Closed Open Visual Break

LV Vertical Fuse Switch Disconnectors

Isolating electricity supply at distribution sub-stations can be made safer with the latest generation of Weber EFEN disconnectors.

The new E3 disconnector keeps live terminals fully shrouded from touch at all times.

In the open position the E3 disconnector holds the disconnected fuse under its cover, which maintains an IP2x barrier preventing finger touch of either source or load terminal. With distributed generation on the rise and more connected solar feeding into the LV network from residential and commercial premises, a fully shrouded approach better protects operators by eliminating the risk of exposed live fuse terminals.

In the E3 disconnector the whole fuse is withdrawn in a parallel direction by levering the manually dependent switch in a way that opens both terminals of each fuse blade at the same time. This halves the arc voltage by creating two smaller arcs – one at each terminal.

E3 disconnectors also manage heat more effectively, reducing the risk of over-heating. Heat build-up is minimised by improved housing ventilation and busbar design.

The improved design also delivers improved switching capacity with non-resistive loads, and higher short-circuit rating for improved performance in fault conditions.

The versatile range includes both simultaneous three phase switching as well as individual single phase switching from 100 A to 630 A. E3 disconnectors are available as either 1000A or 2000A isolators with knife links in place of fuses.

Other ratings are available on request, including parallel arrangements. Rear-connect and side-connect configurations are also available.

Hamer Limited
85a Falsgrave Street, Phillipstown, Christchurch
Freephone 0800 239 239, Fax 0800 231 231
www.hamer.co.nz

E3 Fuse Switch Disconnectors: Characteristics and Ratings

					E3	
		Unit	00/100	00/185	2	3
For Fuse-Links ACC. TO DIN 43620/1		**Size**	**000/00**	**000/00**	**2**	**3**
Rated Operational Current I_e	400V	A	160	160	400	630
	500V	A	160	160	400	630
	690V	A	160	160	315	500
Conventional Free Air Thermal Current Ith		A	220	220	400	630
Rated Operational Voltage U_e		V	690	690	690	690
Rated Insulation Voltage U_i		V	1000	1000	1000	1000
Rated Impulse Withstand Voltage U_{imp}		KV	8	8	12	12
Rated Conditional Short Circuit Current	400V	KA	100	120	120	120
	500V	KA	100	120	120	120
	690V	KA	100	100	100	100
Utilisation Category	400V		AC-23B	AC-23B	AC-23B	AC-23B
VDE 0660 T107/EN/IEC 60947-3	500V		AC-22B	AC-22B	AC-22B	AC-22B
	690V		AC-22B	AC-22B	AC-21B	AC-21B
Mechanical Durability		Cycles	1400	1400	800	800
Electrical Durability		Cycles	200	200	200	200
Type Of Protection ACC. DIN/EN 60529/VDE 0470 T1		IP	30	30	20	20
Maximum Power Dissipation Of The NH Fuse-Links		W	12	12	34	48
Total Power Loss At I_{th} (without fuse links)		W	20	22	56	111
Degree Of Pollution			3	3	3	3
Overvoltage Category			IV	IV	IV	IV
Rated Frequency		Hz	50–60	50–60	50–60	50–60
Weight Without NH Fuse-Links		KG	1.30	2.00	95–240	70–150

For more information contact your Hamer representative
Hamer Limited reserve the right to amend product details without notice.

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E3 Isolators: Characteristics and Ratings

				E3	
Size		**Description**	**Unit**	**1000A**	**2000A**
Rated Operational Voltage		U_e	Vac	690	690
Rated Operational Current		I_e	A	1000	2000
Rated Insulation Voltage		U_i	Vac	1000	1000
Rated Impulse Withstand Voltage		U_{imp}	kV	12	12
Rated Frequency		I_{cw}	Hz	5–60	5–60
Rated Withstand Short Circuit Current			kA	15	30
				20*	40*
Utilisation Category AC	400 V			AC–22B	AC–22B
	500 V			AC–21B	AC–21B
	690 V			AC–21B	AC–21B
Mechanical Durability – Cycles			N	800	600
Electrical Durability - Cycles			N	200	200
Maximum Power Dissipation Without Fuse Links			W	270	540
IP Protection (With Front Lid Open)		IP		20	20
Degree Of Pollution				3	3
Overvoltage Category				IV	IV
Material		All Material Conforms To RoHS			

***With Handle Lock**

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E3 Fuse Switch Disconnects and Isolators

Hamer Code	Din Size	Current Rating	Busbar pitch (mm)	Nominal width (mm)	Switching		Cable connection positions			Notes
		(A)			Individual (single phase)	Single throw (three phase)	Bottom / Top	Rear	Side	
EF400	00	160	100	50	✓		✓			
EF400ST	00	160	100	50		✓	✓			
EF442	00	160	185	50	✓		✓			
EF442ST	00	160	185	50		✓	✓			
EF101	2	400	185	100	✓		✓			
EF103	3	630	185	100	✓		✓			
EF103ST	3	630	185	100		✓	✓			
EF103LP	3	630	185	100	✓		✓			Low profile handles
EF116	3	1,000	185	100	✓		✓			
EF1000R	3	1,000	185	100	✓			✓		
EF1000S	3	1,000	185	100	✓				✓	
EF1000BC	3	1,000	185	100	✓		-	-	-	Bus coupler
EF1250	2x3	1,250	185	200	✓		✓			

Built-in Current Transformers for E3 Vertical Disconnects

Hamer Code	Rating
EFCT250	250:5
EFCT400	400:5
EFCT630	630:5
EFCT800	800:5

Also available
Fuse links
Solid copper (knife) links
CTs with non-standard ratings and for external mounting
LV switchgear assembly frames, cabinets and underground pits

Other literature available on request
Type test reports, drawings, technical data sheets.

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