

## Type 2 AC Surge Protector DS70R series

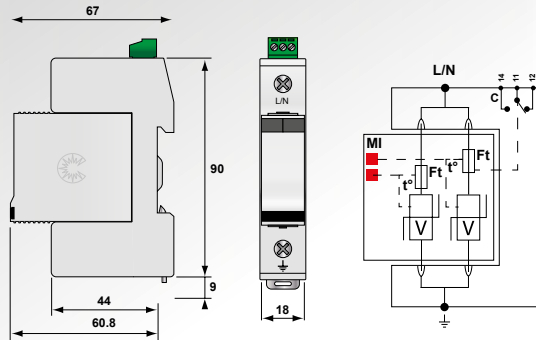


# CITEL

**I<sub>max</sub>  
70 kA**



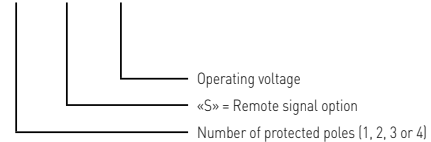
DS71R-400



V : High energy varistor  
Ft : Thermal Fuse  
C : Remote signaling contact  
t : Thermal disconnection system  
MI : Disconnection indicator

- Re-inforced Type 2 Surge Protector
- In : 30 kA
- I<sub>max</sub> : 70 kA
- Pluggable module by phase
- Remote Signaling option
- IEC 61643-11 and EN 61643-11 compliance
- UL1449 ed.4

### DS7x RS-xxx



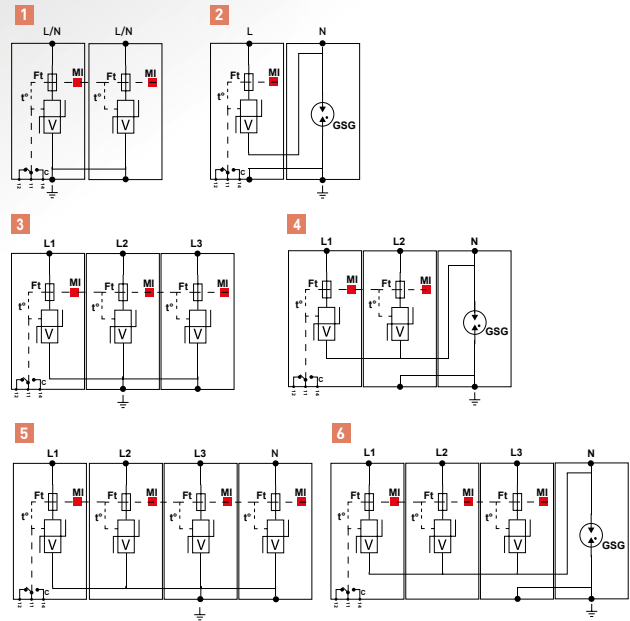
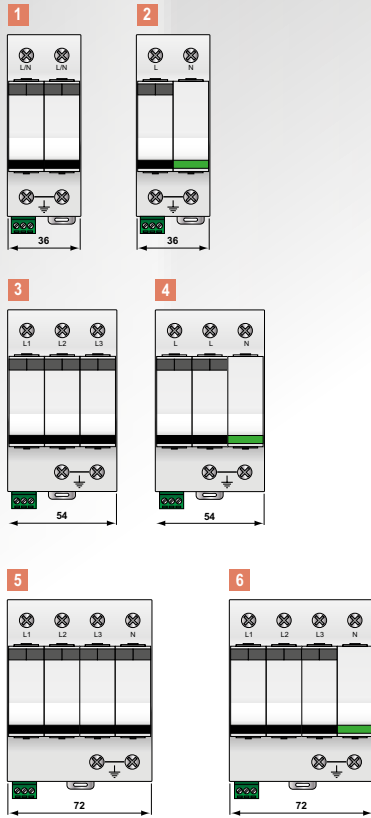
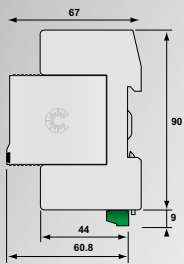
## Characteristics

CITEL Model		DS71R-400	DS71R-320	DS71R-230	DS71R-120
Description		Type 2 AC surge protector - unipolar			
Network		230/400V	230/400 V	230/400V	120/208V
Max. AC operating voltage	U <sub>c</sub>	440 Vac	320 Vac	255 Vac	150 Vac
Temporary Over Voltage (TOV) Characteristics - 5 sec.	UT	580 Vac withstand	335 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Characteristics - 120 mn	UT	770 Vac disconnection	440 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Residual current - Leakage current at U <sub>c</sub>	I <sub>pe</sub>	< 1 mA	< 1 mA	< 1 mA	< 1 mA
Follow current	I <sub>f</sub>	None	None	None	None
Nominal discharge current - 15 x 8/20 μs impulses	I <sub>n</sub>	30 kA	30 kA	30 kA	30 kA
Max. discharge current - max. withstand @ 8/20 μs by pole	I <sub>max</sub>	70 kA	70 kA	70 kA	70 kA
Protection level	U <sub>p</sub>	1.8 kV	1.6 kV	1.4 kV	1 kV
Admissible short-circuit current	I <sub>scrr</sub>	25000 A	25000 A	25000 A	25000 A
<b>Associated disconnectors</b>					
Thermal disconnector		internal			
Fuses		Fuses Type gG - 100 A			
Installation ground fault breaker		Type "S" or delayed			
<b>Mechanical characteristics</b>					
Dimensions		see diagram			
Connection to Network		By screw terminals: 2.5-25 mm <sup>2</sup> / by bus			
Disconnection indicator		2 mechanical indicators			
Remote signaling of disconnection		option DS71RS-400 : output on changeover contact	option DS71RS-320: output on changeover contact	option DS71RS-230 : output on changeover contact	option DS71RS-120 : output on changeover contact
Spare unit		DSM70R-400	DSM70R-320	DSM70R-230	DSM70R-120
Mounting		Symmetrical rail 35 mm (EN60715)			
Operating temperature		-40/+85°C			
Protection rating		IP20			
Housing material		Thermoplastic UL94-V0			
Standards compliance		IEC 61643-11 / EN 61643-11 / UL1449 ed.4			
Certification		UL / CSA / EAC			
<b>Part number</b>		321401	-	3214011	321601

Note 1: Rating in compliance with NF C15-100 art.534.1.3.5. In order to increase service continuity, higher rating can be used. For further information, please consult product instructions.



## Type 2 AC Multipolar Surge Protector DS72R, DS73R, DS74R



V: High energy varistor  
 GSG: Specific gas tube  
 Ft: Thermal Fuse  
 C: Remote signaling contact  
 t: Thermal disconnection system  
 MI: Disconnection indicator



DS74RS-230

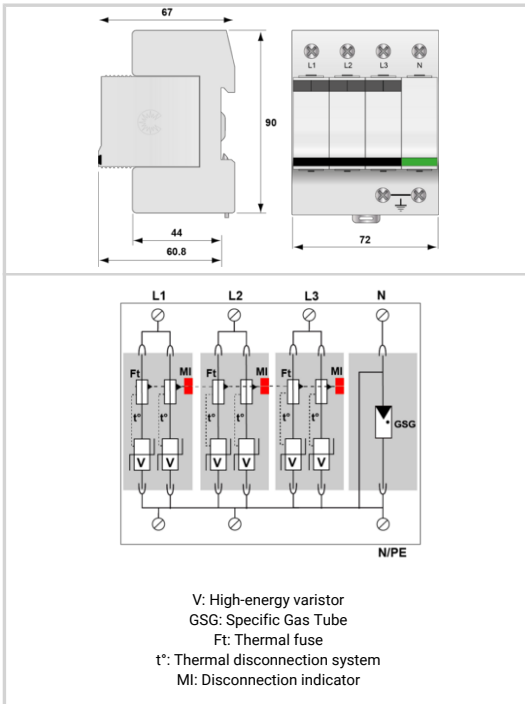
Model	P/N	Network	AC system	Protection Mode	Itotal	Up L/PE	Up L/N	Up N/PE	Diagram
DS74R-320/G	-	230/400V 3-phase+N	TT-TNS	L/N and N/PE	70 kA	-	1.6 kV	1.5 kV	6
DS74R-230/G	491512	230/400 V 3-phase+N	TT-TNS	L/N and N/PE	70 kA	-	1.4 kV	1.5 kV	
DS74R-120/G	491612	120/208 V 3-phase+N	TT-TNS	L/N and N/PE	70 kA	-	1 kV	1.5 kV	5
DS74R-400	491402	230/400 V 3-phase+N	IT	L/PE and N/PE	280kA	1.8 kV	-	1.8 kV	
DS74R-320	-	230/400 V 3-phase+N	TNS	L/PE and N/PE	280 kA	1.6 kV	-	1.6 kV	
DS74R-230	491502	230/400 V 3-phase+N	TNS	L/PE and N/PE	280 kA	1.4 kV	-	1.4 kV	
DS74R-120	491602	120/208 V 3-phase+N	TNS	L/PE and N/PE	280 kA	1 kV	-	1 kV	
DS73R-120/G	-	120/208 V 2-phase+N	TNS	L/N and N/PE	70 kA	-	1 kV	1.5 kV	
DS73R-400	491403	230/400 V 3-phase	IT	L/PE	210 kA	1.8 kV	-	-	
DS73R-320	-	230/400 V 3-phase	TNC	L/PE	210 kA	1.6 kV	-	-	
DS73R-230	491503	230/400 V 3-phase	TNC	L/PE	210 kA	1.4 kV	-	-	3
DS73R-120	491603	120/208 V 3-phase	TNC	L/PE	210 kA	1 kV	-	-	
DS72R-320/G	-	230 V single phase	TT	L/N and N/PE	70 kA	-	1.6 kV	1.5 kV	2
DS72R-230/G	491511	230 V single phase	TT	L/N and N/PE	70 kA	-	1.4 kV	1.5 kV	
DS72R-120/G	491611	120 V single phase	TT	L/N and N/PE	70 kA	-	1 kV	1.5 kV	
DS72R-400	491401	230 V single phase	IT	L/PE and N/PE	140 kA	1.8 kV	-	1.8 kV	1
DS72R-320	-	230 V single phase	TN	L/PE and N/PE	140 kA	1.6 kV	-	1.6 kV	
DS72R-230	491501	230 V single phase	TN	L/PE and N/PE	140 kA	1.4 kV	-	1.4 kV	
DS72R-120	491601	120 V single phase	TN	L/PE and N/PE	140 kA	1 kV	-	1 kV	

### DS74R-230/G



-Re-inforced Type 2 AC surge protector

- ↳ In : 30 kA
- ↳ Imax : 70 kA
- ↳ Pluggable module by phase
- ↳ Remote signaling option
- ↳ IEC 61643-11, EN 61643-11 and UL1449 ed.5 compliance



Electrical Characteristics	
SPD type	2
Network	230/400 V 3-phase+N
AC system	TT-TNS
Nominal line voltage	Un 230 Vac
Max. AC operating voltage	Uc 255 Vac
Temporary Over Voltage (TOV) Characteristics - 5 sec. Without disconnection	UT 335 Vac withstand
Temporary Over Voltage (TOV) Characteristics - 120 mn Without disconnection or with safety disconnection	UT 440 Vac disconnection
Temporary Over Voltage N/PE (TOV HT) Without disconnection or with safety disconnection	UT 1200 V/300A/200 ms withstand
Residual Current Leakage current to Ground	Ipe None
Follow current	If None
Nominal discharge current 15 x 8/20 μs impulses	In 30 kA
Max. discharge current max. withstand @ 8/20 μs by pole	Imax 70 kA
Total Maximum discharge current max. total withstand @ 8/20 μs	Imax Total 70 kA
Connection mode(s)	L/N and N/PE
Protection mode(s)	Common/Differential mode
Residual voltage at 5 kA @ 5 kA (8/20μs)	Up-5kA 0.9 kV
Protection level L/N @ In (8/20μs)	Up L/N 1.4 kV
Protection level N/PE @ In (8/20μs)	Up N/PE 1.5 kV
Admissible short-circuit current	Iscrr 25 000 A
Mechanical Characteristics	
Technology	MOV
SPD configuration	3-phase+Neutral
Connection to Network	By screw terminals: 2.5-25mm <sup>2</sup> / by bus
Format	Plug-in modular box
Mounting	Symmetrical rail 35 mm (EN 60715)
Housing material	Thermoplastic UL94 V-2
Operating temperature	Tu -40/+85°C
Protection rating	IP20
Failsafe mode	Disconnection from AC network
Disconnection indicator	2 mechanical indicators by pole
Spare module(s)	DSM70R-230 + DSM70G-600
Remote signaling of disconnection	option DS74RS-230/G : output on changeover contact
Dimensions	See diagram
Disconnectors	
Thermal disconnector	Internal
Installation ground fault breaker	Type 'S' or delayed
Fuses	100 A min. - 125 A max. - Fuses type gG
Standards	
Standards compliance	IEC 61643-11 / EN 61643-11 / UL1449 ed.5
Certification	UL Recognized
Part number	
491512	





# CITEL

SAFETY INSTRUCTIONS  
 CONSIGNES DE SECURITE  
 SICHERHEITSHINWEISE  
 ADVERTENCIA DE SEGURIDAD  
 AVVERTENZE IMPORTANTI  
 AVISOS IMPORTANTES  
 МЕРЫ БЕЗОПАСНОСТИ  
 BEZPEČNOSTNÍ POKYNY  
 安全須知



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## ATTENTION !

### GB

- Installation must be performed only by electrically skilled operator.
- National electrical installation rules must be followed.
- The unit must be used only as surge protector and according the conditions described in this document.
- Surge protectors must be selected in relation with an dedicated AC network (see Table 1)
- Dedicated fuses must be installed in the surge protector branch (see Table 2 column 1).
- In case of red indicator, the surge protector must be replaced.



## ATTENTION !

### FR

- L'installation ne doit être effectuée que par un opérateur électricien dûment qualifié.
- Les règles générales d'installation électrique nationales doivent être respectées.
- Le produit est uniquement destiné à un usage parafoudre et doit être utilisé dans les conditions décrites dans ce document.
- Les parafoudres sont utilisés en fonction d'un réseau BT déterminé (voir table 1)
- Des fusibles dédiés doivent être installés dans les branches du parafoudre (voir table 2 Colonne 2).
- En cas d'indicateur passant au rouge, le parafoudre doit être remplacé.



## WARNUNG !

### D

- Die Montage und der Anschluss des Gerätes dürfen nur durch eine Elektrofachkraft durchgeführt werden.
- Nationale Installations Vorschriften sind zu beachten.
- Das Gerät ist nur im Rahmen dieser Installationshilfe und seiner technischen Daten zu verwenden.
- Die Ableiter sind nach der Niederspannungsnetzform auszuwählen (siehe Tabelle 1).
- Die Vorsicherungen sind nach der Tabelle 2 zu selektieren und zu installieren (Spalte 1).
- Ist die Anzeige im Sichtfenster auf ROT umgeschaltet, so ist das Modul DEFEKT und muss ausgetauscht werden.



## ATENCIÓN !

### ES

- Solo un operador eléctrico capacitado puede realizar la instalación.
- Las reglas generales nacionales de instalación eléctrica deben ser respetadas.
- El producto solo tiene un uso de protección contra sobretensiones transitorias y debe ser utilizado en las condiciones mencionadas en este documento.
- Las protecciones contra sobretensiones transitorias se usan en relación con una red de baja tensión determinada (ver tabla 1).
- Fusibles dedicados deben ser instalados aguas arriba de la protección, en la conexión en paralelo (ver tabla 2).
- Se debe sustituir la protección cuando el indicador esta puesto en rojo.



## ATTENZIONE !

### IT

- L'installazione deve essere fatta solamente da elettricisti qualificati.
- Devono essere rispettate le regolamentazioni nazionali e locali riguardanti l'installazione di apparati elettrici.
- L'unità deve essere usata solo come protezione da sovratensioni e secondo le condizioni descritte in questo documento.
- Le protezioni da sovratensione devono essere scelte in funzione della corrente alternata di rete (vedere la tabella 1).
- Fusibili dedicati devono essere installati nel ramo protetto da sovratensione (vedere la tabella 2).
- Nel caso in cui si accenda l'indicatore rosso, l'unità di protezione da sovratensione deve essere sostituita.



## AVISO !

### PT

- A instalação deve ser feita por um electricista habilitado.
- Devem ser seguidas todas as regras de segurança indicadas pelo operador eléctrico.
- Esta protecção deve ser utilizada apenas como protecção contra sobretensões e de acordo com as condições mencionadas neste documento.
- A protecção deve ser escolhida de acordo com a rede eléctrica AC (ver quadro 1).
- Devem ser instalados fúsiveis de protecção a montante da protecção (ver quadro 2).
- Caso o indicador vermelho esteja activo, dever-se-á substituir a protecção.



## ВНИМАНИЕ!

### RUS

- монтаж и подключение изделия должны производиться только специалистами-электриками.
- необходимо учитывать требования местных норм и стандартов.
- изделие может использоваться только для защиты от импульсных перенапряжений в соответствии с настоящей инструкцией.
- параметры сети должны соответствовать характеристикам изделия (см. таблицу 1).
- обязательна установка токовых предохранителей соответствующего номинала (таблица 2, колонка 1\*).
- при обнаружении индикатора состояния красного цвета изделие должно быть заменено.



## VAROVÁNÍ

### CZ

- Montáž a připojení svodiče přepětí smí provádět pouze pracovník s příslušnou elektrotechnickou kvalifikací.
- Je zapotřebí dodržovat zásady bezpečnosti práce i platné národní elektrotechnické předpisy.
- Svodič přepětí se smí používat pouze v souladu se svými technickými parametry a podle těchto montážních pokynů.
- Svodiče přepětí je zapotřebí zvolit a používat tak, aby odpovídaly napájecí síti (viz tabulka 1).
- Potřeba instalace pojistek pro předjištění před svodiče a jejich volba - viz tabulka 2, sloupec 1.
- Pokud ukazatel správné funkce má ČERVENOU barvu, pak svodič/modul je VADNÝ a musí být vyměněn.



## 安全須知!

### 中文

- 产品安装只能由具备专业资质的人员实施;
- 请遵守国家电气安装相关规范;
- 本产品仅作为浪涌保护器且在本文件所规定的条件下使用;
- 请根据不同的电源网络制式选用浪涌保护器, 参见 Table 1;
- 请在浪涌保护器前端安装规定的熔断器, 参见 Table 2;
- 当状态指示变为红色时, 须及时更换浪涌保护器;