MEGGiTT
smart engineering for
extreme environments

ABE056

VM600 slimline rack

FEATURES

- From the Vibro-Meter® product line
- 19” slimline rack with a height of 1U
- Robust metallic construction
- Modular concept allows specific cards to be added for machinery protection or condition monitoring
- Cabinet or panel mounting
- Backplane supporting the VM600 system’s open collector (OC) bus and power supply distribution
- Integrated AC input or DC input power supply
- Power supply check relay

VM600 slimline rack (ABE056) shown housing an MPC4 card

DESCRIPTION

The VM600 slimline rack is used to house hardware from the VM600 series of machinery protection systems and condition monitoring systems, from Meggitt Sensing Systems’ Vibro-Meter® product line.

The rack has a standard height of 1U and provides mounting space for one processing card pair and a relay card, from the VM600 series. This rack is particularly suitable for industrial environments, where equipment must be permanently installed in 19" cabinets or panels.

The rack has an integrated backplane that provides the electrical interconnections between the integrated power supply unit (RPS1U) and the installed VM600 cards. It also includes a power supply check relay, available at the rear of the rack, which indicates that the integrated power supply is operating normally.

Different versions of the RPS1U power supply unit enable the rack to be powered using either an AC or a DC mains supply. Both power supplies support a wide input voltage range.

VM600 processing cards are installed in the front of the rack and the associated input/output cards are installed in the rear. The input/output cards contain screw terminal strips or connectors for the connection of transducers and conditioners, and for the input and output of various signals to an external control

DESCRIPTION *(continued)*

system, such as a DCS or PLC. Any rack position (slot) not used by a VM600 card can be covered by a blank panel.

In general, VM600 slimline racks are configured in the factory before delivery so they are supplied ready-to-use. Optionally, each card can be reconfigured to meet the needs of a particular machinery monitoring application using the appropriate software package from Meggitt Sensing Systems: VM600 MPS1 or MPS2, or VibroSight®.

For specific applications, contact your nearest Meggitt Sensing Systems representative.

SPECIFICATIONS

General

Housing	: Zinc-plated painted sheet steel
Colour	: Grey white (RAL 9002)
Power supply input	: The power supply input has an AC or DC connector (with an RFI filter) and an on/off switch. See **Ordering information on page 5** for information on mains power supply leads (power cords).
Power supply	: The integrated RPS1U power supply unit supplies the VM600 cards (processing, input/output or relay) with +5 V_{DC} and ±12 V_{DC}.
Inflammability class	: UL 94 HB

AC input power supply

Input voltage range	: 90 to 264 V_{AC}
Input frequency range	: 47 to 63 Hz
Input current	: 2.5 A / 115 V_{AC} or 1.5 A / 230 V_{AC}
Output voltages	: +5 V_{DC} and ±12 V_{DC}

DC input power supply

Input voltage range	: 18 to 58 V_{DC}
Input current	: 3.0 A / 24 V_{DC}
Output voltages	: +5 V_{DC} and ±12 V_{DC}

Power supply check relay

Nominal switching capacity (resistive load)	: 0.5 A / 125 V_{AC}, 0.3 A / 110 V_{DC}, 1 A / 30 V_{DC}
Maximum switching current	: 1 A

SPECIFICATIONS *(continued)*

Environmental

According to IEC 60068.2 recommendations

Operating

- *Temperature* : 0 to 65 °C (32 to 149 °F)
- *Humidity* : 0 to 90% non-condensing

Storage

- *Temperature* : −40 to 85 °C (−40 to 185 °F)
- *Humidity* : 0 to 95% non-condensing

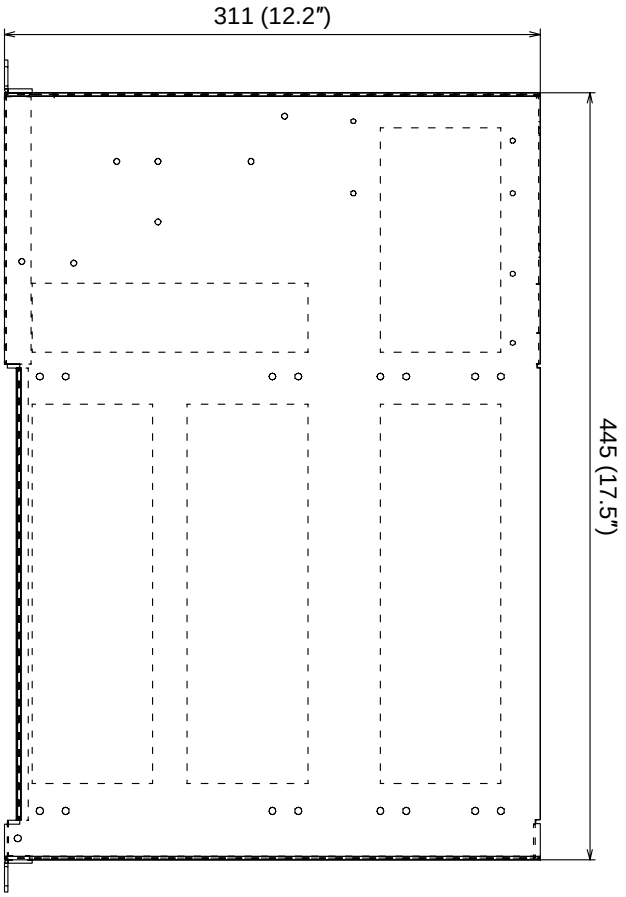
Physical

Dimensions : See **Mechanical drawings on page 4**

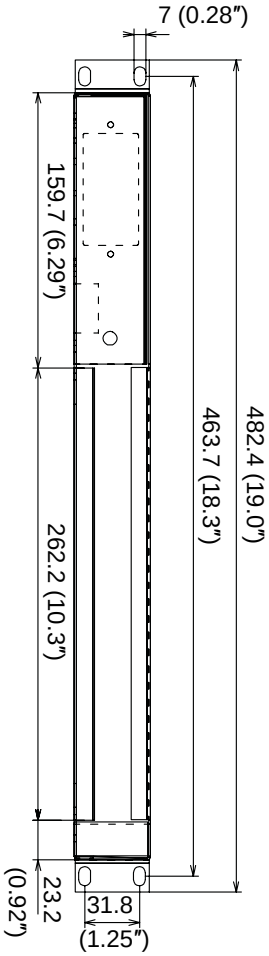
Weight (approx.) : 2.5 kg (5.5 lb) with integrated power supply and cards

MECHANICAL DRAWINGS

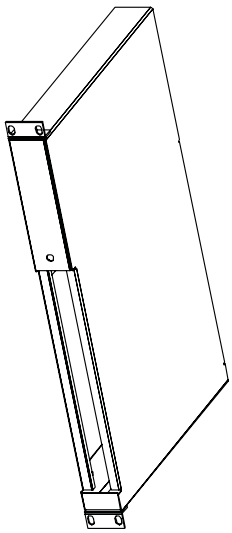
Side view



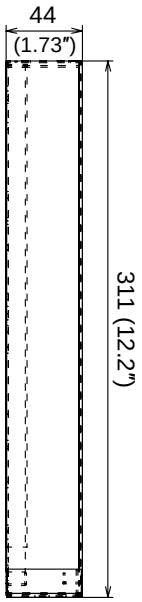
Front view



3D view



Rear view



Notes: All dimensions are in mm (in) unless otherwise stated.

ORDERING INFORMATION

To order please specify

Type	Designation	Ordering number
ABE056	VM600 slimline rack:	
	– Unconfigured system	VM600SYS 611-000-000/Codes
	or	*or*
	– Configured system	VM600SYS 611-xxx-xxxY/Codes

For VM600 systems with a known configuration, Meggitt SA can perform configuration management and provide a pre-configured system. Ordering numbers starting with 611-000-000 are for unconfigured VM600 systems and ordering numbers starting with 611-xxx-xxxY are for configured VM600 systems (where xxx-xxx is the configuration PNR and Y indicates the variant to use, if any).
Use the codes below to specify order options in the format 611-xxx-xxx(Y)/Bx-C56S-Dx-Hxx-Axx/Bxx/Cxx-ZAx.
For example, an unconfigured VM600 slimline rack with a +24 V_{DC} power supply (no mains lead), 1 x MPC4/IOC4T and 1 x RLC16 gives the following ordering number: 611-000-000/B0-C56S-D2-H00-AA1-ZA1.

Code	Feature	Value	Description
B	Type of configuration (see note 1 on page 6)	0	None – no configuration
		1	Exact copy of an existing configuration
		2	Similar to an existing configuration
		3	New configuration
C	Rack	56S	ABE056 slimline (1U)
D	Integrated RPS1U power supply (see note 2 on page 6)	2	24 V_{DC}
		5	110/220 V_{AC}
H	Mains power supply lead (power cord) (see note 3 on page 6)	00	None – no mains lead (cable)
		01	No plug – flying lead with wire-end ferrules
		CH	J plug as per SEV 1011 (Switzerland)
		EU	E+F plug as per CEE7/VII (Europe, Russia, Ukraine)
		UK	G plug as per BS 1363 (UK, Hong Kong, Malaysia, Singapore)
		JP	B plug as per JIS 8303 (Japan)
		US	B plug as per IEC 60906-2 (US and CA)
Ax	Number of machinery protection card pairs (see note 4 on page 6)	AA	MPC4 / IOC4T
		AB	MPC4SIL / IOC4T
		AC	AMC8 / IOC8T
		AD	MPC1 / IOC4T
Bx	Number of condition monitoring card pairs (see note 4 on page 6)	BA	CMC16 / IOC16T
		BB	XMV16 / XIO16T
		BC	XMVS16 / XIO16T
Cx	Number of combustion monitoring card pairs (see note 4 on page 6)	CA	XMC16 / XIO16T
Zx	Number of relay cards (see note 4 on page 6)	ZA	RLC16

ORDERING INFORMATION *(continued)*

Notes

1. The B2 order option should be used for a configuration similar to an existing configuration but with minor changes, such as network interface (IP) settings, tags (names), signal processing, the removal of cards or the addition of a single card.

2. The AC input power supply has an IEC type C14 connector (IEC 60320) that mates with the plug (type C13) used by the supplied mains power supply lead. See the Mains power supply lead (power cord) order option codes (Hxx).

3. The AC input power supply is supplied with a mains power supply lead (however, no lead (cable) is supplied with the DC input power supply).

4. The ABE056 slimline rack has slots for one processing card pair (front and rear of rack) and one relay card (rear of rack), so the Axx, Bxx and Cxx order options are mutually exclusive and a maximum of one of these can be installed in the rack. In addition, a maximum of one ZAx can also be installed.

RELATED PRODUCTS

ABE040 and ABE042	VM600 system rack	: Refer to corresponding data sheet

Headquartered in the UK, Meggitt PLC is a global engineering group specializing in extreme environment components and smart sub-systems for aerospace, defence and energy markets.

Meggitt Sensing Systems is the operating division of Meggitt specializing in sensing and monitoring systems, which has operated through its antecedents since 1927 under the names of ECET, Endevco, Ferroperm Piezoceramics, Lodge Ignition, Sensorex, Vibro-Meter and Wilcoxon Research. Today, these operations are integrated under one strategic business unit called Meggitt Sensing Systems, headquartered in Switzerland and providing complete systems, using these renowned brands, from a single supply base.

The Meggitt Sensing Systems facility in Fribourg, Switzerland was formerly known as Vibro-Meter SA, but is now Meggitt SA. This site produces a wide range of vibration and dynamic pressure sensors capable of operation in extreme environments, leading-edge microwave sensors, electronics monitoring systems and innovative software for aerospace and land-based turbo-machinery.

In this publication, a dot (.) is used as the decimal separator and thousands are separated by thin spaces. Example: 12345.67890.

Sales offices

Meggitt Sensing Systems has offices in more than 30 countries. For a complete list, please visit our website.

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