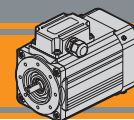




**Motori elettrici asincroni CA**  
**AC asynchronous electric motors**

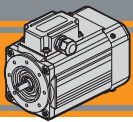




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Questa sezione annulla e sostituisce ogni precedente edizione o revisione. Qualora questa sezione non Vi sia giunta in distribuzione controllata, l'aggiornamento dei dati ivi contenuto non è assicurato. **In tal caso la versione più aggiornata è disponibile sul nostro sito internet [www.transtecno.com](http://www.transtecno.com)**

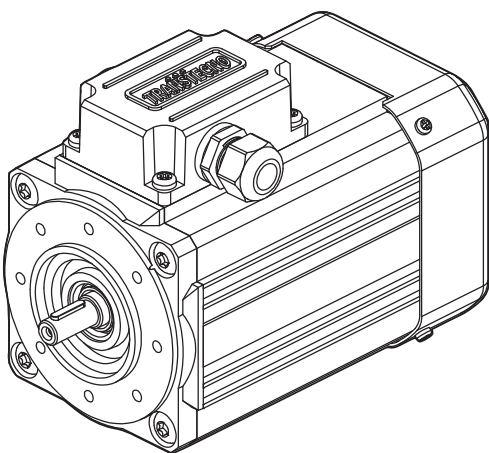
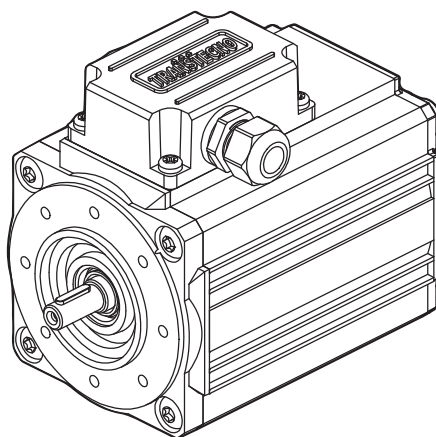
*This section replaces any previous edition and revision. If you obtained this catalogue other than through controlled distribution channels, the most up to date content is not guaranteed. In this case the latest version is available on our web site [www.transtecno.com](http://www.transtecno.com)*

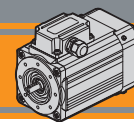
**SM****Motori elettrici CA**  
**AC Electric motors****Caratteristiche tecniche****Technical characteristics**

I motori delle serie SMT ed SMM hanno le seguenti caratteristiche principali:

*SMT and SMM motor range has the following main features:*

- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa estrusa in alluminio anodizzato nero
- Motore elettrico CA con grado di protezione IP66 eccetto il condensatore.
- Rumorosità e vibrazioni contenute
- Isolamento termico di classe F
- Flangia motore IEC B14
- Temperatura ambiente: -20°C / + 40°C
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezioni termiche PTO 150°C per le taglie 56, 63, 71, 80 e 90.
- SMT56, SMT63, SMT71, SMT80 e SMT90 adatti al funzionamento con alimentazione da inverter.
- SMT56, SMT63 e SMT71 disponibili nella classe di rendimento IE2 solo in versione TEFC
- SMT80 e SMT90 conformi alla classe di rendimento IE3.
- Cava esagonale su albero motore lato NDE.
- Condensatore di marcia sempre cablato ad esclusione della taglia SMM50.
- La tolleranza di tensione è  $\pm 10\%$  per tutti i motori ad esclusione della taglia 50 ( $\pm 5\%$ ).
- Disponibili nelle versioni autofrenante, servoventilata e con certificazione UL/CSA.
- *Compact design*
- *AC single phase and three phase motors available*
- *Black anodized extruded aluminium housing*
- *AC electric motor in IP66 protection Standard, except capacitor*
- *Low noise and vibrations*
- *Class F insulation Standard*
- *Motor flange IEC B14*
- *Ambient temperature: -20°C / +40°C*
- *Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available*
- *PTO 150°C thermal protection for motor sizes 56, 63, 71, 80 and 90.*
- *SMT56, SMT63, SMT71, SMT80 and SMT90 are suitable to be driven by inverter.*
- *SMT56, SMT63 and SMT71 are available in the efficiency class IE2 for TEFC version only.*
- *SMT80 and SMT90 in compliance to the Standard efficiency class IE3*
- *Motor shaft hexagon socket on the NDE side.*
- *Running capacitor always connected, except for SMM50.*
- *The voltage tolerance is  $\pm 10\%$  for all motors, except for size 50 ( $\pm 5\%$ ).*
- *Brake motors, forced ventilation motors and UL/CSA compliance versions available.*






**SM .. TEFC****SM .. TENV**






Designazione

Classification

SM

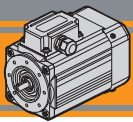
MOTORE TRIFASE / THREE PHASE MOTOR									
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	BR
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options
<b>SMT</b>  	Vedi tabelle See tables	<b>1-2-3-4-5</b>	<b>4</b>	<b>0.04 kW</b> ... <b>2.2 kW</b>	<b>B14</b>	<b>230-400 V</b>  <b>460V</b>	<b>50Hz</b>  <b>60Hz</b>	<b>TEFC</b>  <b>TENV</b>	<b>BR</b> →   <b>SV</b> →   <b>UL-CSA</b> → 

MOTORE MONOFASE / SINGLE PHASE MOTOR									
SMM	63	2	4	0.18 kW	B14	230 V	50 Hz	TEFC	-
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options
<b>SMM</b>  	Vedi tabelle See tables	<b>1-2-3-4</b>	<b>4</b>	<b>0.04 kW</b> ... <b>0.75 kW</b>	<b>B14</b>	<b>230V</b>  115V (UL-CSA)	<b>50Hz</b>	<b>TEFC</b>  <b>TENV</b>	<b>UL-CSA</b> → 

Simbologia e formule

Symbols and formulas

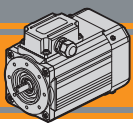
$P_n$	[kW]	Potenza nominale	Rated power
$I_n$	[A]	Corrente nominale (a 400V)	Rated current (at 400V)
$M_n$	[Nm]	Coppia nominale	Rated torque
$n_n$	[rpm]	Velocità nominale	Rated speed
$M_s / M_n$		Rapporto coppia spunto / coppia nominale	Ratio start torque / rated torque
$M_k / M_n$		Rapporto coppia massima / coppia nominale	Ratio max torque / rated torque
$I_s / I_n$		Rapporto corrente di spunto / corrente nominale	Ratio start current / rated current
$\cos\phi$		Fattore di potenza al carico nominale	Power factor at rated torque load
$\eta$		Rendimento al carico nominale	Efficiency at rated torque load
Potenza Power	[HP]	Potenza [kW] x 1,341	Power [kW] x 1.341
Potenza resa $P_n$ $P_n$ output power	[kW]	Potenza assorbita x $\eta$	Absorbed power x $\eta$
Pot. assorbita Absorbed power	[kW]	$\frac{\sqrt{3} \times I \times \cos\phi}{1000}$ (monofase)	$\frac{\sqrt{3} \times I \times \cos\phi}{1000}$ (singlephase)
		$\frac{\sqrt{3} \times I \times \sqrt{3} \times \cos\phi}{1000}$ (trifase)	$\frac{\sqrt{3} \times I \times \sqrt{3} \times \cos\phi}{1000}$ (threephase)
$I_n$ (230 V)		$I_n$ (400 V) x $\sqrt{3}$	$I_n$ (400 V) x $\sqrt{3}$



**SMT** Motori trifase / **SMT** Three phase motors

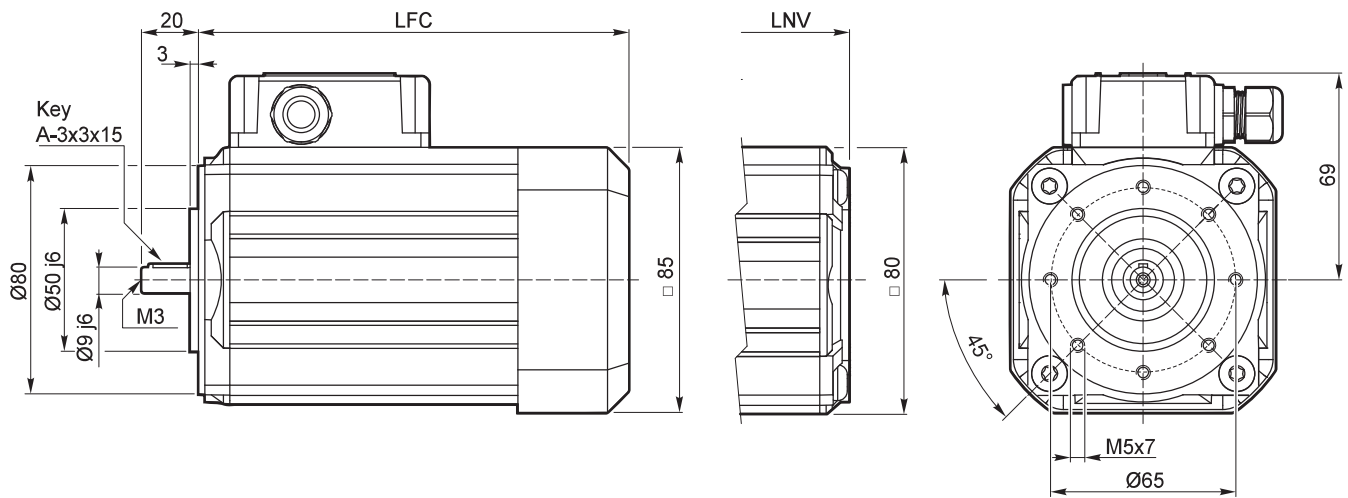
(230-400 V / 50 Hz) poli / poles **4**

TAGLIA SIZE	P <sub>n</sub> [kW]	M <sub>n</sub> [Nm]	n <sub>n</sub> [min <sup>-1</sup> ]	I <sub>n</sub> (400V) [A]	η %	cosφ	M <sub>g</sub> /M <sub>n</sub>	I <sub>s</sub> /I <sub>n</sub>	M <sub>k</sub> /M <sub>n</sub>	PTO [°C]	Servizio Duty TEFC	Servizio Duty TENV	
5014	0.04	0.30	1290	0.25	34.0	0.68	1.65	1.75	1.70	-	S1	S3 30%	
5024	0.06	0.44	1300	0.35	35.7	0.69	1.55	1.80	1.60				
5034	0.09	0.65	1315	0.54	38.0	0.64	1.80	2.00	1.85				
5044	0.12	0.87	1315	0.64	43.0	0.63	1.80	2.00	1.80				
5624	0.09	0.64	1345	0.45	46.5	0.62	2.50	2.40	2.70	PTO 150°	S1	S3 50%	
5634	0.12	0.89	1300	0.45	52.0	0.74	1.90	2.40	1.90		S3 75%		
<b>IE2</b> 5634 IE2	0.12	0.84	1360	0.48	59.1	0.61	2.70	2.90	2.70		S1	-	
5644	0.18	1.26	1360	0.69	59.0	0.65	2.50	3.00	2.60		S3 75%	S3 50%	
5654	0.25	1.80	1330	0.93	59.0	0.66	2.50	2.80	2.60				
6324	0.18	1.26	1360	0.69	57.0	0.66	2.50	2.90	2.50		PTO 150°	S1	-
<b>IE2</b> 6324 IE2	0.18	1.27	1360	0.65	64.7	0.62	2.50	2.90	2.50			S3 75%	S3 50%
6334	0.25	1.74	1375	0.94	62.0	0.64	2.80	3.00	2.80			S1	-
<b>IE2</b> 6334 IE2	0.25	1.72	1390	0.88	68.5	0.60	3.20	3.50	3.20			S3 75%	S3 50%
6344	0.37	2.60	1360	1.24	65.3	0.66	2.70	3.00	2.70			S1	-
7124	0.37	2.52	1400	1.10	67.9	0.72	2.75	4.20	2.75			S3 75%	S3 45%
<b>IE2</b> 7124 IE2	0.37	2.48	1425	1.05	72.7	0.70	2.80	4.90	2.90			S1	-
7134	0.55	3.76	1395	1.55	70.2	0.73	2.90	4.40	2.90			S3 75%	S3 45%
<b>IE2</b> 7134 IE2	0.55	3.70	1420	1.56	77.1	0.66	3.40	5.20	3.40			S1	-
7144	0.75	5.09	1405	2.00	74.0	0.73	2.90	5.00	2.90			S3 75%	S3 45%
<b>IE3</b>	8024 IE3	0.75	4.96	1440	1.94	82.5	3.60	6.00	3.70			S1	S3 70%
	8034 IE3	1.1	7.25	1450	2.91	84.1	4.00	6.80	4.40				
	9024 IE3	1.5	10.0	1430	3.48	85.3	3.20	6.30	3.50				
	9034 IE3	2.2	14.9	1410	4.68	86.7	3.00	6.20	3.30				



3~

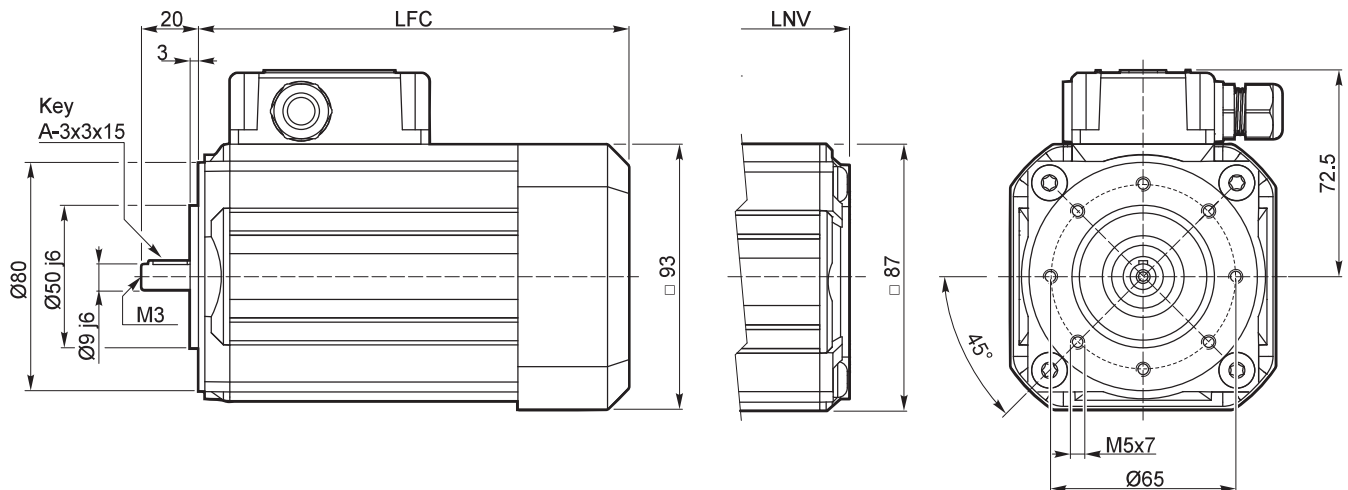
**SMT50.. - B14 - TEFC / TENV**



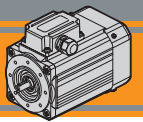
SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
5014	135.5	2.3	108.5	2.2
5024	150.5	2.7	123.5	2.6
5034	175.5	3.5	148.5	3.4
5044	200.5	4.2	173.5	4.1

3~

**SMT56.. - B14 - TEFC / TENV**



SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
5624	141	2.9	117	2.8
5634	151	3.2	127	3.1
5634 IE2	171	3.8	-	-
5644	186	4.4	162	4.3
5654	206	5.1	182	5.0



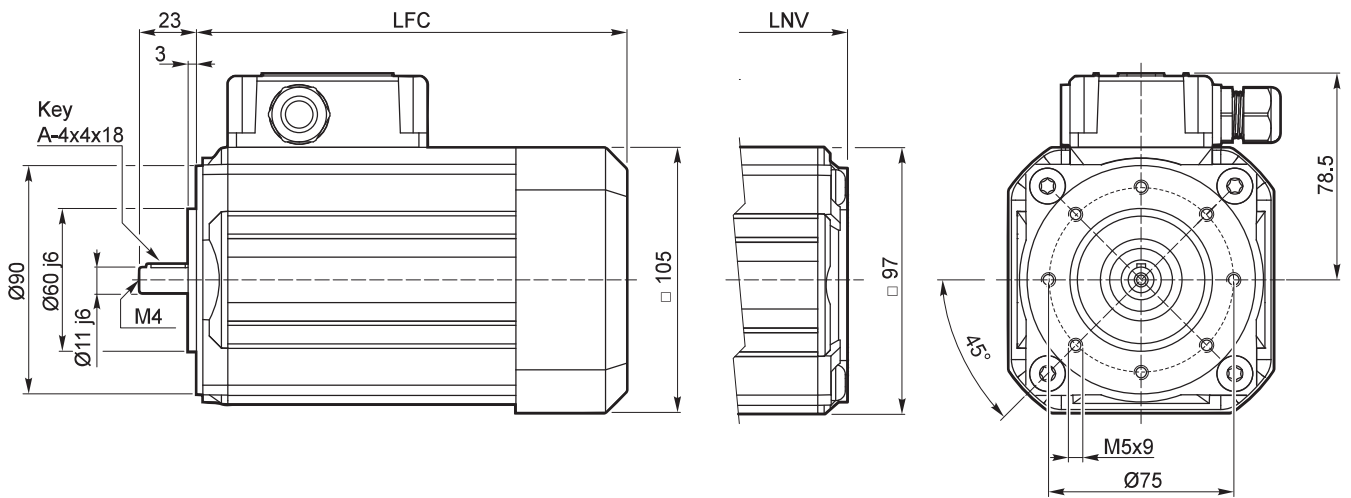
Dimensioni motori trifase

Three phase motors dimensions

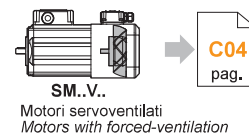
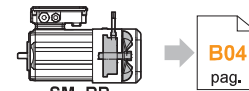
SM

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SMT63.. - B14 - TEFC / TENV

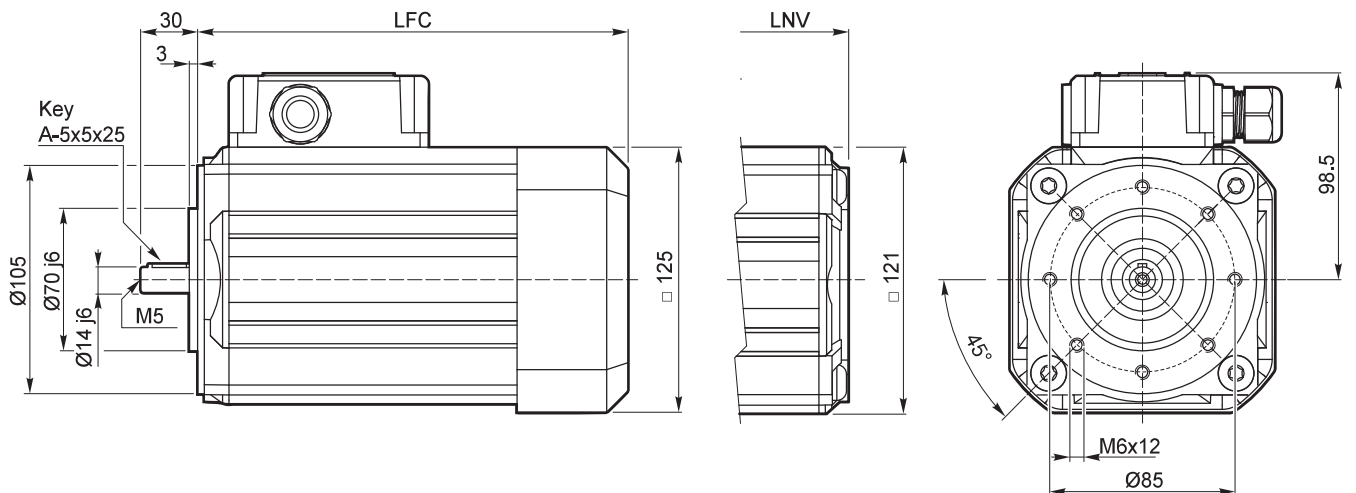


SMT	... TEFC		... TENV	
	LFC	Kg	LNV	Kg
6324	165.5	4.3	138.5	4.2
6324 IE2	180.5	4.9	-	-
6334	180.5	5.0	153.5	4.9
6334 IE2	205.5	6.1	-	-
6344	205.5	6.2	178.5	6.1

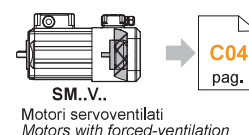
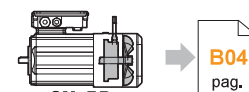


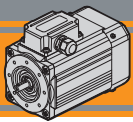
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SMT71.. - B14 - TEFC / TENV



SMT	... TEFC		... TENV	
	LFC	Kg	LNV	Kg
7124	174	6.6	145.5	6.4
7124 IE2	189	7.5	-	-
7134	189	7.7	160.5	7.5
7134 IE2	214	9.2	-	-
7144	214	9.4	185.5	9.2



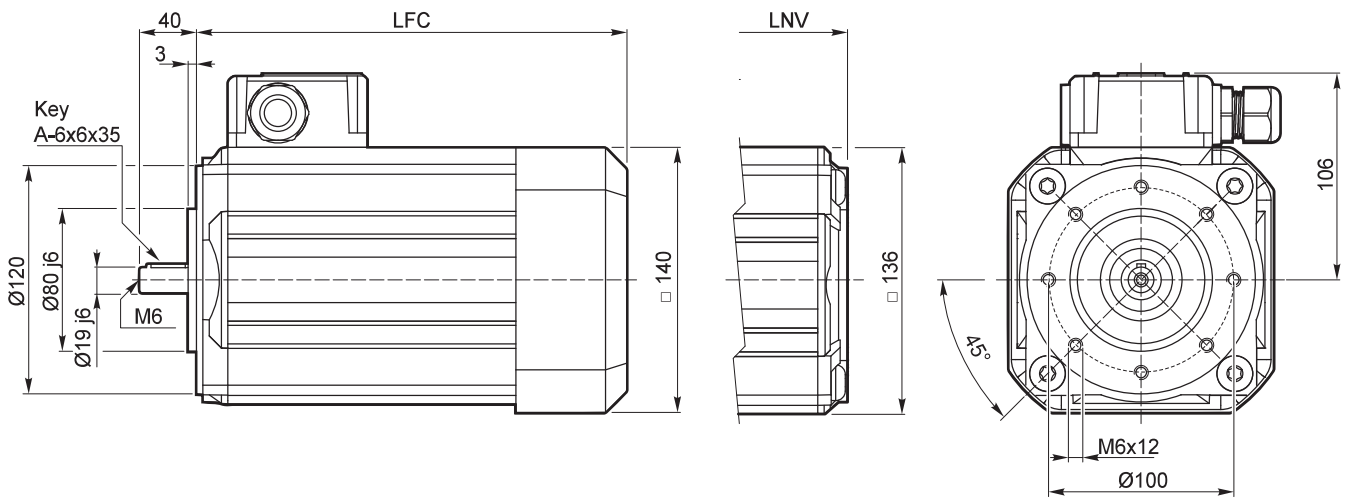


**Dimensioni motori trifase**

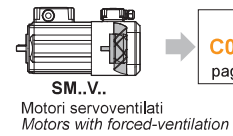
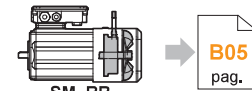
**Three phase motors dimensions**

3~

**SMT80.. - B14 - TEFC / TENV**

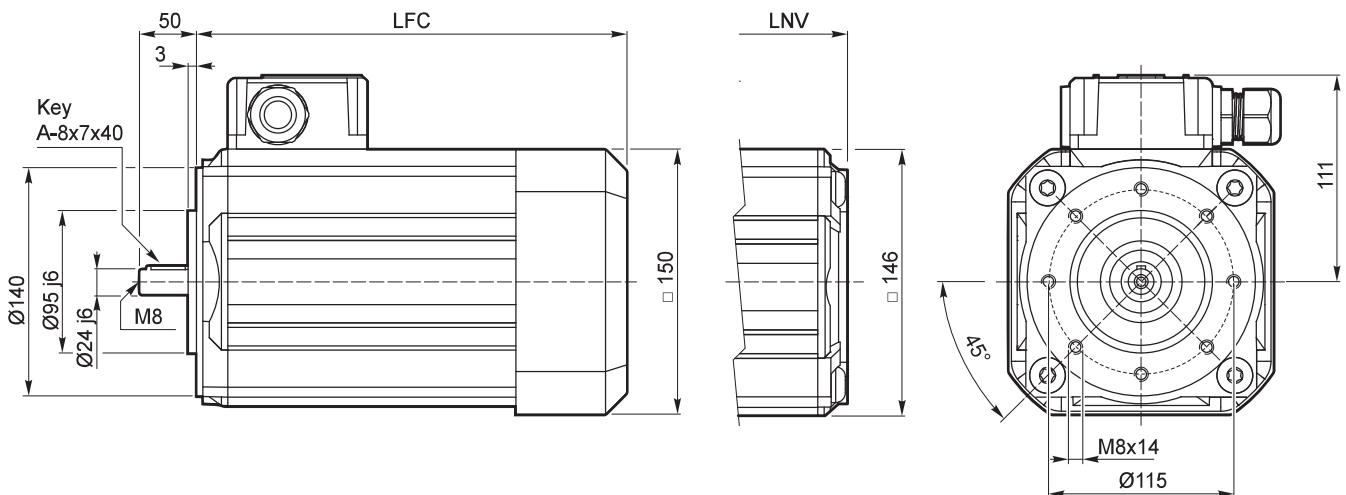


SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
8024	233	11.8	196	11.5
8034	283	16.8	246	16.5

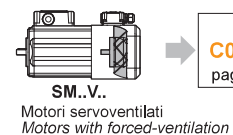
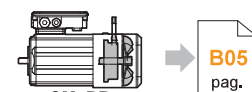


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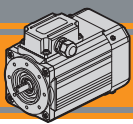
**SMT90.. - B14 - TEFC / TENV**



SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
9024	283	18.2	246	17.9
9034	313	21.5	276	21.2

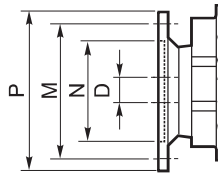
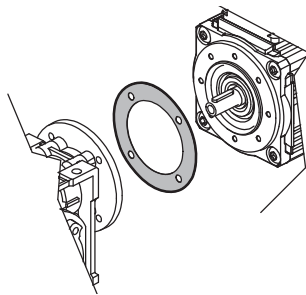






**Opzione guarnizione CA**

*Rubber gasket option*



Dimensioni IEC / IEC Dimensions					
	56 B14	63 B14	71 B14	80 B14	90 B14
<b>N</b>	50	60	70	80	95
<b>M</b>	65	75	85	100	115
<b>P</b>	80	90	105	120	140
<b>D</b>	9	11	14	19	24

**Grado di protezione IP**

*IP protection rating*

Indica il grado di isolamento meccanico del corpo motore.

1ª cifra protezione alla penetrazione di corpi solidi.

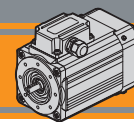
2ª cifra protezione contro la penetrazione d'acqua.

*IP protection rating indicates the degree of mechanical insulation of the motor casing.*

*The 1<sup>st</sup> figure indicates the level of protection against the intrusion of solid matter.*

*The 2<sup>nd</sup> figure indicates to which degree the motor is waterproof.*

IP		Definizione / Description	IP		Definizione / Description
<b>0</b>		Non protetto / No protection	<b>0</b>		Non protetto / No protection
<b>1</b>	 Ø 50 mm	Protetto da corpi solidi superiori a Ø 50 mm. <i>Protected against solid matter (over Ø 50 mm).</i>	<b>1</b>	 15°	Protetto contro la caduta verticale di gocce d'acqua. <i>Protected against drops of water falling vertically.</i>
<b>2</b>	 Ø 12 mm	Protetto da corpi solidi superiori a Ø 12 mm. <i>Protected against solid matter (over Ø 12 mm).</i>	<b>2</b>	 15°	Protetto contro la caduta verticale di gocce d'acqua con inclinazione max di 15°. <i>Protected against drops of water falling up to 15°.</i>
<b>3</b>	 Ø 2.5 mm	Protetto da corpi solidi superiori a Ø 2.5 mm. <i>Protected against solid matter (over Ø 2.5 mm).</i>	<b>3</b>	 60°	Protetto contro la pioggia. <i>Rain proof.</i>
<b>4</b>	 Ø 1 mm	Protetto da corpi solidi superiori a Ø 1 mm. <i>Protected against solid matter (over Ø 1 mm).</i>	<b>4</b>	 60°	Protetto contro gli spruzzi. <i>Splash proof.</i>
<b>5</b>	 Ø 1 mm	Protetto contro la polvere. <i>Dust protected.</i>	<b>5</b>	 60°	Protetto contro getti d'acqua. <i>Water jet proof.</i>
<b>6</b>	 Ø 1 mm	Totalmente protetto contro la polvere. <i>Fully dust tight.</i>	<b>6</b>	 60°	Protetto dalle ondate. <i>Waveproof.</i>
<b>7</b>		N.A.	<b>7</b>	 60°	Protetto contro immersione. <i>Immersion up to 1 metre.</i>
<b>8</b>		N.A.	<b>8</b>	 60°	Protetto contro immersione/sommersione prolungata. <i>Immersion beyond 1 metre.</i>



Normative di riferimento

Reference Standards

	Europe EN	World IEC	Italy CEI
Requisiti generali per macchine elettriche <i>General requirements electrical machines</i>	EN 60034-1:2010	IEC 60034-1:2010	CEI EN 60034-1:2010
Classificazione del grado di protezione <i>Classification degree of protection provided by enclosures</i>	EN 60034-5:2001	IEC 60034-5:2001	CEI EN 60034-5:2001
Sistema di raffreddamento <i>Cooling system</i>	EN 60034-6:1993	IEC 60034-6:1993	CEI EN 60034-6:1993
Modalità di montaggio <i>Mounting arrangements</i>	EN 60034-7:1993	IEC 60034-7:1993	CEI EN 60034-7:1993

Tipi di servizi IEC

IEC duty cycles

Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

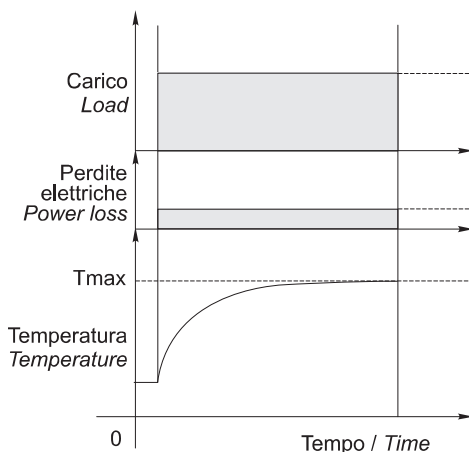
The duty cycle of a motor indicates its use and running cycle.

Grafico servizi più comuni

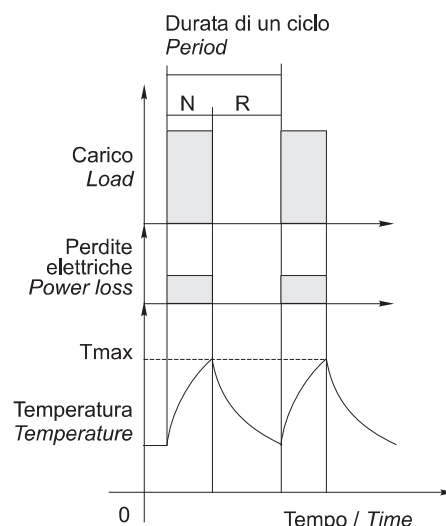
Most common duty cycles diagram

N = funzionamento / run  
R = riposo / rest

S1

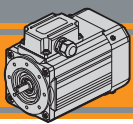


S2/S3



NOTA: Lo stesso motore può essere usato per cicli e servizi diversi, con l'unica limitazione che la temperatura interna non superi mai la Tmax stabilita dalla classe di isolamento termico del motore.

NOTE: The same motor can run under all duty services, limitation is due to internal temperature that must not override Tmax stated by motor thermal class.



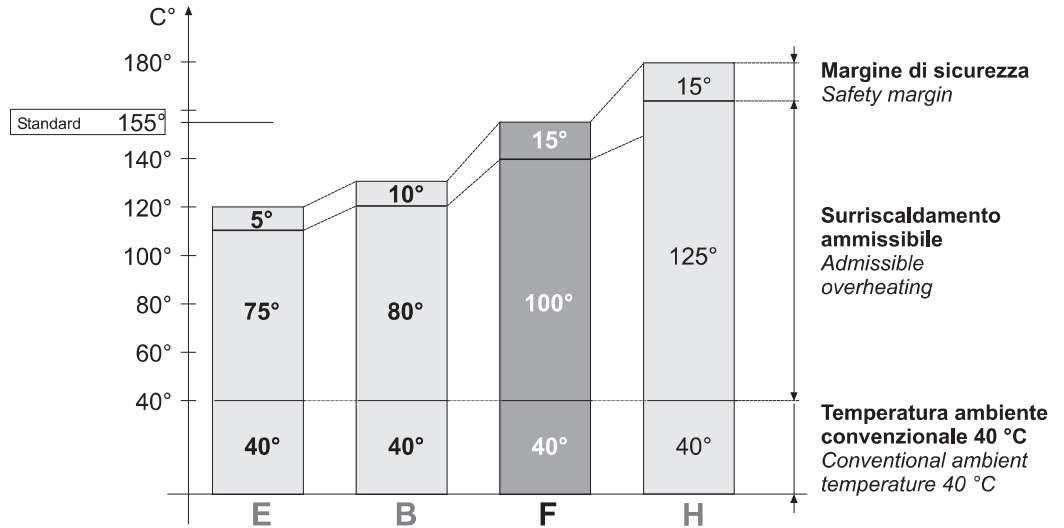
**Classe di isolamento termico**

**Insulation class**

La classe termica indica il grado di resistenza alla temperatura interna, nel punto più caldo (avvolgimenti).  
Isolamento termico classe F.

Thermal insulation class indicates the level of thermal protection measured at the hottest point inside the motor (windings).  
Thermal insulation class F.

Classe Class	Massima temperatura interna Max. windings temp.
E	120°C
B	130°C
F	155°C
H	180°C




**Serie SM - Funzionamento in ambiente 60 Hz**

**Series SM - 60 Hz line power supply**

Velocità, coppia e potenza nominale nel funzionamento a 60 Hz varieranno come da tabella:

Speed, torque and rated power in 60 Hz operation is shown in the following table:

	50 Hz	60 Hz
<b>400 V</b>	Vedi dati tecnici / see technical data 	Velocità / speed ≈ + 20% Coppia / torque ≈ -20% Potenza / power ≈ invariata / the same
<b>480 V</b>	Non permesso / not allowed	Velocità / speed ≈ + 20% Coppia / torque ≈ invariata / the same Potenza / power ≈ + 20%

**Tabella pressacavi**

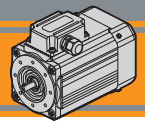
**Table of cable glands data**

**Serie SMT / SMT Series**

TAGLIA SIZE	Pressacavo Cable gland
50 / 56 / 63	M16x1,5
71 / 80 / 90	M20x1,5

**Serie SMM / SMM Series**

TAGLIA SIZE	Pressacavo Cable gland
50 / 56 / 63	2 x M16x1,5
71 / 80	M20x1,5 + M16x1,5

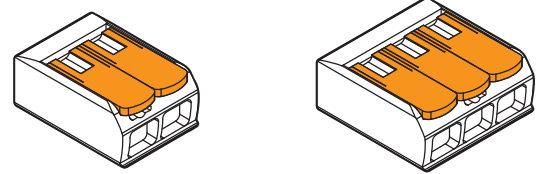
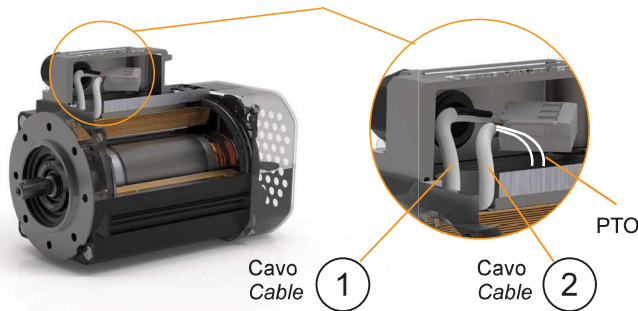


Conessioni e collegamenti

Connection diagram

Riferimenti

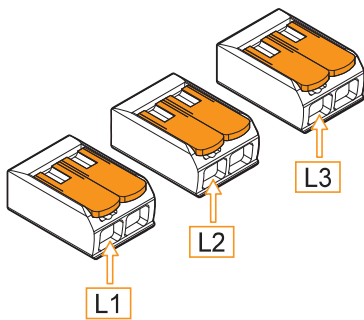
References



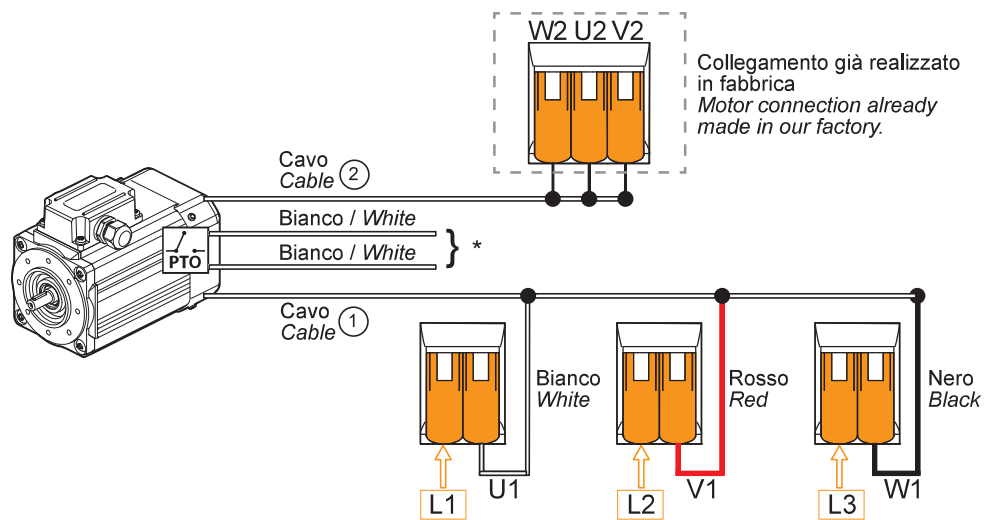
Morsetto di collegamento a leva a 2 e 3 poli  
Splicing connector with lever 2 - and 3 - pin.

400/460 V - Trifase / three phase

Collegamento a stella / Star connection



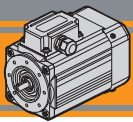
Morsetti a levetta liberi per alimentazione motore  
Splicing connector with free-lever for the motor power source



Collegamento già realizzato in fabbrica  
Motor connection already made in our factory.

\*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71, 80, 90.

\*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71, 80, 90.

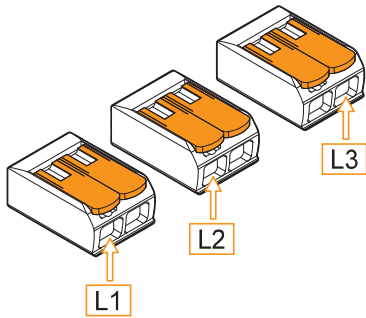


**Connessioni e collegamenti**

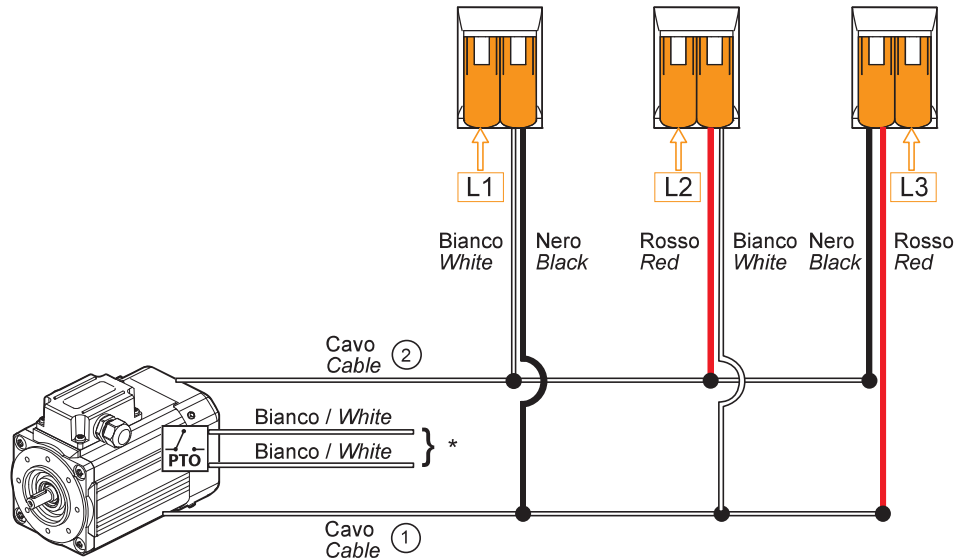
**Connection diagram**

**230 V - Trifase / Three phase**

Collegamento a triangolo / Delta connection



Morsetti a levetta liberi per alimentazione motore  
*Splicing connector with free-lever for the motor power source*



\*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71, 80, 90.

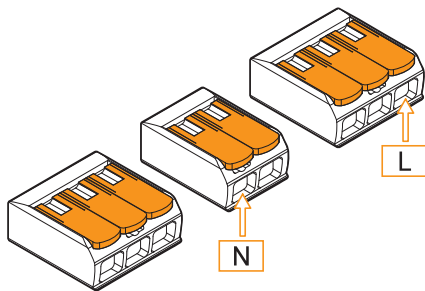
\*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71, 80, 90.

I motori della serie SM sono forniti in collegamento a stella, lo schema di collegamento a triangolo sopra riportato fornisce una chiara indicazione delle modifiche che il cliente può apportare in autonomia. Se necessario contattare il Servizio Tecnico Transtecno.

*The SM series is supplied in star connection, the delta connection diagram shown above provides a clear indication of the modification that the customer can make independently. If needed, contact Transtecno Technical Service.*

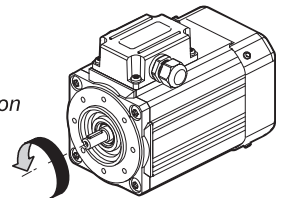
**230 V - Monofase / Single phase**

Monofase SMM 50... / Single phase SMM 50...

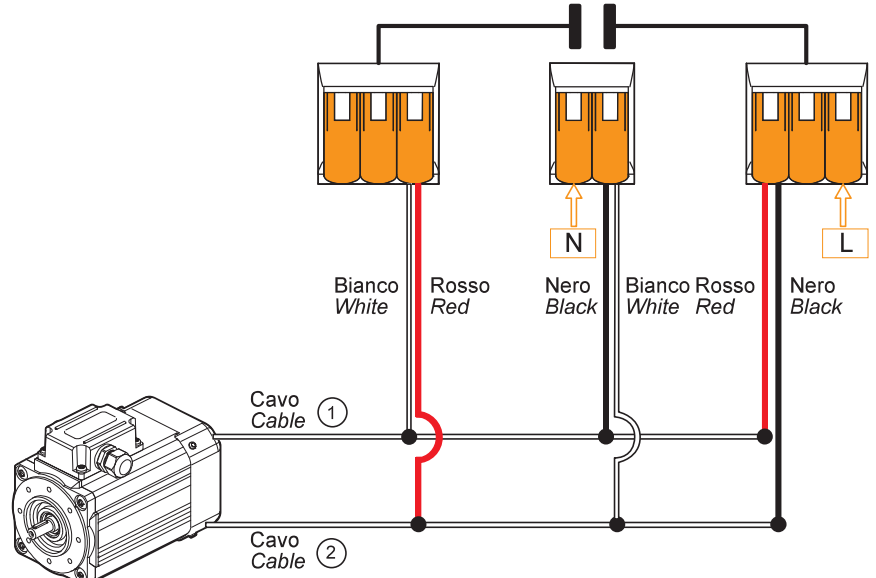


Morsetti a levetta liberi per alimentazione motore  
*Splicing connector with free-lever for the motor power source*

Senso di rotazione antiorario  
*Counter-clockwise direction of rotation*

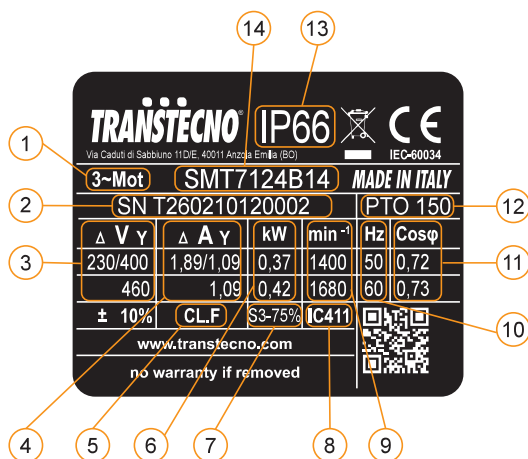
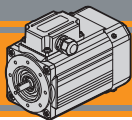


CONDENSATORE (1)  
CAPACITOR (1)



(1): il condensatore sarà fornito a corredo.

(1): the capacitor will be supplied separately.



Pos.	Descrizione	Description
1	Tipo di alimentazione	Power supply
2	Numero di serie	Serial number
3	Tensione di alimentazione	Supply voltage
4	Corrente nominale	Rated current
5	Classe di isolamento	Insulation class
6	Potenza nominale	Rated power
7	Servizio	Duty
8	Ventilazione	Fan cooling
9	Velocità nominale	Rated speed
10	Frequenza nominale	Rated frequency
11	Fattore di potenza	Power factor
12	Protezione termica PTO 150°C	PTO 150°C Thermal protection
13	Grado di protezione IP	IP protection rating
14	Tipo motore	Motor type