Distribution Pillars and Link Pillars

For up to 9.5x DIN3 style vertical disconnects and other switchgear and control gear

Low voltage network switchgear assets are often located in publicly accessible places: on berms, in footpaths and driveways, in town centres, where public safety as well as operator safety is a paramount consideration.

Hiko Distribution Pillars and Link Pillars use extremely secure, robust, fully insulated, weatherproof Langmatz polycarbonate outdoor cabinets and DIN-style switchgear, including Weber EFEN E3 double break, fully enclosed disconnects.

They are fully compliant with the requirements of AS/NZS 3439-1 and 3439-5, which includes particular requirements for LV switchgear in public places. In addition, Hiko has conducted extensive independent performance testing.

The result is a high level of assurance of LV asset safety that represents taking “all practicable steps” to protect the public and operators alike.

By contrast, aluminium or steel pillars deliver a lower level of assurance.

In terms of long-term reliability, the unique Langmatz polycarbonate two-piece cabinet has proven its worth for well over 25 years in installations throughout Europe, Australia and New Zealand, and in many networks is the only approved option. This is an enviable record that cannot be matched by GRP (glass reinforced polyester) cabinets.

The modular design of Hiko Distribution Pillars and Link Pillars enables a wide range of configurations, from single switch link pillars to double-bus distribution boards. With options available for ground plant and surface mount bases, the two-piece construction facilitates quick installation and secure, straightforward inspection throughout the life of the asset.

Distribution Pillars and Link Pillars

Cabinet, door specification

Parameter	Test method	Requirement	Comments
Impact resistance (all sides)	AS/NZS 3439-5	15 kg sand bag from 1 m height	
		2 kg steel ball from 1 m height	
		5 kg sharp point from 0.4 m (20 J)	
Lateral tensile strength (top edge)	AS/NZS 3439-5	1,200 N for 5 minutes	
Distributed top load	AS/NZS 3439-5	8,500 N/m2 for 5 minutes	
Torsional strength	AS/NZS 3439-5	2,000 N for 30 seconds	
Base mechanical strength	AS/NZS 3439-5	1,000 N	Pipe test
Heat resistance	AS/NZS 3439-5	100°C / 125°C	3.2 mm rod dent impact test / 2 kg steel ball point test
Ingress protection rating (cabinet)	DIN 40050	IP43	When installed in accordance with instructions[1]
Ingress protection rating (lock)	DIN 40050	IP65	Water proof and dust proof
Flame resistance	UL 94	V1	Burning stops within 30 seconds, no flaming drips
Flame resistance (surface)	DIN 53483 Part 3	K1 / 8 mm	Flame does not reach measuring mark at 150 mm
Flame resistance (edge)	DIN 53483 Part 2	F1 / 8 mm	
Dielectric strength	DIN 53481 Part 4.2.2	30 kV/mm	
Chemical resistance	-	Resistant to hydrocarbons including oil, grease, petrol	
Weather resistance	EN 50298 and 60439-5	No change in resistance	
	ISO 4892-2 Process A	>70% retained flexural strength	

Materials

Component	Material	Comments
Cabinet, door	Structural, foamed polycarbonate	Zero residual stress
Fixings	Stainless steel 316 / 1.4301	
Tie-bars	Galvanised steel	
Internal protective covers	Polycarbonate (transparent), PVC (grey)	
Busbar heat-shrink	Polyolefin	Colour Coded

Configurations

Maxiumum number of ways (vertical disconnects)		Width (mm)	Height above ground[2] (mm)	Depth (front to back) (mm)	Base depth (below ground) (mm)
DIN2/3	DIN00				
3	7	460	1170	330	600
5	10	595			
7	14	795			
10	20	1120			

Options

DIN-style switchgear (Weber / EFEN or third party brand)
Street lighting and other auxiliary supplies
MDIs / metering / monitoring
Other switchgear or control gear
Colour (as supplied: natural grey RAL 7035; Rainforest green (AS2700 G15) RAL 6003 and other colours available on request)
Identification / warning labels to network requirements
Locking arrangements
Inspection window

Notes

1. On request, cabinets can be supplied with degree of protection up to IP54
2. Nominal, using standard in-ground base; using surface mount base gives overall height 1200

Other literature available on request

Test reports, drawings, installation instructions, O&M guidelines

For more information contact your Hiko Power Engineering representative
Hiko Power Engineering reserve the right to amend product details without notice.

DS0024 01-18

EFEN Langmatz WEBER