Power Source Technology for the Future Denyo®

SOUNDPROOF ENGINE-DRIVEN COMPRESSORS

DIS Series

DIS-60LBE

DIS-600EHS

Denyo Co.,Ltd.

More Powerful
More User Friendly
DIS Series

1 Highly reliable and durable

The advanced design of the non-friction, twin screw airends enables the DIS series compressors to generate consistantly steady streams of air. The special bearings incorporated into the airends are carefully selected for use with twin screws and are highly reliable and durable.

2 High efficiency and low fuel consumption

The engine speed control system, developed by Denyo, incorporates a highly efficient screw that saves fuel and improves performance at all rated conditions, and guarantees high overall operating efficiency from no-load to full-load conditions. Fuel consumption has also been significantly improved at light and medium load level.

3 User-friendly operational panel

The control panel on the DIS series compressors has been placed on one end of the unit for easy operation.

DIS-140LB

DIS-685ESS

Automatic air bleeder

The DIS series compressors no longer require air bleeding, thanks to the development of an automatic air bleeder and emergency shut-off device.

Easy inspection and maintenance

Compressors are equipped with a large-sized door and single-side access for daily inspection and easy maintenance. Also, the hood is designed for easy disassembly for maintenance and cleaning of the engine, radiator, compressor oil cooler, and fuel tank replacement.

DIS-60LBE

BOX Type

DIS-685ESS

Trailer Type

DIS-140LB-C

After Cooler Type

4 Low noise level

These small, lightweight compressors are equipped with a unique soundproofing system. The average value of noise at a distance of 7m is 64-76dB(A) at rated operation.

Clean Engine

The engine equipped with the Closed Breathing System which keeps the blow-by gas in the machine, and the alminum radiator which does not cause lead pollution is categoried as a construction machine that satisfies the emission gas regulation stage 3(60LBE,80LBE,140LB,140LB-C,) stage 2, enforced by the Ministry of Land, Infrastracture and Transport .

ECO-BASE (DIS-60LBE,80LBE ,80LBE-C)

ECO-BASE is a base which has an oil receiver installed inside. You do not need to put an extra tray on the bottom of compressor. It is designed to receive fuel, oil and coolant water when they are discharged accidentally.

Dry Air Type

DIS-685ESS-D

5 Emergency shut-off device standard equipment

If a malfunction occurs, the emergency shut-off device will automatically illuminate a warning light and stop the engine.

Malfunction		DIS Series
Compressor	High discharged air temperature	○
Engine	High water temperature	○
	Low lube oil pressure	○
	Discharge battery	○
	Low engine speed	○
	Residual tank pressure	○

○: Shut-off device

DIS-600EHS

High Pressure Type

6 Air bleeding no longer necessary

Unlike larger units equipped with automatic air bleeder or emergency shut-off devices as standard equipment, the DIS-80 and smaller units no longer require air bleeding. The engine can be started at any time without air bleeding. For more information, refer to the emergency shut-off device and automatic air bleeder sections on the back cover page.

Salt damage virtually eliminated

DIS-600 and larger compressor models are coated with an anti-corrosive substance that prevents damage due to salt and moisture,and stainless steel bolts have also been used on the exterior. Denyo's high standards for electrical wiring and connector insulation have been utilized in these new and improved machines.

BOX Type

Transportation made easy

These lightweight and compact compressors feature a one-point lifting eye that makes moving the unit at the work site quick and easy.

DIS-60LBE

DIS-80LBE

DIS-140LB

DIS-180SB2

Specifications

Model	DIS-60LBE	DIS-80LBE	DIS-140LB	DIS-180SB2
COMPRESSOR				
Type	Rotary screw, single-stage compression, oil cooled			
Delivered air pressure MPa	0.70(102)			0.69(100)
FreeAir Delivery m³/min(cfm)	1.7(60)	2.2(80)	3.9(140)	5.1(180)
Lube Oil Capacity L	8.0		15	19
Receiver Tank Capacity m³	0.017		0.023	0.039
Service Cock Size x Q'ty	20A×1, 15A×1	20A×2	20A×3	
ENGINE				
Model *1	Kubota D722-K3A	Kubota D902-K3A	Yanmar 3TNV88-BD	Isuzu AA-4LE2
Type	Swirl chanbered		Direct injected	
No, of Cylinders-Bore x Stroke mm	3-67×68	3-72×73.6	3-88×90	4-85×96
Displacement L	0.719	0.898	1.642	2.179
Rated Output kW(PS)	14.1(19.2)	16.8(23.0)	26.5（36）	36.6（50）
Rated Speed rpm	3600		3000	2600
Fuel	Diesel fuel (ASTM No.2 or equivalent)			
Fuel Tank Capacity L	18	26	70	90
Fuel Consumption *2 L/h	[2.0] 2.8	[3.0]3.8	[3.3] 4.9	[4.2] 6.1
Lube Oil Capacity L	3.8	3.6	6.7	8.1
Coolant Capacity L	4.2	3.9	5.6	7.2
Battery x Quantity	55B24L×1		80D26R×1	95D31R×1
DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL				
Length *3 mm	1220	1280	1700〈2760〉	1650
Width *3 mm	680	710	875〈1380〉	1030
Height *3 mm	780	845	1050〈1410〉	1060
Dry Weight *3 kg	300	314	610〈720〉	790
Trailer: No. of Tires x Tire Size *4	———	———	2×145R-10-6PR	———
Sound Level *5 7mdB(A)	68	68	66	68

NOTES: ＊1 All models are equipped with 4-cycle engine. ＊2 Fuel consumption data is at 50% / 70% load condition.
＊3 The figures in 〈 〉are for mounted optional trailers. ＊4 Maximum towing speed for trailer type units is 25km/h.
＊5 Sound level reflects high-speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.

Trailer Type

All compressors, including trailer types, are equipped with a lifting eye.

Parking brake is standard equipment.

All 4-wheel trailer type units are equipped with parking brakes.

DIS-685ESS

DIS-800ESS

Specifications

Model	DIS-685ESS	DIS-800ESS
COMPRESSOR		
Type	Rotary screw, single-stage compression, oil cooled	
Delivered air pressure MPa	0.69（100）	
FreeAir Delivery m^3/min(cfm)	19.4（685）	22.7（800）
Lube Oil Capacity L	95	100
Receiver Tank Capacity m^3	0.192	0.27
Service Cock Size x Q'ty	20A×3, 50A×1	
ENGINE		
Model ＊1	Hino J08C-UT	
Type	Direct injected, turbocharged	
No, of Cylinders—Bore x Stroke mm	6-114×130	
Displacement L	7.961	
Rated Output kW（PS）	134.5(183)	144.5(197)
Rated Speed rpm	1800	2100
Fuel	Diesel fuel (ASTM No.2 or equivalent)	
Fuel Tank Capacity L	280	350
Fuel Consumption＊2 L/h	［19.0］23.4	［19.7］25.6
Lube Oil Capacity L	25.5	
Coolant Capacity L	25	
Battery x Quantity	145F51×2	
DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL		
Length mm	3830	3900
Width mm	1600	
Height mm	2035	
Dry Weight kg	3060	3140
Trailer: No. of Tires x Tire Size ＊3	F: 175R-14-8PR R:205/80R15-8PR	
Sound Level＊4 7mdB(A)	68	72

NOTES: ＊1 All models are equipped with 4-cycle engine.
＊2 Fuel consumption data is at 50% / 70% load condition.
＊3 Maximum towing speed for trailer type units is 25km/h.
＊4 Sound level reflects high-speed no-load operation and is calculated by averaging the measurements at four points、each 7 meters from the source.

After Cooler Type

Denyo's high-performance after cooler prevents freezing by extracting moisture from the discharging air, while also eliminating the rust and grime build-up of spattering water.
This also keeps the breaker from being overheated by the after cooler.

DIS-80LBE-C

DIS-140LB-C

The compressor's after cooler and oil temperature regulator make it possible to maintain a constant discharge air temperature of no more than 15℃ above ambient temperature. When the atmospheric temperature is below 0℃, a discharge pipe-selecting valve in the unit routes warmet air around the after cooler, preventing freezing.

A drain separator eliminates humiditygenerated in the after cooler by more than 70%, while a pressure-retaining valve guarantees stable elimination of moisture.

Specifications

Model	DIS-80LBE-C BOX TYPE	DIS-140LB-C BOX TYPE
COMPRESSOR		
Type	Rotary screw, single-stage compression, oil cooled	
Delivered air pressure MPa	0.70(102)	
FreeAir Delivery m³/min(cfm)	2.2(80)	3.9(140)
Lube Oil Capacity L	8.0	15
Receiver Tank Capacity m³	0.017	0.23
Service Cock Size x Q'ty	20A×2	20A×3
ENGINE		
Model *1	Kubota D902-K3A	Yanmar 3TNV88-BD
Type	Swirl chanbered	Direct injected
No, of Cylinders-Bore x Stroke mm	3-72×73.6	3-88×90
Displacement L	0.898	1.642
Rated Output kW(PS)	16.8(23.0)	26.5〈36〉
Rated Speed rpm	3600	3000
Fuel	Diesel Fuel (ASTM No.2 or equivalent)	
Fuel Tank Capacity L	26	70
Fuel Consumption *2 L/h	[3.0]3.8	[4.0]4.9
Lube Oil Capacity L	3.6	6.7
Coolant Capacity L	3.9	5.6
Battery x Quantity	55B24L×1	80D26R×1
DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL		
Length *3 mm	1530	1700<2760>
Width *3 mm	710	875<1380>
Height *3 mm	845	1050<1410>
Dry Weight *3 kg	358	625<735>
Trailer: No. of Tires x Tire Size *4	———	2×145R-10-6PR
Sound Level *5 7mdB(A)	69	67

Dry Air Type

These compressors have built-in after-coolers/warmers, and so they can delivery high-temperature and dry air even if it rains.

DIS-685ESS-D

They are recommended for use invarious work situations such as sand blasting and other operations that require a moisture-free work environment. These compressors are designed to supply high temperature, dry compressed air, owing to a built-in oil separator, after cooler, drain separator and after-warmer. One-touch switching will allow the operator to select low temperature, dry air, or high-temperature, dry air.

Specifications

Model	DIS-685ESS-D TRAILER TYPE
COMPRESSOR	
Type	Rotary screw, single-stage compression, oil cooled
Delivered air pressure MPa	0.7〈102〉
FreeAir Delivery m³/min(cfm)	19.4
Lube Oil Capacity L	105
Receiver Tank Capacity m³	0.191
Service Cock Size x Q'ty	20A×3, 50A×1
ENGINE	
Model *1	Hino J08C-UT
Type	Direct injected, turbocharged
No, of Cylinders—Bore x Stroke mm	6-114×130
Displacement L	7.961
Rated Output	134.5〈183〉
Rated Speed rpm	1800
Fuel	Diesel fuel (ASTM No.2 or equivalent)
Fuel Tank Capacity L	280
Fuel Consumption *2 L/h	[19.0] 23.4
Lube Oil Capacity L	25.5
Coolant Capacity L	25
Battery x Quantity	145F51×2
DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL	
Length *3 mm	3950
Width *3 mm	1600
Height *3 mm	2035
Dry Weight *3 kg	3300
Trailer: No. of Tires x Tire Size *4	F:175R-14-8PR R:205/80R15-8PR
Sound Level *5 7mdB(A)	69

NOTES: ＊1 All models are equipped with 4-cycle engine.
＊2 Fuel consumption data is at 50%/70% load condition.
＊3 The figures in〈 〉are for mounted optional trailers.
＊4 Maximum towing speed for trailer type units is 25km/h.
＊5 Sound level reflects high-speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.

High Pressure Type

The energy produced by this high-pressure compressoris applicable to innovative technologies and new machines.

DIS-600EHS

DIS-1070XS

This type of screw compressors display full performance in a down-the-hole precess and a large-diameter boring process and can be applied to ground improving machines, pneumatic lifts, and concrete-blowing machines.The discharge pressure ranges from 1.03 MPa to 2.4MPa. The DIS-1070XS is also equipped with a two-stage discharge pressure selector to meet a wide range of application requirements.

Specifications

Model		DIS-600EHS TRAILER TYPE	DIS-1070XS TRAILER TYPE
COMPRESSOR			
Type		Rotary screw, single-stage compression, oil cooled (DIS-1070XS: two-stage compression)	
Delivered air pressure	MPa	1.03(150)	2.40(350) /1.27(185)
FreeAir Delivery	m^3/min(cfm)	17(600)	30.3（1070）
Lube Oil Capacity	L	95	210
Receiver Tank Capacity	m^3	0.186	0.351
Service Cock	Size x Q'ty	20A×3, 50A×1	20A×1, 50A×1
ENGINE			
Model *1		Hino J08C-UT	Mitsubishi S6B3-PTA
Type		Direct injected, turbocharged	
No, of Cylinders-Bore x Stroke	mm	6-114×130	6-135×170
Displacement	L	7.961	14.600
Rated Output	kW(PS)	138(188)	342(465)
Rated Speed	rpm	1900	1800
Fuel		Diesel fuel (ASTM No.2 or equivalent)	
Fuel Tank Capacity	L	280	680
Fuel Consumption*2	L/h	[21.4] 25.8	[50.0]61.0 / [44.2]56.0
Lube Oil Capacity	L	25.5	85
Coolant Capacity	L	25	75
Battery x Quantity		145F51×2	245H52×2
DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL			
Length *3	mm	3830	5160
Width *3	mm	1600	2200
Height *3	mm	2035	2370
Dry Weight *3	kg	3130	6600
Trailer: No. of Tires x Tire Size*4		F:175R-14-8PR R:205/80R15-8PR	4×F： 7.50-16-12PR R： 7.50-16-8PR
Sound Level*5	7mdB(A)	70	76

NOTES: ＊1 All models are equipped with 4-cycle engine.
＊2 Fuel consumption data is at 50%/70% load condition.
＊3 The figures in〔 〕are for mounted optional trailers.
＊4 Maximum towing speed for trailer type units is 25km/h.
＊5 Sound level reflects high-speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.

Options

Innovative Hose Reel

Denyo has developed a sturdy, lightweight and easily attachable one-touch hose reel which can be mounted on top of compressors. With slight modifications, a single stora'ge reel can be mounted on DIS-60~80 series models, while DIS-140~180 units can accommodate two hose reels. The units can also be stacked for effective storage.

Caster and Trailer

Trailers and caster can be fitted to generators to facilitate on-site movement.(For DIS-60 to 180 compressors are four-wheel caster or two-wheel trailer)
Bolt connectors make mounting and dismounting simple.

Fuel Line Switching Device(3-Way Valve)

On DIS-685 and larger units, this device makes it possible to switch from the compressor's built-in tank to a line for an auxiliary tank for long operation, without refueling.Models DIS-600EHS, 685ESS/ESS-D, 800ESS are equipped with this device as standard equipment.

ISO 9001:2015
ISO 14001:2015 Certified

Direct inquiries to the nearest Denyo distributor or to Denyo co.,Ltd.

Denyo Co.,Ltd.
Head office:2-8-5,Nihonbashi-horidomecho,Chuo-ku,Tokyo 103-8566,Japan
Tel:+81-3-6861-0055 Fax:+81-3-6861-1188
www.denyo.co.jp/english/

CAT.No.FC00-10-20191220-02 Printed in Japan