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FILTER SPECIFICATION FOR 60 AMP FILTER CABINET

PART NUMBER: USC-W-60-B4 (Old PN USC-50-4X60)

PART DESCRIPTION: Filter Cabinet containing four (4) individual filter elements

rated up to 60 amps. Refer to accompanying diagram.

PRODUCT SUMMARY: EMI/RFI Power Line Filters are used to block unwanted

signals and remove interference from entering or exiting

through the power lines and meeting TEMPEST

requirements.

INSERTION LOSS: 100 dB from 14 KHz – 40 GHz

STANDARDS

MIL-STD-220C Method of insertion loss measurements for

Radio Frequency filters

MIL-F-15733 Military Specifications - General Specifications

for Filters and Capacitors, Radio Frequency Interference

MIL-STD-285 Shielded Effectiveness Testing

CONSTRUCTION: Power line penetration filters may be mounted through

the outer wall of a shielded enclosure. The filters are RFI secure and are supplied with threaded nipple. To

prevent shock hazards, filters will be supplied with bleeder

resistors.

ELECTRICAL

Current Rating:

The filters shall be capable of withstanding 140% of rated current for 15 minutes without any deterioration.

Insertion Loss:

The filters shall provide the specified insertion loss of 100 dB minimum over the indicated frequency range (14 KHz – 40 GHz) when measured in accordance with MIL-STD-220C.

Voltage:

The filters shall be capable of operating continuously at full-rated voltage and of withstanding an initial test of twice the rated voltage for one minute.

0-400 VDC 120/208 VAC (50/60 Hz) 277/480 VAC (50/60 Hz)

MECHANICAL

CASE:

The filter case shall be made of cold-rolled steel.

CONSTRUCTION:

Input and output terminals shall be completely enclosed in RF shielded compartments. Cover on the input compartment shall be screw-down type.

FINISH:

All filter cases shall be made corrosion-resistant with suitable plating.

IMPREGNANT:

The impregnant shall be non-flammable as classified by U.L. and MIL-F-15738.

TERMINALS:

The terminals shall be made of high temperature ceramic.

POWER FACTOR CORRECTION COILS

Will be required where limited generator output requires reduced reactive current.

Since screen room filters consist of inductors and capacitors, they apply a fixed reactive load to power lines. Filters which provide high attenuation at low frequencies present the greatest no-load current problems due to their large capacitive component.

If the power source has sufficient reserve to furnish the added reactive current, there is no difficulty. However, if the power source is limited, RF Power Factor Correction Coils must be used to cancel the undesirable capacitive-reactive load component.



