ENGLISH

Addendum valid for Emotron VFX/FDU 2.0-2Y AC drives

Addendum to the following instruction manuals with document number:
01-5665-01r1 for Emotron FDU 2.0-2Y valid from software version 4.39and
01-5666-01r1 for Emotron VFX 2.0-2Y valid from software version 4.39

1. Added functionality

1.1 Two standard softwares

To meet the demand of having more available languages we have divided the languages into two Language sets. Explained in chapter “1.4 Type code number” in the table at position 16 - Software, see also below.

Position	Configuration	
16	Software type	A= Standard software (Language set 1) U= Std sw Language set 2 See menu “Language [211]” below.

Language [211]

Select the language used on the LC Display. Once the language is set, this selection will not be affected by the Load Default command.
There are two software sets with different languages available for delivery. “Standard software with Language set 1” and the optional “Standard software with Language set 2”, see table below.

211	Language		Language set	
Default:		English	Set 1	Set 2
English	0	English selected	X	X
Svenska	1	Swedish selected	X	-
Nederlands	2	Dutch selected	X	-
Deutsch	3	German selected	X	X
Français	4	French selected	X	-
Español	5	Spanish selected	X	-
Русский	6	Russian selected	X	-
Italiano	7	Italian selected	X	-
Cesky	8	Czech selected	-	X
Turkish	9	Turkish selected	-	X

Communication information

Modbus Instance no/DeviceNet no:	43011
Profibus slot/index	168/170
EtherCAT index (hex)	4bc3
Profinet IO index	19395
Fieldbus format	UInt
Modbus format	UInt

1.2 Additional motor parameters for PMSM motors

PMSM data [22J]

Additional motor parameters for Permanent Magnet Synchronous Motors (PMSM).

This menu is only available if PMSM is selected in menu [22I].

Motor BEMF [22J1]

Set the back EMF of the motor at the nominal operating point. This parameter may not be explicitly available from the manufacturer, but can then be computed from the electrical constant Ke and the nominal speed.

22J1 BEMF	
Default:	Motor dependent
Range:	100-700 V
Resolution	1 V

Communication information

Modbus Instance no/DeviceNet no:	43391
Profibus slot/index	170/40
EtherCAT index (hex)	4d3f
Profinet IO index	19775
Fieldbus format	Long, 1=0.1
Modbus format	EInt

Rs (Ω/ph) [22J2]

Set the per phase stator resistance..

22J2 Rs (Ω/ph)		
Default:		Undef
Undef		Undefined
Range:		0.000001-40.000000 ohm

Communication information

Modbus Instance no/DeviceNet no:	43392
Profibus slot/index	170/41
EtherCAT index (hex)	4d40
Profinet IO index	19776
Fieldbus format	Long, 1=0.00001
Modbus format	EInt

Lsd (mH/ph) [22J3]

Set the per phase d-axis stator inductance.

22J3 Lsd (mH/ph)		
Default:		Undef
Undef		Undefined
Range:		0.001-10000.000 mH

Communication information

Modbus Instance no/DeviceNet no:	43393
Profibus slot/index	170/42
EtherCAT index (hex)	4d41
Profinet IO index	19777
Fieldbus format	Long, 1=0.001
Modbus format	EInt

Lsq (mH/ph) [22J4]

Set the per phase q-axis stator inductance.

22J4 Lsq (mH/ph)		
Default:		Undef
Undef		Undefined
Range:		0.001-10000.000 mH

Communication information

Modbus Instance no/DeviceNet no:	43394
Profibus slot/index	170/43
EtherCAT index (hex)	4d42
Profinet IO index	19778
Fieldbus format	Long, 1=0.001
Modbus format	EInt

1.3 Added brake functionality on Emotron VFX

DC Hold [33J]

This function makes it possible to apply a DC-voltage to the motor at zero speed. This provides a (low) holding torque. This function is only available in speed mode in Emotron VFX.

DC Hold [33J1]

Enabling of DC hold functionality.

33J1 DC Hold		
Default:		Off
Off	0	
On	1	

Communication information

Modbus Instance no/DeviceNet no:	43148
Profibus slot/index	169/52
EtherCAT index (hex)	4c4c
Profinet IO index	19532
Fieldbus format	UInt
Modbus format	UInt

DC Holding Speed [33J2]

Select the speed at which DC hold is released / enabled. DC hold is activated if both the speed and the speed reference is below this value.

33J2 DC Hold Spd	
Default:	10 U/rpm
Range:	0 - 250 rpm

Communication information

Modbus Instance no/DeviceNet no:	43149
Profibus slot/index	169/53
EtherCAT index (hex)	4c4d
Profinet IO index	19533
Fieldbus format	UInt, 1=1
Modbus format	UInt

DC Holding Current [33J3]

Select the applied DC hold current in percent of nominal motor current.

33J3 DC Hold Cur	
Default:	30 %
Range:	0 - 100 %

Communication information

Modbus Instance no/DeviceNet no:	43150
Profibus slot/index	169/54
EtherCAT index (hex)	4c4e
Profinet IO index	19534
Fieldbus format	UInt, 1=1
Modbus format	UInt