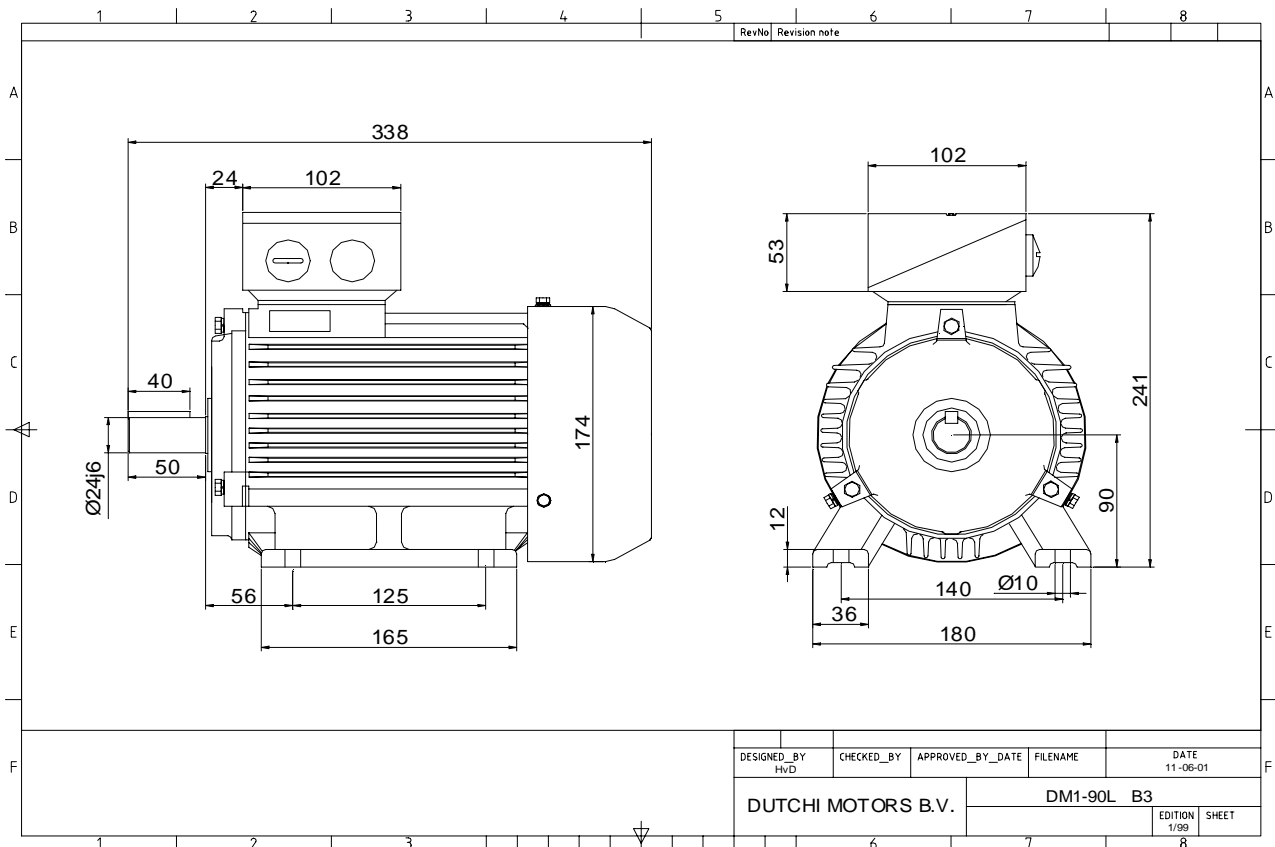


Power is our commodity, the world is our market !



Specification **IEC 60034-1**  
 Manufacturer **Dutchi Motors B.V.**  
 Motor type **DM1-HE 90L2**  
 Rated power **2,20** kW **S1** duty  
 Speed **2865** r.p.m  
 Voltage **230** / **400** V  
 Frequency **50** Hz  
 Connection **Δ** / **Y**  
 Amps full load **7,4** / **4,3** A  
 Amps no-load(400V) **2,40** A  
 Enclosure **IP 55**  
 Insulation Class **F (temp. rise B (80 K))**

Max. coolant temp. **40°C**  
 Max. altitude **1.000** mtr, above sea level  
 Comment **3 x PTC 150°C**  
 Cable entries **2 x M25x1,5 + 1 x M20x1,5 (ptc)**

Feature **Cast-iron motor**  
 Weight **kg**  
 Catalog no. **11122220DH**  
 Warranty **12~18 months**

Efficiency class **EFF 1**  
 Load data 100% 75% 50% 25%  
 Efficiency **85,7 86,5 85,3 78,2** %  
 Power factor **0,87 0,81 0,66 0,42**

Sound pressure level (1m) **63,4** dB(A)  
 Resistance R20 (open) **2,280** Ω  
 Resistance R20 **Y 4,559** Ω

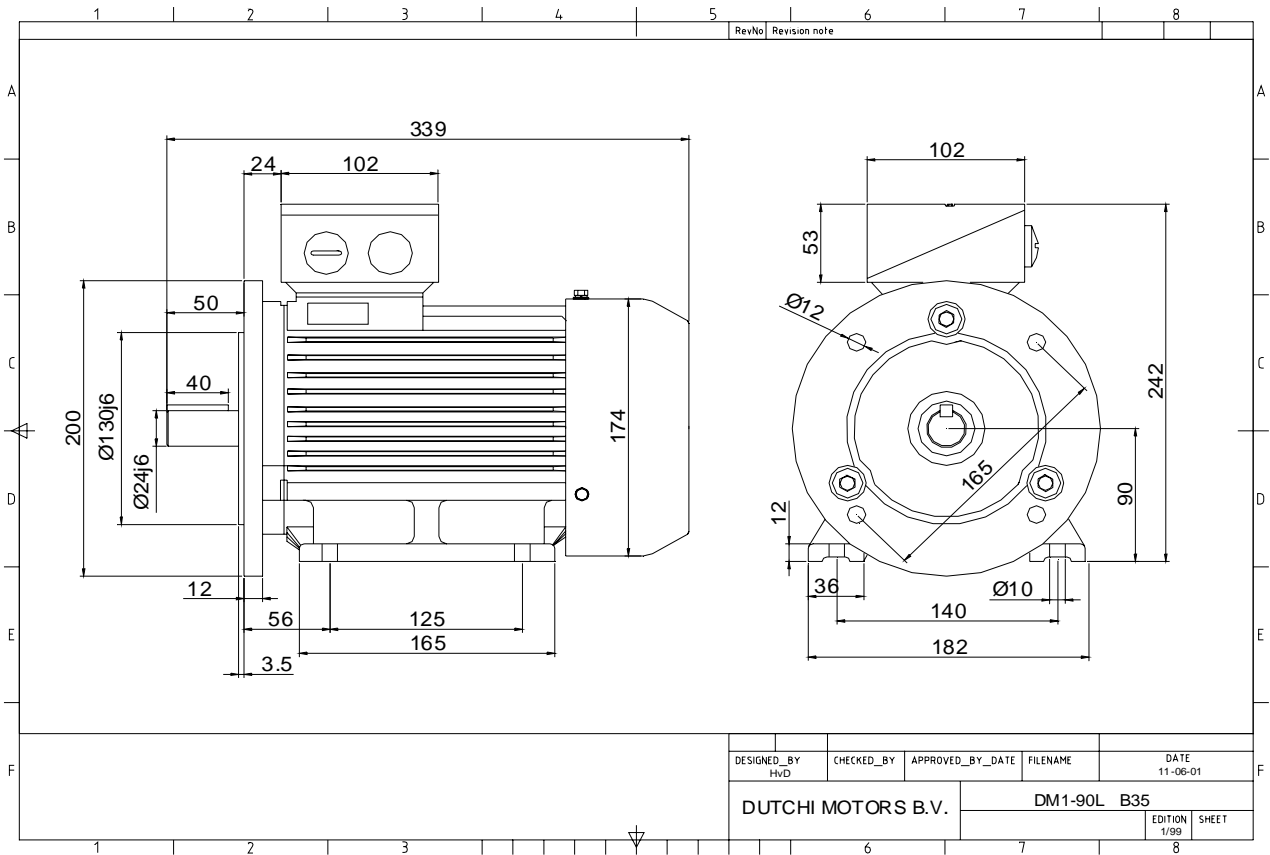
Full load torque **7** Nm  
 DOL Starting torque vs FL torque **3,76**  
 DOL Pull up torque vs FL torque **2,31**  
 DOL Pull out torque vs FL torque **3,63**  
 Star-Delta Starting torque vs FL torque **Y - motor**  
 Star-Delta Pull up torque vs FL torque **Y - motor**  
 Star-Delta Pull out torque vs FL torque **Y - motor**  
 DOL Starting current vs FL current **8,35**  
 Star Delta Starting current vs FL current **Y - motor**

Rotor Inertia **kgm2**

Bearing DE **6205 - ZZ**  
 Bearing NDE **6205 - ZZ**


WI	Change	date	sign.
<b>Dutchi Motors B.V.</b> P.O. Box 5390 NL-6802 EJ ARNHEM Tel : +31-(0)26 - 3541 600 Fax : +31-(0)26 - 3541 650		Description	date
		Drawing made by :	27-04-04
		<b>dutchi.motors@dutchi.nl</b> <b>www.dutchi.com</b>	

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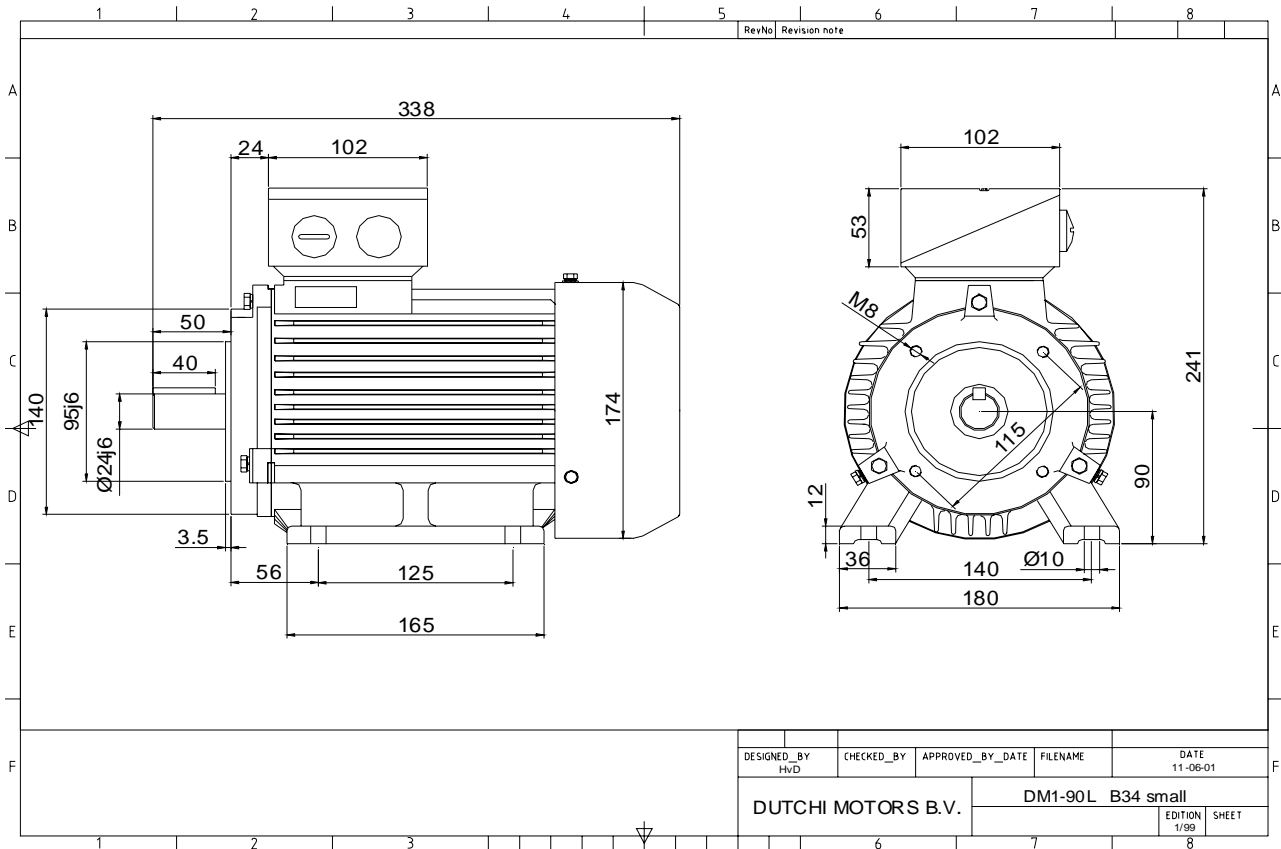
DESIGNED_BY HvD	CHECKED_BY	APPROVED_BY_DATE	FILENAME	DATE 11-06-01
DUTCHI MOTORS B.V.			DM1-90L B35	EDITION 1/99
				SHEET

Specification	<b>IEC 60034-1</b>
Manufacturer	<b>Dutchi Motors B.V.</b>
Motor type	<b>DM1-HE 90L2</b>
Rated power	<b>2,20</b> kW <b>S1</b> duty
Speed	<b>2865</b> r.p.m
Voltage	<b>230</b> / <b>400</b> V
Frequency	<b>50</b> Hz
Connection	<b>Δ</b> / <b>Y</b>
Amps full load	<b>7,4</b> / <b>4,3</b> A
Amps no-load(400V)	<b>2,40</b> A
Enclosure	<b>IP 55</b>
Insulation Class	<b>F (temp. rise B (80 K))</b>
Max. coolant temp.	<b>40°C</b>
Max. altitude	<b>1.000</b> mtr, above sea level
Comment	<b>3 x PTC 150°C</b>
Cable entries	<b>2 x M25x1,5 + 1 x M20x1,5 (ptc)</b>
Feature	<b>Cast-iron motor</b>
Weight	kg
Catalog no.	<b>11522220DH</b>
Warranty	<b>12~18 months</b>

Efficiency class	<b>EFF 1</b>
Load data	100% 75% 50% 25%
Efficiency	<b>85,7 86,5 85,3 78,2</b> %
Power factor	<b>0,87 0,81 0,66 0,42</b>
Sound pressure level (1m)	<b>63,4</b> dB(A)
Resistance R20 (open)	<b>2,280</b> Ω
Resistance R20	<b>Y 4,559</b> Ω
Full load torque	<b>7</b> Nm
DOL Starting torque vs FL torque	<b>3,76</b>
DOL Pull up torque vs FL torque	<b>2,31</b>
DOL Pull out torque vs FL torque	<b>3,63</b>
Star-Delta Starting torque vs FL torque	<b>Y - motor</b>
Star-Delta Pull up torque vs FL torque	<b>Y - motor</b>
Star-Delta Pull out torque vs FL torque	<b>Y - motor</b>
DOL Starting current vs FL current	<b>8,35</b>
Star Delta Starting current vs FL current	<b>Y - motor</b>
Rotor Inertia	kgm2
Bearing DE	<b>6205 - ZZ</b>
Bearing NDE	<b>6205 - ZZ</b>


WI	Change	date	sign.
<b>Dutchi Motors B.V.</b> P.O. Box 5390 NL-6802 EJ ARNHEM Tel : +31-(0)26 - 3541 600 Fax : +31-(0)26 - 3541 650		Discription Drawing made by : 27-04-04	date sign. HvD
dutchi.motors@dutchi.nl www.dutchi.com			

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Specification **IEC 60034-1**  
 Manufacturer **Dutchi Motors B.V.**  
 Motor type **DM1-HE 90L2**  
 Rated power **2,20** kW **S1** duty  
 Speed **2865** r.p.m  
 Voltage **230 / 400** V  
 Frequency **50** Hz  
 Connection **Δ / Y**  
 Amps full load **7,4 / 4,3** A  
 Amps no-load(400V) **2,40** A  
 Enclosure **IP 55**  
 Insulation Class **F (temp. rise B (80 K))**

Max. coolant temp. **40°C**  
 Max. altitude **1.000** mtr, above sea level  
 Comment **3 x PTC 150°C**  
 Cable entries **2 x M25x1,5 + 1 x M20x1,5 (ptc)**

Feature **Cast-iron motor**  
 Weight **kg**  
 Catalog no. **11622220DH**  
 Warranty **12~18 months**

Efficiency class **EFF 1**  
 Load data 100% 75% 50% 25%  
 Efficiency **85,7 86,5 85,3 78,2** %  
 Power factor **0,87 0,81 0,66 0,42**

Sound pressure level (1m) **63,4** dB(A)  
 Resistance R20 (open) **2,280** Ω  
 Resistance R20 **Y 4,559** Ω

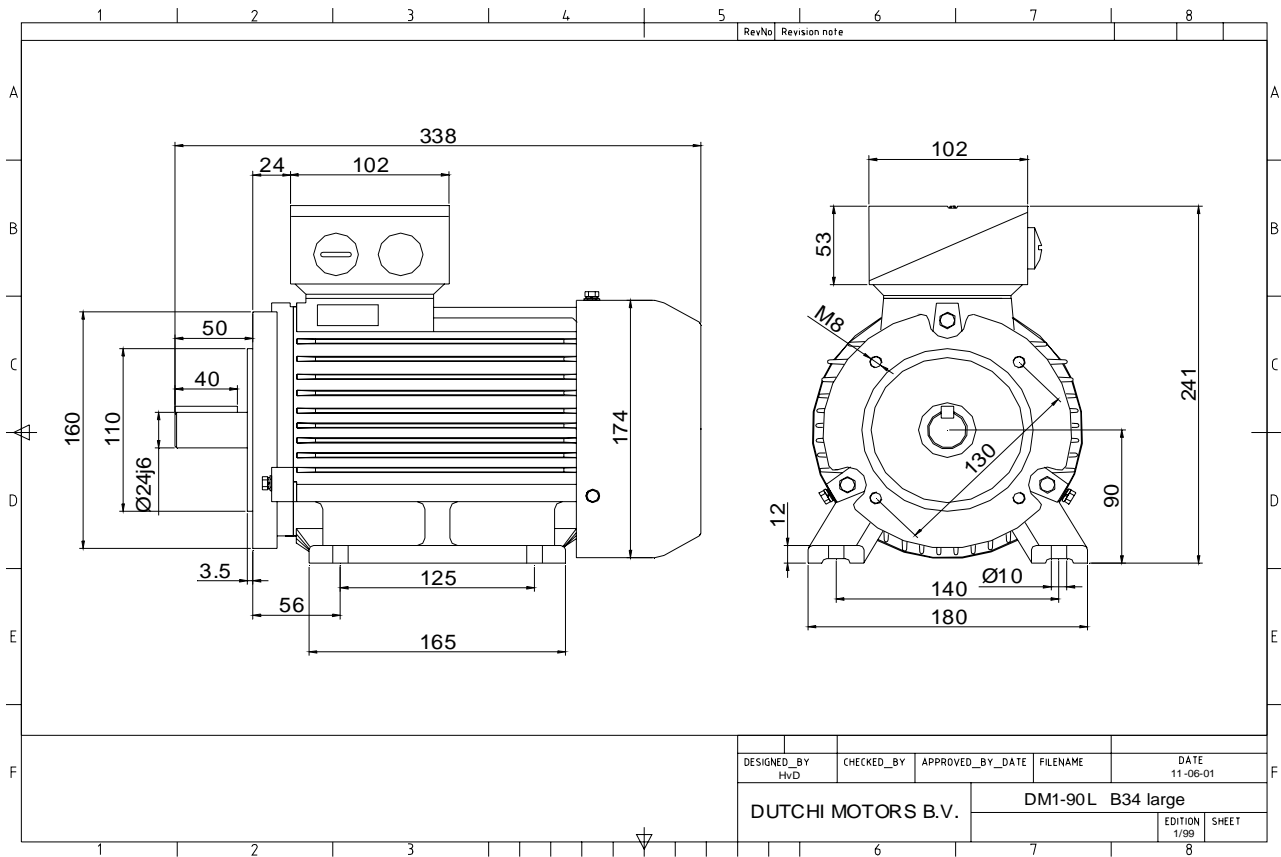
Full load torque **7** Nm  
 DOL Starting torque vs FL torque **3,76**  
 DOL Pull up torque vs FL torque **2,31**  
 DOL Pull out torque vs FL torque **3,63**  
 Star-Delta Starting torque vs FL torque **Y - motor**  
 Star-Delta Pull up torque vs FL torque **Y - motor**  
 Star-Delta Pull out torque vs FL torque **Y - motor**  
 DOL Starting current vs FL current **8,35**  
 Star Delta Starting current vs FL current **Y - motor**

Rotor Inertia **kgm2**

Bearing DE **6205 - ZZ**  
 Bearing NDE **6205 - ZZ**


WI	Change	date	sign.
<b>Dutchi Motors B.V.</b> P.O. Box 5390 NL-6802 EJ ARNHEM Tel : +31-(0)26 - 3541 600 Fax : +31-(0)26 - 3541 650		Description	date
		Drawing made by :	27-04-04
		<b>dutchi.motors@dutchi.nl</b> <b>www.dutchi.com</b>	

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Specification **IEC 60034-1**  
 Manufacturer **Dutchi Motors B.V.**  
 Motor type **DM1-HE 90L2**  
 Rated power **2,20** kW **S1** duty  
 Speed **2865** r.p.m  
 Voltage **230 / 400** V  
 Frequency **50** Hz  
 Connection **Δ / Y**  
 Amps full load **7,4 / 4,3** A  
 Amps no-load(400V) **2,40** A  
 Enclosure **IP 55**  
 Insulation Class **F (temp. rise B (80 K))**

Max. coolant temp. **40°C**  
 Max. altitude **1.000** mtr, above sea level  
 Comment **3 x PTC 150°C**  
 Cable entries **2 x M25x1,5 + 1 x M20x1,5 (ptc)**

Feature **Cast-iron motor**  
 Weight **kg**  
 Catalog no. **11722220DH**  
 Warranty **12~18 months**

Efficiency class **EFF 1**  
 Load data 100% 75% 50% 25%  
 Efficiency **85,7 86,5 85,3 78,2** %  
 Power factor **0,87 0,81 0,66 0,42**

Sound pressure level (1m) **63,4** dB(A)  
 Resistance R20 (open) **2,280** Ω  
 Resistance R20 **Y 4,559** Ω

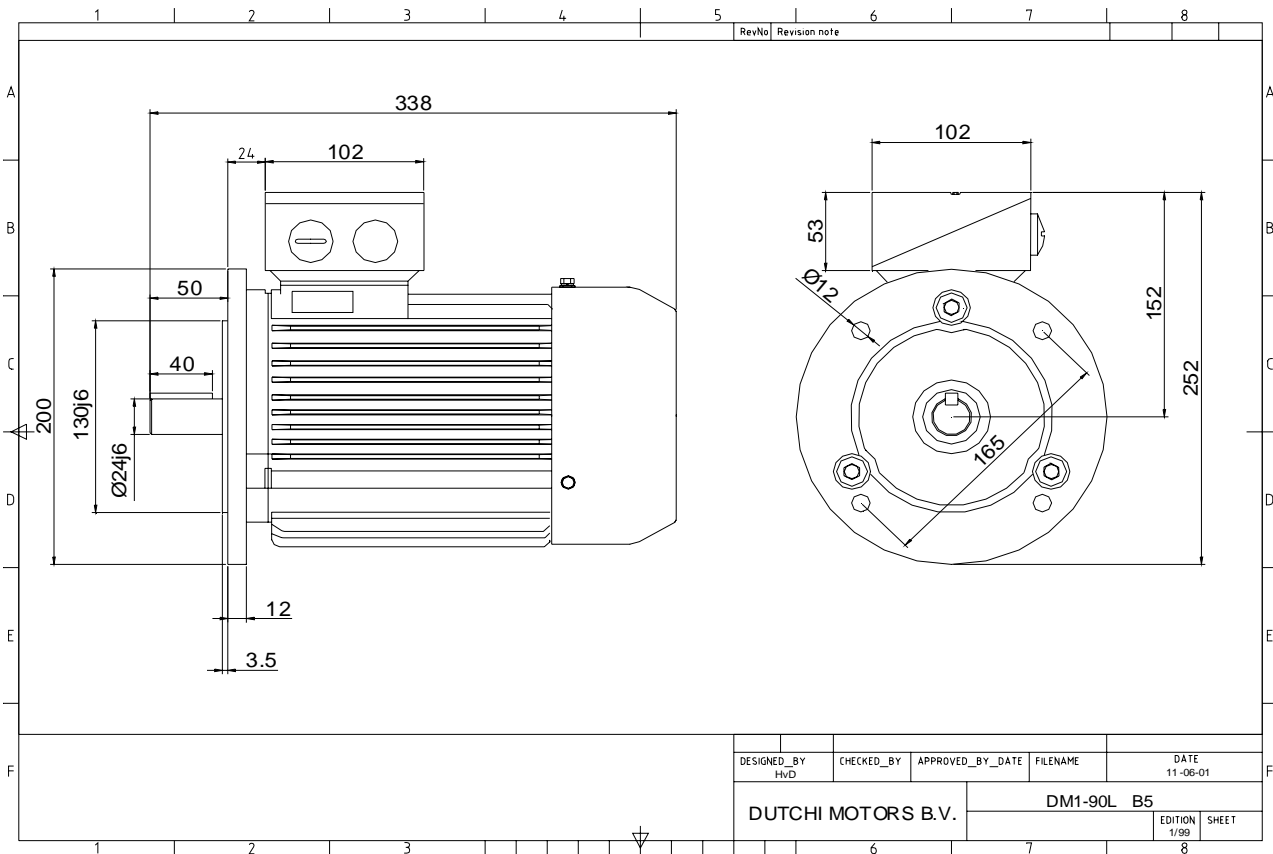
Full load torque **7** Nm  
 DOL Starting torque vs FL torque **3,76**  
 DOL Pull up torque vs FL torque **2,31**  
 DOL Pull out torque vs FL torque **3,63**  
 Star-Delta Starting torque vs FL torque **Y - motor**  
 Star-Delta Pull up torque vs FL torque **Y - motor**  
 Star-Delta Pull out torque vs FL torque **Y - motor**  
 DOL Starting current vs FL current **8,35**  
 Star Delta Starting current vs FL current **Y - motor**

Rotor Inertia **kgm2**

Bearing DE **6205 - ZZ**  
 Bearing NDE **6205 - ZZ**


WI	Change	date	sign.
<b>Dutchi Motors B.V.</b> P.O. Box 5390 NL-6802 EJ ARNHEM Tel : +31-(0)26 - 3541 600 Fax : +31-(0)26 - 3541 650		Description	date
		Drawing made by :	27-04-04
		<b>dutchi.motors@dutchi.nl</b> <b>www.dutchi.com</b>	

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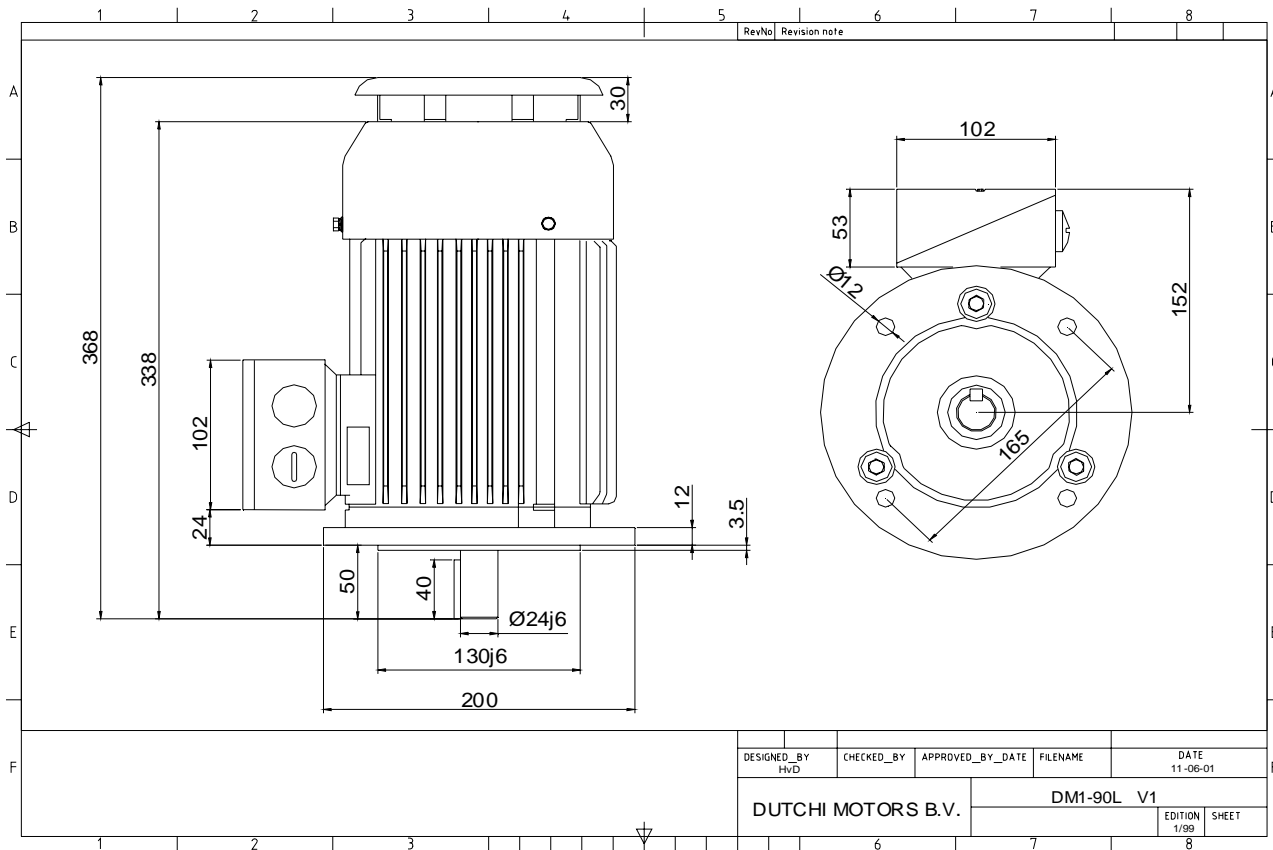
DESIGNED_BY HvD	CHECKED_BY	APPROVED_BY_DATE	FILENAME	DATE 11-06-01
DUTCHI MOTORS B.V.			DM1-90L B5	EDITION 1/99
				SHEET

Specification	<b>IEC 60034-1</b>
Manufacturer	<b>Dutchi Motors B.V.</b>
Motor type	<b>DM1-HE 90L2</b>
Rated power	<b>2,20</b> kW <b>S1</b> duty
Speed	<b>2865</b> r.p.m
Voltage	<b>230 / 400</b> V
Frequency	<b>50</b> Hz
Connection	<b>Δ / Y</b>
Amps full load	<b>7,4 / 4,3</b> A
Amps no-load(400V)	<b>2,40</b> A
Enclosure	<b>IP 55</b>
Insulation Class	<b>F (temp. rise B (80 K))</b>
Max. coolant temp.	<b>40°C</b>
Max. altitude	<b>1.000</b> mtr, above sea level
Comment	<b>3 x PTC 150°C</b>
Cable entries	<b>2 x M25x1,5 + 1 x M20x1,5 (ptc)</b>
Feature	<b>Cast-iron motor</b>
Weight	kg
Catalog no.	<b>11222220DH</b>
Warranty	<b>12~18 months</b>

Efficiency class	<b>EFF 1</b>			
Load data	100%	75%	50%	25%
Efficiency	<b>85,7</b>	<b>86,5</b>	<b>85,3</b>	<b>78,2</b> %
Power factor	<b>0,87</b>	<b>0,81</b>	<b>0,66</b>	<b>0,42</b>
Sound pressure level (1m)				<b>63,4</b> dB(A)
Resistance R20 (open)				<b>2,280</b> Ω
Resistance R20	<b>Y</b>			<b>4,559</b> Ω
Full load torque				<b>7</b> Nm
DOL Starting torque vs FL torque				<b>3,76</b>
DOL Pull up torque vs FL torque				<b>2,31</b>
DOL Pull out torque vs FL torque				<b>3,63</b>
Star-Delta Starting torque vs FL torque				<b>Y - motor</b>
Star-Delta Pull up torque vs FL torque				<b>Y - motor</b>
Star-Delta Pull out torque vs FL torque				<b>Y - motor</b>
DOL Starting current vs FL current				<b>8,35</b>
Star Delta Starting current vs FL current				<b>Y - motor</b>
Rotor Inertia				kgm <sup>2</sup>
Bearing DE				<b>6205 - ZZ</b>
Bearing NDE				<b>6205 - ZZ</b>


WI	Change	date	sign.
<b>Dutchi Motors B.V.</b> P.O. Box 5390 NL-6802 EJ ARNHEM Tel : +31-(0)26 - 3541 600 Fax : +31-(0)26 - 3541 650		Discription Drawing made by :	date 27-04-04
		sign.	HvD
		dutchi.motors@dutchi.nl www.dutchi.com	

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Specification **IEC 60034-1**  
 Manufacturer **Dutchi Motors B.V.**  
 Motor type **DM1-HE 90L2**  
 Rated power **2,20** kW **S1** duty  
 Speed **2865** r.p.m  
 Voltage **230** / **400** V  
 Frequency **50** Hz  
 Connection **Δ** / **Y**  
 Amps full load **7,4** / **4,3** A  
 Amps no-load(400V) **2,40** A  
 Enclosure **IP 55**  
 Insulation Class **F (temp. rise B (80 K))**

Max. coolant temp. **40°C**  
 Max. altitude **1.000** mtr, above sea level  
 Comment **3 x PTC 150°C**  
 Cable entries **2 x M25x1,5 + 1 x M20x1,5 (ptc)**

Feature **Cast-iron motor**  
 Weight **kg**  
 Catalog no. **11022220DH**  
 Warranty **12~18 months**

Efficiency class **EFF 1**  
 Load data 100% 75% 50% 25%  
 Efficiency **85,7** **86,5** **85,3** **78,2** %  
 Power factor **0,87** **0,81** **0,66** **0,42**

Sound pressure level (1m) **63,4** dB(A)  
 Resistance R20 (open) **2,280** Ω  
 Resistance R20 **Y** **4,559** Ω

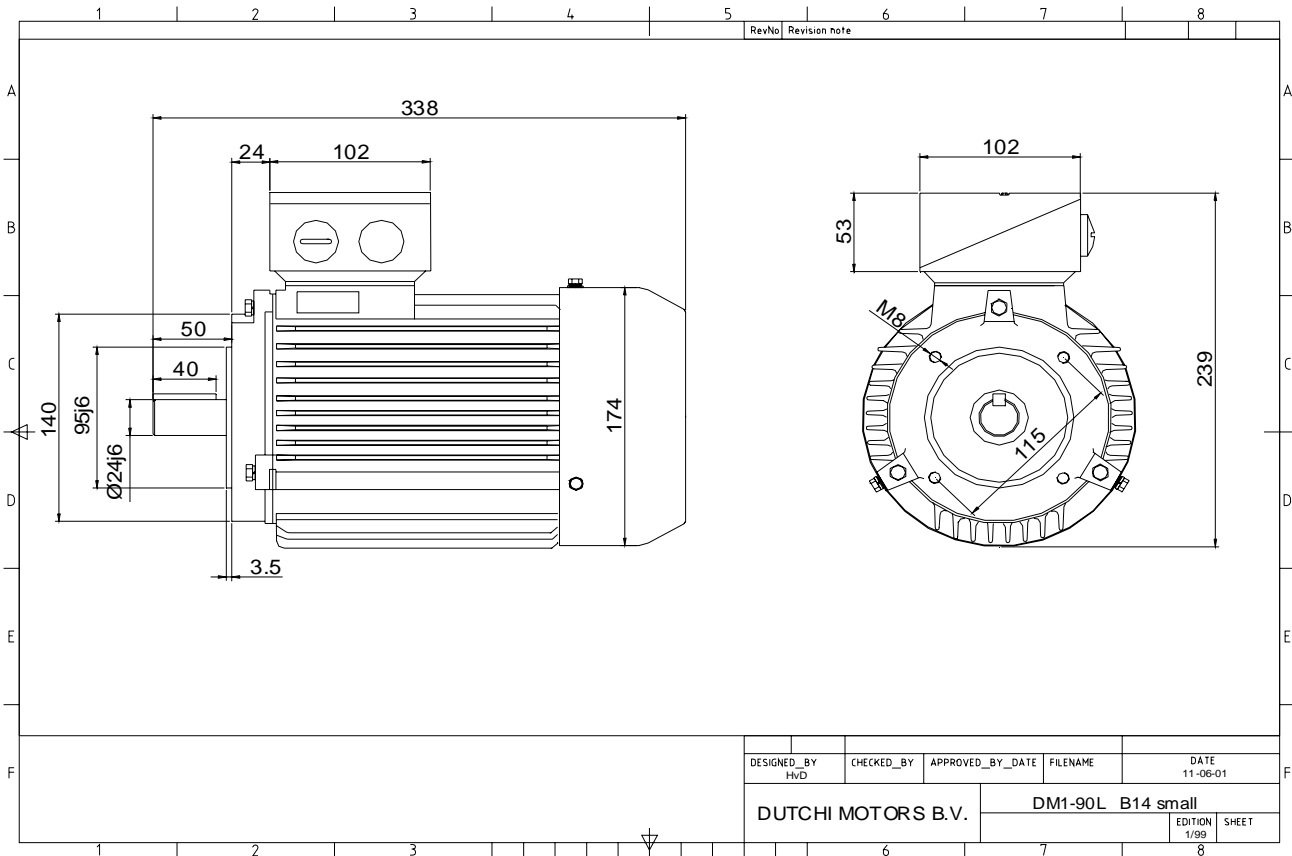
Full load torque **7** Nm  
 DOL Starting torque vs FL torque **3,76**  
 DOL Pull up torque vs FL torque **2,31**  
 DOL Pull out torque vs FL torque **3,63**  
 Star-Delta Starting torque vs FL torque **Y - motor**  
 Star-Delta Pull up torque vs FL torque **Y - motor**  
 Star-Delta Pull out torque vs FL torque **Y - motor**  
 DOL Starting current vs FL current **8,35**  
 Star Delta Starting current vs FL current **Y - motor**

Rotor Inertia **kgm2**

Bearing DE **6205 - ZZ**  
 Bearing NDE **6205 - ZZ**


WI	Change	date	sign.
<b>Dutchi Motors B.V.</b> P.O. Box 5390 NL-6802 EJ ARNHEM Tel : +31-(0)26 - 3541 600 Fax : +31-(0)26 - 3541 650		Discription Drawing made by : 27-04-04	date sign. HVD
dutchi.motors@dutchi.nl www.dutchi.com			

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Specification **IEC 60034-1**  
 Manufacturer **Dutchi Motors B.V.**  
 Motor type **DM1-HE 90L2**  
 Rated power **2,20** kW **S1** duty  
 Speed **2865** r.p.m  
 Voltage **230** / **400** V  
 Frequency **50** Hz  
 Connection **Δ** / **Y**  
 Amps full load **7,4** / **4,3** A  
 Amps no-load(400V) **2,40** A  
 Enclosure **IP 55**  
 Insulation Class **F (temp. rise B (80 K))**

Max. coolant temp. **40°C**  
 Max. altitude **1.000** mtr, above sea level  
 Comment **3 x PTC 150°C**  
 Cable entries **2 x M25x1,5 + 1 x M20x1,5 (ptc)**

Feature **Cast-iron motor**  
 Weight **kg**  
 Catalog no. **11322220DH**  
 Warranty **12~18 months**

Efficiency class **EFF 1**  
 Load data 100% 75% 50% 25%  
 Efficiency **85,7 86,5 85,3 78,2** %  
 Power factor **0,87 0,81 0,66 0,42**

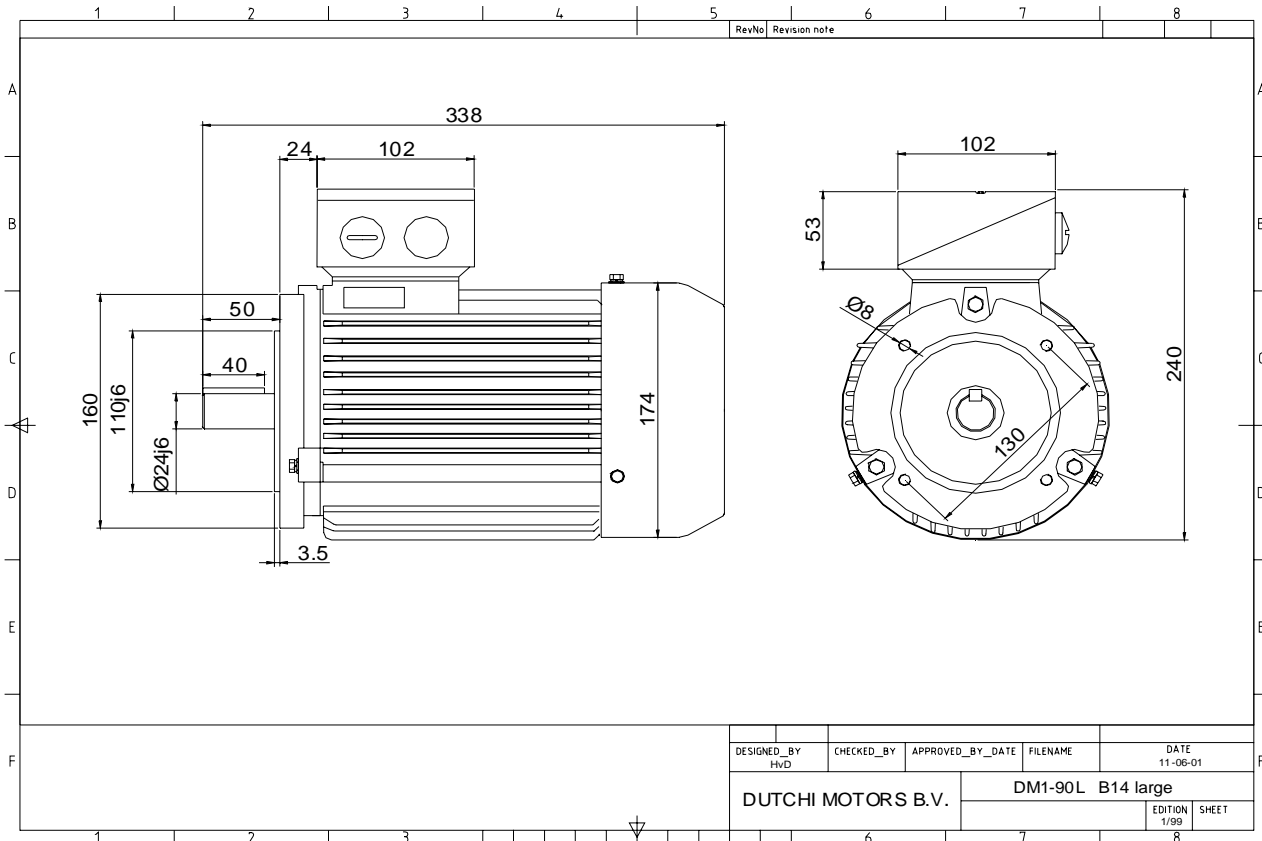
Sound pressure level (1m) **63,4** dB(A)  
 Resistance R20 (open) **2,280** Ω  
 Resistance R20 **Y 4,559** Ω

Full load torque **7** Nm  
 DOL Starting torque vs FL torque **3,76**  
 DOL Pull up torque vs FL torque **2,31**  
 DOL Pull out torque vs FL torque **3,63**  
 Star-Delta Starting torque vs FL torque **Y - motor**  
 Star-Delta Pull up torque vs FL torque **Y - motor**  
 Star-Delta Pull out torque vs FL torque **Y - motor**  
 DOL Starting current vs FL current **8,35**  
 Star Delta Starting current vs FL current **Y - motor**  
 Rotor Inertia **kgm2**

Bearing DE **6205 - ZZ**  
 Bearing NDE **6205 - ZZ**


WI	Change	date	sign.
<b>Dutchi Motors B.V.</b> P.O. Box 5390 NL-6802 EJ ARNHEM Tel : +31-(0)26 - 3541 600 Fax : +31-(0)26 - 3541 650		Discription Drawing made by : 27-04-04	date sign. HvD
dutchi.motors@dutchi.nl www.dutchi.com			

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**Specification IEC 60034-1**  
**Manufacturer Dutchi Motors B.V.**  
**Motor type DM1-HE 90L2**  
**Rated power 2,20 kW S1 duty**  
**Speed 2865 r.p.m**  
**Voltage 230 / 400 V**  
**Frequency 50 Hz**  
**Connection Δ / Y**  
**Amps full load 7,4 / 4,3 A**  
**Amps no-load(400V) 2,40 A**  
**Enclosure IP 55**  
**Insulation Class F (temp. rise B (80 K))**  
  
**Max. coolant temp. 40°C**  
**Max. altitude 1.000 mtr, above sea level**  
**Comment 3 x PTC 150°C**  
**Cable entries 2 x M25x1,5 + 1 x M20x1,5 (ptc)**  
  
**Feature Cast-iron motor**  
**Weight kg**  
**Catalog no. 11422220DH**  
**Warranty 12~18 months**

**Efficiency class EFF 1**  
**Load data 100% 75% 50% 25%**  
**Efficiency 85,7 86,5 85,3 78,2 %**  
**Power factor 0,87 0,81 0,66 0,42**  
  
**Sound pressure level (1m) 63,4 dB(A)**  
**Resistance R20 (open) 2,280 Ω**  
**Resistance R20 Y 4,559 Ω**  
  
**Full load torque 7 Nm**  
**DOL Starting torque vs FL torque 3,76**  
**DOL Pull up torque vs FL torque 2,31**  
**DOL Pull out torque vs FL torque 3,63**  
**Star-Delta Starting torque vs FL torque Y - motor**  
**Star-Delta Pull up torque vs FL torque Y - motor**  
**Star-Delta Pull out torque vs FL torque Y - motor**  
**DOL Starting current vs FL current 8,35**  
**Star Delta Starting current vs FL current Y - motor**  
**Rotor Inertia kgm2**  
  
**Bearing DE 6205 - ZZ**  
**Bearing NDE 6205 - ZZ**


WI	Change	date	sign.
<b>Dutchi Motors B.V.</b> P.O. Box 5390 NL-6802 EJ ARNHEM Tel : +31-(0)26 - 3541 600 Fax : +31-(0)26 - 3541 650		Discription Drawing made by : 27-04-04	date sign. HVD
dutchi.motors@dutchi.nl www.dutchi.com			