

Supplementary
Operating Instructions
for Serial Data Communication

July. '04 Ver 1.0

TPR3E-PLUS THYRISTOR
POWER REGULATOR
MODBUS 통신 PROTOCOL

TPR 3E PLUS

산업전기

1.

TPR+

RS-485

2

RS-485

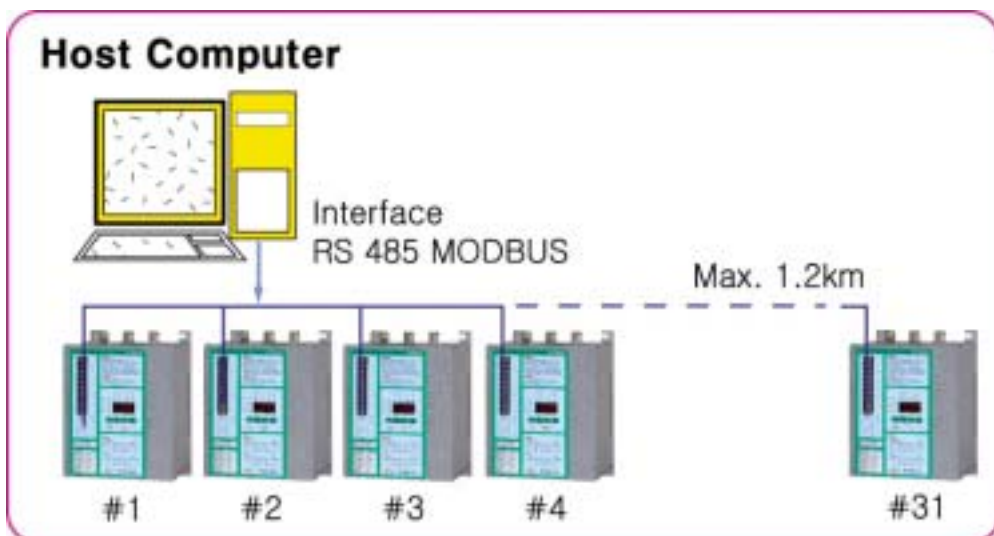
RS-232

RS-485

1.2 Km

- 1) : RS-485
- 2) : 1.2 Km
- 3) : 31 /
- 4) DATA : 1 START, 8 DATA, 1 STOP Bit, NO PARITY
- 5) : 2400, 4800, 9600 BPS
- 6) PROTOCOL : MODBUS ASCII

2. TPR+



3. TPR+

1) RS-485

2) PASS WORD 15

(1) 'ADS'

NOTE) 0

(2) 'SPd'

'24' 2400 BPS가

'48' 4800 BPS가

'96' 9600 BPS가

(3) 'Cdy'

Host Computer

)

가

가

NOTE)

TPR3E Plus

4. TPR+

TPR+
COMPUTER
가

TPR+

가

가

(10m),

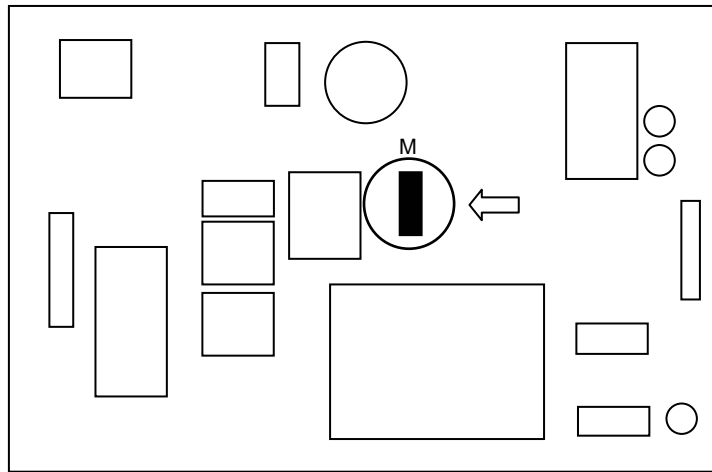
가

.1

Jumper 'M'

)

가/



.1 TPR+

Jumper

5. TPR+

DATA

(FUNCTION CODE 03)

가 TPR+
TPR+

DATA

NOTE)

Check-Sum
MODBUS

Function Code

1)

TPR+

DATA

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
:	:	F-CODE	ADDRESS		C1	C2	CR	LF

(1) START MARK

(2) : 01 31(0x01 0x1F)

(3) FUNCTION CODE : 03

(4) DATA : 7

(5) DATA : 29

(6) CHECK-SUM HIGH NIBBLE

(7) CHECK-SUM LOW NIBBLE

) 1 TPR+ Soft Start
(DATA , 0003)

:010300030001 C1,C2,CR,LF TPR+

2) TPR+

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| : |      | F-CODE | BYTE  | DATA | C1 | C2 | CR | LF |
-+(1)| (2) | (3)  | (4)  | (5)  | (6)| (7)| (8)| (9)+-----

```

- (1) START MARK
- (2) : 01 31(0x01 0x1F)
- (3) FUNCTION CODE : 03
- (4) BYTE :
- (5) DATA : 4 HEXA (2-BYTE)
- (6) CHECK-SUM HIGH NIBBLE
- (7) CHECK-SUM LOW NIBBLE

) 1 TPR+ (Soft Start 10)

:010302000A C1,C2,CR,LF

6. TPR3E-Plus DATA (FUNCTION CODE 06)

가 TPR+
TPR+

DATA

NOTE) Check-Sum MODBUS, Function Code

1) TPR+ DATA

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| : |      | F-CODE | ADDRESS | DATA | C1 | C2 | CR | LF |
-+(1)| (2) | (3)  | (4)  | (5)  | (6)| (7)| (8)| (9)+-----

```

- (1) START MARK
- (2) : 01 31
- (3) FUNCTION CODE : 06
- (4) DATA : 7 DATA
- (5) DATA : Data
- (6) CHECK-SUM HIGH NIBBLE
- (7) CHECK-SUM LOW NIBBLE

) 1 TPR+ Soft Start (DATA 3)
15

:01060003000F C1,C2,CR,LF TPR+

2) TPR+

(1) DATA가 : MESSAGE
MESSAGE .

(2) DATA가

```

+-----+-----+-----+-----+-----+-----+-----+-----+
| : | | F-CODE | CODE | C1 | C2 | CR | LF |
-+(1)| (2) | (3) | (4) | (5)| (6)| (7)| (8)+-----

```

(1) START MARK :
(2) : 01 31
(3) FUNCTION CODE : 86
(4) DATA CODE : 02
(5) CHECK-SUM LOW NIBBLE
(6) CHECK-SUM HIGH NIBBLE

) 1 TPR+ Soft Start
:018602 C1,C2,CR,LF TPR+ .

7. TPR3E-Plus

가 TPR+
가 .

1) 가 16
10 .

2) 4
(0003 3 0013 13) .

3) R/W , 가
R (가)

4) (Integer)

5) 0 (Pass) 16 22 Key .

6) .

) Data
EEPROM() .

NOTE)

TPR+

.1 TPR

0	PAS	Pass	Key	R
1	OUt		0 - 100%	R/W
2	CLm		5 - 240A	R/W
3	SSt	Soft start	0 - 250	R/W
4	Cmd		0(ALm), 1(OFF), 2(Cnt)	R/W
5	Pmd		0(ALm), 1(OFF)	R/W
6	tmd		0(ALm), 1(OFF)	R/W
7	FLt	filter	0 - 10	R/W
8	LbA		0 - 254	R/W
9	bUZ		0(Off), 1(On)	R/W
10	---		0 - 100%	R/W
11	Smd		0(Ana), 1(COm)	R/W
12	AdS		1 - 31	R
13	SPd		0(2400), 1(4800), 2(9600)	R
14	Cdy		1 - 4	R
15	---		0(Input), 1(R), 2(T)	R
23	---			R
24	---	Analog(4-20)	-8 - 108%	R
25	---	#1	0 - 250A	R
26	---	#2	0 - 250A	R
27	---	(VR)	0 - 100%	R
28	---		0 - 80	R