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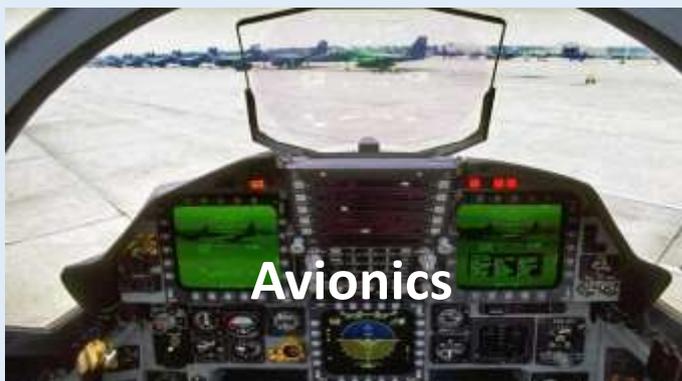
Advanced
Capacitors
for Demanding
Applications



Phased Array Radar



Laser Targeting



Avionics



Space Station



Oil & Gas Exploration



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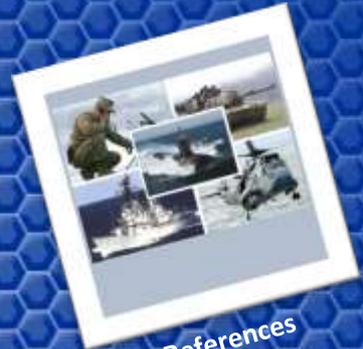
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APPLICATIONS

PHASED ARRAY RADAR

E2D

CJR-- COBRA JUDY REPLACEMENT

WEDGETAIL, MEADS, NGJ



LASERS

AIRBORNE Targeting Pods (ATP) – ALL

HANDHELD Targeting STORM, LLDR

LIDAR – ISS, LASER research



TRADITIONAL CAPACITOR APPLICATIONS

POWER HOLD---UP



AVIONICS



FILTERING



CUSTOMER DRIVEN DESIGN

MANY OF OUR CURRENT PRODUCT OFFERINGS HAVE EVOLVED FROM CUSTOMER SPECIFIC REQUIREMENTS.



THQ SERIES
CUSTOMER REQUIRED
MORE POWER, BUT
OFFERED NO
ADDITIONAL SPACE



THS SERIES: BY FILLING IN
THE CORNERS WE WERE
ABLE TO OFFER 1/3 MORE
CAPACITANCE IN THE SAME
FOOTPRINT



TDD SERIES: CUSTOMER'S AGGRESSIVE PULSE
REQUIREMENTS LED TO A NEW DESIGN,
DRAMATICALLY REDUCING THE ESR WITHOUT
SACRIFICING CAPACITANCE OR VOLUME

EVANS CAPACITOR Company

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Evans Hybrid Capacitor Products THQ TDD and THS Series

THQ Hybrid Capacitors - 1.40" dia

THQ Hybrid Capacitors are perfectly suited for Defense and Aerospace applications requiring high power in a compact, hermetic, tantalum package. Applications include power interruption buffer, filtering and high current pulse generation. Voltage range of 10V to 125V with full operational temperature range of -55C to 125C. Capacitance values increase from the THQ1 series up to the THQ5 series. THQ Hybrid Capacitors have very high current capability, unlimited cycle life and environmental ruggedness with MTBF > 5,000,000 hrs.



PART NUMBER	DSCC PN	Voltage 85°C	Voltage 125°C	Cap 120HZ (µF)	ESR 1 KHZ max (mΩ)	HEIGHT (H) (in)
THQ1010503	04001-01	10	8	50,000	50	0.312
THQ2010104		10	6	100,000	37	0.46
THQ3010154	04003-01	10	6	150,000	25	0.608
THQ4010204	09022-01	10	6	200,000	25	0.725
THQ5010204	04004-01	10	6	200,000	15	0.785
THQ1016303	04001-02	16	9.5	30,000	50	0.312
THQ2016603		16	9.5	60,000	37	0.46
THQ3016903	04003-02	16	9.5	90,000	25	0.608
THQ4016124	09022-02	16	9.5	120,000	25	0.725
THQ5016124	04004-02	16	9.5	120,000	15	0.765
THQ1025183	04001-03	25	15	18,000	50	0.312
THQ2025363		25	15	36,000	50	0.46
THQ3025543	04003-03	25	15	54,000	35	0.608
THQ4025703	09022-03	25	15	70,000	25	0.725
THQ5025703	04004-03	25	15	70,000	20	0.765
THQ1035123	04001-04	35	20	12,000	50	0.312
THQ2035243		35	20	24,000	50	0.46
THQ3035363	04003-04	35	20	36,000	35	0.608
THQ4035503	09022-04	35	20	50,000	25	0.725
THQ5035503	04004-04	35	20	50,000	20	0.765
THQ1050802	04001-05	50	30	8,000	60	0.312
THQ2050163		50	30	16,000	60	0.46
THQ3050243	04003-05	50	30	24,000	35	0.608
THQ4050323	09022-05	50	30	32,000	25	0.725
THQ5050303	04004-05	50	30	30,000	20	0.765
THQ1063402	04001-06	63	37.5	4,000	100	0.312
THQ2063802		63	37.5	8,000	70	0.46
THQ3063123	04003-06	63	37.5	12,000	35	0.608
THQ4063163	09022-06	63	37.5	16,000	35	0.725
THQ5063163	04004-06	63	37.5	16,000	30	0.765
THQ1080282	04001-07	80	48	2,800	100	0.312
THQ2080562		80	48	5,600	70	0.46
THQ3080822	04003-07	80	48	8,200	40	0.608
THQ4080113	09022-07	80	48	11,000	35	0.725
THQ5080113	04004-07	80	48	11,000	30	0.765
THQ1100192	04001-08	100	60	1,900	125	0.312
THQ2100382		100	60	3,800	90	0.46
THQ3100572	04003-08	100	60	5,700	50	0.608
THQ4100752	09022-08	100	60	7,500	35	0.725
THQ5100752	04004-08	100	60	7,500	40	0.765
THQ1101152	04001-09	110	66	1,500	200	0.312
THQ2110302		110	66	3,000	140	0.46
THQ3110452	04003-09	110	66	4,500	75	0.608
THQ4110802	NA	110	66	6,000	50	0.725
THQ1125112	04001-10	125	75	1,100	200	0.312
THQ2125222		125	75	2,200	140	0.46
THQ3125332	04003-10	125	75	3,300	75	0.608
THQ4125452	09022-09	125	75	4,500	50	0.725
THQ5125452	04004-09	125	75	4,500	40	0.765

STUDS CAN BE ADDED TO ANY THQ, THS, OR TDD Part Number
e.g. THQ3050243-SM01

TDD and THS Hybrid Capacitors - 1.40" square

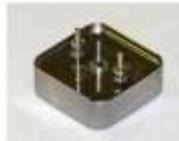
TDD Hybrid Capacitors - compact, very low ESR



TDD series Hybrid Capacitor have the highest power density and highest current capability of any Tantalum wet capacitor. Only 0.31" tall for the TDD1 to 0.60" high for the TDD3, makes TDD Hybrid Capacitors perfect for applications requiring high power where space and weight are at a premium. Ultra low ESR and compact construction allows very high current capability and extreme duty cycles.

PART NUMBER	DSCC PN	Voltage 85°C	Voltage 125°C	Cap 120HZ (µF)	ESR 1 KHZ max (mΩ)	HEIGHT (H) (in)
TDD1050113	N/A	50	30	11,000	30	0.31
TDD2050223	N/A	50	30	22,000	25	0.45
TDD3050333	N/A	50	30	33,000	15	0.60
TDD1063472	N/A	63	38	4,700	30	0.31
TDD2063103	N/A	63	38	10,000	25	0.45
TDD3063143	N/A	63	38	14,000	15	0.60
TDD1080302	N/A	80	48	3,000	30	0.31
TDD2080602	N/A	80	48	6,000	25	0.45
TDD3080802	N/A	80	48	8,000	15	0.60
TDD1100222	N/A	100	60	2,200	40	0.31
TDD2100442	N/A	100	60	4,400	30	0.45
TDD3100662	N/A	100	60	6,600	20	0.60
TDD1125152	N/A	125	75	1,500	60	0.31
TDD2125302	N/A	125	75	3,000	45	0.45
TDD3125452	N/A	125	75	4,500	30	0.60

THS3 Hybrid Capacitor



THS3 Hybrid Capacitor with higher cap square footprint, provides a 30% increase in cap over the standard THQ3 device in the same 0.6" height. The THS3 is perfect for large energy storage needs, where space is at a premium. Proven unlimited cycle life and reliability of MTBF > 5,000,000 hrs. New applications should favor the TDD3 style.

PART NUMBER	DSCC PN	Voltage 85°C	Voltage 125°C	Cap 120HZ (µF)	ESR 1 KHZ max (mΩ)	HEIGHT (H) (in)
THS3010204	09021-01	10	6	200,000	25	0.615
THS3016124	09021-02	16	9.5	130,000	25	0.615
THS3025753	09021-03	25	15	75,000	35	0.615
THS3035503	09021-04	35	20	50,000	35	0.615
THS3050303	09021-05	50	30	30,000	35	0.615
THS3063143	09021-06	63	38	14,000	35	0.615
THS3080103	09021-07	80	48	10,000	40	0.615
THS3085902	09021-08	85	51	9,000	50	0.615
THS3100702	09021-09	100	60	7,000	50	0.615
THS3110602	09021-10	110	65	6,000	65	0.615
THS3125422	09021-11	125	75	4,200	65	0.615

THQ, TDD & THS Hybrid Capacitor Stud Mounting



Threaded mounting studs for THQ, TDD & THS Hybrid Capacitors are welded directly to the leaded end of the case. These studs, suitable for insertion into pre-drilled circuit board, provide rigid support and stability for Hybrid capacitor assembly. Studs are #2 -#6 CDA 752, with several lengths available.



STUD SUFFIX	Style	STUD HEIGHT	Style	STUD HEIGHT
SM00	THQ-SM	0.220	TDD or THS-SM	0.210
SM01	THQ-SM	0.280	TDD or THS-SM	0.270
SM02	THQ-SM	0.410	TDD or THS-SM	0.400
SM03	THQ-SM	0.160	TDD or THS-SM	0.150
SM04	THQ-SM	0.190	TDD or THS-SM	0.180
SM05	THQ-SM	0.360	TDD or THS-SM	0.350

EVANSCAPS EVERYWHERE



**Phased array
radar**



Laser targeting



**Avionics, communications,
and power hold-up**



**Displays, mission
computers**



Space systems



**JTRS
software-defined radio**

Evanscaps are proven in over 100 ratings and configurations to have the highest power density in hermetic tantalum packages.

Evanscaps were delivered to 120 aerospace and defense customers in 2011. They're everywhere.

10V to 125V • Low ESR • >100 Amp Discharge • Unlimited Cycle Life
High Shock and Vibe • 5 Million Hour MTBF • -55°C to 125°C Operation



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Evans Hybrid Capacitor Products HyCap & A2 Series



HyCap Series Hybrid Capacitor

DSCC 93026 & DSCC 10004 Series HyCap

HyCap offers the same proven Hybrid Capacitor technology in the traditional tantalum wet case style. HyCap Series Hybrid Capacitors are available in standard DSCC 93026 and DSCC 10004 ratings, and in newer extended range capacitance ratings. Full temperature range of -55C to 125C, with 2,000 hrs life at 125C. HC-HT styles are for 200C (see below)

PART NUMBER	DSCC PN	Voltage 85°C	Voltage 125°C	Cap 120Hz (µF)	ESR 120Hz max (Ω)	Length(L) / Diameter(D)
HC2B025102	10004-19	25	15	1,000	0.50	641 / 281
HC2B060471	10004-20	50	30	470	0.90	641 / 281
HC3B060681	10004-25	50	30	680	0.80	641 / 281
HCD050681	93026-40	50	30	680	0.70	1,062 / 0.375
HC2D050152	10004-08	50	30	1500	0.45	1,062 / 0.375
HC3D050222	10004-15	50	30	2200	0.60	1,062 / 0.375
HCB060151	93026-42	60	40	150	1.10	641 / 281
HC2B060331	10004-21	60	40	330	0.90	641 / 281
HC3B060471	10004-26	60	40	470	1.00	641 / 281
HC3B060681	10004-27	60	40	560	1.00	641 / 281
HCD060561	93026-44	60	40	560	0.80	1,062 / 0.375
HC2D060122	10004-16	60	40	1,200	0.50	1,062 / 0.375
HC3D060182	10004-28	60	40	1,800	0.50	1,062 / 0.375
HCB075111	93026-46	75	50	110	1.30	641 / 281
HCD075471	93026-48	75	50	470	0.90	1,062 / 0.375
HC2B075221	10004-22	75	50	220	1.00	641 / 281
HC3B075331	10004-29	75	50	330	1.30	641 / 281
HC2D075941	10004-17	75	50	940	0.50	1,062 / 0.375
HC3D075122	10004-30	75	50	1,200	0.80	1,062 / 0.375
HCB100680	93026-50	100	65	68	2.10	641 / 281
HC2B100151	10004-23	100	60	150	1.20	641 / 281
HCD100221	93026-52	100	65	220	1.20	1,062 / 0.375
HC2D100471	10004-18	100	65	470	0.70	1,062 / 0.375
HCD125151	93026-56	125	85	150	1.60	1,062 / 0.375
HC2D125241	10004-14	125	85	240	0.80	1,062 / 0.375
HC2D125331	10004-24	125	85	330	0.80	1,062 / 0.375

High Temperature HyCap - HT series



High temperature HyCap Series Hybrid Capacitors are for Operation to 200C. Suited for down hole exploration environments, or other high temperature applications these HT HyCap capacitors are in the industry standard form factor. HC-HT units are up to 2,000 hr life at 200C. HC2-HT units are up to 1,000hrs at 200C.

PART NUMBER	DSCC PN	Voltage 175°C	Voltage 200°C	Cap 120Hz (µF)	ESR 120Hz max (Ω)	Length(L) / Diameter(D)
HC2B060471HT	N/A	30	25	470	0.90	641 / 281
HC2D050152HT	N/A	30	25	1500	0.5	1,062 / 0.375
HCD050681HT	NA	35	30	680	0.7	1,062 / 0.375
HC2B060331HT	N/A	36	30	330	0.90	641 / 281
HCD060561HT	NA	42	36	560	0.80	1,062 / 0.375
HC2D060122HT	N/A	36	30	1,200	0.50	1,062 / 0.375
HC2B075221HT	N/A	45	37	220	1.00	641 / 281
HC2D075941HT	N/A	45	37	940	0.60	1,062 / 0.375
HCB075111HT	NA	50	45	110	1.30	641 / 281
HCD075471HT	NA	60	45	470	0.90	1,062 / 0.375
HC2B100151HT	N/A	60	50	150	1.2	641 / 281
HC2D100471HT	N/A	60	50	470	0.7	1,062 / 0.375
HCB100680HT	NA	70	60	68	2.1	641 / 281
HCD100221HT	NA	70	60	220	1.2	1,062 / 0.375
HCD125151HT	NA	85	75	150	1.60	1,062 / 0.375
HC2D125331HT	N/A	75	62	330	0.80	1,062 / 0.375

THQA2 / THQM2 Hybrid Capacitor



THQA2 series Hybrid Capacitors offer high power in a compact, hermetic, tantalum package. Applications include power interruption buffer, filtering and high current pulse generation. Full temperature range of -55C to 125C. Proven reliability and environmental ruggedness. The THM2 Configuration provide the THQA2 capacitor assembled into a standard 4 pin mount suitable for automated board level assembly. Pins and leads are pre solder coated with 60/40 Pb/Sn solder

PART NUMBER	DSCC PN	Voltage 85°C	Voltage 125°C	Cap 120Hz (µF)	ESR 1 KHZ max (mΩ)	HEIGHT (H) (in)
THQA2010103	04005-01	10	6	10,000	200	0.274
THQM2010103	04005-11	10	6	10,000	200	0.450
THQA2016502	04005-02	16	9.5	5,000	200	0.274
THQM2016502	04005-12	16	9.5	5,000	200	0.450
THQA2025382	04005-03	25	15	3,800	200	0.274
THQM2025382	04005-13	25	15	3,800	200	0.450
THQA2030302	04005-04	30	18	3,000	250	0.274
THQM2030302	04005-14	30	18	3,000	250	0.450
THQA2035252	04005-05	35	21	2,500	250	0.274
THQM2035252	04005-15	35	21	2,500	250	0.450
THQA2050152	04005-06	50	30	1,500	250	0.274
THQM2050152	04005-16	50	30	1,500	250	0.450
THQA2080871	04005-07	80	38	870	350	0.274
THQM2080871	04005-17	80	38	870	350	0.450
THQA2075561	04005-08	75	45	565	500	0.274
THQM2075561	04005-18	75	45	565	500	0.450
THQA2100361	04005-09	100	60	360	800	0.274
THQM2100361	04005-19	100	60	360	800	0.450
THQA2125211	04005-10	125	75	215	1250	0.274
THQM2125211	04005-20	125	75	215	1250	0.450

THQA2-HT High Temperature Hybrid Capacitor

THQA2-HT Hybrid Capacitors are for Operation to 200C. Suited for down hole exploration environments, or other high temperature applications. THQA2-HT Hybrid Capacitors are in the same form factor as the standard THQA2, with life of 1,000hrs at 200C or 2,000 hrs at 175C



PART NUMBER	DSCC PN	Voltage 175°C	Voltage 200°C	Cap 120Hz (µF)	ESR 1 KHZ max (mΩ)	HEIGHT (H) (in)
THQA2075561HT	NA	37.5	30	560	500	0.274
THQA2100361HT	NA	50	40	360	800	0.274
THQA2125211HT	NA	62.5	50	215	1250	0.274

EVANSCAPS ALWAYS



Evanscaps are always specified in hundreds of defense-critical air missions, because they are always more energy-dense, always ready, and always reliable.

Evanscaps have more in their hermetic tantalum packages than any other capacitor. They were delivered to over 100 aerospace and defense customers last year.

Evanscaps: the capacitors of choice for phased array radar, laser targeting, avionics, displays, communications, weapons systems, JTRS software-defined radio, space systems, and power hold-up. Always.

- 10V to 125V • Low ESR • >100 Amp Discharge
- Unlimited Cycle Life • High Shock and Vibe
- 5 Million Hour MTBF • -55°C to 125°C Operation



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Evans Capacitor Products Specialty

Packaged THQ3 Capacitors

1PTHQ3 Series - "Single Pack"



A Packaged THQ3 Hybrid Capacitor is available for harsh environmental conditions. The THQ3 capacitor is rigidly contained in an anodized aluminum package, fully potted with epoxy. The case contains threaded insert mounting holes on the base.

PART NUMBER	DSCC PN	Voltage 85 C	Voltage 125 C	Cap 120HZ (µF)	ESR 1 KHZ max (mΩ)
THQ1010503	N/A	10	8	50,000	50
THQ1016303	N/A	16	9.5	30,000	50
THQ1025183	N/A	25	15	18,000	50
THQ1035123	N/A	35	21	12,000	50
THQ1050602	N/A	50	30	8,000	60
THQ1063402	N/A	63	37.5	4,000	100
THQ1080282	N/A	80	48	2,800	100
THQ1100192	N/A	100	60	1,900	125
THQ110152	N/A	110	66	1,500	200
THQ1125112	N/A	125	75	1,100	200

3STHQ3 or 3PTHQ3 Series - "3 Pack"



"3 pack" capacitor bank assembly consists of three internal THQ3 capacitors, soldered to a custom designed circuit board, with all necessary balancing resistors, and wiring. The assembly is completely sealed and epoxy potted in a rugged anodized aluminum case. The three THQ3 capacitors may be wired in series, for higher Operating voltage, or in parallel for higher capacitance. Case size is 4.47" X 1.59" X 1.07", Weight is 500 g.

PART NUMBER	DSCC PN	Voltage 85 C	Voltage 125 C	Cap 120HZ (µF)	ESR 1 KHZ max (mΩ)
3STHQ3063123	N/A	150	96	4,000	100
3STHQ3080822	N/A	200	120	2,700	110
3STHQ3100572	N/A	240	144	1,900	140
3STHQ3125332	N/A	300	180	1,100	180
3PTHQ3010503	N/A	10	8	450,000	10
3PTHQ3016303	N/A	16	9.5	270,000	15
3PTHQ3025183	N/A	25	15	162,000	15
3PTHQ3035123	N/A	35	21	108,000	20
3PTHQ3050243	N/A	50	30	72,000	20
3PTHQ3063123	N/A	63	37.5	36,000	25
3PTHQ3080822	N/A	80	48	24,800	25
3PTHQ3100572	N/A	100	60	17,100	30
3PTHQ3125332	N/A	125	75	9,900	35

NOTE: ESR does not include lead wire.

6PTHQ3 Series - "6 Pack"

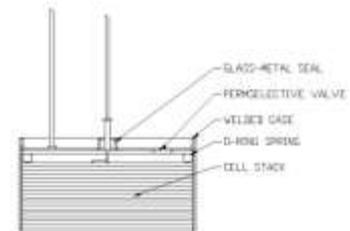


"6 pack" capacitor bank assembly consists of six internal THQ3 capacitors soldered to custom circuit boards, with all necessary balancing resistors, and wiring. The assembly is completely sealed and epoxy potted in a rugged anodized aluminum case. The six THQ3 capacitors are wired in parallel. Case size is 4.47" X 2.99" X 1.07", weight is 860g for 1D to 50V and 900g for 63V to 125V

PART NUMBER	DSCC PN	Voltage 85 C	Voltage 125 C	Cap 120HZ (µF)	ESR 1 KHZ max (mΩ)
6PTHQ3010503	N/A	10	8	900,000	50
6PTHQ3016303	N/A	16	9.5	540,000	50
6PTHQ3025183	N/A	25	15	320,000	50
6PTHQ3035123	N/A	35	21	220,000	50
6PTHQ3050243	N/A	50	30	144,000	50
6PTHQ3063123	N/A	63	37.5	72,000	55
6PTHQ3080822	N/A	80	48	50,000	55
6PTHQ3100572	N/A	100	60	34,000	60
6PTHQ3125332	N/A	125	75	20,000	60

NOTE: ESR includes 3ft. Of 16 AWG wire

Capattery Series EDLC Capacitors



Capattery style EDLC "super capacitor" are designed for longer duration power hold-up and memory back-up applications. Specifications are per DSCC 92001. Full operating temperature range of -55C to 85C. Unlimited cycle life. Steady state charge life is > 25 years. Unlimited shelf life. Shock hardened models for weapons systems, withstand shocks measured up to 100,000G and spin rates > 3,000. Able to power electronics for penetrator testing.

Capattery RE & RS Series			Shock hardened series		
Part#	Description		Part#	Description	
	WDC	Cap		WDC	Cap
RS055105	5.5v	1.0F	RBS055105	5.5v	1F
RS100564	10v	.56F	RSS110504	11v	.5F
RS110474	11v	.47F	RES180504	18v	.5F
RE055155	5.5	1.5F	RES250333	25v	.033F
RE110504	11	5F			
RE110754	11	75F			
RE055106	5.5	1F			

HQ Series Hybrid Capacitors



With the similar performance and rating of the tantalum case THQ1, The HQ1 has a polypropylene case that is lighter and less costly than a metal case. The Near Hermetic seal is provided by ultra sonically welded case and double Viton O rings at the leads. HQ1 has a life of 1,000 hrs with full rated voltage at 70C. Significantly longer life is achieved with lower temp and voltage de-rate.

PART NUMBER	DSCC PN	Voltage 70 C	Cap 120HZ (µF)	ESR 1 KHZ max (mΩ)
HQ1010503	04002-01	10	50,000	50
HQ1016303	04002-02	16	36,000	50
HQ1025233	04002-03	25	23,000	50
HQ1035123	04002-04	35	12,000	50
HQ1050802	04002-05	50	8,000	60
HQ1063402	04002-06	63	4,000	100
HQ1080282	04002-07	80	2,800	100
HQ1100192	04002-08	100	1,900	125
HQ110152	04002-09	110	1,500	200
HQ1125112	04002-10	125	1,100	200

EVANSCAPS



IN THE AIR. ON THE GROUND.

Airborne or handheld, diode lasers require compact, lightweight, rugged and reliable capacitors.

Hermetically-sealed, tantalum-encased Evanscaps are used by laser and diode driver designers for high current pulsed power, even in the most demanding systems.



- 100-200A current with minimal voltage droop
- Precision performance 10V to 125V, -55°C to 125°C.
- Extremely low ESR for high efficiency
- Unique low inductance design for short rise time and good frequency response

For maximum power density and unparalleled reliability, specify Evanscaps — in the air and on the ground.

LRF/D ATP LIDAR LTDR HLRD Optical Communications



EVANS

The Evans Capacitor Company



www.evanscap.com

Hybrid Capacitor Advantages

Hybrid VS Aluminum Electrolytic "flatpack"	Vibration	Hybrid Caps are constructed of rugged components tightly packed and sealed for maximum vibration resistance
	High Current	Hybrid Caps are specifically designed for high current discharge. Internal components and terminals capable of > 200A discharge and aggressive duty cycles
	Shelf life	Hybrid Caps are Hermetic and stable for unlimited shelf life or storage without electrical degradation
	Temperature	Hybrid Caps operate from -55C to 125C. Low temperature performance is superior due to lower temperature capability of the electrolyte
	Hermeticity	Hybrid Caps are hermetic and will not out-gas
Hybrid VS EDLC "Supercap"	no series connect	EDLC capacitors are limited to 2.5V per cell - require series connections to reach desirable working voltage
	low ESR	EDLC capacitors have high ESR limiting discharge current capability.
	-55 to 125C	EDLC capacitors are not capable of low or high temperature operation
Hybrid VS VISHAY "SuperTan"	High energy	Hybrid caps design and construction replaces large number of wet tantalum capacitors with a single unit. Saving space and increasing reliability
	High Current low ESR	Hybrid Caps are specifically designed to deliver high currents where needed. Low ESR and efficient construction allows very high current with little voltage droop and higher duty cycles.
	Lower Cost \$/Joule	Hybrid Caps, when used to replace banks of Standard Ta wet caps reduce cost, weight, and assembly time.
Hybrid VS VISHAY "HE3"	Vibration	Hybrid Caps are constructed of rugged components tightly packed and sealed for maximum vibration resistance
	High Current	Hybrid Caps are specifically designed for high current discharge. Internal components and terminals are capable of > 200A discharge and aggressive duty cycles
	Life	Hybrid caps have more than double the reported life.



POWER IN THE AIR

POWER IN THE SEA

POWER IN HAND

In hostile environments and cramped quarters, Evanscaps are specified for communications modules, cockpit displays, LIDAR, power filters, data storage units, radar, sonar, laser, navigation systems and more.

Known for power density and dependability, Evanscaps are qualified and used by virtually every Tier I defense contractor. Evanscaps durability is unparalleled, reliability unchallenged.

Evanscaps, hermetically-sealed tantalum supercapacitors.
Power for our national defense.



*Unique package designs
in single hybrids and banks*

EVANS
The Evans Capacitor Co.



*10 to 125V, -55 to 125°C,
up to 2 joules/cc, low ESR*

Since 1996

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High Energy, High Power CAPACITORS

POWER WHEN YOU NEED IT

Evans Capacitor manufactures high energy density capacitors for demanding defense and aerospace applications, including laser targeting and control systems. Evans Hybrid Capacitors and Capattery® capacitors replace standard military capacitors or augment batteries and power supplies where size, weight, reliability and quality are major considerations. Evans' production facility in East Providence, RI, follows stringent guidelines for quality and performance and is ISO 9001:2008 and AS9100 certified. Hybrid Capacitors are commodity dual use EAR-99 for export purposes. Evans is ITAR registered.



Hybrid Capacitors are available in a number of standard configurations and ratings from 10V to 125V

Evans products are used by virtually every Tier I aviation defense contractor, including, Lockheed Martin, Northrup Grumman, Raytheon, L-3, SELEX, Parker Hannifin, DRS, FLIR, BAE and others. Evans is rated a premium or preferred supplier with many of these defense and aerospace customers.



Evans Capacitors are qualified in many new avionics systems like ARROWHEAD MTADS/PNVS for Apache.

Evans Hybrid Capacitors have numerous unique features not available in other high power capacitors. Evans Hybrid Capacitors combine a high voltage electrolytic anode bearing a Ta2O5 dielectric with a low voltage, high energy density electrochemical supercapacitor RuO2 cathode, providing higher power density than tantalum wet slug or aluminum electrolytic capacitors.



Hybrid Capacitors provide high current pulse capability for the advanced phased array radar systems on the E 2D

Hybrid Capacitors have very high discharge current capability for maximum pulse power. Hybrid Capacitors also provide high energy density, with true instantaneous power capabilities

for bridge power and back up in aerospace applications. Hybrid capacitors provide very high power and energy from devices much smaller and lighter than electrically equivalent tantalum wet, tantalum chip, or aluminum electrolytic capacitors.



Evans Hybrid Capacitors provide high current pulse power for the LASER in the JSF-EOTS electro-optical targeting system

High power density, with very low ESR in a highly ruggedized, hermetic tantalum package makes Evans Hybrid Capacitors the perfect fit for the most demanding applications in defense and aerospace systems.

**The Evans Capacitor
Company
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Power when you need it

Hybrid Capacitor Program and Applications

Why choose Hybrid Capacitors



E2-D



Phased Array Radar



Wedgetail



A7E7 Wedgetail Highlights



F-35
First Wide Hybrid Electro-optical Targeting System

LASER Targeting



Oil & Gas Exploration



THQ/THS/TDD Hybrid Caps



Low ESR
High Current Capability
Fast response time
Demonstrated to 1Kz pulse rate for 2000hrs
Duty Cycles up to 25%
High heat transfer, cooling rates
Unlimited Cycle life
Hermetic and Environmentally Rugged



THQ / THS / TDD Hybrid Caps
DSCC93026
DSCC10004
THQA2 / M2 Hybrid capas
Hybrid Capacitor Banks



High Energy Density
High Power Density
Environmentally Rugged
High Current / High Peak power
Unlimited Cycle life
Service life > 30 years
Very wide range of Cap values in 10V to 125V ratings



THQ / THS / TDD Hybrid caps

Low ESR - even at -40C
High Current Capability
Fast response time
Hermetic and Environmentally Rugged
Unlimited Cycle life



HyCap Series Capacitors

200C Operation
Excellent vibration resistance



THQA2-HT

Heavy duty for Vibration
1000 hrs at 200°C
Extended Cap ratings

REFERENCES

Lockheed Martin

Raytheon

NASA

Boeing

Honeywell

BAE Systems

Cubic Defense

SELEX

Fibertek

DRS Technologies

Northrup Grumman

Rockwell Collins

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