



LV Vertical Fuse Switch Disconnectors

Weber EFEN E3 Disconnecter is the next practicable step in LV network safety

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

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

In the open position the E3 disconnecter 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In the E3 disconnecter the whole fuse is withdrawn in a parallel direction by levering the manually dependent switch in a way that opens both terminals of each fuse blade at the same time.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.

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 I_{th}		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 VDE 0660 T107/EN/IEC 60947-3	400V		AC-23B	AC-23B	AC-23B	AC-23B
	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.

HAMER POWER ENGINEERING PRODUCT DATA SHEET



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 20*	30 40*
Utilisation Category AC	400 V 500 V 690 V			AC-22B AC-21B AC-21B	AC-22B 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

E3 Fuse Switch Disconnects and Isolators

Hamer Code	Din Size	Function	Current rating	Busbar pitch	Nominal width
			(A)	(mm)	(mm)
EFV00160H100	00	Disconnect	160	100	50
EFV00160	00	Disconnect	160	185	50
EFV2400	2	Disconnect	400	185	100
EFV3630	3	Disconnect	630	185	100
EFV31000	3	Isolator ¹	1,000	185	100
EFV31250D	2x3	Disconnect	1,250	185	200
EFV31600D	2x3	Disconnect	1,600	185	200
EV32000D	2x3	Isolator ¹	2,000	185	200
EFV41600	4	Disconnect	1,600	185	150

Optional configurations and accessories

Hamer Code	Cable clamps	Cable connection adaptors		Three phase single throw handle	Low profile handles	Busbar connections			Double width ²	CTs
	V-Clamps	Extended	Compact			Rear	Side	Bus coupler		
EFV00160H100	V									
EFV00160										
EFV2400										
EFV3630										
EFV31000										
EFV31250D		E	C	P	L	R	S	B		250/400/ 630/800/ 1000
EFV31600D									D	
EV32000D										
EFV41600										

Examples

EFV00160V: 160 A DIN 00/185 fuse-switch-disconnect with V-clamps

EFV3630VP630: 630A DIN 3 fuse-switch-disconnect with V-clamps, low profile handles and 630:5 CTs

EFV31000ER: 1,000 A DIN 3 isolator with extended cable connection adaptors with rear busbar connections

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Built-in Current Transformers for €3 Vertical Disconnects

Hamer Code	Rating
EFCT250	250:5
EFCT400	400:5
EFCT630	630:5
EFCT800	800:5
EFCT1000	1000:5

Notes

1. Isolators are supplied complete with knife switches
2. Specify double width for 1,250, 1,600 and 2,000 A ratings

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