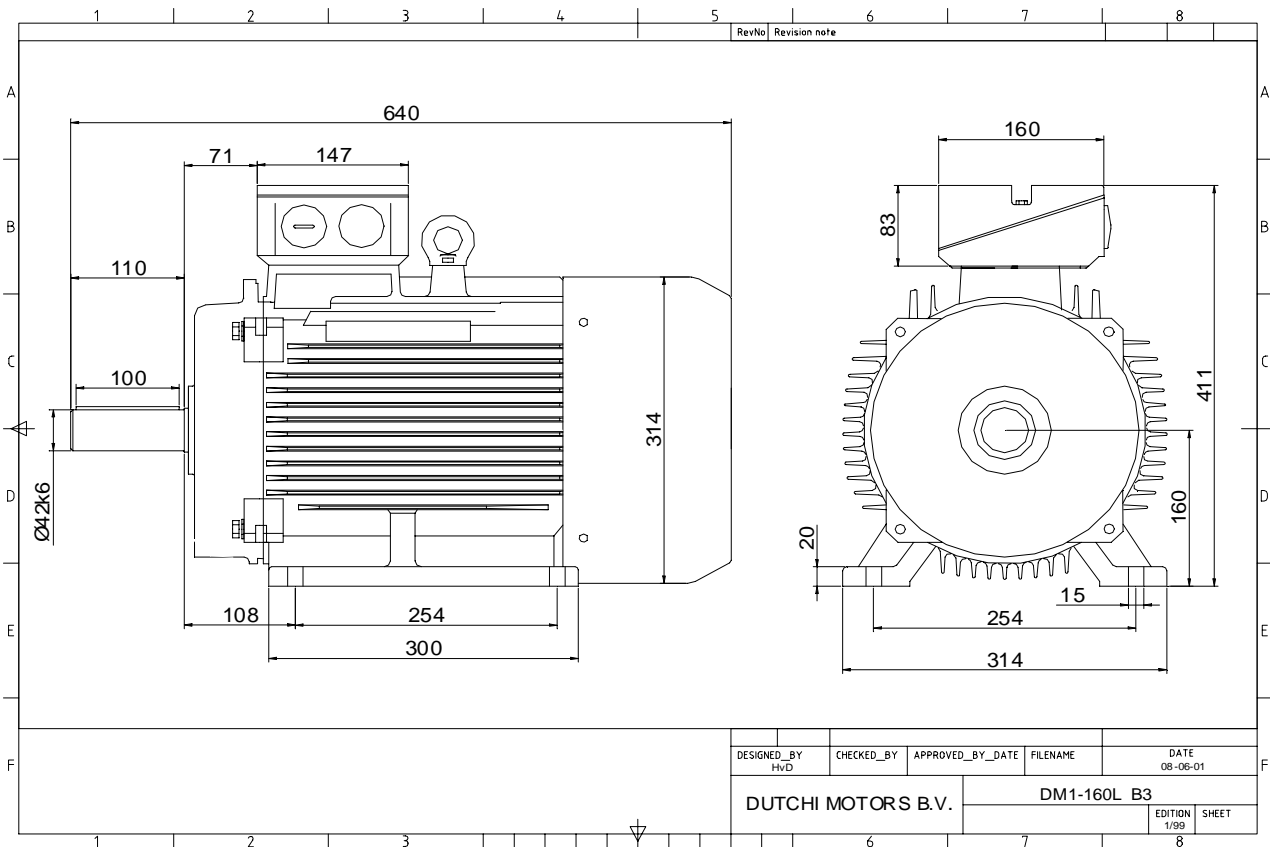


Power is our commodity, the world is our market !



Specification **IEC 60034-1**  
 Manufacturer **Dutchi Motors B.V.**  
 Motor type **DM1- 160 LX4**  
 Rated power **18,50** kW **S1** duty  
 Speed **1465** r.p.m  
 Voltage **400 / 690** V  
 Frequency **50** Hz  
 Connection **Δ / Y**  
 Amps full load **34,9 / 20,2** A  
 Amps no-load(400V) **12,73** A  
 Enclosure **IP55**  
 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 M40x1,5 + 1 x M20x1,5 (ptc)**

Feature **Cast-iron motor**  
 Weight **kg**  
 Catalog no. **11123A22V**  
 Warranty **12~18 months**

Efficiency class **N/A**  
 Load data 100% 75% 50% 25%  
 Efficiency **89,8 90,2 89,3 83,8** %  
 Power factor **0,85 0,81 0,73 0,52**

Sound pressure level (1m) **65,9** dB(A)  
 Resistance R20 (open) **0,478** Ω  
 Resistance R20 **Δ 0,319** Ω

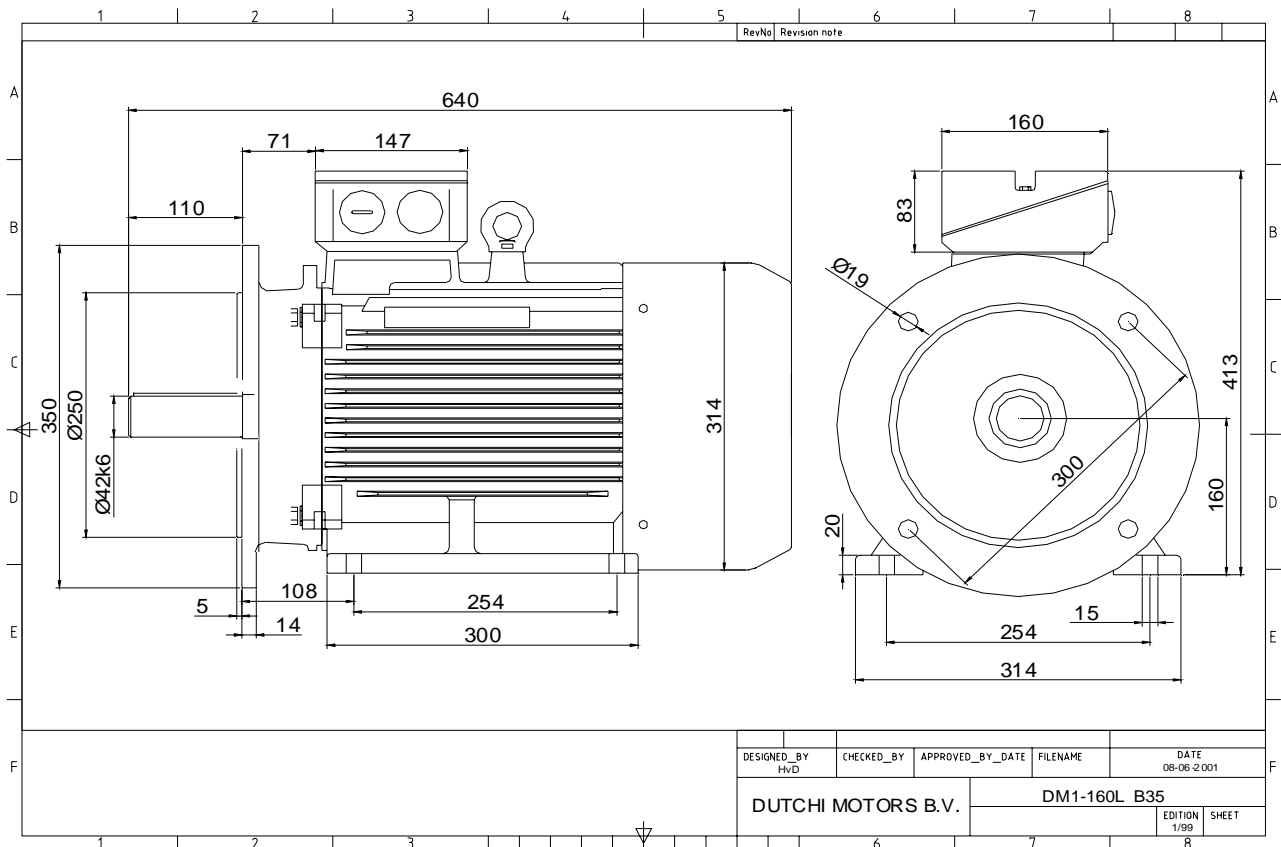
Full load torque **121** Nm  
 DOL Starting torque vs FL torque **2,30**  
 DOL Pull up torque vs FL torque **1,69**  
 DOL Pull out torque vs FL torque **3,33**  
 Star-Delta Starting torque vs FL torque **0,72**  
 Star-Delta Pull up torque vs FL torque **0,53**  
 Star-Delta Pull out torque vs FL torque **1,04**  
 DOL Starting current vs FL current **7,23**  
 Star Delta Starting current vs FL current **2,26**

Rotor Inertia **kgm2**

Bearing DE **6309 - ZZ C3**  
 Bearing NDE **6309 - ZZ C3**


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

Power is our commodity, the world is our market !



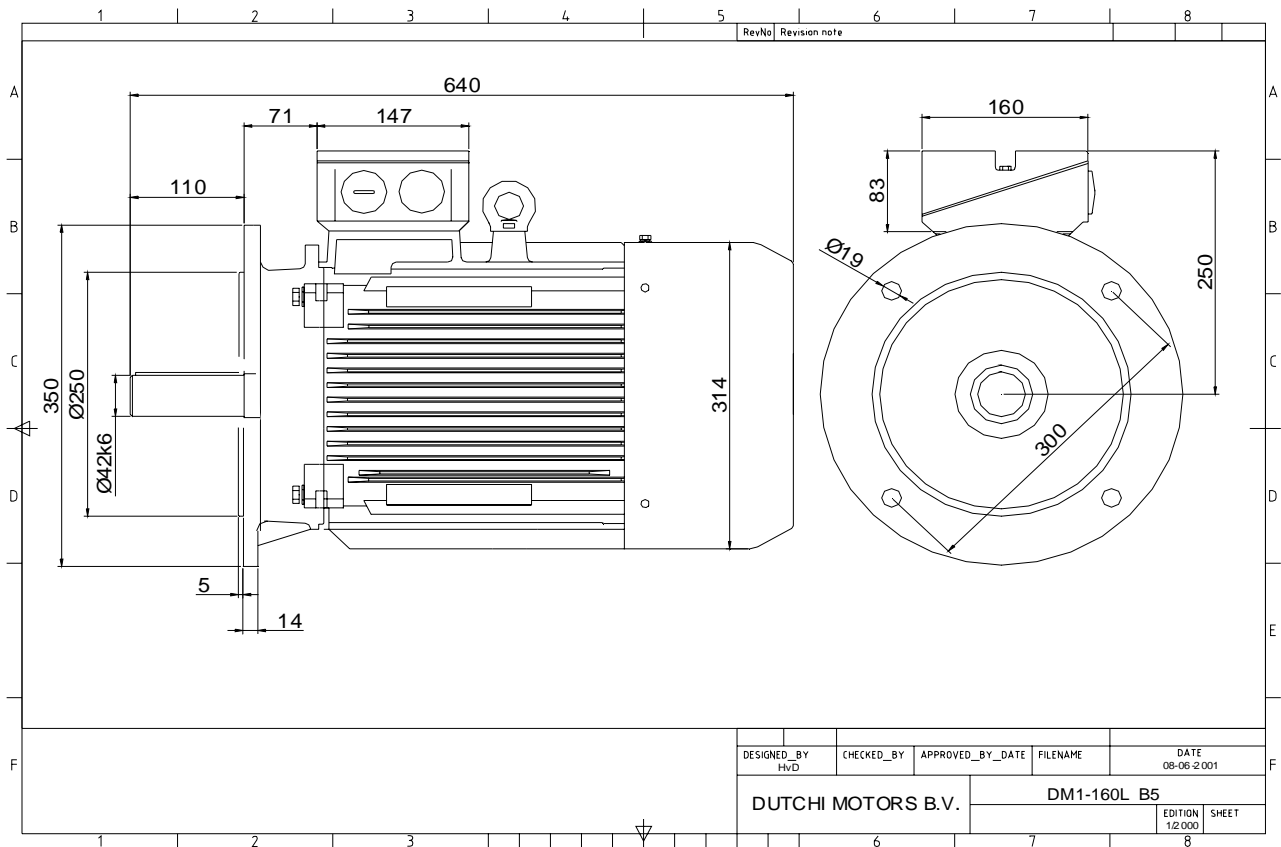
DESIGNED_BY HuD	CHECKED_BY	APPROVED_BY_DATE	FILENAME	DATE 08-06-2001
DUTCHI MOTORS B.V.			DM1-160L B35	
			EDITION 1/99	SHEET

Specification	<b>IEC 60034-1</b>
Manufacturer	<b>Dutchi Motors B.V.</b>
Motor type	<b>DM1- 160 LX4</b>
Rated power	<b>18,50</b> kW <b>S1</b> duty
Speed	<b>1465</b> r.p.m
Voltage	<b>400 / 690</b> V
Frequency	<b>50</b> Hz
Connection	<b>Δ / Y</b>
Amps full load	<b>34,91 / 20,15</b> A
Amps no-load(400V)	<b>12,73</b> A
Enclosure	<b>IP55</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 M40x1,5 + 1 x M20x1,5 (ptc)</b>
Feature	<b>Cast-iron motor</b>
Weight	kg
Catalog no.	<b>11523A22V</b>
Warranty	<b>12~18 months</b>

Efficiency class	<b>N/A</b>			
Load data	100%	75%	50%	25%
Efficiency	<b>89,8</b>	<b>90,2</b>	<b>89,3</b>	<b>83,8</b> %
Power factor	<b>0,85</b>	<b>0,81</b>	<b>0,73</b>	<b>0,52</b>
Sound pressure level (1m)				<b>65,9</b> dB(A)
Resistance R20 (open)				<b>0,478</b> Ω
Resistance R20	<b>Δ</b>			<b>0,319</b> Ω
Full load torque				<b>120,60</b> Nm
DOL Starting torque vs FL torque				<b>2,30</b>
DOL Pull up torque vs FL torque				<b>1,69</b>
DOL Pull out torque vs FL torque				<b>3,33</b>
Star-Delta Starting torque vs FL torque				<b>0,72</b>
Star-Delta Pull up torque vs FL torque				<b>0,53</b>
Star-Delta Pull out torque vs FL torque				<b>1,04</b>
DOL Starting current vs FL current				<b>7,23</b>
Star Delta Starting current vs FL current				<b>2,26</b>
Rotor Inertia				kgm <sup>2</sup>
Bearing DE				<b>6309 - ZZ C3</b>
Bearing NDE				<b>6309 - ZZ C3</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 19-04-04 sign. HvD
dutchi.motors@dutchi.nl www.dutchi.com			

Power is our commodity, the world is our market !

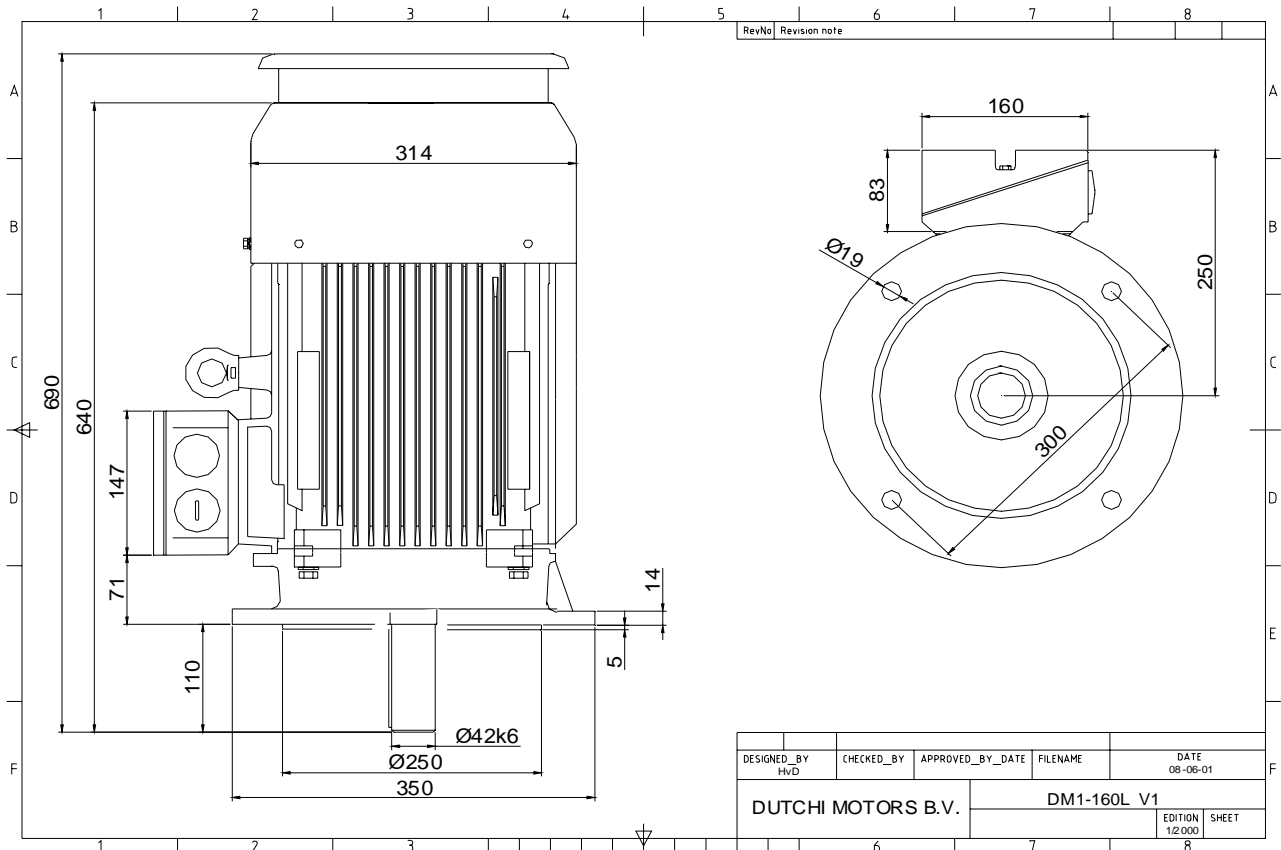


Specification	<b>IEC 60034-1</b>
Manufacturer	<b>Dutchi Motors B.V.</b>
Motor type	<b>DM1- 160 LX4</b>
Rated power	<b>18,50</b> kW <b>S1</b> duty
Speed	<b>1465</b> r.p.m
Voltage	<b>400</b> / <b>690</b> V
Frequency	<b>50</b> Hz
Connection	<b>Δ</b> / <b>Y</b>
Amps full load	<b>34,91</b> / <b>20,15</b> A
Amps no-load(400V)	<b>12,73</b> A
Enclosure	<b>IP55</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 M40x1,5 + 1 x M20x1,5 (ptc)</b>
Feature	<b>Cast-iron motor</b>
Weight	kg
Catalog no.	<b>11223A22V</b>
Warranty	<b>12~18 months</b>

Efficiency class	<b>N/A</b>			
Load data	100%	75%	50%	25%
Efficiency	<b>89,8</b>	<b>90,2</b>	<b>89,3</b>	<b>83,8</b> %
Power factor	<b>0,85</b>	<b>0,81</b>	<b>0,73</b>	<b>0,52</b>
Sound pressure level (1m)				<b>65,9</b> dB(A)
Resistance R20 (open)				<b>0,478</b> Ω
Resistance R20	<b>Δ</b>			<b>0,319</b> Ω
Full load torque				<b>120,60</b> Nm
DOL Starting torque vs FL torque				<b>2,30</b>
DOL Pull up torque vs FL torque				<b>1,69</b>
DOL Pull out torque vs FL torque				<b>3,33</b>
Star-Delta Starting torque vs FL torque				<b>0,72</b>
Star-Delta Pull up torque vs FL torque				<b>0,53</b>
Star-Delta Pull out torque vs FL torque				<b>1,04</b>
DOL Starting current vs FL current				<b>7,23</b>
Star Delta Starting current vs FL current				<b>2,26</b>
Rotor Inertia				kgm <sup>2</sup>
Bearing DE				<b>6309 - ZZ C3</b>
Bearing NDE				<b>6309 - ZZ C3</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 19-04-04 sign. HvD
dutchi.motors@dutchi.nl www.dutchi.com			

Power is our commodity, the world is our market !



Specification **IEC 60034-1**  
 Manufacturer **Dutchi Motors B.V.**  
 Motor type **DM1- 160 LX4**  
 Rated power **18,50** kW **S1** duty  
 Speed **1465** r.p.m  
 Voltage **400** / **690** V  
 Frequency **50** Hz  
 Connection **Δ** / **Y**  
 Amps full load **34,91** / **20,15** A  
 Amps no-load(400V) **12,73** A  
 Enclosure **IP55**  
 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 M40x1,5 + 1 x M20x1,5 (ptc)**

Feature **Cast-iron motor**  
 Weight kg  
 Catalog no. **11023A22V**  
 Warranty **12~18 months**

Efficiency class **N/A**  
 Load data 100% 75% 50% 25%  
 Efficiency **89,8 90,2 89,3 83,8** %  
 Power factor **0,85 0,81 0,73 0,52**

Sound pressure level (1m) **65,9** dB(A)  
 Resistance R20 (open) **0,478** Ω  
 Resistance R20 **Δ 0,319** Ω

Full load torque **120,60** Nm  
 DOL Starting torque vs FL torque **2,30**  
 DOL Pull up torque vs FL torque **1,69**  
 DOL Pull out torque vs FL torque **3,33**  
 Star-Delta Starting torque vs FL torque **0,72**  
 Star-Delta Pull up torque vs FL torque **0,53**  
 Star-Delta Pull out torque vs FL torque **1,04**  
 DOL Starting current vs FL current **7,23**  
 Star Delta Starting current vs FL current **2,26**

Rotor Inertia kgm2

Bearing DE **6309 - ZZ C3**  
 Bearing NDE **6309 - ZZ C3**


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 : 19-04-04	date sign. HvD
dutchi.motors@dutchi.nl www.dutchi.com			