

Application Note SunSpec Data Blocks and the AXS Port

Introduction

The OutBack AXS Port provides communication with other OutBack devices. The device uses Ethernet access implemented by the Modbus Transmission Control Protocol. The SunSpec protocol enables sending and receiving of remote commands, control settings, and status information.

SunSpec Blocks

The AXS Port uses the SunSpec protocol to assemble blocks of data on each connected product. The SunSpec client software can read or write to each field in a data block on the AXS Port. The fields are used for remote commands, control settings, or status information on the OutBack product.

A user with SunSpec client software can use the following tables to interpret these blocks. Samples of the SunSpec client software are available at www.outbackpower.com. For more information on the SunSpec protocol, go to www.sunspec.org.

Columns

- **DID**: A unique identifier for a device type within the system.
- Start and End: The register addresses for the beginning and end of each field, offset from the beginning of the block.
- > Size: The number of registers occupied by each field.
- > R/W: Indicates this field's permissions.
- **Field name**: The name and function of each field.
- **Type**: Explains how the field's data is formatted.
- **Units**: The units of measure for each field, if applicable.
- > **Scale Factor**: Indicates scaling a measurement value.
- **Contents**: Classification of field data (or a fixed value, where applicable).
- **Description**: Describes the field data.

SunSpec Block Structure

The first block is the Common Block, which supplies vendor and model information for the device.

The second (and subsequent) blocks will be device-specific, such as a block for charge controllers.

NOTE: OutBack charge controllers have a separate block for status fields and a separate block for command and control fields.

The final End Block formally marks the end of the block structure.

Device-Specific Blocks

The following blocks describe the devices currently supported by OutBack Power.

NOTE: The OutBack FXR inverter is configured using the Radian configuration block (Table 11) and the single-phase Radian status block (Table 12).

NOTE: These blocks may be subject to change without notice and should be used as examples only. For current information, go to www.outbackpower.com.

NOTE: The "OutBack" block is for the AXS Port itself, with network settings and other configuration parameters.

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DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
64110	1	1	1	R	OutBack_DID	uint16	N/A	N/A	64110	Uniquely identifies this as a SunSpec Outback Interface
64110	2	2	1	R	OutBack_Length	uint16	Registers	N/A	420	Length of block in 16-bit registers
64110	3	3	1	R	OutBack_Major_Firmware _Number OutBack Mid Firmware	uint16	N/A	N/A	Read Only	OutBack Major firmware revision
64110	4	4	1	R	_Number	uint16	N/A	N/A	Read Only	OutBack Mid firmware revision
64110	5	6	1	R	OutBack_Minor_Firmware _Number	uint16	N/A	N/A	Read Only	OutBack Minor firmware revision
64110	6	6	1	R	OutBack_Encryption_Key	uint16	N/A	N/A	Read Only	Encryption key for current session (0 = Encryption not enabled)
64110	7	13	7	R	OutBack_MAC_Address	string (14)	N/A	N/A	Read Only	Ethernet MAC address
64110	14	21	8	W	OutBack_Write_Password	string (16)	N/A	N/A	Write Only	Password required to write to any register
64110	22	22	1	R/W	OutBack Enable DHCP	uint16	Enumerated	N/A	Programmable	0 = DHCP Disabled, use configured network parameter; 1 = DHCP Enabled
64110	23	24	2	R/W	OutBack_TCP/IP_Address	uint32	Address	N/A	Programmable	TCP/IP Address xxx.xxx.xxx
64110	25	26	2	R/W	OutBack_TCP/IP_Gateway _MSW	uint32	Address	N/A	Programmable	TCP/IP Gateway xxx.xxx.xxx
					OutBack_TCP/IP_Netmask					
64110	27	28	2	R/W	_MSW	uint32	Address	N/A		TCP/IP Netmask xxx.xxx.xxx
64110 64110	29 31	30 32	2	R/W R/W	OutBack_TCP/IP_DNS_1_MSW OutBack_TCP/IP_DNS_2_MSW	uint32 uint32	Address Address	N/A N/A	Programmable	
64110	33	33	1	R/W	OutBack_ICP/IP_DINS_2_MSW OutBack_Modbus_Port	uint32 uint16	N/A	N/A N/A	Programmable Programmable	Outback MODBUS IP port, default 502
64110	34	53	20	R/W	OutBack_SMTP_Server_Name	string (40)	N/A	N/A	Programmable	Email server name
64110	54	69	16	R/W	OutBack_SMTP_Account_Name	string (32)	N/A	N/A	Programmable	Email account name
64110	70	70	1	R/W	OutBack_SMTP_SSL_Enable	uint16	Enumerated	N/A	Programmable	0 = SSL Disabled; 1 = SSL Enabled (not implemented)
64110	71	78	8	W	OutBack_SMTP_Email _Password	string 16)	N/A	N/A	Write Only	Email account password
64110	79	98	20	R/W	OutBack_SMTP_Email_User _Name	string (40)	N/A	N/A	Programmable	Email account User Name
64110	99	99	1	R/W	OutBack_Status_Email _Interval	uint16	N/A	N/A	Programmable	0 = Status Email Disabled, 1-23 Status Email every n hours
64110	100	100	1	R/W	OutBack_Status_Email_Status Time	uint16	N/A	N/A	Programmable	Hour of first status email of the day
64110	101	125	25	R/W	OutBack_Status_Email _Subject_Line	string (50)	N/A	N/A	Programmable	Status Email Subject Line
64110	126	145	20	R/W	OutBack_Status_Email_To _Address_1	string (40)	N/A	N/A	Programmable	Status Email to Address 1
64110	146	165	20	R/W	OutBack_Status_Email_To _Address_2	string (40)	N/A	N/A	Programmable	Status Email to Address 2
64110	166	166	1	R/W	OutBack_Alarm_Email_Enable	uint16	Enumerated	N/A	Programmable	0 = Disabled; 1 = Enabled
64110	167	191	25	R/W	OutBack_Alarm_Email _Subject_Line	string (50)	N/A	N/A	Programmable	Status Alarm_Subject Line
64110	192	211	20	R/W	OutBack_Alarm_Email_To _Address_1 OutBack_Alarm_Email_To	string (40)	N/A	N/A	Programmable	Status Alarm to Address 1
64110	212	231	20	R/W	_Address_2	string (40)	N/A	N/A	Programmable	Status Alarm to Address 2
64110	232	239	8	W	OutBack_FTP_Password	string (46)	N/A	N/A	Write Only	FTP password
64110	240	247	8	W	OutBack_Telnet_Password	string (16)	N/A	N/A	Write Only	Telnet password (not implemented)
64110	248	248	1	R/W	OutBack_SD_Card_Data_Log _Write_Interval	uint16	N/A	N/A	Programmable	0 = SD-Card Data Logging disabled, 1-60 seconds
64110	249	249	1	R/W	OutBack_SD_Card_Data_Log _Retain_Days	uint16	N/A	N/A	Programmable	0 = Log until SD-Card is full then erase oldest, 1-731 Number of days to retain data logs
6/110	250	250	1	D/M/	OutBack_SD_Card_Data	uin+16	Enumerate	NI/A	Drogrammahla	0 = Disabled; 1 = Excel Format;
64110 64110	250 251	250 270	20	R/W R/W	_Logging_Mode OutBack_Time_Server_Name	uint16 string (40)	Enumerated N/A	N/A N/A	Programmable Programmable	2 = Compact Format Timeserver domain name
0-110	231	2/0	20	11/ VV	Outpack_Time_server_mattle	30111g (40)	IN/PA	IN/A	i rogrammable	0 = Time Server Disabled, use configured
64110	271	271	1	R/W	OutBack_Enable_Time_Server	uint16	Enumerated	N/A	Programmable	time parameters; 1 = Time Server Enabled
64110	272	272	1	R/W	OutBack_Set_Time_Zone	int16	Hours	N/A	Programmable	Time Zone -12-11
64110	273	273	1	R/W	OutBack_Enable_Float _Coordination	uint16	N/A	N/A	Programmable	0=Disabled, 1=Enabled
64110	274	274	1	R/W	OutBack_Enable_FNDC _Charge_Termination	uint16	N/A	N/A	Programmable	0=Disabled, 1=Enabled
64110	275	275	1	R/W	OutBack_Enable_FNDC _Grid_Tie_Control	uint16	N/A	N/A	Programmable	0=Disabled, 1=Enabled
64110	276	276	1	R	OutBack_Voltage_SF	int16	N/A	N/A	-1	DC Voltage Scale Factor
64110	277	277	1	R	OutBack_Hour_SF	int16	N/A	N/A	-1	Hours Scale Factor
64110	278	278	1	R/W	OutBack_AGS_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
64110	279	279	1	R/W	OutBack_AGS_Port	uint16	N/A	N/A	Programmable	AGS device port number 0-10
64110	280	280	1	R/W	OutBack_AGS_Port_Type	uint16	Enumerated	N/A	Programmable	0=Radian AUX Relay, 1=Radian AUX Output

DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
64110	281	281	1	R/W	OutBack_AGS_Generator_Type	uint16	Enumerated	N/A	Programmable	0=AC Gen, 1=DC Gen, 2=No Gen
04110	201	201		11/ 44	OutBack_AGS_DC_Gen	unitio	Litumerateu	OutBack	riogrammable	0-AC dell, 1-DC dell, 2-NO dell
64110	282	282	1	R/W	_Absorb_Voltage	uint16	Volts	_Voltage_SF	Programmable	DC Generator Absorb Voltage
				.,	OutBack AGS DC Gen			OutBack		g-
64110	283	283	1	R/W	_Absorb_Time	uint16	Hour	_Hour_SF	Programmable	DC Generator Absorb Time
64110	284	284	1	R/W	OutBack_AGS_Fault_Time	uint16	Minutes	N/A	Programmable	AGS Generator fault time delay
					OutBack_AGS_Gen_Cool				,	,
64110	285	285	1	R/W	_Down_Time	uint16	Minutes	N/A	Programmable	AGS Generator Cool Down Time
					OutBack_AGS_Gen_Warm_Up					
64110	286	286	1	R/W	_Time	uint16	Minutes	N/A	Programmable	AGS Generator Warm Up Time
					OutBack_AGS_Generator				-	·
64110	287	287	1	R/W	_Exercise_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
					OutBack_AGS_Exercise					
64110	288	288	1	R/W	_Start_Hour	uint16	Hour	N/A	Programmable	Exercise Start Hour 0-23
					OutBack_AGS_Exercise					
64110	289	289	1	R/W	_Start_Minute	uint16	Minutes	N/A	Programmable	
							l			0=Sun, 1=Mon, 2=Tue, 3=Wed, 4=Thr,
64110	290	290	1	R/W	OutBack_AGS_Exercise_Day	uint16	Enumerated	N/A	Programmable	
64110	291	291	1	R/W	OutBack_AGS_Exercise_Period	uint16	Minutes	N/A	Programmable	Exercise Period 1-240 minutes
64110	292	292	1	R/W	OutBack_AGS_Exercise_Interval	uint16	Weeks	N/A	Programmable	Exercise interval 1-8 Weeks
	202	202		D 04/	0 .0 1 466 6 11 44 1					Sell During Generator Exercise Period,
64110	293	293	1	R/W	OutBack_AGS_Sell_Mode	uint16	Enumerated	N/A	Programmable	0=Selling Enabled, 1=Selling Disabled
64110	204	20.4		D // /	OutBack_AGS_2_Min		F	N1 / A	D	a Birchlad 4 Franklad
64110	294	294	1	R/W	_Start_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
64110	295	295	1	R/W	OutBack_AGS_2_Min	uin+16	Volte	OutBack Voltage SF	Programmable	Two Minute ACS Start Voltage
04110	293	293		r/ vv	_Start_Voltage OutBack_AGS_2_Hour	uint16	Volts	_voitage_sr	Programmable	Two Minute AGS Start Voltage
64110	296	296	1	R/W	_Start_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
04110	290	290		11/ VV	OutBack AGS 2 Hour	unitio	Litumerateu	OutBack	Trogrammable	0-Disabled, 1-Litabled
64110	297	297	1	R/W	_Start_Voltage	uint16	Volts	_Voltage_SF	Programmable	Two Hour AGS Start Voltage
04110	271	271		11/ 44	OutBack_AGS_24_Hour	dilitio	VOICS	_voitage_5i	Trogrammable	Two Flour Add Start Voltage
64110	298	298	1	R/W	_Start_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
0 1110	270			,	OutBack_AGS_24_Hour	4	Litarriciatea	OutBack	. rogrammasie	o Disabled, Finabled
64110	299	299	1	R/W	_Start_Voltage	uint16	Volts	_Voltage_SF	Programmable	Twenty Four Hour AGS Start Voltage
					OutBack_AGS_Load					, ,
64110	300	300	1	R/W	_Start_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
64110	301	301	1	R/W	OutBack_AGS_Load_Start_kW	uint16	kWatts	N/A	Programmable	Load Start kWatts
					OutBack_AGS_Load				,	
64110	302	302	1	R/W	_Start_Delay	uint16	Minutes	N/A	Programmable	Load Start Delay
64110	303	303	1	R/W	OutBack_AGS_Load_Stop_kW	uint16	kWatts	N/A	Programmable	Load Stop kWatts
					OutBack_AGS_Load					
64110	304	304	1	R/W	_Stop_Delay	uint16	Minutes	N/A	Programmable	Load Stop Delay
					OutBack_AGS_SOC					
64110	305	305	1	R/W	_Start_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
					OutBack_AGS_SOC		_			
64110	306	306	1	R/W	_Start_Percentage	uint16	Percent	N/A	Programmable	AGS SOC Start Percentage
64110	207	207		D // /	OutBack_AGS_SOC		D	N1/A	D	ACC COC CI D.
64110	307	307	1	R/W	_Stop_Percentage	uint16	Percent	N/A	Programmable	AGS SOC Stop Percentage
64110	200	200	1	D ///	OutBack_AGS_Enable_Full Charge Mode	uin+16	Enumerated	NI/A	Drogrammable	0-Disabled 1-Enabled
64110	308	308		R/W	0 .0 1 466 5 11	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
64110	309	309	1	R/W	OutBack_AGS_Full _Charge_Interval	uint16	Days	N/A	Programmable	AGS SOC Full Charge Interval
64110	310	310	1	R/W	OutBack_AGS_Must_Run_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
07110	510	510	<u> </u>	11/ VV	OutBack AGS Must Run	unitio	Litamerateu	IV/A	. rogrammable	0-Disabled, 1-Eliabled
64110	311	311	1	R/W	_Weekday_Start_Hour	uint16	Hour	N/A	Programmable	AGS Must Run Weekday Start Hour 0-23
0.1110	211	511	<u> </u>	11,700	OutBack_AGS_Must_Run	dilitio	11501	14/73	. rogrammable	7.05ascrian recitady statement 0.25
64110	312	312	1	R/W	_Weekday_Start_Minute	uint16	Minute	N/A	Programmable	AGS Must Run Weekday Start Minute 0-59
					OutBack_AGS_Must_Run					22
64110	313	313	1	R/W	_Weekday_Stop_Hour	uint16	Hour	N/A	Programmable	AGS Must Run Weekday Stop Hour 0-23
					OutBack_AGS_Must_Run				-	,
64110	314	314	1	R/W	_Weekday_Stop_Minute	uint16	Minute	N/A	Programmable	AGS Must Run Weekday Stop Minute 0-59
					OutBack_AGS_Must_Run					
64110	315	315	1	R/W	_Weekend_Start_Hour	uint16	Hour	N/A	Programmable	AGS Must Run Weekend Start Hour 0-23
					OutBack_AGS_Must_Run					
64110	316	316	1	R/W	_Weekend_Start_Minute	uint16	Minute	N/A	Programmable	AGS Must Run Weekend Start Minute 0-59
					OutBack_AGS_Must_Run					
64110	317	317	1	R/W	_Weekend_Stop_Hour	uint16	Hour	N/A	Programmable	AGS Must Run Weekend Stop Hour 0-23
			١.		OutBack_AGS_Must_Run		l			
64110	318	318	1	R/W	_Weekend_Stop_Minute	uint16	Minute	N/A	Programmable	AGS Must Run Weekend Stop Minute 0-59
	24.5	24.5		D	OutBack_AGS_Quiet					0.00
64110	319	319	1	R/W	_Time_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
C4110	222	222		D 444	OutBack_AGS_Quiet_Time		11	N1/A	Dun normali II	ACC Out Time West day Co. 111 0.00
64110	320	320	1	R/W	_Weekday_Start_Hour	uint16	Hour	N/A	Programmable	AGS Quiet Time Weekday Start Hour 0-23
64110	221	221	1	D/\A/	OutBack_AGS_Quiet_Time _Weekday_Start_Minute	uin+16	Minuta	NI/A	Drogrammahl-	AGS Quiet Time Wookday Start Minute 0.50
64110	321	321	'	R/W	_vvccnuay_start_iviiiTute	uint16	Minute	N/A	riogrammable	AGS Quiet Time Weekday Start Minute 0-59

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DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
					OutBack_AGS_Quiet_Time					
64110	322	322	1	R/W	_Weekday_Stop_Hour	uint16	Hour	N/A	Programmable	AGS Quiet Time Weekday Stop Hour 0-23
64110	323	323	1	R/W	OutBack_AGS_Quiet_Time _Weekday_Stop_Minute	uint16	Minute	N/A	Programmable	AGS Quiet Time Weekday Stop Minute 0-59
01110	323	323		10,00	OutBack_AGS_Quiet_Time	unitro	Williace	14//	Trogrammable	rias quiet inne weekday stop inimate 0 35
64110	324	324	1	R/W	_Weekend_Start_Hour	uint16	Hour	N/A	Programmable	AGS Quiet Time Weekend Start Hour 0-23
	225	225		D 04/	OutBack_AGS_Quiet_Time					ASS 0 1 17 14 1 15 144 1 0 50
64110	325	325	1	R/W	Weekend_Start_Minute OutBack_AGS_Quiet_Time	uint16	Minute	N/A	Programmable	AGS Quiet Time Weekend Start Minute 0-59
64110	326	326	1	R/W	_Weekend_Stop_Hour	uint16	Hour	N/A	Programmable	AGS Quiet Time Weekend Stop Hour 0-23
					OutBack_AGS_Quiet_Time				<u> </u>	-
64110	327	327	1	R/W	_Weekend_Stop_Minute	uint16	Minute	N/A	Programmable	AGS Quiet Time Weekend Stop Minute 0-59
64110	328	329	2	R/W	OutBack_AGS_Total _Generator_Run_Time	uint32	Hours	N/A	Programmable	AGS Generator Total Run Time in Seconds
04110	320	329		IN/ VV	derierator_nurr_rime	uiiit32	Hours	IN/A	Fiogrammable	0=Disabled, 1=Voltage Only, 2=SOC Only,
64110	330	330	1	R/W	OutBack_HBX_Mode	uint16	Enumerated	N/A	Programmable	
			_		OutBack_HBX_Grid			OutBack		
64110	331	331	1	R/W	_Connect_Voltage OutBack_HBX_Grid	uint16	Volts	_Voltage_SF OutBack	Programmable	HBX Grid Connect Voltage
64110	332	332	1	R/W	_Connect_Delay	uint16	Hours	_Hour_SF	Programmable	HBX Grid Connect Delay
					OutBack_HBX_Grid			OutBack		,
64110	333	333	1	R/W	_Disconnect_Voltage	uint16	Volts	_Voltage_SF	Programmable	HBX Grid Disconnect Voltage
64110	334	334	1	R/W	OutBack_HBX_Grid _Disconnect_Delay	uint16	Hours	OutBack _Hour_SF	Programmable	HBX Grid Disconnect Delay
04110	334	334	'	IN/ VV	OutBack_HBX_Grid	unitio	Hours	_Houl_3F	Fiogrammable	FIBA GIId Disconnect Delay
64110	335	335	1	R/W	_Connect_SOC	uint16	Percent	N/A	Programmable	HBX Grid Connect SOC Percentage
					OutBack_HBX_Grid					
64110	336	336	1	R/W	_Disconnect_SOC OutBack Grid Use	uint16	Percent	N/A	Programmable	HBX Grid Disconnect SOC Percentage
64110	337	337	1	R/W	_Interval_1_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
01110	337	337		10,00	OutBack_Grid_Use_Interval_1	unitro	Litameratea	14/74	Trogrammable	Grid Use Interval 1 Weekday Start Hour
64110	338	338	1	R/W	_Weekday_Start_Hour	uint16	Hour	N/A	Programmable	0-23
64110	220	220		D // /	OutBack_Grid_Use_Interval_1			N1/A	D	Grid Use Interval 1 Weekday Start Minute
64110	339	339	1	R/W	_Weekday_Start_Minute OutBack_Grid_Use_Interval_1	uint16	Hour	N/A	Programmable	0-59 Grid Use Interval 1 Weekday Stop Hour
64110	340	340	1	R/W	_Weekday_Stop_Hour	uint16	Hour	N/A	Programmable	0-23
					OutBack_Grid_Use_Interval_1				<u> </u>	Grid Use Interval 1 Weekday Stop Minute
64110	341	341	1	R/W	_Weekday_Stop_Minute	uint16	Hour	N/A	Programmable	0-59
64110	342	342	1	R/W	OutBack_Grid_Use_Interval_1 _Weekend_Start_Hour	uint16	Hour	N/A	Programmable	Grid Use Interval 1 Weekend Start Hour 0-23
04110	342	342	'	11/ VV	OutBack_Grid_Use_Interval_1	unitio	rioui	IN/A	Trogrammable	Grid Use Interval 1 Weekend Start Minute
64110	343	343	1	R/W		uint16	Hour	N/A	Programmable	0-59
					OutBack_Grid_Use_Interval_1					Grid Use Interval 1 Weekend Stop Hour
64110	344	344	1	R/W	_Weekend_Stop_Hour OutBack_Grid_Use_Interval_1	uint16	Hour	N/A	Programmable	0-23 Grid Use Interval 1 Weekend Stop Minute
64110	345	345	1	R/W	_Weekend_Stop_Minute	uint16	Hour	N/A	Programmable	0-59
00	3.3	3.3	Ė	.,,	OutBack_Grid_Use_Interval_2	unicio	11041	14/71	. rogrammasic	
64110	346	346	1	R/W	_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
64110	247	247		D/M/	OutBack_Grid_Use_Interval_2 _Weekday_Start_Hour	:	Have	NI/A	Due sue es es els le	Grid Use Interval 2 Weekday Start Hour
64110	347	347	1	R/W	OutBack_Grid_Use_Interval_2	uint16	Hour	N/A	Programmable	0-23 Grid Use Interval 2 Weekday Start Minute
64110	348	348	1	R/W		uint16	Hour	N/A	Programmable	0-59
				_	OutBack_Grid_Use_Interval_2					Grid Use Interval 2 Weekday Stop Hour
64110	349	349	1	R/W	_Weekday_Stop_Hour	uint16	Hour	N/A	Programmable	0-23
64110	350	350	1	R/W	OutBack_Grid_Use_Interval_2 _Weekday_Stop_Minute	uint16	Hour	N/A	Programmable	Grid Use Interval 2 Weekday Stop Minute 0-59
20	220		Ė		OutBack_Grid_Use_Interval_3				5	
64110	351	351	1	R/W	_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
64116	252	252		D // A	OutBack_Grid_Use_Interval_3		114	NI/A	Dun manager (1)	Grid Use Interval 3 Weekday Start Hour
64110	352	352	1	R/W	Weekday_Start_Hour OutBack_Grid_Use_Interval_3	uint16	Hour	N/A	Programmable	0-23 Grid Use Interval 3 Weekday Start Minute
64110	353	353	1	R/W	_Weekday_Start_Minute	uint16	Hour	N/A	Programmable	0-59
					OutBack_Grid_Use_Interval_3					Grid Use Interval 3 Weekday Stop Hour
64110	354	354	1	R/W	_Weekday_Stop_Hour	uint16	Hour	N/A	Programmable	0-23
6/110	355	355	1	D /\A/	OutBack_Grid_Use_Interval_3	uin+16	Hour	NI/A	Programmable	Grid Use Interval 3 Weekday Stop Minute 0-59
64110	355	355	1	R/W	_Weekday_Stop_Minute OutBack_Load_Grid_Transfer	uint16	Hour	N/A	riogrammable	U-39
64110	356	356	1	R/W	_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
				_	OutBack_Load_Grid_Transfer			OutBack		
64110	357	357	1	R/W	_Threshold	uint16	kWatts	_Voltage_SF	Programmable	Load Grid Transfer Threshold kW
64110	358	358	1	R/W	OutBack_Load_Grid_Transfer _Connect_Delay	uint16	Seconds	N/A	Programmable	Load Grid Transfer Connect Delay Seconds
0.110	330	330	Ė	11, 44	OutBack_Load_Grid_Transfer	unitio	Jeconus	14//1	. rogrammable	Load Grid Transfer Connect Delay Seconds Load Grid Transfer Disconnect Delay
64110	359	359	1	R/W	_Disconnect_Delay	uint16	Seconds	N/A	Programmable	· · · · · · · · · · · · · · · · · · ·

						JIE I	- Cutb	ack bloc		
DID	Start	End	Size	R/W	Field Name	Туре	Units	Scale Factor	Contents	Description
					OutBack_Load_Grid_Transfer			OutBack		Load Grid Transfer Low Battery Connect
64110	360	360	1	R/W	_Connect_Battery_Voltage	uint16	Volts	_Voltage_SF	Programmable	Voltage
					OutBack_Load_Grid_Transfer_			OutBack		Load Grid Transfer Low Battery Re-Connect
64110	361	361	1	R/W		uint16	Volts	_Voltage_SF	Programmable	Voltage
					OutBack_Global_Charger			,		
64110	362	362	1	R/W	_Control_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
					OutBack_Global_Charger					
64110	363	363	1	R/W	_Control_Output_Limit	uint16	Amps	N/A	Programmable	Global Charger Output Limit Amps
					OutBack_Radian_AC_Coupled					
64110	364	364	1	R/W	_Control_Mode	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
					OutBack_Radian_AC_Coupled					Radian Inverter Port Number for AUX
64110	365	365	1	R/W	_AUX_Port	uint16	Port	N/A	Programmable	Control 0-10
64110	366	367	2	W	OutBack_URL_Update_Lock	uint32	key	N/A	Write Only	Unlock Key
					OutBack_Web_Reporting					
64110	368	387	20	R/W	_Base_URL	string (40)	N/A	N/A	Programmable	WEB Reporting Base URL
64110	200	200		D // /	OutBack_WEB_User_Logged		F	N1/A	D	0=WEB User NOT logged in, 1=WEB user
64110	388	388	1	R/W	_In_Status	uint16	Enumerated	N/A	Programmable	logged in
C4110	200	200	1	n	Out Dardy LILID Town	:	F	NI/A	Deed Oak	0=Legacy HUB, 4= HUB4, 10=HUB10.3,
64110	389	389	1	R	OutBack_HUB_Type	uint16	Enumerated	N/A	Read Only	11=HUB3PH
64110	390	390	1	R	OutBack_HUB_Major _Firmware_Number	uint16	N/A	N/A	Read Only	HUB Major firmware revision
04110	390	390		n	OutBack HUB Mid	unitio	IN/A	IN/A	Read Offig	FIOB Major Hilliware revision
64110	391	391	1	R	_Firmware_Number	uint16	N/A	N/A	Read Only	HUB Mid firmware revision
04110	371	371		- 11	OutBack HUB Minor	unitio	14/71	14/74	nead Only	TIOD WILL HITHWATE TEVISION
64110	392	392	1	R	_Firmware_Number	uint16	N/A	N/A	Read Only	HUB Minor firmware revision
64110	393	393	1	R/W	OutBack_Year	uint16	N/A	N/A	Programmable	Clock year (4 digit)
64110	394	394	1	R/W	Outback Month	uint16	N/A	N/A	Programmable	Clock Month (1 - 12)
64110	395	395	1	R/W	OutBack_Day	uint16	N/A	N/A	Programmable	Clock Day (1 - 31)
64110	396	396	1	R/W	OutBack_Hour	uint16	N/A	N/A	Programmable	Clock Hour (0 - 23)
64110	397	397	1	R/W	Outback_Minute	uint16	N/A	N/A	Programmable	Clock Minute (0 - 59)
64110	398	398	1	R/W	OutBack_Second	uint16	N/A	N/A	Programmable	Clock Second (0 - 59)
64110	399	399	1	R	OutBack_Temp_Batt	int16	Degrees C	N/A	Measured	Battery temp in degrees C
01110	377	577			output Temp_butt		Deg.ces e	, , .	measarea	Ambient temp from temp sensor
64110	400	400	1	R	OutBack_Temp_Ambient	int16	Degrees C	N/A	Measured	connected to device, in degrees C
64110	401	401	1	R	OutBack_Temp_SF	int16	N/A	N/A	0	Temperature Scale Factor
64110	402	402	1	R	OutBack_Error	uint16	Bitfield	N/A	Read Only	Bit field for errors. See Outback_Error Table
64110	403	403	1	R	OutBack_Status	uint16	Bitfield	N/A	Read Only	Bit field for status. See Outback_Status Table
					OutBack_Update_Device				ĺ	Device Firmware update See
64110	404	404	1	R/W	_Firmware_Port	uint16	Bitfield	N/A	Programmable	Device_FW_Update
64110	405	405	1	R	OutBack_Gateway_Type	uint16	Enumerated	N/A	Read Only	1=AXS Port, 2= MATE3
64110	406	406	1	R	OutBack_System_Voltage	uint16	Volts	N/A	Read Only	12, 24, 26, 48 or 60 VDC
					OutBack_Measured_System			OutBack		Current system battery voltage computed
64110	407	407	1	R	_Voltage	uint16	Volts	_Voltage_SF	Read Only	by gateway
					OutBack_AGS_AC_Reconnect					
64110	408	408	1	R/W	_Delay	uint16	Minute	N/A	Programmable	AGS AC Reconnect Delay
					OutBack_Multi_Phase					
64110	409	409	1	R/W	_Coordination	uint16	Enumerated	N/A	Programmable	0=Disabled, 1=Enabled
										Scheduled Input Mode: -1=Disable,
										0=Generator, 1=Support, 2=Grid Tied,
64110	410	410	1	R/W	OutBack_Sched_1_AC_Mode	int16	Enumerated	N/A	Programmable	3=UPS, 4=Backup, 5=Mini Grid, 6=Grid Zero
					OutBack_Sched_1_AC_Mode					_
64110	411	411	1	R/W	_Hour	uint16	Hour	N/A	Programmable	Start Hour for AC Input Mode schedule 1
				l_	OutBack_Sched_1_AC_Mode					
64110	412	412	1	R/W	_Minute	uint16	Minute	N/A	Programmable	Start Minute for AC Input Mode schedule 1
										Scheduled Input Mode: -1=Disable,
	44.0	413		D (14)	Output City to ACA	1	F	N1 / A	D	0=Generator, 1=Support, 2=Grid Tied,
64110	413	413	1	R/W		int16	Enumerated	N/A	Programmable	3=UPS, 4=Backup, 5=Mini Grid, 6=Grid Zero
	,,.	44.		D 4	OutBack_Sched_2_AC_Mode			**/*	D	Start Have for ACL 144 1 1 1 1 1 1
64110	414	414	1	R/W	_Hour	uint16	Hour	N/A	Programmable	Start Hour for AC Input Mode schedule 2
				D 04/	OutBack_Sched_2_AC_Mode					6 6 461
64110	415	415	1	R/W	_Minute	uint16	Minute	N/A	Programmable	Start Minute for AC Input Mode schedule 2
										Scheduled Input Mode: -1=Disable,
64110	116	116	1	D ///	OutPack School 3 AC Mode	in+16	Enumerated	NI/A	Drogrammable	0=Generator, 1=Support, 2=Grid Tied,
64110	416	416	1	R/W		int16	Enumerated	N/A	Programmable	3=UPS, 4=Backup, 5=Mini Grid, 6=Grid Zero
C4110	417	417	1	D ///	OutBack_Sched_3_AC_Mode	:	11	NI/A	D	Chart Have for AC Inc. A Made as badyla 2
64110	417	417	1	R/W	_Hour	uint16	Hour	N/A	Programmable	Start Hour for AC Input Mode schedule 3
64110	410	410	1	D //*/	OutBack_Sched_3_AC_Mode		NA:	NI/A	Drograma	Start Minute for AC Install A. J. J. J. J. J.
64110	418	418	1	R/W	_Minute	uint16	Minute	N/A	Programmable	Start Minute for AC Input Mode schedule 3
										OPTICS auto reboot every 24 hours
64110	419	419	1	R/W	OutBack_Auto_reboot	uint16	Enumerated	N/A	Programmable	0=Disable, 1=24, 2=20, 3=16, 4=12, 5=8, 6=4 (hours)
64110	420	420	1	R/W	OutBack_Spare_Reg_2	uint16	N/A	N/A N/A	Programmable	Spare Register 2
64110	421	421	1	R/W		uint16	N/A	N/A	Programmable	Spare Register 3
64110	422	422	1	R/W		uint16	N/A N/A	N/A N/A	Programmable	Spare Register 4
UT110	744	744		11/ 77	Outpack_spare_neg_4	unitio	11/71	IN/ /A	. rogrammable	Spare negister 7

Table 2 OutBack_Error_Table

DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
_	_	ı	ı	_		I	_	_	0x0001	High limit last write
_	_	ı	ı	_		I	_	_	0x0002	Low limit last write
_	_	_	_	_	_	_	_	_	0x0004	Last write invalid
_	_	-	-	_		I	_	_	0x0008	DHCP failed
_	_		_	-	_	_	_	_	0x0010	DNS resolve failure
_	_	_	_	_	_	_	_	_	0x0020	SMTP authorization failed
_	_		_	_	_	_	_	_	0x0040	SMTP send failed
_	_	_	_	_	_	_	_	_	0x0080	FTP Error
_	_	_	_	_	_	_	_	_	0x0100	SD-Card Error
_	_	_	_	_	_	_	_	_	0x0200	SNTP failure
_	_	_	_	_	_	_	_	_	0x0400	Write while locked
_	_	_	_	_	_	_	_	_	0x0800	Device firmware updating not supported
_	_			_	_	ı	_	_	0x1000	Device firmware update file not found
_	_			_	_	_	_	_	0x2000	Device firmware update file invalid
_	_			_		_	_	_	0x4000	Device firmware update failure

Table 3 OutBack_Status_Table

DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
_	_	ı	_	_		_	_	_	0x0001	Firmware update complete

Table 4 Device_FW_Update Register

DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
_	_	_	-	_		_	_	_	0xPPXX	XX = device port number to update: 0-10
_	_	_	_	_	_	_	_	_	0xPPXX	PP = FW Update percent complete 0-100%

Table 5Charge Controller Block

DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
										Uniquely identifies this as a SunSpec Basic
64111	1	1	1	R	CC_DID	uint16	N/A	N/A	64111	Charge Controller
64111	2	2	1	R	CC_Length	uint16	Registers	N/A	26	Length of block in 16-bit registers
64111	3	3	1	R	CC_Port_number	uint16	N/A	N/A	0-10	Port number on Outback network
64111	4	4	1	R	CC_Voltage_SF	int16	N/A	N/A	-1	DC Voltage Scale Factor
64111	5	5	1	R	CC_Current_SF	int16	N/A	N/A	-1	DC Current Scale Factor
64111	6	6	1	R	CC_Power_SF	int16	N/A	N/A	0	DC Power Scale Factor
64111	7	7	1	R	CC_AH_SF	int16	N/A	N/A	0	DC Amp Hours Scale Factor
64111	8	8	1	R	CC_KWH_SF	int16	N/A	N/A	-1	DC kWH Scale Factor
64111	9	9	1	R	CC_Batt_Voltage	uint16	Volts	CC_Voltage_SF	Measured	Battery Voltage
64111	10	10	1	R	CC_Array_Voltage	uint16	Volts	CC_Voltage_SF	Measured	DC Source Voltage
64111	11	11	1	R	CC_Batt_Current	uint16	Amps	CC_Current_SF	Measured	Battery Current
64111	12	12	1	R	CC_Array_Current	uint16	Amps	CC_Power_SF	Measured	DC Source Current
										0 = Silent; 1 = Float; 2 = Bulk; 3 = Absorb;
64111	13	13	1	R	CC_Charger_State	uint16	Enumerated	N/A	N/A	4 = EQ
64111	14	14	1	R	CC_Watts	uint16	Watts	CC_Power_SF	Measured	CC Wattage Output
64111	15	15	1	R	CC_Todays_Min_Battery_Volts	uint16	Volts	CC_Voltage_SF	Measured	Minimum Voltage for battery today
64111	16	16	1	R	CC_Todays_Max_Battery_Volts	uint16	Volts	CC_Voltage_SF	Measured	Maximum Voltage for battery today
64111	17	17	1	R	CC_VOC	uint16	Volts	CC_Voltage_SF	Measured	Last Open Circuit Voltage (array)
64111	18	18	1	R	CC_Todays_Peak_VOC	uint16	Volts	N/A	Measured	Highest VOC today
64111	19	19	1	R	CC_Todays_kWH	uint16	KWH	CC_KWH_SF	Measured	Daily accumulated Kwatt hours output
64111	20	20	1	R	CC_Todays_AH	uint16	AH	CC_AH_SF	Measured	Daily accumulated amp hours output
64111	21	21	1	R	CC_Lifetime_kWH_Hours	uint16	KWH	N/A	Measured	Lifetime Total Kwatt Hours
64111	22	22	1	R	CC_Lifetime_kAmp_Hours	uint16	Amps	CC_KWH_SF	Measured	Lifetime Total K-Amp Hours
64111	23	23	1	R	CC_Lifetime_Max_Watts	uint16	Watts	CC_Power_SF	Measured	Lifetime Maximum Wattage
64111	24	24	1	R	CC_Lifetime_Max_Battery_Volts	uint16	Volts	CC_Voltage_SF	Measured	Lifetime Maximum Battery Voltage
64111	25	25	1	R	CC_Lifetime_Max_VOC	uint16	Volts	CC_Voltage_SF	Measured	Lifetime Maximum VOC
64111	26	26	1	R	CC_Temp_SF	uint16	N/A	N/A	0	FM80 Extreme Temperature scale factor
64111	27	27	1	R	CC_Temp_Output_FETs	int16	Degrees C	CC_Power_SF	Measured	FM80 Extreme Output FET Temperature
64111	28	28	1	R	CC_Temp_Enclosure	int16	Degrees C	CC_Power_SF	Measured	FM80 Extreme Enclosure Temperature

 Table 6
 Charge Controller Configuration Block

Description					,	Table 0 Cita	J			uration b	
64112 1 1 1 8 R	DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
64112 1 1 1 8 R											Vandar Extansion for OutBack EM Sories
64112 3 3 8	64112	1	1	1	В	CCconfig DID	in+16	NI/A	NI/A	64112	
64112 3 3 1 R Coconfig Port_umber untert 6 N/A N/A 0-10 Port rumber on Outback network											
61112 5 6 7 8 7 6 7 6 7 7 7 7 7 7											
61112 5 5 8 1 R Coconfig Cournert SF int16 N/A N/A -1 O. Cournett Sele Feptor											
6112 7 7 8 8 8 1 8 Ccconfig Power Set int16 N/A N/A 0 Power Scale Factor											
64112 8 8 1 R Cccordig, Average F int16 N/A N/A 0 Power Scale Factor	64112	5	5	1	R	CCconfig_Current_SF	int16	N/A	N/A	-1	DC Current Scale Factor
64112 9 1 8 8 1 8 CCconfig_AMS_SE int16 N/A	64112	6	6	1	R	CCconfig_Hours_SF	int16	N/A	N/A	-1	Time in Hours Scale Factor
64112 9 1 8 8 1 8 CCconfig_AMS_SE int16 N/A	64112	7	7	1	R	CCconfig Power SF	int16	N/A	N/A	0	Power Scale Factor
64112 10 10 10 1 1 10 10 1											
64112 10											
64112 10	04112	,	,	-	- 11	ecconing_kwn_si	IIICIO	IN/A	IV/ A	-1	
11 1	64112	10	10	1	R	CCconfig_Faults	uint16	Bitfield		N/A	0x0040=Over Temp, 0x0020=Shorted Battery
12 12 12 12 17 17 18 17 17 18 18 17 17	64112	11	11	1	R/W		uint16	Volts	_Voltage_SF	Programmable	Absorb Voltage Target
64112 13 13 1 R/W CCconfig_Rebulk_Volts wint16 Volts Volts Volts Voltage for end Absorbing											
64112 14											
64112 14 1 1 1 1 1 1 1 1	64112	13	13	1	R/W	CCconfig_Absorb_End_Amps	uint16	Amps	N/A	Programmable	Amperage to end Absorbing
64112 15 15 1 R/W Cconfig.Float.Volts wint16	64112	14	14	1	R/W	CCconfig_Rebulk_Volts	uint16	Volts		Programmable	Voltage to re-initiate Bulk charge
64112 15 15 1 R/W Cconfig.Float.Volts wint16											
64112 16 16 16 17 17 17 18 18 18 18 18	64112	15	15	1	R/W	CCconfig_Float_Volts	uint16	Volts	_Voltage_SF	Programmable	Float Voltage Target
64112			l .		l _			l .		l	1
64112 31 31 31 32 32 32 33 31 32 33 31 34 34 34 34 34 34	64112	16	16	1	R/W	CCconfig_Bulk_Current	uint16	Amps		Programmable	Max Output Current Limit
64112 91 1 8 8 1 1 8 W CCconfig. 4D 5D 5D 5D 5D 5D 5D 5D											
64112 91 1 8 8 1 1 8 W CCconfig. 4D 5D 5D 5D 5D 5D 5D 5D	64112	17	17	1	R/W	CCconfig_EQ_Volts	uint16	Volts		Programmable	Target Voltage for Equalize
64112 20 2 0 1 RW Ccconfig_Auto_EQ_Days uint16 Days N/A Programmable Auto EQ (Interval Days Config_MPF) Mode uint16 Enumerated N/A Programmable 0 = Auto_1 = LPRCk				1						Programmable	
64112 22 22 1 R/W Ccconfig MPFT Mode uint16 Enumerated N/A Programmable 0 = Aut.c; 1 = U-Pick											
CCCONFIg. Programmable 0 = 80; 1 = 85; 2 = 90; 3 = 99											*
64112 22 22 1 R/W Percentage wint16 Enumerated N/A Programmable O = 80;1 = 85;2 = 90;3 = 99	64112	21	21	1	R/W		uint16	Enumerated	N/A	Programmable	0 = Full; 1 = Half
A	64112	22	22	1	R/W		uint16	Enumerated	N/A	Programmable	0 = 80; 1 = 85; 2 = 90; 3 = 99
64112 23 23 1 RW Duty_Cycle uint16 Percentage Voltage_SF Programmable Park Duty_Cycle (%) (40% - 90%)						CCconfig U Pick PWM					
1	64112	23	23	1	R/W	5	uint16	Percentage	_	Programmable	Park Duty Cycle (%) (40% - 90%)
64112 24 24 1 R.W Cconfig_Temp_Comp Mode Unit16 Enumerated N.A Programmable O = Wide; 1 = User Limited											
Gentle Fig. Fig.	64112	24	24	1	R/W	CCconfig Grid Tie Mode	uint16	Enumerated	N/A	Programmable	
CCConfig											
64112 26 26 1 RW Lower Limit Volts uint16 Volts Voltage_SF Programmable RTS compensation lower voltage limit	04112	23	23		11/ 77		unitio	Litumerated		Trogrammable	0 – Wide, 1 – Osei Elitlited
CCConfig	64113	26	20		D // /			37.16.		D	DTC
64112 27 27 1 R/W Upper_Limit_Volts uint16 Volts Voltage_SF Programmable RTS compensation upper voltage limit RTS temp compensation Slope 2-6 mV per RTS temp compensation Slope 2-6 mV per Degree C 0 = Off; 1 = Restart every 90 minutes; 2 = Restart every 90 minutes; 2 = Restart every 90 minutes; 4 = Restart every 90 minutes; 6 = Restart every 90 minutes; 7 = Restar	64112	26	26	- 1	R/VV	_Lower_Limit_voits	uintib	VOITS		Programmable	R15 compensation lower voltage limit
RTS temp compensation Slope 2-6 mV per Degree C CCConfig_Temp_Comp_Slope uint16 Milli Volts N/A Programmable Degree C Degree						5- ·- ·					
64112 28 28 1 R/W CCconfig_Temp_Comp_Slope uint16 Milli Volts N/A Programmable Degree C 0 = Off; 1 = Restart every 90 minutes; 2 = R	64112	27	27	1	R/W	_Upper_Limit_Volts	uint16	Volts	_Voltage_SF	Programmable	
64112 29 29 1 R/W CCconfig_Auto_Restart_Mode uint16 Enumerated N/A Programmable VOC change which causes Wakeup occurs											RTS temp compensation Slope 2-6 mV per
Restart every 90 minutes if absorb charging	64112	28	28	1	R/W	CCconfig_Temp_Comp_Slope	uint16	Milli Volts	N/A	Programmable	
64112 29 29 1 R/W Ccconfig_Auto_Restart_Mode uint16 Enumerated N/A Programmable Or float charging						Ş=				J	
64112 30 30 1 R/W CCconfig_Wakeup_VOC uint16 Volts V	6/112	20	20	1	D/M	CCconfig Auto Postart Mode	uin+16	Enumorated	NI/A	Programmable	,
64112 30 30 30 1 R/W CConfig_Wakeup_VOC Uint16 Volts _Voltage_SF Programmable VOC change which causes Wakeup occurs	04112	29	23		IT/ VV	cccomig_Auto_Restart_Wode	unitio	Enumerateu		Frogrammable	or float charging
64112 31 31 1 R/W Amps wint16 Amps Voltage_SF Programmable Snooze Mode Amps Snooze M					D 04/	55 5 111 1 1105		37.16			W05 1 1:1 W1
64112 31 31 31 31 31 32 32	64112	30	30	1	R/W		uint 16	Volts		Programmable	VOC change which causes Wakeup occurs
64112 32 32 32 1 R/W CCconfig_Wakeup_Interval			١					l .		l <u>.</u>	l
0 = Float; 1 = Diversion: Relay; 2 = Diversion: Solid St; 3 = Low Batt Disconnect; 4 = Remote; 5 = Vent Fan; 6 = PV Trigger; 7											
Boundary Control Contr	64112	32	32	1	R/W	CCconfig_Wakeup_Interval	uint16	Mins	N/A	Programmable	
A continue of the continue o											0 = Float; 1 = Diversion: Relay; 2 =
64112 33 33 1 R/W CCconfig_AUX_Mode uint16 Enumerated N/A Programmable = Error Output; 8 = Night Light 64112 34 34 1 R/W CCconfig_AUX_Control uint16 Enumerated N/A Programmable 0 = Off; 1 = Auto; 2 = On 64112 35 35 1 R CCconfig_AUX_State uint16 Enumerated N/A Read Only 0 = Disabled; 1 = Enabled 64112 36 36 1 R/W CCconfig_AUX_Polarity uint16 Enumerated N/A Programmable 0 = Low; 1 = High CCconfig_AUX_Low_Batt CCconfig_AUX_Low_Batt Uint16 Volts Voltage_SF Programmable Low Battery Disconnect Voltage 64112 38 38 1 R/W Reconnect uint16 Volts Voltage_SF Programmable Low Battery Disconnect Volts 64112 39 39 1 R/W Disconnect_Delay uint16 Secs N/A Programmable Low Battery Disconnect Delay (secs) 64112 40 40 1 R/W Volts Uint16 Volts Voltage_SF Programmable Vent Fan Voltage 64112 41 41 1 R/W Volts Uint16 Secs Hours_SF Programmable Voltage at which PV disconnect occurs 64112 42 42 1 R/W Hold_Time uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time 64112 42 42 1 R/W Hold_Time Uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time			ĺ		ĺ						Diversion: Solid St; 3 = Low Batt Disconnect;
64112 33 33 1 R/W CCconfig_AUX_Mode uint16 Enumerated N/A Programmable = Error Output; 8 = Night Light 64112 34 34 1 R/W CCconfig_AUX_Control uint16 Enumerated N/A Programmable 0 = Off; 1 = Auto; 2 = On 64112 35 35 1 R CCconfig_AUX_State uint16 Enumerated N/A Read Only 0 = Disabled; 1 = Enabled 64112 36 36 1 R/W CCconfig_AUX_Polarity uint16 Enumerated N/A Programmable 0 = Low; 1 = High CCconfig_AUX_Low_Batt CCconfig_AUX_Low_Batt Uint16 Volts Voltage_SF Programmable Low Battery Disconnect Voltage 64112 38 38 1 R/W Reconnect uint16 Volts Voltage_SF Programmable Low Battery Disconnect Volts 64112 39 39 1 R/W Disconnect_Delay uint16 Secs N/A Programmable Low Battery Disconnect Delay (secs) 64112 40 40 1 R/W Volts Uint16 Volts Voltage_SF Programmable Vent Fan Voltage 64112 41 41 1 R/W Volts Uint16 Secs Hours_SF Programmable Voltage at which PV disconnect occurs 64112 42 42 1 R/W Hold_Time uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time 64112 42 42 1 R/W Hold_Time Uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time		1	l		1						
64112 34 34 1 R/W CCconfig_AUX_Control uint16 Enumerated N/A Programmable 0 = Off; 1 = Auto; 2 = On 64112 35 35 1 R CCconfig_AUX_State uint16 Enumerated N/A Read Only 0 = Disabled; 1 = Enabled 64112 36 36 1 R/W CCconfig_AUX_Polarity uint16 Enumerated N/A Programmable 0 = Low; 1 = High CCconfig 64112 37 37 1 R/W _Disconnect uint16 Volts _Voltage_SF Programmable Low Battery Disconnect Voltage 64112 38 38 1 R/W _Reconnect uint16 Volts _Voltage_SF Programmable Low Battery Disconnect Voltage 64112 39 39 1 R/W _Disconnect_Delay uint16 Secs N/A Programmable Low Battery Disconnect Delay (secs) 64112 40 40 1 R/W _Volts uint16 Volts _Voltage_SF Programmable Low Battery Disconnect Delay (secs) 64112 41 41 1 R/W _Volts uint16 Volts _Voltage_SF Programmable Vent Fan Voltage 64112 42 42 1 R/W _Hold_Time uint16 Secs _Hours_SF Programmable AUX PV Trigger Hold Time 64112 42 42 1 R/W _Hold_Time uint16 Secs _Hours_SF Programmable AUX PV Trigger Hold Time	64112	33	33	1	R/W	CCconfig_AUX Mode	uint16	Enumerated	N/A	Programmable	
64112 35 35 1 R CCconfig_AUX_State uint16 Enumerated N/A Read Only 0 = Disabled; 1 = Enabled 64112 36 36 1 R/W CCconfig_AUX_Polarity uint16 Enumerated N/A Programmable 0 = Low; 1 = High CCconfig 64112 37 37 1 R/W Disconnect uint16 Volts Voltage_SF Programmable Low Battery Disconnect Voltage CCconfig_AUX_Low_Batt 64112 38 38 1 R/W Reconnect uint16 Volts Voltage_SF Programmable Low Battery Disconnect Voltage CCconfig_AUX_Low_Batt 64112 39 39 1 R/W Disconnect_Delay uint16 Secs N/A Programmable Low Battery Disconnect Delay (secs) CCconfig_AUX_Vent_Fan 64112 40 40 1 R/W Volts uint16 Volts Voltage_SF Programmable Vent Fan Voltage CCconfig 64112 41 41 1 R/W Volts uint16 Secs Low Battery Disconnect Delay (secs) CCconfig 64112 42 42 1 R/W Hold_Time uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time										,	
64112 36 36 1 R/W CCconfig_AUX_Polarity uint16 Enumerated N/A Programmable 0 = Low; 1 = High CCconfig 64112 37 37 1 R/W Disconnect uint16 Volts Volts Voltage_SF Programmable Low Battery Disconnect Voltage CCconfig 64112 38 38 1 R/W Reconnect uint16 Volts Voltage_SF Programmable Low Battery Disconnect Volts CCconfig 64112 39 39 1 R/W Disconnect_Delay uint16 Secs N/A Programmable Low Battery Disconnect Delay (secs) CCconfig_AUX_Low_Batt Voltage_SF Programmable Low Battery Disconnect Delay (secs) CCconfig 64112 40 40 1 R/W Volts Uint16 Volts Volts Voltage_SF Programmable Vent Fan Voltage CCconfig 64112 41 1 R/W Volts Uint16 Volts Volts Voltage_SF Programmable Vent Fan Voltage CCconfig 64112 42 42 1 R/W Hold_Time Uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time										_	
CCconfig_AUX_Low_Batt uint16 Volts Voltage_SF Programmable Low Battery Disconnect Voltage CCconfig_AUX_Low_Batt CCconfig_AUX_Low_Batt CCconfig_AUX_Low_Batt Uint16 Volts Voltage_SF Programmable Low Battery Disconnect Volts CCconfig_AUX_Low_Batt CCconfig_AUX_Low_Batt Uint16 Volts Voltage_SF Programmable Low Battery Reconnect Volts CCconfig_AUX_Low_Batt CCconfig_AUX_Low_Batt Uint16 Secs N/A Programmable Low Battery Disconnect Delay (secs) CCconfig_AUX_Vent_Fan CCconfig_AUX_Vent_Fan Uint16 Volts Voltage_SF Programmable Vent Fan Voltage CCconfig_AUX_PV_Limit CCconfig_AUX_Vent_Fan Uint16 Volts Voltage_SF Programmable Vent Fan Voltage CCconfig_AUX_PV_Limit CCconfig_AUX_PV_Limit Uint16 Secs Hours_SF Programmable Voltage at which PV disconnect occurs CCconfig_AUX_PV_Limit Uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time CCconfig_AUX_Night_Light CCconfig											·
64112 37 37 1 R/W _Disconnect	04112	36	36		K/VV		uint16	Enumerated		Programmable	u = Low; i = High
CCconfig_AUX_Low_Batt uint16 VoltsVoltage_SF Programmable Low Battery Reconnect Volts CCconfig_AUX_Low_Batt Uint16 VoltsVoltage_SF Programmable Low Battery Reconnect Volts			l					l		l	l
64112 38 38 1 R/W _Reconnect	64112	37	37	1	R/W		uint16	Volts		Programmable	Low Battery Disconnect Voltage
64112 40 40 1 R/W _Olisconnect_Delay uint16 Secs N/A Programmable Low Battery Disconnect Delay (secs) 64112 40 40 1 R/W _Olisconnect_Delay uint16 VoltsVoltage_SF Programmable Vent Fan Voltage 64112 41 41 1 R/W _Volts uint16 VoltsVoltage_SF Programmable Voltage at which PV disconnect occurs 64112 42 42 1 R/W _Hold_Time uint16 SecsHours_SF Programmable AUX PV Trigger Hold Time			l		l	3					
64112 39 39 1 R/W _Disconnect_Delay	64112	38	38	1	R/W	_Reconnect	uint16	Volts	_Voltage_SF	Programmable	Low Battery Reconnect Volts
64112 40 40 1 R/W _Volts											
64112 40 40 1 R/W _Volts	64112	39	39	1	R/W	_Disconnect_Delay	uint16	Secs	N/A	Programmable	Low Battery Disconnect Delay (secs)
64112 40 40 1 R/W _Volts							•				
64112 41 41 1 R/W Volts uint16 Volts Voltage_SF Programmable Voltage at which PV disconnect occurs CCconfig Voltage_SF Programmable Voltage at which PV disconnect occurs CCconfig All All All Br/W Hold_Time uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time CCconfig	64112	40	40	1	R/W	5	uint16	Volts		Programmable	Vent Fan Voltage
64112 41 41 1 R/W Volts uint16 Volts Voltage_SF Programmable Voltage at which PV disconnect occurs CCconfig_AUX_PV_Limit 64112 42 42 1 R/W Hold_Time uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time CCconfig CCconfig_AUX_Night_Light CCconfig		<u> </u>	<u> </u>		' ' '			1			
64112 42 42 1 R/W Hold_Time uint16 Secs Hours_SF Programmable AUX PV Trigger Hold Time CCconfig Hours_SF Programmable AUX PV Trigger Hold Time CCconfig	6/112	11	11	1	D/M	5	uin+16	Volta		Drogrammahla	Voltage at which PV disconnect occurs
64112 42 42 1 R/W _Hold_Time uint16 Secs _Hours_SF Programmable AUX PV Trigger Hold Time CCconfig CCconfig CCconfig CCconfig CCconfig	U+112	41	41	1	rv/ VV		uilit 10	VOILS		riogrammable	voltage at which PV disconnect occurs
CCconfig_AUX_Night_Light CCconfig		۱	٠. ا								AUN DUT : II II T
	64112	42	42	1	R/W		uint16	Secs		Programmable	AUX PV Trigger Hold Time
64112 43 43 1 R/W _Thres_Volts uint16 Volts Voltage_SF Programmable Voltage Threshold for AUX Night Light		1	l		1	5			_		
	64112	43	43	1	R/W	_Thres_Volts	uint16	Volts	_Voltage_SF	Programmable	Voltage Threshold for AUX Night Light

 Table 6
 Charge Controller Configuration Block

					Table 6 Cita	90 00			uration b	
DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
64112	44	44	1	R/W	CCconfig_Night_Light_ON _Hours	uint16	Hours	N/A	Programmable	Night Light ON Time
64112	45	45	1	R/W	CCconfig_Night_Light_ON _Hyst_Time	uint16	Mins	N/A	Programmable	Night Light ON Hyst Time
64112	46	46	1	R/W	CCconfig_Night_Light_OFF _Hyst_Time	uint16	Mins	N/A	Programmable	Night Light OFF Hyst Time
04112	40	40	-	IT/ VV	CCconfig_AUX_Error	unitio	IVIII 15	CCconfig	Fiogrammable	Night Light OFF Hyst fillie
64112	47	47	1	R/W	_Battery_Volts	uint16	Volts	_Voltage_SF	Programmable	Battery voltage at which Aux Error occurs
64112	48	48	1	R/W	CCconfig_AUX_Divert _Hold_Time	uint16	Seconds	CCconfig _Hours_SF	Programmable	AUX Diver Hold Time
64112	49	49	1	R/W	CCconfig_AUX_Divert _Delay_Time	uint16	Secs	N/A	Programmable	AUX Divert Delay
64112	50	F0	1	R/W	CCconfig_AUX_Divert	in+16	Volte	CCconfig	Drogrammable	ALIV Divort Polative Volte
64112	30	50	1	r/vv	_Relative_Volts CCconfig_AUX_Divert	int16	Volts	_Voltage_SF CCconfig	Programmable	AUX Divert Relative Volts
64112	51	51	1	R/W	Hyst_Volts CCconfig_Major_Firmware	uint16	Volts	_Voltage_SF	Programmable	AUX Divert Hyst Volts
64112	52	52	1	R	_Number	uint16	N/A	N/A	Read Only	Charge Controller Major firmware revision
64112	53	53	1	R	CCconfig_Mid_Firmware _Number	uint16	N/A	N/A	Read Only	Charge Controller Mid firmware revision
64112	54	54	1	R	CCconfig_Minor_Firmware _Number	uint16	N/A	N/A	Read Only	Charge Controller Minor firmware revision
					CCconfig_Set_Data_Log				•	-
64112	55	55	1	R/W	_Day_Offset CCconfig_Get_Current	uint16	Days	N/A	Programmable	Day offset 0-128, 0 =Today, 1 = -1 day
64112	56	56	1	R	_Data_Log_Day_Offset	uint16	Days	N/A	Read Only	Current Data Log Day Offset
64112	57	57	1	R	CCconfig_Data_Log _Daily_AH	uint16	АН	CCconfig _AH_SF	Read Only	Data Log AH
	58	58	1	R	CCconfig_Data_Log _Daily_kWH		KWH	CCconfig _KWH_SF	Read Only	Data Log kWH
64112					CCconfig_Data_Log	uint16	KVVII	CCconfig	•	Data Log KWH
64112	59	59	1	R	Daily_Max_Output_Amps CCconfig_Data_Log	uint16	Amps	_Voltage_SF CCconfig	Read Only	Data Log maximum Output Amps
64112	60	60	1	R	_Daily_Max_Output_Watts	uint16	Watts	_Power_SF	Read Only	Data Log maximum Output Wattage
64112	61	61	1	R	CCconfig_Data_Log _Daily_Absorb_Time	uint16	Mins	N/A	Read Only	Data Log Absorb Time Minutes
	62	62	1	R	CCconfig_Data_Log				-	-
64112	62	62	1	К	Daily_Float_Time CCconfig_Data_Log	uint16	Mins	N/A CCconfig	Read Only	Data Log Float Time Minutes
64112	63	63	1	R	Daily_Min_Batt_Volts CCconfig_Data_Log	uint16	Volts	_Voltage_SF CCconfig	Read Only	Data Log minimum daily battery voltage
64112	64	64	1	R	_Daily_Max_Batt_Volts	uint16	Volts	_Voltage_SF	Read Only	Data Log maximum daily battery voltage
64112	65	65	1	R	CCconfig_Data_Log _Daily_Max_Input_Volts	uint16	Volts	N/A	Read Only	Data Log maximum daily input voltage
					CCconfig_Clear				-	Read value needed to clear data log
64112	66	66	1	R	_Data_Log_Read CCconfig_Clear_Data	uint16	N/A	N/A	Read Only	nead value fleeded to clear data log
64112	67	67	1	W	_Log_Write_Complement CCconfig_Stats_Maximum	uint16	N/A	N/A	Write Only	Write value's complement to clear data log Read value needed to clear Stats
64112	68	68	1	R	_Reset_Read	uint16	N/A	N/A	Read Only	Maximums
64112	69	69	1	W	CCconfig_Stats_Maximum _Write_Complement	uint16	N/A	N/A	Write Only	Write value's complement to clear Stats Maximums
64112	70	70	1	R	CCconfig_Stats_Totals _Reset_Read	uint16	N/A	N/A	Read Only	Read value nneded to clear Stats Totals
					CCconfig_Stats_Totals				•	Write value's complement to clear Stats
64112	71	71	1	W	_Write_Complement CCconfig_Battery_Voltage	uint16	N/A	N/A CCconfig	Write Only	Totals
64112	72	72	1	R/W	_Calibrate_Offset	int16	DC Volts	_Voltage_SF	Programmable	Battery voltage calibration offset
64112	73	81	9	R	CCconfig_Serial_Number	string (18)	N/A	N/A	Read Only	Device serial number
64112	82	90	9	R	CCconfig_Model_Number	string (18)	N/A	N/A	Read Only	Device model

 Table 7
 Split Phase Radian Inverter Real Time Block

									neal Illie	- D.O. C.
DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
										Vendor Extension for OutBack Radian Series
64115	1	1	1	R	GS Split DID	uint16	N/A	N/A	64115	Split Phase Inverter Status Block
	2	2	1	R	GS_Split_Length			N/A	58	'
64115				-		uint16	Registers			Length of block in 16-bit registers
64115	3	3	1	R	GS_Split_Port_number	uint16	N/A	N/A	0-10	Port number on Outback network
64115	4	4	1	R	GS_Split_DC_Voltage_SF	int16	N/A	N/A	-1	DC Voltage Scale Factor
64115	5	5	1	R	GS_Split_AC_Current_SF	int16	N/A	N/A	0	AC Current Scale Factor
64115	6	6	1	R	GS_Split_AC_Voltage_SF	int16	N/A	N/A	0	AC Voltage Scale Factor
64115	7	7	1	R	GS_Split_AC_Frequency_SF	int16	N/A	N/A	-1	AC Frequency Scale Factor
04113			-	- 11		111110	IN/ /A		-1	ACT requericy Scale Factor
	_	_	_	l _	GS_Split_L1_Inverter_Output			GS_Split_AC		
64115	8	8	1	R	_Current	int16	Amps	_Current_SF	Measured	L1 inverter output current
					GS_Split_L1_Inverter_Charge			GS_Split_AC		
64115	9	9	1	R	_Current	int16	Amps	_Current_SF	Measured	L1 inverter charger current
					GS_Split_L1_Inverter_Buy			GS Split AC		
64115	10	10	1	R	_Current	int16	Amps	_Current_SF	Measured	L1 inverter buy current
04113	10	10		<u> </u>	GS_Split_L1_Inverter_Sell	1111110	Allips	GS_Split_AC	Micasarca	ET IIIVEITEI Bay carrent
64115			4	١,			A		Marriana	1.4 Considerate III comment
64115	11	11	1	R	_Current	int16	Amps	_Current_SF	Measured	L1 inverter sell current
					GS_Split_L1_Grid_Input_AC			GS_Split_AC		
64115	12	12	1	R	_Voltage	int16	Volts AC	_Voltage_SF	Measured	L1 Grid Input AC Voltage
					GS_Split_L1_Gen_Input_AC			GS_Split_AC		
64115	13	13	1	R	_Voltage	int16	Volts AC	_Voltage_SF	Measured	L1 Gen Input AC Voltage
04113	13	13		<u> </u>	GS_Split_L1_Output_AC	1111110	VOICSTAC		Micasarca	ET den input he voltage
							\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	GS_Split_AC		140 461/ !:
64115	14	14	1	R	_Voltage	int16	Volts AC	_Voltage_SF	Measured	L1 Output AC Voltage
			l	1	GS_Split_L2_Inverter_Output		I	GS_Split_AC		
64115	15	15	1	R	_Current	int16	Amps	_Current_SF	Measured	L2 inverter output current
					GS_Split_L2_Inverter_Charge	1	,	GS_Split_AC		·
64115	16	16	1	R	Current	int16	Amps	_Current_SF	Measured	L2 inverter charger current
04113	10	10	-	- 11	_	111110	Allips		Measureu	Lz inverter charger current
				l _	GS_Split_L2_Inverter_Buy			GS_Split_AC		
64115	17	17	1	R	_Current	int16	Amps	_Current_SF	Measured	L2 inverter buy current
					GS_Split_L2_Inverter_Sell			GS_Split_AC		
64115	18	18	1	R	Current	int16	Amps	_Current_SF	Measured	L2 inverter sell current
					GS_Split_L2_Grid_Input_AC			GS_Split_AC		
64115	19	19	1	R	Voltage	in+16	Valta AC	_Voltage_SF	Managurad	12 Crid Input AC Valtage
64115	19	19	-	n		int16	Volts AC		Measured	L2 Grid Input AC Voltage
				l _	GS_Split_L2_Gen_Input_AC			GS_Split_AC		
64115	20	20	1	R	_Voltage	int16	Volts AC	_Voltage_SF	Measured	L2 Gen Input AC Voltage
					GS_Split_L2_Output_AC			GS_Split_AC		
64115	21	21	1	R	_Voltage	int16	Volts AC	_Voltage_SF	Measured	L2 Output AC Voltage
					, .					0=Off, 1=Searching, 2=Inverting,
										3=Charging, 4=Silent, 5=Float, 6=EQ,
					CC Culit Inventor Operation					
			_	l _	GS_Split_Inverter_Operating					7=Charger Off, 8=Support, 9=Selling,
64115	22	22	1	R	_mode	int16	Enumerated	N/A	Read Only	10=Pass through, 14=Offsetting
64115	23	23	1	R	GS_Split_Error_Flags	int16	Bitfield	N/A	N/A	Bit field for errors. See GS_Error table
64115	24	24	1	R	GS_Split_Warning_Flags	int16	Bitfield	N/A	N/A	Bit field for warnings See GS_Warning table
								GS_Split_DC		<u> </u>
64115	25	25	1	R	GS_Split_Battery_Voltage	int16	Volts DC	_Voltage_SF	Measured	Battery Voltage
04113	23			<u> </u>	GS_Split_Temp_Compensated	IIICIO	VOIG DC	GS_Split_DC	Micasarca	Temperature compensated target battery
	2.5						V 1. DC		D 10 1	
64115	26	26	1	R	_Target_Voltage	int16	Volts DC	_Voltage_SF	Read Only	voltage
64115	27	27	1	R	GS_Split_AUX_Output_State	int16	Enumerated	N/A	N/A	0 = Disabled; 1 = Enabled
					GS_Split_AUX_Relay_Output					
64115	28	28	1	R	_State	int16	Enumerated	N/A	N/A	0 = Disabled; 1 = Enabled
01113		20	•		GS_Split_L_Module	mero	Enameratea	14/71	14/74	0 - Disabled, 1 - Enabled
64115	20	20	4	١,			D	N1/A	Marriani	1.6
64115	29	29	1	R	_Transformer_Temperature	int16	Degrees C	N/A	Measured	Left module transformer temp in degrees C
			l	1	GS_Split_L_Module		I			
64115	30	30	1	R	_Capacitor_Temperature	int16	Degrees C	N/A	Measured	Left module capacitor temp in degrees C
					GS Split L Module					
64115	31	31	1	R	_FET_Temperature	int16	Degrees C	N/A	Measured	Left module FET temp in degrees C
5.115			-	 '`	GS_Split_R_Module		D cg.ccs c	, / 1	casarca	Right module transformer temp in degrees
C4115	22	22	_	_		:	D	NI/A	Management	
64115	32	32	1	R	_Transformer_Temperature	int16	Degrees C	N/A	Measured	С
			l	1	GS_Split_R_Module		I			
64115	33	33	1	R	_Capacitor_Temperature	int16	Degrees C	N/A	Measured	Right module capacitor temp in degrees C
					GS_Split_R_Module					
64115	34	34	1	R	_FET_Temperature	int16	Degrees C	N/A	Measured	Right module FET temp in degrees C
UTIIJ	54	J-T		- 11		111110	Degrees	IV/A	ivicasuicu	mgm module rer temp in degrees e
	~-	~-	_	_	GS_Split_Battery					Dettermine to 1
64115	35	35	1	R	_Temperature	int16	Degrees C	N/A	Measured	Battery temp in degrees C
64115	36	36	1	R	GS_Split_AC_Input_Selection	int16	Enumerated	N/A	Read Only	0=Grid, 1=Gen
						1		GS_Split_AC		
				1			I	_Frequency		
6/115	37	37	1	R	GS_Split_AC_Input_Frequency	int16	Hz	SF	Moscurod	Selected AC Input frequency HZ
64115	3/	۱د		I N	G5_3piit_AC_input_rrequency	111(10	172	_	Measured	Selected AC IIIput Hequency HZ
				1		1	I	GS_Split_AC		1
64115	38	38	1	R	GS_Split_AC_Input_Voltage	int16	Volts AC	_Voltage_SF	Measured	Selected Input AC Voltage
64115	39	39	1	R	GS_Split_AC_Input_State	int16	Enumerated	N/A	N/A	1=AC Use, 0=AC_Drop
			Ė		GS_Split_Minimum_AC_Input	1		GS_Split_AC	***	Minimum Input AC Voltage (Write to clear
6/115	40	40	1	D		int16	Volta AC		Road Oak	
64115	40	40	1	R	_Voltage	int16	Volts AC	_Voltage_SF	Read Only	stored value)
				1	GS_Split_Maximum_AC_Input	1 .	I	GS_Split_AC		Maximum Input AC Voltage (Write to clear
64115	41	41	1	R	_Voltage	int16	Volts AC	_Voltage_SF	Read Only	stored value)
				1		I				Bit field for sell status
64115	42	42	1	R	GS_Split_Sell_Status	int16	Bitfield	N/A	N/A	(See GS_Sell_Status table)

 Table 7
 Split Phase Radian Inverter Real Time Block

					rubic / Sprict	iiuse i				
DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
64115	43	43	1	R	GS_Split_kWh_SF	int16	N/A	N/A	-1	AC kWh scale factor
								GS_Split		
64115	44	44	1	R	GS_Split_AC1_L1_Buy_kWh	uint16	kWh	_kWh_SF	Measured	Daily AC1 Buy L1 kWh
								GS_Split		
64115	45	45	1	R	GS_Split_AC2_L1_Buy_kWh	uint16	kWh	_kWh_SF	Measured	Daily AC2 Buy L1 kWh
								GS_Split		
64115	46	46	1	R	GS_Split_AC1_L1_Sell_kWh	uint16	kWh	_kWh_SF	Measured	Daily AC1 Sell L1 kWh
								GS_Split		
64115	47	47	1	R	GS_Split_AC2_L1_Sell_kWh	uint16	kWh	_kWh_SF	Measured	Daily AC2 Sell L1 kWh
								GS_Split		
64115	48	48	1	R	GS_Split_L1_Output_kWh	uint16	kWh	_kWh_SF	Measured	Daily Output L1 kWh
								GS_Split		
64115	49	49	1	R	GS_Split_AC1_L2_Buy_kWh	uint16	kWh	_kWh_SF	Measured	Daily AC1 Buy L2 kWh
								GS_Split		
64115	50	50	1	R	GS_Split_AC2_L2_Buy_kWh	uint16	kWh	_kWh_SF	Measured	Daily AC1 Sell L2 kWh
								GS_Split		
64115	51	51	1	R	GS_Split_AC1_L2_Sell_kWh	uint16	kWh	_kWh_SF	Measured	Daily AC1 Sell L2 kWh
								GS_Split		
64115	52	52	1	R	GS_Split_AC2_L2_Sell_kWh	uint16	kWh	_kWh_SF	Measured	Daily AC2 Sell L2 kWh
								GS_Split		
64115	53	53	1	R	GS_Split_L2_Output_kWh	uint16	kWh	_kWh_SF	Measured	Daily Output L2 kWh
								GS_Split		
64115	54	54	1	R	GS_Split_Charger_kWh	uint16	kWh	_kWh_SF	Measured	Daily Charger kWh
				_				GS_Split		
64115	55	55	1	R	GS_Split_Output_kW	uint16	kW	_kWh_SF	Measured	Output kW
				_				GS_Split		
64115	56	56	1	R	GS_Split_Buy_kW	uint16	kW	_kWh_SF	Measured	Buy kW
				_				GS_Split		
64115	57	57	1	R	GS_Split_Sell_kW	uint16	kW	_kWh_SF	Measured	Sell kW
			_		cc c !: cl		1.147	GS_Split		
64115	58	58	1	R	GS_Split_Charge_kW	uint16	kW	_kWh_SF	Measured	Charge kW
64115	50				CS Sulfa Land LVV		1.347	GS_Split	Management	1 1134
64115	59	59	1	R	GS_Split_Load_kW	uint16	kW	_kWh_SF	Measured	Load kW
64115					CS Sult AS Samuel 194		1.347	GS_Split		ACC
64115	60	60	1	R	GS_Split_AC_Couple_kW	uint16	kW	_kWh_SF	Measured	AC Coupled kW

Table 8 GS_Error_Table

DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
_	_	_	_	_		_	_	_	0x0001	Low AC output voltage
_	_		_	-		_		_	0x0002	Stacking error
_	_			-	_	_	_	_	0x0004	Over temperature error
_	_	_	_	_	_	_	_	_	0x0008	Low battery voltage
_	_	_	_	_		_	_	_	0x0010	Phase loss
_	_			-	_	_	_	_	0x0020	High battery voltage
_	_	_	_	_	_	_	_	_	0x0040	AC output shorted
_	_	_	_	_	_	_	_	_	0x0080	AC backfeed

Table 9 GS_Warning_Table

DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
_	_	_	_	_	_	_	_	_	0x0001	AC input frequency too high
_	_	_	-	_		_	_	_	0x0002	AC input frequency too low
_	_			_	_	_	_	_	0x0004	AC input voltage too low
_	_	_	-	_		_	_	_	0x0008	AC input voltage too high
_	_		ı	_		_		_	0x0010	AC input current exceeds max
_	_		ı	_		_		_	0x0020	Temperature sensor bad
_	_		ı	_				_	0x0040	Communications error
_		_	_	_	_			_	0x0080	Cooling fan fault

Table 10 GS_Sell_Status_Table

DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
_	_	_	_	_		I	_	_	0x0001	AC input frequency too high
_	_			-				_	0x0002	AC input frequency too low
_	_		-	-	_	_	_	_	0x0004	AC input voltage too low
_	_	_	_	_	_	_	_	_	0x0008	AC input voltage too high
_	_	_	_	_	_	_	_	_	0x0010	Awaiting sell delay
_				_	_	_	_	_	0x0020	Sell disabled
_	_	_	_	_	_	_	_	_	0x0040	Battery voltage less than target

Table 11 Radian Inverter Configuration Block

March Find Size Ref Size Ref Size Ref						Table 11 Ra	ıdıdıı ı		2094	ration Blo	J CIL
1	DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
64116 2 1 1 1 8 R					,		-77-				
	64116	1	1	1	R	GSconfig DID	uint16	NI/A	NI/A	64116	
6116 3 3 1 R											
6416 5 5 7 8 GScorifig DC Voltage SF Int16 N/A N/A -1 CV Voltage Scale Factor		_									
64116 6 6 7 7 7 8 8 GSconfig AC, Voltage S m116 N/A N/A 0 AC Current Scale Factor											1
64116											
64116 7 7 1 R	64116						int16				AC Current Scale Factor
64116 8	64116	6	6	1	R	GSconfig_AC_Voltage_SF	int16	N/A	N/A	0	AC Voltage Scale Factor
64116 8	64116	7	7	1	R	GSconfig_Time_SF	int16	N/A	N/A	-1	Time Scale Factor
64116 10						GSconfig Major Firmware					
64116 9	64116	8	8	1	R		uint16	N/A	N/A	Read Only	Inverter Major firmware revision
64116 9 9 1 R Number Numb											
64116 10 1 1 1 1 R.W. G.	6/116	٥	۵	1	D		uint16	N/A	NI/A	Read Only	Inverter Mid firmware revision
64116 10 10 1 1 1 1 1 1 1	04110	-	,		11		unitio	IN/A	IN/ /A	nead Offig	Inverter Mid Infilware revision
1			4.0		_	<u> </u>				D 101	
64116 12 12 1 1 1 1 1 1 1	64116	10	10		К	_Number	uintio	N/A		Read Only	Inverter Minor firmware revision
64116 12 1 1 1 1 1 1 1 1				_				55111			
64116 12 12 1 R/W Hours	64116	11	11	1	R/W		uint16	DC Volts		Programmable	Absorb Voltage Target
64116 13 13 1 R.W CSconfig_Float_Volts uint16 DC-Volts OSconfig_DC Programmable Float_Voltage_Farget						GSconfig_Absorb_Time					
64116	64116	12	12	1	R/W	_Hours	uint16	Hours	_Time_SF	Programmable	Absorb Time Hours
64116									GSconfig_DC		
64116	64116	13	13	1	R/W	GSconfig Float Volts	uint16	DC Volts		Programmable	Float Voltage Target
64116						<u> </u>					
Second S	64116	14	14	1	R/W	GSconfig Float Time Hours	uint16	Hours		Programmable	Float Time Hours
64116	01110				1./ 44	SSCOTTING_FIGURES	unicio	110013		. rogrammable	oat iiiic riouis
64116	6/11/	1.5	1.5	1	D /\A/	GSconfig PoFloot Valta	uin+16	DC Valta		Drogramer-I-I	PoEloat Voltago Target
64116 16 16 17 17 18 17 18 18 18 18	04116	15	15		K/W	Goconing_KeFloat_Volts	uint 16	DC VOIts		Programmable	nerioat voitage Target
		1					,	1		l <u>.</u>	
64116 18 1 18 1 18 18 18 1	64116	16	16	1	R/W	GSconfig_EQ_Volts	uint16	DC Volts		Programmable	EQ Voltage Target
64116 18 18 18 18 18 18 18				l	l						
64116 92 29 1 RW GSconfig Search Pulse Length uint16 Gycles N/A Programmable Search pulse length	64116	17	17	1	R/W		uint16	Hours	_Time_SF	Programmable	EQ Time Hours
64116 92 29 1 RW GSconfig Search Pulse Length uint16 Gycles N/A Programmable Search pulse length	64116	18	18	1	R/W	GSconfig Search Sensitivity	uint16	N/A	N/A	Programmable	Search sensitivity
											,
		_									
64116 21 21 21 1 R/W Priority wint16 Enumerated Enumerated Enumerated Scoonfig. Accord. Accord	04110	20	20		11/ 77		diricio	Cycles	14/71	Trogrammable	Scarcii paise spacing
Amps	C 411C	21	21		DAM			E	N1/A	D	0.644.6
64116 22 22 1 R/W Current_Limit Unint Consequence Consequence Current_SF Current_SF	64116	21	21		K/VV		uintio	Enumerated		Programmable	U=Gria, i=Gen
Amps											
64116 23 23 1 R/W Current_Limit Unit16 Amps Current_SF Programmable Gen AC input current limit	64116	22	22	1	R/W		uint16	Amps		Programmable	Grid AC input current limit
Control Cont						GSconfig_Gen_AC_Input			GSconfig_AC		
64116 24 24 1 RW Current_Limit Limit L	64116	23	23	1	R/W	_Current_Limit	uint16	Amps	_Current_SF	Programmable	Gen AC input current limit
64116 24 24 1 RW Current_Limit Limit L						GSconfig Charger AC Input			GSconfig AC		
	64116	24	24	1	R/W		uint16	Amps		Programmable	Charger AC input current limit
64116 25 25 1 R/W											
64116 26 26 1 R/W GSconfig_AC_Coupled wint16 Enumerated N/A Programmable G=No, 1=Yes (not implemented) Grid Input Mode: 0=Generator, 1=Suppoin Garding Grid Input Mode: 0=Generator, 1=Suppoin Grid Input AC voltage GSconfig_AC Voltage_SF Programmable Grid Input AC voltage lower limit GSconfig_AC Voltage_SF Programmable Grid Input AC voltage upper limit GSconfig_AC GSconfig_AC Voltage_SF Programmable Grid Input AC voltage upper limit GSconfig_AC GSconfig_AC GSconfig_AC Voltage_SF Programmable Grid Input AC voltage upper limit GSconfig_AC GScon	64116	25	25	1	R/W		uint16	Enumerated	N/A	Programmable	
64116 27 27 1 R/W GSconfig_Grid_Input_Mode uint16 Enumerated N/A Programmable G-Grid Input Mode: 0-Generator, 1=Suppor G-Grid Input MC voltage Init Volts AC Voltage_SF Programmable Grid Input AC voltage lower limit G-Grid Input AC voltage Input MC voltage Input Volts AC Voltage_SF Programmable Grid Input AC voltage lower limit G-Grid Input AC voltage upper limit G-Grid Input Mode: 0-Generator, 1=Suppor upper limit G-Grid Input Mode: 0-Generator, 1=Suppor upper limit Voltage_Grid Input Mode: 0-Generator, 1=Suppor upper limit G-Grid Input Mode: 0-Generator, 1=Suppor upper limit Voltage_Grid Input Mode: 0-Generator, 1=Suppor upper limit G-Grid Input Mode: 0-Generator, 1=Suppor upper limit Voltage_Grid Input Mode: 0-Grid Input Mode: 0											
Control Cont	04110	20	20		IT/ VV	d3cornig_Ac_coupled	unitio	Lituitierateu	IN/A	Fiogrammable	
64116 27 27 1 R/W GSconfig_Grid_loput_Mode GSconfig_Grid_Lower_Input GSconfig_Grid_Lower_Input GSconfig_Grid_Lower_Input GSconfig_Grid_Lower_Input Uint16 Volts AC Voltage_SF Programmable Grid Input AC voltage lower limit From the programmable Grid Input AC voltage lower limit GSconfig_Grid_Upper_Input Uint16 Volts AC Voltage_SF Programmable Grid Input AC voltage upper limit GSconfig_Grid_Upper_Input Uint16 Volts AC Voltage_SF Programmable Grid Input AC voltage upper limit GSconfig_Grid_Connect GSconfig_Grid_Connect GSconfig_Grid_Connect GSconfig_Grid_Connect Uint16 Minutes Time_SF Programmable Grid Input AC voltage upper limit GSconfig_Grid_Connect Uint16 Uint											
64116 28 28 1 R/W _Voltage_Limit				_							
64116 28 28 1 R/W Voltage_Limit	64116	27	27	1	R/W		uint16	Enumerated		Programmable	6=Grid Zero
64116 29 29 31 R/W Voltage_Limit Volts AC Voltage_SF Programmable Grid Input AC voltage upper limit Volts AC Voltage_SF Programmable Grid Input AC voltage upper limit GSconfig_Grid_Transfer Unint16 Minutes Sconfig GSconfig Grid_Transfer GSconfig Grid_Transfer Unint16 Minutes GSconfig GSconfig Grid_Transfer GSconfig GSconfig GSconfig Grid_Transfer Unint16 Minutes GSconfig GSconfig Grid_Transfer GSconfig GS						GSconfig_Grid_Lower_Input					
64116 29 29 1 R/W _Voltage_Limit	64116	28	28	1	R/W	_Voltage_Limit	uint16	Volts AC	_Voltage_SF	Programmable	Grid Input AC voltage lower limit
64116 29 29 1 R/W _Voltage_Limit						GSconfig_Grid_Upper_Input			GSconfig_AC		
64116 30 30 1 R/W _Delay	64116	29	29	1	R/W		uint16	Volts AC		Programmable	Grid Input AC voltage upper limit
64116 30 30 1 R/W Delay uint16 msecs N/A Programmable Grid Input AC transfer delay GSconfig_Grid_Connect Uint16 Minutes Time_SF Programmable Grid Input AC connect delay GSconfig_Gen_Input_Mode uint16 Enumerated N/A Programmable Grid Input AC connect delay GSconfig_Gen_Input_Mode uint16 Enumerated N/A Programmable G-Grid Zero GSconfig_AC Voltage_SF Programmable G-Grid Zero GSconfig_AC Voltage_SF Programmable G-Grid Zero GSconfig_Gen_Upper_Input Uint16 Volts AC Voltage_SF Programmable G-Grid Zero GSconfig_AC Voltage_SF Programmable Low Battery Voltage Cut Out GSconfig_AC Voltage_SF Programmable Low Battery Voltage Cut In 1=Load Shed, Z=Gen Alert, 3=Fault, 4=Vertical Sheat Shea						_ = =					, , , , ,
GSconfig_Grid_Connect uint16 Minutes Time_SF Programmable Grid Input AC connect delay GSconfig_Grid_Ted, 3=UPS, 4=Backup, 5=Mini Grid Grid Ted, 3=UPS, 4=Backup, 5=Mini Grid Input AC connect delay GSconfig_ACVoltage_SF Programmable Gen Input AC voltage Inmit Uint16 Wolts ACVoltage_SF Programmable Gen Input AC voltage upper limit GSconfig_Gen_Transfer	64116	30	30	1	R/W		uint16	msecs	N/A	Programmable	Grid Input AC transfer delay
64116 31 31 1 R/W _Delay	0.710		- 50	<u> </u>	, **	GSconfig Grid Connect	u(10	5005		o g. a. i i i i abic	
Grid Input Mode: 0=Generator, 1=Support 2=Grid Tied, 3=UPS, 4=Backup, 5=Mini Grid Input Mode: 0=Generator, 1=Support 2=Grid Tied, 3=UPS, 4=Backup, 5=Mini Grid Input Mode: 0=Generator, 1=Support 2=Grid Tied, 3=UPS, 4=Backup, 5=Mini Grid Input Mode: 0=Generator, 1=Support 2=Grid Tied, 3=UPS, 4=Backup, 5=Mini Grid Input Mode: 0=Generator, 1=Support 2=Grid Tied, 3=UPS, 4=Backup, 5=Mini Grid Input Mode: 0=Generator, 1=Support 2=Grid Tied, 3=UPS, 4=Backup, 5=Mini Grid Input Mode: 0=Generator, 1=Support 2=Grid Tied, 3=UPS, 4=Backup, 5=Mini Grid Input Mode: 0=Generator, 1=Support 2=Grid Tied, 3=UPS, 4=Backup, 5=Mini Grid Input Mode: 0=Grid Tied, 3=UPS, 4=Backup, 5=Mini Grid Input AC voltage Unit Input AC voltage Input AC voltage Unit Input AC voltage Unit Input AC voltage Input AC voltage Input AC voltage Unit Input AC voltage Inpu	6/11/6	21	21	1	D/M		uin+16	Minutes	_	Drogrammah!-	Grid Input AC connect delay
64116 32 32 1 R/W GSconfig_Gen_lnput_Mode uint16 Enumerated N/A Programmable 6=Grid Zero GSconfig_Gen_Lower_Input uint16 Volts AC Voltage_SF Programmable Gen Input AC voltage lower limit GSconfig_Gen_Lower_Input uint16 Volts AC Voltage_SF Programmable Gen Input AC voltage lower limit GSconfig_Gen_Upper_Input uint16 Volts AC Voltage_SF Programmable Gen Input AC voltage upper limit GSconfig_Gen_Upper_Input uint16 Volts AC Voltage_SF Programmable Gen Input AC voltage upper limit GSconfig_Gen_Transfer GSconfig_AC Voltage_SF Programmable Gen Input AC voltage upper limit GSconfig_Gen_Transfer GSconfig_AC Voltage_SF Programmable Gen Input AC voltage upper limit GSconfig_Gen_Transfer GSconfig_AC Voltage_SF Programmable Gen Input AC transfer delay GSconfig_Gen_Connect_Dela Uint16 MinutesTime_SF Programmable Gen Input AC connect delay GSconfig_AC Voltage_SF Programmable Gen Input AC connect delay GSconfig_AC Voltage_SF Programmable AC output Voltage GSconfig_DC Voltage_SF Programmable Low Battery Voltage Cut Out GSconfig_DC Voltage_SF Programmable Low Battery Voltage Cut In 1 R/W n_Voltage Uint16 DC Volts Voltage_SF Programmable Low Battery Voltage Cut In 1 Lacad Shed, 2=Gen Alert, 3=Fault, 4=Ver Fan, 5=Cool Fan, 6=DC Divert, 7=Grid Limit/IEEE, 8=AC Source Status, 9=AC Divert, 7=Grid Limit/IEEE, 8=AC Source Status, 9=AC Divert. Status, 9=AC Dive	04110	١١	ונ		IT/ VV	_DCIay	unitio	wiiilutes	_111116_3F	riogrammable	
64116 32 32 1 R/W GSconfig_Gen_Input_Mode uint16 Enumerated N/A Programmable 6=Grid Zero GSconfig_Gen_Lower_Input uint16 Volts AC Voltage_SF Programmable Gen Input AC voltage lower limit 64116 34 34 1 R/W Voltage_Limit uint16 Volts AC Voltage_SF Programmable Gen Input AC voltage upper limit GSconfig_Gen_Upper_Input uint16 Volts AC Voltage_SF Programmable Gen Input AC voltage upper limit 64116 35 35 1 R/W Delay uint16 msecs N/A Programmable Gen Input AC voltage upper limit 64116 36 36 1 R/W V uint16 msecs N/A Programmable Gen Input AC voltage upper limit 64116 37 37 1 R/W e uint16 Volts AC Voltage_SF Programmable Gen Input AC connect delay 64116 38 38 1 R/W ut_Voltage uint16 Volts AC Voltage_SF Programmable Gen Input AC connect delay 64116 39 39 1 R/W ut_Voltage uint16 DC Volts Voltage_SF Programmable Low Battery Voltage Cut Out 64116 40 40 40 1 R/W GSconfig_AUX_Mode uint16 Enumerated N/A Programmable Limit/IEEE_8=AC Source Status,9=AC Divet.				l							
GSconfig_Gen_Lower_Input Volts AC Voltage_SF Programmable Gen Input AC voltage lower limit GSconfig_Gen_Upper_Input Volts AC Voltage_SF Programmable Gen Input AC voltage upper limit GSconfig_Gen_Upper_Input Volts AC Voltage_SF Programmable Gen Input AC voltage upper limit GSconfig_Gen_Transfer GSconfig_Gen_Transfer GSconfig_Gen_Connect_Dela Volts AC Voltage_SF Frogrammable Gen Input AC voltage upper limit GSconfig Gen Input AC voltage upper limit Minutes GSconfig GSconfig AC Voltage_SF Programmable AC output Voltage Minutes GSconfig_DC Volts AC Voltage_SF Frogrammable Low Battery Voltage Cut Out GSconfig_DC GSconfig_DC GSconfig_DC GSconfig_DC Voltage_SF Frogrammable Low Battery Voltage Cut In 1=Load Shed, 2=Gen Alert, 3=Fault, 4=Ve Fan, 5=Cool Fan, 6=DC Divert, 7=Grid Limit/IEEE, 8=AC Source Status, 9=AC Divert Status, 9=AC					D						
64116 33 33 1 R/W _Voltage_Limit	64116	32	32	1	R/W	<u> </u>	uint16	Enumerated		Programmable	6=Grid Zero
GSconfig_Gen_Upper_Input GSconfig_Gen_Upper_Input GSconfig_Gen_Transfer G4116 35 35 1 R/W _Delay	_	1 T									
64116 34 34 1 R/W _Voltage_Limit	<u>641</u> 16	33	33	_ 1	R/W		uint16	Volts AC		Programmable	Gen Input AC voltage lower limit
64116 34 34 1 R/W _Voltage_Limit						GSconfig_Gen_Upper_Input			GSconfig_AC		
GSconfig_Gen_Transfer uint16 msecs N/A Programmable Gen Input AC transfer delay GSconfig_Gen_Connect_Dela uint16 MinutesTime_SF Programmable Gen Input AC connect delay GSconfig_AC Output_Voltag uint16 Volts AC Voltage_SF Programmable AC output Voltage GSconfig_DC OCCUPATION OF ACT OF ACT OUT OUT OUT OUT OUT OUT OUT OUT OUT OU	64116	34	34	1	R/W	3 11 - 1	uint16	Volts AC	9 —	Programmable	Gen Input AC voltage upper limit
64116 35 35 1 R/W _Delay								1			process of the proces
GSconfig_Gen_Connect_Dela uint16 MinutesTime_SF Programmable Gen Input AC connect delay GSconfig_AC Output_Voltag uint16 Volts AC Voltage_SF Programmable AC output Voltage GSconfig_DC OSconfig_Low_Battery_Cut_O GSconfig_Low_Battery_Cut_O Uint16 DC Volts Voltage_SF Programmable Low Battery Voltage Cut Out GSconfig_DC OSconfig_DC OSconfig_DC OSconfig_Low_Battery_Cut_O Uint16 DC Volts Voltage_SF Programmable Low Battery Voltage Cut Out GSconfig_DC OSconfig_DC OSconf	64116	35	35	1	B/W	J	uin+16	msecs	N/A	Programmable	Gen Innut AC transfer delay
64116 36 36 1 R/W y uint16 Minutes _Time_FF Programmable Gen Input AC connect delay 64116 37 37 1 R/W e uint16 Volts AC _Voltage_SF Programmable AC output Voltage 64116 38 38 1 R/W ut_Voltage uint16 DC Volts _Voltage_SF Programmable Low Battery Voltage Cut Out 64116 39 39 1 R/W n_Voltage uint16 DC Volts _Voltage_SF Programmable Low Battery Voltage Cut In 64116 40 40 40 1 R/W GSconfig_AUX_Mode uint16 Enumerated N/A Programmable Limit/IEEE,8=AC Source Status,9=AC Dive	0-110	رر	رر		11/ 77		unitio	1113563		i rogrammable	Germput Ac transfer delay
64116 37 37 1 R/W e uint16 Volts ACVoltage_SF Programmable AC output Voltage 64116 38 38 1 R/W ut_Voltage uint16 DC VoltsVoltage_SF Programmable Low Battery Voltage Cut Out 64116 39 39 1 R/W n_Voltage uint16 DC VoltsVoltage_SF Programmable Low Battery Voltage Cut Out 64116 40 40 40 1 R/W GSconfig_AUX_Mode uint16 Enumerated N/A Programmable Limit/IEEE,8=AC Source Status,9=AC Dive	C111C	3.	2.		D/A/	usconing_Gen_Connect_Dela		Minoritari		Due sussitivity lad	Can lanut AC annual delice
64116 37 37 1 R/W e uint16 Volts AC _Voltage_SF Programmable AC output Voltage 64116 38 38 1 R/W ut_Voltage uint16 DC Volts Voltage_SF Programmable Low Battery Voltage Cut Out 64116 39 39 1 R/W n_Voltage uint16 DC Volts Voltage_SF Programmable Low Battery Voltage Cut Out 64116 40 40 40 1 R/W GSconfig_AUX_Mode uint16 Enumerated N/A Programmable Limit/IEEE,8=AC Source Status,9=AC Dive	04116	36	36		K/VV	y	uintib	winutes		rrogrammable	Gen input AC connect delay
64116 38 38 1 R/W ut_Voltage uint16 DC Volts Voltage_SF Programmable Low Battery Voltage Cut Out GSconfig_Low_Battery_Cut_O uint16 DC Volts Voltage_SF Programmable Low Battery Voltage Cut Out GSconfig_DC GSconfig_DC Voltage_SF Programmable Low Battery Voltage Cut In 1=Load Shed, 2=Gen Alert, 3=Fault, 4=Ve Fan, 5=Cool Fan, 6=DC Divert, 7=Grid 64116 40 40 40 1 R/W GSconfig_AUX_Mode uint16 Enumerated N/A Programmable Limit/IEEE,8=AC Source Status,9=AC Divert.				l	l_					_	
64116 38 38 1 R/W ut_Voltage uint16 DC Volts _Voltage_SF Programmable Low Battery Voltage Cut Out GSconfig_Low_Battery_Cut_I	64116	37	37	1	R/W		uint16	Volts AC		Programmable	AC output Voltage
64116 38 38 1 R/W ut_Voltage uint16 DC Volts _Voltage_SF Programmable Low Battery Voltage Cut Out GSconfig_Low_Battery_Cut_I		1 7				GSconfig_Low_Battery_Cut_O			GSconfig_DC		
GSconfig_Low_Battery_Cut_l uint16 DC Volts Coltage_SF Programmable Low Battery Voltage Cut In Low Batt	64116	38	38	1	R/W	<u> </u>	uint16	DC Volts		Programmable	Low Battery Voltage Cut Out
64116 39 39 1 R/W n_Voltage uint16 DC Volts _Voltage_SF Programmable Low Battery Voltage Cut In 1=Load Shed, 2=Gen Alert, 3=Fault, 4=Ver Fan, 5=Cool Fan, 6=DC Divert, 7=Grid 64116 40 40 1 R/W GSconfig_AUX_Mode uint16 Enumerated N/A Programmable Limit/IEEE,8=AC Source Status,9=AC Divert.											
1=Load Shed, 2=Gen Alert, 3=Fault, 4=Ve Fan, 5=Cool Fan, 6=DC Divert, 7=Grid 64116 40 40 1 R/W GSconfig_AUX_Mode uint16 Enumerated N/A Programmable Limit/IEEE,8=AC Source Status,9=AC Dive	64116	30	30	1	B/W		uint16	DC Volts		Programmable	Low Battery Voltage Cut In
64116 40 40 1 R/W GSconfig_AUX_Mode uint16 Enumerated N/A Programmable Limit/IEEE,8=AC Source Status,9=AC Dive	01110	رد	رر		1./ 44	voltage	unicity	DC VOIL3	_+0/1095_5	. rogrammable	
64116 40 40 1 R/W GSconfig_AUX_Mode uint16 Enumerated N/A Programmable Limit/IEEE,8=AC Source Status,9=AC Divi											
	C111C	40	40		D //A/	CS as a Sim. ALIV. A4 : 4 :		F	NI/A	Due sue con a la l	
64116 41 41 1 R/W GSconfig_AUX_Control uint16 Enumerated N/A Programmable 0 = Off; 1 = Auto; 2 = On											
	64116	41	41	1	R/W	GSconfig_AUX_Control	uint16	Enumerated	N/A	Programmable	υ = Off; 1 = Auto; 2 = On

Table 11 Radian Inverter Configuration Block

					labie II Ka				ration Bio	
DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
					GSconfig_AUX_ON_Battery			GSconfig_DC		
64116	42	42	1	R/W	_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	AUX ON battery voltage
					GSconfig_AUX_ON_Delay			GSconfig		
64116	43	43	1	R/W	_Time	uint16	Minutes	_Time_SF	Programmable	AUX ON Delay
					GSconfig_AUX_OFF_Battery			GSconfig_DC		
64116	44	44	1	R/W	_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	AUX OFF battery voltage
					GSconfig_AUX_OFF_Delay			GSconfig		, ,
64116	45	45	1	R/W	Time	uint16	Minutes	_Time_SF	Programmable	AUX OFF Delay
					_				j	1=Load Shed, 2=Gen Alert, 3=Fault, 4=Vent
										Fan, 5=Cool Fan, 6=DC Divert, 7=Grid
64116	46	46	1	R/W	GSconfig_AUX_Relay_Mode	uint16	Enumerated	N/A	Programmable	Limit/IEEE ,8=AC Source Status,9=AC Divert
64116	47	47	1	R/W	GSconfig_AUX_Relay_Control	uint16	Enumerated	N/A	Programmable	0 = Off; 1 = On; 2 = Auto
					GSconfig_AUX_Relay_ON			GSconfig_DC		, , , , , , , , , , , , , , , , , , , ,
64116	48	48	1	R/W	_Battery_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	AUX Relay ON battery voltage
					GSconfig_AUX_Relay_ON			GSconfig		
64116	49	49	1	R/W	_Delay_Time	uint16	Minutes	_Time_SF	Programmable	AUX Relay ON Delay
01110	.,	.,_	•	.,,	GSconfig_AUX_Relay_OFF	4	······aces	GSconfig_DC	rrogrammable	Trott fieldy err belay
64116	50	50	1	R/W	_Battery_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	AUX Relay OFF battery voltage
01110	50	- 50	•	.,,.,	GSconfig_AUX_Relay_OFF	ue.s	20.000	GSconfig	rrogrammable	7107 Helay 611 Sattery Voltage
64116	51	51	1	R/W	_Delay_Time	uint16	Minutes	_Time_SF	Programmable	AUX Relay OFF Delay
01110	31	٥,	•	10, 11	beidy_1iiiie	diricio	Williates	_111110_51	Trogrammable	10=Master, 12=Slave, 17=B Phase Master,
64116	52	52	1	R	GSconfig_Stacking_Mode	uint16	Enumerated	N/A	Read Only	18=C Phase Master
0+110	32	32	-	- 11	GSconfig_Master_Power	unitio	Litameratea	14/74	ricad Offiy	10-C I Hase Master
64116	53	53	1	R/W	_Save_Level	uint16	N/A	N/A	Programmable	Master inverter power save level
04110	33	33	-	11/ 11	GSconfig_Slave_Power_Save	unitio	14/73	14/74	Trogrammable	Master inverter power save level
64116	54	54	1	R/W	Level	uint16	N/A	N/A	Programmable	Slave inverter power save level
04110	34	34	-	IT/ VV	_Level	unitio	IN/A	GSconfig_DC	Frogrammable	Slave litverter power save lever
64116			1	D/M/	CScanfia Sall Valta	uin+16	DC Volte	-	Drogrammable	Soll Voltage Target
64116	55	55	1	R/W	GSconfig_Sell_Volts	uint16	DC Volts	_Voltage_SF		Sell Voltage Target 0=IEEE, 1=User (GS8048 Only)
64116	56	56	1	R/W	GSconfig_Grid_Tie_Window	uint16	Enumerated	N/A	Programmable	
64116	57	57	1	R/W	GSconfig_Grid_Tie_Enable	uint16	Enumerated	N/A	Programmable	1=Yes, 0=No
			_		GSconfig_Grid_AC_Input					
64116	58	58	1	R/W	_Voltage_Calibrate_Factor	int16	Volts AC	N/A	Programmable	Grid AC input voltage calibration factor
			_		GSconfig_Gen_AC_Input					
64116	59	59	1	R/W	_Voltage_Calibrate_Factor	int16	Volts AC	N/A	Programmable	Gen AC input voltage calibration factor
			_		GSconfig_AC_Output					
64116	60	59	1	R/W	Voltage_Calibrate_Factor	int16	Volts AC	N/A	Programmable	AC output voltage calibration factor
			_		GSconfig_Battery_Voltage			GSconfig_DC		
64116	61	60	1	R/W	_Calibrate_Factor	int16	DC Volts	_Voltage_SF	Programmable	Battery voltage calibration factor
								GSconfig_DC		
64116	62	61	1	R/W	GSconfig_ReBulk_Volts	uint16	DC Volts	_Voltage_SF	Programmable	ReBulk Voltage Target
					GSconfig_Mini_Grid_LBX			GSconfig_DC		Mini Grid LBX reconnect to Grid Battery
64116	63	62	1	R/W	_Volts	uint16	DC Volts	_Voltage_SF	Programmable	Voltage
				l	GSconfig_Mini_Grid_LBX					
64116	64	63	1	R/W	_Delay	uint16	Hours	N/A	Programmable	Mini Grid LBX reconnect to Grid Delay Time
					GSconfig_Grid_Zero_DoD			GSconfig_DC		
64116	65	64	1	R/W	_Volts	uint16	DC Volts	_Voltage_SF	Programmable	Grid Zero DoD Voltage
				l	GSconfig_Grid_Zero_DoD			GSconfig_AC		
64116	66	65	1	R/W	_Max_Offset_AC_Amps	uint16	Amps	_Current_SF	Programmable	·
64116	67	75	9	R/W	GSconfig_Serial_Number	string (18)	N/A	N/A	Read Only	Device serial number
64116	76	84	9	R	GSconfig_Model_Number	string (18)	N/A	N/A	Read Only	Device model
]										Module Control: 0 = Auto, 1 = Left, 2 =
64116	85	85	1	R/W	GSconfig_Module_Control	uint16	Enumerated	N/A	Programmable	Right, 3 = Both
]										Model Select: 0 = Dual Module, 1 = Single
64116	86	86	1	RW	GSconfig_Model_Select	uint16	Enumerated	N/A	Programmable	Module
					GSconfig_Low_Battery			GSconfig_DC		Seconds delay before inverter shutdown
64116	87	87	1	R/W	_Cut_Out_Delay	uint16	Seconds	_Voltage_SF	Programmable	upon low battery voltage
					GSconfig_High_Battery			GSconfig_DC		
64116	88	88	1	R/W	_Cut_Out_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	High Battery Voltage Cut Out
					GSconfig_High_Battery			GSconfig_DC	_	
64116	89	89	1	R/W	_Cut_In_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	High Battery Voltage Cut In
					Gsconfig_High_Battery			GSconfig DC		Seconds delay before inverter shutdown
64116	90	90	1	R/W	_Cut_Out_Delay	uint16	Seconds	_Voltage_SF	Programmable	upon high battery voltage
										, , , , , , , , , , , , , , , , , , , ,

Table 12 Single Phase Radian Inverter Real Time Block

DITECT Start Earl Size RW Name						able 12 Single		Madia		r Keai i im	C DIOGIC
1	DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
6417 2 1 1 1 8 6 5 65 5 65 6117 2 2 8 65 5 65 6117 2 3 3 1 8 65 5 65 6117 2 3 3 1 8 65 5 65 6117 2 4 6 6117 2 3 6 5 65 6117 6 6 6 7 7 6 6 7 7							-77-				•
Control Cont	64117	,	1	1	D	CC Cinala DID	uin+16	NI/A	NI/A	61117	
64117 3 3 1 R 65_Single_PovEn_page_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_Single_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_For_Voltage_Fo											'
64117 4 4 1 8 65. Single, DC, Votage, SF mit16	64117	2	2	1	R	GS_Single_Length	uint16	Registers	N/A	46	Length of block in 16-bit registers
64117 4 4 1 8 65. Single, DC, Votage, SF mit16	64117	3	3	1	R	GS Single Port number	uint16	N/A	N/A	0-10	Port number on Outback network
64117 5 5 1 8 65. Single AC Corrent SE		4		1	R				N/A		
6 6 1 8 6 5 1 8 65 Single AC (Voltage ST Initia											
64117 7 7 1 R G. Single Inverter Courter											
Company											,,
Message Mess	64117	7	7	1	R	GS_Single_AC_Frequency_SF	int16	N/A	N/A	-1	AC Frequency Scale Factor
Message Mess						GS Single Inverter Output			GS Sinale AC		
Col.	64117	8	8	1	R		uint16	Amns		Measured	Inverter output current
Measured Measured	01117			-	- ' '		unicro	7111103		Measurea	inverter output current
Col.			_								
Measured Measured	64117	9	9	1	К		uint16	Amps		Measured	Inverter charger current
Cell						GS_Single_Inverter_Buy_Curr			GS_Single_AC		
Cell	64117	10	10	1	R	ent	uint16	Amps	Current SF	Measured	Inverter buy current
Company						GS Single Inverter Sell		'			,
Cell	6/117	11	11	1	P		uint16	Amns		Massurad	Inverter sell current
	04117	- 11	- 11		n	_	unitio	Amps		Measureu	inverter sen current
Gent	64117	12	12	1	R		uint16	Volts AC	_Voltage_SF	Measured	Grid Input AC Voltage
Gent						GS Single Gen Input AC			GS Single AC		
	64117	13	13	1	R		uint16	Volts AC		Measured	Gen Input AC Voltage
Control Cont	<u> </u>			<u> </u>			4	70105710		casaca	cen input ne voltage
Commented Comm	64117	1.4	1.4	_	-		:	\/-l+: AC		Management	Outrout AC Valtage
Section Sect	6411/	14	14		К	_voitage	uint16	voits AC	_voitage_SF	ivieasured	
A				l							. 5.
A				l							3=Charging, 4=Silent, 5=Float, 6=EQ,
				ĺ		GS Single Inverter					
Section Sect	64117	15	15	1	R		uint16	Enumerated	N/A	Read Only	
64117 18 18 1 R GS. Single, Battery, Voltage											
	64117	17	17	1	R	GS_Single_Warning_Flags	uint16	Bitfield	N/A	Read Only	Bit field for warnings (See GS_Warning Table)
									GS Single DC		
64117 19 19 1 R GS_Single_Temps.Compensated uint16 Volts DC Voltage_SF Facad Only voltage Voltage Voltage Facad Only Voltage	64117	18	18	1	R	GS Single Battery Voltage	uint16	Volts DC		Measured	Battery Voltage
64117 19 19 1 R Target Voltage	<u> </u>			<u> </u>			4	70.05 2 0		casaca	
Section Column		4.0		_				V 1: DC			, ,
Continue											
Set 17 21 21 1 R State	64117	20	20	1	R	GS_Single_AUX_Output_State	uint16	Enumerated	N/A	Read Only	0 = Disabled; 1 = Enabled
Set 17 21 21 1 R State						GS Single AUX Relay Output					
GS_Single_L_Module CFT C	64117	21	21	1	R		uint16	Enumerated	N/A	Read Only	0 - Disabled: 1 - Enabled
64117 22 22 1	04117	- 21	21	-	- 11		unitio	Litameratea	14/74	nead Only	0 - Disabled, 1 - Ellabled
64117 23 23 1 R GS_Single_L_Module_Capacitor Int16 Degrees C N/A Measured Left module capacitor temp in degrees C GS_Single_R_Module GS_Single_R_Module_FET GS_Single_R_					_						
64117 23 23 1 R Temperature	64117	22	22	1	R	_Transformer_Temperature	int16	Degrees C	N/A	Measured	Left module transformer temp in degrees C
64117 24 24 1 R G.S. Single L. Module FET Int16 Degrees C N/A Measured Left module FET temp in degrees C Single R. Module Int16 Degrees C N/A Measured Right module transformer temp in degrees C Single R. Module G.S. Single R. Module Int16 Degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A N/A Read Only Measured Right module transformer temp in degrees C N/A N/A Read Only Measured Right module transformer temp in degrees C N/A N/A Read Only Measured Ri						GS_Single_L_Module_Capacitor					
64117 24 24 1 R G.S. Single L. Module FET Int16 Degrees C N/A Measured Left module FET temp in degrees C Single R. Module Int16 Degrees C N/A Measured Right module transformer temp in degrees C Single R. Module G.S. Single R. Module Int16 Degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A Measured Right module transformer temp in degrees C N/A N/A Read Only Measured Right module transformer temp in degrees C N/A N/A Read Only Measured Right module transformer temp in degrees C N/A N/A Read Only Measured Ri	64117	23	23	1	R		int16	Degrees C	N/A	Measured	Left module capacitor temp in degrees C
64117 24 24 1	<u> </u>			<u> </u>				Deg.ces e	,,,,	casaca	zere module capacitor temp in degrees e
64117 25 25 1 R GS_Single_R_Module GS_Single_R_Module_FET GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Single_R_MOdule_GS_Singl			~ .	_							1.6 1.1 FET. 1.1 G
64117 25 25 1 R Transformer_Temperature int16 Degrees C N/A Measured Right module transformer temp in degrees C 64117 26 26 1 R Capacitor_Temperature int16 Degrees C N/A Measured Right module capacitor temp in degrees C 64117 27 27 1 R Capacitor_Temperature int16 Degrees C N/A Measured Right module capacitor temp in degrees C 64117 27 27 1 R Temperature int16 Degrees C N/A Measured Right module FET temp in degrees C 64117 28 28 1 R Temperature int16 Degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A Measured Right module FET temp in degrees C N/A N/A Read Only DeGrid, 1=Ge Right module FET temp in degrees C N/A Read Only DeGrid, 1=Ge Right module FET temp in degrees C N/A N/A Read Only DeGrid, 1=Ge Right module FET temp in degrees C N/A Read Only DeGrid, 1=Ge Read Only Read Only DeGrid, 1=Ge Read Only	64117	24	24	1	K		int16	Degrees C	N/A	Measured	Left module FET temp in degrees C
64117 26 26						GS_Single_R_Module					
64117 26 26	64117	25	25	1	R	_Transformer_Temperature	int16	Degrees C	N/A	Measured	Right module transformer temp in degrees C
64117 26 26 1 R Capacitor_Temperature int16 Degrees C N/A Measured Right module capacitor temp in degrees C 65. Single_R.Module_FET int16 Degrees C N/A Measured Right module capacitor temp in degrees C 64117 28 28 1 R Temperature int16 Degrees C N/A Measured Right module FET temp in degrees C 64117 29 29 1 R GS_Single_AC_Input_Selection uint16 Enumerated N/A Read Only O-Grid, 1=Gen GS_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_Input_Single_AC_						GS Single R Module					
GS_Single_R_Module_FET	64117	26	26	1	D		in+16	Dograns C	NI/A	Massurad	Dight module conscitor town in degrees C
64117 27 27 1 R Temperature int16 Degrees C N/A Measured Right module FET temp in degrees C GS_Single_Battery int16 Degrees C N/A Measured Battery temp in degrees C 64117 28 28 1 R GS_Single_AC_Input_Selection uint16 Enumerated N/A Read Only O=Grid, 1=Gen GS_Single_AC_Input_Selection Volts AC_Input_Selection Vo	04117	20	20	-	n		111110	Degrees C	IN/A	Measureu	right module capacitor temp in degrees C
64117 28 28											
64117 28 28 1	64117	27	27	1	R	_Temperature	int16	Degrees C	N/A	Measured	Right module FET temp in degrees C
64117 28 28 1						GS Single Battery					
Comment Comm	64117	28	28	1	R		int16	Degrees C	N/A	Measured	Battery temp in degrees C
GS_Single_AC											
64117 30 30 1 R GS_Single_AC_Input_Frequency uint16 Hz Frequency_SF Measured Selected AC Input frequency HZ GS_Single_AC SS_Single_AC Voltage GS_Single_AC N/A N/A 1=AC Use, 0=AC_Drop	0411/	29	29		К	GS_Single_AC_input_Selection	uintib	Enumerated		Read Only	v=una, r=uen
Selected Input AC Voltage				l							
Selected Input AC Voltage	64117	30	30	_1	R	GS_Single_AC_Input_Frequency	uint16	Hz	Frequency_SF	Measured	Selected AC Input frequency HZ
Selected Input AC Voltage									GS Sinale AC		
Continue	64117	31	31	1	R	GS Single AC Input Voltage	uint16	Volts AC		Measured	Selected Input AC Voltage
GS_Single_Minimum_AC				<u> </u>							
64117 33 33 1 R _Input_Voltage uint16 Volts AC _Voltage_SF Read Only (Write to clear value) 64117 34 34 1 R _Input_Voltage uint16 Volts AC _Voltage_SF Read Only _Waximum Input AC Voltage 64117 34 34 1 R _Input_Voltage	0411/	52	32		К		uintib	Enumerated		IN/A	
GS_Single_AC				l							
GS_Single_AC	64117	33	33	_ 1	R		uint16	Volts AC	_Voltage_SF	Read Only	
64117 34 34 1 R _Input_Voltage uint16 Volts AC _Voltage_SF Read Only (Write to clear value) 64117 35 35 1 R GS_Single_Sell_Status uint16 Bit field for sell status 64117 36 36 1 R GS_Single_kWh_SF int16 N/A N/A -1 AC kWh scale factor 64117 37 37 1 R GS_Single_AC1_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC1 Buy kWh 64117 38 38 1 R GS_Single_AC2_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC2 Buy kWh 64117 39 39 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell_kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell_kWh 64117 41 41											
64117 35 35 1 R GS_Single_Sell_Status uint16 Bitfield N/A N/A (See GS_Sell_Status Table) 64117 36 36 1 R GS_Single_kWh_SF int16 N/A N/A -1 AC kWh scale factor 64117 37 37 1 R GS_Single_AC1_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC1 Buy kWh 64117 38 38 1 R GS_Single_AC2_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC2 Buy kWh 64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Buy kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 65S_Single 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 65S_Single 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 65S_Single	64117	3/1	3/1	1	P		uin+16	Volts AC		Read Only	
64117 35 35 1 R GS_Single_Sell_Status uint16 Bitfield N/A N/A (See GS_Sell_Status Table) 64117 36 36 1 R GS_Single_kWh_SF int16 N/A N/A -1 AC kWh scale factor 64117 37 37 1 R GS_Single_AC1_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC1 Buy kWh 64117 38 38 1 R GS_Single_AC2_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC2 Buy kWh 64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell_kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell_kWh 64117 41 41 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell_kWh	U411/	24	24	<u> </u>	n	put_voitage	unitio	VOILS AC	_voitage_sr	neau Offiy	
64117 36 36 1 R GS_Single_kWh_SF int16 N/A N/A -1 AC kWh scale factor 64117 37 37 1 R GS_Single_AC1_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC1 Buy kWh 64117 38 38 1 R GS_Single_AC2_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC2 Buy kWh 64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily Output kWh				l	_						
64117 37 37 1 R GS_Single_AC1_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC1 Buy kWh 64117 38 38 1 R GS_Single_AC2_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC2 Buy kWh 64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell kWh 64117 41 41 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 65S_Single 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 65S_Single 65S_Single GS_Single Daily AC2 Sell kWh 65S_Single GS_Single Daily AC2 Sell kWh 65S_Single GS_Single Daily AC2 Sell kWh	64117			1	R		uint16			N/A	
64117 37 37 1 R GS_Single_AC1_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC1 Buy kWh 64117 38 38 1 R GS_Single_AC2_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC2 Buy kWh 64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell kWh 64117 41 41 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 65S_Single 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 65S_Single 65S_Single GS_Single Daily AC2 Sell kWh 65S_Single GS_Single Daily AC2 Sell kWh 65S_Single GS_Single Daily AC2 Sell kWh	64117	36	36	1	R	GS_Single_kWh_SF	int16	N/A	N/A	-1	AC kWh scale factor
64117 37 37 1 R GS_Single_AC1_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC1 Buy kWh 64117 38 38 1 R GS_Single_AC2_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC2 Buy kWh 64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh								1			
64117 38 38 1 R GS_Single_AC2_Buy_kWh uint16 kWh	6/117	27	27	1	D	GS Single AC1 Dury LAMb	uin+16	L/A/h		Meacured	Daily AC1 Ruy kWh
64117 38 38 1 R GS_Single_AC2_Buy_kWh uint16 kWh _kWh_SF Measured Daily AC2 Buy kWh 64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 64117 41 41 1 R GS_Single_AC2_Sell_kWh GS_Single_AC2_Sell_kWh Uint16 kWh _kWh_SF Measured Daily AC2 Sell_kWh 64117 41 41 1 R GS_Single_AC2_Sell_kWh _kWh_SF Measured Daily AC2 Sell_kWh	0411/	اد	3/		n	G5_3IIIGIE_ACT_BUY_KWII	unitio	KVVII		ivieasureu	Daily ACT buy KWII
64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell_kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell_kWh 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell_kWh 65_Single GS_Single				1]			
64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell_kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell_kWh 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell_kWh 65_Single GS_Single	64117	38	38	_ 1	R	GS_Single_AC2_Buy_kWh	uint16	kWh	_kWh_SF	Measured	Daily AC2 Buy kWh
64117 39 39 1 R GS_Single_AC1_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC1 Sell kWh 64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily Output kWh GS_Single GS_Single GS_Single GS_Single GS_Single											
GS_Single	64117	30	30	1	R	GS Single AC1 Sell kWh	uint16	kWh		Measured	Daily AC1 Sell kWh
64117 40 40 1 R GS_Single_AC2_Sell_kWh uint16 kWh _kWh_SF Measured Daily AC2 Sell kWh 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily Output kWh GS_Single GS_Single GS_Single GS_Single GS_Single	OT117	39	32	-	- 11	GS_SHIGIC_ACT_SEII_KWII	unitio	VAAII		Micasureu	Duny Net Jen KWII
GS_Single 64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily Output kWh GS_Single GS_Single GS_Single					_						- 4
64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily Output kWh	64117	40	40	1	R	GS_Single_AC2_Sell_kWh	uint16	kWh		Measured	Daily AC2 Sell kWh
64117 41 41 1 R GS_Single_Output_kWh uint16 kWh _kWh_SF Measured Daily Output kWh				l -]	GS_Single		
GS_Single	64117	41	41	1	R	GS Single Output kWh	uint16	kWh		Measured	Daily Output kWh
	<u> </u>		· ·	Ė	· ·						N
[04117] 42] 42] 1] K [년5_SINGIE_CNARGER_KWN] UINTIO KWN _KWN_5F Measured Daily Charger KWh	C4117	42	42	_		CC Cinala Chaman DMI		LAAG		Management	Daile Channa Island
	0411/	42	42		К	וכ_כם_cnarger_kWh	uint 16	κννη	_kvvn_SF	ivieasured	Dally Charger KWN

Table 12 Single Phase Radian Inverter Real Time Block

DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
								GS_Single		
64117	43	43	1	R	GS_Single_Output_kW	uint16	kW	_kWh_SF	Measured	Output kW
								GS_Single		
64117	44	44	1	R	GS_Single_Buy_kW	uint16	kW	_kWh_SF	Measured	Buy kW
								GS_Single		
64117	45	45	1	R	GS_Single_Sell_kW	uint16	kW	_kWh_SF	Measured	Sell kW
								GS_Single		
64117	46	46	1	R	GS_Single_Charge_kW	uint16	kW	_kWh_SF	Measured	Charger kW
								GS_Single		
64117	47	47	1	R	GS_Single_Load_kW	uint16	kW	_kWh_SF	Measured	Load kW
								GS_Single		
64117	48	48	1	R	GS_Single_AC_Couple_kW	uint16	kW	_kWh_SF	Measured	AC Coupled kW

Table 13 FX Inverter Real Time Block

	1 - 1				1					I
DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
										Vendor Extension for OutBack FX Series
64113	1	1	1	R	FX_DID	uint16	N/A	N/A	64113	Inverter Status Block
64113	2	2	1	R	FX_Length	uint16	Registers	N/A	32	Length of block in 16-bit registers
64113	3	3	1	R	FX_Port_number	uint16	N/A	N/A	0-10	Port number on Outback network
64113	4	4	1	R	FX_DC_Voltage_SF	int16	N/A	N/A	-1	DC Voltage Scale Factor
64113	5	5	1	R	FX_AC_Current_SF	int16	N/A	N/A	0	AC Current Scale Factor
64113	6	6	1	R	FX_AC_Voltage_SF	int16	N/A	N/A	0	AC Voltage Scale Factor
64113	7	7	1	R	FX_AC_Frequency_SF	int16	N/A	N/A	-1	AC Frequency Scale Factor
							-	FX AC		, , , , , , , , , , , , , , , , , , , ,
64113	8	8	1	R	FX_Inverter_Output_Current	uint16	Amps	_Current_SF	Measured	Inverter output current
01113					17_inverter_output_eurrent	unitio	7 tilips	FX AC	Measurea	inverter output current
64113	9	9	1	R	FX_Inverter_Charge_Current	uint16	Amps	_Current_SF	Measured	Inverter charger current
04113			-	- 11	1 X_IIIVerter_charge_carrent	unitio	Allips	FX AC	Measurea	inverter charger current
64113	10	10	1	R	FX_Inverter_Buy_Current	uint16	Amps	_Current_SF	Measured	Inverter buy current
04113	10	10	-	n	FA_IIIVerter_buy_current	ullitio	Allips	FX_AC	Measureu	Inverter buy current
64112	11	11	1	R	FX_Inverter_Sell_Current	in+16	Amns		Massurad	Inverter cell current
64113	- 11	- 11	-	n	FX_IIIVerter_Sell_Current	uint16	Amps	_Current_SF	Measured	Inverter sell current
64113	10	10	,	-	EV Control AC Voltage		V-1- AC	FX_AC	Management	O to the ACM the sec
64113	12	12	1	R	FX_Output_AC_Voltage	uint16	Volts AC	_Voltage_SF	Measured	Output AC Voltage
										0=Off, 1=Searching, 2=Inverting,
										3=Charging, 4=Silent, 5=Float, 6=EQ,
			_	_						7=Charger Off, 8=Support, 9=Selling,
64113	13	13	1	R	FX_Inverter_Operating_Mode	uint16	Enumerated	N/A	Read Only	10=Pass through, 14=Offsetting
64113	14	14	1	R	FX_Error_Flags	uint16	Bitfield	N/A	Read Only	Bit field for errors (see FX_Error Table)
64113	15	15	1	R	FX_Warning_Flags	uint16	Bitfield	N/A	Read Only	Bit field for warnings (see FX_Warning Table)
								FX_DC		
64113	16	16	1	R	FX_Battery_Voltage	uint16	Volts DC	_Voltage_SF	Measured	Battery Voltage
					FX_Temp_Compensated			FX_DC		Temperature compensated target battery
64113	17	17	1	R	_Target_Voltage	uint16	Volts DC	_Voltage_SF	Read Only	voltage
64113	18	18	1	R	FX_AUX_Output_State	uint16	Enumerated	N/A	Read Only	0 = Disabled; 1 = Enabled
64113	19	19	1	R	FX_Transformer_Temperature	int16	Degrees C	N/A	Measured	Transformer temp in degrees C
64113	20	20	1	R	FX_Capacitor_Temperature	int16	Degrees C	N/A	Measured	Capacitor temp in degrees C
64113	21	21	1	R	FX_FET_Temperature	int16	Degrees C	N/A	Measured	FET temp in degrees C
								FX_AC_Freq		, , , , , ,
64113	22	22	1	R	FX_AC_Input_Frequency	uint16	Hz	uency_SF	Measured	Selected AC Input frequency HZ
01113					1 X_Xe_input_i requeriey	unitio	2	FX AC	Measurea	Selected He input frequency 112
64113	23	23	1	R	FX_AC_Input_Voltage	uint16	Volts AC	_Voltage_SF	Measured	Selected Input AC Voltage
64113	24	24	1	R	FX_AC_Input_State	uint16	Enumerated	N/A	N/A	1=AC Use, 0=AC_Drop
04113	24	24	-	n	FX_Minimum_AC_Input	unitio	Lituinerateu	FX_AC	IN/A	Minimum Input AC Voltage
64113	25	25	1	R	_Voltage	uint16	Volts AC	_Voltage_SF	Read Only	(Write to clear value)
04113	23	23	-	n		unitio	VOILS AC	FX AC	nead Offiy	
64112	26	20	1	D	FX_Maximum_AC_Input	:+16	\/-l+- AC		Deed Oak	Maximum Input AC Voltage
64113	26	26	1	R	_Voltage	uint16	Volts AC	_Voltage_SF	Read Only	(Write to clear value)
(4113	27	27	1	_	EV Call Status		D:46:-1-4	NI/A	NI/A	Bit field for sell status
64113	27	27	1	R	FX_Sell_Status	uint16	Bitfield	N/A	N/A	(see FX_Sell_Status Table)
64113	28	28	1	R	FX_kWh_SF	int16	N/A	N/A	-1	AC kWh scale factor
64113	29	29	1	R	FX_Buy_kWh	uint16	kWh	FX_kWh_SF	Measured	Daily Buy kWh
64113	30	30	1	R	FX_Sell_kWh	uint16	kWh	FX_kWh_SF	Measured	Daily Sell kWh
64113	31	31	1	R	FX_Output_kWh	uint16	kWh	FX_kWh_SF	Measured	Daily Output kWh
64113	32	32	1	R	FX_Charger_kWh	uint16	kWh	FX_kWh_SF	Measured	Daily Output kWh
64113	33	33	1	R	FX_Output_kW	uint16	kWh	FX_kWh_SF	Measured	Output kW
64113	34	34	1	R	FX_Buy_kW	uint16	kWh	FX_kWh_SF	Measured	Buy kW
64113	35	35	1	R	FX_Sell_kW	uint16	kWh	FX_kWh_SF	Measured	Sell kW
64113	36	36	1	R	FX_Charge_kW	uint16	kWh	FX_kWh_SF	Measured	Charger kW
64113	37	37	1	R	FX Load kW	uint16	kWh	FX_kWh_SF	Measured	Load kW
64113	38	38	1	R	FX_AC_Couple_kW	uint16	kWh	FX_kWh_SF	Measured	AC Coupled kW
U+113	20	20	1	n	i _AC_Couple_kw	unitio	KVVII	I V_VANII_DL	ivicasureu	Ac coupled KW

Table 14 FX_Error_Table

DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
_	_	_	_	_	_	_	_	_	0x0001	Low AC output voltage
_	_	_	_	_	_	_	_	_	0x0002	Stacking error
_	_	_	_	_	_	_	_	_	0x0004	Over temperature error
_	_	_	_	_	_	_	_	_	0x0008	Low battery voltage
_	_	_	_	_	_	_	_	_	0x0010	Phase loss
_	_	_	_	_	_	_	_	_	0x0020	High battery voltage
_	_	_	_	_	_	_	_	_	0x0040	AC output shorted
_	_	_	_	_	_		_		0x0080	AC backfeed

Table 15 FX_Warning_Table

DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
_	_		_	_	_	_	_	_	0x0001	AC input frequency too high
_	_	_	_	_	_	_	_	_	0x0002	AC input frequency too low
_	_	_	_	_	_	_	_	_	0x0004	AC input voltage too low
_	_	_	_	_	_	_	_	_	0x0008	AC input voltage too high
_	_	_	_	_	_	_	_	_	0x0010	AC input current exceeds max
_	_	_	_	_	_	_	_	_	0x0020	Temperature sensor bad
_	_	_	_	_	_	_	_	_	0x0040	Communications error
_		_	_	_	_	_	_	_	0x0080	Cooling fan fault

Table 16 FX_Sell_Status_Table

DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
_	_	_	-	_		_	_	_	0x0001	AC input frequency too high
_		_	_	_	_	_	_	_	0x0002	AC input frequency too low
_	_	_	_	_	_	_	_	_	0x0004	AC input voltage too low
_	_	_	-	_		_	_	_	0x0008	AC input voltage too high
_	_	_	_	_	_	_	_	_	0x0010	Awaiting sell delay
_		_	_	_	_	_	_	_	0x0020	Sell disabled
_	_	_	_	_		_	_	_	0x0040	Battery voltage less than target
_	_			_		_	_	_	0x0080	AC2 selected

Table 17 FX Inverter Configuration Block

					I able 17	LVIIIA	eitei Ct	niiiyui a	CIOII DIOCI	N.
DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
										Vendor Extension for OutBack FX Series
64114	1	1	1	R	FXconfig_DID	uint16	N/A	N/A	64114	Inverter Configuration Block
64114	2	2	1	R	FXconfig_Length	uint16	Registers	N/A	72	Length of block in 16-bit registers
64114	3	3	1	R	FXconfig_Port_Number	uint16	N/A	N/A	0-10	Port number on Outback network
64114	4	4	1	R	FXconfig_DC_Voltage_SF	int16	N/A	N/A	-1	DC Voltage Scale Factor
64114	5	5	1	R	FXconfig_AC_Current_SF	int16	N/A	N/A	-1	AC Current Scale Factor
64114	6	6	1	R	FXconfig_AC_Voltage_SF	int16	N/A	N/A	0	AC Voltage Scale Factor
64114	7	7	1	R	FXconfig_Time_SF	int16	N/A	N/A	-1	Time Scale Factor
					FXconfig_Major_Firmware					
64114	8	8	1	R	_Number	uint16	N/A	N/A	Read Only	Inverter Major firmware revision
					FXconfig_Mid_Firmware				·	,
64114	9	9	1	R	_Number	uint16	N/A	N/A	Read Only	Inverter Mid firmware revision
					FXconfig_Minor_Firmware				Ĺ	
64114	10	10	1	R	_Number	uint16	N/A	N/A	Read Only	Inverter Minor firmware revision
								FXconfig_DC	·	
64114	11	11	1	R/W	FXconfig_Absorb_Volts	uint16	DC Volts	_Voltage_SF	Programmable	Absorb Voltage Target
					FXconfig Absorb Time			FXconfig		
64114	12	12	1	R/W	_Hours	uint16	Hours	_Time_SF	Programmable	Absorb Time Hours
								FXconfig_DC		
64114	13	13	1	R/W	FXconfig_Float_Volts	uint16	DC Volts	_Voltage_SF	Programmable	Float Voltage Target
								FXconfig		
64114	14	14	1	R/W	FXconfig_Float_Time_Hours	uint16	Hours	_Time_SF	Programmable	Float Time Hours
								FXconfig_DC		
64114	15	15	1	R/W	FXconfig_ReFloat_Volts	uint16	DC Volts	_Voltage_SF	Programmable	ReFloat Voltage Target
								FXconfig_DC		
64114	16	16	1	R/W	FXconfig_EQ_Volts	uint16	DC Volts	_Voltage_SF	Programmable	EQ Voltage Target
<u> </u>						·		FXconfig		
64114	17	17	1	R/W	FXconfig_EQ_Time_Hours	uint16	Hours	_Time_SF	Programmable	
64114	18	18	1	R/W	FXconfig_Search_Sensitivity	uint16	N/A	N/A	Programmable	Search sensitivity
64114	19	19	1	R/W	FXconfig_Search_Pulse_Length	uint16	Cycles	N/A		Search pulse length
					FXconfig_Search_Pulse					-
64114	20	20	1	R/W	_Spacing	uint16	Cycles	N/A	Programmable	Search pulse spacing
64114	21	21	1	R/W	FXconfig_AC_Input_Type	uint16	Enumerated	N/A	Programmable	0=Grid, 1=Gen, 2=Grid Zero
										1=Yes, 0=No (only valid if AC Input Type is
64114	22	22	-	DAM	Fxconfig_Input_Support	uint16	Enumerated	N/A	Programmable	le , ''

Table 17 FX Inverter Configuration Block

Description						Table 17				tion bloci	
	DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
						FXconfia Grid AC Input			FXconfia AC		-
	64114	23	23	1	R/W		uint16	Amps		Programmable	Grid AC input current limit
	0			-	.,,		u	7p3		rrogrammasie	Cita it in par carrent mine
	61111	24	24	1	D/M	3 1	uin+16	Amns	3-	Drogrammable	Can AC input current limit
	04114	24	24		IT/ VV		unitio	Allips		Frogrammable	den Ac input current innit
Figure 2								_			
6-114 22 25	64114	25	25	1	R/W		uint16	Amps	_Current_SF	Programmable	
						FXconfig_Charger_Operating					0=Charger Off, 1=Charger Auto, 2=Charger
	64114	26	26	1	R/W	Mode	uint16	Enumerated	N/A	Programmable	On
27 27 1 RW Voltage Limit unit of Volts AC Voltage SF Programmable Grid Input AC voltage lower limit Voltage Ficorific Limit Vo											
A	6/11/	27	27	1	D/M	Voltage Limit	uint16	Volte AC		Programmable	Grid Input AC voltage lower limit
64114 28 28 1	04114	21	21		11/ 77		unitio	VOILS AC		Trogrammable	dia ilipat Ac voltage lower lillit
64114 29 29 7		20	20		D 044			\/ I: A.C			CILL IAC II
64114 30 30 1 R.W Fixconfig_Cen_Lower_Input wiint6 Volts AC Fixconfig_AC Programmable Gen Input AC voltage lower limit Fixconfig_Cen_Lower_Input wiint6 Volts AC Fixconfig_AC Programmable Gen Input AC voltage upper limit Fixconfig_AC Programmable Gen Input AC voltage upper limit Volts AC Voltage_SF Programmable Gen Input AC voltage upper limit Voltage Fixconfig_AC Programmable Gen Input AC voltage upper limit Voltage Fixconfig_AC Programmable Gen Input AC voltage upper limit Voltage Fixconfig_AC Voltage_SF Programmable Gen Input AC voltage upper limit Voltage_SF Programmable Gen Input AC voltage upper limit Voltage_SF Programmable Gen Input AC voltage_SF Programmable Gen Input										_	
64114 30 30 1 RW Voltage_Limit vinit Volts AC Voltage_F Programmable Geninput AC voltage lower limit	64114	29	29	1	R/W	FXconfig_Grid_Transfer_Delay	uint16	Minutes	N/A	Programmable	Grid Input AC connect delay
64114 30 30 1 RW Voltage_Limit vinit Volts AC Voltage_F Programmable Geninput AC voltage lower limit						FXconfig_Gen_Lower_Input_			FXconfig_AC		
64114 31 31 7 8 7 7 7 7 7 7 7 7	64114	30	30	1	R/W	Voltage_Limit	uint16	Volts AC	_Voltage_SF	Programmable	Gen Input AC voltage lower limit
64114 31 31 1 R.W. Voltage Limit uint16 Volts AC Voltage SF Programmable Gen Input AC voltage upper limit											
64114 32 32 1 RW FXconfig_Gen_Cennet_Delay uint16 Cycles NA Programmable Gen Input AC transfer delay	64114	31	31	1	R/M		uint16	Volts AC		Programmable	Gen Input AC voltage upper limit
64114 33 33 1 RW FXconfig Gen, Connect, Delay uint16 Minutes FXconfig Connect Gelay Uint16 Minutes FXconfig Connect Gelay Uint16 Connect Gelay											
64114 31 33 31 R.W FXconfig_AC_Output_Voltage uint16 Minutes Time_5F Programmable Gen Input A Connect delay	64114	32	32		R/VV	FXconfig_Gen_Transfer_Delay	uintib	Cycles		Programmable	Gen input AC transfer delay
64114 34											
64114 34 34 31 87 87 87 87 87 87 87 8	64114	33	33	1	R/W	FXconfig_Gen_Connect_Delay	uint16	Minutes	Time_SF	Programmable	Gen Input AC connect delay
64114 34 34 31 87 87 87 87 87 87 87 8									FXconfig AC		
	64114	34	34	1	R/W	EXconfig AC Output Voltage	uint16	Volts AC		Programmable	AC output Voltage
64114 35 35 1 RW Out Voltage Unit16 DC Volts Voltage Frogrammable Battery cut-out voltage	J.111		٠.		, **		۵دان			og. a. minable	I I I I I I I I I I I I I I I I I I
	61111	25	25	1	D/M	3 7-	uin±1¢	DC \/-!+-		Dro grana a a la l	Pattony sut out voltage
64114 36 36 1 R/W In Voltage	04114	35	35	1	K/W		uint 16	DC Volts		Programmable	partery cut-out voltage
									-		
	64114	36	36	_1	R/W	_ln_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	Battery cut-in voltage
Secondary Seco											
64114 37 37 1 R/W Rxconfig AUX Mode uint 16 Enumerated N/A Programmable Dx _ Dx											
64114 38 38 1 R/W FXconfig_AUX_Control uint16 Enumerated N/A Programmable O=Off; 1= Auto; 2 = On	61111	27	27	1	D/M	Eventia ALIV Mede	uin+16	Enumorated	NI/A	Drogrammable	
										_	
64114 39 39 1 RW Enable Voltage Voltage Voltage Voltage Fixonfig , DC Vo	64114	38	38	1	R/W		uint16	Enumerated		Programmable	0 = Off; 1 = Auto; 2 = On
F.									FXconfig_DC		
64114 40 40 40 40 7 7 7 7 7 7 7 7 7	64114	39	39	1	R/W	_Enable_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	Load Shed enable voltage
64114 40 40 40 40 7 7 7 7 7 7 7 7 7						FXconfig AUX Gen Alert			FXconfig DC		
Fixed Fixe	64114	40	40	1	R/W		uint16	DC Volts	-	Programmable	Gen Alert On voltage
64114	01111		10		11,700		unitro	DC VOICS	_voltage_5i	Trogrammable	den viere on voltage
				_	D 044	5					6 41 10 11 1
64114 42 42 42 1 R/W Off_Voltage wint16 DC Volts Voltage_SF Programmable Gen Alert Off voltage	64114	41	41		R/VV		uintib	Minutes		Programmable	Gen Alert On delay minutes
64114 43 43 43 1 R/W Off_Delay Uint16 Minutes N/A Programmable Gen Alert Off delay minutes FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan Uint16 DC Volts Voltage SF Programmable Vent Fan enable voltage Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Voltage SF Programmable Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Voltage SF Programmable Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Voltage SF Programmable DC Divert enable voltage Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Voltage SF Programmable DC Divert enable voltage Van Fan Off delay minutes Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Van Fan Off delay minutes	64114	42	42	1	R/W	_Off_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	Gen Alert Off voltage
64114 43 43 43 1 R/W Off_Delay Uint16 Minutes N/A Programmable Gen Alert Off delay minutes FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan FXconfig_AUX_Vent_Fan Uint16 DC Volts Voltage SF Programmable Vent Fan enable voltage Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Voltage SF Programmable Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Voltage SF Programmable Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Voltage SF Programmable DC Divert enable voltage Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Voltage SF Programmable DC Divert enable voltage Van Fan Off delay minutes Van Fan Off delay minutes FXconfig_AUX_Divert_Enable Van Fan Off delay minutes						FXconfig AUX Gen Alert					
FXConfig_AUX_Vent_Fan	64114	43	43	1	R/W	Off Delay	uint16	Minutes	N/A	Programmable	Gen Alert Off delay minutes
64114					.,						
64114	C4114	4.4	4.4	1	D/M		:	DC Vales	-	Dua muana ma alala	Vant Fan analda valtana
64114	04114	44	44		R/VV		uintio	DC Voits	_voitage_sr	Programmable	vent Fan enable voltage
FXconfig_AUX_Divert_Enable											
64114 46 46 47 47 47 1 RW _Voltage	64114	45	45	1	R/W		uint16	Minutes	N/A	Programmable	Van Fan Off delay minutes
64114 46 46 47 47 47 1 RW _Voltage						FXconfig AUX Divert Enable			FXconfig DC		
64114 47 47 47 1 R/W Delay	64114	46	46	1	R/W		uint16	DC Volts		Programmable	DC Divert enable voltage
64114		-			<u> </u>					J	· · · · · y ·
Comparison of the comparison	6/11/	17	47	1	D/M		uin+16	Minutes	NI/A	Drogrammahl-	Divert Off delay minutes
Slave L1, 3=0B Slave L2, 4=3phase Master, 5=3phase Slave, 1,0=Master, 11=Classic Slave, 12=OB Slave L1, 13=0B Slave L2, 4=3phase Master, 5=3phase Slave, 1,0=Master, 11=Classic Slave, 12=OB Slave L1, 13=0B Slave L2, 14=3phase OB Slave A, 15=3phase OB Slave B, 16=3phase OB Slave B, 16=1phase OB Slave B, 16=1phase OB Slave B, 16=1p	04114	4/	4/	- 1	r/VV	_Delay	unitio	wiinutes	IN/A	riogrammable	
5-3phase Slave,10=Master, 11=Classic Slave, 12=OB Slave L1, 13=OB Slave L2, 14=3phase OB Slave C, 17=3phase OB Slave L2, 14=3phase OB Slave L2, 14=3phase OB Slave C, 17=3phase Classic B, 18=3phase OB Slave C, 17=3phase OB Slave C, 17=3phase OB Slave C, 17=3phase Classic B, 18=3phase Clas											
Slave, 12–0B Slave L2, 14–3phase OB Slave A, 15–3phase OB Slave L2, 14–3phase OB Slave A, 15–3phase OB Slave B, 16–3phase OB Slave A, 15–3phase OB Slave B, 16–3phase OB Slave A, 15–3phase OB Slave B, 16–3phase OB Slave B, 16–1phase OB Slave B, 16–1phase OB Slave B											
Slave, 12–0B Slave L2, 14–3phase OB Slave A, 15–3phase OB Slave L2, 14–3phase OB Slave A, 15–3phase OB Slave B, 16–3phase OB Slave A, 15–3phase OB Slave B, 16–3phase OB Slave A, 15–3phase OB Slave B, 16–3phase OB Slave B, 16–1phase OB Slave B, 16–1phase OB Slave B											5=3phase Slave,10=Master, 11=Classic
14=3phase OB Slave A, 15=3phase OB Slave C, 17=3phase OB Slave B, 16=3phase OB Slave C, 17=3phase OB Slave DB											
B, 16=3phase OB Slave C, 17=3phase Classic B, 18=3phase Classic C, 19=Independent Read Only 19=											·
Classic B, 18=3phase Classic C, 19=Independent FXconfig_Master_Power_Save 64114 49 49 1 R/W _Level											
64114 48 48 1 R FXconfig_Stacking_Mode uint16 Enumerated N/A Read Only 19=Independent FXconfig_Master_Power_Save uint16 N/A N/A Programmable Master inverter power save level FXconfig_Slave_Power_Save uint16 N/A N/A Programmable Slave inverter power save level FXconfig_Slave_Power_Save uint16 N/A N/A Programmable Slave inverter power save level FXconfig_DC Voltage_FF Programmable Sell Voltage Target FXconfig_Slave_Fright N/A Programmable Sell Voltage Target FXconfig_DC Voltage_FF Programmable Sell Voltage Target FXconfig_CC N/A Programmable Sell Voltage Target FXconfig_CC N/A Programmable Sell Voltage Target FXconfig_AC N/A Programmable Sell Voltage Calibration factor FXconfig_AC N/A Programmable AC Output Voltage Calibration factor FXconfig_BATERY Voltage Sell Voltage Sell Voltage Sell Voltage Sell Voltage Calibration factor FXconfig_BATERY Voltage Sell Voltage Sell Voltage Sell Voltage Sell Voltage Calibration factor FXconfig_BATERY Voltage Sell Voltage Sell Voltage Sell Voltage Calibration factor FXconfig_BATERY Voltage Sell Voltage Sell Voltage Sell Voltage Calibration factor FXconfig_BATERY Voltage Sell Voltage Sell Voltage Sell Voltage Calibration factor FXconfig_BATERY Voltage Sell Vo											
FXconfig_Master_Power_Save uint16 N/A N/A Programmable Master inverter power save level FXconfig_Slave_Power_Save uint16 N/A N/A Programmable Slave inverter power save level FXconfig_Slave_Power_Save uint16 N/A N/A Programmable Slave inverter power save level FXconfig_Slave_Power_Save uint16 N/A N/A Programmable Slave inverter power save level FXconfig_DC Voltage_SF Programmable Sell Voltage Target FXconfig_Grid_Tie_Window uint16 Enumerated N/A Programmable O=IEEE, 1=User FXconfig_AC_Input_Voltage int16 Volts AC N/A Programmable 1=Yes, 0=No FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC input voltage calibration factor FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_Battery_Voltage int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor FXconfig_Battery_Voltage int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor FXconfig_Serial_Number String (18) N/A N/A Read Only Device serial number					_						·
64114 49 49 1 R/W _Level uint16 N/A N/A Programmable Master inverter power save level 64114 50 50 1 R/W _Level uint16 N/A N/A Programmable Slave inverter power save level 64114 51 51 1 R/W FXconfig_Sell_Volts uint16 DC Volts _Voltage_SF Programmable Sell Voltage Target 64114 52 52 1 R/W FXconfig_Grid_Tie_Window uint16 Enumerated N/A Programmable 0=IEEE, 1=User 64114 53 53 1 R/W FXconfig_Grid_Tie_Enable uint16 Enumerated N/A Programmable 1=Yes, 0=No 64114 54 54 1 R/W _Calibrate_Factor int16 Volts AC N/A Programmable AC input voltage calibration factor 64114 55 55 1 R/W _Calibrate_Factor int16 Volts AC N/A Programmable AC output voltage calibration factor 64114 56 56 1 R/W _Calibrate_Factor int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor 64114 56 56 9 R FXconfig_Serial_Number string (18) N/A N/A Read Only Device serial number	64114	48	48	1	R	FXconfig_Stacking_Mode	uint16	Enumerated	N/A	Read Only	19=Independent
64114 49 49 1 R/W _Level uint16 N/A N/A Programmable Master inverter power save level 64114 50 50 1 R/W _Level uint16 N/A N/A Programmable Slave inverter power save level 64114 51 51 1 R/W FXconfig_Sell_Volts uint16 DC Volts _Voltage_SF Programmable Sell Voltage Target 64114 52 52 1 R/W FXconfig_Grid_Tie_Window uint16 Enumerated N/A Programmable 0=IEEE, 1=User 64114 53 53 1 R/W FXconfig_Grid_Tie_Enable uint16 Enumerated N/A Programmable 1=Yes, 0=No 64114 54 54 1 R/W _Calibrate_Factor int16 Volts AC N/A Programmable AC input voltage calibration factor 64114 55 55 1 R/W _Calibrate_Factor int16 Volts AC N/A Programmable AC output voltage calibration factor 64114 56 56 1 R/W _Calibrate_Factor int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor 64114 56 56 9 R FXconfig_Serial_Number string (18) N/A N/A Read Only Device serial number	[_		FXconfig_Master_Power_Save				1	
FXconfig_Slave_Power_Save uint16 N/A N/A Programmable Slave inverter power save level FXconfig_DC FXconfig_AC FXconfig_DC FXconfig_AC FXconfig_	64114	49	49	1	R/W	_Level	uint16	N/A	N/A	Programmable	Master inverter power save level
64114 50 50 1 R/W Level uint16 N/A N/A Programmable Slave inverter power save level 64114 51 51 1 R/W FXconfig_Sell_Volts uint16 DC Volts Voltage_SF Programmable Sell Voltage Target 64114 52 52 1 R/W FXconfig_Grid_Tie_Window uint16 Enumerated N/A Programmable 0=IEEE, 1=User 64114 53 53 1 R/W FXconfig_Grid_Tie_Enable uint16 Enumerated N/A Programmable 1=Yes, 0=No FXconfig_AC_Input_Voltage FXconfig_AC_Input_Voltage Int16 Volts AC N/A Programmable AC input voltage calibration factor 64114 55 55 1 R/W Calibrate_Factor int16 Volts AC N/A Programmable AC output voltage calibration factor 64114 56 56 1 R/W Calibrate_Factor int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor 64114 57 65 9 R FXconfig_Serial_Number String (18) N/A N/A Read Only Device serial number											
64114 51 51 1 R/W FXconfig_Sell_Volts uint16 DC Volts Voltage_SF Programmable Sell Voltage Target 64114 52 52 1 R/W FXconfig_Grid_Tie_Window uint16 Enumerated N/A Programmable 0=IEEE, 1=User 64114 53 53 1 R/W FXconfig_Grid_Tie_Enable uint16 Enumerated N/A Programmable 1=Yes, 0=No FXconfig_AC_Input_Voltage int16 Volts AC N/A Programmable AC input voltage calibration factor 64114 55 55 1 R/W Calibrate_Factor int16 Volts AC N/A Programmable AC output voltage calibration factor 64114 55 56 1 R/W Calibrate_Factor int16 DC Volts Programmable AC output voltage calibration factor 64114 56 56 1 R/W Calibrate_Factor int16 DC Volts Programmable Battery voltage calibration factor 64114 57 65 9 R FXconfig_Serial_Number string (18) N/A N/A Read Only Device serial number	64114	50	50	1	R/M	3	uin+16	N/A	N/A	Programmable	Slave inverter nower save level
64114 51 51 1 R/W FXconfig_Sell_Volts uint16 DC Volts _Voltage_SF Programmable Sell Voltage Target 64114 52 52 1 R/W FXconfig_Grid_Tie_Window uint16 Enumerated N/A Programmable 0=IEEE, 1=User 64114 53 53 1 R/W FXconfig_Grid_Tie_Enable uint16 Enumerated N/A Programmable 1=Yes, 0=No FXconfig_AC_Input_Voltage int16 Volts AC N/A Programmable AC input voltage calibration factor FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_BC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_BC_Output_Voltage int16 DC Volts AC N/A Programmable Battery voltage calibration factor FXconfig_BC_Output_Voltage int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor FXconfig_Battery_Voltage int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor FXConfig_Serial_Number String (18) N/A N/A Read Only Device serial number	07114	50	50		11/ 77		unitio	IN/A		1 TOGI ATTITIADILE	Juve inverter power save level
64114 52 52 1 R/W FXconfig_Grid_Tie_Window uint16 Enumerated N/A Programmable 0=IEEE, 1=User 64114 53 53 1 R/W FXconfig_Grid_Tie_Enable uint16 Enumerated N/A Programmable 1=Yes, 0=No FXconfig_AC_Input_Voltage int16 Volts AC N/A Programmable AC input voltage calibration factor FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_BC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_BC_Output_Voltage int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor FXconfig_BC_Output_Voltage int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor FXConfig_Serial_Number String (18) N/A N/A Read Only Device serial number					_						
64114 53 53 1 R/W FXconfig_Grid_Tie_Enable uint16 Enumerated N/A Programmable 1=Yes, 0=No FXconfig_AC_Input_Voltage int16 Volts AC N/A Programmable AC input voltage calibration factor FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_Battery_Voltage FXconfig_DC Voltage FXconfig_Battery_Voltage int16 DC Volts Voltage_FF Programmable Battery voltage calibration factor FXConfig_Serial_Number String (18) N/A N/A Read Only Device serial number	64114	51		1	R/W	FXconfig_Sell_Volts	uint16	DC Volts	_Voltage_SF	Programmable	Sell Voltage Target
64114 53 53 1 R/W FXconfig_Grid_Tie_Enable uint16 Enumerated N/A Programmable 1=Yes, 0=No FXconfig_AC_Input_Voltage int16 Volts AC N/A Programmable AC input voltage calibration factor FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_Battery_Voltage FXconfig_DC Voltage FXconfig_Battery_Voltage int16 DC Volts Voltage_FF Programmable Battery voltage calibration factor FXConfig_Serial_Number String (18) N/A N/A Read Only Device serial number	64114	52	52	1	R/W	FXconfig_Grid_Tie_Window	uint16	Enumerated	N/A	Programmable	0=IEEE, 1=User
64114 54 54 1 R/W _Calibrate_Factor int16 Volts AC N/A Programmable AC input voltage calibration factor FXconfig_AC_Input_Voltage										_	
64114 54 54 1 R/W _Calibrate_Factor int16	51117	- 22	22	-	, **	5	water 0		14/71	ograffillable	
FXconfig_AC_Output_Voltage int16 Volts AC N/A Programmable AC output voltage calibration factor FXconfig_Battery_Voltage FXconfig_Battery_Voltage int16 DC Volts Voltage SF Programmable Battery voltage calibration factor FXconfig_Battery_Voltage FXconfig_Battery_Voltage SF Programmable Battery voltage calibration factor	C4114	- A	F 4		D/A/	3 1 - 3	:	\/=la: A.C	NI/A	Due sussitivity	A.C. in more containing and the containing for the containing
64114 55 55 1 R/W _Calibrate_Factor int16	64114	54	54	1	K/W		int16	voits AC	N/A	Programmable	AC input voitage calibration factor
FXconfig_Battery_Voltage 64114 56 56 1 R/W _Calibrate_Factor						3 3					
FXconfig_Battery_Voltage int16 DC Volts Voltage_SF Programmable Battery voltage calibration factor String (18) N/A N/A Read Only Device serial number	64114	55	55	1	R/W	_Calibrate_Factor	int16	Volts AC	N/A	Programmable	AC output voltage calibration factor
64114 56 56 1 R/W Calibrate Factor int16 DC Volts Voltage SF Programmable Battery voltage calibration factor 64114 57 65 9 R FXconfig_Serial_Number string (18) N/A N/A Read Only Device serial number										-	
64114 57 65 9 R FXconfig_Serial_Number string (18) N/A N/A Read Only Device serial number	64114	56	56	1	R/M	5 7 5	int16	DC Volts	J -	Programmable	Battery voltage calibration factor
64114 66 74 9 K FXCONTIG_MODEL_NUMBER StrIng (18) N/A N/A Read Only Device model											
	64114	66	/4	9	ĸ	Fxconfig_Model_Number	string (18)	N/A	N/A	Read Only	Device model

Table 18 FLEXnet-DC Configuration Block

		_	-							- -
DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
										Vendor Extension for OutBack FLEXnet-DC
64119	1	1	1	R	FNconfig_DID	uint16	N/A	N/A	64119	Battery Monitor Configuration Block
64119	2	2	1	R	FNconfig_Length	uint16	Registers	N/A	52	Length of block in 16-bit registers
64119	3	3	1	R	FNconfig_Port_Number	uint16	N/A	N/A	1-10	Port number on OutBack network
64119	4	4	1	R	FNconfig_DC_Voltage_SF	int16	N/A	N/A	-1	DC Voltage Scale Factor
64119	5	5	1	R	FNconfig_DC_Current_SF	int16	N/A	N/A	-1	DC Current Scale Factor
64119	6	6	1	R	FNconfig_kWh_SF	int16	N/A	N/A	-2	Kilo Watt Hours Scale Factor
					FNconfig_Major_Firmware					
64119	7	7	1	R	_Number	uint16	N/A	N/A	Read Only	FLEXnet-DC Major firmware revision
					FNconfig_Mid_Firmware				Ĺ	,
64119	8	8	1	R	_Number	uint16	N/A	N/A	Read Only	FLEXnet-DC Mid firmware revision
					FNconfig_Minor_Firmware				,	
64119	9	9	1	R	_Number	uint16	N/A	N/A	Read Only	FLEXnet-DC Minor firmware revision
64119	10	10	1	R/W	FNconfig_Battery_Capacity	uint16	AH	N/A	Programmable	Battery AH capacity
0				,	eapacity	u	7.11.	FNconfig_DC	rrogrammasie	buttery / ii r cupucity
64119	11	11	1	R/W	FNconfig_Charged_Volts	uint16	DC Volts	_Voltage_SF	Programmable	Battery Charged Voltage
64119	12	12	1	R/W		uint16	Minutes	N/A	Programmable	Battery Charged Time Minutes
04117	12	12	-	11/ VV	FNconfig_Battery_Charged	unitio	Williaces	FNconfig_DC	Trogrammable	battery charged fillie Miliates
64119	13	13	1	R/W	_Amps	uin+16	Amps	_Current_SF	Programmable	Battery Charged Return Amps
64119	14	14	1	R/W	FNconfig_Charge_Factor	uint16 uint16	Percent	N/A	Programmable	Battery Charge Rector Battery Charge Factor
										, ,
64119	15	15	1	R/W	FNconfig_Shunt_A_Enabled	uint16	Enumerated	N/A	Programmable	0=Enabled, 1=Disabled
64119	16	16	1	R/W	FNconfig_Shunt_B_Enabled	uint16	Enumerated	N/A	Programmable	0=Enabled, 1=Disabled
64119	17	17	1	R/W	FNconfig_Shunt_C_Enabled	uint16	Enumerated	N/A	Programmable	0=Enabled, 1=Disabled
64119	18	18	1	R/W	FNconfig_Relay_Control	uint16	Enumerated	N/A	Programmable	0 = Off; 1 = Auto; 2 = On
64119	19	19	1	R/W	FNconfig_Relay_Invert_Logic	uint16	Enumerated	N/A	Programmable	0=Invert Logic,1=Normal
								FNconfig_DC		
64119	20	20	1	R/W	FNconfig_Relay_High_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	Relay high voltage enable
								FNconfig_DC		
64119	21	21	1	R/W	FNconfig_Relay_Low_Voltage	uint16	DC Volts	_Voltage_SF	Programmable	Relay low voltage enable
64119	22	22	1	R/W	FNconfig_Relay_SOC_High	uint16	Percent	N/A	Programmable	Relay high SOC enable
64119	23	23	1	R/W	FNconfig_Relay_SOC_Low	uint16	Percent	N/A	Programmable	Relay low SOC enable
					FNconfig_Relay_High_Enable					
64119	24	24	1	R/W	_Delay	uint16	Minutes	N/A	Programmable	Relay High Enable Delay
					FNconfig_Relay_Low_Enable					, ,
64119	25	25	1	R/W	Delay	uint16	Minutes	N/A	Programmable	Relay Low Enable Delay
					FNconfig_Set_Data_Log_Day				,	,
64119	26	26	1	R/W	_Offset	uint16	Days	N/A	Programmable	Day offset 0-400, 0 =Today, 1 = -1 day
					FNconfig_Get_Current_Data		,			
64119	27	27	1	R	_Log_Day_Offset	uint16	Days	N/A	Read Only	Current Data Log Day Offset
					FNconfig_Datalog_Minimum					
64119	28	28	1	R	_SOC	uint16	Percent	N/A	Read Only	Datalog minimum SOC
64119	29	29	1	R	FNconfig_Datalog_Input_AH	uint16	AH	N/A	Read Only	Datalog input AH
01117			<u> </u>	- "	FNconfig_Datalog_Input	unitro	7.11	FNconfig	nedd Omy	Butulog Input 7111
64119	30	30	1	R	_kWh	uint16	kWh	_kWh_SF	Read Only	Datalog input kWh
64119	31	31	1	R	FNconfig_Datalog_Output_AH	uint16	AH	N/A	Read Only	Datalog output AH
04119	اد	اد		n	FNconfig Datalog Output AH	unitio	АΠ		nead Offiy	ναταίος συτρύτ ΑΠ
6/110	22	32	1	R	FNconfig_Datalog_Output	uin+16	kWh	FNconfig	Pond Only	Datalog output kWh
64119	32				_kWh	uint16		_kWh_SF	Read Only	Datalog output kWh
64119	33	33	1	R	FNconfig_Datalog_NET_AH	uint16	AH	N/A	Read Only	Datalog NET AH
(4110	3.4	2.4	_	_	ENIANGIN Datalian NET 124		LAAR.	FNconfig	Daniel Out	Detale a NET IAWA
64119	34	34	1	R	FNconfig_Datalog_NET_kWh	uint16	kWh	_kWh_SF	Read Only	Datalog NET kWh
1				_	FNconfig_Clear_Data_Log				_ ,	[_ , , _ , , ,
64119	35	35	1	R	_Read	uint16	N/A	N/A	Read Only	Read value needed to clear data log
1		l	l		FNconfig_Clear_Data_Log		1			
64119	36	36	1	W	_Write_Complement	uint16	N/A	N/A	Write Only	Write value's complement to clear data log
64119	37	45	9	R	FNconfig_Serial_Number	string (18)	N/A	N/A	Read Only	Device serial number
64119	46	54	9	R	FNconfig_Model_Number	string (18)	N/A	N/A	Read Only	Device model
		_								

Table 19 FLEXnet-DC Real Time Block

Description						Table 19	ILLA	THE C-DC	Keal Tir	HE DIOCK	
No.	DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
64118 1							-77-				
Septest Sept	C4110	1	1	1	_ n	EN DID	:16	NI/A	NI/A	64110	
6118 3 3 7 8 71 72 73 74 74 75 75 74 75 75 74 75 75											· · · ·
64118 4 4 1 8 N. D.C. Voltage SF int16 N.N.A N.N.A -1 D.C. Voltage Scale Factor	64118	2	2	1	R	FN_Length	uint16	Registers	N/A	76	Length of block in 16-bit registers
6118 5 5 7 R FN_CC_Current_SF int16 MA	64118	3	3	1	R	FN_Port_Number	uint16	N/A	N/A	1-10	Port number on Outback network
6118 5 5 7 R FN_CC_Current_SF int16 MA	64118	4	4	1	R	FN DC Voltage SF	int16	N/A	N/A	-1	DC Voltage Scale Factor
6 6 7 8 N. With 95 int 6 N.A N.A -1 Time Scale Factor	64118		5	1	R				N/A	-1	-
64118 7 7 7 1 8 Na Wes min 6 NA NA 2 Sicio Watt Hoors Scale Factor											
64118 8 8 1 R PALW SF In T16											
FRUE	64118						int16				Kilo Watt Hours Scale Factor
64118 10 10 1 1 1 1 1 1 1	64118	8	8	1	R	FN_kW_SF	int16	N/A	N/A	-2	Kilo Watt Scale Factor
64118 10 10 1 1 1 1 1 1 1									FN DC		
FRUING F	64118	9	9	1	R	FN Shunt A Current	int16	Amps	_	Read Only	Shunt A current
64118 10 10 1 R R Shunt, S. Current Init Shunt, S. Curren	01110		ŕ			Tri_branc_r_earrene		7 p.s		nead only	Shane A carrent
64118 11 1 1 R FN. Shunt, C. Current initio	C4110	10	10	1	_ n	EN Chart B Comment	:16	A		Deed Oak	Charat D. aureant
64118 11 11 1 1 R FN Shunt, C. Current wint16 wolts woltage FN Co.	64118	10	10	l I	К	FN_Snunt_B_Current	INTIO	Amps		Read Only	Shunt B current
									_		
64118 12 12 1 R FN Battery_Current	64118	11	11	1	R	FN_Shunt_C_Current	int16	Amps	_Current_SF	Read Only	Shunt C current
Section Sect									FN_DC		
Section Sect	64118	12	12	1	R	FN Battery Voltage	uint16	Volts	Voltage SF	Read Only	Battery Voltage
64118 14 1 8 18 18 18 18											
64118 14 14 18 18 17 17 18 18 18 18	C4110	12	12	1	_ n	FNI Dattami Cirmant	:16	A	_	Deed Oak	Battani Cimant
64118 15 15 1											
6118 6	64118	14	14	1	R		int16		N/A		, ,
6118 6	64118	15	15	1	R	FN_Status_Flags	uint16	Bitfield	N/A	Read Only	See FN Status Table
64118 16 16 17 17 1 1 18 AM							-				
Fig.	64118	16	16	1	R		int16	АН	N/A	Read Only	Shunt A Accumulated AH
64118	F	- · ·	- · ·		<u> </u>	_		7.11	// 1	01113	
64118 18 18 18 18 18 18 18	64110	17	17	1	ь		in+1/	JAA/L	EN DATE CE	Pond Only	Shupt A Accumulated JAMb
G4118 18 18 18 18 18 18 18	04118	1/	1/		К		Int16	kwn	FIN_KWN_SF	Read Only	Shunt A Accumulated_KWN
64118 9 9 1 R FN_Shunt_B_Accumulated Int16 kWh FN_kWh_SF Read Only Shunt B_Accumulated_kWh FN_kWh_SF Read Only Shunt C_Accumulated_kWh FN_kWh_SF FN_COLOR Shunt C_Accumulated_kWh FN_kWh_SF Read Only Shunt C_Accumulated_kWh FN_kWh_SF FN_COLOR Shunt C_Accumulated_kWh FN_kWh_SF FN_KMR_SF FN_KMR			ĺ	ĺ	ĺ						
64118 19 19 1 R	64118	18	18	1	R	_AH	int16	AH	N/A	Read Only	Shunt B Accumulated_AH
64118 19 19 1 R						FN Shunt B Accumulated					
64118 20 20 1	64118	19	19	1	R		int16	kWh	FN kWh SF	Read Only	Shunt B Accumulated kWh
G4118 20 20 1 R	01110	.,	- 17	<u> </u>			111110	KVVII	TTV_KWTT_ST	nead only	Share B / tecamalatea_kvii
Column C	64110	20	20		_		116	411	N1/A	Decidos la	Character A.
G4118 21 21 1 R KWh M Int16 KWh FN_KWh_SF Read Only Shunt C Accumulated_kWh	64118	20	20	l I	К		INTIO	AH	N/A	Read Only	Shunt C Accumulated_AH
Amps											
64118 22 22 1	64118	21	21	1	R	_kWh	int16	kWh	FN_kWh_SF	Read Only	Shunt C Accumulated_kWh
Section									FN DC		
Section	64118	22	22	1	R	FN Input Current	uint16	Amps	Current SF	Read Only	Total input current
64118 23 23 1 R FN Output Current uint16 Amps Current SF Read Only Total output current						pas_camen					
64118 24 24 1	64110	22	22	1	D	FN Output Current	uin+16	Amns	_	Dood Only	Total output surrent
Fig.											•
Set 18											
64118 27 27 1 R FN, Days_Since, Charge Uint16 Days FN, Time_SF Read Only Days Since Charge Parameters Met	64118	25		1	R	FN_Output_kW	uint16	kW		Read Only	Total_output_kWatts
64118 27 27 1 R FN, Days_Since, Charge Uint16 Days FN, Time_SF Read Only Days Since Charge Parameters Met	64118	26	26	1	R	FN Net kW	int16	kW	FN kW SF	Read Only	Total net kWatts
Seconds Seco						FN Days Since Charge				,	
64118 28 28 1 R	64118	27	27	1	R		uint16	Davs	FN Time SF	Read Only	Days Since Charge Parameters Met
64118 29 29 1											
64118 30 30 1 R FN_Todays_Maximum_SOC uint16 Percent N/A Read Only Todays maximum SOC 64118 31 1 R FN_Todays_NET_input_AH uint16 AH N/A Read Only Todays NET input AH MIN											, ,
64118 31 31 31 31 31 31 31	64118	29					uint16	Percent			,
64118 32 32 1 R FN_Todays_NET_Input_kWh uint16 kWh FN_kWh_SF Read Only Todays_NET_input_kWh (4118 34 34 1 R FN_Todays_NET_Output_AH uint16 kWh FN_kWh_SF Read Only Todays_NET_output_AH (4118 35 35 1 R FN_Todays_NET_Output_kWh uint16 kWh FN_kWh_SF Read Only Todays_NET_output_kWh (4118 36 36 1 R FN_Todays_NET_Battery_AH int16 kWh FN_kWh_SF Read Only Todays_NET_battery_AH (4118 37 37 1 R Lest	64118	30	30	1	R	FN_Todays_Maximum_SOC	uint16	Percent	N/A	Read Only	Todays maximum SOC
64118 32 32 1 R FN_Todays_NET_Input_kWh uint16 kWh FN_kWh_SF Read Only Todays_NET_input_kWh (4118 34 34 1 R FN_Todays_NET_Output_AH uint16 kWh FN_kWh_SF Read Only Todays_NET_output_AH (4118 35 35 1 R FN_Todays_NET_Output_kWh uint16 kWh FN_kWh_SF Read Only Todays_NET_output_kWh (4118 36 36 1 R FN_Todays_NET_Battery_AH int16 kWh FN_kWh_SF Read Only Todays_NET_battery_AH (4118 37 37 1 R Lest	64118	31	31	1	R	FN Todays NET Input AH	uint16	AH	N/A	Read Only	Todays NET input AH
64118 33 33 1 R FN_Todays_NET_Output_AH uint16 AH N/A Read Only Todays_NET_output_AH (4118 34 34 1 R FN_Todays_NET_Output_kWh uint16 kWh FN_kWh_SF Read Only Todays_NET_output_kWh (4118 36 36 1 R FN_Todays_NET_Battery_AH int16 AH N/A Read Only Todays_NET_battery_AH (4118 37 37 1 R FN_Todays_NET_Battery_kWh int16 kWh FN_kWh_SF Read Only Todays_NET_battery_kWh (4118 38 38 1 R N_C Anarge_Factor_Corrected int16 AH N/A Read Only Charge_factor_corrected_NET_battery_kWh (4118 40 41 2 R Battery_kWh Int16 KWh FN_kWh_SF Read Only Charge_factor_corrected_NET_battery_kWh (4118 42 42 1 R Battery_Wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_SHIMM_Battery_wh_S	64118		32	1	R		uint16	kWh	FN kWh SF	Read Only	
64118 34 34 34 1 R FN_Todays_NET_Output_kWh uint16 kWh FN_kWh_SF Read Only Todays NET output kWh											
64118 35 35 1 R FN_Todays_NET_Battery_AH int16 AH N/A Read Only Todays NET battery AH											
64118 36 36 1 R FN_Todays_NET_Battery_kWh int16 kWh FN_kWh_SF Read Only Todays NET battery kWh 64118 37 37 1 R FN_Charge_Factor_Corrected int16 AH N/A Read Only Charge factor corrected NET battery AH FN_Charge_Factor_Corrected int16 AH N/A Read Only Charge factor corrected NET battery AH FN_Charge_Factor_Corrected int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_Charge_Factor_Corrected int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_Charge_Factor_Corrected int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_Charge_Factor_Corrected int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_Charge_Factor_Corrected int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_Charge_Factor_Corrected int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_Charge_Factor_Corrected int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_Charge_Factor_Corrected int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_Todays_Maximum_Battery uint12 Seconds N/A Read Only Todays minimum battery voltage time UTC FN_Todays_Maximum uint16 Volts Volts Voltage_SF Programmable Todays maximum battery voltage FN_Todays_Maximum uint16 Percent N/A Read Only Cycle Charge Factor FN_Cycle_kWh_Charge Efficiency uint16 Percent N/A Read Only Cycle kWh Charge Efficiency FN_Total_Days_At_100 FN_Corrected N/A Read Only Cycle kWh Charge Efficiency FN_Total_Days_At_100 FN_Corrected N/A Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical											
64118 37 37 1 R NCharge_Factor_Corrected int16 AH N/A Read Only Charge factor corrected NET battery AH FN_Charge_Factor_Corrected int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_LORGY	64118			1			int16				
64118 37 37 1 R FN_Charge_Factor_Corrected	64118	36	36	1	R	FN_Todays_NET_Battery_kWh	int16	kWh	FN_kWh_SF	Read Only	Todays NET battery kWh
64118 37 37 1 R _NET_Battery_AH int16 AH N/A Read Only Charge factor corrected NET battery AH 64118 38 38 1 R _NET_Battery_kWh int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh 64118 39 39 1 R _VOltage int16 Volts _VOltage_SF Programmable Todays minimum battery voltage 64118 40 41 2 R _FN_Todays_Maximum									_	,	·
64118 38 38 1 R NET Battery_kWh int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh FN_COL Voltage SF Programmable Todays minimum battery voltage 64118 40 41 2 R Time uint32 Seconds N/A Read Only Todays minimum battery voltage time UTC 64118 42 42 1 R Battery_Voltage uint16 Volts Voltage_SF Programmable Todays minimum battery voltage time UTC 64118 43 44 2 R Battery_Voltage uint16 Volts Voltage_SF Programmable Todays maximum battery voltage 64118 43 44 2 R Battery_Time uint32 Seconds N/A Read Only Todays maximum battery voltage 64118 45 45 1 R FN_Cycle_Charge_Factor uint16 Percent N/A Read Only Cycle Charge Factor 64118 46 46 1 R Efficiency uint16 Percent N/A Read Only Cycle kWh Charge Efficiency 64118 47 47 1 R Percent Uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 49 49 1 R Reat Only Shunt A historical returned to battery AH 64118 49 49 1 R Returned_To_Battery_AH uint16 AH N/A Read Only Shunt A historical returned to battery AH 64118 49 49 1 R Returned_To_Battery_AH 64118 49 49 49 1 R Returned_To_Battery_AH	64118	37	37	1	R		int16	ДН	N/A	Read Only	Charge factor corrected NFT battery AH
64118 38 38 1 R _NET_Battery_kWh int16 kWh FN_kWh_SF Read Only Charge factor corrected NET battery kWh 64118 39 39 1 R _Voltage	0.110		٥,	<u> </u>	- ^			7311	14/71	nead Offiny	change factor corrected NET buttery ATT
64118 39 39 1 R Voltage uint16 Volts Voltage_SF Programmable Todays minimum battery voltage 64118 40 41 2 R Time uint32 Seconds N/A Read Only Todays minimum battery voltage time UTC 64118 42 42 1 R Battery_Voltage uint16 Volts Voltage_SF Programmable Todays minimum battery voltage time UTC 64118 43 44 2 R Battery_Voltage uint16 Volts Voltage_SF Programmable Todays maximum battery voltage 64118 43 44 2 R Battery_Time uint32 Seconds N/A Read Only Todays maximum battery voltage time UTC 64118 45 45 1 R FN_Cycle_Charge_Factor uint16 Percent N/A Read Only Cycle Charge Factor 64118 46 46 1 R Efficiency uint16 Percent N/A Read Only Cycle Charge Efficiency 64118 47 47 1 R Percent uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery 64118 49 49 1 R Read Only Shunt A historical returned to battery AH 64118 49 49 1 R Returned_To_Battery_AH uint16 AH N/A Read Only Shunt A historical returned to battery AH				_	_	_ = = _					
64118 39 39 1 R _Voltage	64118	38	38	1	R		int16	kWh		Read Only	Charge factor corrected NET battery kWh
64118 40 41 2 R FN_Todays_Maximum			ĺ	ĺ	ĺ	FN_Todays_Minimum_Battery			_		
64118 40 41 2 R FN_Todays_Minimum_Battery uint32 Seconds N/A Read Only Todays minimum battery voltage time UTC FN_Todays_Maximum FN_DC FN_DC FN_DC FN_Todays_Maximum FN_Todays_Maximum FN_DC FN_DC FN_DC FN_Todays_Maximum Battery_Voltage_FN_Todays_Maximum Batt	64118	39	39	1	R	_Voltage	uint16	Volts	_Voltage_SF	Programmable	Todays minimum battery voltage
64118 40 41 2 R _Time									-		, ,
64118 42 42 1 R Battery_Voltage uint16 Volts FN_DCVoltage_SF Programmable Todays maximum battery voltage FN_Todays_Maximum	64118	40	41	2	R	_ / _ /	uint32	Seconds	N/A	Read Only	Todays minimum battery voltage time LITC
64118 42 42 1 R Battery_Voltage uint16 Volts _Voltage_SF Programmable Todays maximum battery voltage 64118 43 44 2 R Battery_Time uint32 Seconds N/A Read Only Todays maximum battery voltage time UTC 64118 45 45 1 R FN_Cycle_Charge_Factor uint16 Percent N/A Read Only Cycle Charge Factor 64118 46 46 1 R Efficiency uint16 Percent N/A Read Only Cycle kWh Charge Efficiency 64118 47 47 1 R Percent uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery 64118 49 49 1 R R Returned_To_Battery_AH uint16 AH N/A Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical	01110	,,,	-	É	- "		unituz	Jeconus		nead Offiny	- saays minimum battery voltage time ore
64118 43 44 2 R Battery_Time uint32 Seconds N/A Read Only Todays maximum battery voltage time UTC 64118 45 45 1 R FN_Cycle_Charge_Factor uint16 Percent N/A Read Only Cycle Charge Factor 64118 46 46 1 R Efficiency uint16 Percent N/A Read Only Cycle kWh Charge Efficiency 64118 47 47 1 R Percent uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery 64118 49 49 1 R Read Only Shunt A historical returned to battery AH 64118 49 49 1 R Read Only Shunt A historical returned to battery AH	C4110	4.0	40	.	_			17.16		D	Tardaya mandayan bassan oo b
64118 43 44 2 R Battery_Time uint32 Seconds N/A Read Only Todays maximum battery voltage time UTC 64118 45 45 1 R FN_Cycle_Charge_Factor uint16 Percent N/A Read Only Cycle Charge Factor 64118 46 46 1 R Efficiency uint16 Percent N/A Read Only Cycle kWh Charge Efficiency 64118 47 47 1 R Percent uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery 64118 49 49 1 R Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical	64118	42	42	1	К		uint16	Volts	_voitage_SF	Programmable	rodays maximum battery voltage
64118 45 45 1 R FN_Cycle_Charge_Factor uint16 Percent N/A Read Only Cycle Charge Factor 64118 46 46 1 R Efficiency uint16 Percent N/A Read Only Cycle kWh Charge Efficiency FN_Total_Days_At_100 FN_Total_Days_At_100 64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery FN_Shunt_A_Historical FN_Shunt_A_Historical FN_Shunt_A_Historical FN_Shunt_A_Historical	1		ĺ	ĺ	ĺ	FN_Todays_Maximum					
64118 45 45 1 R FN_Cycle_Charge_Factor uint16 Percent N/A Read Only Cycle Charge Factor 64118 46 46 1 R Efficiency uint16 Percent N/A Read Only Cycle kWh Charge Efficiency FN_Total_Days_At_100 FN_Total_Days_At_100 64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery FN_Shunt_A_Historical FN_Shunt_A_Historical FN_Shunt_A_Historical FN_Shunt_A_Historical	64118	43	44	2	R	_Battery_Time	uint32	Seconds	N/A	Read Only	Todays maximum battery voltage time UTC
64118 46 46 1 R Efficiency uint16 Percent N/A Read Only Cycle kWh Charge Efficiency FN_Total_Days_At_100 64118 47 47 1 R Percent uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery FN_Shunt_A_Historical FN_Shunt_A_Historical FN_Shunt_A_Historical					R			Percent			
64118 46 46 1 R Efficiency uint16 Percent N/A Read Only Cycle kWh Charge Efficiency 64118 47 47 1 R Percent uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery 64118 49 49 1 R Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical											,
64118 47 47 1 R _Percent uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery 64118 49 49 1 R _Returned_To_Battery_AH uint16 AH N/A Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical	6/110	16	16	1	ь		uin+14	Dorcont	NI/A	Read Only	Cycle kWh Chargo Efficiency
64118 47 47 1 R _Fercent uint16 Days FN_Time_SF Programmable Total days at 100% charged 64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery 64118 49 49 1 R _Returned_To_Battery_AH uint16 AH N/A Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical	U4118	40	40	-	I.		uiiilib	reicent	IN/A	nedu Uniy	Cycle KWII Charge Efficiency
64118 48 48 1 R FN_Lifetime_kAH_Removed uint16 AH N/A Programmable Lifetime kAH removed from battery FN_Shunt_A_Historical 64118 49 49 1 R _Returned_To_Battery_AH uint16 AH N/A Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical			ĺ	ĺ	ĺ			_		_	
64118 49 49 1 R _Returned_To_Battery_AH uint16 AH N/A Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical	64118			1			uint16	Days	FN_Time_SF	Programmable	
64118 49 49 1 R _Returned_To_Battery_AH uint16 AH N/A Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical	64118	48	48	1	R	FN_Lifetime_kAH_Removed	uint16	AH	N/A	Programmable	Lifetime kAH removed from battery
64118 49 49 1 R _Read Only Shunt A historical returned to battery AH N/A Read Only Shunt A historical returned to battery AH FN_Shunt_A_Historical											<u> </u>
FN_Shunt_A_Historical	64110	40	40	1	p		uin+16	ΔЦ	N/A	Read Only	Shupt A historical returned to hattery AL
	07110	マフ	マフ		n	EN Chunt A Listantel	unitio	ΔП	IN/A	nead Offiy	Shanch historical returned to pattery An
64118 50 50 1 R _Returned_To_Battery_kWh uint16 kWh FN_kWh_SF Read Only Shunt A historical returned to battery kWh	1		_		_			,			L
	64118	50	50	1	R	_Returned_To_Battery_kWh	uint16	kWh	FN_kWh_SF	Read Only	Shunt A historical returned to battery kWh

Table 19 FLEXnet-DC Real Time Block

DID	Start	End	Size	R/W	Name	Туре	Units	Scale Factor	Contents	Description
					FN_Shunt_A_Historical					·
64118	51	51	1	R	_Removed_From_Battery_AH	uint16	AH	N/A	Read Only	Shunt A historical removed from battery AH
					FN_Shunt_A_Historical					Shunt A historical removed from battery
64118	52	52	1	R	_Removed_From_Battery_kWh	uint16	kWh	FN_kWh_SF	Read Only	kWh
					FN_Shunt_A_Maximum			FN_DC		Shunt A historical maximum charge rate
64118	53	53	1	R	_Charge_Rate	uint16	Amps	_Current_SF	Read Only	Amps
					FN_Shunt_A_Maximum					
64118	54	54	1	R	_Charge_Rate_kW	uint16	kW	FN_kWh_SF	Read Only	Shunt A historical maximum charge rate kW
				_	FN_Shunt_A_Maximum		_	FN_DC		Shunt A historical maximum discharge rate
64118	55	55	1	R	_Discharge_Rate	int16	Amps	_Current_SF	Read Only	Amps
C4110	56	F.C	1	R	FN_Shunt_A_Maximum	:+1.0	kW	EN LAMB CE	Daniel Only	Shunt A historical maximum discharge rate
64118	50	56	- 1	K	_Discharge_Rate_kW FN_Shunt_B_Historical	int16	KVV	FN_kWh_SF	Read Only	kW
64118	57	57	1	R	_Returned_To_Battery_AH	uint16	AH	N/A	Read Only	Shunt B historical returned to battery AH
04110	37	37		n	FN Shunt B Historical	ullitio	All	IN/A	nead Offiy	Shall B historical returned to battery Ari
64118	58	58	1	R	_Returned_To_Battery_kWh	uint16	kWh	FN_kWh_SF	Read Only	Shunt B historical returned to battery kWh
01110	- 50	30	-		FN_Shunt_B_Historical	unitio	KVVII	111_KWII_51	ricua Orny	Share Bristonear returned to battery kwin
64118	59	59	1	R	_Removed_From_Battery_AH	uint16	АН	N/A	Read Only	Shunt B historical removed from battery AH
					FN Shunt B Historical			·	,	Shunt B historical removed from battery
64118	60	60	1	R	_Removed_From_Battery_kWh	uint16	kWh	FN_kWh_SF	Read Only	kWh
					FN_Shunt_B_Maximum			FN_DC	•	Shunt B historical maximum charge rate
64118	61	61	1	R	_Charge_Rate	uint16	Amps	_Current_SF	Read Only	Amps
					FN_Shunt_B_Maximum					
64118	62	62	1	R	_Charge_Rate_kW	uint16	kW	FN_kWh_SF	Read Only	Shunt B historical maximum charge rate kW
					FN_Shunt_B_Maximum			FN_DC		Shunt B historical maximum discharge rate
64118	63	63	1	R	_Discharge_Rate	int16	Amps	_Current_SF	Read Only	Amps
			_	_	FN_Shunt_B_Maximum		114	5N 1N44 65	D 101	Shunt B historical maximum discharge rate
64118	64	64	1	R	_Discharge_Rate_kW FN_Shunt_C_Historical	int16	kW	FN_kWh_SF	Read Only	kW
64118	65	65	1	R	_Returned_To_Battery_AH	uint16	AH	N/A	Read Only	Shunt C historical returned to battery AH
04110	03	05	-	- 11	FN_Shunt_C_Historical	unitio	AH	IN/A	nead Only	Shart Chistorical returned to battery Arr
64118	66	66	1	R	_Returned_To_Battery_kWh	uint16	kWh	FN_kWh_SF	Read Only	Shunt C historical returned to battery kWh
01110		- 00			FN_Shunt_C_Historical	u			nead only	Sharit e historical retainica to sattery him
64118	67	67	1	R	_Removed_From_Battery_AH	uint16	AH	N/A	Read Only	Shunt C historical removed from battery AH
					FN_Shunt_C_Historical				,	Shunt C historical removed from battery
64118	68	68	1	R	_Removed_From_Battery_kWh	uint16	kWh	FN_kWh_SF	Read Only	kWh
					FN_Shunt_C_Maximum			FN_DC		Shunt C historical maximum charge rate
64118	69	69	1	R	_Charge_Rate	uint16	Amps	_Current_SF	Read Only	Amps
					FN_Shunt_C_Maximum					
64118	70	70	1	R	_Charge_Rate_kW	uint16	kW	FN_kWh_SF	Read Only	Shunt C historical maximum charge rate kW
64110	71	71		_	FN_Shunt_C_Maximum	116		FN_DC	Dec doct	Shunt C historical maximum discharge rate
64118	71	71	1	R	_Discharge_Rate	int16	Amps	_Current_SF	Read Only	Amps
64110	72	72	1	R	FN_Shunt_C_Maximum	in+16	kW	ENI PANP CE	Boad Only	Shunt C historical maximum discharge rate kW
64118	72	12	- 1	n	Discharge_Rate_kW FN_Shunt_A_Reset_Maximum	int16	KVV	FN_kWh_SF	Read Only	Read value needed to reset shunt A
64118	73	73	1	R	Data	uint16	N/A	N/A	Read Only	maximum data
01110	,,,	, ,	-		FN_Shunt_A_Reset_Maximum	unitio	14/71	14/71	ricad Orny	Write value's complement to reset shunt A
64118	74	74	1	W	_Data_Write_Complement	uint16	N/A	N/A	Write Only	maximum data
					FN_Shunt_B_Reset_Maximum					Read value needed to reset shunt B
64118	75	75	1	R	_Data	uint16	N/A	N/A	Read Only	maximum data
					FN_Shunt_B_Reset_Maximum				-	Write value's complement to reset shunt B
64118	76	76	1	W	_Data_Write_Complement	uint16	N/A	N/A	Write Only	maximum data
					FN_Shunt_C_Reset_Maximum					Read value needed to reset shunt C
64118	77	77	1	R	_Data	uint16	N/A	N/A	Read Only	maximum data
				\ ,. <i>.</i>	FN_Shunt_C_Reset_Maximum					Write value's complement to reset shunt C
64118	78	78	1	W	_Data_Write_Complement	uint16	N/A	N/A	Write Only	maximum data

Table 20 FN_Status Table

DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
_	_	_	_	_		_		_	0x0001	AUX relay enabled
_	_		_	_	_	_	_	_	0x0002	Charge parameters met

Table 21 OutBack System Control Block

DID	Start	End	Size	R/W	Name	Туре	Units	Scale Factor	Contents	Description
				,		.,,,,,			Contonio	Vendor Extension for OutBack System
64120	1	1	1	R	OB_DID	uint16	N/A	N/A	64120	Control Block
64120	2	2	1	R	OB Length	uint16	Registers	N/A	27	Length of block in 16-bit registers
64120	3	3	1	R	OB DC Voltage SF	int16	N/A	N/A	-1	DC Voltage Scale Factor
64120	4	4	1	R	OB AC Current SF	int16	N/A	N/A	-1	AC Current Scale Factor
64120	5	5	1	R	OB Time SF	int16	N/A	N/A	-1	Charge Time Scale Factor
01120					OB_Bulk_Charge_Enable	IIICTO	14//	14/71	·	1=Start Bulk, 2=Stop Bulk, 3=Start EQ
64120	6	6	1	W	Disable	uint16	Enumerated	N/A	Programmable	Charge, 4= Stop EQ Charge
64120	7	7	1	W	OB_Inverter_AC_Drop_Use	uint16	Enumerated	N/A	Programmable	1=Use, 2=Drop
64120	8	8	1	W	OB Set Inverter Mode	uint16	Enumerated	N/A	Programmable	1=Off, 2=Search, 3=On
64120	9	9	1	W	OB Grid Tie Mode	uint16	Enumerated	N/A	Programmable	1=Enable, 2=Disable
64120	10	10	1	W	OB_Set_Inverter_Charger_Mode	uint16	Enumerated	N/A	Programmable	1=Off, 2=Auto, 3=On
01120					ob_becvertei_enaigeioue	G.I.I.C.I.O	Litarretatea	1477	rrogrammasie	Bit field for status
64120	11	11	1	R	OB Control Status	uint16	Bitfield	N/A	N/A	(See OB Control Status Table)
01120					05_0011101_514143	unitio	Ditticia	OB_DC	1471	(500 05_0011101_5141445 14510)
64120	12	12	1	R/W	OB_Set_Sell_Voltage	uint16	Volts	_Voltage_SF	Programmable	Global Sell Voltage
01120				.,,.,	OB Set Radian Inverter Sell	unitro	70.05	OB AC	riogrammasie	Clobal Sell Voltage
64120	13	13	1	R/W	_Current_Limit	uint16	Amps	_Current_SF	Programmable	Radian Inverter Sell Current Limit
01120	.5			.,,.,	_canen	unitio	7	OB DC	rrogrammasie	Tradian inverter ben earrent Ennie
64120	14	14	1	R/W	OB_Set_Absorb_Voltage	uint16	Volts	_Voltage_SF	Programmable	Global Absorb Voltage
64120	15	15	1	R/W	OB Set Absorb Time	uint16	Hours	OB_Time_SF	Programmable	Time in tenths of hour
				.,				OB DC		
64120	16	16	1	R/W	OB_Set_Float_Voltage	uint16	Volts	_Voltage_SF	Programmable	Global Float Voltage
64120	17	17	1	R/W	OB_Set_Float_Time	uint16	Hours	OB_Time_SF	Programmable	Time in tenths of hour
				.,,	OB Set Inverter Charger			OB AC		
64120	18	18	1	R/W	_Current_Limit	uint16	Amps	_Current_SF	Programmable	Inverter Charger Current Limit
				.,,	OB Set Inverter AC1			OB AC		
64120	19	19	1	R/W	Current Limit	uint16	Amps	Current SF	Programmable	Inverter AC1 input Current Limit
					OB_Set_Inverter_AC2			OB AC		
64120	20	20	1	R/W	_Current_Limit	uint16	Amps	_Current_SF	Programmable	Inverter AC2 input Current Limit
64120	21	21	1	R/W	OB_Set_AGS_OP_Mode	uint16	Enumerated	N/A	Programmable	AGS Operating Mode: 0=Off, 1=On, 2=Auto
									Ž	GEN STOP=0, GEN STARTING=1,
										GEN_RUNNING=2, GEN_WARMUP=3,
64120	22	22	1	R	OB_AGS_Operational_State	uint16	Enumerated	N/A	N/A	GEN_COOLDOWN=4, GEN_AWAITING_AC=5
										Number of seconds OB_AGS_Operational_State
					OB_AGS_Operational_State					has been in current state; if Operational State is
64120	23	23	1	R	_Timer	uint16	Seconds	N/A	Measured	0 then timer=0
					OB_Gen_Last_Run_Start					
64120	24	25	2	R	_Time_GMT	uint32	Seconds	N/A	Measured	Generator last start time in GMT seconds
					OB_Gen_Last_Start_Run					
64120	26	27	2	R	_Duration	uint32	Seconds	N/A	Measured	Last Generator Start Run Duration Seconds
					OB_Set_AC_Output_Freq					
64120	28	28	1	R/W	_Offline_Mode	uint16	NA	N/A	Programmable	Not implemented
										Set AC Output Frequency when AC Input is
					OB_Set_AC_Output_Offline			OB_DC		disconnected: Range 60 Hz: 55.8 64.9 Hz,
64120	29	29	1	R/W	_Freq	uint16	Hz	_Voltage_SF	Programmable	50 Hz: 46.5 54.1 Hz

Table 22 OB Control Status Table

DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
_		_	_	_	_	_	_	_	0x0001	Bulk Charging
_	_	_	_	_		_	_	_	0x0002	Float Charging
_	_	_	_	_		_	_	_	0x0004	Inverter AC Input Use
_	_	_	_	_		_	_	_	0x0008	Inverter Off
_	_		-	_		_	_	_	0x0010	Inverter Search Mode
_	_	_		_		_	_	_	0x0020	Inverter On
_	_	_	_	_	_	_	_	_	0x0040	Inverter Grid-Tie Enabled
_	_	_	_	_	_	_	_	_	0x0080	Inverter Charger Disabled
_	_	_	_	_	_	_	_	_	0x0100	Inverter Charger Auto Mode
_				_	_	_	_	_	0x0200	Inverter Charger Bulk and Float Mode
_	_	_	_	_	_	_	_	_	0x0400	EQ Charging

Table 23 SunSpec Common Model Block

DID	Start	End	Size	R/W	Field Name	Type	Units	Scale Factor	Contents	Description
										Uniquely identifies this as a SunSpec
1	1	1	1	R	C_SunSpec_DID	uint16	N/A	N/A	1	Common Model block
1	2	2	1	R	C_SunSpec_Length	uint16	Registers	N/A	65	Length of block in 16-bit registers
1	3	18	16	R	C_Manufacturer	string (32)	N/A	N/A	Read Only	_
1	19	34	16	R	C_Model	string (32)	N/A	N/A	Read Only	_
1	35	42	8	R	C_Options	string (16)	N/A	N/A	Read Only	_
1	43	50	8	R	C_Version	string (16)	N/A	N/A	Read Only	_
1	51	66	16	R	C_SerialNumber	string (32)	N/A	N/A	Read Only	_
1	67	67	1	R/W	C_DeviceAddress	uint16	N/A	N/A	Write Only	_

 Table 24
 SunSpec Inverter — Single Phase

		_		1			ec ilivei		ilgie rilas	
DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
										Uniquely identifies this as a SunSpec Single
101	1	1	1	R	C_SunSpec_DID	uint16	N/A	N/A	101	Phase Inverter
101	2	2	1	R	C_SunSpec_Length	uint16	Registers	N/A	50	Length of model block
							Ŭ	I AC		
101	3	3	1	R	I_AC_Current	uint16	Amps	_Current_SF	Measured	AC Total Current value
			-	- · ·		ue	7	I AC	casarea	The Fotor Conference Value
101	4	4	1	R	I_AC_CurrentA	uint16	Amps	_Current_SF	Measured	AC Phase-A Current value
101	4	4	'	n	I_AC_CUITETICA	unitio	Allips		Measureu	AC Filase-A Culterit value
	_			_			_	I_AC		
101	5	5	1	R	I_AC_CurrentB	uint16	Amps	_Current_SF	Measured	AC Phase-B Current value
								I_AC		
101	6	6	1	R	I_AC_CurrentC	uint16	Amps	_Current_SF	Measured	AC Phase-C Current value
101	7	7	1	R	I_AC_Current_SF	int16	SF	N/A		AC Current Scale factor
								I AC		
101	8	8	1	R	I_AC_VoltageAB	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase-AB value
								I AC		
101	9	9	1	R	I_AC_VoltageBC	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase BC value
101	,	9	-	11	I_AC_VOITageDC	unitio	VOICS	I AC	Measured	Ac voltage i flase be value
101	10	10		_	L AC Vale CA		Male			ACV-land Diagram CA and an
101	10	10	1	R	I_AC_VoltageCA	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase CA value
								I_AC		
101	11	11	1	R	I_AC_VoltageAN	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase-A-to-neutral value
								I_AC		
101	12	12	1	R	I AC VoltageBN	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase B-to-neutral value
								I AC		
101	13	13	1	R	I_AC_VoltageCN	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase C-to-neutral value
101	14	14	1	R	I_AC_Voltage_SF	int16	SF	N/A	Micasarca	AC Voltage Scale factor
101	14	14	_ !	K	I_AC_voitage_SF	Intio	31			AC voltage Scale factor
				_				I_AC		
101	15	15	1	R	I_AC_Power	int16	Watts	_Power_SF	Measured	AC Power value
101	16	16	1	R	I_AC_Power_SF	int16	SF	N/A		AC Power Scale factor
								I_AC		
								_Frequency		
101	17	17	1	R	I_AC_Frequency	uint16	Hertz	_SF	Measured	AC Frequency value
101	18	18	1	R	I AC Frequency SF	int16	SF	N/A		Scale factor
101	19	19	1	R	I_AC_VA		VA	I_AC_VA_SF	Measured	Apparent Power
						int16			Measured	
101	20	20	1	R	I_AC_VA_SF	int16	SF	N/A		Scale factor
								I_AC_VAR		
101	21	21	1	R	I_AC_VAR	int16	VAR	_SF	Measured	Reactive Power
101	22	22	1	R	I_AC_VAR_SF	int16	SF	N/A		Scale factor
101	23	23	1	R	I_AC_PF	int16	%	I_AC_PF_SF	Measured	Power Factor
101	24	24	1	R	I_AC_PF_SF	int16	SF	N/A		Scale factor
					15.165.1.25.		J.	I_AC_Energy		Searc ractor
101	25	26	2	R	I_AC_Energy_WH	uint32	WattHours	_WH_SF	Measured	AC Lifetime Energy production
101	27	27	1	R	I_AC_Energy_WH_SF	uint16	SF	N/A	Measured	AC Lifetime Energy production scale factor
								I_DC		
101	28	28	1	R	I_DC_Current	uint16	Amps	_Current_SF	Measured	DC Current value
101	29	29	1	R	I_DC_Current_SF	int16	SF	N/A		Scale factor
								I_DC		
101	30	30	1	R	I_DC_Voltage	uint16	Volts	_Voltage_SF	Measured	DC Voltage value
101	31	31	1	R	I_DC_Voltage_SF	int16	SF	N/A		Scale factor
		٥,			c_1 o.tagc_51			I DC		
101	32	32	1	D	L DC Power	in+16	Watte	_Power_SF	Measured	DC Power value
101	32		1		I_DC_Power	int16	Watts		Measured	
101	33	33	1	R	I_DC_Power_SF	int16	SF	N/A		Scale factor
101	34	34	1	R	I_Temp_Cab	int16	Degrees C	I_Temp_SF	Measured	Cabinet Temperature
101	35	35	1	R	I_Temp_Sink	int16	Degrees C	I_Temp_SF	Measured	Coolant or Heat Sink Temperature
101	36	36	1	R	I_Temp_Trans	int16	Degrees C	I_Temp_SF	Measured	Transformer Temperature
101	37	37	1	R	I_Temp_Other	int16	Degrees C	I_Temp_SF	Measured	Other Temperature
101	38	38	1	R	I Temp SF	int16	SF	N/A		Scale factor
						_			N1 / A	
101	39	39	1	R	I_Status	uint16	Enumerated	N/A	N/A	Operating State
101	40	40	1	R	I_Status_Vendor	uint16	Enumerated	N/A	N/A	Vendor Defined Operating State
101	41	42	2	R	I_Event_1	uint32	Bitfield	N/A	N/A	Event Flags (bits 0-31)
101	43	44	2	R	I_Event_2	uint32	Bitfield	N/A	N/A	Event Flags (bits 32-63) Future Use, set to 0
101	45	46	2	R	I_Event_1_Vendor	uint32	Bitfield	N/A	N/A	Vendor Defined Event Flags (bits 0-31)
.01	٠,٥	.0		-11		GIIIGZ	Dicticia	14/73	14//1	Vendor Defined Event Flags (bits 32-63)
101	47	40	2	ם	L Event 2 Verder	:-+22	D:+£:-1-J	NI/A	NI/A	
101	47	48	2	R	I_Event_2_Vendor	uint32	Bitfield	N/A	N/A	Future Use
							l .			Vendor Defined Event Flags (bits 64-95)
101	49	50	2	R	I_Event_3_Vendor	uint32	Bitfield	N/A	N/A	Future Use
										Vendor Defined Event Flags (bits 96-127)
101	51	52	2	R	I_Event_4_Vendor	uint32	Bitfield	N/A	N/A	Future Use
1				•	<u> </u>					•

Table 25SunSpec Inverter — Split Phase

DID Start End Size R/W Name Type Units Scale Factor Contents Description	nSpec Split
102	ispec spiit
102 2 2 1 R C_SunSpec_Length	
102 3 3 1 R LAC_Current uint16 Amps Current SF Measured AC_Total Current value LAC LAC	
102 3 3 1 R LAC_Current	
102	
102	
102 5 5 1 R LAC_CurrentB	
102 5 5 1 R LAC_CurrentB	
102 6 6 1 R LAC_CurrentC	
102 6 6 1 R LAC_current LAC_cu	
102	
102 8 8 1 R LAC_VoltageAB	
102 8 8 1 R LAC_VoltageAB	
102 9	
102 10 10 1 R LAC_VoltageCA	
102 10 10 1 R LAC_VoltageCA	
102	
102	
102 12 12 1 R LAC_VoltageBN	
102 12 12 1 R LAC_VoltageBN	value
102	•
102 13 13 1 R LAC_VoltageCN	value
102	
102	value
102	
102	
102 17 17 1 R L_AC_Frequency uint16 Hertz SF Measured AC Frequency value	
102 17 17 1 R LAC_Frequency uint16 Hertz SF Measured AC Frequency value	
102	
102	
102	
102 20 20 1 R I_AC_VA_SF int16 SF N/A Scale factor	
102 21 21 1 R LAC_VAR int16 VAR F Measured Reactive Power	
102 21 21 1 R LAC_VAR int16 VAR F Measured Reactive Power	
102 22 22 1 R LAC_VAR_SF int16 SF N/A Scale factor	
102 23 23 1 R _AC_PF	
102	
102 25 26 2 R I_AC_Energy_WH uint32 WattHours I_AC_Energy WH_SF Measured AC Lifetime Energy production	
102 25 26 2 R I_AC_Energy_WH uint32 Watthours _WH_SF Measured AC Lifetime Energy production 102 27 27 1 R I_AC_Energy_WH_SF uint16 SF N/A Measured AC Lifetime Energy production I_DC	
102 27 27 1 R I_AC_Energy_WH_SF uint16 SF N/A Measured AC Lifetime Energy production	
102 28 28 1 R LDC_Current uint16 Amps Current_SF Measured DC Current value	
102 28 28 1 R I_DC_Current uint16 Amps _Current_SF Measured DC Current value 102 29 29 1 R I_DC_Current_SF int16 SF N/A Scale factor 102 30 30 1 R I_DC_Voltage uint16 Volts _Voltage_SF Measured DC Voltage value 102 31 31 1 R I_DC_Voltage_SF int16 SF N/A Scale factor	scale factor
102 29 29 1 R I_DC_Current_SF int16 SF N/A Scale factor 102 30 30 1 R I_DC_Voltage uint16 Volts _Voltage_SF Measured DC Voltage value 102 31 31 1 R I_DC_Voltage_SF int16 SF N/A Scale factor	
102 30 30 1 R I_DC_Voltage uint16 Volts _Voltage_SF Measured DC Voltage value 102 31 31 1 R I_DC_Voltage_SF int16 SF N/A Scale factor	
102 30 30 1 R I_DC_Voltage uint16 Volts _Voltage_SF Measured DC Voltage value 102 31 31 1 R I_DC_Voltage_FF int16 SF N/A Scale factor	
102 31 31 1 R I_DC_Voltage_SF int16 SF N/A Scale factor	
102 32 32 1 R I_DC_Power int16 Watts _Power_SF Measured DC Power value	
102 33 33 1 R I_DC_Fower_SF Int16 SF N/A Scale factor	
102 34 34 1 R I_Temp_Cab int16 Degrees C I_Temp_SF Measured Cabinet Temperature	
102 35 35 1 R I_Temp_Cab int16 Degrees C I_Temp_SF Measured Coolant or Heat Sink Temperature	ure
102 36 36 1 R I_Temp_Trans int16 Degrees C I_Temp_SF Measured Transformer Temperature	uic
102 37 37 1 R I_Temp_Other int16 Degrees C I_Temp_SF Measured Other Temperature	
102 37 37 1 K	
102 38 38 1 R Temp_Sr Int16 Sr N/A Scale factor 102 39 39 1 R LStatus uint16 Enumerated N/A N/A Operating State	
102 39 39 1 R I_Status	
102 40 40 1 K I_Status_vendor uint 16 Enumerated N/A N/A vendor Defined Operating Status_102 41 42 2 R I_Event_1 uint 32 Bitfield N/A N/A Event Flags (bits 0-31)	.C
102 43 44 2 R Event_2 uint32 Bitfield N/A N/A Event Flags (bits 32-63); Future	Hen estts 1
102 45 46 2 R I_Event_1_Vendor uint32 Bitfield N/A N/A Vendor Defined Event Flags (b	
Vendor Defined Event Flags (b	its 0-31)
102 47 48 2 R I_Event_2_Vendor uint32 Bitfield N/A N/A Future Use	its 0-31)
Vendor Defined Event Flags (b	ts 0-31) ts 32-63)
102 49 50 2 R I_Event_3_Vendor uint32 Bitfield N/A N/A Future Use	ts 0-31) ts 32-63)
Vendor Defined Event Flags (b	its 0-31) its 32-63) its 64-95)
102 51 52 2 R	its 0-31) its 32-63) its 64-95)

Table 26 SunSpec Inverter — Three Phase

					i abie 20	Julisp	CC 1111 C1		iree Phas	
DID	Start	End	Size	R/W	Name	Type	Units	Scale Factor	Contents	Description
						71				Uniquely identifies this as a SunSpec Three
102	1	1	1	D	C SunSpac DID	uin+16	N/A	N/A	102	Phase Inverter
103	1	1	1	R	C_SunSpec_DID	uint16			103	
103	2	2	1	R	C_SunSpec_Length	uint16	Registers	N/A	50	Length of model block
								I_AC		
103	3	3	1	R	I_AC_Current	uint16	Amps	_Current_SF	Measured	AC Total Current value
			<u> </u>		1_7.10_00110110	u	7	I AC	measarea	7.6 Fotos confesso value
400		١.								1681 16 1
103	4	4	1	R	I_AC_CurrentA	uint16	Amps	_Current_SF	Measured	AC Phase-A Current value
								I_AC		
103	5	5	1	R	I_AC_CurrentB	uint16	Amps	_Current_SF	Measured	AC Phase-B Current value
								I AC		
102	6	۷	1	D	I_AC_CurrentC	uin+16	Amns	_	Massurad	AC Dhaca C Current value
103		6	1	R		uint16	Amps	_Current_SF	Measured	AC Phase-C Current value
103	7	7	1	R	I_AC_Current_SF	int16	SF	N/A		AC Current Scale factor
								I_AC		
103	8	8	1	R	I_AC_VoltageAB	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase-AB value
								I AC		,
102	9	_	1	D	L AC Valta na DC	:	1/-14-		M	AC Valta an Dhana DC valva
103	9	9	1	R	I_AC_VoltageBC	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase BC value
								I_AC		
103	10	10	1	R	I_AC_VoltageCA	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase CA value
								I AC		
103	11	11	1	R	I_AC_VoltageAN	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase-A-to-neutral value
103	- ' '			11	I_AC_VOItageAIV	unitio	VOILS		Measureu	AC Voltage i flase-A-to-fleutiai value
								I_AC		
103	12	12	1	R	I_AC_VoltageBN	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase B-to-neutral value
								I_AC		
103	13	13	1	R	I AC VoltageCN	uint16	Volts	_Voltage_SF	Measured	AC Voltage Phase C-to-neutral value
103	14	14	1	R	I AC Voltage SF		SF	N/A	casa.ca	AC Voltage Scale factor
103	14	14	- 1	К	I_AC_voltage_SF	int16	3F			AC Voltage Scale factor
								I_AC_Power		
103	15	15	1	R	I_AC_Power	int16	Watts	_SF	Measured	AC Power value
103	16	16	1	R	I AC Power SF	int16	SF	N/A		AC Power Scale factor
					2.102.01101201		-	I_AC		
								_		
				_				_Frequency		
103	17	17	1	R	I_AC_Frequency	uint16	Hertz	_SF	Measured	AC Frequency value
103	18	18	1	R	I_AC_Frequency_SF	int16	SF	N/A		Scale factor
103	19	19	1	R	I_AC_VA	int16	VA	I_AC_VA_SF	Measured	Apparent Power
		20	1	R	I_AC_VA_SF		SF		Micasarca	
103	20	20		К	I_AC_VA_SF	int16	3F	N/A		Scale factor
								I_AC_VAR_S		
103	21	21	1	R	I_AC_VAR	int16	VAR	F	Measured	Reactive Power
103	22	22	1	R	I_AC_VAR_SF	int16	SF	N/A		Scale factor
103	23	23	1	R	I_AC_PF	int16	%	I_AC_PF_SF	Measured	Power Factor
						_			Measureu	ł
103	24	24	1	R	I_AC_PF_SF	int16	SF	N/A		Scale factor
								I_AC_Energy		
103	25	26	2	R	I_AC_Energy_WH	uint32	WattHours	_WH_SF	Measured	AC Lifetime Energy production
103	27	27	1	R	I_AC_Energy_WH_SF	uint16	SF	N/A	Measured	AC Lifetime Energy production scale factor
103	-/		<u> </u>		I_/(C_Energy_VVII_5)	unitro	J.		Micasarca	The Electric Energy production scale factor
			_	_				I_DC		
103	28	28	1	R	I_DC_Current	uint16	Amps	_Current_SF	Measured	DC Current value
103	29	29	1	R	I_DC_Current_SF	int16	SF	N/A		Scale factor
								I_DC		
103	30	30	1	R	I_DC_Voltage	uint16	Volts	_Voltage_SF	Measured	DC Voltage value
		31				_			Micagarca	5
103	31	31	1	R	I_DC_Voltage_SF	int16	SF	N/A		Scale factor
1		1					I	I_DC_Power		
103	32	32	1	R	I_DC_Power	int16	Watts	_SF	Measured	DC Power value
103	33	33	1	R	I_DC_Power_SF	int16	SF	N/A		Scale factor
									Maaaaaa	
103	34	34	1	R	I_Temp_Cab	int16	Degrees C	I_Temp_SF	Measured	Cabinet Temperature
103	35	35	1	R	I_Temp_Sink	int16	Degrees C	I_Temp_SF	Measured	Coolant or Heat Sink Temperature
103	36	36	1	R	I_Temp_Trans	int16	Degrees C	I_Temp_SF	Measured	Transformer Temperature
103	37	37	1	R	I_Temp_Other	int16	Degrees C	I_Temp_SF	Measured	Other Temperature
							SF			
103	38	38	1	R	I_Temp_SF	int16		N/A	2222	Scale factor
103	39	39	1	R	I_Status	uint16	Enumerated	N/A	N/A	Operating State
103	40	40	1	R	I_Status_Vendor	uint16	Enumerated	N/A	N/A	Vendor Defined Operating State
103	41	42	2	R	I_Event_1	uint32	Bitfield	N/A	N/A	Event Flags (bits 0-31)
						_				
103	43	44	2	R	I_Event_2	uint32	Bitfield	N/A	N/A	Event Flags (bits 32-63); Future Use, set to 0
103	45	46	2	R	I_Event_1_Vendor	uint32	Bitfield	N/A	N/A	Vendor Defined Event Flags (bits 0-31)
										Vendor Defined Event Flags (bits 32-63)
103	47	48	2	R	I_Event_2_Vendor	uint32	Bitfield	N/A	N/A	Future Use
103	7/	70		n	i_Lvelit_z_velluul	uiiit32	bitilelu	IV/A	IN/ A	
		1					I .			Vendor Defined Event Flags (bits 64-95)
103	49	50	2	R	I_Event_3_Vendor	uint32	Bitfield	N/A	N/A	Future Use
										Vendor Defined Event Flags (bits 96-127)
103	51	52	2	R	I_Event_4_Vendor	uint32	Bitfield	N/A	N/A	Future Use
				<u> </u>		GIIIGZ	Diction	, / .	, / / \	1 5 550

Contact Information

Address: Corporate Headquarters

17825 – 59th Avenue N.E.

Suite B

Arlington, WA 98223 USA

Telephone: +1.360.435.6030

+1.360.618.4363 (Technical Support)

+1.360.435.6019 (Fax)

Email: Support@outbackpower.com

Website: http://www.outbackpower.com

European Office Hansastrasse 8 D-91126

Schwabach, Germany

+49.9122.79889.0

+49.9122.79889.21 (Fax)



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