SIEMENS

Totally Integrated Power

A reliable all-rounder

Gas-insulated medium-voltage switchgear 8DJH 36

www.siemens.com/8DJH36

Totally Integrated Power (TIP) – We bring power to the point

Left: Munich is one of the growth drivers in Germany. Urban centers offer chances for sustainable development of electric power distribution.

Right: With dynamic growth, megacities are focusing more and more on energy-efficient and environmentally compatible concepts. In this context, the gas-insulated medium-voltage switchgear 8DJH 36 is of decisive importance for power supply.

Our products, systems, and solutions for low- and medium-voltage make power distribution efficient, reliable, and safe – in cities, infrastructure, buildings, and industrial plants. They can be linked to industrial and building automation, and are rounded out by comprehensive support throughout the entire lifecycle. This is how we provide our customers with answers to their challenges: every second person is living in a city – with an increasing trend. More than ever before, cities play a key role in the fight against climate change. Urban centers around the globe are responsible for 75 percent of the worldwide energy consumption, and for 80 percent of the greenhouse gas emissions caused by humanity. Cities count among the growth drivers of the future, and the growth of these urban centers offers chances for sustainable development of electric power distribution. The challenge is to configure urban energy consumption for private and public infrastructure in such a way that growth can be designed in an energy- efficient, sustainable, and environmentally compatible way. These electrical infrastructures must meet higher requirements than ever before. In particular, this applies to medium-voltage switchgear assemblies, which play an important role as nodes within power distribution.

The gas-insulated medium-voltage switchgear type 8DJH 36 from Siemens provides the right answers to the new challenges of today and tomorrow. The compact switchgear represents reliability and distinct quality. Apart from that, manufacturing procedures that preserve the environment, as well as fully recyclable switchgear components ensure responsible utilization of resources. The switchgear offers a maximum degree of personal safety and operational reliability. Its maintenance-free design reduces the operational costs to a minimum. This switchgear is the newest chapter of a long story of success. With the development of gas-insulated medium-voltage switchgear, almost 30 years ago, Siemens laid one of the foundation stones for the worldwide success of this technology. Based on the practical experience of more than 750,000 installed feeders in the secondary distribution level, and more than 120,000 installed switchgear panels in primary distribution, Siemens gas-insulated medium-voltage switchgear ensures maximum operational availability today. In electric power distribution, 8DJH 36 is an essential operational equipment, with advantages that speak for themselves: compactness, maintenance-free design, climatic independence.

One switchgear for all requirements

Left: The growth of conurbations implies the growing demand for electric power. Switchgear type 8DJH 36 enables sustainable development of the electrical infrastructure.

Right: The compact 8DJH 36 continues the more than 30-year-old tradition of Siemens in the field of gas-insulated medium-voltage switching technology.

Gas-insulated medium-voltage switchgear 8DJH 36 is used as a node in various applications. Flexibility in switchgear configuration is a decisive factor, particularly for the distribution level up to 36 kV. Thanks to its modular construction, 8DJH 36 sets an example.

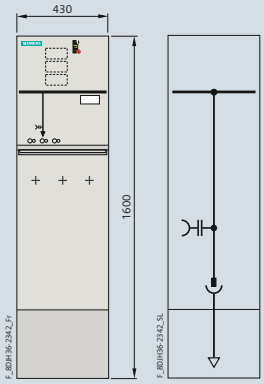
Functions can be arranged variably not only within a panel block, but also in more complex switchgear layouts. Optionally, all individual panels and panel blocks can be extended. Thus, 8DJH 36 switchgear is suitable for implementing nearly all requirements with different switchgear configurations. The compactness of 8DJH 36 enables the effective utilization of existing switchgear rooms. New buildings can be constructed smaller, and therefore at considerably lower cost. This ensures an economic utilization of surface, especially in urban areas. In this way, points of supply can be installed close to consumers, and energy losses can be reduced considerably.

Gas-insulated medium-voltage switchgear 8DJH 36 is powerful, and thus perfectly suitable for application in power distribution systems, as well as for energy supply of airports, railway stations, stadiums, and large building complexes such as hotels, banks, or hospitals. Also when using regenerative forms of energy, 8DJH 36 switchgear is convincing due to its special advantages, in particular for application in onshore and offshore wind farms, in hydroelectric and solar power plants.

The integration of maintenance-free switching devices, a switchgear vessel as a sealed pressure system, as well as solid-insulated, screened cable sealing ends, makes 8DJH 36 maintenance-free for its lifetime. For operators, the operating and personal safety is of central importance. Due to the system design, the switchgear can only be operated with closed front. Logical mechanical interlocks incorporated in the operating mechanisms reliably prevent maloperation. New detailed solutions guarantee a high degree of flexibility for switchgear configurations, and a high degree of economic efficiency. In short: 8DJH 36 switchgear is the right answer to almost all medium-voltage switchgear requirements.

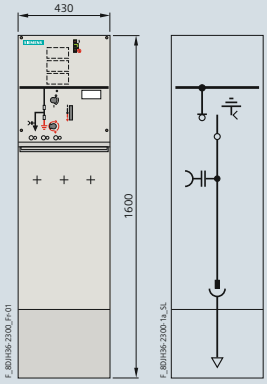
Cable feeder

Type K Scheme



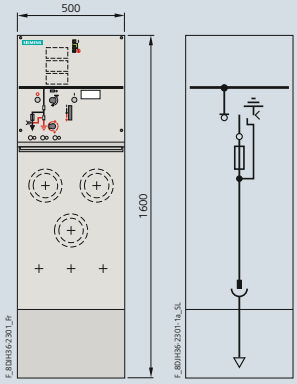
Ring-main feeder

Type R Scheme



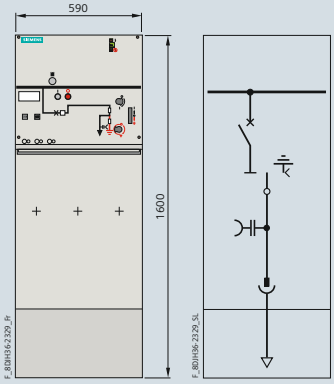
Transformer feeder

Type T Scheme



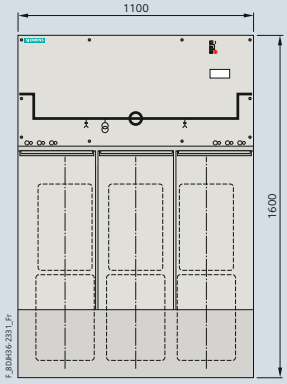
Circuit-breaker feeder

Type L Scheme



Air-insulated metering panel

Type M



Blocks

Type			Width (mm)
R	R	T	1360
R	R	L	1450
R	T	R	1360
R	L	R	1450
K	R	T	1360
K	R	L	1450

Connection

left	right	Width (mm)
Busbar	Busbar	1100
Cable	Busbar	1100
Busbar	Cable	1100
Cable	Cable	1100

Dimensions

Height of the switchgear	1,600 mm without low-voltage compartment (LV compartment)
Height of LV compartment (optional)	200 mm, 400 mm, 600 mm
Depth of the switchgear	920 mm, 980 mm

Data of the switchgear

Rated voltage		kV	36
Rated insulation level	Rated short-duration power frequency withstand voltage	kV	70
	Rated lightning impulse withstand voltage	kV	170
Rated frequency		Hz	50/60
Rated normal current	Busbar	A	630
	Ring-main feeders	A	630
	Circuit-breaker feeders	A	630
	Transformer feeders	A	200 [1]
Rated short-time withstand current	For switchgear with $t_k = 3$ s	up to kA	20
Rated peak withstand current		up to kA	50/52
Rated short-circuit making current	Ring-main feeders	up to kA	50/52
	Transformer feeders	up to kA	50/52
	Circuit-breaker feeders	up to kA	50/52
Rated short-circuit breaking current	Circuit-breaker feeders	up to kA	20
Ambient air temperature	Without secondary equipment	°C	–25 to +55
	With secondary equipment	°C	–5/–15 [2]/–25 [2] to +55
	For storage/transport including secondary systems	°C	–40 to +70
Degree of protection	Parts of the primary circuit under high voltage		IP 65
	Switchgear enclosure		IP2X/3X
	Low-voltage compartment		IP3X/4X
IAC classification	Wall-standing arrangement		A FL to 20 kA (1 s)
	Free-standing arrangement		A FLR to 20 kA (1 s)

1) Depending on HV HRC fuse link 2) Depending on secondary equipment

8DJH 36 – today's answer to the questions of tomorrow

Wind farm

8DJH 36 – Compact design enables installation in the tower of wind turbines

Solar power plant

8DJH 36 – Climatic independence enables worldwide application

Hydroelectric power plant

8DJH 36 – Climatic independence leads to a longer service life

Sewage plant

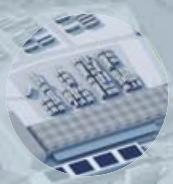
8DJH 36 – Responsible utilization of resources protects the environment

Stadium

8DJH 36 – Highest quality standards ensure availability

Public power supply

8DJH 36 – Reliability reduces downtimes



Electromobility

8DJH 36 – Intelligent power supply enables sustainable infrastructure development

Industry

8DJH 36 – Maintenance-free design reduces operational costs

Railway systems

8DJH 36 – Safe switching operations in traction power supply systems

Hotel

8DJH 36 – Cost-efficient design provides security of investment

Waste-to-energy plant

8DJH 36 – Type-tested design protects operators safely

Hospital

8DJH 36 – Reliability ensures power supply

Office building

8DJH 36 – Compact construction ensures optimum use of surfaces

8DJH 36 is the ideal solution for today's and tomorrow's requirements in power distribution.


Solar power plant
Hydroelectric power plant
Wind farm
Sewage plant
Public power supply
Stadium
Electromobility
Industry
Railway systems
Hotel
Waste-to-energy plant
Hospital
Office building

Siemens AG
Infrastructure & Cities Sector
Low and Medium Voltage Division
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