



## SINGLE-POLE AND MULTI-POLE LIGHTING AND SURGE ARRESTERS FOR WIND GENERATION SYSTEM

CLASS II / (B+C)

$I_{IMP} = 25 \text{ kA}$  per pole,  $I_{MAX} = 40 \text{ kA}$  per pole

COMPACT AND MODULAR DESIGN



## WT ISPRO BS(R) 25



The WT ISPRO series has been developed to meet the growing needs of wind generation facilities where exposure to direct and indirect lightning discharges is well known problem, primarily due to the often exposed location of such facilities e.g. on hill tops and open land topography.

Category IEC/EN/VDE	Class II/Type 1,2/B+C
Location of use	Man distribution boards
Protection modes	L/N -PE
Protective elements	High Energy MOV
High surge discharge ratings	$I_{imp}=25\text{kA}$
Internal protection and safety	Compact design



## Technical data

Type	WT ISPRO BS(R) 25/690		
Standards			IEC-61643-1
Max. continuous operating voltage (AC/DC)	$U_c$	V	690/900
Nominal discharge current (8/20)	$I_n$	kA	40
Max. discharge current (8/20)	$I_{max}$	kA	80
Impulse current (10/350)	$I_{imp}$	kA	25
Specific energy		$\text{kJ}/\Omega$	156
Charge		As	12.5
Protection level	$U_p$	kV	< 2.5
Residual voltage at $I_{imp}$	$U_{res}$	kV	< 2.0
Follow current	$I_f$	$A_{RMS}$	NO
Response time	$t_A$	ns	< 25
Residual current at $U_c$	$I_{PE}$	mA	< 3.5
Thermal protection			YES
Terminal screw torque		Nm	max. 4.5
Back-up fuse gL (if mains > 250 A)		A	250A gL
Short-circuit withstand current		kA	25kA/50Hz
Temperature range		° C	-40 ... +80
Terminal cross section	Solid Stranded	mm <sup>2</sup>	35mm <sup>2</sup> 25mm <sup>2</sup>
Mounting EN 60715			35 mm top-hat rail
Degree of protection			IP 20
Housing material			thermoplastic; extinguishing degree UL 94 V-0
Dimensions DIN 43880			4TE
Weight per unit		kg	0,494

# OVERVOLTAGE PROTECTION



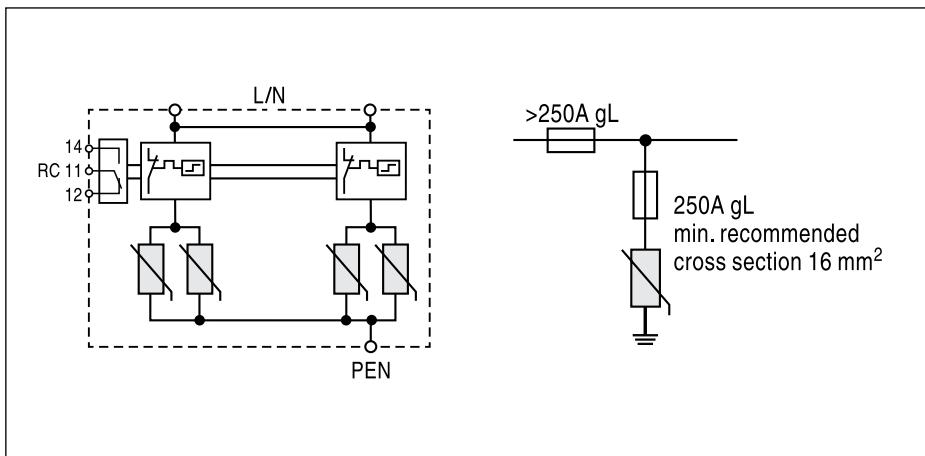
## WT ISPRO BS(R) 25

ISPRO DMGR 10/xxx (with remote contacts)			
Remote contacts			YES
Contact ratings	250 V	A	0,5
	125 V		3
Terminal cross section		mm <sup>2</sup>	max. 1.5
Remote terminal torque		Nm	0.25
Weight per unit		kg	0,499

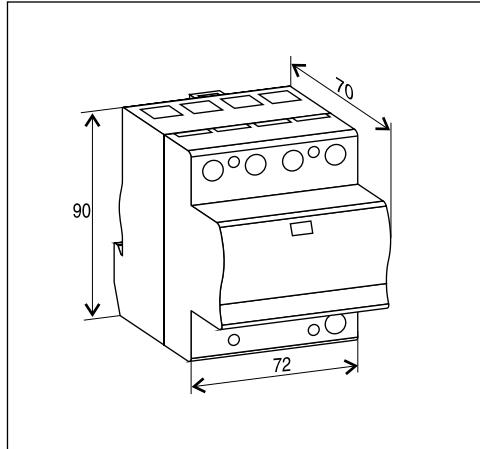
### Connection diagram

WT ISPRO BSR 25/690

Selection of back-up fuse



### Dimensions



# WT ISPRO BS(R) 12.5



The WT ISPRO series has been developed to meet the growing needs of wind generation facilities where exposure to direct and indirect lightning discharges is well known problem, primarily due to the often exposed location of such facilities e.g. on hill tops and open land topography.

Category IEC/EN/VDE	Class II/Type 1,2/B+C
Location of use	Man distribution boards
Protection modes	L/N -PE
Protective elements	High Energy MOV
High surge discharge ratings	$I_{imp}=25\text{kA}$ per pole
Internal protection and safety	Compact design



## Technical data

Type	WT ISPRO BS(R) 12.5/690		
Standards			IEC-61643-1
Max. continuous operating voltage (AC/DC)	$U_c$	V	690/900
Nominal discharge current (8/20)	$I_n$	kA	20
Max. discharge current (8/20)	$I_{max}$	kA	40
Impulse current (10/350)	$I_{imp}$	kA	12.5
Specific energy		$\text{kJ}/\Omega$	39
Charge		As	6.25
Protection level	$U_p$	kV	< 2.5
Residual voltage at $I_{imp}$	$U_{res}$	kV	< 2.0
Follow current	$I_f$	$A_{RMS}$	NO
Response time	$t_A$	ns	< 25
Residual current at $U_c$	$I_{PE}$	mA	< 2.5
Thermal protection			YES
Terminal screw torque		Nm	max. 4.5
Back-up fuse gL (if mains > 250 A)		A	250A gL
Short-circuit withstand current		kA	25kA/50Hz
Temperature range		° C	-40 ... +80
Terminal cross section	Solid Stranded	mm <sup>2</sup>	35mm <sup>2</sup> 25mm <sup>2</sup>
Mounting EN 60715			35 mm top-hat rail
Degree of protection			IP 20
Housing material			thermoplastic; extinguishing degree UL 94 V-0
Dimensions DIN 43880			3TE
Weight per unit		kg	0,319

# OVERVOLTAGE PROTECTION



## WT ISPRO BS(R) 12.5

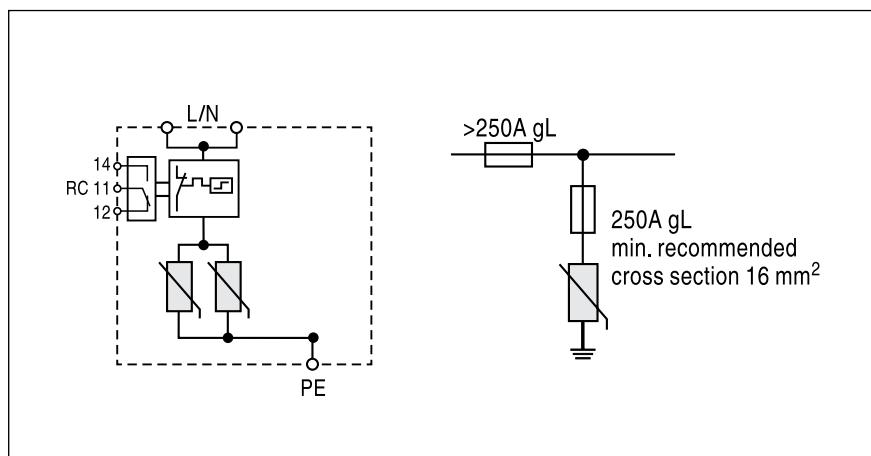
ISPRO BSR 12.5 (with remote contacts)

Remote contacts			YES
Contact ratings	250 V	A	0,5
	125 V		3
Terminal cross section		mm <sup>2</sup>	max. 1.5
Remote terminal torque		Nm	0.25
Weight per unit		kg	0,324

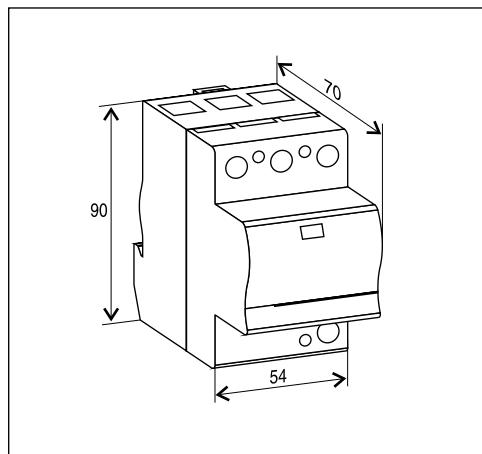
### Connection diagram

WT ISPRO BSR 12.5/690

Selection of back-up fuse



### Dimensions



## WT ISPRO C(R) 40



The WT ISPRO series has been developed to meet the growing needs of wind generation facilities where exposure to direct and indirect lightning discharges is well known problem, primarily due to the often exposed location of such facilities e.g. on hill tops and open land topography.

Category IEC/EN/VDE	Class II/Type 2/C
Location of use	Branch sub-distribution boards
Protection modes	L/N -PE, L-PEN
Protective elements	MOV
High surge discharge ratings	$I_{imp}=40\text{kA}$ per pole
Internal protection and safety	Modular design



## Technical data

Type	WT ISPRO C(R) 40/690		
Standards			IEC-61643-1
Max. continuous operating voltage (AC/DC)	$U_c$	V	690/900
Nominal discharge current (8/20)	$I_n$	kA	20
Max. discharge current (8/20)	$I_{max}$	kA	40
Protection level	$U_p$	kV	< 3.0
Follow current	$I_f$		NO
Response time	$t_A$	ns	< 25
Residual current at $U_c$	$I_{PE}$	mA	< 1.5
Thermal protection			YES
Terminal screw torque		Nm	max. 4.5
Back-up fuse gL (if mains > 125 A)		A	125A gL
Short-circuit withstand current		kA	25kA/50Hz
Temperature range		° C	-40 ... +80
Terminal cross section	Solid	mm <sup>2</sup>	35mm <sup>2</sup>
	Stranded		25mm <sup>2</sup>
Mounting EN 60715			35 mm top-hat rail
Degree of protection			IP 20
Housing material			thermoplastic; extinguishing degree UL 94 V-0
Dimensions DIN 43880			1TE
Weight per unit		g	142

# OVERVOLTAGE PROTECTION



## WT ISPRO C(R) 40

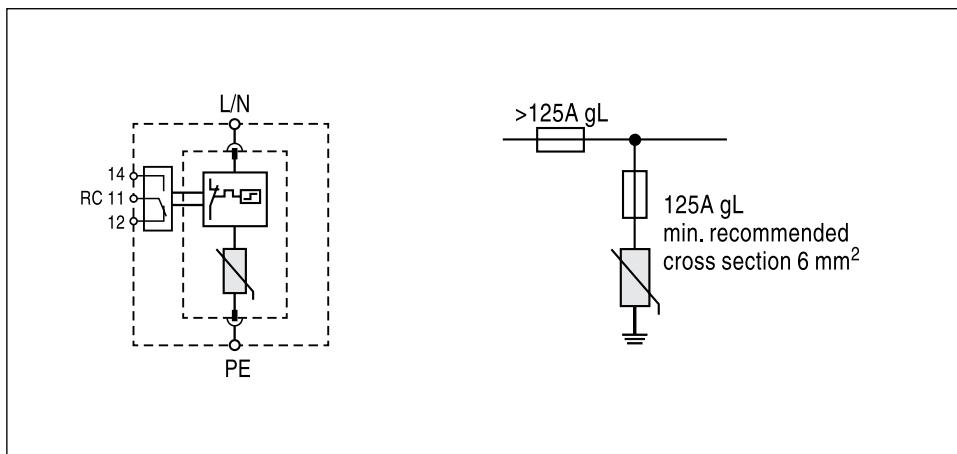
WT ISPRO CR 40 (with remote contacts)

Remote contacts			YES
Contact ratings	250 V	A	0,5
	125 V		3
Terminal cross section		mm <sup>2</sup>	max. 1.5
Remote terminal torque		Nm	0.25
Weight per unit		kg	0,147

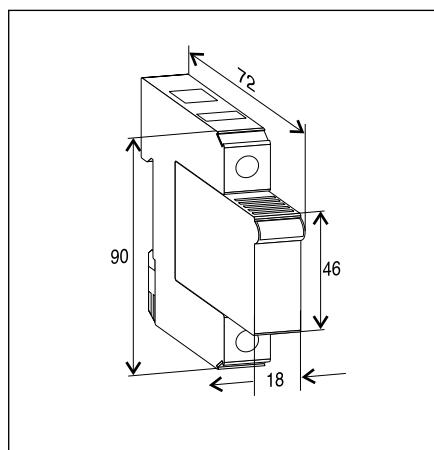
### Connection diagram

WT ISPRO CR 40/690

Selection of back-up fuse



### Dimensions



### Accessory part for WT ISPRO C(R) 40

Type

Module WT ISPRO C(R) 40/xxx

690



# WT ISPRO C(R) 120 (3+0)



The WT ISPRO series has been developed to meet the growing needs of wind generation facilities where exposure to direct and indirect lightning discharges is well known problem, primarily due to the often exposed location of such facilities e.g. on hill tops and open land topography.

Category IEC/EN/VDE	Class II/Type 2/C	
Location of use	Branch sub-distribution boards	
Protection modes	L/N -PE, L-PEN	
Protective elements	MOV	
High surge discharge ratings	$I_{imp} = 40\text{kA}$ per pole	
Internal protection and safety	Modular design	



## Technical data

Type	WT ISPRO C(R) 120/690 (3+0)		
Standards	IEC-61643-1		
Max. continuous operating voltage (AC/DC)	$U_c$	V	690/900
Nominal discharge current (8/20)	$I_n$	kA	20 per pole
Max. discharge current (8/20)	$I_{max}$	kA	40 per pole
Protection level	$U_p$	kV	< 3.0
Follow current	$I_f$		NO
Response time	$t_A$	ns	< 25
Residual current at $U_c$	$I_{PE}$	mA	< 1.5
Thermal protection			YES
Terminal screw torque		Nm	max. 4.5
Back-up fuse gL (if mains > 125 A)		A	125A gL
Short-circuit withstand current		kA	25kA/50Hz
Temperature range		° C	-40 ... +80
Terminal cross section	Solid Stranded	mm <sup>2</sup>	35mm <sup>2</sup> 25mm <sup>2</sup>
Mounting EN 60715			35 mm top-hat rail
Degree of protection			IP 20
Housing material			thermoplastic; extinguishing degree UL 94 V-0
Dimensions DIN 43880			3TE
Weight per unit		kg	0,364

# OVERVOLTAGE PROTECTION

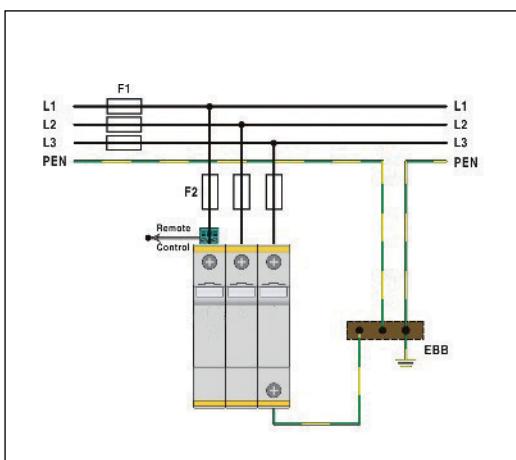


## WT ISPRO C(R) 120 (3+0)

WT ISPRO C(R) 120 (with remote contacts)

Remote contacts			YES
Contact ratings	250 V 125 V	A	0,5
			3
Terminal cross section		mm <sup>2</sup>	max. 1,5
Remote terminal torque		Nm	0,25
Weight per unit		kg	0,369

TN-C Network (Three-Phase)

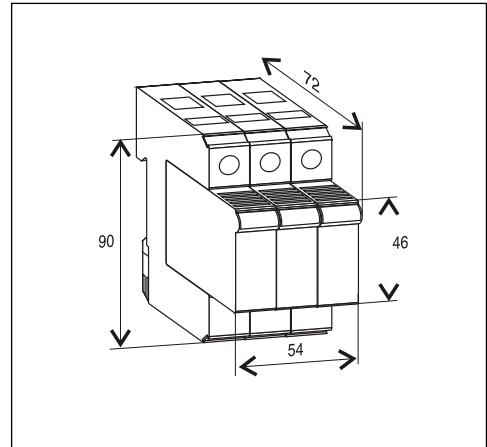
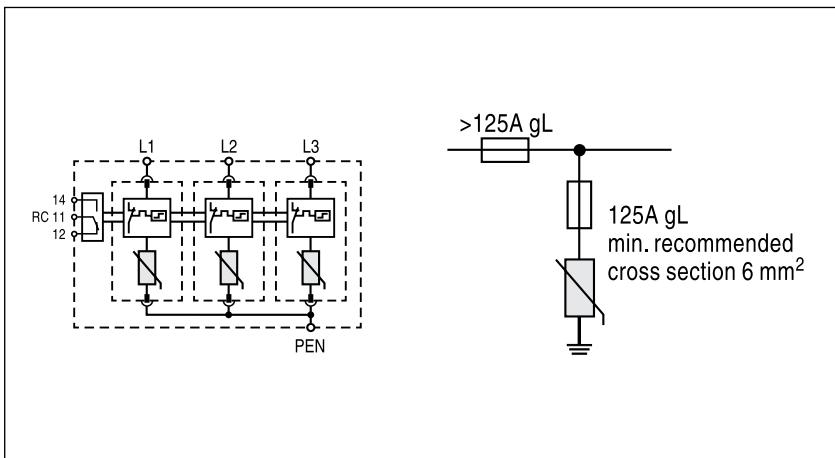


Connection diagram

WT ISPRO CR 120/690 (3+0)

Selection of back-up fuse

Dimensions



Accessory part for WT ISPRO C(R) 40/690

Type

Module WT ISPRO C(R) 40/xxx

690

