

Yaskawa AC Drive L1000A Supplement to L1000A Manuals

Introduction

This supplement to L1000A Manuals describes features or functions that are changed with a L1000A software upgrade, and should be read to ensure proper usage. Read this supplement together with the L1000A Quick Start Guide No. TOEPC71061638 or Technical Manual No. SIEPC71061638. Observe all safety messages and precautions to prevent injury to personnel and to ensure correct application of the product.

Applicable Software Version

Applicable to L1000A software version PRG: 7205 and later.
See the product nameplate or parameter U1-25 to confirm the L1000A software version.

< Added items >

◆ Addition: PM Tuning Setup

PM Tuning Setup for simplified elevator system setup.

Control Mode	Input parameters during tuning	Tuning process	Parameters set after Auto Tuning
A1-02=7	T2-04: Motor Rated Power T2-05: Motor Rated Voltage T2-06: Motor Rated Current T2-08: Number of Motor Poles T2-09: Motor Base Speed T2-16: Encoder Resolution	Step 1 : Stationary Auto-Tuning (Same as T2-01=1) Step 2 : Initial magnet pole search parameters Auto-Tuning (Same as T2-01=3) Step 3 : Encoder offset stationary Auto-Tuning (Same as T2-01=4)	Step 1 : E5-09=0 F1-01= Users T2-16 input value A1-02=Users input value E5-02=UsersT 2-04 input value E5-03=Users T2-06 input value E5-04=Users T2-08 input value E5-05=Tuning result E5-06=Tuning result E5-07=Tuning result E5-24=Tuning result E1-06=Users T2-09 input value E1-04=E1-06 E1-09=0 E1-05=Users T2-05 input value Step 2 : n8-36=Tuning result n8-37=Tuning result n8-81=Tuning result n8-82=Tuning result Step 3 : E5-11=Tuning result Note : If tuning is interrupted, the tuning results for completed steps are preserved.

◆ **Addition: Brake Torque Check Function**

The brake torque check function checks for holding torque of the motor brake.

■ **Additional Parameters**

No. (Addr.)	Name	Description	Setting
S5-15 (6D8H)	The allowable amount of cargo movement during a brake torque check	<div style="display: flex; justify-content: space-around;"> CLV CLV/PM </div> Sets the allowable amount of cargo movement during a brake torque check. (Units can be changed by parameter o1-12)	Default : 60 mm(*1) Range : o1-12=0: 0 to 100 mm o1-12=1: 0 to 3.93 in
S5-16 (6D9H)	The brake torque	<div style="display: flex; justify-content: space-around;"> CLV CLV/PM </div> The amount of torque applied during a brake torque check. Set as a percentage of motor rated torque. OPE21 is detected and displayed if S5-16 > torque limit amount of the drive.	Default : 100 % Range : 50 to 200 %
S5-17 (6DCH)	Brake torque rise time	<div style="display: flex; justify-content: space-around;"> CLV CLV/PM </div> During brake torque check, this parameter sets the rise time to achieve the brake torque value set in parameter S5-16.	Default : 0.5 sec Range : 0.0 to 3.0 sec
S5-18 (6DDH)	Brake torque check fall time	<div style="display: flex; justify-content: space-around;"> CLV CLV/PM </div> During brake torque check, sets the time to reduce the brake torque to 0% (fall time).	Default : 0.5 sec Range : 0.0 to 3.0 sec
S5-19 (6DEH)	Brake torque check operating time	<div style="display: flex; justify-content: space-around;"> CLV CLV/PM </div> During brake torque check, sets the time at which the brake torque is maintained at the value set in parameter S5-16.	Default : 3.0sec Range : 0.0 to 10.0sec

(*1) The factory default value of o2-12 is 0. This causes the units for parameter S5-15 to be mm.

■ **Addition: Multi-Function Digital Input**

H1-□□ Setting	Name	Description
5DH	Activate brake torque check	<div style="display: flex; justify-content: space-around;"> CLV CLV/PM </div> Closed : To activate the brake torque check

■ **Addition: Multi-Function Digital Outputs**

H2-□□ Setting	Name	Description
5DH	Brake torque check active	<div style="display: flex; justify-content: space-around;"> CLV CLV/PM </div> Closed : During brake torque check
5EH	Brake torque check completion	<div style="display: flex; justify-content: space-around;"> CLV CLV/PM </div> Closed : Brake torque check completed

■ **Addition: Fault**

Digital Operator Display	Fault Name
brA	Brake torque degradation
	The allowable amount of cargo movement set in parameter S5-15 was exceeded during a brake torque check.