

# AC Solid State Relay



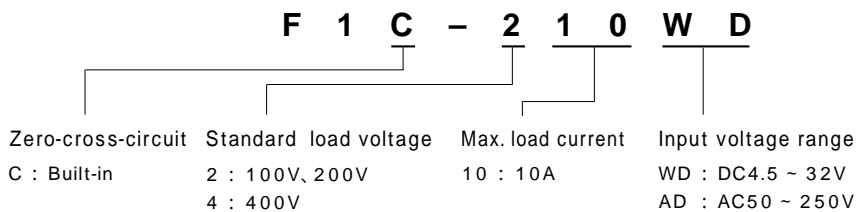
## F1 SERIES



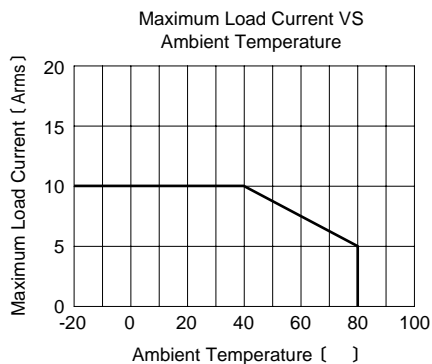
### Features

- Slim type power control SSR with heat-sink
- One-touch attachment on DIN-Rail
- Slide safety cover, LED installed
- Max. load current at 10A

### Type Information



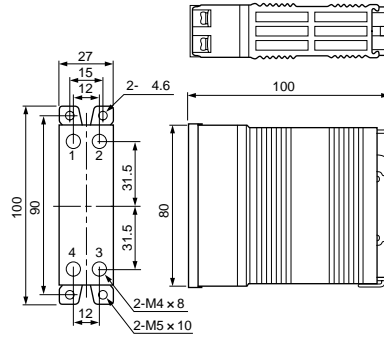
### Characteristics



Description in the catalogue is subject to change without notice. Please read the specifications thoroughly before using. Please contact JEL SYSTEM for further information.

Dimensions (mm)

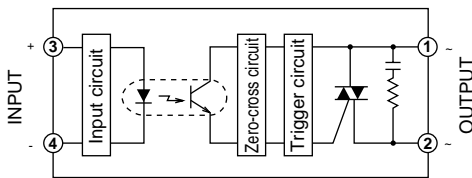
F1C-210WD/AD  
F1C-410WD/AD



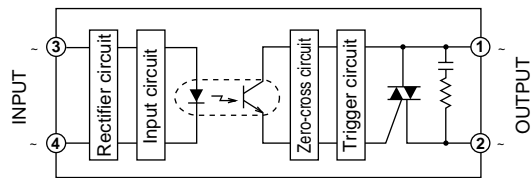
Torque range  
M4 terminal 1.5 N · m( MAX )  
M5 terminal 2.0 N · m( MAX )  
Outer case 1.5 N · m( MAX )

Equivalent Circuit

F1C-WD type ( DC INPUT )

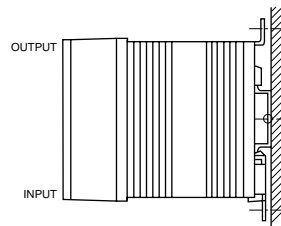
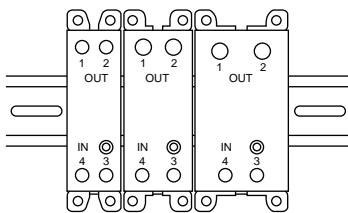


F1C-AD type ( AC INPUT )

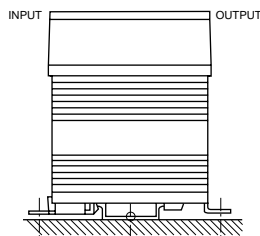


Installation (by DIN-Rail or Screws)

Vertical Installation



Horizontal Installation



Reduce the rating of load current more than 10% when FIC-series are installed more than four closely.

Reduce the rating of load current more than 10% when FIC-series are installed horizontally.

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Ratings

( Ta = 25 )

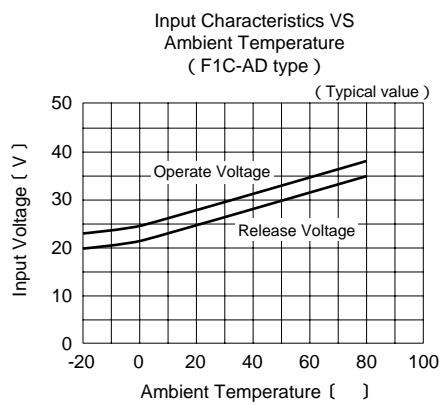
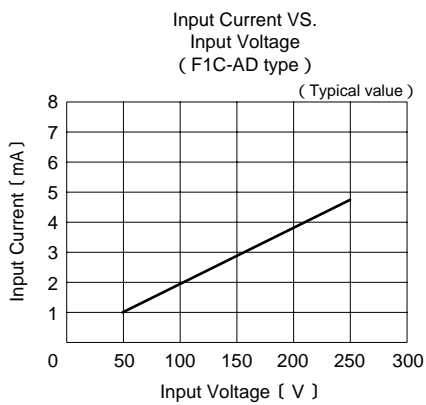
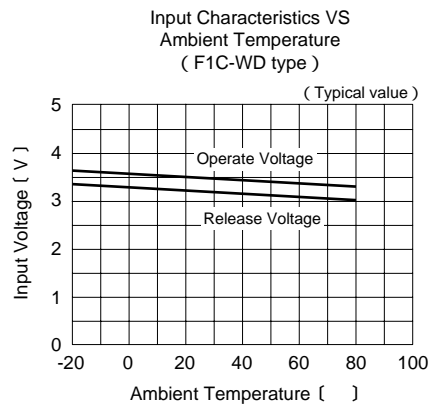
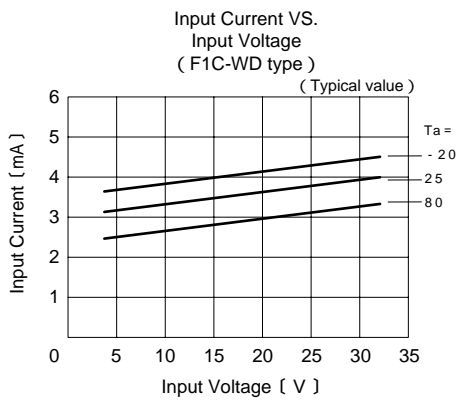
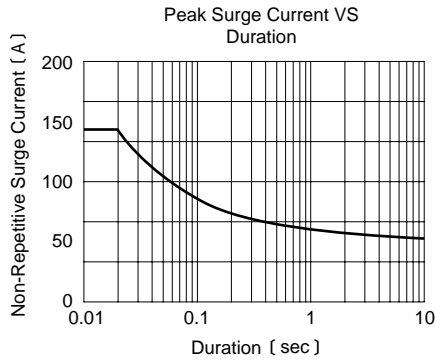
	Item	Symbols	F1C-210WD	F1C-210AD	F1C-410WD	F1C-410AD	Units
Output	Rated Load Voltage		120、240		120、240、400		V <sub>ACrms</sub>
	Maximum Load Current	I <sub>OMAX</sub>	10				A <sub>ACrms</sub>
	Maximum Load Voltage	V <sub>OMAX</sub>	264		484		V <sub>ACrms</sub>
	Peak Non Repetitive Off State Voltage	V <sub>DSM</sub>	600		800		V
	Peak 1 Cycle Surge Current	I <sub>SURGE</sub>	140 ( 50Hz )				A
	Frequency	f	50、60				Hz
Input	Maximum Input Voltage	V <sub>IMAX</sub>	32	250 ( V <sub>ACrms</sub> )	32	250 ( V <sub>ACrms</sub> )	V <sub>DC</sub>
	Maximum Input Current	I <sub>IMAX</sub>	5		5		mA
	Input Impedance	R <sub>IN</sub>		50 ± 20 %		50 ± 20 %	K
General	Dielectric Strength	V <sub>ISO</sub>	2,500 / 1 min. ( Between input-output-case ) ( Rh40 ~ 60 % )				V <sub>ACrms</sub>
	Isolation Resistance	R <sub>ISO</sub>	10 <sup>8</sup> and above DC500V ( Between input-output-case ) ( Rh40 ~ 60 % )				
	Operating Temperature Range	T <sub>OPR</sub>	- 20 ~ + 80				
	Storage Temperature Range	T <sub>STG</sub>	- 30 ~ + 100				

Electrical Characteristics

( Ta = 25 )

	Item	Symbols	F1C-210WD	F1C-210AD	F1C-410WD	F1C-410AD	Units
Output	Load Voltage Range	V <sub>O</sub>	50 ~ 264		50 ~ 484		V <sub>ACrms</sub>
	Off State Leakage Current	I <sub>LEK</sub>	12.0 and below ( V <sub>O</sub> = 200V )		12.0 and below ( V <sub>O</sub> = 400V )		mA <sub>ACrms</sub>
	On State Voltage Drop	V <sub>SAT</sub>	1.5 and below				V <sub>ACrms</sub>
	Minimum Load Current	I <sub>OMIN</sub>	100				mA
Input	Input Voltage Range	V <sub>I</sub>	4.5 ~ 32	50 ~ 250 ( V <sub>ACrms</sub> )	4.5 ~ 32	50 ~ 250 ( V <sub>ACrms</sub> )	V <sub>DC</sub>
	Operate Voltage	V <sub>P</sub>	4.5 and below	50 and below ( V <sub>ACrms</sub> )	4.5 and below	50 and below ( V <sub>ACrms</sub> )	V <sub>DC</sub>
	Release Voltage	V <sub>D</sub>	1 and above	10 and above ( V <sub>ACrms</sub> )	1 and above	10 and above ( V <sub>ACrms</sub> )	V <sub>DC</sub>
General	Operate Time	T <sub>ON</sub>	1/2 Cycle + 1ms and below	1.5 Cycle + 1ms and below	1/2 Cycle + 1ms and below	1.5 Cycle + 1ms and below	/
	Release Time	T <sub>OFF</sub>	1/2 Cycle + 1ms and below	1.5 Cycle + 1ms and below	1/2 Cycle + 1ms and below	1.5 Cycle + 1ms and below	/
	Capacitance	C <sub>IO</sub>	15 and below				PF
	Zero Cross Turn On		Built In				/
	Approved Standards						/

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