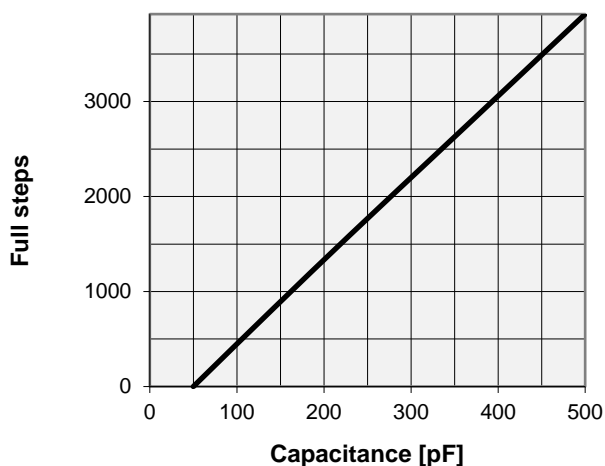


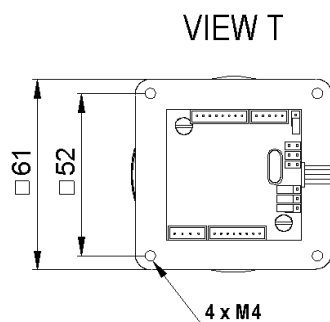
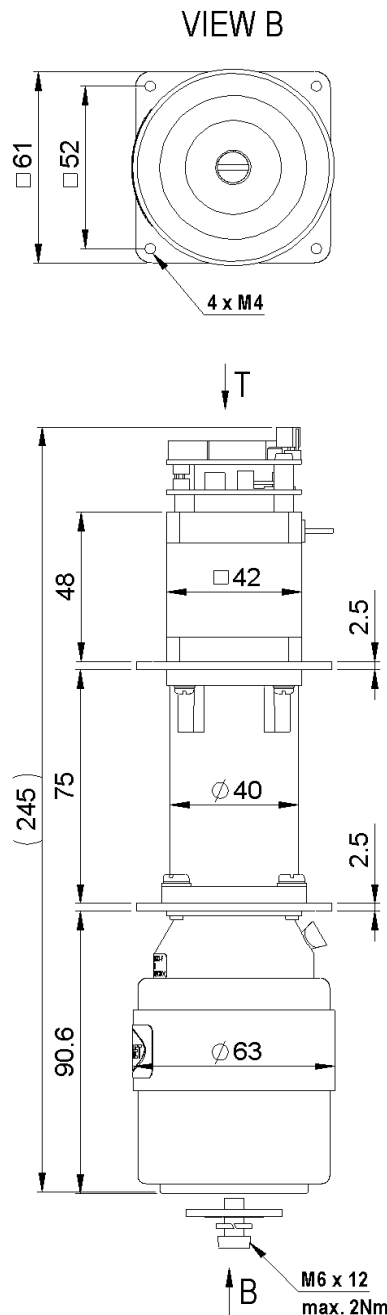
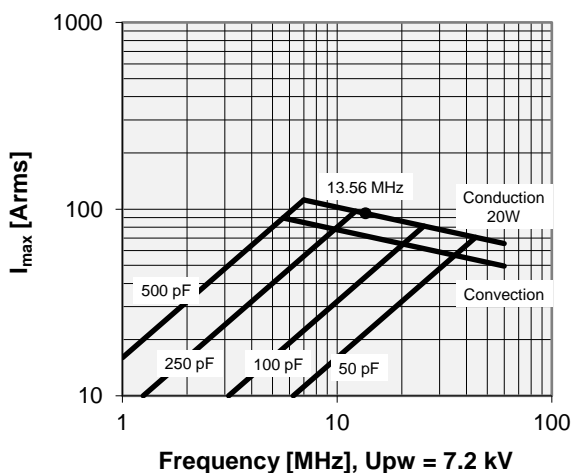
CMUN-500BC/12-X1-F

Capacitor Specifications

Capacity C_{max} (nominal)	500 pF
Capacity C_{min} (nominal)	50 pF
Voltage (Peak Test U_{pt} / Peak Working U_{pw})	12 kV / 7.2 kV
Ground to variable end insulation (Peak Test)	10 kV
Capacity Tolerance (linear Range)	1%
Max. Current I_{max} at 13.56 MHz with	94 Arms
Conduction Cooling	20 W
Self Inductance	≤ 10 nH
Capacitance per 100 steps	11.5 pF
Net Weight	1.2 kg
Ground to variable end capacitance	≤ 5 pF



I_{max} at 25°C ambient and 125°C surface temp. for convection and conduction (20 W) cooling



Note:
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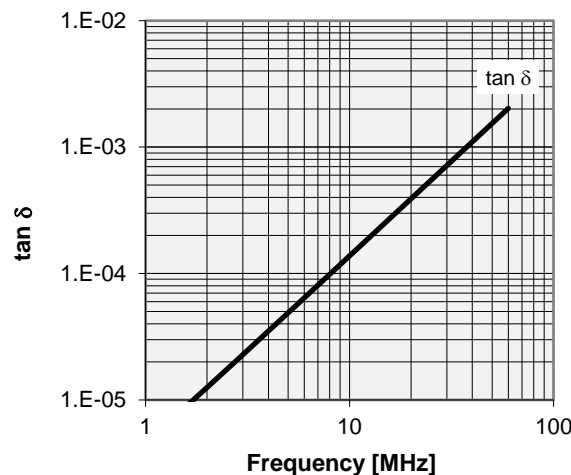
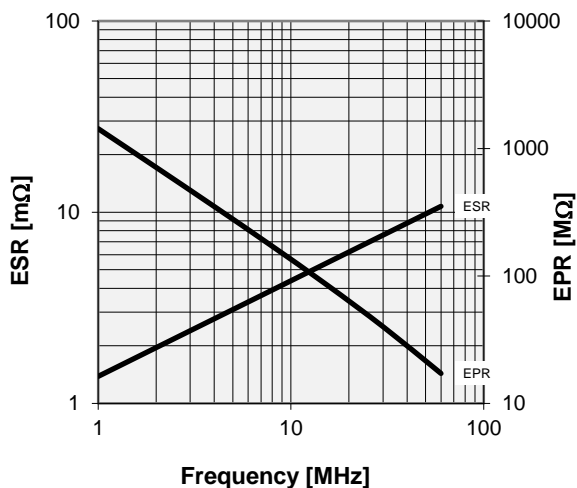
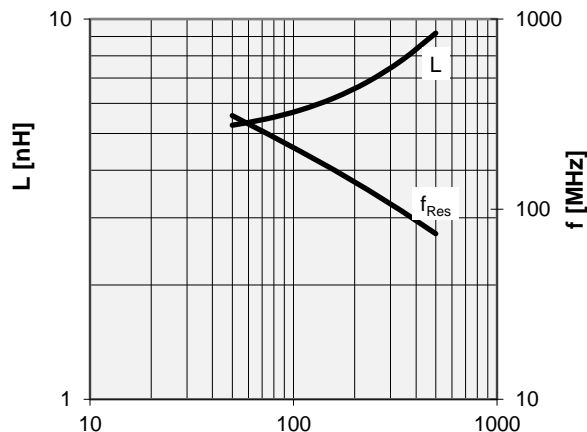
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Full steps	Nominal Capacitance [pF]	Tolerance
0	50.0	+/- 1pF
800	139.5	1%
1600	230.5	1%
2400	323.5	1%
3200	416.5	1%
3920	500.0	1%

Mechanical stop Cmin. at < 50pF
 Mechanical stop Cmax. at > 500pF

Self inductance and resonance frequency



General handling information for the integrated drive

When installing or removing the integrated drive, extreme care must be taken to avoid damage to the body of the integrated drive. Although the integrated drive look very rugged from the outside it must be remembered that, due to the brazing process used to join ceramic and copper, the copper is in a soft, annealed condition and is therefore highly susceptible to mechanical deformation. For this reason, any rough handling, like machining of the flanges, must be avoided. Use existing threads and holes for fixation.

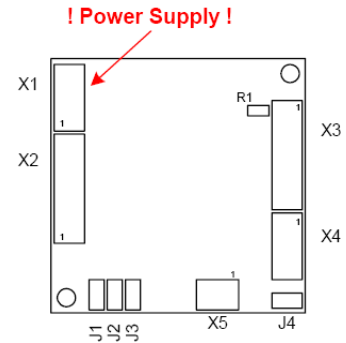
General installation information for the integrated drive

For all integrated drives we recommend that one side be mounted non-rigid to prevent excessive thermomechanical and external forces from acting on the capacitor.

CMUN-500BC/12-X1-F

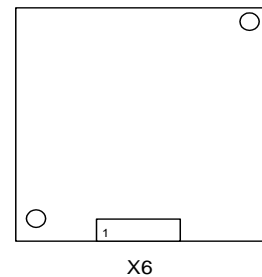
Drive Specification	
Tuning speed (end to end)	3 s
Backlash	≤ 2 steps
Operation mode	Bipolar
Nr. of phases	2
Current per phase	2.8 A
Supply voltage (DC)	24 V
Full step angle	1.8°
Motor frame size	42 mm

Layout of the microcontroller PCB



X1 Power supply			
Pin 1	VCC	+7...28 V	
Pin 2	VCC	+7...28 V	
Pin 3	GND	+0 V	
Pin 4	GND	+0 V	

X2 Additional I/O - Connector			
Pin 1	Left limit switch	-	
Pin 2	Right limit switch	-	
Pin 3	GND	+0 V	
Pin 4	General purpose output	-	
Pin 5	VCC	+7...28 V	
Pin 6	GND	+0 V	
Pin 7	General purpose input	-	
Pin 8	DC output	+5 V(max. 20mA)	



X3 Interface to motor driver - Connector				
Interface Typ	RS-232	R-485	Step / Direction	CW / CCW
Pin 1	TxD	+0V (GND)	+0V (GND)	+0V (GND)
Pin 2	RxD	+0V (GND)	+0V (GND)	+0V (GND)
Pin 3	+0V (GND)	A (+)	+0V (GND)	+0V (GND)
Pin 4	+0V (GND)	B (-)	+0V (GND)	+0V (GND)
Pin 5	+0V (GND)	+0V (GND)	Step	+0V (GND)
Pin 6	+0V (GND)	+0V (GND)	+0V (GND)	CW
Pin 7	+0V (GND)	+0V (GND)	Direction	+0V (GND)
Pin 8	+0V (GND)	+0V (GND)	+0V (GND)	CCW

X6 Additional I/O - Connector	
Pin1	OA1 (motor / red)
Pin2	OA2 (motor / blue)
Pin3	OB1 (motor / green)
Pin4	OB2 (motor / black)

X4 not used; X5 not used

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