Change in holding power by clearance

KE-2HA to -5HA on plate thickness of 9 mm and KE-6HA to -8HA on plate thickness of 16 mm.

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MAGNETIC TOOLS



#### [Features]

- Permanent magnetic holder for long time attraction without trouble of dropping due to power failure. It is turned ON/OFF with electric control.
- ■Magnetic force turns OFF(releases)by power supply control and it is turned ON at all other times.
- The interruptible power supply is not required.

#### How to Use

Power source is 24 VDC. When using 4 holders at the same time, connect their wires in series and use them with power of 96 VDC

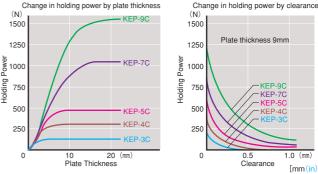
In this case, a voltage variable rectifier (e.g. KR-T205) enables adjustment of the demagnetizing voltage (power on amount at OFF) to facilitate operation.

### Release Only at Power Supply

The power-on time must be 5 seconds or less. The power-off time must be 10 times or long,er.

## Residual Magnetism

As an inevitable nature of the permanent electromagnetic holder, 3 % to 4 % of the holding power will remain as residual holding power even when it is released. If the weight of the lifted workpiece is lighter that this holding power, it may not be released. In such a case, the workpiece can be released easily by attaching a thin nonmagnetic film on the attractive face. But, the holding power will drop in squared proportion.



Model	Dimensions						Max. Holding		Current	Operating	Applicable	Mass
	φD	Н	P	A	В	C	Power			Factor	Rectifier	
KEP-3C	30		10		M6 (0.23) Depth 10 (0.39)	φ 4 (0.15) Depth 3 (0.11)	150N	- 24 VDC	0.45A	1070 28	KR-T103A-24 KR-T101A-6/24	0.17kg/
KEP-3C	(1.18)	40	(0.39)	22			( 15kgf)					0.37 lb
KEP-4C	40	(1.57)	15	(0.86)			250N		0.54A			0.31kg/
KEP-4C	(1.57)		(0.59)				( 25kgf)					0.68 lb
KEP-5C	50	50	18	25	M8(0.31)	φ5(0.19)	340N		0.58A			0.6 kg/
KEP-5C	(1.96)	(1.96)	(0.70)	(0.98)	Depth 13 (0.51)	Depth 4 (0.15)	( 35kgf)					1.32 lb
KEP-7C	70				M10 (0.30)	+6(0.00)	880N	24 VDC	0.50A		Kn-1101A-0/24	1.5 kg/
KEP-/C	(2.75)	60	20	35	M10 (0.39) Depth 16	φ6 (0.23) Depth 6	( 90kgf)		0.50A			3.30 lb
KEP-9C	90	(2.36)	(0.78)	(1.37)	(0.62)	(0.23)	1470N		0.45A		P73	2.4 kg/
KEP-9C	(3.54)				(0.62)	(0.23)	(150kgf)		0.45A			5.29 lb
KED KE	50(1.96)×50(1.96)×50(1.96)				M8D (0.31) epth13 (0.51)	_	250N		0.43A	50% ED		0.75kg/
KEP-K5							( 25kgf)					1.65 lb

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1500

1250 1000

750

25

\*The maximum holding power applies to SS400, 20-mm thick, ground-finished test piece held on the whole area.

# Model KE-H HYBRID HOLDER



Precautions for use

Rust and scratches on the attractive face affect the holding power adversely. Repair it periodically.

Applicable to systems requiring high speed for robot hands and repeated transport operations in an automated line.

## [Features]

- ■Very little residual holding power permits the speedy release of the workpiece. This enables high-speed operation, for example, an attaching / detaching cycle of 5 to 6 cycle/sec for a lightweight
- •Because it is a permanent electromagnetic type, the holder consumes little power and generates little heat, and thus is suitable for continuous,long period operation.
- The holding power is switchable to high, low and off according to normal supply, shutoff and reverse supply of power, respectively. This enables a wide variety of uses. (When at "low," the holding power is about 1/3 of that at "high.")
- ●Powerful rare earth magnet offers high holding power in spite of the small size of the holder.

Lmm(in									
	Model	Dimensions	Max. Holding Power	Tappad Hole	Voltage	Current	Operating Factor	Applicable Rectifier	Mass
	KE-2HA	$^{\phi20(0.78)\times}_{25(0.98)}$	50N ( 5kgf)	M4(0.15) ×0.7(0.02) Depth 6(0.23)	24 VDC	0.07A	- 100% ED	KR-H1005 KR-H1015 RH-H102B	60g/ 0.13 lb
	КЕ-ЗНА	$\phi$ 30 (1.18) $\times$ 40 (1.57)	200N ( 20kgf)	M6 (0.23) ×1.0 (0.03)		0.11A			140g/ 0.31 lb
	KE-4HA	φ40(1.57) × 40(1.57)	400N ( 40kgf)	Depth 6 (0.23)		0.15A			280g/ 0.61 lb
Ī	KE-5HA	φ50 (1.96) × 50 (1.96)	700N ( 70kgf)	M8(0.31) ×1.25(0.04)		0.2 A			530g/ 1.17 lb
Ī	KE-6HA	φ60 (2.36) × 60 (2.36)	1000N (100kgf)	Depth 10 (0.39)		0.22A			960g/ 2.11 lb
	KE-8HA	φ80(3.15) × 60(2.36)	1800N (180kgf)	M10 (0.39) ×1.5 (0.05) Depth 10 (0.39)		0.28A			1.6kg/ 3.52 lb

\*For continuous high speed operations, a non-contact rectifier (RH-H102A) needs to be used \*\*HA type: Cord length 0.3 m (0.2 m for KE-2HA only)

\*The maximum holding power applies to SS400, ground test piece held on the whole area. Test piece thickness 10 mm for KE-2HA~4HA and 20 mm for KE-5HA~8HA