



## DC 83 P and DCH 83 P series

*DC-Link Capacitors, high density and low inductance,  
resin filled in box plastic case*

This Cubic Box variant is powered by the tried and proven Ducati Energia PPMh technology making it a competitive and reliable solution to all common DC-Link applications.

When coupled with the exclusive Ducati Energia High Crystallinity Film the DC 85 B construction provides superior temperature performance with 100khrs life @ 90°C HotSpot or extended life of 400khrs @70°C HotSpot.

The exclusive Ducati Energia metallization profiles guarantee high capacity stability and a controlled, open-circuit condition at the end of DC 85 B operational life, while maximizing the current capability.

Main characteristics:

- High Capacity Density
- Self-Healing Metallized Polypropylene Film
- V0 Plastic Case
- DRY Resin filling
- Low ESL

Main applications:


- DC-Link
- Energy Storage / Pulse Generation

DC 85 B Versions with Ducati Energia High Crystallinity Film:

- Standard Life expectancy 100.000hrs at 90°C HotSpot
- Extended Life expectancy 400.000hrs at 70°C HotSpot



### General Characteristics

DC Voltage range	550 - 2350 V
Maximum ripple current (I <sub>max</sub> )	165 Arms
Capacitance range	0,1 - 2,0 µF
Equivalent series inductance (ESL) - typical	30 nH
Tinned copper terminals	M8x10 internal thread
Container	Self-extinguishing (UL94 V0) plastic box
Filling	Self-extinguishing (UL94 V0) Polyurethane resin
Film Dielectric type	PPMd film (*)
Maximum altitude	2000 m a.s.l.
Mounting position	Any position
Maximum torque for fixing slots	10Nm
Maximum torque for M8 terminals	4 Nm
Working ambient temperature	-25 .. +50 °C
Operating temperature MAX/ MIN (case)	-25 .. +85 °C
Maximum Hotspot temperature	+85 °C
Storage temperature	-25 .. +85 °C
Humidity category class (DIN 40040)	F
Life expectancy (@Un / 70°C hot spot)	100.000 h
Failure quota	50FIT
Reference standards	IEC 61071-1/2 IEC 61881 UL810
Material and insulation distance designed according to:	UL 810
In according to fire protection standard	 EN 45545-2

Crepage Distance (mm) 35

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**Safety system:** These capacitors are designed with a particular type of polypropylene metalized film (PPMd film) that assures an open circuit at the end of life, if the operation is within the specification.



## DC 83 P

Capacitance Cn [µF]	Rated DC Voltage Un [V]	Repet. Peak Voltage Up [kV]	Surge Voltage Us [kV]	Max. RMS Current I <sub>MAX</sub> [A]	Repet. Peak Current Ip [kA]	Surge Current Is [kA]	Series Resistance Rs [mΩ]	Thermal Resistance R <sub>THS</sub> [°C/W]	Weight [kg]	Part n. 416.83.
1850	550	0.8	1.2	165	14.8	24	< 0.36	3,60	< 3	1900
1500	700	1.0	1.5	165	16.5	25	< 0.38	3,60	< 3	2900
1050	900	1.3	1.9	155	14.7	23	< 0.43	3,60	< 3	3900
700	1100	1.5	2.3	150	14.0	22	< 0.45	3,60	< 3	4900
580	1250	1.8	2.6	145	14.5	21.5	< 0.48	3,60	< 3	5900
460	1400	2.0	2.9	140	12.9	20.5	< 0.52	3,60	< 3	6900
340	1600	2.2	3.4	135	11.9	18	< 0.55	3,60	< 3	7900
240	1800	2.5	3.8	130	9.6	15	< 0.62	3,60	< 3	8900
190	2100	2.9	4.4	120	8.0	13	< 0.68	3,60	< 3	9900

## DCH 83

Capacitance Cn [µF]	Rated DC Voltage Un [V]	Repet. Peak Voltage Up [kV]	Surge Voltage Us [kV]	Max. RMS Current I <sub>MAX</sub> [A]	Repet. Peak Current Ip [kA]	Surge Current Is [kA]	Series Resistance Rs [mΩ]	Thermal Resistance R <sub>THS</sub> [°C/W]	Weight [kg]	Part n. 416.83.
1850	650	0.9	1.4	155	16.7	25	< 0.41	3,60	< 3	1900
1350	850	1.2	1.8	150	14.9	25	< 0.43	3,60	< 3	2900
1050	1000	1.4	2.1	150	13.7	22	< 0.45	3,60	< 3	3900
670	1250	1.8	2.6	145	12.1	19.5	< 0.47	3,60	< 3	4900
550	1400	2.0	2.9	140	11.0	18	< 0.52	3,60	< 3	5900
460	1550	2.2	3.3	135	10.6	17	< 0.55	3,60	< 3	6900
340	1800	2.5	3.8	125	9.5	15	< 0.62	3,60	< 3	7900
240	2100	2.9	4.4	120	8.4	13	< 0.68	3,60	< 3	8900
190	2350	3.3	4.9	115	7.6	12	< 0.76	3,60	< 3	9900

### NOTES:

- (Cn) Tolerance standard value: -15 ... +0%. Other tolerance values on request.
- (Cn) - (Un) Capacitance and rated voltage standard values, other values on request.
- (Rs) Related at 1 KHz.
- (R<sub>THS</sub>) Thermal resistance AMBIENT - HOT SPOT (air forced cooling system).
- (I<sub>MAX</sub>) Maximum RMS Current @ 50°C ambient temperature.

<b>Box TYPE</b>	
<b>Standard box dimensions</b>	mm 450 x 470 x 220
No. pieces x box:	8

