

iMOD[®] 16V 500F Module

FEATURES

Made in USA
 IP 65
 RoHS compliant
 Long life
Wide temperature range

APPLICATIONS

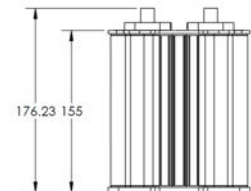
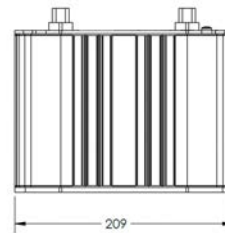
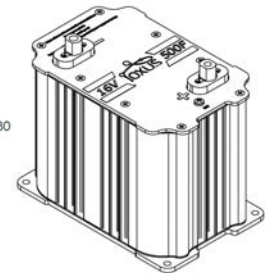
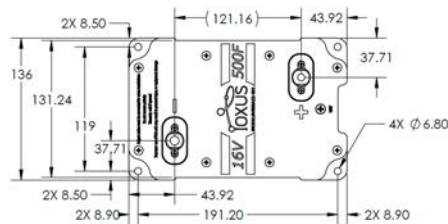
High power
 High rate cycling
 High cycle life (>1,000,000 cycles)

MARKETS

Automotive subsystem
 Engine starting
 Regen energy capture
 Backup power
 UPS/ride through power
 Wind turbine pitch control



Top cover appearance may change



MARKINGS

Products are marked with the following: Rated capacitance, rated voltage, product number, name of manufacturer, positive and negative terminal marking, maximum energy content.

MOUNTING RECOMMENDATION

Do not reverse polarize. Install following recommendations in *Notes on Using Ultracapacitors*, available at www.ioxus.com. Contact your Ioxus representative for ordering and application information regarding sizing.

**Corporate Headquarters
 North American Sales**
 18 Stadium Circle
 Oneonta, NY 13820, USA
 Toll Free: +1-877-751-4222
 Sales@ioxus.com
 TEL: 607-441-3500
 FAX: 607-433-9014

**Ioxus Japan
 Co. LTD**
 1381-1 Okamotocho
 Kusatsu-city, Shiga Pref
 525-0044, Japan
 Sales@ioxus.co.jp
 TEL : +81-77-569-5106
 FAX: +81-77-569-5168

PRODUCT SPECIFICATIONS

ELECTRICAL \ PART NUMBER	iMOD016V500A22-FHA
Capacitance (F) [Min/Nom]	480/500
Voltage (Rated/Surge) [V_R/V_S]	16.2/17.1
DC ESR 10ms (m Ω) [Nom/Max]	1.2/2.1
IEC DC ESR (m Ω) [Nom/Max]	1.5/2.3
AC ESR(m Ω 1kHz) [Nom/Max]	1.4/2.0
Hi Pot Test Voltage	3000VDC
UL Max Operational Voltage (per UL810A)	750VDC
CYCLING (Calculated from nominal values)	
Current, Peak [1s] (A)	2,500
Continuous Current (A) [20° Rise]	105
Current, Short Circuit (A)	13,500
THERMAL (Reference)	
Operational / Storage Range (°C)	-40 to 65 °C / -40 to 70 °C
Resistance, Thermal (°C/W) [R_{TH}]	<0.86
ENERGY/POWER (Reference / Calculated using nominal values)	
E_{MAX} (Whr)	18.2
PHYSICAL (Nominal Values)	
L (mm)	209
W (mm)	136
H (mm) w/Terminals	177
Mass (kg)	5.1
Volume (L)	4.4
Terminal Fastener Size / Max Torque	M8/20Nm & M10/30Nm
LIFE (EOL Criteria) [Capacitance/IEC DC ESR] *Life is a provisional value	
DC (10 Yr, 25°C, @ V_R) [F/m Ω]	>400/<4.6
Endurance (2000hr, 65°C, @ V_R) [F/m Ω]	>400/<4.6
Storage (2 yr, 25°C, @ 0V) [F/m Ω]	>450/<3.4
Cycle (1M Cyc, 25°C, @ $V_R-V_R/2$) [F/m Ω]	>400/<4.6

Contact the Ioxus sales department for price and availability by writing to sales@ioxus.com or by calling 1-877-751-4222

ADDITIONAL TECHNICAL INFORMATION

Product specification test and calculation methods are available in *Ioxus Notes on Datasheet Specifications*



iMOD[®] 17V 500F Module

FEATURES

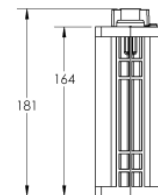
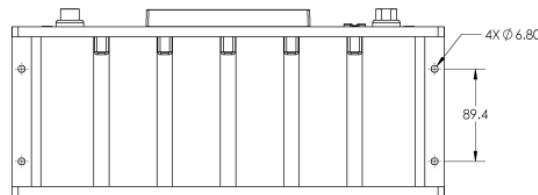
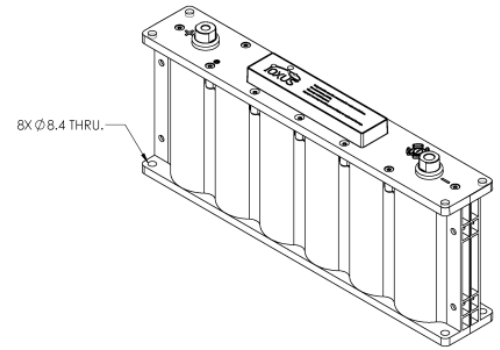
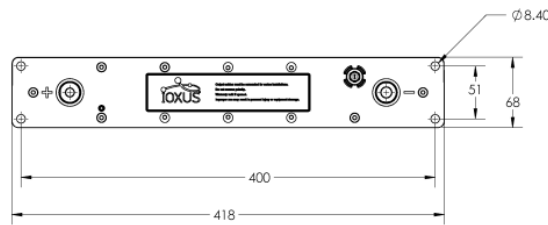
Made in USA
 IP 65
 RoHS compliant
 Long life
Wide temperature range

APPLICATIONS

High power
 High rate cycling
 High cycle life (>1,000,000 cycles)

MARKETS

Automotive subsystem
 Engine starting
 Regen energy capture
 Backup power
 UPS/ride through power
 Wind turbine pitch control



MARKINGS

Products are marked with the following: Rated capacitance, rated voltage, product number, name of manufacturer, positive and negative terminal marking, and maximum energy content.

MOUNTING RECOMMENDATION

Do not reverse polarize. Install following recommendations in *Notes on Using Ultracapacitors*, available at www.ioxus.com. Contact your ioxus representative for ordering and application information regarding sizing.

Corporate Headquarters
North American Sales
 18 Stadium Circle
 Oneonta, NY 13820, USA
 Toll Free: +1-877-751-4222
 Sales@ioxus.com
 TEL: 607-441-3500
 FAX: 607-433-9014

Ioxus Japan
Co. LTD
 1381-1 Okamotocho
 Kusatsu-city, Shiga Pref
 525-0044, Japan
 Sales@ioxus.co.jp
 TEL : +81-77-569-5106
 FAX: +81-77-569-5168

PRODUCT SPECIFICATIONS

ELECTRICAL \ PART NUMBER		iMOD017V500A22-01A
Capacitance (F) [Min/Nom]		480/500
Voltage (Rated/Surge) [V_R/V_S]		17.0/18.0
DC ESR 10ms (m Ω) [Nom/Max]		1.5/2.1
IEC DC ESR (m Ω) [Nom/Max]		1.8/2.3
AC ESR(m Ω 1kHz) [Nom/Max]		1.4/2.0
Hi Pot Test Voltage		3500VDC
UL Max Operational Voltage (per UL810A)		750VDC
CYCLING (Calculated from nominal values)		
Current, Peak [1s] (A)		2,500
Continuous Current (A) [20° Rise]		TBD
Current, Short Circuit (A)		13,500
THERMAL (Reference)		
Operational / Storage Range (°C)		-40 to 65 °C / -40 to 70 °C
Resistance, Thermal (°C/W) [R_{TH}]		<TBD
ENERGY/POWER (Reference / Calculated using nominal values)		
E_{MAX} (Whr)		20.1
PHYSICAL (Nominal Values)		
L (mm)		418
W (mm)		68
H (mm) w/Terminals		181
Mass (kg)		5.1
Volume (L)		5.2
Terminal Fastener Size / Max Torque		M8/20Nm & M10/30Nm
LIFE (EOL Criteria) [Capacitance/IEC DC ESR] *Life is a provisional value		
DC (10 Yr, 25°C, @ V_R) [F/m Ω]		>400/<4.6
Endurance (2000hr, 65°C, @ V) [F/m Ω]		>400/<4.6
Storage (2 yr, 25°C, @ 0V) [F/m Ω]		>450/<3.4
Cycle (1M Cyc, 25°C, @ $V - V/2$) [F/m Ω]		>400/<4.6
STANDARDS COMPLIANCE		
Safety/Environmental	RoHS, UL810a, Chinese RoHS, IP65	
Shock	IEC 60068-2-27 (TA1@25g), ISO 16750-3 (4.2.2)	
Vibration	ISO 16750-3 (Table 14)	

Contact the Ioxus sales department for price and availability by writing to sales@ioxus.com or by calling 1-877-751-4222

ADDITIONAL TECHNICAL INFORMATION

Product specification test and calculation methods are available in *Ioxus Notes on Datasheet Specifications*

