

YASKAWA AC Drive GA501 Communication Protocol EtherNet/IP Supplemental Technical Manual

Introduction

This supplemental technical manual describes the functions added with a GA501 communication software upgrade S8212(EtherNet/IP:Ver3005)^{※1}. Read this supplement to make sure that you use the GA501 correctly. Read this manual together with the "Quick Start Guide (TOEP C710617 4X)" that is included with the product and the "GA501 EtherNet/IP Technical Reference (SIEP C710617 4S)" that you can find on our documentation website. Always observe the safety messages and precautions to make sure that you are using the product correctly.

※1: The GA501 has an overall communication software version and a separate software version for each communication protocol. Check the COM.PRG number on the purchased box for the overall software version. Start the EtherNet/IP communication protocol, and view monitor U6-97 to check the EtherNet/IP software version.

Modified Contents

This supplemental manual explains the modified feature.

1. Reference Monitor Change in EtherNet/IP Motor Speed

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The reference conditions for "Speed Actual, Motor Speed" assigned to the following instances of the assembly object have been changed. When parameter A1-02 [Control Method Selection] is set to 6 [PM Advanced Open Loop Vector], the monitored value is now calculated based on U1-05 [Motor Speed].

Instance	Word	Content	Description
70	1	Speed Actual	<p>Monitors motor speed.</p> <p>Speed actual data: Motor speed x 2^{SS} (SS: Speed scale)</p> <p>Range: 0 - FFFF (Hex.)</p> <p>For example, when U1-05 [Motor Speed] of 1024 with a speed scale of 2:</p> <p>Speed actual data = 1024 x 2² = 4096 = 1000 (Hex.)</p> <p>Unit depends on o1-03.</p> <p>Note:</p> <ul style="list-style-type: none"> -For software version PRG:3005 or later, U1-02 [Output Frequency] is monitored when A1-02[Control Method Selection] is set to 0 or 5[V/f Control, PM Open Loop Vector]. -For software version PRG:3004 or earlier, U1-02 [Output Frequency] is monitored when A1-02[Control Method Selection] is set to 0, 5, or 6 [V/f Control, PM Open Loop Vector, PM Advanced Open Loop Vector]. -For EtherNet/IP software versions, refer to U6-97 [OPT SPARE 4].
71	1		
72	1		
73	1		
151	1	Motor Speed	<p>Monitors U1-05 [Motor Speed].</p> <p>Unit depends on o1-03.</p> <p>Unit is not affected by Speed Scale SS.</p> <p>Note:</p> <ul style="list-style-type: none"> -For software version PRG:3005 or later, U1-02 [Output Frequency] is monitored when A1-02[Control Method Selection] is set to 0 or 5[V/f Control, PM Open Loop Vector]. -For software version PRG:3004 or earlier, U1-02 [Output Frequency] is monitored when A1-02[Control Method Selection] is set to 0, 5, or 6 [V/f Control, PM Open Loop Vector, PM Advanced Open Loop Vector]. -For EtherNet/IP software versions, refer to U6-97 [OPT SPARE 4].
155	1		
166	1		
167	1		
168	1		
169	1		
170	1		