

RELÈ ALLO STATO SOLIDO MONOFASE CON DISSIPATORE INTEGRATO SERIE SSR170H SSR170H SERIES 1 PHASE SCR SOLID STATE RELAYS WITH HEAT SINK



Rev. 05-2023

TABELLA SELEZIONE RELE' - RELAY SELECTION TABLE

Corrente di uscita Output current	Tensione di uscita Output voltage	Tensione di ingresso Input voltage	Modello Model
15A	12-275 VAC	3-32 VDC	SSR170H-15240AS
		90-280 VAC	SSR170H-15240CS
	48-600 VAC	4-32 VDC	SSR170H-15600AS
		90-280 VAC	SSR170H-15600CS
20A	12-275 VAC	3-32 VDC	SSR170H-20240AS
		90-280 VAC	SSR170H-20240CS
	48-600 VAC	4-32 VDC	SSR170H-20600AS
		90-280 VAC	SSR170H-20600CS
25A	12-275 VAC	3-32 VDC	SSR170H-25240AS
		90-280 VAC	SSR170H-25240CS
	48-600 VAC	4-32 VDC	SSR170H-25600AS
		90-280 VAC	SSR170H-25600CS
30A	12-275 VAC	3-32 VDC	SSR170H-30240AS
		90-280 VAC	SSR170H-30240CS
	48-600 VAC	4-32 VDC	SSR170H-30600AS
		90-280 VAC	SSR170H-30600CS
35A	12-275V AC	3-32V DC	SSR170H-35240AS
		90-280V AC	SSR170H-35240CS
	48-600V AC	4-32V DC	SSR170H-35600AS
		90-280V AC	SSR170H-35600CS
40A	12-275 VAC	3-32 VDC	SSR170H-40240AS
		90-280 VAC	SSR170H-40240CS
	48-600 VAC	4-32 VDC	SSR170H-40600AS
		90-280 VAC	SSR170H-40600CS
60A 50 A (40 °C)-UL	12-275 VAC	3-32 VDC	SSR170H-60240AS
		90-280 VAC	SSR170H-60240CS
	48-600 VAC	4-32 VDC	SSR170H-60600AS
		90-280 VAC	SSR170H-60600CS

- * Led tensione ingresso
- * Tensione di ingresso: 3-32 Vcc /4-32 Vcc, 90-280 Vca
- * Bassa corrente pilotaggio
- * Corrente nominale: 15/20/25/30/35/40/60 A
- * Commutazione zero crossing
- * Tensione di uscita fino a 600 Vca
- * Tensione di picco fino a 1200V
- * Isolamento ingresso uscita fino a 5000V
- * Protezione da sovratensioni integrata con varistore
- * RoHS conforme
- * Fissaggio su barra DIN
- * Input voltage led
- * Input voltage: 3-32 Vcc /4-32 Vcc, 90-280 Vac
- * Low control current
- * Rated operational current : 15/20/25/30/35/40/60 A
- * Zero crossing commutation
- * Output voltage up to 600Vac
- * Peak voltage up to 1200V
- * 5000V input-output insulation
- * Integrated voltage transient protection with varistor
- * RoHS compliant
- * DIN rail mountable

 CONFORMI ALLE NORMATIVE EC
 EC REFERENCE STANDARDS

 CERTIFICAZIONI UL-CSA / UL-CSA CERTIFICATION
 File N.: E234472

 "General use - Open Type Device - Pollution Degree 3
 Installation Environment"



DATI TECNICI USCITA - OUTPUT TECHNICAL DATA

Modello Model	SSR170H-15240xS	SSR170H-20240xS	SSR170H-25240xS	SSR170H-15600xS	SSR170H-20600xS	SSR170H-25600xS
Tensione nominale Nominal voltage	240 VAC	240 VAC	240 VAC	600 VAC	600 VAC	600 VAC
Campo tensione di carico Load voltage range	12-275 VAC	12-275 VAC	12-275 VAC	48-600 VAC	48-600 VAC	48-600 VAC
Picco ripetitivo allo stato di OFF Repetitive peak off-state voltage	600 V	600 V	600 V	1200 V	1200 V	1200 V
Corrente uscita Output current	15 A	20 A	25 A	15 A	20 A	25 A
Corrente di spunto non ripetitiva Non repetitive surge peak on state current $t=10ms$	400 A	400 A	520 A	400 A	400 A	520 A
I ² t per scelta fusibile I ² t rating $t=10ms$	792 A ² S	792 A ² S	1350 A ² S	792 A ² S	792 A ² S	1350 A ² S
Tempo critico salita tensione allo stato di off Critical rate of rise of off-state voltage dv/dt	500 V/ μ s	500 V/ μ s	500 V/ μ s	1000 V/ μ s	1000 V/ μ s	1000 V/ μ s
Caduta tensione in uscita Output voltage drop	1,2 VAC	1,2 VAC	1,2 VAC	1,2 VAC	1,2 VAC	1,2 VAC
Perdita di corrente allo stato di off Off-stage leakage current	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA
Corrente minima di funzionamento Minimum working current	165 mA	165 mA	165 mA	165 mA	165 mA	165 mA
Varistore interno Internal varistor	300 V	300 V	300 V	680 V	680 V	680 V

DATI TECNICI USCITA - OUTPUT TECHNICAL DATA

Modello Model	SSR170H 30240xS	SSR170H 35240xS	SSR170H 40240xS	SSR170H 60240xS	SSR170H 30600xS	SSR170H 35600xS	SSR170H 40600xS	SSR170H 60600xS
Tensione nominale Nominal voltage	240 VAC	240 VAC	240 VAC	240 VAC	600 VAC	600 VAC	600 VAC	600 VAC
Range tensione di carico Load voltage range	12-275 VAC	12-275 VAC	12-275 VAC	12-275 VAC	48-600 VAC	48-600 VAC	48-600 VAC	48-600 VAC
Picco ripetitivo allo stato di OFF Repetitive peak off-state voltage	600 V	600 V	600 V	600 V	1200 V	1200 V	1200 V	1200 V
Corrente uscita Output current	30 A	35 A	40 A	60 A	30 A	35 A	40 A	60 A
Corrente di spunto non ripetitiva Non repetitive surge peak on state current $t=10ms$	520 A	520 A	520 A	520 A	520 A	520 A	520 A	520 A
I ² t per scelta fusibile I ² t rating $t=10ms$	1350 A ² S	1350 A ² S	1350 A ² S	1350 A ² S	1350 A ² S	1350 A ² S	1350 A ² S	1350 A ² S
Tempo critico salita tensione allo stato di off Critical rate of rise of off-state voltage dv/dt	500 V/ μ s	500 V/ μ s	500 V/ μ s	500 V/ μ s	1000 V/ μ s	1000 V/ μ s	1000 V/ μ s	1000 V/ μ s
Caduta tensione in uscita Output voltage drop	1,2 VAC	1,2 VAC	1,2 VAC	1,2 VAC	1,2 VAC	1,2 VAC	1,2 VAC	1,2 VAC
Perdita di corrente allo stato di off Off-stage leakage current	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA
Corrente minima di funzionamento Minimum working current	165 mA	165 mA	165 mA	165 mA	165 mA	165 mA	165 mA	165 mA
Varistore interno Internal varistor	300 V	300 V	300 V	300 V	680 V	680 V	680 V	680 V

DATI TECNICI ENTRATA - INPUT TECHNICAL DATA

Modello Model	SSR170H-xx240AS	SSR170H-xx600AS	SSR170H-xxxxxCS
Tensione ingresso / Input voltage	3-32 VDC	4-32 VDC	90-280 VAC
Corrente di pilotaggio / Control current range	4-12 mA	8-12 mA	4,5-22 mA
Tensione di innesco / Control pick-up voltage	3 VDC	4 VDC	45 VAC
Tensione di disinnesco / Control drop-out voltage	2 VDC	2 VDC	20 VAC

DATI TECNICI ENTRATA/USCITA - INPUT/OUTPUT TECHNICAL DATA

Modello Model	SSR170H-xxxxxAS	SSR170H-xxxxxCS
Massimo ritardo chiusura / Maximum closing delay	10 ms	30 ms
Massimo ritardo apertura / Maximum opening delay	10 ms	50 ms
Isolamento (AC, 1 min.) / Isolation voltage (AC, 1 min.)	5000 V	5000 V

DATI TERMICI - THERMAL DATA

Temperatura di funzionamento Operating-temperature	-40/+80°C
Temperatura di stoccaggio Storage temperature	-40/130°C

UL RATINGS

MODELLO / MODEL	INGRESSO / INPUT	
	Tensione nominale Nominal voltage	Frequenza (Hz) Frequency (Hz)
SSR170H xxx AS	12-24 VDC	DC
SSR170H xxx CS	240 VAC	50/60

MODELLO / MODEL	CARICO USCITA / OUTPUT LOAD		
	Tensione nominale Nominal voltage	Frequenza (Hz) Frequency (Hz)	Corrente Current
SSR170H-15240xx	240 VAC	50/60	15 A
SSR170H-15600xx	600 VAC	50/60	15 A
SSR170H-20240xx	240 VAC	50/60	20 A
SSR170H-20600xx	600 VAC	50/60	20 A
SSR170H-25240xx	240 VAC	50/60	25 A
SSR170H-25600xx	600 VAC	50/60	25 A
SSR170H-30240xx	240 VAC	50/60	30 A
SSR170H-30600xx	600 VAC	50/60	30 A
SSR170H-35240xx	240 VAC	50/60	35 A
SSR170H-35600xx	600VAC	50/60	35 A
SSR170H-40240xx	240 VAC	50/60	40 A
SSR170H-40600xx	600 VAC	50/60	40 A
SSR170H-60240xx	240 VAC	50/60	50 A
SSR170H-60600xx	600 VAC	50/60	50 A

Massima temperatura ambiente 40 °C
 Maximum Surrounding Air Temperature 40 °C



SPECIFICHE DI CONNESSIONE INGRESSO / CONTROL CONNECTION SPECIFICATIONS

Tipo di conduttore / Wire type	Rigido Rigid	Flessibile senza puntalino Flexible without and sleeve	Flessibile con puntalino Flexible with and sleeve
Sezione / Gauge	28-12 AWG 0,08-3,31 mm ²	28-12 AWG 0,08-3,31 mm ²	28-12 AWG 0,08-3,31 mm ²
Coppia di serraggio / Tightening torque	0,5 Nm 4,5 lb/in		

SPECIFICHE DI CONNESSIONE USCITA / POWER CONNECTION SPECIFICATIONS

Tipo di conduttore / Wire type	Rigido Rigid	Flessibile senza puntalino Flexible without and sleeve	Flessibile con puntalino Flexible with and sleeve
Sezione / Gauge	18-10 AWG 1-6 mm ²	18-10 AWG 1-6 mm ²	18-6 AWG ⁽¹⁾ 1-16 mm ²
Coppia di serraggio / Tightening torque	1,5 Nm 13,3 lb/in		

TUTTI I MODELLI ECCETTO SSR170H-35240xx E SSR170H-35240xx

ALL MODELS EXCEPT SSR170H-35240xx AND SSR170H-35240xx

Utilizzare conduttori in rame (CU) a 60 °C / 75 °C, flessibili o rigidi

Use 60 °C / 75 °C copper (CU) conductor, stranded or solid

MODELLI SSR170H-35240xx E SSR170H-35240xx

SSR170H-35240xx AND SSR170H-35240xx MODELS

Utilizzare conduttori in rame (CU) a 75°C, flessibili o rigidi.

Use 75°C copper (CU) conductor, stranded or solid.

⁽¹⁾ 6-8 AWG solo se abbinati a puntalini listed ZMVV mod. ANE2-U4 o ANE3-U4 assemblati tramite "Crimp die" MN2RF-50 o MN3RF-50 prodotti da Cembre

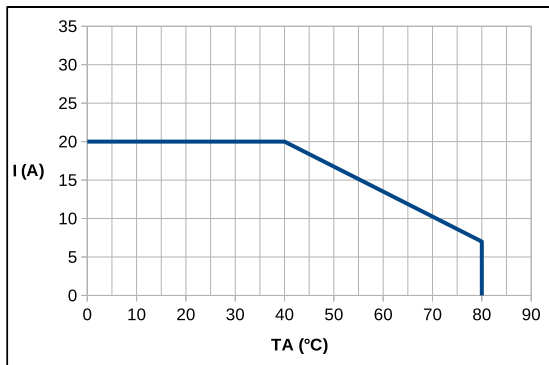
Spa, o equivalenti.

⁽¹⁾ 6-8 AWG only when provided with Listed ZMVV Connectors, Cembre Spa Mod.No. ANE2-U4 or ANE3-U4 crimped with "Crimp die" Mod.No. MN2RF-50

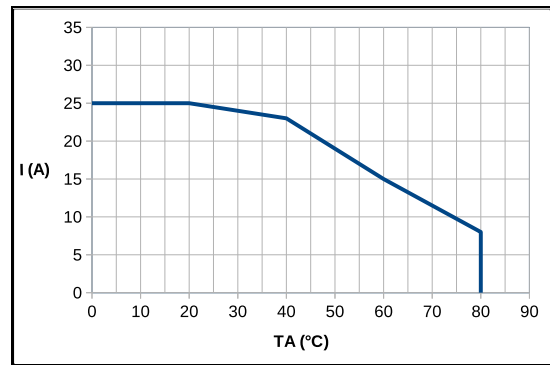
or MN3RF-50, or equivalent.

CURVE DI DERATING - DERATING CURVES

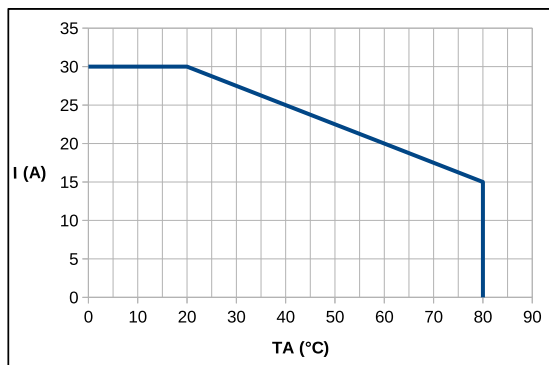
SSR170H-15xxx



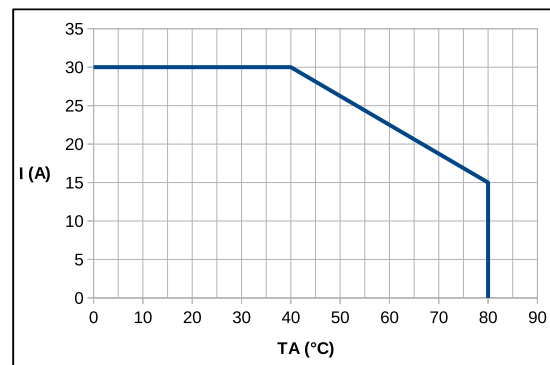
SSR170H-20xxx



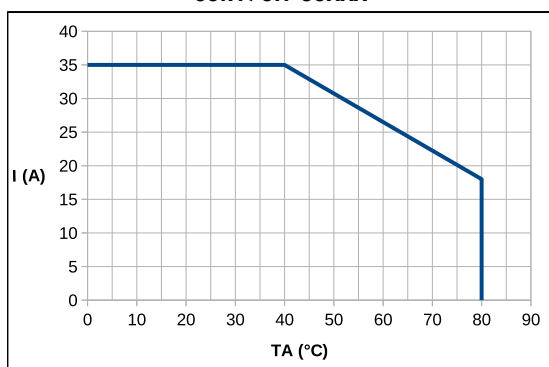
SSR170H-25xxx



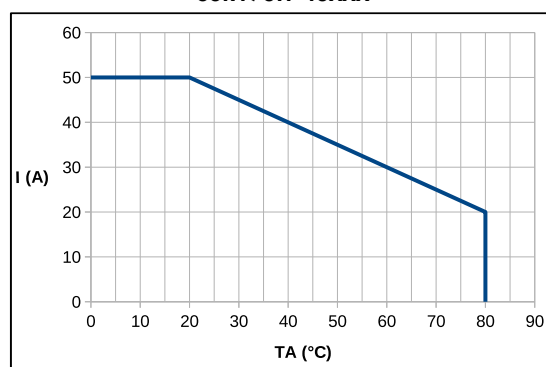
SSR170H-30xxx



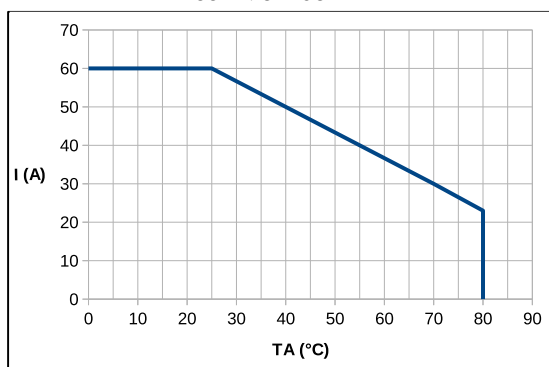
SSR170H-35xxx



SSR170H-40xxx

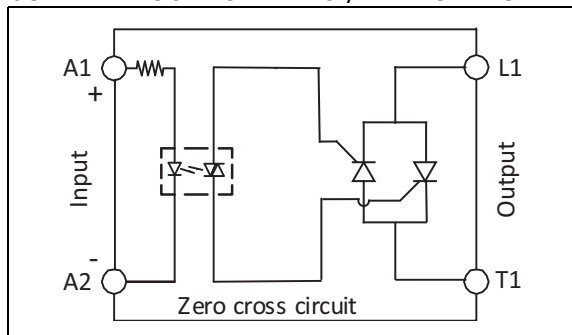


SSR170H-60xxx



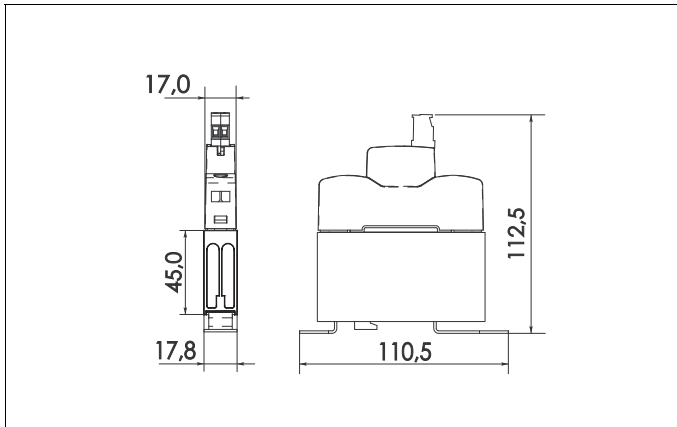
In caso di più SSR montati fianco a fianco si deve considerare un derating della corrente di uscita.
In case of many SSR side by side, a derating of output current should be considered.

SCHEMA DI COLLEGAMENTO / WIRING DIAGRAM

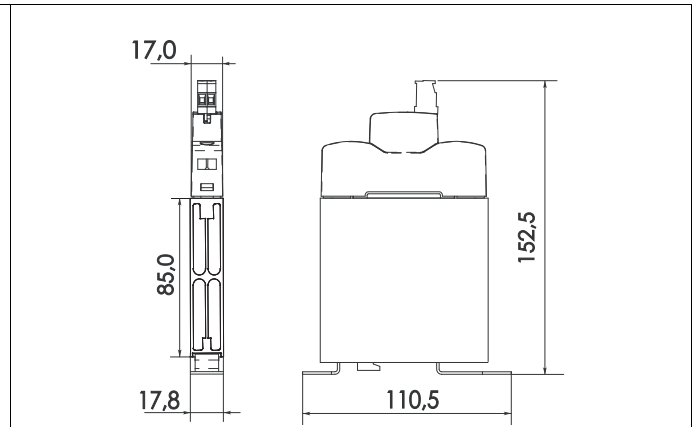


DIMENSIONI / DIMENSIONS (mm)

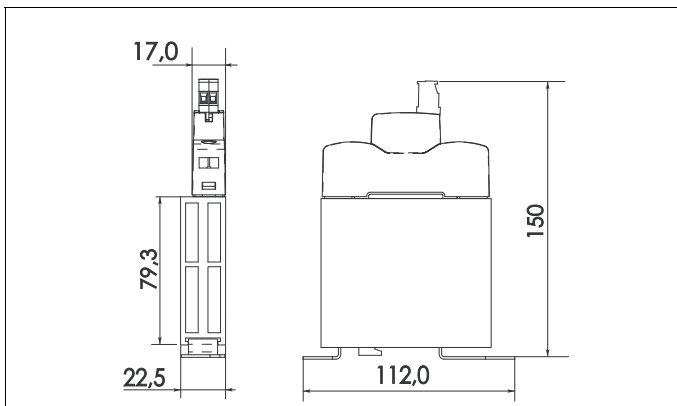
SSR170H-15/20/25xxx



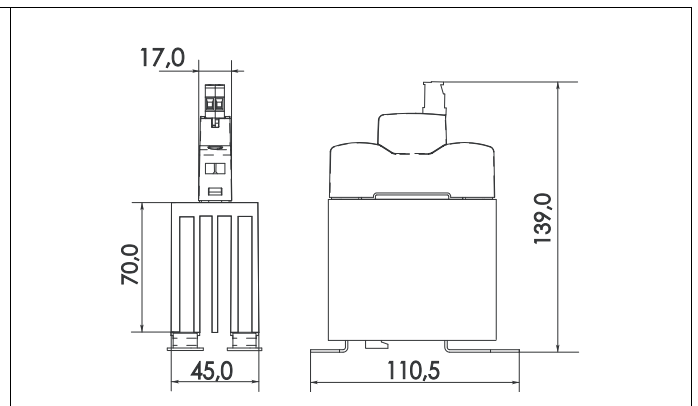
SSR170H-30xxx



SSR170H-35xxx



SSR170H-40xxx



SSR170H-60xxx

