

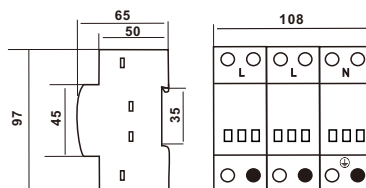
## FRS7 Seires SPD

Class I, II / Type 1, 2  
 Main distribution boards  
 TN-C, IT  
 High energy MOV  
 $I_{imp} = 12.5 \text{ kA}$   
 Compliance standard: IEC/EN 61643-11

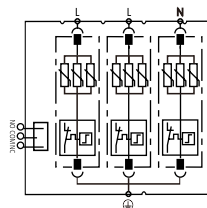
### Product



### Dimension



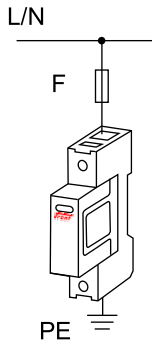
### Basic circuit diagram



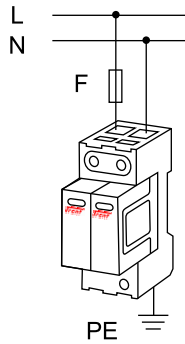
Parameter/Type		FRS7-B+C
Maximum operating voltage	$U_c$	440V AC
Impulse current (10/350 $\mu$ s)	$I_{imp}$	12.5 kA
Nominal discharge current (8/20 $\mu$ s)	$I_n$	20 kA
Maximum discharge current (8/20 $\mu$ s)	$I_{max}$	50 kA
Voltage protection level	$U_p$	<2.2 kV
Response time	$t_a$	<25ns
Cross-section of connected conductors solid(min/max)		16mm <sup>2</sup> /35mm <sup>2</sup>
Cross-section of connected conductors stranded(min/max)		16mm <sup>2</sup> /35mm <sup>2</sup>
Fault indication		red indication field
Remote indication		potential-free change-over contact
remote indication contacts		250V/0,5A AC,250V/0,1A DC
Cross-section of remote indication conductors		1,5mm <sup>2</sup>
Degree of protection		IP20
Range of operating temperatures (min/ max)		-40°C~+70°C
Humidity range		5%~95%
Mounting		DIN rail 35 mm
According to standard		EN 61643-11:2012, IEC 61643-11:2011/T2
Remarks		Other $U_c$ can be customized. (420VAC, 385VAC, 320VAC, etc.)

# AC SPD Wiring diagram

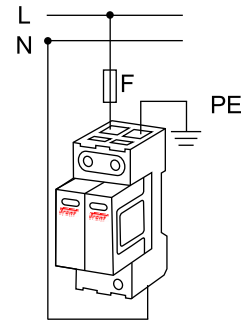
## Single phase system



"1+0"  
Connection

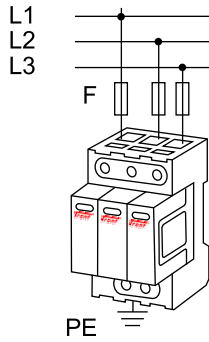


"2+0"  
Connection

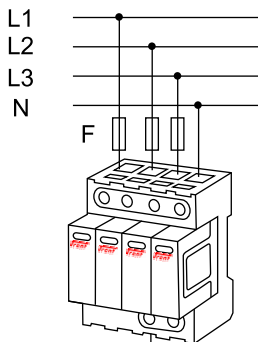


"1+1"  
Connection

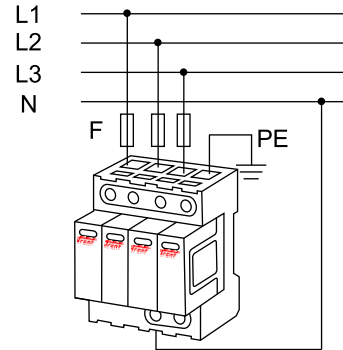
## Three phase system



"3+0"  
Connection

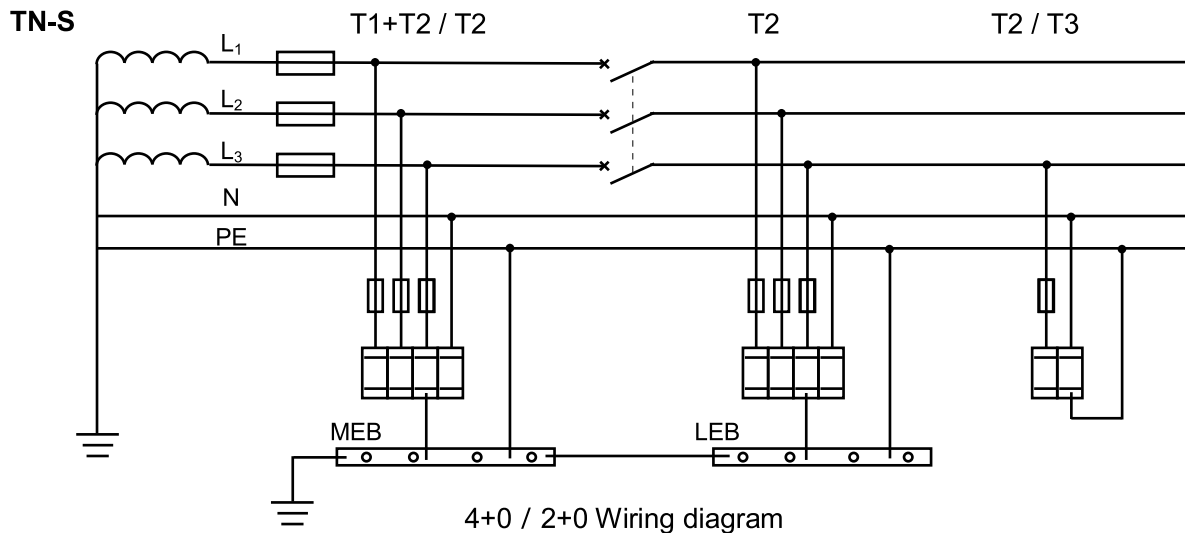


"4+0"  
Connection



"3+1"  
Connection

## Connection of AC SPD in networks



# Connection of AC SPD in networks

