

Product Specifications

DLP™ LED Display Cube



Combination model name:

Model: 60XEF74

Information in this document is subject to change without notice.

**Mitsubishi Electric Corporation
Kyoto Works**

Date: December 20, 2013

60XEF74 models Specifications

(1) Combination model name

| Combination model name | Unit model name | | | Features |
|------------------------|-----------------|-----------|-----------|--|
| | Engine | Cabinet | Screen | |
| 60XEF74U | VS-XE74U | S-6070CAF | SC-6075UF | Redundant LED light source Front maintenance Black stripe screen |
| 60XEF74L | VS-XE74U | S-6070CAF | SC-6075LF | Redundant LED light source Front maintenance Fine cross screen |
| 60XEF74B | VS-XE74U | S-6070CAF | SC-6070BF | Redundant LED light source Front maintenance Black bead screen |

(2) Image panel and light source

| | |
|-------------------------------|---|
| Type | DLP™ technology (0.7" DLP™ 1 chip) DarkChip3™, BrilliantColor™ |
| Resolution | 1024 x 768 pixels |
| Light source | Redundant LED (RGB) |
| Light source average lifetime | 100,000hours @ ADV.ECO mode 80,000hours @ Other modes |

DLP and Digital Light Processing are trademarks of Texas Instruments.

(3) Electric specification

| | | | |
|--|---------|--|----------------------|
| Power consumption Thermal dissipation (with 1 input board typ.) | Mode | Power consumption | Thermal dissipation |
| | BRIGHT | 174W | 150kcal/h (594BTU/h) |
| | NORMAL | 127W | 109kcal/h (434BTU/h) |
| | ECO | 102W | 88kcal/h (346BTU/h) |
| | ADV.ECO | 79W | 68kcal/h (270BTU/h) |
| Voltage range | | AC 100 – 240V +/-10% , 50/ 60Hz +/-1Hz | |
| Operating current (100/240V) | | 2.6/1.3 Amp. | |
| Inrush current (100/240V) | | 30/60 Amp. | |
| Control signal input | | RS-232C: D-Sub 9 pins | |
| | | LAN: RJ45 x1 (10BASE-T/100BASE-TX) | |
| | | D-Sub 9 pins x 2 (input, output) Mitsubishi original control link | |
| | | Wire remote: F3.5Jack | |
| | | IR Receiver | |
| Input board slot | | Input board slot for optional input board x 3 | |
| Input signal specification | | Refer to (10) Optional input board specification | |
| Overlay function | | Up to 6 windows per each screen. | |

(4) Optical specification (Typical value)

| | | | | |
|--|--------------|---|---|---|
| Screen model name | | SC-6075UF | SC-6075LF | SC-6070BF |
| Brightness | BRIGHT mode | 590cd/m ² | 300cd/m ² | 140cd/m ² |
| | NORMAL mode | 450cd/m ² | 230cd/m ² | 110cd/m ² |
| | ECO mode | 330cd/m ² | 160cd/m ² | 80cd/m ² |
| | ADV.ECO mode | 90cd/m ² | 50cd/m ² | 20cd/m ² |
| Viewing angle | Horizontal | 1/2 gain: +/- 35° 1/10 gain: +/- 57° | 1/2 gain: +/- 35° 1/10 gain: +/- 57° | 1/2 gain: +/- 35° 1/10 gain: +/- 75° |
| | Vertical | 1/2 gain +/- 10° 1/10 gain: +/- 28° | 1/2 gain +/- 33° 1/10 gain: +/- 55° | 1/2 gain +/- 35° 1/10 gain: +/- 75° |
| Screen size | | 60" Diagonal size (1217.5mm x 912.8mm) | | |
| Light output | | 600ANSI Lumen @BRIGHT mode | | |
| Contrast ratio | | 1700:1 | | |
| Brightness uniformity | | 95% at 90% image height | | |
| Geometry distortion | | 0.2% | | |
| Mullion size (*) | | 1.0mm – 2.5mm | | |
| Lateral color shift Red – Green Blue – Green | | 0.5pixel | | |

(*) Depending on configuration and environment.

2.5mm recommended for large walls to allow for expansion due to heat and humidity.

(5) Mechanical specification (Approximate value)

| | | | | |
|--------------------|--------|--|----------------|----------------|
| Dimensions | Width | 1220mm / 48.0" | | |
| | Height | 1197.3mm / 47.1" | | |
| | Depth | 769mm / 30.3" | | |
| Weight | | 97kg / 214lbs | | |
| Audio noise | | 33dBA (typ.) (at 1m distance from screen center) | | |
| Packing dimensions | | Engine unit | Cabinet unit | Screen unit |
| | Width | 910mm / 35.8" | 1308mm / 51.5" | 1370mm / 53.9" |
| | Height | 500mm / 19.7" | 1377mm / 54.2" | 1090mm / 42.9" |
| | Depth | 530mm / 20.9" | 805mm / 31.7" | 180mm / 7.1" |
| Packing Weight | | 37kg / 82lbs | 69kg / 152lbs | 24kg / 53lbs |
| Accessories | | Engine unit: User's manual, Control cable Cabinet unit: User's manual Parts for connecting cubes Brackets for engine fixation Bolts for engine fixation, Joint hole seal | | |

(6) Environment

| | |
|--|--|
| Temperature and humidity Condition at operation | 10°C – 30°C (50°F – 86°F), 20% – 80% non condensing |
| Temperature and humidity Condition at storage | -20°C – 50°C (-4°F – 122°F), 20% – 80% non condensing |

(7) Safety approval

| | |
|-----------------|--|
| Safety approval | UL60950-1, CSAC22.2No.60950-1, EN60950-1 K60950-1, AS/NZS60950.1, GB4943.1 |
| EMC | FCC part15 Subpart B Class A ICES-003 Issue No.5 Class A EN55022 Class A, EN55024 EN61000-3-2, EN61000-3-3 KN22 Class A, KN24 AS/NZS CISPR 22 Class A GB9254 Class A, GB17625.1 VCCI Class A, JIS C 61000-3-2 |

(8) Parts reliability (Average lifetime)

| | |
|-------------|--------------|
| Cooling fan | 100,000hours |
|-------------|--------------|

(9) Options

| | |
|--------------------------------|---------------------|
| Remote control unit | R-XL50TX / R-XL51TX |
| Analog RGB input board | VC-B70G2 |
| Digital RGB input board | VC-B70D2 |
| Video input board | VC-B70V2 |
| Daisy chain board | VC-B70DC |
| SDI input board | VC-B70SD1 |
| Digital/Analog RGB input board | VC-B70DA2 |
| LED unit | S-74LE |
| Power cord (North America) | JC-PC3MA |
| Power cord (Europe) | JC-PC3ME |
| Power cord (China) | JC-PC3MC |
| Power cord (Japan) | JC-PC3MJ |
| Motorized adjustment tool | S-A70E |
| Motor units for screen/mirror | S-MA70E |

(10) Optional input board specification

Analog RGB input board: VC-B70G2

| | | |
|------------------------------------|-------------------|---|
| Signal input terminal (Analog RGB) | | 5BNC x1 HD Dsub15 x1 |
| RGB Input scanning frequency | Signal resolution | VGA (640 x 480) – WUXGA (1920 x 1200) (Refer to attached “Supported signals list”) |
| | Horizontal | 31.5kHz – 92kHz |
| | Vertical | 49Hz – 85Hz |
| Pixel clock rate | | 25MHz – 162MHz |
| Functions | | Scaling: shrink and zoom. Frame rate conversion. |

Digital RGB input board: VC-B70D2

| | | |
|-------------------------------------|-------------------|---|
| Signal input terminal (Digital RGB) | | DVI-D (with HDCP) x2 |
| RGB Input scanning frequency | Signal resolution | VGA (640 x 480) – WUXGA (1920 x 1200) (Refer to attached “Supported signals list”) |
| | Horizontal | 31.5kHz – 92kHz |
| | Vertical | 49Hz – 85Hz |
| Pixel clock rate | | 25MHz – 162MHz |
| Signal format | | TMDS |
| Functions | | Scaling: shrink and zoom. Frame rate conversion. |

Video input board: VC-B70V2

| | | |
|--------------------------------------|--|---|
| Signal input terminal (Analog Video) | | 3BNC x2 |
| Video input signals | | NTSC, NTSC4.43 PAL, PAL-M, PAL-N, PAL-60, SECAM |
| Functions | | Scaling: shrink and zoom. Frame rate conversion. |

Daisy chain board: VC-B70DC

| | | |
|------------------------------|--|---|
| Signal input terminal | Analog RGB: HD Dsub15 x1 Digital RGB: DVI-D (with HDCP) x1 Analog Video: 3BNC x1 | |
| Signal output terminal | Digital RGB: DVI-D x1 (Daisy chain use only. Can not output HDCP signals.) | |
| RGB Input scanning frequency | Signal resolution | VGA (640 x 480) – WUXGA (1920 x 1200) (Refer to attached “Supported signals list”) |
| | Horizontal | 31.5kHz – 92kHz |
| | Vertical | 49Hz – 85Hz |
| Video input signals | NTSC, NTSC4.43 PAL, PAL-M, PAL-N, PAL-60, SECAM | |
| Pixel clock rate | 25MHz – 162MHz | |
| Functions | Scaling: shrink and zoom. Frame rate conversion. Daisy chain function (Up to 16 cubes) | |

SDI input board: VC-B70SD1

| | |
|------------------------|---|
| Signal input terminal | BNC x 1 |
| Signal output terminal | BNC x 1 (for through output) |
| Input signals | 3G-SDI (SMPTE424M): 1080p@50/59.94/60Hz HD-SDI (SMPTE292M): 1080i@50/59.94/60Hz 720p@50/59.94/60Hz SD-SDI (SMPTE259M-C): 480i@59.94Hz, 576i@50Hz |
| Gen lock input | Terminal: BNC x 1 Format: NTSC/PAL Black burst |
| Functions | Scaling: shrink and zoom. Frame rate conversion. Through output: (Up to 16 cubes @ HD-SDI, SD-SDI Up to 9 cubes @ 3G-SDI) |

Digital/Analog RGB input board: VC-B70DA2

| | | |
|------------------------------|--|---|
| Signal input terminal | DVI-I (Digital with HDCP, Analog) x2 | |
| RGB Input scanning frequency | Signal resolution | VGA (640 x 480) – WUXGA (1920 x 1200) (Refer to attached “Supported signals list”) |
| | Horizontal | 31.5kHz – 92kHz |
| | Vertical | 49Hz – 85Hz |
| Pixel clock rate | 25MHz – 162MHz | |
| Signal format | TMDS | |
| Functions | Scaling: shrink and zoom. Frame rate conversion. Digital cable equalizer function (Maximum 50m depending on the qualities of equipment and cable) | |

Supported signals list

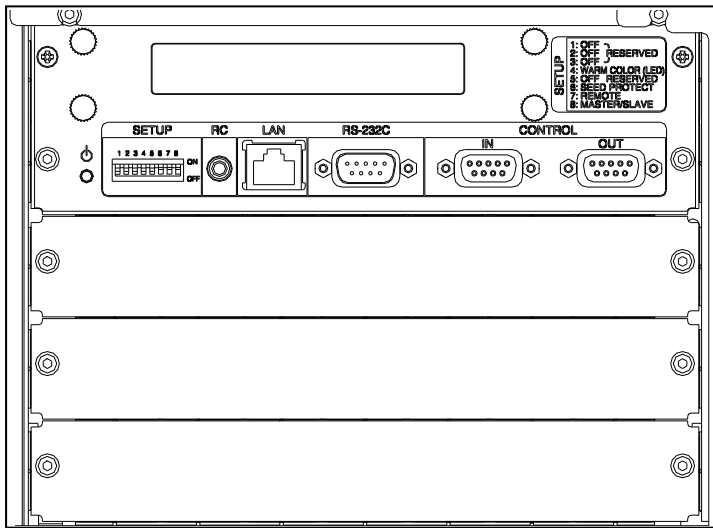
RGB signals

| Signal | Resolution | Refresh rate (Hz) | Line rate (kHz) |
|-----------|-------------|-------------------|-----------------|
| VESA | 1920 x 1200 | 60.0 | 74.0 |
| | 1920 x 1080 | 60.0 | 67.5 |
| | 1680 x 1050 | 60.0 | 65.3 |
| | 1600 x 1200 | 60.0 | 75.0 |
| | 1440 x 900 | 59.9 | 55.9 |
| | 1400 x 1050 | 59.9 | 64.7 |
| | | 60.0 | 65.3 |
| | | 74.9 | 82.3 |
| | 1366 x 768 | 59.8 | 47.7 |
| | 1360 x 768 | 60.0 | 47.7 |
| | 1280 x 1024 | 60.0 | 64.0 |
| | | 75.0 | 80.0 |
| | | 85.0 | 91.1 |
| | 1280 x 960 | 60.0 | 60.0 |
| | 1280 x 800 | 59.8 | 49.7 |
| | 1280 x 768 | 59.9 | 47.8 |
| | 1280 x 720 | 60.0 | 45.0 |
| | 1152 x 864 | 75.0 | 67.5 |
| | 1024 x 768 | 60.0 | 48.4 |
| | | 70.1 | 56.5 |
| | | 75.0 | 60.0 |
| | | 85.0 | 68.7 |
| | 848 x 480 | 60.0 | 31.0 |
| | 800 x 600 | 56.3 | 35.2 |
| | | 60.3 | 37.9 |
| | | 72.2 | 48.1 |
| | | 75.0 | 46.9 |
| | | 85.1 | 53.7 |
| | 720 x 400 | 85.0 | 37.9 |
| | 640 x 480 | 59.9 | 31.5 |
| | | 72.8 | 37.9 |
| | | 75.0 | 37.5 |
| | | 85.0 | 43.3 |
| 640 x 400 | 85.1 | 37.9 | |
| 640 x 350 | 85.1 | 37.9 | |
| PC | 1400 x 1050 | 60.0 | 64.0 |
| | 1280 x 1024 | 60.0 | 63.4 |
| | 1280 x 960 | 75.0 | 75.0 |
| | 1152 x 864 | 70.0 | 63.9 |
| | | 85.1 | 77.5 |
| 640 x 400 | 70.1 | 31.5 | |
| | 84.1 | 37.9 | |
| Mac | 1152 x 870 | 75.0 | 68.6 |
| | 1024 x 768 | 74.9 | 60.2 |
| | 832 x 624 | 74.5 | 49.7 |
| | 640 x 480 | 66.7 | 35.0 |
| Unix | 1280 x 1024 | 59.9 | 64.6 |
| | | 71.2 | 75.1 |
| | | 72.0 | 78.1 |
| | | 76.1 | 81.1 |
| HDTV | 1920 x 1080 | 50.0 | 28.1 |
| | | 59.9 | 33.7 |
| | 1280 x 720 | 50.0 | 37.5 |
| | | 59.9 | 45.0 |

Y/Cb/Cr (Y/Pb/Pr) signals

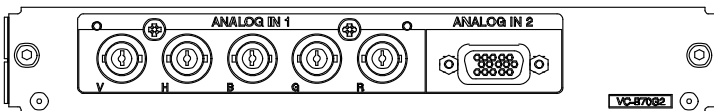
| Signal | Resolution | Refresh rate (Hz) | Line rate (kHz) |
|-------------|-------------|-------------------|-----------------|
| 1125p/1080p | 1920 x 1080 | 50.0 | 56.3 |
| | | 59.9 | 67.4 |
| 1125i/1080i | 1920 x 1080 | 50.0 | 28.1 |
| | | 59.9 | 33.7 |
| 750p/720p | 1280 x 720 | 50.0 | 37.5 |
| | | 59.9 | 45.0 |
| 625p/576p | 720 x 576 | 50.0 | 31.3 |
| 525p/480p | 720 x 480 | 59.9 | 31.5 |

Terminal panel

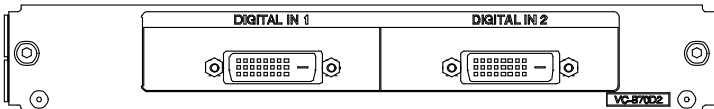


Optional input board appearance

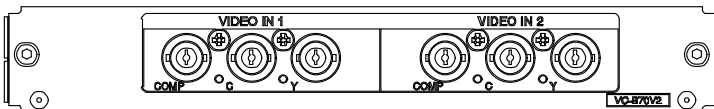
VC-B70G2



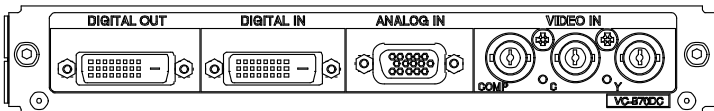
VC-B70D2



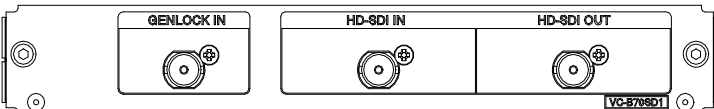
VC-B70V2



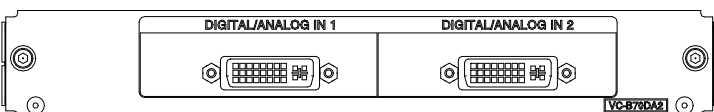
VC-B70DC



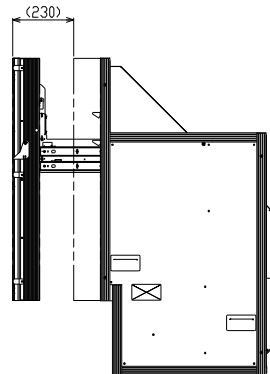
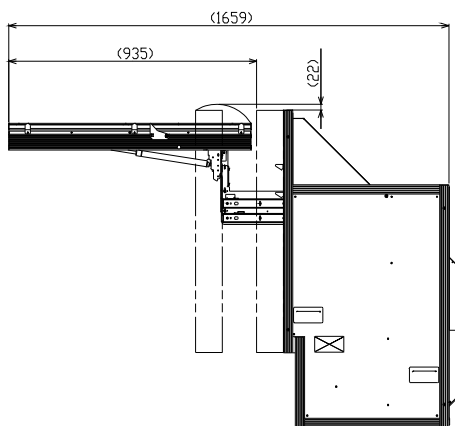
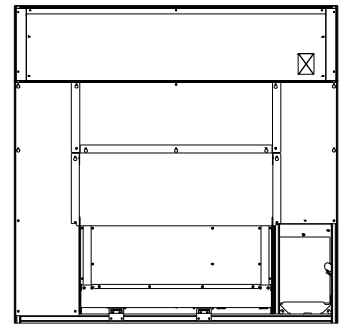
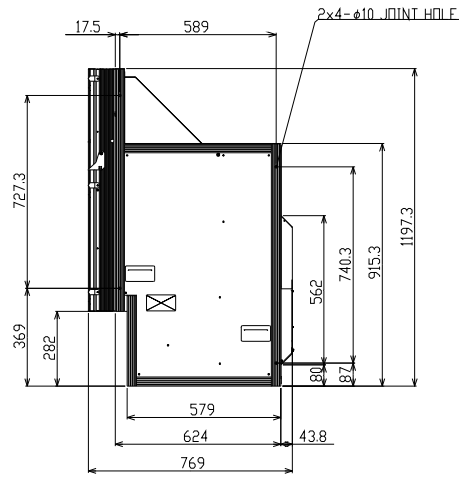
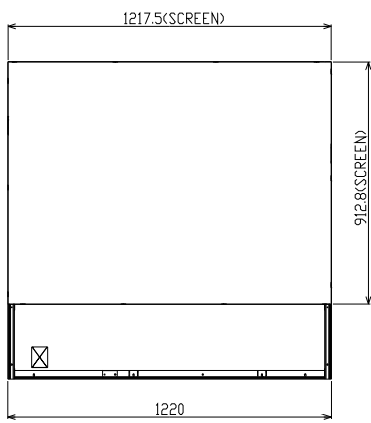
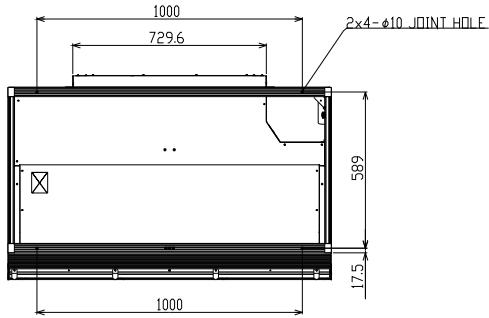
VC-B70SD1



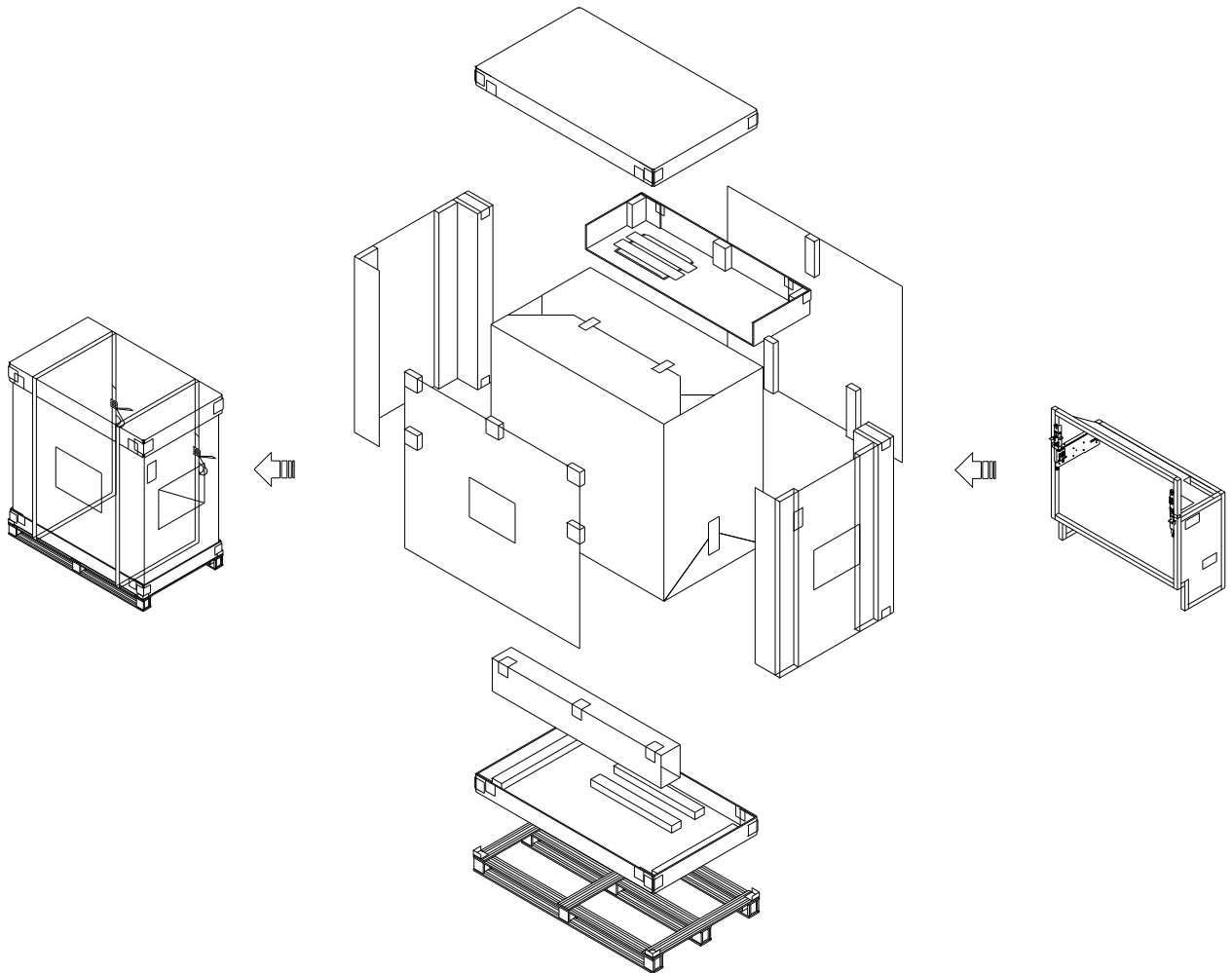
VC-B70DA2



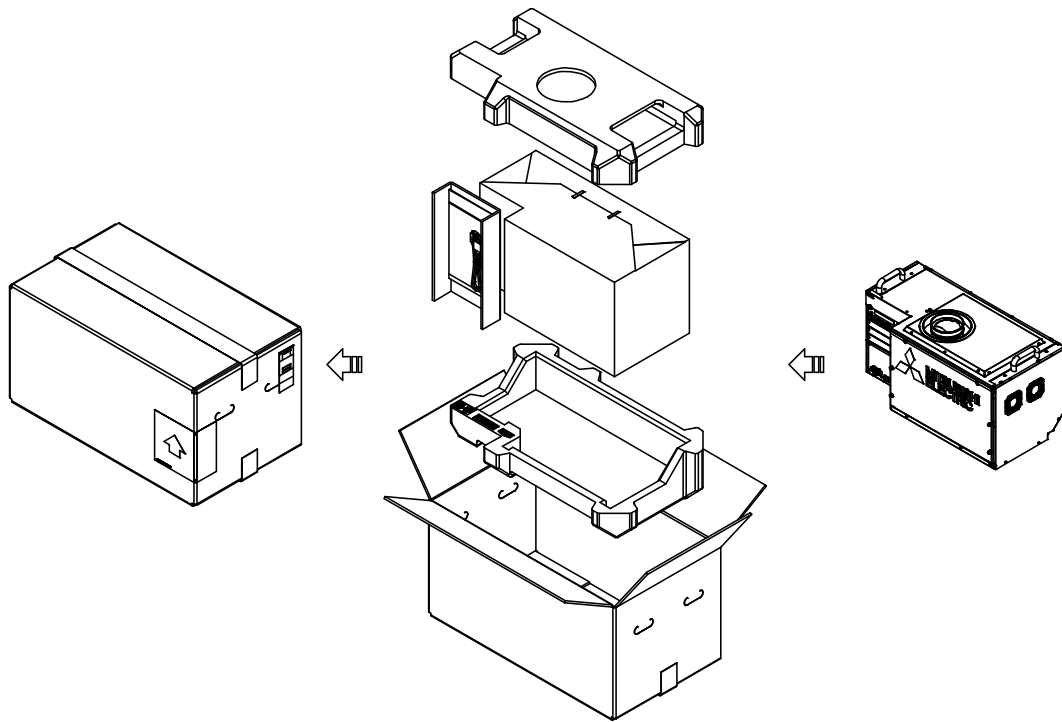
External dimensions



Packing specification
[Cabinet unit: S-6070CAF]



[Engine unit: VS-XE74U]



[Screen unit: SC-6075UF/LF, SC-6070BF]

