

## AIR CORED INDUCTORS PERFECT LAY HEXAGONAL WINDING



### • GENERAL INFORMATION

Type : Air Cored Inductor.  
 Construction : Hollow Cylindrical Type, Radial Leads.  
 Coating : Varnish Dip With Four Black Nylon Ties.  
 Dielectric : Red Polyurethane Polyamide Enamel.  
 Conductor : Pure Copper Solid Round Type.  
 Winding : Perfect Layer Hexagonal Self-Supporting Type.  
 Leads : Pure Copper

### • TECHNICAL DATA

Inductance Range/Tolerance	: 0.10 mH ... 30 mH, E24 series, $\pm 1$ %. (see specifications for details)
Conductor Material	: Greater than 99.99% Purity Annealed Copper.
Electrical Conductivity	: Greater than 101.5%.
D.C. resistance	: Very Low (see specifications for details)
Oxygen Content	: Less than 200 ppm on surface.
Temperature Coefficient	: 0.00393 per °C.
Temperature Range	: -55 C to +85 C.
Insulation Temperature	: 130°C.
Solderable Temperature	: 360°C.
Test Voltage	: 1000 VAC
Conductor Diameter	: S20 =0.8, S18 =1.0, S16 =1.3, S14 = 1.6, S12 = 2.0, S10 = 2.6mm.
Skin Effect $R_{dc} = R_{dc}$	: S20 =7.0, S18 =4.0, S16 =2.5, S14 = 1.7, S12 = 1.0, S10 = 0.7 KHz.
Skin Effect $R_{dc} = R_{dc} +10\%$	: S20 = 27, S18 = 17, S16 = 10, S14 = 7.0, S12 = 4.0, S10 = 2.5 KHz.
Winding Space Factor	: S20 = 84, S18 = 86 , S16 = 87, S14 = 88, S12 = 90, S10 = 92 %.

### • FEATURE

Integral Wheeler Formula Application.  
 Computer Optimized Inductor Dimension.  
 Linear A.C. Resistance  
 Very Low Magnetostriction Distortion.  
 Constant Inductance with Voltage Variation.

Constant Inductance with Current Variation.  
No Saturation Distortion.  
No Hyteresis Distortion.

- **ELECTRICAL PERFORMANE**

High Quality Factor.  
Very Low D.C. Resistance  
Low A.C. Resistance.  
Low Skin Effect Losses.  
Low Proximity Effect Losses.  
Low Self Capacitance.

