



## TECHNICAL DATA INTERNATIONAL RATINGS

## ELFA SERIES E90S Mini Breaker

TECHNICAL DATA				E90S	E880	E90S UC
Standards				EN 60898	EN 60947-2	VDE 0641 Part 2/3
Tripping Characteristics				B, C, D	3-5In/5-10In/10-20In	B, C
Nominal current	A			B 6, 63, C/D 0.5-63	80 up to 125	B 6-63, C 0.5-63
Calibration temperature	*C			30	40	30
Number of poles (#mod)				1/1+N/2/3/4	1/2/3/4 (1 <sup>1/2</sup> , 3, 4 <sup>1/2</sup> , 6)	1/2
Neutral pole protected				yes	-	-
Nominal voltage Un	AC	1P	V	230/400	230/400	230/400
		1P+N	V	230	-	-
		2P	V	400	400	400
	DC	3P/3P+N/4P	V	400	-	-
		1P <sup>(1)</sup>	VDC	48	220	220
		2P (in series) <sup>(1)</sup>	VDC	110	440	440
Frequency				Hz	50/60	50/60 and DC
				Hz	DC: mag. trip +40%	DC: mag. trip +40%
				Hz	400: mag. trip +50%	400: mag. trip +50%
Maximum service voltage U <sub>bmax</sub> between two wires	V			250/440;53/120	250/440;53/120	250/440;250/440
Minimum service voltage U <sub>bmin</sub>	V			12; 12	12; 12	12; 12
Selectivity class (IEC 60898)				3	-	3
Isolator application	IEC 60947-2			yes	-	yes
Rated insulation voltage	Pollution degree 2		V	500	500	500
	Pollution degree 3		V	440	440	440
Impulse withstand test voltage	kV			6	6	6
Insulation resistance	MOhm			10,000	10,000	10,000
Dielectric rigidity	kV			2,5	2,5	2,5
Vibrations resistance (in x,y,z direction)(IEC 77/16.3)	electrical at Un, In			3g	3g	5g
	mechanical			10,000	4,000	1,000
Utilization category (IEC 60947-2)				A	A	A
Protection degree (outside/inside enclosure with door)				IP20/IP40	IP20/IP40	IP20/IP40
Self-extinguish degree (according to UL94)				V2	V2	V2
Tropicalization (according to IEC 60068-2/DIN 40046)	*C/RH			+55°C/95%RH	+55°C/95%RH	+55°C/95%RH
Operating temperature	*C			-25/+55	-25/+55	-25/+55
	*C			-55/+55	-55/+55	-55/+55
Storage temperature	*C			1/35	70	1/35
Terminal capacity	Rigid cable min./max (top)	mm <sup>2</sup>		0.75/35	-	0.75/25
	Flexible cable min./max (top)	mm <sup>2</sup>		1/35	70	1/35
	Rigid cable min./max (bottom)	mm <sup>2</sup>		0.75/35	-	0.75/25
	Flexible cable min./max (bottom)	mm <sup>2</sup>				
	(*Flexible cable 0.75/1/1.5 mm <sup>2</sup> with cable lug)			4.5	5	4.5
Add on devices (side add on)	Torque	Nm		yes	yes	yes
	Auxiliary contacts			yes	-	yes
	Undervoltage			yes	yes	yes
	Short trip			yes	-	yes
	Remote drive			yes	-	yes
Busbar systems	Panel board switch			yes	yes	yes
	Pin (top/bottom)			yes	-	yes
	Fork (top/bottom)			yes	-	yes
Accessories						
Dimensions, weights, packaging				18	27	18
	(HxDxW) 86x68xW	mm/mod		125gr	-	125gr
	Weight/mod	g		12	8	12
	Package	mod		VDE	-	VDE <sup>(1)</sup>
Approvals				yes	yes	yes
<b>Short-circuit capacity AC (kA)</b>						
I <sub>cn</sub>	1P	230/400V		10	-	6 (220VDC) <sup>(2)</sup>
	1P+N	230V		10	-	-
	2P	230/400V		10	-	6 (440VDC) <sup>(3)</sup>
	3P/3P+N/4P	230/400V		10	-	-
I <sub>cs</sub> (service)				75% I <sub>cn</sub>	-	100% I <sub>cn</sub>
I <sub>cu</sub> (ultimate)	1P	127V		30	-	-
		240V		15	B/C 10; D 7.5	10 <sup>(1)</sup>
		415V		4	4.5	-
	1P+N/2P	127V		40	-	-
		240V		30	B/C 15	-
		415V		15	B/C 10; D 7.5	10 <sup>(1)</sup>
	2P	240V		30	B/C 15	-
		415V		15	B/C 10; D 7.5	-
		440V		10	-	-
I <sub>cs</sub> (service)				50% I <sub>cu</sub>	100% I <sub>cu</sub>	-
NEMA AB1 (120/240V)				30	-	-
<b>Short circuit capacity DC (kA)</b>						
I <sub>cu</sub> (ultimate)	1P	≤60V		25	10	-
		≤220V		-	-	-
	2P	≤125V		30	15	-
		≤440V		-	-	-
I <sub>cs</sub> (service)				100% I <sub>cu</sub>	100% I <sub>cu</sub>	-

<sup>(1)</sup>On request, <sup>(2)</sup>10(125VDC), <sup>(3)</sup>10(250VDC)