

**Model** : Panasonic EtherCAT Servo Drive MINAS-A5B series

**Model Name** : M\*DHT\*\*\*\*B01/M\*DHT\*\*\*\*BA1

**Update Dates** : Ver3.01 / Product at Factory from April 2015 or later  
Ver3.02 / Product at Factory from July 2015 or later

**Latest firmware version** : Ver3.02 (Object 3744h = 03020302h)  
**Previous firmware version** : Ver1.01 (Object 3744h = 01010101h)

**This changes does not effect to ESI file.**

**Please check the details from Panasonic Web-site.**

**<http://industrial.panasonic.com/ww/products/motors-compressors/fa-motors/ac-servo-motors#MINASA5B>**

No	Functions	Related Parameters	Related Objects	Related Alarms 603Fh-00h(Error code) 10F3h(Diagnosis history) 1001h-00h(Error register)
1	<b>【Servo Performance Update】</b> Support “2 degrees of freedom control (Standard type, Synchronization type)”	<ul style="list-style-type: none"> <li>•Pr2.13 (Selection of damping filter switching)</li> <li>•Pr2.22 (Positional command smoothing filter)</li> <li>•Pr6.47 (Function expansion setup 2) bit0 2 degrees of freedom (2DOF) control 0 : Invalid 1 : Valid</li> <li>bit3 Selection of real-time auto-tuning of 2DOF control 0 : Standard type 1 : Synchronization type</li> <li>•Pr6.48 (Tuning filter)</li> <li>•Pr6.49 (Command / tuning filter damping)</li> </ul>	<ul style="list-style-type: none"> <li>•3213h-00h (Selection of damping filter switching)</li> <li>•3222h-00h (Positional command smoothing filter)</li> <li>•3647h-00h (Function expansion setup 2)</li> <li>•3648h-00h (Tuning filter)</li> <li>•3649h-00h (Command / tuning filter damping)</li> <li>•3650h-00h (Viscous friction compensating gain)</li> <li>•6060h-00h (Modes of operation)</li> </ul>	<ul style="list-style-type: none"> <li>• Control mode setting error protection (Err88.1)</li> </ul>
2	<b>【Servo Function Update】</b> Supports “Single turn absolute function”	<ul style="list-style-type: none"> <li>•Pr0.15 (Absolute encoder setup)</li> </ul>	<ul style="list-style-type: none"> <li>•3015h-00h (Absolute encoder setup)</li> </ul>	<ul style="list-style-type: none"> <li>• One revolution absolute working range error (Err34.1)</li> </ul>
3	<b>【EtherCAT Function Update】</b> Supports “Max motor speed “ on csp mode	<p><b>【Only for Ver3.02】</b></p> <ul style="list-style-type: none"> <li>•Pr7.22 (Communication function extended setup 1) bit5 Selection of 6080h(Max motor speed) function on csp 0 : Invalid 1 : Valid</li> </ul>	<ul style="list-style-type: none"> <li>•6080h-00h (Max motor speed)</li> <li>•3722h-00h (Communication function extended setup 1)</li> </ul>	<ul style="list-style-type: none"> <li>• Command error protection (Err27.4)</li> </ul> <p><b>Notes on Ver3.01) If 6080h-00h value is ‘0’, the motor can not move by the limitation of the Max motor speed.</b></p> <p><b>Notes on Ver3.02) The setting of 3722h-00h:bit5 is ‘1’, if 6080h-00h value is ‘0’, the motor can not move by the limitation of the Max motor speed.</b></p>
4	<b>【EtherCAT Function Update】</b> Supports “Err94.3 Home position return error2”	<ul style="list-style-type: none"> <li>•Pr7.22 (Communication function extended setup 1) bit7 In Z phase homing Over-travel inhibit input setup 0 : Invalid 1 : Valid</li> </ul>	<ul style="list-style-type: none"> <li>•3722h-00h (Communication function extended setup 1)</li> </ul>	<ul style="list-style-type: none"> <li>• Home position return error2 (Err94.3)</li> </ul>
5	<b>【Servo Function Update】</b> Supports “Fall prevention function in the event of alarms/servo-ON”	<ul style="list-style-type: none"> <li>•Pr6.10 (Function expansion setup) bit10 Fall prevention function in case of alarms 0 : Invalid 1 : Valid</li> <li>•Pr6.51 (Wait time for emergency stop)</li> <li>•Pr7.24 (Communication function extended setup 3) bit10 Internal value state selection of objects 60B2h(Torque offset) in servo-off(Fall prevention function in the event of Servo-ON) 0 : Clear 1 : Updated with the set value of 60B2h</li> </ul>	<ul style="list-style-type: none"> <li>•3610h-00h (Function expansion setup)</li> <li>•3651h-00h (Wait time for emergency stop)</li> <li>•3724h-00h (Communication function extended setup 3)</li> <li>•60B2h-00h (Torque offset)</li> </ul>	-
6	<b>【EtherCAT Function Update】</b> Supports “6041h(Statusword) bit12 (drive follows command value)” selectable specification	<ul style="list-style-type: none"> <li>•Pr7.24 (Communication function extended setup 3) bit11: The setting condition that 6041h bit12(drive follows command value) will be 0 is changed. 0 : Limiting torque and speed limit (only cst) is included. 1 : Limiting torque and speed limit (only cst) is not included.</li> </ul>	<ul style="list-style-type: none"> <li>•3724h-00h (Communication function extended setup 3)</li> <li>•6041h (Statusword) bit12 (drive follows command value)</li> </ul>	-
7	<b>【Servo Performance Update】</b> Speed up the Analog monitor signals updates rates	<ul style="list-style-type: none"> <li>•Pr4.16 (Type of analog monitor 1)</li> <li>•Pr4.18 (Type of analog monitor 2)</li> </ul> <p>Speed up the analog monitor signals updates rates (1ms→250us)</p>	<ul style="list-style-type: none"> <li>•3416h-00h (Type of analog monitor 1)</li> <li>•3418h-00h (Type of analog monitor 2)</li> </ul>	-

対象モデル	: パナソニック EtherCAT 対応サーボアンプ MINAS-A5B シリーズ
対象機種名	: M*DHT****B01/M*DHT****BA1
更新時期	: Ver3.01 / 2015年4月以降生産分 Ver3.02 / 2015年7月以降生産分
最新ファームウェアバージョン	: Ver3.02 (Object 3744h = 03020302h)
更新前ファームウェアバージョン	: Ver1.01 (Object 3744h = 01010101h)

この変更においては、ESIファイルに影響はありません。

詳細については、弊社Webサイトから最新資料をダウンロードください。

<http://industrial.panasonic.com/jp/products/motors-compressors/fa-motors/ac-servo-motors#MINASA5B>

No	機能	関連パラメータ	関連オブジェクト	関連アラーム ※アラーム関連オブジェクト 603Fh(Error code) 10F3h(Diagnosis history) 1001h-00h(Error register)
1	【サーボ性能向上】 2自由度制御対応 (標準タイプ、同期タイプ)	<ul style="list-style-type: none"> <li>Pr2.13 (制振フィルタ切替選択)</li> <li>Pr2.22 (指令位置スムージングフィルタ)</li> <li>Pr6.47 (機能拡張設定2) <ul style="list-style-type: none"> <li>bit0 2自由度制御モード 0:無効 1:有効</li> <li>bit3 2自由度制御リアルタイムオートチューニング選択 0:標準タイプ 1:同期タイプ</li> </ul> </li> <li>Pr6.48 (調整フィルタ)</li> <li>Pr6.49 (指令応答フィルタ/調整フィルタ減衰項設定)</li> </ul>	<ul style="list-style-type: none"> <li>3213h-00h (Selection of damping filter switching)</li> <li>3222h-00h (Positional command smoothing filter)</li> <li>3647h-00h (Function expansion setup 2)</li> <li>3648h-00h (Tuning filter)</li> <li>3649h-00h (Command / tuning filter damping)</li> <li>3650h-00h (Viscous friction compensating gain)</li> <li>6060h-00h (Modes of operation)</li> </ul>	<ul style="list-style-type: none"> <li>制御モード設定異常保護(Err88.1)</li> </ul>
2	【サーボ機能追加】 1回転アブソリュート機能対応	<ul style="list-style-type: none"> <li>Pr0.15 (アブソリュートエンコーダ設定)</li> </ul>	<ul style="list-style-type: none"> <li>3015h-00h ( Absolute encoder setup)</li> </ul>	<ul style="list-style-type: none"> <li>1回転アブソ可動範囲異常保護(Err34.1)</li> </ul>
3	【EtherCAT機能追加】 cspモードの Max motor speed対応 (指令位置の変化量飽和機能)	<ul style="list-style-type: none"> <li>【Ver3.02のみ】</li> <li>Pr7.22 (通信機能拡張設定1) <ul style="list-style-type: none"> <li>bit5 cspモードでの6080h(Max motor speed)機能選択設定 0:無効 1:有効</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>6080h-00h (Max motor speed)</li> <li>3722h-00h (Communication function extended setup 1)</li> </ul>	<ul style="list-style-type: none"> <li>指令異常保護(Err27.4)</li> <li>Ver3.01注) 6080h-00h が '0' のとき、速度制限がかかりモータは動作しません。</li> <li>Ver3.02注) 3722h-00h のビット5が1のとき、6080h-00h が '0' のとき、速度制限がかかりモータは動作しません。</li> </ul>
4	【EtherCAT機能追加】 原点復帰異常2(Err94.3)	<ul style="list-style-type: none"> <li>Pr7.22 (通信機能拡張設定1) <ul style="list-style-type: none"> <li>bit7 Z相原点復帰戻り動作時駆動禁止入力検出設定 0:無効 1:有効</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>3722h-00h (Communication function extended setup 1)</li> </ul>	<ul style="list-style-type: none"> <li>原点復帰異常2(Err94.3)</li> </ul>
5	【サーボ機能追加】 アラーム発生時/サーボオン時の 落下防止機能	<ul style="list-style-type: none"> <li>Pr6.10 (機能拡張設定) <ul style="list-style-type: none"> <li>bit10 アラーム落下防止対策 0:無効 1:有効</li> </ul> </li> <li>Pr6.51 (即時停止完了ウェイト時間)</li> <li>Pr7.24 (通信機能拡張設定3) <ul style="list-style-type: none"> <li>bit10 サーボオフ中のオブジェクト60B2h (Torque offset)の内部値状態選択 (サーボオン時落下防止) 0:クリア 1:60B2hの設定値で更新</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>3610h-00h (Function expansion setup)</li> <li>3651h-00h (Wait time for emergency stop)</li> <li>3724h-00h (Communication function extended setup 3)</li> <li>60B2h-00h (Torque offset)</li> </ul>	-
6	【EtherCAT機能追加】 6041h(Statusword) bit12 (drive follows command value) 仕様切替	<ul style="list-style-type: none"> <li>Pr7.24 (通信機能拡張設定3) <ul style="list-style-type: none"> <li>bit11: オブジェクト6041hのbit12 (drive follows command value)が0となる設定条件 0:トルク制限、速度制限(cstのみ)を含む 1:トルク制限、速度制限(cstのみ)を含まない</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>3724h-00h (Communication function extended setup 3)</li> <li>6041h (Statusword) bit12 (drive follows command value)</li> </ul>	-
7	【サーボ性能向上】 アナログモニタ指令高速化	<ul style="list-style-type: none"> <li>Pr4.16 (アナログモニタ1種類)</li> <li>Pr4.18 (アナログモニタ2種類)</li> <li>アナログ出力更新周期を高速化(1ms→250us)</li> </ul>	<ul style="list-style-type: none"> <li>3416h-00h (Type of analog monitor 1)</li> <li>3418h-00h (Type of analog monitor 2)</li> </ul>	-