KEB via DIN66019II Protocol – Master

Information Sheet for Crimson v2.0

Compatible Devices

- KEB F5 Inverters using DIN66019II protocol

Verified Device

- F5-B1B-KB0A

NOTE: Not all selectable parameter and set numbers may be present in a device. The programmer is responsible for making valid selections.

Accessible Data

Prefix	Code	Description	Access
S0A	G	Parameter : Set	R/W
R2A	I	Parameter Lower Limit	R
R2B	I	Parameter Higher Limit	R
R3A	J	Parameter Default Value	R
R4A	K	Characteristics 1	R
R4B	K	Characteristics 2	R
R5A	L	Scaling Divisor	R
R5B	L	Scaling Multiplier	R
R5C	L	Scaling Offset	R
R5D	L	Scaling Flags	R
CM6	M	Parameter Name	R (Note 5)
R7A	N	Index Display	R
R7B	N	Number Display	R
R7C	N	Index Combivis	R
R7D	N	Number Combivis	R
R10A	Q	Group Index	R

R10B	Q	Group Code	R
R10C	Q	Group Characteristic	R
R10D	Q	Group High Parameter	R
R10E	Q	Group Number of Parameters	R
CM11	R	Group Name	R (Note 5)
R12B	S	Text Bitmask (Initialize W12A)	R (Note 4,5)
R12C	S	Text Number (Initialize W12A)	R (Note 4,5)
R12D	S	Text (Initialize W12A)	R (Note 4,5)
W12A		Text Definition Index	R/W
R16A	W	32 Bit Process Words	R
S16W	W	Send W16A1 + W16A2	W
W16A		32 Bit Process Words to Send	R/W
R17A	X	16 Bit Process Words	R
S17W	X	Send W17A1…W17A4	W
W17A		16 Bit Process Words to Send	R/W
R18A	Y	Process Data Time Stamp	R
R18B	Y	Process Data 1 IN	R
R18C	Y	Process Data 2 IN	R
R18D	Y	Process Data 3 IN	R
R18E	Y	Process Data 4 IN	R
S48	w	Send W48D1+W48D2	W
W48D		2x32 Bit Process Data to Send	R/W
R48D		S48 Response, 2 Data, 1 Function Code	R/W
R49	x	Send W49D1…W48D4	W
W49D		4x16 Bit Process Data to Send	R/W
R49D		S49 Response, 4 Data, 1 Function Code	R/W
ERR		Latest Error + Service Code	R/W

Prefix:

This is the mnemonic used in configuration to specify the operation requested of the drive. The DIN66019II protocol number is included in the mnemonic.

Code:

The Code column indicates the letter that the command protocol uses to define an operation. An item without a code is an internally stored value not sent to the

drive until the corresponding 'S' command is set. The code letter's ASCII value is returned in the lower 16 bits of the **ERR** command when the drive cannot process a command. See the **ERR** section below.

Description Information:

Important: All parameter/set numbers are entered as Hex values.

Indented items (16, 17, 48, 49) represent internally stored values.

Service 0 (includes Service 1 – Write) – the programmer enters the parameter, and the parameter set number. Not all parameter and set numbers may be valid for a particular drive.

NOTE 1: RnX, WnX refer to a generic Prefix in the above list that starts with R, or W, followed by the number of the service. Substitute A, B, … for the X in RnX.

NOTE 2: For **Service 10** – The Group Number of Parameters is 0 based. I.e. if there are 11 parameters in the group, the value returned is 10.

NOTE 3: WnX items are specified as Write in the above table. However, a read operation will return the most recent value written, or meaningless data if no write has been done. **SnW** items cannot be guaranteed to return a meaningful value when read. Each **RnX** item will send a request for data to the controller. Write operations to **RnX** items are ignored.

NOTE 4: Item **W12A** must be initialized with a valid Definition Index value before the data will be read. **W12A** is set to –1 upon loading the driver in order to prevent a read attempt of **R12B**, **R12C**, and **R12D** with an invalid index. Configure Parameter for the desired Text Index value.

NOTE 5: Assign a string tag to **CM6**, **CM12**, **R12D**. Set 'Encoding' to Packed High-to-Low, and select an appropriate size.

ERR – An internal system item that is used to show the latest error number returned, and the Service number that caused the error. The error code is in the upper 16 bits, the service code is in the lower 16 bits.
ERR is cleared by writing any value to it.

These errors will retry the command:
1 is "Not Ready"
5 is "BCC error"
6 is "Inverter Busy"
These errors will not retry the command:
2 is "Address/Password invalid"
3 is "Data invalid"

4 is "Write Protect"
7 is "Service Not Available"
8 is "Password invalid"
9 is "Framing Error"
A is "Transmission Error"
B is "Set Identification invalid"
C is "Set Identification invalid"
D is "Address invalid"
E is "Operation not possible"
F is "Not Used"

Parameter Address Equivalency

PARAMETER CLASS	BASE PARAMETER ADDRESS (Hex)
SY	000
RU	200
OP	300
PN	400
UF	500
DR	600
CN	700
UD	800
FR	900
AN	A00
DI	B00
DO	C00
LE	D00
IN	E00
CS	F00
XY	1200

Cable Information

RS232

G3	SIGNALS	F5 – Display
5	Tx -> Rx	3
2	Rx <- Tx	2
3/4	0V	7

RS485 – Select 2 wire RS485 in Port Settings

G3	SIGNALS	F5 – Display
7	B -> A	4 + 8
8	A -> B	5 + 9
6	0V	7