series **K90...** *ASYNCHRONOUS MOTOR*

CE

FORCED COOLING** and **502 ENCODER.
(Supports not included)

TECHNICAL CHARACTERISTICS

*Closed, self-cooled asynchronous motor with aluminium alloy cover for continuous **S1** duty in any position, turning in both directions.*

Squirrel cage rotor on a steel shaft with a seal in each extreme, turns on precision ball bearings, with maintenance-free lubrication.

- ***Construction.** For flange attachment.*
- ***Protection. IP55** (CEI 529).*
- ***Insulation.** Class **F** CEI 85 (EN 60204-1).*
- ***Voltage test.** EN 60204-1.*
- ***Performance.***
  Depending on connection, Y/Δ.
  - ***S**INGLE-PHASE. 230 V. 50 Hz. **2** and **4** poles, with a permantly connected capacitor (Ask about other specifications).*
  - ***T**RIPLE-PHASE. 230/400 V. 50 Hz. **2** and **4** poles (Ask about other specifications).*
- ***Turning direction change.***
  - *In **S**ingle-phase mode, the rotor must be stopped.*
  - *In **T**riple-phase mode, by inverting two of the phases.*
- ***Limit operating temperature.** -20 to 45°C, with overheating ΔT ≤ 70°C.*

- ***OPTIONS.***

- ***Electromagnetic brake:** The brake will operate when there is no power suply on the motor and does not require external connections or operations.*
  - *CHARACTERISTICS: Braking torque 0.35 Nm. Braking time to a full stop, less than 200 milliseconds. Power, **14 W**. - 15 VA.*
  - *NO LOAD OPERATIONS NUMBER:*
    With relay commutation. • *2 x 10^6 operations.*
    ***With static commutation**.* ***> 6 x 10^6** operations.*
  - *Independent brake connection by flexible cables 200 mm. long with an internal rectifier.*
- ***Flange attachment.** Mounting B14.*
- ***With supports.** Mounting B3.*
- ***COUPLING.***
  - ***With forced cooling,** for:*
  - *Frequency converters.*
  - ***Speed variator,** up to 20/1,only for 4 poles motors, with optoelectronic encoder 2 channels, O.C. output, 50 pulses; maximal frequency 8 KHz.*
    1/200 RESOLUTION.

→ ***VV...** information (See pages 61 and 62).*

DATOS TECNICOS - *TECHNICAL DATA a/at* 230/400 V. - 50 Hz. — Motor K90...

Ejecución *Construction*		TIPO *TYPE* K90..	Condensador *Capacitor* C µF/V	En vacio *No load speed* r.p.m.	A	cos φ	DATOS NOMINALES/*NOMINAL DATA* A 25°C según norma **CEI 34-1** *At 25°C according to **CEI 34-1** standards* r.p.m.	A	Potencia/*Power* Eléctrica *Electric* W	Mecánica *Mechanical* W	HP	PAR/*TORQUE* Nm	Al freno/*Start* Nm	Rendimiento *Efficiency* %	PESOS *WEIGHTS* Motor kg	Apoyos *Supports* kg
MONOFASICOS *SINGLE PHASE*	4 POLOS *POLES*	**K90.M4**	7/400	1490	0,25	0,85	**1355**	0,45	103	**50**	**0,07**	0,35	0,25	48	2,54	0,095
		K90.M4 F			0,32			0,52	117						2,97	
	2 POLOS *POLES*	**K90.M2**	14/400	2980	0,43	0,86	**2765**	1	230	**130**	**0,18**	0,45	0,25	56	2,70	
		K90.M2 F			0,50			1,065	244						3,13	
TRIFASICOS *TRIPLE PHASE*	4 POLOS *POLES*	**K90.T4**	-	1490	0,47	0,70	**1250**	0,83	191	**72**	**0,10**	0,55	0,8	38	2,54	
		K90.T4 F	-		0,53			0,88	205						2,97	
	2 POLOS *POLES*	**K90.T2**	-	2980	0,64	0,65	**2635**	1,54	354	**179**	**0,24**	0,65	1,1	51	2,70	
		K90.T2 F	-		0,70			1,61	368						3,13	

1 **HP**= 746 **W** - 1 **CV**= 736 **W**

K90**.. F** motor con freno electromagnético.
Potencia MECANICA en **W**= PAR NOMINAL (Nm) x r.p.m. x 0,01047 x cos φ.

Motores con refrigeración forzada. Para trabajo en condiciones adversas o con Convertidores de Frecuencia, y/o variadores a baja velocidad...

*K90**.. F** with electromagnetic brake motor.*
*MECHANICAL power (**W**)= NOMINAL TORQUE (Nm) x r.p.m. x 0,01047 x cos φ.*

***External Cooling motors**. For hard work or with frequency converter and/or low speed variators...*

ESQUEMAS PARA CONEXION - *WIRING DIAGRAM*

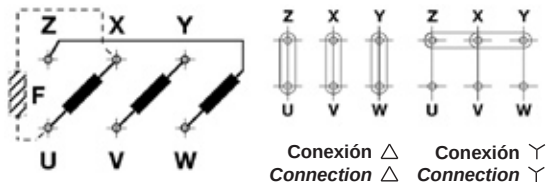
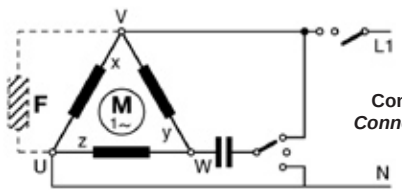


Fig. 1

Fig. 1. REGLETA DE CONEXIONES.
Conexión △. Disposición de los puentes para funcionamiento en TRIANGULO, figs. 2-3. Tensión = **V**.
Conexión ⅄. Disposición de los puentes para funcionamiento en ESTRELLA, fig. 4. Tensión = **V** x • 3.
F. Freno electromagnético, OPCIONAL.

Fig. 1. *TERMINAL STRIP.*
Connection △. *Layout of the bridges to operate in DELTA, fig. 2-3. Voltage = **V**.*
Connection ⅄. *Layout of the bridges to operate in STAR, fig. 4. Voltage = **V** x • 3.*
F. *Electro-magnetic brake, OPTIONAL.*



Conexión △
Connection △

Fig. 2 MONOFASICO/*SINGLE PHASE*

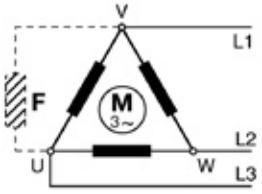


Fig. 3 TRIFASICO/*TRIPLE PHASE*

Conexión ⅄
Connection ⅄

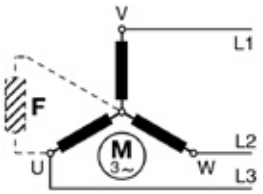
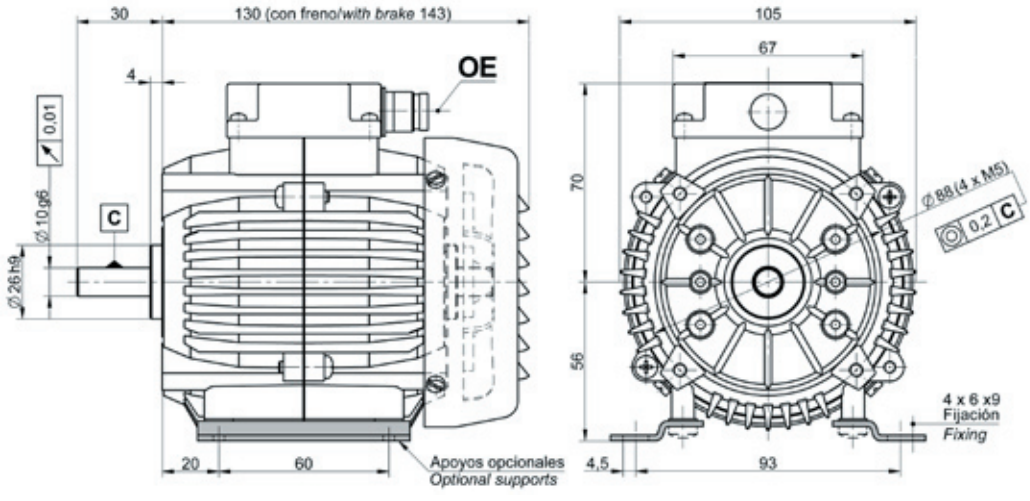
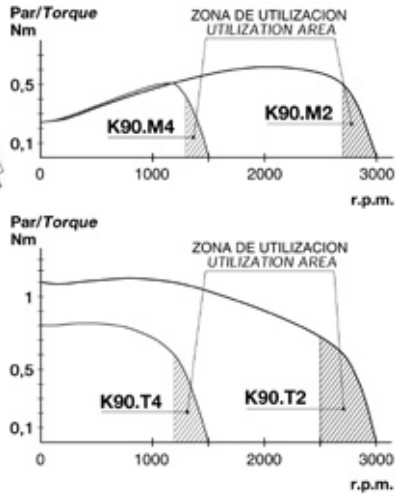


Fig. 4 TRIFASICO/*TRIPLE PHASE*

DIMENSIONES - *DIMENSIONS*



CURVAS - *CURVES*



OE Entrada de cable de conexión.
Power supply input.