

Micro Drive Filters

Current Ratings: 8,16,25,36,50,80,120,150,180,225 AMPS.

Operating Voltage: Single Phase - 230V A.C. Two Phase & Three Phase - 520 A.C.



The μ 100 filter has been specifically designed to overcome EMC problems inherently caused by the frequency converters in motor drive applications especially where size constraints are an issue.

This new range of micro size filters have high attenuation factors and high current capabilities without having a large profile. Motor drives electronically switch high voltages and currents to improve efficiency and reduce acoustic noise in the motor. This switching generates high levels of Radio Frequency Interference (RFI) and high energy surges which can disturb or damage other electronics circuits.

The μ 100 series is a single stage design in 2, 3 or 4 line formats, with excellent suppression characteristics particularly at 3 - 10 MHz where filtered drives tend not to perform and require effective attenuation.

The filter components are housed in compact chassis mounted, aluminium enclosures that allows side or base mounting, it is then encapsulated in a polyurethane potting compound to give excellent protection against shock and vibration. These combinations give a total range of over 40 filter applications.

GENERAL OVERVIEW

TYPICAL APPLICATIONS

- Variable speed motor controllers
- High current switch mode power supplies
- Thyristor driven equipment
- Air conditioners/Fan controllers
- Uninterruptable power supplies
- Pulse width modulation circuits

TECHNICAL ADVANTAGES

- High current capability
- Micro size
- High common & differential mode insertion loss
- Improved mid frequency performance
- Insulated safety screw contacts
- Side or base mounting
- Optional input transient suppression to-suit application

COMMERCIAL ADVANTAGES

- Assists compliance with the EMC directive
- State of the art technology ensures superior performance
- Competitively priced
- Micro size - Reduced weight - Cost effective component

REGULATIONS

From the 1st of January 1996 all electrical/electronic apparatus - with few exceptions - sold or taken into service within the European Community must comply with the essential requirements of the EMC directive 89/336/EEC. Failure to do so is a criminal offence in the U.K.

STANDARDS

The μ 100 range of filters are built in accordance with the relevant BS, VDE, UL, CE & CSA safety standards. All EMC Solutions filters & power supplies are designed to meet the latest requirements for Health and Safety, Particularly EN 133200. The μ 100 range is specifically designed to assist AC input - AC Output industrial frequency converters to meet European Emission standards. eg. EN55011, EN55014, EN55022, EN50081-2 and EN50081-1.



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TECHNICAL DATA

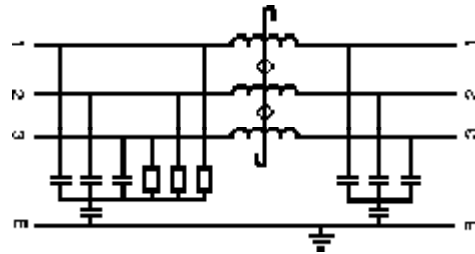
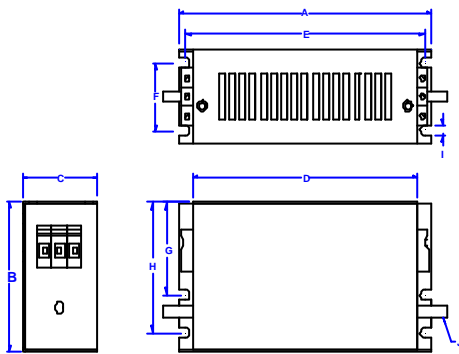
TECHNICAL SPECIFICATIONS

Current (Amps)	No of Lines	Operating Voltage or 50/60Hz	Max AC Volt Drop @ Full Load	Earth Leakage mA	Inductance Per line (Typical) mH	Transient Energy Absorption (Typical)	Storage Temp Range	Temperature Rise @ Full Load	Termination Type	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Dimensions H	Dimensions I	Dimensions J
8	2,3,4	230V - 520V	<0.6V/line	2-10	1.4	75J Optional	-25 to +85°C	<40°C	Insulated Screw Terminal (Phoenix Contact)	120	60	40	100	110	24	30	52	5	M4 x 15mm
16										120	60	40	100	110	24	30	52	5	M4 x 15mm
25										170	80	50	150	160	36	50	70	5	M6 x 20mm
36										170	80	50	150	160	36	50	70	5	M6 x 20mm
50										170	80	50	150	160	36	50	70	5	M6 x 20mm
80										230	130	70	200	214	50	60	105	6	M6 x 20mm
125										230	130	70	200	214	50	60	105	6	M6 x 20mm
180										300	200	100	260	276	80	20	150	6	M6 x 20mm
225										300	200	100	260	276	80	20	150	6	M6 x 20mm

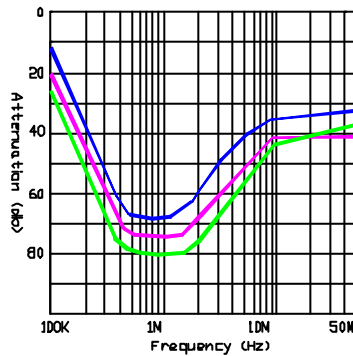
Fasteners supplied with earth stud

DIMENSIONS & ELECTRICAL SCHEMATIC

All dimensions in mm



PERFORMANCE CHARACTERISTICS INSERTION LOSS CURVES



8A-50A 80A-150A 180A-225A

ORDERING INFORMATION

U100/***/*/1/*

AMP RATING _____

NO OF LINES (2,3,4) _____

NO OF STAGES _____

OPTIONS (Listed below) _____

OPTIONS: T = Transient, E = Earth Line Choke, H = High Transient, M = Medical, - = No Options Required

e.g. U100/016/3/1/- (This is a 16A 3 Line Single stage unit with no options).

In addition to the standard range of filters & power supplies, EMC Solutions Ltd specialise in the design and manufacture of filters to suit your specific requirements. Due to continuous development EMC Solutions Ltd reserve the right to amend any information contained within this datasheet without prior notice.

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