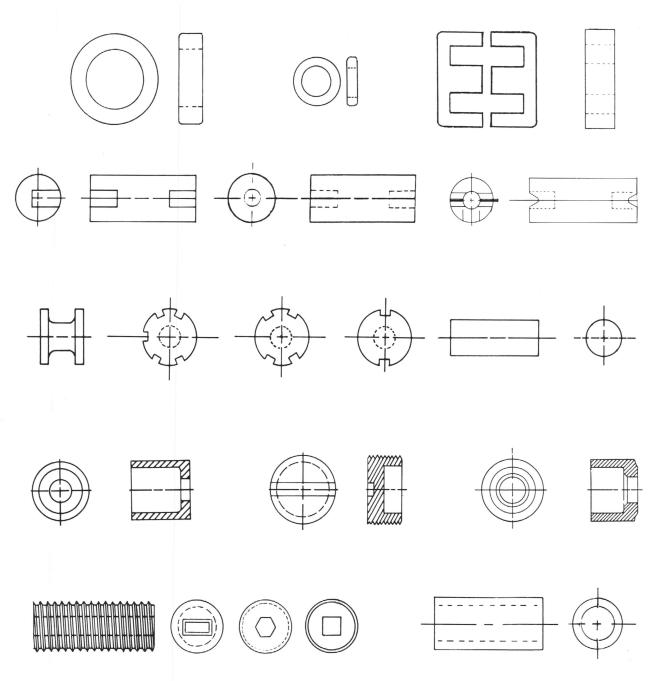


# **MATERIAL GUIDE**



US Iron Powder Cores since 1935 Division of TSC International

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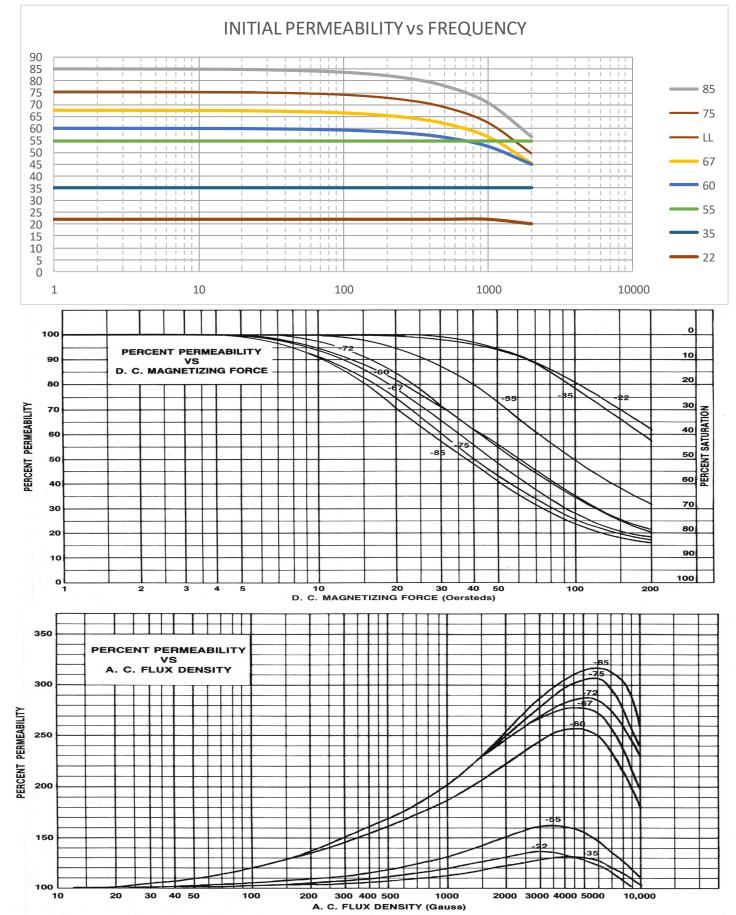
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Catalog Name	Permeability	Typical frequency Range	Toroid Color Code	Relative Q	Page
-22	22	1 kHz - 1 MHz	White/Gray	++	4
-33	33	1 kHz - 10 MHz	White/Green	+	5
-35	35	1 kHz - 10 MHz	Gray	++	6
-55	55	1 kHz - 1 MHz	Gray	+	7
-60	60	1 kHz - 1 MHz	Gray	+	8
-67	67	1 kHz - 1 MHz	Gray/Green	+	9
-75	75	1 kHz - 1 MHz	Gray/White	+	10
-LL	75	1 kHz - 1 MHz	Gray/Blue	+	11
-85	85	1 kHz - 1 MHz	White	+	12

#### **POWER CONVERSION MATERIALS** page 3

#### CARBONYL IRON POWDER MATERIALS page 13

Catalog Name	Permeability	Typical frequency Range	Toroid Color Code	Relative Q
-W	6	40 MHz -250 MHz	Gray	+++++
-J	7	35 MHz -135 MHz	Gray	+++++
-SF	8	10 MHz -100 MHz	Yellow/Gray	++++
-TH	8.5	1 MHz -60 MHz	Gray	+++
-E	10	100 kHz -25 MHz	Red/Gray	++
-C	20	50 kHz -5 MHz	Gray	++
-GQ4	35	50 kHz -2 MHz	White/Gray	++



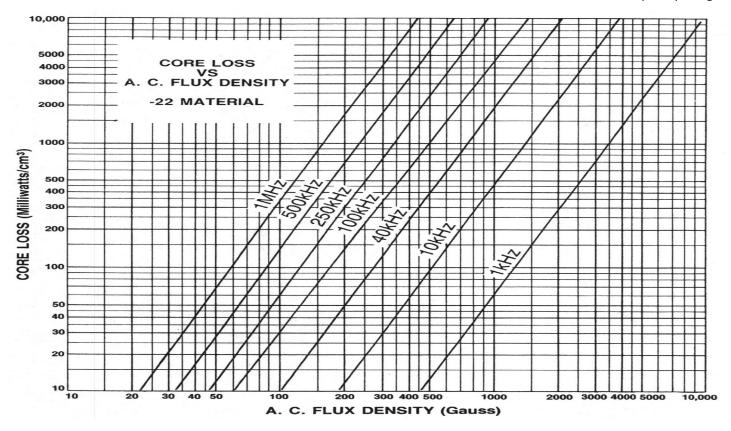


Iron Powder Core Material

22 Permeability

-22

1kHz to 10Mhz Recommended Frequency Range.

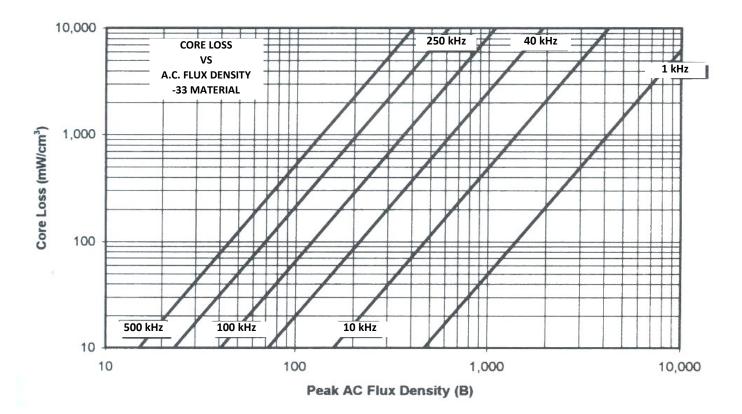




Iron Powder Core Material

33 Permeability

1kHz to 10Mhz Recommended Frequency Range.



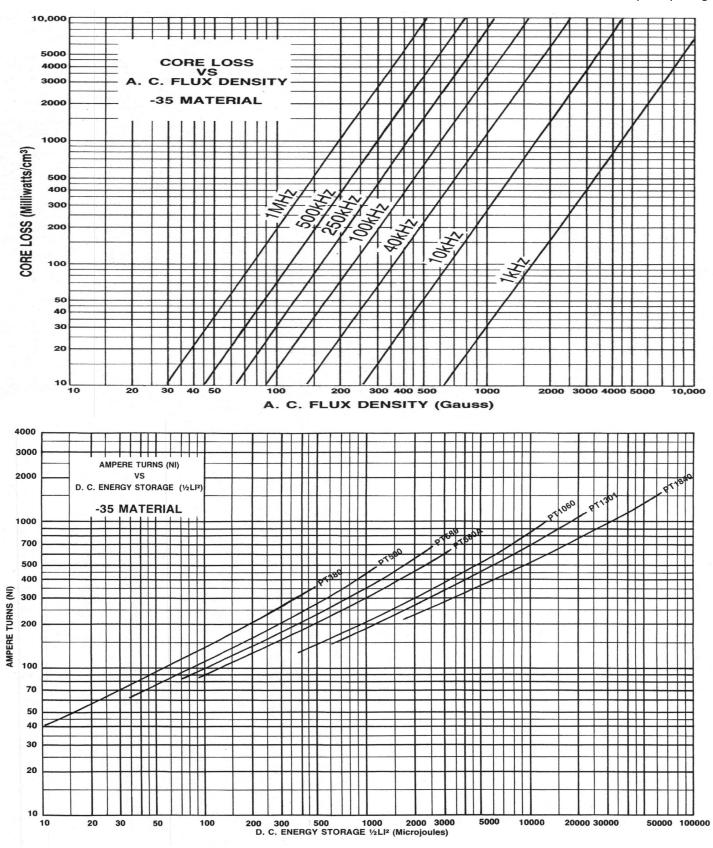


Iron Powder Core Material

35 Permeability

-35

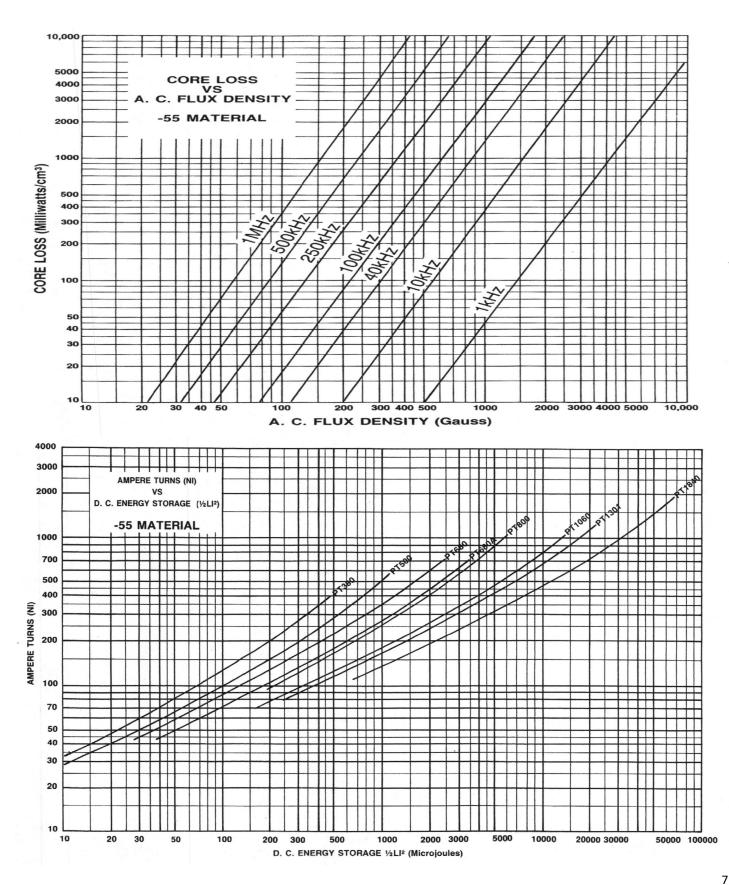
1kHz to 10Mhz Recommended Frequency Range.



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Iron Powder Core Material

55 Permeability

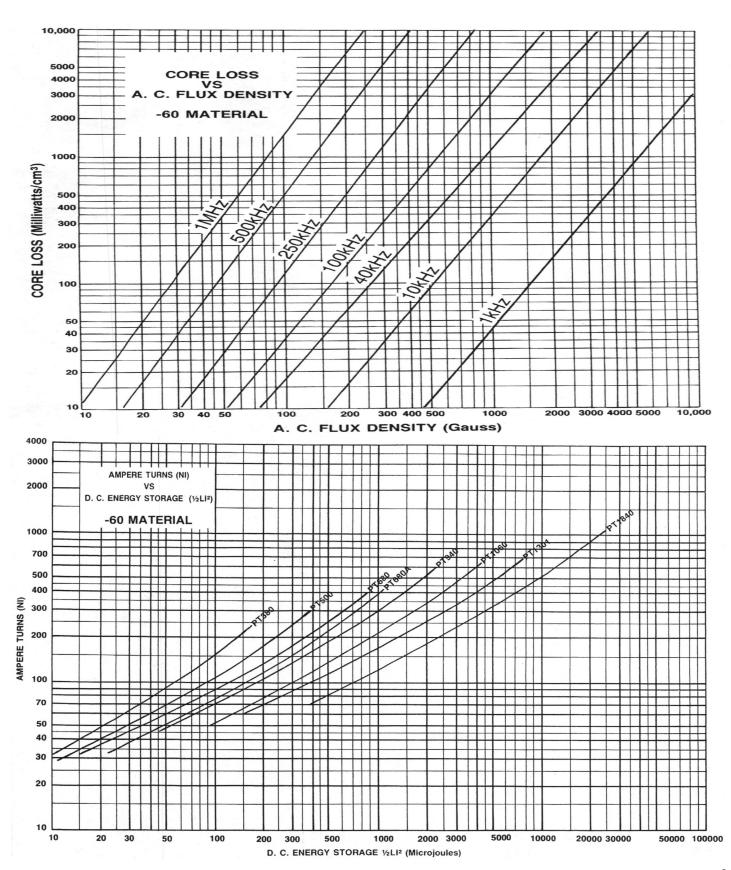




Iron Powder Core Material

60 Permeability

-60



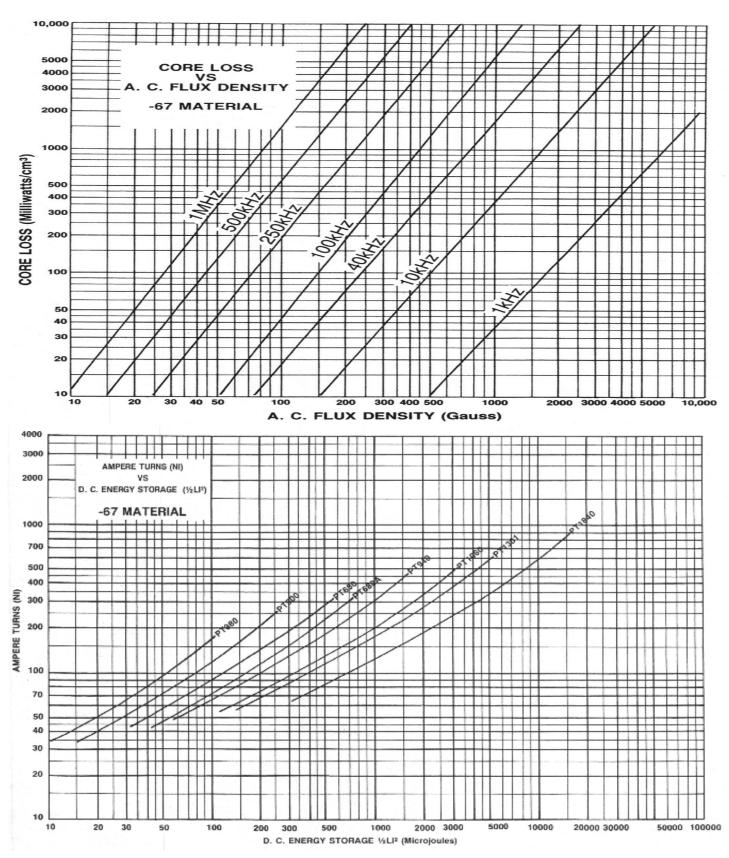
8



Iron Powder Core Material

67 Permeability

-67

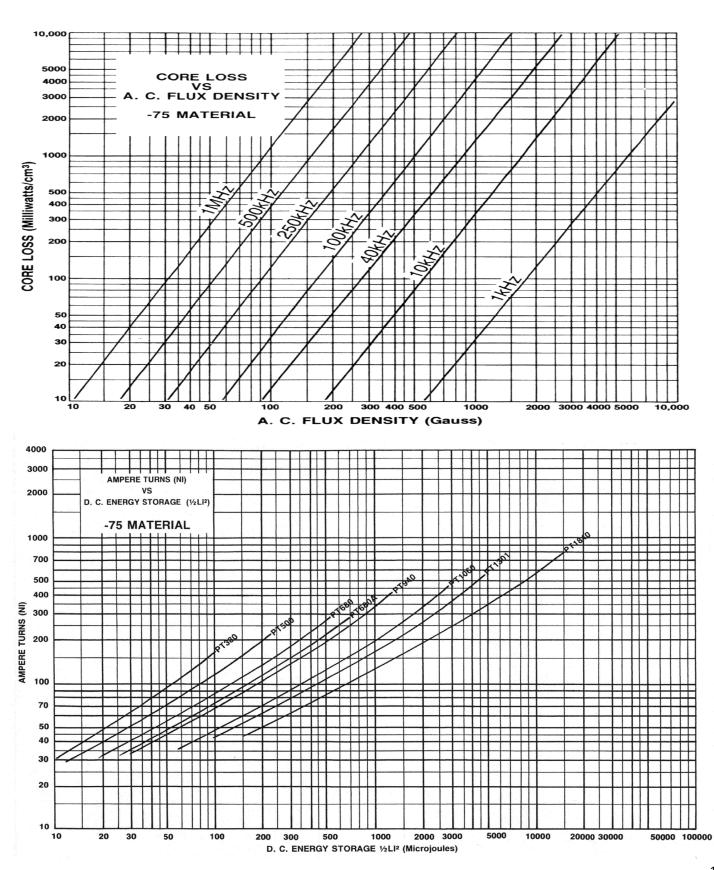


9



Iron Powder Core Material

75 Permeability

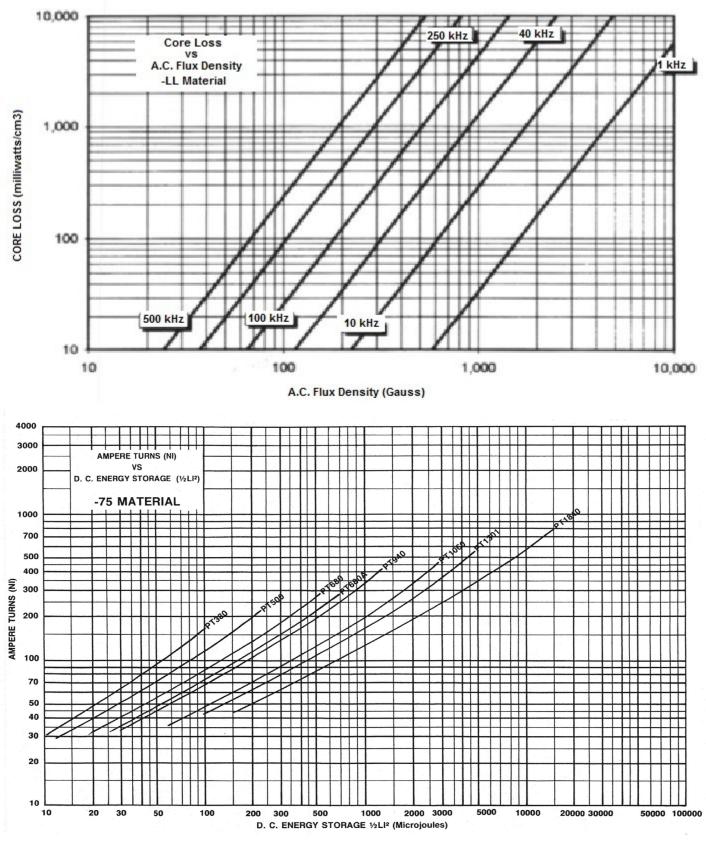




Iron Powder Core Material

75 Permeability

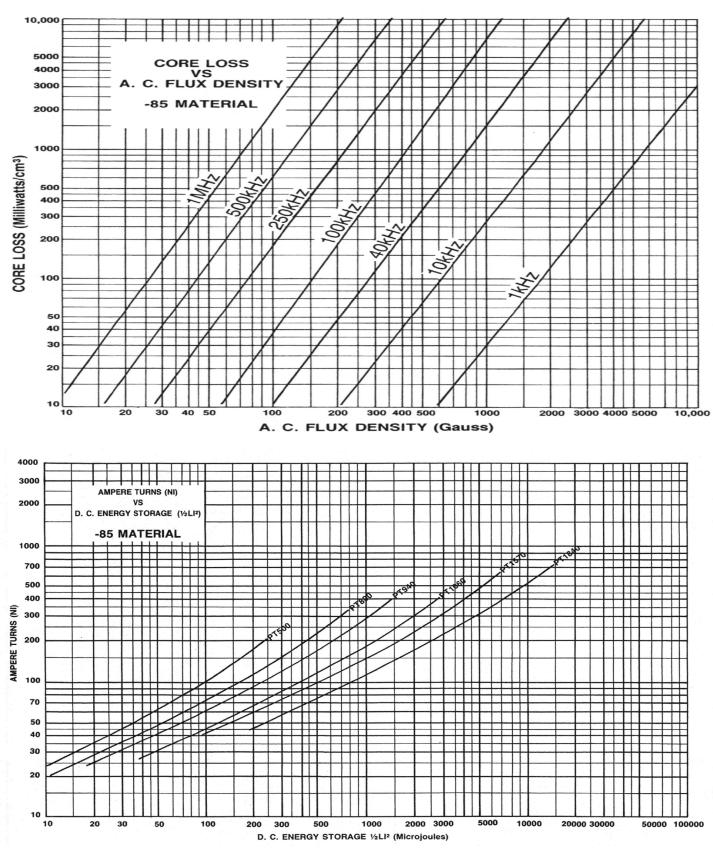
-LL





Iron Powder Core Material

**85** Permeability



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### Carbonyl

Iron Powder Core Material

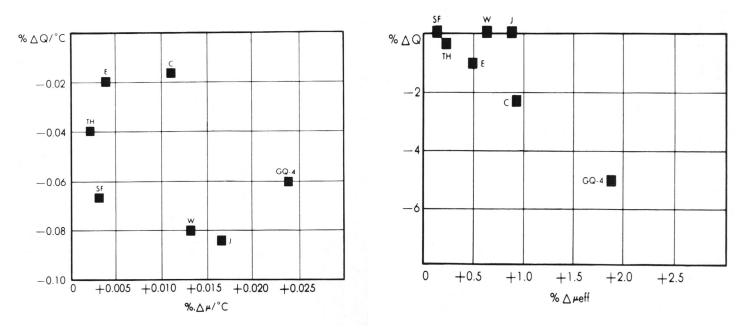
Stability & QRange.

Temperature Stability

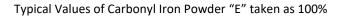
Typical rate of change of "Q" vs typical rat of change of permeability.

#### Stability to Magnetic Shock

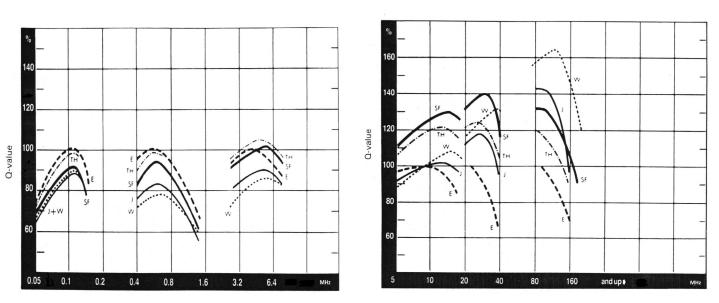
Measured a 1Mhz, 3 minutes after a 100 oersted AC Field.



Q vs Frequency



Note: The percentages will not necessarily hold true for other core geometries but the interrelationship between grades should be constant



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Quality Policy

To provide the highest value magnetic materials to our customers through a combination of exceptional quality, price, delivery and service.

#### Pyroferric is compliant to ISO 9000 1994.

International Environmental Regulatory Compliance RoHS \* REACH \* ELV \* WEEE \* Halogen Free

Social Accountability Compliance

US Family and Medical Leave Act US Fair Labor Standards Act US Environmental Protection Agency US Occupational Safety and Health Administration US Clean Air Act US Equal Employment Opportunity Commission US National Primary Drinking Water Regulation US Conflict Free Minerals

Warranty / Disclaimer

"TSC International" expressly warrants to the "Buyer" for whom it manufactures, sells and delivers product made of magnetic materials will conform to specifications and drawings as published within the product catalog. Buyer specifications that have not been approved by the International Electronic Commission shall be considered as a custom product, and will be warranted by TSC International in a separate written agreement.

There are no other express or implied warranties which extend beyond the above-referenced warranty of conformance to the specifications and specifically. TSC International does not warrant that any product will be merchantable or fit for the particular purpose for which the purchaser, its successors, agents or affiliates, intends to use product. Before using these products, buyer agrees to determine suitability of the product for their intended use or application.

Buyer shall notify TSC International in writing (and reasonable detail) of any defect in any product within thirty (30) days after the delivery date thereof. If products do not conform to the specification and TSC determines to its satisfaction that the parts are defective, and the defect is not due to miss-use, accident or improper application, buyer's remedy shall be limited, at TSC international's sole discretion, to either (1)The return of such product in exchange for the return of, or credit for any payment received by TSC International relating thereto; (2) The replacement of such product; or (3) The repair of such product. TSC International shall pay reasonable shipping costs incurred in connection with the return, replacement or repair of any defective product. Solution to resolve defective product shall be within (60) days after written receipt of written notice from the buyer of such defect.

TSC International shall not be liable for any incidental or consequential loss, damage, or expense (including without limitation, economic loss or lost profits) of buyer for any defective product sold and delivered to the buyer regardless or, whether such loss, damage or expense results from breach of contract or warranty or commission of tort (including, without limitation, strict liability or negligence).

These products are not designed for use in life support appliances, devices or systems where malfunction of these products can reasonably be expected to result in personal injury, Buyers that are using or selling these products for use in such applications do so at their own risk and agree to indemnify TSC International for any damages resulting from such application.