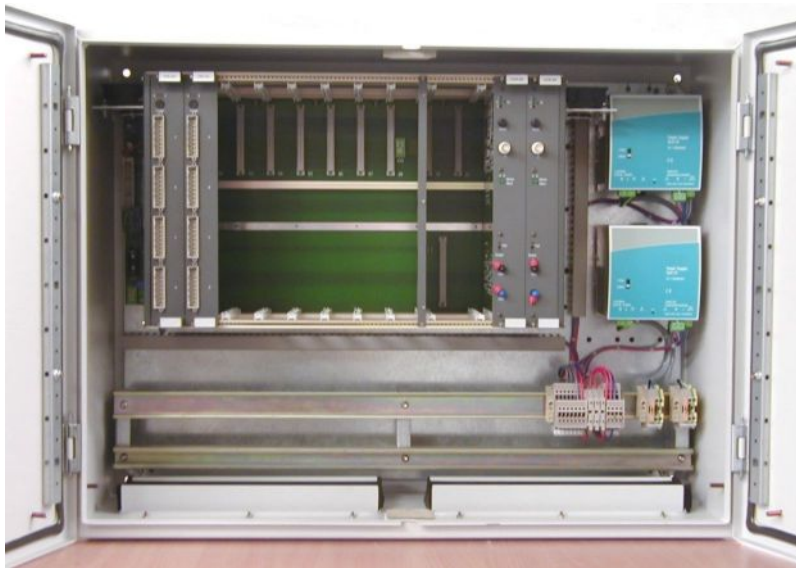# Melody wall mounted cabinet

Features

- Wall mounted cabinet, two doors
- High degree of protection IP 54
- Installation of a Melody sub-rack
- Redundant/single DC or AC power supply
- Front access to all essential components
- C-section for pull-relief earthing of field cables
- DIN mounting rail for additional terminal blocks
- Redundant fans
- Interior temperature monitoring

Application

Remote I/O: The rack in the wall mounted cabinet is suitable for local use of Melody I/O modules. To this end, single or redundant I/O modules must be fitted in slots 01 to10. The two slots 11 and 12 are generally occupied by Fnet repeaters CCR 20. A maximum of 320 signals can be read or output through a station configured in this way.
It is coupled to the centrally installed system cabinets either by coaxial cable (electrical) or fibre-optic cable (optical). The otherwise usual marshalling cabinets and trunk cables are not needed for transfering these process signals.

Miniature system: The wall mounted cabinet is also suitable for mounting a miniature system. To this end, CMC and eight I/O modules or CMC, CCO, the bus connection module CI 150 and three Melody I/O modules, for instance, can be fitted in the rack. With CMC 60, you can additionally or alternatively connect I/Os or field devices to the station via PROFIBUS lines. Coupling between CCO and Maestro is established on the front by means of Ethernet. No-problem electrical Cnet(C) and Cnet(O) coupling to further stations by coaxial cable is possible.

Function

The Melody sub-rack with the new backplane BP2 offers the possibility of mounting I/O modules, central modules and repeaters. Coaxial sockets and Faston terminals, located at the backplane sides, allow the connection of bus and supply cables. You can adjust the cabinet number and tier code with a rotary switch.

Sub-rack, general

- Sub-rack in standard design
- Sub-rack in Ex version and a variant for combined Ex/non-Ex
- Dimension: 7 HE (1 HE=44.45 mm), 100 TE (1 TE=5.08 mm), 200 mm depth
- Top/botton perforated plate (Ex versions only)
- PE potential fed via the rack's securing element
- Connection points for system signals on the back plane
- Slots: 12 slots, each 8 measures of width wide
- Distance between slots 08 and 09

Various power supplys are available for the Melody wall mounted cabinet. Power supply components are always installed on the right of the sub-rack. Depending on the type, the incoming supplies feature redundant or single main components. In the case of the redundant power supplies, the output voltage of supply modules and there-fore the input voltages are monitored individually. This information can be read via binary inputs of the I/O modu-les for instance, and can be forwarded to Maestro for signalling and logging.

Voltage source	Single	Redundant	Remarks
Battery	- / -	**24 VDC** Rated voltage	Input: +22 ... +32.5 VDC Output: +20 ... +32.5 VDC, 10 A
Single-phase AC power mains	**115/230 VAC** Rated voltage	**115/230 VAC** Rated voltage	Input: 100 ... 120 VAC or 220 ... 240 VAC Output: +24 ... 26 VDC, 10 A

A DIN mounting rail carries several terminal blocks used for connecting power supply cables and picking-up alarm signals, auxiliary voltages, M reference potential etc.

Note: Further information see technical information TI 30/72-2411 Technical Informa-tion "Melody wall mounted cabinet"

Construction

The Melody wall mounted cabinet has exterior dimensions of 800 x 300 x 600 mm (W,D,H). The cabinet offers space for a Melody sub-rack, an AC or DC power supply and further upgrade components. Thanks to the high degree of protection IP54, very good protection against dust and water splashes is achieved.
Redundant fans make sure that the entire surface of the cabinet acts like a heat exchanger and is able to dissi-pate the permissible heat to the environment. A temperature sensor is installed to monitor the cabinet's interior temperature.

Wall mounted cabinet:

- Completely closed metal housing
- Two front doors with an opening angle of 135º each
- Two flanges with sealing profiles
- Securing material for wall mounting

Basic upgrade:

The cabinet must be ordered with a basic upgrade if components of the SYMPHONY process control system are to be installed. The basic upgrade consists of:

- Galvanised mounting plate
- Cable ducts for bus and system cables
- C-section for pull relief and earthing
- DIN mounting rail for additional terminal blocks etc.
- Internal power supply and signal cables
- Temperature sensor including securing and wiring elements
- Coding module for definition of the cabinet number

The long DIN mounting rail that belongs to the basic upgrade, and which is located in the bottom third of the cabinet, offers space for a few terminal blocks or small modules, for instance. When fitting components on this rail, attention must be paid to avoiding obstruction of the field and system cables that are also located in this area.

Technical data

Mechanical data

Cabinet type	Melody wall mounted cabinet
Exterior cabinet dimensions:	Width: 600 mm Depth: 300 mm Height: 800 mm
Material:	1,5 mm sheet steel
Doors:	Two-leaf, easily detachable doors
Opening angle of doors:	135° each
Securing:	Wall securing with 4 brackets
Escape routes:	1100 mm (front clearance between 2 cabinets)
Weight:	approximately ... kg (cabinet with rack and power supply units, but without modules)
Colour:	RAL 9002 Structured finish, half matt
Text strip:	max. 20 characters (customer-specific)
Type of protection:	IP54

Climatic data

Ambient temperature:	0 ... 40 °C
Relative humidity:	75% average, no condensation

Electrical data

Screen connection:	The screens of the field cables are earthed on the C section rail.
Supply voltage:	24 V battery voltage *or* 115/230 VAC single-phase AC voltage
External fusing:	115 V/230 V AC with 10 A slow-blow throughout 24 V DC with 16 A slow-blow
Cabinet power dissipation:	Pmax=120 W at ambient temperature=40°C
Temperature monitoring:	T > 70°C

Ordering information

The melody cabinet can be specified inside the described volume with the help of the ordering matrix. For example: 36-2-1103 360+ 370+ 424+=> cabinet with basic upgrade, color RAL 9002, redundant battery power supply, standard rack and a door contact as an option. The melody modules, shown on the photo do not belong to the scope of supply.

Catalog No.						Description	Delivery time
Melody wall mounted cabinet							
73536-2-						800x600x300 (W,H,D), rate of protection IP54 ...	
Basic upgrade							
	1	1				Mounting plate, DIN mounting rail, C section, U bracket ...	
Cabinet color							
			0	0		RAL 7035 light gray	
			0	1		RAL 7032 pebbel gray	
			0	2		Sonderlackierung (kundenspezifisch) auf Anfrage	
			0	3		RAL 9002 ABB standard	
Power supply							
					360+	24V battery supply, redundant	
					361+	230/115V AC power supply, single	
					362+	230/115V AC power supply, redundant	
Sub-rack							
					370+	Standard version	
					371+	Ex version	
					372+	Combined Ex/non-Ex	
					373+	Mounting plate to carry foreign devices	
Options							
					424+	Door contact incl. holder and wiring	
					440+	Insulated fixed C section	
					477+	Protective diodes for ground potential free battery supply	
					450+	Customer specific labeling (max. 20 characters)	