Innovation in soft start technology





VMX-synergy™
PARAMETER TABLES

WAN-5GY-041. Version 01. 31/07/2019 ECO 6100	'	Page 2 01 54
SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	Modbus PNU
Auto Setup Auto Setup >>>>>>> Application:	The Unit has numerous pre-set applications built in as standard. Select the application best suited to the load. The selected application will automatically change several parameters and functions. Depending on the application loaded the "Trip Class" may also change Refer to the separate 'applications document' for more details Range Default - End of list Default Default Type Read/Write	19200
Auto Setup >>>>>>> Trip Class	The trip class is a numeric value that correlates the trip time with overload level. Select Trip class according to application requirements The trip time depends on the selected Trip Class. The duration of the overload and the level of the over current. Refer to the Motor Overload 'cold' trip curves given in the Quick Start Guide. When "Class 20" or "Class30" are selected the Unit current rating (i-Unit) will be reduced to a lower value (i-rated). Range Trip Class 10 - Trip Class 30 Default Trip Class 10 Type Read/Write	25664
Auto Setup >>>>>> Motor Current	This should be set to the Full Load Current shown on the motor plate The overload works with multiples of the set "Motor Current" (i-motor) Also referred to as Motor FLA Range 10% I-synergy A - 100% I-rated A Default 100% I-rated A Type Read/Write	25728
Auto Setup >>>>>> Control Method	Local Touch Screen: Control using the button on the keypad User Programmable: Control using the terminals. Function defined in "I/O" menu Two Wire Control: Control using terminals. Functions fixed as shown on screen Three Wire Control: Control using terminals. Functions fixed as shown on screen Modbus Network: Control via remote Modbus network or remote Keypad or Modbus TCP Range Local Touch Screen - Modbus Network Default Local Touch Screen Type Read/Write	59392
Auto Setup >>>>>>> Voltage	The digital inputs D1-1I D1-2I D2-1I are designed to work with a range of control supplies 230V: 'Active high level' Input voltage must be in the range 195.5V - 253V 110V: 'Active high level' Input voltage must be in the range 93.5V - 121V 24V: 'Active high level' input voltage must be in the range 20.4V-26.4V It is important to ensure the "Digital input Voltage" corresponds to the voltage applied to the input. Failure to do so may result in damage. Range	10880

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SWI-SGY-USB-V5952	Parameter	Description Total in matter refer to a Support post of the state of th	Modbus
[SGY1052900 SGY2095200 SGY3023400]		Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Advanced		Saves all Read /Write parameters to non volatile memory	
Advanced >>>>>>> >>>	Caus Bayamataya	Yes : Parameters are permanently written	624.44
Advanced >>>>>>> >>>>	Save Parameters	No : Parameters remain changed until next power cycle	62144
		Range No - Yes Default No Type Read/Write	
		Automatically controls the starting torque	
		On : The initial torque is increased until the motor starts to rotate at a moderate speed.	
Advanced Automatic Settings >>>>>>>	Automatic Pedestal	Off: The initial torque is defined by the "Start Pedestal"	19840
		Range Off - On Default Off Type Read/Write	
		Automatically controls the torque applied to the motor during the soft start.	
Advanced Automatic Settings >>>>>>>	Automatic Ramp	On : The torque is adjusted to suit the load.	20352
Automatic Sectings	Automatic namp	Off: The ramp time depends on the "Start Time" and "Current Limit"	20332
		Range Off - On Default Off Type Read/Write	
		Automatically controls the time taken for the motor to start	
	Automatic End Start	On : The ramp time is shortened if the motor is at speed before the end of the "Start Time"	
Advanced Automatic Settings >>>>>>>	(1)	Off: The ramp time depends on the "Start Time" and "Current Limit"	19968
		Range Off - On Default Off Type Read/Write	
		Automatically controls the soft stop to suit the application. This feature is particularly useful with pumping applications	
Advanced Automatic Settings >>>>>>>	Automatic Stop	On: If the motor is lightly loaded it decelerates rapidly to the point where the soft stop becomes useful.	20160
Navanicea Nationalic Settings	riatomatic Stop	Off : The deceleration to the point where the soft stop becomes useful will be slower.	20100
		Range Off - On Default Off Type Read/Write	

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	Modbus PNU
Advanced Automatic Settings >>>>>> Profile	Adjusts the response of the "Automatic Stop" Increase if the motor speed doesn't drop quickly enough. When the value is set to zero the "Automatic Stop" is effectively disabled Range 0 % - 100 % Default 50 % Type Read/Write	20608
Advanced Automatic Settings >>>>>> Automatic End Stop	Automatically controls the "Stop Time" On: The ramp time is shortened if the motor reaches a very low speed before the end of the "Stop Time" Off: The ramp time " depends on the "Stop Time" and "Current Limit" Range Off Off Type Read/Write	20416
Advanced Automatic Settings >>>>>>> Load	Automatically controls the maximum iERS saving level. On: The maximum iERS saving level ("BackStop") is reset to maximum during each load cycle. Off: The saving potential may be reduced on applications with heavy load cycles. Such as injection moulding machines. Range Off On Default Off Type Read/Write	20480
Advanced Automatic Settings >>>>>> Auto Smooth Stop	Automatically controls the soft stop to eliminate oscillations that can occur towards the end of the ramp On: The soft stop is adjusted when oscillations are detected. Refer to "Auto smoothing Level" Off: The soft stop is unadjusted and torque fluctuations may cause instability. This can often occur in pumping applications Range Off On Default Off Type Read/Write	20224
Advanced Automatic Settings >>>>>>> Level	Adjusts the response of the "Automatic smoothing" Increase to provide a greater smoothing effect If there are torque fluctuations that occur during the soft stop. When set to zero the smoothing is effectively disabled. Range 10 % - 100 % Default 50 % Type Read/Write	20672

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 current, i-motor = motor current	Modbus PNU
Advanced Automatic Settings >>>>>> Automatic End Start (2)	Automatically controls the time taken for the motor to start On: The ramp time is shortened if the motor current falls below the current limit level before the end of the "Start Time". Off: The ramp time depends on the "Start Time" and "Current Limit" Range Off On Default Off Type Read/Write	19904
Advanced Automatic Settings >>>>>>> Automatic End Start (3)	Automatically controls the time taken for the motor to start On: The ramp time is shortened if torque fluctuations occur before the end of the "Start Time" Off: The ramp time depends on the "Start Time" and "Current Limit" Range Off Off Type Read/Write	20032
Advanced Automatic Settings >>>>>> Rate End Start (3)	Adjusts the response of the "Automatic End Start (3)" Increase to provide a greater smoothing effect If there are torque fluctuations that occur during the soft start. When set to zero the smoothing is effectively disabled. Range 0 % - 100 % Default 50 % Type Read/Write	768
Advanced Start Settings >>>>>> Start Time	Time taken to soft start from the "Start Pedestal" to the end of the start Normally set between 5 and 30 seconds. Actual time to get to full voltage depends on the "Start Current Limit Level". If set too long the motor can be at speed before the end of the time set. Refer to "Automatic End Start" Range 1 s - 300 s Default 10 s Type Read/Write	7104
Advanced Start Settings >>>>>> Start Pedestal	Percentage of the supply voltage applied to motor at the beginning of the soft start. Increase to provide more torque If the load fails to break away. Decrease if the motor accelerates too quickly. Range 10 % - 100 % Default 20 % Type Read/Write	704

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	Modbus PNU
Advanced Start Settings Start Current Limit Trip	Selects trip or continue if the current limit has been active for too long On: The Unit will trip Off: The start will continue regardless of the motor current level Range Off On Type Read/Write	53790
Advanced Start Settings Start Current Limit Level	The current in Amps at which the soft Start ramp is held. Normally set to 350% of motor FLC. Increase if motor fails to accelerate at required rate The "Current Limit Level" will effect actual time to start. If set too low the motor may not accelerate to full speed. Range 50% I-motor A - 450% I-motor A Default 350% I-motor A Type Read/Write	26880
Advanced Start Settings Start Current Limit Time	The maximum time allowed for the current limit. If the current limit is still active at the end of this period the Unit will either 'Trip' or 'continue'	26944
	Range 1 s - 600 s Default 30 s Type Read/Write Applies a short duration torque pulse to dislodge 'sticky' loads On: The torque pulse is applied at start-up when complete the torque drops to the "Start Pedestal"	
Advanced Start Settings Kick Start Kick Start	Off: The initial starting torque is defined by the "Start Pedestal" Range Off - On Default Off Type Read/Write	320
Advanced Start Settings Kick Start Kick Start Time	Time that the torque pulse is applied to load Increase to provide more torque If the load fails to break away. Decrease if the motor accelerates too quickly.	7040
	Range 10 ms - 2000 ms Default 100 ms Type Read/Write	

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SWI-SGY-USB-V5952 Parameter [SGY1052900 SGY2095200 SGY3023400] Parameter Text in quotes refer to a Synergy parameter or function, for expert of the synergy class 10 current is rated - synergy class 20 / Class 20 current.			Modbus PNU
[SGY 1052900 SGY 2095200 SGY 3023400] i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 co	urrent, I-motor = motor (turrent	
Advanced Start Settings Kick Start Kick Start Pedestal Decrease if the motor accelerates too quickly.			640
Range 30 % - 80 % Default	75 % Type	Read/Write	
Time allowed for external contactors to close.			
Advanced Start Settings >>>>>> Contactor Delay Increase if contactors are driven by buffer relays or motor trips on phase loss when start Decrease if response to start signal needs to be improved	signal applied		8320
Range 20 ms - 60000 ms Default	160 ms Type	Read/Write	
The time taken to soft stop from full voltage or the iERS level to the 'Stop Pedestal'			
Advanced Stop Settings Stop Time Normally set between 15 and 60 seconds. Actual time to get to 'Stop Pedestal' depends on the set too long the motor may reach zero speed before the end of the time set. Refer to "A		evel".	7296
Range 0 s - 300 s Default	0 s Type	Read/Write	
Percentage of the supply voltage applied to the motor at the end of the soft stop			
Advanced Stop Settings >>>>>> Stop Pedestal Increase if the motor crawls at the end of the soft stop. Decrease if a greater soft-stop effect is required at the end of the ramp.			896
Range 10 % - 40 % Default	10 % Type	Read/Write	
Selects trip or continue if the stop current limit has been active for too long			
Advanced Stop Settings Stop Current Limit Trip On : The Unit will trip Off: The stop will continue regardless of the motor current level			53791
Range Off - On Default	Off Type	Read/Write	

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 current, i-motor = motor current	Modbus PNU
	The current in Amps at which the soft stop ramp is not allowed to go above.	
Advanced Stop Settings Stop Current Limit Level	Normally set to 350% motor FLC. Increase if motor decelerates too rapidly. The current limit level will effect actual time to stop the motor.	28800
	Range 100% I-motor A - 450% I-motor A Default 350% I-motor A Type Read/Write	
	The maximum time allowed for the current limit.	
Advanced Stop Settings Stop Current Limit Time	If the current limit is still active at the end of this period the Unit will either trip or continue	28864
	Range 1 s - 300 s Default 10 s Type Read/Write	
	This should be set to the Full Load Current shown on the motor plate	
Advanced Motor Protection >>>>>> Motor Current	The overload works with multiples of the set "Motor Current" (i-motor) Also referred to as Motor FLA	25728
	Range 10% I-synergy A - 100% I-rated A Default 100% I-rated A Type Read/Write	
Advanced Motor Protection >>>>>>> Trip Class	The trip class is a numeric value that correlates the trip time with overload level. Select Trip class according to application requirements The trip time depends on the selected Trip Class. The duration of the overload and the level of the over current. Refer to the Motor Overload 'cold' trip curves given in the Quick Start Guide. When "Class 20" or "Class 30" are selected the Unit current rating (i-Unit) will be reduced to a lower value (i-rated).	25664
	Range Trip Class 10 - Trip Class 30 Default Trip Class 10 Type Read/Write	
	This can be used to detect if the motor is running lightly loaded.	
Advanced Motor Protection Low Current Settings Low Current Trip	On : The Unit will trip. This feature is not active during soft start and soft stop. Off: The Unit will continue to operate regardless of motor current	53787
	Range Off - On Default Off Type Read/Write	

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]		Modbus PNU
	The current in Amps that will cause a trip	
Advanced Motor Protection Low Current Low Current Settings Level		26304
	Range 25% I-motor A - 100% I-motor A Default 25% I-motor A Type Read/Write	
	The trip time for the Low current trip	
Advanced Motor Protection Low Current Low Curren Settings Time		26368
	Range 100 ms - 9000 ms Default 100 ms Type Read/Write	
	The Shearpin is an electronic equivalent of a mechanical Shearpin	
Advanced Motor Protection Shearpin Settings Shearpin	On: The Unit will trip. This feature is not active during soft start and soft stop. Off: The Unit will continue to operate regardless of motor current level	53793
	Range Off - On Default On Type Read/Write]
	The current in Amps that will cause a "Shearpin Trip"	
Advanced Motor Protection Shearpin Settings Curren		27584
	Range 100% I-motor A - 450% I-motor A Default 350% I-motor A Type Read/Write	
	The trip time for the Shearpin trip	
Advanced Motor Protection Shearpin Settings Shearpin Tri	A trip will occur if the motor current is greater than the "Trip Level" for the "Trip Time"	27648
	Range 100 ms - 9000 ms Default 100 ms Type Read/Write]

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	Modbus PNU
	The Unit has an "Overload" function that is an electronic equivalent to a thermal overload.	
Advanced Motor Protection Overload Settings Overload Trip	On: The Unit will trip when the "Overload" capacity (ModbusPNU 33408) exceeds 100% Off: The Unit will continue to operate regardless of motor current level	53792
	Range Off - On Default On Type Read/Write	
	Determines the level in Amps at which the overload will start.	
Advanced Motor Protection Overload Settings Overload Level	Normally set to 115% of the set motor current (i-motor) Reduce to speed up trip response	28224
	Range 50% I-motor A - 125% I-motor A Default 115% I-motor A Type Read/Write	
	Enables and disables the intelligent Energy Recovery System feature (iERS).	
Advanced iERS >>>>>> iERS	On: The voltage to the motor will be regulated to ensure optimum efficiency. Off: The feature is disabled and the motor operates at full voltage	21120
	Range Off - On Default Off Type Read/Write	
	The time from the End of the start to the point where the iERS saving mode becomes active.	
Advanced iERS >>>>>> Dwell Time	Normally set to 5 seconds to ensure the motor is at full speed before the iERS saving becomes active Increase to allow time for the motor to stabilise.	7360
	Range 1 s - 300 s Default 5 s Type Read/Write	
Advanced iERS >>>>>> iERS Rate	Determines the rate at which the load is regulated during the iERS energy saving mode During periods of instability the "Current Irms" and "True Power Factor" will oscillate rapidly. Increase if the applications shows signs of instability. Reduce to increase the speed of response	21184
	Range 0 % - 100 % Default 25 % Type Read/Write	

SWI-SGY-USB-V5952	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus
[SGY1052900 SGY2095200 SGY3023400]	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Advanced iERS >>>>>> iERS Level	Determines the maximum energy saving potential. Reduce if the application shows signs of instability. The amount of energy that can be saved may fall as the "iERS level" is reduced.	21376
	Range 0 % - 100 % Default 100 % Type Read/Write	
Advanced iERS >>>>>> Fixed Voltage	User settable voltage level for power calculations If required can be used to improve accuracy of power calculations	35200
	Range 100 V - 500 V Default 100 V Type Read/Write	
Advanced iERS >>>>>> Fixed Voltage	Selects the source for the voltage value used in the power calculations. on: KW KVar and KVA are calculated using the "Fixed Voltage" off: KW KVar and KVA are calculated using the internally measured voltage.	35264
	Range Off - On Default Off Type Read/Write	
Advanced >>>>>> Control Method	Local Touch Screen : Control using the button on the keypad User Programmable : Control using the terminals. Function defined in "I/O" menu Two Wire Control : Control using terminals. Functions fixed as shown on screen Three Wire Control : Control using terminals. Functions fixed as shown on screen Modbus Network : Control via remote Modbus network or remote Keypad or Modbus TCP Range Local Touch Screen - Modbus Network Default Local Touch Screen Type Read/Write	59392
Advanced Trip Settings >>>>>> Trip Sensitivity	Adjusts the reaction time to fault trips Increase "Trip Sensitivity" to slow the response to fault trips. Sometimes useful on sites were electrical noise is causing nuisance tripping This is a global setting. Increasing "Trip Sensitivity" will slow the response of all the trips.	44864
	Range 0 % - 100 % Default 0 % Type Read/Write	

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SWI-SGY-USB-V5952 Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus
[SGY1052900 SGY2095200 SGY3023400]	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
	For safety purposes the Unit has been designed to trip if the front cover is open	
Advanced Trip Settings >>>>>> Cover Open T		53803
	Off : The Unit will continue to operate with the cover open	,
	Range Off - On Default Off Type Read/Write	
	The Shearpin is an electronic equivalent of a mechanical Shearpin	
	On : The Unit will trip. This feature is not active during soft start and soft stop.	
Advanced Trip Settings >>>>> Shearpin Tri	Off: The Unit will continue to operate regardless of motor current level	53793
	<u> </u>	1
	Range Off - On Default On Type Read/Write]
	The Unit has an "Overload" function that is an electronic equivalent to a thermal overload.	
Advanced Trip Settings >>>>>> Overload Tri	On : The Unit will trip when the "Overload" capacity (ModbusPNU 33408) exceeds 100%	53792
	Off: The Unit will continue to operate regardless of motor current level	_
	Range Off - On Default On Type Read/Write	
		<u>'</u>
	This can be used to detect if the motor is running lightly loaded.	
	On : The Unit will trip. This feature is not active during soft start and soft stop.	
Advanced Trip Settings >>>>>> Low Current T	Off: The Unit will continue to operate regardless of motor current	53787
	Range Off - On Default Off Type Read/Write	1
	Tange on January on Type Reder Mile]
	Selects trip or continue if the current limit has been active for too long	
	On : The Unit will trip	
Advanced Trip Settings >>>>>> Start Current L		53790
	Off: The start will continue regardless of the motor current level	1
	Range Off - On Default On Type Read/Write	
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SWI-SGY-USB-V5952	Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus
[SGY1052900 SGY2095200 SGY3023400]		i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
		Selects trip or continue if the stop current limit has been active for too long	
Sto	op Current Limit	On : The Unit will trip	
Advanced Trip Settings >>>>>>>	Trip	Off: The stop will continue regardless of the motor current level	53791
		Range Off - On Default Off Type Read/Write	
		A single PTC motor thermistor or set of PTC motor thermistors can be connected to the PTC terminals.	
About States	PTC Motor	On :The Unit will trip if the motor thermistor exceed its response temperature or the PTC input is open circuit	
Advanced Trip Settings >>>>>> Th	hermistor Trip	Off: The Unit will continue to operate.	53794
		Range Off - On Default Off Type Read/Write	
		Determines if supply phase sequence is incorrect for motor rotation	
		On : Trips if the phase sequence is L1-L2-L3.	
Advanced Trip Settings >>>>>> l	L1-L2-L3 Trip	Off : The Unit will continue to operate normally	53808
		Range Off - On Default Off Type Read/Write	
		Determines if supply phase sequence is incorrect for motor rotation	
		On : Trips if the phase sequence is L1-L3-L2.	
Advanced Trip Settings >>>>>>> l	L1-L3-L2 Trip	Off : The Unit will continue to operate normally	53807
		Range Off - On Default Off Type Read/Write	
		For safety reasons the Unit will trip during some operations if the remote start signal is active	
		On: Trips if the remote start signal is active when the Unit is powered up or a reset is applied.	
Advanced Trip Settings >>>>>> Rer	mote Start Trip	Off: The Unit will not trip and may start unexpectedly if the start signal is accidently left active.	53804
		Range Off - On Default On Type Read/Write	
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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
[3411032900 3412093200 3413023400]	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current Detects if the internal current sensors have failed or reading a very low level.	
Advanced Trip Settings >>>>>> Current Sensor Tri	On : The Unit will trip if the internal current sensors fail or the current measured falls to a very low level Off: Will continue to operate even if the sensor has failed. Measurements and overload protection may be effected	53775
	Range Off - On Default Off Type Read/Write	
	Detects if the cooling fans have failed.	
Advanced Trip Settings >>>>>> Fan Trip	On: The Unit trips if the cooling fans fitted to the Unit fail. Off: Will continue to operate and is likely to trip on a thermal trip as the heatsink will not be sufficiently cooled	53782
	Range Off - On Default On Type Read/Write	
	Detects if the communications bus has failed or become inactive. To keep the bus active there must be at least one Modbus read or write (any PNU) during the "Timeout ms" period (ModbusPNU 15808)	
Advanced Trip Settings >>>>>> Communications Trip	On :Communication trip enabled. Off : Communication trip disabled.	53796
	Range Off - On Default On Type Read/Write	
	This features controls the soft stop improve stability	
Advanced Trip Settings >>>>>> Shut Down (1)	On: The stop time is truncated if the motor experiences severe torque fluctuations during the soft stop Off: The motor will stop in the set time.	53769
	Range Off - On Default On Type Read/Write	
	This features controls the soft stop improve stability	
Advanced Trip Settings >>>>>> Shut Down (2)	On: The stop time is truncated if the motor experiences severe torque fluctuations during the soft stop Off: The motor will stop in the set time.	53770
	Range Off - On Default On Type Read/Write	
	Range Off - On Default On Type Read/Write	

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SWI-SGY-USB-V5952 Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
[SGY1052900 SGY2095200 SGY3023400]	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	FNO
Advanced Trip Settings >>>>>> Thyristor Firing Trip	Detects if there is a fault with one or more of the internal Thyristors or bypass relays On: Trips if one or more of the Thyristors / bypass relays has failed short circuit. ISOLATE SUPPLY. Check by measuring the resistance between L1 -T1 L2 -T2 L3 -T3 (Anything < 10R is assumed short circuit) Off: The Unit will attempt to start and run although the operation may be erratic. Operating in this mode for prolonged periods may result in SCR failure Range Off On Default On Type Read/Write	53774
Advanced Trip Settings >>>>>>> Motor Side Phase Loss	Detects if there is a disconnection between the Unit output and the motor On: Trips if there is a disconnection between the output side of the Unit and the motor Off: The Unit will attempt to start and run although the operation may be erratic. Operating in this mode for prolonged periods may result in SCR failure Range Off On Default On Type Read/Write	53777
Advanced Trip Settings >>>>>> Sensing Fault Trip	Detects if there is a fault with operation of one or more of the internal Thyristors On: Trips if one or more of the Thyristors fails to turn on properly. Off: The Unit will attempt to start and run although the operation may be erratic. Operating in this mode for prolonged periods may result in SCR failure Range Off - On Default On Type Read/Write	53781
Advanced Trip Settings >>>>>> Thermal Sensor Trip	Detects if the internal temperature sensor has malfunctioned On: The Unit will trip if the internal temperature sensor malfunctions Off: The Unit will continue to operate even if the temperature sensor has malfunctioned. Operating in this mode for prolonged periods may result in SCR failure Range Off - On Default On Type Read/Write	53768
Advanced Trip Settings >>>>>> External Trip	Allows a trip to be forced using one of the digital inputs On: Trips when the programmed input is active Off: External Trip is disabled Range Off - On Default On Type Read/Write	53795

SWI-SGY-USB-V5952	Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Advanced Trip Settings >>>>>> Operation 3 Trip	Detects if the Control Board has failed to operate normally On: Operation 3 trip enabled. Off: Operation 3 trip disabled. Range Off - On Default On Type Read/Write	53800
Advanced Trip Settings >>>>>> Operation 1 Trip	Detects if the keypad Board has failed to operate normally On : Operation 1 trip enabled. Off : Operation 1 trip disabled. Range Off - On Default Off Type Read/Write	53798
Advanced Trip Settings >>>>>> Operation 2 Trip	Detects if the logging function has failed to operate normally On: Operation 2 trip enabled. Off: Operation 2 trip disabled. Range Off - On Default Off Type Read/Write	53799
Advanced Trip Settings >>>>>> Input Side Phase Loss	Detects if there is a disconnection between the Unit input and the supply when the motor is running. On: Trips if there is a disconnection between the input side of the Unit and the supply when the motor is running. Off: The Unit will attempt to run although the operation may be erratic. Operating in this mode for prolonged periods may result in SCR failure Range Off On Default On Type Read/Write	53762
Advanced >>>>>> Firing Mode	Set to correspond with Unit connection to the Motor. Refer to connection diagrams in the Quick Start Guide. In-Line: The Unit is connected in-line with a delta or star connected motor. In-Delta: The Unit is connected inside the Delta of the motor. The iERS function is disabled Range In-Line - In-Delta Default In-Line Type Read/Write	128

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	Modbus PNU
Advanced >>>>>> Legacy Delta Mode Advanced >>>>>>> Main Contactor	Allows the Unit to be retro-fitted into "Delta" applications that previously used QFE / XFE (5MC) On: Operates in QFE / XFE (5MC) delta compatibility mode. Off: Operates normally. Refer to Unit Delta connection diagram in the Quick Start Guide. Range Off - On Default Off Type Read/Write Used when the motor is required to start when the Main Contactor closes, and stop when it opens. An auxiliary contact from the main contactor is used as a Start / Stop signal. The 'Stop Time' must be set to zero On: When the contactor opens and the stop signal is given at the same time the unit will not trip on "Phase Loss"	192 14144
Control	Off: When the contactor opens and the stop signal is given at the same time the unit may trip on "Phase Loss" Range Off - On Default Off Type Read/Write	
Advanced >>>>>> Hand-Auto Control	A Hand-Auto selection switch can be connected to Digital Input D1-2I to change the 'Control Method' This can be used to change the Start / Stop to 'Hand' it the Communications fails D1-2I = 0 : Control Method is set to "2 -Wire" (Hand) D1-2I = 1 : Control Method is set to "Modbus Network" (Auto) Hand: Input D1-1I = Start / Stop , Input D2-1I = Reset Auto: PNU 17920 = Start / Stop , PNU 18368 = Reset Range Off - On Default On Type Read/Write	28160
Advanced Auto Reset >>>>>> Auto Reset	Enables the Auto Reset Feature On: The Auto Reset feature is Enabled Off: The Auto Reset feature is disabled and all counters will be re-initialised Range Off On Default Off Type Read/Write	20736
Advanced Auto Reset >>>>>> Reset Delay	This is the delay between the trip event and the automatic reset, the unit will re-start following the reset if the start signal is active If this is set to zero at any point the Auto Reset feature will terminate and the counters will be re-initialised When the delay is active the Restart Pending parameter is set and the time remaining can be viewed in the monitor menu. Range 0 s - 7200 s Default 0 s Type Read/Write	20737

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SWI-SGY-USB-V5952		Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Advanced Auto Reset >>>>>>>	Reset Attempts	This is the number of restart attempts allowed before the Auto Reset terminates. If the Auto Reset has been successful, the counter is reset back to its maximum value when the unit has been running fault free for the Trip Free Time. If the Auto Restart has been unsuccessful the counters are re-initialised by applying a reset signal or removing the start signal If this is set to zero at any point the Auto Reset feature will terminate and the counters will be re-initialised The number of attempts remaining can be viewed in the Monitor menu Range 0 - 10 Default 0 Type Read/Write	20738
Advanced Auto Reset >>>>>>>	Trip Free Time	This is the time the unit must be run trip free before the counters are re-initialised back to zero If this is set to zero at any point the Auto Reset feature will terminate and the counters will be re-initialised The Trip Free Time can be viewed in the Monitor menu	20739
		Range 0 s - 7200 s Default 600 s Type Read/Write	
		Allows the user to select whether the unit will auto reset if an Input Side Phase Loss Trip occurs	
Advanced Auto Reset Reset Trips	Input Side Phase Loss	On: The trip will auto reset when the Reset Delay reaches zero. Off: The trip will not auto reset	20800
		Range Off - On Default On Type Read/Write	
		Allows the user to select whether the unit will auto reset if a Thermal Trip occurs	
Advanced Auto Reset Reset Trips	Thermal	On: The trip will auto reset when the Reset Delay reaches zero. Off: The trip will not auto reset	20801
		Range Off - On Default On Type Read/Write	
		Allows the user to select whether the unit will auto reset if a Thyristor Firing Trip occurs	
Advanced Auto Reset Reset Trips	Thyristor Firing	On: The trip will auto reset when the Reset Delay reaches zero. Off: The trip will not auto reset	20802
		Range Off - On Default On Type Read/Write	

SWI-SGY-USB-V5952		Description	age 19 01 54
	ameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
[[[[[[[[[[[[[[[[[[[[i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current Allows the user to select whether the unit will auto reset if a Motor Side Phase Loss Trip occurs	
Advanced Auto Reset Reset Trips	Side Phase Loss	On: The trip will auto reset when the Reset Delay reaches zero. Off: The trip will not auto reset	20803
		Range Off - On Default On Type Read/Write	
		Allows the user to select whether the unit will auto reset if a Control Voltage Low Trip occurs	
Advanced Auto Reset Reset Trips Control Vo	Voltage Low	On: The trip will auto reset when the Reset Delay reaches zero. Off: The trip will not auto reset	20805
		Range Off - On Default On Type Read/Write	
		Allows the user to select whether the unit will auto reset if a Sensing Fault Trip occurs	
Advanced Auto Reset Reset Trips Sensin	ing Fault	On: The trip will auto reset when the Reset Delay reaches zero. Off: The trip will not auto reset	20806
		Range Off - On Default On Type Read/Write	
		Allows the user to select whether the unit will auto reset if a Fan Trip occurs	
Advanced Auto Reset Reset Trips Fa	Fan	On: The trip will auto reset when the Reset Delay reaches zero. Off: The trip will not auto reset	20807
		Range Off - On Default On Type Read/Write	
		Allows the user to select whether the unit will auto reset if a Low Current Trip occurs	
Advanced Auto Reset Reset Trips Low C	Current	On: The trip will auto reset when the Reset Delay reaches zero. Off: The trip will not auto reset	20810
		Range Off - On Default On Type Read/Write	

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	WI-SGY-USB-V59		Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus
[SGY105290	0 SGY2095200	SGY3023400]		i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
				Allows the user to select whether the unit will auto reset if a Current Limit Time Out Trip occurs	
			Current Limit Time	On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	Out	Off: The trip will not auto reset	20811
				Range Off - On Default On Type Read/Write	
				Allows the user to select whether the unit will auto reset if an Overload Trip occurs	
				On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	Overload	Off: The trip will not auto reset	20812
				Range Off - On Default On Type Read/Write	
				Allows the user to select whether the unit will auto reset if a Shearpin Trip occurs	
				On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	Shearpin	Off: The trip will not auto reset	20813
				Range Off - On Default On Type Read/Write	
				Allows the user to select whether the unit will auto reset if a PTC Thermistor Trip occurs	
				On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	PTC Thermistor	Off: The trip will not auto reset	20814
				Range Off - On Default Off Type Read/Write	
				Allows the user to select whether the unit will auto reset if an External Trip occurs	
				On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	External	Off: The trip will not auto reset	20815
				l	1

SV	WI-SGY-USB-V59	52	Parameter	Description	Modbus
[SGY1052900	SGY2095200	SGY3023400]	raiametei	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
				Allows the user to select whether the unit will auto reset if a Communications Trip occurs	
Advanced	Auto Reset	Reset Trips	Communications	On : The trip will auto reset when the Reset Delay reaches zero.	20816
				Off: The trip will not auto reset Range Off - On Default On Type Read/Write	
					1
				Allows the user to select whether the unit will auto reset if a Bypass Trip occurs	
Advanced	Auto Reset	Reset Trips	Bypass	On : The trip will auto reset when the Reset Delay reaches zero.	20817
				Off: The trip will not auto reset	1
				Range Off - On Default On Type Read/Write	
				Allows the user to select whether the unit will auto reset if a Cover Trip occurs	
			_	On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	Cover	Off: The trip will not auto reset	20818
				Range Off - On Default Off Type Read/Write	
				Allows the user to select whether the unit will auto reset if a Phase Rotation Trip occurs	
			51 5 1 11	On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	Phase Rotation	Off: The trip will not auto reset	20820
				Range Off - On Default Off Type Read/Write	
				Allows the user to select whether the unit will auto reset if an Operation 4 Trip occurs	
A dynamical and	Auto Book	Donat Tring	On a wasing 4	On : The trip will auto reset when the Reset Delay reaches zero.	2222
Advanced	Auto Reset	Reset Trips	Operation 4	Off: The trip will not auto reset	20821
				Range Off - On Default On Type Read/Write	

				n : /:	
	WI-SGY-USB-V59		Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
[SGY1052900	0 SGY2095200	SGY3023400]		i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	1110
				Allows the user to select whether the unit will auto reset if a Current Sensor Trip occurs	
				On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	Current Sensor	Off: The trip will not auto reset	20822
				Range Off - On Default On Type Read/Write	
				Allows the user to select whether the unit will auto reset if an Operation 3 Trip occurs	
				On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	Operation 3	Off : The trip will not auto reset	20823
				Range Off - On Default On Type Read/Write	
				Allows the user to select whether the unit will auto reset if an Operation 1 Trip occurs	
Advanced	Auto Reset	Reset Trips	Oncyption 1	On : The trip will auto reset when the Reset Delay reaches zero.	20024
Auvanceu	Auto Reset	reset IIIps	Operation 1	Off: The trip will not auto reset	20824
				Range Off - On Default On Type Read/Write	
				Allows the user to select whether the unit will auto reset if an Operation 2 Trip occurs	
				On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	Operation 2	Off : The trip will not auto reset	20825
				Range Off - On Default On Type Read/Write	
				Allows the user to select whether the unit will auto reset if an Operation 5 Trip occurs	
				On : The trip will auto reset when the Reset Delay reaches zero.	
Advanced	Auto Reset	Reset Trips	Operation 5	Off : The trip will not auto reset	20826
				Range Off - On Default Off Type Read/Write	

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SWI-SGY-USB-V5952 Parameter	Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 current, i-motor = motor current	PNU
I/O Digital Inputs >>>>>> Voltage	The digital inputs D1-1I D1-2I D2-1I are designed to work with a range of control supplies 230V: 'Active high level' Input voltage must be in the range 195.5V - 253V 110V: 'Active high level' Input voltage must be in the range 93.5V - 121V 24V: 'Active high level' input voltage must be in the range 20.4V-26.4V It is important to ensure the "Digital input Voltage" corresponds to the voltage applied to the input. Failure to do so may result in damage. Range	10880
I/O Digital Inputs >>>>>> Control Meth	Local Touch Screen : Control using the button on the keypad User Programmable : Control using the terminals. Function defined in "I/O" menu Two Wire Control : Control using terminals. Functions fixed as shown on screen Three Wire Control : Control using terminals. Functions fixed as shown on screen Modbus Network : Control via remote Modbus network or remote Keypad or Modbus TCP Range Local Touch Screen - Modbus Network Default Local Touch Screen Type Read/Write	59392
		<u> </u>
	Allows the Digital input (D1-1I) to be mapped to different functions	
I/O Digital Inputs Digital Input 1 (D1-11)	The selected function will change in proportion with the input Digital inputs can only be mapped if the "Control Method" is set to "User Programmable"	10944
	Range Off - End of list Default Start/Stop Type Read/Write	
	Allows the polarity of the input to be reversed	
I/O Digital Inputs Digital Input 1 (D1- 1I) High Input = 1 Value	On: When the input is on the selected function will be on. Off: When the input is off the selected function will be on.	11264
	Range Off - On Default On Type Read/Write	
	Allows the Digital input (D1-2l) to be mapped to different functions	
I/O Digital Inputs Digital Input 2 (D1-21)	The selected function will change in proportion with the input Digital inputs can only be mapped if the "Control Method" is set to "User Programmable"	10945
	Range Off - End of list Default Off Type Read/Write	1

SWI-SGY-USB-V5952 Description		
Parameter Text in quotes refer to a Synergy parameter or function for example "Start Time"		Modbus PNU
[SGY1052900 SGY2095200 SGY3023400] i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 current, i-motor = motor	or current	FNO
Allows the polarity of the input to be reversed		
Digital Input 2 (D1-Digital Input 2 (D1-Digita		11266
1/O Digital Inputs 2I) Value Off: When the input is off the selected function will be on.		11266
Range Off - On Default On Typ	pe Read/Write	
Allows the Digital input (D2-1I) to be mapped to different functions		
Digital Input 3 (D2-Select Function The selected function will change in proportion with the input		
1/0 Digital Inputs 1I) Digital Inputs Digital inputs can only be mapped if the "Control Method" is set to "User Programmable"		10946
Range Off - End of list Default Reset Type	ne Read/Write	
Allows the polarity of the input to be reversed		
Digital Input 3 (D2-Digital Input 3 (D2-Digita		
I/O Digital Inputs 11) Value Off: When the input is off the selected function will be on.		11268
Range Off - On Default On Typ	pe Read/Write	
Allows the Digital output (N/C (12)) to be mapped to different functions		
The output will change in proportion with the selected output Select Function		
1/O Digital Outputs N/C(12)		11584
Range Off - End of list Default Error Type	ne Read/Write	
Allows the polarity of the output to be reversed		
On: When the selected function is on the output will be on.		4100
I/O Digital Outputs N/C(12) When Value Off: When the selected function is on the output is off		11904
	oe Read/Write	

C	WI-SGY-USB-V59	52		Description		
			Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU	
[SGY105290	0 SGY2095200	SGY3023400]		i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	1110	
				Allows the Digital output (N/0 (24)) to be mapped to different functions		
1/0	Digital Outputs	Digital Output 2	Select Function	The output will change in proportion with the selected output	11585	
		N/O(24)				
				Range Off - End of list Default Error Type Read/Write		
				Allows the polarity of the output to be reversed		
				Allows the polarity of the output to be reversed		
I/O	Digital Outputs	Digital Output 2	High Output = 1	On : When the selected function is on the output will be on.	11906	
1/0	Digital Outputs	N/O(24)	When Value	Off: When the selected function is on the output is off	11906	
				Daniel Off On Default On True Band Militer		
				Range Off - On Default On Type Read/Write		
				Allows the Digital output (N/0 (34)) to be mapped to different functions		
		Digital Output 3	Select Function	The output will change in proportion with the selected output		
I/O	Digital Outputs	N/O(34)			11586	
				Range Off - End of list Default Running Type Read/Write		
				Allows the polarity of the output to be reversed		
		Digital Output 3	High Output = 1	On: When the selected function is on the output will be on.		
I/O	Digital Outputs	N/O(34)	When Value	Off : When the selected function is on the output is off	11908	
				Range Off - On Default On Type Read/Write		
				Allows the Digital output (N/0 (44)) to be mapped to different functions		
		Digital Output 4	Select Function	The output will change in proportion with the selected output		
1/0	Digital Outputs	N/O(44)	Select Function		11587	
				Range Off - End of list Default End Of Start Type Read/Write		

Test in quotes refer to a Synergy parameter or function, for example "start Time" (http://pub. 1972 1972	IAN-5GY-041. Version 01. 31/07/2019 ECO 6100			age 26 01 54
On When the selected function is on the output will be on. Off When the selected function is on the output will be on. Off When the selected function is on the output is off Range Off On Default On Type Read/Write Defines the function of the onlique input (Ai) 0.10Y: The input values series from 0.10V 4.20mA: The input values from 4 to 20mA Range Off On Default On Type Read/Write 4.20mA: The input values from 4 to 20mA Range Off On Default On Type Read/Write 4.20mA: The input values from 4 to 20mA Range Off On Default On Type Read/Write 4.20mA: The input values from 4 to 20mA Range Off On On Online input On Online Input Is at it maximum Barge Off On Online Input Is at it maximum Range Off On Online Input Is at it maximum Allows the Analogue input to be mapped to different functions. The selected function will be at its maximum when the input Is at it maximum Range Off On Online Input Is at It maximum Allows the selected function to be scaled The selected function will change in proportion with the input Is at It maximum The selected function will be at its Scaling Level* when the input is at Its maximum The selected function will be at its Scaling Level* when the input is at Its maximum The selected function will be at its Scaling Level* when the input is at Its maximum The selected function will be at its Scaling Level* when the input is at Its maximum The selected function will be at its Scaling Level* when the input is at Its maximum The selected function will be at its Scaling Level* when the input is at Its maximum The selected function will be at its maximum of the input is at Its maximum The selected function will be at its maximum of the input is at Its maximum The selected function will be at its maximum of the input is at Its maximum The selected function will be at its maximum of the input is at Its maximum The selected function will be at its maximum of the input is at Its maximum The selected function will be at its maximum of the input is at Its maximum of the input i	F	Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time"	
Of: When the selected function of the analogue input (A) Analogue Inputs Select Function High Output Analogue Inputs Of: When the selected function of the analogue input (A) Default On Default On Type Read/Write 1910 Analogue Inputs Analogue Inputs Select Function Analogue input obtained input to the mapped to different functions The selected function will change in proportion with the input By default the function will be at its maximum when the input is at it maximum Range Off - End of list Default Off Type Read/Write 420mA Analogue Inputs Scaling Level The selected function will thange in proportion with the input By default the function will thange in proportion with the input Allows the selected function will thange in proportion with the input Analogue Outputs			Allows the polarity of the output to be reversed	
Off: When the selected function is on the output is off Range Off Off On Detauls On Type Read/Write Defines the function of the analogue input (A) On Default On Type Read/Write Default On Type Read/Write 100 Analogue inputs Select function Range On 1007 - 4 - 20mA Default On 1007 Type Read/Write Allows the Analogue input to be mapped to different functions The selected function will change in proportion with the input By default the function will the at its maximum when the input is at it maximum Range Off - find of list Default Off Type Read/Write 4 Allows the selected function to be scaled The selected function will change in proportion with the input The selected function will be at its "Scaling Level" when the input the input the input the input the selected function will be at its "Scaling Level" when the input the input the input the function will be at its "Scaling Level" when the input the i	Digital Output 4 Hig	gh Output = 1	On: When the selected function is on the output will be on.	11010
Defines the function of the analogue input (AI) Defout Defout Defout Defout Type Read/Write Select Function Select Function By default the function will be at its maximum when the input is at it maximum Range Off - End of list Defout Off Type Read/Write Allows the selected function to be scaled The selected function to be scaled The selected function will be at its "Scaling Level" when the input is at its maximum Range O % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI) Defines the physical function of the analogue output (ACI)	N/O(44) W	When Value	Off: When the selected function is on the output is off	11910
Analogue Input Type Analogue Input Type O-10V: The input varies from 4 to 20mA Range O-10V - 4-20mA Default O-10V Type Read/Write Allows the Analogue input to be mapped to different functions The selected function will change in proportion with the input By default the function will be at its maximum when the input is at its maximum Range Off - End of list Default Off Type Read/Write Allows the selected function will change in proportion with the input By default when the input is at its maximum Range Off - End of list Default The selected function will change in proportion with the input The function will be at its "Scaling Level" when the input is at its maximum Range O % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (AO) O-10V: The output voltage varies from 0 to 10V 4-20mA: The output current varies from 4 to 20mA			Range Off - On Default On Type Read/Write	
Analogue Inputs Vo Analogue Inputs Type 4-20mA : The input varies from 4 to 20mA 4-20mA Default 0-10V Type Read/Write			Defines the function of the analogue input (AI)	
4-20mA: The input varies from 4 to 20mA Range		-	0-10V : The input voltage varies from 0-10V	0000
Allows the Analogue input to be mapped to different functions The selected function will change in proportion with the input By default the function will be at its maximum when the input is at it maximum Range Off - End of list Default Off Type Read/Write Allows the selected function to be scaled The selected function will change in proportion with the input The selected function will change in proportion with the input The function will change in proportion with the input The function will be at its "Scaling Level" when the input is at its maximum Range O % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (AO) 1/O Analogue Outputs O Analogue Output Type Analogue Output Type Analogue Output O O O O O O O O O O O O O O O O O O O	770 Analogue Imputs	туре	4-20mA : The input varies from 4 to 20mA	9600
The selected function will change in proportion with the input By default the function will be at its maximum when the input is at it maximum Range Off - End of list Default Off Type Read/Write Allows the selected function to be scaled The selected function to be scaled The selected function will change in proportion with the input The selected function will change in proportion with the input The function will be at its "Scaling Level" when the input is at its maximum Range 0 % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (AO) 1/O Analogue Outputs >>>>>> Analogue Output Type Value Va			Range 0 - 10V - 4 - 20mA Default 0 - 10V Type Read/Write	
By default the function will be at its maximum when the input is at it maximum Range Off - End of list Default Off Type Read/Write Allows the selected function to be scaled The selected function will change in proportion with the input The function will be at its "Scaling Level" when the input is at its maximum Range O % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (AO) O-10V: The output voltage varies from 0 to 10V 4-20mA: The output current varies from 4 to 20mA			Allows the Analogue input to be mapped to different functions	
By default the function will be at its maximum when the input is at it maximum Range Off - End of list Default Off Type Read/Write Allows the selected function to be scaled The selected function will change in proportion with the input The function will be at its "Scaling Level" when the input is at its maximum Range 0 % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (AO) 1/O Analogue Outputs >>>>>> Analogue Output Type Analogue Output O-10V : The output current varies from 4 to 20mA	1/O Analogue Innuts Seli	lect Function	The selected function will change in proportion with the input	0664
Allows the selected function to be scaled The selected function will change in proportion with the input The function will be at its "Scaling Level" when the input is at its maximum Range 0 % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (AO) O-10V: The output voltage varies from 0 to 10V 4-20mA: The output current varies from 4 to 20mA	770 Analogue inputs		By default the function will be at its maximum when the input is at it maximum	9004
The selected function will change in proportion with the input The function will be at its "Scaling Level" when the input is at its maximum Range 0 % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (AO) 4-20mA: The output current varies from 4 to 20mA			Range Off - End of list Default Off Type Read/Write	
The function will be at its "Scaling Level" when the input is at its maximum Range 0 % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (AO) O-10V: The output voltage varies from 0 to 10V 4-20mA: The output current varies from 4 to 20mA			Allows the selected function to be scaled	
The function will be at its "Scaling Level" when the input is at its maximum Range 0 % - Max value % Default Max value % Type Read/Write Defines the physical function of the analogue output (AO) O-10V: The output voltage varies from 0 to 10V 4-20mA: The output current varies from 4 to 20mA	Sc.	caling Level	The selected function will change in proportion with the input	0720
Defines the physical function of the analogue output (AO) Analogue Outputs Analogue Outputs Type Defines the physical function of the analogue output (AO) 0-10V : The output voltage varies from 0 to 10V 4-20mA : The output current varies from 4 to 20mA	770 Analogue inputs		The function will be at its "Scaling Level" when the input is at its maximum	9/28
I/O Analogue Outputs >>>>>> Analogue Output Type 0-10V : The output voltage varies from 0 to 10V 4-20mA : The output current varies from 4 to 20mA			Range 0 % - Max value % Default Max value % Type Read/Write	
1/O Analogue Outputs >>>>>> Type 4-20mA : The output current varies from 4 to 20mA			Defines the physical function of the analogue output (AO)	
4-20mA : The output current varies from 4 to 20mA		= -	0-10V : The output voltage varies from 0 to 10V	8960
Range 0 - 10V - 4 - 20mA Default 0 - 10V Type Read/Write		71	4-20mA : The output current varies from 4 to 20mA	
			Range 0 - 10V - 4 - 20mA Default 0 - 10V Type Read/Write	

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 current, i-motor = motor current	Modbus PNU
		Allows the Analogue output to be mapped to different PNU functions	
I/O Analogue Outputs >>>>>>	Select Function	The output will change in proportion with the selected function	9024
7777777		By default the output will be at a maximum when the selected function equals its maximum value	9024
		Range Off - End of list Default Off Type Read/Write	
		Allows the selected function to be scaled	
		The output will change in proportion with the selected function	
I/O Analogue Outputs >>>>>>>	Scaling Level	The output will be at a maximum when the selected function equals the "Scaling Level"	9088
		Range 0 % - Max value % Default 0 % Type Read/Write]
		A single PTC motor thermistor or set of PTC motor thermistors can be connected to the PTC terminals.	
	PTC Motor	On :The Unit will trip if the motor thermistor exceed its response temperature or the PTC input is open circuit	
1/O >>>>>> T	hermistor Trip	Off: The Unit will continue to operate.	53794
		Range Off - On Default Off Type Read/Write	
Monitor		The frequency of the 3-phase supply	
Monitor >>>>>> >>> L	ine Frequency		32000
	-me rrequency		
		Range 45 Hz - 65 Hz Default - Hz Type Read Only	
		Indicates the phase sequence of the incoming supply.	
Monitor >>>>>> >>>	Phase Rotation	RYB = L1-L2-L3	32064
Monteol	Hase Rotation	RBY = L1-L3-L2	32004
		Range L1-L2-L3 - L1-L3-L2 Default L1-L2-L3 Type Read Only	

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 current, i-motor = motor current	Modbus PNU
	The RMS current on phase L1	22526
Monitor >>>>>> 11	Range 0 A - 10000 A Default 0 A Type Read Only	33536
	The RMS current on phase L2	<u> </u>
	The time current on phase 12	
Monitor >>>>>> 12		33538
	Range 0 A - 10000 A Default 0 A Type Read Only	
	The RMS current on phase L3	
Monitor >>>>>> 13		33540
	Range 0 A - 10000 A Default 0 A Type Read Only	
	The RMS motor current This is the maximum of the 3 phases.	
Monitor >>>>>> Current Irms	This value is used for the overload and power calculations	32896
	Range 0 A - 10000 A Default 0 A Type Read Only	
	The True Power Factor	
Monitor >>>>>>> True Power Factor	The True Power Factor = (Displacement Power Factor x Distortion Power Factor)	33024
	Range 0 - 1 Default 0 Type Read Only	

SWI-SGY-USB-V5952		Description	Madhan
[SGY1052900 SGY2095200 SGY3023400]	Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
Monitor >>>>>>>	True Power P	i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 current, i-motor = motor current Total true power This is an addition of the 3 phases Range 0 kW - 10000 kW Default 0 kW Type Read Only	34688
		otal Apparent Power This is an addition of the 3 phases	1
Monitor >>>>>> >> A	Apparent Power S	Range 0 kVA - 10000 kVA Default 0 kVA Type Read Only	34816
Monitor >>>>>> Ro		otal Reactive power This is an addition of the 3 phases	34944
	R	Range 0 kvar - 10000 kvar Default 0 kvar Type Read Only	
Monitor >>>>>> iE		ndicates the level of potential saving 00% indicates that Unit is saving at its maximum level	35008
		Range 0 % - 100 % Default 0 % Type Read Only Internal firing delay angle in Degrees	
Monitor >>>>>>>	Delay Angle	Displayed for diagnostic purposes	22400
	R	Range 0 Degrees - 60 Degrees Default 0 Degrees Type Read Only	

SWI-SGY-USB-V5952	Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Monitor >>>>>> BackStop	The maximum possible Delay angle for the current iERS saving phase Displayed for diagnostic purposes May decrease during heavy load periods or instability Range 0 Degrees - 55 Degrees Default 0 Degrees Type Read Only	23040
	The maximum possible delay for iERS saving Displayed for diagnostic purposes	22464
	Range 0 Degrees - 55 Degrees Default 0 Degrees Type Read Only	
Monitor >>>>>>> Pres PF Degrees	The Present Power Factor used by the iERS saving function This is the actual Power Factor for the iERS saving function. The "Delay" is constantly adjusted to minimise the control loop error between "Pres PF Degrees" and "Ref PF Degrees" The parameter displays the displacement part of the True Power Factor and is used for diagnostic purposes. Range 0 Degrees - 90 Degrees Default 0 Degrees Type Read Only	21824
Monitor >>>>>> Ref PF Degrees	The Reference Power Factor used by the iERS saving function This is the target Power Factor for the iERS saving function. The parameter will change dynamically dependant on motor operation The parameter displays the displacement part of the True Power Factor and is used for diagnostic purposes. Range 0 Degrees - 90 Degrees Default 0 Degrees Type Read Only	21760
Monitor >>>>>> Start Saving Level	The current in Amps at which the iERS is enabled or disabled. The iERS function is active when the motor current is less than the "Start Saving Level" When the iERS function is disabled internal bypass relays close to improve efficiency. Range 50% I-motor - 80% I-motor Default 80% I-motor Type Read Only	21320

SWI-SGY-USB-V5952	Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Monitor >>>>>> Last Peak Current	Displays the peak current of the last successful start.	38400
	Range 0 A - 10000 A Default 0 A Type Read Only	
Monitor >>>>>> HeatSink Temp	The temperature of the internal Unit heatsink. The Unit will trip when the heatsink temperature exceeds 80°C. The internal cooling fans will turn on if this temperature exceeds 40°C Range -20 °C - 80 °C Default °C Type Read Only	36544
Monitor >>>>>> Motor Thermistor	Indicates the state of the Unit PTC input. Designed for single or double or triple PTC in series PTC thermistor standards DIN44081 / EN60738-1 apply (< 300R @ 25°C. Typically 4K @ nominal temperature) The value indicated is a not in degrees Celsius but is an internal representation. At 25°C the value displayed should be less than 100 and the Unit trips when value > 400 (open circuit = 1024) The value will increase rapidly when the motor thermistors approach their nominal temperature. If thermistors are connected the "Thermistor trip" should be turned "on" Range 0 - 1024 Default 1024 Type Read Only	10432
Monitor >>>>>> Overload	The Unit has an "Overload" function that is an electronic equivalent to a thermal overload. "Overload" displays the overload capacity which is a measure of how close the Unit to tripping on "Overload Trip" When "Current Irms" is greater than the "Overload Level" the "Overload" increases in accordance with the "Trip Class". When "Current Irms" is less than "Overload Level" the "Overload" decreases exponentially (if greater than 50%) When the "Overload" reaches 100% the Unit will trip. During situations when (i-motor) is equal to (i-Unit) the overload will indicate 50% Range 0 % - 100 % Default 0 % Type Read Only	33408
Monitor >>>>>> Auto Reset Pending	Indicates that the Reset Delay counter is counting down Yes: The Auto Reset Delay is counting down No: The Auto Reset Delay is not counting down To map to digital output refer to PNU11584-PNU11587 Range No - Yes Default No Type Read Only	37376

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
Monitor >>>>>>>	Auto Reset Exceeded	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current Indicates that the maximum number of reset attempts has been reached. Yes: The number of reset attempts has exceeded the value set No: The number of reset attempts has not exceeded the value set To map to digital output refer to PNU11584-PNU11587 Range No - Yes Default No Type Read Only	37568
		This is the amount of time remaining in the Reset Delay counter	
Monitor >>>>>>>	Reset Delay		20864
		Range 0 s - 7200 s Default 0 s Type Read Only	
		This is the number of Reset Attempts remaining.	
Monitor >>>>>>>	Reset Attempts		20865
		Range 0 - 10 Default 0 Type Read Only	
		This is the amount of time remaining in the Trip Free Time counter	
Monitor >>>>>>> >>>	Trip Free Time		20866
		Range 0 s - 7200 s Default 600 s Type Read Only	
		This is the trip that occurred just prior to the auto reset	
Monitor >>>>>>> >>>	Trip Event		20867
		Range 100 - 2700 Default 0 Type Read Only	

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
Log	D	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current Displays the last Fault trip	
Log Trip Log >>>>>>	Last Trip		60608
	Ra	Range 0 - 65535 Default 0 Type Read Only	
	D	Displays the last Fault trip -1	
Log Trip Log >>>>>>	Last Trip -1		60609
	Rá	Range 0 - 65535 Default 0 Type Read Only	
	D	Displays the last Fault trip -2	
Log Trip Log >>>>>>	Last Trip -2		60610
	Ra	Range 0 - 65535 Default 0 Type Read Only	
	D	Displays the last Fault trip -3	
Log Trip Log >>>>>>	Last Trip -3		60611
	Ra	Range 0 - 65535 Default 0 Type Read Only	
	D	Displays the last Fault trip -4	
Log Trip Log >>>>>>	Last Trip -4		60612
	Ra	Range 0 - 65535 Default 0 Type Read Only	

SWI-SGY-USB-V5952	Description	age 34 01 34
Paramete		Modbus PNU
[SGY1052900 SGY2095200 SGY3023400]	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	FNO
	Displays the last Fault trip -5	
and the second s		
Log Trip Log >>>>>> Last Trip		60613
	<u> </u>	٦
	Range 0 - 65535 Default 0 Type Read Only	
		1
	Displays the last Fault trip -6	
Log Trip Log >>>>>> Last Trip -		60614
	Range 0 - 65535 Default 0 Type Read Only	
	Range 0 - 03333 Default 0 Type Read Only]
	Displays the last Fault trip -7	
Log Trip Log >>>>>> Last Trip		60615
		٦
	Range 0 - 65535 Default 0 Type Read Only	
		1
	Displays the last Fault trip -8	
Log Trip Log >>>>>> Last Trip -		60616
11.p 22g		00010
	But a series But a T a But at	1
	Range 0 - 65535 Default 0 Type Read Only	
		+
	Displays the last Fault trip -9	
Log Trip Log >>>>>> Last Trip		60617
		_
	Range 0 - 65535 Default 0 Type Read Only	
]

SWI-SGY-USB-V5952	Description	Modbus
Parameter [SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Log Trip Log Trip Code Input Side Pha Loss	Phase L1 missing at the instant of start up. The L1 phase is either missing or at a very low level	
Log Trip Log Trip Code Input Side Pha Descriptions Loss	Phase L2 missing at the instant of start up The L2 phase is either missing or at a very low level Check all incoming connections. If a main contactor is being controlled by a digital output set to "Running" check contactor delay is sufficient Range - Default Type Read Only	
	Phase L3 missing at the instant of start up	
Log Trip Log Trip Code Input Side Pha Descriptions Loss	The L3 phase is either missing or at a very low level Check all incoming connections. If a main contactor is being controlled by a digital output set to "Running" check contactor delay is sufficient	
	Range - Default Type Read Only	
Log Trip Log Trip Code Input Side Pha Loss	Any or all phases missing when the motor is being controlled L1 L2 or L3 phase are missing or at a very low level. Check all incoming connections.	
2033	Check any fuses / breakers incorporated in the power circuit Range - Default Type Read Only	
	Internal heatsink temperature has exceeded 90°C	
Log Trip Log Trip Code Maximum Tem Exceeded	Check enclosure ventilation and airflow around the Unit. If the unit trips immediately the internal temperature sensor could be faulty.	
	Range - Default Type Read Only	

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SWI-SGY-USB-V5952		Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Log Trip Log Trip Code Descriptions	208 Thermal Sensor Trip	Thermal sensor Failure The internal temperature sensor has failed Contact the supplier Range - Default Type Read Only	
Log Trip Log Trip Code Descriptions	301-308 Thyristor Firing Trip	One or more of the internal control thyristors (SCRs) have failed to turn on properly. (In-Line "Firing Mode") The Unit has detected that the SCRs are not operating as expected. Check all incoming and outgoing connections. Range - Default Type Read Only	
		One or more of the internal control thyristors (SCRs) have failed to turn on properly. (Delta "Firing Mode")	
Log Trip Log Trip Code Descriptions	350-358 Thyristor Firing Trip	The Unit has detected that the SCRs are not operating as expected. Check all incoming and outgoing connections. Range - Default Type Read Only	
Log Trip Log Trip Code Descriptions	401 Motor Side Phase Loss	One or all of the phases are missing on the motor side during the instant of start up T1 T2 or T3 phase are missing or at a very low level. Check that the motor is connected to T1 T2 and T3. Ensure any disconnecting device between the Unit and the motor is closed at the instant of start up. Range - Default Type Read Only	
		One or all of the phases are missing on the motor side during the instant of start up when the motor being controlled	
Log Trip Log Trip Code Descriptions	402-403 Motor Side Phase Loss	T1 T2 or T3 phase are missing or at a very low level. Check all incoming and outgoing connections. Range - Default Type Read Only	

SWI-SGY-USB-V5952		Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
		The internal control supply of the Unit level has fallen to a low level	
Log Trip Log Trip Code Descriptions	601 Control Voltage Too	Can be caused by a weak 24VDC control supply.	
	Low	Ensure 24VDC supply meets the requirements specified in the Quick Start Guide.	ļ
		Range - Default Type Read Only	
		One or more of the internal control thyristors (SCRs) have failed to turn on properly.	
Trip Code	701-710	The Unit has detected that the SCRs are not operating as expected.	
Log Trip Log Descriptions	Sensing Fault Trip	Check connections all incoming and outgoing connections.	
		Range - Default Type Read Only	
		One or more of the internal cooling fans has failed	
Log Trip Log Trip Code	801-802	To ensure the heatsink is cooled sufficiently the Unit Will trip if the fans fail to operate	
Descriptions	Fan Problem	Check Unit fans for signs of damage or contamination	
		Range - Default Type Read Only	
		One or more of the internal control thyristors (SCRs) have failed short circuit	
Trip Code	1001	The Unit has detected that the SCRs are not operating as expected.	
Log Trip Log Descriptions	Short Circuit Thyristor	ISOLATE SUPPLY. Check by measuring the resistance between L1-T1 L2-T2 L3-T3 (Anything < 10R is assumed short circuit)	
		Range - Default Type Read Only	
		The motor current has been lower than the low trip level for the low trip time	
Log Trip Log Trip Code	1101	This trip is not active during soft start and soft stop and is "off" by default.	
Descriptions	Low Current Trip	If the low current trip is not required turn "off" in "Trip Settings".	
		Range - Default Type Read Only	

SWI-SGY-USB-V5952	Description	Modbus
Parameter [SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Log Trip Log Trip Code Current Limit Timeout Trip	The motor has been held in current limit longer than the "Start current limit Time" It is likely that the current limit level has been set too low for the application. Increase the current limit level or timeout period. Range - Default Type Read Only	
Log Trip Log Trip Code Current Limit Timeout Trip	The motor has been held in current limit longer than the "Stop current limit Time" It is likely that the current limit level has been set too low for the application. Increase the current limit level or timeout period. Range - Default Type Read Only	
Log Trip Log Trip Code 1301 Descriptions Overload Trip	The "Overload" has exceeded 100% The Unit is attempting to start an application that is outside its capacity or it is starting too often. Refer to the overload trip curves to determine whether the Unit has been sized correctly. Range - Default Type Read Only	
Log Trip Log Trip Code 1302 Descriptions Overload Trip	The motor current has exceeded 475% (i-Unit) for a time greater than 250ms The Unit is attempting to start an application that is outside its capacity with a "high current limit level" set Refer to the overload trip curves to determine whether the Unit has been sized correctly and check current limit level. Range - Default Type Read Only	
Log Trip Log Trip Code 1401 Descriptions Shearpin Trip	The motor current has been higher than the "Shearpin Trip Level" for the trip time. This trip is not active during soft start and soft stop and is "off" by default. If Shearpin trip is not required turn "off" in "Trip Settings". Range - Default Type Read Only	

SWI-SGY-USB-V5952		Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
		The PTC thermistor value has exceed the trip level.	
Log Trip Log Trip Code	1501	The PTC thermistor connected to the PTC input has exceeded it response temperature or the PTC input is open circuit.	
Descriptions	PTC Thermistor Trip	If the PTC TRIP is not required turn "off" in "Trip Settings".	
		Range - Default Type Read Only	
		External Trip	
Trip Code	1601	The input programmed to External Trip is active	
Log Trip Log Descriptions	External Trip	If the External trip is not required turn "off" in "Trip settings	
		Range - Default Type Read Only	
		Communications failure	
Log Trip Log Trip Code	1701 Communications	The command or status PNU has not ben polled in the time set in the "Timeout" period	
Descriptions	Trip	If the communication trip is disabled the Unit cannot be stopped in the communications fail	
		Range - Default Type Read Only	
		One or more of the internal bypass relays has failed to close	
Log Trip Log Trip Code	1801-1802	The internal bypass relay has failed or the control supply is to weak.	
Descriptions	Bypass Relay Trip	Ensure 24VDC supply meets the requirements specified in the Quick Start Guide.	
		Range - Default Type Read Only	
		One or more of the internal bypass relays has failed to open	
Trip Log Trip Code	1803	The internal bypass relay has failed or the control supply is too weak.	
Log Trip Log Descriptions	Bypass Relay Trip	Ensure 24VDC supply meets the requirements specified in the Quick Start Guide.	
		Range - Default Type Read Only	

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SWI-SGY-USB-V5952		Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Log Trip Log Trip Code Descriptions	1901 Cover Open, Close to Enable Motor Start	The Unit cover is open The cover is open or not closed properly Close Cover or if Cover trip is not required turn off in "Trip Settings" Range - Default Type Read Only	
Log Trip Log Trip Code Descriptions	2001-2003 Remote Start is Enabled	The remote start signal is active. The remote start signal was active during power up or Reset or Parameter Load. Turn off remote or if Remote On trip is not required turn "off" in "Trip Settings" Range - Default Type Read Only	
		The input phase rotation is RYB (L1-L2-L3)	
Log Trip Log Trip Code Descriptions	2101 Rotation L1 L2 L3 Trip	The phase rotation is opposite to that required. Change phase rotation or if "RYB" trip is not required turn "off" in trip settings. Range - Default Type Read Only	
		The input phase rotation is RBY (L1-L3-L2)	
Log Trip Log Trip Code Descriptions	2102 Rotation L1 L3 L2 Trip	The phase rotation is opposite to that required. Change phase rotation or if "RBY" trip is not required turn "off" in trip settings. Range - Default Type Read Only	
Log Trip Log Trip Code Descriptions	2201-2299 2701- 2799 MPU Trip	Internal Unit Failure The Unit has failed internally and is unable to recover automatically. Cycle the control supply. If the fault is not cleared then contact the supplier Range - Default Type Read Only	

SWI-SGY-USB-V	5952					Descri					Modbus
[SGY1052900 SGY209520	0 SGY3023400]	Parameter	j.					for example "Start Tin 30 current, i-motor =		urrent	PNU
			Current ser	nsor failure							
	Trip Code	2301-2303	One or mo	re of the internal sen	sors used to m	neasure current has fa	ailed or is readin	g a low value.			
Log Trip Log	Descriptions	Current Sensor Trip				or as disconnection w					
			Γ	plate FLA of the moto	or being contro	lled is at least 25% of		ing][Daniel Only	
			Range		-		Default		Туре	Read Only	
			Fail Safe op	peration							
	7 in 6 de	2404 2402	A process a	associated with the C	Control Board h	nas been affected and	l is unable to rec	over automatically			
Log Trip Log	Trip Code Descriptions	2401-2499 Operation 3 Trip						pending on the control	method	set.	
			This trip is	a special case and it i	is NOT possible	e to reset this trip by o		ol supply	ī [
			Range		-		Default		Type	Read Only	
			Fail Safe op	poration							
	_		raii sale op	Jel ation							
Log Trip Log	Trip Code	2501-2599				as been affected and		•			
	Descriptions	Operation 1 Trip		n be reset by either thes sible to reset this tr			s command depe	ending on the control m	ethod se	t.	
			Range		-		Default		Туре	Read Only	
			<u> </u>				<u> </u>		J L		
			Fail Safe op	peration							
	Trip Code	2601-2699	A process a	associated with the Lo	ogging functior	n has been affected ar	nd is unable to r	ecover automatically			
Log Trip Log	Descriptions	Operation 2 Trip					command depe	ending on the control m	ethod se	t.	
			· [ossible to reset this tr	ip by cycling th	e control supply	D. C. 11] [Decid Oct	
			Range		-		Default		Type	Read Only	
			Displays th	e peak current of the	e last successfu	ıl start.					
			2.5510,5 01	- peak carrent or the							
Log Trip Log	>>>>>>	Last Peak Current									38400
			_				· -				
			Range	0 A	-	10000 A	Default	0 A	Туре	Read Only	
									-		1

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SWI-SGY-USB-V5952 Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus
[SGY1052900 SGY2095200 SGY3023400]	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
	Displays the peak current of the last successful start -1	
Log Trip Log >>>>>> Last peak start current -1		38402
		1
	Range 0 A - 10000 A Default 0 A Type Read Only	
	Displays the peak current of the last successful start -2	
Log Trip Log >>>>>>> Last peak start		38404
current -2		36404
	Range 0 A - 10000 A Default 0 A Type Read Only	
		1
	Displays the peak current of the last successful start -3	
Last peak start		
Log Trip Log >>>>>> current -3		38406
	Date of the Date o	1
	Range 0 A - 10000 A Default 0 A Type Read Only	
	Displays the peak current of the last successful start -4	
Log Trip Log >>>>>> Last peak start current -4		38408
		1
	Range 0 A - 10000 A Default 0 A Type Read Only	
		+
	Displays the peak current of the last successful start -5	
Log Trip Log >>>>>> Last peak start		20410
Log Trip Log >>>>>> current -5		38410
	Range 0 A - 10000 A Default 0 A Type Read Only	
		1

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SWI-SGY-USB-V5952	Davis was at all	Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
		r-synergy – synergy class to current, triated – synergy class207 class20 current, trinocor – inocor current	
		Displays the peak current of the last successful start -6	
Log Trip Log >>>>>>	Last peak start		20412
Log Trip Log >>>>>>	current -6		38412
			۱ ا
		Range 0 A - 10000 A Default 0 A Type Read Only	
			J
		Displays the peak current of the last successful start -7	
		Displays the peak current of the last successful start -/	
	Last peak start		
Log Trip Log >>>>>>>	current -7		38414
		Range 0 A - 10000 A Default 0 A Type Read Only	
		The state of the s]
		Displays the peak current of the last successful start -8	
Log Trip Log >>>>>>>	Last peak start		38416
	current -8		
			1
		Range 0 A - 10000 A Default 0 A Type Read Only]
		Displays the peak current of the last successful start -9	
Log Trip Log >>>>>>	Last peak start		38418
1119 209	current -9		36416
			1
		Range 0 A - 10000 A Default 0 A Type Read Only	
			-
		Displays the peak current of the last successful stop	
		and peak call this of the lock accession step	
	Last peak stop		
Log Trip Log >>>>>>>	current		39040
			_
	_	Range 0 A - 10000 A Default 0 A Type Read Only	
]

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
[3411032300 3412033200 3413023400]		i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current Displays the peak current of the last successful stop -1	
Log Trip Log >>>>>>>	Last peak stop current -1		39042
		Range 0 A - 10000 A Default 0 A Type Read Only	
		Displays the peak current of the last successful stop -2	
Log Trip Log >>>>>>>	Last peak stop current -2		39044
		Range 0 A - 10000 A Default 0 A Type Read Only	
		Displays the peak current of the last successful stop -3	
Log Trip Log >>>>>>	Last peak stop current -3		39046
		Range 0 A - 10000 A Default 0 A Type Read Only	
		Displays the peak current of the last successful stop -4	
Log Trip Log >>>>>>>	Last peak stop current -4		39048
		Range 0 A - 10000 A Default 0 A Type Read Only	
		Displays the peak current of the last successful stop -5	
Log Trip Log >>>>>>	Last peak stop current -5		39050
		Range 0 A - 10000 A Default 0 A Type Read Only	

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SWI-SGY-USB-V5952	Description	Modbus
Parameter [SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time"	PNU
[5011032500 5012053200 5015025100]	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	4
	Displays the peak current of the last successful stop -6	
	Displays the peak carrent of the last successful stop o	
Log Trip Log >>>>>> Last peak stop current -6		39052
current-0		
		1
	Range 0 A - 10000 A Default 0 A Type Read Only	
		1
	Displays the peak current of the last successful stop -7	
	Displays the peak carrent of the last successful stop /	
The second second		
Log Trip Log >>>>>> Last peak stop current -7		39054
current "7		
		1
	Range 0 A - 10000 A Default 0 A Type Read Only	
		1
	Displays the peak current of the last successful stop -8	
	Displays the peak carrent of the last successful stop o	
The second second		
Log Trip Log >>>>>> Last peak stop current -8		39056
eunreine o		
	But Date to But Da	1
	Range 0 A - 10000 A Default 0 A Type Read Only	
		+
	Displays the peak current of the last successful stop -9	
Last peak stop		
Log Trip Log >>>>>> current -9		39058
	Detects O.A. 10000 A. Defects O.A. Two Dead Oaks	1
	Range 0 A - 10000 A Default 0 A Type Read Only]
	Displays the heatsink temperature at the end of the last successful start	
Log Trip Log >>>>>> Last temperature		39680
	Range -20 °C - 80 °C Default °C Type Read Only	
	Range -20 °C - 80 °C Default °C Type Read Only]

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SWI-SGY-USB-V5952	Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
[SGY1052900 SGY2095200 SGY3023400]		i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	1110
		Displays the heatsink temperature at the end of the last successful start -1	
Log Trip Log >>>>>>>	Last temperature -1		39681
		Range -20 °C - 80 °C Default °C Type Read Only	i
		Displays the heatsink temperature at the end of the last successful start -2	
		Displays the neutsink temperature at the end of the last successful start 2	
Log Trip Log >>>>>>>	Last temperature -2		39682
			,
		Range -20 °C - 80 °C Default °C Type Read Only	
			-
		Displays the heatsink temperature at the end of the last successful start-3	
Log Trip Log >>>>>>>	Last temperature -3		39683
Log Hip Log	Last temperature -5		39003
		Range -20 °C - 80 °C Default °C Type Read Only	
		Displays the heatsink temperature at the end of the last successful start-4	
Log Trip Log >>>>>>	Last temperature -4		39684
		Range -20 °C - 80 °C Default °C Type Read Only	
		range -20 C - 00 C Detaute C Type Read Only	1
		Displays the heatsink temperature at the end of the last successful start-5	
Log Trip Log >>>>>>	Last temperature -5		39685
		Range -20 °C - 80 °C Default °C Type Read Only	
			T.

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SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	Modbus PNU
	Displays the heatsink temperature at the end of the last successful start-6	
Log Trip Log >>>>>> Last temperature -6		39686
	Range -20 °C - 80 °C Default °C Type Read Only	
	Displays the heatsink temperature at the end of the last successful start-7	
Log Trip Log >>>>>> Last temperature -7		39687
	Range -20 °C - 80 °C Default °C Type Read Only	
	Displays the heatsink temperature at the end of the last successful start-8	
Log Trip Log >>>>>> Last temperature -8		39688
	Range -20 °C - 80 °C Default °C Type Read Only	
	Displays the heatsink temperature at the end of the last successful start-9	
Log Trip Log >>>>>> Last temperature -9		39689
	Range -20 °C - 80 °C Default °C Type Read Only	
	Displays the overload level at the end of the last successful start	
Log Trip Log >>>>>> Last overload		40320
	Range 0 % - 100 % Default 0 % Type Read Only	

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SWI-SGY-USB-V5952	Description	Modbus
Parameter [SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 current, i-motor = motor current	PNU
	i-synergy = synergy class to current, i-rated = synergy class207 class30 current, i-motor = motor current	
	Displays the overload level at the end of the last successful start -1	
Log Trip Log >>>>>> Last overload-1		40321
		_
	Range 0 % - 100 % Default 0 % Type Read Only	
]
	Displays the overload level at the end of the last successful start -2	
Log Trip Log >>>>>> Last overload-2		40322
		10322
		1
	Range 0 % - 100 % Default 0 % Type Read Only	
		J
	Displays the overload level at the end of the last successful start -3	
Log Trip Log >>>>>> Last overload-3		40323
	Range 0 % - 100 % Default 0 % Type Read Only	
	Transce Too war and the second of the second	╛
	Displays the overload level at the end of the last successful start -4	
Log Trip Log >>>>>> Last overload-4		40324
Last overload-4		40324
		٦
	Range 0 % - 100 % Default 0 % Type Read Only	
	District the state of the first transfer of the first transfer of the state of the first transfer of the state of the stat	
	Displays the overload level at the end of the last successful start -5	
Log Trip Log >>>>>> Last overload-5		40325
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ا ا
	Range 0 % - 100 % Default 0 % Type Read Only]

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SWI-SGY-USB-V5952	Parameter	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time"	Modbus PNU
[SGY1052900 SGY2095200 SGY3023400	1	i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	1110
		Displays the overload level at the end of the last successful start -6	
Log Trip Log >>>>>>>	Last overload-6		40326
			1
		Range 0 % - 100 % Default 0 % Type Read Only	
			+
		Displays the overload level at the end of the last successful start -7	
Log Trip Log >>>>>>	Last overload-7		40327
		Range 0 % - 100 % Default 0 % Type Read Only	
			1
		Displays the overload level at the end of the last successful start -8	
Log Trip Log >>>>>>>	Last overload-8		40328
		Range 0 % - 100 % Default 0 % Type Read Only	
			<u> </u>
		Displays the overload level at the end of the last successful start -9	
Log Trip Log >>>>>>>	Last overload-9		40329
			1
		Range 0 % - 100 % Default 0 % Type Read Only]
		The total number of successful starts	
		The total number of successful states	
Log Totals Log >>>>>>>	Number of Starts		35840
		Range 0 - 4294836225 Default 0 Type Read Only	
			1

SWI-SGY-USB-V5952	Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
	The total time the motor has been running	
Log Totals Log >>>>>> Motor Running Time		35904
	Range 0 s - 4294836225 s Default 0 s Type Read Only	
	The total time the Unit has been powered up	
Log Totals Log Control Supply On Time		35906
	Range 0 s - 4294836225 s Default 0 s Type Read Only	
	Download the full log file on to the USB stick	
Log >>>>>> Download Log File	The Unit logs several parameters during normal and fault conditions	
	Data is stored in CSV format. Please send all downloaded files to Motortronics on request	
	Range - Default Type Read/Write	
	Deletes all of the history in the Trip Log	
Log >>>>>> Clear Trip Log		62081
	Range No - Yes Default No Type Read/Write	
Device	Used to upgrade to the latest version of software using a USB stick	
Device >>>>>> Update Firmware	Details for the upgrading process are supplied with the updated version of software	
	Range - Default Type Read/Write	

VIAIN-36Y-041. Version 01. 31/07/2019 ECO 6100		age 51 01 54
SWI-SGY-USB-V5952 Parameter	Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
	1-3ylici Sy = 3ylici Sy Ciass 10 carrent, Tracca = 3ylici Sy Ciass207 ciass300 carrent, Tribeth = illocof carrent	
	Enter current date	
Device >>>>>> Date	Date format can be set to either dd/mm/yyyy or mm/dd/yyyy. Refer to "Date format" parameter.	
Device Succession		
		1
	Range - Default Type Read/Write	
	Allows the time to be changed to 'local' time	
	I a series and a s	
	By default the time is set to GMT	
Device >>>>>> Time		14720
	Range - hh:mm:ss hh:mm:ss Default GMT time hh:mm:ss Type Read/Write	
	Calcate the display language for the layured	
	Selects the display language for the keypad	
	Enter the required language from the displayed list	
Device >>>>>> Language		13376
	Range English - End of list Default English Type Read/Write	1
	The second of th	
	Stops unauthorised access to read/ write parameters	
	For the passcode be active the "Screen lock" must be turned on	
Device >>>>>> Passcode		12864
	But Dulawa	
	Range 0 - Max Value Default 0 Type Read/Write	1
		+
	Time for backlight on display	
Device >>>>>> Backlight Timeout	After the period set the back light on the screen will turn off	14208
Backlight Timeout	To reactivate touch screen anywhere. To disable set to 0	14200
	·	
	Range 0 s - 3600 s Default 60 s Type Read/Write	
		1

IAN-SGY-041. Version 01. 31/07/2					Page 52 01 54
SI	WI-SGY-USB-V59	952	Dayamatay	Description	Modbus
[SGY1052900	SGY2095200	SGY3023400 1	Parameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time"	PNU
•		•		i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	
				Sets the Modbus station number	
		Mardhur Maturada			
Device	Networks	Modbus Network Settings	Address		16000
		Settings.			
				Range 1 - 32 Default 1 Type Read/Write	
				Sets the serial communications baud rate	
			The available baud rates are 9600 19200 38400 57600 or 115200		
Device	Networks	Modbus Network Settings	Baud Rate		16064
		Settings			
				Range 9600 - 115200 Default 19200 Type Read/Write	!
				Sets the serial communications parity bit	
				Sets the serial communications purity sit	
				The available parity options are None Even Odd	
Device	Networks	Modbus Network Settings	Parity		16128
		Settings		Also sets the stop bits. No parity uses 2 stop bits. Odd or even parity uses 1 stop bit	
				Range None - Odd Default Even Type Read/Write	
				Allows the user to check the state of the Modbus communication network.	
				Red LED receive. Green LED Transmit.	
		And the second		On : The Red and Green LEDS display the traffic on the Modbus communications network	
Device	Networks	Modbus Network Settings	Traffic LEDS		14080
		Settings.		Off : The Red and Green LEDs display the Unit status information	
				Range Off - On Default Off Type Read/Write	
				Anybus expansion module	
				7 myses expension module	
				Only active with Anybus module fitted	
Device	Networks	>>>>>>	Anybus		
				Range - Default Type Read Only	
					<u> </u>

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SWI-SGY-USB-V5952	Parameter	Description	Modbus
[SGY1052900 SGY2095200 SGY3023400]	rarameter	Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class20 / Class30 current, i-motor = motor current	PNU
Device Networks >>>>>>	Timeout ms	Communications trip Timeout period To prevent a 'Communications Trip' (If enabled) the bus must be kept active. To keep the bus active there must be at least one Modbus read or write (any PNU) during the "Timeout ms" period	15808
		Range 0 ms - 60000 ms Default 5000 ms Type Read/Write	
		This works in conjunction with the 'Communications Trip'.	
	Communications	On: If the 'Communication Trip' is turned 'On' the unit will shutdown instead of tripping if the communications fail	
Device Networks >>>>>>>	Shutdown	Off: If the 'Communication Trip' is turned 'On' the unit will trip if the communications fail	53802
		Range Off - On Default Off Type Read/Write	
		Restores the Unit to the factory defaults	
Device >>>>>>> >>>>>	Reset Defaults		62080
		Range No - Yes Default No Type Read/Write	
		Gives the Model number. Serial Number and current software versions	
Device >>>>>>> >>>>>	About	The software versions are SGY1xxxxxx SGY2xxxxxx and SGY3xxxxxx.	
		Range - Default Type Read Only	
		Stops unauthorised access to read/ write parameters	
Device >>>>>>>	Screen Lock		12992
		Range Off - On Default Off Type Read/Write	

VIAN-5GY-041. Version 01. 31/07/2019 ECO 6100		rage 54 01 54
SWI-SGY-USB-V5952 [SGY1052900 SGY2095200 SGY3023400]	Description Text in quotes refer to a Synergy parameter or function, for example "Start Time" i-synergy = synergy Class 10 current, i-rated = synergy Class 20 / Class 30 current, i-motor = motor current	Modbus PNU
Device >>>>>> Date Format	Allows the date format to be changed dd/mm/yyyy or mm/dd/yyyy	13248
	Range dd/mm/yyyy - mm/dd/yyyy Default dd/mm/yyyy Type Read/Write	
Device >>>>>>> Format	Selects °C or °F for displayed temperatures °C : All displayed temperatures are °C °F : All displayed temperatures are °F Range °C - °F Default °C Type Read/Write	13312
Device >>>>>>> Parameters to USB	Allows the user to save parameters Downloads the parameters from the Unit to the USB drive Data is stored in CSV format. Range No - Yes Default No Type Read/Write	62272
Device >>>>>> Parameters from USB	Allows the user to load parameters stored on a USB flash drive Uploads the parameters from the USB drive to the Unit Data is stored in CSV format. Range No - Yes Default No Type Read/Write	62336
Device >>>>>> Service Code	Diagnostic parameter For Motortronics use only Range - Default Type	13120