A6500-RR Redundant **Relay Rack**

The A6500-RR Redundant Relay Rack is part of the AMS 6500 ATG machinery protection system. It is a 19" rack (84HP width and 3RU height). The System Rack allows you to install up to 9protection cards (two channel A6500-UM Universal Measuring Card and/or four channel A6500-TP Temperature Process Card), tworedundant A6500-RC Relay Cards, and one A6500-CC Com Card two Com Cards for redundant communication.

The rear of the System Rack is equipped with screw term connectors to connect input and output signals, with D-Sub connectors to provide sensor raw signals and slide switches to configure key-signals and binary inputs.

Each of the 9 slots for protection cards has four eight-pole screw term connectors for connecting several sensor types (eddy current sensors, piezoelectric sensors, seismic sensors, RTDs, etc.), binary inputs, binary outputs (function outputs), current outputs, and pulse outputs. The available number of measuring channels and all other functions depend on the installed cards.

The relay card slots have 12 shared digital inputs available on backplane with screw term connectors.

You can extend the system with a second System Rack to a 6RU system. In this case, the Com Card(s) of the first rack are used for both System Racks.

Power Supply				
Nominal Supply Voltage	+24 V DC	redundant		
Limit	+19 to +32 V DC	in case of a single failure, supply voltage must not exceed the level of IEC 60204-1 or IEC 61131-2 (SELV/PELV)		
Power Consumption of Slots	<100 W	of installed cards		
Power Consumption Outputs	<150 W	additional supply for external		
A38.6 mm A38.6 mm 132.5 mm				









Slot Distribution				
Number of Measurement Card Slots (A6500-UM and A6500-TP)		9 (eachslot 6HP)		
Number of Relay Card slots		2 (eachslot 10HP, redundant)		
Number of COM Card slots		2 (each slot 4HP, redundant)		
Environmental, General				
Protection Class	IP20		according to IEC 60529 rack mounted, otherwise IP00	
Conformal Coating	Airborne contaminants resistance		ISA-S71.04-1985 airborne contaminants class G3	
	Material: HumiSeal® 1B31	EPA	According to IPC-CC-830B and IPC-A 610	
Operating Temperature	-20°C to +70°C (-4°F to 158°F -20°C to +55°C (-4°F to 131°F			
Storage Temperature	-40°C to +85°C (-40°F to 185°F)			
Relative Humidity	5 to 95%		non-condensing	
Vibration	0.15mm (0.591in) 20 m/s2		10 to 55Hz 55 to 150Hz according to IEC 60068-2-6	
Shock	150 m/s2		according to IEC 60068-2-27, 4000 shocks per axis	
Operating Altitude	<2000 m		above sea level	
Connector Measurement Card Slot	type F48 female		according to IEC 60603-2	
Connector Relay Card Slot	type C96 female type F48 female		according to IEC 60603-2	
Connector COM Card	type C30 female		according to IEC 60603-2	
Terminals Power Supply	2.5 mm2		pluggable screw term connection	
Terminals I/O	1.5 mm2		pluggable screw term connection	
SUB-D Connector	SUB-D 9		shielded, UNC 4-40 screw lock	
Dimensions	3RU/84HP		conform to IEC 60297	
Weight	app 2400g (5.291lbs)		exclusive packaging	

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Compliance and Certifications

CE	EMC – EN61326-1 2014/30/EU 2014/34/EU 2011/65/EU
ATEX	EN 60079-0:2012 EN 60079-15:2010
IEC-Ex	IEC 60079-0:2011; Edition: 6.0
CCOE PESO India	IEC 60079-15:2010; Edition: 4
CSA	CAN/CSA-C22.2 NO. 0-10 CAN/CSA-C22.2 NO. 61010-1-12 CAN/CSA-C22.2 NO. 60079-0:15 CAN/CSA-C22.2 NO. 60079-15:12 IEC 60529:2013 + COR2:2015 UL 61010-1:12 UL 60079-0:13 UL 60079-15:13
EAC	ТР TC 012/2011 ГОСТ 31610.0-2014 ГОСТ 31610.15-2014
CCC	GB 3836.1-2010 GB 3836.8-2014
Marine	DNV GL rules for classification – Ships and offshore units
Safety (SIL): SC 2 (SIL 2 Capable)	IEC 61508:2010 Parts 1-7

Hazardous Area Approvals

Non-sparking nA in combination with nC		
ATEX	II $3G - Ex$ nA nC IIC Gc , $-20^{\circ}C \le Ts \le 70^{\circ}C$ (with $Ts \le 70^{\circ}C$ the requirements for temperature class T4 are met)	
IEG-Ex	II 3G – Ex nA nC IIC Gc, -20°C ≤ Ts ≤ 70°C (with Ts ≤ 70°C the requirements for temperature class T4 are met)	
CSA	Class I Division 2, Groups A, B, C, D, T4 Class 1, Zone 2 Ex / AEx nA nC IIC T4 Gc (the ambient temperature within the end use enclosure shall not exceed 55°C)	
EAC-Ex	Ex nA nC IIC Gc,U -20°C ≤ Ts ≤ 70°C	
CCC-Ex	Ex nA nC IIC Gc -20°C ≤ Ts ≤ 70°C	
CCOE PESO India	Ex nA nC IIC T4 Gc, -20° C \leq Ts \leq 70 $^{\circ}$ C (with Ts \leq 70 $^{\circ}$ C the requirements for temperature class T4 are met)	
KTL Korea	Ex nA nC IIC -20°C ≤ Ts ≤ 70°C	

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Ordering Information

Model number	Product Description
A6500-RR	A6500-RR – REDUNDANT RELAY RACK, 9 UM, 2 RC, 2 CC SLOTS

Product Accessories

Model Number	Product Description	
A6068	REDUNDANT POWER SUPPLY 100-220VAC, 24VDC	
MHM-6XXX-RC-CABLE	RACK CONNECTION CABLE, SUB-D CON, 9-P, 1M	

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