Supplement

ACS880 drives with ABB motors in explosive atmospheres

Introduction

This supplement describes the necessary parameter settings for an ACS880 drive type when it is used with an ABB motor for explosive atmospheres (Ex). For other parameter settings, see *ACS880 primary control program firmware manual* (3AUA0000085967 [English]).



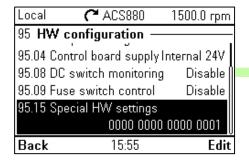
Parameter settings

Use the control panel or the Drive composer PC tool to make the parameter settings.

 Set the following parameters that are common to motors in explosive atmospheres and ACS880 drive combinations:

| Parameter no. | Parameter name | Bit | Name | Value | Description |
|---------------|---------------------|-----|----------|---------|--------------------|
| 95.15 | Special HW settings | 0 | Ex motor | 1 = Yes | Used with Ex motor |

Example of the Ex parametrization:



| Cancel | 15:55 | Save | | | |
|---------------------------|-----------------|------------|--|--|--|
| | | | | | |
| 2 0 | High speed mode | =No | | | |
| 1 0 | ABB Sine filter | =No | | | |
| 0401 | EX motor | =No | | | |
| 95.15 Special HW settings | | | | | |
| Local | C ACS880 | 1500.0 rpm | | | |

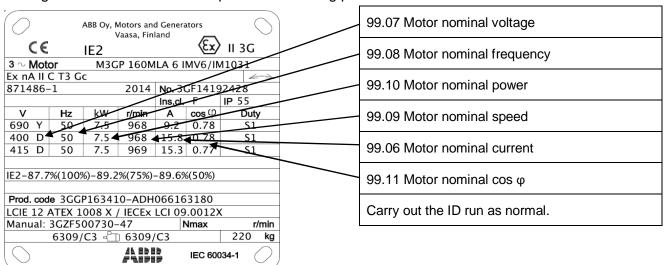
| Local | (~ ACS880 | 1500.0 rpm | | | | |
|---------------------------|------------------|------------|--|--|--|--|
| 95.15 Special HW settings | | | | | | |
| 041 | EX motor | =Yes | | | | |
| 1 0 | ABB Sine filter | =No | | | | |
| 2 0 | High speed mode | =No | | | | |
| | | | | | | |
| | | | | | | |
| Cancel | 15:55 | Save | | | | |

Motor and VSD rating plates

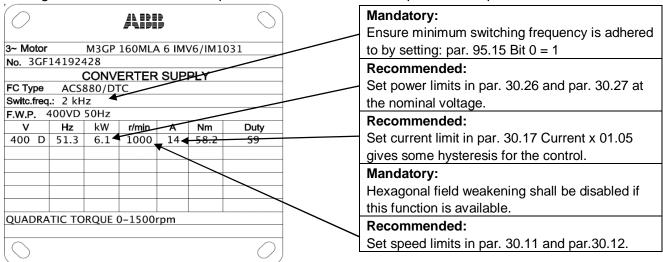
Standard IEC motor rating plate is used to program parameter group 99 within the ACS880 drive and motor's variable speed drive (VSD) plate is used to set-up limits and protections of the drive.

99.04 Motor control mode to DTC

The figure below shows an example of motor rating plate.



The figure below shows an example of the motor's customer specific VSD plate.



Note: If standard VSD plate is used, the values need to be converted to motor specific data.

ACS880 Ex mode derating tables

When Ex mode is activated, dimensioning the drive correctly requires derating the continuous drive output current (motor current). This is very important in order to reach a safe and reliable solution. DriveSize tool calculates this automatically. Derating tables can be found from Drive specific HW manual.

