

# EEC - Line Contactors

## 3 & 4 Pole Contactors with AC operating coils

### Characteristics

General Characteristics			
Type		Unit	EEC12 - EEC95
Rated insulation voltage ( $U_i$ )	(Conforming to IEC 158-1)	V	750
	VDE 110grC/IEC 60947-4	V	10 00
Conforming to standards			NFC63-1 10,VDE0660, BS5424, JEM1038 & IEC60947-4
Approvals			UL, CSA
Degree of Protection	Conforming to VDE 0106		Protection against direct finger contacts
Protective treatment	Standard version		"TH"
Ambient air temperature (around the device)	Storage	°C	-60 to +80
	Operation	°C	-5 to +55 (0.8 to 1.1U <sub>c</sub> )
	Permissible	°C	-40 to +70, for operation at U <sub>c</sub>
Maximum operating altitude	Without derating	Mtr.	3000
Operating Position	Without derating		±30° possible, in relation to normal vertical mounting plane

### Pole Characteristics

Type	EEC	unit	EEC12	EEC18	EEC25	EEC32	EEC40	EEC50	EEC65	EEC80	EEC95
Number of poles			4	-	4		4		4	4	4
Power + Auxiliary											
			or 3+1	- 3+1	or 3+1	- 3+1	or 3+2	3+2	or 3+2	or 3+2	or 3+2
Rated current ( $I_e$ )	In AC-3, $\square \square \square$ 55°C	A	12	18	25	32	40	50	65	80	95
Rated operating Voltage	Up to	V	690	690	690	690	690	690	690	690	690
Frequency limits	Of the operational current	Hz	25				-400				
Rated thermal current ( $I_{th}$ )	$\square \square \square$ 40°C	A	25	32	45	50	60	80	80	125	125
Rated making capacity	I <sub>rms</sub> conforming to IEC-947-4	A	250	300	450	550	800	900	1000	1100	1200
Rated breaking capacity I	I <sub>rms</sub> conforming to 220-440V	A	250	300	450	550	800	900	1000	1100	1100
	EC-947-4 500V	A	175	250	400	450	800	900	1000	1000	1100
	660-690V	A	85	120	180	180	400	500	630	640	640
Average impedance per pole @ $I_{th}$ and 50Hz m $\ddot{Y}$		2.5	2.5	2.5	2	2	1.5	1	0.8	0.8	
Power dissipation per pole for the above operational currents	AC-3	W	0.36	0.8	1.25	2	2.4	3.7	4.2	5.1	7.2

### Control Circuit Characteristics

Type		Unit	EEC12-18	EEC25-32	EEC40-50	EEC80-95			
Rated control circuit voltage ( $U_c$ )	50 or 60 Hz	V			12 to 660				
Control voltage limits ( $\square \square \square$ 55°C)	50 or 60Hz Coil	Operational Drop out	0.8 - 1.1U <sub>c</sub>						
			- 0.6 U <sub>c</sub>						
Average consumption at 20°C and at U <sub>c</sub>	50/60Hz Coil	Operational	0.85 - 1.1 U <sub>c</sub> @ 60Hz						
			50 Hz Coil	VA	60	90	200	200	
			50/60 Hz Coil	VA	70	100	245	245	
		AC 50 Hz	COS $\square$ N		0.75	0.75	0.75	0.75	
				50 Hz Coil	VA	7	7.5	20	20
				Sealed	50/60 Hz Coil	VA	8	8.5	26
	COS $\square$ N		0.3			0.3	0.3	0.3	
	60 Hz Coil	VA	70			100	220	220	
	AC 60 Hz	Inrush	50/60 Hz Coil	VA	70	100	245	245	
				COS $\square$ N		0.75	0.75	0.75	0.75
				60 Hz Coil	VA	7.5	8.5	22	22
		Sealed	50/60 Hz Coil	VA	8	8.5	26	26	
COS $\square$ N					0.3	0.3	0.3	0.3	
Closing time "C"				msec	12-22	15-24	20-26	20-35	
Average operating time at U <sub>c</sub>	Opening time "O"		msec	04-12	05-19	8-12	6-20		
		50 or 60 Hz Coil		20(16 for EEC18)	16	16	10		
Mechanical life U <sub>c</sub> (mechanical durability) in millions of operating cycles	50/60 Hz Coil or 50 Hz			15	12	6	4		
Maximum operating rate	In operating cycle/hour		3	600	3600	3600	3600		

### Integral Auxiliary Contact Characteristics

Type		Unit	EEC12 - EEC95
Rated thermal current ( $I_{th}$ )	$\square \square \square$ 55°C	A	10
Rated operational voltage ( $U_e$ )	Up to	V	660