TRISHALA ELECTROLYTICS PVT LTD
BANGALORE- 560044

Sarada Capacitors

AC MOTOR START ALUMINIUM ELECTROLYTIC CAPACITORS
(Aluminum Body / Bakelite (Phenolic) Body)

Scope	Aluminum electrolytic Motor Start Capacitors are used in Single Phase Motors for generating the starting torque by connecting capacitors in series to the starting coil (Auxiliary Winding) of the motor. When motor reaches synchronous speed the capacitor is disconnected from the circuit. The capacitors are meant for Intermittent duty only.
Specification	(1) Type – Aluminum Electrolytic (2) Design – Series design with two Etched & Formed Anode foils & common Cathode foil (3) Compliances – (a) Product conform to IEC60252-2 (b) 'CE' Approval by TNV (c) ' RohS' Approval by TNV (d) ' UL' Approval, File no –E485436
Working Voltage	(1) 110 / 125 V AC at 50/60 Hz with Surge Voltage 150 / 170 V AC (2) 230 / 250 V AC at 50/60 Hz with Surge Voltage 275 / 300 V AC (3) 330 V AC at 50/60 Hz with Surge Voltage 400 V AC.
Capacitance Range	(1) Aluminum Body: (a) 20-30mfd to 780-930mfd in 110/125 V AC (b) 20-30mfd to 280-350mfd in 230/250 V AC (c) 20-30mfd to 150-200mfd in 330 V AC (2) Bakelite (Phenolic) Body: (a) 30-36mfd to 1250-1350mfd in 110/125 V AC (b) 30-36mfd to 360-430mfd in 230/250 V AC (c) 30-36mfd to 200-250mfd in 330 V AC
Case Size In mm	(1) Aluminum Body - 35 φ ×55 L Max to 45 φ ×100 L Max (2) Bakelite Body - 35 φ ×70/86 L to 52 φ ×111 L
Power Factor	(1)Power factor 50/60Hz, 25ºC ± 5 ºC at rated & surge voltage } ≤ 6% (2) Power factor 50/60Hz at Maximum operating temperature } ≤ 12% Power factor measured by wattmeter, ammeter & voltmeter method.
Leakage Current	After 5min charging on application of Dc voltage 1.414 times AC rated voltage. (1) 20 mfd to 250mfd ≤ 1mA (2) 251mfd to 500mfd ≤ 1.5mA (3) 251mfd up to 1350mfd ≤ 2mA

Operating temperature range	- 30ºC to +70 ºC for UL capacitors +70 ºC / +85 ºC
Damp heat stability (climatic category)	30/70/21
Operating life	Operating life (Duty cycle test) at 65 ºC (1) For 110/125 V AC (Cycle : 1 sec 'ON' 29 sec 'OFF') } **75000** cycles of 30 seconds duration (2) For 230/250 V AC & 330 V AC (Cycle : 1 sec 'ON' 59 sec 'OFF') } **40000** cycles of 60 seconds duration After Duty Cycle test : } Change in capacitance value is within 3% Change in Power factor is within 12%
Shelf Life	1000 Hour at 70 ºC. It is suitable for storage for 1year without deterioration in its Electrical parameters if stored below 40 ºC
Safety	(1) Insulation Voltage : Capacitors shall be capable of withstanding without breakdown for 60 sec a test between terminal and the case with 2000V sinusoidal AC voltage of 50Hz . If the outer case is metal, the voltage is applied between the outer case & the terminals and if the outer case is insulating material a metal foil is wrapped tightly and round the case and the voltage is applied between the foil and terminal.
	(2) Insulation Resistance : Minimum 100MΩ between Lead and the Case.
	(3) Polarity: May be connected in either way.
	(4) Safety Vent : Safety vent provided in Rubber Bakelite (RB) disc.
	(5) Over voltage Safety : (a) If 1.2 times rated voltage applied, the capacitor shall fail after 120 Sec (b) If 1.4 times rated voltage applied , the capacitor shall fail after 30 sec
	(6) Failure Mode. The capacitor shall fail after life (duty cycle) test or continuous rated /over Voltage test by releasing the pressure through safety vent only. Failure mode is in open circuit (P2) without releasing hazardous substances & without catching fire.
Guarantee	Product shall be guaranteed for its performance as per IEC 60252-2

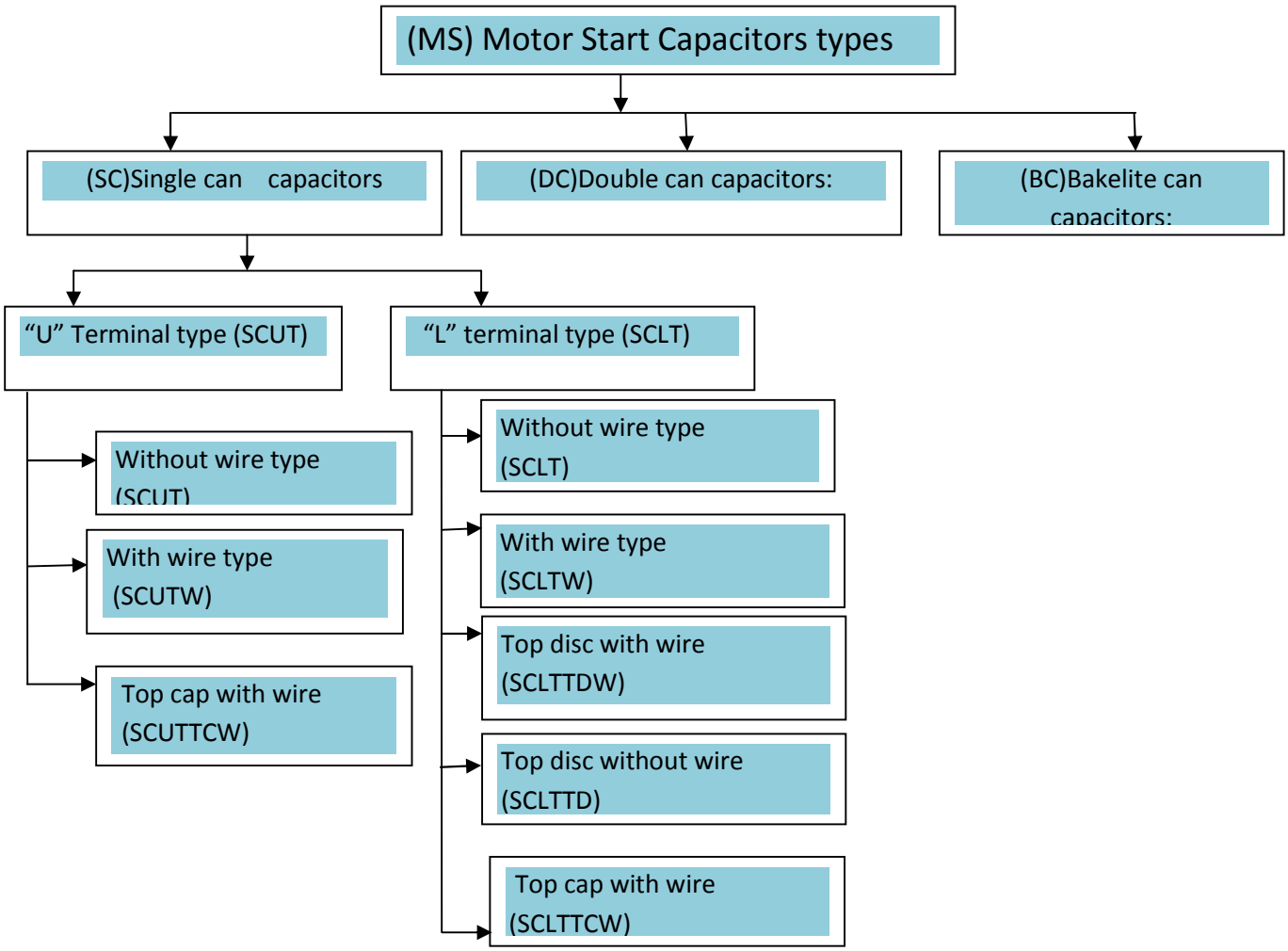
Table showing Case Size & Micro Farad values for 110/125 V AC 230/250 V AC 330 V AC

Aluminum Case (single case)

MFD VALUES	110/125 V AC	230/250 V AC	330 V AC
	Case Size(in mm)		
20-30	35 φ ×55 L	35 φ ×55 L	35 φ ×56 L
40-60	35 φ ×55 L	35 φ ×55 L	35 φ ×56 L
50-63	35 φ ×55 L	35 φ ×55 L	35 φ ×56 L
60-80	35 φ ×55 L	35 φ ×55 L	40 φ ×75 L
80-100	35 φ ×55 L	35 φ ×75 L	40 φ ×100 L
100-120	35 φ ×55 L	35 φ ×75 L	40 φ ×100 L
120-150	35 φ ×75 L	40 φ ×75 L	40 φ ×100 L
150-200	35 φ ×75 L	40 φ ×100 L	45 φ ×100 L
200-250	35 φ ×75 L	40 φ ×100 L	---
280-350	40 φ ×75 L	45 φ ×100 L	---
360-430	40 φ ×75 L	---	---
450-520	40 φ ×75 L	---	---
530-630	45 φ ×75 L	---	---
640-780	45 φ ×75 L	---	---
780-930	45 φ ×100 L	---	---

Bakelite Case (Without cap)

MFD values for deferent voltage ratings			Case Size(in mm)
110/125 V AC	**230/250 V AC**	**330 V AC**	
30/36mfd to 150/200 mfd	30/36mfd to 90/110 mfd	30/36 mfd to 50/6 3mfd	36 φ × 70/86 L
200/250mfd to 430/480 mfd	110/135mfd to 135/165 mfd	63/72 mfd to 90/110 mfd	46 φ × 86 L
530/630 mfd to 780/930 mfd	165/200mfd to 360/430 mfd	110/135 mfd to 165/200 mfd	46 φ × 111L
950/1050 mfd to 1250/1350mfd	430/500mfd to 520/610 mfd	200 mfd to 250 mfd	52 φ × 111 L



Note:

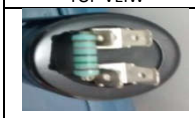
1) All the above types with ‘UL’ marking capacitors available.

2) Capacitors type with wire is available: without connectors or with connectors.

3) 3 types’ connectors are available: lug type, eyelet type, flag type.

4) Single can “U” terminal type (SCUT) are available with resister / without resister.

Photos

SCUT	SCUTW	SCUTTCW	SCLT	SCLTW	SCLTTD	SCLTTDW	SCLTTCW
TOP VEIW	TOP VEIW	TOP VEIW	TOP VEIW	TOP VEIW	TOP VEIW	TOP VEIW	TOP VEIW
							
FRONT VEIW	FRONT VEIW	FRONT VEIW	FRONT VEIW	FRONT VEIW	FRONT VEIW	FRONT VEIW	FRONT VEIW
							

(DC)Double can capacitors:	(BC)Bakelite can capacitors:	'UL' Mark Capacitor (for Export under multi listed Name)	'UL' marked capacitors:
TOP VEIW	TOP VEIW	TOP VEIW	TOP VEIW
			
FRONT VEIW	FRONT VEIW	FRONT VEIW	FRONT VEIW
			