

NEW

Togami

DC Operational

Magnetic Contactors/Starters

PAK-K Series



Togami Electric Mfg.Co.,Ltd.



Catalog No. C0292e

Technical Data

Series				K Series								
Type Name	Magnetic Contactor	Non Reversing		PAK-12KDC	PAK-12KDC31	PAK-20KDC	PAK-20KDC31	PAK-21KDC	PAK-21KDC20	PAK-21KDC02	PAK-32KDC	
		Reversing		-	-	RSK-20KDC	-	-	RSK-21KDC20	-	RSK-32KDC	
	Magnetic Starter (with 1E, 2 Heaters Thermal Overload Relay)	Non Reversing		PAK-12KDCT	PAK-12KDCT31	PAK-20KDCT	PAK-20KDCT31	PAK-21KDCT	PAK-21KDCT20	PAK-21KDCT02	PAK-32KDCT	
		Reversing		-	-	RSK-20KDCT	-	-	RSK-21KDCT20	-	RSK-32KDCT	
		Thermal Overload Relay		TJ-18K1	TJ-18K1	TJ-18K3	TJ-18K3	TJ-18K3	TJ-18K3	TJ-18K3	TJ-18K3	
	Magnetic Starter (with 2E, 3 Heaters Thermal Overload Relay)	Non Reversing		PAK-12KDCGT	PAK-12KDCGT31	PAK-20KDCGT	PAK-20KDCGT31	PAK-21KDCGT	PAK-21KDCGT20	PAK-21KDCGT02	PAK-32KDCGT	
		Reversing		-	-	RSK-20KDCGT	-	-	RSK-21KDCGT20	-	RSK-32KDCGT	
		Thermal Overload Relay		GTJ-18K1	GTJ-18K1	GTJ-18K3	GTJ-18K3	GTJ-18K3	GTJ-18K3	GTJ-18K3	GTJ-18K3	
Magnetic Starter (with 1E, 3 Heaters Thermal Overload Relay)	Non Reversing		PAK-12KDCT-3	PAK-12KDCT31-3	PAK-20KDCT-3	PAK-20KDCT31-3	PAK-21KDCT-3	PAK-21KDCT20-3	PAK-21KDCT02-3	PAK-32KDCT-3		
	Reversing		-	-	RSK-20KDCT-3	-	-	RSK-21KDCT20-3	-	RSK-32KDCT-3		
	Thermal Overload Relay		TJ-18K1-3	TJ-18K1-3	TJ-18K3-3	TJ-18K3-3	TJ-18K3-3	TJ-18K3-3	TJ-18K3-3	TJ-18K3-3		
Contact Arrangement (Note.1)		Non Reversing	Standard	1NO	1NC	1NO	1NC	1NO1NC	2NO	2NC	2NO2NC	
			Maximum Auxiliary Contact with Accessory	-	-	3NO2NC	2NO3NC	3NO3NC	4NO2NC	2NO4NC	4NO4NC	
		Reversing	Standard	-	-	2NO	-	-	4NO	-	4NO4NC	
			Maximum Auxiliary Contact with Accessory	-	-	6NO4NC	-	-	8NO4NC	-	8NO8NC	
Rating	Rated Insulation Voltage			690V								
	Rated Frequency			50/60Hz								
	Pollution Degree			3								
	Main Circuit	AC-3 : Squirrel-cage Motor (Note.2)	200-240V	JIS : 2.2kW IEC : 3kW/12A		3.7kW/20A(17A)		3.7kW/20A(17A)		7.5kW/32A(30A)		
			380-440V	5.5kW/12A		7.5kW/20A(17A)		7.5kW/20A(17A)		15kW/32A(30A)		
			500-550V	5.5kW/9A		7.5kW/17A		7.5kW/17A		11kW/20A		
		AC-3 : Single-Phase Motor (Note.2)	100-110V	0.2kW/8A		0.75kW/20A(17A)		0.75kW/20A(17A)		1.5kW/32A(30A)		
			200-240V	0.4kW/6A		1.5kW/20A(17A)		1.5kW/20A(17A)		-		
		AC-1 : Resistance, Heater (Note.2) (Electrical Life : 500,000 ops.)(Note.3)	100-240V	20A(16A)		20A(17A)		20A(17A)		32A(30A)		
			380-440V	20A(16A)		20A(17A)		20A(17A)		32A(30A)		
			200-240V	-		3.7kW/20A(17A)		3.7kW/20A(17A)		5.5kW/26A		
		AC-4 : Inching, Plugging (Note.2) (Electrical Life : 30,000 ops.)	380-440V	-		5.5kW/13A		5.5kW/13A		11kW/24A		
			500-550V	-		5.5kW/10A		5.5kW/10A		7.5kW/13A		
			Conventional Free Air Thermal Current (Ith) (Note.2)		Magnetic Contactor	20A(16A)		20A(17A)		20A(17A)		32A(30A)
				Magnetic Starter	20A		20A		20A		32A	
	Auxiliary Contact	Rated Operational Current (AC-15 : AC Coil Load)	100-110V	6A		6A		6A		6A		
			200-240V	3A		3A		3A		3A		
			380-440V	1.5A		1.5A		1.5A		1.5A		
		Rated Operational Current (DC-13 : DC Coil Load)	24V	3A		3A		3A		3A		
			48V	1.5A		1.5A		1.5A		1.5A		
			110V	0.6A		0.6A		0.6A		0.6A		
			220V	0.3A		0.3A		0.3A		0.3A		
		Conventional Free Air Thermal Current (Ith)		10A		10A		10A		10A		
		Minimum Operational Voltage / Current		DC5V 3mA		DC5V 3mA		DC5V 3mA		DC5V 3mA		
	Coil Voltage			DC12V、DC15V、DC24V、DC48V、DC100V、DC110V、DC200V、DC220V								
Performance	IEC、JEM			AC-3		AC-3		AC-3		AC-3		
	Mechanical Durability			10,000,000		5,000,000		5,000,000		5,000,000		
				1,000,000		2,000,000		2,000,000		2,000,000		
	Electrical Durability		200-240V	1,000,000		2,000,000		2,000,000		2,000,000		
Characteristic	Switching Frequency (ops./hour)		380-440V	750,000		1,000,000		1,000,000		2,000,000		
				1,800		1,800		1,800		1,800		
	Power Consumption (Note.4)			1.2W(1.7W)		2.3W(3.1W)		2.3W(3.1W)		2.2W(3.0W)		
	Dimension			Magnetic Contactor (Width×Height×Depth [mm])		43.5×54.5×49		35×82.5×99.5		43.5×75.5×99.5		60×82.5×108
DIN Rail Mounting				✓		✓		✓		✓		
Twin Contact (Auxiliary)				✓		✓		✓		✓		
Mirror Contacts				✓		✓		✓		✓		
Coil Surge Absorption Unit (Note.5)				Built-in(Varistor)		Built-in(Varistor)		Built-in(Varistor)		Built-in(Varistor)		
Accessory	Auxiliary Contact Unit	KAU-2	2NO	-		KAU-2-20		KAU-2-20		KAU-2-20		
			1NO1NC	-		KAU-2-11		KAU-2-11		KAU-2-11		
			2NC	-		KAU-2-02		KAU-2-02		KAU-2-02		
		KAU-4	4NO	-		KAU-4-40		KAU-4-40		KAU-4-40		
			3NO1NC	-		KAU-4-31		KAU-4-31		KAU-4-31		
			2NO2NC	-		KAU-4-22		KAU-4-22		KAU-4-22		
Complying with				cULus、TUV、CCC、CE								

Note.1 : In addition to auxiliary contact noted in above chart, reversing model has 2NC auxiliary contact for electrical interlock as standard.
 "Maximum Auxiliary Contact with Accessory" shows the contact arrangement when contactor combined with KAU-4-22.

Note.2 : Rated current value in parentheses shows the value when the contactor used in 55°C or more.

Note.3 : Electrical life at AC-1 of each model is as follows. 12AF:250,000 ops. 20-32AF:500,000 ops.

Note.4 : Those values shows characteristics of DC24V coil. Also, product with DC24V coil can be directly operated by 0.1A/2.4kW of output from PLC. Values in parentheses shows the characteristics of DC100V coil.

Note.5 : Diode element coil surge absorption unit is available only for PAK-12KDC.

Warranty

■Warranty Period

One(1) year after arrival on your designated location.

■Warranty Scope

If the products concerned have defects in material and workmanship under normal operating conditions within the warranty period, those shall be repaired at no charge.

Regardless of in or out of warranty period, loss of opportunity and lost earnings at the customer caused by the failures of the products, any damages caused by special situations regardless of potential foresight, secondary loss, accident compensation, damages to anything other than the products, compensation for other jobs performed by the customer, and damages caused by any reasons which Togami doesn't have responsibility, shall be outside the scope of compensation from Togami.

Disclaimer : Please note that Specification and Dimension might be changed without notification.

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