

# C-TEC SERIES OF DC BUFFER MODULES WITHOUT BATTERIES USING ULTRA CAPACITOR TECHNOLOGY

Battery free DC buffer modules utilizing Ultra capacitors.  
Maintenance free with compact design to IP20.  
With up to 20 years life depending on temperature.

Wide operating temperature range -40 deg C to +60 deg C.  
No gas emissions and can be used in enclosed cabinets.

Fast recharge cycle after discharge.  
Deep discharge protection.



The C-TEC series of DC buffer modules works using Ultracapacitors for energy storage within the housing. If the DC power is interrupted the energy stored in the Ultra capacitors is released. The load is energised from the buffer module until it is discharged. The back-up time is dependant on the state of charge of the capacitors and on the discharge current. Compared with normal buffer modules with capacitors the new C-TEC range offers longer back up times. This is dependant on the energy of the capacitors and is calculated as follows:

$$\text{Back up time} = \frac{\text{energy}}{\text{voltage} \times \text{current}} ; \quad \text{with fully charged capacitors} \quad \frac{10000 \text{ Joule}}{24\text{V} \times 10\text{A}} = 50 \text{ seconds}$$

## 12V DC and 24V DC input/output

Reference	Nominal input V	Accumulated energy in Ws	Output V in buffer mode	Nominal Output current	Dimensions in mm D x W x H: (kg)
CTEC 2403-05	24V DC +/-20%	500	23.2V DC	3A	93 x 60 x 116: 0.5
CTEC 2403-1	24V DC +/-20%	1000	23.2V DC	3A	93 x 60 x 116: 0.55
CTEC 1203-05	12V DC +/-20%	500	11.75V DC	3A	93 x 60 x 116: 0.5
CTEC 1203-1	24V DC	1000	11.75V DC	3A	93 x 60 x 116: 0.55
CTEC 2405-5	24V DC	5000	23.2V DC	5A	165 x 114 x 145: 1.8
CTEC 2408-20	24V DC	20000	23.2V DC	8A	165 x 184 x 145: 2.8
CTEC 2410-1	24V DC	1000	23.2V DC	10A	165 x 70x 138: 0.3
CTEC 2410-10	24V DC	10000	23.2V DC	10A	165 x 114 x 145: 2.1
CTEC 2420-8	24V DC	8000	23.2V DC	20A	192 x 84 x 192: 1.8



## AC input with 12V DC and 24V DC output

Reference	Nominal input V	Accumulated energy in Ws	Output V in buffer mode	Nominal Output current	Dimensions in mm D x W x H: (kg)
ACCTEC 2403-1	115-230V AC 1ph	1000	23.2V DC	3A	153 x 72 x 130: 1.2
ACCTEC 1203-1	115-230V AC 1ph	1000	12.2V DC	3A	153 x 72 x 130: 0.8
ACCTEC 2410-1	115-230V AC 1ph	10000	23.2V DC	10A	153 x 72 x 130: 0.8
ACCTEC 2420-8	350-550V AC 3ph	8000	23.2V DC	20A	192 x 170 x 198: 0.8



## Capacitor extension modules

Reference	Nominal input V	Accumulated energy in Ws	Input voltage range	Nominal Output current	Dimensions in mm D x W x H: (kg)
CEM 1	24V DC	1kJ 1000Ws	0-26.4V DC	3A DC	92.5 x 60 x 116: 0.85
CEM 2	24V DC	2kJ 2000Ws	0-26.4V DC	3A DC	92.5 x 60 x 116: 1.0
CEM 8	24V DC	8kJ 8000Ws	0-26.4V DC	20A DC	192 x 84 x 192: 1.4
CEM 16	24V DC	16kJ 1600Ws	0-26.4V DC	20A DC	192 x 84 x 192: 1.9
CEM 12V06	12V DC	0.6kJ 600Ws	0-13.2V DC	3A DC	92.5 x 60 x 116: 0.7
CEM 12V12	12V DC	1.2kJ 1200Ws	0-13.2V DC	3A DC	92.5 x 60 x 116: 0.95

