

Novigo

Power amplifier

PV2001-A1, PV2002-A1, PV2003-A1, PV2007-A1



Power amplifiers in the PV200x model range are part of the Novigo voice alarm system, which is certified in line with EN 54-16. They are highly efficient with low power consumption, as well as being sturdy and reliable.

- AC 230 V or DC 24 V power supply
- Control LEDs for all signal and operating conditions
- All supply lines fitted with plug-in and screw terminals
- Symmetrical inputs
- System-monitored with potential-free indicator contacts
- Low power consumption in alarm mode
- Protected against idling, short-circuit and overheating
- Automatic standby mode
- Low installation depth

Use

Power amplifiers PV200x amplify low-level audio signals to 100 V line voltage. The amplifiers use state-of-the-art digital technology for maximum effectiveness.



The power amplifiers are integrated with an AC mains power supply. In case the AC mains power supply fails, the power amplifiers are supplied temporarily by a 24 V backup battery. In emergency power operation, the amplifiers boast lower power consumption in standby mode.


The front of the devices are equipped with LEDs to indicate the operating condition. The electrical connections are located on the rear.


The amplifiers offer sound level adjuster to adapt the output sound level.

The devices are also fitted with circuit breakers to provide protection against idling, short-circuit, overheating, and power surges.



Features and Functions



PV2001-A1	'Power amplifier (2x250W)'
	<ul style="list-style-type: none">• 10 W in standby mode• 19" / 2 HU housing• Protected against idling, short-circuit, overheating, DC <p>Inputs</p> <ul style="list-style-type: none">• DC 24 V power supply• AC 230 V power supply• 2x analog audio inputs• 2x control inputs• 2x pilot reference audio inputs <p>Outputs</p> <ul style="list-style-type: none">• 2x 100 V / 50 V power outputs, 250 W each or• 1x 100 V power output, 500 W (bridged mode)• 4x status indicator contacts: AC mains voltage, DC power supply, output A, output B
PV2002-A1	'Power amplifier (2x500W)'
	<ul style="list-style-type: none">• 13.4 W in standby mode• 19" / 2 HU housing• Protected against idling, short-circuit, overheating, DC <p>Inputs</p> <ul style="list-style-type: none">• DC 24 V power supply• AC 230 V power supply• 2x analog audio inputs• 2x control inputs• 2x pilot reference audio inputs <p>Outputs</p> <ul style="list-style-type: none">• 2x 100 V / 50 V power outputs, 500 W each• 4x status indicator contacts: AC mains voltage, DC power supply, output A, output B

PV2003-A1	'Power amplifier (4x150W)'
	<ul style="list-style-type: none"> ● 10 W in standby mode ● 19" / 2 HU housing ● Protected against idling, short-circuit, overheating, DC <p>Inputs</p> <ul style="list-style-type: none"> ● DC 24 V power supply ● AC 230 V power supply ● 4x analog audio inputs ● 2x analog audio bridge inputs ● 2x control inputs ● 2x pilot reference audio inputs ● 2x bridge control inputs <p>Outputs</p> <ul style="list-style-type: none"> ● 4x 100 V / 50 V power outputs, 150 W each, or ● 2x 100 V power outputs, 300 W each (bridged mode) ● 4x status indicator contacts: AC mains voltage, DC power supply, output A/B, output C/D <p>Others</p> <ul style="list-style-type: none"> ● RS485 for cascading switch-on delay (input and output) ● Address switch

PV2007-A1	'Power amplifier (1x250W)'
	<ul style="list-style-type: none"> ● 10 W in standby mode ● 19" / 2 HU housing ● Protected against idling, short-circuit, overheating, DC <p>Inputs</p> <ul style="list-style-type: none"> ● DC 24 V power supply ● AC 230 V power supply ● 1x analog audio input ● 1x pilot reference audio input <p>Outputs</p> <ul style="list-style-type: none"> ● 1x 100 V / 50 V power output, 250 W ● 3x status indicator contacts: AC mains voltage, DC power supply, output A

Type Overview

	PV2001-A1	PV2002-A1
Product image		
Designation	Power amplifier (2x250W)	Power amplifier (2x500W)
Order number	OFB:NOVIGO_2147	OFB:NOVIGO_2361
Performance data	2x 250 W / 1 x 500 W	2x 500 W
Housing type	19"	19"
W x H x D mm	482 x 88 x 260	482 x 88 x 272
Weight	16.5 kg	17.6 kg

	PV2003-A1	PV2007-A1
Product image		
Designation	Power amplifier (4x150W)	Power amplifier (1x250W)
Order number	OFB:NOVIGO_2148	OFB:NOVIGO_2146
Performance data	4x 150 W / 2 x 300 W	1x 250 W
Housing type	19"	19"
W x H x D mm	482 x 88 x 302	482 x 88 x 260
Weight	17.1 kg	11.2 kg

Order numbers

Type	Designation	Order number
Power amplifier		
PV2001-A1	Power amplifier (2x250W)	OFB:NOVIGO_2147
PV2002-A1	Power amplifier (2x500W)	OFB:NOVIGO_2361
PV2003-A1	Power amplifier (4x150W)	OFB:NOVIGO_2148
PV2007-A1	Power amplifier (1x250W)	OFB:NOVIGO_2146

Product documentation

You will find more information on the Novigo system and its components in the following documents:


Title	Document ID
IT security policies	
Novigo – IT security policies	A6V11773711
System documentation	
Novigo – planning	A6V11467812
'PACE-Design' – configuration	A6V11474760
Novigo – mounting / installation	A6V11467817
Novigo – operation	A6V11467803
Data sheets	
System data sheet	A6V11467196
19" cabinets	A6V11467209
Digital audio matrix	A6V11467202
Power amplifier	A6V11467204
Operating terminals	A6V11467198
Call stations and extensions	A6V11467200
Power supply and batteries	A6V11467207
Accessories and options	A6V11467211
Loop isolator (100V)	
Loop isolator (100V) - technical manual	A6V11571319
Environmental declaration	
Novigo – environmental declaration	A6V11948779

Download center


Related documents such as environmental declarations, CE declarations, etc., can be downloaded at the following Internet address:

<http://siemens.com/bt/download>

Safety

	⚠ CAUTION
National safety regulations	
<p>Failure to comply with national safety regulations may result in personal injury and property damage.</p>	
<ul style="list-style-type: none"> • Observe national provisions and comply with the appropriate safety regulations. 	

Disposal

	<p>The device is considered an electronic device for disposal in accordance with the European Guidelines and may not be disposed of as domestic garbage.</p>
<ul style="list-style-type: none"> • Dispose of the device through channels provided for this purpose. • Comply with all local and currently applicable laws and regulations. 	

Environmental compatibility

The Environmental Product Declaration (EPD) for 'Novigo VANSYS' contains data and information on the product's environmentally compatible design features and its ratings; for example, its RoHS conformity, composition, packaging, environmental benefits, and disposal information.

You can obtain the document A6V11948779 via the following Internet address:

<https://siemens.com/bt/download>

Enter the document ID in the search field.

Technical data

	PV2001-A1	PV2002-A1	PV2003-A1	PV2007-A1
Output 100 V or 50 V	2x 250 W (RMS)	2x 500 W (Burst) 2x 250 W (RMS)	4x 150 W (RMS)	1x 250 W (RMS)
In bridged mode Output 100 V	1x 500 W (RMS)	–	2x 300 W (RMS)	–
Supply voltage, AC	AC 230 V			
Supply voltage, DC	DC 24...28 V			
Distortion factor at 1 kHz/100 V	<0.2%			
Frequency band -3 dB	70 Hz...20 kHz	90 Hz...21 kHz	80 Hz...20 kHz	70 Hz...20 kHz
Input sensitivity	1 V at 10 k Ω	1 V at 10 k Ω	1 V at 10 k Ω	1 V at 10 k Ω
Input impedance at 1 kHz	10 k Ω			
Unweighted signal-to-noise ratio at 1 kHz	85 dB			
Signal-to-noise ratio	91 dB			
Signal inputs	Electronically symmetrical			
Making current at AC 230 V	11 A, NTC recovery time 70 sec			
Current consumption				
Standby at DC 24 V	0.4 A	0.43 A	0.16 A	0.4 A
Standby at AC 230 V	0.04 A	0.058 A	0.045 A	0.04 A
Operation, no signal, all 'Ch' active at DC 24 V	0.8 A	0.8 A	0.5 A	0.5 A
Operation, no signal, all 'Ch' active at AC 230 V	0.14 A	0.14 A	0.1 A	0.08 A
Full load sinus at DC 24 V	26 A	40 A	27 A	15 A
Full load sinus at AC 230 V	4 A	5 A	3.7 A	1.7 A
Cascading switch-on delay				
Via RJ45 patch cable	–	–	Approx. 2 sec/device	–
Operation/fault messages				
Potential-free optocoupler outputs	Max. DC 24 V, 10 mA, cascading possible			
Remote activation				
Input amp. ON	–	–	DC 12...24 V, approx. 10 mA	–
Connections				
Signal inputs, operation/fault messages	Plug-in/screw terminals, 12-pin			
Power outputs	Plug-in/screw terminals, 3-pin			
DC input	Plug-in/screw terminals, 2-pin 40 A fuse protection			
Mains voltage input	C14 appliance connector with 6 A fuse			
RS485	–	–	RJ45	–

	PV2001-A1	PV2002-A1	PV2003-A1	PV2007-A1
Ambient conditions				
Operating temperature	-5 °C...+40 °C			
Storage temperature	-20 °C...+70 °C			
Operation in humid environments (without moisture condensation)	10...90 % rel.			
Storage in humid environments (without moisture condensation)	5...90 % rel.			
Dimensions and weights				
W x H x D mm	482 x 88 x 260	482 x 88 x 272	482 x 88 x 302	482 x 88 x 260
Housing type	19"			
Weight	16.5 kg	17.6 kg	17.1 kg	11.2 kg
Protection category and color				
Protection category (IEC 60529)	IP30			
Color	Light gray			
Standards satisfied	EN 54-16			