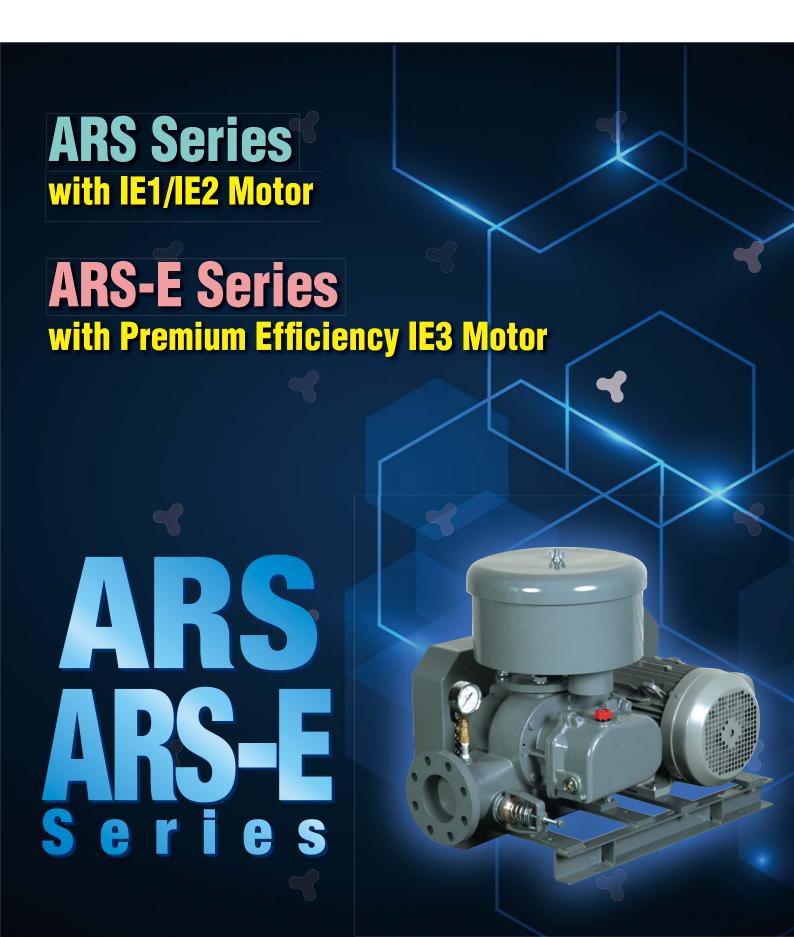
ShinMaywa

Three-Lobe Blower

(Roots-Type) ARS/ARS-E Series



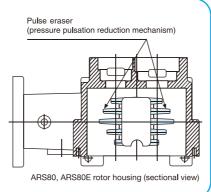
Introducing ShinMaywa Energy-Efficient, Low-Maintenance Blowers Inspired by the Innovative Cooling Silencer



Now featuring a Pulse Eraser (pressure pulsation reduction mechanism) to reduce noise and pressure pulsation.

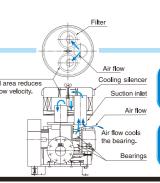
Spur-type rotors, which discharge air rhythmically, tend to generate more noise and pressure pulsations than do helical rotors. Our new ARS series features specially designed nozzle-shaped grooves of varying lengths on the inner wall of the rotor housing. They absorb the abrupt backflow of compressed air, resulting in less noise and pressure pulsations.





The Benefits of the **Cooling Silencer**

The ARS series incorporates our innovative cooling silencer. Air is drawn in over the gear-side bearing to significantly cool the bearing, resulting in improved durability and higher-speed operation. This feature is effectively integrated into a compact, low-profile body.



With a significant bearing-cooling

> **Higher-speed** operation

Greatly improved isentropic efficiency

Advanced spur-type rotorsa recent innovationcontribute to high-speed operation for greatly improved isentropic

Extended

range by enabling high-speed operations. This allows you to use the next-size-smaller outlet diameter model for your application.

Estimated annual energy savings

	3,	
	Conventional model	ARS
Air flow (m³/min)	5.	74
Discharge pressure (kPa)	5	0
Power requirement(kW)	8.5	7.1
Isentropic efficiency (%)	48.5	58.1
Motor output (kW)	11	7.5
Energy cost (¥)	1,266,000	1,057,000
[One-setion and set	04 has /des. /0 700 h	/ V47 /1380

The energy savings are estimated as follows 1,266,000-1,057,000 = Y209.000/vear

power consumption even

more by selecting the next size smaller motor for your application.

You can reduce your annual power consumption even more by selecting the next size smaller outlet diameter model for your application.

What's More,

You can reduce your annual

air flow range

The bearing-cooling effect extends air flow

Standard models develop pressure up to 80 kPa.

For the first time in the industry, the bearing cooling effect achieved pressures as high as 80 kPa without forced cooling. Our new standard models correspond pressure of over 60 kPa which conventional models require a water-cooled system or air cooling fan. (Outdoor type and suction pipe-connection type are only available up to discharge pressure of 60 kPa.)

This blower requires no cooling water or air cooling fan.

Extended maintenance interval

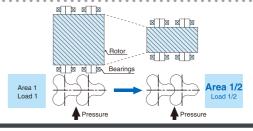
The combination of an enhanced-efficiency blower with the bearing-cooling function of the cooling silencer significantly lowers the bearing temperature.

This improved bearing reliability and greatly extended maintenance intervals of grease and oil. (The grease and oil maintenance interval is three months when the discharge pressure exceeds 60 kPa.)

Double the grease and oil maintenance intervals to six months.

Compact rotors

The high-speed capability allows for smaller rotors. Compact rotors reduce the load on the bearings, resulting in equal or better reliability.



Count on extended bearing life through improved durability.

Lower Maintenance and Reduced Energy Costs

Greater selection & enhanced space efficiency

Our ARS series cover a wide range of needs. They offer highly compact designs, outlet diameters ranging from 50 to 250 mm, and outputs from 1.5 to 132 kW. (Installation space for Model ARS50/65A is equivalent to our Helical Blower ARH50S, and Model ARS80/100 is equivalent to ARH65S/80S.)

ARS series with IE1/IE2 motor

Series

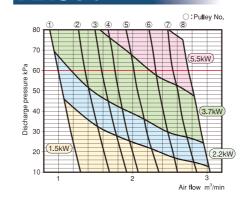
Considerations

Sp	eci	ifi (ca	ti(DN	S																			Q:/	Air flo	w (m	1 ³ /mir	n)	P:P	ower	requ	uirem	ents(kW
			Rotor	10	kPa	15	kPa	201	Ра	25k	:Pa	30k	Pa	35	kPa	401	kPa	45	кРа	50k	Ра	55ł	кРа	60k	Pa	65k	кРа	70k	Ра	751	кРа	80k	ιPa	Motor output
Outlet dia. mm	Model	Pulley No.	speed (min ⁻¹)	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	at standard setting (kW)
		1	1,900	1.30	0.60	1.26	0.71	1.23	0.8	1.20	0.94	1.17	1.1	1.14	1.2	1.11	1.3	1.08	1.5	1.05	1.6	1.02	1.8	1.00	1.9	0.97	2.1	0.94	2.2	0.91	2.3	0.88	2.5	
		2	2,400	1.69	0.72	1.65	0.88	1.61	1.0	1.58	1.2	1.54	1.4	1.51	1.6	1.48	1.8	1.44	2.0	1.41	2.1	1.39	2.3	1.36	2.5	1.33	2.7	1.31	2.9	1.29	3.0	1.27	3.2	1.5
		3	2,710	1.92	0.80	1.88	0.98	1.84	1.2	1.80	1.4	1.77	1.6	1.73	1.8	1.70	2.0	1.67	2.2	1.64	2.4	1.61	2.6	1.58	2.8	1.56	3.0	1.54	3.2	1.51	3.4	1.49	3.6	
		4	2,940	2.07	0.86	2.04	1.1	2.00	1.3	1.96	1.5	1.92	1.7	1.89	1.9	1.87	2.1	1.84	2.4	1.81	2.6	1.78	2.8	1.76	3.0	1.74	3.2	1.72	3.4	1.69	3.6	1.67	3.8	2.2
50	ARS50	5	3,290	2.35	1.0	2.31	1.2	2.27	1.4	2.23	1.7	2.19	1.9	2.16	2.1	2.13	2.4	2.10	2.6	2.06	2.9	2.04	3.1	2.02	3.3	1.99	3.6	1.97	3.8	1.94	4.0	1.91	4.3	3.7
		6	3,660	2.60	1.1	2.57	1.4	2.54	1.7	2.51	1.9	2.47	2.2	2.44	2.4	2.41	2.7	2.38	3.0	2.35	3.3	2.33	3.5	2.31	3.8	2.29	4.1	2.27	4.4	2.25	4.6	2.22	4.9	3.7
		7	3,880	2.86	1.2	2.82	1.5	2.78	1.8	2.75	2.1	2.71	2.4	2.68	2.7	2.65	2.9	2.63	3.2	2.61	3.5	2.57	3.8	2.54	4.1	2.52	4.4	2.50	4.7	2.49	5.0	2.47	5.3	5.5
		8	4,330	3.04	1.3	3.01	1.6	2.98	1.9	2.95	2.2	2.92	2.6	2.89	2.9	2.87	3.2	2.84	3.5	2.81	3.8	2.78	4.2	2.75	4.5	2.72	4.8	2.70	5.1	2.67	5.4	_	_	0.0
		1	2,580	2.98	1.1	2.92	1.4	2.86	1.7	2.82	1.9	2.77	2.2	2.72	2.5	2.67	2.8	2.62	3.1	2.57	3.4	2.52	3.6	2.47	4.0	2.42	4.3	2.37	4.6	2.31	4.9	2.25	5.2	2.2
		2	2,740	3.16	1.3	3.11	1.5	3.05	1.8	3.01	2.0	2.97	2.3	2.92	2.6	2.88	2.9	2.83	3.2	2.78	3.6	2.74	3.9	2.69	4.2	2.64	4.5	2.60	4.9	2.54	5.2	2.49	5.5	
		3	2,920	3.36	1.4	3.31	1.6	3.27	1.9	3.23	2.2	3.19	2.4	3.15	2.8	3.11	3.2	3.07	3.6	3.03	3.8	2.99	4.1	2.95	4.5	2.91	4.9	2.87	5.2	2.82	5.5	2.78	5.8	3.7
65	ARS65A	4	3,100	3.58	1.5	3.53	1.7	3.49	2.0	3.44	2.4	3.40	2.7	3.36	3.0	3.33		3.29	3.8	3.26		3.21		3.17	4.8	3.12	5.2	3.08	5.4	3.03	5.8	2.99	6.1	
		5	3,280	-	+	3.86		3.82		3.77		3.72		3.67	3.3	3.63		3.59		3.55		3.51		3.48	5.0	3.44			5.8	3.37	6.2	3.33	6.5	5.5
		6	3,670		+	4.26		4.23						4.12		4.09		4.05	-	4.02	4.9	3.98		3.94	5.8	3.90				3.84	7.0	3.81	7.4	7.5
		7	4,100			4.79	-	4.75		4.70	3.3	4.66		4.61	4.2	4.57		4.53	-	4.50	_	4.46		4.43	6.4	4.40		4.38	7.5	-	_	-	-	
		1	2,790		1.8	4.46		4.41		4.37	3.0	4.34		4.30	3.9	4.26		4.23		4.21	5.3	4.17		4.13	6.0	4.09		4.05		4.01			7.9	3.7
		2	2,940		+	4.80		4.76		4.73	3.2	4.70		4.67	4.2	4.63		4.61	5.1	4.59		4.55		4.52	6.5	4.48		4.44	7.5	4.40			8.5	
00	4 D000	3	3,100		+	5.18		5.13		5.09		5.06		5.03	4.3	4.99		4.97		4.94		4.91		4.88	6.9	4.85		4.83		4.80		4.76		5.5
80	ARS80	4	3,480		+	5.72		5.66		5.61	3.7	5.57		5.53	4.9	5.49		5.46		5.43	6.6	5.40		5.37	7.7	5.34		5.32	-	5.30		5.27	9.9	7.5
6		3,670		+	6.07	3.0	6.01		5.95 6.30		5.90 6.24		5.85 6.18	5.2	5.81 6.13		5.77 6.10	6.4	5.74 6.06	7.1	5.70 6.02		5.67 5.97	8.3	5.64 5.94		5.62	_	5.60	_	5.58	10.7	7.5	
			3,910 4,120		+	6.44		6.70		6.64		6.59		6.53		6.48		6.45		6.41	8.2	6.02		6.33	9.5	6.29			-	5.09	10.5	_	-	11
		1	2,840			6.91	3.2	6.82	<u> </u>	6.74	4.4			6.60	5.7	6.54		6.48		6.42	7.7	6.37		6.31	9.3					6.18	11 /	6 15	12.2	
		2	3,170		+	7.92	3.4	7.83	4.2	7.73	5.0	7.63		7.56	6.3	7.49		7.43		7.37	8.8	7.31		7.24				7.14		7.08	12.9		13.7	5.5
	100 ARS100	3	3,350		+	8.36		8.27		8.17	5.2	8.08		8.00	6.7	7.92		7.87	8.5	7.81	9.4			7.68			12.0					7.42		7.5
100		4	3,530		+	8.85	3.9	8.76	4.7	8.66	5.6	8.57		8.49	7.3	8.40		8.34		8.27	9.8			8.15					-			7.90		
		5	3,770		+	9.34	4.1	9.25		9.15	6.0	9.06		8.97	7.7	8.88		8.80	-			8.68								8.44	15.0	_	_	11
		6	3,970		+	9.94	4.4	9.84		9.73		9.62		9.53	8.4	9.45		9.37		9.30				9.16				9.02		_	_	_		15
		1	2,150	10.6	4.0	10.5	4.8	10.4	5.6	10.3	6.5	10.2	7.3	10.1	8.2	10.0	9.1	9.92	10.1	9.84	11.2	9.77	12.2	9.69	13.3	9.62	14.3	9.55	15.3	9.45	16.3	9.35	17.3	11
		2	2,430	12.2	4.6	12.0	5.5	11.9	6.4	11.9	7.4	11.8	8.4	11.7	9.5	11.6	11.1	11.5	11.8	11.5	13.0	11.4	14.2	11.3	15.4	11.3	16.5	11.2	17.6	11.1	18.9	11.0	20.1	
		3	2,710	13.9	5.1	13.8	6.2	13.8	7.2	13.7	8.5	13.7	9.8	13.6	11.1	13.5	12.5	13.4	13.8	13.4	15.2	13.3	16.5	13.2	17.8	13.2	19.2	13.1	20.6	13.0	22.1	12.9	23.4	15
125	ARS125	4	3,050	15.0	5.4	14.9	6.6	14.9	7.8	14.8	9.2	14.7	11.1	14.6	12.1	14.6	13.5	14.5	15.1	14.4	16.5	14.3	17.9	14.3	19.3	14.2	20.8	14.1	22.3	14.0	23.8	13.9	25.3	18.5
		5	3,340	16.9	6.2	16.8	7.6	16.7	9.1	16.6	11.1	16.5	12.3	16.5	13.9	16.4	15.5	16.3	17.2	16.3	18.9	16.2	20.5	16.1	22.2	16.0	23.8	16.0	25.5	15.9	27.2	15.8	28.9	22
		6	3,510	17.9	6.6	17.8	8.2	17.7	9.9	17.6	11.5	17.6	13.2	17.5	15.1	17.4	16.7	17.4	18.6	17.3	20.2	17.3	22.1	17.2	23.8	17.2	25.5	17.1	27.3	17.0	29.1	-	-	- 22
		7	3,760	18.9	6.8	18.8	8.6	18.7	10.4	18.6	12.1	18.5	13.8	18.5	15.6	18.4	17.5	18.3	19.3	18.3	21.2	18.2	23.1	18.1	25.0	18.0	26.9	18.0	28.8	-	-	-	-	30
		1	2,070	18.5	5.2	18.2	6.7	17.9	8.1	17.7	10.2	17.5	12.3	17.3	13.8	17.1	15.3	16.9	17.0	16.7	18.8	16.5	20.7	16.4	22.5	16.2	24.1	16.1	25.8	15.9	27.6	15.8	30.1	15
		2	2,360	21.4	6.1	21.1	8.0	20.9	9.8	20.6	12.0	20.4	14.2	20.2	16.1	20.0	17.9	19.8	20.0	19.6	22.1	19.4	24.2	19.2	26.3	19.0	28.3	18.9	30.3	18.7	32.5	18.6	34.6	18.5
150	ARS150	3	2,670	24.2	7.1	24.0	9.3	23.8	11.5	23.6	13.8	23.4	16.2	23.2	18.6	23.0	20.7	22.8	23.1	22.6	25.5	22.3	27.8	22.1	30.2	21.9	32.6	21.7	35.0	21.5	37.5	21.3	39.9	30
		4	2,960	26.7	8.2	26.5	10.6	26.3	12.9	26.1	15.5	25.9	18.0	25.7	20.6	25.5	23.2	25.3	25.8	25.0	28.4	24.8	31.0	24.5	33.6	24.2	36.4	24.0	39.3	23.7	42.2	23.5	45.0	37
		5	3,160	28.3	9.3	28.1	11.7	27.9	14.0	27.7	16.7	27.5	19.4	27.2	22.1	27.0	24.9	26.8	27.7	26.5	30.5	26.3	33.2	26.0	36.0	25.7	39.0	25.5	42.1	25.2	45.0	-	_	45
		1	1,510	31.1	8.4	30.7	11.6	30.4	14.8	30.2	17.6	29.9	20.4	29.6	23.2	29.3	26.1	29.1	29.1	28.8	32.1	28.6	35.1	28.3	38.2	28.1	41.4	27.9	45.1	27.7	47.7	27.4	50.7	22
		2	1,710	35.3	9.1	35.0	12.6	34.8	16.1	34.5	19.6	34.3	23.1	34.0	26.3	33.8	30.1	33.5	32.8	33.3	36.2	33.1	39.4	32.8	42.6	32.6	46.4	32.3	50.1	32.1	53.8	31.9	57.6	30
		3	1,860	38.7	10.1	38.4	13.9	38.1	17.8	37.8	22.1	37.5	25.4	37.3	29.2	37.1	33.0	36.9	37.1	36.7	40.6	36.5	43.8	36.3	47.0	36.1	50.8	35.9	55.1	35.7	58.6	35.5	62.6	37
200	ARS200	4	2,020	42.2	12.3	41.8	16.2	41.4	20.0	41.1	23.9	40.8	27.8	40.6	32.0	40.3	36.2	40.1	39.9	39.8	43.5	39.6	47.4	39.3	51.3	39.1	55.5	38.9	59.6	38.7	63.7	38.5	67.9	45
		5	2,210																												70.8	-		
		6	2,400	-	+				-		_				-							-					_		73.8	<u> </u>	-	-	_	55
		7	2,540		+	_		_									-		-		_	-			_	\vdash			-	-	-	-	_	75
		1	1,560	-	+	_	_	_	_	48.6	_																							37 45
	ARS250	2	1,760							55.5								_																55
250	(37~90kW)	3	1,970		+	_				62.1							_	_											_					75
	ARS250A (110, 132kW)	4	2,220																															90
		5	2,350		+	_											_												_				128.2	110
		6	2,490												66.7	/9.2	74.7	/8.7	82.2	/8.2	89.6	17.7	97.8	17.2	106.0	76.7	113.6	/6.3	121.2	/5.9	129.4			132

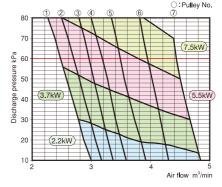
Notes: (1) The air flow (measured in accordance with JIS B8341) indicates a flow rate of suctioned air.
(2) Tolerance of air flow: ±5%.
(3) Consult us for any requirements not included in this table.
(4) For indoor use only. Consult us regarding outdoor applications.
(5) For details on the ARS250 and ARS250A, contact your nearest ShinMaywa dealer.

Performance Curves

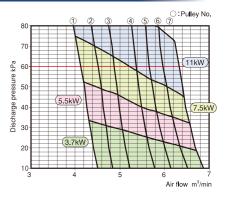
ARS50



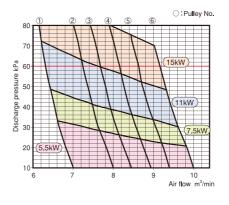
ARS65A



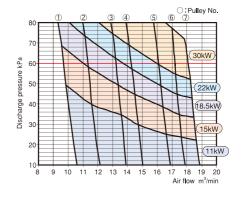
ARS80



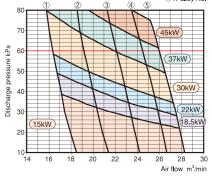
ARS100



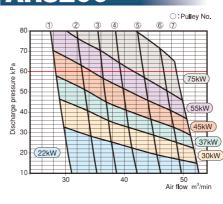
ARS125



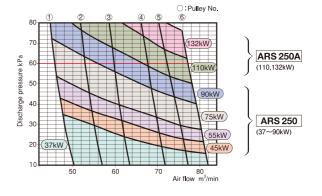
ARS150



ARS200



ARS250·ARS250A



- (1) The air flow indicates a flow rate of suctioned air.
- (2) Tolerance of air flow: ±5%.
- (3) Consult us for any requirements not included in these charts.
- (4) For indoor use only. Consult us for outdoor applications.
- (5) Specifications are subject to change without notice.
- (6) Please prepare IE1 / IE2 motor by yourself.
 Since ShinMaywa cannot supply IE1 / IE2 motor due to Japanese regulation.
- (7) Outdoor type and suction pipe connection type are only available up to discharge pressure of 60 kPa.

Sound Levels

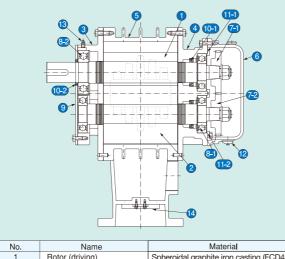
-				•						[dB(A)]
	Pulley	Rotor			Discha	arge pr	essure	(kPa)		
Model	No.	Speed (min ⁻¹)	10	20	30	40	50	60	70	80
	1	1,900	67	68	69	70	71	71	72	72
	2	2,400	69	70	71	71	72	72	73	73
	3	2,710	70	71	72	72	73	73	74	74
	4	2,940	71	72	73	73	74	74	75	75
ARS50	5	3,290	72	73	74	74	75	75	76	76
	6	3,660	73	74	75	75	76	76	77	77
	7	3,880	74	75	76	76	77	77	78	78
	8	4,330	75	76	77	77	78	78	79	
	1	2,580	71	72	72	72	73	73	74	75
	2	2,740	72	73	73	73	74	74	75	76
	3	2,920	73	74	74	74	75	75	76	77
ARS65A	4	3,100	74	75	75	75	76	76	77	78
	5	3,280	75	76	76	76	77	77	78	79
	6	3,670	76	77	78	78	79	79	80	81
	7	4,100	78	79	80	80	81	81	82	_
	1	2,790	73	74	75	75	76	77	78	79
	2	2,940	74	75	76	76	77	78	79	80
	3	3,100	75	76	77	77	79	80	81	82
ARS80	4	3,480	76	77	78	79	80	81	82	83
	5	3,670	77	78	79	80	81	82	83	84
	6	3,910	78	79	80	81	82	83	84	_
	7	4,120	79	80	81	82	83	84	85	_
	1	2,840	76	77	78	79	80	80	81	82
	2	3,170	77	78	79	80	81	81	82	83
ARS100	3	3,350	78	79	80	81	82	82	83	84
ANSTUU	4	3,530	79	80	81	81	82	83	84	85
	5	3,770	80	81	82	82	83	84	85	_
	6	3,970	81	82	83	83	84	85	86	_
	1	2,150	77	78	79	80	81	81	82	83
	2	2,430	78	79	80	81	82	82	83	84
	3	2,710	79	80	81	82	83	83	84	85
ARS125	4	3,050	80	81	82	83	84	84	85	86
	5	3,340	82	83	84	84	85	86	87	87
	6	3,510	83	84	85	85	86	87	88	_
	7	3,760	85	86	87	87	88	88	89	_
	1	2,070	79	80	81	82	83	83	84	84
A DO4 50	2	2,360	80	81	82	83	84	84	85	85
ARS150	3	2,670	82	83	84	84	85	85	86	86
	5	2,960	83	84	85	85	86	86	87	87
		3,160	84	85	86	86	87	87	88	- 00
	2	1,510 1,710	81 82	82 83	84 85	85 86	86 87	87 88	88 89	89 90
	3		83	84	86	87	88	89	90	91
A D COOO	4	1,860	84	85	87	88			91	92
ARS200	5	2,020	85	86	87	88	89 90	90	93	92
	6	2,400	86	87	88	89	90	93	95	$\vdash =$
	7	2,400	86	87	89	90	92	93	95	$\vdash \bar{\underline{}}$
	1	1,560	84	85	86	86	87	88	90	92
	2	1,760	85	86	87	87	88	89	91	93
ARS250	3	1,760	86	87	88	88	89	90	92	93
	4	2,220	87	88	89	89	91	92	94	96
ARS250A	5	2,220	88	89	90	90	92	93	95	97
	6	2,490	89	90	91	91	93	94	96	
		2,400	03	30	1 91	ا ت	90	34	30	l

(1) Typical sound levels [±3db(A)] are measured at a distance of one meter from the blower side.

Provided for reference only.

(2) Sound levels vary depending on the base (foundation) condition and piping configuration.

Sectional View



1	Rotor (driving)	Spheroidal graphite iron casting (FCD450)
2	Rotor (driven)	Spheroidal graphite iron casting (FCD450)
3	Bearing plate	Gray iron casting (FC200)
4	Bearing case	Gray iron casting (FC200)
5	Rotor housing	Gray iron casting (FC200)
6	Gear case	Gray iron casting (FC200)
7-1	Timing gear	Chromium molybdenum steel
7-2	Timing gear	Chromium molybdenum steel
8-1	Ball bearing	_
8-2	Ball bearing	_
9	Bearing cover	Structural steel
10-1	Oil seal	Fluororubber (FKM)
10-2	Oil seal	Acrylonitrile butadiene rubber (NBR)
11-1	Bearing retainer	Structural steel
11-2	Bearing retainer	Structural steel
12	Oil gauge	-
13	Grease nipple	_
14	Check valve	Ethylene propylene diene rubber (EPDM)

Notes:

(1) For Models ARS50, ARS65A, ARS80 and ARS100, bearing plate No.3 and rotor housing No.5 are constructed as one piece.

(2) Use Shell Stamina Grease RL2 to replenish grease every six months.

(Replenish every three months if the discharge pressure exceeds 60 kPa.)

(3) Completely replace gear oil with VG 220 gear oil every six months.

(Replace gear oil every three months if the discharge pressure exceeds 60 kPa.)

Standard Accessories

Common base1
· V-pulley, V-belt, Belt cover1
Pressure gauge (160 kPa, with gauge cock and R1/4 setscrew)

Cooling silencer (with filter)......

· Safety valve (with check valve).....

Standard Motors (TEFC indoor type, IE1/IE2)

Madal							Rate	d output c	of applicat	ole motor	(kW)						
Model	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132
ARS50	0	0	0	0													
ARS65A		0	0	0	0												
ARS80			0	0	0	0											
ARS100				0	0	0	0										
ARS125						0	0	0	0	0							
ARS150							0	0	0	0	0	0					
ARS200									0	0	0	0	0	0			
ARS250											0	0	0	0	0		
ARS250A																0	0

Star-delta starting is available for motors 5.5kW and over.

· Please prepare IE1/IE2 motor by yourself.

Dimensions

Standard dimensions		Dimensions with anti-vibration base	
H JIS10K G G G E C D Q- ϕ R	N P	JIS10K G G G S- ϕ T C D	N P

Model	Outlet dia. (mm)	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	Р	Q	R	S	Т	U	٧	W	Weight (kg)
ARS50	50	489 (588)	152 (251)	556	105 (109)	400	78	-	220			105	195	173	197						20	155	58 (67)
ARS65A	65	518 (617)	162 (261)	(548)	115 (119)	400	(74)	_	230	330	15	140	160	208	233	4	13	4	13	35	22	175	78 (87)
ARS80	80	624 (723)	170 (269)	650	143 (154)	460	95 (84)	_	280	330	15	119	181	229	234	4	13	4	13		22	185	112 (123)
ARS100	100	660 (759)	182 (281)	(628)	148 (159)	400	(84)	_	285			157	143	267	272						24	210	139 (150)
ARS125	125	892 (991)	226 (325)	859	232 (238)	700	80 (74)	350	390	470		187	243	332	312		14		14	40	24	250	241 (256)
ARS150	150	930 (1,029)	241 (340)	(847)	312 (318)	700	(74)	330	470	470	20	266	164	411	448		14		14			280	312 (327)
ARS200	200	1,203 (1,335)	273 (405)	1,100 (1,240)		800		400		640		290	310	452	510	6		6			26	330	622 (645)
AN3200	200	1,248 (1,430)	318 (500)		258		150		510	665		280	325	452	310	O	15	0	15	65		330	699 (793)
ARS250	250	1,335	353	1,200 (1,340)	(188)	900	(220)	450	510	830	30	405	365	596	622		15		15	05	30	400	939 (1,046)
ARS250A	250	(1,517)	(535)							850		441	349	660 (645)	625						30	400	978 (1,095)

- (1) Bolt hole diameter and pitch of the discharge flange comply with JIS B2239 : 10K flange.

 (2) For indoor use only. Consult us regarding outdoor applications.

 (3) Dimensions of the blower with the anti-vibration base are shown in parentheses. * The weight excludes the weight of the motor and motor base.
- (4) Dimensions are when Japanese-brand motor (previous IE1/IE2) is mounted.

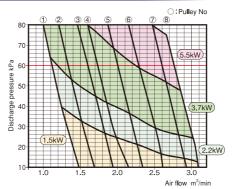
 Call us for CAD-compatible electronic catalogs.

ARS-E series with Premium Efficiency iE3 motor

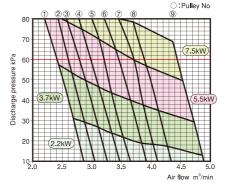
-	eci			4	_ = =																				Q:/	Air flo	w (m	ı*/mii	1)	r:P	ower	requ	ıırem	ents(k) Motor
Outlet	Model	Pulley	Rotor	101	kPa	15	kPa T	201	Pa	25k	Ра	30k	Pa	35k	Pa	40k	Pa	45	Pa	50k	Pa	551	kPa	60k	Pa	65k	(Pa	70ŀ	(Pa	75	kPa	801	kPa	outpu at standa
dia. mm		No.	(min ¹)	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	settin (kW
		1	2,200	1.48	0.68	1.44	0.83	1.40	1.0	1.36	1.1	1.32	1.3	1.28	1.4	1.27	1.6	1.24	1.7	1.20	1.9	1.17	2.1	1.13	2.2	1.11	2.4	1.07	2.5	1.03	2.7	1.00	2.8	1.5
		2	2,450	1.69	0.76	1.65	0.92	1.61	1.1	1.58	1.3	1.54	1.4	1.50	1.6	1.48	1.8	1.45	2.0	1.42	2.1	1.38	2.3	1.35	2.5	1.31	2.6	1.28	2.8	1.24	3.0	1.21	3.1	1.0
		3	2,770	1.94	0.87	1.90	1.1	1.86	1.2	1.81	1.4	1.80	1.7	1.76	1.8	1.74	2.0	1.70	2.2	1.66	2.4	1.63	2.6	1.59	2.8	1.56	3.0	1.53	3.2	1.49	3.4	1.46	3.6	2.2
50	ARS50E	4	2,980	2.15	1.0	2.10	1.2	2.05	1.4	1.98	1.6	1.94	1.8	1.90	2.0	1.87	2.2	1.84	2.4	1.81	2.6	1.78	2.8	1.73	3.0	1.70	3.2	1.66	3.4	1.63	3.6	1.60	3.9	
		5	3,300	2.34	1.1	2.30	1.3	2.25		2.25	1.8	2.21	2.0	2.17	2.2	2.15	2.5	2.11	2.7	2.07	2.9	2.04	3.2	2.00		1.97	3.6	1.94	3.9	1.91	4.1	1.87	4.3	3.7
		6	3,700	2.61	1.2	2.57	1.4	2.57		2.53	_	2.51	2.3	2.47	2.5	2.43	2.8	2.40	3.1	2.36		2.32		2.30		2.26	4.1	2.23	4.4	2.19	4.6	2.15		
		7	4,140			2.93		2.89		2.87		2.83			2.8	2.75	3.1	2.72		2.68		2.66		2.62	4.3	2.58		2.55		2.51	5.2	2.47	5.5	5.5
		8	4,370			3.08		3.05		3.03		2.99		2.95	3.0	2.90	3.3	2.87		2.85		2.81	4.3	2.77	4.6	2.74		2.70		2.66		-	-	
		1	2,500			2.81	1.3	2.75		2.70		2.65		2.62	2.5	2.59	2.8	2.56		2.47	3.3	2.42		2.38	3.9	2.34		2.29		2.24				2.2
		2	2,650			3.00		2.94		2.89		2.86		2.81	2.6	2.76		2.71	3.2	2.69		2.62		2.57	4.2	2.53		2.47	4.8	2.46				
		3	2,790			3.18		3.13		3.07		3.04		2.99	2.8	2.95	3.1	2.92	3.4	2.89		2.80	4.1	2.75	4.4	2.71	4.7	2.66		2.61	5.3			3.7
65	ARS65E	5	2,940			3.37		3.31		3.28		3.23			2.9	3.15	3.3	3.13	3.6	3.07	4.0	3.00	4.3	2.95 3.18	4.6 5.0	2.91		2.87		2.82				3.7
03	ANSOSE	6	3,120			3.59	_	3.83		3.78		3.46	3.0	3.41	3.2	3.36	3.8	3.58	4.1	3.53		3.48		3.43	5.3	3.14	5.3	3.12	5.6 6.0	3.06				
		7	3,500			4.05	_	4.02		3.97		3.91	3.2	3.86	3.6	3.85	4.0	3.80	4.4	3.75		3.72		3.71	5.6	3.60	6.0	3.54		3.50	6.8			5.5
		8	3,690			4.28	-	4.25	2.5	4.21		4.17	3.4	4.12	3.8	4.08	4.2	4.05	4.7	4.02		3.94	5.5	3.90	5.9	3.85		3.79		3.73				
		9	4,130			4.86		4.82	2.9	4.77		4.72	3.8	4.65	4.3	4.61	4.8	4.57	5.3	4.53		4.49	6.2	4.44	6.7	4.40	7.1	_	_	_	_	-	_	7.5
		1	2,800			4.65	-	4.59	2.6	4.53	3.1	4.47	3.5	4.43	4.0	4.38	4.5	4.32	4.9	4.26		4.22	5.8	4.16	6.3	4.11	6.7	4.05	7.2	4.01	7.7	3.98	8.2	
		2	2,930			4.95	-	4.89	2.8	4.82	3.2	4.74	3.7	4.70	4.2	4.66	4.7	4.61	5.1	4.56		4.50	6.1	4.44	6.6	4.39	7.0	4.33		4.30	_			3.7
		3	3,110			5.22	_	5.17		5.11		5.06	4.0	5.00	4.5	4.96	5.0	4.90	5.4	4.86	6.0	4.81	6.5	4.75	7.0	4.69	7.4	4.67	8.1	4.62	8.6			
		4	3,290			5.53	_	5.47		5.43	_	5.37		5.31	4.8	5.26	5.3	5.21	5.9	5.15		5.11	6.9	5.07	7.4	5.03	8.1	4.99		4.95	_			5.5
80	ARS80E	5	3,520			5.90	-	5.85		5.80		5.75		5.70	5.2	5.65	5.8	5.59	6.4	5.54	6.9	5.48	7.5	5.46	8.2	5.42	8.8	5.38		5.33	_			
		6	3,720			6.23	_	6.17		6.12		6.08	4.9	6.03	5.5	5.99	6.2	5.93	6.8	5.91	7.4	5.85	8.1	5.80	8.8	5.75				5.65	-		_	7.5
		7	3,930			6.65	_	6.58		6.52		6.48		6.42	5.9	6.36	6.6	6.30	7.2	6.26		6.24	8.7	6.19	9.3	6.14		6.09		-	_	-	-	
		8	4,150	7.04	2.8	6.96	3.5	6.93	4.2	6.86		6.81	5.7	6.74	6.3	6.68	7.0	6.66	7.8	6.64	8.5	6.59	9.2	6.54	9.9	6.48	10.7	_	_	-	-	-	-	11
		1	2,780	7.20	2.3	7.11	3.0	7.01	3.7	6.91	4.4	6.82	5.1	6.75	5.8	6.66	6.5	6.60	7.2	6.58	8.0	6.50	8.7	6.42	9.5	6.34	10.2	6.30	10.9	6.23	11.6	6.16	12.3	
		2	3,110	8.14	2.7	8.04	3.5	7.94	4.3	7.90	5.0	7.80	5.9	7.74	6.6	7.62	7.4	7.60	8.3	7.52	9.1	7.44	9.9	7.36	10.7	7.30	11.5	7.21	12.3	7.14	13.1	7.06	13.9	5.5
		3	3,290	8.60	2.9	8.51	3.7	8.41	4.5	8.34	5.4	8.27	6.2	8.20	7.1	8.14	8.0	8.06	8.9	8.00	9.7	7.92	10.5	7.85	11.4	7.76	12.2	7.69	13.1	7.60	13.9	7.54	15.0	7.5
100	ARS100E	4	3,530	9.19	3.1	9.09	4.0	9.05	4.9	8.98	5.9	8.88	6.7	8.84	7.7	8.74	8.7	8.65	9.6	8.57	10.5	8.50	11.4	8.42	12.3	8.34	13.2	8.25	14.1	8.18	15.0	-	-	11
		5	3,700	9.61	3.4	9.51	4.3	9.42	5.2	9.36	6.2	9.29	7.1	9.24	8.2	9.16	9.2	9.08	10.1	9.00	11.0	8.92	12.0	8.84	13.0	8.76	13.9	8.68	15.0	-	-	-	-	
		6	3,940	10.2	3.7	10.1	4.7	10.0	5.7	9.90	6.7	9.85	7.8	9.78	8.8	9.69	9.8	9.61	10.8	9.54	11.9	9.46	12.9	9.38	13.9	9.28	14.9	-	-	-	-	-	-	15
		1	2,210	10.6	3.7	10.5	4.7	10.4	5.8	10.3	6.8	10.2	7.9	10.1	8.9	10.0	9.5	9.92	10.2	9.84	11.5	9.77	12.5	9.69	13.5	9.62	14.3	9.55	16.3	9.45	17.4	9.35	18.4	11
		2	2,530	12.2	4.4	12.0	5.7	11.9	6.9	11.9	8.1	11.8	9.3	11.7	10.0	11.6	11.1	11.5	12.9	11.5	13.5	11.4	14.4	11.3	16.5	11.3	17.4	11.2	18.0	11.1	20.1	11.0	21.3	1.5
		3	2,870	14.0	5.3	13.9	6.6	13.8	8.0	13.7	9.3	13.6	9.7	13.6	11.1	13.5	13.4	13.4	13.7	13.4	15.1	13.3	16.6	13.2	17.8	13.2	19.5	13.1	20.7	13.0	22.1	12.9	24.3	15
125	ARS125E	4	3,100	15.2	5.8	15.1	7.3	15.0	8.8	14.9	9.7	14.7	11.1	14.6	13.1	14.6	13.7	14.5	15.1	14.4	17.1	14.3	18.0	14.3	19.5	14.2	20.9	14.1	23.4	14.0	24.9	13.9	26.4	18.5
		5	3,470	17.0	6.9	16.9	8.5	16.8	9.6	16.7	11.1	16.6	13.0	16.5	13.9	16.4	16.0	16.3	17.3	16.3	19.1	16.2	20.6	16.1	22.5	16.0	24.9	16.0	26.6	15.9	28.2	15.8	30.0	22
		6	3,700	18.1	7.5	17.9	9.2	17.8	9.8	17.7	12.7	17.6	13.3	17.5	15.1	17.4	16.8	17.4	18.6	17.3	20.3	17.3	22.1	17.2	24.9	17.2	26.6	17.1	28.3	17.0	29.2	_	_	
		7	3,920	19.1	8.2	19.0	10.0	18.9	10.5	18.8	13.6	18.6	13.9	18.5	16.5	18.4	17.4	18.3	19.5	18.3	21.3	18.2	23.8	18.1	26.6	18.0	28.4	18.0	28.9	_	_	-	_	30
		1	2,170	18.5	5.9	18.3	7.8	18.0	9.7	17.9	11.6	17.7	13.5	17.5	13.0	17.1	16.0	16.9	16.5	16.8	19.0	16.6	20.2	16.5	23.9	16.3	25.8	16.2	27.9	16.0	29.0	15.8	31.0	15
		2			-	-	-	-			_											_	_						_					18.5
150	ARS150E	3	-				-				_																						40.9	30
		4	3,100		_		_	-			_																		41.3	24.0	43.9	-	-	37
		5	3,310	_	_						_										_	_	_		_				_	_	_	-	_	45
		1			-		-				_																							22
		2			-		-				_						_																	30
000		3			-		-				_						_																	37
200	ARS200E	4			-		-				_																							45
		5	2,360		-		-																							_				55
		6	2,510		-																						74.6	46.1	/5.0	-	-	-	-	
		7	2,650	_	_		-				_										_	_	_		_		67.5	45-4	70.0	-	77.0	-	04.5	75
		1			-		-																											37 45
		2			-		-																											55
250	ARS250E ARS250EA	3			-		-				_						_																	75
	ALIOZUCA	4			-		-										_																Q P 1.00 2.8 1.21 3.1 1.46 3.6 1.60 3.9 1.87 4.9 2.47 5.5 5.7 2.78 6.0 3.00 6.4 -3.21 6.8 3.45 7.2 -	90
		5	2,350		-		-				_						_													-				110
		6	2,490	82.0	29.2	81.5	35.8	81.0	42.5	80.6	50.6	80.2	58.7	79.7	66.7	79.2	74.7	78.7	82.2	78.2	89.6	77.7	97.8	77.2	106.0	76.7	113.6	76.3	121.2	75.9	129.4	-	-	132

Performance Curves

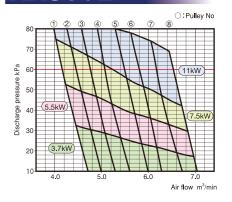
ARS50E



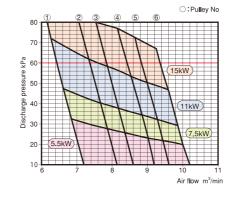
ARS65E

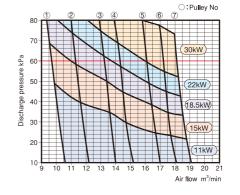


ARS80E

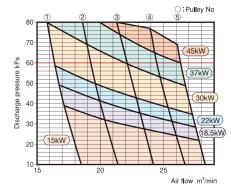


ARS100E

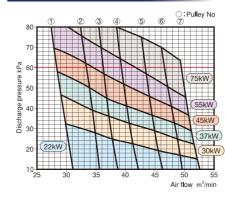




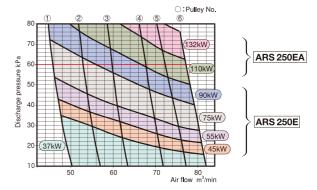
ARS150E



ARS200E



ARS250E·ARS250EA



Notes:

- (1) The air flow indicates a flow rate of suctioned air.
- (2) Tolerance of air flow: ±5%.
- (3) Consult us for any requirements not included in these charts.
- (4) For indoor use only. Consult us for outdoor applications.
- (5) Specifications are subject to change without notice.
- (6) Outdoor type and suction pipe connection type are only available up to discharge pressure of 60 kPa.

Notes: (1) The air flow (measured in accordance with JIS B8341) indicates a flow rate of suctioned air. (2) Tolerance of air flow: ±5%. (3) Consult us for any requirements not included in this table. (4) For indoor use only. Consult us regarding outdoor applications. (5) For details on the ARS250 and ARS250A, contact your nearest ShinMaywa dealer.

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Soul	nd	Lev	vel	S						[dB(A
	Pulley	Rotor			Disch	arge pr	essure	(kPa)		
Model	No.	Speed (min ⁻¹)	10	20	30	40	50	60	70	80
	1	2,200	68	69	70	71	72	72	73	73
	2	2,450	69	70	71	71	72	72	73	73
	3	2,770	70	71	72	72	73	73	74	74
ADOCOL	4	2,980	71	72	73	73	74	74	75	75
ARS50E	5	3,300	72	73	74	74	75	75	76	76
	6	3,700	73	74	75	75	76	76	77	77
	7	4,140	75	76	76	76	77	77	78	78
	8	4,370	75	76	77	77	78	78	79	_
	1	2,500	71	72	72	72	73	73	74	75
	2	2,650	72	73	73	73	74	74	75	75
	3	2,790	73	74	74	74	75	75	76	76
	4	2,940	74	75	75	75	76	76	77	77
ARS65E	5	3,120	74	75	75	75	76	76	77	78
	6	3,310	75	76	76	76	77	77	78	79
	7	3,500	76	77	77	77	78	78	79	80
	8	3,690	76	77	78	78	79	79	80	_
	9	4,130	78	79	80	80	81	81	_	_
	1	2,800	73	74	75	75	76	77	78	79
	2	2,930	74	75	76	76	77	78	79	80
	3	3,110	75	76	77	77	79	80	81	82
ARS80E	4	3,290	76	77	78	78	80	81	82	83
ANGOOL	5	3,520	76	77	78	79	80	81	82	83
	6	3,720	77	78	79	80	81	82	83	_
	7	3,930	78	79	80	81	82	83	84	_
	8	4,150	79	80	81	82	83	84	_	_
	1	2,780	76	77	78	79	80	80	81	82
	2	3,110	77	78	79	80	81	81	82	83
ARS100E	3	3,290	78	79	80	81	82	82	83	84
ANSTOOL	4	3,530	79	80	81	81	82	83	84	_
	5	3,700	80	81	82	82	83	84	85	_
	6	3,940	81	82	83	83	84	85	_	_
	1	2,210	77	78	79	80	81	81	82	83
	2	2,530	79	80	81	82	83	83	84	85
	3	2,870	80	81	82	83	84	84	85	86
ARS125E	4	3,100	82	83	84	84	85	86	87	87
	5	3,470	83	84	85	85	86	87	88	89
	6	3,700	85	86	87	87	88	88	89	_
	7	3,920	86	87	88	88	89	89	90	_
	1	2,170	79	80	81	82	83	83	84	84
	2	2,440	81	82	83	84	85	85	86	86
ARS150E	3	2,760	83	84	85	85	86	86	87	87
	4	3,100	84	85	86	86	87	87	88	_
	5	3,310	85	86	87	87	88	88		
	1	1,580	82	82	84	86	87	88	88	89
	1 -	1 0 - 0		0.4						

Typical sound levels [±3db(A)] are measured at a distance of one meter from the blower side. Provided for reference only.
 Sound levels vary depending on the base (foundation) condition and piping configuration.

2 1,760 85 86 87 87 87 88 89 3 1,970 86 87 88 88 89 90 4 2,220 87 88 89 89 91 92 5 2,350 88 89 90 90 92 93

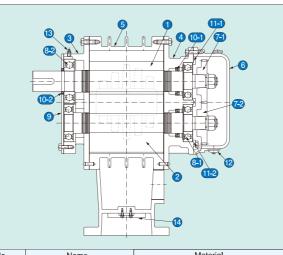
6 2,490 89 90 91 91 93 94

ARS200E

ARS250E ARS250EA

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Sectional View



INO.	Ivanie	IVIalerial
1	Rotor (driving)	Spheroidal graphite iron casting (FCD450)
2	Rotor (driven)	Spheroidal graphite iron casting (FCD450)
3	Bearing plate	Gray iron casting (FC200)
4	Bearing case	Gray iron casting (FC200)
5	Rotor housing	Gray iron casting (FC200)
6	Gear case	Gray iron casting (FC200)
7-1	Timing gear	Chromium molybdenum steel
7-2	Timing gear	Chromium molybdenum steel
8-1	Ball bearing	-
8-2	Ball bearing	-
9	Bearing cover	Structural steel
10-1	Oil seal	Fluororubber (FKM)
10-2	Oil seal	Acrylonitrile butadiene rubber (NBR)
11-1	Bearing retainer	Structural steel
11-2	Bearing retainer	Structural steel
12	Oil gauge	-
13	Grease nipple	_
14	Check valve	Ethylene propylene diene rubber (EPDM)

Notes:

(1) For Models ARS50E, ARS65E, ARS80E and ARS100E, bearing plate No.3 and rotor housing No.5 are constructed as one piece.

(2) Use Shell Stamina Grease RL2 to replenish grease every six months.

(Replenish every three months if the discharge pressure exceeds 60 kPa.)

(3) Completely replace gear oil with VG 220 gear oil every six months.

(Replace gear oil every three months if the discharge pressure exceeds 60 kPa.)

Standard Accessories

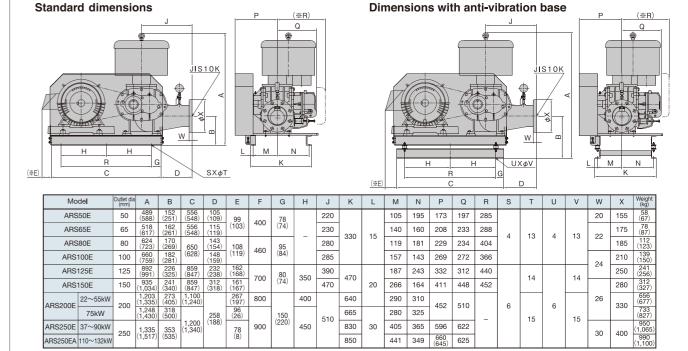
Common base	
V-pulley, V-belt, Belt cover	
Pressure gauge (160 kPa, with gauge cock and R1/4 setscrew)	
Cooling silencer (with filter)	
Safety valve (with check valve)	
• IP44-compliant TEFC motor (indoor type) with base	

Standard Motors (TEFC indoor type)

Madal	Rated output of applicable motor (kW)																
Model	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132
ARS50E	0	0	0	0													
ARS65E		0	0	0	0												
ARS80E			0	0	0	0											
ARS100E				0	0	0	0										
ARS125E						0	0	0	0	0							
ARS150E							0	0	0	0	0	0					
ARS200E									0	0	0	0	0	0			
ARS250E											0	0	0	0	0		
ARS250EA																0	0

Star-delta starting is available for motors 5.5kW and over.

Dimensions



- (1) Bolt hole diameter and pitch of the discharge flange comply with JIS B2239: 10K flange.
- (2) This standard motor is Japanese-brand totally enclosed fan cooled motor (indoor type IP44). Use of a special motor or non-Japanese brand may require a different base size. (3) For indoor use only. Consult us regarding outdoor applications.
- (4) Dimensions of the blower with the anti-vibration base are shown in parentheses. * The weight excludes the weight of the motor and motor base. (5) *E and *R dimensions are the maximum dimensions when equipped with the largest size of standard motor.

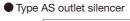
Type BS outlet silencer

- (6) For details on the ARS250E and ARS250AE, contact your nearest ShinMaywa dealer.

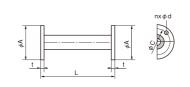
 Call us for CAD-compatible electronic catalogs.

Optional Accessories

Outlet silencer







	Nominal clia_(mm)	L	Α	С	n	d	t	Weig (kg
	50	560	155	120	4		16	6.5
	65	610	175	140	4	19		9.0
	80	770	185	150		19	18	11
	100	1,060	210	175	8			18
	125	1,160	250	210	l °		20	27
150 1,110 280 240 23 22 3								
	200	1,440	330	290	12		22	80
	250	1,800	400	355	12	25	24	147
	Use the blower under discharge pressure less than 60 kPa							

flange comply with JIS B2239: 10K flange

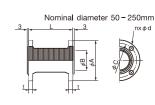
50 560 155 120 4 65 610 175 140 80 770 185 150 100 1,060 210 175 125 1,160 250 210 22 200 1,440 330 290 250 1,800 400 355 12

Nominal diameter 100 - 250mm

Outer diameter, hole pitch and hole diameter of discharge flange comply with JIS B2239: 10K flange.

Flexible joint





dia_(mm)	L	Α	В	С	n	d	t	(kg)
50	300	155	54	120	4		16	5
65		175	67	140	4	10		6
80	230	185	79	150		19	18	l ° l
100		210	104	175	8			8
125		250	129	210	°		20	12
150	300	280	152	240		23	22	15
200		330	203	290	12		22	18
250	350	400	251	335	12	25	24	28

•Outer diameter, hole pitch and hole diameter of discharge flange comply with JIS B2239: 10K flange.

Other Options

- Totally enclosed fan-cooled outdoor type
- Tropical climate specification

Belt cover

- V-belt inspection window

Pressure gauge - Pressure gauge stand

Anti-vibration rubber mount

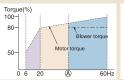
Gate valve

Vertical outlet silencer

Selecting a VFD-Controlled Model

VFD control is available for all models. This feature allows precise control of the air flow rate to accommodate water treatment volumes that vary over season and time.

Operation at excessively slow speeds with the VFD may allow high-temperature compressed air to leak into the suction side through Clearance (1) between rotors and Clearance (2) between rotors and housing wall as illustrated below. This may result in a temperature rise that exceeds the bearing temperature limit, resulting in a blower failure.





Notes: (A) indicates the lower limit of the frequency control range based on the blower temperature rise.

- Blower torque remains constant when the motor speed is reduced because of the blower's constant-torque characteristic.
- When selecting a VFD, ensure the rated output of the VFD is equal to or greater than the rated output of the motor.
 The control range of the VFD starts at 60 Hz regardless of the
- frequency of the power source. The control range depends on several factors including the application, motor output, and model.

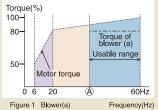
Combination

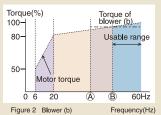
General-purpose motor and VFD (V/F control)

Blower application (a) (Fig. 1)
The blower is usable within the frequency range from (A) to 60 Hz because the blower torque is less than the motor torque. The blower is not usable if the frequency falls below (A) because the blower temperature will rise.

Blower application (b) (Fig. 2)

The blower torque exceeds the motor torque when the frequency is below [®] . The blower is usable within the frequency range from ® to 60 Hz.

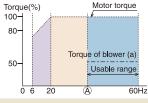




Combination

General-purpose motor and VFD (Vector control)

Both blowers (a) and (b) are usable within the range from A to 60 Hz. The blowers are not usable below A because the blower temperature will rise.



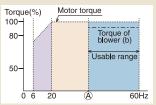


Figure 3 Blower(a)

Frequency(Hz)

Figure 4 Blower (b) Frequency(Hz)

Consult us if you require VFD control. We can provide an VFD calculation sheet.

Differences between ARS-E type equipped with IE3 motor and type equipped with IE1 motor (Points to note if replacing your previous model with the IE3 motor)

Significant differences in motor size and weight

- Motor outer dimensions: The frame size of IE3 motor does not differ from the IE1 motor, so it can be installed to the blower with IE1 motor. However, with the IE3 motor, the diameter and length of motor both tend to be larger. Because of this, the outer dimensions will be larger for some models, and so check the matching dimensions for cables, etc. and make sure that there is no interference with surrounding equipment during installation.
- Motor weight: As mentioned above, the motor size is larger, and so the weight of the motor has also increased as a result. (However, there is no need to reselect the antivibration rubbers for ShinMaywa blowers as a result of this weight increase.)

Starting current increased

With the IE3 motor, the starting current tends to be larger. As a result of this, it will be necessary to inspect equipment such as circuit protector to make sure they are appropriate. In addition, it is also possible that the capacity of the electromagnetic switch may need to be changed when replacing the motor.

Increase in rated operating speed of motors

With the IE3 motor, the rated operating speed will increase. When replacing an IE1 motor with an IE3 motor, the air volume and output power increase as a result of the increased operating speed. Customers using the motor at around the maximum rated current (95% or more of the rated current), and looking into replacing their motors should notify ShinMaywa, as there is a possibility that excessive power may be generated as a result of the increased air volume.

Comparison of starting current values between ShinMaywa typical IE1 and IE3 motors

5.5kW (50Hz/60Hz)	150/131 → 203/167
7.5kW (50Hz/60Hz)	206/180 261/217

^{*} For details, contact to your dealer or ShinMaywa.

Specifications and dimensions are subject to change without notice.

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