

**Subject: Torque Limit Settings in the MP940**

**Product: MP940**

**Summary:** When using an MP940 controller, the torque limit value must be changed or an A.9F alarm may occur. The following tables will help determine the proper setting. If using MotionWorks, the correct register to change is OWC002, and with MotionWorks+ it's the system variable sTorque\_Limit.

**Torque Limit Values (%) – OWC002 or sTorque\_Limit**

**SGMAH Standard Servo Motor Rated Values and Specifications**

Voltage		200V					100V				
Servo Motor: SGMAH-		A3A	A5A	01A	02A	04A	08A	A3B	A5B	01B	02B
Rated Output	kW	0.03	0.05	0.1	0.2	0.4	0.75	0.03	0.05	0.1	0.2
Rated Current	A(rms)	0.44	0.64	0.91	2.1	2.8	4.4	0.66	0.95	2.4	3.0
Max. Instantaneous	A(rms)	1.3	2.0	2.8	6.5	8.5	13.4	2.0	2.9	7.2	9.0
Torque Limit Val	%	295	313	308	310	304	305	303	305	300	300

**SGMPH Standard Servo Motor Rated Values and Specifications**

Voltage		200V					100V	
Servo Motor: SGMPH-		01A	02A	04A	08A	15A	01B	02B
Rated Output	kW	0.1	0.2	0.4	0.75	1.5	0.1	0.2
Rated Current	A(rms)	0.89	2.0	2.6	4.1	7.5	2.2	2.7
Max. Instantaneous	A(rms)	2.8	6.0	8.0	13.9	23.0	7.1	8.4
Torque Limit Val	%	315	300	308	339	307	323	311

**SGMGH Standard Servo Motor (1500 r/min) Rated Values and Specifications**

Voltage		200V									
Servo Motor: SGMGH-		05A□A	09A□A	13A□A	20A□A	30A□A	44A□A	55A□A	75A□A	110A□A	150A□A
Rated Output	kW	0.45	0.85	1.3	1.8	2.9	4.4	5.5	7.5	11.0	15.0
Rated Current	A(rms)	3.8	7.1	10.7	16.7	23.8	32.8	42.1	54.7	84.0	110.0
Max. Instantaneous	A(rms)	11	17.0	28	42	56	84	110.0	130	140	170.0
Torque Limit Val	%	289	239	262	251	235	256	261	238	239	218
Voltage		400V									
Servo Motor: SGMGH-		05D□A	09D□A	13D□A	20D□A	30D□A	44D□A	55D□A	75D□A	110D□A	150D□A
Rated Output	kW	0.45	0.85	1.3	1.8	2.9	4.4	5.5	7.5	11.0	15.0
Rated Current	A(rms)	1.9	3.5	5.4	8.4	11.9	16.5	20.8	25.4	28.1	37.2
Max. Instantaneous	A(rms)	5.5	8.5	14.0	20.0	28.0	40.5	55.0	65.0	70.0	85.0
Torque Limit Val	%	289	243	259	238	235	245	264	256	249	228

**SGMGH Standard Servo Motor (1000 r/min) Rated Values and Specifications**

Voltage		200V							
Servo Motor: SGMGH-		03A□B	06A□B	09A□B	12A□B	20A□B	30A□B	44A□B	60A□B
Rated Output	kW	0.3	0.6	0.9	1.2	2.0	3.0	4.4	6.0
Rated Current	A(rms)	3.0	5.7	7.6	11.6	18.5	24.8	32.9	46.9
Max. Instantaneous	A(rms)	7.3	13.9	16.6	28.0	42.0	56.0	84.0	110.0
Torque Limit Val	%	243	244	218	241	227	226	255	235

**Torque Limit Values (continued)**

**SGMSH Start Servo Motor Rated Values and Specifications**

Voltage		200V					
Servo Motor: SGMSH-		10A□A	15A□A	20A□A	30A□A	40A□A	50A□A
Rated Output	kW	1.0	1.5	2.0	3.0	4.0	5.0
Rated Current	A(rms)	5.7	9.7	12.7	18.8	25.4	28.6
Max. Instantaneous	A(rms)	17	28.0	42	56	77	84
Torque Limit Val	%	298	289	331	298	303	294
Voltage		400V					
Servo Motor: SGMSH-		10D□A	15D□A	20D□A	30D□A	40D□A	50D□A
Rated Output	kW	1.0	1.5	2.0	3.0	4.0	5.0
Rated Current	A(rms)	2.8	4.7	6.2	8.9	12.5	13.8
Max. Instantaneous	A(rms)	8.5	14.0	19.5	28	38	42
Torque Limit Val	%	304	298	315	315	304	304

**SGMDH Standard Servo Motor Rated Values and Specifications**

Voltage		200V		
Servo Motor: SGMDH-		22A□A□B	32A□A□B	40A□A□B
Rated Output	kW	2.2	3.2	4.0
Rated Current	A(rms)	15.7	20.9	23.2
Max. Instantaneous	A(rms)	54	73.0	77
Torque Limit Val	%	344	349	332

**SGMUH Standard Servo Motor Rated Values and Specifications**

Voltage		400V			
Servo Motor: SGMUH-		10D□A	15D□A	30D□A	40D□A
Rated Output	kW	1.0	1.5	3.0	4.0
Rated Current	A(rms)	2.7	4.1	8.1	9.6
Max. Instantaneous	A(rms)	8.5	14.0	28	38.5
Torque Limit Val	%	315	341	346	401