



## Crane Vertical Motion V2.00 Application Information

Equipment: CFW-11

Firmware Version: V5.17 or higher

WLP Software Version: V9.90 or higher

New Application Version: CRVM\_CFW11\_en\_V2\_00.apl

Old Application Version: CRVM-1\_20.apl

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### Functional deviations in the old application version

1) It was corrected error in the brake release logic where if the value of the brake closing frequency (P1048) was greater than the value of the brake release frequency (P1041), the value of brake closing frequency is that it was considered to release the brake.

### Changes in the new application version

1) It has changed the number of the parameter that defines the speed hysteresis for inverter in torque limit from P1056 to P1028;

2) It has changed the number of the parameter that defines the inverter in torque limitation fault delay time from P1057 to P1029;

3) It has changed the number of the parameter that defines the load detection time from P1053 to P1055;

4) It has changed the number of the parameter that defines the slack cable alarm delay time from P1054 to P1056;

5) It has changed the number of the parameter that defines the slack cable fault delay time from P1055 to P1057;

6) It has created two parameters to define an overweight detection curve at the load hoisting, being P1051 the value of overweight current in the minimum speed and P1052 the value of overweight current in the maximum speed. In previous versions there was only one parameter (P1050) that defined the value of the overweight current;

- 7) It has changed the number of the parameter that defines the overweight detection delay time from P1051 to P1053;
- 8) It has changed the number of the parameter that defines the overweight alarm delay time from P1052 to P1054;
- 9) It has changed the function brake release frequency at load hoisting (P1040) and at load lowering (P1041) to only one parameter that defines the brake release frequency threshold (P1041);
- 10) It has changed the function of P1046 parameter from brake release delay time to brake response time to release;
- 11) It has created the P1050 parameter that defines a time to enable a new command to brake release after the brake closing command has been executed by the digital output of CFW-11 inverter;
- 12) It has created the P1036 parameter that defines a dwell time at speed reference 1;
- 13) It has created the P1024 parameter that enables the use of a filter in the load hoisting and load lowering commands via the digital inputs DI1 and DI2;
- 14) It has created logic to execute a second command to  $I_q^*$  reset to prevent the motor current becomes high when the brake is closed with the motor still moving;
- 15) It has changed the current variable used to generate the overweight and lightweight conditions going from %SW3322 (current without filter) to the value of P0003 (current with 0.5s filter).



**NOTE!**

Appendix 1 shows how to import Crane Vertical Motion application to WLP.

## Appendix 1 – How to Import Application to WLP

- 1) In the WLP Ladder Programmer, in “Tools” menu, select the “Import Application to WLP” option;
- 2) Search “CRVM\_CFW11\_en\_V2\_00.apl” archive and press “OK”;
- 3) The Crane Vertical Motion will be imported to WLP;
- 4) To select the application, in “Tools” menu, “Application” option, “CFW11”, “Create”, “Crane”, select “Vertical Motion” option.