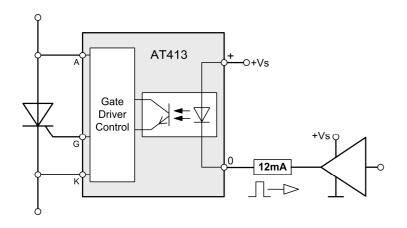


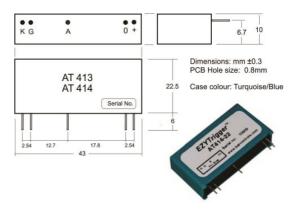
Active trigger units for firing Power Thyristors

AT 413 Line voltage 100 – 690V_{rms}

Applications:

o Single thyristor logic control applications





Absolute Maximum Ratings

		_
F7V	Trigger	Tyne

Parameter	Symbol	AT413 – 22	
Peak voltage – positive and negative	Vp	2200 V	
Nominal mains voltage	Vm	690 V	
Continuous DC voltage	V=	690 V	
Turn-on delay for gate current >1A	tgd	5 μs	
Input-Output isolation	Vi	6000Vrms 50Hz 1min VDE0884	
Input-Output transient immunity	(dv/dt)c	5000 V/μs	
Device transient immunity	(dv/dt)d	2000 V/μs	
Ambient temperature range	Та	-20°C to +85°C	

Technical Data at 25°C

				,
200mA gate current threshold			16 V	
	Vgth		36 V	
⇒ 100V	(di/dt)g		1.2 A/μs	
⇒ 200V	(di/dt)g		2 A/μs	
⇒ 400V	(di/dt)g		2.5 A/μs	
⇒ 800V	(di/dt)g		3 A/μs	
⇒ 1200V	(di/dt)g		4 A/μs	
	lp		1.8 A	
Anode-cathoden current at peak voltage Vp			5.1 mA	
Maximum off-state gate current			2 μΑ	
Minimum control current			7 mA	
Recommended control current			12 mA	
Control input voltage drop at 12mA gate current			Typ 1.2 < 1.5V	
Maximum reverse control input voltage			6 V	
Turn-on delay time at Icontrol = 12mA			25 μs	
	 ⇒ 200V ⇒ 400V ⇒ 800V ⇒ 1200V 	⇒ 100V (di/dt)g ⇒ 200V (di/dt)g ⇒ 400V (di/dt)g ⇒ 800V (di/dt)g ⇒ 1200V (di/dt)g lp ln lo lcm lc	Vgth ⇒ 100V (di/dt)g ⇒ 200V (di/dt)g ⇒ 400V (di/dt)g ⇒ 800V (di/dt)g ⇒ 1200V (di/dt)g Ip In Io Icm Ic ent Vin Vinr	Vgth 36 V ⇒ 100V (di/dt)g 1.2 A/μs ⇒ 200V (di/dt)g 2 A/μs ⇒ 400V (di/dt)g 3 A/μs ⇒ 800V (di/dt)g 3 A/μs ⇒ 1200V (di/dt)g 4 A/μs Ip 1.8 A In 5.1 mA Io 2 μA Icm 7 mA Ic 12 mA ent Vin Typ 1.2 < 1.5V

 $All\ components\ and\ parts\ used\ in\ these\ units\ have\ been\ certified\ by\ their\ manufacturers\ as\ RoHS\ Compliant.$

Epoxy filler is RoHS Compliant (2011/65/EU) and UL Approval meets UL94 V-0.

The Optocoupler is approved for UL1577 File No. E52744 System Code H or J, Double Protection and DIN EN 60747-5-2 (VDE0884), RoHS 2002/96/EC and WEEE (2002/96/EC).

No warranty is given for the accuracy of information stated by the respective manufacturers.

