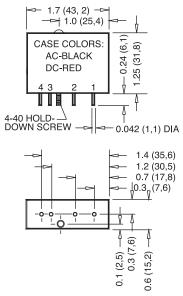


DIGITAL I/O MODULES

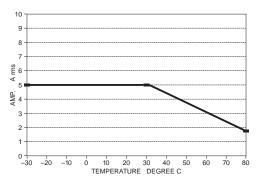
0.6 INCH OUTPUT MODULES





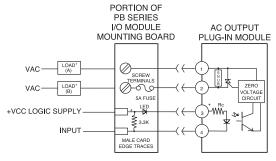
DIMENSIONS: INCHES (MILLIMETERS) TOLERANCE: ±0.020 (±0,50)

DERATING CURVE FOR OAC5AH ONLY:

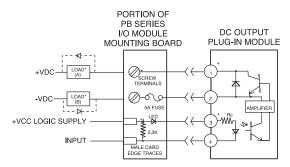


FEATURES:

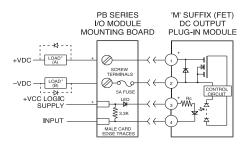
- CE Compliant
- UL Recognized/Horse Power Rated (E46203)/CSA Certified (38595)
- AC Modules have High Current Thyristor with 100 Amp Surge Capability
- Zero or Random Turn-On Available in AC Modules
- Plug into Mounting Boards for 0.6" Modules
- 4 kV Optical Isolation (1500 VAC Optical Isolation for FET DC Output Modules)
- Industry Standard Packaging
- 3.5 Amp AC Modules Provide Extra Switching Capability
- Form "A" Output
- 5.0 Amp AC(OAC5AH) and DC Modules Available



* LOAD MAY BE WIRED IN LOCATION A OR B



*LOAD MAY BE WIRED IN LOCATION A OR B DC INDUCTIVE LOADS MUST BE DIODE SUPRESSED TO PREVENT DAMAGE TO THE I/O MODULE.



* LOAD MAY BE WIRED IN LOCATION A OR B DC INDUCTIVE LOADS MUST BE DIODE SUPPRESSED TO PREVENT DAMAGE TO THE I/O MODULE.

(EQUIVALENT CIRCUIT DIAGRAMS)





DIGITAL I/O MODULES

0.6 INCH OUTPUT MODULES

INPUT SPECIFICATIONS: (1)

Model Number	OAC5 OAC5A OAC5AH OAC5AR OAC5R	ODC5 ODC5A ODC5F ODC5MA ODC5MC ODC5ML	OAC24 OAC24A ODC24 ODC24A ODC24F	
Parameter				Units
Nominal Voltage	5.0	5.0	24.0	VDC
Minimum Voltage (2)	2.75	2.75	18.0	VDC
Maximum Voltage	8.0	8.0	32.0	VDC
Drop-Out Voltage	1.0	1.0	1.0	VDC
Maximum Current (3)	20.0	18.0	13.0	mA
Resistance (4)	220	250	2000	Ohms

OUTPUT SPECIFICATIONS: (1)

Model Number	OAC5 OAC5R OAC24	OAC5A OAC5AR OAC24A	OAC5AH	ODC5 ODC24	ODC5A ODC24A	ODC5F ODC24F	ODC5MA	ODC5MC	ODC5ML
Parameter									
Nominal Line Voltage	120 VAC	240 VAC	240 VAC	5-48 V	5-150 V	5-48 V	5-150 V	5-90 V	5-48 V
Minimim Line Voltage	12 VAC	24 VAC	24 VAC	3.0 V	3.0 V	3.0 V	1.0 V	1.0 V	1.0 V
Maximum Line Voltage	140 VAC	280 VAC	280 VAC	60 V	250 V	60 V	200 V	100 V	50 V
Max Off-State Voltage (5)	400 Vpeak	600 Vpeak	600 Vpeak	60 V	250 V	60 V	200 V	100 V	50 V
Max Off-State Leakage (6)	.1 mArms	.1 mArms	.1 mArms	10 µA	10 μA	10 µA	10 μA	10 μA	10 μΑ
Static Off-State dv/dt (7)	200 V / µsed	c 200 V / µsed	c 200 V / µsec	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Rated On-State									
Current (8)	3.5 Arms	3.5 Arms	5.0 A	3.0 A	1.0 A	3.0 A	3.0 A	5.0 A	5.0 A
Minimum On-State Current	50 mArms	50 mArms	50 mArms	10 mA	10 mA	10 mA	1.0 mA	1.0 mA	1.0 mA
Maximum Surge Current (9)	100 Apeak	100 Apeak	100 Apeak	5.0 A	5.0 A	5.0 A	10 A	10 A	10 A
On-State Voltage Drop or									
Resistance (10)	1.6 V	1.6 V	1.6 V	1.5 V	1.5 V	1.5 V	$0.25~\Omega$	$0.10~\Omega$	$0.05~\Omega$
H.P. Rating (13)	1/8 H.P.	1/3 H.P.	1/2 H.P.	N/A	N/A	N/A	N/A	N/A	N/A

GENERAL SPECIFICATIONS: (1)

Model Number	OAC5 OAC5A OAC5AH OAC24 OAC24A	OAC5R OAC5AR	ODC5 ODC5A ODC24 ODC24A	ODC5F ODC24F	ODC5MA ODC5MC ODC5ML	
Parameter						Units
Operating Temperature Range	-30 to 80	-30 to 80	-30 to 80	-30 to 80	-30 to 80	°C
Storage Temperature Range	-40 to 100	-40 to 100	-40 to 100	-40 to 100	-40 to 100	°C
Maximum Turn-on Time (11)	8.33	0.1	0.1	0.025	1.0	mSec
Maximum Turn-off Time (11)	8.33	8.33	0.75	0.05	0.05	mSec
Input/Output Isolation Voltage (12)	4000	4000	4000	4000	1500	VAC
Input/Output Capacitance (typical)	8	8	8	8	8	pF
Line Frequency Range	47 to 63	47 to 63	DC	DC	DC	Hertz
Weight	1.1 oz	1.1 oz	1.1 oz	1.1 oz	1.1 oz	

TABLE OF MODEL NUMBER SUFFIXES IDENTIFYING OPTIONAL FEATURES

Suffix Feature

High voltage versions (240 VAC for AC modules,

250 VDC for DC modules).

High voltage AC, 5 Amps. ΑH

Fast-switching version of ODC modules.

FET output version of DC module, 3.0 A, 200 VDC. MA

MC FET output version of DC module, 5.0 A, 100 VDC.

FET output version of DC module, 5.0 A, 50 VDC. ML

Random AC voltage turn-on. R

- Specifications apply to an ambient temperature of -30 to 80°C unless otherwise noted
- Without external LED status indicator. Add 1.7 volt for external LED if utilized.
- At nominal input voltage, without external LED status indicator. +/-10% at 25°C.

- +/-10% at 25°C.

 Maximum 1 minute duration for OAC modules when applied as a DC voltage rather than peak AC voltage. At maximum line voltage, 25°C for OAC modules, and 80°C for ODC modules.

 Minimum dv/dt per EIA/NARM RS443, method RS397. dv/dt ratings do no apply to ODC modules.

 At 40°C, derate OAC modules by 58 mA/°C to 80°C; derate ODC, ODCxMC and ODCxML modules b 50 mA/°C to 80°C; derate ODCxmA modules by 30 mA/°C to 80°C. CSA rating of OAC modules is 3.0 Arms at 40°C.
- At 25°C. Maximum duration: 1 AC cycle for OAC modules, 1 second for ODC modules. At maximum rated on-state current and 25°C.
- (11) At maximum line voltage, maximum rated output current, nominal input voltage, 25°C. Switching speed of OAC modules based upon 60 Hz line frequency.
- At 25°C for 1 second maximum duration
- (13) 1/3 H.P. at 240 VAC, 1/8 H.P. at 120 VAC.

