ENERGY AND AUTOMATION

SOLID STATE RELAY COMPLETE WITH HEATSINK, THREE-PHASE (2 CONTROLLED), 60A, 90...280VAC, SCREW TERMINALS



Product designation Solid state relay Product type designation HSZC Type Troe-phase (2 controlled) Input characteristics 90280VAC Control voltage V 90280VAC Operating voltage limits V 90280VAC Input current at minmax voltage V 90280VAC Operating times W 4 laft cycle max Switching-on Half cycle max W 1 laft cycle max Switching mode VAC 48600				
Product type designation	Product designation			Solid state relay
Imput characteristics	Product type designation			-
Imput characteristics	Tyne			Three-phase (2
Control voltage Control terminals Conductor section connectable Control terminals Control				controlled)
Operating voltage limits Operating voltage drop-out V 20 y 20 Input current at minmax voltage mA 2350 Operating times mA 2350 Switching-on Half cycle max Switching-off Half cycle max Switching woltage VAC 48600 Blocking voltage V 1200 Operational frequency (minmax) Hz 4565 Rated operating current AC-51 (resistive load) at 40°C A 60 Rated operating current AC-51 (resistive load) at 45°C A 48 Rated operating current AC-51 (resistive load) at 40°C A 15 Operational current min A 0.16 Non repetitive surge peak on state current t=10ms A 530 Off state leakage current mA 1 On state output voltage drop V 1.2 Critical rate of rise of off-state voltage dv/dt V/µs 1000 Input - Output to metal base V 5000 Output protection type VDR Izt A2 3 1404 Terminal characteristics Type Screw Control terminals Type Screw Terminal characteristics Type Screw </td <td>Input characteristics</td> <td></td> <td></td> <td></td>	Input characteristics			
Operating voltage pick-up Operating voltage drop-out V 20	Control voltage			90280VAC
Operating voltage drop-out V 20	Operating voltage limits			
Imput current at minmax voltage				
Operating times Half cycle max Switching-off Half cycle max Output characteristics Switching mode Lero crossing Rated operating voltage VAC 48600 Blocking voltage V 1200 Operational frequency (minmax) Hz 4565 Rated operating current AC-51 (resistive load) at 40°C A 60 Rated operating current AC-51 (resistive load) at 40°C A 15 Operational current min A 15 Operational current min A 530 Non repetitive surge peak on state current t=10ms A 530 Off state leakage current mA 1 On state output voltage drop V 1.2 Critical rate of rise of off-state voltage dv/dt V/µs 1000 Input - Output isolation V 5000 Input - Output to metal base V 5000 Output protection type VDR V It A2s 1404 Terminals tool Type Screw C		Operating voltage drop-out	V	
Switching-on Half cycle max Switching-off Half cycle max Switching-off Half cycle max Cutput characteristics Zero crossing Rated operating woltage VAC 48600 Blocking voltage VAC 48600 Blocking voltage V 1200 Operational frequency (minmax) Hz 4565 Rated operating current AC-51 (resistive load) at 40°C A 60 Rated operating current AC-53 (motor load) at 40°C A 15 Operational current min A 0.16 Non repetitive surge peak on state current t=10ms A 530 Off state leakage current mA 1 Operational current min MA 1 Operational current derive in series of off-state voltage dv/dt V 530 Off state leakage current MA 1 2 Critical rate of rise of off-state voltage dv/dt V/µs 1000 1 Input - Output isolation V 5000 1 Input - Output to metal base V <t< td=""><td>· •</td><td></td><td>mΑ</td><td>2350</td></t<>	· •		mΑ	2350
Switching-off Half cycle max Output characteristics Zero crossing Rated operating voltage VAC 48600 Blocking voltage V 1200 Operational frequency (minmax) Hz 4565 Rated operating current AC-51 (resistive load) at 40°C A 60 Rated operating current AC-51 (resistive load) at 55°C A 48 Rated operating current AC-53 (motor load) at 40°C A 15 Operational current min A 0.16 Non repetitive surge peak on state current te10ms A 530 Off state leakage current mA 1 On state output voltage drop V 1,22 Critical rate of rise of off-state voltage dv/dt V/µs 1000 Input - Output isolation V 5000 Input - Output to metal base V 5000 Output protection type VDR Izt A2s 1404 Terminal characteristics Nm 0.5Nm Control terminals Nm 0.5Nm	Operating times			
Output characteristics Zero crossing Switching mode VAC 48600 Blocking voltage V 1200 Operational frequency (minmax) Hz 4565 Rated operating current AC-51 (resistive load) at 40°C A 60 Rated operating current AC-51 (resistive load) at 55°C A 48 Rated operating current AC-53 (motor load) at 40°C A 15 Operational current min A 0.16 Non repetitive surge peak on state current t=10ms A 530 Off state leakage current mA 1 On state output voltage drop V 1,2 Critical rate of rise of off-state voltage dv/dt V/ps 1000 Input - Output protection type V 5000 Output protection type V 5000 2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminal characteristics R 8812 Conductor section connectable (control terminals) with 1 or 2 wires minmax n°	Switching-on			Half cycle max
Switching mode Zero crossing Rated operating voltage VAC 48600 Blocking voltage V 1200 Operational frequency (minmax) Hz 4565 Rated operating current AC-51 (resistive load) at 40°C A 60 Rated operating current AC-51 (resistive load) at 55°C A 48 Rated operating current AC-53 (motor load) at 40°C A 15 Operational current min A 0.16 Non repetitive surge peak on state current t=10ms A 530 Off state leakage current mA 1 On state output voltage drop V 1.2 Critical rate of rise of off-state voltage dv/dt V/µs 1000 Input - Output isolation V 5000 Input - Output to metal base V 5000 Output protection type V 5000 2t 42 1404 Terminal characteristics Type Screw Tightening torque control terminals Nm 0.5Nm Tightening torque control terminals Nm				Half cycle max
Rated operating voltage VAC 48600 Blocking voltage V 1200 Operational frequency (minmax) Hz 4565 Rated operating current AC-51 (resistive load) at 40°C A 48 Rated operating current AC-51 (resistive load) at 5°C A 48 Rated operating current AC-53 (motor load) at 40°C A 15 Operational current min A 0.16 Non repetitive surge peak on state current t=10ms A 530 Off state leakage current mA 1 On state output voltage drop V 1.2 Critical rate of rise of off-state voltage dv/dt V/µs 1000 Input - Output isolation V 5000 Input - Output protection type VDR VDR I2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminal tool Nm 0.5Nm Tightening torque control terminals AWG stranded Flexible w/o lug mm2 n° 2812 Flexible c/w insulated spade lug	Output characteristics			
Blocking voltage	Switching mode			Zero crossing
Operational frequency (minmax) Hz 4565 Rated operating current AC-51 (resistive load) at 40°C A 60 Rated operating current AC-51 (resistive load) at 55°C A 48 Rated operating current AC-53 (motor load) at 40°C A 15 Operational current min A 0.16 Non repetitive surge peak on state current t=10ms A 530 Off state leakage current mA 1 On state output voltage drop V 1.2 Critical rate of rise of off-state voltage dv/dt V/µs 1000 Input - Output isolation V 5000 Input - Output to metal base V 5000 Output protection type VDR Izt A2s 1404 Terminals characteristics Control terminals Type Screw Terminals tool Blade 3.5mm Tightening torque control terminals) with 1 or 2 wires minmax Nm 0.5Nm Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded Flexible w/o lug n° 2812 <tr< td=""><td>Rated operating voltage</td><td></td><td>VAC</td><td>48600</td></tr<>	Rated operating voltage		VAC	48600
Rated operating current AC-51 (resistive load) at 40°C A 60 Rated operating current AC-51 (resistive load) at 55°C A 48 Rated operating current AC-53 (motor load) at 40°C A 15 Operational current min A 0.16 Non repetitive surge peak on state current t=10ms A 530 Off state leakage current mA 1 On state output voltage drop V 1.2 Critical rate of rise of off-state voltage dv/dt V/µs 1000 Input - Output isolation V 5000 Input - Output to metal base V 5000 Output protection type VDR VDR I2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminals tool Blade 3.5mm Tightening torque control terminals) with 1 or 2 wires minmax Nm 0.752.5 Flexible c/w insulated spade lug n° 2812 mm2 0.752.5 Type Screw Type Screw Drype	Blocking voltage		V	1200
Rated operating current AC-51 (resistive load) at 55°C	Operational frequency (minmax)		Hz	4565
Rated operating current AC-53 (motor load) at 40°C	Rated operating current AC-51 (resistive load) at 40°C		Α	60
Operational current min A 0.16 Non repetitive surge peak on state current t=10ms A 530 Off state leakage current mA 1 On state output voltage drop V 1.2 Critical rate of rise of off-state voltage dv/dt V/μs 1000 Input - Output isolation V 5000 Input - Output to metal base V 5000 Output protection type VDR VDR I2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminals tool Blade 3.5mm Tightening torque control terminals Nm 0.5Nm Ibin 4.5 Conductor section connectable (control terminals) with 1 or 2 wires minmax Nm 0.752.5 Conductor section connectable (control terminals) with 1 or 2 wires minmax Nm 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals PH2 Tightening torque load terminals Nm 1.5	Rated operating current AC-51 (resistive load) at 55°C		Α	48
Non repetitive surge peak on state current t=10ms	Rated operating current AC-53 (motor load) at 40°C		Α	15
Off state leakage current mA 1 On state output voltage drop V 1.2 Critical rate of rise of off-state voltage dv/dt V/µs 1000 Input - Output isolation V 5000 Input - Output to metal base V 5000 Output protection type VDR I2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminals tool Blade 3.5mm Tightening torque control terminals Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded Flexible w/o lug Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals tool Type Screw Load terminals tool PH2 Tightening torque load terminals	Operational current min		Α	0.16
On state output voltage drop V 1.2 Critical rate of rise of off-state voltage dv/dt V/µs 1000 Input - Output isolation V 5000 Input - Output to metal base V 5000 Output protection type VDR I2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminals tool Blade 3.5mm Tightening torque control terminals Nm 0.5Nm Ibin 4.5 Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded n° 2812 Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Type Screw Load terminals tool PH2 Tightening torque load terminals Nm 1.5	Non repetitive surge peak on state current t=10ms		Α	530
Critical rate of rise of off-state voltage dv/dt V/μs 1000 Input - Output isolation V 5000 Input - Output to metal base V 5000 Output protection type VDR I2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminals tool Blade 3.5mm Tightening torque control terminals Nm 0.5Nm Ibin 4.5 Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded Flexible w/o lug Plexible w/o lug Plexible w/o lug Plexible c/w insulated spade lug n° 2812 mm2 0.752.5 mm2 0.752.5 mm2 0.752.5 Type Screw Load terminals Type Screw PH2 Tightening torque load terminals Nm 1.5	Off state leakage current		mA	1
Input - Output isolation	On state output voltage drop		V	1.2
Input - Output to metal base V 5000 Output protection type VDR I2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminals tool Blade 3.5mm Tightening torque control terminals Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals tool Type Screw Load terminals tool PH2 Tightening torque load terminals Nm 1.5	Critical rate of rise of off-state voltage dv/dt		V/µs	1000
Output protection type VDR I2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminals tool Blade 3.5mm Tightening torque control terminals Nm 0.5Nm Ibin 4.5 Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded Flexible w/o lug Flexible w/o lug Flexible w/o lug Flexible w/o lug Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Type Screw Load terminals tool PH2 Tightening torque load terminals Nm 1.5	Input - Output isolation		V	5000
I2t A2s 1404 Terminal characteristics Control terminals Type Screw Terminals tool Blade 3.5mm Tightening torque control terminals Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded n° 2812 Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Load terminals tool Type Screw Day 1.5	Input - Output to metal base		V	5000
Terminal characteristics Control terminals Control terminals Type Screw Blade 3.5mm Tightening torque control terminals Nm 0.5Nm Ibin 4.5 Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded n° 2812 Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Load terminals tool Type Screw Load terminals torque load terminals Type Screw PH2 Tightening torque load terminals	Output protection type			VDR
Control terminals Terminals tool Tightening torque control terminals Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded Flexible w/o lug Flexible c/w insulated spade lug Load terminals Load terminals tool Tightening torque load terminals Nm 0.5Nm lbin 4.5 AWG stranded n° 2812 mm2 0.752.5 mm2 0.752.5 Type Screw PH2 Tightening torque load terminals Nm 1.5	I2t		A2s	1404
Terminals tool Tightening torque control terminals Nm	Terminal characteristics			
Tightening torque control terminals Nm 0.5Nm Ibin 4.5 Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded n° 2812 Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Type Screw Load terminals tool Tightening torque load terminals Nm 1.5	Control terminals		Type	Screw
Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded n° 2812 Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Load terminals tool Type Screw Load terminals torque load terminals Nm 1.5	Terminals tool			Blade 3.5mm
Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded ro 2812 Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Load terminals tool Type Screw Load terminals torque load terminals Tightening torque load terminals Nm 1.5	Tightening torque control terminals			
Conductor section connectable (control terminals) with 1 or 2 wires minmax AWG stranded ro 2812 Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Load terminals tool Type Screw PH2 Tightening torque load terminals Nm 1.5			Nm	0.5Nm
AWG stranded n° 2812 Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Load terminals tool Type Screw PH2 Tightening torque load terminals Nm 1.5			lbin	4.5
Flexible w/o lug mm2 0.752.5 Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Load terminals tool Tightening torque load terminals Nm 1.5	Conductor section connectable (control terminals) with 1 or	2 wires minmax		
Flexible c/w insulated spade lug mm2 0.752.5 Load terminals Load terminals tool Tightening torque load terminals Nm 1.5		AWG stranded	n°	2812
Load terminals Load terminals tool Type Screw PH2 Tightening torque load terminals Nm 1.5		Flexible w/o lug	mm2	0.752.5
Load terminals tool PH2 Tightening torque load terminals Nm 1.5		Flexible c/w insulated spade lug	mm2	0.752.5
Load terminals tool PH2 Tightening torque load terminals Nm 1.5	Load terminals			
Nm 1.5	Load terminals tool			
Nm 1.5	Tightening torque load terminals			
			Nm	1.5
				13.3

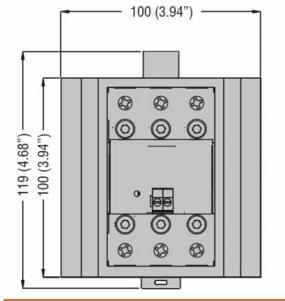


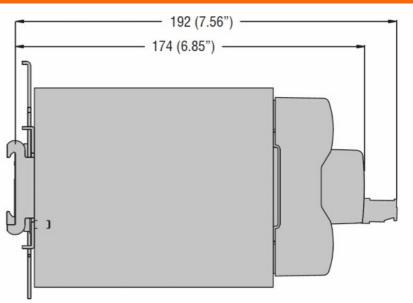
ENERGY AND AUTOMATION

SOLID STATE RELAY COMPLETE WITH HEATSINK, THREE-PHASE (2 CONTROLLED), 60A, 90...280VAC, SCREW TERMINALS

Conductor section connectable (load terminals) with 1 or 2 wires minmax						
		AWG stranded	n°	1810		
		Flexible w/o lug	mm2	16		
		Flexible c/w insulated spade lug	mm2	116		
Operating position						
		allowable		On vertical plane		
Fixing				Screw or on 35mm DIN rail		
Ambient conditions						
Temperature						
	Operating temperature					
		min	°C	-40		
		max	°C	+80		
	Storage temperature					

Dimensions





min

max

°C

°C

-40

+130

Certifications and compliance

Certifications

IEC/EN/BS 60947-4-2 IEC/EN/BS 60947-4-3

IEC/EN/BS 62314 IEC/EN/BS 6335-1

Compliance

cULus

ETIM classification

EC000066 - Power contactor, AC switching