



Isolated



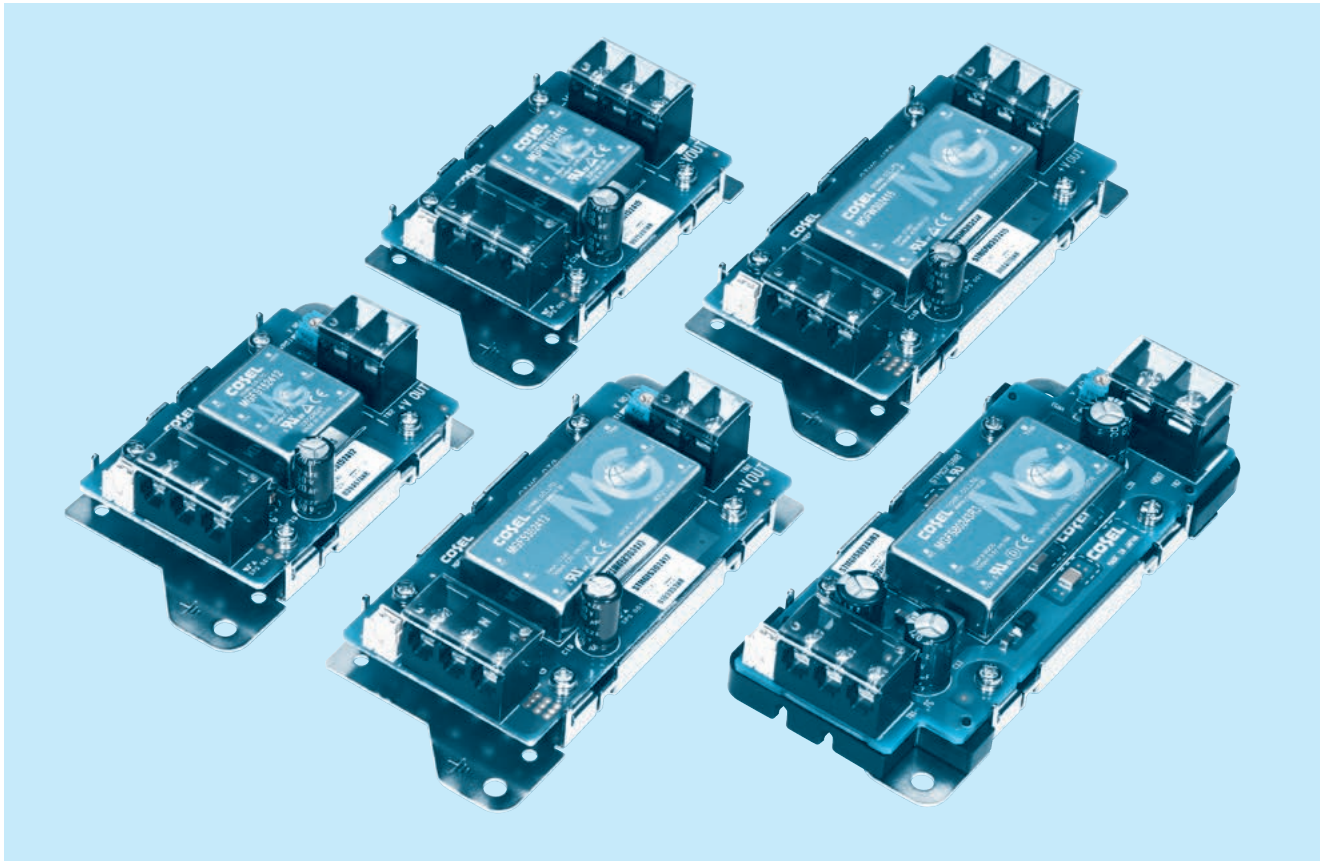
OCP



OVP

Remote  
ON/OFFWide 4 :1  
input

# STMG-series



## Feature

- Isolated unit type DC-DC converter
- Wide input voltage DC9-36V/DC18-76V
- Various lineups
- Available connector interface (option)
- Available case cover (option)
- Available DIN rail attachment (option)
- Built in Overcurrent protection (recovery automatically)
- Built in Overvoltage protection (STMG30/STMG80)
- Built in Remote ON/OFF
- Built in Output voltage adjustment (for single output,  $\pm 10\%$ )

## Safety agency approvals

- UL60950-1 C-UL EN62368-1 Complies (STMG15/STMG30)
- UL62368-1 C-UL EN62368-1 Complies (STMG80)

## CE marking

- Low voltage Directive
- RoHS Directive

## UKCA marking

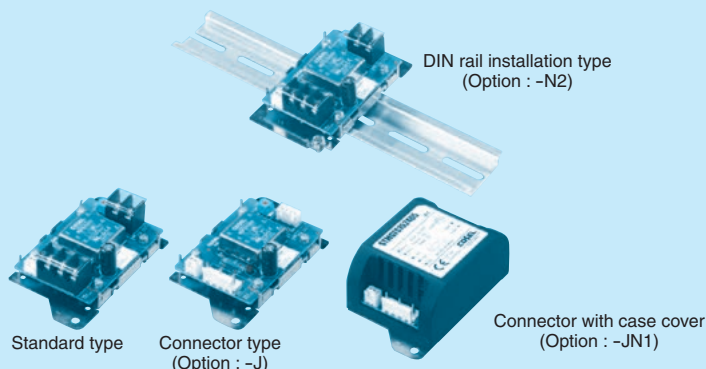
- Electrical Equipment Safety Regulations
- RoHS Regulations

## 5-year warranty (refer to Instruction Manual)

# STMGFS15

STMGF S 15 24 05 -□

① ② ③ ④ ⑤ ⑥



- ① Series name  
② Single output  
③ Output wattage  
④ Input voltage  
⑤ Output voltage  
⑥ Optional
- G : Capacitor between Input and Output is removed.  
R : with Remote ON/OFF (Positive logic control)  
J : Input/Output Connector  
JN1 : Connector with case cover  
N2 : With DIN rail installation type  
JN3 : Connector with cover(plastic) and DIN rail installation type  
V : Output voltage setting potentiometer externally

\* Please remove short piece on CN4 to enable remote ON/OFF function.

\* When the option is set specifications may vary.

| MODEL                 | STMGFS15243R3 | STMGFS152405 | STMGFS152412 | STMGFS152415 |
|-----------------------|---------------|--------------|--------------|--------------|
| MAX OUTPUT WATTAGE[W] | 13.2          | 15           | 15.6         | 15           |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3          | 5            | 12           |
|                       | CURRENT[A]    | 4            | 3            | 1.3          |

## SPECIFICATIONS

|                               | MODEL                           | STMGFS15243R3                                        | STMGFS152405 | STMGFS152412  | STMGFS152415  |
|-------------------------------|---------------------------------|------------------------------------------------------|--------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC9 - 36                                             |              |               |               |
|                               | CURRENT[A] *2                   | 0.63typ                                              | 0.71typ      | 0.73typ       | 0.70typ       |
|                               | EFFICIENCY[%] *2                | 87typ                                                | 88typ        | 89typ         | 89typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5            | 12            | 15            |
|                               | CURRENT[A]                      | 4                                                    | 3            | 1.3           | 1             |
|                               | LINE REGULATION[mV]             | 13.2max                                              | 20max        | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 60max                                                | 60max        | 100max        | 120max        |
|                               | RIPPLE[mVp-p] *3                | 0 to +60°C 75max                                     | 75max        | 100max        | 100max        |
|                               |                                 | -20 to +60°C 100max                                  | 100max       | 120max        | 120max        |
|                               | RIPPLE NOISE[mVp-p] *3          | 0 to +60°C 120max                                    | 120max       | 150max        | 150max        |
|                               |                                 | -20 to +60°C 200max                                  | 200max       | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | 0 to +60°C 50max                                     | 50max        | 150max        | 180max        |
|                               |                                 | -20 to +60°C 80max                                   | 80max        | 240max        | 290max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max        | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 30max (Minimum input, I <sub>o</sub> =100%)          |              |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | 2.97 - 3.63                                          | 4.50 - 5.50  | 10.80 - 13.20 | 13.50 - 16.50 |
|                               | OUTPUT VOLTAGE SETTING[V] *5    | 3.29 - 3.41                                          | 4.97 - 5.14  | 11.85 - 12.25 | 14.83 - 15.33 |
|                               | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |              |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                |              |               |               |

| MODEL                 | STMGFS15483R3 | STMGFS154805 | STMGFS154812 | STMGFS154815 |
|-----------------------|---------------|--------------|--------------|--------------|
| MAX OUTPUT WATTAGE[W] | 13.2          | 15           | 15.6         | 15           |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3          | 5            | 12           |
|                       | CURRENT[A]    | 4            | 3            | 1.3          |

## SPECIFICATIONS

|                               | MODEL                           | STMGFS15483R3                                        | STMGFS154805 | STMGFS154812  | STMGFS154815  |
|-------------------------------|---------------------------------|------------------------------------------------------|--------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC18 - 76                                            |              |               |               |
|                               | CURRENT[A] *2                   | 0.32typ                                              | 0.36typ      | 0.37typ       | 0.35typ       |
|                               | EFFICIENCY[%] *2                | 87typ                                                | 88typ        | 88typ         | 89typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5            | 12            | 15            |
|                               | CURRENT[A]                      | 4                                                    | 3            | 1.3           | 1             |
|                               | LINE REGULATION[mV]             | 13.2max                                              | 20max        | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 60max                                                | 60max        | 100max        | 120max        |
|                               | RIPPLE[mVp-p] *3                | 0 to +60°C 75max                                     | 75max        | 100max        | 100max        |
|                               |                                 | -20 to +60°C 100max                                  | 100max       | 120max        | 120max        |
|                               | RIPPLE NOISE[mVp-p] *3          | 0 to +60°C 120max                                    | 120max       | 150max        | 150max        |
|                               |                                 | -20 to +60°C 200max                                  | 200max       | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | 0 to +60°C 50max                                     | 50max        | 150max        | 180max        |
|                               |                                 | -20 to +60°C 80max                                   | 80max        | 240max        | 290max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max        | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 30max (Minimum input, I <sub>o</sub> =100%)          |              |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | 2.97 - 3.63                                          | 4.50 - 5.50  | 10.80 - 13.20 | 13.50 - 16.50 |
|                               | OUTPUT VOLTAGE SETTING[V] *5    | 3.29 - 3.41                                          | 4.97 - 5.14  | 11.85 - 12.25 | 14.83 - 15.33 |
|                               | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |              |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                |              |               |               |

## GENERAL SPECIFICATIONS

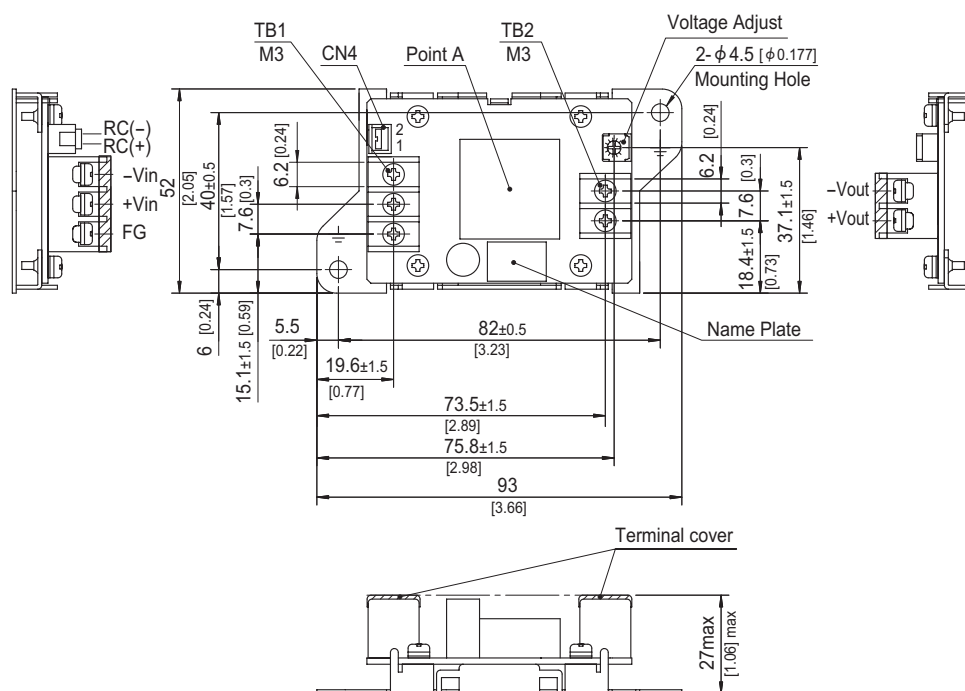
|             |                                    |                                                                                                          |
|-------------|------------------------------------|----------------------------------------------------------------------------------------------------------|
| ISOLATION   | INPUT · RC-OUTPUT                  | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000M $\Omega$ min (20 $\pm$ 15 $^{\circ}$ C)           |
|             | INPUT · RC-FG                      | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000M $\Omega$ min (20 $\pm$ 15 $^{\circ}$ C)           |
|             | OUTPUT-FG                          | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000M $\Omega$ min (20 $\pm$ 15 $^{\circ}$ C)           |
| ENVIRONMENT | OPERATING TEMP.,HUMID.AND ALTITUDE | -20 to +70 $^{\circ}$ C, 20 to 95%RH (Non condensing) (Refer to “Derating”), 3,000m (10,000feet) max     |
|             | STORAGE TEMP.,HUMID.AND ALTITUDE   | -20 to +75 $^{\circ}$ C, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max                           |
|             | VIBRATION                          | 10 - 55Hz, 19.6m/s $^2$ (2G), 3minutes period, 60minutes each along X, Y and Z axis                      |
|             | IMPACT                             | 196.1m/s $^2$ (20G), 11ms, once each along X, Y and Z axis                                               |
| SAFETY      | AGENCY APPROVALS                   | UL60950-1, C-UL, EN62368-1 Complies                                                                      |
| OTHERS      | CASE SIZE/WEIGHT                   | 52x27x93mm [2.05x1.06x3.66 inches] (W×H×D) / 110g max (When the option is set, refer to the page STMG-4) |
|             | COOLING METHOD                     | Convection/Forced air                                                                                    |

- \*1 STMGFW15xx05/STMGFW15xx12/STMGFW15xx15 is available as single output, +10V/+24V/+30V
- \*2 Rated input 12V, 24V or 48V DC lo=100%
- \*3 Measured by 100MHz oscilloscope or Ripple-Noise meter (Equivalent to KIKUSUI-GIKEN : RM103).
- \*4 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25°C.
- \*5 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25°C.
- \*6 Parallel operation with other model is not possible.

### External view

### Standard type

\* External view of option G, R are the same as standard model.  
External view of other type options, please refer to the page STMG-4.



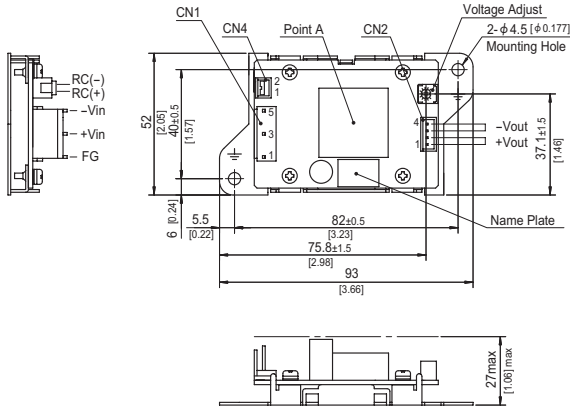
|               | I/O Connector |        | Mating Connector | Terminal                                       |
|---------------|---------------|--------|------------------|------------------------------------------------|
| Remote ON/OFF | CN4           | B2B-XH | XHP-2            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |

(Mfr.:J.S.T.)

- \* Tolerance  $\pm 1$  [ $\pm 0.04$ ]
- \* Dimensions in mm, [ ]=inches
- \* Weight : 110g max
- \* PCB material / thickness : FR-4 / 1.6mm
- \* Mounting plate : Iron (surface finishing : nickel plating) / t=1.0mm
- \* Terminal block screw tightening torque M3 :  $0.8N \cdot m$  max
- \* CN4 has been installed short piece as factory setting (Except option R).  
When remote ON/OFF is used, please remove the installed short piece.

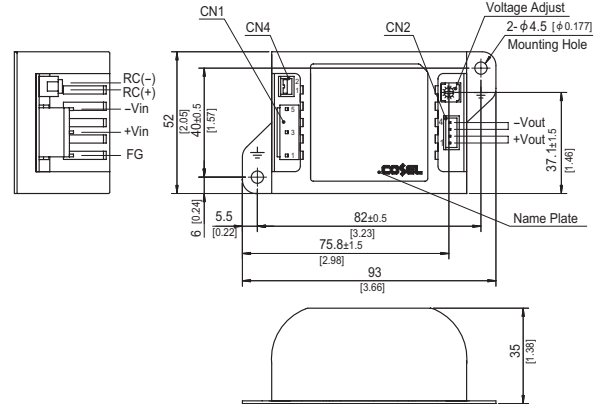
## External view (Option type)

### Connector type (-J)

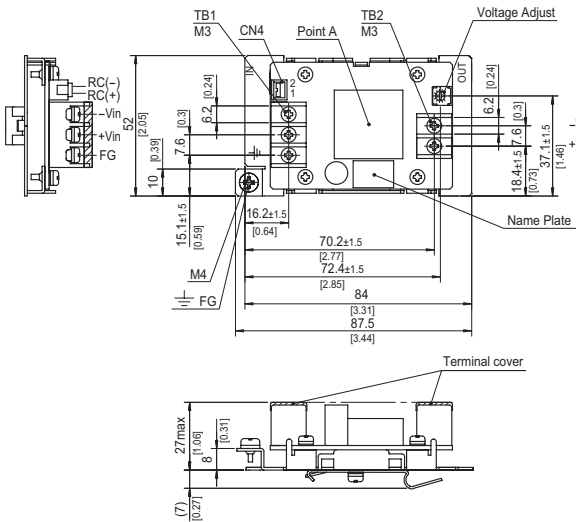


### Case cover and connector type (-JN1)

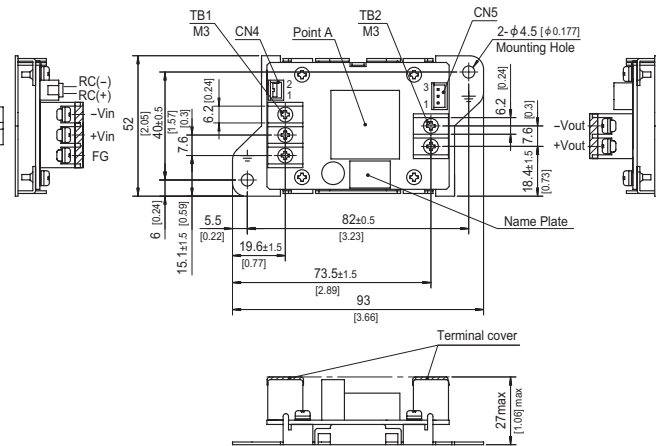
\* The specifications of terminal block and Case cover type can not be set.



### DIN rail installation type (-N2)



### External voltage variable volume type (-V)



|                                       | I/O Connector |         | Mating Connector | Terminal                                       |
|---------------------------------------|---------------|---------|------------------|------------------------------------------------|
| Connector Type Input                  | CN1           | B3P5-VH | VHR-5N           | Chain : SVH-21T-P1.1<br>Loose : BVH-21T-P1.1   |
| Connector Type Output                 | CN2           | B4P-XH  | XHP-4            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |
| Remote ON/OFF                         | CN4           | B2B-XH  | XHP-2            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |
| External voltage variable volume type | CN5           | B3B-XH  | XHP-3            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |

(Mfr.:J.S.T.)

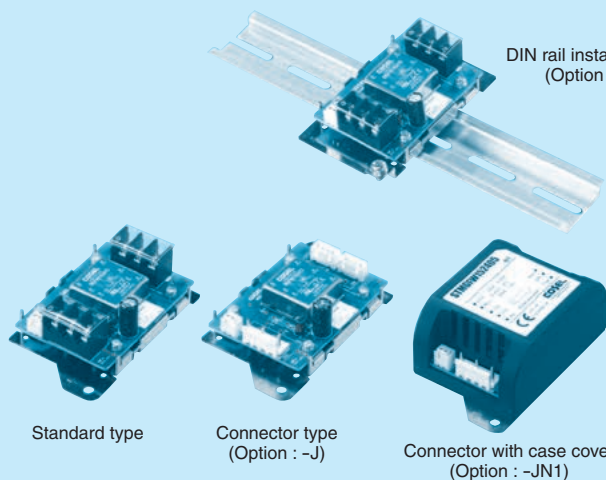
- \* Tolerance  $\pm 1$  [ $\pm 0.04$ ]
- \* Dimensions in mm, [ ]=inches
- \* Weight : Standard & Connector type 110g max  
Case cover & DIN rail installation type 120g max
- \* PCB material / thickness : FR-4 / 1.6mm
- \* Mounting plate : Iron (surface finishing : nickel plating) /  $t=1.0$ mm
- \* Case : PBT
- \* Terminal block screw tightening torque M3 :  $0.8N \cdot m$  max
- \* CN4 has been installed jumper as factory setting (Except option R).  
When remote ON/OFF is used , please remove the installed jumper.
- \* Connector Type : Keep drawing current per pin below 2.5A for CN2.



# STMGFW15

STMGF W 15 24 05 -□

① ② ③ ④ ⑤ ⑥



DIN rail installation type  
(Option: -N2)

- ① Series name  
② Dual output  
③ Output wattage  
④ Input voltage  
⑤ Output voltage  
⑥ Optional  
G: Capacitor between Input and Output is removed.  
R: with Remote ON/OFF (Positive logic control)  
J: Input/Output Connector  
JN1: Connector with case cover  
N2: With DIN rail installation type  
JN3: Connector with cover(plastic) and DIN rail installation type

\*When the option is set specifications may vary.

\*Please remove short piece on CN4 to enable remote ON/OFF function.

| MODEL                 | STMGFW152405  | STMGFW152412 | STMGFW152415 | STMGFW154805 | STMGFW154812 | STMGFW154815 |
|-----------------------|---------------|--------------|--------------|--------------|--------------|--------------|
| MAX OUTPUT WATTAGE[W] | 15            | 15.6         | 15           | 15           | 15.6         | 15           |
| DC OUTPUT             | VOLTAGE[V] *1 | ±5 or +10    | ±12 or +24   | ±15 or +30   | ±5 or +10    | ±12 or +24   |
|                       | CURRENT[A]    | 1.5          | 0.65         | 0.5          | 1.5          | 0.65         |

## SPECIFICATIONS

|                               | MODEL                                | STMGFW152405                                                                                             | STMGFW152412  | STMGFW152415  | STMGFW154805 | STMGFW154812  | STMGFW154815  |
|-------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------|---------------|---------------|--------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                           | DC9 - 36                                                                                                 |               |               | DC18 - 76    |               |               |
|                               | CURRENT[A] *2                        | 0.74typ                                                                                                  | 0.74typ       | 0.70typ       | 0.37typ      | 0.37typ       | 0.36typ       |
|                               | EFFICIENCY[%] *2                     | 84typ                                                                                                    | 88typ         | 89typ         | 84typ        | 87typ         | 88typ         |
| OUTPUT                        | VOLTAGE[V]                           | ±5(+10)                                                                                                  | ±12(+24)      | ±15(+30)      | ±5(+10)      | ±12(+24)      | ±15(+30)      |
|                               | CURRENT[A]                           | 1.5                                                                                                      | 0.65          | 0.5           | 1.5          | 0.65          | 0.5           |
|                               | LINE REGULATION[mV]                  | 40max                                                                                                    | 60max         | 75max         | 40max        | 60max         | 75max         |
|                               | LOAD REGULATION[mV]                  | *3 500max *5                                                                                             | 600max        | 750max        | 500max *5    | 600max        | 750max        |
|                               |                                      | *4 250max                                                                                                | 480max        | 600max        | 250max       | 480max        | 600max        |
|                               | RIPPLE[mVp-p] *6                     | 0 to +60°C 100max                                                                                        | 100max        | 100max        | 100max       | 100max        | 100max        |
|                               |                                      | -20 to +60°C 120max                                                                                      | 120max        | 120max        | 120max       | 120max        | 120max        |
|                               | RIPPLE NOISE[mVp-p] *6               | 0 to +60°C 150max                                                                                        | 150max        | 150max        | 150max       | 150max        | 150max        |
|                               |                                      | -20 to +60°C 200max                                                                                      | 200max        | 200max        | 200max       | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]           | 0 to +60°C 50max                                                                                         | 150max        | 180max        | 50max        | 150max        | 180max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *7                         | 50max                                                                                                    | 50max         | 60max         | 50max        | 50max         | 60max         |
|                               | START-UP TIME[ms]                    | 30max (Minimum input, Io=100%)                                                                           |               |               |              |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] *8         | 4.93 - 5.24                                                                                              | 11.76 - 12.50 | 14.60 - 15.51 | 4.93 - 5.24  | 11.76 - 12.50 | 14.60 - 15.51 |
|                               | OVERCURRENT PROTECTION               | Works over 105% of rating and recovers automatically                                                     |               |               |              |               |               |
|                               | REMOTE ON/OFF                        | Provided (Negative logic L:ON, H:OFF)                                                                    |               |               |              |               |               |
| ISOLATION                     | INPUT · RC-OUTPUT                    | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)                                    |               |               |              |               |               |
|                               | INPUT · RC-FG                        | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)                                    |               |               |              |               |               |
|                               | OUTPUT-FG                            | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)                                    |               |               |              |               |               |
| ENVIRONMENT                   | OPERATING TEMP., HUMID. AND ALTITUDE | -20 to +70°C, 20 to 95%RH (Non condensing) (Refer to "Derating"), 3,000m (10,000feet) max                |               |               |              |               |               |
|                               | STORAGE TEMP., HUMID. AND ALTITUDE   | -20 to +75°C, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max                                      |               |               |              |               |               |
|                               | VIBRATION                            | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis              |               |               |              |               |               |
|                               | IMPACT                               | 196.1m/s <sup>2</sup> (20G), 11ms, once each along X, Y and Z axis                                       |               |               |              |               |               |
| SAFETY                        | AGENCY APPROVALS                     | UL60950-1, C-UL, EN62368-1 Complies                                                                      |               |               |              |               |               |
| OTHERS                        | CASE SIZE/WEIGHT                     | 52×27×93mm [2.05×1.06×3.66 inches] (W×H×D) / 110g max (When the option is set, refer to the page STMG-7) |               |               |              |               |               |
|                               | COOLING METHOD                       | Convection/Forced air                                                                                    |               |               |              |               |               |

\*1 Single output +10V, +24V, +30V with no use of COM.

\*2 Rated input 12V, 24V or 48V DC Io=100%

\*3 Symmetrical loading from 5% to 100%.

\*4 Symmetrical loading from 20% to 100%.

\*5 Refer to the instruction manual 7.

\*6 Measured by 100MHz oscilloscope or Ripple-Noise meter (Equivalent to KIKUSUI-GIKEN: RM103).

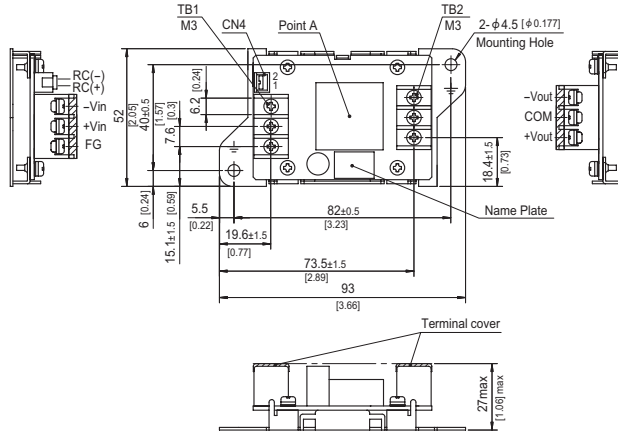
\*7 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25°C.

\*8 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25°C. Parallel operation with other model is not possible.

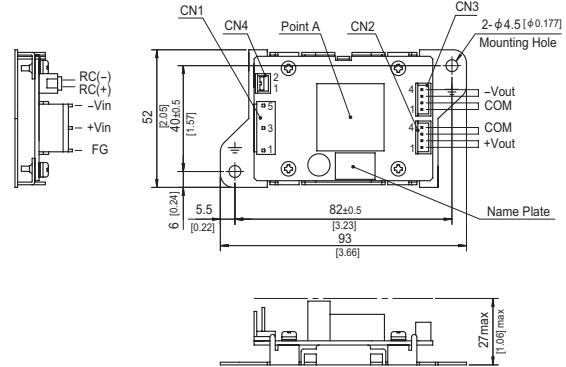
## External view

### Standard type

\* External view of option G, R are the same as standard model.

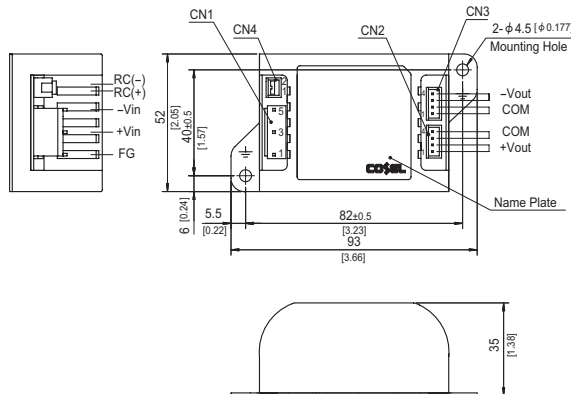


### Connector type (-J)

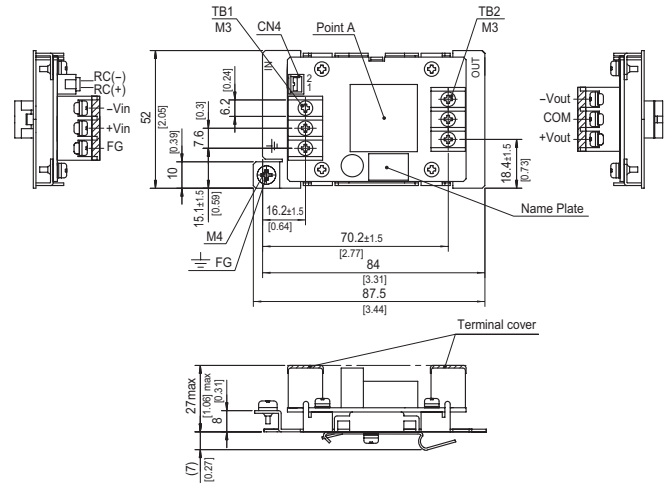


### Case cover and connector type (-JN1)

\* The specifications of terminal block and Case cover type can not be set.



### DIN rail installation type (-N2)



|                       | I/O Connector |         | Mating Connector | Terminal                                       |
|-----------------------|---------------|---------|------------------|------------------------------------------------|
| Connector Type Input  | CN1           | B3P5-VH | VHR-5N           | Chain : SVH-21T-P1.1<br>Loose : BVH-21T-P1.1   |
| Connector Type Output | CN2, CN3      | B4B-XH  | XHP-4            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |
| Remote ON/OFF         | CN4           | B2B-XH  | XHP-2            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |

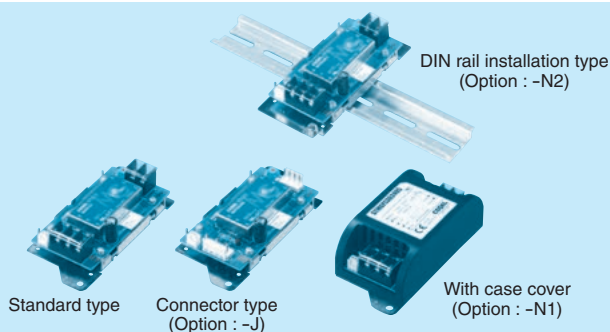
(Mfr.:J.S.T.)

- \* Tolerance  $\pm 1$  [ $\pm 0.04$ ]
- \* Dimensions in mm, [ ]=inches
- \* Weight : Standard & Connector type 110g max  
Case cover & DIN rail installation type 120g max
- \* PCB material / thickness : FR-4 / 1.6mm
- \* Mounting plate : Iron (surface finishing : nickel plating) / t=1.0mm
- \* Case : PBT
- \* Terminal block screw tightning torque M3 : 0.8N · m max
- \* CN4 has been installed jumper as factory setting (Except option R).  
When remoto ON/OFF is used , please remove the installed jumper.
- \* Connector Type : Keep drawing current per pin below 2.5A for CN2,CN3.

# STMGFS30

STMGF S 30 24 05 -□

① ② ③ ④ ⑤ ⑥



- ① Series name
  - ② Single output
  - ③ Output wattage
  - ④ Input voltage
  - ⑤ Output voltage
  - ⑥ Optional
  - G : Capacitor between Input and Output is removed.
  - R : with Remote ON/OFF (Positive logic control)
  - J : Input/Output Connector
  - N1 : With case cover
  - N2 : With DIN rail installation type
  - N3 : With cover(plastic) and DIN rail installation type
  - V : Output voltage setting potentiometer externally
- \*When the option is set specifications may vary.

\*Please remove short piece on CN4 to enable remote ON/OFF function.

| MODEL                 | STMGFS30243R3 | STMGFS302405 | STMGFS302412 | STMGFS302415 |
|-----------------------|---------------|--------------|--------------|--------------|
| MAX OUTPUT WATTAGE[W] | 24.75         | 30           | 30           | 30           |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3          | 5            | 12           |
|                       | CURRENT[A]    | 7.5          | 6            | 2.5          |

## SPECIFICATIONS

|                               | MODEL                           | STMGFS30243R3                                        | STMGFS302405 | STMGFS302412  | STMGFS302415  |
|-------------------------------|---------------------------------|------------------------------------------------------|--------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC9 - 36                                             |              |               |               |
|                               | CURRENT[A] *2                   | 1.16typ                                              | 1.39typ      | 1.40typ       | 1.40typ       |
|                               | EFFICIENCY[%] *2                | 89typ                                                | 90typ        | 89typ         | 89typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5            | 12            | 15            |
|                               | CURRENT[A]                      | 7.5                                                  | 6            | 2.5           | 2             |
|                               | LINE REGULATION[mV]             | 13.2max                                              | 20max        | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 60max                                                | 60max        | 100max        | 120max        |
|                               | RIPPLE[mVp-p] *3                | 0 to +60°C                                           | 75max        | 75max         | 100max        |
|                               |                                 | -20 to +60°C                                         | 100max       | 100max        | 120max        |
|                               | RIPPLE NOISE[mVp-p] *3          | 0 to +60°C                                           | 120max       | 120max        | 150max        |
|                               |                                 | -20 to +60°C                                         | 200max       | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | 0 to +60°C                                           | 50max        | 50max         | 150max        |
|                               |                                 | -20 to +60°C                                         | 80max        | 80max         | 240max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max        | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 30max (Minimum input, I <sub>o</sub> =100%)          |              |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | 2.97 - 3.63                                          | 4.50 - 5.50  | 10.80 - 13.20 | 13.50 - 16.50 |
|                               | OUTPUT VOLTAGE SETTING[V] *5    | 3.29 - 3.41                                          | 4.97 - 5.14  | 11.85 - 12.25 | 14.83 - 15.33 |
|                               | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |              |               |               |
| PROTECTION CIRCUIT AND OTHERS | OVERVOLTAGE PROTECTION[V]       | Works over 120 to 160% of rating                     |              |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                |              |               |               |

| MODEL                 | STMGFS30483R3 | STMGFS304805 | STMGFS304812 | STMGFS304815 |
|-----------------------|---------------|--------------|--------------|--------------|
| MAX OUTPUT WATTAGE[W] | 24.75         | 30           | 30           | 30           |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3          | 5            | 12           |
|                       | CURRENT[A]    | 7.5          | 6            | 2.5          |

## SPECIFICATIONS

|                               | MODEL                           | STMGFS30483R3                                        | STMGFS304805 | STMGFS304812  | STMGFS304815  |
|-------------------------------|---------------------------------|------------------------------------------------------|--------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC18 - 76                                            |              |               |               |
|                               | CURRENT[A] *2                   | 0.58typ                                              | 0.70typ      | 0.70typ       | 0.70typ       |
|                               | EFFICIENCY[%] *2                | 89typ                                                | 90typ        | 89typ         | 89typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5            | 12            | 15            |
|                               | CURRENT[A]                      | 7.5                                                  | 6            | 2.5           | 2             |
|                               | LINE REGULATION[mV]             | 13.2max                                              | 20max        | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 60max                                                | 60max        | 100max        | 120max        |
|                               | RIPPLE[mVp-p] *3                | 0 to +60°C                                           | 75max        | 75max         | 100max        |
|                               |                                 | -20 to +60°C                                         | 100max       | 100max        | 120max        |
|                               | RIPPLE NOISE[mVp-p] *3          | 0 to +60°C                                           | 120max       | 120max        | 150max        |
|                               |                                 | -20 to +60°C                                         | 200max       | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | 0 to +60°C                                           | 50max        | 50max         | 150max        |
|                               |                                 | -20 to +60°C                                         | 80max        | 80max         | 240max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max        | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 30max (Minimum input, I <sub>o</sub> =100%)          |              |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | 2.97 - 3.63                                          | 4.50 - 5.50  | 10.80 - 13.20 | 13.50 - 16.50 |
|                               | OUTPUT VOLTAGE SETTING[V] *5    | 3.29 - 3.41                                          | 4.97 - 5.14  | 11.85 - 12.25 | 14.83 - 15.33 |
|                               | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |              |               |               |
| PROTECTION CIRCUIT AND OTHERS | OVERVOLTAGE PROTECTION[V]       | Works over 120 to 160% of rating                     |              |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                |              |               |               |

## GENERAL SPECIFICATIONS

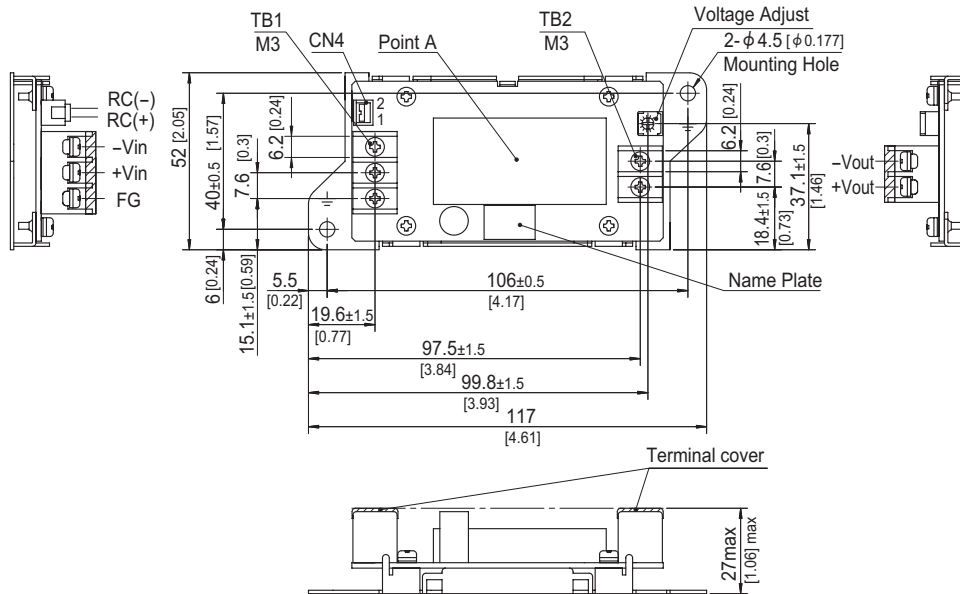
|             |                                      |                                                                                                            |
|-------------|--------------------------------------|------------------------------------------------------------------------------------------------------------|
| ISOLATION   | INPUT · RC-OUTPUT                    | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)                                       |
|             | INPUT · RC-FG                        | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)                                       |
|             | OUTPUT-FG                            | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)                                       |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -20 to +70℃, 20 to 95%RH (Non condensing) (Refer to "Derating"), 3,000m (10,000feet) max                   |
|             | STORAGE TEMP., HUMID. AND ALTITUDE   | -20 to +75℃, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max                                         |
|             | VIBRATION                            | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis                |
|             | IMPACT                               | 196.1m/s <sup>2</sup> (20G), 11ms, once each along X, Y and Z axis                                         |
| SAFETY      | AGENCY APPROVALS                     | UL60950-1, C-UL, EN62368-1 Complies                                                                        |
| OTHERS      | CASE SIZE/WEIGHT                     | 52×27×117mm [2.05×1.06×4.61 inches] (W×H×D) / 140g max (When the option is set, refer to the page STMG-10) |
|             | COOLING METHOD                       | Convection/Forced air                                                                                      |

- \*1 STMGFW30xx05/STMGFW30xx12/STMGFW30xx15 is available as single output, +10V/+24V/+30V
- \*2 Rated input 12V, 24V or 48V DC Io=100%
- \*3 Measured by 100MHz oscilloscope or Ripple-Noise meter (Equivalent to KIKUSUI-GIKEN : RM103).
- \*4 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25℃.
- \*5 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25℃.
- \* Parallel operation with other model is not possible.

## External view

### Standard type

\* External view of option G, R are the same as standard model.  
External view of other type options, please refer to the page STMG-10.



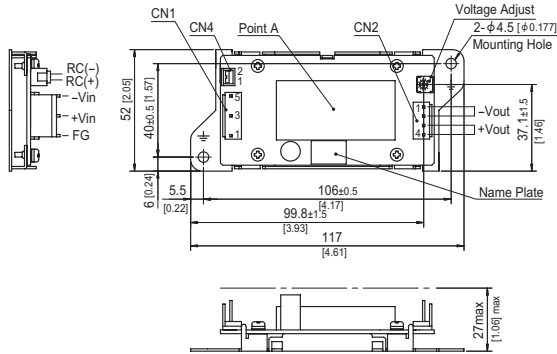
|               | I/O Connector |        | Mating Connector | Terminal                                       |
|---------------|---------------|--------|------------------|------------------------------------------------|
| Remote ON/OFF | CN4           | B2B-XH | XHP-2            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |

(Mfr.: J.S.T.)

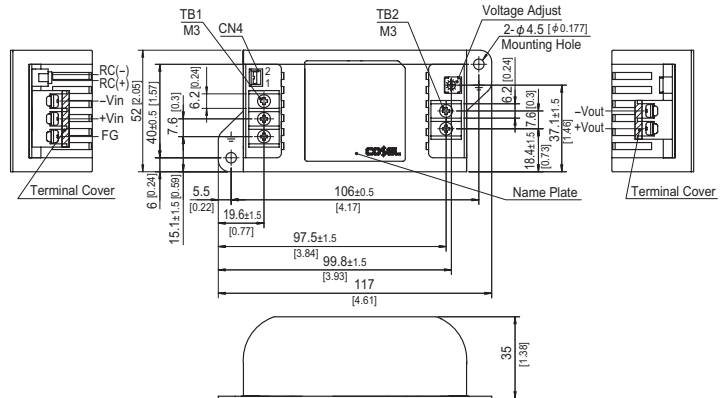
- \* Tolerance ±1 [±0.04]
- \* Dimensions in mm, [ ]=inches
- \* Weight : 140g max
- \* PCB material / thickness : FR-4 / 1.6mm
- \* Mounting plate : Iron (surface finishing : nickel plating) / t=1.0mm
- \* Terminal block screw tightening torque M3 : 0.8N · m max
- \* CN4 has been installed jumper as factory setting (Except option R).  
When remote ON/OFF is used , please remove the installed jumper.

## External view (Option type)

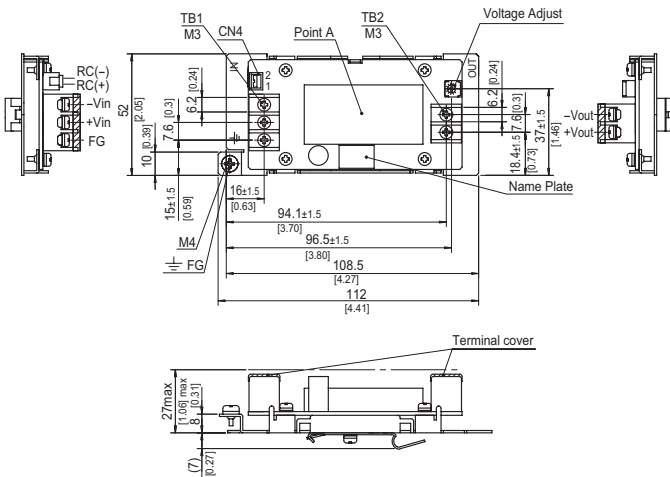
### Connector type (-J)



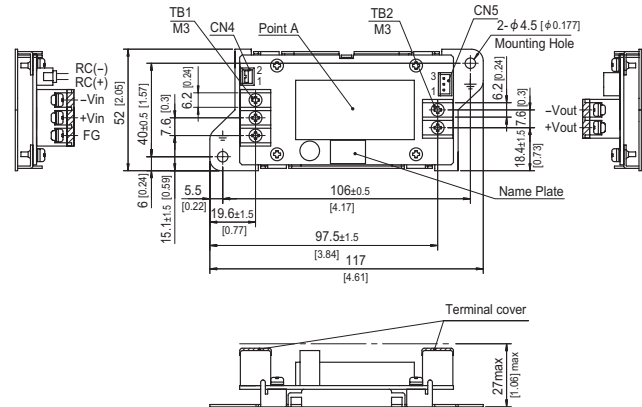
### Case cover type (-N1)



### DIN rail installation type (-N2)



### External voltage variable volume type (-V)



|                                       | I/O Connector |         | Mating Connector | Terminal                                       |
|---------------------------------------|---------------|---------|------------------|------------------------------------------------|
| Connector Type Input                  | CN1           | B3P5-VH | VHR-5N           | Chain : SVH-21T-P1.1<br>Loose : BVH-21T-P1.1   |
| Connector Type Output                 | CN2           | B4P-VH  | VHR-4N           | Chain : SVH-21T-P1.1<br>Loose : BVH-21T-P1.1   |
| Remote ON/OFF                         | CN4           | B2B-XH  | XHP-2            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |
| External voltage variable volume type | CN5           | B3B-XH  | XHP-3            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |

(Mfr.:J.S.T.)

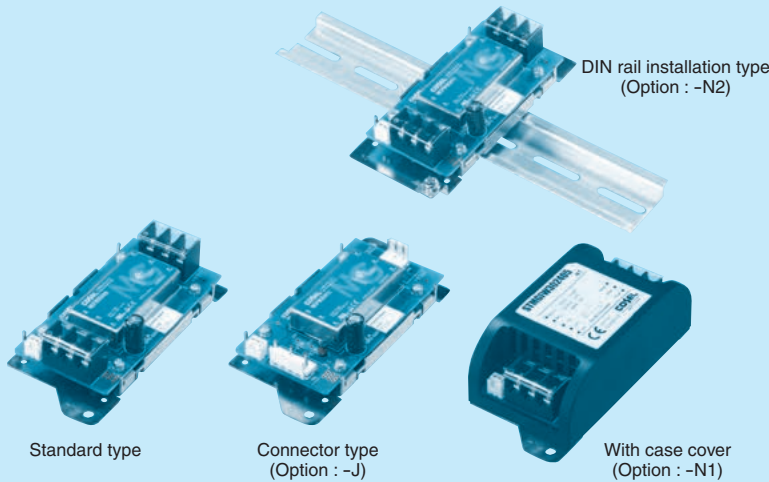
- \* Tolerance ±1 [±0.04]
- \* Dimensions in mm, [ ]=inches
- \* Weight : Standard & Connector type 140g max  
Case cover & DIN rail installation type 160g max
- \* PCB material / thickness : FR-4 / 1.6mm
- \* Mounting plate : Iron (surface finishing : nickel plating) / t=1.0mm
- \* Case : PBT
- \* Terminal block screw tightening torque M3 : 0.8N · m max
- \* CN4 has been installed jumper as factory setting (Except option R).
- When remote ON/OFF is used, please remove the installed jumper.
- \* Connector Type : Keep drawing current per pin below 5A for CN2.



# STMGFW30

STMGF W 30 24 05 -□

① ② ③ ④ ⑤ ⑥



- ① Series name  
② Dual output  
③ Output wattage  
④ Input voltage  
⑤ Output voltage  
⑥ Optional  
G: Capacitor between Input and Output is removed.  
R: with Remote ON/OFF (Positive logic control)  
J: Input/Output Connector  
N1: With case cover  
N2: With DIN rail installation type  
N3: With cover(plastic) and DIN rail installation type

\*When the option is set specifications may vary.

\*Please remove short piece on CN4 to enable remote ON/OFF function.

| MODEL                 | STMGFW302405  | STMGFW302412 | STMGFW302415 | STMGFW304805 | STMGFW304812 | STMGFW304815 |
|-----------------------|---------------|--------------|--------------|--------------|--------------|--------------|
| MAX OUTPUT WATTAGE[W] | 20            | 30           | 30           | 20           | 30           | 30           |
| DC OUTPUT             | VOLTAGE[V] *1 | ±5 or +10    | ±12 or +24   | ±15 or +30   | ±5 or +10    | ±12 or +24   |
|                       | CURRENT[A]    | 2            | 1.25         | 1            | 2            | 1.25         |

## SPECIFICATIONS

|                               | MODEL                                | STMGFW302405                                                                                                           | STMGFW302412  | STMGFW302415  | STMGFW304805 | STMGFW304812  | STMGFW304815  |
|-------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------|---------------|--------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                           | DC9 - 36                                                                                                               |               |               | DC18 - 76    |               |               |
|                               | CURRENT[A] *2                        | 0.98typ                                                                                                                | 1.42typ       | 1.44typ       | 0.49typ      | 0.71typ       | 0.72typ       |
|                               | EFFICIENCY[%] *2                     | 85typ                                                                                                                  | 88typ         | 87typ         | 85typ        | 88typ         | 87typ         |
| OUTPUT                        | VOLTAGE[V]                           | ±5(+10)                                                                                                                | ±12(+24)      | ±15(+30)      | ±5(+10)      | ±12(+24)      | ±15(+30)      |
|                               | CURRENT[A]                           | 2                                                                                                                      | 1.25          | 1             | 2            | 1.25          | 1             |
|                               | LINE REGULATION[mV]                  | 40max                                                                                                                  | 60max         | 75max         | 40max        | 60max         | 75max         |
|                               | LOAD REGULATION[mV]                  | *3 500max *5                                                                                                           | 600max        | 750max        | 500max *5    | 600max        | 750max        |
|                               |                                      | *4 250max                                                                                                              | 480max        | 600max        | 250max       | 480max        | 600max        |
|                               | RIPPLE[mVp-p] *6                     | 0 to +60°C 100max                                                                                                      | 100max        | 100max        | 100max       | 100max        | 100max        |
|                               |                                      | -20 to +60°C 120max                                                                                                    | 120max        | 120max        | 120max       | 120max        | 120max        |
|                               | RIPPLE NOISE[mVp-p] *6               | 0 to +60°C 150max                                                                                                      | 150max        | 150max        | 150max       | 150max        | 150max        |
|                               |                                      | -20 to +60°C 200max                                                                                                    | 200max        | 200max        | 200max       | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]           | 0 to +60°C 50max                                                                                                       | 150max        | 180max        | 50max        | 150max        | 180max        |
|                               |                                      | -20 to +60°C 80max                                                                                                     | 240max        | 290max        | 80max        | 240max        | 290max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *7                         | 50max                                                                                                                  | 50max         | 60max         | 50max        | 50max         | 60max         |
|                               | START-UP TIME[ms]                    | 30max (Minimum input, Io=100%)                                                                                         |               |               |              |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] *8         | 4.93 - 5.24                                                                                                            | 11.76 - 12.50 | 14.60 - 15.51 | 4.93 - 5.24  | 11.76 - 12.50 | 14.60 - 15.51 |
| ISOLATION                     | OVERCURRENT PROTECTION               | Works over 105% of rating and recovers automatically                                                                   |               |               |              |               |               |
|                               | OVERVOLTAGE PROTECTION[V]            | Works over 120 to 160% of rating (Total of +V and -V)                                                                  |               |               |              |               |               |
|                               | REMOTE ON/OFF                        | Provided (Negative logic L:ON, H:OFF)                                                                                  |               |               |              |               |               |
| ENVIRONMENT                   | INPUT · RC-OUTPUT                    | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)                                                  |               |               |              |               |               |
|                               | INPUT · RC-FG                        | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)                                                  |               |               |              |               |               |
|                               | OUTPUT-FG                            | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)                                                  |               |               |              |               |               |
| SAFETY                        | OPERATING TEMP., HUMID. AND ALTITUDE | -20 to +70°C, 20 to 95%RH (Non condensing) (Refer to "Derating"), 3,000m (10,000feet) max                              |               |               |              |               |               |
|                               | STORAGE TEMP., HUMID. AND ALTITUDE   | -20 to +75°C, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max                                                    |               |               |              |               |               |
|                               | VIBRATION                            | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis                            |               |               |              |               |               |
|                               | IMPACT                               | 196.1m/s <sup>2</sup> (20G), 11ms, once each along X, Y and Z axis                                                     |               |               |              |               |               |
| OTHERS                        | AGENCY APPROVALS                     | UL60950-1, C-UL, EN62368-1 Complies                                                                                    |               |               |              |               |               |
|                               | CASE SIZE/WEIGHT                     | 52 X 27 X 117mm [2.05 X 1.06 X 4.61 inches] (W X H X D) / 140g max (When the option is set, refer to the page STMG-13) |               |               |              |               |               |
|                               | COOLING METHOD                       | Convection/Forced air                                                                                                  |               |               |              |               |               |

\*1 Single output +10V, +24V, +30V with no use of COM.

\*2 Rated input 12V, 24V or 48V DC Io=100%

\*3 Symmetrical loading from 5% to 100%.

\*4 Symmetrical loading from 20% to 100%.

\*5 Refer to the instruction manual 7.

\*6 Measured by 100MHz oscilloscope or Ripple-Noise meter (Equivalent to KIKUSUI-GIKEN : RM103).

\*7 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25°C.

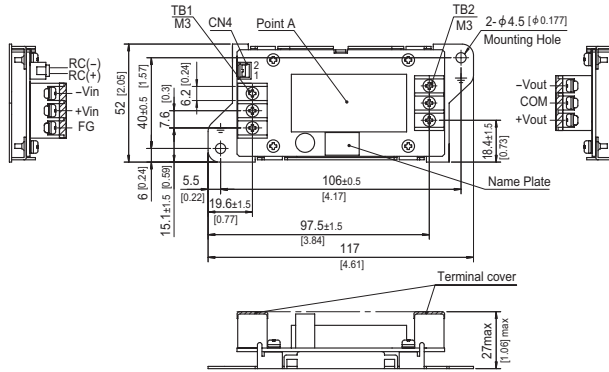
\*8 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25°C.

\* Parallel operation with other model is not possible.

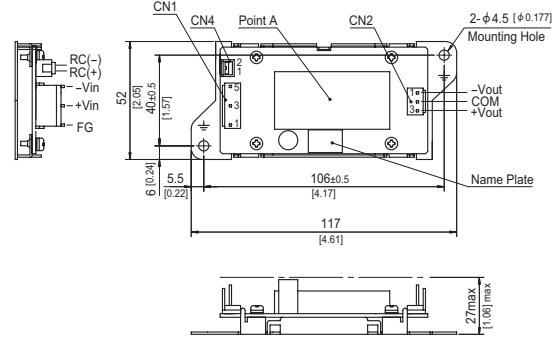
## External view

### Standard type

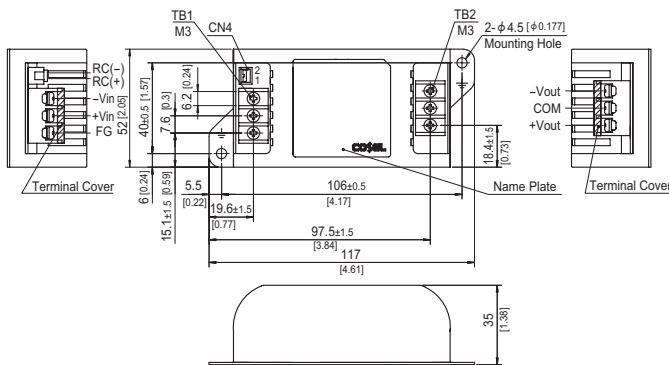
\* External view of option G, R are the same as standard model.



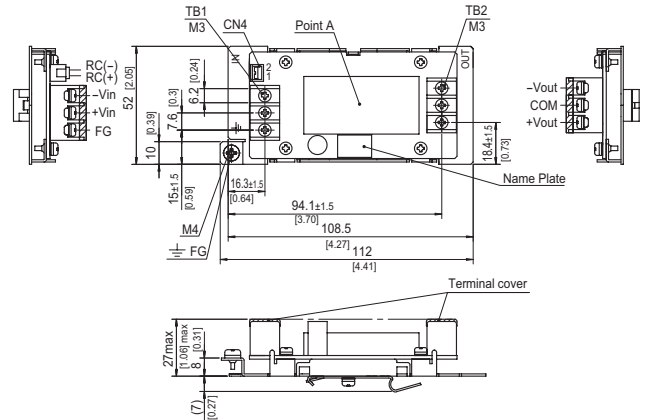
### Connector type (-J)



### Case cover type (-N1)



### DIN rail installation type (-N2)



|                       | I/O Connector |         | Mating Connector | Terminal                                       |
|-----------------------|---------------|---------|------------------|------------------------------------------------|
| Connector Type Input  | CN1           | B3P5-VH | VHR-5N           | Chain : SVH-21T-P1.1<br>Loose : BVH-21T-P1.1   |
| Connector Type Output | CN2           | B3P-VH  | VHR-3N           | Chain : SVH-21T-P1.1<br>Loose : BVH-21T-P1.1   |
| Remote ON/OFF         | CN4           | B2B-XH  | XHP-2            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |

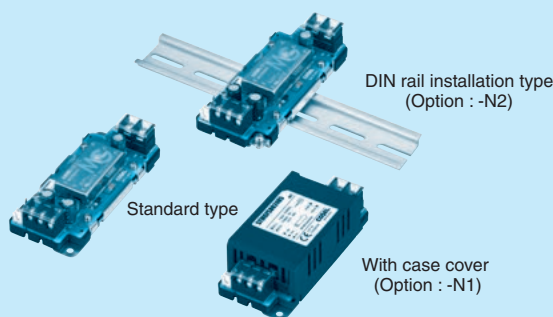
(Mfr.:J.S.T.)

- \* Tolerance  $\pm 1$  [ $\pm 0.04$ ]
- \* Dimensions in mm, [ ]=inches
- \* Weight : Standard & Connector type 140g max  
Case cover & DIN rail installation type 160g max
- \* PCB material / thickness : FR-4 / 1.6mm
- \* Mounting plate : Iron (surface finishing : nickel plating) / t=1.0mm
- \* Case : PBT
- \* Terminal block screw tightening torque M3 : 0.8N · m max
- \* CN4 has been installed jumper as factory setting (Except option R).  
When remote ON/OFF is used, please remove the installed jumper.
- \* Connector Type : Keep drawing current per pin below 5A for CN2.

# STMGFS80

STMGF S 30 24 05 -□

① ② ③ ④ ⑤ ⑥



- ① Series name  
② Single output  
③ Output wattage  
④ Input voltage  
⑤ Output voltage  
⑥ Optional  
R : with Remote ON/OFF (Positive logic control)  
N1: With case cover  
N2: With DIN rail installation type  
N3: With cover (plastic) and DIN rail installation type

\*When the option is set specifications may vary.

\*Please remove short piece on CN3 to enable remote ON/OFF function.

| MODEL                 | STMGFS80243R3 | STMGFS802405 | STMGFS802412 | STMGFS802415 |
|-----------------------|---------------|--------------|--------------|--------------|
| MAX OUTPUT WATTAGE[W] | 59.4          | 80           | 80.4         | 81           |
| DC OUTPUT             | VOLTAGE[V]    | 3.3          | 5            | 12           |
|                       | CURRENT[A]    | 18           | 16           | 6.7          |

## SPECIFICATIONS

|                               | MODEL                           | STMGFS80243R3                                        | STMGFS802405 | STMGFS802412  | STMGFS802415  |
|-------------------------------|---------------------------------|------------------------------------------------------|--------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC9 - 36                                             |              |               |               |
|                               | CURRENT[A]                      | *1 2.75typ                                           | 3.70typ      | 3.64typ       | 3.67typ       |
|                               | EFFICIENCY[%]                   | *1 90typ                                             | 90typ        | 92typ         | 92typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5            | 12            | 15            |
|                               | CURRENT[A]                      | 18                                                   | 16           | 6.7           | 5.4           |
|                               | LINE REGULATION[mV]             | 13.2max                                              | 20max        | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 60max                                                | 60max        | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | 0 to +60°C                                           | 75max        | 75max         | 100max        |
|                               |                                 | -20 to +60°C                                         | 100max       | 100max        | 120max        |
|                               |                                 | Io=0 to 10%                                          | 200max       | 200max        | 240max        |
|                               | RIPPLE NOISE[mVp-p]             | 0 to +60°C                                           | 75max        | 75max         | 100max        |
|                               |                                 | -20 to +60°C                                         | 150max       | 150max        | 150max        |
|                               |                                 | Io=0 to 10%                                          | 250max       | 270max        | 270max        |
|                               | TEMPERATURE REGULATION[mV]      | 0 to +60°C                                           | 50max        | 150max        | 180max        |
|                               |                                 | -20 to +60°C                                         | 80max        | 240max        | 290max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV]                       | *3 20max                                             | 20max        | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 30max (Minimum input, Rated load)                    |              |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | 2.97 - 3.63                                          | 4.50 - 5.50  | 10.80 - 13.20 | 13.50 - 16.50 |
|                               | OUTPUT VOLTAGE SETTING[V]*4     | 3.29 - 3.41                                          | 4.97 - 5.14  | 11.85 - 12.25 | 14.83 - 15.33 |
|                               | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |              |               |               |
|                               | OVERVOLTAGE PROTECTION          | Works over 115 to 140% of rating                     |              |               |               |
| PROTECTION CIRCUIT AND OTHERS | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                |              |               |               |

| MODEL                 | STMGFS80483R3 | STMGFS804805 | STMGFS804812 | STMGFS804815 |
|-----------------------|---------------|--------------|--------------|--------------|
| MAX OUTPUT WATTAGE[W] | 59.4          | 80           | 80.4         | 81           |
| DC OUTPUT             | VOLTAGE[V]    | 3.3          | 5            | 12           |
|                       | CURRENT[A]    | 18           | 16           | 6.7          |

## SPECIFICATIONS

|                               | MODEL                           | STMGFS80483R3                                        | STMGFS804805 | STMGFS804812  | STMGFS804815  |
|-------------------------------|---------------------------------|------------------------------------------------------|--------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC18 - 76                                            |              |               |               |
|                               | CURRENT[A]                      | *1 1.38typ                                           | 1.85typ      | 1.82typ       | 1.83typ       |
|                               | EFFICIENCY[%]                   | *1 90typ                                             | 90typ        | 92typ         | 92typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5            | 12            | 15            |
|                               | CURRENT[A]                      | 18                                                   | 16           | 6.7           | 5.4           |
|                               | LINE REGULATION[mV]             | 13.2max                                              | 20max        | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 60max                                                | 60max        | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | 0 to +60°C                                           | 75max        | 75max         | 100max        |
|                               |                                 | -20 to +60°C                                         | 100max       | 100max        | 120max        |
|                               |                                 | Io=0 to 10%                                          | 200max       | 200max        | 240max        |
|                               | RIPPLE NOISE[mVp-p]             | 0 to +60°C                                           | 75max        | 75max         | 100max        |
|                               |                                 | -20 to +60°C                                         | 150max       | 150max        | 150max        |
|                               |                                 | Io=0 to 10%                                          | 250max       | 270max        | 270max        |
|                               | TEMPERATURE REGULATION[mV]      | 0 to +60°C                                           | 50max        | 150max        | 180max        |
|                               |                                 | -20 to +60°C                                         | 80max        | 240max        | 290max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV]                       | *3 20max                                             | 20max        | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 30max (Minimum input, Rated load)                    |              |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | 2.97 - 3.63                                          | 4.50 - 5.50  | 10.80 - 13.20 | 13.50 - 16.50 |
|                               | OUTPUT VOLTAGE SETTING[V]*4     | 3.29 - 3.41                                          | 4.97 - 5.14  | 11.85 - 12.25 | 14.83 - 15.33 |
|                               | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |              |               |               |
|                               | OVERVOLTAGE PROTECTION          | Works over 115 to 140% of rating                     |              |               |               |
| PROTECTION CIRCUIT AND OTHERS | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                |              |               |               |

## GENERAL SPECIFICATIONS

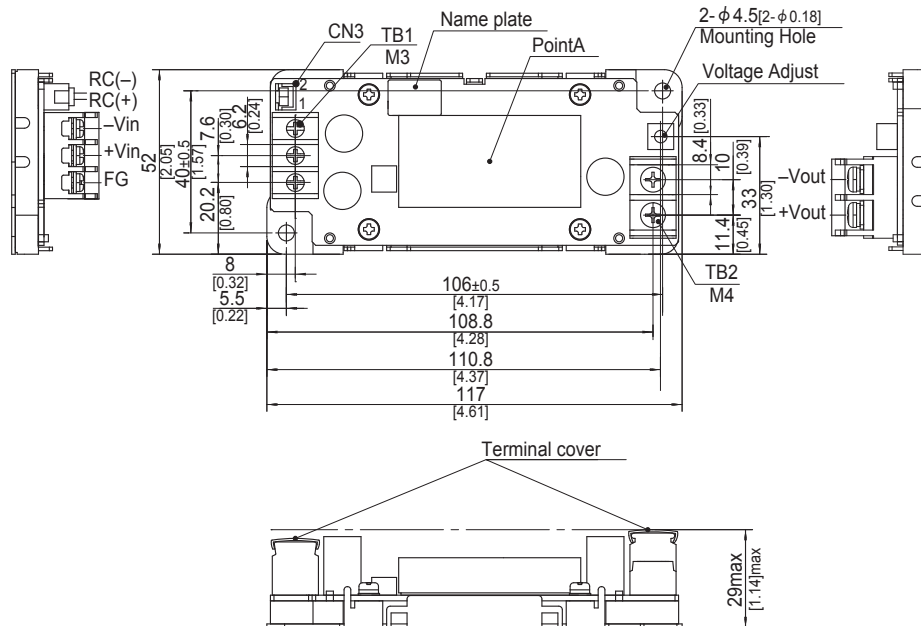
|             |                                      |                                                                                             |
|-------------|--------------------------------------|---------------------------------------------------------------------------------------------|
| ISOLATION   | INPUT · RC-OUTPUT                    | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)                        |
|             | INPUT · RC-FG                        | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)                        |
|             | OUTPUT-FG                            | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)                        |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -20 to +70℃, 20 to 95%RH (Non condensing) (Refer to "Derating"), 3,000m (10,000feet) max    |
|             | STORAGE TEMP., HUMID. AND ALTITUDE   | -20 to +75℃, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max                          |
|             | VIBRATION                            | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis |
| SAFETY      | IMPACT                               | 196.1m/s <sup>2</sup> (20G), 11ms, once each along X, Y and Z axis                          |
|             | AGENCY APPROVALS                     | UL62368-1, C-UL(CSA62368-1), EN62368-1 Complies                                             |
| OTHERS      | CASE SIZE/WEIGHT                     | 52×29×117mm [2.05×1.14×4.61 inches] (W×H×D) / 170g max                                      |
|             | COOLING METHOD                       | Convection/Forced air                                                                       |

- \*1 Rated input 12V, 24V or 48V DC Io=100%
- \*2 Measured by 100MHz oscilloscope or Ripple-Noise meter (Equivalent to KIKUSUI-GIKEN : RM103).
- \*3 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25℃.
- \*4 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25℃.
- \* Parallel operation with other model is not possible.

## External view

### Standard type

- \* External view of option R is the same as standard model.
- External view of other type options, please refer to the page STMG-16.



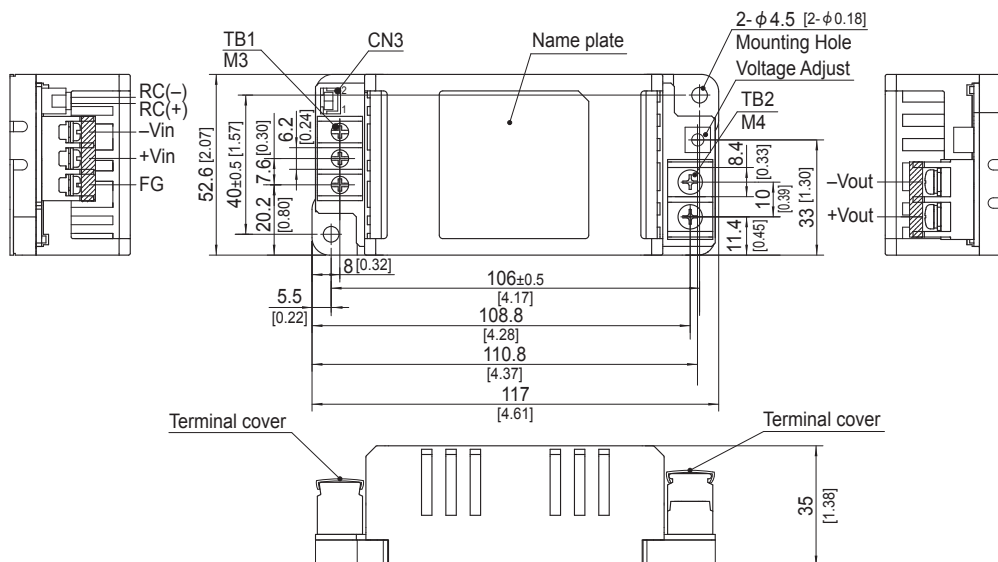
|               | I/O Connector |        | Mating Connector | Terminal                                       |
|---------------|---------------|--------|------------------|------------------------------------------------|
| Remote ON/OFF | CN3           | B2B-XH | XHP-2            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |

(Mfr.: J.S.T.)

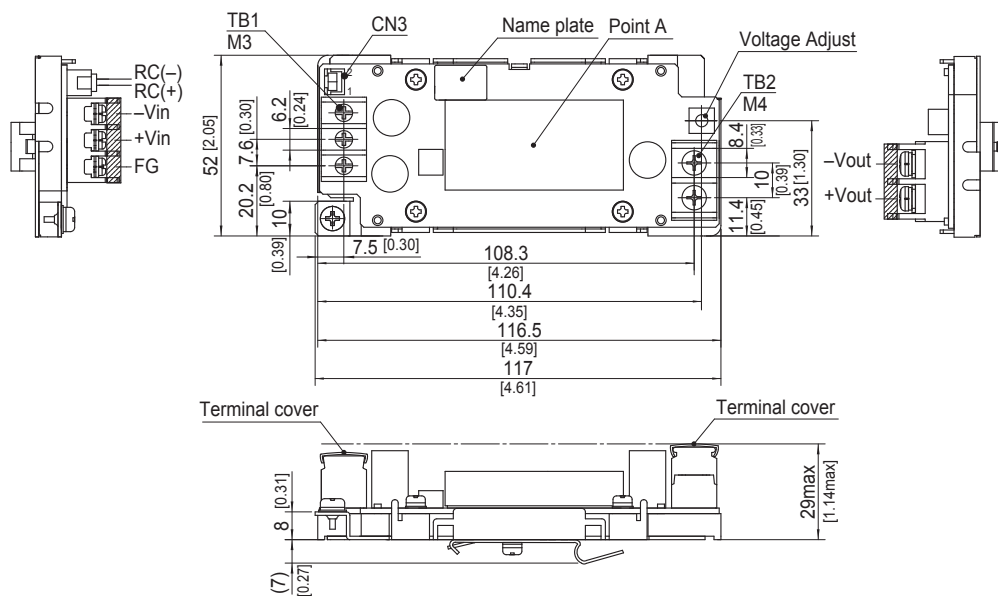
- \* Tolerance ±1 [±0.04]
- \* Dimensions in mm, [ ]=inches
- \* Weight : 170g max
- \* PCB material / thickness : FR-4 / 1.6mm
- \* Mounting plate : Iron (surface finishing : nickel plating) / t=1.0mm
- \* Terminal block tightening torque M3 : 0.8N · m max  
M4 : 1.6N · m max
- \* CN3 has been installed jumper as factory setting (Except option R).
- When remote ON/OFF is used , please remove the installed jumper.

External view (Option type)

Case cover type (-N1)



DIN rail installation type (-N2)



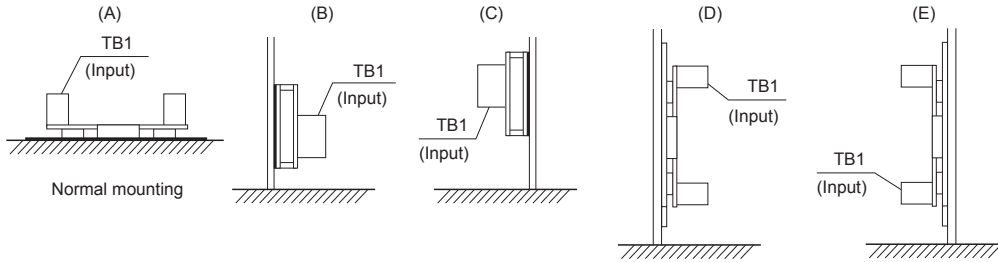
|               | I/O Connector |        | Mating Connector | Terminal                                       |
|---------------|---------------|--------|------------------|------------------------------------------------|
| Remote ON/OFF | CN3           | B2B-XH | XHP-2            | Chain : SXH-001T-P0.6<br>Loose : BXH-001T-P0.6 |

(Mfr.:J.S.T.)

- \* Tolerance  $\pm 1$  [ $\pm 0.04$ ]
- \* Dimensions in mm, [ ]=inches
- \* Weight : Case cover type 210g max  
DIN rail installation type 200g max
- \* PCB Material / thickness FR-4 /  $t=1.6$ mm
- \* Mounting plate : Iron (surface finishing: nickel plating) /  $t=1.0$ mm
- \* Case : PBT
- \* Terminal block screw tightening torque  
M3 : 0.8N · m max  
M4 : 1.6N · m max
- \* CN3 has been installed jumper as factory setting (Except option R)  
When remote ON/OFF is used, please remove the installed jumper.

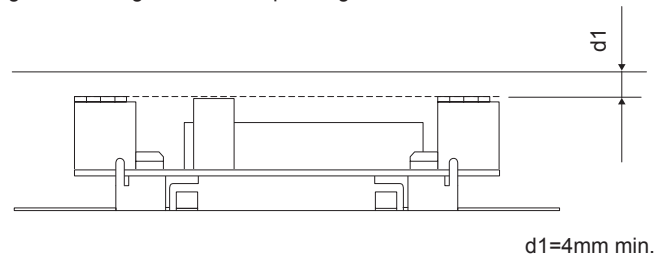
## Assembling and Installation Method

### Installation



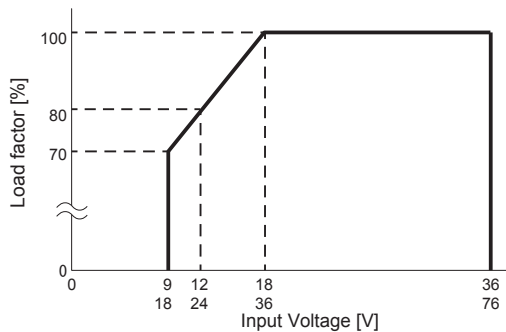
- Derating curve varies depending on the mounting direction. Refer to "Derating"
- Please note that a power supply and chassis will become hot depending on mounting direction or operating condition.

- In case of metal chassis, keep the distance between  $d1$  for to insulate between lead of component and metal chassis. If it is less than  $d1$ , insert the insulation sheet between power supply and metal chassis.



### Derating

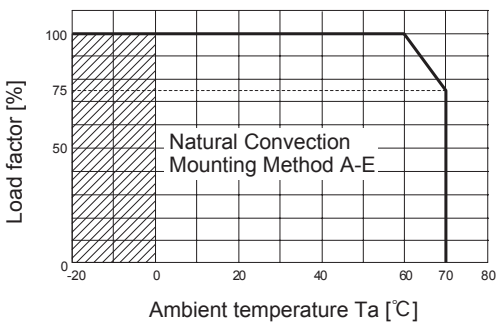
#### ● STMGFS80 Derating curve for input voltage



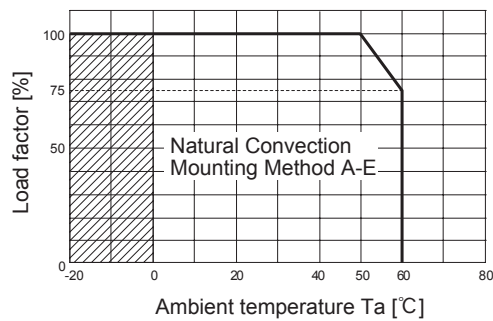
#### ● STMGFS15/STMGFW15 Ambient temperature derating curve

- Specifications for ripple and ripple noise change in the shaded area.

- In the case of Convection Cooling



(1) Standard type (No Case cover type)

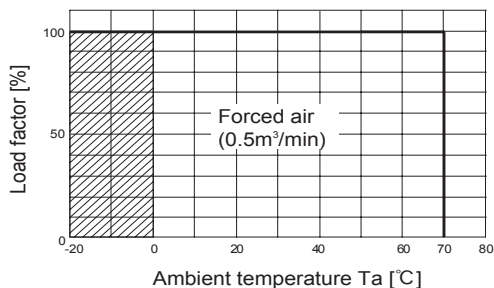


(2) Case cover type

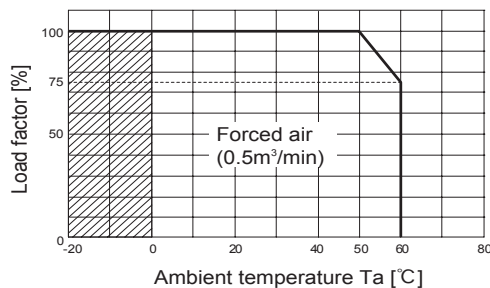
## Derating

### ■ In the case of Forced Air Cooling

In case of forced air cooling, please have sufficient ventilation to keep the temperature of point A in Instruction Manual5 at 105°C or below. Please also make sure that the ambient temperature does not exceed the range shown in below.



(1) Standard type (No Case cover type)

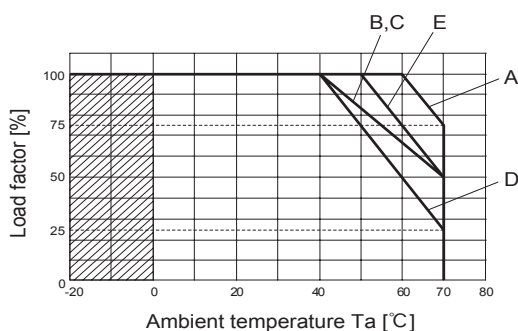


(2) Case cover type

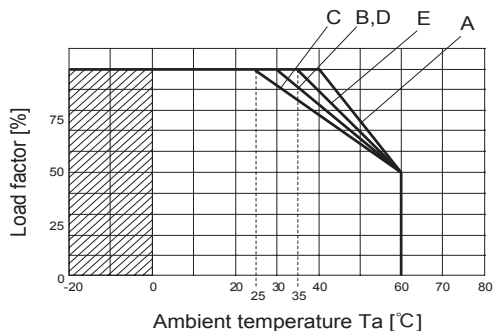
## ● STMGFS30/STMGFW30 Ambient temperature derating curve

■ Specifications for ripple and ripple noise change in the shaded area.

### ■ In the case of Convection Cooling



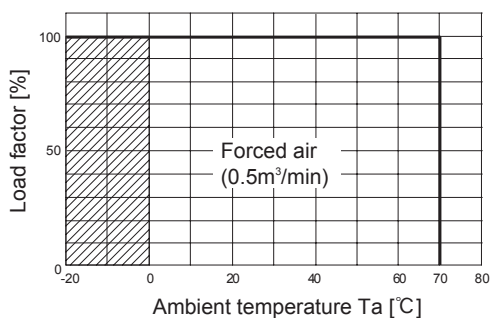
(1) Standard type (No Case cover type)



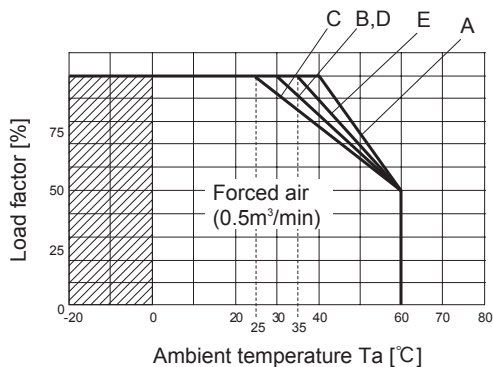
(2) Case cover type

### ■ In the case of Forced Air Cooling

In case of forced air cooling, please have sufficient ventilation to keep the temperature of point A in Instruction Manual5 at 105°C or below. Please also make sure that the ambient temperature does not exceed the range shown in below.



(1) Standard type (No Case cover type)



(2) Case cover type

## Derating

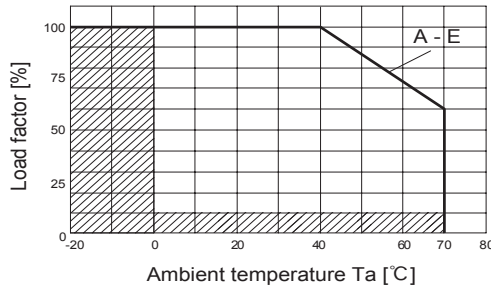
### ● STMGFS80 Ambient temperature derating curve (Reference value)

■ Specifications for ripple and ripple noise change in the shaded area.

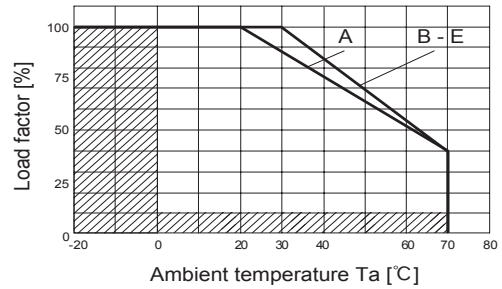
■ In the case of Convection Cooling

When using the product, make sure that the temperature at point A is below the temperature shown in the instruction manual 5.

Please also make sure that the ambient temperature does not exceed 70°C.



(1) Standard type (No Case cover type)



(2) Case cover type

## Instruction Manual

◆ It is necessary to read the “Instruction Manual” and “Before using our product” before you use our product.

Instruction Manual <https://www.cosel.co.jp/redirect/catalog/en/STMGFS/>  
 Instruction Manual <https://www.cosel.co.jp/redirect/catalog/en/STMGFW/>  
 Before using our product <https://en.cosel.co.jp/technical/caution/index.html>

STMGFS



STMGFW



NOTICE



## Basic Characteristics Data

| Model    | Circuit method    | Switching frequency [kHz] (reference) | Input current [A] | Inrush current protection | PCB/Pattern*4                 |              |              | Series/Parallel operation availability |                    |
|----------|-------------------|---------------------------------------|-------------------|---------------------------|-------------------------------|--------------|--------------|----------------------------------------|--------------------|
|          |                   |                                       |                   |                           | Material                      | Single sided | Double sided | Series operation                       | Parallel operation |
| STMGF15  | Flyback converter | 445-495                               | *1                | -                         | glass fabric base,epoxy resin |              | Yes          | Yes                                    | *2                 |
| STMGF30  | Forward converter | 380-460                               | *1                | -                         | glass fabric base,epoxy resin |              | Yes          | Yes                                    | *2                 |
| STMGFS80 | Flyback converter | 100-1500*3                            | *1                | -                         | glass fabric base,epoxy resin |              | Yes          | Yes                                    | *2                 |

\*1 Refer to Specification.

\*2 Refer to Instruction Manual.

\*3 The value changes depending on input and load.

\*4 MG series with the power supply unit, please refer to the basic characteristics of the MG series data.

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[STMGFW304815-J](#) [STMGFS15243R3-R](#) [STMGFS304805-V](#) [STMGFW302415-J](#) [STMGFS302405-V](#)  
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