

Guangdong Shenling Chiller modbus register reverse engineering. Mapped by Julio Patron Witwytzkyj
 Model: LSQF100GM-C Part of the Huawei container data center solution

Modbus Register Map

Function 1 - Read Coils (0x01)

Zabbix Address	Modbus Address	Description	Type	Multiplier	PS
33	34	Compressor 1 Condenser Fan	binary	1	0 = off / 1 = on
35	36	Compressor 1 status	binary	1	0 = off / 1 = on
37	38	Compressor 2 Condenser Fan	binary	1	0 = off / 1 = on
39	40	Compressor 2 Status	binary	1	0 = off / 1 = on
40	41	Water Pump	binary	1	0 = off / 1 = on
41	42	Alarms Present	binary	1	0=no alarm/ 1=alarm
43	44	Compressor 1 liquid valve	binary	1	0 = off / 1 = on
44	45	Compressor 2 liquid valve	binary	1	0 = off / 1 = on
49	50	Standby	binary	1	0 = on / 1 = standby

Obs: Possible alarms, zabbix address: 067, 073, 078 (Compressor OL?)

Digital 093 - Tem algo a ver com unidades funcionando ou sem alarmes (1), sendo que a unidade para e com alarmes está 0 / Digital 137 - opposite of 093

Function 3 - Read Holding Registers (0x03)

Zabbix Address	Modbus Address	Description	Type	Multiplier	PS
1	2	Evap. Temp. In	float	0.1	Unit: °C
2	3	Evap. Temp. Out	float	0.1	Unit: °C
3	4	Antifreeze Temp.	float	0.1	Unit: °C
5	6	Electrical Control Box Temp	float	0.1	Unit: °C
6	7	Setpoint Summer Temp	float	0.1	Unit: °C
51	52	Setpoint Summer Temp	float	0.1	Unit: °C
160	161	Unit Operating Hours (thousand hours)	int	1	Unit: 1000 h / thousand hours
161	162	Unit Operating Hours	int	1	Sum 161 + 162 to get total run hours
163	164	Compressor 1 Operating Hours (thousand hours)	int	1	Unit: 1000 h / thousand hours
164	165	Compressor 1 Operating Hours	int	1	Sum 164 + 165 to get total run hours
165	166	Compressor 2 Operating Hours (thousand hours)	int	1	Unit: 1000 h / thousand hours
166	167	Compressor 2 Operating Hours	int	1	Sum 166 + 167 to get total run hours
188	189	Cooling unit number	int	1	
191	192	Month of year	int	1	
192	193	Day of month	int	1	
193	194	Hour	int	1	
194	195	Minutes	int	1	