

ST-OV 3



"...10"

with AC voltage output,
max. = 3 A

Plug width 20.8

Description	Input Type voltage	Order No.	Pcs. Pkt.	
Power optical coupler, with light indicator and protection circuit in input/output circuits, input: AC/DC voltage output: DC voltage, plugs onto base termination blocks,	5 V DC	ST-OV 3- 5 DC/240 AC/3	29 03 63 9	10
	12 V DC	ST-OV 3- 12 DC/240 AC/3	29 03 04 0	10
	24 V DC	ST-OV 3- 24 DC/240 AC/3	29 03 23 1	10
	48–60 V DC	ST-OV 3- 60 DC/240 AC/3	29 03 05 3	10
	110 V DC	ST-OV 3-110 DC/240 AC/3	29 03 06 6	10
	220 V DC	ST-OV 3-220 DC/240 AC/3	29 03 10 5	10
	120 V AC	ST-OV 3-120 AC/240 AC/3	29 03 69 7	10
	230 V AC	ST-OV 3-230 AC/240 AC/3	29 03 07 9	10

Technical data

Input data		DC						AC ⁷⁾	
Operating voltage range	[V DC/V AC] ± 20 %*	5	12	24	48/60	110	220	120	230
Switching level	1 signal ("H") [V DC/V AC] ≥	0.8 x operating voltage						75	106
	0 signal ("L") [V DC/V AC] ≤	0.4 x operating voltage						35	86
Typ. input current with U _N [mA]		10	7	7	8/11	8	7	5	5
Transmission frequency f _{limit} [Hz]		25	25	25	25	25	25	10	10
Input circuit		polarity protection diode, operation indicator (LED yellow)							
Output data		AC load							
Operating voltage range		24–280 V AC ⁵⁾							
Periodic peak reverse voltage		600 V							
Max. continuous load current ^{1) 2)}		3 A							
Min. load current		50 mA ⁶⁾							
Surge current		35 A (t = 10 ms)							

Surge current	55 A (t = 10 ms)
Voltage drop at max. load current	1.5 V
Leakage current in off state	5 mA ⁶⁾
Max. phase shift (inductive load)	cos φ = 0.5
Max. load limit value I ² x t at t = 8.3 ms	6 A ² s
Switching time t _{in} /t _{out}	DC input 4) ⁴⁾
	AC input 24 ms/24 ms
Output circuitry ³⁾	RC element
Output connection	floating, 2-conductor connection

General data

Insulation voltage input/output	2.5 kV _{rms}
Ambient temperature range	-20 ° C to +60 ° C
Standards/regulations	DIN VDE 0110
Installation position	as desired

* With 120 V AC and 230 V AC ± 10 %

Notes:

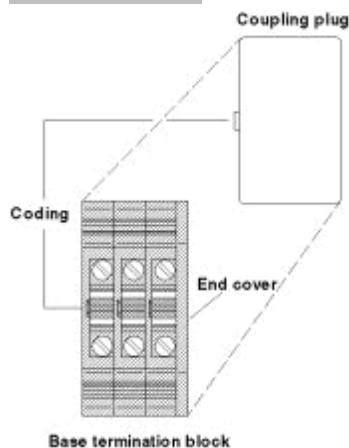
- ¹⁾ See load current diagram!
The curve is also valid for inductive loads up to cos. φ = 0.5
- ²⁾ Recommended equipment fuse:
for coupling plug with 1 A output = 2 A,
for coupling plug with 3 A output = 5 A,
for coupling plug with 5 A output = 10 A,
Fast acting fuse (FF), identification color: black as overload protection for semiconductor switch (triac, transistor)
- ³⁾ For the protection of input/output circuits, inductive loads must be dampened with an effective protection circuit.
- ⁴⁾ Switch-on time:
max. one half cycle (zero voltage)
Switch-off time:
max. one half cycle (zero current)
- ⁵⁾ Not suitable for reversing circuits with synchronous motors, see [info](#)
- ⁶⁾ Components with low minimum load and leakage currents on request.
- ⁷⁾ With 120 AC and 230 AC + 6 %, - 15 %.

Type of housing

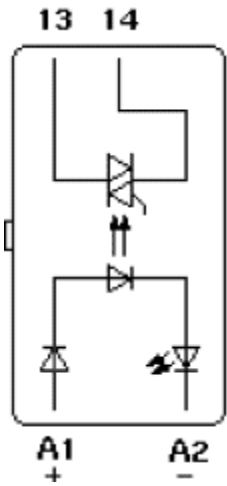
Polyamide PA non-reinforced,
see [product-line info](#)
color: base gray
cover green

Articles printed in bold can be delivered at short notice.

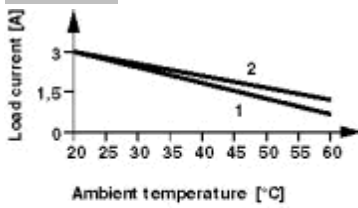
Circuit diagram



Block diagram



Diagram



- 1 Power optical couplers mounted in rows with zero spacing
- 2 Power optical couplers in rows with ≥ 20 mm spacing