

ATEC GRP ENCLOSURES

Atec & Atec Solar GRP enclosures are a remote outstation solution designed to house external components for a variety of applications, including:

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- ▶ Water
- Electricity
- Telemetry

Constructed of lightweight Glass Reinforced Polyester (GRP) an Atec enclosure is highly durable, weather resistant and manufactured within the scope of Dewey Waters Limited's ISO 9001: 2000 quality management.

ATEC RANGE:

- The range is available in a variety of standard sizes (ref sizing guide on the back).
- Atec D range offers full height watertight division and dual access.
- Vinyl wrap options are available to meet most requirements.

FEATURES OF ATEC GRP ENCLOSURES:

- Manufactured in lightweight GRP
- The product requires little maintenance
- Colour: BS4800 14-C-39 Green
- Stainless steel hinges
- Double units offer divisions allowing a watertight separation of water and electricity
- Angled doors to allow full access to both front and side elevations
- Pad-lockable swing handle provided on all units as standard
- Recycled plastic internal backing board for secure fixing
- GRP fixing template supplied for fast, efficient installation
- Internal white gel flow coat finish

ATEC SOLAR RANGE:

These are manufactured to the same specification as the standard ATEC range with the following additions:

- 65 degrees pitched hood
- 12v 24AH battery
- Can be used in conjunction with GSM or BT communications
- Morningstar Sunsaver 10 & Steca PR 10-10 Charge Regulator options
- 20w and 40w solar panel options
- Ameresco 420J solar panels

Call 01934 421 477 for expert advice & a free quotation!

www.deweywaters.co.uk

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TECHNICAL DATA

ATEC SOLAR PANEL SPECIFICATION

- High reliability: Cell interconnections and diode placement use well-established industry practice and are field proven to provide excellent reliability.
- Solar cells: 36No crystalline silicon cut cells connected in series.
- > Certification: Certified to IEC 61215 and 61730, Certified for use in Class 1, Division 2 Hazardous Locations

Conforms with European Directive 2006/95/EC

	(1) STC 1000W/m2		(2)NOCT 800W/m2
Maximum power (Pmax)	20W		14.4W
Voltage at Pmax (Vmpp)	17.9V		15.9W
Current at Pmax (Impp)	1.12A		
Short circuit current (lsc)	1.16A		
Open circuit voltage (Voc)	22.1V		
Module efficiency	9.4%		
Tolerance (Pmax)	±10%		
Nominal voltage	12V		
Efficiency reduction at 200W/m2		<5% reduction (efficiency 8.9%)	
Limiting reverse current		1.29A	
Temperature coefficient of lsc		0.105%/°C	
Temperature coefficient of Voc		-0.360%/°C	
Temperature coefficient of (Pmax)		-0.45%/°C	
(3) NOCT		47±2°C	
Maximum series fuse rating		3A	
Application class (according to IEC 61730:2007)		Class C	
Maximum system voltage		50V (U.S NEC)/1000V (IEC 61730:2007)	

1: Values at Standard Test Conditions (STC): 1000W/m2 irradiance, AM1.5 solar spectrum and 25 ° C module temperatures. 2: Values at 800W/m2 irradiance, Nominal Operation Cell Temperature (NOCT) and AM1.5 solar spectrum.

3: Nominal Operation Cell Temperature: Module operation temperature at 800W/m2 irradiance, 20°C air temperature, 1m/s wind speed

MORNING STAR REGULATOR:

- PWM battery charging
- Series design (not shunt)
- True 0 to 100% PWM duty cycle
- Setpoint accuracy to 35 mV
- Rated for 25% overloads
- Marine rated terminals/anodised case
- Temperature compensation
- Green charging/red LVD indicators
- No need to de-rate

SUNSAVER™

TECHNICAL SPECIFICATIONS

SunSaver Model Selection Chart

MODEL NUMBER • SS-6	0	SOLAR RATING () 10	Amps) 20 0	, ^L	.OAD RATING (Am 10	ps) 20	LVD	12V	24V
• SS-6L									
• SS-10								_	
• SS-10L	-							_	
• SS-10-24V									
• SS-10L-24V									
• SS-20L									
• SS-20L-24V									

Electrical Specifications

	12 Volt	24 Volt		
Rated Solar Input	6.5/10/20 A			
Rated Load	6/10/20 A			
25% Current Overload	5 min.	5 min.		
Regulation Voltage:				
Sealed Battery	14.1 V	28.2 V		
Flooded Battery	14.4 V	28.8 V		
Load Disconnect	11.5 V	23.0 V		
LVD Reconnect	12.6 V	25.2 V		
Temp. Comp. (mV/'C)	-28	-56		
Self-consumption	6 to 10 mA			
Operating Temp.	-40 to +85°C			

STECA PR1010 REGULATOR:

- > PWM shunt battery charging
- Built-in Ah counter
- Boost charging
- Equalising charge
- Automatic selection of voltage (12 V/24 V)
- Temperature compensation
- Positive grounding or negative grounding on one terminal
- Lighting control options during nighttime
- Field adjustable parameters by two buttons

System voltage	12 V / (24 V)
Max. module input short circuit current	10A
Max. load output current	10A
Max. self-consumption	12mA
End of charge voltage (float)	liquid 13.9 V / (27.8 V) gel 14.1 V (28.2 V)
Boost charge voltage	14.4 V / (28.8 V) 2:00 h
Equalisation charge (deactivated for gel accu)	14.7 V / (29.4 V) 2:00 h
Reconnection set-point (SOC/LVR)	> 50 % SOC / 12.6 V (25.2 V)
Deep discharge protection (SOC/LVR)	< 30 % SOC / 11.1 V (22.2 V)
Ambient temperature allowed	-10 °C+50 °C
Terminal size (fine/single wire)	16 mm² / 25 mm²
Enclosure protection class	IP 22
Weight	350 g
Dimensions	l x w x h 187 x 96 x 44 mm



BATTERY - YUASA NP-SERIES - VALVE REGULATED LEAD ACID BATTERY:						
SPECIFICATIONS						
Nominal voltage	12	v				
20-hr rate Capacity to 1.75VPC at 20°C	24	Ah				
10-hr rate Capacity to 1.75VPC at 20°C	22.3	Ah				
DIMENSIONS						
Length	166 (±1)	mm				
Width	175 (±1)	mm				
Height	125 (±2)	mm				
(height over terminals)	N/A	mm				
Mass (typical)	9	kg				
TERMINAL TYPE						
Female threaded terminal	M5					
Torque	2.45	Nm				
OPERATING TEMPERATURE RANGE						
Storage	-20°C to +60°C					
Charge	-15°C to +50°C					
Discharge	-20°C to +60°C					
STORAGE						
Capacity loss per month at 20°C (approx)	3	%				
CASE MATERIAL						
Standard Option	ABS (UL.94:HB)					
Flame retardant option (FR)	ABS (UL94:V0)					
CHARGE VOLTAGE						
Float charge voltage at 20°C	13.65 (±1%)					
	2.275 (±1%)	V/cell				
Float Charge voltage temperature correction factor (for variations from the standard 20°C)	-3	mV/cell/°C				
Cyclic (or Boost) charge at 20°C	14.5 (±3%)	V				
	2.42 (±3%)	V/cell				
Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)	-4	mV/cell/°C				
CHARGE CURRENT						
Float charge current limit	No limit	А				
Cyclic (or Boost) charge current limit	6	А				
MAXIMUM DISCHARGE CURRENT						
1 second	720	А				
1 minute	48	А				
SHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE (according to EN IEC 60896-21)						
Internal resistance	22.19	mΩ				
Short-Circuit current	656	А				
IMPEDANCE						
Measured at 1 kHz	16	mΩ				
DESIGN LIFE						
EUROBAT Classification: Standard Commercial	3 to 5	years				
Yuasa design life @ 20°C	up to 5	years				

3RD PARTY CERTIFICATIONS

Internal resistance 22.19 m Ω ISO 9001 - Quality Management Systems Short-Circuit current 656 A ISO 14001 - Environmental Management Systems EN 18001 - OHSAS Management Systems Measured at 1 kHz 16 m Ω UNDERWRITERS LABORATORIES Inc. VdS (Germany) - VdS No: G182026 Pafer to the technical manual ND Refer to the technical manual NP

STANDARDS EUROBAT classification: Standard Commercial 3 to 5 years IEC61056 Yuasa design life @ 20°C for up to 5 years



STANDARD ATEC RANGE

Product Reference	Height	Width	Depth	Weight	Door Type	Division
ATEC IS	877mm	410mm	310mm	15kg	Single	×
ATEC IIS	1312mm	615mm	465mm	32kg	Single	×
ATEC IIIS	1747mm	820mm	620mm	58.5kg	Single	×
ATEC ID	877mm	595mm	310mm	22.5kg	Double	\checkmark
ATEC IID	1312mm	895mm	465mm	51kg	Double	\checkmark
ATEC IIID	1747mm	1190mm	620mm	91kg	Double	\checkmark

SOLAR ATEC RANGE

Product Reference	Height	Width	Depth	Weight	Door Type	Solar Panels
Solar ATEC IIS	1710mm	625mm	480mm	32kg	Single	1No 20W
Solar ATEC IIS Twin Hood	1710mm	625mm	480mm	32kg	Single	2No 20W
Solar ATEC IIS Twin Back	1710mm	625mm	480mm	32kg	Single	2No 20W
Solar ATEC IIS (Rain Gauge) Twin Hood	1410mm	625mm	480mm	27kg	Single	2No 20W

If additional height is required, Dewey Waters manufacture base units for all our ATEC enclosures that increase the overall height up to a maximum of 625mm.

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