FUJI ELECTRIC

e-Front runners Fuji Electric France S.A.

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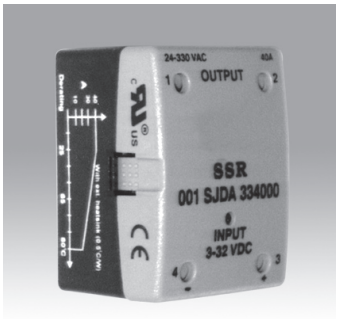
PRODUCT CATALOGUE

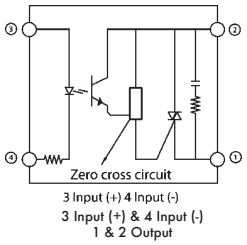
Single Phase SSR (240VAC)
10 ~ 40 Amps

INPUT : DC Control,
OUTPUT : Triac output

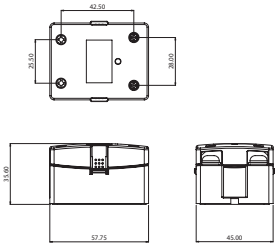
Series : 001 J/K



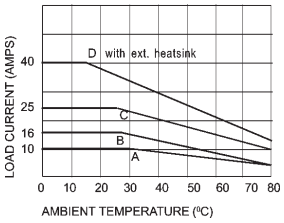
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • TTL/CMOS Compatible (Sink mode) • Output : NO/NC Configuration • Safety cover provision • Built-In Snubber • Chassis Mountable/DIN Mountable with Integral heatsink • Reverse Voltage Protection

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**001 JDA 331000**	**001 JDA 331600**	**001 JDA 332500**	**001 JDA 334000**
Control Volt Range		Vdc	3-32	3-32	3-32	3-32
Control Curr Range		m A	1-20	1-20	1-20	1-20
Pick-Up Voltage		Vdc	3.0	3.0	3.0	3.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0	1.0
Input Resistance		K ohms	1.8	1.8	1.8	1.8
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	24-330	24-330	24-330	24-330
Rep Peak Off State Voltage	Vdrm	Vpk	600	600	600	600
Off State Leakage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	25	25	25	25
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.85	1.85
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	160	250	300
Holding Current	I_H	mA	75	75	150	150
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200	250	250
Thermal Resistance	R_{TH}	°C/W	3.4	2.5	1.5	1.2
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn -Off	T- Off	ms	10	10	10	10
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	120	300	400

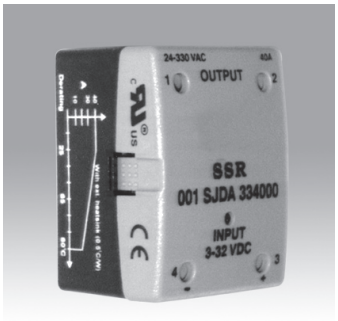
*Our policy is one of continuous development and specifications are subject to change without notice. Warranty is limited to a period of one year for relay value only.

Single Phase SSR (240VAC)
10 ~ 40 Amps

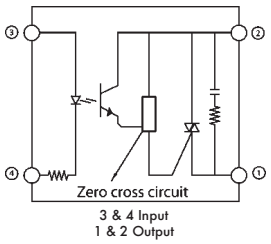
INPUT : AC Control
OUTPUT : Triac output

e-Front runners

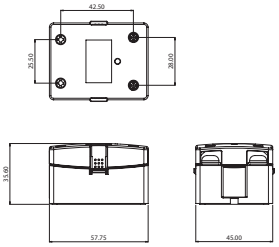
Series : 001 J/K



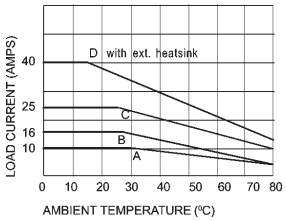
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Output : NO/NC Configuration • Safety cover provision • Built-In Snubber • Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**001 JAA 331028**	**001 JAA 331628**	**001 JAA 332528**	**001 JAA 334028**
Control Volt Range		Vac	90 ~ 280	90 ~ 280	90 ~ 280	90 ~ 280
Control Curr Range		m A	9 ~ 18	9 ~ 18	9 ~ 18	9 ~ 18
Pick-Up Voltage		Vac	90	90	90	90
Drop-Out Voltage		Vac	45	45	45	45
Input Resistance		K Ohms	33	33	33	33
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	24-330	24-330	24-330	24-330
Rep Peak Off State Voltage	Vdrm	Vpk	600	600	600	600
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	25	25	25	25
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.85	1.85
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	160	250	300
Holding Current	I_H	mA	75	75	150	150
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200	250	250
Thermal Resistance	R_{TH}	°C/W	3.4	2.5	1.5	1.2
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	40	40	40	40
Turn -Off	T- Off	ms	80	80	80	80
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	120	300	400

Single Phase SSR (240VAC) 2 NO
10 ~ 40 Amps

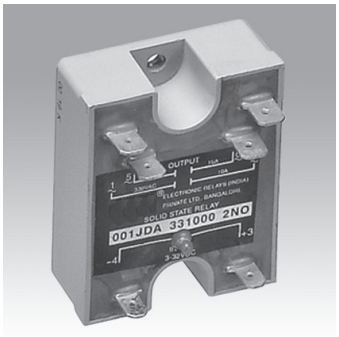
INPUT : DC Control,
OUTPUT : Triac output

e-Front runners

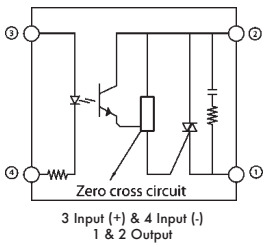
Series : 001 J/K

Input

Output

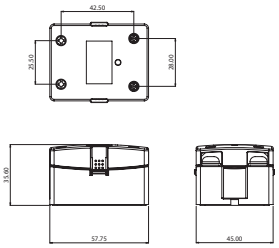


Schematic

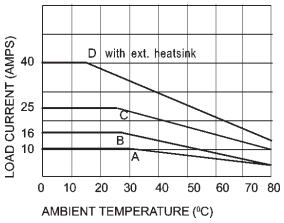


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • TTL/CMOS Compatible (Sink mode) • Output : NO/NC Configuration • Safety cover provision • Built-In Snubber • Chassis Mountable/DIN Mountable with Integral heatsink • Reverse Voltage Protection

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

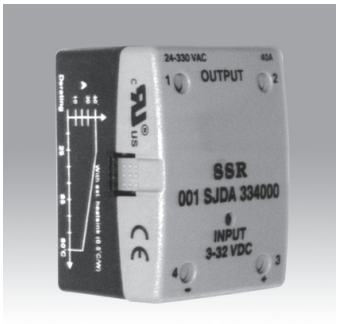
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS		
Parameter	**Symbol**	**Unit**	**001 JDA 331000 (2NO)**	**001 JDA 332500 (2NO)**	**001 JDA 334000 (2NO)**
Control Volt Range		Vdc	3-32	3-32	3-32
Control Curr Range		m A	1-25	1-25	1-25
Pick-Up Voltage		Vdc	3.0	3.0	3.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0
Input Resistance		K ohms	1.8	1.8	1.8
Rms On State Current	**I_T**	**A**	**10**	**25**	**40**
Mains Control Volt	Vrms	Vac	24-330	24-330	24-330
Rep Peak Off State Voltage	Vdrm	Vpk	600	600	600
Off State Leakage Curr	Idrm	mA	10	10	10
Zero T-On Voltage		Vpk	25	25	25
On state Voltage Drop	V_{TM}	Vac	1.6	1.85	1.85
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	250	300
Holding Current	I_H	mA	75	150	150
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	250	250
Thermal Resistance	R_{TH}	°C/W	3.4	1.5	1.2
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10
Turn -Off	T- Off	ms	10	10	10
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	300	400

Single Phase SSR (440VAC)
10 ~ 40 Amps

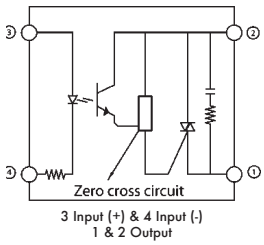
INPUT : DC Control,
OUTPUT : Triac output

e-Front runners

Series : 001 J/K

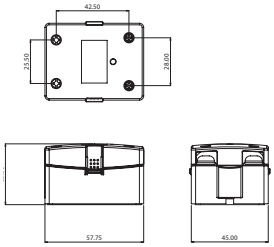


Schematic

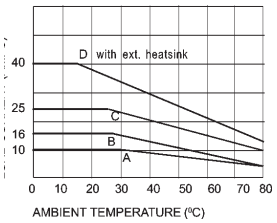


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Comptible (Sink mode) • Output : NO/NC Configuration • Safety cover provision • Built-In Snubber • Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**001 JDA 481000**	**001 JDA 481600**	**001 JDA 482500**	**001 JDA 484000**
Control Volt Range		Vdc	3-32	3-32	3-32	3-32
Control Curr Range		m A	1-25	1-25	1-25	1-25
Pick-Up Voltage		Vdc	3.0	3.0	3.0	3.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0	1.0
Input Resistance			Current Regulator	Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	48-480	48-480	48-480	48-480
Rep Peak Off State Voltage	Vdrm	Vpk	800	800	800	800
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	25	25	25	25
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.85	1.85
Peak one Cycle Surge Curr (Non Rep)	I_{TSM}	A	100	160	250	300
Holding Current	I_H	mA	75	75	150	150
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200	250	250
Thermal Resistance	R_{TH}	°C/W	3.4	2.5	1.5	1.2
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn-Off	T-Off	ms	10	10	10	10
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	120	300	400

Single Phase SSR (440VAC) 2NO
10 ~ 40 Amps

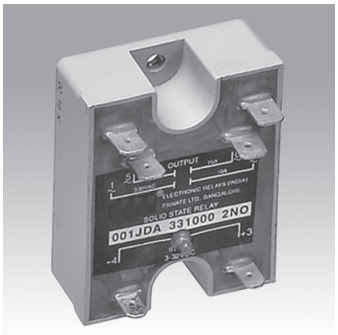
INPUT : DC Control,
OUTPUT : Triac output

e-Front runners

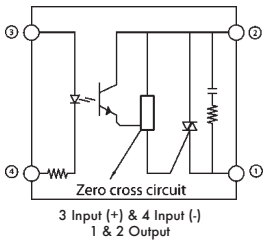
Series : 001 J/K

Input

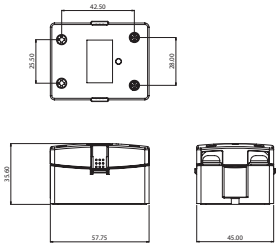
Output



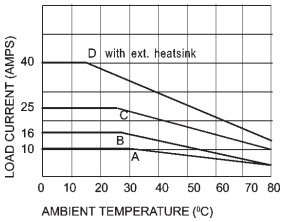
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Comptible (Sink mode) • Output : NO/NC Configuration • Safety cover provision • Built-In Snubber • Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

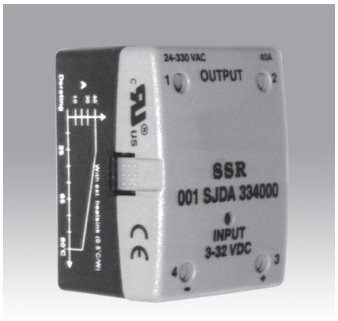
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS		
Parameter	**Symbol**	**Unit**	**001 JDA 481000 (2NO)**	**001 JDA 482500 (2NO)**	**001 JDA 484000 (2NO)**
Control Volt Range		Vdc	3-32	3-32	3-32
Control Curr Range		m A	1-25	1-25	1-25
Pick-Up Voltage		Vdc	3.0	3.0	3.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0
Input Resistance			Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**10**	**25**	**40**
Mains Control Volt	Vrms	Vac	48-480	48-480	48-480
Rep Peak Off State Voltage	Vdrm	Vpk	800	800	800
Off State Lekage Curr	Idrm	mA	10	10	10
Zero T-On Voltage		Vpk	25	25	25
On state Voltage Drop	V_{TM}	Vac	1.6	1.85	1.85
Peak one Cycle Surge Curr (Non Rep)	I_{TSM}	A	100	250	300
Holding Current	I_H	mA	75	150	150
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	250	250
Thermal Resistance	R_{TH}	°C/W	3.4	1.7	1.2
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10
Turn-Off	T-Off	ms	10	10	10
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	300	400

Single Phase SSR (440VAC)
10 ~ 40 Amps

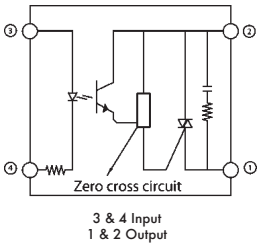
INPUT : AC Control,
OUTPUT : Triac output

e-Front runners

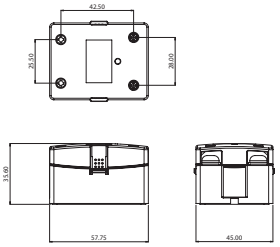
Series : 001 J/K



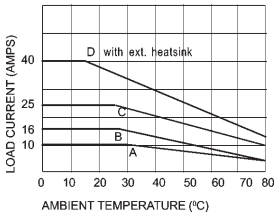
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

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Salient Features

- Opto Isolation 2500 VAC
- Zero Voltage Turn On/Random Turn On
- Output : NO/NC Configuration
- Safety cover provision
- Built-In Snubber
- Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

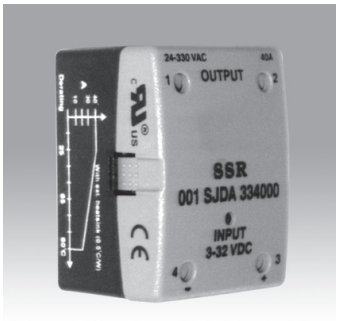
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**001 JAA 481028**	**001 JAA 481628**	**001 JAA 482528**	**001 JAA 484028**
Control Volt Range		Vac	90 -280	90 -280	90 -280	90 -280
Control Curr Range		m A	9 -18	9 -18	9 -18	9 -18
Pick-Up Voltage		Vac	90	90	90	90
Drop-Out Voltage		Vac	45	45	45	45
Input Resistance		K Ohms	20	20	20	20
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	48-480	48-480	48-480	48-480
Rep Peak Off State Voltage	Vdrm	Vpk	800	800	800	800
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		VpK	25	25	25	25
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.85	1.85
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	160	250	300
Holding Current	I_H	mA	75	75	150	150
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200	250	250
Thermal Resistance	R_{TH}	°C/W	3.4	2.5	1.5	1.2
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	40	40	40	40
Turn -Off	T- Off	ms	80	80	80	80
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	120	300	400

Single Phase SSR (240VAC)
10 ~ 40 Amps

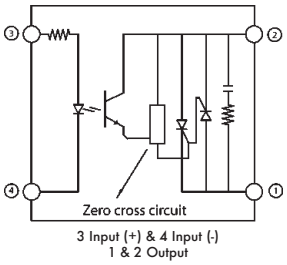
INPUT : DC Control,
OUTPUT : Back - to - Back SCR

e-Front runners

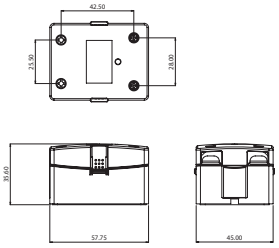
Series : 001 SJ/K



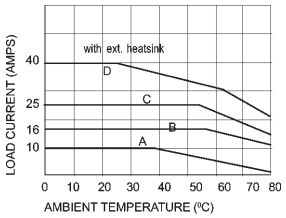
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Compatible (Sink mode) • Output : NO/NC Configuration • Suitable for inductive loads • Built-In Snubber • Safety cover provision • Chassis Mountable / DIN Mountable with Integral heatsink.

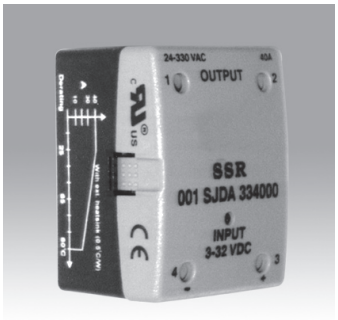
Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

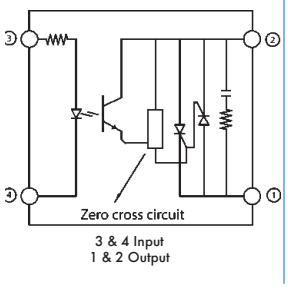
Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**001 SJDA 331000**	**001 SJDA 331600**	**001 SJDA 332500**	**001 SJDA 334000**
Control Volt Range		Vdc	3-32	3-32	3-32	3-32
Control Curr Range		m A	1-25	1-25	1-25	1-25
Pick-Up Voltage		Vdc	3.0	3.0	3.0	3.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0	1.0
Input Resistance			Current Regulator	Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	24-330	24-330	24-330	24-330
Peak Off State Voltage	Vdrm	Vpk	600	600	600	600
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	20	20	20	20
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.6	1.6
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	160	250	400
Holding Current	I_H	mA	50	70	120	250
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	500	500	500
Thermal Resistance	R_{TH}	°C/W	2.0	1.6	1.0	0.88
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn -Off	T- Off	ms	10	10	10	10
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	128	220	560

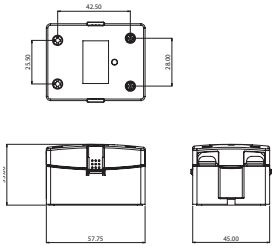
Series : 001 SJ/K



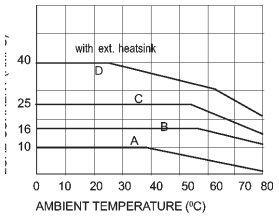
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Output : NO/NC Configuration • Suitable for inductive loads • Built-In Snubber • Safety cover provision • Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**001 SJAA 331028**	**001 SJAA 331628**	**001 SJAA 332528**	**001 SJAA 334028**
Control Volt Range		Vac	90-280	90-280	90-280	90-280
Control Curr Range		m A	9-18	9-18	9-18	9-18
Pick-Up Voltage		Vac	90	90	90	90
Drop-Out Voltage		Vac	45	45	45	45
Input Resistance		K Ohms	13(Typ)	13(Typ)	13(Typ)	13(Typ)
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	24-330	24-330	24-330	24-330
Peak Off State Voltage	Vdrm	Vpk	600	600	600	600
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	20	20	20	20
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.6	1.6
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	160	250	400
Holding Current	I_H	mA	50	70	120	250
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	500	500	500
Thermal Resistance	R_{TH}	°C/W	2.0	1.6	1.0	0.88
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	40	40	40	40
Turn -Off	T- Off	ms	80	80	80	80
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	128	220	560

Single Phase SSR (440VAC)
10 ~ 40 Amps

INPUT : DC Control,
OUTPUT : Back - to - Back SCR

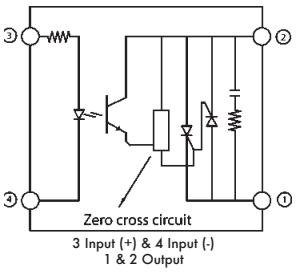
e-Front runners

Series : 001 SJ/K

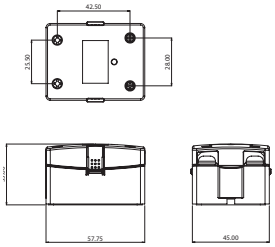
Input

Output

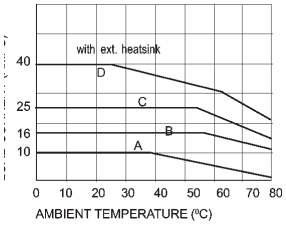
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Compatible (Sink mode) • Output : NO/NC Configuration • Suitable for inductive loads • Built-In Snubber • Safety cover provision • Chassis Mountable / DIN Mountable with Integral heatsink.

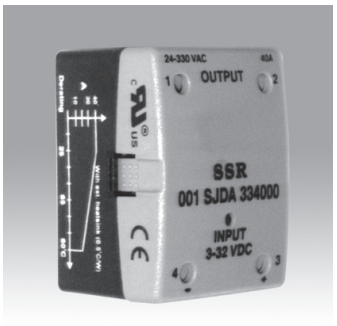
Electrical Specification @ TA = 25⁰C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**001 SJDA 481000**	**001 SJDA 481600**	**001 SJDA 482500**	**001 SJDA 484000**
Control Volt Range		Vdc	3-32	3-32	3-32	3-32
Control Curr Range		m A	1-25	1-25	1-25	1-25
Pick-Up Voltage		Vdc	3.0	3.0	3.0	3.0
Drop-Out Voltage		Vdc	1.0	1. 0	1.0	1.0
Input Resistance		k ohms	Current Regulator	Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	48-480	48-480	48-480	48-480
Peak Off State Voltage	Vdrm	Vpk	800	800	800	800
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	20	20	20	20
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.6	1.6
Peak one Cycle Surge Curr (Non Rep)	I_{TSM}	A	100	160	250	400
Holding Current	I_H	mA	50	70	120	250
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	500	500	500
Thermal Resistance	R_{TH}	°C/W	2.0	1.6	1.0	0.88
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn-Off	T-Off	ms	10	10	10	10
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	128	220	560

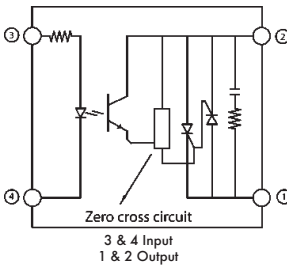
Single Phase SSR (440VAC)
10 ~ 40 Amps

INPUT : AC Control,
OUTPUT : Back-to-Back SCR

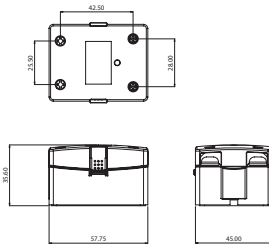
Series : 001 SJ/K



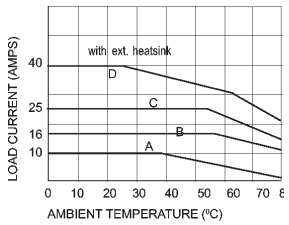
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Output : NO/NC Configuration • Suitable for inductive loads • Built-In Snubber • Safety cover provision • Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

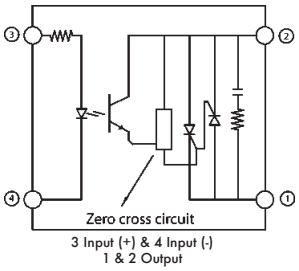
Input

Output

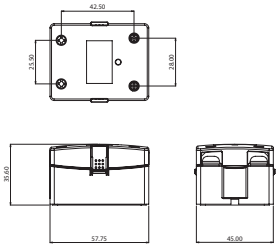
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**001 SJAA 481028001 SJAA 481628001 SJAA 482528001 SJAA 484028**			
Control Volt Range		Vac	90-280	90-280	90-280	90-280
Control Curr Range		m A	9-18	9-18	9-18	9-18
Pick-Up Voltage		Vac	90	90	90	90
Drop-Out Voltage		Vac	45	45	45	45
Input Resistance		k ohms	13(typ)	13(typ)	13(typ)	13(typ)
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	48-480	48-480	48-480	48-480
Peak Off State Voltage	Vdrm	Vpk	800	800	800	800
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	35	35	35	35
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.6	1.6
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	160	500	500
Holding Current	I_H	mA	50	70	120	250
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	500	500	500
Thermal Resistance	R_{TH}	°C/W	2.0	1.6	1.0	0.88
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	40	40	40	40
Turn-Off	T-Off	ms	80	80	80	80
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	128	220	560

Series : 001 SPDA

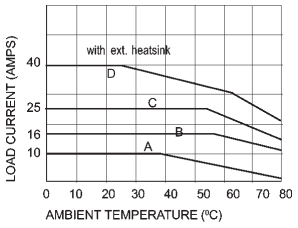
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

- Opto Isolation 2500 VAC • 90⁰ Turn On • Reverse Voltage Protection; TTL/CMOS Compatible (Sink mode)
- Output : NO/NC Configuration • Suitable for inductive loads • Built-In Snubber • Safety cover provision
- Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25⁰C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

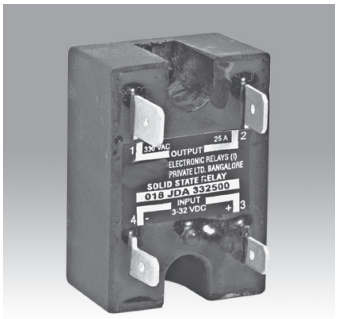
Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS	
Parameter	**Symbol**	**Unit**	**001 SPDA 482525**	**001 SPDA 484025**
Control Volt Range		Vdc	5-25	5-25
Control Curr Range		m A	16	16
Pick-Up Voltage		Vdc	5.5	5.5
Drop-Out Voltage		Vdc	4.0	4.0
Input Resistance		k ohms	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**25**	**40**
Mains Control Volt	Vrms	Vac	480	480
Peak Off State Voltage	Vdrm	Vpk	500	500
Off State Lekage Curr	Idrm	mA	1	1
Zero T-On Voltage		Vpk	20	20
On state Voltage Drop	V_{TM}	Vac	1.6	1.6
Peak one Cycle Surge Curr (Non Rep)	I_{TSM}	A	625	625
Holding Current	I_H	mA	120	120
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	500	500
Thermal Resistance	R_{TH}	⁰C/W	1.0	1.0
Frequency Range	f	Hz	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	5	5
Turn-Off	T-Off	ms	5	5
Operating Temp	T Oper	⁰C	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	1250	1250

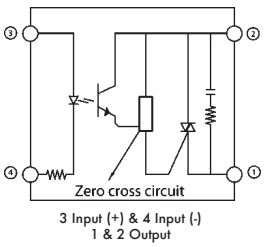
Single Phase SSR (240VAC)
10 ~ 40 Amps

INPUT : DC Control,
OUTPUT : Triac output

Series : 018 JK

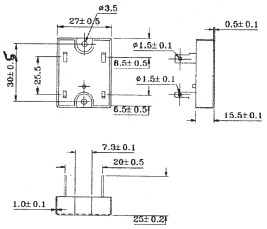


Schematic

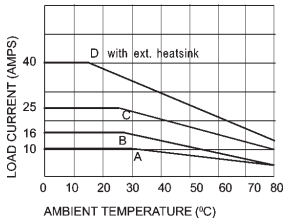


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • TTL/CMOS Compatible (Sink mode) • Output : NO/NC Configuration • Safety cover provision • Built-In Snubber • Chassis Mountable/DIN Mountable with Integral heatsink • Reverse Voltage Protection

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**018 JDA 331000**	**018 JDA 331600**	**018 JDA 332500**	**018 JDA 334000**
Control Volt Range		Vdc	3-32	3-32	3-32	3-32
Control Current Range		m A	1-20	1-20	1-20	1-20
Pick-Up Voltage		Vdc	3.0	3.0	3.0	3.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0	1.0
Input Resistance		K ohms	1.8	1.8	1.8	1.8
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	24-480	24-480	24-480	24-480
Rep Peak Off State Voltage	Vdrm	Vpk	600~800	600~800	600~800	600~800
Off State Leakage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	25	25	25	25
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.85	1.85
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	160	250	300
Holding Current	I_H	mA	75	75	150	150
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200	250	250
Thermal Resistance	R_{TH}	°C/W	3.4	2.5	1.5	1.2
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn -Off	T- Off	ms	10	10	10	10
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	120	300	400

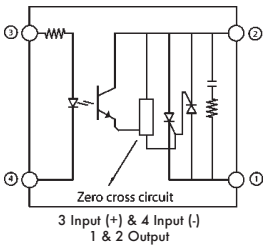
Single Phase SSR (660VAC)
50 ~ 90 Amps

INPUT : DC Control,
OUTPUT : Direct Copper Bonded Back - to - Back SCR

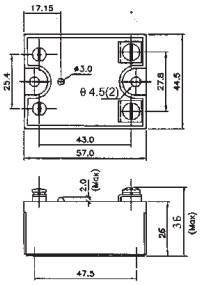
e-Front runners

Series : 020 D/KD

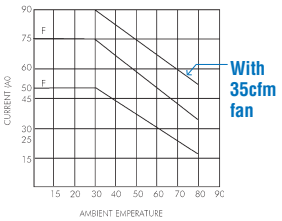
Schematic



Mechanical Drawing



Derating Curve



F = 0.14°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Compatible (Sink mode) • Output : NO Configuration • Safety cover provision • Built-In Snubber • Higher load cycle resistance • High thermal cycling capacity • High Fusing current • Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25⁰C **Note: For Random T - On SSR, add letter 'KD' in place of 'D'.**

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS		
Parameter	**Symbol**	**Unit**	**020 D 125000**	**020 D 127500**	**020 D 129000**
Control Volt Range		Vdc	4-32	4-32	4-32
Control Curr Range		m A	8-35	8-35	8-35
Pick-Up Voltage		Vdc	4.0	4.0	4.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0
Input Resistance			Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**50**	**75**	**90**
Mains Control Volt	Vrms	Vac	48 -660	48-660	48-660
Peak Off State Voltage	Vdrm	Vpk	1200	1200	1200
Off State Lekage Curr	Idrm	mA	5	5	5
Zero T-On Voltage		Vpk	20	20	20
On state Voltage Drop	V_{TM}	Vac	1.6	2.0	2.0
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	500	1150	1350
Holding Current	I_H	mA	300	300	300
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	1000	1000	1000
Thermal Resistance	R_{TH}	°C/W	0.7	0.6	0.3
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10
Turn-Off	T-Off	ms	10	10	10
Operating Temp	T Oper	°C	-30 to +80	-30 to +80	-30 to +80
Fusing Current	I^2T	A^2S	1250	5000	5000

*Our policy is one of continuous development and specifications are subject to change without notice. Warranty is limited to a period of one year for relay value only.

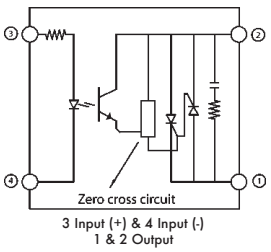
Single Phase SSR (660VAC)
125 ~ 205 Amps

INPUT : DC Control,
OUTPUT : Direct Copper Bonded Back - to - Back SCR

e-Front runners

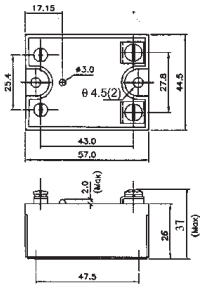
Series : 020 D/KD

Schematic

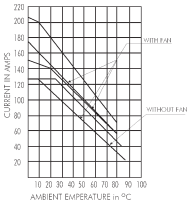


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



Heatsink Rth = 0.14°C/W with cooling fan of 70CFM for 125A & 100CFM for 150-205A

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Compatible (Sink mode) • Output : NO Configuration • Safety cover provision • Built-In Snubber • Higher load cycle resistance • High thermal cycling Capacity • High Fusing current • Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'KD' in place of 'D'.**

Input

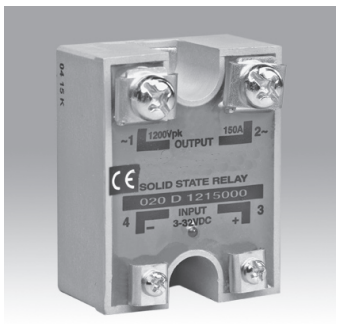
Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**020 D 1212500**	**020 D 1215000**	**020 D 1217500**	**020 D 1220500**
Control Volt Range		Vdc	4 -32	4-32	4-32	4-32
Control Curr Range		m A	8-35	8-35	8-35	8-35
Pick-Up Voltage		Vdc	4.0	4.0	4.0	4.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0	1.0
Input Resistance			Current Regulator	Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**125**	**150**	**175**	**205**
Mains Control Volt	Vrms	Vac	48-660	48-660	48-660	48-660
Peak Off State Voltage	Vdrm	Vpk	1200	1200	1200	1200
Off State Lekage Curr	Idrm	mA	5	5	5	5
Zero T-On Voltage		Vpk	20	20	20	20
On state Voltage Drop	V_{TM}	Vac	2.0	2.0	2.0	2.0
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	1350	1350	1500	2250
Holding Current	I_H	mA	300	500	500	500
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	1000	1000	1000	1000
Thermal Resistance	R_{TH}	°C/W	0.35	0.35	0.25	0.1
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn-Off	T-Off	ms	10	10	10	10
Operating Temp	T Oper	°C	-25 to +80	-25 to +80	-25 to +80	-25 to +80
Fusing Current	I^2_T	A^2S	5000	8000	15000	25000

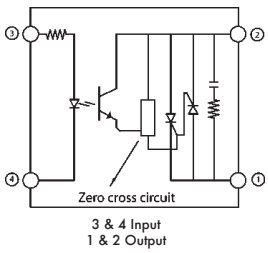
Single Phase SSR (660VAC)
50 ~ 90 Amps

INPUT : AC Control,
OUTPUT : Direct Copper Bonded Back - to - Back SCR

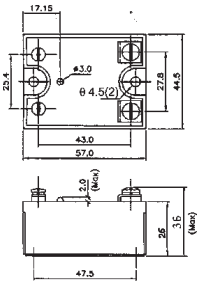
e-Front runners



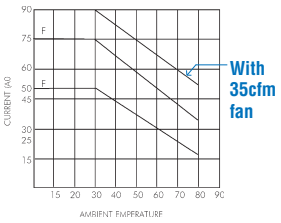
Schematic



Mechanical Drawing



Derating Curve



F = 0.14°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Output : NO Configuration • Safety cover provision • Built-In Snubber • Higher load cycle resistance • High thermal cycling Capacity • High Fusing current • Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25⁰C **Note: For Random T - On SSR, add letter 'KA' in place of 'A'.**

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS		
Parameter	**Symbol**	**Unit**	**020 A 125028**	**020 A 127528**	**020 A 129028**
Control Volt Range		Vac	90-280	90-280	90-280
Control Curr Range		m A	9-18	9-18	9 -18
Pick-Up Voltage		Vac	90	90	90
Drop-Out Voltage		Vac	45	45	45
Input Resistance		K Ohms	20.0(Typ)	20.0(Typ)	20.0(Typ)
Rms On State Current	**I_T**	**A**	**50**	**75**	**90**
Mains Control Volt	Vrms	Vac	48-660	48-660	48-660
Peak Off State Voltage	Vdrm	Vpk	1200	1200	1200
Off State Lekage Curr	Idrm	mA	5	5	5
Zero T-On Voltage		Vpk	20	20	20
On state Voltage Drop	V_{TM}	Vac	1.6	2.0	2.0
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	500	1150	1350
Holding Current	I_H	mA	300	300	300
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	1000	1000	1000
Thermal Resistance	R_{TH}	⁰C/W	0.7	0.6	0.3
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	40	40	40
Turn-Off	T-Off	ms	80	80	80
Operating Temp	T Oper	⁰C	-25 to +80	-25 to +80	-25 to +80
Fusing Current	I^2_T	A^2S	1250	5000	5000

Input

Output

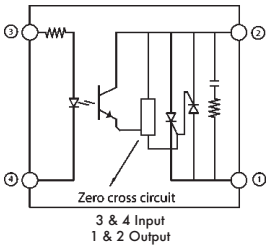
Single Phase SSR (660VAC)
125 ~ 205 Amps

INPUT : AC Control,
OUTPUT : Direct Copper Bonded Back - to - Back SCR

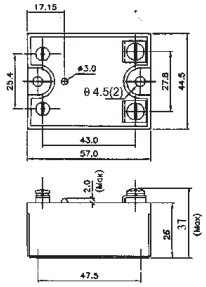
e-Front runners

Series : 020 A/KA

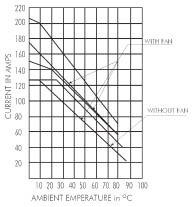
Schematic



Mechanical Drawing



Derating Curve



Heatsink Rth = 0.14°C/W
with cooling fan of 70CFM for 125A & 100CFM for 150-205A

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Output : NO Configuration • Safety cover provision • Built-In Snubber • Higher load cycle resistance • High thermal cycling Capacity • High Fusing current. • Chassis Mountable / DIN Mountable with Integral heatsink.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'KA' in place of 'A'.**

Input

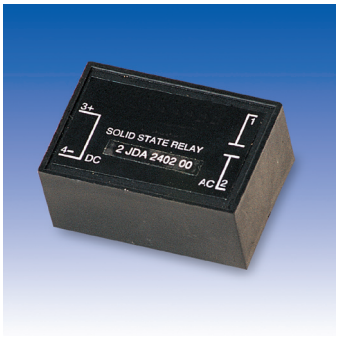
Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**020 A 1212528**	**020 A 1215028**	**020 A 1217528**	**020 A 1220528**
Control Volt Range		Vac	90-280	90-280	90-280	90-280
Control Curr Range		m A	9-18	9-18	9-18	9-18
Pick-Up Voltage		Vac	90	90	90	90
Drop-Out Voltage		Vac	45	45	45	45
Input Resistance		K Ohms	20.0(Typ)	20.0(Typ)	20.0(Typ)	20.0(Typ)
Rms On State Current	**I_T**	**A**	**125**	**150**	**175**	205
Mains Control Volt	Vrms	Vac	48-660	48-660	48-660	48-660
Peak Off State Voltage	Vdrm	Vpk	1200	1200	1200	1200
Off State Lekage Curr	Idrm	mA	5	5	5	5
Zero T-On Voltage			20	20	20	20
On state Voltage Drop	V_{TM}	Vac	2.0	2.0	2.0	2.0
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	1350	1350	1500	2250
Holding Current	I_H	mA	300	500	500	500
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	1000	1000	1000	1000
Thermal Resistance	R_{TH}	°C/W	0.35	0.35	0.25	0.1
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	40	40	40	40
Turn -Off	T- Off	ms	80	80	80	80
Operating Temp	T Oper	°C	-25 to +80	-25 to +80	-25 to +80	-25 to +80
Fusing Current	I^2_T	A^2S	5000	8000	15000	25000

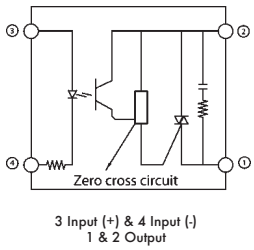
Single Phase SSR (240VAC) 2 Amps

INPUT : DC Control,
OUTPUT : Triac

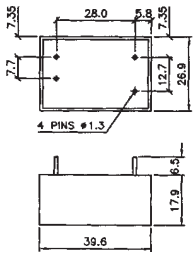
Series : 002 J/K



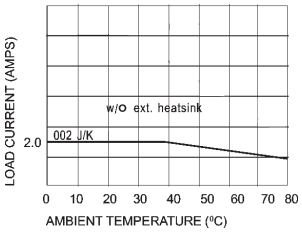
Schematic



Mechanical Drawing



Derating Curve



Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Comptible (Sink mode) • Output : NO/NC Configuration • Built-In Snubber • PCBMountable • Pins are polarised

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS
Parameter	**Symbol**	**Unit**	**002 JDA 330200**
Control Volt Range		Vdc	3-32
Control Curr Range		m A	1-30
Pick-Up Voltage		Vdc	3.0
Drop-Out Voltage		Vdc	1.0
Input Resistance		K Ohms	Current Regulator
Rms On State Current	I_T	**A**	**2.0**
Mains Control Volt	Vrms	Vac	24-330
Non-Rep Peak Off State Voltage	Vdrm	Vpk	600
Off State Lekage Curr	Idrm	mA	10
Zero T-On Voltage		Vpk	25
On state Voltage Drop	V_{TM}	Vac	1.6
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100
Holding Current	I_H	mA	75
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200
Thermal Resistance	R_{TH}	°C/W	2.0
Frequency Range	f	Hz	47 ~ 63
Turn-On	T-On	ms	10
Turn -Off	T-Off	ms	10
Operating Temp	T Oper	°C	-30 to +80
Fusing Current	I^2_T	A^2S	50

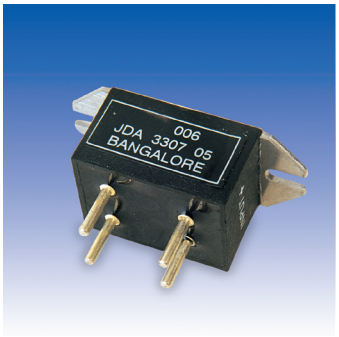
*Our policy is one of continuous development and specifications are subject to change without notice. Warranty is limited to a period of one year for relay value only.

Single Phase SSR (240VAC)
2 ~ 7 Amps

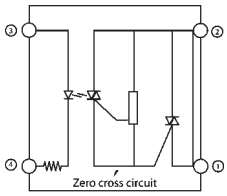
INPUT : DC Control,
OUTPUT : Triac

e-Front runners

Series : 006 J/K

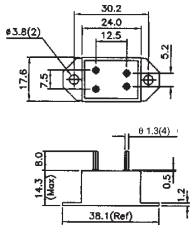


Schematic

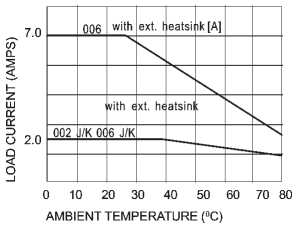


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



A = 3.2°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Comptible (Sink mode) • PCB Mountable • Chassis Mountable.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

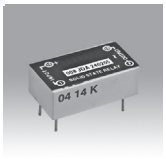
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS	
Parameter	**Symbol**	**Unit**	**006 JDA 330205**	**006 JDA 330705**
Control Volt Range		Vdc	5/12/24	5/12/24
Control Curr Range		m A	10	10
Pick-Up Voltage		Vdc	5/12/24	5/12/24
Drop-Out Voltage		Vdc	1/3/5	1/3/5
Input Resistance		K Ohms	0.5/1.2/2.2	0.5/1.2/2.2
Rms On State Current	**I_T**	**A**	**2.0**	**7.0**
Mains Control Volt	Vrms	Vac	24-330	24-330
Non-Rep Peak Off State Voltage	Vdrm	Vpk	600	600
Off State Lekage Curr	Idrm	µA	100	100
Zero T-On Voltage		Vpk	25	25
On state Voltage Drop	V_{TM}	Vac	1.6	1.6
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	100
Holding Current	I_H	mA	75	75
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200
Thermal Resistance	R_{TH}	°C/W	1.6	1.6
Frequency Range	f	Hz	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10
Turn -Off	T-Off	ms	10	10
Operating Temp	T Oper	°C	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	50

Single Phase SSR (240VAC)
2 ~ 4 Amps

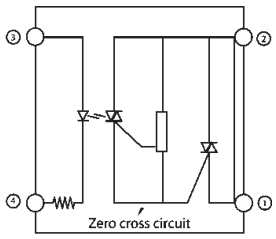
INPUT : DC Control,
OUTPUT : Triac

e-Front runners

Series : 004/008 J/K

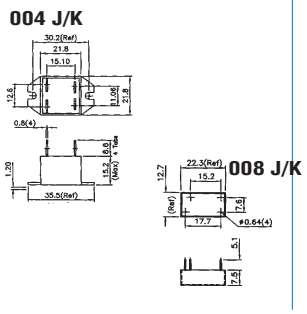


Schematic

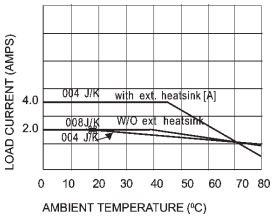


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



A = 3.2°C/W
For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Comptible (Sink mode) • PCB Mountable • Compatible to Std IC base(008/010 Series only).

Electrical Specification @ TA = 25⁰C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

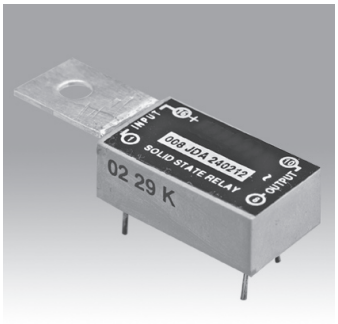
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS	
Parameter	**Symbol**	**Unit**	**004 JDA 330405**	**008 JDA 330205**
Control Volt Range		Vdc	5/12/24	5/12/24
Control Curr Range		m A	5-15	5-15
Pick-Up Voltage		Vdc	5/12/24	5/12/24
Drop-Out Voltage		Vdc	1/3/5	1/3/5
Input Resistance		K Ohms	0.5 - 2.0(Typ)	0.5 - 2.0(Typ)
Rms On State Current	**I_T**	**A**	**4.0**	**2.0**
Mains Control Volt	Vrms	Vac	24-330	24-330
State Voltage	Vdrm	Vpk	600	600
Off State Lekage Curr	Idrm	mA	10	10
Zero T-On Voltage		Vpk	25	25
On state Voltage Drop	V_{TM}	Vac	1.6	1. 6
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	100
Holding Current	I_H	mA	75	75
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200
Thermal Resistance	R_{TH}	⁰C/W	1 . 0	0 . 88
Frequency Range	f	Hz	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10
Turn-Off	T-Off	ms	10	10
Operating Temp	T Oper	⁰C	-30 to +80	-30 to +80
Fusing Current	I^2_T	A^2S	50	50

Single Phase SSR (240VAC)
3 Amps

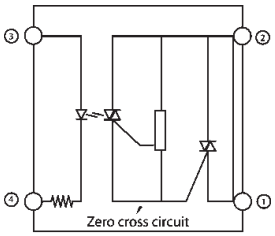
INPUT : DC Control,
OUTPUT : Triac

e-Front runners

Series : 010 J/K

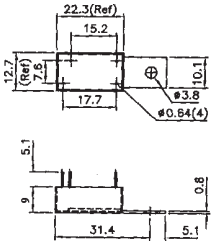


Schematic

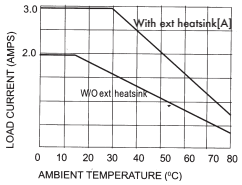


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



A = 3.2°C/W
For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Zero Voltage Turn On/Random Turn On • Reverse Voltage Protection; TTL/CMOS Comptible (Sink mode) • PCB Mountable • Compatible to Std IC base(008/010 Series only).

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

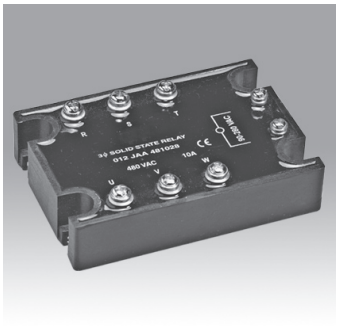
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS
Parameter	**Symbol**	**Unit**	**010 JDA 330305**
Control Volt Range		Vdc	5/12/24
Control Curr Range		m A	5-15
Pick-Up Voltage		Vdc	5/12/24
Drop-Out Voltage		Vdc	1/3/5
Input Resistance		K Ohms	0.5 - 2.0(Typ)
Rms On State Current	**I_T**	**A**	**3.0**
Mains Control Volt	Vrms	Vac	24-330
State Voltage	Vdrm	Vpk	600
Off State Lekage Curr	Idrm	mA	10
Zero T-On Voltage		Vpk	25
On state Voltage Drop	V_{TM}	Vac	1.6
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100
Holding Current	I_H	mA	75
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200
Thermal Resistance	R_{TH}	°C/W	0 . 88
Frequency Range	f	Hz	47 ~ 63
Turn-On	T-On	ms	10
Turn-Off	T-Off	ms	10
Operating Temp	T Oper	°C	-30 to +80
Fusing Current	I^2_T	A^2S	50

Three Phase SSR (480VAC)
10 ~ 40 Amps

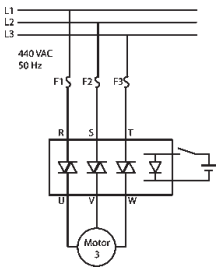
INPUT : DC Control,
OUTPUT : Triac

e-Front runners

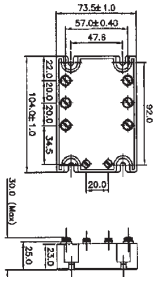
Series : 012 J/K



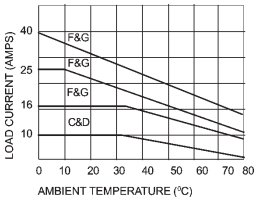
Schematic



Mechanical Drawing



Derating Curve



C & D = 0.5°C/W
F & G = 0.14°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

- Opto Isolation 2500 VAC • Voltage Range 50 to 480 Vac
- Load Current 3x10A/16A/25A/40A • Reverse Polarity Protection

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

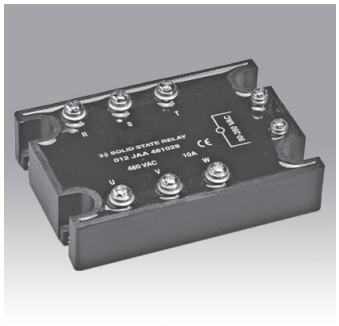
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**012 JDA 481000**	**012 JDA 481600**	**012 JDA 482500**	**012 JDA 484000**
Control Volt Range		Vdc	3-32	3-32	3-32	3-32
Control Curr Range		m A	80	80	80	80
Pick-Up Voltage		Vdc	3.0	3.0	3.0	3.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0	1.0
Input Resistance			Current Regulator	Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	50-480	50-480	50-480	50-480
Peak Off State Voltage	Vdrm	Vpk	800 ~ 1200	800 ~ 1200	800 ~ 1200	800 ~ 1200
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	20	20	20	20
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.85	1.85
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	160	250	350
Holding Current	I_H	mA	150	150	250	250
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200	250	250
Thermal Resistance	R_{TH}	°C/W	3.5	2.5	1.5	1.0
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn-Off	T-Off	ms	10	10	10	10
Operating Temp	T Oper	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 80
Fusing Current	I^2_T	A^2S	50	120	260	610

Three Phase SSR (480VAC)
50 ~ 90 Amps

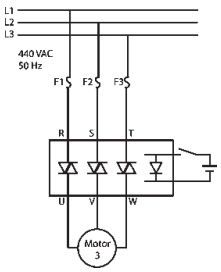
INPUT : DC Control,
OUTPUT : Direct Copper Bonded Back - to - Back SCR

e-Front runners

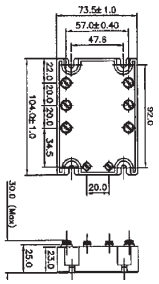
Series : 012 SJ/K



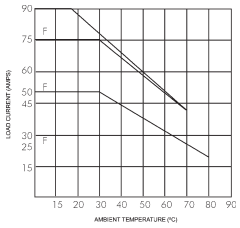
Schematic



Mechanical Drawing



Derating Curve



F = 0.14°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

- Opto Isolation 2500 VAC • Voltage Range 50 to 480 Vac • Load Current 3x50A/75A/90A
- Reverse Polarity Protection for DC Input Control.

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS		
Parameter	**Symbol**	**Unit**	**012 SJDA 485000**	**012 SJDA 487500**	**012 SJDA 489000**
Control Volt Range		Vdc	4-32	4-32	4-32
Control Curr Range		m A	8-80	8-80	8-80
Pick-Up Voltage		Vdc	4.0	4.0	4.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0
Input Resistance			Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**50**	**75**	**90**
Mains Control Volt	Vrms	Vac	50-480	50 -480	50-480
Peak Off State Voltage	Vdrm	Vpk	800 ~ 1200	800 ~ 1200	800 ~ 1200
Off State Lekage Curr	Idrm	mA	10	10	10
Zero T-On Voltage		Vpk	20	20	20
On state Voltage Drop	V_{TM}	Vac	2	2	2
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	500	1150	1150
Holding Current	I_H	mA	250	300	300
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	1000	1000	1000
Thermal Resistance	R_{TH}	°C/W	0.7	0.6	0.3
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10
Turn-Off	T-Off	ms	10	10	10
Operating Temp	T Oper	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80
Fusing Current	I^2_T	A^2S	1250	5000	5000

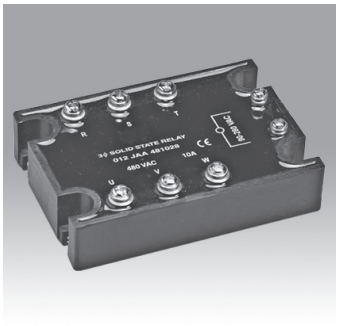
*Our policy is one of continuous development and specifications are subject to change without notice. Warranty is limited to a period of one year for relay value only.

Three Phase SSR (480VAC)
10 ~ 40 Amps

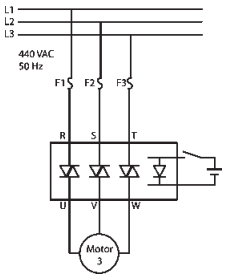
INPUT : AC Control,
OUTPUT : Triac

e-Front runners

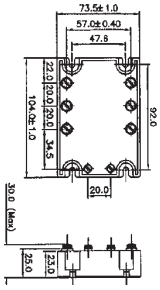
Series : 012 J/K



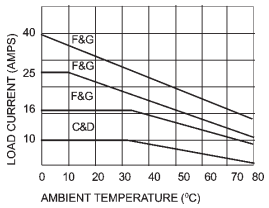
Schematic



Mechanical Drawing



Derating Curve



C & D = 0.5°C/W
F & G = 0.14°C/W

For Heatsink details refer to
"Recommended Heatsink" chart

Salient Features

- Opto Isolation 2500 VAC
- Voltage Range 50 to 480 Vac
- Load Current 3x10A/16A/25A/40A

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

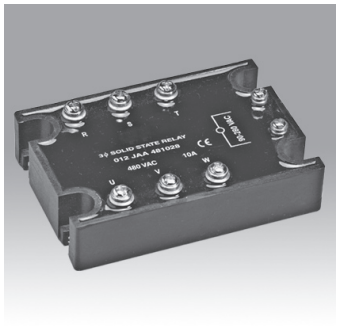
Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**012 JAA 481028**	**012 JAA 481628**	**012 JAA 482528**	**012 JAA 484028**
Control Volt Range		Vac	90-280	90-280	90-280	90-280
Control Curr Range		m A	8-80	8-80	8-80	8-80
Pick-Up Voltage		Vac	90	90	90	90
Drop-Out Voltage		Vac	45	45	45	45
Input Resistance		K Ohms	13.0(Typ)	13.0(Typ)	13.0(Typ)	13.0(Typ)
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	50-480	50-480	50-480	50-480
Peak Off State Voltage	Vdrm	Vpk	800 ~ 1200	800 ~ 1200	800 ~ 1200	800 ~ 1200
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	20	20	20	20
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.85	1.85
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	100	160	250	350
Holding Current	I_H	mA	250	250	200	200
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200	250	250
Thermal Resistance	R_{TH}	°C/W	3.5	2..5	1.5	1.0
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	40	40	40	40
Turn-Off	T-Off	ms	80	80	80	80
Operating Temp	T Oper	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 80
Fusing Current	I^2_T	A^2S	50	120	260	610

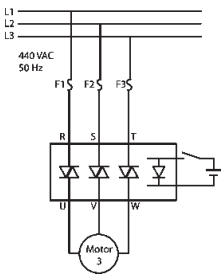
Three Phase SSR (480VAC)
50 ~ 90 Amps

INPUT : AC Control,
OUTPUT : Direct Copper bonded Back - to - Back SCR

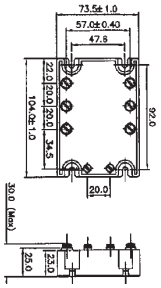
Series : 012 SJ/K



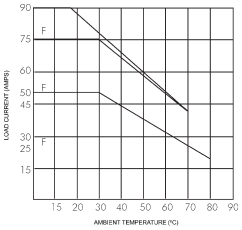
Schematic



Mechanical Drawing



Derating Curve



F = 0.14°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

- Opto Isolation 2500 VAC
- Voltage Range 50 to 480 Vac
- Load Current 3x50A/75A/90A

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

Output

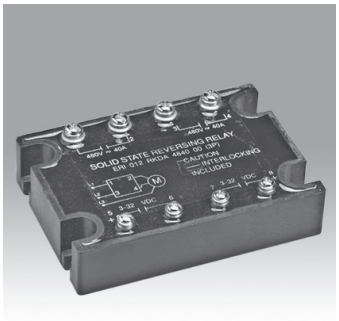
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS		
Parameter	**Symbol**	**Unit**	**012 SJAA 485028**	**012 SJAA 487528**	**012 SJAA 489028**
Control Volt Range		Vac	90-280	90-280	90-280
Control Curr Range		m A	8-80	8-80	8-80
Pick-Up Voltage		Vac	90	90	90
Drop-Out Voltage		Vac	45	45	45
Input Resistance		K Ohms	13.0(Typ)	13.0(Typ)	13.0(Typ)
Rms On State Current	**I_T**	**A**	**50**	**75**	**90**
Mains Control Volt	Vrms	Vac	50-480	50-480	50-480
Peak Off State Voltage	Vdrm	Vpk	800 ~ 1200	800 ~ 1200	800 ~ 1200
Off State Lekage Curr	Idrm	mA	10	10	10
Zero T-On Voltage		Vpk	35	35	35
On state Voltage Drop	V_{TM}	Vac	2	2	2
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	500	1150	1150
Holding Current	I_H	mA	250	300	300
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	1000	1000	1000
Thermal Resistance	R_{TH}	°C/W	0.7	0.6	0.3
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	40	40	40
Turn -Off	T- Off	ms	80	80	80
Operating Temp	T Oper	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80
Fusing Current	I^2_T	A^2S	1250	5000	5000

Three Phase Motor Reversing SSR (480VAC) 10 ~ 40 Amps

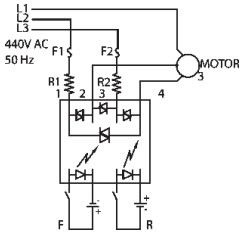
INPUT : DC Control,
OUTPUT : Triac

e-Front runners

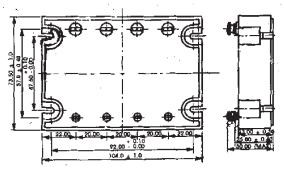
Series : 012 RJ/K



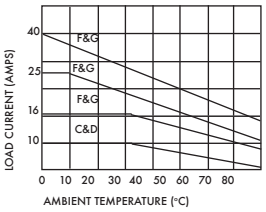
Schematic



Mechanical Drawing



Derating Curve



C & D = 0.5°C/W
F & G = 0.14°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

- Opto Isolation 2500 VAC • Voltage Range 50 to 480 Vac • Load Current 2x10A/16A/25A/40A
- Reverse Polarity Protection for DC Input Control• Interlocking Protection included.

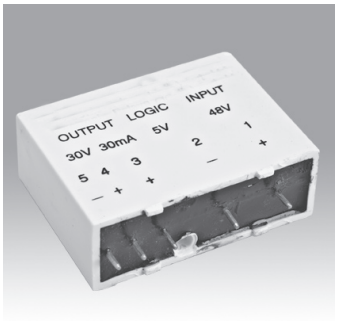
Electrical Specification @ TA = 25⁰C **Note: For Random T - On SSR, add letter 'K' in place of 'J'.**

Input

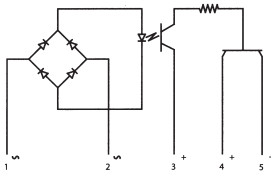
Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**012 RJDA 481000**	**012 RJDA 481600**	**012 RJDA 482500**	**012 RJDA 484000**
Control Volt Range		Vdc	4-32	4-32	4-32	4-32
Control Curr Range		m A	80	80	80	80
Pick-Up Voltage		Vdc	4.0	4.0	4.0	4.0
Drop-Out Voltage		mA	1.0	1.0	1.0	1.0
Input Resistance			Current Regulator	Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt	Vrms	Vac	50-480	50-480	50-480	50-480
Peak Off State Voltage	Vdrm	Vpk	800 ~ 1200	800 ~ 1200	800 ~ 1200	800 ~ 1200
Off State Lekage Curr	Idrm	mA	10	10	10	10
Zero T-On Voltage		Vpk	20	20	20	20
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.85	1.85
Peak one Cycle Surge Curr (Non Rep)	I_{TSM}	A	100	160	250	350
Holding Current	I_H	mA	100	100	250	250
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200	250	250
Thermal Resistance	R_{TH}	⁰C/W	3.5	2.5	1.5	1.0
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn-Off	T-Off	ms	10	10	10	10
Operating Temp	T Oper	⁰C	- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 80
Fusing Current	I^2_T	A^2S	50	120	260	560

*Our policy is one of continuous development and specifications are subject to change without notice. Warranty is limited to a period of one year for relay value only.

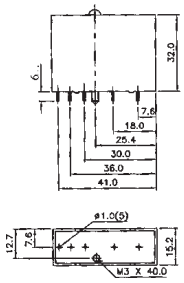


Schematic



1 & 2 AC Input, 3 Logic Supply, 4 Output, 5 Common

Mechanical Drawing

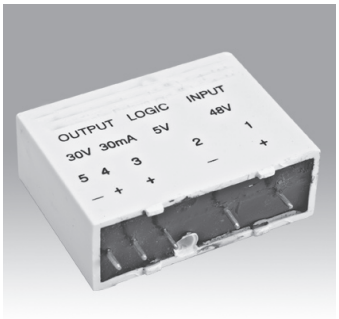


Highlights

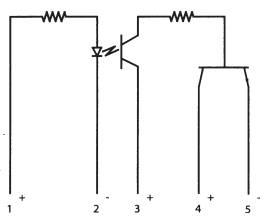
• Compatible to TTL and CMOS logic • LED indication • Industrial standard package with hold-down screw • PCB Mountable • Pins are polarised

Electrical Specification @ TA = 25⁰(

ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS	
		104 AI 032528	
Parameter	**Units**	**Min**	**Max**
Input On Voltage	V(RMS)	180	280
Input Off Voltage	V(RMS)	0.0	15
Allowable Input Current for Output Off-State	mA(RMS)	0.0	0.25
Input Current at 240 VRMS	mA(RMS)		3.0
Frequency range	Hz	47	63
Input Impedence	K Ohms	64	96
Over Voltage	Vpk		600
Isolation Voltage	V(RMS)	2500	
Note : All voltages referenced to Pin 5			
Breakedown voltage (Pin 5)	VDC	30	
Output Current (Pin 4)	mA		25
On-State Voltage (Pin 4) (at 25 mADC)	VDC		0.4
Off-State Lekage (Pin 4) (at 30 VDC)	µA		100
Logic supply voltage (Pin 3)	VDC	3.5	6.0
Logic supply Current (Pin 3) No External LED	mA		8.0
Logic supply Current with External LED	mA		5.5
Turn-On Time	mS		20
Turn-Off Time	mS		20
Operating Temperature	⁰c	-30	80

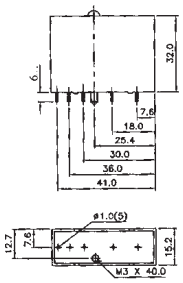


Schematic



1 & 2 DC Input, 3 Logic Supply, 4 Output, 5 Common

Mechanical Drawing



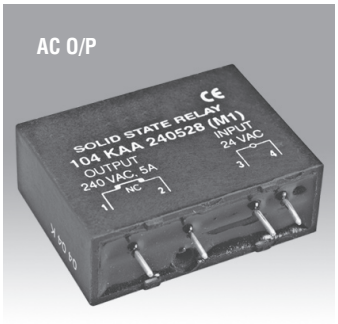
Highlights

• Compatible to TTL and CMOS logic • LED indication • Industrial standard package with hold-down screw • PCB Mountable • Pins are polarised

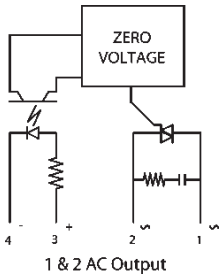
Electrical Specification @ TA = 25°C

ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS	
		104 DI 032505	
Parameter	**Units**	**Min**	**Max**
Input On Voltage	VDC	3.0	32
Input Off Voltage	VDC	0.0	1.0
Allowable Input Current for Output Off-State	mA	0.0	0.25
Input Current at 5 VDC	mA	2	4.0
Frequency range	-	-	-
Input Resistance	Ohms	0.85	1.86
Isolation Voltage	V(RMS)	2500	
Note : All voltages referenced to Pin 5			
Breakdown voltage (Pin 5)	VDC	30	
Output Current (Pinn 4)	mA		25
On-State Voltage (Pin 4) (at 25 mADC	VDC		0.4
Off-State Lekage (Pin 4) (at 30 VDC)	µA		100
Logic supply voltage (Pin 3)	VDC	3.5	6.0
Logic supply Current (Pin 3) No External LED	mA		8.0
Logic supply Current with External LED	mA		5.5
Turn-On Time	mS		5
Turn-Off Time	mS		5
Operating Temperature	°c	-30	80

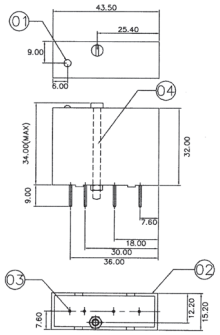
Series : 104



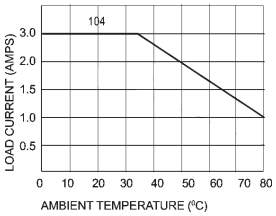
Schematic



Mechanical Drawing



Derating Curve



Highlights

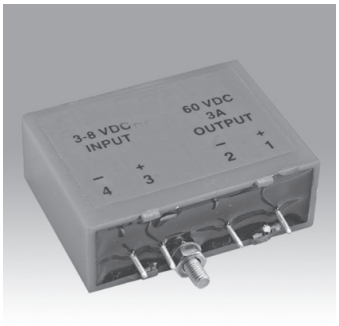
• Compatible to TTL and CMOS logic • Zero Voltage or Random turn on • LED indication • PCB Mountable • Pins are polarised• Industrial standard package with hold-down screw

Electrical Specification @ TA = 25°C

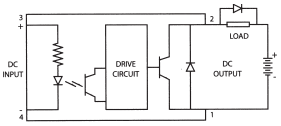
Input

Output

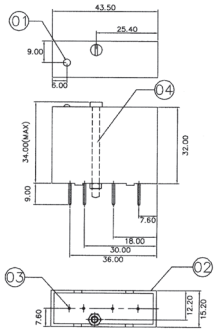
ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS	
		104 AO 240305	
Parameter	**Units**	**Min**	**Max**
Input On Voltage	VDC	3.0	8.0
Input Off Voltage	VDC	-8.0	1.0
Input Current at 5 VDC	mA		10
Input Resistance	Ohms	445	815
Isolation Voltage	V(RMS)	2500	
Load Current at 45°c	A(RMS)	0.05	3.0
Load Voltage	V(RMS)	24	280
Frequency Range	Hz	47	63
Surge Current Non-repetive (1cycle)	Apk		80
Transient over-voltage	Vpk		600
On- state Voltage @ Rated Current	VRMS	1.5	
Off-State Leakage @ 240 VRMS	mA(RMS)		5
Off-State dv/dt	V/µs	200	
Turn-On Time (Next Zero Voltage	Cycle		1/2
Turn-Off Time (Next Zero current)	Cycle		1/2
Operating Temperature	°c	-30	80



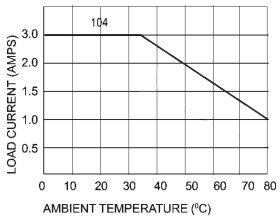
Schematic



Mechanical Drawing



Derating Curve



Highlights

• Compatible to TTL • Compatible to CMOS logic (optional) • LED indication • PCB Mountable • Pins are polarised
• Industrial standard package with hold down screw

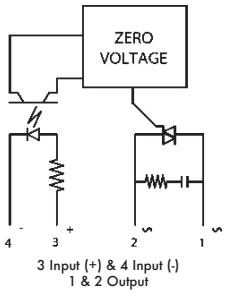
Electrical Specification @ TA = 25°C

ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS	
		104 DO 060300	
Parameter	**Units**	**Min**	**Max**
Input On Voltage	VDC	3.0	32
Input Off Voltage	VDC	-8.0	1.0
Input Current at 5 VDC	mA		13
Input Resistance	Ohms	270	580
Isolation Voltage	V(RMS)	2500	
Load Current at 45°c	A(RMS)	0.05	3.0
Load Voltage	VDC	3.0	60
Surge Current(1Sec)		5.0	A
Transient over-voltage	Vpk		600
On-State Voltage @ Rated Current	VDC		1.5
Off-State Leakage @ 60 VDC	mA		1
Turn-On Time	µS		200
Turn-Off Time	µS		750
Operating Temperature	°c	-30	80

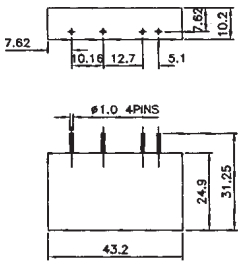
Series : 106

JDA241000

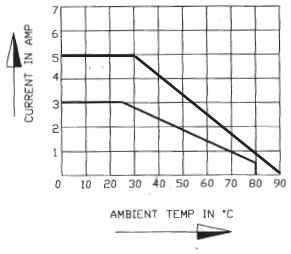
Schematic



Mechanical Drawing



Derating Curve



Highlights

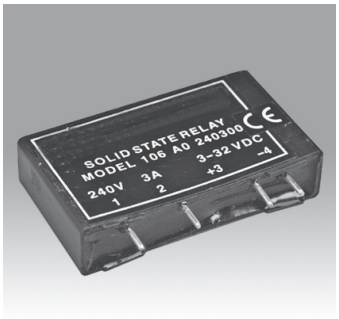
- Compatible to TTL logic
- Built in zero cross cirtuit
- Low profile module
- High Repetitive off state voltage
- Pins are polarised

Electrical Specification @ TA = 25°C

Input

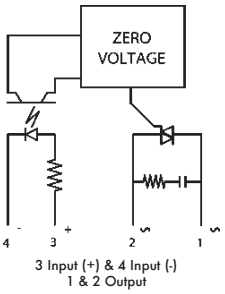
Output

ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS		
Parameter	**Units**	**106 AO 240300**	**106 AO 240500**	**106 AO 480300**
Input On Voltage	VDC	3-32	3-32	3-32
Input Off Voltage	VDC	1	1	1
Input Current at 5 VDC	mA	12	25	12
Input Resistance	Current Regulator	Current Regulator	Current Regulator	Current Regulator
Input Reverse voltage	VDC	32-1	32-1	32-1
Isolation Voltage	V(RMS)	4000	4000	4000
Load Current at 45°c	A	0.05-3	0.05-5	0.05-3
Load Voltage	VRMS	24-240	24-240	24-480
Frequency Range	Hz	47-63	47-63	47-63
Surge Current None-repetive (1cyle)	A	80	300	80
Transient over-voltage	Vpk	600	600	800
On- state Voltage @ Rated Current	VRMS	1.6	1.6	1.6
Off-State Leakage @ 240 VRMS	mA	5	10	5
Critical rate of rise of off state voltage (dv/dt)	V/µs	200	300	200
Turn-On Time (Next Zero Voltage)	Cycle	1/2	1/2	1/2
Turn-Off Time (Next Zero current)	Cycle	1/2	1/2	1/2
Operating Temperature	°c	-30 to +80	-40 to +80	-30 to +80

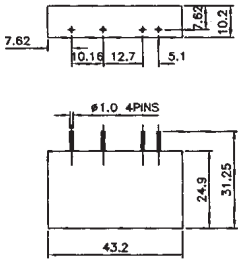


JDA241000

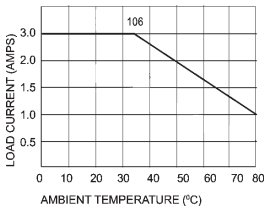
Schematic



Mechanical Drawing



Derating Curve



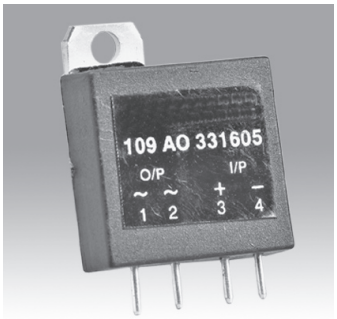
Highlights

- Compatible to TTL logic • Built in zero cross cirtuit • Low profile module • High Repetitive off state voltage
- Pins are polarised

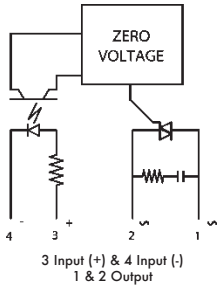
Electrical Specification @ TA = 25°C

ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS	
Parameter	**Units**	**106 DO 060300**	**106 DO 050500**
Control Voltage	VDC	3-32	3-32
Typical Input Current	mA	30	30
Must Turn-On Voltage	VDC	3.5	3.5
Must Releas Min Voltage	VDC	1.0	1.0
Typical I/P Impedance	OHMS	1.8K ohms	1.8K ohms
Load Voltage Range	Vdc	3-30	3-50
Rated Load Current(Ref. Thermal Derating Curve)	A	3	5
Minimum load current	mA	50	100
Maximum off-state leakage current	mA	1.0	10
Typical On-state Voltage drop	V	1.5	1.5
Maximum Turn-On Time	µS	500	760
Maximum Turn-Off Time	µS	800	850
Dielectric Strength (I/P - O/P Insulation)	Vrms	2500	2500
Operating Temperature Range	°C	-30 to +80	-30 to +85
Storage Temperature Range	°C	-30 to +100	-30 to +125

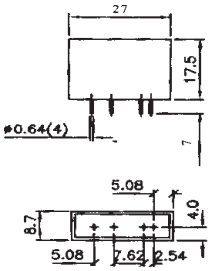
Series : 109



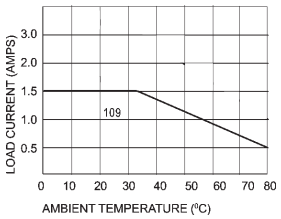
Schematic



Mechanical Drawing



Derating Curve



Highlights

- Compatible to TTL logic • Built in zero cross cirtuit • Mini Module • High Repetitive off state voltage
- Pins are polarised

Electrical Specification @ TA = 25°C

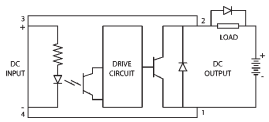
Input

Output

ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS			
		109 AO 240205		001 JDA 331605	
Parameter	Units	Min	Max	Min	Max
Input On Voltage	VDC	4	6	4	6
Input Off Voltage	VDC	1	-	1	-
Input Current at 5 VDC	mA	-	30	-	30
Input Resistance	Ohms		130		130
Input Reverse voltage	VDC	-32	-	-32	-
Isolation Voltage	VRMS	-	4000	-	4000
Load Current at 45°c	A	0.05	2	-	16
Load Voltage	VRMS	24	330	24	330
Frequency Range	Hz	47	63	47	63
Surge Current Non-rep (1cyle)	A	-	80	-	160
Transient over-voltage	Vpk	-	600	-	600
On- state Voltage @ Rated Current	VRMS	-	1.6	-	1.6
Off-State Leakage @ 240 VRMS	mA	-	5	-	5
Critical rate of rise of off state voltage (dv/dt)	V/µs	200	-	200	-
Turn-On Time (Next Zero Voltage)	Cycle	-	1/2	-	10
Turn-Off Time (Next Zero current)	Cycle	-	1/2	-	10
Operating Temperature	°c	-30	80	-30	80

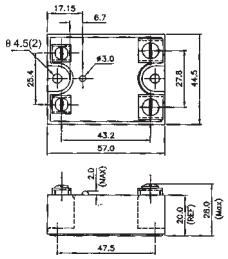
Series : 001 K

Schematic

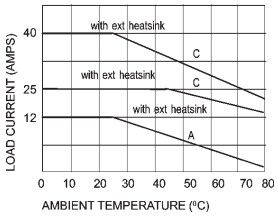


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



A = 3.2°C/W
C = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Input Compatible to TTL logic • MOSFET OUTPUT • Reverse Polarity Protection. Chassis Mountable / DIN Rail Mountable with Integral heatsink.

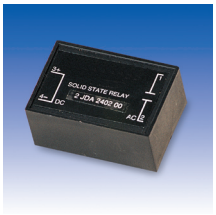
Electrical Specification @ TA = 25°C

Input

Output

ELECTRICAL SPECIFICATIONS				PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**001**	**KDD 060500**	**001 KDD 201200**	**001 KDD 202500**	**001 KDD 204000**
Control Volt Range		Vdc		3.5-32	3.5-32	3.5-32	3.5-32
Control Curr Range		mA		3.5	3.5	3.5	3.5
Pick-Up Voltage		Vdc		3.5	3.5	3.5	3.5
Drop-Out Voltage		Vdc		1.0	1.0	1.0	1.0
Input Resistance				Current Regulator	Current Regulator	Current Regulator	Current Regulator
Load Current	**I_T**	**A**		**2 ~ 5**	**12**	**25**	**40**
Load Voltage		Vdc		60	200	200	200
Surge Curr (1cycle Surge)				15	27	50	90
On state Voltage Drop	V_{TM}	Vdc		2	2.83	2.83	2.83
Off state lekage Curent@ rated Voltage		mA		1	1	1	1
Turn-On	T-On	µs		500	600	600	600
Turn -Off	T- Off	µs		800	2600	2600	2600
Operating Temp	T Oper	°C		- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 80

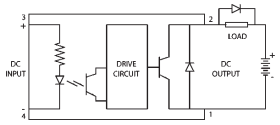
Series : 002K & 006K



002K

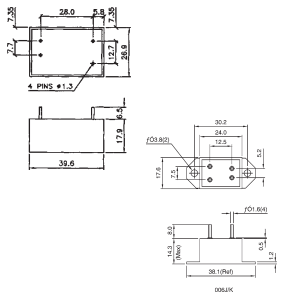
006K

Schematic

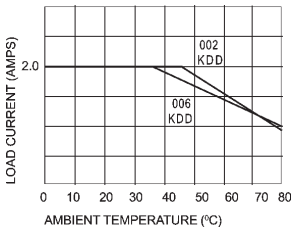


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



Salient Features

• Opto Isolation 2500 VAC• Input Compatible to TTL logic • Power Darlington Transistor • Reverse Polarity Protection • Chassis Mountable (006K).

Electrical Specification @ TA = 25°C

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS	
Parameter	**Symbol**	**Unit**	**002 KDD 040205**	**006 KDD 040205**
Control Volt Range		Vdc	3/5/12/24	3/5/12/24
Control Curr Range		m A	3 ~ 15	3 ~ 15
Pick-Up Voltage		Vdc	3/5/12/24	3.0
Drop-Out Voltage		Vdc	1/3/5	1/3/5
Input Resistance			Current Regulator	Current Regulator
Load Current	**I_T**	**A**	**2**	**2**
Load Voltage		Vdc	40	40
Surge Curr (1cycle Surge)		10	10	
On state Voltage Drop	V_{TM}	Vdc	2	2
Off state lekage Curent @ rated Voltage		mA	1	1
Turn-On	T-On	µs	500	500
Turn-Off	T-Off	µs	800	800
Operating Temp	T Oper	°C	- 30 to + 80	- 30 to + 80

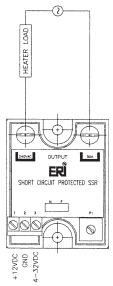
Single Phase Short Circuit Protected SSR with Auto Reset (240VAC) 25 ~ 90 Amps

INPUT : DC Control,
OUTPUT : Direct Copper Bonded Back-to-Back SCR

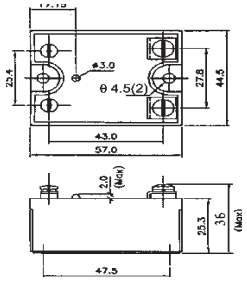
e-Front runners

Series : 01SCP

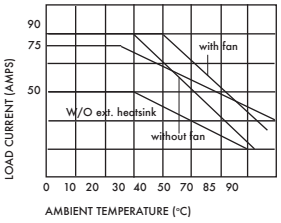
Schematic



Mechanical Drawing



Derating Curve



Heatsink of Rth = 0.14°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Gets Protected aginst Load Short Circuits • Zero Voltage Turn On • Reverse Voltage Protection • TTL Compatable (Sink Mode) • Output No Configration • Built-In Snubber • Chassis Mountable • Higher Load Cycle resistence • High Thermal Cycling Capacity • High Fusing Current.

Electrical Specification @ TA = 25°C

Input

Output

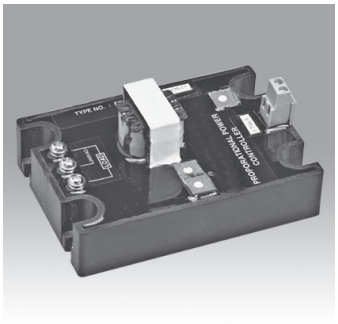
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**SCP 01 D 482500**	**SCP 01 D 485000**	**SCP 01 D 487500**	**SCP 01 D 489000**
Control Volt Range		Vdc	6-30	6-30	6-30	6-30
Control Curr Range		m A	50	50	50	50
Pick-Up Voltage		Vdc	6.0	6.0	6.0	6.0
Drop-Out Voltage		Vdc	1.0	1.0	1.0	1.0
Input Resistance			Current Regulator	Current Regulator	Current Regulator	Current Regulator
Rms On State Current	**I_T**	**A**	**25**	**50**	**75**	**90**
Mains Control Volt		Vac	50-480	50-480	50-480	50-480
Peak Off State Voltage	Vdrm	Vpk	600~800	600~800	600~800	600~800
Off State Lekage Curr	Idrm		10	10	10	10
Zero T-On Voltage		Vpk	25	25	25	25
On state Voltage Drop	V_{TM}	Vac	1.8	1.8	2.0	2.0
Peak one Cycle Surge Curr(Non Rep)	I_{TSM}	A	520	520	1150	1350
Holding Current	I_H	mA	300	300	300	300
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	1000	1000	1000	1000
Thermal Resistance	R_{TH}	°C/W	0.7	0.7	0.6	0.3
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn -Off	T- Off	ms	10	10	10	10
Operating Temp	T Oper	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 80
Fusing Current	I^2T	A^2S	1250	1250	5000	10000

Single Phase Power Proporational Controller (240VAC) 10 ~ 90 Amps

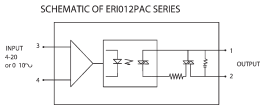
INPUT : DC Control,
OUTPUT : Triac/SCR Output

e-Front runners

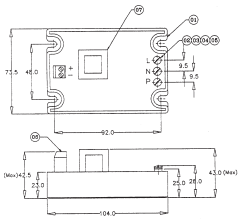
Series : 012 PAC



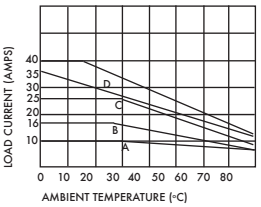
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Input Control 0~10Vdc or 4~20mA • Built in Power Supply • Built-In Snubber • Chassis Mountable

Electrical Specification @ TA = 25°C

Input

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**012 PAC 241010/42**	**012 PAC 241610/42**	**012 PAC 242510/42**	**012 PAC 244010/42**
Control Volt Range or		Vdc	0-10	0-10	0-10	0-10
Control Curr Range		m A	4 ~ 20	4 ~ 20	4 ~ 20	4 ~ 20

Output

Rms On State Current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains Control Volt		Vac	200-240	200-240	200-240	200-240
Off state lekage Cur Rated Voltage			10	10	10	10
On state Voltage Drop	V_{TM}	Vac	1.6	1.6	1.85	1.85
Peak one Cycle Surge Curr (Non Rep)	I_{TSM}	A	100	160	250	300
Holding Current	I_H	mA	75	75	150	150
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	200	200	250	200
Thermal Resistance	R_{TH}	°C/W	3.4	2.5	1.5	1.2
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10	10
Turn-Off	T-Off	ms	10	10	10	10
Operating Temp	T Oper	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 80
Fusing Current	I^2_T	A^2S	50	120	300	400

Single Phase Power Proporational Controller (240VAC) 10 ~ 90 Amps

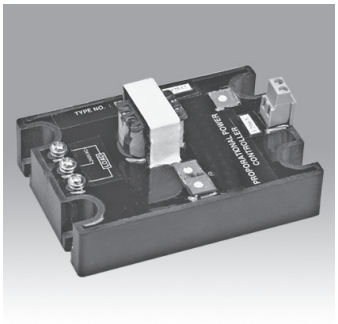
INPUT : DC Control,
OUTPUT : Triac/SCR Output

e-Front runners

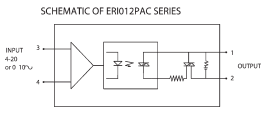
Series : 012 PAC

Input

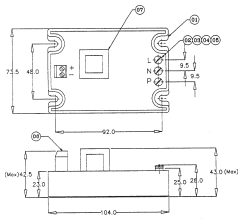
Output



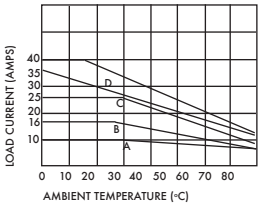
Schematic



Mechanical Drawing



Derating Curve



A = 3.2°C/W B = 1.0°C/W
C & D = 0.5°C/W

For Heatsink details refer to "Recommended Heatsink" chart

Salient Features

• Opto Isolation 2500 VAC • Input Control 0~10Vdc or 4~20mA • Built in Power Supply • Built-In Snubber • Chassis Mountable

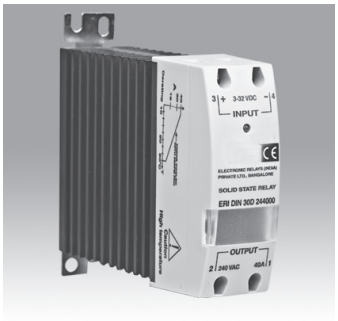
Electrical Specification @ TA = 25°C

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS		
Parameter	**Symbol**	**Unit**	012 PAC245010/42	012PAC247510/42	012PAC249010/42
Control Volt Range or		Vdc	0-10	0-10	0-10
Control Curr Range		m A	4 ~ 20	4 ~ 20	4 ~ 20
Rms On State Current	**I_T**	**A**	**50**	**75**	**90**
Mains Control Volt		Vac	200-240	200-240	200-240
Off state lekage Cur Rated Voltage			10	10	10
On state Voltage Drop	V_{TM}	Vac	1.85	1.85	1.85
Peak one Cycle Surge Curr (Non Rep)	I_{TSM}	A	520	1150	1350
Holding Current	I_H	m A	250	250	250
Critical Rate of Rise of Off State Voltage	dv/dt	V/µs	1000	1000	1000
Thermal Resistance	R_{TH}	°C/W	.5	.25	.25
Frequency Range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63
Turn-On	T-On	ms	10	10	10
Turn-Off	T-Off	ms	10	10	10
Operating Temp	T Oper	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80
Fusing Current	I^2_T	A^2S	1250	5000	5000

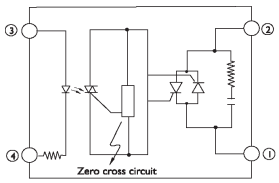
Din Ready SSR (240 VAC)
10 ~ 40 Amps

INPUT : DC Control,
OUTPUT : Back - to - Back SCR

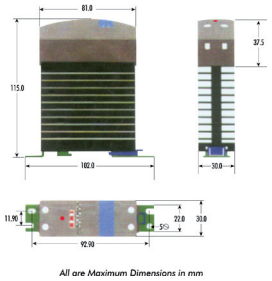
e-Front runners



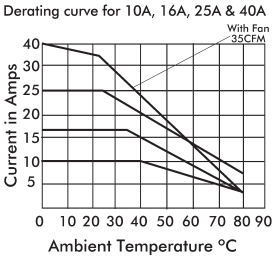
Schematic



Mechanical Drawing



Derating Curve



Highlights

• Input: DC Control (TTL or CMOS Compatible) • Output: Back-to-Back SCR (No configuration) • Opto Isolation 2500VAC (4000 V optional) • Zero voltage turn-on or Random turn-on • Builtin safety cover • Reverse voltage protection • Built in snubber for high DV/DT • DIN mount or back plate mounting • LED indicator showing relay 'ON' status

Electrical Specification @ TA = 25⁰C **Note: For Random T - On SSR, add letter 'KD' in place of 'D'.**

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**DIN 30D 241000**	**DIN 30D 241600**	**DIN 30D 242500**	**DIN 30D 244000**
Control voltage range		Vdc	3 - 32	3 - 32	3 - 32	3 - 32
Control current range		mA	8 - 30	8 - 30	8 - 30	8 - 30
Pick-up voltage		Vdc	3.0	3.0	3.0	3.0
Drop-out voltage		Vdc	1.0	1.0	1.0	1.0
Input resistance			Current regulator	Current regulator	Current regulator	Current regulator
RMS on-state current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains control	volt	Vac	24 - 240	24 - 240	24 - 240	24 - 240
Repetitive peak off state voltage	Vdrm	Vpk	600	600	600	600
Zero turn-on	voltage	Vac	35	35	35	35
On-state voltage drop	Vtm	Vac	1 . 6	1 . 6	1 . 8	1 . 8
Off-state leakage current @ rated voltage	Idrm	mA	5	5	5	5
Peak one cycle surge Current (Non-Rrep)	I_{TSM}	A	100	250	800	800
Holding current	I_Hm	A	75	120	250	250
Critical rate of rise of off state voltage	dv/dt	V/µs	200	250	500	500
Thermal resistance (junction to case)	Rthjc	⁰C/W	1.5	1.3	0.43	0.43
Frequency range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Storage temperature	Ts	⁰C	- 30 to + 100	- 30 to + 100	- 30 to + 100	- 30 to + 100
Operating temperature	To	⁰C	- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 80
Turn-on time	T-on	ms	10	10	10	10
Turn -off time	T- off	ms	10	10	10	10
Fusing current	I^2_T	A^2S	72	128	3700	3700

Input

Output

*Our policy is one of continuous development and specifications are subject to change without notice. Warranty is limited to a period of one year for relay value only.

Din Ready SSR (240 VAC)
10 ~ 40 Amps

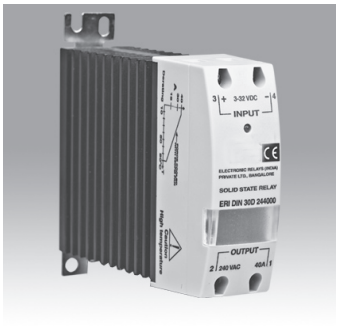
INPUT : AC Control,
OUTPUT : Back - to - Back SCR

e-Front runners

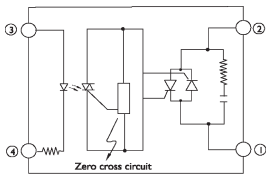
Series : DIN 30A

Input

Output

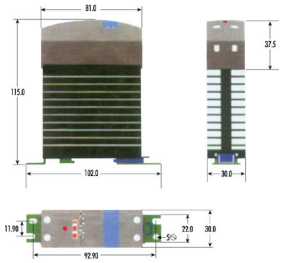


Schematic



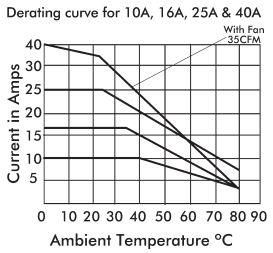
3 & 4 Input
1 & 2 Output

Mechanical Drawing



All are Maximum Dimensions in mm

Derating Curve



Highlights

• Input: AC Control • Output: Back-to-Back SCR (No configuration) • Opto Isolation 2500VAC (4000 V optional) • Zero voltage turn-on or Random turn-on • Builtin safety cover • Built in snubber for high DV/DT • DIN mount or back plate mounting • LED indicator showing relay 'ON' status

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'KA' in place of 'A'.**

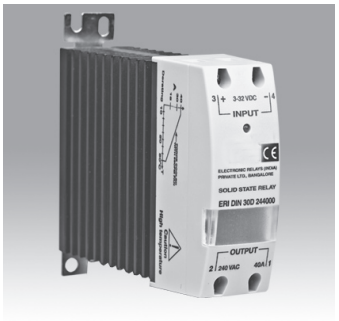
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**DIN 30A 241028**	**DIN 30A 241628**	**DIN 30A 242528**	**DIN 30A 244028**
Control voltage range		Vac	90-280	90-280	90-280	90-280
Control rurrent range		mA	4-25	4-25	4-25	4-25
Pick-up voltage		Vac	90	90	90	90
Drop-out voltage		Vac	10	10	10	10
Input resistance		K Ohms	16-25	16-25	16-25	16-25
RMS on-state current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains control	Volt	Vac	24-240	24-240	24-240	24-240
Repetitive peak off state voltage	Vdrm	Vpk	600	600	600	600
Zero turn-on	voltage	Vac	35	35	35	35
On-state voltage drop	Vtm	Vac	1.6	1.6	1.8	1.8
Off-state lekage current @ rated voltagel	drm	mA	5	5	5	5
Peak one cycle surge Current (Non-Rrep)	I_{TSM}	A	100	250	1000	1000
Holding current	I_H	mA	75	120	250	250
Critical rate of rise of off state Voltage	dv/dt	V/µs	200	250	500	500
Thermal resistance (junction to case)	Rthjc	°C/W	1.5	1.3	0.43	0.43
Frequency range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Storage temperature	Ts	°C-	30 to + 100-	30 to + 100-	30 to + 100-	30 to + 100
Operating temperature	To	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 80
Turn-on time	T-on	ms	40	40	40	40
Turn-off time	T-off	ms	80	80	80	80
Fusing current	I^2_T	A^2S	72	128	3700	3700

*Our policy is one of continuous development and specifications are subject to change without notice. Warranty is limited to a period of one year for relay value only.

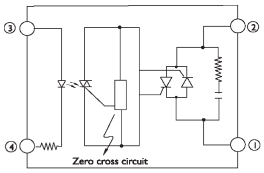
Din Ready SSR (660 VAC)
10 ~ 40 Amps

INPUT : DC Control,
OUTPUT : Back - to - Back SCR

e-Front runners

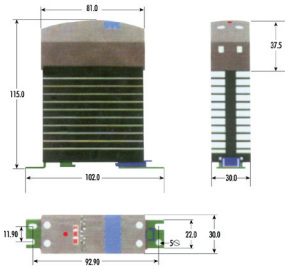


Schematic



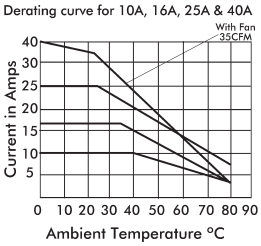
3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



All are Maximum Dimensions in mm

Derating Curve



Highlights

• Input: DC Control (TTL or CMOS Compatible) • Output: Back-to-Back SCR (No configuration) • Opto Isolation 2500VAC (4000 V optional) • Zero voltage turn-on or Random turn-on • Builtin safety cover • Input reverse voltage protection • Built in snubber for high DV/DT • DIN mount or back plate mounting • LED indicator showing relay 'ON' status

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'KD' in place of 'D'.**

Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**DIN 30D 661000**	**DIN 30D 661600**	**DIN 30D 662500**	**DIN 30D 66400**
Control Voltage Range		Vdc	3-32	3-32	3-32	3-32
Control current range		mA	8-30	8-30	8-30	8-30
Pick-up voltage		Vdc	3.0	3.0	3.0	3.0
Drop-out voltage		Vdc	1.0	1.0	1.0	1.0
Input resistance			Current regulator	Current regulator	Current regulator	Current regulator
RMS on-state current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains control	volt	Vac	48-660	48-660	48-660	48-660
Repetitive peak off state voltage	Vdrm	Vpk	1200	1200	1200	1200
Zero turn-on voltage		Vac	35	35	35	35
On-state voltage drop	V_{TM}	Vac	1.6	1.6	1.8	1.8
Off state leakage current @ rated voltage	Idrm	mA	5	5	5	5
Peak one cycle surge Current (Non-Rrep)	I_{TSM}	A	100	250	1000	1000
Holding Current	I_H	mA	75	120	250	250
Critical rate of rise of off-state voltage	dv/dt	V/µs	200	200	700	700
Thermal resistance (junction to case)	Rthjc	°C/W	1.8	1.3	0.43	0.43
Frequency range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Storage temperature	Ts	°C	- 30 to + 100	- 30 to + 100	- 30 to + 100	- 30 to + 10
Operating temperature	To	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 8
Turn-on time	T-on	ms	10	10	10	10
Turn-off time	T-Off	ms	10	10	10	10
Fusing current	I^2_T	A^2S	72	128	3700	5000

Din Ready SSR (660 VAC)
10 ~ 40 Amps

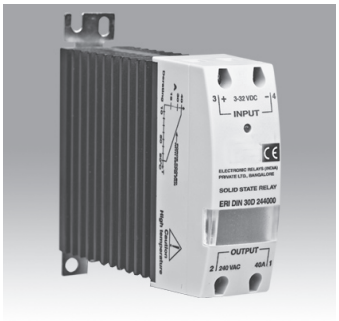
INPUT : AC Control,
OUTPUT : Back - to - Back SCR

e-Front runners

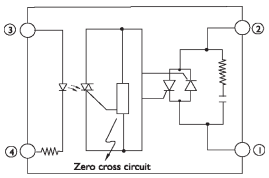
Series : DIN 30A

Input

Output

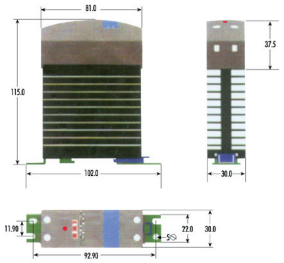


Schematic



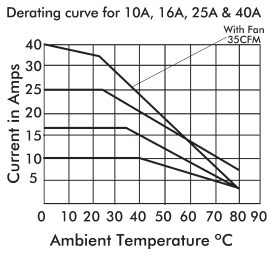
3 & 4 Input
1 & 2 Output

Mechanical Drawing



All are Maximum Dimensions in mm

Derating Curve



Highlights

• Input: AC Control • Output: Back-to-Back SCR (No configuration) • Opto Isolation 2500VAC (4000 V optional) • Zero voltage turn-on or Random turn-on • Builtin safety cover • Built in snubber for high DV/DT • DIN mount or back plate mounting • LED indicator showing relay 'ON' status

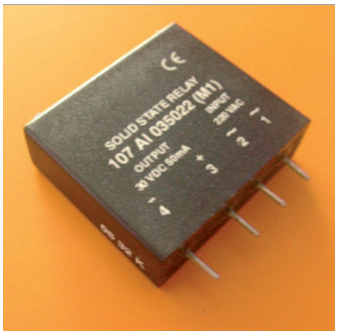
Electrical Specification @ TA = 25⁰C **Note: For Random T - On SSR, add letter 'KA' in place of 'A'.**

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS			
Parameter	**Symbol**	**Unit**	**DIN 30A 661028**	**DIN 30A 661628**	**DIN 30A 662528**	**DIN 30A 664028**
Control voltage range		Vac	90 - 280	90 - 280	90 - 280	90 - 280
Control current range		mA	4 - 25	4 - 25	4 - 25	4 - 25
Pick-up voltage		Vac	90	90	90	90
Drop-out voltage		Vac	10	10	10	10
Input resistance		K Ohms	16 - 25	16 - 25	16 - 25	16 - 25
RMS on-state current	**I_T**	**A**	**10**	**16**	**25**	**40**
Mains control	volt	Vac	48 - 660	48 - 660	48 - 660	48 - 660
Repetitive peak off state voltage	Vdrm	Vpk	1200	1200	1200	1200
Zero turn-on voltage		Vac	35	35	35	35
On-state voltage drop	Vtm	Vac	1 . 6	1 . 6	1 . 8	1 . 8
Off-state leakage current @ rated voltage	Idrm	mA	5	5	5	5
Peak one cycle surge Current (Non-Rrep)	I_{TSM}	A	100	250	1000	1000
Holding current	I_H	mA	75	120	250	250
Critical rate of rise of off state voltage	dv/dtV/	µs	200	200	700	700
Thermal resistance (junction to case)	Rthjc°	C/W	1.8	1.3	0.43	0.43
Frequency range	f	Hz	47 ~ 63	47 ~ 63	47 ~ 63	47 ~ 63
Storage temperature	Ts	°C	- 30 to + 100	- 30 to + 100	- 30 to + 100	- 30 to + 100
Operating temperature	To	°C	- 30 to + 80	- 30 to + 80	- 30 to + 80	- 30 to + 80
Turn-on time	T-on	ms	40	40	40	40
Turn -off time	T- off	ms	80	80	80	80
Fusing current	I^2_T	A^2S	72	128	3700	5000

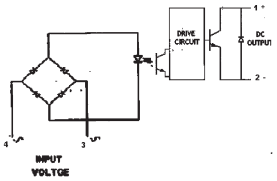
Series : 107

Input

Output

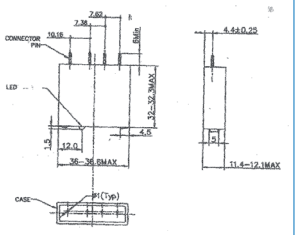


Schematic



3 & 4 Input
1Output(+) & 2 Output (-)

Mechanical Drawing



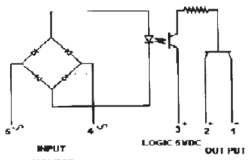
Highlights

- Compatible to TTL and CMOS logic • LED indication • Industrial standard package • PCB Mountable
- Pins are polarised

Electrical Specification @ TA = 25°C

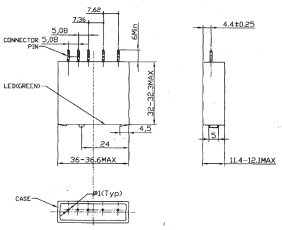
ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS
Parameter	**Unit**	**107 AI 035022**
Control Voltage	Vac	180 -280
Typical Input Current	mA	6.0
Must Turn On Voltage	Vac	180
Must Release Min. Voltage	Vac	160
Typical I/P impedance	Ohms	46 K
Load Voltage Range	Vdc	3-30
Rated Load Current	mA	50
Minimum load current	mA	0.1
Maximum off-state leakage current	mA	10
Typical On-state Voltage drop	Vdc	1.5
Maximum Turn-On Time	mSec	20
Maximum Turn-Off Time	mSec	25
Dielectric Strength (I/P - O/P Insulation)	Vrms	4000
Operating Temperature Range	°C	-40 to +80
Storage Temperature Range	°C	-40 to +100

Schematic



4 & 5 Input
1Output(-) & 2 Output (+)
3 Logic

Mechanical Drawing



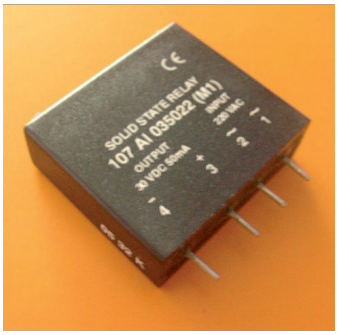
Highlights

- Compatible to TTL and CMOS logic
- LED indication
- Industrial standard package
- PCB Mountable
- Pins are polarised

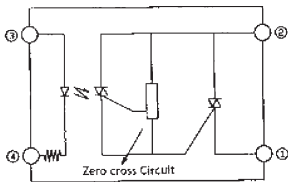
Electrical Specification @ TA = 25°C

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS	
Parameter	**Symbol**	**Unit**	**107AI 035011 - 24**	**107AI 035011-24(M1S)**
MUST TURN ON VOLTAGE		VaaAC	85 - 120	85 - 120
TYPICAL INPUT CURRENT		mA	1.5 - 6.0	1.5 - 6.0
MUST RELEASE MIN. VOLTAGE		VAC	0 - 80	0 - 80
FREQUENCY RANGE		Hz	47 - 63	47 - 63
TYPICAL I/P IMPEDANCE		OHMS	20 - 30	20 - 30
LOAD VOLTAGE RANGE		Vdc	30.0 - —	—
RATED LOAD CURRENT		mA	— - 50.0	50.0
MAXIMUM OFF-STATE LEAKAGE CURRENT @ 30VDC		mA	— - 100	— - 100
LOGIC SUPPLY		VDC	5 - 24	5 - 24
LOGIC CURRENT @ 5VDC		mA	— - 1.5	— - 1.5
LOGIC CURRENT @ 24VDC		mA	— - 12.0	— - 12.0
TYPICAL ON-STATE VOLTAGE DROP		Vdc	—- - 0.3	— - 0.3
MAXIMUM TURN-ON TIME		mSec	TYP 15.0 - 20	TYP 15.0 - 20
MAXIMUM TURN-OFF TIME		mSec	TYP 15.0 - 25	TYP 15.0 - 25
DIELECTRIC STRENGTH (I/P - O/P INSULATION)		Vrms	2500	
OPERATING TEMPERATURE RANGE		°C	-40°C to 80°C	-40°C to 80°C
STORAGE TEMPERATURE RANGE		°C	-40°C to 100°C	-40°C to 100°C

Series : 107

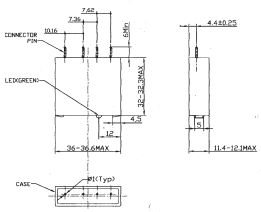


Schematic

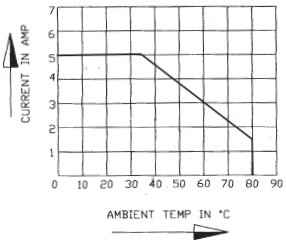


3 Input (+) & 4 Input (-)
1 & 2 Output

Mechanical Drawing



Derating Curve



Highlights

- Compatible to TTL and CMOS logic • LED indication • Industrial standard package • PCB Mountable
- Pins are polarised

Electrical Specification @ TA = 25°C

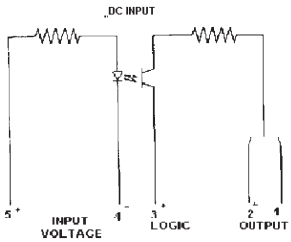
Input

Output

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS		
Parameter	**Symbol**	**Unit**	**107AO 240300**	**107AO 240500**	**107AO 480300**
Control Voltage		VDC	3-32	3-32	2-32
Typical Input Current		mA	25	25	25
Must Turn On Voltage		VDC	3.0	3.0	3.0
Must Release Min. Voltage		VDC	1.0	1.0	1.0
Typical I/P impedance		OHMS	Current Regulator	Current Regulator	Current Regulator
Reverse polarity protection			Yes	Yes	Yes
LED			Green	Green	Green
Load Voltage Range		VAC	24 - 240	24-240	24-480
Rated Load Current (ref derating curve)		A	3	5	3
Minimum load current		mA	100	100	100
Maximum off-state leakage current		mA	10	10	10
Typical On-state Voltage drop V		1.6	1.6	1.6	
Surge current peak (1 cycle) A		208	300	208	
Transient protection					
(static dv/dt not to exceed blocking voltage)		V/mSec	30	30	30
Maximum zero voltage offsetVAC		35	35	35	
Blocking voltage (peak)		Vdrm	600	600	600
Frequency range		Hz	47 - 63	47-63	47-63
I squared t for fusing (t= 8.3ms)		I^2 t	259	259	259
Maximum Turn-On Time		mSec	10	10	10
Maximum Turn-Off Time		mSec	10	10	10
Thermal Resistance(Junction to case)		°C/W	2.0	2.0	2.0
Dielectric Strength (I/P - O/P Insulation)		Vrms	2500	2500	2500
Operating Temperature Range		°C	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Storage Temperature Range		°C	-40 to +100	-40 to +100	-40 to +100

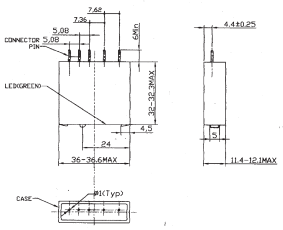
*Our policy is one of continuous development and specifications are subject to change without notice. Warranty is limited to a period of one year for relay value only.

Schematic



4 Input (-) & 5 Input (+)
1 Output (-) & 2 Output (+)
3 Logic

Mechanical Drawing



Highlights

- Compatible to TTL and CMOS logic
- LED indication
- Industrial standard package
- PCB Mountable
- Pins are polarised

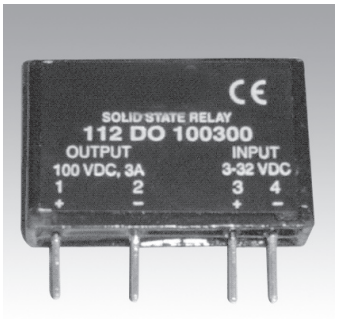
Electrical Specification @ TA = 25°C

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS		
Parameter	**Symbol**	**Unit**	**107DI 030348 - 24**	**107DI 032505-24**	**107DI 030300 - 24**
Control Voltage		VDC	33 - 48	5- 32	3 - 32
Typical Input Current		mA	8.0	6	12
Must Turn On Voltage		VDC	33.0	5.0	3.5
Must Release Min. Voltage		VDC	28.0	1.0	1.0
Max revese control voltage		VDC	-48.0		
Typical I/P impedance		OHMS	6 K	5 K ohms	3 K ohms
Load Voltage Range		Vdc	30	3-30	3-30
Rated Load Current		mA	30	25	30
Minimum load current		mA	0.1	0.1	0.1
Maximum off-state leakage current		µA	100	10	10
Typical On-state Voltage drop Vdc		0.4	0.4	1.5	
Maximum Turn-On Time		mSec	5	5	5
Maximum Turn-Off Time		mSec	5	5	5
Logic Voltage range		VDC	5 - 24	5 - 24	5-24
Logic current		mA	12	12	12
Dielectric Strength (I/P - O/P Insulation)		Vrms	2500	2500	2500
Operating Temp Range		°C	-30 to +80	-40 to +80	-40 to +80
Storage Temperature Range		°C	-30 to 100	-40 to +100	-40 to +100

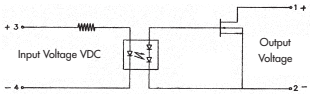
Series : 112

Input

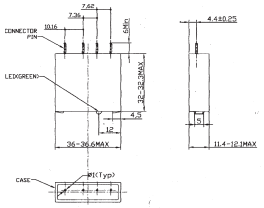
Output



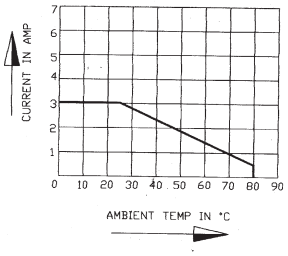
Schematic



Mechanical Drawing



Derating Curve

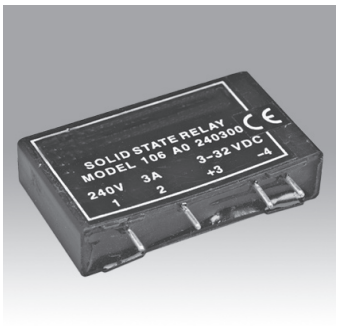


Highlights

- Compatible to TTL and CMOS logic • LED indication • Industrial standard package • PCB Mountable
- Pins are polarised

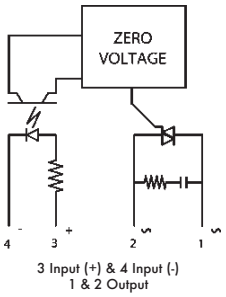
Electrical Specification @ TA = 25°C

ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS
Parameter	**Symbol**	**Unit**	**112DO 100300**
Control Voltage		VDC	3 - 32
Typical Input Current		mA	20
Must Turn On Voltage		VDC	3.5
Must Release Min. Voltage		VDC	1.0
Typical I/P impedance		OHMS	Current Regulator
Load Voltage Range		Vdc	100
Rated Load Current(ref thermal derating curve)		A	3
Minimum load current		mA	50
Maximum off-state leakage current			mA 10
Typical On-state Voltage drop		V	1.5
Maximum Turn-On Time		mS	1
Maximum Turn-Off Time		mS	2
Dielectric Strength (I/P - O/P Insulation)		Vrms	2500
Operating Temperature Range		°C	-30 to +100
Storage Temperature Range		°C	-30 to +125

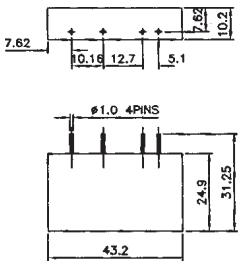


JDA241000

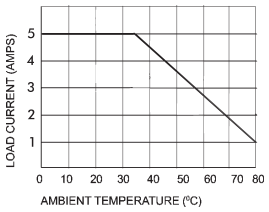
Schematic



Mechanical Drawing



Derating Curve



Highlights

- Compatible to TTL and CMOS logic
- LED indication
- Industrial standard package
- PCB Mountable
- Pins are polarised

Electrical Specification @ TA = 25°C

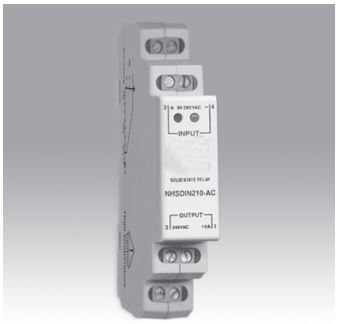
ELECTRICAL SPECIFICATIONS			PRODUCT PART NUMBERS
Parameter	**Symbol**	**Unit**	**106 AO 240500**
Control Voltage		VDC	3-32
Typical Input Current		mA	25
Must Turn On Voltage		VDC	3.0
Must Release Min. Voltage		VDC	1.0
Typical I/P impedance		OHMS	Current Regulator
Reverse polarity protection			Yes
LED INDICATION			Green
Load Voltage Range		VAC	24 - 240
Rated Load Current (ref derating curve)		A	5
Minimum load current		mA	75
Maximum off-state leakage current		mA	10
Typical On-state Voltage drop		V	1.6
Surge current peak (1 cycle)		A	300
Transient protection			
(static dv/dt not to exceed blocking voltage)		V/mSec	300
Maximum zero voltage offset		VAC	35
Blocking voltage (peak)		Vdrm	600
Frequency range		Hz	47 - 63
I squared t for fusing (t= 8.3ms)		I^2 t	510
Maximum Turn-On Time		mSec	8.3
Maximum Turn-Off Time		mSec	8.3
Typical power dissipation		W/A	1.2
Dielectric Strength (I/P - O/P Insulation)		Vrms	3750
Operating Temperature Range		°C	-40°C to +100°C
Storage Temperature Range		°C	-40°C to +125°C

DIN Ready SSR (240-600V)
10 Amps
NEW-No Heat Sink SSR

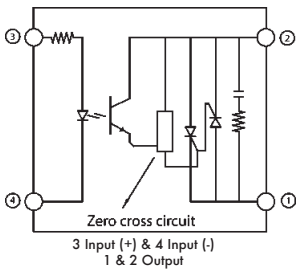
INPUT : DC Control,
OUTPUT : Back - to - Back SCR

e-Front runners

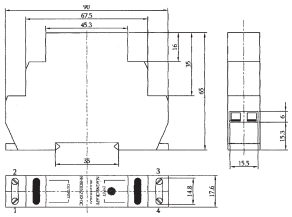
Series : DIN25D



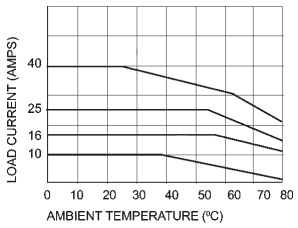
Schematic



Mechanical Drawing



Derating Curve



Highlights

• Input: DC/AC Control • Output: Back-to-Back SCR (NO configuration) • Opto Isolation 2500VAC (4000 V optional)
• Zero voltage Turn-on or Random Turn-on • Built-In safety cover(IP 20 Protection) • Input reverse voltage protection
• Built-In snubber for high DV/DT • DIN mount or back plate mounting • LED indicator showing relay 'ON' status

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'KD' in place of 'D'.**

Input

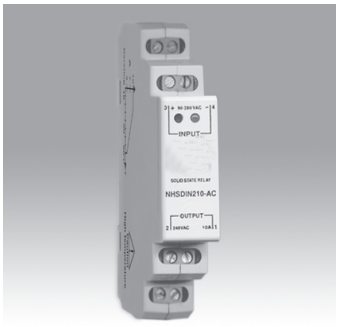
Output

ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS
Parameter	**Unit**	**DIN 25D 661000**
Control Voltage	VDC	3 - 32
Max Input Current	mA	35
Must Turn On Voltage	VDC	3
Must Release Min. Voltage	VDC	1
Nominal I/P impedance	OHMS	Current regulater
Reverse polarity protection		yes
Load Voltage Range	VAC	48 to 600
Rated Load Current (rms)	A	10
Minimum load current	mA	75
Maximum off-state leakage current (rms)	mA	10
Typical On-state Voltage drop (rms)	Vac	1.6
Surge current peak (1 cycle)	A	500
Transient protection (static dv/dt not to exceed blocking voltage)	V/mSec	200
Maximum zero voltage offset	VAC	35
Blocking voltage (peak)	Vdrm	660
Maximum Turn-On Time	mSec	8.3
Maximum Turn-Off Time	mSec	8.3
Dielectric Strength (I/P - O/P Insulation)	Vrms	2500
Operating Temperature Range	°C	-30 to +80
Storage Temperature Range	°C	-40 to +100

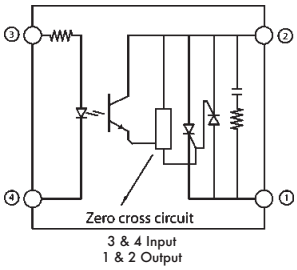
DIN Ready SSR (240-600V)
10 Amps
NEW-No Heat Sink SSR

INPUT : AC Control,
OUTPUT : Back - to - Back SCR

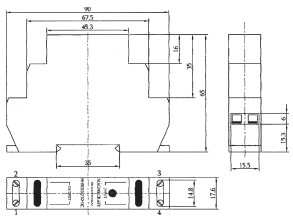
Series : DIN25A



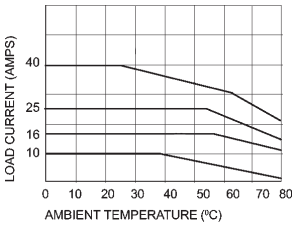
Schematic



Mechanical Drawing



Derating Curve



Highlights

- Input: DC/AC Control • Output: Back-to-Back SCR (NO configuration) • Opto Isolation 2500VAC (4000 V optional)
- Zero voltage Turn-on or Random Turn-on • Built-In safety cover(IP 20 Protection) • Input reverse voltage protection
- Built-In snubber for high DV/DT • DIN mount or back plate mounting • LED indicator showing relay 'ON' status

Electrical Specification @ TA = 25°C **Note: For Random T - On SSR, add letter 'KA' in place of 'A'.**

Input

ELECTRICAL SPECIFICATIONS		PRODUCT PART NUMBERS
Parameter	**Unit**	**DIN 25A 661024**
Control Voltage	VAC	90 to 280 (80 to 140)
Typical Input Current @120VAC	mA	10mA@120VAC 16mA@240VAC
Must Turn On Voltage	VAC	90
Must Release Min. Voltage	VAC	10
Typical I/P impedance	OHMS	20K
Load Voltage Range	VAC	48 - 600
Rated Load Current (rms)	A	10
Minimum load current	mA	75
Maximum off-state leakage current (rms)	mA	10
Typical On-state Voltage drop (rms)		Vac 1.6
Surge current peak (1 cycle)	A	500
Transient protection		
(static dv/dt not to exceed blocking voltage)	V/mSec	200
Maximum I2T fusing current	A	1250
Maximum zero voltage offset	VAC	35
Blocking voltage (peak)	Vdrm	660
Maximum Turn-On Time	mSec	8.3
Maximum Turn-Off Time	mSec	8.3
Dielectric Strength (I/P - O/P Insulation)	Vrms	2500
Operating Temperature Range	°C	-30 TO +80
Storage Temperature Range	°C	-40 to +100