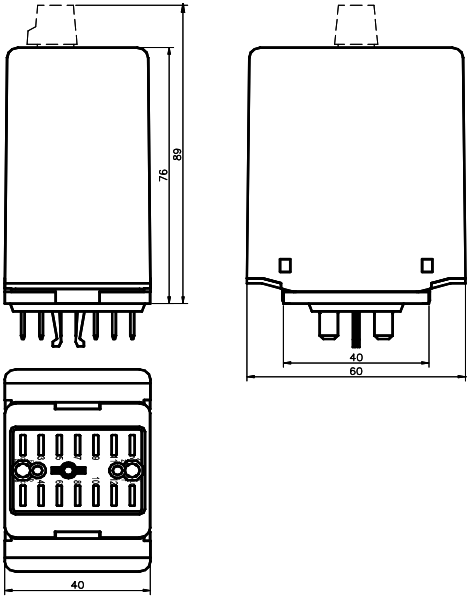

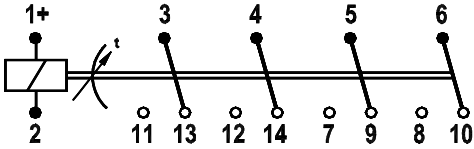
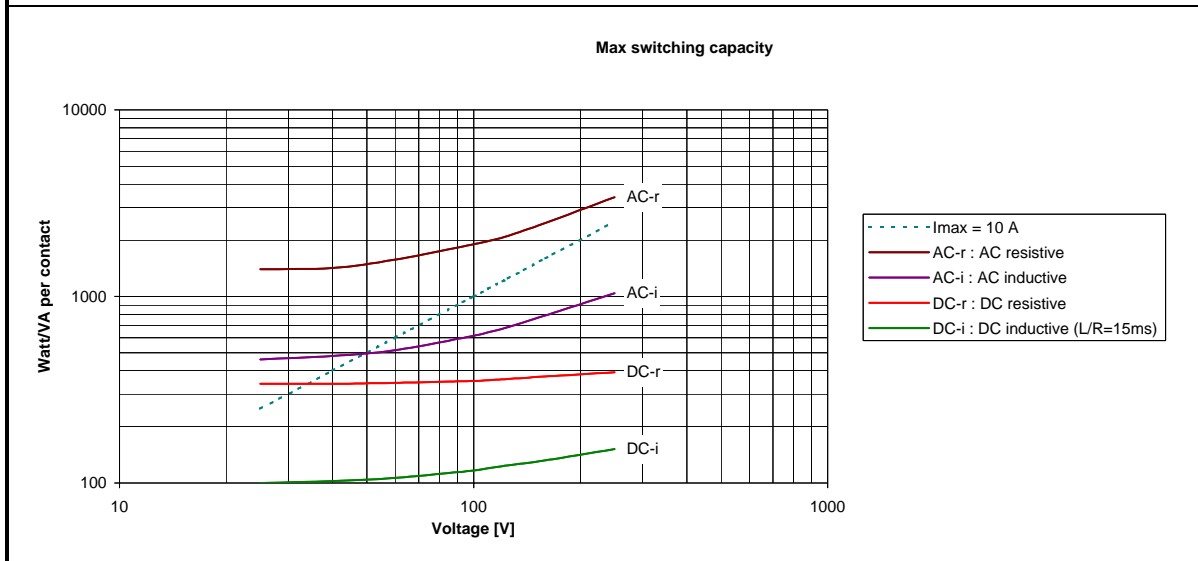


TIME DELAY RELAY			
<b>Product</b>	TDE4 series 4 pole delay-off timer relay		<b>Country of origin</b> The Netherlands
<b>Dimensions</b>	<b>Company</b>		
		 <p>P.O. Box 7023 3502 KA Utrecht The Netherlands T +31 (0)30-288 13 11 F +31 (0)30-289 88 16 E sales@nieaf-smitt.nl I www.nieaf-smitt.nl</p>	
<b>Connection Diagram</b>			
			
<b>Description</b>			
<p>Electronic plug-in timer-relay without auxiliary supply with four change-over contacts.          Equipped with a LED that indicates the presence of energizing voltage.          The energizing voltage must have a step function for correct working.          The delay time is adjustable with a lockable knob.          The relay can also be supplied with a fixed time delay, (no knob).          The TDE4-relays are suitable for standard D relay bases.</p>			
<b>Coil Data AC/DC</b>			<b>Timing diagram</b>
Type	$U_{nom}$ (V)	$U_{min}$ (V)	$U_{max}$ (V)
TDE4-024-xx	24	19.2	28.8
TDE4-048-xx	48	38.4	57.6
TDE4-060-xx	60	48	72
TDE4-110-xx	110	88	132
TDE4-125-xx	125	100	150
TDE4-220-xx	220	176	264
<b>Powerconsumption</b>	nominal switching-on ( $t < 80$ ms)		< 1 W < 9 W
<b>Release time</b>	Depending on drop-out time setting (xx)		
<b>Adjustable time ranges</b>	0.1-1 s	0.3 - 3 s	0.6 - 6 s
<b>Adjustment accuracy</b>	< 10 %		
<b>Repeat accuracy</b>	$\pm 2$ %		
<b>Time variation vs voltage variation</b>	$\pm 0.1$ % / % $U_{nom}$		
<b>vs temperature variation</b>	$\pm 0.2$ % / K		
<b>Recovery time @ <math>U_{nom}</math></b>	< 0.3 s		
<b>@ <math>U_{min}</math></b>	< 1.5 s		
<b>Pull-in time</b>	< 40 ms		

Contact data			
Max. make current	16 A ( 200A, 10ms )	Material	Ag
Nom. current	10 A (AC1 ; IEC 60947)	Contactgap	0.7 mm
Max. switching voltage	250V DC    440V AC	Insulation between open contacts	2.5 kV, 50 Hz 1 min
Min. switching voltage	12V, 10 mA		
Max. contact resistance	15 mΩ (initial)	Contactforce	> 200 mN
Max. breaking capacity	DC 110 V, 10A ( L/R ≤ 5ms ) AC 230 V, 10A (cos φ ≥ 0.7 )		



General Data		
Dielectric strength	Pole-Pole	IEC 60255-5    4 kV, 50 Hz, 1 min
	Cont-Coil	2 kV, 50 Hz, 1 min
Insulation class	IEC 60255-5	serie C 380 V 50 Hz/ 450 VDC
Pulse withstanding	IEC 60255-5	5 kV ( 1.2/50 μs )
EMC according to		EMC directive
Vibration	IEC 60068-2-6	5 g at 50 Hz 2 g at 10 - 150 Hz
Shock	IEC 60068-2-27	5 g at 50 Hz
Mechanical life		30*10 <sup>6</sup> ops
Max. switching frequency		1200 ops/h
Weight		270 g
Temperature	T <sub>amb,max</sub>	+ 70 °C 1 cm detached
	T <sub>amb,min</sub>	- 25 °C
Humidity		90%, condensation not permitted
Protection		IP 40
Materials		Makrolon Polyester
Options		
C	- 40 °C	Max contact current 8A
E	gold plated contacts	
K	special dust protection (only for fixed time setting)	
B	magnetic arc blow-out	