



AC UNIVERSAL MOTOR CATALOG

驱动世界向前
让生活更美好

DRIVING THE
WORLD FORWARD
MAKES LIFE MORE CONVENIENT

GUDE & BG MOTOR
博工&故德

www.china-bgmotor.com



目录 / Table Of Contents

电机型号说明	1
Description Of Motor Type	
单相串励电机 44 AC系列	2
AC Universal Motor 44 Series	
单相串励电机 54 AC系列	3
AC Universal Motor 54 Series	
单相串励行星减速电机 54 AC系列	4
AC Universal Planetary Gear Motor 54 Series	
单相串励电机 54 AC系列	5
AC Universal Motor 54 Series	
单相串励电机 63 AC系列	6
AC Universal Motor 63 Series	
单相串励电机 70 AC系列	7
AC Universal Motor 70 Series	
单相串励电机 65 AC系列	8
AC Universal Motor 65 Series	
单相串励电机 74 AC系列	9
AC Universal Motor 74 Series	
单相串励电机 76 AC系列	10
AC Universal Motor 76 Series	
单相串励电机 88 AC系列	11
AC Universal Motor 88 Series	
单相串励电机 91 AC系列	12
AC Universal Motor 91 Series	
单相串励电机 92 AC系列	13
AC Universal Motor 92 Series	
单相串励电机 93 AC系列	14
AC Universal Motor 93 Series	
单相串励电机 95 AC系列	15
AC Universal Motor 94 Series	
单相串励电机 95 AC系列	16
AC Universal Motor 95 Series	
产品技术信息	
Product Technical Information	17-21



电机型号说明 / Description Of Motor Type

单相串励电机 / AC Universal Motor

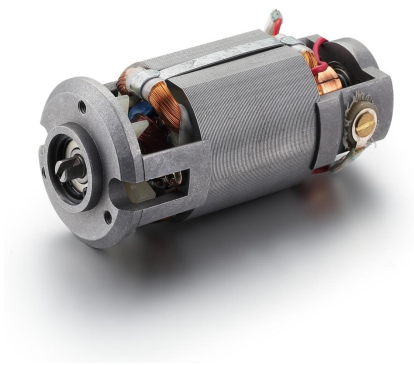
BG - **5430** **AC** - **220 150S**
① ② ③ ④ ⑤

①	公司名称 Company Name	博工电机 / BG MOTOR
②	电机外形尺寸 Motor Dimensions	54mm、63mm、76mm、88mm、95mm (例) 5430: 54系列电机, 定子铁芯厚度为30mm (Examples) 5430: 54 series motor, stator core thickness of 30mm
③	电机种类 Motor Type	AC: 单相串励电机 / AC Universal Motor
④	电源电压 Supply Voltage	(例 / Example) 220: 220V AC
⑤	电机转速 Motor Speed	(例 / Example) 150S: 15000rpm



单相串励电机 44 AC系列

AC Universal Motor 44 Series



使用环境: -20°C~50°C

Environmental Condition: -20°C~50°C

绝缘等级: B-F

Insulation Class: B-F

轴承类型: 高质量滚珠轴承

Bearing Type: High Quality Ball Bearing

铁芯厚度: 45mm

Core Thickness: 45mm

功率范围: 20-80W

Power Range: 20-80W

转速范围: 4000-20000rpm

Rotational Speed Range: 4000-20000 rpm

定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。

Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.

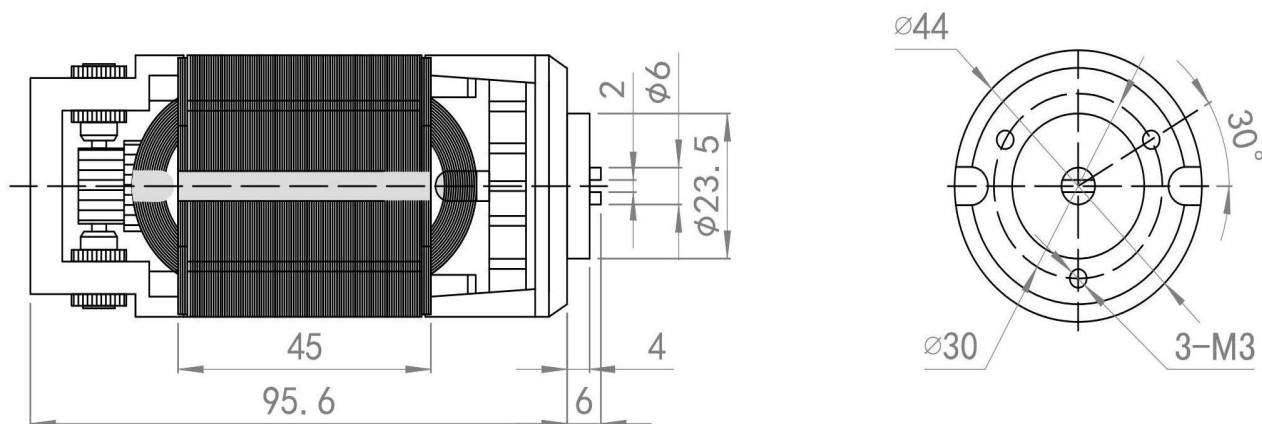
以及出轴、安装端盖、引出线、耐高温等级、风叶等。

And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

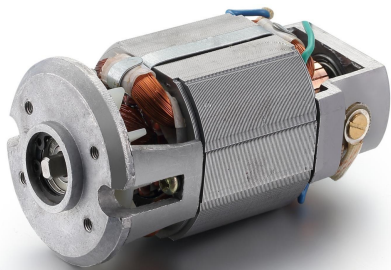
电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness L:mm
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	
BG-4445AC110-80S	110	11000	0.09	24	5500	0.04	0.22	0.08	0.44	45
BG-4445AC120-100S	120	16500	0.12	34	8000	0.04	0.28	0.08	0.57	45
BG-4445AC220-110S	220	21000	0.12	57	12000	0.05	0.26	0.09	0.52	45
BG-4445AC230-125S	230	27000	0.21	79	14500	0.05	0.34	0.10	0.69	45

外形图 / Mechanical Dimensions



单相串励电机 **54 AC系列**
AC Universal Motor 54 Series



使用环境: -20℃~50℃

Environmental Condition: -20°C~50°C

绝缘等级: B-F

Insulation Class: B-F

轴承类型: 高质量滚珠轴承

Bearing Type: High Quality Ball Bearing

铁芯厚度: 45mm

Core Thickness: 45mm

功率范围：45-200W

Power Range: 45-200W

转速范围: 4000-20000rpm

Rotational Speed Range: 4000-20000 rpm

定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。

Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.

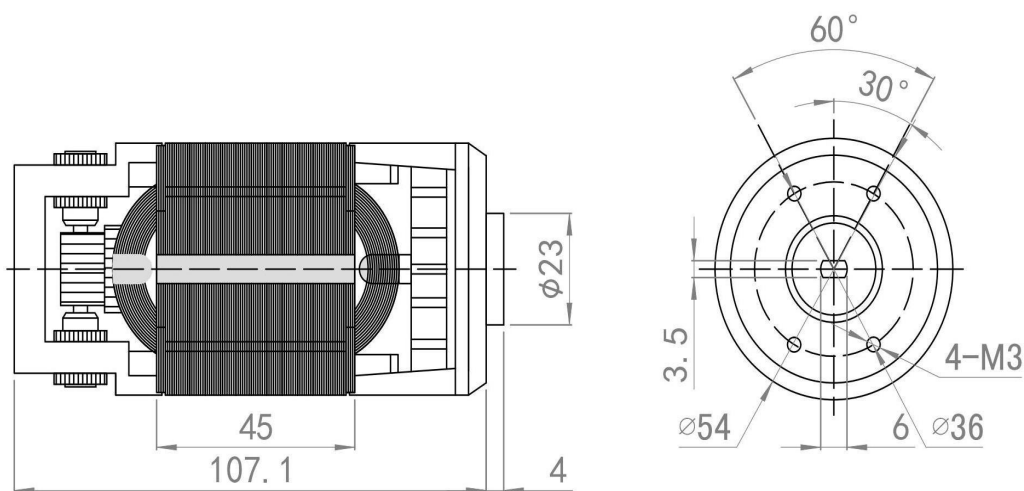
以及出轴、安装端盖、引出线、耐高温等级、风叶等。

And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	N.m
BG-5445AC110-80S	110	16000	0.32	46	8000	0.05	0.42	0.11	0.84	45
BG-5445AC120-100S	120	21000	0.57	98	10000	0.09	0.82	0.19	1.63	45
BG-5445AC220-110S	220	22000	0.68	165	11000	0.14	0.75	0.29	1.50	45
BG-5445AC230-125S	230	24000	0.7	200	12500	0.15	0.87	0.31	1.74	45

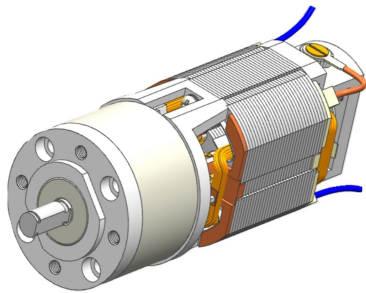
外形图 / Mechanical Dimensions





单相串励行星减速电机 54 AC系列

AC Universal Planetary Gear Motor 54 Series



内齿圈材料: 金属
Gear material: Metal
轴承类型: 高质量滚珠轴承
Bearing Type: High Quality Ball Bearing
最大允许径向力: $\leq 80\text{N}$
Max.Radial load: $\leq 80\text{N}$
最大允许轴向力: $\leq 30\text{N}$
Radial play of shaft: $\leq 30\text{N}$
轴向间隙: $\leq 0.06\text{mm}$
Axial play of shaft: $\leq 0.06\text{mm}$
额定允许负载: 30N.m
Rated tolerance torque: 30N.m

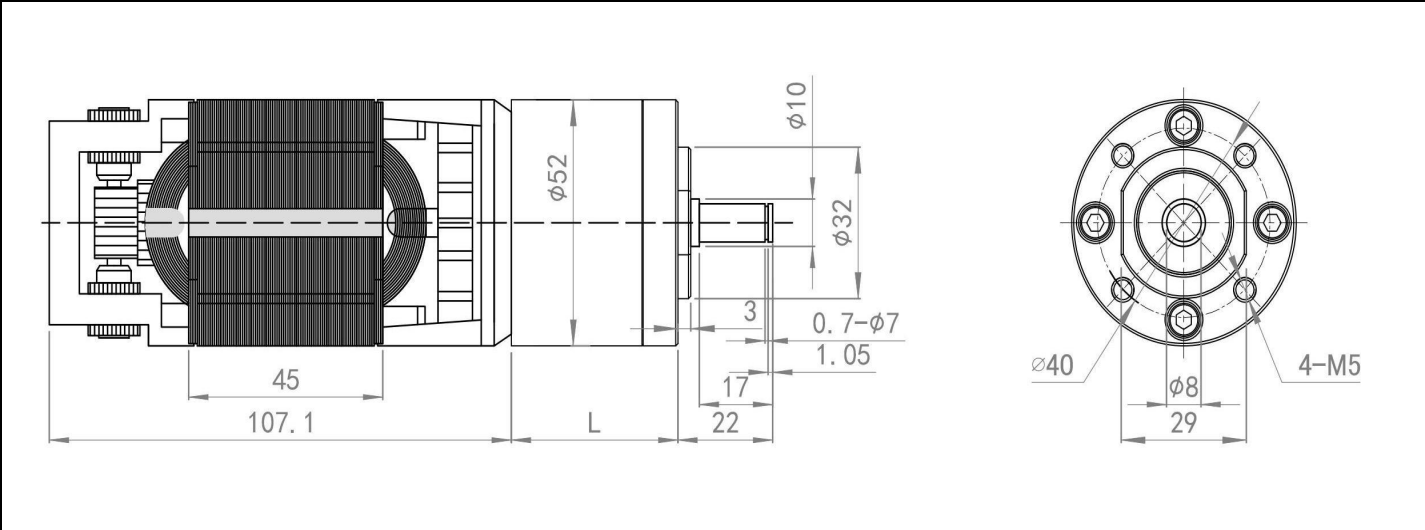
电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	Kg.cm	A	Kg.cm	A	L:mm
BG-5445AC110-80S	110	23000	0.32	200	11000	1.74	1.82	3.48	3.64	45
BG-5445AC120-100S	220	21000	0.57	200	10000	1.91	0.91	3.82	1.82	45

减速电机技术参数 / Gear Motor Technical Data

型号 Model	减速比 Reduction ratio	1: X	1: 13.7	1: 19.2	1: 25	1: 50.9	/	/	/	/
	减速箱长度 Gearbox length	mm	38.9				50.5	/	/	/
BG-5445AC110-80S- PG52	空载转速 NO-load speed	rpm	1679	1198	920	452	/	/	/	/
	负载转速 Rated speed	rpm	803	573	440	216	/	/	/	/
	额定扭矩 Rated torque	N.m	1.93	2.70	3.52	7.16	/	/	/	/

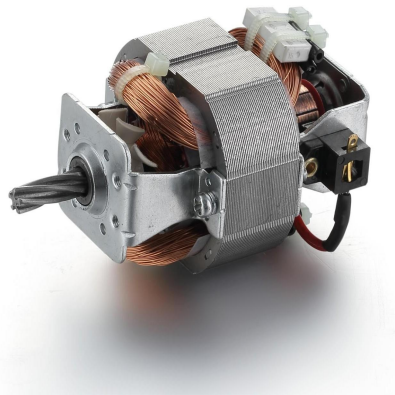
外形图 / Mechanical Dimensions





单相串励电机 54 AC系列

AC Universal Motor 54 Series



使用环境：-20℃~50℃
Environmental Condition: -20℃~50℃
绝缘等级：B-F
Insulation Class: B-F
轴承类型：高质量含油轴承
Bearing Type: High Quality Oil Bearing
铁芯厚度：12-45mm
Core Thickness: 12-45mm
功率范围：45-200W
Power Range: 45-200W
转速范围：6000-20000rpm
Rotational Speed Range: 6000-20000rpm

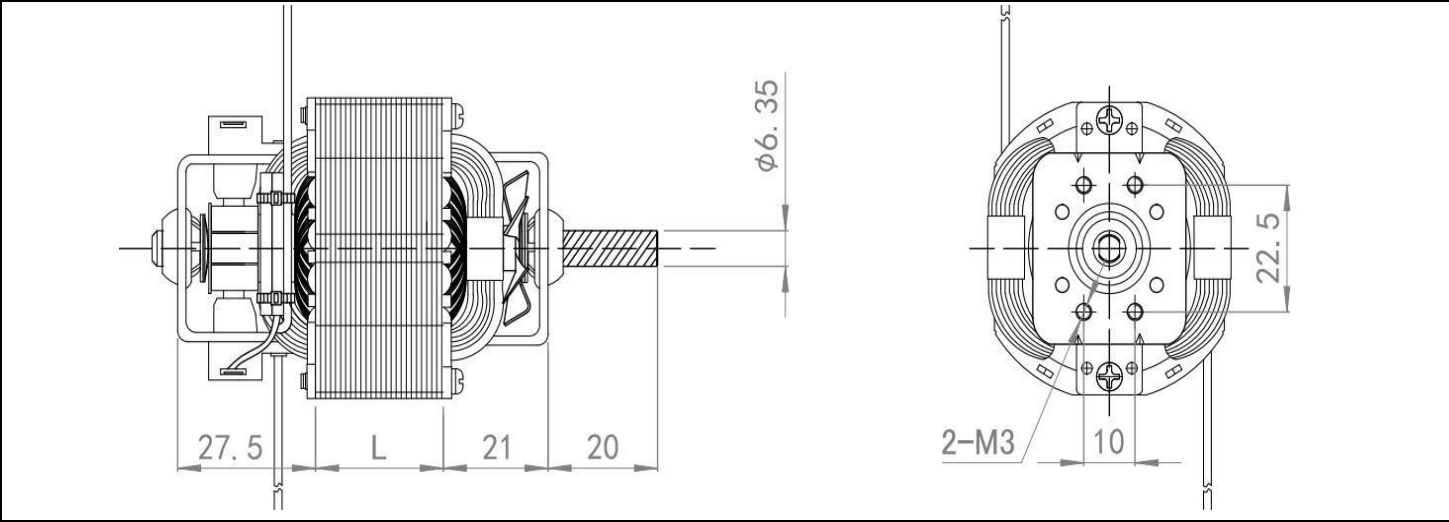
定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。
Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.
以及出轴、安装端盖、引出线、耐高温等级、风叶等。
And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-5412AC230-105S	230	24000	0.10	46	10500	0.04	0.20	0.08	0.40	12
BG-5425AC220-129S	220	30000	0.1	120	12900	0.09	0.55	0.18	1.09	25
BG-5435AC110-113S	110	25000	0.10	150	12300	0.12	1.36	0.23	2.73	35
BG-5445AC120-151S	120	27000	0.15	200	15100	0.13	1.67	0.25	3.33	45

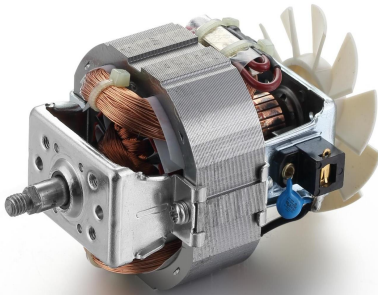
外形图 / Mechanical Dimensions





单相串励电机 63 AC系列

AC Universal Motor 63 Series



使用环境：-20℃~50℃
Environmental Condition: -20℃~50℃
绝缘等级：B-F
Insulation Class: B-F
轴承类型：高质量含油轴承
Bearing Type: High Quality Oil Bearing
铁芯厚度：20-40mm
Core Thickness: 20-40mm
功率范围：80-300W
Power Range: 80-300W
转速范围：6000-20000rpm
Rotational Speed Range: 6000-20000rpm

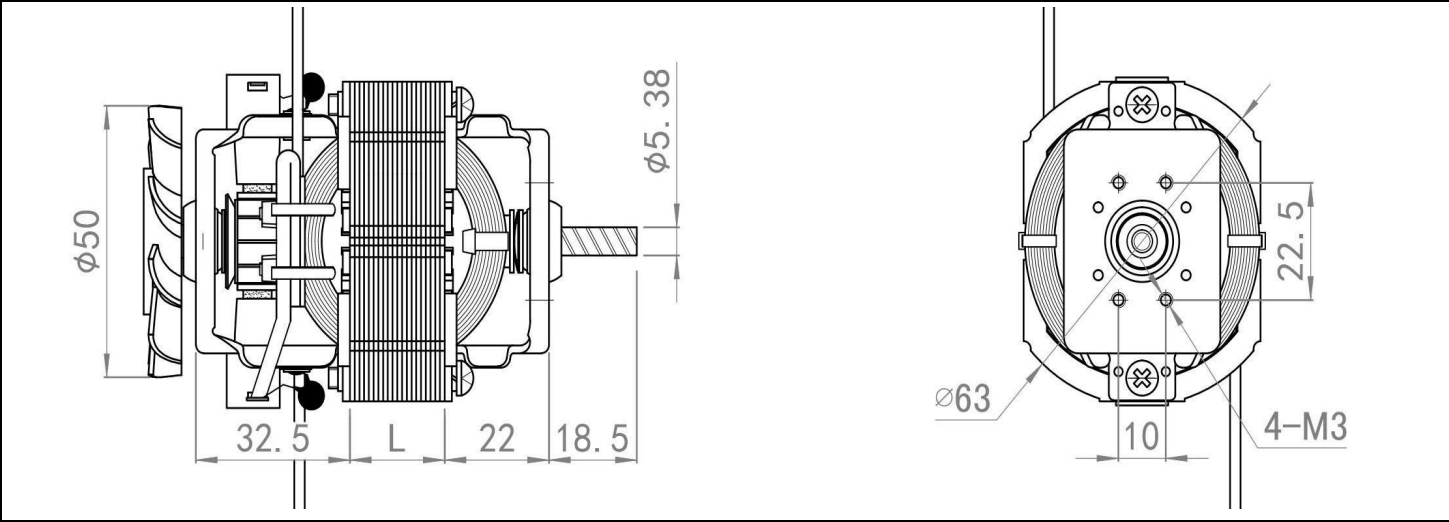
定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。
Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.
以及出轴、安装端盖、引出线、耐高温等级、风叶等。
And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-6320AC110-64S	110	15000	0.10	65	6440	0.10	0.59	0.19	1.18	20
BG-6325AC220-75S	220	18500	0.1	110	7500	0.14	0.50	0.28	1.00	25
BG-6335AC230-101S	230	24500	0.10	200	10130	0.19	0.87	0.38	1.74	35
BG-6340AC230-93S	230	22000	0.1	300	9300	0.31	1.30	0.62	2.61	40

外形图 / Mechanical Dimensions





单相串励电机 65 AC系列

AC Universal Motor 65 Series



使用环境：-20℃~50℃

Environmental Condition: -20℃~50℃

绝缘等级：B-F

Insulation Class: B-F

轴承类型：高质量滚珠轴承

Bearing Type: High Quality Ball Bearing

铁芯厚度：25-50mm

Core Thickness: 25-50mm

功率范围：80-200W

Power Range: 80-200W

转速范围：5000-10000rpm

Rotational Speed Range: 5000-10000rpm

定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。

Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.

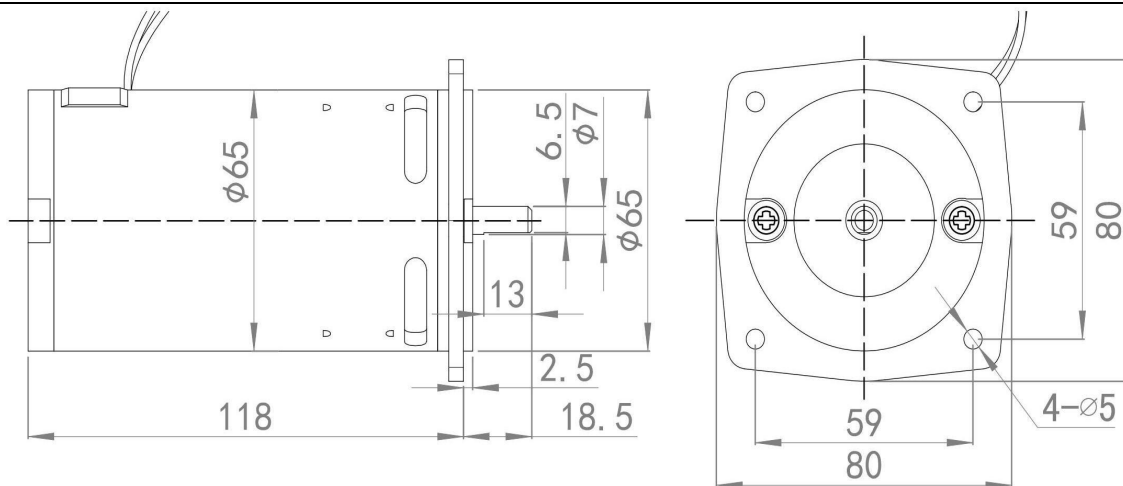
以及出轴、安装端盖、引出线、耐高温等级、风叶等。

And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Body Length
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-65AC110-55S	110	11000	0.1	80	5500	0.14	0.73	0.28	1.45	118
BG-65AC110-100S	110	20000	0.1	160	10000	0.15	1.45	0.31	2.91	118
BG-65AC220-55S	220	10000	0.1	80	5500	0.14	0.36	0.28	0.73	118
BG-65AC220-100S	220	19000	0.1	160	10000	0.15	0.73	0.31	1.45	118

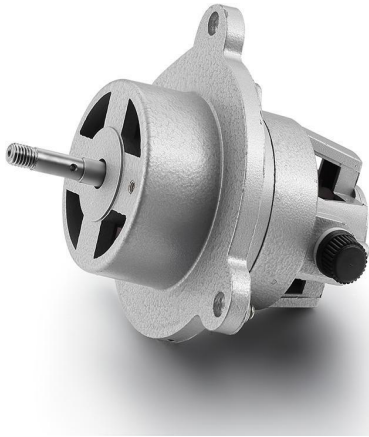
外形图 / Mechanical Dimensions





单相串励电机 70 AC系列

AC Universal Motor 70 Series



使用环境: -20℃~50℃

Environmental Condition: -20℃~50℃

绝缘等级: B-F

Insulation Class: B-F

轴承类型: 高质量滚珠轴承

Bearing Type: High Quality Ball Bearing

铁芯厚度: 25-50mm

Core Thickness: 25-50mm

功率范围: 25-75W

Power Range: 25-75W

转速范围: 4000-10000rpm

Rotational Speed Range: 4000-10000rpm

定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。

Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.

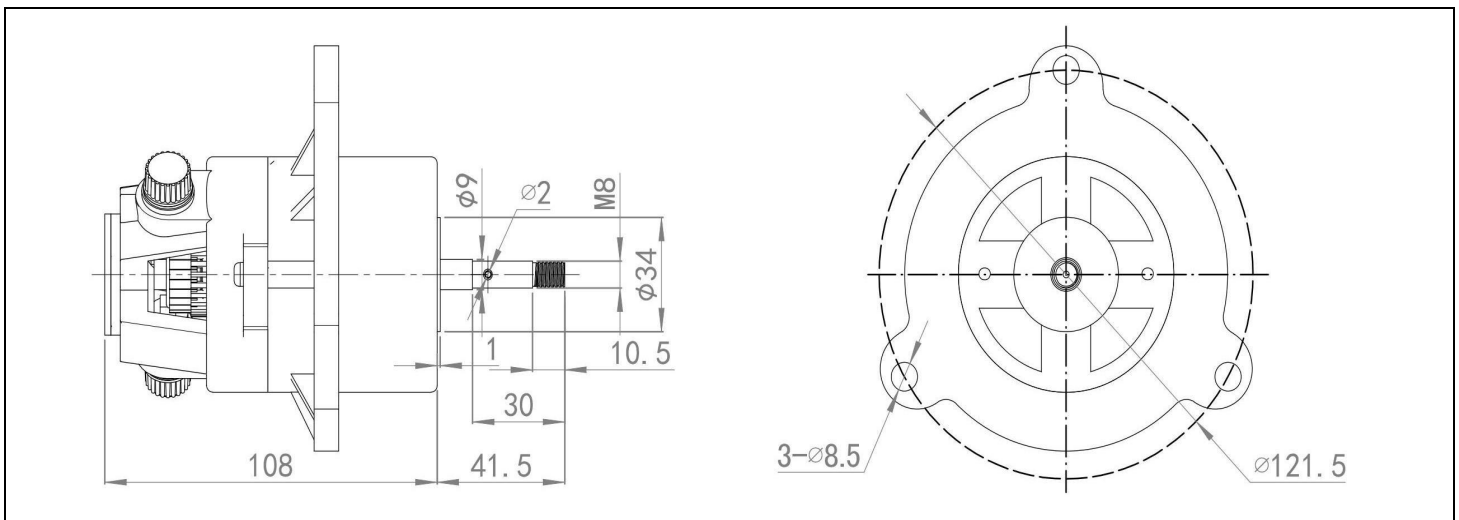
以及出轴、安装端盖、引出线、耐高温等级、风叶等。

And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Body Length
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-70AC120-40S	120	9500	0.10	25	4000	0.06	0.21	0.12	0.42	108
BG-70AC220-60S	220	11500	0.1	35	6000	0.06	0.16	0.11	0.32	108
BG-70AC110-80S	110	16000	0.10	50	8000	0.06	0.45	0.12	0.91	108
BG-70AC220-100S	220	20000	0.1	75	10000	0.07	0.34	0.14	0.68	108

外形图 / Mechanical Dimensions





单相串励电机 74 AC系列 AC Universal Motor 74 Series



使用环境: -20℃~50℃

Environmental Condition: -20℃~50℃

绝缘等级: B-F

Insulation Class: B-F

轴承类型: 高质量含油轴承

Bearing Type: High Quality Oil Bearing

铁芯厚度: 20-40mm

Core Thickness: 20-40mm

功率范围: 180W

Power Range: 180W

转速范围: 4500-10000rpm

Rotational Speed Range: 4500-10000rpm

定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。

Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.

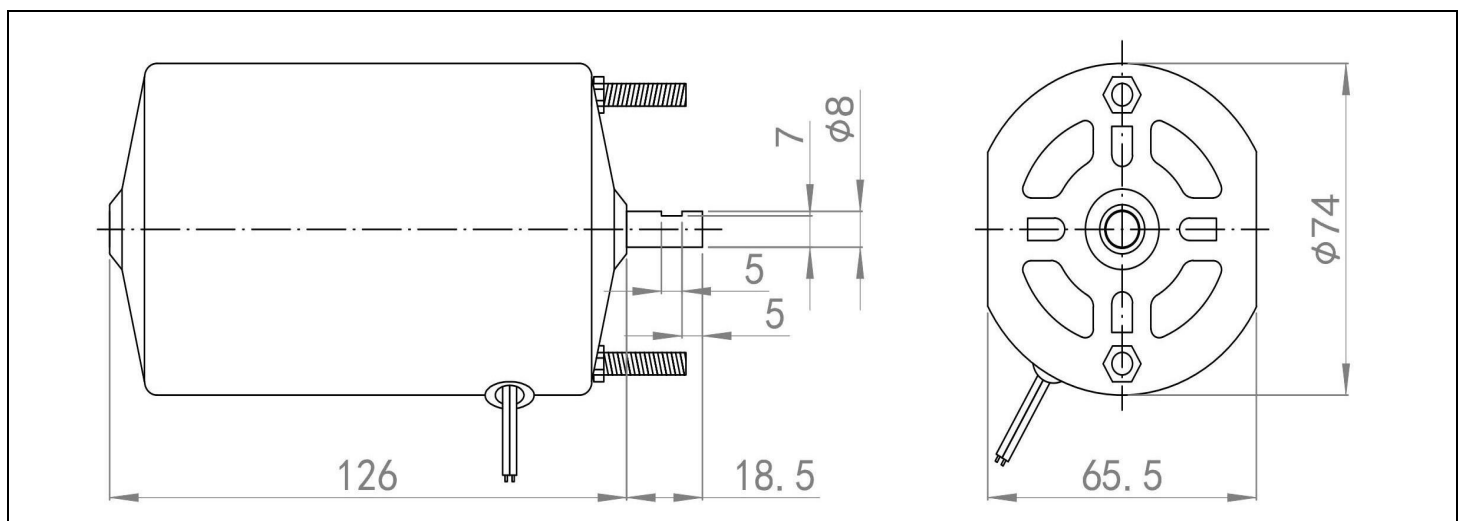
以及出轴、安装端盖、引出线、耐高温等级、风叶等。

And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Body Length
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-74AC110-100S	110	18000	0.2	180	10000	0.17	1.64	0.34	3.27	126
BG-74AC220-100S	220	18000	0.1	180	10000	0.17	0.82	0.34	1.64	126

外形图 / Mechanical Dimensions





单相串励电机 76 AC系列

AC Universal Motor 76 Series



使用环境: -20°C~50°C

Environmental Condition: -20°C~50°C

绝缘等级: B-F

Insulation Class: B-F

轴承类型: 高质量滚珠轴承

Bearing Type: High Quality Ball Bearing

铁芯厚度: 20-45mm

Core Thickness: 20-45mm

功率范围: 100-500W

Power Range: 100-500W

转速范围: 6000-20000rpm

Rotational Speed Range: 6000-20000rpm

定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。

Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.

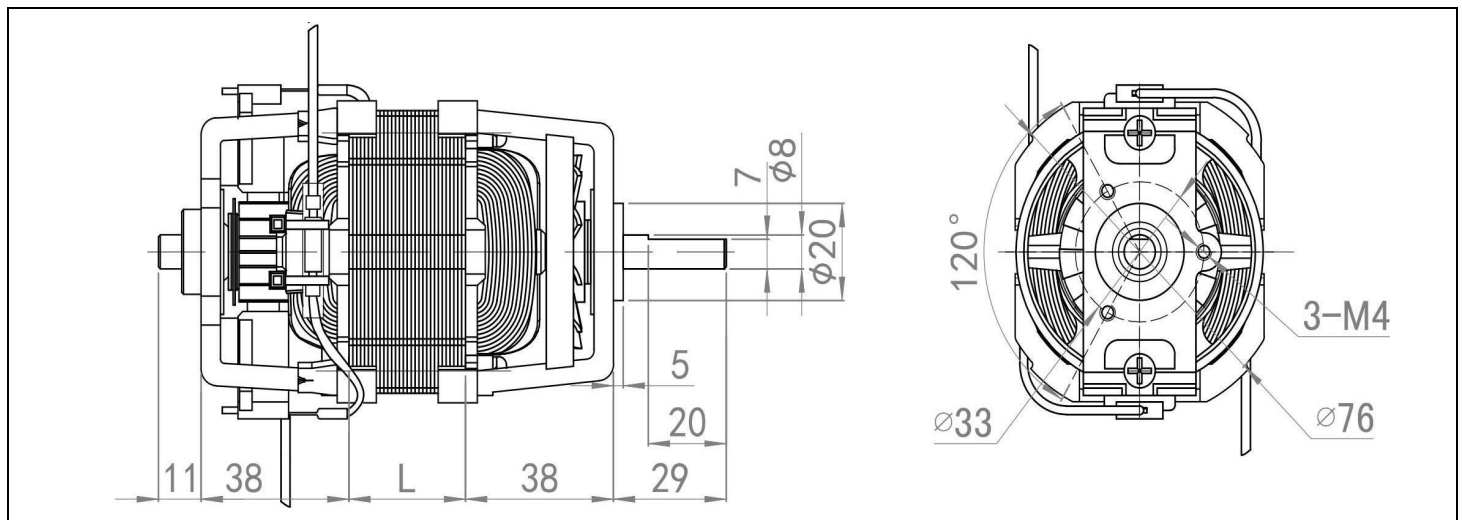
以及出轴、安装端盖、引出线、耐高温等级、风叶等。

And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-7620AC230-73S	230	17500	0.10	120	7350	0.16	0.52	0.31	1.04	20
BG-7625AC220-95S	220	19000	0.1	141	9500	0.14	0.64	0.28	1.28	25
BG-7635AC110-110S	110	21500	0.34	312	11000	0.27	2.84	0.54	5.67	35
BG-7640AC220-120S	220	25000	0.28	457	12000	0.36	2.08	0.73	4.15	40

外形图 / Mechanical Dimensions





单相串励电机 76 AC系列

AC Universal Motor 76 Series



使用环境: -20℃~50℃
Environmental Condition: -20℃~50℃
绝缘等级: B-F
Insulation Class: B-F
轴承类型: 高质量滚珠轴承
Bearing Type: High Quality Ball Bearing
铁芯厚度: 20-45mm
Core Thickness: 20-45mm
功率范围: 100-500W
Power Range: 100-500W
转速范围: 6000-20000rpm
Rotational Speed Range: 6000-20000rpm

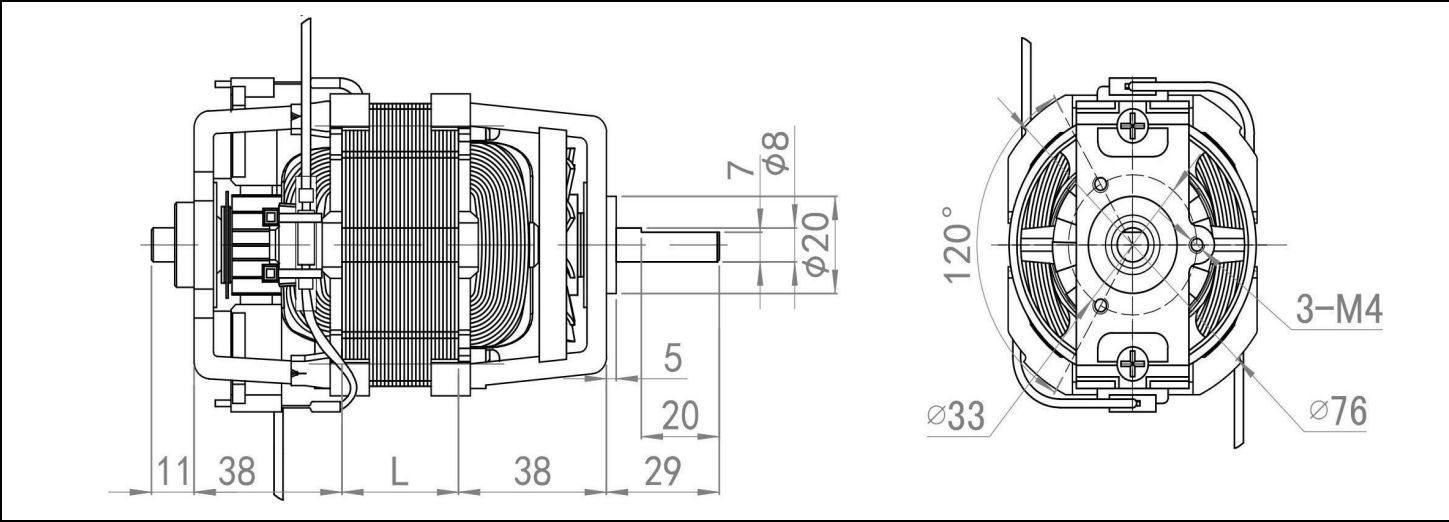
定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。
Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.
以及出轴、安装端盖、引出线、耐高温等级、风叶等。
And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-7620AC230-73S	230	17500	0.10	120	7350	0.16	0.52	0.31	1.04	20
BG-7625AC220-95S	220	19000	0.1	141	9500	0.14	0.64	0.28	1.28	25
BG-7635AC110-110S	110	21500	0.34	312	11000	0.27	2.84	0.54	5.67	35
BG-7640AC220-120S	220	25000	0.28	457	12000	0.36	2.08	0.73	4.15	40

外形图 / Mechanical Dimensions





单相串励电机 88 AC系列

AC Universal Motor 88 Series



使用环境：-20℃~50℃
Environmental Condition: -20℃~50℃
绝缘等级：B-F
Insulation Class: B-F
轴承类型：高质量含油轴承
Bearing Type: High Quality Oil Bearing
铁芯厚度：20-45mm
Core Thickness: 20-45mm
功率范围：200-800W
Power Range: 200-800W
转速范围：6000-20000rpm
Rotational Speed Range: 6000-20000rpm

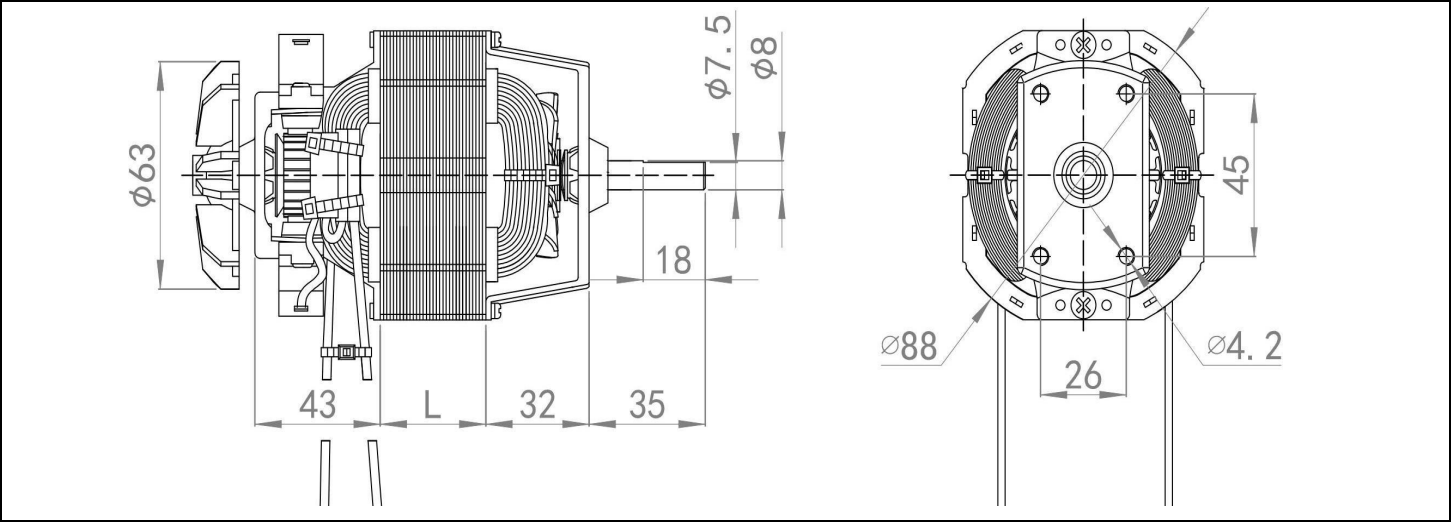
定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。
Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.
以及出轴、安装端盖、引出线、耐高温等级、风叶等。
And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-8820AC110-105S	110	17000	0.30	246	10500	0.22	2.24	0.45	4.47	20
BG-8825AC120-110S	120	19000	0.33	279	11000	0.24	2.33	0.48	4.65	25
BG-8835AC220-100S	220	17500	0.33	504	10000	0.48	2.29	0.96	4.58	35
BG-8840AC230-91S	230	16000	0.42	675	9100	0.71	2.93	1.42	5.87	40

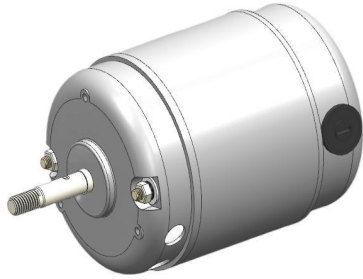
外形图 / Mechanical Dimensions





单相串励电机 91 AC系列

AC Universal Motor 91 Series



使用环境：-20℃~50℃

Environmental Condition: -20℃~50℃

绝缘等级：B-F

Insulation Class: B-F

轴承类型：高质量滚珠轴承

Bearing Type: High Quality Ball Bearing

铁芯厚度：25-50mm

Core Thickness: 25-50mm

功率范围：80-180W

Power Range: 80-180W

转速范围：4000-10000rpm

Rotational Speed Range: 4000-10000rpm

定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。

Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.

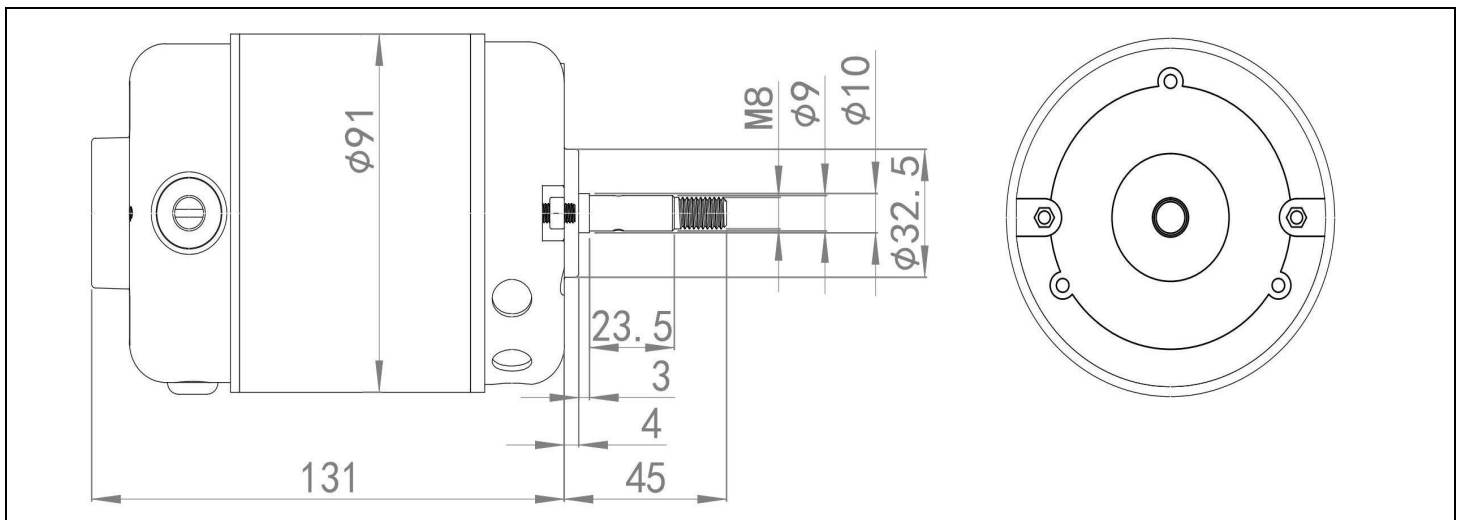
以及出轴、安装端盖、引出线、耐高温等级、风叶等。

And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Body Length
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-91AC220-40S	220	9500	0.1	80	4000	0.19	0.36	0.38	0.73	131
BG-91AC120-60S	120	11500	0.1	110	6000	0.18	0.92	0.35	1.83	131
BG-91AC110-80S	110	16000	0.15	130	8000	0.16	1.18	0.31	2.36	131
BG-91AC230-100S	230	20000	0.1	180	10000	0.17	0.78	0.34	1.57	131

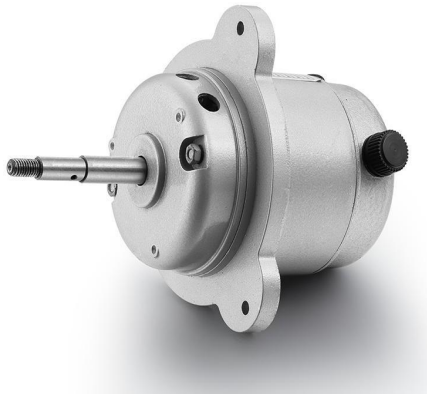
外形图 / Mechanical Dimensions





单相串励电机 92 AC系列

AC Universal Motor 92 Series



使用环境：-20℃~50℃
Environmental Condition: -20℃~50℃
绝缘等级：B-F
Insulation Class: B-F
轴承类型：高质量滚珠轴承
Bearing Type: High Quality Ball Bearing
铁芯厚度：25-50mm
Core Thickness: 25-50mm
功率范围：40-120W
Power Range: 40-120W
转速范围：4000-10000rpm
Rotational Speed Range: 4000-10000rpm

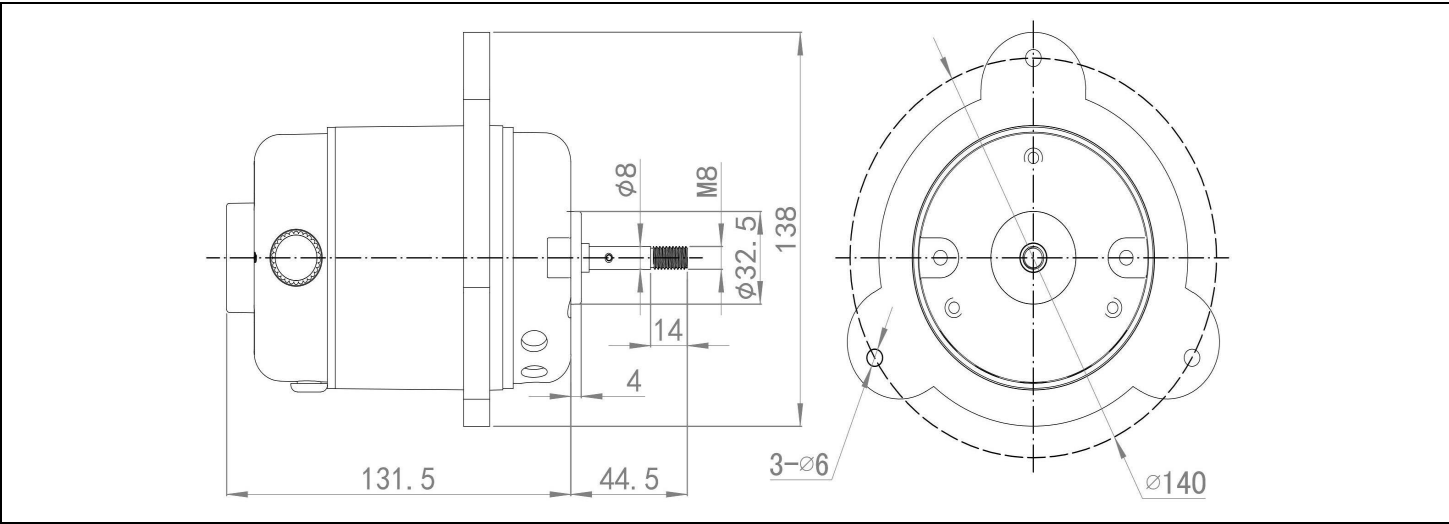
定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。
Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.
以及出轴、安装端盖、引出线、耐高温等级、风叶等。
And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

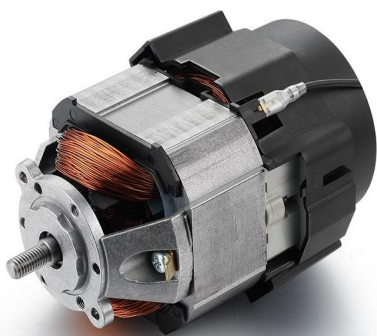
电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Body Length
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-92AC110-40S	110	9500	0.1	40	4000	0.10	0.36	0.19	0.73	131.5
BG-92AC220-60S	220	11500	0.1	65	6000	0.10	0.30	0.21	0.59	131.5
BG-92AC120-80S	120	16000	0.1	83	8000	0.10	0.69	0.20	1.38	131.5
BG-92AC220-100S	220	20000	0.1	115	10000	0.11	0.52	0.22	1.05	131.5

外形图 / Mechanical Dimensions



单相串励电机 93 AC系列
AC Universal Motor 93 Series



使用环境: -20℃~50℃

Environmental Condition: -20°C~50°C

绝缘等级： B-F

Insulation Class: B-F

轴承类型： 高质量滚珠轴承

Bearing Type: High Quality Ball Bearing

铁芯厚度：25-50mm

Core Thickness: 25-50mm

功率范围：300-1200W

Power Range: 300-1200W

转速范围：9000-20000rpm

Rotational Speed Range: 9000-20000rpm

定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。

Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.

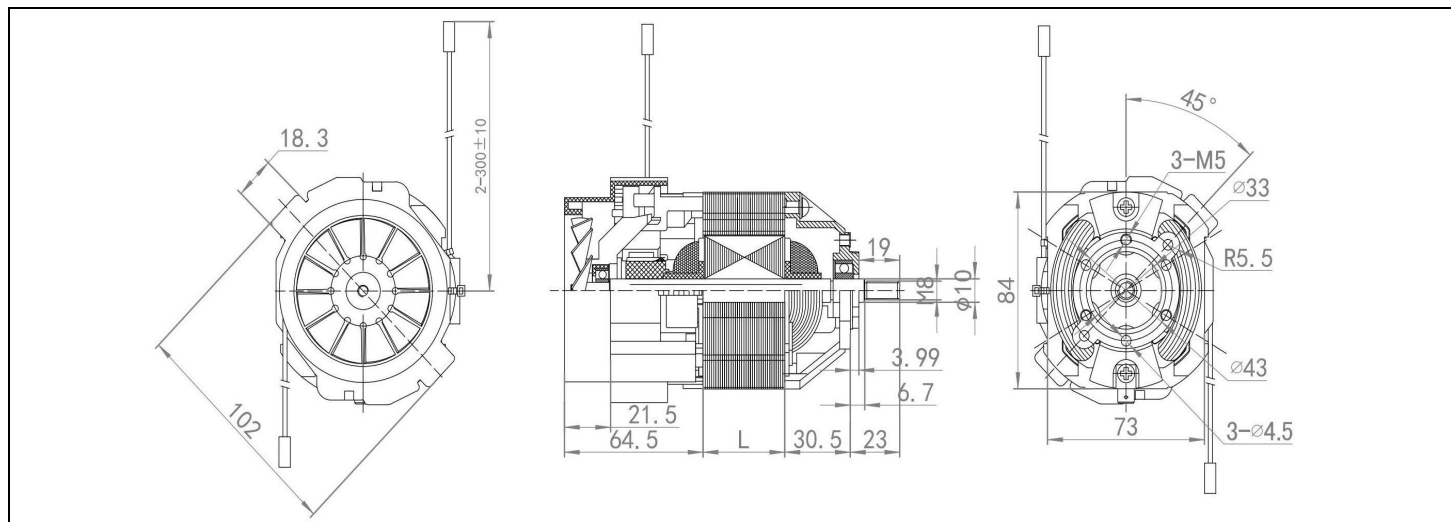
以及出轴、安装端盖、引出线、耐高温等级、风叶等。

And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-9325AC220-93S	220	16500	0.88	375	9370	0.38	1.70	0.76	3.41	25
BG-9335AC220-104S	220	17800	0.33	570	10400	0.52	2.59	1.05	5.18	35
BG-9340AC220-135S	220	22600	0.68	840	13500	0.59	3.82	1.19	7.64	40
BG-9350AC220-157S	220	25000	0.7	1200	15700	0.73	5.45	1.46	10.91	50

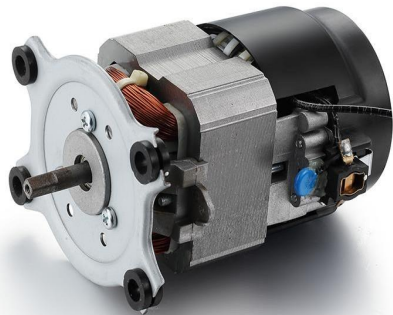
外形图 / Mechanical Dimensions





单相串励电机 95 AC系列

AC Universal Motor 95 Series



使用环境：-20℃~50℃
Environmental Condition: -20℃~50℃
绝缘等级：B-F
Insulation Class: B-F
轴承类型：高质量滚珠轴承
Bearing Type: High Quality Ball Bearing
铁芯厚度：25-50mm
Core Thickness: 25-50mm
功率范围：500-1500W
Power Range: 500-1500W
转速范围：9000-20000rpm
Rotational Speed Range: 9000-20000rpm

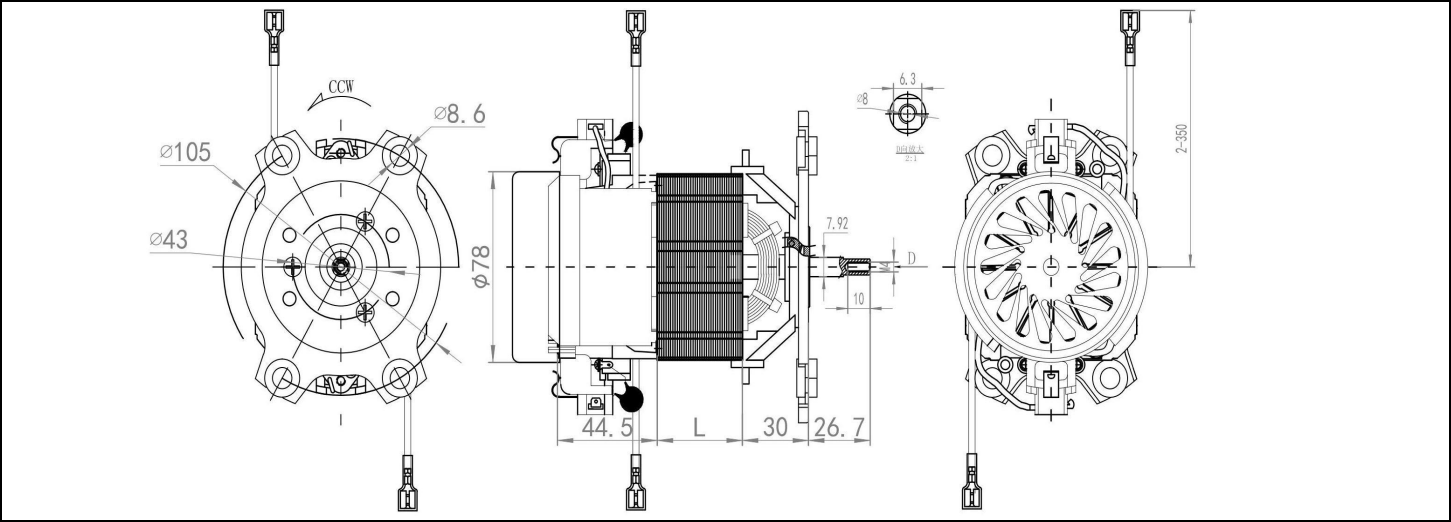
定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。
Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.
以及出轴、安装端盖、引出线、耐高温等级、风叶等。
And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-9525AC220-93S	220	16500	0.88	548	9370	0.56	2.49	1.12	4.98	25
BG-9535AC220-104S	220	17800	0.33	798	10400	0.73	3.63	1.47	7.25	35
BG-9540AC220-135S	220	22600	0.68	993	13500	0.70	4.51	1.40	9.03	40
BG-9550AC220-157S	220	25000	0.7	1500	15700	0.91	6.82	1.82	13.64	50

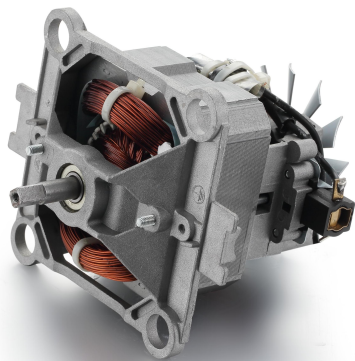
外形图 / Mechanical Dimensions





单相串励电机 95 AC系列

AC Universal Motor 95 Series



使用环境：-20℃~50℃
Environmental Condition: -20℃~50℃
绝缘等级：B-F
Insulation Class: B-F
轴承类型：高质量滚珠轴承
Bearing Type: High Quality Ball Bearing
铁芯厚度：25-50mm
Core Thickness: 25-50mm
功率范围：500-1500W
Power Range: 500-1500W
转速范围：9000-20000rpm
Rotational Speed Range: 9000-20000rpm

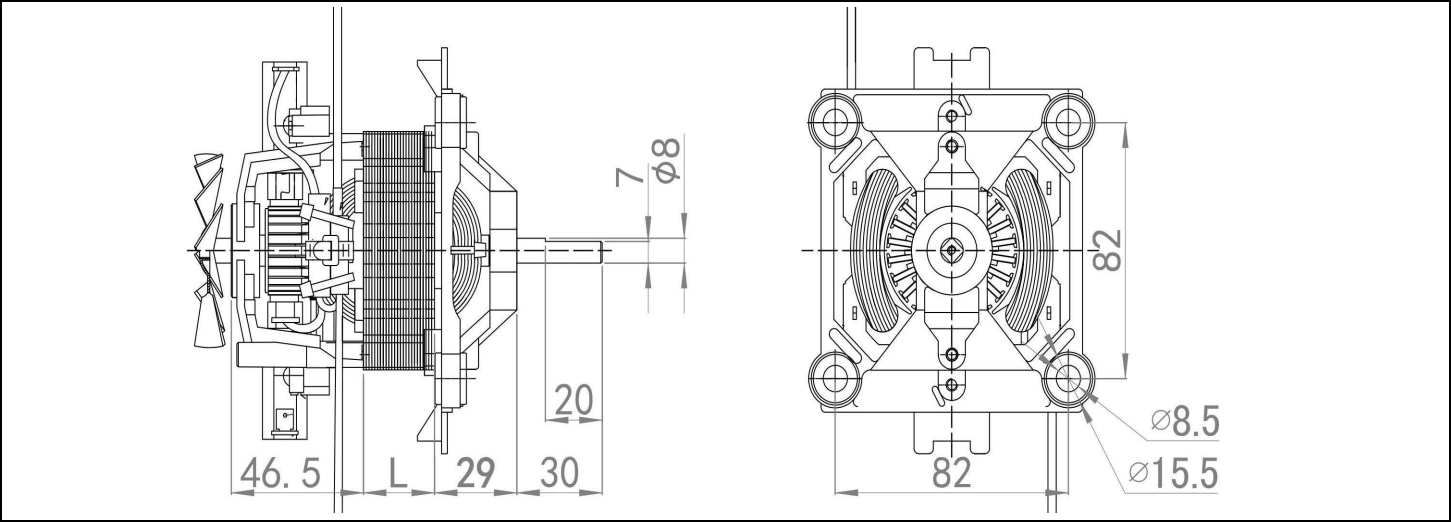
定制 / Customizable solutions

可提供定制电压、性能、电路、热保护器、EMC等。
Can provide custom voltage, electrical performance, circuit, thermal protector, EMC, etc.
以及出轴、安装端盖、引出线、耐高温等级、风叶等。
And shaft, installation end cover, lead wire, high temperature grade, Blade, etc.

电机技术参数 / Motor Technical Data

Model	Voltage	No-load		Rated Load				Stall		Core Thickness
		Speed	Current	Power	Speed	Torque	Current	Torque	Current	
	V	rpm	A	W	rpm	N.m	A	N.m	A	L:mm
BG-9525AC220-93S	220	16500	0.88	548	9370	0.56	2.49	1.12	4.98	25
BG-9535AC220-104S	220	17800	0.33	798	10400	0.73	3.63	1.47	7.25	35
BG-9540AC220-135S	220	22600	0.68	993	13500	0.70	4.51	1.40	9.03	40
BG-9550AC220-157S	220	25000	0.7	1500	15700	0.91	6.82	1.82	13.64	50

外形图 / Mechanical Dimensions





电机的选型方法 (Motor Selection Method)

- 最佳选择需要考虑到电源、控制、运转条件等因素来选择单相串励电机、有刷电机或是无刷电机。如果希望由敝公司代
为选择的话，请确认好下述各项条件。

Power supply, control option, operational environment, etc are factors need to be considered when select the optimal motor solution, including universal motor, dc brushed motor and dc brushless motor. The following information need to be provided if clients require our company to suggest motor solution.

- 电源的条件：使用电压范围、整流电源或者电池、电流限制有无。

Power Supply: Range of voltage, rectified power supply or battery, any limitation of current flow.

- 是否需要编码器、减速机、刹车等配件？

Do you need encoder, gearbox, brake and other accessories?

- 运转情况：连续、间歇、正逆、驱动时间、加锁、短路制动。

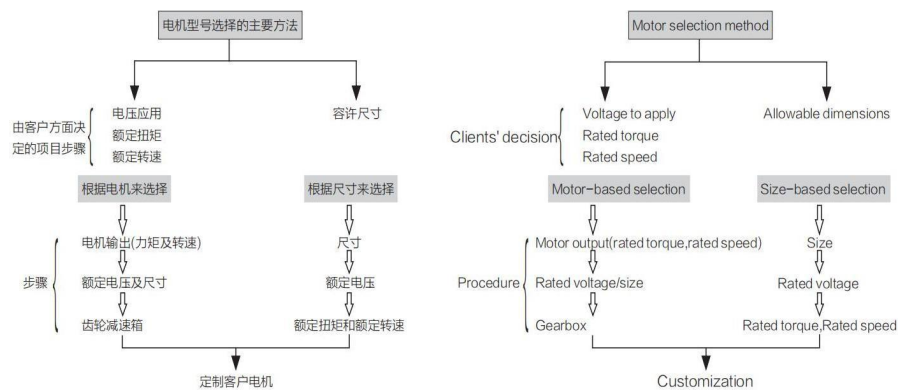
Operation Condition: Continuous, intermittent, clockwise or counter clockwise, working time, locking and short-circuit braking.

- 环境状态：温度、湿度等。

The state of the environment : The State of Environment.

- 包括齿轮箱、编码器、刹车在内的尺寸限制。

Size limits including gearbox, encoder, and brake.



直流电机技术参数说明 (DC Motor technical parameter description)

1、技术用语 (Technical words)

用 语		符 号	单 位	用 语		符 号	单 位
电压	Voltage	U	V	输入功率	Input power	P	W
电流	Current	I	A	输出功率	Output power	P	W
无负荷电流	No-load current	IO	A	最高输出功率	Maximum output power	Pmax	W
停动电流	Stall current	Is	A	效率	Efficiency	η	%
转数	Speed	N	r/m,rpm	最高效率	Maximum efficiency	ηmax	%
无负荷转数	No-load speed	NO	r/m,rpm	转矩	Torque	T	mN.m、 N.m
电阻	Resistance	R	Ω	停动转矩	Stall torque	Ts	mN.m、 N.m



2、空载电流 (No load current)--I₀

电机在额定电压下，空载达到稳定状态时所消耗的电流，此参数受温度影响。

The current consumed after stable under the rated voltage when there is no loaded. This parameter will be affected by different temperatures.

3、空载转速 (No load speed)--N₀

电机在额定电压下，空载达到稳定状态时获得的最高转速。

The highest speed obtained after stable under the rated voltage.

4、堵转力矩 (Stall torque)--T_s

电机在额定电压下，转速为零时输出的力矩。

Stall Torque is the torque produced by the motor whose output rotation speed is zero under the rated voltage.

$$T_s = K_t \times \left(\frac{U}{R} - I_0 \right)$$

5、起动电流 (Stall current)--I_s

在额定电压下，起动时和加锁时流过的最大电流。

Stall current is the current that the motor draws when its shaft is prevented from moving.

$$\text{起动电流 } I_s = \frac{\text{额定电压(Rated voltage)}}{\text{端子间电阻(Terminal resistance)}}$$

6、最大输出功率 (Maximum output power)--P_{max}

电机在额定电压下，能输出的最大机械功率。

The maximum output power of the motor at the rated voltage.

7、最大输出效率 (Maximum output efficiency)--η_{max}

电机输出的机械功率与消耗的电功率的最高比率。

The maximum ratio of output power of the motor to the consumption of electrical power.

8、电动势常数 (Back - EMF constant)--K_E (mV/rpm)

此常数反映了转子的感应电压和旋转速度之间的关系。

The constant corresponding to the relationship between the induced voltage in the rotor and the speed of rotation.

$$K_E = \frac{2\pi \cdot K_t}{60}$$

9、转矩常数 (Torque constant)--K_t (g.cm/A)

此常数反映了电机产生的转矩和电流消耗之间的关系。

The constant corresponding to the relationship between the torque developed by the motor and the current drawn.

10、速度常数 (Speed constant)--K_n (rpm/V)

当电机负载恒定时，加在电机上每伏电压引起的速度变化。

The speed variation per volt applied to the motor terminals at the constant load.

$$K_n = \frac{1000}{K_E}$$



11、机械时间常数 (Mechanical time constant)-- t_m (ms)

电机从静止状态加速到最终空载转速的63%所需要的时间。

The time required for the motor to reach a speed of 63% of its final no load speed, from standstill.

$$t_m = \frac{R \cdot J \cdot 100}{K_t^2}, \text{ 其中 } R: \text{静态电阻(Static resistance)}, J: \text{转子惯量(Rotor inertia)}$$

国际单位换算表 (International unit conversion table)

单位/unit	英制 / US			公制 / GB			国际标准制 / SI		
	ozf.in	lbf.in	lbf.ft	gf.cm	kgf.cm	kgf.m	mN.m	N.cm	N.m
1ozf.in	1	0.0625	0.005	72	0.072	0.0007	7.062	0.706	0.007
1lbf.in	16	1	0.083	1152.1	1.152	0.0115	113	11.3	0.113
1lbf.ft	192	12	1	13826	13.83	0.138	1356	135.6	1.356
1gf.cm	0.014	0.0009	0.00007	1	0.001	0.00001	0.098	0.01	0.0001
1kgf.cm	13.89	0.868	0.072	1000	1	0.01	98.07	9.807	0.098
1kgf.m	1389	86.8	7.233	100000	100	1	9807	980.7	9.807
1mN.m	0.142	0.009	0.0007	10.2	0.01	0.0001	1	0.1	0.001
1N.cm	1.416	0.088	0.007	102	0.102	0.001	10	1	0.01
1N.m	141.6	8.851	0.783	10197	10.2	0.102	1000	100	1

电机温升 (Motor temperature rises)

电机通流后产生电流热效应，随着时间的推移，电机表面的温度不断地上升直至稳定。稳定的条件是在3个小时内前后温差不超过2°C，此时测得电机表面的温度为此电机的最终温度。温度的单位为度(°C)。上升的温度中超过周围空气的温度(环境温度)的这一部分温度称为温升，温升的单位为开氏(K)。温升就是电机温度比周围环境温度高出的数值。

The motor will heat up when it is powered on. The temperature of the motor's surface will continue to rise until it is stable. Within 3 hours after the temperature is stable, the temperature is allowed to change within 2 degrees Celsius. The part at which temperature rises above the ambient air temperature (ambient temperature) is called the temperature rises. The unit of temperature rises is kelvin (K). The temperature rise is the value that higher than the ambient temperature.

额定温升：是指在设计规定的环境温度(40°C)下，电动机绕组的最高允许温升，它取决于绕组的绝缘等级。

Rated temperature rises: refers to when the environmental temperature is under 40°C, the maximum allowable temperature rise of the motor winding. It depends on the winding insulation grade.

● 计算公式 (Calculation formula): $\theta = T_2 - T_1$

θ ——温升 (Temperature rises)

T_1 ——实际冷却状态下的绕组温度 (即环境温度, 室温不允许超过40°C)

Winding temperature in actual cooling condition (that is ambient temperature, room temperature not exceeding 40°C)

T_2 ——发热状态下绕组温度 (Winding temperature in heating condition)



绝缘等级 (Insulation class)

电动机的绝缘等级是指其所用绝缘材料的耐热等级 分A、E、B、F、H、C、N、R级，一般电机绝缘等级多采用B、F、H级。

Insulation class of motor refers to the heating resistance class of insulation material including A, E, B, F, H, C, N, R. Insulation class of motor is using B, F, H mostly.

温度等级 Temperature class	A 级 Class A	E 级 Class E	B 级 Class B	F 级 Class F	H 级 Class H	C 级 Class C	N 级 Class N	R 级 Class R
最高允许温度 Max allowable temperature	105℃	120℃	130℃	155℃	180℃	200℃	220℃	240℃
绕线温升限值 Winding temperature rise limit	60K	75K	80K	105K	125K	135K	150K	170K
性能参考温度 Performance reference	80℃	95℃	100℃	120℃	145℃	155℃	170℃	190℃

电磁噪声的对策 (EMC)

在有刷电机转动的时候，由于整流器的切换会发生闪火花电流，这种闪火花可能会成为电子噪音，对控制电路造成不良影响。可以通过在电机盒上连接电容器来降低噪音。

When a DC brush motor rotates, spark current occurs due to switching of the commutator. This spark may become electric noise and effect the control circuit. Such noise can be reduced by connecting a capacitor to the DC motor.

为了降低电气异音，可在马达端子部位安装电容器和扼流圈。一般可有效消除火花电压的方法是在接近发生源的回转子部位进行安装，而这种方法的成本绩效也较高。

In order to reduce electrical noise, capacitor and choke can be installed at the terminal parts of the motor. The way to effectively eliminate the spark is to install it on the rotor that near the source, which is very costly.

1、可在马达内部安装消除异音的元件，如安装环形变阻器 (D/V)、环形电容器、橡胶环形电阻 (RRR)、晶片电容器的方法。⇒高频率范围的异音有效果

Eliminating electrical noise inside the motor by installing Varistor (D/V), annular capacitor, rubber ring resistance (RRR) and chip capacitor that reduces the noise under high frequency.

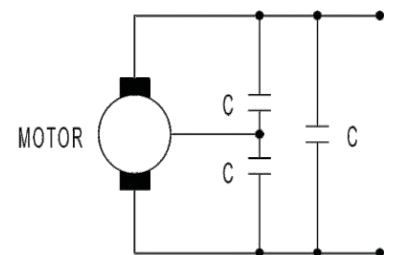
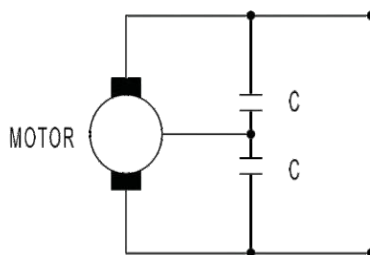
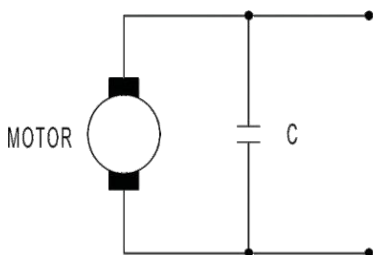
2、可在马达外部安装消除异音的元件，如外接电容器（电解类型、陶瓷类型）、扼流圈。⇒对低频率范围的异音有效果。

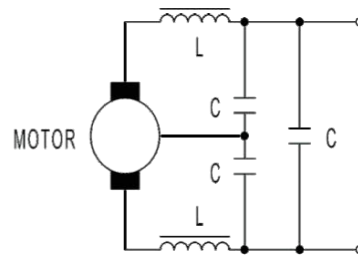
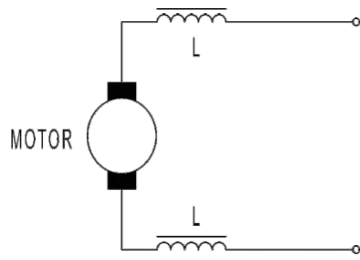
Eliminating electrical noise outside the motor by installing components like capacitor (electrolytic type, ceramic type) and choke that reduces noise under low frequency

作为降低异音的对策方法，有1或2单独使用的，以及1与2并用的方法，1与2并用时的效果较大。

Method 1 and 2 could be used separately. The combination of these two methods will be the best noise reduction solution.

配合图示说明 (Illustration):





备注 (remark) : C=Capacitance,为电容; L=Inductance,为电感。