

TECHNICAL DATASHEET

DD60 Series Capacitor

for Power Factor Correction and Harmonic Filters

Type

LKT 1.5-600-DD60

Article No.

31-10940

Applicable Standards

UL 810
CSA 22.2 (No. 190-M1985)
IEC / EN 60831-1 and -2

Agency Approvals



Conformity



Construction

Dry Type capacitor with impregnated windings and flame inhibiting mineral filler.

No PCBs, no inert gas, no SF6 gas.

Safety Features

Self-healing polypropylene film

Segmented metallized film

3-phase overpressure disconnecter

Electrical Data

Rated Voltage	V_{Nom}	600 V
Maximum Voltage (continuous)	$V_{Max\ cont.}$	660 V
Rated Frequency	f_N	60 Hz
Rated Power	Q_C	1.5 kvar
Rated Capacitance	C_N	3 x 3.7 μF
Tolerance (μF and kvar)		-0 to +5 %
Internal Connection		delta
Nominal Current	I_{Nom}	1.4 A
Maximum Current (continuous)	I_{Max}	2.3 A (1.65 x I_{Nom})
Equivalent Series Resistance (1 kHz)	ESR	3 x 14.3 m Ω
Power Losses (dielectric)	$\tan \delta_0$	≤ 0.2 W / kvar
Power Losses (total)	$\tan \delta_1$	≤ 0.5 W / kvar
Residual Voltage within 60 seconds discharge		≤ 50 V

Maximum Ratings

Maximum Voltage (8 hours per day)	V_{8h}	726 V
Maximum Voltage (30 minutes per day)	V_{30m}	759 V
Maximum Voltage (5 minutes)	V_{5m}	792 V
Maximum Voltage (1 minute)	V_{1m}	858 V
Maximum Inrush Current	I_S	319 A (228 x I_{Nom})
Insulation Voltage	V_i	4.3 / 12 kV

Routine Test (each capacitor)

Test Voltage (Terminal / Terminal)	V_{TT}	1419 V for 2 seconds + 1221 V for 18 seconds
Test Voltage (Terminal / Case)	V_{TC}	4,300 V for 2 seconds [UL requires V_{TC} 2,640 V for 1 second]

FRAKO also performs a case seal test plus measurements of capacitance, loss factor and resistance

Environmental Data

Temperature Class		-40/60	
Ambient Temperature min / max (continuous)		-40 / +60 °C	-40 / +140 °F
Case Temperature max	T_C	+75 °C	+167 °F
Storage Temperature min / max		-40 / +85 °C	-40 / +185 °F
Humidity max (non-condensating)		95 %	
Altitude max		4,000 meter	13,123 feet

Life expectancy

Life Expectancy when operated within spec. 130,000 hours*

*maximum 40,000 switching operations per year

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Design Data

Dimensions (d x h)

85 x 215 mm

3.35 x 8.46 inch

Height including terminal

250 mm

9.84 inch

Weight (including terminal)

1.50 kg (1.55 kg)

3.31 lbs (3.42 lbs)

Mounting

Threaded bolt M12 (1.75 pitch), length 16 mm

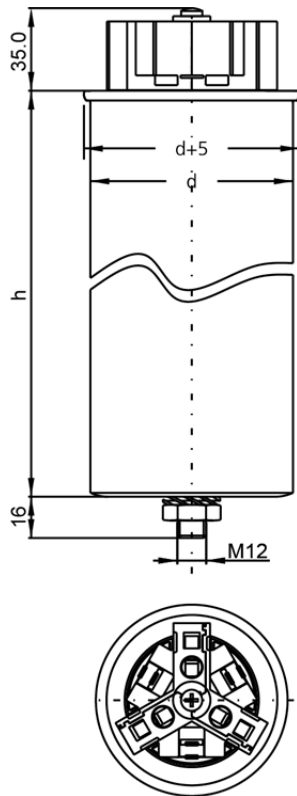
Tightening torque

15 Nm

Mounting position

Vertical and horizontal

Drawing



Connection Terminal

Type

Screwless pressure connection

Conductor size (range accepted by terminal)

1.5 to 16 mm²

AWG 15 to 6

Conductor types (accepted by terminal)

solid, stranded and flexible

Degree of protection

IP 20 (fingersafe)

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