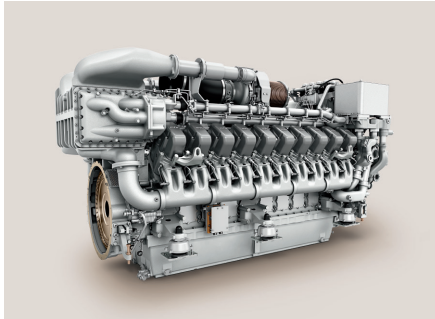


Rail

Diesel Engine Series 4000 R03

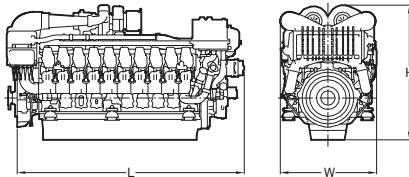
for Push-pull Trains and Locomotives
EU Stage IIIA compliant, UIC IIIA



Dimensions and Masses

4000	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
8V - R43	2000 x 1565 x 1860 (78.7 x 61.6 x 73.2)	5270 (11618)
12V - R43	2386 x 1562 x 2015 (93.9 x 61.5 x 79.3)	6613 (14579)
16V - R43	2865 x 1562 x 2015 (112.8 x 61.5 x 79.3)	7930 (17483)
20V - R43	3335 x 1562 x 2015 (131.3 x 61.5 x 79.3)	9860 (21738)
20V - R63	3592 x 1570 x 2015 (141.4 x 61.8 x 79.3)	10400 (22928)

All dimensions are approximate. For complete information refer to the installation drawing.



Engine Model		
Bore/stroke	mm (in)	170/210 (6.7/8.3)
Cylinder configuration		90° V
Displacement/cylinder	l (cu in)	4.77 (291)
Displacement, total	l (cu in)	8V: 38.1 (2327); 12V: 57.2 (3491); 16V: 76.3 (4656); 20V: 95.3 (5818)
Fuel specification		DIN EN 590

Engine Type	Rated Power			Peak Torque			Fuel consumption at		Optimization*
	Model	kW	bhp	rpm	Nm	lb-ft	rpm	g/kWh rated power	
8V 4000 R43	1000	1341	1800	5457	4024	1750	206	194	EU IIIA compl. ¹⁾ / UIC IIIA
8V 4000 R43L	1200	1609	1800	6548	4829	1750	206	194	EU IIIA compl. ¹⁾ / UIC IIIA
12V 4000 R43	1500	2012	1800	8185	6036	1750	205	192	EU IIIA compl. ¹⁾ / UIC IIIA
12V 4000 R43L	1800	2414	1800	9822	7243	1750	210	190	EU IIIA compl. ¹⁾ / UIC IIIA

* Emissions: EU: Nonroad Directive 97/68/EC (as amended by 2004/26/EC)
UIC: International Union of Railways (UIC Code 624) (UIC Stage IIIA corresponds to the EU Stage IIIA)
1) EU IIIA type approved. Under special preconditions certification available on request.



Power. Passion. Partnership.

Engine Type	Rated Power			Peak Torque			Fuel consumption at		Optimization*
	Model	kW	bhp	rpm	Nm	lb-ft	rpm	at rated power	
16V 4000 R43R	2000	2682	1800	10913	8048	1750	207	196	EU IIIA compl. ¹⁾ / UIC IIIA
16V 4000 R43	2200	2950	1800	12005	8853	1750	206	196	EU IIIA compl. ¹⁾ / UIC IIIA
16V 4000 R43L	2400	3218	1800	13096	9658	1750	205	196	EU IIIA compl. ¹⁾ / UIC IIIA
20V 4000 R43	2700	3621	1800	14733	10865	1750	208	194	EU IIIA compl. ¹⁾ / UIC IIIA
20V 4000 R43L	3000	4023	1800	16370	12072	1750	210	194	EU IIIA compl. ¹⁾ / UIC IIIA
20V 4000 R63R	2700	3621	1800	14733	10865	1750	204	194	EU IIIA compl. ¹⁾ / UIC IIIA
20V 4000 R63	3000	4023	1800	16370	12072	1750	206	197	EU IIIA compl. ¹⁾ / UIC IIIA
20V 4000 R63L	3300	4425	1800	18007	13280	1750	206	195	EU IIIA compl./ UIC IIIA

* Emissions: EU: Nonroad Directive 97/68/EG (as amended by 2004/26/EC)

UIC: International Union of Railways (UIC Code 624) (UIC Stage IIIA corresponds to the EU Stage IIIA)

1) EU IIIA type approved. Under special preconditions certification available on request.

Standard Equipment

ADEC engine control

Common rail injection system

Turbocharging

Charge-air cooling as separate circuit

Flywheel housing SAE #00

Resilient engine mountings

24V starter

28V DC/120A battery-charging generator

Power Output Module (POM) 24V

Connection interface (PAU)

Long-life 4-valve cylinder heads

Optional Equipment

Dry-type air filter

Auxiliary PTOs

Assembly and drive parts for hydrostatic pump

Transformer: 64-72 V DC/24 V DC or 96/110 V DC/24 V DC

Various interfaces for I/O signals

Fuel prefilter

Various adapters for connections and interfaces

Coupling for main drive

Displays for installation in vehicle

Reference conditions:

> Intake-air temperature: 25°C (77°F) > Charge air coolant temp.: 45°C (113°F)

> Ambient air pressure: 1000 mbar > Altitude above sea level: 100 m (328 ft)

Subject to change without notice. Customization possible. Engines illustrated in this document may feature options not fitted as standard to standard engine.