

- **Suppresses EMI Noise**
- **Simple Installation**

The Series F Solid State Relay Filters from Crydom are designed to significantly reduce EMI noise generated by Solid State Relays to meet EMC regulations.

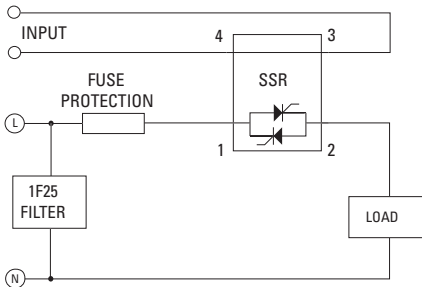
All AC Solid State Relays that use thyristor switching devices generate some low frequency noise, that may

appear as conducted emissions on the main supply line connection. Crydom's Series F filters are simple to install in new or existing equipment. SSR current is not required to pass through the filter, the only connections required are across the incoming supply line.

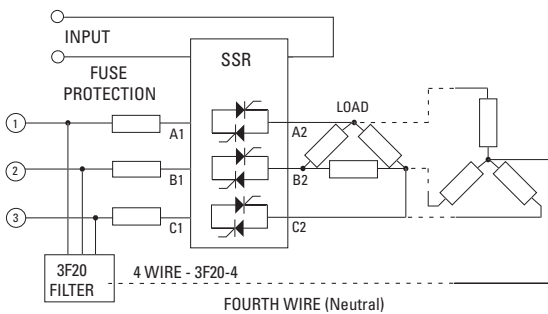
Three models are available, the 1F25 for single-phase systems, 3F20 for three-phase without neutral and 3F20-4 for three-phase with neutral.

WIRING DIAGRAM

Single Phase



Three Phase



MODEL NUMBERS

1F25

3F20

3F20-4

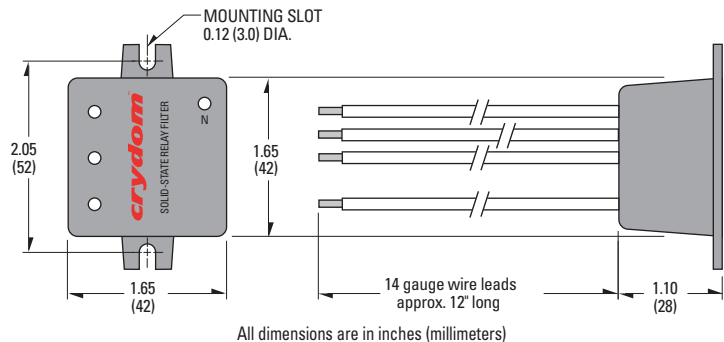
SPECIFICATIONS ①

Connection (number of phases)	Single	Three	Three (w/neutral)
Maximum Operating Voltage	275 Vrms	475Vrms	475Vrms
Operating Temperature Range	-40 to +100° C		
Attenuation (150 to 250 KHz), typical	30 dB μ V	25 dB μ V	25 dB μ V
Current Drain at Vrms max	40 mA	35 mA	35 mA

GENERAL NOTES

① All parameters at 25°C unless otherwise specified.

MECHANICAL OUTLINE (3F20-4 shown)



Sample testing indicated reduced noise levels from 70dB μ v to 35dB μ v at 150kHz and to 40dB μ v at 250kHz operating at 30Arms into a resistive load. The results are based on a 1F25 Filter operating with Crydom's Series 1-D2450 Solid State Relay. A reduction from 70dB μ v to 40dB μ v was noted using the 3F20 Filter on a three phase system operating with Crydom's Series 53TP-D53TP25D at 15Arms.

Measurement conditions: quasi-peak per CISPR16.

All information is based on Crydom's understanding of European EMC regulations. While we believe it to be accurate Crydom accepts no responsibility for omissions, errors or misunderstandings as them relate to specific customer applications.

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**DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO**

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH. <ul style="list-style-type: none">• Disconnect all power before installing or working with this equipment.• Verify all connections and replace all covers before turning on power. Failure to follow these instructions will result in death or serious injury.	RIESGO DE DESCARGA ELECTRICA O EXPLOSION. <ul style="list-style-type: none">• Desconectar todos los suministros de energia a este equipo antes de trabajar con este equipo.• Verificar todas las conexiones y colocar todas las tapas antes de energizar el equipo. El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.	RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION <ul style="list-style-type: none">• Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil• Vérifier tous connections, et remettre tous couverts en place avant de mettre sous De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses sérieuses.	GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION. <ul style="list-style-type: none">• Stellen Sie jeglichen Strom ab, der dieses Gerät versorgt, bevor Sie an dem Gerät Arbeiten durchführen• Vor dem Drehen auf Energie alle Anschlüsse überprüfen und alle Abdeckungen ersetzen. Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.	RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE. <ul style="list-style-type: none">• Spenga tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura• Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie	RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO <ul style="list-style-type: none">• Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento• Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento O não cumprimento destas instruções pode levar á morte ou lesões sérias.
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ANNEX – ENVIRONMENTAL INFORMATION:

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

附件 - 环保信息:

此附件所标示的包括电子信息产品污染图标的环保信息符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**, 电子信息产品污染控制标识要求

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

