File E305198
Project 06CA29715

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REPORT

On

CAPACITORS, CONSTRUCTION ONLY - COMPONENT

Shenzhen Surong Capacitors Co Ltd
Shenzhen, 518110, China

DESCRIPTION

PRODUCT COVERED:

USR, CNR Component - Capacitors, Construction Only, Cat. No. CBB6.

ELECTRICAL RATINGS:

Capacitor Model No.	Capacitor Type: Dry – D; Oil Fill - OF	Input		Capacitance, uF
		Voltage V ac	Frequency Hz	
CBB6	D	400, 450	50/60	0.5 ~ 10

GENERAL CONSTRUCTION:

For general construction employed on these capacitors, refer to Section General at the beginning of the volume.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

USR indicates investigation to UL 810, standard for Capacitors, Fifth Edition.

CNR indicates investigation to Canadian Standard C22.2 No. 190-M1985, Capacitors for Power Factor Correction.

Spacings – Spacings have been evaluated in accordance with UL 810, standard for Capacitors, Fifth Edition, Sec. 8 and in accordance with UL840, the Standard for Insulation Coordination Including Clearances and Creepage Distance for Electrical Equipment, Third Edition, Tables 7.1 and 9.1.

Conditions of Acceptability – When installed in the end-use equipment, consideration shall be given to the following.

1. This Report covers only the general construction of the capacitor per the requirements in UL 810, Fifth Edition, Part 1. No evaluation of any internal or other fault protection mechanisms employed in the capacitors and no evaluation of the performance during short-circuit conditions has been conducted. The need to evaluate for short circuit conditions and the suitability of any internal fault or other protection mechanism shall be determined in the end-use application.

2. A minimum electrical air spacing between the terminals and end product enclosure when measured in a direction perpendicular to the capacitor cover (mounting surface of the terminals).

Total Spacings		Maximum Voltage
1/2 in. (12.7mm) (or end-use application spacings)		301-660

Note: These are spacings in the end installation and are not the inherent spacings of the capacitor. See Section General for required capacitor spacings.

3. For Cat. No.CBB6, the open circuit voltage of the capacitor terminals shall not exceed 450Vac.

4. The manufacturer's assigned capacitance and temperature rating have not been evaluated and the suitability shall be determined in the end-use application.

5. The level of protection against corrosion has not been evaluated and shall be determined suitable for the end-use application.

6. The need for a discharge means for the capacitor shall be determined in end-use application.

7. The maximum operating temperature 70°C is as noted on the markings which is based on the RTI (relative thermal index) without impact.

8. The means of the conductor connection to the capacitor terminals (if provided) shall be determined suitable for the end-use application.

9. For units provided with insulated leads: The lead temperature rating of 105°C shall be determined acceptable in the end-use application.

10. The suitability of the mounting means shall be investigated in the end-use application. The means of mounting in the end-use application shall not cause deformation of the capacitor case.

11. The need for a suitable enclosure shall be determined in the end-use application.

12. When mounted in the end product, the suitability of the electrical spacings between live parts of the capacitor and dead-metal parts of the end-use application shall be determined.

13. The capacitors had been evaluated for use in a Pollution degree 2 and material group III environment.

MARKINGS:

See section general for details.

There are no markings on these capacitors such as AFC ratings or the words “protected” or equivalent to indicate that they have been evaluated for short circuit protection.

CONSTRUCTION DETAILS:

Illustrations - The following illustrations are included in this Report.

Description		ILL. Number
Dimension Table for Model CBB6 Series		1
Construction Drawing of Model CBB6 Series		2

Model Difference – Model CBB6 series is identical except the voltage rating, capacitance and enclosure size.

CAT. NO. CBB6 – FIG. 1

General - The general design, shape and arrangement shall be as illustrated except where variations are specifically described. Fig. 1 illustrates the overall and interior construction of Cat. No. CBB6.

1. Case – Rectangle shaped, R/C(QMFZ2, QMFZ8), File No., designation, minimum thickness and details are as noted in below table.

Polymeric

Model	Material Designation	Minimum Thickness, mm	Color	Min. Rated (mechanical without impact)	File NO.
CBB6	PBT-RG151(r1)	0.3	All	V-0, 75°C	E171666

2. Potting Compound – R/C (QMFZ2), details see below. Filled to Cover of case which secures element and leads in place.

Potting Compound

Material Mfg.	Minimum Thickness mm	HWI	HAI	Color	Material Designation	Rated	File No.
GUANGZHOU ECONOMIC & TECHNOLOGY DEVELOPMENT DISTRICT JUHE CHEMICAL CO LTD	0.8	3	0	All	5225 A/B	V-0 (130°C)	E204979

3. Terminals – Two provided, copper alloy, 0.020 in. (0.51 mm) thick minimum. Each having two integral tabs. Sized and rated for the electrical ratings as noted on the product.

Alternate – R/C Gauge size, temperature and electrical ratings of leads shall minimally meet the temperature and electrical ratings of the capacitor as noted below Table.

Table

Gauge Size: No. AWG(Model)	Temperature rating, °C	Electrical Rating, V
18, AVLV2/8, (1015)	105	600

Alternate – Two provided, each having two bare metal leads.

4. Element – Metallized polypropylene film, wounded together with zinc sprayed on both ends.

5. Mounting Plate – One provided, assembled on the top, planted in case, secured by epoxy, the same direction as terminal. Copper alloy, 12mm high by 12mm wide.

6. Namplate – Details see Ill.3