Energy_Drink_V15.1 / ENERGY_DRINK_PROC [CPU 314C-2 PN/DP] / Program blocks / FBs

STAR/DELTA_STARTER [FB2]

STAR/DELTA_STARTER Properties							
General							
Name	STAR/DELTA_STARTER	**Number**	2	**Type**	FB	**Language**	STL
Numbering	Automatic						
Information							
Title		**Author**		**Comment**		**Family**	
Version	0.1	**User-defined ID**					

STAR/DELTA_STARTER

Name	Data type	Offset	Default value	Accessible from HMI/OPC UA	Writable from HMI/OPC UA	Visible in HMI engineering	Setpoint	Supervision	Comment
▼ Input									
START	Bool	0.0	false	True	True	True	False		
STOP	Bool	0.1	false	True	True	True	False		
OVL	Bool	0.2	false	True	True	True	False		
PT	Time	2.0	T#0ms	True	True	True	False		
▼ Output									
KM_MAIN	Bool	6.0	false	True	True	True	False		
KM_STAR	Bool	6.1	false	True	True	True	False		
KM_DELTA	Bool	6.2	false	True	True	True	False		
H_MAIN	Bool	6.3	false	True	True	True	False		
H_STAR	Bool	6.4	false	True	True	True	False		
H_DELTA	Bool	6.5	false	True	True	True	False		
H_STOPPED	Bool	6.6	false	True	True	True	False		
H_OVL	Bool	6.7	false	True	True	True	False		
CMD_Feedback	Bool	7.0	false	True	True	True	False		
InOut									
▼ Static									
SYSTEM_OK	Bool	8.0	false	True	True	True	False		
M_MAIN	Bool	8.1	false	True	True	True	False		
M_STAR	Bool	8.2	false	True	True	True	False		
M_DELTA	Bool	8.3	false	True	True	True	False		
M_TIMER	Bool	8.4	false	True	True	True	False		
TIME	Time	10.0	T#0ms	True	True	True	False		
▼ STAR_TIMER	TON	14.0		True	True	True	True		
▼ Input									
IN	Bool	14.0	false	True	True	True	False		
PT	Time	16.0	T#0MS	True	True	True	False		
▼ Output									
Q	Bool	20.0	false	True	True	True	False		
ET	Time	22.0	T#0MS	True	True	True	False		
InOut									
▼ Static									
STATE	Byte	26.0	16#0	True	True	True	False		
STIME	Time	28.0	T#0MS	True	True	True	False		
ATIME	Time	32.0	T#0MS	True	True	True	False		
Temp									
Constant									

Network 1: **************************** SYSTEM MANAGEMENT **/**

```
0001 // WHILE OVL AND STOP = 1, SYSTEM OK
0002       U     #OVL
0003       U     #STOP
0004       =     #SYSTEM_OK
```

Network 2: **************************** STAR MODE CONDITIONS **/**

```
0001 // SET MEMORY TO ACTIVATE TIMER AND STAR CONTACTOR CONDITION
0002       U     #SYSTEM_OK
0003       UN    #STAR_TIMER.Q
0004       U(
0005       U     #START
0006       O     #M_STAR
0007       )
0008       S     #M_TIMER
0009       =     #M_STAR
0010
0011 // IF TIME.Q = TRUE, RESET M_TIMER
0012       U     #STAR_TIMER.Q
0013       R     #M_TIMER
```

```
0014
0015 // IF S_TIMER = TRUE, ACTIVATE TIMER
0016       CALL  #STAR_TIMER
0017          Time
0018          IN :=#M_TIMER
0019          PT :=#PT
0020          Q  :=
0021          ET :=#STAR_TIMER.ET
0022
```

Network 3: **************************** STAR KM AND LED ACTIVATION **/**

```
0001 // WHILE M_STAR = 1, STAR CONTACTOR AND LED ARE "ON"
0002       U     #M_STAR
0003       =     #KM_STAR
0004       =     #H_STAR
```

Network 4: **************************** MAIN KM ACTIVATION CONDITIONS **/**

```
0001 // CONDITIONS TO ACTIVATE M_MAIN CONTACTOR
0002       U     #SYSTEM_OK
0003       U(
0004       U     #M_STAR
0005       O     #M_MAIN
0006       )
0007       =     #M_MAIN
0008
0009 // WHILE M_MAIN = 1, MAIN CONTACTOR AND LED ARE "ON"
0010       U     #M_MAIN
0011       =     #KM_MAIN
0012       =     #H_MAIN
```

Network 5: **************************** DELTA KM ACTIVATION CONDITIONS **/**

```
0001 // CONDITIONS TO ACTIVATE M_DELTA CONTACTOR
0002       U     #SYSTEM_OK
0003       U     #M_MAIN
0004       UN    #M_STAR
0005       =     #M_DELTA
0006
0007 // WHILE M_DELTA = 1, DELTA CONTACTOR AND LED ARE "ON"
0008       U     #M_DELTA
0009       =     #KM_DELTA
0010       =     #H_DELTA
0011       =     #CMD_Feedback
```

Network 6: ****************************STOP LED ACTIVATION **/**

```
0001       UN    #STOP
0002       ON    #M_MAIN
0003       =     #H_STOPPED
```

Network 7: ****************************OVERLOAD LED ACTIVATION **/**

```
0001       UN    #OVL
0002       =     #H_OVL
```