

Introductory Note: This document contains summaries of typical electrical and mechanical specifications for the Deltran family of battery charger products. The contents of these specifications are not intended to either make or imply any specific guarantee or warranty with respect to either the physical configuration or performance of any of the battery charger products listed herein. Battery charger designs are subject to change without notice. It is the responsibility of the end user to determine whether a specific battery charger is appropriate for use in any application. This includes determining and resolving any compatibility issues that may exist between a specific battery charger and a specific battery, whether those issues arise as a result of fundamental characteristics of either item or from exposure due to the intended application. To that end, it is recommended that the end user should contact technical representatives from the manufacturer of each product to assist in making that determination.

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Battery Tender® Junior (12 & 6 Volt) Charger Specification Summary Deltran Part Number: 021-0123 021-0127 Nominal Output: Voltage: 12 Volts 6 Volts **Current: 0.75** Amps **0.75** Amps Input Voltage: 115 VAC **Input Frequency:** 60 Hz Maximum Input Current: 0.43 Arms 0.23 Arms Nominal Efficiency: 60% 60% Nominal Power Factor: 0.78 0.78 **Charger Output:** Maximum Power: 9 Watts 5.5 Watts (+/- 3%) @ 25 °C Maximum Current: 0.75 Amps 0.75 Amps During Bulk Charge Absorption Voltage: 14.4 VDC = (2.37 vpc)7.2 VDC = (2.37 vpc)Note: Since the Battery Tender[®] Junior is a 2-step charger; the absorption voltage is the switchover point from bulk charge to float charge. Equalization Voltage: NA Float Voltage: 13.2 VDC = (2.2 vpc)6.6 VDC = (2.2 vpc)12 to 12.5 VDC 6 to 6.2 VDC Charge Reset: Battery Voltage Threshold (2 to 2.08 vpc) (2 to 2.07 vpc) **Electrical Isolation:** Input / Output: 1500 VAC 1500 VAC Input / Chassis: Output / Chassis: 500 VAC **Operating Temp:** -20°C to 50°C **Dimensions:** 3.313 in(85 mm)L x 2.313 in(59 mm)W x 1.875 in(48 mm)H Weight: 1 lb. **Carton Size: (Plastic Clam Shell)** 7.5 in(191 mm)L x 3.75 in(96 mm)W x 9.25 in(235)H **Shipping Weight:** 2 lbs. 94V0 Flame Retardant Plastic **Enclosure: Special Features:** Short Circuit Protection: YES Reverse Polarity Protection: YES Spark Proof: YES NO Temperature Compensation: Designed to meet UL-1236 and CSA 22.2 Agency Listings: UL, ETL, CSA, etc. Contact the office in DeLand, FL for information on agency listings. Phone: 386-736-7900

Table 1 Specification Sheet: Battery Tender® Junior



· ______

Ba	ttery Tend	ler® Plus (12 & 6 Vo	olt)	
Charger Specification Summary					
Deltran Part Number:	021-0128-1	021-0128-2	021-0128-3	021-0128-4	021-0144
Nominal Output:		1		1 0 0	1
Voltage:	12 Volts	12 Volts	12 Volts	12 Volts	6 Volts
Current:	1.25 Amps	1.25 Amps	1.25 Amps	1.25 Amps	1.25 Amps
Input Voltage:	115 VAC	220 VAC	230 VAC	240 VAC	115 VAC
Input Frequency:	60 Hz	50 Hz	50 Hz	50 Hz	60 Hz
Maximum Input Current:	0.36 Arms	0.19 Arms	0.18 Arms	0.17 Arms	0.18 Arms
Nominal Efficiency:	55%	55%	55%	55%	55%
Nominal Power Factor:	0.8	0.8	0.8	0.8	0.8
Charger Output:	•				
Maximum Power:		18 V	Watts		9 Watts
(+/- 3%) @ 25 °C					
Maximum Current:		1.25	Amps		1.25 Amps
During Bulk Charge					-
Absorption Voltage:		14.4 VDC	= (2.4 vpc)		7.2 VDC =
					(2.4 vpc)
Absorption to Float			w 0.1 Amp or Ab		
Transition:	exceeds 6 Hou		voltage does not i	reach Absorption	Charge level
			within 72 hours.		
Equalization Voltage:			NA		1
Float Voltage:	13.2 VDC = (2.2 vpc) 6.6 VDC =				
CI D D		10 : 10	N. T. LID.C.		(2.2 vpc)
Charge Reset: Battery	12 to 12.5 VDC			6 to 6.2	
Voltage Threshold	(2 to 2.08 vpc) VDC				
					(2 to 2.07 vpc)
Output Regulation:					vpc)
Line (Typical):		Less	than 1% at 120V	AC	
Electrical Isolation:		LC33	than 170 at 120 v	110	
Input / Output:			1500 VAC		
Input / Chassis:			1500 VAC		
Output / Chassis:			500 VAC		
Operating Temp:			-20°C to 50°C		
Dimensions:	4 87	5 in(124 mm)L x	3.25(83 mm)W	x 2.875 in(73 mn	n)H
Weight:	1.07.	3 III(12 1 IIIII)	2.7 lbs.	2.073 III(73 IIII	
Carton Size:	6	in(153 mm)L x		x 6 in(153 mm)H	
Shipping Weight:	6 in(153 mm)L x 6 in(153 mm)W x 6 in(153 mm)H 3 lbs.				
Enclosure:	Powder Coated Aluminum Chassis				
Special Features:	1	22.2			
Short Circuit Protection:			YES		
Reverse Polarity Protection:	YES				
Spark Proof:	YES				
Temperature Compensation:	YES = -3.5mV/ °C/Cell				
Agency Listings:	Selected models are listed to UL-1236 and CSA 22.2				
UL, ETL, CSA, etc.	Contact the office in DeLand, FL for information on agency listings.				
			one: 386-736-790		J

Table 2 Specification Sheet: Battery Tender® Plus (12V and 6V)



	Battery Tender® Plus (8 Volt)			
Charger Specification Summary				
Deltran Part Number: 021-0152				
Nominal Output:				
Voltage:	8 Volts			
Current:	1.25 Amps			
Input Voltage:	115 VAC			
Input Frequency:	60 Hz			
Maximum Input Current:	0.18 Arms			
Nominal Efficiency:	55%			
Nominal Power Factor:	0.8			
Charger Output:				
Maximum Power:	12 Watts			
(+/- 3%) @ 25 °C				
Maximum Current:	1.25 Amps			
During Bulk Charge	•			
Absorption Voltage:	9.6 VDC = (2.4 vpc)			
Absorption to Float	Charge Current drops: below 0.1 Amp or Absorption Charge Duration			
Transition:	exceeds 6 Hours, or if battery voltage does not reach Absorption Charge level			
	within 72 hours.			
Equalization Voltage:	NA			
Float Voltage:	8.8 VDC = (2.2 vpc)			
Charge Reset: Battery	8 to 8.14 VDC			
Voltage Threshold	(2 to 2.07 vpc)			
Output Regulation:				
Line (Typical):	Less than 1% at 120VAC			
Electrical Isolation:				
Input / Output:	1500 VAC			
Input / Chassis:	1500 VAC			
Output / Chassis:	500 VAC			
Operating Temp:	-20°C to 50°C			
Dimensions:	4.875 in(124 mm)L x 3.25(83 mm)W x 2.875 in(73 mm)H			
Weight:	2.7 lbs.			
Carton Size:	6 in(153 mm)L x 6 in(153 mm)W x 6 in(153 mm)H			
Shipping Weight:	3 lbs.			
Enclosure:	Powder Coated Aluminum Chassis			
Special Features:				
Short Circuit Protection:	YES			
Reverse Polarity Protection:	YES			
Spark Proof:	YES			
Temperature Compensation:	YES = -3.5 mV/ °C/Cell			
Agency Listings: UL, ETL, CSA, etc.	Selected models are listed to UL-1236 and CSA 22.2 Contact the office in DeLand, FL for information on agency listings. Phone: 386-736-7900			

Table 3 Specification Sheet: Battery Tender[®] Plus (8V)



I	nternational Battery Tender®
	Charger Specification Summary
SOFTWARE:	STANDARD
Deltran Part Number:	022-0139
Nominal Output:	
Voltage:	12 Volts
Current:	1.25 Amps
Input Voltage:	100 to 240 VAC
(Universal Input)	
Input Frequency:	47 to 62 Hz
Maximum Input Current:	0.25 Arms @ 100 VAC
•	0.10 Arms @ 240 VAC
Nominal Efficiency:	85%
Nominal Power Factor:	0.9
Charger Output:	
Maximum Power:	18 Watts
@ 25 °C	(+/- 2%) Watts
Maximum Current:	1.25 Amps
During Bulk Charge	(+/- 2%)
Absorption Voltage:	14.4 VDC = (2.4 vpc)
Absorption to Float	Charge Current drops to below 0.1 Amps.
Transition:	OR 6 to 8 hours elapse.
Equalization Voltage:	NA
Float Voltage:	13.2 VDC = (2.4 vpc)
Charge Reset: Battery	12 to 12.5 VDC
Voltage Threshold:	(2 to 2.08 vpc)
Output Regulation:	Y 1 10
Line (Typical):	Less than 1%
Electrical Isolation:	0500 VAC
Input / Output:	2500 VAC
Input / Chassis:	2500 VAC
Output / Chassis:	500 VAC
Operating Temp:	-20°C to 50°C
Dimensions:	5.4 in (137 mm)L x 2.9 in (74 mm)W x 1.6 in (41 mm)H
Weight:	0.7 lbs including integral DC output cord with Quick Disconnect (QDC)
Clamshell Size:	10.25 in (261 mm)L x 3.5 in (89 mm)W (at base) x 10.5 in (267 mm)H
Shipping Weight:	Less than 2 lbs., (1.5 lbs in Clamshell with accessory cords)
Enclosure:	94VO Flame Retardant Polymer
Special Features: Short Circuit Protection:	VEC
	YES YES
Reverse Polarity Protection:	
Spark Proof:	YES YES
Temperature Compensation: Agency Listings:	
UL, ETL, CSA, etc.	The International Battery Tender bears the CE mark and it is listed to both UL-1236 and CSA 22.2
	Contact the office in DeLand, FL for information on agency listings.
	Phone: 386-736-7900

 Table 4 Specification Sheet: International Battery Tender®



13.5 VDC = (2.4 vpc)

12 to 12.5 VDC

5 Bank Battery Tender® Battery Management System **Charger Specification Summary** Sealed/VRLA/GRT/AGM **SOFTWARE: Deltran Part Number:** 021-0133 021-0146-2 022-0146-3 022-1046-4 **Nominal Output: Per Bank (5 Separate Outputs)** Voltage: 12 Volts

, orașe.	12 (0105			
Current:	2.0 Amps			
Input Voltage:	115 VAC	220 VAC	230 VAC	240 VAC
Input Frequency:	60 Hz	50 Hz	50 Hz	50 Hz
Total Max Input Current:	2.9 Arms	1.6	1.55	1.5
Nominal Efficiency:	55%	55%	55%	55%
Nominal Power Factor:	0.8	0.8	0.8	0.8
Charger Output: Per Bank:				
Marrimum Darriam		20.1	Votta	

Maximum Power:	29 Watts	
@ 25 °C	(+/- 2%) Watts	
Maximum Current:	2.0 Amps	
During Bulk Charge	(+/- 2%)	
Absorption Voltage:	14.75 VDC = (2.46 vpc)	
Absorption to Float	Charge Current drops to below 0.1 Amps.	
Transition:	OR 8 hours elapse.	
Equalization Voltage:	NA	

Voltage Threshold: (2 to 2.08 vpc) **Output Regulation:** Line (Typical): Less than 1%

Float Voltage:

Charge Reset: Battery

Electrical Isolation:	
Input / Output:	2500 VAC
Input / Chassis:	2500 VAC
Output / Chassis:	500 VAC
Operating Temp:	-20°C to 50°C
Dimensions:	12.125 in (308 mm)L x 7.875 in (200 mm)W x 7.875 in (200 mm)H

Weight:	16 lbs.
Shipping Carton	18 in (458 mm)L x 12 in (305 mm)W x 12 in (305 mm)H
Shipping Weight:	20 lbs.
Enclosure:	Powder Coated Aluminum

Special Features:	
Short Circuit Protection:	YES
Reverse Polarity Protection:	YES
Spark Proof:	YES

YES Temperature Compensation: The Battery Tender® Battery Management System is designed to meet both Agency Listings: UL, ETL, CSA, etc. UL-1236 and CSA 22.2 Contact the office in DeLand, FL for information on agency listings. Phone: 386-736-7900

Table 5 Spec Sheet: 5 Bank Battery Tender[®] Battery Mgmt System



10 Bank Battery Tender® Battery Management System **Charger Specification Summary SOFTWARE:** Sealed/VRLA/GRT/AGM **Deltran Part Number:** 021-0134 021-0147-2 022-0147-3 022-1047-4 Nominal Output: Per Bank (10 Separate Outputs) Voltage: 12 Volts **Current: 2.0** Amps Input Voltage: 115 VAC 220 VAC 230 VAC 240 VAC 60 Hz 50 Hz 50 Hz 50 Hz **Input Frequency:** Total Max Input Current: 5.8 Arms 3.2 3.1 3.0 Nominal Efficiency: 55% 55% 55% 55% Nominal Power Factor: 0.8 0.8 0.8 0.8 Charger Output: Per Bank: Maximum Power: 29 Watts @ 25 °C (+/-2%) Watts Maximum Current: 2.0 Amps (+/-2%)**During Bulk Charge** Absorption Voltage: 14.75 VDC = (2.46 vpc)Absorption to Float Charge Current drops to below 0.1 Amps. Transition: OR 8 hours elapse. Equalization Voltage: NA Float Voltage: 13.5 VDC = (2.4 vpc)Charge Reset: Battery 12 to 12.5 VDC Voltage Threshold: (2 to 2.08 vpc) **Output Regulation:** Line (Typical): Less than 1% **Electrical Isolation:** Input / Output: 2500 VAC Input / Chassis: 2500 VAC Output / Chassis: 500 VAC **Operating Temp:** -20°C to 50°C 16.25 in (413 mm)L x 7.875 in (200 mm)W x 7.875 in (200 mm)H **Dimensions:** 22 lbs. Weight: 18 in (458 mm)L x 12 in (305 mm)W x 12 in (305 mm)H **Shipping Carton Shipping Weight:** 27 lbs. **Enclosure:** Powder Coated Aluminum **Special Features: Short Circuit Protection:** YES Reverse Polarity Protection: YES Spark Proof: YES Temperature Compensation: YES The Battery Tender® Battery Management System is designed to meet both Agency Listings: UL, ETL, CSA, etc. UL-1236 and CSA 22.2 Contact the office in DeLand, FL for information on agency listings.

Table 6 Spec Sheet: 10 Bank Battery Tender[®] Battery Mgmt System

Phone: 386-736-7900



Portable Power Tender				
Charger Specification Summary				
SOFTWARE:	STANDARD			
Deltran Part Number:	022-0142			
Nominal Output:	022-0142			
Voltage:	12 Volts			
Current:	5 Amps			
Input Voltage:				
(Factory Selectable)	100 to 250 VAC			
Input Frequency:	47 to 62 Hz			
Maximum Input Current:	1.38 Arms @ 100 VAC			
1	0.45 Arms @ 250 VAC			
Nominal Efficiency:	80%			
Nominal Power Factor:	0.7			
Charger Output:				
Maximum Power:	62.5 Watts			
@ 25 °C	(+/- 5%) Watts			
Maximum Current:	5.0 Amps			
During Bulk Charge	(+/-5%)			
Absorption Voltage:	14.5 VDC = (2.42 vpc)			
Absorption to Float	Charge Current drops to below 0.1 Amps.			
Transition:	OR 6 to 8 hours elapse.			
Equalization Voltage:	NA			
Float Voltage:	13.2 VDC = (2.2 vpc)			
Charge Reset: Battery	12 to 12.5 VDC			
Voltage Threshold:	(2 to 2.08 vpc)			
Output Regulation:				
Line (Typical):	1%			
Electrical Isolation:				
Input / Output:	2500 VAC			
Input / Chassis:	2500 VAC			
Output / Chassis:	500 VAC			
Operating Temp:	-20°C to 50°C			
Dimensions:	7.75 in (197 mm)L x 5.38 in (137 mm)W x 4.88 in (124 mm)H			
Weight:	3.2 lbs. (1.45 kg)			
Carton Size:	10.0 in (254 mm)L x 8.0 in (204 mm)W x 8.0 in (204 mm)H			
Shipping Weight:	5.0 lbs. (2.27 kg)			
Enclosure:	Anodized Aluminum Chassis			
Special Features:				
Short Circuit Protection:	YES			
Reverse Polarity Protection:	YES			
Spark Proof:	YES			
Temperature Compensation:	NO NO			
Agency Listings: UL, ETL, CSA, etc.	The Portable Tender is designed to meet the listing requirements for the CE mark, UL-1236, and CSA 22.2 Contact the office in DeLand, FL for information on agency listings.			
	Phone: 386-736-7900			

 Table 7
 Specification Sheet: Portable Power Tender



	Charger Specificat	tion Summary		
SOFTWARE:	Charger Specifica	STANDARD		
Deltran Part Number:	022-0089-1, -2	022-0070-1, -2	022-0086-1, -2	
Nominal Output:	(Walte	12 Valta	24 \$7.14.	
Voltage:	6 Volts	12 Volts	24 Volts 3 Amps	
Current:	6 Amps	6 Amps umber suffix 90 to 132 VA		
Input Voltage: (Factory Selectable)		umber suffix 180 to 264 V		
Input Frequency:	witti –2 part ii	47 to 62 Hz	10	
Maximum Input Current:	0.80 Arms @ 90 VAC		@ 90 VAC	
Maximum input Current:	0.40 Arms @ 180 VAC	0.81 Arms		
Nominal Efficiency	80%)%	
Nominal Efficiency: Nominal Power Factor:	0.6		.6	
	0.0	0	.0	
Charger Output: Maximum Power:	35 Watts	70.0	Vatts	
@ 25 °C	(+2, -5) Watts) Watts	
Maximum Current:	6.0 A		3.0 Amps	
During Bulk Charge	(+/- 1	,	(+/- 10%)	
Absorption Voltage:	7.2 VDC = (2.4 vpc)	14.5 VDC = (2.42 vpc)	28.8 VDC = (2.4 vpc	
Absorption to Float	Charge Current drop	os: below 3.0 Amps.	below 1.0 Amp.	
Transition:		NY A		
Equalization Voltage:	COURGE (2.2	NA (2.2 VP)G (2.2 V	26 4 110 0 (2.2	
Float Voltage:	6.6 VDC = (2.2 vpc)	13.2 VDC = (2.2 vpc)	26.4 VDC = (2.2 vpc)	
Charge Reset: Battery	6 to 6.2 VDC	12 to 12.5 VDC	24 to 24.5 VDC	
Voltage Threshold:	(2 to 2.07 vpc)	(2 to 2.08 vpc)	(2 to 2.04 vpc)	
Output Regulation:	T	10/		
Line (Typical):		1%		
Electrical Isolation:	T			
Input / Output:		2500 VAC		
Input / Chassis:		2500 VAC		
Output / Chassis:		500 VAC		
Operating Temp:		-20°C to 50°C		
Dimensions:	5 in(1	5 in(127)L x 4.9 in(125)W x 2 in(51)H		
Weight:	21 oz.			
Carton Size:	6 in(153 mm	n)L x 6 in(153 mm)W x 6 in	n(153 mm)H	
Shipping Weight:	2 lbs.			
Enclosure:	Powder Coated Aluminum Chassis			
Special Features:				
Short Circuit Protection:	YES			
Reverse Polarity Protection:	YES			
Spark Proof:	NO			
Temperature Compensation:		NO		
Agency Listings:	Selected mod	dels are listed to UL-1236 a	nd CSA 22.2	
UL, ETL, CSA, etc.	Contact the office in	DeLand, FL for informatio	n on agency listings.	
		Phone: 386-736-7900	=	

Table 8 Spec Sheet: LWOB Power Tender (6V, 12V, 24V Standard)



	Charger Specificat	tion Summary		
SOFTWARE:	Sealed/VRLA/GRT/AGM			
SOI I WAKE.	(Valve Regulated Lead Acid / Gas Recombinant Technology /Absorbed			
	·	Glass Matte)	3.	
Deltran Part Number:	022-0072-1, -2 022-0071-1, -2 022-0073-1			
Nominal Output:				
Voltage:	6 Volts	12 Volts	24 Volts	
Current:	6 Amps	6 Amps	3 Amps	
Input Voltage:		number suffix 90 to 132 V		
(Factory Selectable)	with –2 part n	number suffix 180 to 264 V	AC	
Input Frequency:		47 to 62 Hz		
Maximum Input Current:	0.80 Arms @ 90 VAC		@ 90 VAC	
	0.40 Arms @ 180 VAC		@ 180 VAC	
Nominal Efficiency:	80%		0%	
Nominal Power Factor:	0.6	0	.6	
Charger Output:	25 W	50 T	V	
Maximum Power:	35 Watts		Vatts	
@ 25 °C	(+2, -5) Watts	l ·) Watts	
Maximum Current:		Amps	3.0 Amps	
During Bulk Charge	(+/-) 7.5 VDC = (2.48 vpc)	14.9 VDC = (2.48 vpc)	(+/- 10%) 29.8 VDC = (2.48 vpc	
Absorption Voltage: Absorption to Float		Charge Duration is Fixed		
Transition:	Ausorption	Charge Duration is Fixed	at o mours.	
Equalization Voltage:		NA		
Float Voltage:	6.8 VDC = (2.27 vpc)	13.6 VDC = (2.27 vpc)	27.2 VDC = (2.27 vpc	
Charge Reset: Battery	6 to 6.2 VDC	12 to 12.5 VDC	23 to 24 VDC	
VoltageThreshold:	(2 to 2.07 vpc)	(2 to 2.08 vpc)	(1.92 to 2.0 vpc)	
Output Regulation:	(2 to 2.07 Tpc)	(2 to 2.00 tpc)	(1.52 to 2.0 (pc)	
Line (Typical):		1%		
Electrical Isolation:		170		
Input / Output:		2500 VAC		
Input / Chassis:		2500 VAC		
Output / Chassis:		500 VAC		
Operating Temp:		-20°C to 50°C		
Dimensions:	5 in(127)L x 4.9 in(125)W x 2 in(51)H			
Weight:		21 oz.		
Carton Size:	6 in(153 mm	n)L x 6 in(153 mm)W x 6 ir	n(153 mm)H	
Shipping Weight:	2 lbs.			
Enclosure:	Powder Coated Aluminum Chassis			
Special Features:				
Short Circuit Protection:	YES			
Reverse Polarity Protection:	YES			
Spark Proof:	NO			
Temperature Compensation:		NO		
Agency Listings:	Selected models are listed to UL-1236 and CSA 22.2			
UL, ETL, CSA, etc.	Contact the office in DeLand, FL for information on agency listings.			
		Phone: 386-736-7900		

 Table 9 Spec Sheet: LWOB Power Tender (6V, 12V, 24V AGM)



Lightweight On Board (Power Tender) 12V GEL		
Charger Specification Summary		
SOFTWARE:	GEL	
Deltran Part Number:	022-0083-1, -2	
Nominal Output:	022 0000 1, 2	
Voltage:	12 Volts	
Current:	6 Amps	
Input Voltage:	with -1 part number suffix 90 to 132 VAC	
(Factory Selectable)	with –2 part number suffix 180 to 264 VAC	
Input Frequency:	47 to 62 Hz	
Maximum Input Current:	1.61 Arms @ 90 VAC	
	0.81 Arms @ 180 VAC	
Nominal Efficiency:	80%	
Nominal Power Factor:	0.6	
Charger Output:		
Maximum Power:	70 Watts	
@ 25 °C	(+2, -5) Watts	
Maximum Current:	6.0 Amps	
During Bulk Charge	(+/- 10%)	
Absorption Voltage:	14.1 VDC = (2.35 vpc)	
Absorption to Float	Charge Current drops: below 3.0 Amps.	
Transition: Equalization Voltage:	NA	
Float Voltage:		
Charge Reset: Battery	13.2 VDC = (2.2 vpc) 12 to 12.5 VDC	
Voltage Threshold:	(2 to 2.08 vpc)	
Output Regulation:	(2 to 2.00 tpc)	
Line (Typical):	1%	
Electrical Isolation:		
Input / Output:	2500 VAC	
Input / Chassis:	2500 VAC	
Output / Chassis:	500 VAC	
Operating Temp:	-20°C to 50°C	
Dimensions:	5 in(127)L x 4.9 in(125)W x 2 in(51)H	
Weight:	21 oz.	
Carton Size:	6 in(153 mm)L x 6 in(153 mm)W x 6 in(153 mm)H	
Shipping Weight:	2 lbs.	
Enclosure:	Powder Coated Aluminum Chassis	
Special Features:		
Short Circuit Protection:	YES	
Reverse Polarity Protection:	YES	
Spark Proof:	NO	
Temperature Compensation:	NO	
Agency Listings: UL, ETL, CSA, etc.	Selected models are listed to UL-1236 and CSA 22.2 Contact the office in DeLand, FL for information on agency listings. Phone: 386-736-7900	

Table 10 Spec Sheet: LWOB Power Tender (12V GEL)



High Frequency Super	rSmart® (Golf Cart St	tyle) 12V, 24V STD
Ch	arger Specification Summary	
SOFTWARE:	STANDARD	
Deltran Part Number:	022-0081-1, -2	022-0077-1, -2
Nominal Output:	,	,
Voltage:	12 Volts	24 Volts
Current:	20 Amps	20 Amps
Input Voltage:	with –1 part number su	
(Factory Selectable)	with –2 part number su	
Input Frequency:	47-6	
Maximum Input Current:	5.25 Arms @ 90 VAC	10.5 Arms @ 90 VAC
Naminal Efficience	2.63 Arms @ 180 VAC	5.25 Arms @ 180 VAC
Nominal Efficiency: Nominal Power Factor:	85% 0.75	85% 0.75
	0.75	0./3
Charger Output: Maximum Power:	300 Watts	600 Watts
(+/- 3%) @ 25 °C	(275 W typical)	(550 W typical)
Maximum Current:	20 Amps	20 Amps
During Bulk Charge	20 / 1111p3	20 / Hilps
Absorption Voltage:	14.5 VDC = (2.42 vpc)	28.8 VDC = (2.40 vpc)
(Terminates when charge current	(1 1	· · · · · · · · · · · · · · · · · · ·
drops below 3 amps.)		
Equalization Voltage:	N	A
Float Voltage:	13.2 VDC = (2.2 vpc)	26.4 VDC = (2.2 vpc)
Charge Reset: Battery Voltage	12 to 12.5 VDC	24 to 24.5 VDC
Threshold	(2 to 2.08 vpc)	(2 to 2.04 vpc)
Output Regulation:		
Line (Typical):	19	%
Electrical Isolation:	2500	VI. G
Input / Output:	2500 VAC	
Input / Chassis:	2500	
Output / Chassis:	500	
Operating Temp: Dimensions:	-20°C to 50°C	
	12.0 in(305 mm)L x 7.5 in(191 mm)W x 3.27 in(84 mm)H <10 lb.	
Weight: Carton Size:		07 mm)W x 11.0 in(280 mm)H
Shipping Weight:	` , ,	, , , , ,
Enclosure:	11 lbs. Powder Coated Aluminum Chassis	
Special Features:	1 owder Coaled A	пинин Списон
Short Circuit Protection:	YES	
Reverse Polarity Protection:	YES	
Spark Proof:		
Temperature Compensation:	NO	
Agency Listings:	Designed to meet UL	-1236 and CSA 22.2
UL, ETL, CSA, etc.	Contact the office in DeLand, FL: Phone: 386	for information on agency listings.

Table 11 Spec Sheet: HF SuperSmart[®] Charger (12V, 24V Standard)



Cha	arger Specification Summary	
SOFTWARE:	<u> </u>	A/GRT/AGM
	(Valve Regulated Lead Acid / Gas Recombinan	
	_	rbed Glass Matte)
Deltran Part Number:	022-0119-1, -2	022-0102-1, -2
Nominal Output:	,	/
Voltage:	12 Volts	24 Volts
Current:	20 Amps	20 Amps
Input Voltage:	with -1 part number su	ffix 90 to 132 VAC
(Factory Selectable)	with –2 part number su	ffix 180 to 264 VAC
Input Frequency:		2 Hz
Maximum Input Current:	5.25 Arms @ 90 VAC	10.5 Arms @ 90 VAC
	2.63 Arms @ 180 VAC	5.25 Arms @ 180 VAC
Nominal Efficiency:	85%	85%
Nominal Power Factor:	0.75	0.75
Charger Output:		
Maximum Power:	300 Watts	600 Watts
(+/- 3%) @ 25 °C		
Maximum Current:	20 Amps	20 Amps
During Bulk Charge	1101700 (2.12	20.01105
Absorption Voltage:	14.9 VDC = (2.48 vpc)	29.8 VDC = (2.48 vpc)
Equalization Voltage Limit:	15.6 VDC = (2.60 vpc)	31.2 VDC = (2.60 vpc)
Equalization Constant Current:	2 Amps	2 Amps
Float Voltage:	13.6 VDC = (2.27 vpc)	27.2 VDC = (2.27 vpc)
Charge Reset: Battery Voltage	12 to 12.5 VDC	24 to 24.5 VDC
Threshold	(2 to 2.08 vpc)	(2 to 2.04 vpc)
Output Regulation:	11	0/
Line (Typical):	1	%
Electrical Isolation:	2500	VAC
Input / Output:		VAC
Input / Chassis:	500	
Output / Chassis:		
Operating Temp: Dimensions:		0 50°C
Weight:	12.0 m(303 mm)L x 7.3 m(19	91 mm)W x 3.27 in(84 mm)H
Carton Size:		07 mm)W x 11.0 in(280 mm)H
Shipping Weight:		
Enclosure:	11 lbs. Powder Coated Aluminum Chassis	
Special Features:	1 Owder Coaled A	Ardininum Chassis
Short Circuit Protection:	V	FS
Reverse Polarity Protection:	YES YES	
Spark Proof:	NO	
Temperature Compensation:	NO NO	
Agency Listings:		
UL, ETL, CSA, etc.	Designed to meet UL-1236 and CSA 22.2 Contact the office in DeLand, FL for information on agency listings	
,,,	Phone: 386-736-7900	

Table 12 Spec Sheet: HF SuperSmart[®] Charger (12V, 24V AGM)



High Frequency Super		tyle) 12V, 24V GEL
Cha	arger Specification Summary	
SOFTWARE:	GEL	
Deltran Part Number:	022-0138-1, -2	022-0131-1, -2
Nominal Output:	,	,
Voltage:	12 Volts	24 Volts
Current:	20 Amps	20 Amps
Input Voltage:	with $-\hat{1}$ part number su	iffix 90 to 132 VAC
(Factory Selectable)	with –2 part number su	offix 180 to 264 VAC
Input Frequency:	47-6	52 Hz
Maximum Input Current:	5.25 Arms @ 90 VAC	10.5 Arms @ 90 VAC
	2.63 Arms @ 180 VAC	5.25 Arms @ 180 VAC
Nominal Efficiency:	85%	85%
Nominal Power Factor:	0.75	0.75
Charger Output:		
Maximum Power:	300 Watts	600 Watts
(+/- 3%) @ 25 °C		
Maximum Current:	20 Amps	20 Amps
During Bulk Charge		
Absorption Voltage:	14.1 VDC = (2.35 vpc)	28.2 VDC = (2.35 vpc)
Equalization Voltage Limit:	NA	NA
Equalization Constant Current:	NA	NA
Float Voltage:	13.2 VDC = (2.20 vpc)	26.4 VDC = (2.20 vpc)
Charge Reset: Battery Voltage	12 to 12.5 VDC	24 to 24.5 VDC
Threshold	(2 to 2.08 vpc)	(2 to 2.04 vpc)
Output Regulation:		
Line (Typical):	1	%
Electrical Isolation:		
Input / Output:		VAC
Input / Chassis:		VAC
Output / Chassis:		VAC
Operating Temp:		to 50°C
Dimensions:		91 mm)W x 3.27 in(84 mm)H
Weight:) lb.
Carton Size:		07 mm)W x 11.0 in(280 mm)H
Shipping Weight:		lbs.
Enclosure:	Powder Coated Aluminum Chassis	
Special Features:		
Short Circuit Protection:	YES	
Reverse Polarity Protection:	YES	
Spark Proof:	NO	
Temperature Compensation:		[0
Agency Listings:		L-1236 and CSA 22.2
UL, ETL, CSA, etc.	Contact the office in DeLand, FL for information on agency listings Phone: 386-736-7900	

Table 13 Spec Sheet: HF SuperSmart® Charger (12V, 24V GEL)



High Frequency Super	rSmart® (Golf Cart St	tyle) 36V, 48V STD
Ch	arger Specification Summary	
SOFTWARE:	STANDARD	
Deltran Part Number:	022-0066-1, -2	022-0074-1, -2
Nominal Output:	,	,
Voltage:	36 Volts	48 Volts
Current:	15 Amps	10 Amps
Input Voltage:	with -1 part number su	
(Factory Selectable)	with –2 part number su	
Input Frequency:	47-6	
Maximum Input Current:	10.5 Arms @ 90 VAC	10.5 Arms @ 90 VAC
	5.25 Arms @ 180 VAC	5.25 Arms @ 180 VAC
Nominal Efficiency:	85%	85%
Nominal Power Factor:	0.75	0.75
Charger Output:		
Maximum Power:	600 Watts	600 Watts
(+/- 3%) @ 25 °C	(550 W typical)	(550 W typical)
Maximum Current:	15 Amps	10 Amps
During Bulk Charge		
Absorption Voltage:	43.3 VDC = (2.41 vpc)	57.6 VDC = (2.40 vpc)
(Terminates when charge current		
drops below 3 amps.)		
Equalization Voltage:	N	
Float Voltage:	39.6 VDC = (2.2 vpc)	52.8 VDC = (2.2 vpc)
Charge Reset: Battery Voltage	36 to 37 VDC	48 to 49 VDC
Threshold	(2 to 2.06 vpc)	(2 to 2.04 vpc)
Output Regulation:		
Line (Typical):	19	%
Electrical Isolation:		
Input / Output:	2500	
Input / Chassis:	2500	
Output / Chassis:	500	
Operating Temp:	-20°C to 50°C	
Dimensions:	12.0 in(305 mm)L x 7.5 in(191 mm)W x 3.27 in(84 mm)H	
Weight:	<10	
Carton Size:		07 mm)W x 11.0 in(280 mm)H
Shipping Weight:	11 lbs.	
Enclosure:	Powder Coated Aluminum Chassis	
Special Features:		
Short Circuit Protection:	YES	
Reverse Polarity Protection:	YES	
Spark Proof:	NO	
Temperature Compensation:	N	
Agency Listings:	Designed to meet UL	
UL, ETL, CSA, etc.	Contact the office in DeLand, FL: Phone: 386	

Table 14 Spec Sheet: HF SuperSmart[®] Charger (36V, 48V Standard)



Cha	rger Specification Summary	
SOFTWARE:	Sealed/VRLA/GRT/AGM (Valve Regulated Lead Acid / Gas Recombinant Technolo /Absorbed Glass Matte)	
Deltran Part Number:	022-0115-1, -2	022-0113-1, -2
Nominal Output:		
Voltage:	36 Volts	48 Volts
Current:	15 Amps	10 Amps
Input Voltage:	with –1 part number su	
(Factory Selectable)	with –2 part number su	iffix 180 to 264 VAC
Input Frequency:	47-6	2 Hz
Maximum Input Current:	10.5 Arms @ 90 VAC	10.5 Arms @ 90 VAC
	5.25 Arms @ 180 VAC	5.25 Arms @ 180 VAC
Nominal Efficiency:	85%	85%
Nominal Power Factor:	0.75	0.75
Charger Output:		
Maximum Power:	600 Watts	600 Watts
(+/- 3%) @ 25 °C		
Maximum Current:	15 Amps	10 Amps
During Bulk Charge		
Absorption Voltage:	44.7 VDC = (2.48 vpc)	59.6 VDC = (2.48 vpc)
Equalization Voltage Limit:	46.8 VDC = (2.60 vpc)	62.4 VDC = (2.60 vpc)
Equalization Constant Current:	2 Amps	2 Amps
Float Voltage:	40.8 VDC = (2.27 vpc)	54.4 VDC = (2.27 vpc)
Charge Reset: Battery Voltage	36 to 37 VDC	48 to 49 VDC
Threshold	(2 to 2.06 vpc)	(2 to 2.04 vpc)
Output Regulation:		
Line (Typical):	1	%
Electrical Isolation:		
Input / Output:	2500 VAC	
Input / Chassis:		VAC
Output / Chassis:		VAC
Operating Temp:	-20°C to 50°C	
Dimensions:	` '	91 mm)W x 3.27 in(84 mm)H
Weight:) lb.
Carton Size:	, , , , , , , , , , , , , , , , , , , ,	07 mm)W x 11.0 in(280 mm)H
Shipping Weight:		lbs.
Enclosure:	Powder Coated Aluminum Chassis	
Special Features:		
Short Circuit Protection:	YES	
Reverse Polarity Protection:	YES	
Spark Proof:	NO	
Temperature Compensation:		O
Agency Listings:		L-1236 and CSA 22.2
UL, ETL, CSA, etc.	Contact the office in DeLand, FL for information on agency listings. Phone: 386-736-7900	

Table 15 Spec Sheet: HF SuperSmart[®] Charger (36V, 48V AGM)



Heavy Duty Portable	Charger, Single 12V2	20A, DVS-20, STD
Ch	arger Specification Summary	
SOFTWARE:	STANDARD	
Deltran Part Number:	021-0099	
Nominal Output:		
•	DELCO Mode	Other Mode
Voltage:	12 Volts	12 Volts
Current:	20 Amps	20 Amps
Input Voltage:	85 to 13	
Input Frequency:	57 to 6	
Total Maximum Input Current:	9.8 A	
Nominal Efficiency:	60'	
Nominal Power Factor:	0.	6
Charger Output:	200 m	V-44-
Maximum Power:	300 V	vaus
(+/- 3%) @ 25 °C Maximum Current:	20.4	mns
During Bulk Charge	20 A	mps
Absorption Voltage:	NA	14.56 VDC = (2.43 vpc)
Note: When operating in the Delco mod		
period because the constant current does When operating in the Other mode, the c	not terminate until the battery voltage	e reaches the equalization level.
Equalization Voltage:	16.25 (2.71 vpc)	16.58 (2.76 vpc)
Float Voltage:	13.5 VDC = (2.25 vpc)	13.5 VDC = (2.25 vpc)
Charge Reset: Battery Voltage	12 to 12.5 VDC	12 to 12.5 VDC
Threshold	(2 to 2.08 vpc)	(2 to 2.08 vpc)
Output Regulation:		
Line (Typical):	19	<u>6</u>
Electrical Isolation:	4,500	T
Input / Output:	1500	
Input / Chassis:	1500	
Output / Chassis:	500 V	
Operating Temp: Dimensions:	-20°C to 50°C 9.0 in(229 mm)L x 6.75 in(172 mm)W x 6.75 in(172 mm)H	
Weight: Carton Size:	19 lb. 16.0 in(407 mm)L x 12 in(305)W x 10 in(254 mm)H	
Shipping Weight:		
Enclosure:	20 lbs. Powder Coated Aluminum Chassis	
Special Features:	1 owder couled A	Idininani Chassis
Short Circuit Protection:	YES	
Reverse Polarity Protection:	YES	
Spark Proof:	NO	
Temperature Compensation:	NO	
Agency Listings:	Designed to meet UL	-1236 and CSA 22.2
UL, ETL, CSA, etc.	Contact the office in DeLand, FL f Phone: 386	

Table 16 Spec Sheet: Heavy Duty DVS-20, Single 12V20A Standard



Heavy Duty Portable (arger Specification Summary	, ,
SOFTWARE:	Sealed/VRLA/GRT/AGM (Valve Regulated Lead Acid / Gas Recombinant Technology /Absorbed Glass Matte)	
Deltran Part Number:	021-	0136
Nominal Output:		
_	DELCO Mode	Hawker (GRT/AGM)
Voltage:	12 Volts	12 Volts
Current:	20 Amps	20 Amps
Input Voltage:	85 to 13	80 VAC
Input Frequency:	57 to (63 Hz
Total Maximum Input Current:	9.8 A	Arms
Nominal Efficiency:	60	%
Nominal Power Factor:	0.	6
Charger Output:		
Maximum Power:	300 V	Vatts
(+/- 3%) @ 25 °C		
Maximum Current:	20 A	mps
During Bulk Charge		
Absorption Voltage: Note: When operating in the Delco mode	NA	14.7 VDC = (2.45 vpc)
period because the constant current does When operating in the GRT/AGM mode, Equalization Voltage:		
Float Voltage:	13.5 VDC = (2.25 vpc)	13.6 VDC = (2.27 vpc)
Charge Reset: Battery Voltage	12 to 12.5 VDC	12 to 12.5 VDC
Threshold	(2 to 2.08 vpc)	(2 to 2.08 vpc)
Output Regulation:	_	-
Line (Typical):	19	%
Electrical Isolation:		
Input / Output:	1500	
Input / Chassis:	1500	
Output / Chassis:	500	
Operating Temp:	-20°C t	
Dimensions:	9.0 in(229 mm)L x 6.75 in(172 mm)W x 6.75 in(172 mm)H	
Weight:	19	
Carton Size:	16.0 in(407 mm)L x 12 in(` ` ` `
Shipping Weight:	20 lbs.	
Enclosure:	Powder Coated Aluminum Chassis	
Special Features:		
Short Circuit Protection:	YES	
Reverse Polarity Protection:	YES	
Spark Proof:		
Temperature Compensation:		
Agency Listings:	Designed to meet UL	
UL, ETL, CSA, etc.	Contact the office in DeLand, FL for information on agency listings Phone: 386-736-7900	

Table 17 Spec Sheet: Heavy Duty DVS-20, Single 12V20A AGM



Heavy Duty Portable	Charger, Dual 12V10	0A, DVD-20, STD
Ch	arger Specification Summary	
SOFTWARE:	STANDARD	
Deltran Part Number:	021-0098	
Nominal Output:		
•	DELCO Mode	Other Mode
Voltage:	12 Volts	12 Volts
Current:	10 Amps	10 Amps
Input Voltage:	85 to 13	80 VAC
Input Frequency:	57 to 6	63 Hz
Total Maximum Input Current:	9.8 A	Arms
Nominal Efficiency:	60	%
Nominal Power Factor:	0.	6
Charger Output:		
Maximum Power:	150 Watts p	
(+/- 3%) @ 25 °C	300 Wat	
Maximum Current:	10 Amps pe	
During Bulk Charge	20 Amp	
Absorption Voltage:	NA .	14.56 VDC = (2.43 vpc)
Note: When operating in the Delco mod period because the constant current does When operating in the Other mode, the c	not terminate until the battery voltage	e reaches the equalization level. er, absorption voltage level.
Equalization Voltage:	16.25 (2.71 vpc)	16.58 (2.76 vpc)
Float Voltage:	13.5 VDC = (2.25 vpc)	13.5 VDC = (2.25 vpc)
Charge Reset: Battery Voltage	12 to 12.5 VDC	12 to 12.5 VDC
Threshold	(2 to 2.08 vpc) (2 to 2.08 vpc)	
Output Regulation:		
Line (Typical):	19	%
Electrical Isolation:	1500	Y A C
Input / Output:	1500	
Input / Chassis:	1500	
Output / Chassis:	500 V	
Operating Temp:	-20°C t	
Dimensions:	10.25 in(261 mm)L x 7.25 in(1)	
Weight: Carton Size:	16.0 in(407 mm)L x 12 in(
	` /	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `
Shipping Weight: Enclosure:	22 lbs. Powder Coated Aluminum Chassis	
Special Features:	1 Owder Coaled A	Idiiiiidiii Ciidəələ
Short Circuit Protection:	YES	
Reverse Polarity Protection:		
Spark Proof:		
Temperature Compensation:	NO	
Agency Listings:	Designed to meet UL	
UL, ETL, CSA, etc.	Contact the office in DeLand, FL in Phone: 386	for information on agency listing

Table 18 Spec Sheet: Heavy Duty DVD-20, Dual 12V10A Standard



Heavy Duty Portable	Charger, Dual 12V10	A, DVD-20, AGM
Ch	arger Specification Summary	
SOFTWARE:	Sealed/VRLA/GRT/AGM (Valve Regulated Lead Acid / Gas Recombinant Technology /Absorbed Glass Matte)	
Deltran Part Number:	021-	0137
Nominal Output:		
	DELCO Mode	Hawker (GRT/AGM) Mode
Voltage:	12 Volts	12 Volts
Current:	10 Amps	10 Amps
Input Voltage:	85 to 13	30 VAC
Input Frequency:	57 to	63 Hz
Total Maximum Input Current:	9.8 A	Arms
Nominal Efficiency:	60	9%
Nominal Power Factor:	0.	.6
Charger Output:		
Maximum Power:	150 Watts p	
(+/- 3%) @ 25 °C	300 Wat	
Maximum Current:		er Channel
During Bulk Charge	20 Amps Total	
Absorption Voltage:	NA	14.7 VDC (2.45 vpc)
Note: When operating in the Delco mod period because the constant current does When operating in the GRT/AGM mode.	not terminate until the battery voltag	e reaches the equalization level.
Equalization Voltage:	16.25 (2.71 vpc)	15.6 VDC (2.60 vpc)
Float Voltage:	13.5 VDC = (2.25 vpc)	13.6 VDC = (2.27 vpc)
Charge Reset: Battery Voltage	12 to 12.5 VDC	12 to 12.5 VDC
Threshold	(2 to 2.08 vpc) (2 to 2.08 vpc)	
Output Regulation:		
Line (Typical):	19	%
Electrical Isolation:		
Input / Output:		
Input / Chassis:		
Output / Chassis:	500	
Operating Temp:	-20°C to 50°C	
Dimensions:	10.25 in(261 mm)L x 7.25 in(185 mm)W x 6.75 in(172 mm)H	
Weight:	21 lb.	
Carton Size:	16.0 in(407 mm)L x 12 in(305)W x 10 in(254 mm)H	
Shipping Weight:	22 lbs.	
Enclosure:	Powder Coated Aluminum Chassis	
Special Features:		30
Short Circuit Protection:	YES	
Reverse Polarity Protection:		
Spark Proof:		
Temperature Compensation:		
Agency Listings: UL, ETL, CSA, etc.	Designed to meet UL-1236 and CSA 22.2 Contact the office in DeLand, FL for information on agency listings. Phone: 386-736-7900	

 Table 19 Spec Sheet: Heavy Duty DVD-20, Dual 12V10A AGM



Heavy Duty Portable	e Charger, Dual 12V20	0A, DVD-40, STD			
Ch	Charger Specification Summary				
SOFTWARE:	STANDARD				
Deltran Part Number:	021-0102				
Nominal Output:					
•	DELCO Mode	Other Mode			
Voltage:	12 Volts	12 Volts			
Current:	20 Amps	20 Amps			
Input Voltage:	85 to 13				
Input Frequency:	57 to (
Total Maximum Input Current:	19.6				
Nominal Efficiency:	60				
Nominal Power Factor:	0.	6			
Charger Output:					
Maximum Power:	300 Watts p				
(+/- 3%) @ 25 °C	600 Wat				
Maximum Current:	20 Amps p				
During Bulk Charge	40 Amp				
Absorption Voltage:	NA	14.56 VDC = (2.43 vpc)			
period because the constant current does	ode, the output current is a true constant current. There is no absorption as not terminate until the battery voltage reaches the equalization level.				
When operating in the Other mode, the c					
Equalization Voltage:	16.25 (2.71 vpc)	16.58 (2.76 vpc)			
Float Voltage:	13.5 VDC = (2.25 vpc)	13.5 VDC = (2.25 vpc)			
Charge Reset: Battery Voltage	12 to 12.5 VDC	12 to 12.5 VDC			
Threshold	(2 to 2.08 vpc)	(2 to 2.08 vpc)			
Output Regulation:	10	0/			
Line (Typical): Electrical Isolation:	19	% 0			
	1500 MAG				
Input / Output: Input / Chassis:					
Output / Chassis:	500				
Operating Temp:	-20°C t				
Dimensions:	11.75 in(299 mm)L x 9.0 in(22				
Weight:	28				
Carton Size:					
Shipping Weight:	16.0 in(407 mm)L x 12 in(305)W x 10 in(254 mm)H 29 lbs.				
Enclosure:	Powder Coated Aluminum Chassis				
Special Features:	Towar Could I				
Short Circuit Protection:	YES				
Reverse Polarity Protection:					
Spark Proof:					
Temperature Compensation:					
Agency Listings:	Designed to meet UL-1236 and CSA 22.2				
UL, ETL, CSA, etc.	Contact the office in DeLand, FL to Phone: 386				

Table 20 Spec Sheet: Heavy Duty DVD-40, Dual 12V20A Standard



Heavy Duty Portable	Charger, Dual 12V20	A, DVD-40, AGM
Ch	arger Specification Summary	
SOFTWARE:	Sealed/VRLA/GRT/AGM (Valve Regulated Lead Acid / Gas Recombinant Technology /Absorbed Glass Matte)	
Deltran Part Number:	021-	0138
Nominal Output:		
	DELCO Mode	Hawker (GRT/AGM) Mode
Voltage:	12 Volts	12 Volts
Current:	20 Amps	20 Amps
Input Voltage:	85 to 13	30 VAC
Input Frequency:	57 to	
Total Maximum Input Current:	19.6	Arms
Nominal Efficiency:	60	9%
Nominal Power Factor:	0.	6
Charger Output:		
Maximum Power:	300 Watts p	
(+/- 3%) @ 25 °C	600 Wat	
Maximum Current:	20 Amps p	
During Bulk Charge	40 Amp	
Absorption Voltage:	NA	14.7 VDC = (2.45 vpc)
Note: When operating in the Delco mod period because the constant current does When operating in the GRT/AGM mode	not terminate until the battery voltag	e reaches the equalization level.
Equalization Voltage:	16.25 (2.71 vpc)	15.6 VDC (2.60 vpc)
Float Voltage:	13.5 VDC = (2.25 vpc)	13.6 VDC = (2.27 vpc)
Charge Reset: Battery Voltage	12 to 12.5 VDC	12 to 12.5 VDC
Threshold	(2 to 2.08 vpc) (2 to 2.08 vpc)	
Output Regulation:		
Line (Typical):	19	%
Electrical Isolation:		
Input / Output:		
Input / Chassis:	1500	
Output / Chassis:	500 VAC	
Operating Temp:	-20°C to 50°C	
Dimensions:	11.75 in(299 mm)L x 9.0 in(229 mm)W x 6.75 in(172 mm)H	
Weight:	28	
Carton Size:		(305)W x 10 in(254 mm)H
Shipping Weight:	29 lbs.	
Enclosure:	Powder Coated Aluminum Chassis	
Special Features:		79
Short Circuit Protection:	YES	
Reverse Polarity Protection:	YES	
Spark Proof:		
Temperature Compensation:		
Agency Listings: UL, ETL, CSA, etc.	Designed to meet UL-1236 and CSA 22.2 Contact the office in DeLand, FL for information on agency listings.	
,,,,	Phone: 386-736-7900	

 Table 21
 Spec Sheet: Heavy Duty DVD-40, Dual 12V20A AGM