS4321R0R2□	4.3mH	300μΗ	1.0A	300Vac
PLY10AS6220R8R2□	6.2mH	400μΗ	0.8A	300Vac
PLY10AS8720R7R2□	8.7mH	530μΗ	0.7A	300Vac

Operating Temperature Range (Ambient Temperature Range + Winding Temperature Rise): -25°C to 120°C Winding Temperature Rise (at Rated Current) (max.): 60K

Continued on the following page.



• This data sheet is applied for AC Line Filters Hybrid Choke Coils used for General Electronics equipment for your design.

# **⚠ Note:**

- 1. This datasheet is downloaded from the website of Murata Manufacturing co., ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.
- 2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

# **Data Sheet**

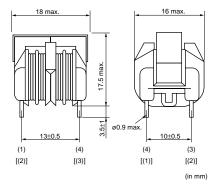
Continued from the preceding page.

Part Number	Common Mode Inductance (min.)	Normal Mode Inductance (min.)	Rated Current	Rated Voltage
PLY10AS9920R6R2□	9.9mH	690μΗ	0.6A	300Vac
PLY10AS1430R5R2□	14.0mH	1000μΗ	0.5A	300Vac

Operating Temperature Range (Ambient Temperature Range + Winding Temperature Rise): -25°C to 120°C Winding Temperature Rise (at Rated Current) (max.): 60K

# PLY10 Series (Safety Standard Recognized) Sectional Winding Type

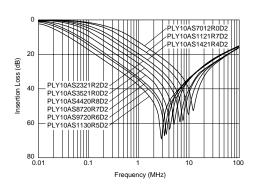
# ■ Dimension



# ■ Common Mode Insertion Loss-Frequency Characteristics

# PLY10AS1121R7D2 PLY10AS1421R4D2 PLY10AS2321R2D2 nsertion Loss (dB) PLY10AS9720R6D2 PLY10AS1130R5D2 Frequency (MHz)

# ■ Differential Mode Insertion Loss-Frequency Characteristics



# ■ Rated Value (□: packaging code)

Part Number	Common Mode Inductance (min.)	Normal Mode Inductance (min.)	Rated Current	Rated Voltage
PLY10AS7012R0D2□	0.7mH	50μΗ	2.0A	300Vac
PLY10AS1121R7D2□	1.1mH	65μΗ	1.7A	300Vac
PLY10AS1421R4D2□	1.4mH	110μΗ	1.4A	300Vac
PLY10AS2321R2D2□	2.3mH	160μΗ	1.2A	300Vac
PLY10AS3521R0D2□	3.5mH	240μΗ	1.0A	300Vac

Operating Temperature Range (Ambient Temperature Range + Winding Temperature Rise): -25°C to 120°C Winding Temperature Rise (at Rated Current) (max.): 60K

Continued on the following page.



This data sheet is applied for AC Line Filters Hybrid Choke Coils used for General Electronics equipment for your design.

# **⚠ Note:**

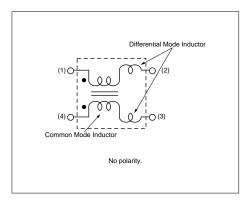
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Continued from the preceding page.

Part Number	Common Mode Inductance (min.)	Normal Mode Inductance (min.)	Rated Current	Rated Voltage
PLY10AS4420R8D2□	4.4mH	320μΗ	0.8A	300Vac
PLY10AS8720R7D2□	8.7mH	500μΗ	0.7A	300Vac
PLY10AS9720R6D2□	9.7mH	670μΗ	0.6A	300Vac
PLY10AS1130R5D2□	11.0mH	840μΗ	0.5A	300Vac

Operating Temperature Range (Ambient Temperature Range + Winding Temperature Rise): -25°C to 120°C Winding Temperature Rise (at Rated Current) (max.): 60K

# **■** Equivalent Circuit



# Packaging

Code	Packaging	Minimum Quantity		
М	Magazine	1800		
В	Вох	1200		

# ■ ①Caution (Rating)

### 1. Rated Current

Operating current should not exceed the rated value. Even if operating current is under the rated value, adequate ventilation is required to avoid excessive heat generated within the product (choke coil) and from surrounding heat sources. If exceeding these conditions, excessive heat may cause fumes or permanent damage to the product. Please ensure that product (choke coil) is evaluated and confirmed against the specification when it is mounted in your final assembled product.

-> Winding temperature should be less than 120 degree C.

\*As for FKOB series winding temperature should be less than 95 degree C.

Maximum allowable temperature at the surface of coil (ambient temperature + winding temperature rise) is in accordance with each safety standard applicable to final assembled product.

When the temperature at winding exceeds maximum allowable temperature of safety standard, the rated current should be derated.

# 2. Inrush Current

Inrush current should not exceed 10 times rated current within 1/4 cycle of 50/60Hz commercial power line. Inrush current should be limited to a minimum of 10 seconds after last inrush.

If these conditions are exceeded, excessive heat may cause fumes or permanent damage to the component, or at worst cause ignition.

# ■ Notice (Soldering and Mounting)

Magnetic Flux Leakage

Choke coils generate small amounts of magnetic flux leakage that may adversely affect equipment operation according to component arrangement.

Testing should be completed on final assembly to ensure equipment performance is not affected.

# ■ Notice (Other)

Coil Humming Noise

Magnetic flux generated between coil and core or between the choke coil windings creates repulsive power between the coil windings. This repulsive power causes the coil winding to vibrate and create a humming noise. The amount of hum produced by the coil is proportionate to the amount of harmonic distortion generated by the operating current. This does not influence the electrical performance of the coils, but it should be considered and tested in actual circuit application.

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